SUP

JANUARY 2021

PROJECT ID: 1195-01-76

WITH:

COUNTY: WASHBURN

ORDER OF SHEETS

TOTAL SHEETS = 164

34

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MINONG - SOLON SPRINGS

STH 77 INTERSECTION

USH 53

WASHBURN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1195-01-76	WISC 2021104	1

STATE PROJECT NUMBER

1195-01-76

END PROJECT
STA 698+00.00 US 53 NB

T 42 N

BEGIN PROJECT
STA 676+90.00 US 53 NB
Y = 667476.191
X = 754391.768

T 41 N

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.400 MILES

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

DESIGN DESIGNATION

A.A.D.T.	2018	=	1920
A.A.D.T.	2028	=	2587
D.H.V.		=	18.3
D.D.		=	61/39
T.		=	19.5
DESIGN SPEED		=	65 MPH
ESALS		=	1,700,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE			
SLOPE INTERCEPT		CULVERT (Profile View)	
REFERENCE LINE	300 FT	UTILITIES	
EXISTING CULVERT		ELECTRIC	E
PROPOSED CULVERT (Box or Pipe)		FIBER OPTIC	FO
		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	

ORIGINAL PLANS PREPARED BY

SEH

WISCONSIN
JARROD S. STARREN
38465
EAU CLAIRE, WI
PROFESSIONAL ENGINEER

DATE 7-22-2020 Jarrod S. Starren
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CBS2
Designer	SEH
Project Manager	TRAVIS JENSEN
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	JEFFREY OLSON

APPROVED FOR THE DEPARTMENT

DATE: 07/28/2020 Travis Jensen, P.E.
(Signature)

E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 7/22/2020 2:35 PM

PLOT BY : NICK ENGH

PLOT NAME :

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE APPROXIMATE USGS DATUM.

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

ASPHALTIC PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESS:

PAVEMENT THICKNESS (INCH)	LOWER (INCH)	LOWER (INCH)	UPPER (INCH)
6.75	2.00	2.75	2.00

USH 53 INSIDE MEDIAN (3') SHOULDERS MAY BE PAVED WITH MAINLINE LANES, WITH APPROVAL FROM THE ENGINEER AND SHALL BE SUBJECT TO ONLY STANDARD COMPACTION.

ASPHALTIC SURFACE - MINIMUM OF A 4 LT 58-34 S MIX TO BE USED.

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

EXISTING PIPE CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE ITS BID ON ACTUAL FIELD CONDITIONS.

STATIONING, DISTANCES AND OFFSETS FOR PROPOSED SIGNS SHOWN ON THE PLAN ARE APPROXIMATE, ACTUAL LOCATIONS OF SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS AND GRADES ARE COMPUTED TO CENTER TO CENTER OF STRUCTURES.

THE RIM ELEVATIONS SHOWN ON PLAN SHEETS ARE TO THE GUTTER EDGELINE.

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 = 21.4 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.9 ACRES

SUMMARY OF DETAIL SHEETS

ASTREA f/k/a (PACKERLAND BROADBAND)
105 KENT ST
P.O. BOX 190
IRON MOUNTAIN, MI 49801
ATTN: RUSSEL KENNY
PHONE:906.282.6434
EMAIL: RUSSEL.KENNY@ASTREACONNECT.COM

CENTURYLINK
135 N 21ST STREET
SUPERIOR, WI 54880
ATTN: RUSSEL VANCE
PHONE:715.919.8003
EMAIL: RUSSEL.VANCE@CENTURYLINK.COM

CHARTER COMMUNICATIONS - ELEC
2304 S MAIN STREET
RICE LAKE, WI 54868
ATTN: JAMEY OLDEEN
PHONE: 715.719.0561
EMAIL: JAMEY.OLDEEN@CHARTER.COM

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

UTILITY CONTACTS

DAHLBERG LIGHT AND POWER - ELEC
9221 E MAIN
P.O. BOX 300
SOLON SPRINGS, WI 54873-0300
ATTN: JAMES DAHLBERG
PHONE: 715.378.2205
EMAIL: JIMDAHLBERG@DAHLBERGLIGHTANDPOWER.COM

VILLAGE OF MINONG - SAN SEWER/WATER
123 5TH AVENUE
PO BOX 8
MINONG WI 54859-0008
ATTN: BILL HALLOCK
PHONE: 715.520.0365
EMAIL: WHALLOCK.PUBLICWORKS@GMAIL.COM

WE ENERGIES - GAS
104 W. SOUTH ST
RICE LAKE, WI 54868
ATTN:STEVEN CHAVERS
PHONE: 715.234.9605
EMAIL: STEVEN.CHAVERS@WE-ENERGIES.COM

DNR LIAISON

STATE OF WISCONSIN
NORTHWEST DISTRICT
HWY 70 WEST
PO BOX 309
SPOONER, WI 54801
PHONE 715.635.4228
ATTN: SHAWN HASELEU
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

TOWN CHAIRMAN
N13124 GREENWOOD RD
MINONG, WI 54859
ATTN: HAROLD SMITH
PHONE: 715.416.3469
EMAIL: TOWNOFMINONG@CENTURYTEL.COM

VILLAGE OF MINONG
VILLAGE CHAIRMAN
123 5th AVENUE
MINONG, WI 54859
ATTN: LARRY LEE
PHONE: 715.520.7244
EMAIL: larrylee.vom@gmail.com

WASHBURN COUNTY HIGHWAY
OPERATIONS MANAGER
1600 COUNTY HIGHWAY H
SPOONER WI 54801
ATTN: ADAM GRONNING
PHONE: 715.635.4480
EMAIL: highway@co.washburn.wi.us

DESIGN CONTACT

SEH INC.
10 NORTH BRIDGE STREET
CHIPPEWA FALLS WI 54729
PHONE: 715.720.6261
ATTN: JARROD STARREN
EMAIL: JSTARREN@SEHINC.COM

WISCONSIN DEPARTMENT OF TRANSPORTATION
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
ATTN: TRAVIS JENSEN
PHONE: 715.395.3025
EMAIL: TRAVIS.JENSEN@DOT.WI.GOV

2

2

BEGIN PROJECT
STA 676+90.00 USH 53 NB
Y = 667476.191
X = 754391.768

BEGIN COSTRUCTION
STA 677+40.00 USH 53 SB

BEGIN CONSTRUCTION
STA 8+20.00 STH 77 W

END CONSTRUCTION
STA 698+80.00 USH 53 SB

END CONSTRUCTION
STA 21+70.00 STH 77 E

END PROJECT
STA 698+00.00 USH 53 NB

WISDOT DELINEATED WETLAND - SM

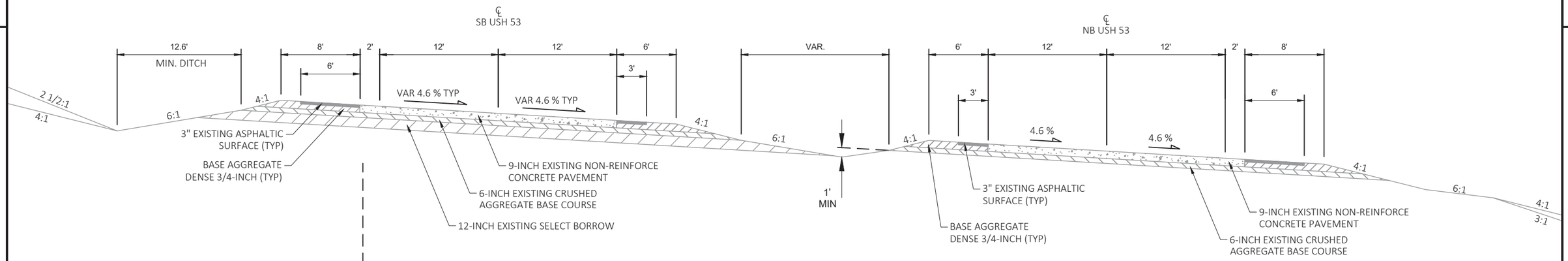
NEWTON DR.
STH 77
USH 53
USH 53 SB
USH 53 NB
W. LIMITS RD.
HOUSTON ST.
INDUSTRIAL DR.
WALLACE RD.
N

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

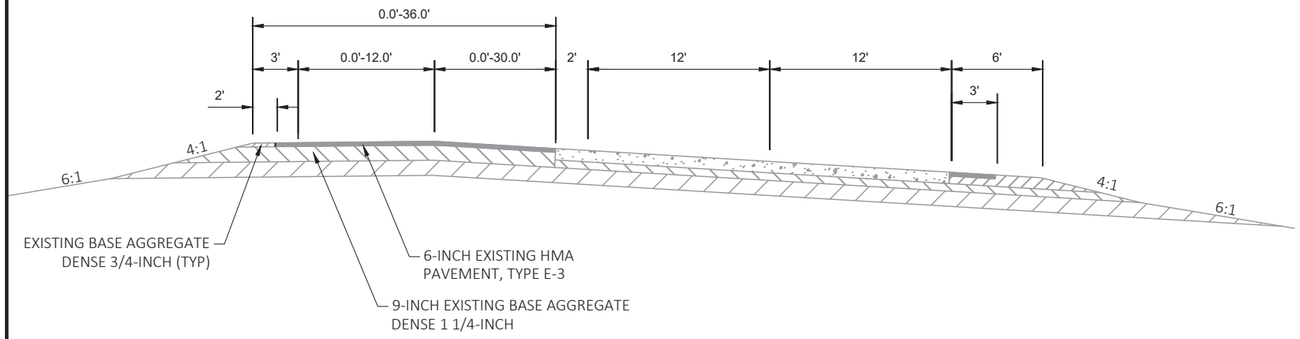
PLOT DATE : 7/29/2020 12:31 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



EXISTING TYPICAL SECTION

STA 678+64 SB TO STA 688+20 SB
STA 692+42 SB TO STA 698+80 SB

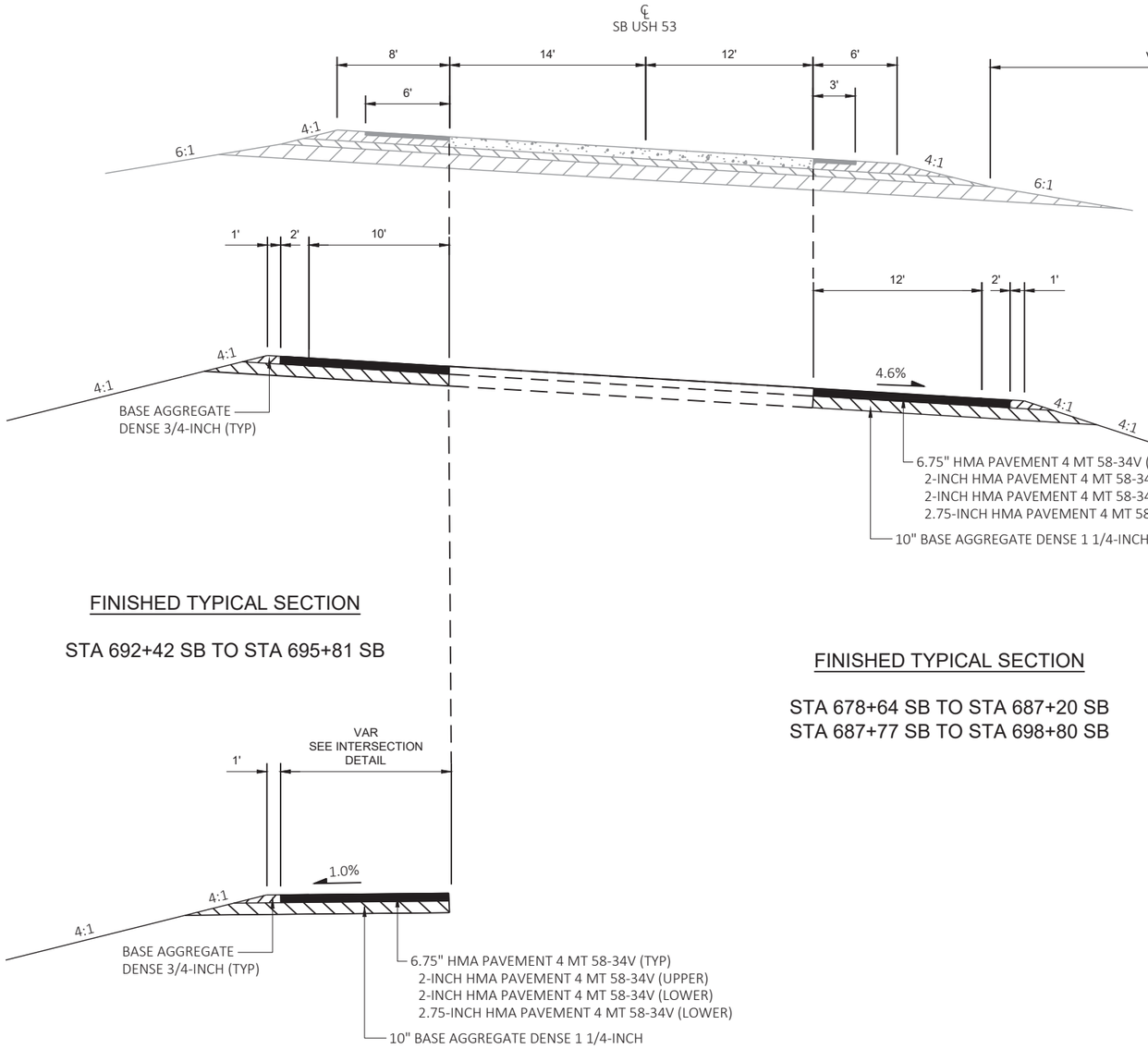


EXISTING TYPICAL SECTION
STA 688+00 TO STA 692+42

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TYPICAL SECTION	SHEET 4	E

FILE NAME : P:\UZ\W\WITNW\152345\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 01
PLOT DATE : 7/30/2020 9:09 PM
PLOT BY : JARROD S. STARREN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



FINISHED TYPICAL SECTION

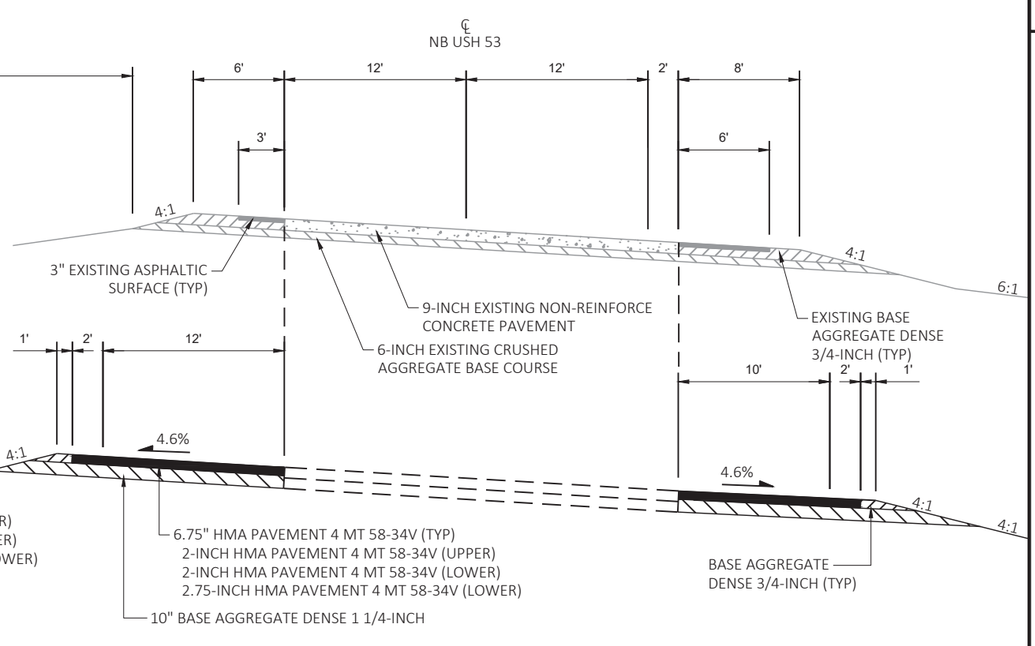
STA 692+42 SB TO STA 695+81 SB

FINISHED TYPICAL SECTION

STA 695+81 SB TO STA 698+80 SB

FINISHED TYPICAL SECTION

STA 678+64 SB TO STA 687+20 SB
STA 687+77 SB TO STA 698+80 SB



FINISHED TYPICAL SECTION

STA 678+96 NB TO STA 683+65 NB
STA 688+27 NB TO STA 696+57 NB

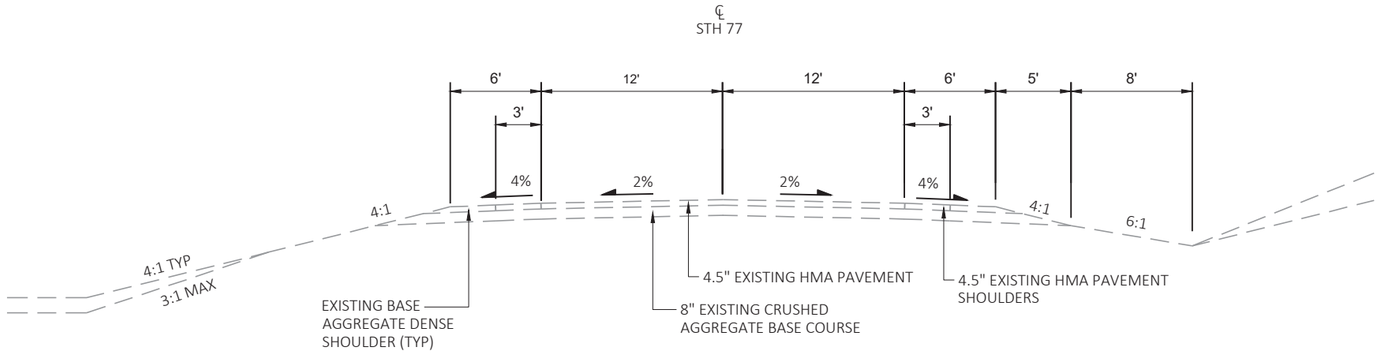
FINISHED TYPICAL SECTION

STA 676+90 NB TO STA 683+60 NB

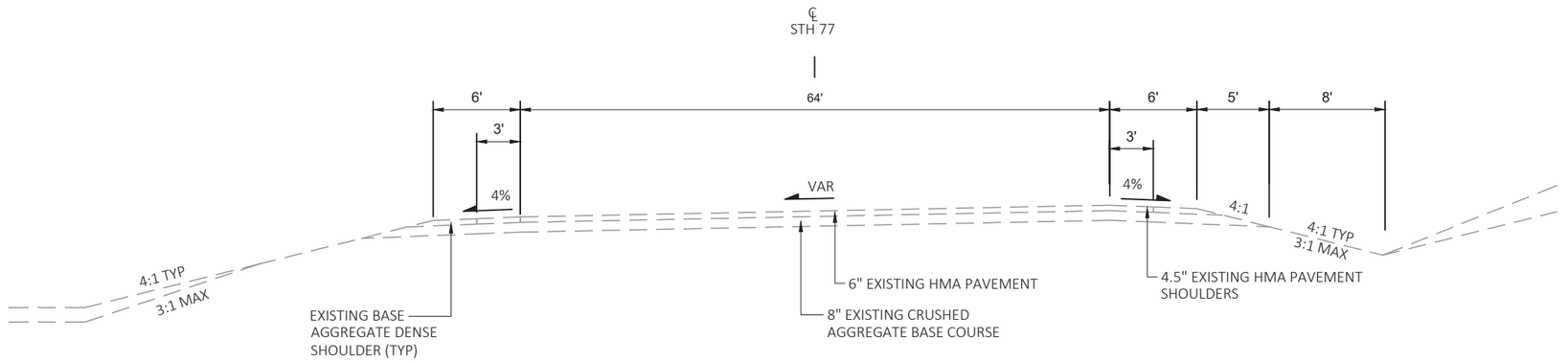
PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TYPICAL SECTION	SHEET 5	E

FILE NAME : P:\UZ\W\WITNW\152345\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02

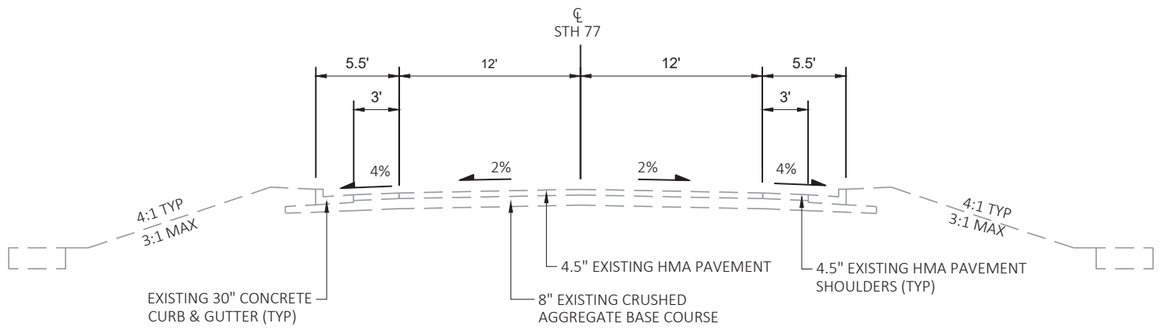
PLOT DATE : 7/30/2020 9:09 PM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:10 FT



EXISTING TYPICAL SECTION
STH 77
STA 8+20 TO STA 9+85



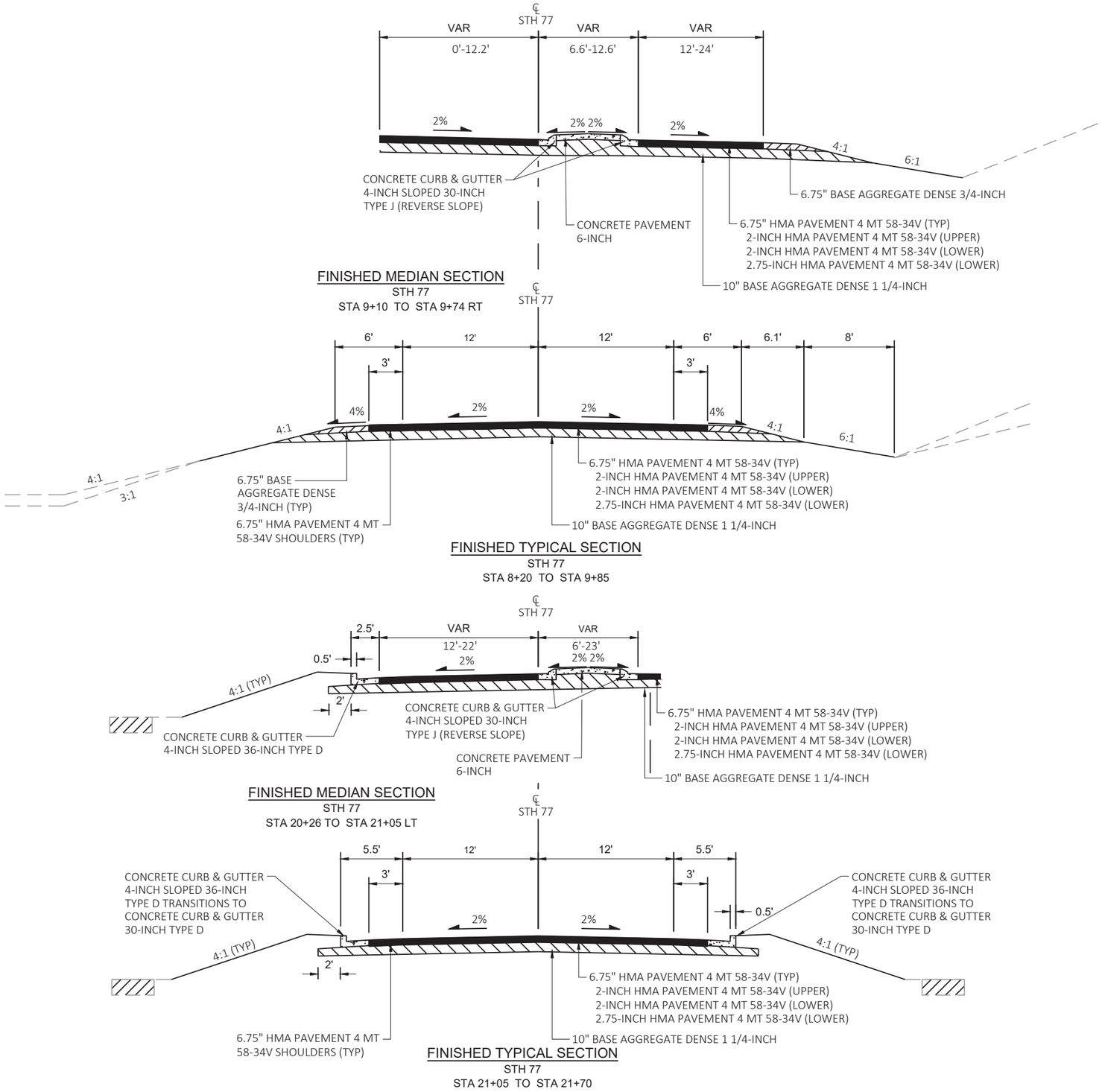
EXISTING TYPICAL SECTION
STH 77
STA 10+12 TO STA 19+88



EXISTING TYPICAL SECTION
STH 77
STA 20+24 TO STA 21+70

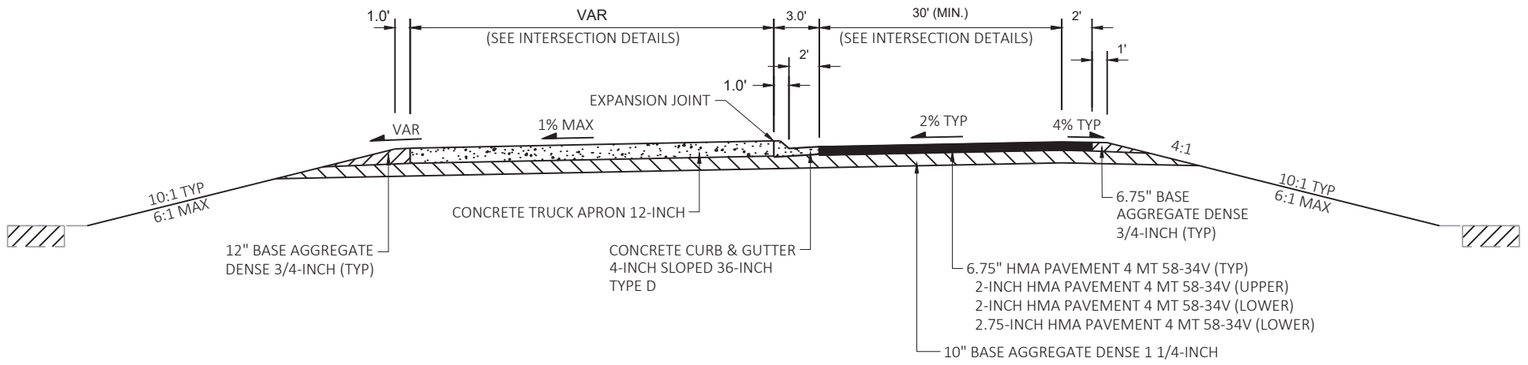
PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TYPICAL SECTION	SHEET 6	E

2

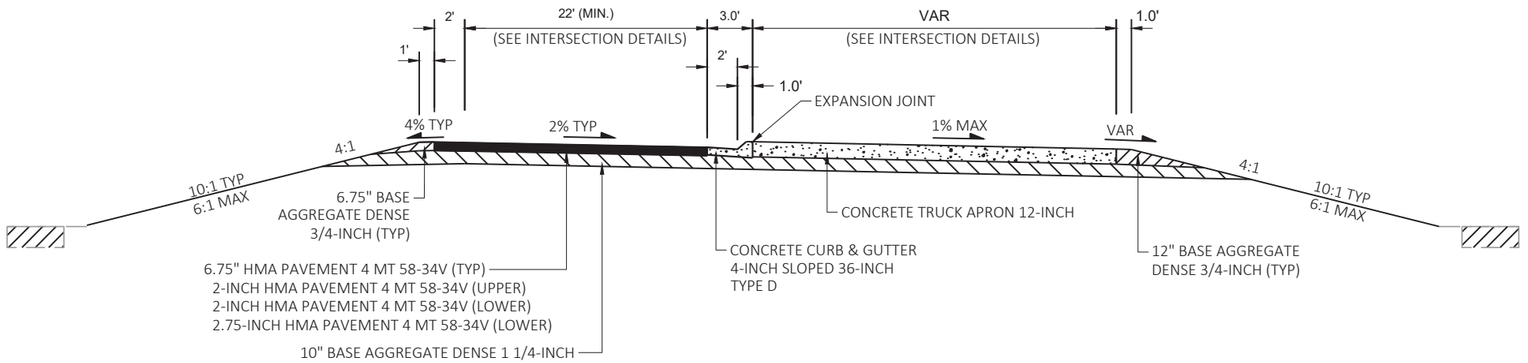


PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TYPICAL SECTION	SHEET 7	E

2



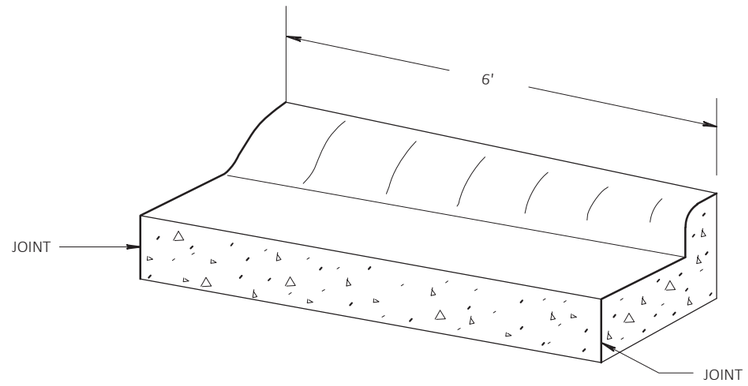
FINISHED TYPICAL SECTION
NORTH CROSSING - MEDIAN
STA 697+55 US 53 NB



FINISHED TYPICAL SECTION
SOUTH CROSSING - MEDIAN
STA 677+74 US 53 SB

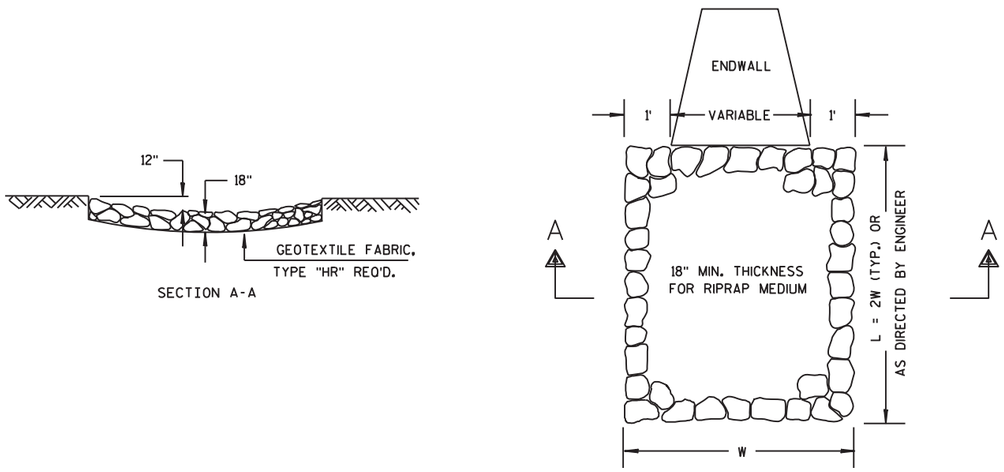
PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TYPICAL SECTION	SHEET 8	E

2

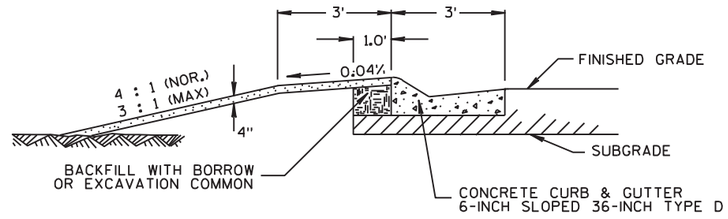


TRANSITION DETAIL

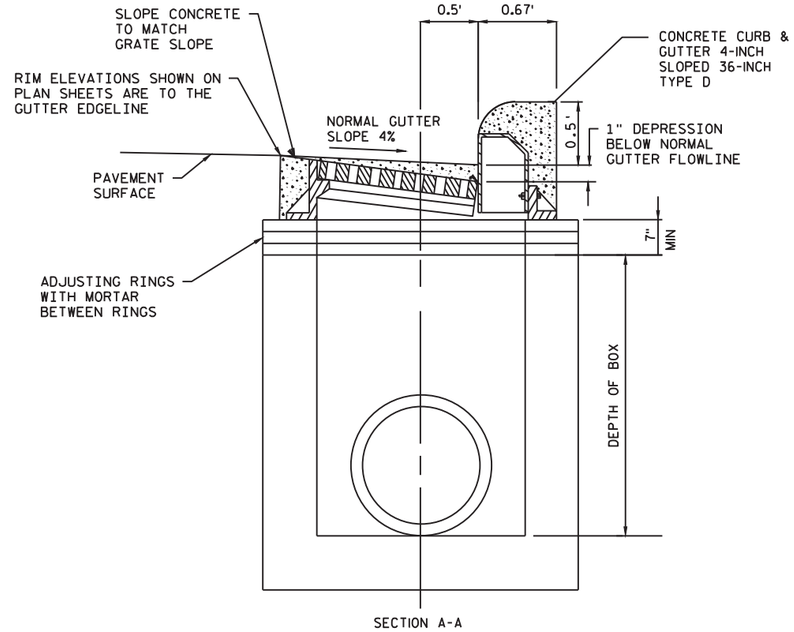
CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D TO
CONCRETE CURB & GUTTER 30-INCH TYPE D
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)



RIPRAP MEDIUM TREATMENT AT CULVERTS

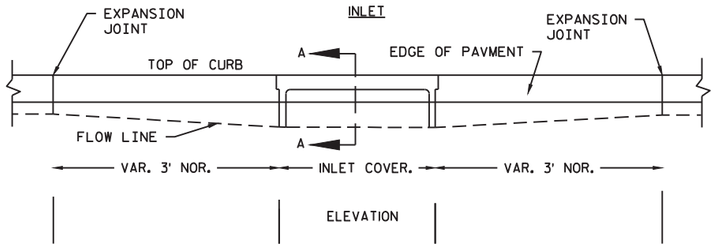


BERM DETAIL BEHIND CURB & GUTTER

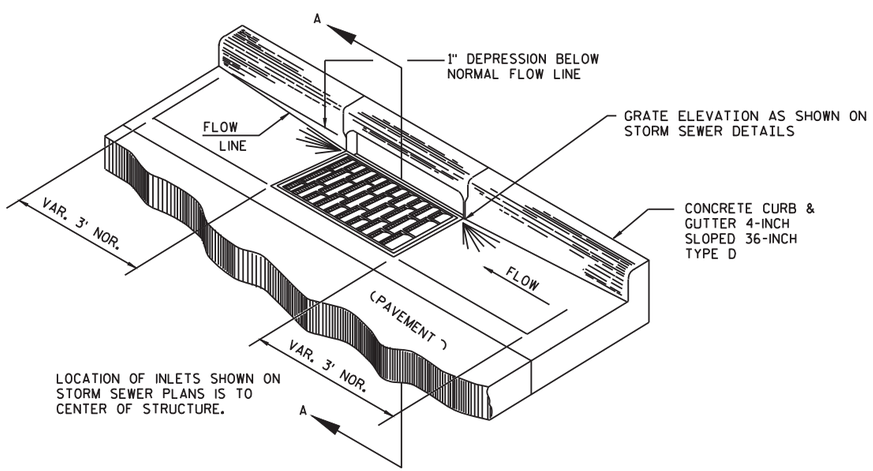


SECTION A-A

INLET



ELEVATION



DETAIL OF CURB AND GUTTER AT INLETS

2

EXISTING R/W

N

SIGN

SIGN

SIGN

SAWCUT REQ'D

+40

+65

1056.99

CC1

1056.94

1056.88

1056.15

1056.17

1056.77

1056.51

1056.40

1056.43

1056.39

+65

CONCRETE CURB & GUTTER 4-INCH
SLOPED 36-INCH TYPE D
CONCRETE TRUCK APRON 12-INCH
(EXPANSION JOINT)

1057.39

1056.87

CC3

CC6

1057.22

1057.47

CC5

CC4

1056.93

+90

+89

+22

1056.75

1057.00

1056.71

CC7

1056.89

CC2

1056.90

1056.87

1056.81

678+00

1056.68

1056.61

1056.54

679+00

677+00

+40

680+00

681+00

682+00

683+00

684+00

USH 53

680

USH 53 SB

6.0'

14.0'

12.0'

12.0'

USH 53 NB

12.0'

14.0'

10.0'

SAWCUT REQ'D

+65

+60

+90

+12

SIGN

SAWCUT REQ'D

EXISTING R/W

* ELEVATIONS SHOWN ARE TO THE EDGE OF PAVEMENT, BACK OF CURB AND EDGE OF CONCRETE TRUCK APRON.

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 11	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\021102-ID.DWG
LAYOUT NAME - 01

PLOT DATE : 7/30/2020 4:43 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1 CONCRETE MEDIAN BLUNT NOSE

2 CONCRETE MEDIAN SLOPED NOSE

CC10

EXISTING R/W

2.0'

16.4'

BEGIN CONSTRUCTION
STA 8+20.00 STH 77 W
SAWCUT REQ'D

+20

+41

STH 77

SAWCUT REQ'D

CAUTION

+77

1055.20

1055.55

1055.30

1055.56

1055.55

1055.48

1055.54

1055.29

1055.45

CC11

1055.71

1055.45

CC20

1056.35

1056.27

1056.00

1056.62

1056.59

1056.42

+33

+15

1056.64

1056.40

1056.34

0.9'

SAWCUT REQ'D

CONCRETE CURB & GUTTER 4-INCH
SLOPED 36-INCH TYPE D
CONCRETE TRUCK APRON 12-INCH
(EXPANSION JOINT)

* ELEVATIONS SHOWN ARE TO THE EDGE OF PAVEMENT, BACK OF CURB AND EDGE OF CONCRETE TRUCK APRON.

9

2

CC13

1055.78

1055.93

CONCRETE
PAVEMENT
6-INCH

1055.87

1055.96

CC15

1056.13

1056.05

CC14

1056.12

1056.11

1055.69

1055.72

1055.46

+03

CC9

CC12

CONCRETE CURB & GUTTER 4-INCH
SLOPED 36-INCH TYPE D
CONCRETE TRUCK APRON 12-INCH
(EXPANSION JOINT)

1056.02

1056.06

1055.81

1056.35

1056.37

+41

+28

1056.11

CONCRETE CURB &
GUTTER 4-INCH
SLOPED 30-INCH
TYPE J (REVERSE SLOPE)

SAWCUT REQ'D

STA 687+65.00 R/L US 53 SB =
STA 10+00.00 R/L STH 77 W
Y=668,567.420
X=754,195.120

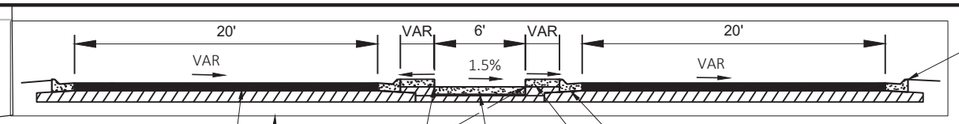
USH 53 SB

FP: 10+00.00

N

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 12	E

FOR ADDITIONAL DETAIL SEE SDD CURB RAMPS TYPE 5,6,7A,7B, AND 8 (TYPE 5)



LEGEND
1. CONCRETE MEDIAN BLUNT NOSE
2. CONCRETE MEDIAN SLOPED NOSE
* EDGE OF SIDEWALK

SECTION A-A

CC 17
CC 19
CC16
CC18
CC26
CC27
CC25
CC28
CC30
CC29
CC24
CC 38
CC21
CC 22
CC 23

STA 687+65.00 R/L US 53 SB =
STA 10+00.00 R/L STH 77 W
Y=668,567.420
X=754,195.120

FP: 10+00.00

USH 53 SB

SAWCUT REQ'D

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D

CONCRETE PAVEMENT 6-INCH

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D CONCRETE TRUCK APRON 12-INCH (EXPANSION JOINT)

1054.52 1054.39 +20 1054.44 1054.70 +29 1054.59 1054.34 1054.15 1053.67 1053.39 1053.34 1049.20 1049.00 1048.50 1053.10 1053.14 1052.96 1053.07 1052.88 1053.59 1053.69 1053.43 1053.46 1053.20 1053.17 1052.92 +35 +45 1052.72 1053.01 1052.97 1053.03 1053.03 1052.52 1052.64 1052.49 1054.49 1054.42 1054.41 1054.93 1054.26 1054.92 1054.76 1054.12 1054.02 1053.83 1054.25 1054.01 1053.70 1053.51 1053.09 1053.25 1053.67 1053.58 1053.35 1053.25 1052.83 1052.99 1052.88 1053.14 1053.06 1052.70 1052.96 1052.59 1052.85 1052.86 1052.60 1052.83 +94 1052.72 +27 1053.33 1053.17 1053.42 1053.32 1053.44 1053.70 1053.72 +18 +18 1053.98 1053.84 1053.59 20.0' 20.0'

STA 687+88.00 R/L US 53 NB =
STA 20+00.00 R/L STH 77 E
Y=668,567.695
X=754,337.230

BP: 20+00.00

USH 53 NB

* ELEVATIONS SHOWN ARE TO THE EDGE OF PAVEMENT, BACK OF CURB AND EDGE OF CONCRETE TRUCK APRON.

686+00 687+00 688+00 689+00

N

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 13	E

FILE NAME : P:\UZ\W\WITNW\152345\C3D\SHEETSPLAN\021102-ID.DWG
LAYOUT NAME - 02-2
PLOT DATE : 7/30/2020 10:45 PM
PLOT BY : JARROD S. STARREN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

2

STA 687+88.00 R/L US 53 NB =
STA 20+00.00 R/L STH 77 E
Y=668,567.695
X=754,337.230

687+00 688+00 689+00

BP: 20+00.00

USH 53 NB

CAUTION

CONCRETE PAVEMENT 6-INCH

SAWCUT REQ'D

1051.26 1051.12 1051.47 1051.49 1050.51 1050.77 1050.67 1050.66 1050.67 1050.92 1051.07 1050.82 1051.10 1051.36 1051.45 1051.84 1051.85

1050.91 1050.92 CC33 CC34 1050.79 1050.81 1051.26 1051.13

1050.47 1050.72 1050.71 1050.45 1050.49 1050.70 1050.64 1051.00 1051.13 1050.96 1051.26 CC36

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
CONCRETE TRUCK APRON 12-INCH (EXPANSION JOINT)

CONCRETE CURB & GUTTER TRANSITION

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
CONCRETE TRUCK APRON 12-INCH (EXPANSION JOINT)

CC32 CC31 CC35 CC37

1052.03 1051.97

CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE J (REVERSE SLOPE)

CONCRETE CURB & GUTTER 30-INCH TYPE D

1052.67 1052.42 1052.63 1052.85 1052.88 1052.99 1053.14 1053.12 1053.10 1053.15 1053.26 1053.01

STA 21+64 TO STA 21+70 CONCRETE CURB AND GUTTER TRANSITION

END CONSTRUCTION
STA 21+70.00 STH 77 E
MATCH EXISTING
SAWCUT REQ'D

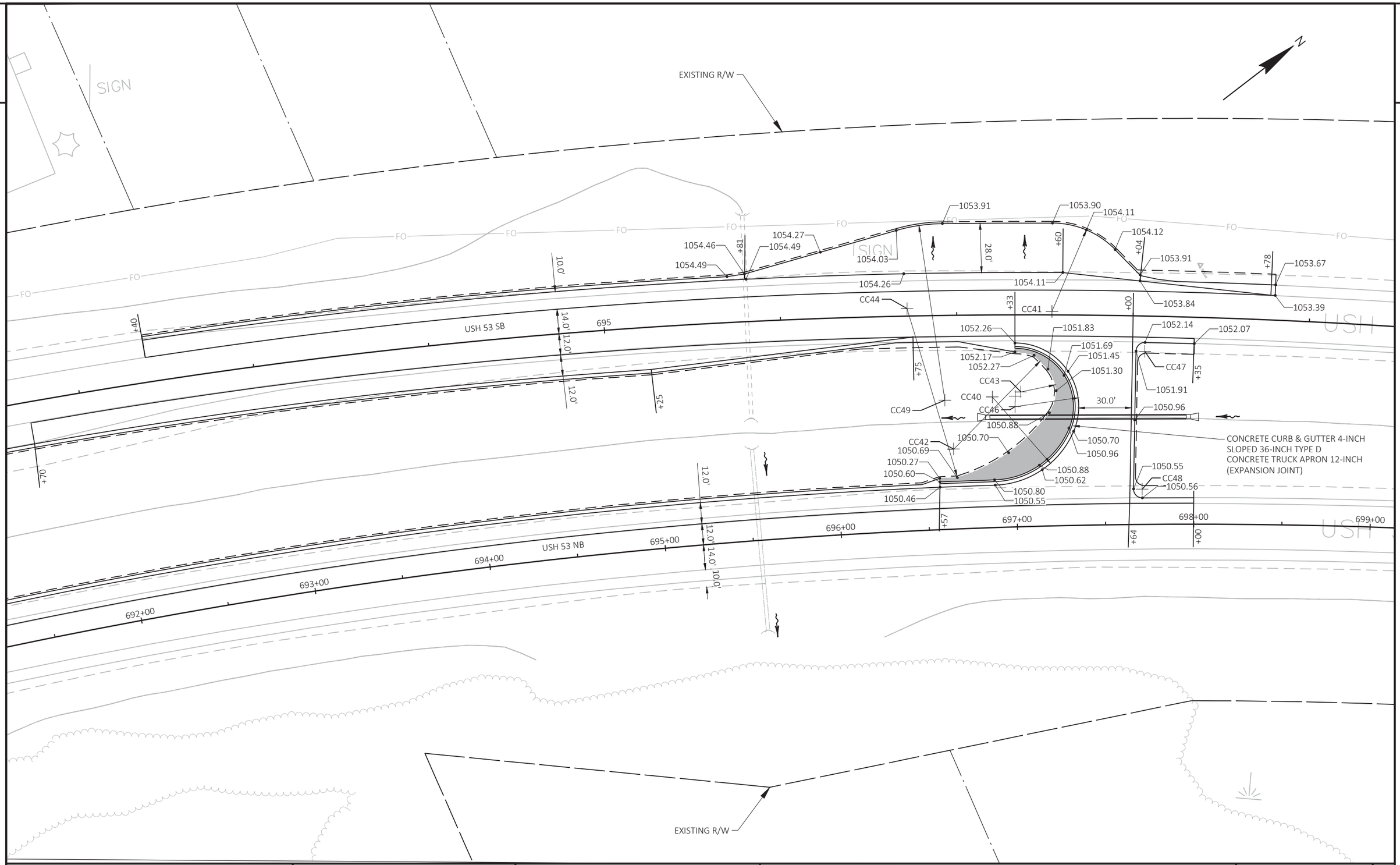
PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 14	E

FILE NAME : P:\UZ\W\WITNW\152345\C3D\SHEETSPLAN\021102-ID.DWG
LAYOUT NAME - 02-3

PLOT DATE : 7/30/2020 10:54 PM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 15	E

2

SOUTH END - R CUT

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	
CC1	678+08.27 US 53 NB	-130.48 LT	677+58.30 US 53 SB	20.00 RT	667568.557	754239.992	5.0'	EOP
CC2	678+08.04 US 53 NB	-20.00 LT	677+58.37 US 53 SB	130.48 RT	667588.273	754348.695	5.0'	EOP
CC3	678+76.71 US 53 NB	-73.30 LT	678+30.12 US 53 SB	76.96 RT	667647.827	754284.320	19.0'	EOT
CC4	679+00.41 US 53 NB	-61.16 LT	678+54.99 US 53 SB	89.00 RT	667673.619	754292.527	65.0'	EOP
CC5	678+76.93 US 53 NB	-57.00 LT	678+30.40 US 53 SB	93.25 RT	667650.651	754300.375	41.0'	EOP
CC6	679+29.79 US 53 NB	-81.80 LT	678+85.65 US 53 SB	68.24 RT	667700.245	754267.667	74.0'	EOT
CC7	679+42.11 US 53 NB	-28.71 LT	678+98.80 US 53 SB	121.27 RT	667720.186	754318.439	99.0'	EOT

MEDIAN - CENTER J-TURN

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	
CC16	686+13.60 US 53 NB	-169.17 LT	0+00.00 STH 77 E	0.00	668404.940	754152.539	139.0'	EOT
CC17	686+12.21 US 53 NB	-183.68 LT	685+97.98 US 53 SB	-40.08 LT	668404.407	754137.974	195.0'	EOP
CC19	686+12.21 US 53 NB	-183.68 LT	0+00.00 STH 77 E	0.00	668404.407	754137.974	175.0'	EOP
CC21	688+93.76 US 53 NB	4.40 RT	20+17.38 STH 77 E	-104.33 LT	668671.842	754355.695	103.0'	EOT
CC22	689+41.66 US 53 NB	44.99 RT	20+64.49 STH 77 E	-145.42 LT	668712.433	754403.234	175.0'	EOP
CC23	689+41.66 US 53 NB	44.99 RT	20+64.49 STH 77 E	-145.42 LT	668712.433	754403.234	195.0'	EOP
CC24	688+89.70 US 53 NB	-9.37 LT	688+90.38 US 53 SB	129.70 RT	668669.876	754341.477	100.0'	EOP
CC25	687+61.34 US 53 NB	-115.97 LT	687+54.56 US 53 SB	25.33 RT	668553.895	754218.927	5.0'	BOC
CC26	687+92.14 US 53 NB	-115.79 LT	687+86.70 US 53 SB	25.00 RT	668585.553	754222.745	5.0'	BOC
CC27	688+23.23 US 53 NB	-115.26 LT	688+19.13 US 53 SB	25.00 RT	668617.423	754227.243	5.0'	BOC
CC28	687+86.34 US 53 NB	-25.22 LT	687+82.16 US 53 SB	115.65 RT	668568.998	754311.985	5.0'	BOC
CC29	687+53.70 US 53 NB	-25.00 LT	687+48.06 US 53 SB	116.42 RT	668536.281	754308.522	5.0'	BOC
CC30	687+30.23 US 53 NB	-25.00 LT	687+23.55 US 53 SB	116.79 RT	668512.768	754306.075	5.0'	BOC

EOP - EDGE OF PAVEMENT
BOC - BACK OF CURB
EOT - EDGE OF TRUCK APRON

STH 77 - WEST

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	
CC9	688+39.88 US 53 NB	-248.49 LT	0+00.00 STH 77 E	0.00	668652.266	754097.454	54.0'	EOT
CC10	686+06.72 US 53 NB	-313.54 LT	0+00.00 STH 77 E	0.00	668406.714	754007.998	119.0'	EOP
CC11	686+96.21 US 53 NB	-208.35 LT	0+00.00 STH 77 E	0.00	668495.064	754120.212	40.0'	EOP
CC12	688+39.88 US 53 NB	-248.49 LT	0+00.00 STH 77 E	0.00	668652.266	754097.454	62.0'	EOP
CC13	687+59.95 US 53 NB	-229.78 LT	0+00.00 STH 77 E	0.00	668564.859	754105.637	1.5'	BOC
CC14	687+53.66 US 53 NB	-170.06 LT	0+00.00 STH 77 E	0.00	668551.778	754164.289	2.5'	BOC
CC15	687+57.46 US 53 NB	-170.16 LT	0+00.00 STH 77 E	0.00	668555.757	754164.625	2.5'	BOC
CC20	683+86.82 US 53 NB	-232.04 LT	0+00.00 STH 77 E	0.00	668166.298	754082.557	400.0'	BOC

STH 77 - EAST

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	
CC31	686+55.33 US 53 NB	138.13 RT	21+26.29 STH 77 E	141.38 RT	668425.001	754462.037	114.0'	EOT
CC32	687+07.76 US 53 NB	86.00 RT	20+78.09 STH 77 E	87.00 RT	668479.888	754414.406	62.0'	EOP
CC33	687+95.59 US 53 NB	29.35 RT	20+30.00 STH 77 E	-4.33 LT	668571.715	754367.271	2.5'	BAC
CC34	688+10.10 US 53 NB	28.35 RT	20+30.60 STH 77 E	-18.74 LT	668586.110	754368.026	2.5'	BAC
CC35	688+02.67 US 53 NB	100.79 RT	21+01.76 STH 77 E	-3.33 LT	668569.965	754439.022	1.5'	BAC
CC36	688+71.30 US 53 NB	68.00 RT	20+77.38 STH 77 E	-73.70 LT	668640.581	754415.372	40.0'	EOP
CC37	689+23.19 US 53 NB	117.19 RT	21+33.15 STH 77 E	-116.72 LT	668683.018	754471.592	99.0'	EOT

NORTH END - R CUT & LOON

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	
CC40	696+88.21 US 53 NB	-74.00 LT	697+19.85 US 53 SB	46.50 RT	669464.314	754495.425	50.0'	EOP
CC41	697+22.43 US 53 NB	-121.55 LT	697+54.01 US 53 SB	-2.00 LT	669515.229	754465.252	50.0'	EOT
CC42	696+65.59 US 53 NB	-45.38 LT	696+97.20 US 53 SB	75.74 RT	669432.144	754513.165	69.0'	EOT
CC43	697+04.14 US 53 NB	-76.33 LT	697+36.31 US 53 SB	43.72 RT	669480.254	754499.548	19.0'	EOT
CC44	696+43.31 US 53 NB	-126.00 LT	696+71.88 US 53 SB	-4.23 LT	669441.013	754429.833	99.0'	EOP
CC46	697+00.65 US 53 NB	-68.15 LT	697+32.92 US 53 SB	52.00 RT	669473.802	754505.719	36.0'	EOP
CC47	697+72.99 US 53 NB	-98.08 LT	698+07.04 US 53 SB	20.00 RT	669553.761	754507.637	5.0'	EOP
CC48	697+70.96 US 53 NB	-20.00 LT	698+07.22 US 53 SB	98.11 RT	669520.158	754578.145	5.0'	EOP
CC49	696+61.84 US 53 NB	-73.24 LT	696+92.53 US 53 SB	48.00 RT	669439.071	754485.912	100.0'	EOT

2

BEGIN PROJECT
STA 677+40.00 US 53 SB
STA 676+90.00 US 53 NB

BEGIN CONSTRUCTION
STA 8+20.00 STH 77 W

END CONSTRUCTION
STA 21+70.00 STH 77 E

END PROJECT
STA 698+80.00 US 53 SB
STA 698+00.00 US 53 NB

WISDOT DELINEATED WETLAND - SM

NEWTON DR.
W. LIMITS RD.
HOUSTON ST.
INDUSTRIAL DR
STH 77
US 53 SB
US 53 NB

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	LIGHTING PLAN	SHEET 17	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\023501-LP.DWG
LAYOUT NAME - 01
PLOT DATE : 7/21/2020 8:07 AM
PLOT BY : NICK ENGH
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

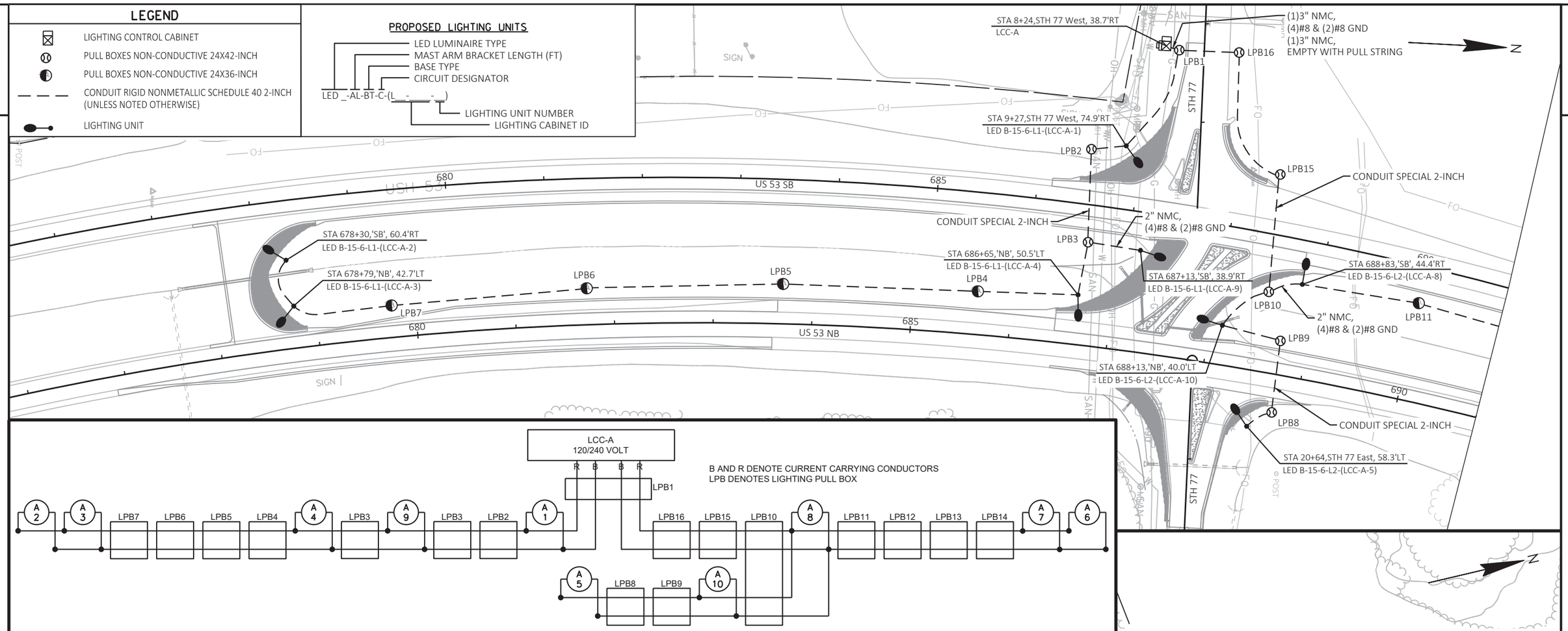
LEGEND

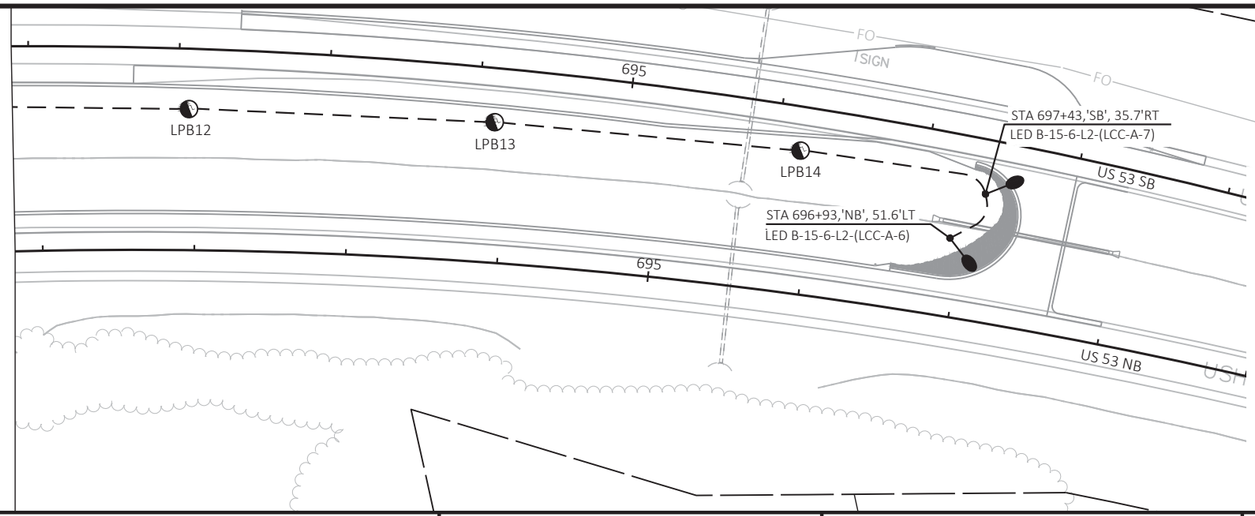
- LIGHTING CONTROL CABINET
- PULL BOXES NON-CONDUCTIVE 24X42-INCH
- PULL BOXES NON-CONDUCTIVE 24X36-INCH
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH (UNLESS NOTED OTHERWISE)
- LIGHTING UNIT

PROPOSED LIGHTING UNITS

LED _-AL-BT-C-(L__-____-__)

- LED LUMINAIRE TYPE
- MAST ARM BRACKET LENGTH (FT)
- BASE TYPE
- CIRCUIT DESIGNATOR
- LIGHTING UNIT NUMBER
- LIGHTING CABINET ID





WISCONSIN
JOHN P. CARLSON
E-31823
SHOREVIEW, MN
7-28-2020
PROFESSIONAL ENGINEER

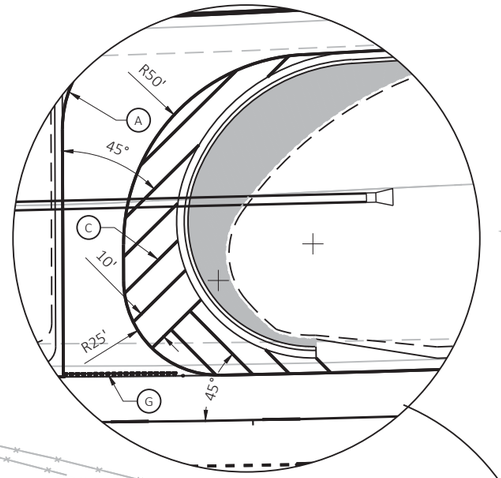
GENERAL NOTES: LIGHTING

1. ALL CONDUCTORS SHALL BE COPPER (CU), (2)#8 & (1)#8 GND UNLESS OTHERWISE NOTED.
2. PROVIDE CAPPED CONDUIT STUBS AS INDICATED.
3. LIGHT LOCATIONS ARE TO THE CENTER OF THE BASE.
4. ROUTE CONDUIT RUNS IN HARMONY WITH PERMANENT SIGNING PLAN TO AVOID CONFLICTS WITH SIGN POSTS.
5. "CONDUIT RIGID NONMETALLIC SCHEDULE 40 xx-INCH" ABBREVIATED AS "NMC" FOR DRAWING CLARITY.
6. WISCONSIN DOT NORTHWEST ELECTRICAL UNIT SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT THE WISDOT NORTHWEST ELECTRICAL UNIT AT (715-225-0360) AT LEAST FIVE WORKING DAYS IN ADVANCE TO SCHEDULE INSPECTIONS.
7. PITCH ALL CONDUITS TOWARDS PULLBOXES. THE 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM. DRAIN DUCT IS NOT SHOWN. DO NOT SPLICE IN PULLBOXES.
8. THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE . IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN . THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.
9. LIGHT BASES SHALL BE A MINIMUM OF 4-FEET FROM THE BACK OF CURB. 4-FEET FROM THE FACE OF GUARDRAIL, 6-FEET FROM THE EDGE OF SHOULDER OR 10 FEET FROM THE EDGE OF LANE.

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	LIGHTING PLAN	SHEET 18	E

LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH (WHITE,SKIP)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (DOUBLE,YELLOW)
- (E) MARKING LINE EPOXY 8-INCH (WHITE,SKIP)
- (F) MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH (WHITE)
- (G) MARKING YIELD LINE EPOXY 18-INCH (WHITE)
- (H) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (I) MARKING STOP LINE EPOXY 18-INCH



N

REMAIN
1-1

INSTALL
1-14
NORTH EAST
77
J3-2
72"X84"

BP: 667 30.03
PC: 672 74.95
668 669 670 671 672 673 674 675 676 677 678 679 680 681 682
USH 53

BP: 668 01.74
PC: 673 33.30

INSTALL
1-6
WRONG WAY
R5-1A
42"X30"

INSTALL
1-10
R3-18
36"X36"

INSTALL
R6-1L
36"X12"
ONE WAY
YIELD
1-11
R1-2
36"X31"

MOVE
BEGIN LEFT TURN LANE
1-16

REMAIN
1-7

INSTALL
1-8
R5-1
36"X36"

INSTALL
1-9

REMAIN
WEST EAST
77 77
1-5

REMAIN
JCT
77
1-4

INSTALL
1-2
1-3
WATCH FOR TURNING VEHICLES
NEXT ½ MILE
108"X78"

REMAIN
Superior
Danbury
Hayward
1-15

INSTALL
1-12
ONE WAY
R6-2L
24"X30"

INSTALL
1-13
77 EAST
USE FAR RIGHT LANE
53 NORTH
114"X72"

MOVE
BEGIN RIGHT TURN LANE
1-17

SIGN
TANKS
T
INL

LEGEND
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) DENOTES SIGN NUMBER
- EXISTING SIGN TO REMAIN
- PROPOSED SIGN MOUNTED ON REMOVABLE POST (S)

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	PAVEMENT MARKING-SIGNING SHEETS	SHEET 19	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\023201 PS.DWG
LAYOUT NAME - 01
PLOT DATE : 9/10/2020 4:30 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- XXX DENOTES SIGN NUMBER
- EXISTING SIGN TO REMAIN
- PROPOSED SIGN MOUNTED ON REMOVABLE POST (S)

2-1 INSTALL NORTH EAST SOUTH 77 — J3-3 108"X84"

2-2 REMAIN SOUTH

2-3 INSTALL NORTH EAST SOUTH 77 — J3-3 108"X84"

2-4 INSTALL R6-1L 36"X12" ONE WAY / YIELD — R1-2 36"X31"

2-5 INSTALL R6-1R 36"X12" ONE WAY / STOP — R1-1 36"X36"

2-6 REMOVE R STOP E

2-7 INSTALL R3-53R 24"X30"

2-8 INSTALL JCT JCT 77 — J1-2 48"X39"

2-9 REMAIN WEST 77

2-10 REMAIN Webb Lake 18 / Danbury 30

2-11 REMOVE STOP

2-12 REMOVE ONE WAY / ONE WAY

2-13 REMOVE SOUTH WEST 77

2-14 REMAIN E E

2-15 REMAIN WRONG WAY

2-16 REMAIN EAST WEST 77 77

2-17 MOVE BEGIN RIGHT TURN LANE — R3-20R

2-18 MOVE BEGIN LEFT TURN LANE

2-19 INSTALL WEST 77 — J3-1 36"X84"

2-20 REMAIN WRONG WAY

2-21 REMAIN E E

2-22 REMOVE NORTH 77

2-23 REMOVE ONE WAY / ONE WAY

2-24 REMOVE STOP

2-25 INSTALL WEST EAST 77 77 — J3-2 72"X84"

2-26 INSTALL R6-1L 36"X12" ONE WAY / YIELD — R1-2 36"X31"

2-27 REMOVE R STOP E

2-28 REMAIN EAST 77

2-29 REMAIN SPEED LIMIT 5

2-30 REMOVE SOUTH WEST NORTH 77

2-31 INSTALL R3-53R 24"X30"

2-32 INSTALL R6-1R 36"X12" ONE WAY / STOP — R1-1 36"X36"

2-33 REMOVE ONE WAY / ONE WAY

2-35 INSTALL SOUTH WEST NORTH 77 — J3-3 108"X84"

2-36 REMAIN NORTH

2-37 INSTALL SOUTH WEST NORTH 77 — J3-3 108"X84"

2-38 REMAIN Wallace St

2-39 INSTALL Minong — 78"X21"

2-40 INSTALL Minong — 78"X21"

H 25' C-C SPACING 45 DEGREE ANGLE

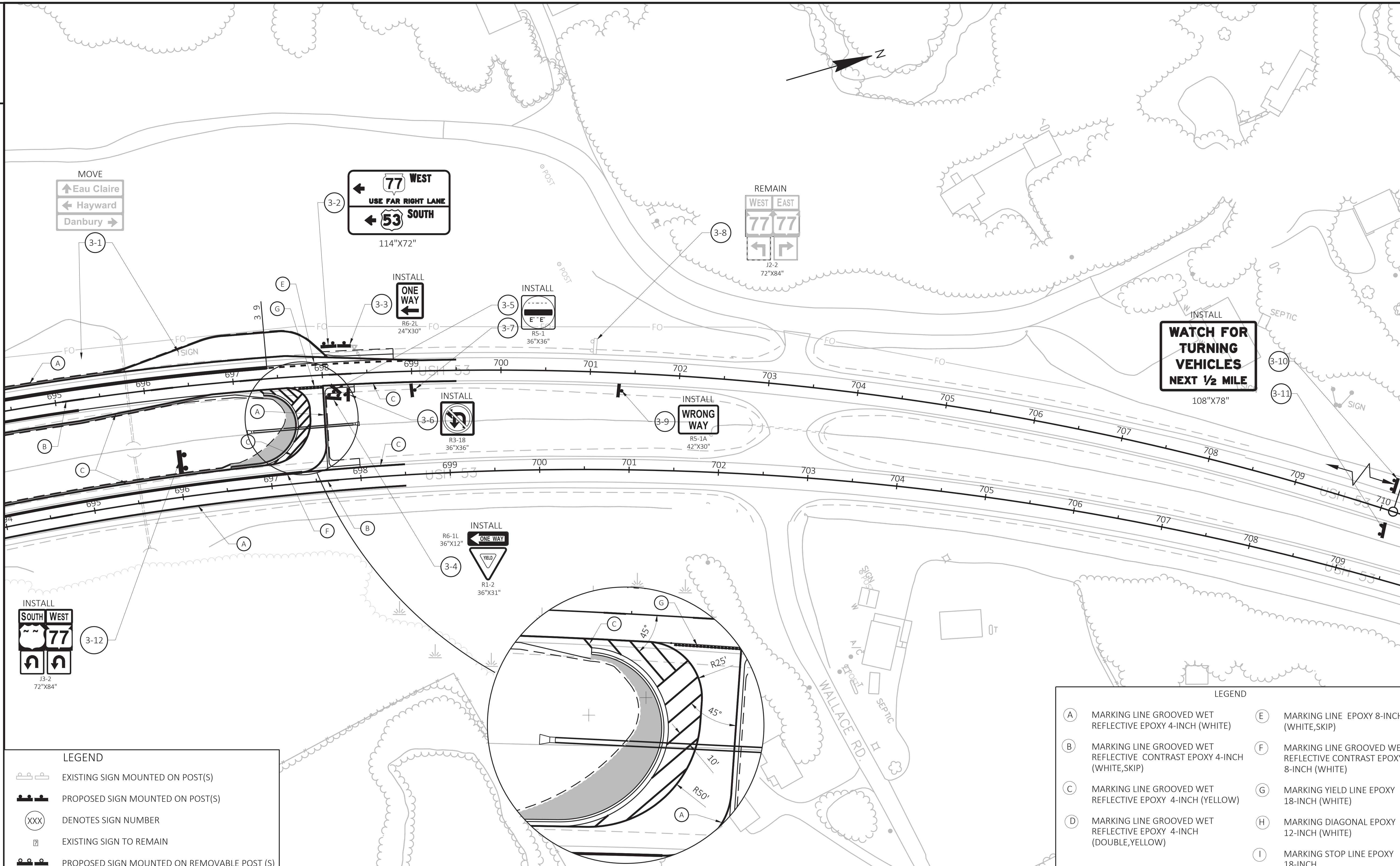
LEGEND

- A MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- B MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH (WHITE,SKIP)
- C MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)
- D MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (DOUBLE,YELLOW)
- E MARKING LINE EPOXY 8-INCH (WHITE,SKIP)
- F MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH (WHITE)
- G MARKING YIELD LINE EPOXY 18-INCH (WHITE)
- H MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- I MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	PAVEMENT MARKING-SIGNING SHEETS	SHEET 20 E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\023201 PS.DWG
LAYOUT NAME - 02

PLOT DATE : 9/10/2020 4:30 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:100 FT



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) DENOTES SIGN NUMBER
- EXISTING SIGN TO REMAIN
- PROPOSED SIGN MOUNTED ON REMOVABLE POST (S)

LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH (WHITE,SKIP)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (DOUBLE,YELLOW)
- (E) MARKING LINE EPOXY 8-INCH (WHITE,SKIP)
- (F) MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH (WHITE)
- (G) MARKING YIELD LINE EPOXY 18-INCH (WHITE)
- (H) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (I) MARKING STOP LINE EPOXY 18-INCH

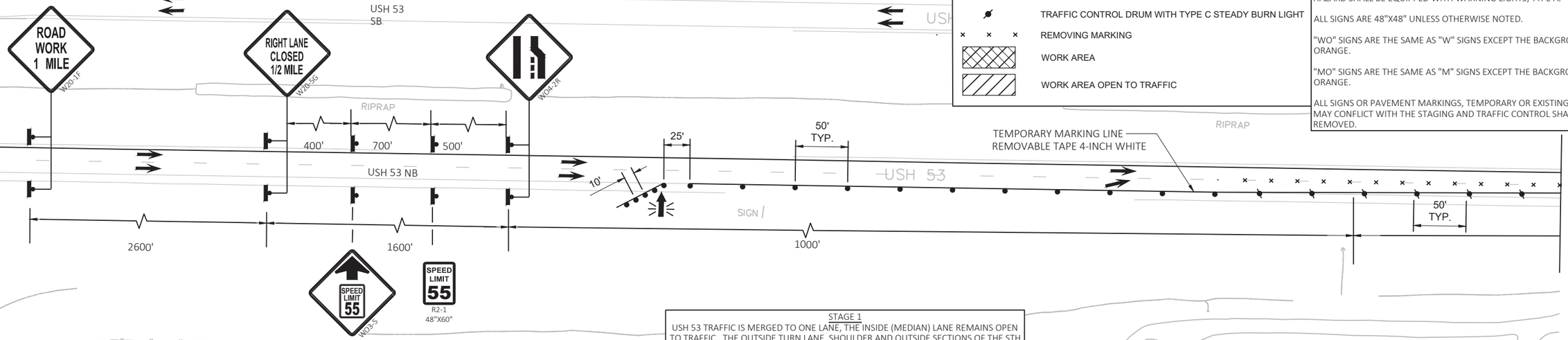
PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	PAVEMENT MARKING-SIGNING SHEETS	SHEET 21	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\023201 PS.DWG
LAYOUT NAME - 03
PLOT DATE : 9/10/2020 4:31 PM
PLOT BY : NICK ENGH
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

TO BE PLACED 1 MILE IN ADVANCE
OF WORK ZONE ON USH 53 NB

W21-62
96"X48"



LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE C WARNING LIGHT (STEADY BURN)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- REMOVING MARKING
- WORK AREA
- WORK AREA OPEN TO TRAFFIC

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

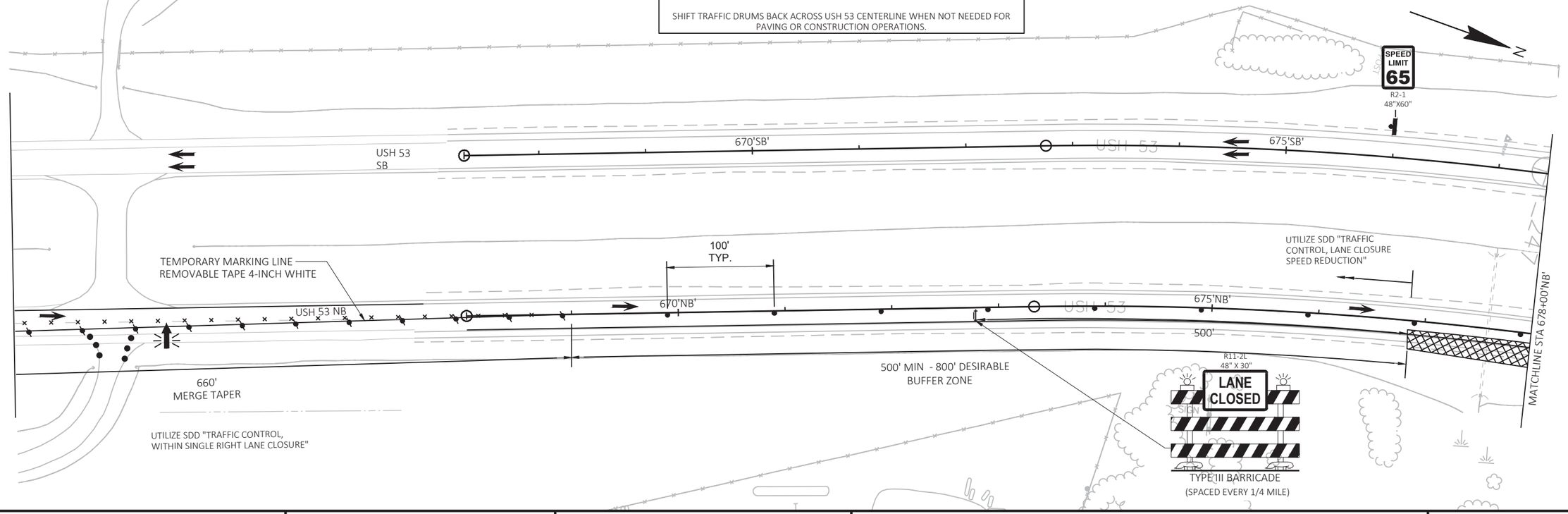
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

STAGE 1
USH 53 TRAFFIC IS MERGED TO ONE LANE, THE INSIDE (MEDIAN) LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE TURN LANE, SHOULDER AND OUTSIDE SECTIONS OF THE STH 77 INTERSECTION ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.



PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 1	SHEET 22	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\025001_TC STAGE 1.DWG
LAYOUT NAME - 01
PLOT DATE : 11/5/2020 10:27 AM
PLOT BY : NICK ENGH
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

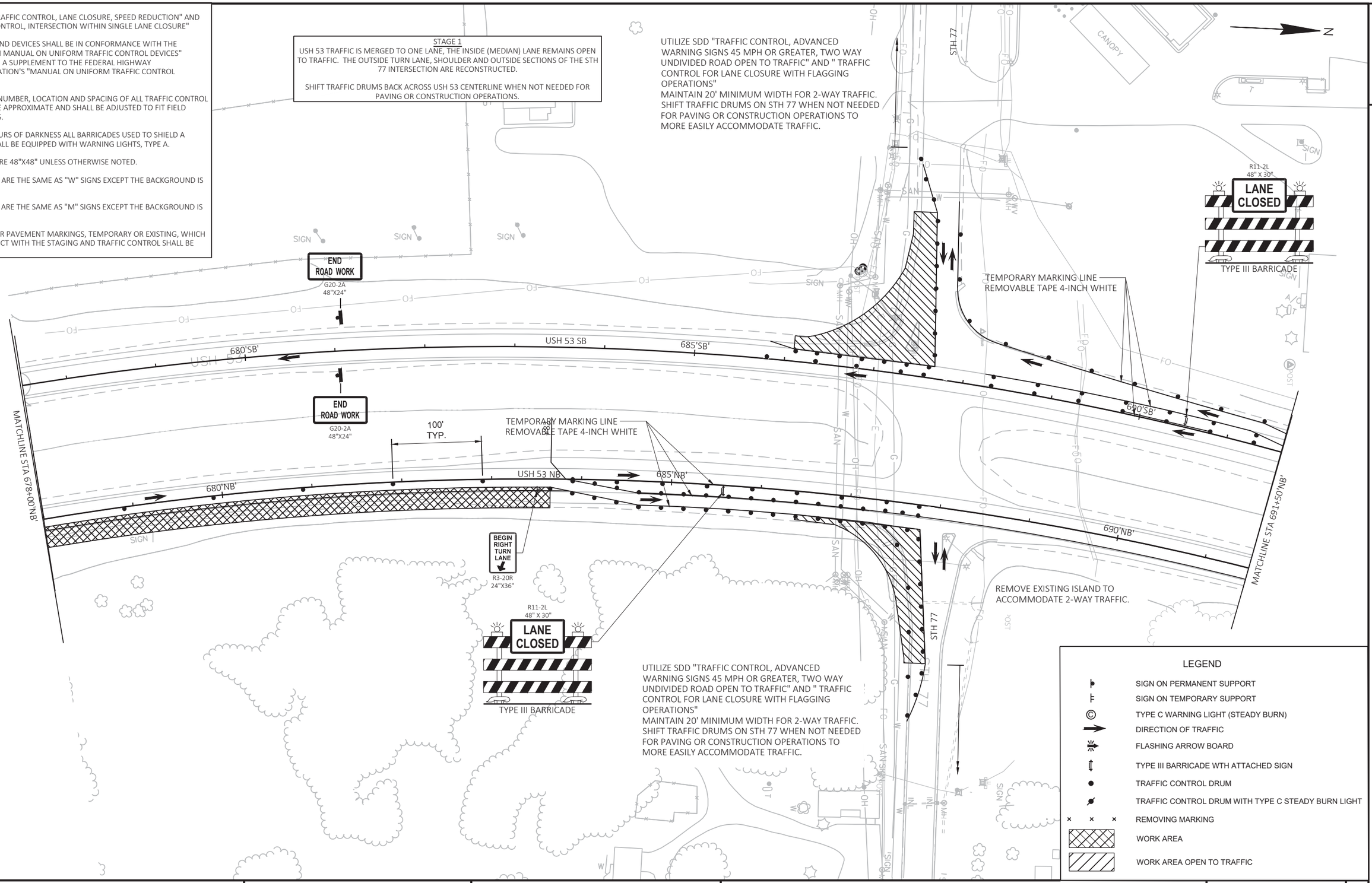
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

STAGE 1
USH 53 TRAFFIC IS MERGED TO ONE LANE, THE INSIDE (MEDIAN) LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE TURN LANE, SHOULDER AND OUTSIDE SECTIONS OF THE STH 77 INTERSECTION ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.

UTILIZE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" AND " TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"
MAINTAIN 20' MINIMUM WIDTH FOR 2-WAY TRAFFIC.
SHIFT TRAFFIC DRUMS ON STH 77 WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS TO MORE EASILY ACCOMMODATE TRAFFIC.



PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 1 A	SHEET 23	E

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

STAGE 1
USH 53 TRAFFIC IS MERGED TO ONE LANE, THE INSIDE (MEDIAN) LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE TURN LANE, SHOULDER AND OUTSIDE SECTIONS OF THE STH 77 INTERSECTION ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.

UTILIZE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

END ROAD WORK
G20-2A
48"X24"

USH 53 SB
680'SB'
685'SB'
690'SB'

END ROAD WORK
G20-2A
48"X24"

100' TYP.
+82

USH 53 NB
680'NB'
685'NB'
690'NB'

MATCHLINE STA 678+00 NB'
MATCHLINE STA 691+50 NB'

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

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

UTILIZE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" AND " TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"
MAINTAIN 20' MINIMUM WIDTH FOR 2-WAY TRAFFIC.
SHIFT TRAFFIC DRUMS ON STH 77 WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS TO MORE EASILY ACCOMMODATE TRAFFIC.

STOP
R1-1
30"X30"

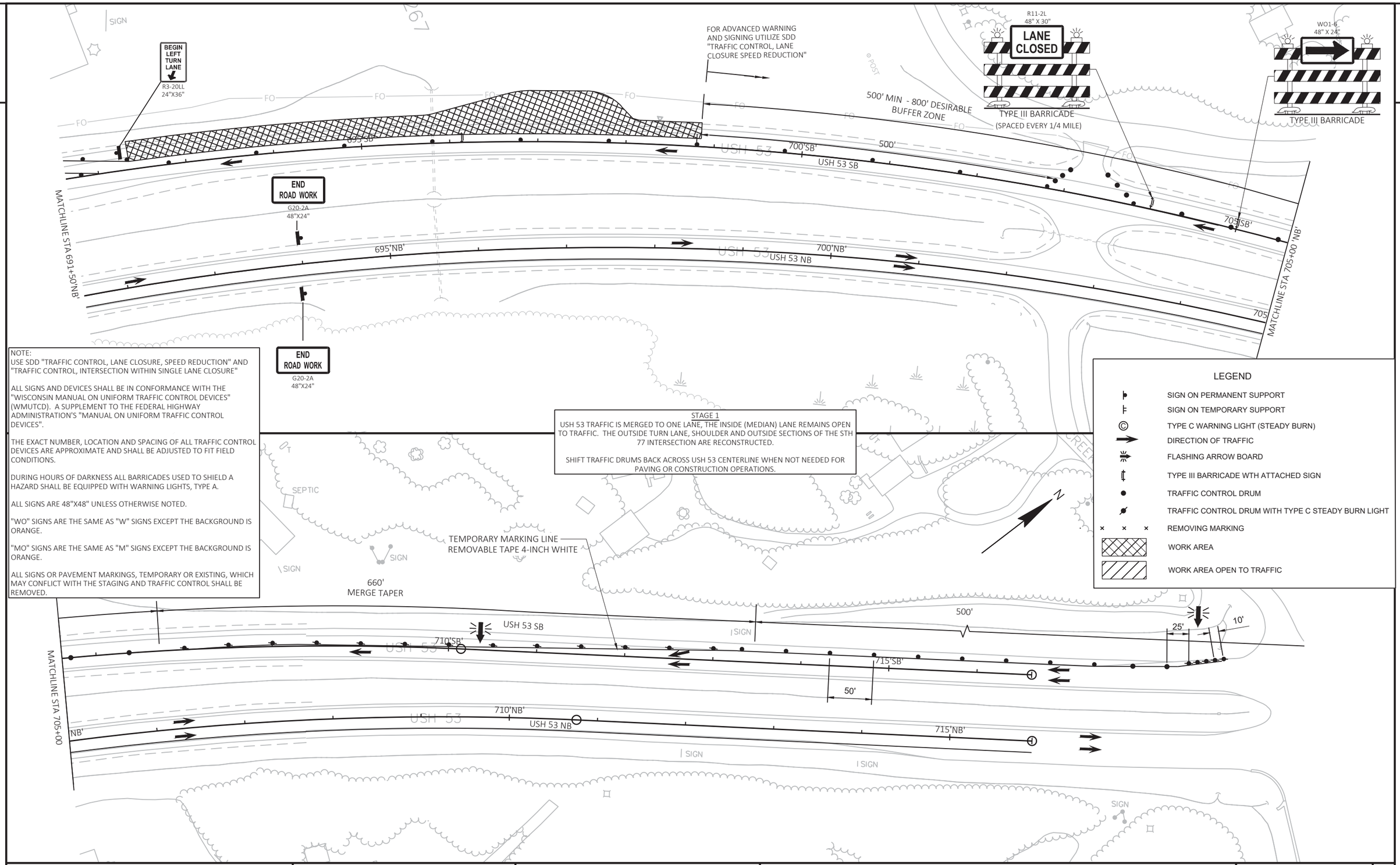
STH 77

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE C WARNING LIGHT (STEADY BURN)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- REMOVING MARKING
- WORK AREA
- WORK AREA OPEN TO TRAFFIC

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 1B	SHEET 24	E

2



NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 1	SHEET 25	E

2

STAGE 1
USH 53 TRAFFIC IS MERGED TO ONE LANE, THE INSIDE (MEDIAN) LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE TURN LANE, SHOULDER AND OUTSIDE SECTIONS OF THE STH 77 INTERSECTION ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.

N

SHELL CR.

SEPTIC

TO BE PLACED 1 MILE IN ADVANCE OF WORK ZONE ON USH 53 SB

FINES DOUBLE IN WORK ZONES — Give 'em a BRAKE SLOW DOWN

W21-62
96"X48"

W04-2R

SPEED LIMIT 55
R2-1
48"X60"

SPEED LIMIT 55
W03-5

RIGHT LANE CLOSED 1/2 MILE
W20-5G

ROAD WORK 1 MILE
W20-1F

500'

700'

400'

1600'

2600'

500'

SIGN

USH 53

USH 53 SB

INL

INL

USH 53 NB

USH 53

USH 53

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

SPEED LIMIT 65
R2-1
48"X60"

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE C WARNING LIGHT (STEADY BURN)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- REMOVING MARKING
- WORK AREA
- WORK AREA OPEN TO TRAFFIC

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 1	SHEET 26	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\025001_TC STAGE 1.DWG
LAYOUT NAME - 04

PLOT DATE : 11/5/2020 10:28 AM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TO BE PLACED 1 MILE IN ADVANCE OF WORK ZONE ON USH 53 NB

W21-62
96"X48"

WO3-5

R2-1
48"X60"

W20-1F

W20-5G


W04-2R

USH 53 SB

USH 53 NB

RIPRAP

SIGN

25'

10'

50'
TYP.

2600'

400'

700'

1600'

500'

1000'

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, YELLOW

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE C WARNING LIGHT (STEADY BURN)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- REMOVING MARKING
- WORK AREA
- WORK AREA OPEN TO TRAFFIC

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

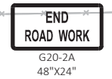
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

STAGE 2
USH 53 TRAFFIC IS MERGED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) TURN LANE, AND SHOULDER ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.

R2-1
48"X60"



G20-2A
48"X24"

G20-2A
48"X24"

USH 53 SB

USH 53 NB

670'SB'

675'SB'

670'NB'

675'NB'

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH YELLOW

660'
MERGE TAPER

50'
TYP.

500' MIN - 800' DESIRABLE
BUFFER ZONE

500'

UTILIZE SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION"

MATCHLINE STA 678+00'NB'

R11-2L
48" X 30"

TYPE III BARRICADE
(SPACED EVERY 1/4 MILE)

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 2	SHEET 27	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\025001_TC STAGE 2.DWG
LAYOUT NAME - 01

PLOT DATE : 7/30/2020 7:02 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

50' TYP.

USH 53 SB

680'SB'

685'SB'

690'SB'

MATCHLINE STA 678+00'NB'

690'NB'

USH 53 NB

25' TYP.

685'NB'

WO1-6 48" X 24"

TYPE III BARRICADE

15' TYP.

STH 77

MATCHLINE STA 691+50'NB'

690'NB'

90°

STH 77

N

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

STAGE 2
USH 53 TRAFFIC IS MERGED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) TURN LANE, AND SHOULDER ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.

R11-2L 48" X 30"
LANE CLOSED
TYPE III BARRICADE (SPACED EVERY 1/4 MILE)

UTILIZE SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION"

500' MIN - 800' DESIRABLE BUFFER ZONE

695'SB'

USH 53 SB

700'SB'

500'

100' TYP.

100' TYP.

705'SB'

END ROAD WORK
G20-2A
48"X24"

MATCHLINE STA 691+50'NB'

690'NB'

USH 53 NB

50' TYP.

700'NB'

100' TYP.

MATCHLINE STA 705+00'NB'

END ROAD WORK
G20-2A
48"X24"

TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

LEGEND

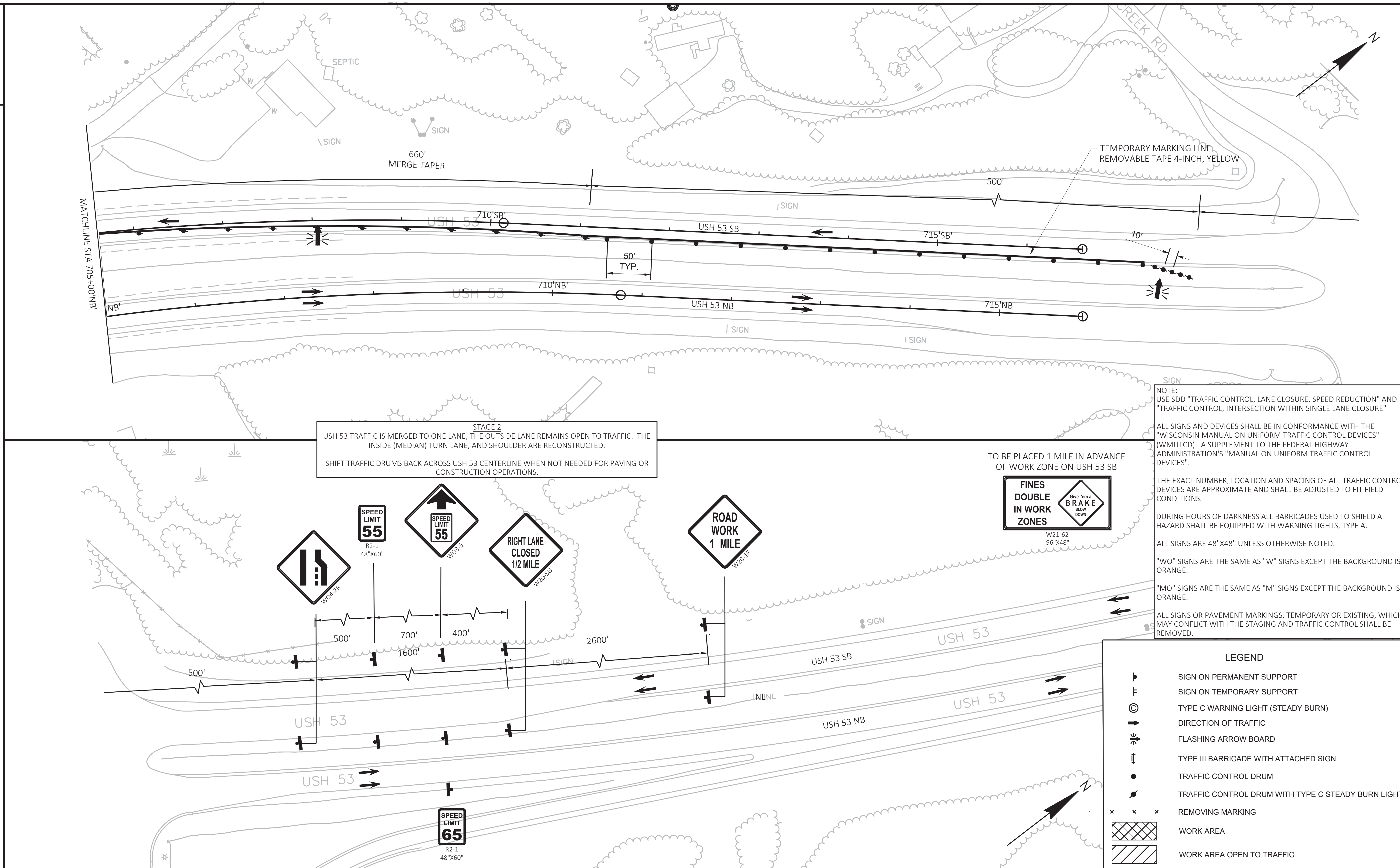
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE C WARNING LIGHT (STEADY BURN)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- REMOVING MARKING
- WORK AREA
- WORK AREA OPEN TO TRAFFIC

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 2	SHEET 28	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\025001_TC STAGE 2.DWG
LAYOUT NAME - 02

PLOT DATE : 7/30/2020 7:02 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



STAGE 2

USH 53 TRAFFIC IS MERGED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) TURN LANE, AND SHOULDER ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE C WARNING LIGHT (STEADY BURN)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- REMOVING MARKING
- WORK AREA
- WORK AREA OPEN TO TRAFFIC

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 2	SHEET 29	E

TO BE PLACED 1 MILE IN ADVANCE OF WORK ZONE ON USH 53 NB

FINES DOUBLE IN WORK ZONES — Give 'em a BRAKE SLOW DOWN
W21-62
96"X48"

SPEED LIMIT 55
WO3-5

SPEED LIMIT 55
R2-1
48"X60"

ROAD WORK 1 MILE
W20-1F

RIGHT LANE CLOSED 1/2 MILE
W20-5G

WO4-2L

USH 53 SB

USH 53 NB

RIPRAP

700'

400'

500'

2600'

1600'

1000'

10'

50' TYP.

50' TYP.

USH 53

SIGN

N

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE C WARNING LIGHT (STEADY BURN)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- REMOVING MARKING
- WORK AREA
- WORK AREA OPEN TO TRAFFIC

NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

STAGE 3
USH 53 TRAFFIC REMAINS IN ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE REMAINING SECTION OF INSIDE (MEDIAN) TURN LANE, SHOULDER AND STH 77 CROSSING ARE RECONSTRUCTED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR CONSTRUCTION OPERATIONS.

SPEED LIMIT 65
R2-1
48"X60"

USH 53 SB

670'SB'

675'SB'

USH 53

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

660' MERGE TAPER

500' MIN - 800' DESIRABLE BUFFER ZONE

100' TYP.

670'NB'

500'

675'NB'

USH 53 NB

50' TYP.

MATCHLINE STA 678+00'NB'

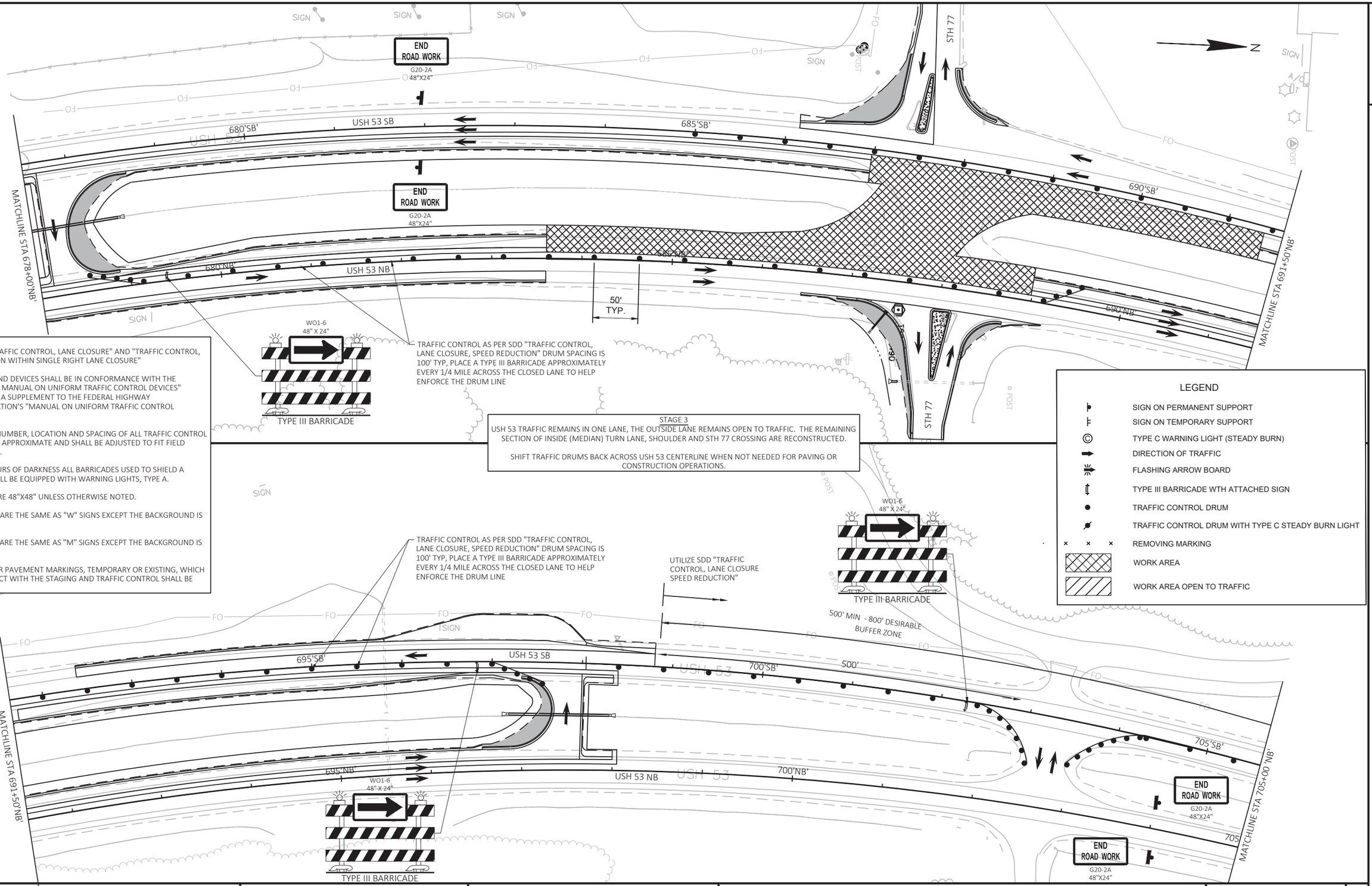
R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE
(SPACED EVERY 1/4 MILE)

UTILIZE SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION"

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 3	SHEET 30	E

2



NOTE:
USE SDD "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE"

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

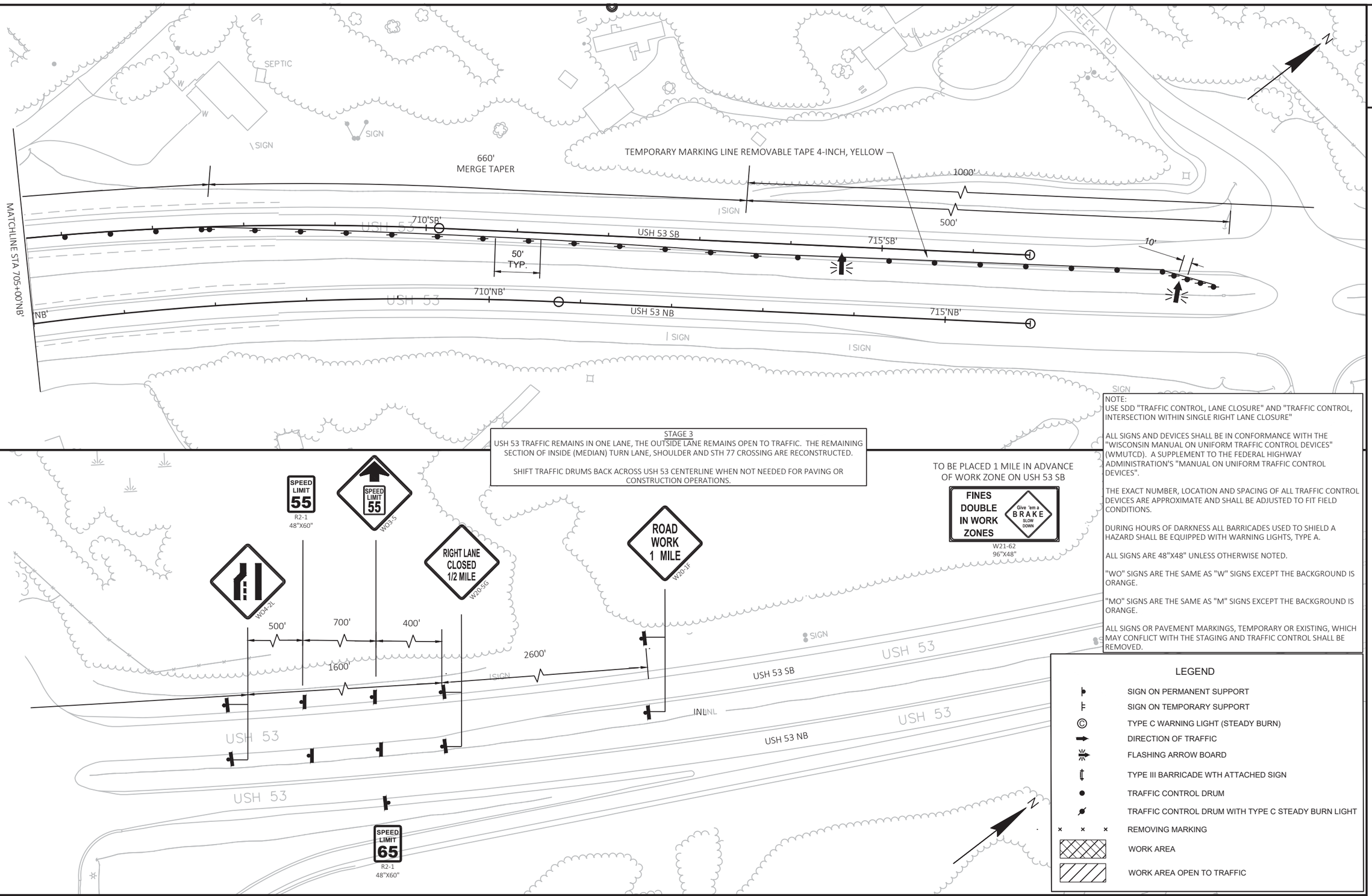
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

ALL SIGNS OR PAVEMENT MARKINGS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED.

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 3	SHEET 31	E

2



PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	TRAFFIC CONTROL STAGE 3	SHEET 32	E

1195-01-76

Line	Item	Item Description	Unit	Total	Qty
0002	204.0130	Removing Curb	LF	162.000	162.000
0004	204.0150	Removing Curb & Gutter	LF	468.000	468.000
0006	204.0195	Removing Concrete Bases	EACH	4.000	4.000
0008	204.0205	Removing Utility Poles	EACH	4.000	4.000
0010	205.0100	Excavation Common	CY	4,858.000	4,858.000
0012	208.0100	Borrow	CY	1,626.000	1,626.000
0014	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	52.000	52.000
0016	213.0100	Finishing Roadway (project) 01. 1195-01-76	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	780.000	780.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	8,070.000	8,070.000
0022	305.0500	Shaping Shoulders	STA	63.000	63.000
0024	405.0100	Coloring Concrete WisDOT Red	CY	430.000	430.000
0026	415.0060	Concrete Pavement 6-Inch	SY	118.000	118.000
0028	416.0512	Concrete Truck Apron 12-Inch	SY	1,290.000	1,290.000
0030	455.0605	Tack Coat	GAL	1,067.000	1,067.000
0032	460.2000	Incentive Density HMA Pavement	DOL	2,000.000	2,000.000
0034	460.6644	HMA Pavement 4 MT 58-34 V	TON	3,121.000	3,121.000
0036	465.0105	Asphaltic Surface	TON	50.000	50.000
0038	465.0315	Asphaltic Flumes	SY	35.000	35.000
0040	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	1.000	1.000
0042	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	6.000	6.000
0044	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	236.000	236.000
0046	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0048	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	2.000	2.000
0050	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	4.000	4.000
0052	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	1.000	1.000
0054	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	91.000	91.000
0056	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	869.000	869.000
0058	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	654.000	654.000
0060	601.0576	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type J	LF	294.000	294.000
0062	602.0405	Concrete Sidewalk 4-Inch	SF	137.000	137.000
0064	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	24.000	24.000
0066	606.0200	Riprap Medium	CY	12.000	12.000
0068	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	78.000	78.000
0070	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	71.000	71.000
0072	611.0636	Inlet Covers Type HM-S	EACH	5.000	5.000

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Line	Item	Item Description	Unit	Total	Qty
0074	611.3230	Inlets 2x3-FT	EACH	5.000	5.000
0076	618.0100	Maintenance And Repair of Haul Roads (project) 1195-01-76	EACH	1.000	1.000
0078	619.1000	Mobilization	EACH	1.000	1.000
0080	620.0200	Concrete Median Blunt Nose	SF	68.000	68.000
0082	620.0300	Concrete Median Sloped Nose	SF	123.000	123.000
0084	624.0100	Water	MGAL	89.000	89.000
0086	625.0500	Salvaged Topsoil	SY	16,266.000	16,266.000
0088	627.0200	Mulching	SY	15,241.000	15,241.000
0090	628.1504	Silt Fence	LF	675.000	675.000
0092	628.1520	Silt Fence Maintenance	LF	675.000	675.000
0094	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0098	628.2004	Erosion Mat Class I Type B	SY	6,186.000	6,186.000
0100	628.7010	Inlet Protection Type B	EACH	5.000	5.000
0102	628.7504	Temporary Ditch Checks	LF	150.000	150.000
0104	628.7555	Culvert Pipe Checks	EACH	15.000	15.000
0106	628.7560	Tracking Pads	EACH	2.000	2.000
0108	629.0210	Fertilizer Type B	CWT	12.000	12.000
0110	630.0120	Seeding Mixture No. 20	LB	530.000	530.000
0112	630.0200	Seeding Temporary	LB	530.000	530.000
0114	630.0300	Seeding Borrow Pit	LB	30.000	30.000
0116	630.0500	Seed Water	MGAL	435.000	435.000
0118	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	27.000	27.000
0120	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	38.000	38.000
0122	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	1.000	1.000
0124	637.2210	Signs Type II Reflective H	SF	848.700	848.700
0126	637.2230	Signs Type II Reflective F	SF	117.000	117.000
0128	638.2102	Moving Signs Type II	EACH	5.000	5.000
0130	638.2602	Removing Signs Type II	EACH	15.000	15.000
0132	638.3000	Removing Small Sign Supports	EACH	11.000	11.000
0134	638.4000	Moving Small Sign Supports	EACH	6.000	6.000
0136	642.5201	Field Office Type C	EACH	1.000	1.000
0138	643.0300	Traffic Control Drums	DAY	50,968.000	50,968.000
0140	643.0420	Traffic Control Barricades Type III	DAY	6,808.000	6,808.000
0142	643.0705	Traffic Control Warning Lights Type A	DAY	13,616.000	13,616.000
0144	643.0715	Traffic Control Warning Lights Type C	DAY	15,364.000	15,364.000
0146	643.0800	Traffic Control Arrow Boards	DAY	552.000	552.000
0148	643.0900	Traffic Control Signs	DAY	10,488.000	10,488.000
0150	643.1051	Traffic Control Signs PCMS with Cellular	DAY	28.000	28.000

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Line	Item	Item Description	Unit	Total	Qty
		Communications			
0152	643.5000	Traffic Control	EACH	1.000	1.000
0154	645.0120	Geotextile Type HR	SY	40.000	40.000
0156	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	11,406.000	11,406.000
0158	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	2,523.000	2,523.000
0160	646.3020	Marking Line Epoxy 8-Inch	LF	1,682.000	1,682.000
0162	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	3,043.000	3,043.000
0164	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000
0166	646.6120	Marking Stop Line Epoxy 18-Inch	LF	58.000	58.000
0168	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	111.000	111.000
0170	646.7120	Marking Diagonal Epoxy 12-Inch	LF	252.000	252.000
0172	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	3,960.000	3,960.000
0174	650.4000	Construction Staking Storm Sewer	EACH	5.000	5.000
0176	650.4500	Construction Staking Subgrade	LF	5,317.000	5,317.000
0178	650.5000	Construction Staking Base	LF	5,317.000	5,317.000
0180	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,908.000	1,908.000
0182	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0184	650.7000	Construction Staking Concrete Pavement	LF	1,023.000	1,023.000
0186	650.8500	Construction Staking Electrical Installations (project) 01. 1195-01-76	LS	1.000	1.000
0188	650.9910	Construction Staking Supplemental Control (project) 01. 1195-01-76	LS	1.000	1.000
0190	650.9920	Construction Staking Slope Stakes	LF	5,317.000	5,317.000
0192	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,379.000	2,379.000
0194	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	288.000	288.000
0196	652.0605	Conduit Special 2-Inch	LF	30.000	30.000
0198	653.0154	Pull Boxes Non-Conductive 24x36-Inch	EACH	8.000	8.000
0200	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	8.000	8.000
0202	654.0106	Concrete Bases Type 6	EACH	10.000	10.000
0204	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
0206	655.0610	Electrical Wire Lighting 12 AWG	LF	1,800.000	1,800.000
0208	655.0620	Electrical Wire Lighting 8 AWG	LF	9,186.000	9,186.000
0210	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. Sta 8+24 RT	LS	1.000	1.000
0212	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	10.000	10.000
0214	657.0327	Poles Type 6-Aluminum	EACH	10.000	10.000
0216	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	10.000	10.000
0218	659.1120	Luminaires Utility LED B	EACH	10.000	10.000
0220	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
0222	690.0150	Sawing Asphalt	LF	5,787.000	5,787.000

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Line	Item	Item Description	Unit	Total	Qty
0224	690.0250	Sawing Concrete	LF	5.000	5.000
0226	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0228	740.0440	Incentive IRI Ride	DOL	500.000	500.000
0230	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	600.000	600.000
0232	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0234	SPV.0090	Special 01. Cure and Seal Treatment, Concrete Curb and Gutter	LF	1,908.000	1,908.000
0236	SPV.0165	Special 01. Cure and Seal Treatment, Concrete Sidewalk, Pavement, and Truck Apron	SF	13,910.000	13,910.000

STAGE	STATION TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (6)	MASS ORDINATE +/- (7)	WASTE	208.0100 BORROW	COMMENT:
			CUT (2)	EBS EXCAVATION (3)				FACTOR 1.30				
STAGE 1												
	676+90 - 683+60	USH 53 NB, RT	433		41	392	152	198	194	194		
	692+40 - 698+78	USH 53 SB, LT	437		39	398	358	466	-68	-68		
	20+75 - 21+70	STH 77 E	293		61	232	13	17	215	215		
	(OUTSIDE OF ENDAREAS)	STH 77 E	307		65	242	5	7	236	236		
	8+20 - 9+34	STH 77 W	224		37	187	8	11	176	176		
	(OUTSIDE OF ENDAREAS)	STH 77 W	281		48	233	32	42	191	191		
STAGE 1 SUBTOTAL			1975	0	291	1684	569	740	944	944	0	
STAGE 2												
	679+00 - 683+65	USH 53 NB, LT	268		19	249	106	138	111	111		
	679+00 - 686+00	USH 53 SB, RT	355		19	336	588	764	-428	-428		
	691+70 - 696+50	USH 53 NB, LT	301		24	277	89	116	161	161		
	689+00 - 697+30	USH 53 SB, RT	439		25	414	51	66	348	348		
	SOUTH RCUT	MEDIAN	149		8	141	1666	2166	-2025	-2025		
	NORTH RCUT	MEDIAN	165		8	157	498	647	-490	-490		
STAGE 2 SUBTOTAL			1677	0	103	1574	2998	3897	-2323	-2323	1379	SEE NOTE (8)
STAGE 3												
	683+65 - 686+00	USH 53 NB, LT	84		41		0	0	0	0		
	686+00 - 687+00	USH 53 SB, RT	107		6		42	54	-54	-54		
	688+50 - 691+70	USH 53 NB, LT	183		14		95	124	-124	-124		
	INTERSECTION	MEDIAN	832		175		53	69	-69	-69		
STAGE 3 SUBTOTAL			1206	0	236	0	190	247	-247	-247	247	
GRAND TOTAL			4858	0	630	3,258	3757	4884	-1626	-1626	1626	
TOTAL COMMON EXC			4858									

NOTES:
(1) COMMON EXCAVATION 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 SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(6) EXPANDED FILL FACTOR = 1.3
(7) 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.
(8) USE WASTE FROM STAGE 1

3

REMOVAL

STATION	LOCATION	204.0195 REMOVING CONCRETE BASES EACH	204.0205 REMOVING UTILITY POLES EACH
688+12'NB'	32'RT	1	1
688+39'NB'	60'RT	1	1
687+17'SB'	62'LT	1	1
698+42'SB	32'LT	1	1
	TOTAL 0010	4	4

CURB AND GUTTER

STATION TO	STATION	LOCATION	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0576 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE J LF	620.0200 CONCRETE MEDIAN BLUNT NOSE SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	SPV.0090.02 CONCRETE CURE & SEAL TREATMENT CURB AND GUTTER LF	REMARKS
678+30	679+10	LT				187					187	187	SOUTH RCUT - CROSSOVER
686+45	686+68	NB LT TURN				201					201	201	
687+25	688+28	MEDIAN ISLAND					303				303	303	
687+81	688+84	SB TURN LANE				183					183	183	
696+57	697+50	LT				153					153	153	NORTH RCUT - CROSSOVER
9+02	9+59	LT		78		76					76	76	RADIUS US 53 - WIS 77
9+10	9+73	RT	81					129			129	129	MEDIAN ISLAND
8+86	9+65	RT		55			147		36	65	147	147	RADIUS US 53 - WIS 77
20+15	21+70	RT		175			204		32	58	204	204	RADIUS US 53 - TIE IN WIS 77
20+26	21+02	LT	81					165			165	165	MEDIAN ISLAND
20+38	20+81	LT		69		69					69	69	RADIUS US 53 - WIS 77
20+81	21+70	LT		91	91						91	91	TIE INTO EXISTING
		TOTAL 0010	162	468	91	869	654	294	68	123	1,908	1,908	

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FINISHING

STATION TO	STATION	LOCATION	213.0100.01 FINISHING ROADWAY (1195-01-76) EACH
676+90	698+00	US 53 & STH 77	1
		TOTAL 0010	1

SHOULDERS

STATION TO	STATION	LOCATION	* 211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	* 305.0500 SHAPING SHOULDERS STA
676+90	683+60	NB RT	7	7
678+96	686+45	NB LT	7	7
677+90	678+15	NB MEDIAN	2	2
678+58	687+96	NB MEDIAN	-	2
686+45	687+28	MEDIAN	-	1
687+95	688+82	MEDIAN	-	2
696+57	697+19	MEDIAN	-	1
697+63	698+00	MEDIAN	2	2
20+16	21+70	LT STH 77	1	2
20+40	21+70	RT STH 77	1	1
678+64	687+21	SB RT	9	9
688+32	697+32	SB RT	8	8
692+40	699+77	SB LT	4	7
8+20	9+63	LT STH 77	1	2
9+02	9+57	RT STH 77	5	5
UNDISTRUBUTED		LT/RT	5	5
		TOTAL 0010	52	63

* INCLUDES AROUND SIDE ROAD RADII

BASE AGGREGATE

STATION TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
US 53 NB					
676+90	683+60	RT	97	588	7
677+90	683+65	LT	67	457	5
686+45	688+28	LT	22	229	3
688+27	696+57	LT	76	992	11
US 53 SB					
677+40	687+20	RT	77	990	11
687+20	691+70	RT	51	211	3
691+70	69+83	RT	18	565	6
692+40	695+80	LT	58	847	9
STH 77 EAST					
20+24	21+70	RT/LT	61	623	7
STH 77 WEST					
8+20	9+86	RT/LT	45	933	10
STH 77 MEDAIN TURN LANES			126	834	10
CROSSOVER LEFT TURN LANES					
678+14	678+90	LT	43	484	5
696+57	697+64	LT	39	317	4
		TOTAL 0010	780	8,070	89

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CONCRETE

STATION		TO STATION	LOCATION	405.0100 COLORING CONCRETE WISDOT RED CY	415.0060 CONCRETE PAVEMENT 6-INCH SY	416.0512 CONCRETE TRUCK APRON 12-INCH SY	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	SPV.0165.01 CURE AND SEAL, CONCRETE SIDEWALK, PAVEMENT, TRUCK APRON SF
US 53 NB										
678+33	-	678+96	RCUT / MEDIAN	82		246			63	2,216
686+42	-	687+66	MEDIAN	86		257			124	2,317
687+28		688+25	MEDIAN	45		134			97	1,207
687+28		688+25	MEDIAN				137	24	97	1,230
687+81		688+82	MEDIAN	36		109			101	977
696+88		697+79	MEDIAN	45		136			91	1,223
STH 77 EAST										
20+19		21+70	RT	55		165			151	1,485
20+27		21+02	MED		82				75	738
20+40		20+73	LT	10		31			33	281
									0	
STH 77 WEST										
8+86	-	9+62	RT	65		196			76	1,766
9+12	-	9+73	MEDIAN		36				61	325
9+02	-	9+56	LT	5		16			54	145
			TOTAL 0010	430	118	1,290	137	24	1,023	13,910

PAVEMENT

STATION		TO STATION	LOCATION	455.0605 TACK COAT GAL	460.6644 HMA PAVEMENT LOWER LAYER TON	460.6644 HMA PAVEMENT LEVELING LAYER TON	460.6644 HMA PAVEMENT UPPER LAYER & LT SHOULDER (PASSING SHOULDER TON	465.0105 ASPHALTIC SURFACE TON	465.0315 ASPHALTIC FLUMES SY
US 53 NB									
676+90	-	683+60	RIGHT TURN LANE	80	66	94	94		
678+88	-	683+65	LEFT TURN LANE	66	54	77	77		
687+25	-	689+15	STH 77 EAST	100	82	117	117		
686+45	-	688+27	MEDIAN TURN LANE	123	100	143	143		
688+27		696+57	LEFT TURN LANE	133	109	156	156		
696+57	-	697+99	MEDIAN TURN LANE	61	50	72	72		35
US 53 SB									
677+65	-	679+64	MEDIAN TURN LANE	69	57	81	81		
678+64	-	687+20	LEFT TURN LANE	136	111	159	159		
686+14	-	687+63	STH 77 WEST	73	60	86	86		
691+70	-	696+75	SHOULDER	70	57	81	81		
692+40		698+77	RT TURN LANE	77	63	90	90	50	
695+80		698+04	RCUT / MEDIAN	79	43	62	62		
			SUB TOTAL		809.00	1156.00	1156.00		
			TOTAL 0010	1,067		3,121		50	35

3

CULVERT PIPES

NO.	STATION	OFFSET	TO	STATION	OFFSET	INLET ELEVATION	OUTLET ELEVATION	SLOPE	521.3124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	606.0200 RIPRAP MEDIUM CY	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	645.0120 GEOTEXTILE TYPE HR SY	CONSTRUCTION STAKING PIPE CULVERTS EACH
1	687+28.1'NB'	58.9' LT	-	687+08.8'NB'	79.6' LT	1049.43	1049.28	0.5%				1			2		29	8	
2	687+32.9'NB	31.8' LT	-	687+28.1'NB'	58.9' LT	1049.92	1049.78	0.5%								28			
5	687+41.8'NB'	35.6' RT	-	687+29.1'NB'	55.5' RT	1047.88	1047.75	0.5%			1					24			
3	687+59.2'NB'	29.8' LT	-	687+85.2'NB'	30.8' LT	1049.92	1049.80	0.5%								26			
4	687+85.2'NB'	30.8' LT	-	688+22.36'NB'	48.5' LT	1049.45	1049.24	0.5%				1			2		42	8	
	677+73.8'NB'	76.6' LT	-	678+95.0'NB'	75.7' LT	1046.37	1045.05	1.1%		124			2		4			12	1
	696+86.5'NB'	60.8' LT	-	697+95.8'NB'	62.6' LT	1045.00	1044.35	0.6%		112			2		4			12	1
	20+07.1'STH 77'	34.5' RT	-	21+07.3'STH 77'	40.4' RT	1047.20	1047.14	1.0%	6					1					1
			-																
								TOTAL 0010	6	236	1	2	4	1	12	78	71	40	3

3

INLETS

NO.	*STATION	*OFFSET	RIM ELEVATION	TOP OF STRUCTURE ELEVATION	BOTTOM OF STRUCTURE ELEVATION	**DEPTH	611.0636 INLET COVERS TYPE HM-S EACH	611.3230 INLETS 2X3-FT EACH	628.7010 INLET PROTECTION TYPE B EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
1	687+28.1'NB'	58.9' LT	1052.73	1051.65	1049.22	2.42	1	1	1	1
2	687+32.9'NB'	31.8' LT	1052.72	1051.64	1049.75	1.88	1	1	1	1
5	687+41.8'NB'	35.6' RT	1050.51	1049.43	1047.67	1.75	1	1	1	1
3	687+59.2'NB'	29.8' LT	1052.47	1051.39	1049.75	1.63	1	1	1	1
4	687+85.2'NB'	30.8' LT	1052.59	1051.51	1049.24	2.26	1	1	1	1
					TOTAL 0010		5	5	5	5

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
*** DEPTH = RIM ELEVATION - COVER HEIGHT - 7-INCH ADJUSTMENT HEIGHT - BOTTOM OF STRUCTURE ELEVATION

MOBILIZATION

STATION	TO	STATION	LOCATION	619.1000 MOBILIZATION EACH
676+90	-	698+00		1
			TOTAL 0010	1

MOBILIZATIONS EROSION CONTROL

STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
676+90	-	698+00		3	3
			TOTAL 0010	3	3

TRACKING PAD

LOCATION	628.7560 TRACKING PADS EACH
	1
	1
TOTAL 0010	2

TOPSOIL

STATION	TO STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL
US 53 NB									
676+90 -	683+60	RT TURN LANE	1,503	1,873	1	41	41		34
677+53 -	678+12	MEDIAN	459	436	0	12	12		10
678+58 -	687+35	MEDIAN	4,615	5,508	3	125	125		104
687+94	697+23	MEDIAN	5,780	4,455	4	156	156		130
697+68	698+17	MEDIAN	411	287	0	11	11		9
US 53 SB									
692+40 -	698+80	RT	1,494	1,102	1	40	40		34
STH 77 EAST									
21+17 -	21+72	RT	765	626	0	21	21		17
21+17	21+54	LT	511	366	0	14	14		12
STH 77 WEST									
8+19 -	9+73		728	588	0	20	20		16
UNDISTRIBUTED					2	91	91	30	70
		TOTAL 0010	16,266	15,241	12	530	530	30	435

EROSION CONTROL

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS (ROCK BAGS) EACH
US 53 NB								
676+90	-	683+60	RT TURN LANE	140	140	588		
677+53	-	678+12	MEDIAN	400	400	119	64	3
678+58	-	687+35	MEDIAN			1,402		3
687+94		697+23	MEDIAN			1,719	56	
697+68		698+17	MEDIAN			152		
US 53 SB								
692+40	-	698+80	RT			587		3
STH 77 EAST						0		
21+17	-	21+72	RT			196		
21+17		21+54	LT			204		3
STH 77 WEST								
8+19	-	9+65				189		
UNDISTRIBUTED (25%)				135	135	1,030	30	3
			TOTAL 0010	675	675	6,186	150	15

PERMANENT SIGNING

NO	STATION	LOCATION	CODE	SIZE (INCHES)	MESSAGE	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
1-1	674+50	SB	D10-3	12X48	MILE 186	1									EXISTING TO REMAIN
1-2		NB		108X78	WATCH FOR TURNING VEHICLES		2			58.5					NE W INSTALLATION
1-3		NB		108X78	NEXT 1\2 MILE		2			58.5					NE W INSTALLATION
1-4	670+60	NB	J1-1	36X57	JCT STH 77										EXISTING TO REMAIN
1-5	673+75	NB	J3-2	72X84	WEST STH 77 ADVANCE ARROW LT TURN WEST STH 77 ADVANCE ARROW RT TURN										EXISTING TO REMAIN
1-6	673+75	NB	R5-1A	42X30	WRONG WAY	1			8.75						
1-7	674+75	NB	D10-3	12X48	MILE 186										EXISTING TO REMAIN
1-8	676+75	NB	R5-1A	36x36	DO NOT ENTER	1			9.00						
1-9	678+00	NB	R5-1A	36x36	DO NOT ENTER	1			9.00						
1-10	677+50	NB	R3-18	36x36	NO LEFT / U TURN SYMBOL	1			9.00						
1-11	678+00	NB	R-6-1L	36X12	ONE WAY LT	2			3.00						
	678+00	NB	R1-2	36X31	YIELD				3.88						
1-12	678+25	NB	R-6-1L	24x30	ONE WAY LT	1			5.00						
1-13	678+25	NB		114X72	LT ARROW 77 EAST USE FAR RIGHT LANE LT ARROW 53		3		57.00						
1-14	678+75	SB	J3-2	72X84	NORTH/US 53/U TURN		2		42.00						
1-15	678+25	NB	R6-2L	24X30	EAST STH 77/U TURN SUPERIOR, DANBURY, HAYWARD										EXISTING TO REMAIN
1-16	682+50		R3-20-L		BEGIN LEFT TURN LANE RT ARROW	1					1			1	MOVE TO STA 679+00
1-17	682+00	NB	R3-20-LL		BEGIN LEFT TURN LANE RT ARROW	1					1			1	MOVE TO STA 676+50
2-1	683+00	SB	J3-3	108x84	NORTH\ US 53 \U TURN		2		63.00						NEW INSTALLATION
2-2	685+30	SB	J4-1		EAST\ STH 77 \U TURN SOUTH\ US 53 \AHEAD TURN SOUTH US 53										EXISTING TO REMAIN
2-3	686+90	SB	J3-3	108X84	NORTH/US 53/RIGHT ARROW EAST/ STH 77/RIGHT ARROW SOUTH /US 53/RIGHT ARROW		2		63.00						
2-4	686+90	SB	R6-1R	36X12	ONE WAY RT	2			3.00						
			R1-2	36x31	YIELD				3.88						
2-5	687+10	SB	R6-1 R	36X12	ONE WAY LT \ ONE WAY RT			1	3.00						
			R1-1	36X36	STOP				7.46						
2-6	687+50	SB	R1-1		STOP							1	1		REMOVE BECON POLE
			R6-3		DIVIDED HIGHWAY							1			
2-7	8+00	STH 77	R3-53R	24 X 30	RIGHT TURN ONLY	1			5.00						NEW INSTALLATION
2-8	7+50	STH 77	J3-2	72X84	JCT STH 77/US53 ARROWS							1	2		
					JCT 77/53		2		42.00						
2-9	7+50	STH 77	J2-1		WEST STH 77										EXISTING TO REMAIN
2-10	8+25	STH 77			WEBB LAKE 18 DANBURY 30										EXISTING TO REMAIN
2-11	688+00	SB	R1-1		STOP							1	1		REMOVE
2-12	688+25	SB	R6-2 L\R		ONE WAY LT\RT							2	1		REMOVE
2-13	688+25	SB	J3-2		STH 77 / USH 53 / ARROWS							1	1		REMOVE
2-14	690+00	SB	R5-1		WEST STH 77 DO NOT ENTER									1	EXITING TO REMAIN
2-15	691+00	SB	R5-1A		WRONG WAY										EXITING TO REMAIN
2-16	692+50	SB	J3-2		EAST\ STH 77 \ LT ARROW										EXITING TO REMAIN
2-17	693+50	SB	R3-20R		WEST\ STH 77 \RT ARROW BEGIN LEFT ARROW LT ARROW						1			1	MOVE TO BEGINNING OF TURN LANE
2-18	693+50	SB	R3-20R		BEGIN LEFT ARROW LT ARROW						1			1	MOVE TO BEGINNING OF TURN LANE
					SUBTOTAL	13	15	1	336.97	117	4	7	6	5	

PERMANENT SIGNING (CONT'D)

NO	STATION	LOCATION	CODE	SIZE (INCHES)	MESSAGE	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
2-19	683+10	NB	J3-1	36X84	WEST\ STH 77 \RT ARROW		2		21.00						
2-20	683+20	NB	R5-1A		WRONG WAY										EXISTING TO REMAIN
2-21	685+25	NB	R5-1		DO NOT ENTER										EXISTING TO REMAIN
2-22	686+75	NB	J3-2	36X84	NORTH\ US 53 \ RT ARROW STH 77 \ AHEAD ARROW							1	1		
2-23	686+75	NB	R6-2 L\R									2	1		REMOVE
			R6-2 L\R		ONE WAY LT\RT										REMOVE
2-24	687+00	NB	R1-1		STOP							1	1		REMOVE
2-25	686+50	NB	J3-2	72X84	EAST\ STH 77 \ RT ARROW WEST\ STH 77 \LT ARROW		2		42.00						
2-26	687+50	NB	R1-2	36x31	YIELD	2			3.88						
			R6-1 L	36X12	ONE WAY RT				3.00						
2-27	20+35	STH 77	R1-1		STOP							1	1		REMOVE
			R6-3		DIVIDED HIGHWAY							1			
2-28	22+10	STH 77	J2-1		EAST STH 77										EXISTING TO REMAIN
2-29		STH 77			SPEED LIMIT 35										EXISTING TO REMAIN
2-30		STH 77	J1-2		JCT\US 53\LT ARROW	1			13.00						
2-31	21+70	STH 77	R3-53R	24 X 30	RIGHT TURN ONLY	1			5.00						
2-32	21+60	STH 77	R6-2 L	36X12	ONE WAY RT	1			3.00						
			R1-1	36X36	STOP				7.46						
2-33	688+50	NB	R6-2 L\R		ONE WAY LT\RT							1	1		REMOVE
			R6-2 L\R		ONE WAY LT\RT							1			REMOVE
2-35	688+50	NB	J3-3	108X84	SOUTH/US 53/RIGHT ARROW WEST/STH 77/RIGHT ARROW NORTH/US 53/RIGHT ARROW		2		63.00						
2-36	692+50	NB	J1-1	36X57	NORTH US 53										EXISTING TO REMAIN
2-37	692+00	NB	J3-3	108X84	SOUTH\ US 53 \U TURN WEST\ STH 77 \U TURN NORTH\ US 53 \AHEAD ARROW		2		63.00						
2-38	692+60	NB			WALLACE ST										EXISTING TO REMAIN
2-39	691+50	SB		78X21	MINONG LT	2			11.38						
2-40	683+00	NB		78X12	MINONG RT	2			11.38						
2-42	692+50	SB	J3-1	36X84	EAST \ STH 77 \ LT ARROW										
3-1	695+50	SB	R6-2L	24X30	SUPERIOR, DANBURY, HAYWARD						1			1	MOVE
3-2	698+10			114X72	LT ARROW 77WEST USE FAR RIGHT LANE LT ARROW 53		3		57.00						.
3-3	698+05	SB	R6-2L	24x30	ONE WAY LT	1			5.00						
3-4	698+10	SB	R6-1L	36X12	ONE WAY LT		1		3.00						
			R1-2	48X42	YIELD				7.00						
3-5	698+10	SB	R5-1	36x36	DO NOT ENTER	1			9.00						
3-6	698+25	SB	R3-18	36x31	NO LEFT / U TURN SYMBOL	1			6.88						
3-7	699+00	SB	R5-1	36x36	DO NOT ENTER	1			9.00						
3-8	701+00	SB	J2-2	72X84	WEST/STH77/AHEAD LT ARROW EAST/STH77/AHEAD RT ARROW		2								EXISTING TO REMAIN
3-9	701+30	SB	R5-1A	42X30	WRONG WAY	1			8.75						
3-10		SB		108X78	WATCH FOR TURNING VEHICLES		2		58.50						
3-11		SB			NEXT 1\2 MILE		2		58.50						
3-12	696+00	SB	J3-2	72X84	SOUTH\ US 53 \U TURN WEST\ STH 77 \U TURN		2		42.00						
					SUBTOTAL	14	20	0	511.73	0	1	8	5	1	
					TOTAL 0010	27	35	1	848.70	117	5	15	11	6	

3

FIELD OFFICE

CATEGORY	642.5201 FIELD OFFICE TYPE C EACH
0010	1
	1

TRAFFIC CONTROL

643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1051 TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS DAY	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	REMARKS
17,020	3,036	6,072	6,440	184	3,496	14	1,320	STAGE 1
19,504	920	1,840	3,588	184	3,496	14	1,320	STAGE 2
14,444	2,852	5,704	5,336	184	3,496	0	1,320	STAGE 3
50,968	6,808	13,616	15,364	552	10,488	28	3,960	

PAVEMENT MARKING

STATION	TO	STATION	LOCATION	A, C, D 646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	B 646.1545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH LF	E 646.3020 MARKING LINE EPOXY 8-INCH LF	F 646.3545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH LF	646.5020 MARKING ARROW EPOXY EACH	I 646.6120 MARKING STOP LINE EPOXY 18-INCH LF	G 646.6220 MARKING YIELD LINE EPOXY 18-INCH EACH	H 646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	REMARKS
676+50'NB'	-	687+53'NB'	LT\RT	2,965	300	664	80	-	-	-	-	
20+00 WIS 77	-	22+52 WIS 77	LT\RT	341	-	-	-	-	28	-	-	
7+50 WIS 77	-	10+00 WIS 77	LT\RT	582	-	-	-	-	30	-	-	
687+55'NB' CROSSOVER			LT\RT	-	-	-	-	-	-	44	-	
687+53'NB	-	698+50'NB'	LT\RT	2,253	278	886	-	-	-	31	-	INCLUDES LT TURN LANE
677+00'SB'	-	687+00'SB'	LT\RT	2,262	250	-	896	-	-	36	-	INCLUDES LT TURN LANE
687+00'SB'	-	699+57'SB'	LT\RT	2,503	313	75	57	-	-	-	252	
				500	1,113	57	2,010	2	-	-	-	
			TOTAL 0010	11,406	2,253	1,682	3,043	2	58	111	252	

STAKING

STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
US 53 NB							
677+50		680+00	LT	115	115	115	R-CUT
676+90	-	683+55	RT	670	670	670	TURN LANE
677+90		697+19	LT	760	760	760	TURN LANE
687+95		697+19	LT	775	775	775	TURN LANE
697+68		690+60	LT	87	87	87	R-CUT
77 EAST							
20+24		21+70	LT	210	210	210	
20+24		21+70	RT	220	220	220	
US 53 SB							
678+64		687+56	RT	760	760	760	TURN LANE
688+97		697+48	RT	850	850	850	TURN LANE
692+40		698+04	LT	645	645	645	TURN LANE
77 WEST							
8+18		9+72	RT	225	225	225	
			TOTAL 0010	5,317	5,317	5,317	

TRAFFIC CONTROL

STATION	TO	STATION	LOCATION	643.5000 TRAFFIC CONTROL EACH
676+90	-	698+00		1
			TOTAL 0010	1

STAKING

STATION	TO	STATION	LOCATION	650.8500.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (1195-01-76) (01. TBD) LS
687+70	-	679+12		1
			TOTAL 0010	1

3

STAKING

Y	STATION	TO	STATION	LOCATION	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1195-01-76) LS
	676+90	-	698+00		1
				TOTAL 0010	1

PULL BOXES

LOCATION	653.0154 PULL BOXES NON-CONDUCTIVE 24X36-INCH EACH	653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
LPB1		1
LPB2		1
LPB3		1
LPB4	1	
LPB5	1	
LPB6	1	
LPB7	1	
LPB8		1
LPB9		1
LPB10		1
LPB11	1	
LPB12	1	
LPB13	1	
LPB14	1	
LPB15		1
LPB16		1
TOTAL 0010	8	8

POLES

LOCATION	654.0106 CONCRETE BASES TYPE 6 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT EACH	657.0327 POLES TYPE 6-ALUMINUM EACH	657.0715 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15· EACH	659.1120 LUMINAIRES UTILITY LED B EACH
A-1	1	1	1	1	1
A-2	1	1	1	1	1
A-3	1	1	1	1	1
A-4	1	1	1	1	1
A-5	1	1	1	1	1
A-6	1	1	1	1	1
A-7	1	1	1	1	1
A-8	1	1	1	1	1
A-9	1	1	1	1	1
A-10	1	1	1	1	1
TOTAL 0010	10	10	10	10	10

CONDUIT

STATION	TO	STATION	LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF
A-2	-	A-3		54			180	192
A-3	-	LPB7		102			180	336
LPB7	-	LPB6		199				627
LPB6	-	LPB5		199				627
LPB5	-	LPB4		198				624
LPB4	-	A-4		102				336
A-4	-	LPB3		64			180	222
A-9	-	LPB3		39			180	294
LPB3	-	LPB2			95			315
LPB2	-	A-1		16				78
A-1	-	LPB1		117			180	381
LPB1	-	LCC-A				30		150
A-6	-	A-7		43			180	159
A-7	-	LPB14		130			180	420
LPB14	-	LPB13		203				639
LPB13	-	LPB12		202				636
LPB12	-	LPB11		201				633
LPB11	-	A-8		120				390
A-5	-	LPB8		28			180	114
LPB8	-	LPB9			73			249
LPB9	-	A-10		61				213
A-10	-	LPB-10		59			180	207
A-8	-	LPB10		36			180	276
LPB10	-	LPB15			120			390
LPB15	-	LPB16		145				465
LPB16	-	LPB1		61				213
LPB16	-							
			TOTAL 0010	2,379	288	30	1,800	9,186

SAWING

STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
US 53 NB					
676+90	-	683+60	RT	685	
677+90	-	683+65	LT	600	
686+45		689+15	RT	275	
686+45		689+05	LT	1,190	
US 53 SB	-				
679+13	-	689+45	RT	1,220	
686+14	-	687+63	LT	160	
691+70	-	698+35	RT	680	
692+38	-	698+80	LT	660	
STH 77 WEST					
8+20	-	9+85	RT	100	
9+00	-	9+62	LT	185	
STH 77 EAST	-				
20+70	-		LT/RT	32	5
	-				
		TOTAL 0010		5,787	5

LIGHTING CONTROL CABINET

LOCATION	654.0224 CONCRETE CONTROL CABINET BASES TYPE L24 EACH	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) (01. TBD) LS	659.2124 LIGHTING CONTROL CABINETS 120/240 24-INCH EACH
A	1	1	1
TOTAL 0010	1	1	1

3

PI STA = 693+78.24
Y = 669089.592
X = 753666.462
DELTA = 65°26'03"
D = 1°45'00"
T = 2103.28'
L = 3739.10'
R = 3274.05'
PC STA = 672+74.95
Y = 667097.421
X = 754341.039
PT STA = 710+14.06
Y = 670531.328
X = 755197.867
BK = N18°42'24.5"W
AH = N46°43'39.0"E
SE = 0.046

ASTREA (CCI/PACKERLAND)

SIGN

USH 53

USH 53 SB

USH 53 NB

677+00
678+00
679+00
680+00
681+00
682+00
683+00
684+00

SLOPE INTERCEPT

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH
TYPE D

BEGIN PROJECT
STA 676+90.00
Y=667,476.196
X=754,391.767

STA 677+73.8, 75.7' LT 'NB' TO
STA 678+95.0, 76.6' LT 'NB'
1 - 24" x 124' CPRC CLASS IV
2 - 24" APRON ENDWALLS FOR CULVERT PIPE
INV EL - N = 1046.37
INV EL - S = 1045.05
4.0 CY RIPRAP MEDIUM LT

PI STA = 694+39.18
Y = 669127.376
X = 753812.051
DELTA = 65°29'55"
D = 1°45'00"
T = 2105.88'
L = 3742.78'
R = 3274.05'
PC STA = 673+33.30
Y = 667132.785
X = 754487.578
PT STA = 710+76.08
Y = 670569.260
X = 755346.880
BK = N18°42'36.7"W
AH = N46°47'18.3"E
SE = 0.046

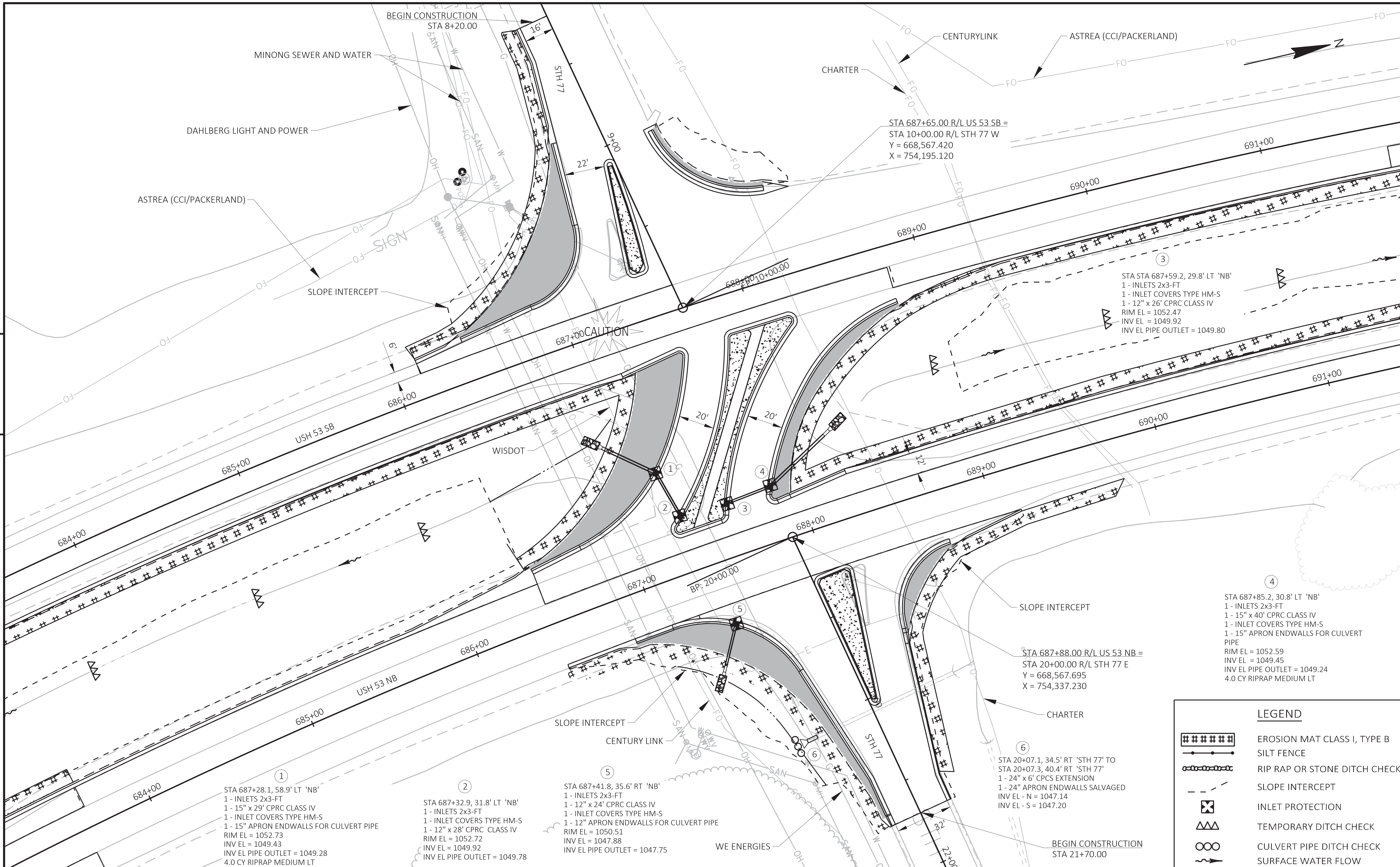
SLOPE INTERCEPT

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- SURFACE WATER FLOW

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	PLAN SHEET AND EROSION CONTROL	SHEET 46	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01
PLOT DATE : 7/30/2020 7:13 PM
PLOT BY : NICK ENGH
PLOT NAME :
PLOT SCALE : 1 IN:50 FT


BEGIN CONSTRUCTION
STA 8+20.00
MINONG SEWER AND WATER
DAHLBERG LIGHT AND POWER
ASTREA (CCI/PACKERLAND)
SLOPE INTERCEPT
CENTURYLINK
ASTREA (CCI/PACKERLAND)
CHARTER
STA 687+65.00 R/L US 53 SB =
STA 10+00.00 R/L STH 77 W
Y = 668,567.420
X = 754,195.120
STH 77
USH 53 SB
USH 53 NB
WISDOT
CAUTION
SIGN
3
STA STA 687+59.2, 29.8' LT 'NB'
1 - INLETS 2x3-FT
1 - INLET COVERS TYPE HM-S
1 - 12" x 26' CPRC CLASS IV
RIM EL = 1052.47
INV EL = 1049.92
INV EL PIPE OUTLET = 1049.80
4
STA 687+85.2, 30.8' LT 'NB'
1 - INLETS 2x3-FT
1 - 15" x 40' CPRC CLASS IV
1 - INLET COVERS TYPE HM-S
1 - 15" APRON ENDWALLS FOR CULVERT PIPE
RIM EL = 1052.59
INV EL = 1049.45
INV EL PIPE OUTLET = 1049.24
4.0 CY RIPRAP MEDIUM LT
SLOPE INTERCEPT
STA 687+88.00 R/L US 53 NB =
STA 20+00.00 R/L STH 77 E
Y = 668,567.695
X = 754,337.230
CHARTER
SLOPE INTERCEPT
CENTURY LINK
WE ENERGIES
BEGIN CONSTRUCTION
STA 21+70.00
1
STA 687+28.1, 58.9' LT 'NB'
1 - INLETS 2x3-FT
1 - 15" x 29' CPRC CLASS IV
1 - INLET COVERS TYPE HM-S
1 - 15" APRON ENDWALLS FOR CULVERT PIPE
RIM EL = 1052.73
INV EL = 1049.43
INV EL PIPE OUTLET = 1049.28
4.0 CY RIPRAP MEDIUM LT
2
STA 687+32.9, 31.8' LT 'NB'
1 - INLETS 2x3-FT
1 - INLET COVERS TYPE HM-S
1 - 12" x 28' CPRC CLASS IV
RIM EL = 1052.72
INV EL = 1049.92
INV EL PIPE OUTLET = 1049.78
5
STA 687+41.8, 35.6' RT 'NB'
1 - INLETS 2x3-FT
1 - 12" x 24' CPRC CLASS IV
1 - INLET COVERS TYPE HM-S
1 - 12" APRON ENDWALLS FOR CULVERT PIPE
RIM EL = 1050.51
INV EL = 1047.88
INV EL PIPE OUTLET = 1047.75
6
STA 20+07.1, 34.5' RT 'STH 77' TO
STA 20+07.3, 40.4' RT 'STH 77'
1 - 24" x 6' CPCS EXTENSION
1 - 24" APRON ENDWALLS SALVAGED
INV EL - N = 1047.14
INV EL - S = 1047.20
LEGEND
EROSION MAT CLASS I, TYPE B
SILT FENCE
RIP RAP OR STONE DITCH CHECK
SLOPE INTERCEPT
INLET PROTECTION
TEMPORARY DITCH CHECK
CULVERT PIPE DITCH CHECK
SURFACE WATER FLOW
5
5

PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	PLAN SHEET AND EROSION CONTROL	SHEET 47	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02
PLOT DATE : 11/5/2020 2:16 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

5

N

ASTREA (CCI/PACKERLAND)

SLOPE INTERCEPT

SIGN

691+00 692+00 693+00 694+00 695+00 696+00 697+00 698+00

USH 53 SB

USH 53 NB

SLOPE INTERCEPT

STA 696+86.5, 62.6' LT 'NB' TO
STA 697+95.8, 60.8' LT 'NB'
1 - 24" x 112' CPRC CLASS IV
2 - 24" APRON ENDWALLS FOR CULVERT PIPE
INV EL - N = 1045.00
INV EL - S = 1044.35
4.0 CY RIPRAP MEDIUM LT

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- SURFACE WATER FLOW

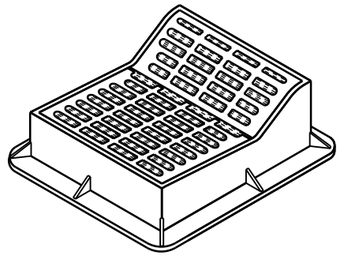
PROJECT NO: 1195-01-76	HWY: USH 53	COUNTY: WASHBURN	PLAN SHEET AND EROSION CONTROL	SHEET 48	E

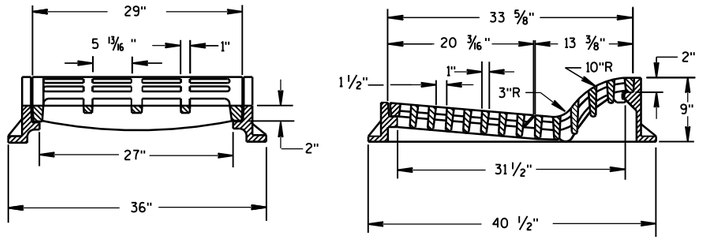
FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03
PLOT DATE : 7/30/2020 7:13 PM
PLOT BY : NICK ENGH
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

Standard Detail Drawing List

08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-10	CONDUIT
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15E	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)
09E02-05	FREEWAY LIGHTING UNIT POLE WIRING
11B02-02	CONCRETE MEDIAN NOSE
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-05A	FLEXIBLE DELINEATOR POST
15A04-05B	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A04-05C	DELINEATOR POST WITH REFLECTIVE SHEETING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C20-02	YIELD MARKING
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D12-08B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D21-06A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-06B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D29-06	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING

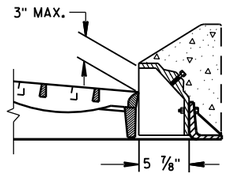
6





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

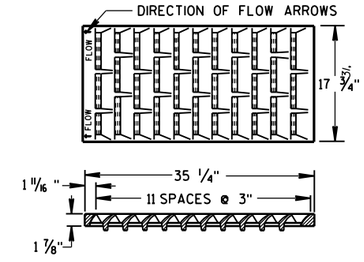
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

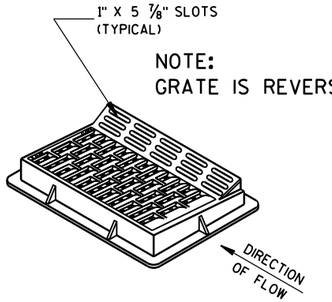
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

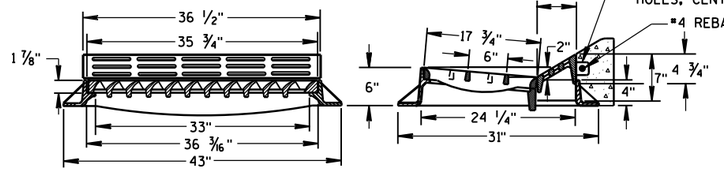
GENERAL NOTES

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



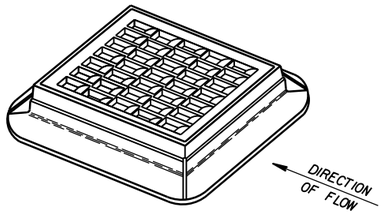


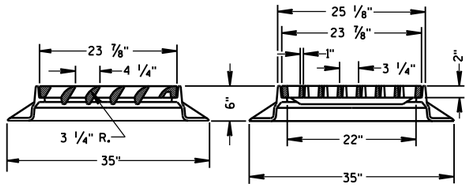


TYPE "HM"

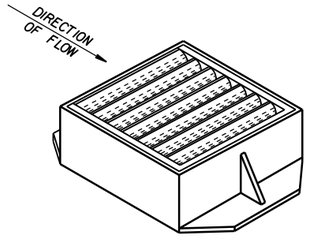
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

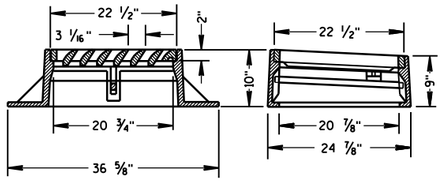
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



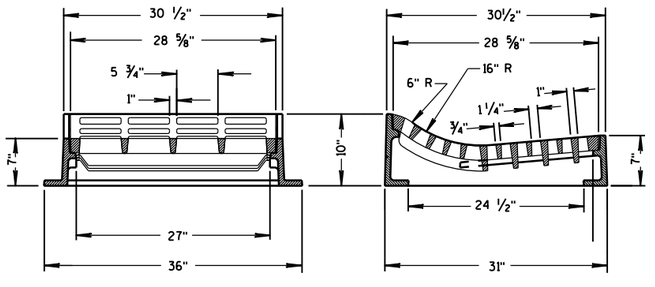


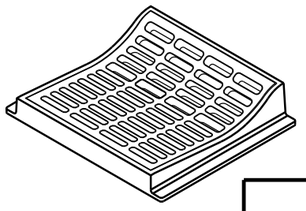
TYPE "S"





TYPE "V"





TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

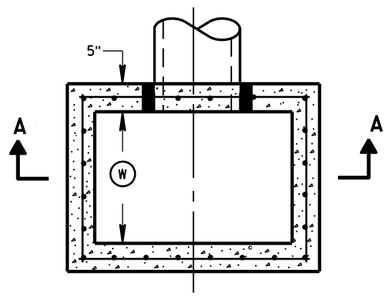
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

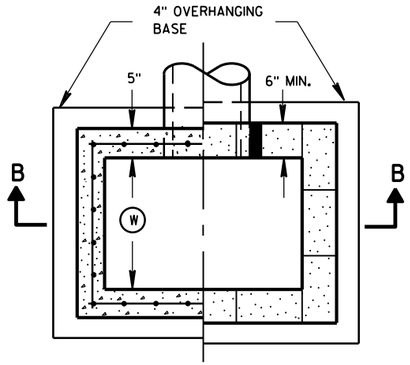
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

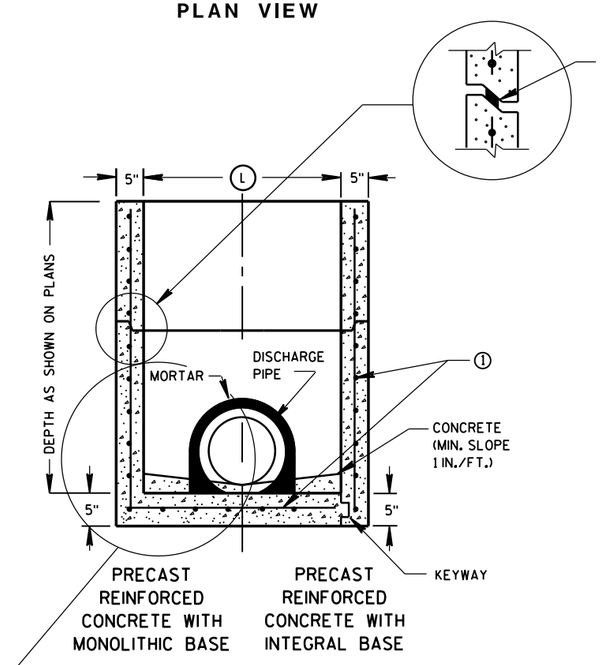
6
S.D.D. 8 A 5-19c



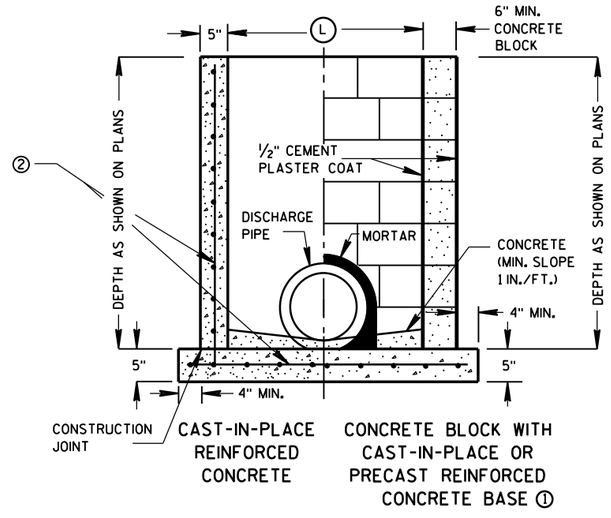
PLAN VIEW



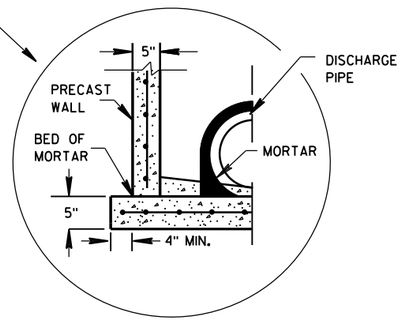
PLAN VIEW



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 FOUNDATION 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.

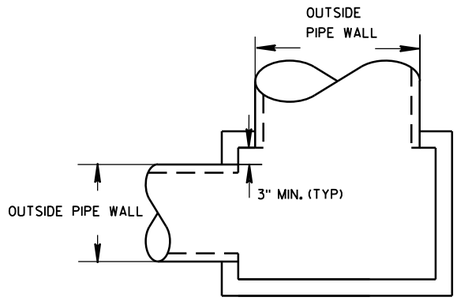
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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



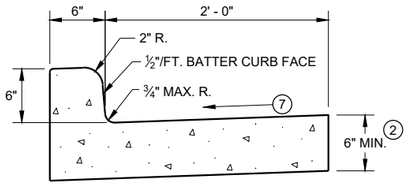
DETAIL "A"

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

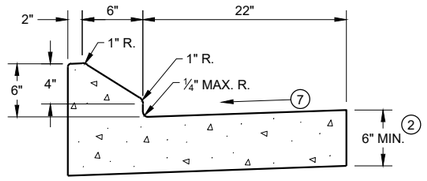
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT UNIT SUPERVIS
FHWA

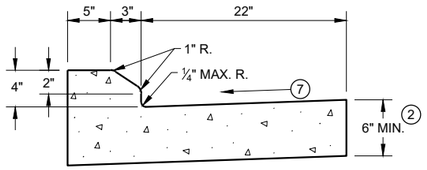
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT



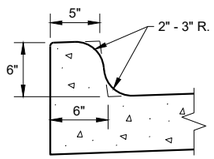
TYPES A (1) & D



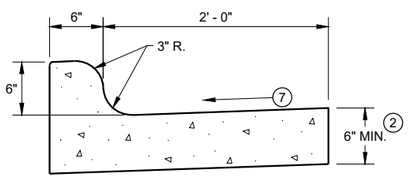
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

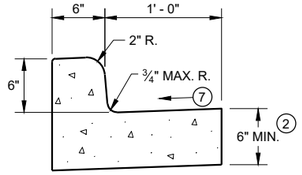


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



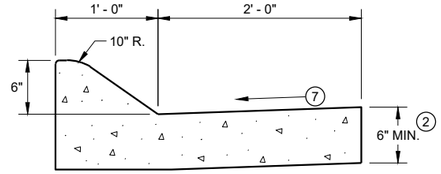
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

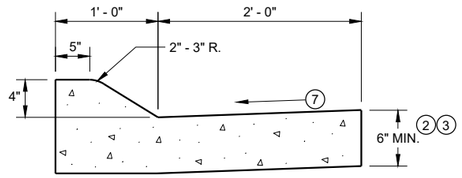


TYPES A (1) & D

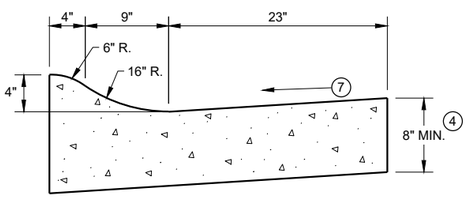
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D



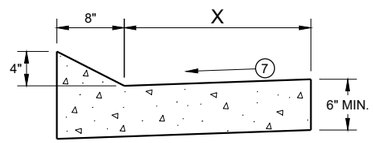
4" SLOPED CURB TYPES A (1) & D



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

CONCRETE CURB AND GUTTER 36"

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

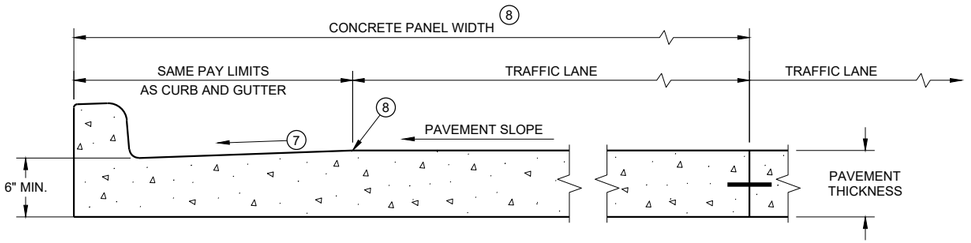


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

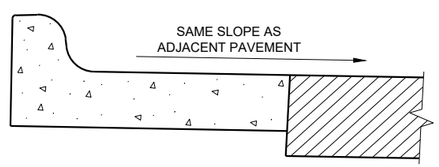
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

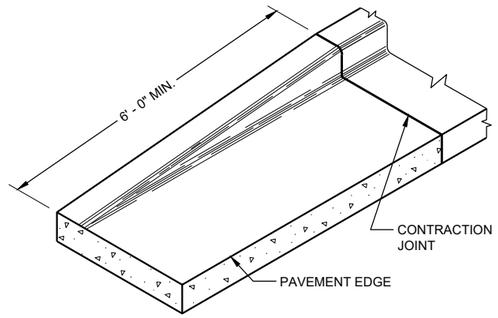
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

CONCRETE CURB AND GUTTER

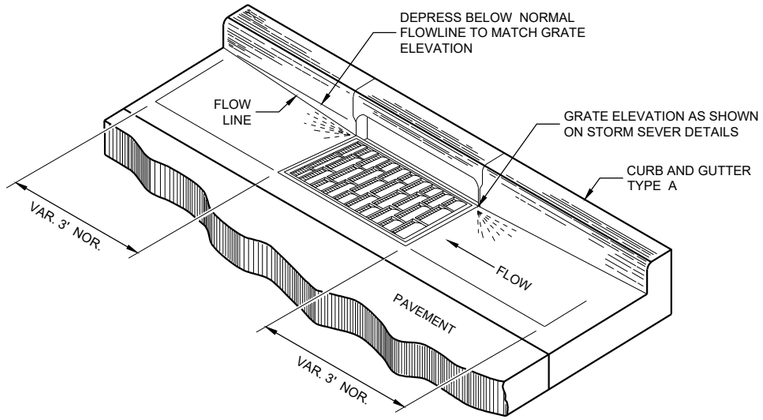
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 21a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

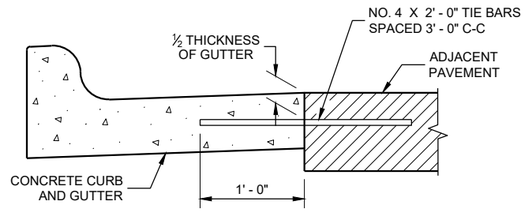
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

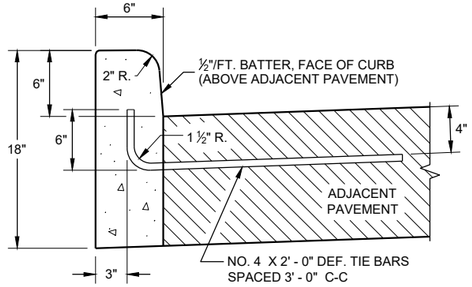
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

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

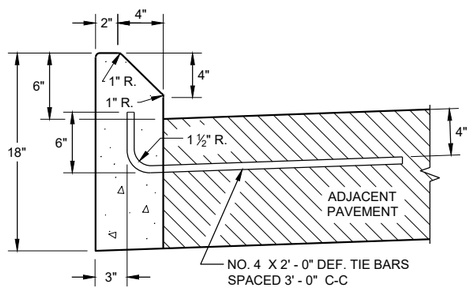
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

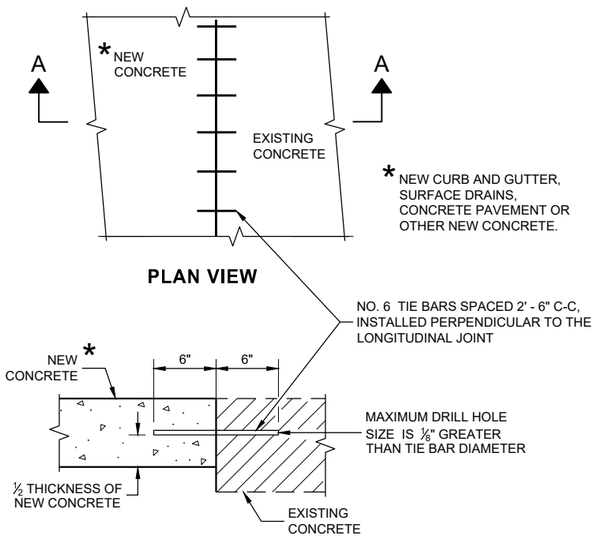


TYPES A (1) & D



TYPES G (1) & J

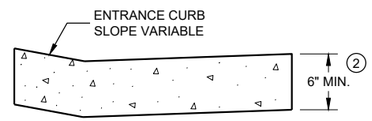
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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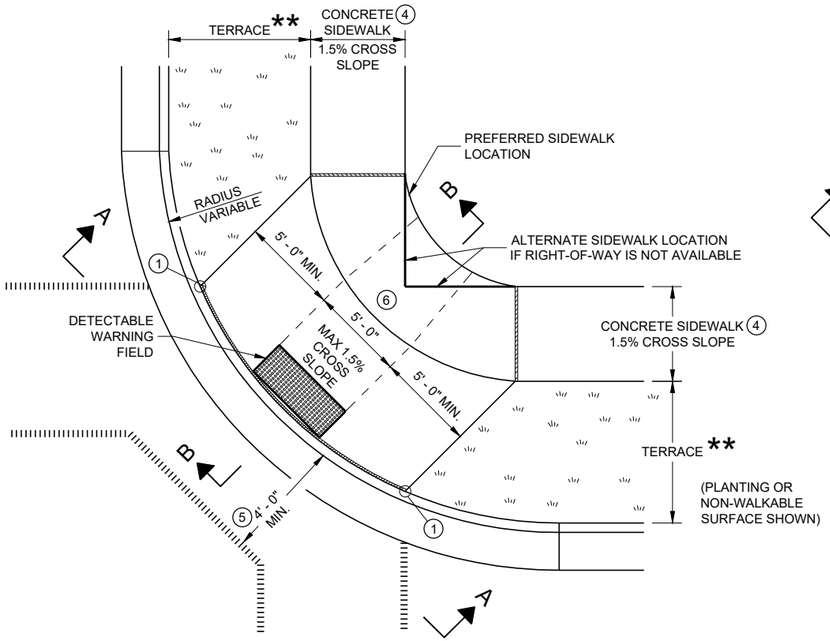
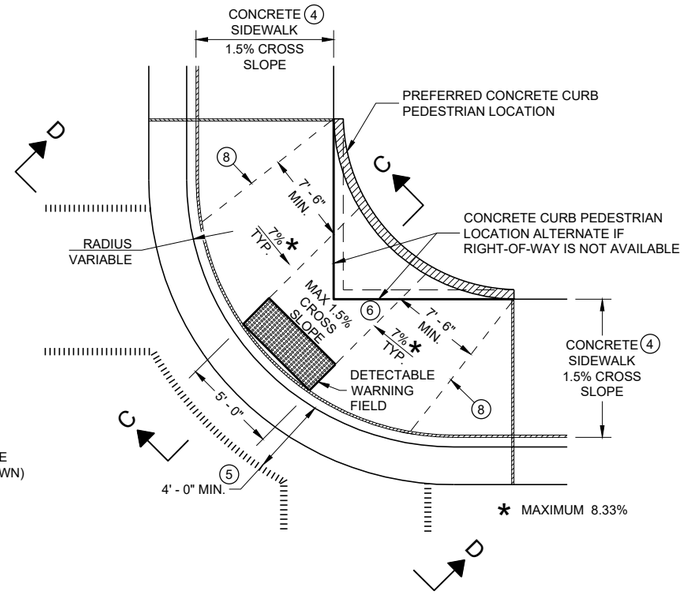
SDD08D01 - 21b



PLAN VIEW

CURB RAMP TYPE 1

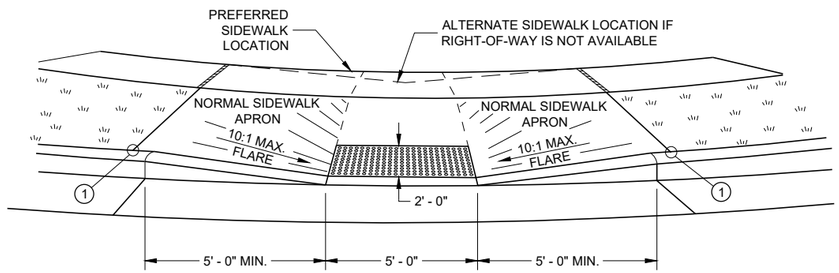
(CENTER OF CORNER RADIUS)



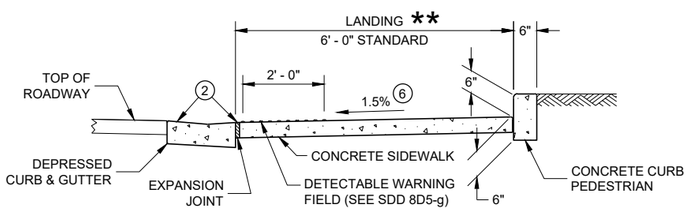
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

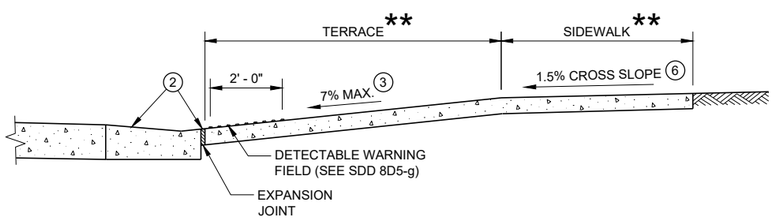


VIEW A - A FOR TYPE 1

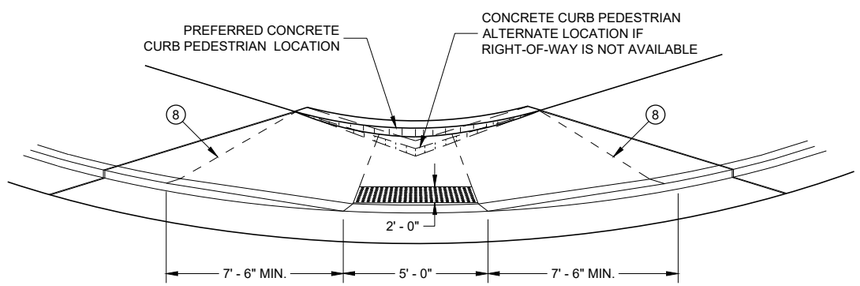


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

DETECTABLE WARNING FILED 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 LINEAR 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. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

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

LEGEND

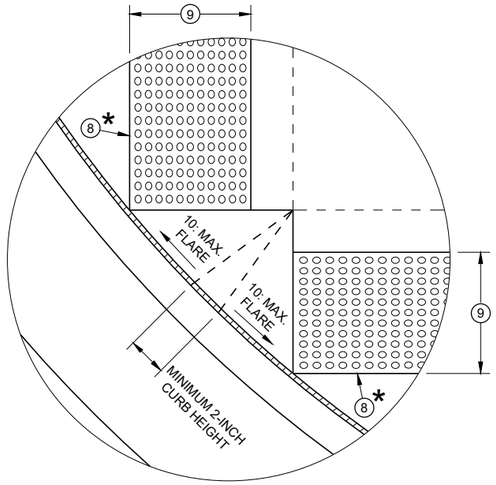
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

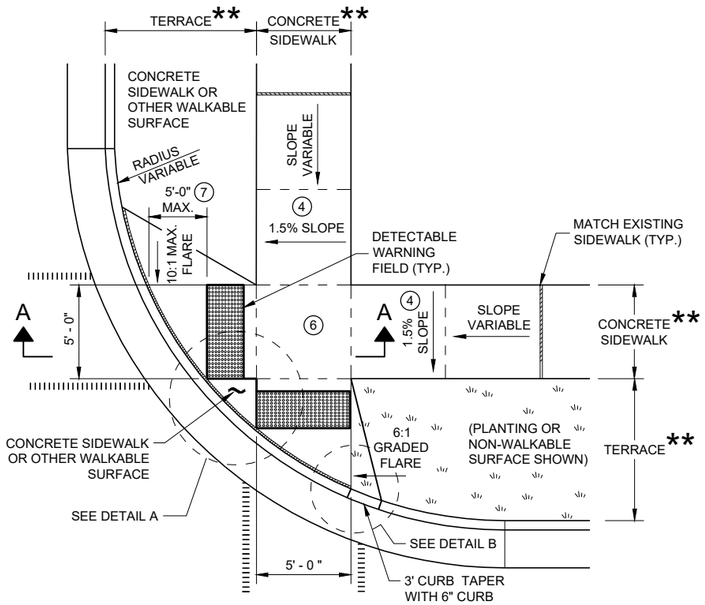
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20a
SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

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

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.

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

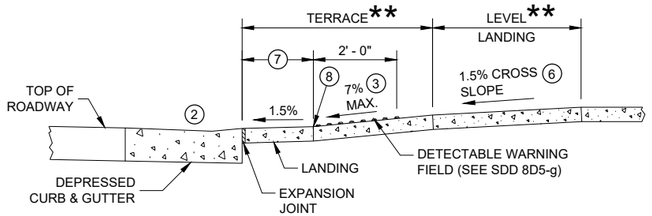
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

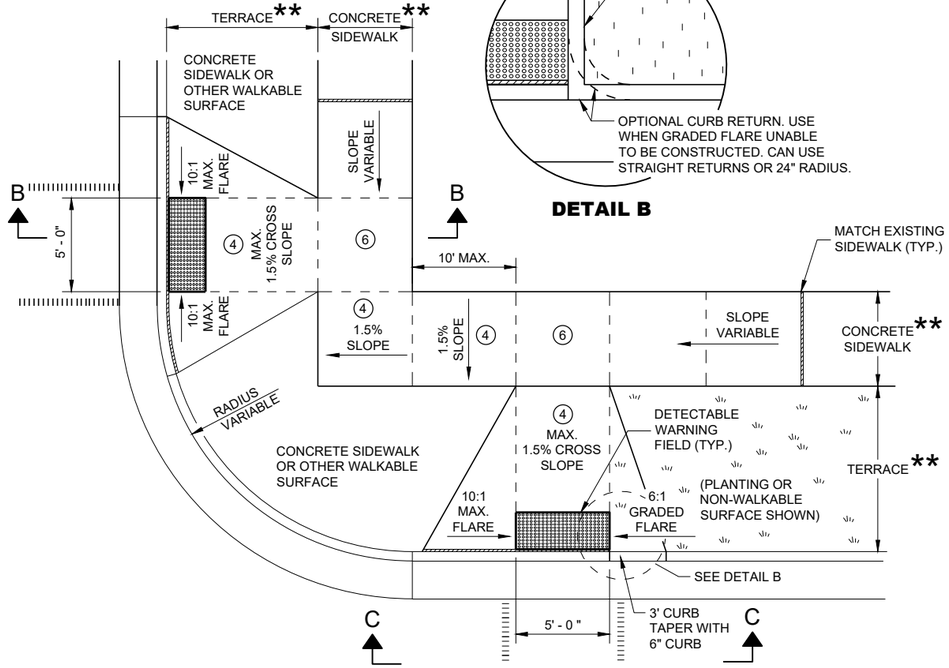
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



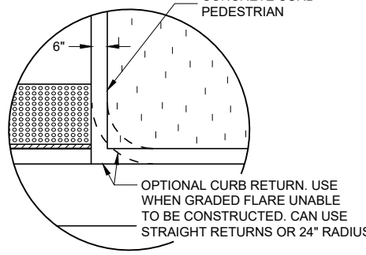
SECTION A - A FOR TYPE 2

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

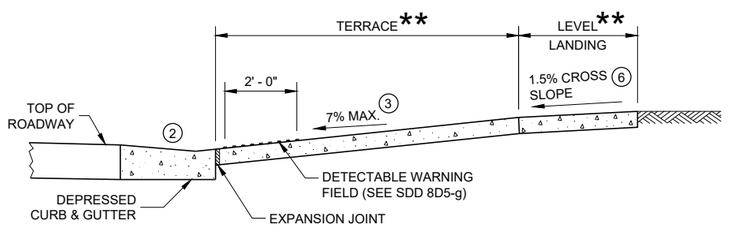
** WIDTH SHOWN ELSEWHERE IN THE PLANS



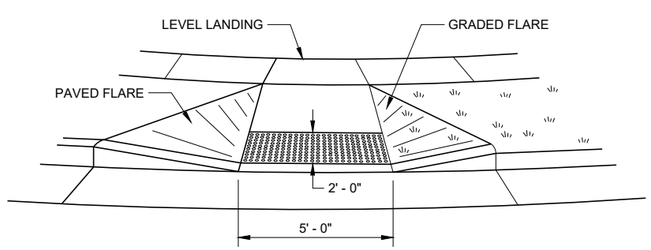
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



DETAIL B



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

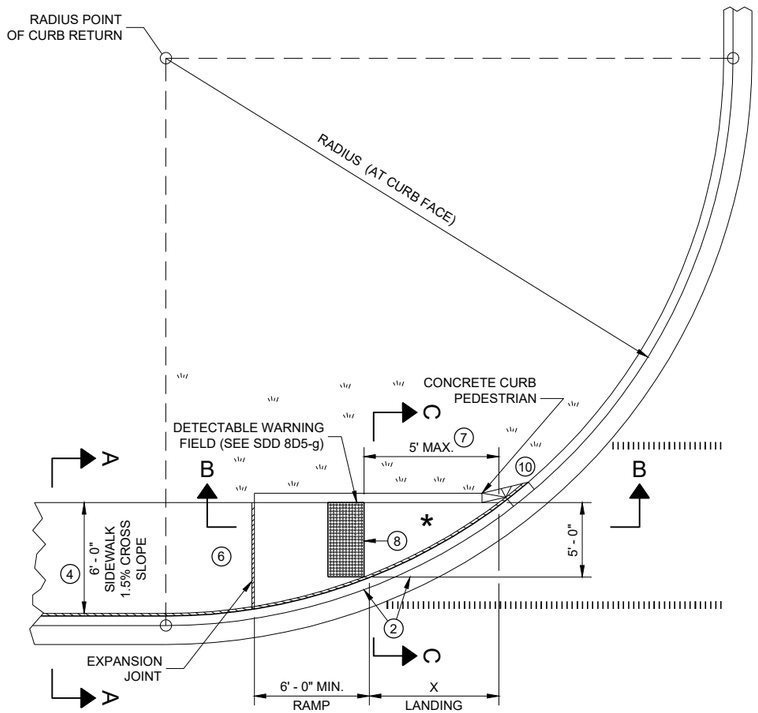
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

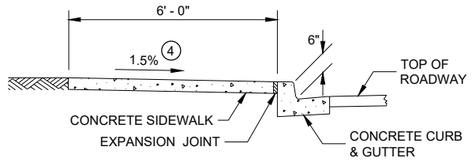


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

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

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.

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

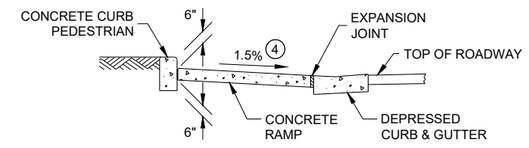
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

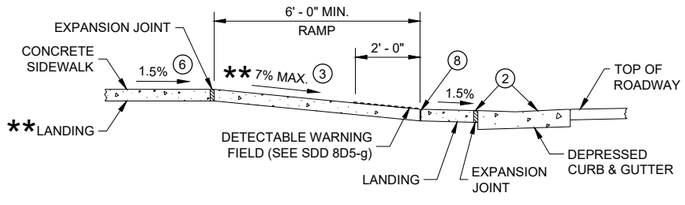
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



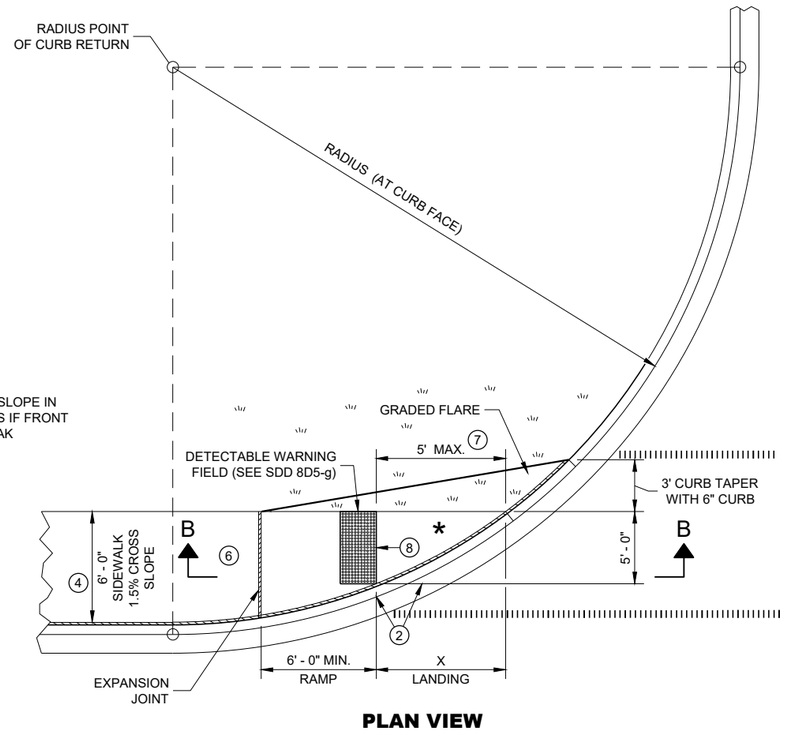
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

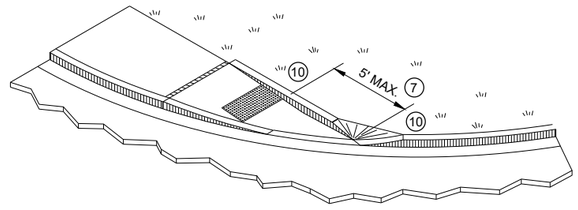
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

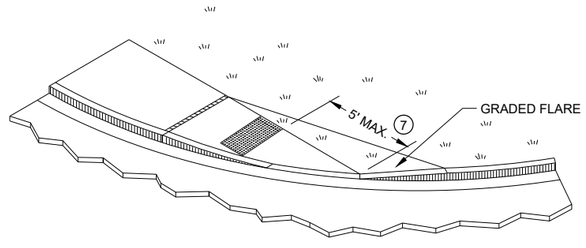


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A

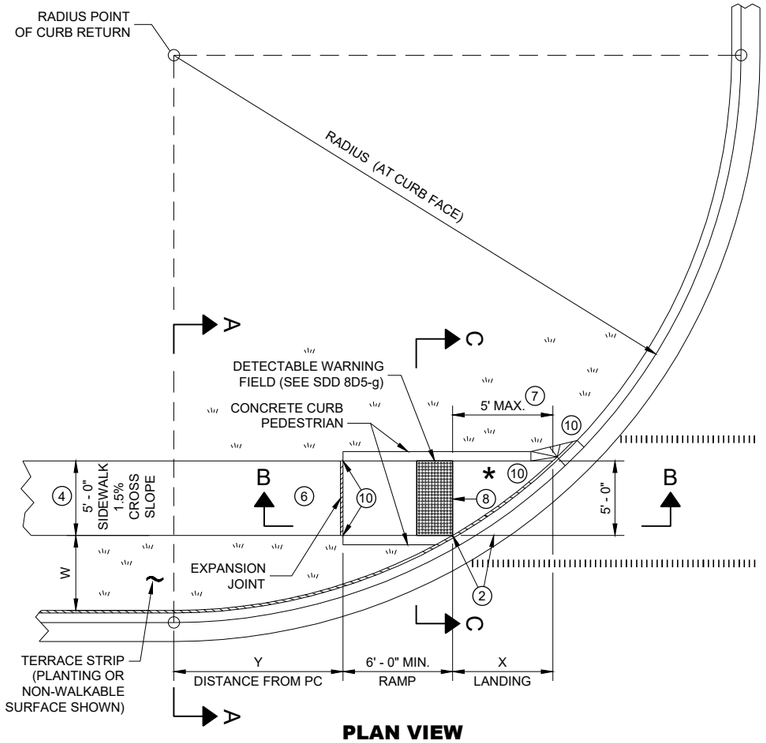


ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D05 - 20c

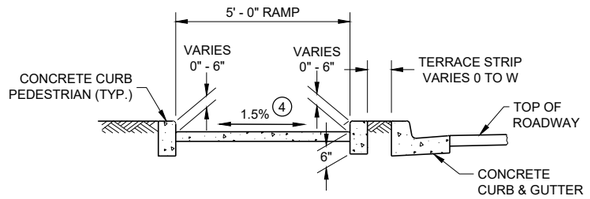


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

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

GENERAL NOTES

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

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.

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

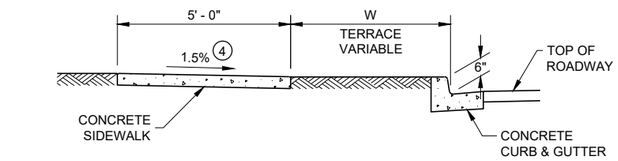
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

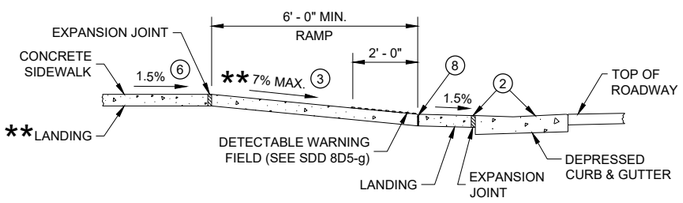
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

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



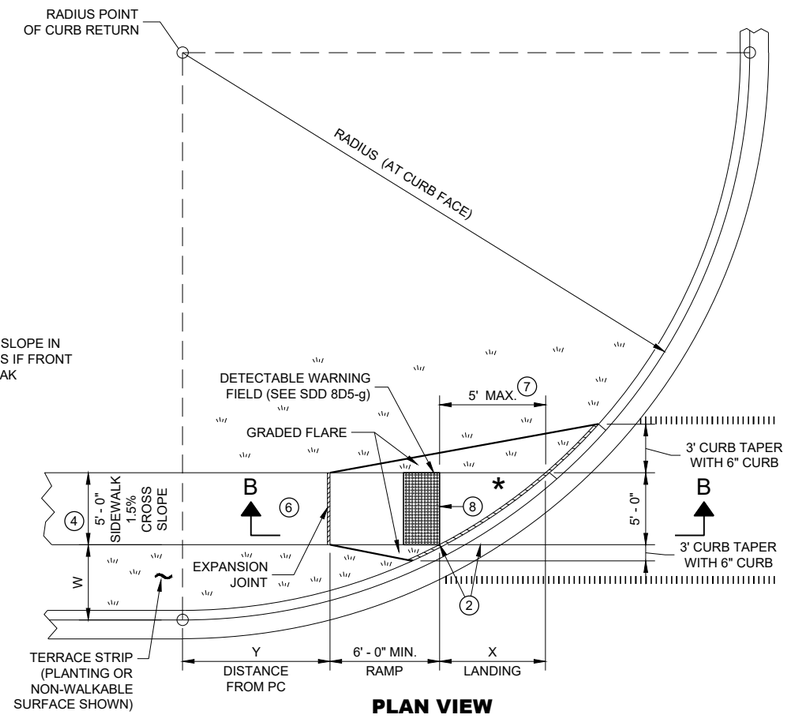
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

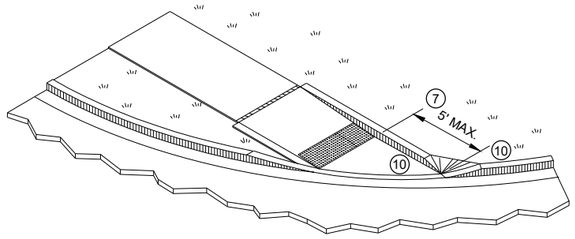
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

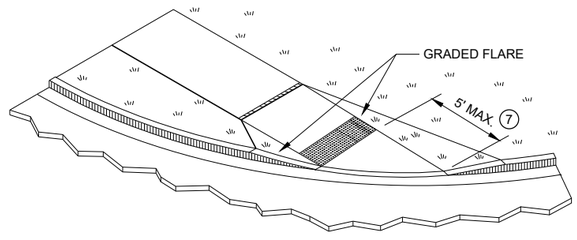


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



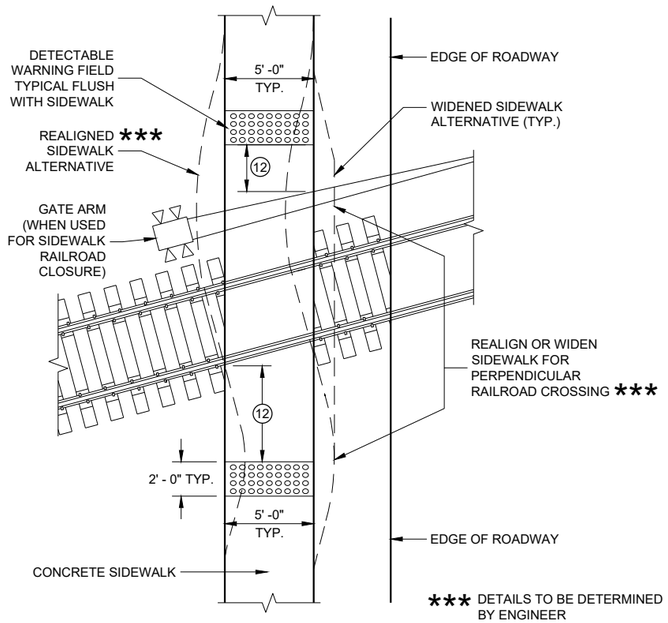
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

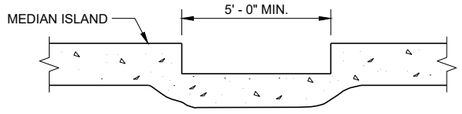
6

SDD 08D05 - 20d

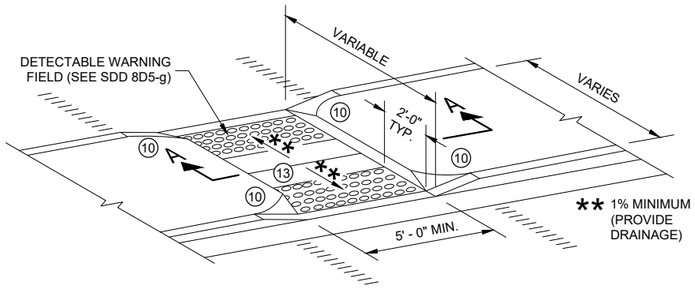


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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.

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

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

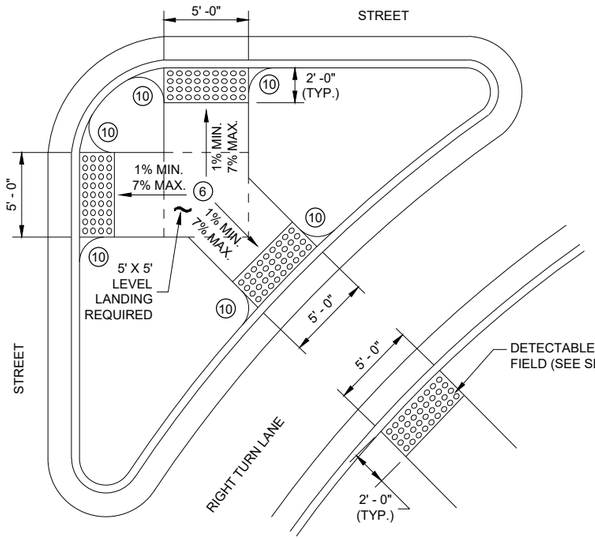
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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 AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

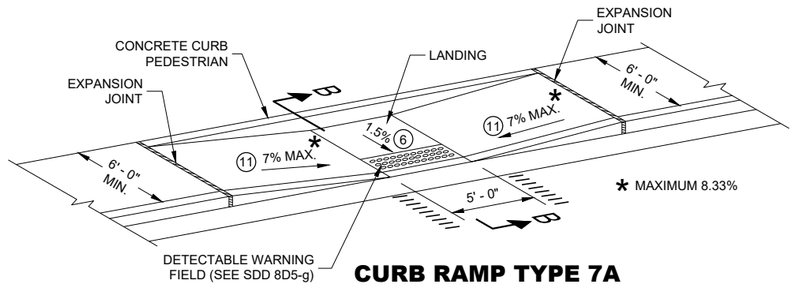
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

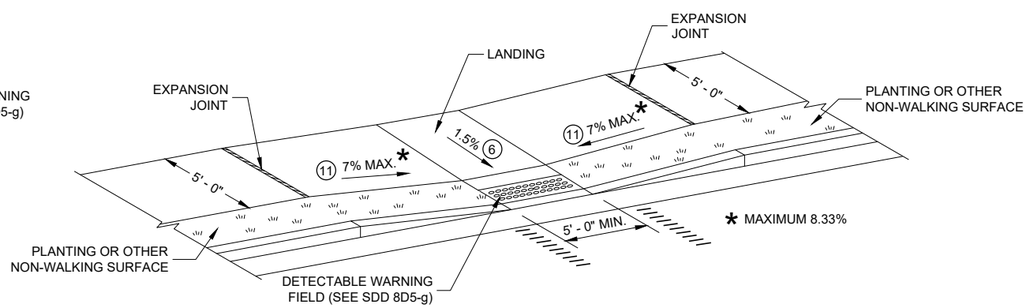
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

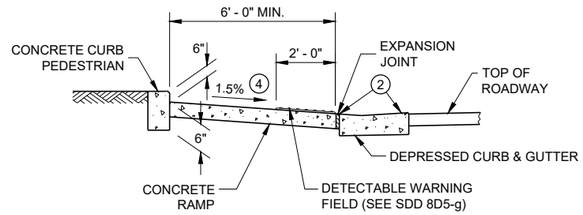
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

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

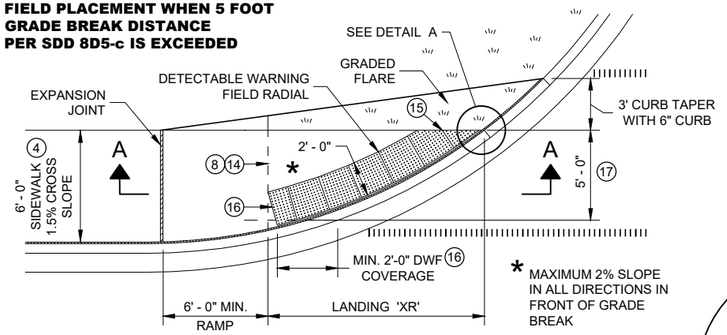


SECTION B - B FOR TYPE 7A

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

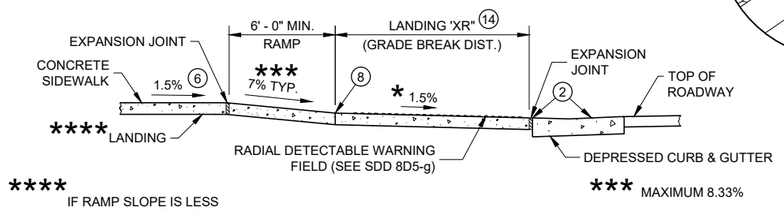
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

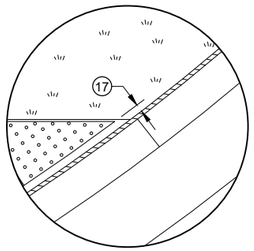
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

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

GENERAL NOTES

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

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.

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 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 BY 5 FEET.

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

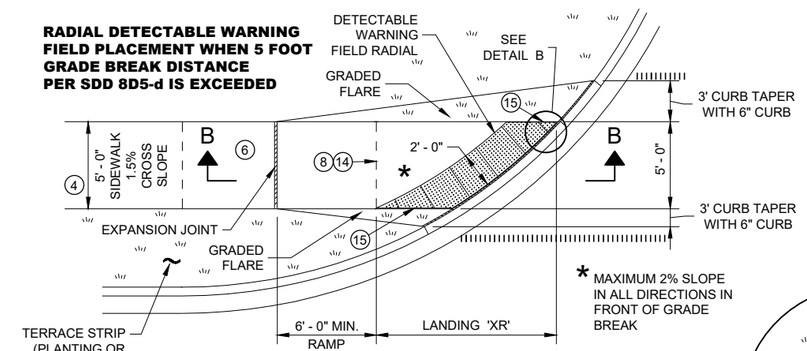
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

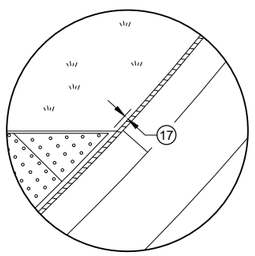
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



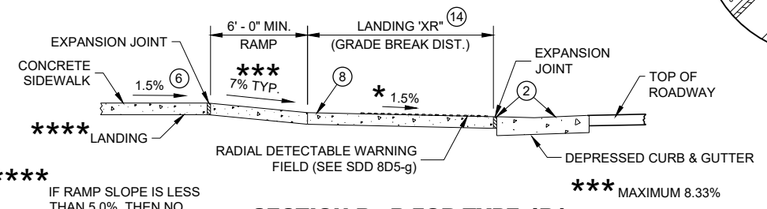
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

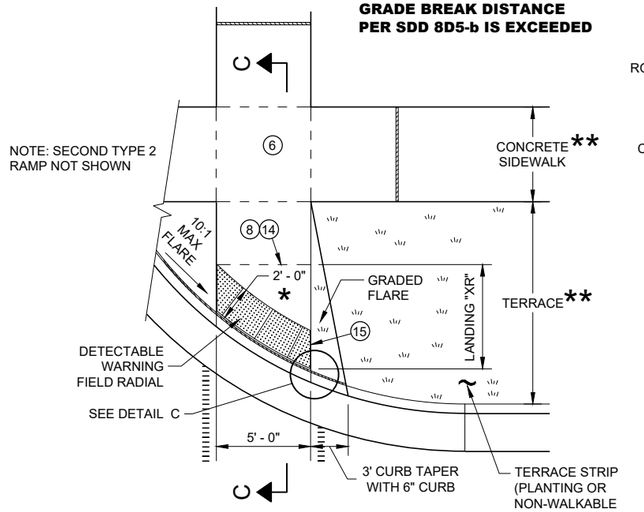


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

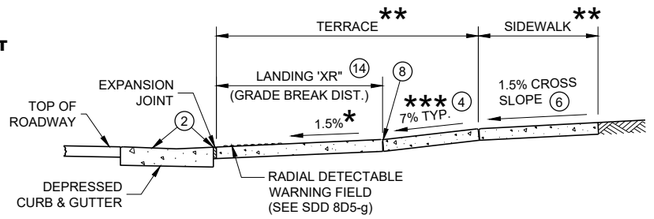


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

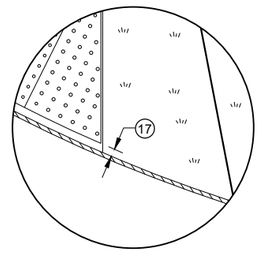


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



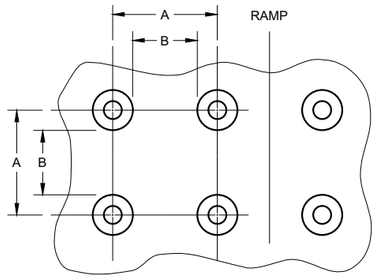
DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

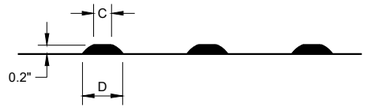
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	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.

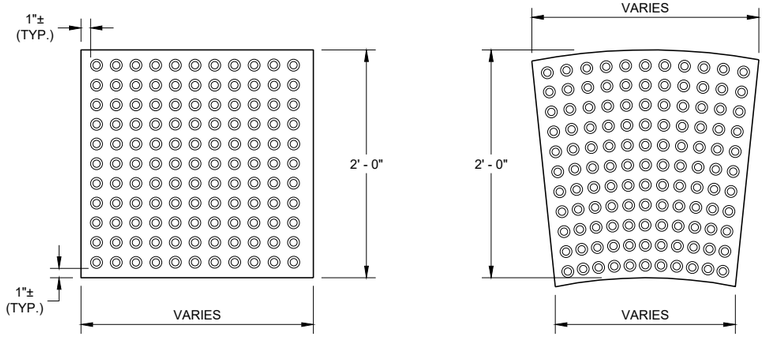


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

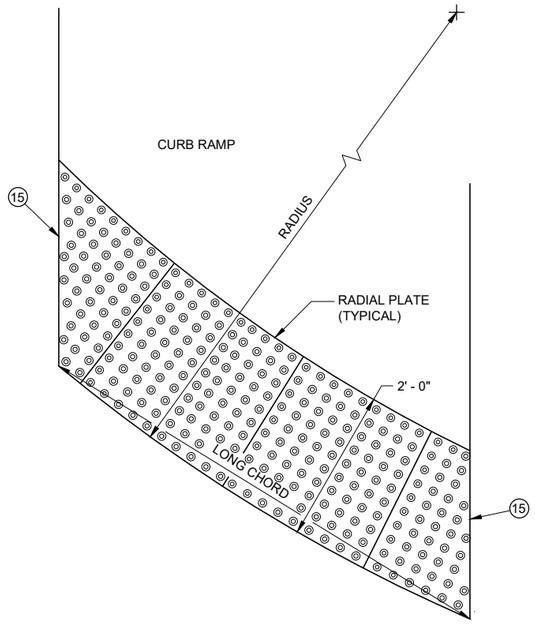
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

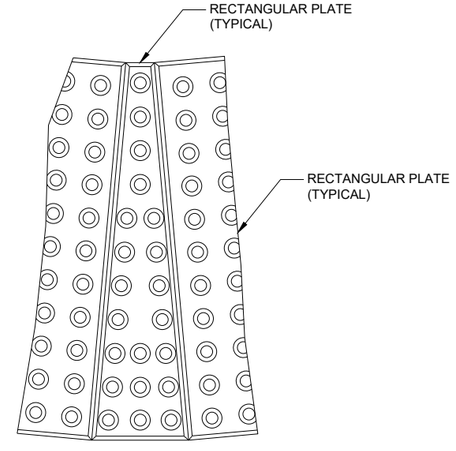
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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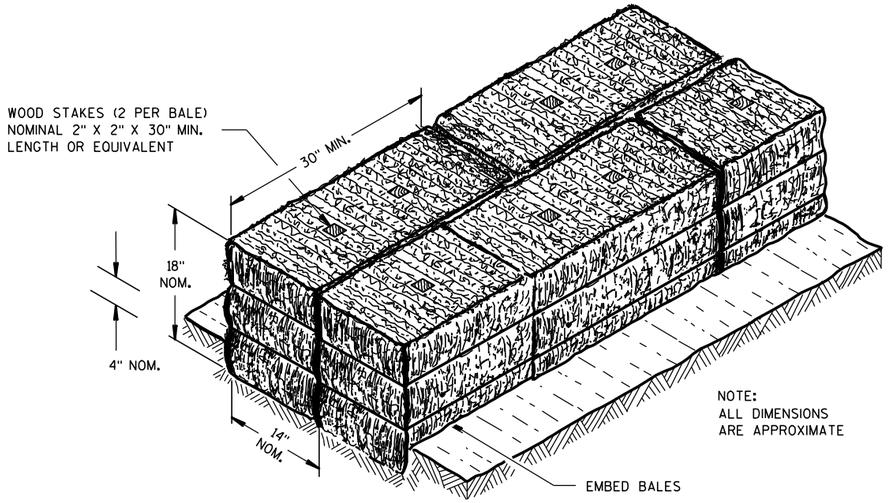
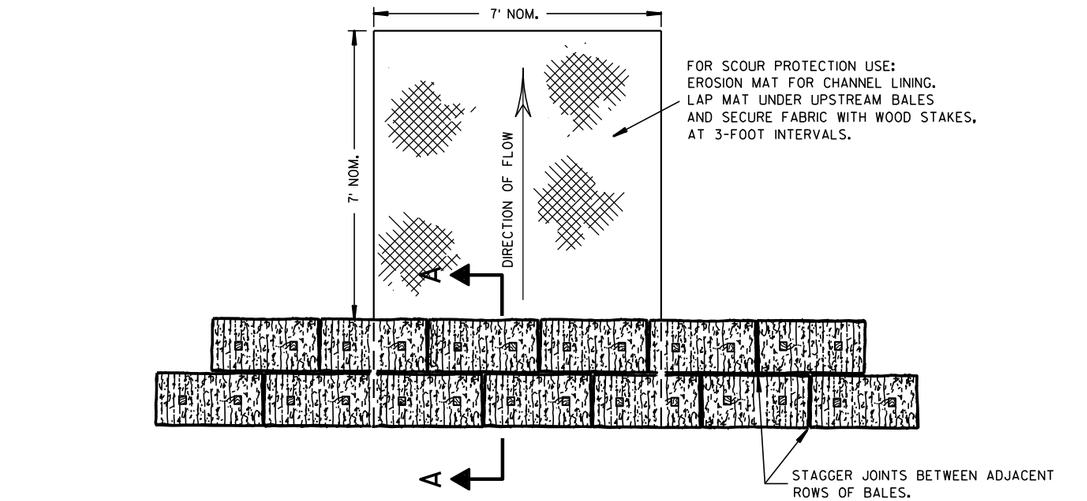
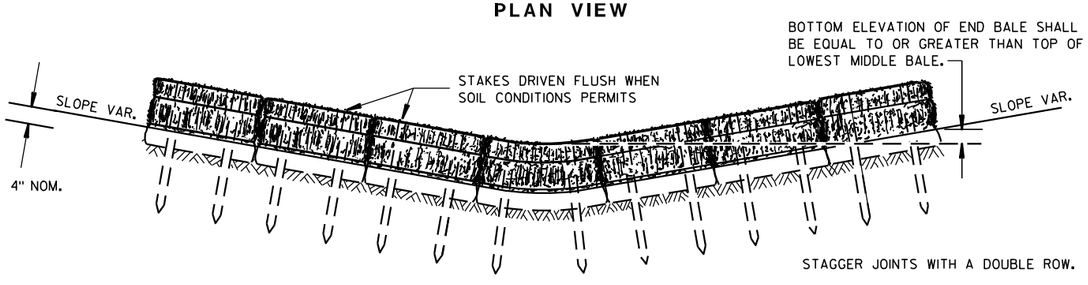
SDD 08D05 - 20g



SECTION A-A



PLAN VIEW



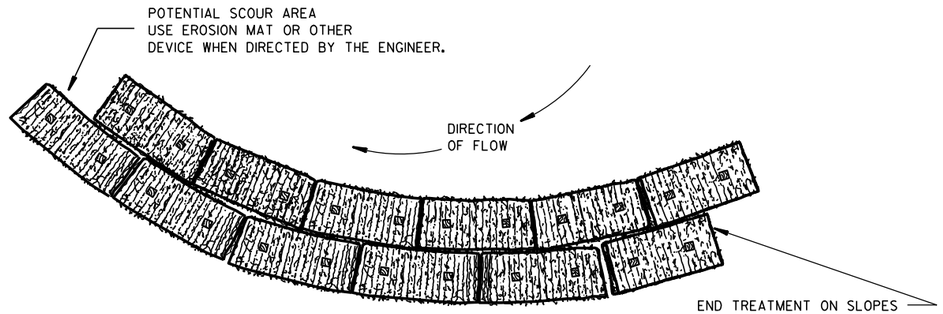
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

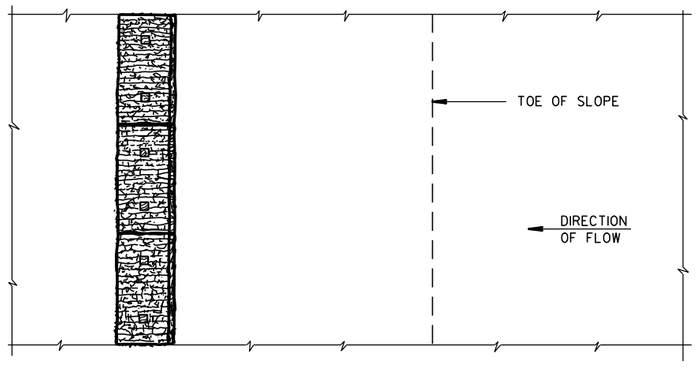
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

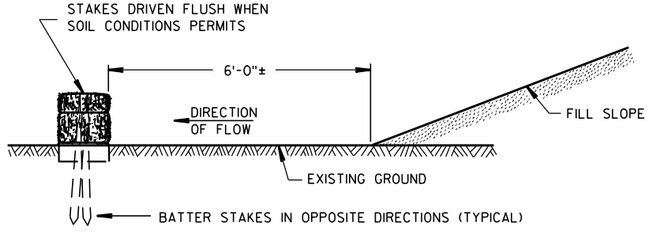


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

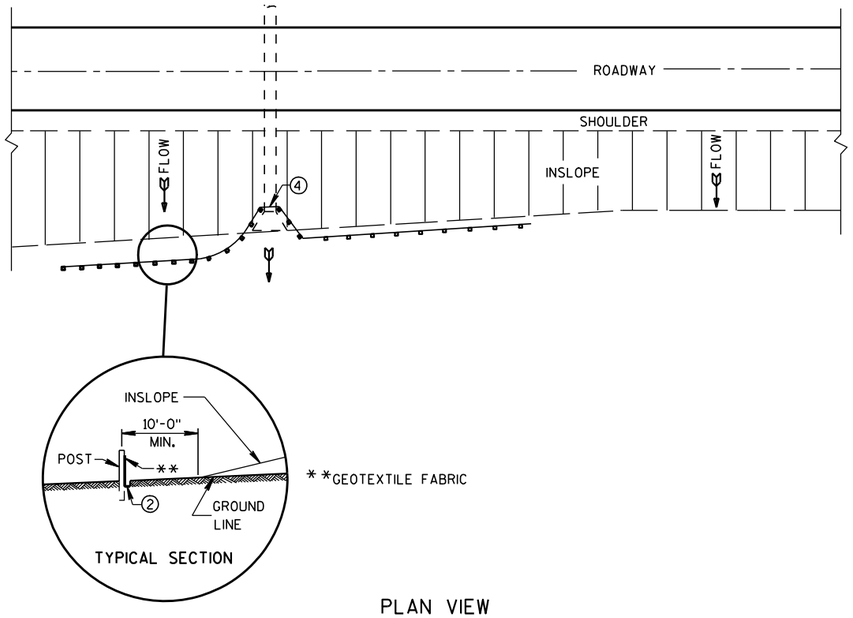
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

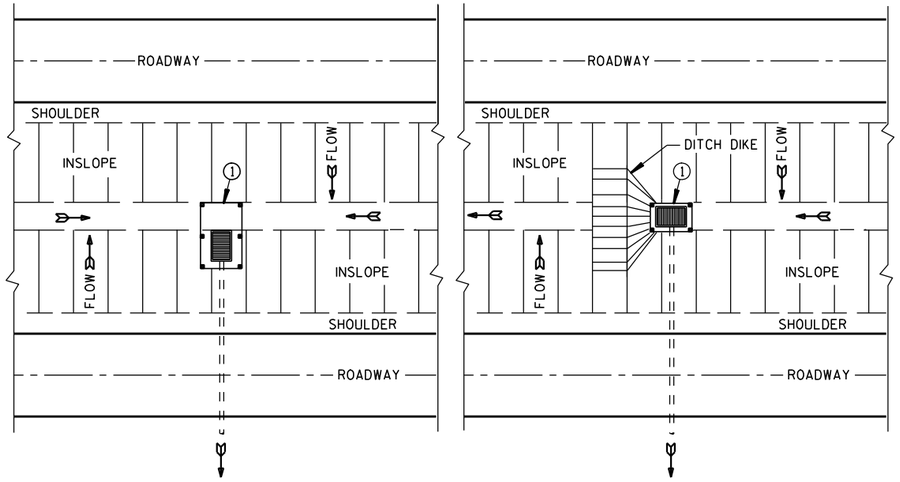
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



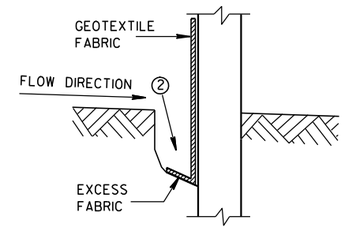
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

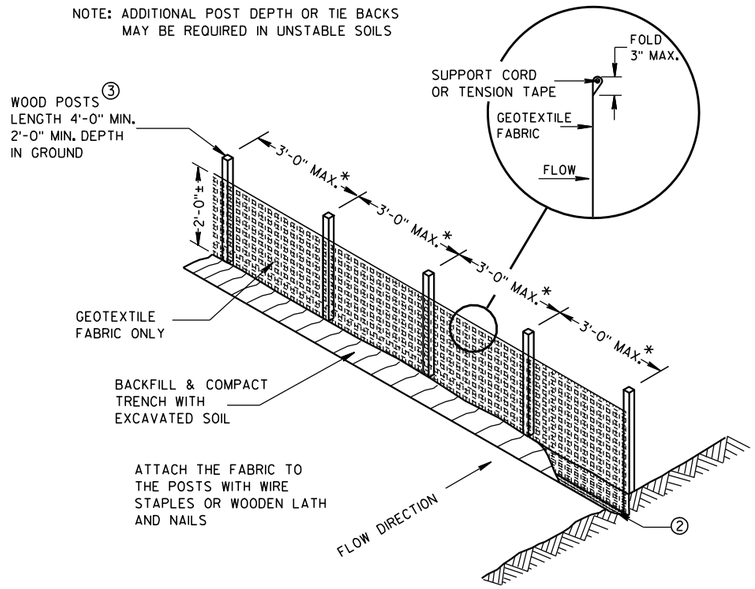
GENERAL NOTES

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

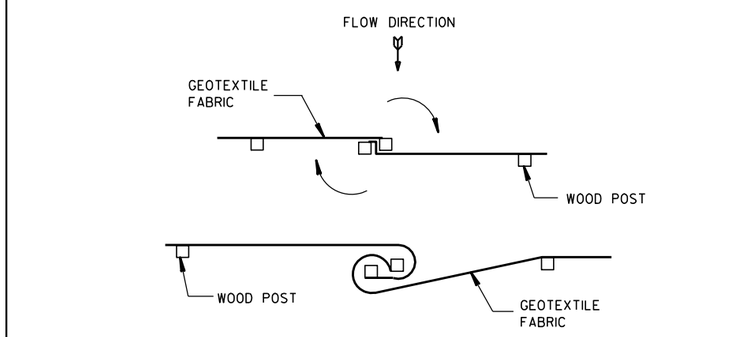
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



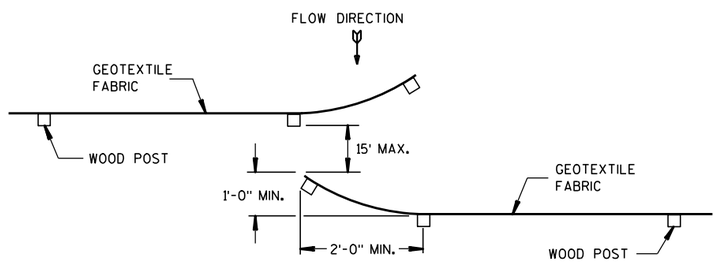
TRENCH DETAIL



SILT FENCE

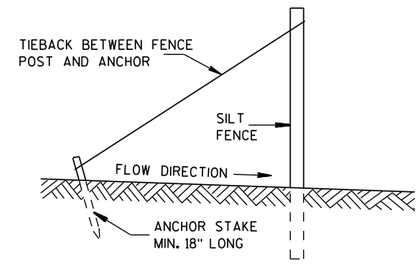


TWIST METHOD



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

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S.D.D. 8 E 9-6

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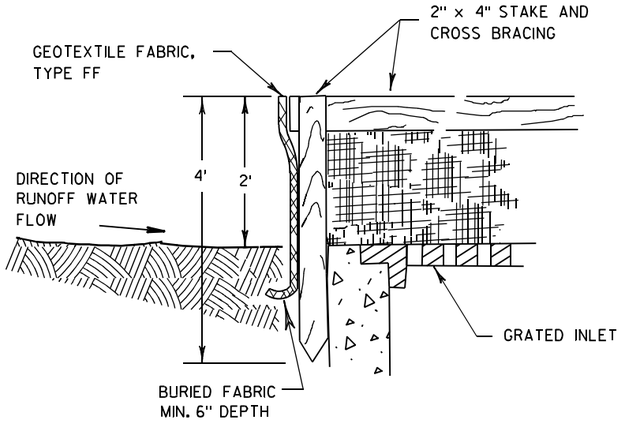
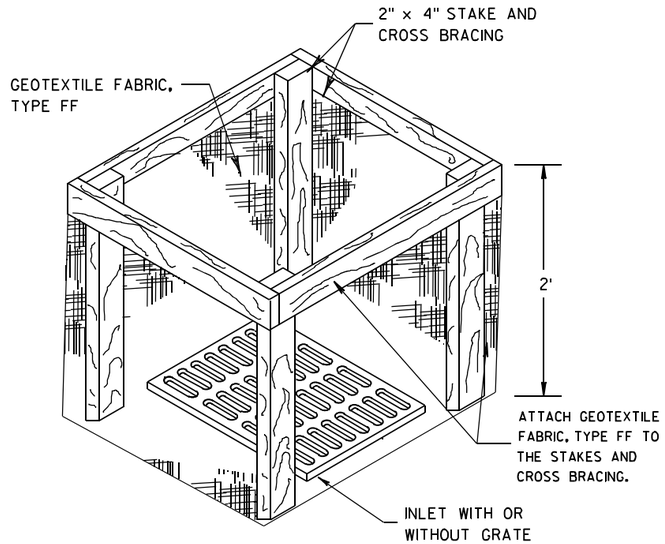
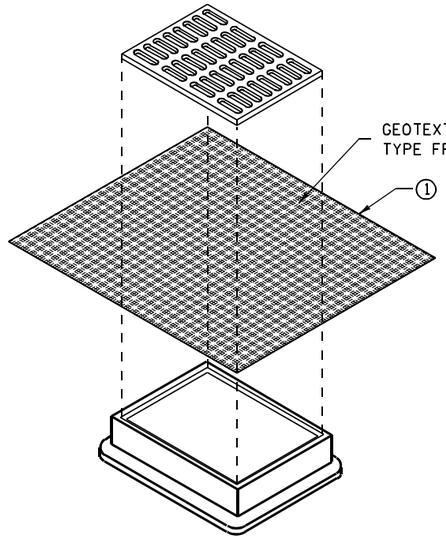
S.D.D. 8 E 9-6



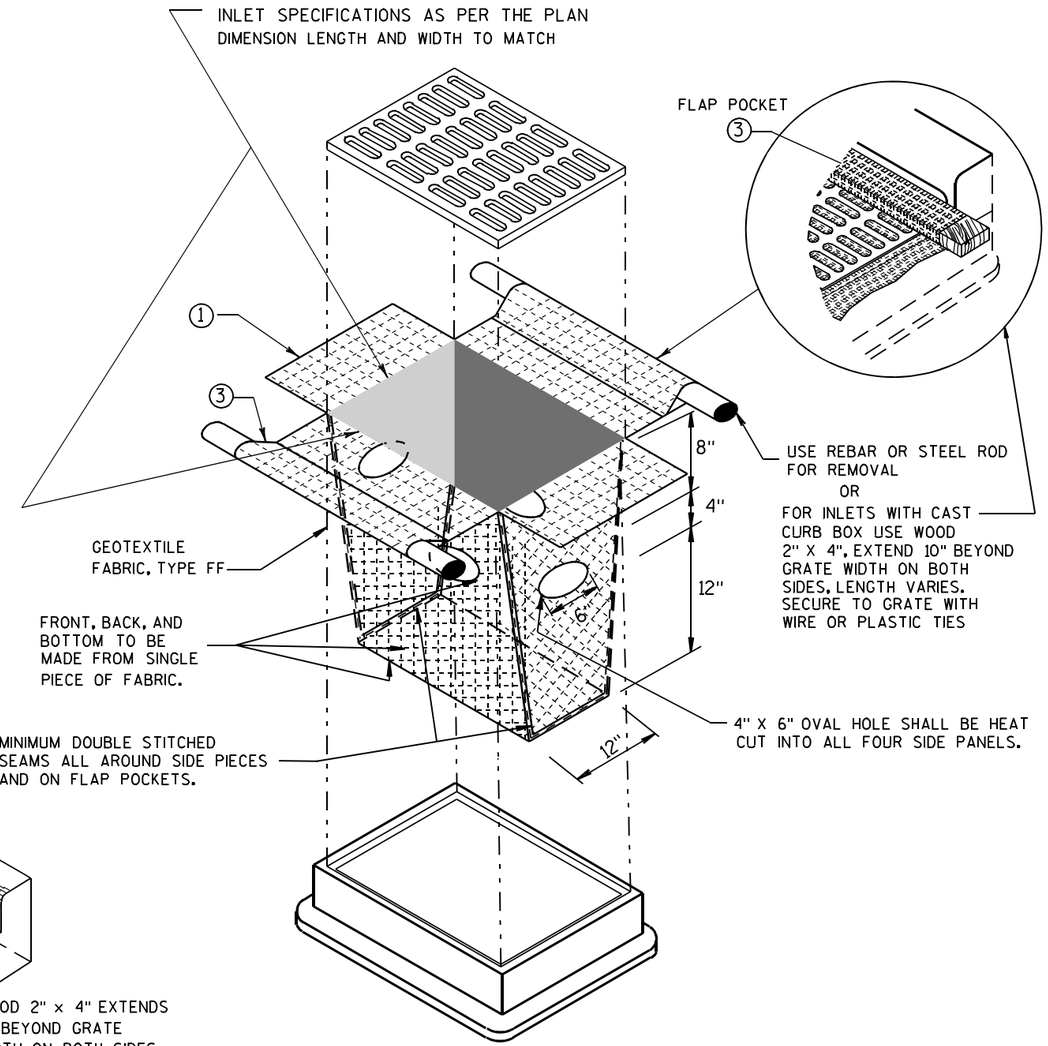


INLET PROTECTION, TYPE A



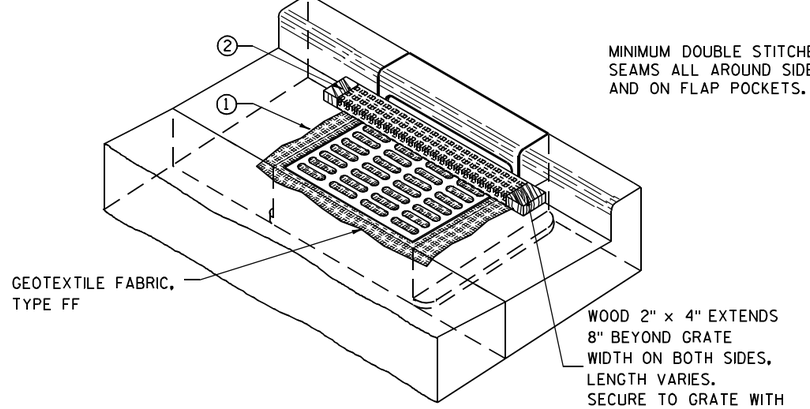
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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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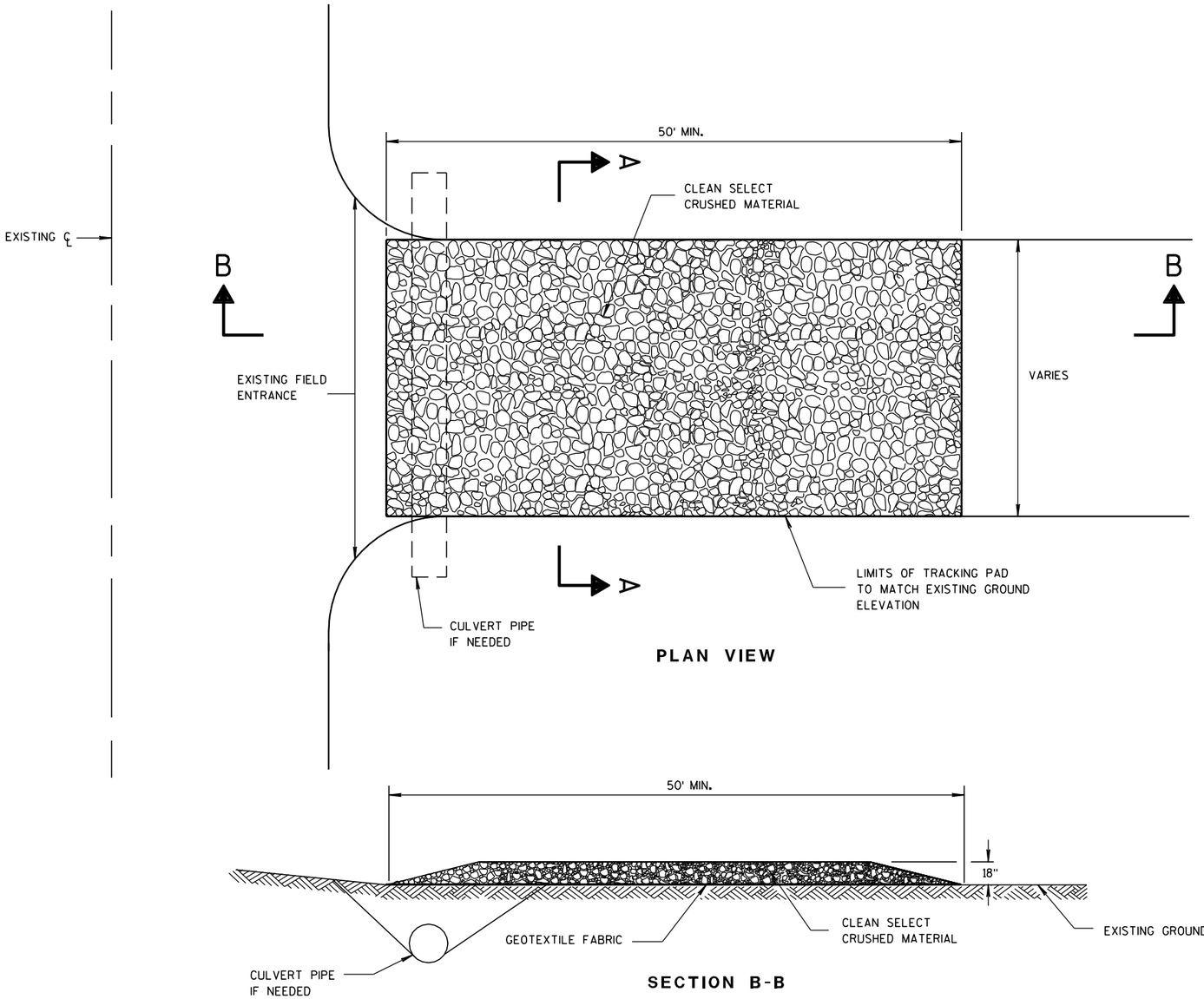
S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

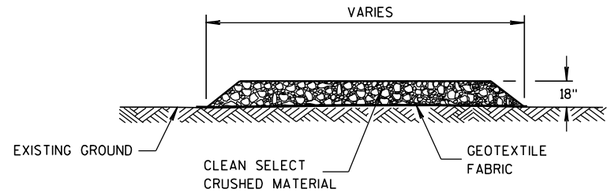
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zona ROADWAY STANDARDS ENGINEER

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S.D.D. 8 E 14-1

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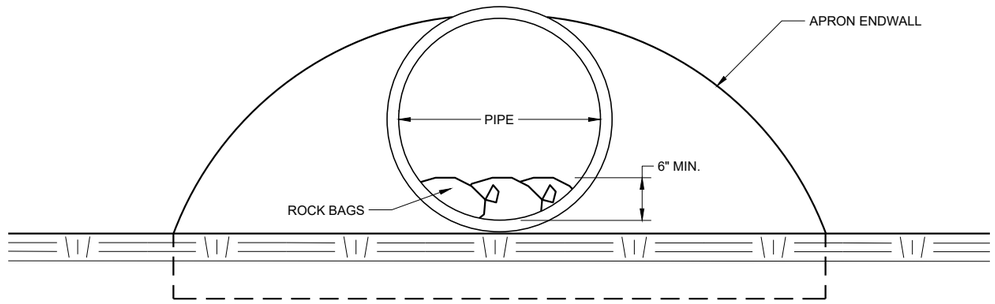
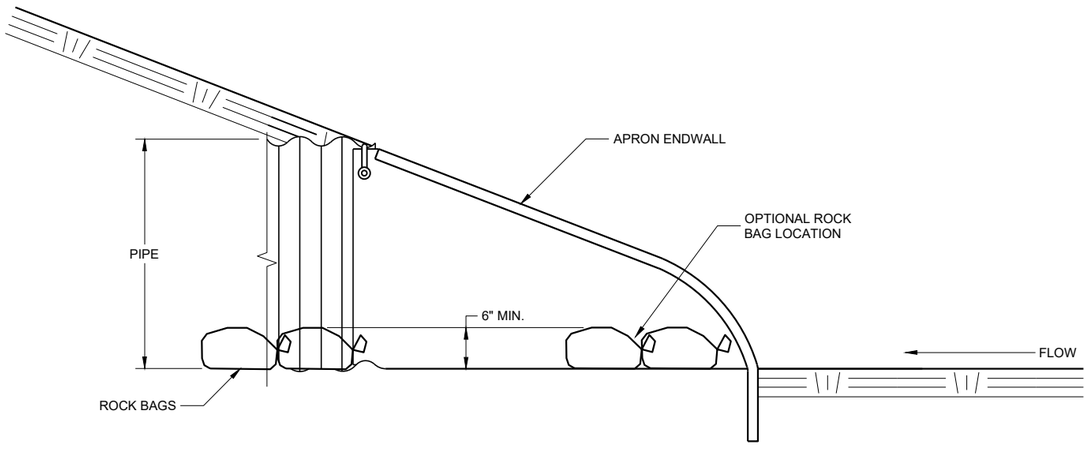
S.D.D. 8 E 14-1



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

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SDD 08E15 - 01

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SDD 08E15 - 01

METAL APRON ENDWALLS

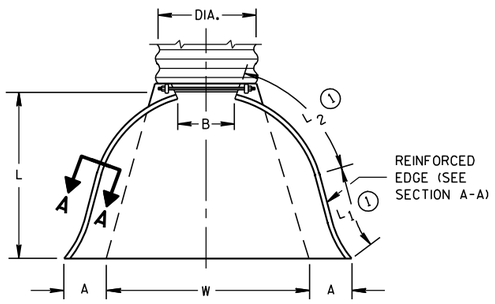
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

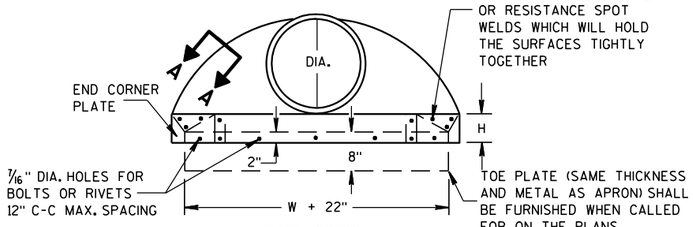
REINFORCED CONCRETE APRON ENDWALLS

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

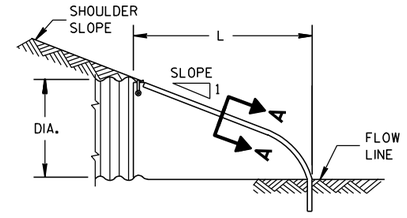
*MINIMUM
**MAXIMUM



PLAN VIEW

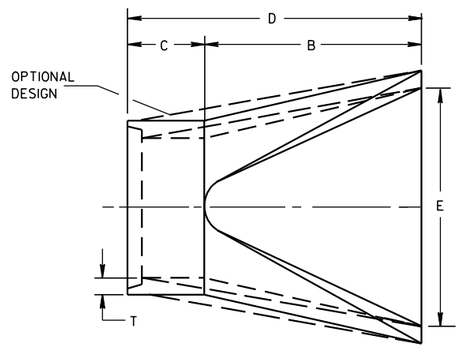


END VIEW

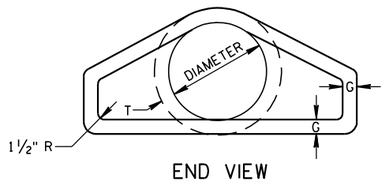


SIDE ELEVATION

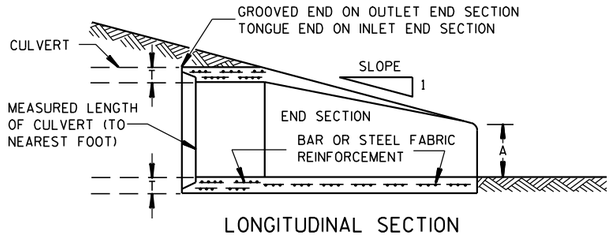
METAL ENDWALLS



PLAN

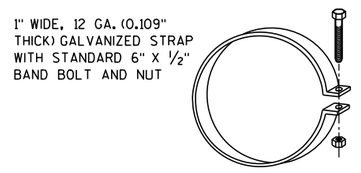


END VIEW



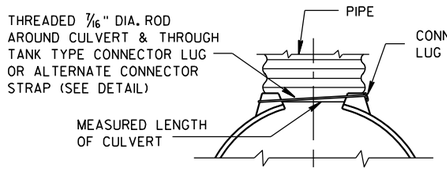
LONGITUDINAL SECTION

CONCRETE ENDWALLS

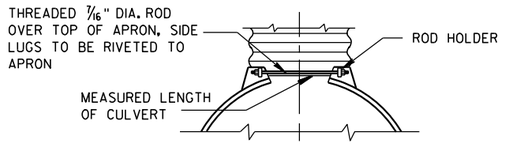


ALTERNATE FOR TYPE 1 CONNECTION

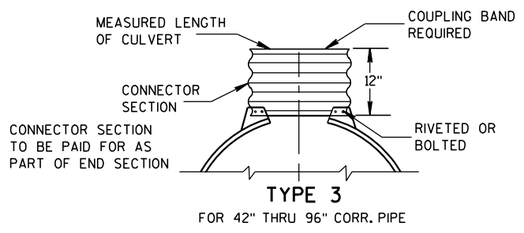
END SECTION CONNECTOR STRAP



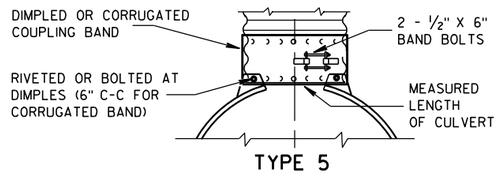
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

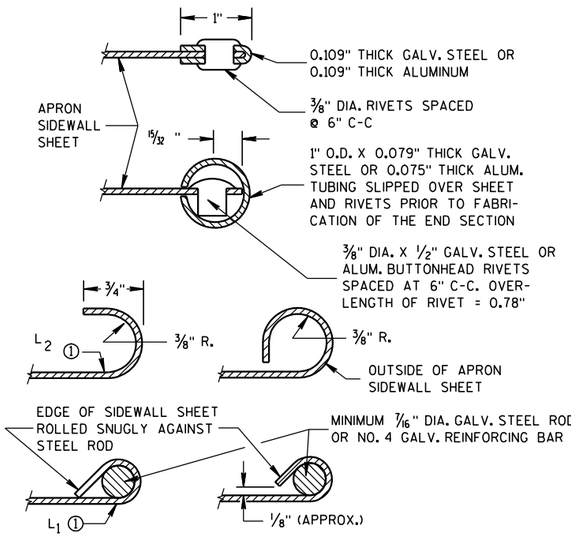
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

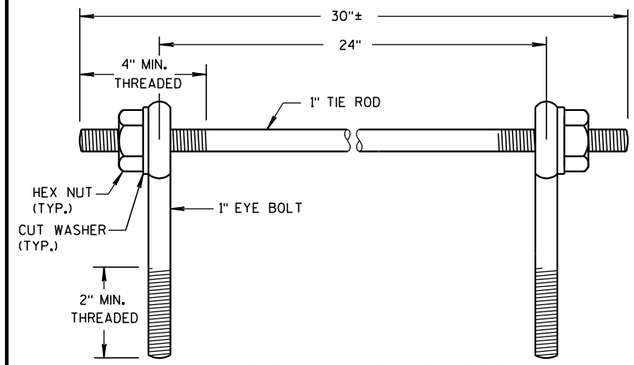
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

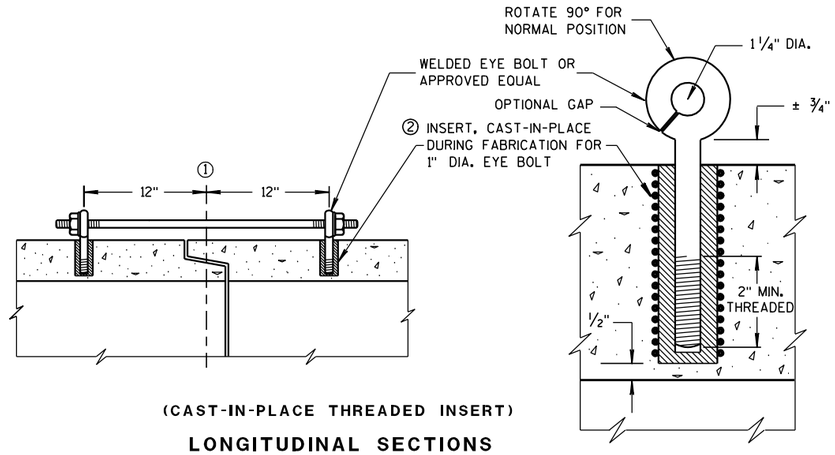
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

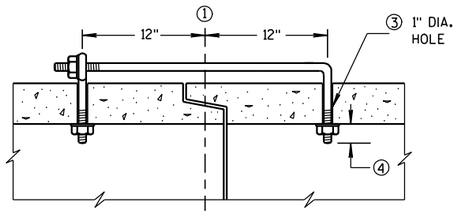
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

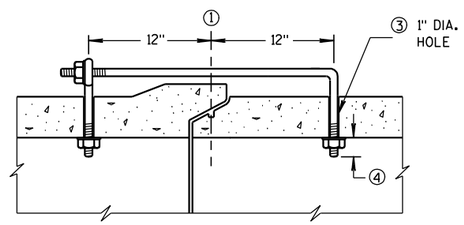
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

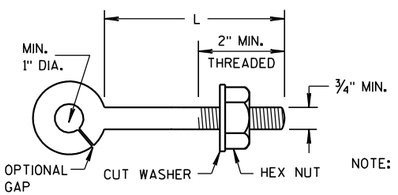


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

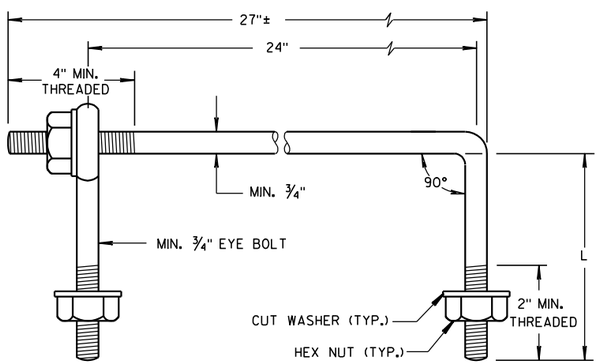
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

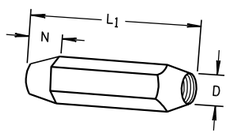
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

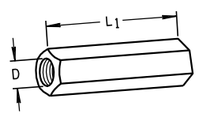
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



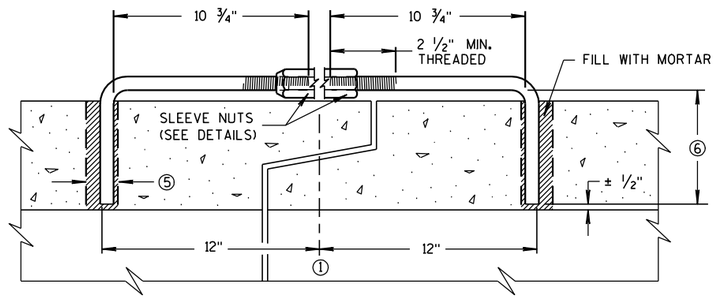
TAPERED



PLAIN

RIGHT AND LEFT THREADS

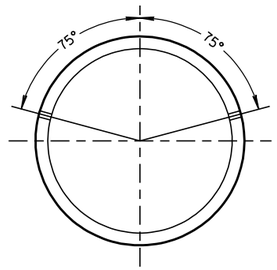
SLEEVE NUTS



LONGITUDINAL SECTION

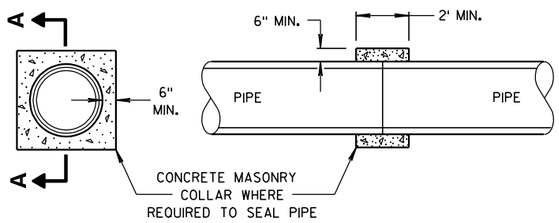
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

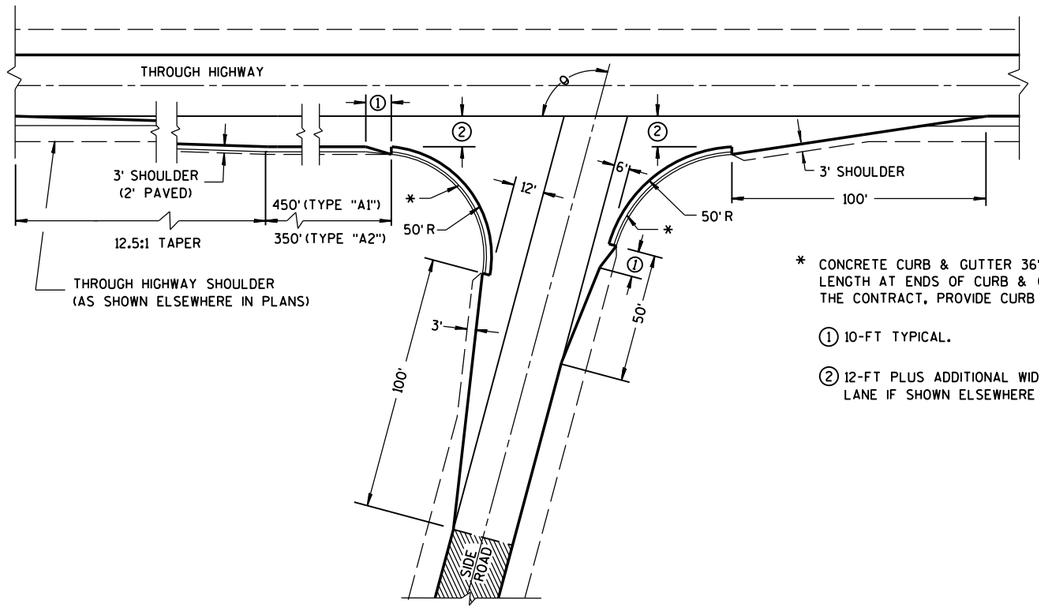
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
67
FHWA

6

S.D.D. 8 F 4-7



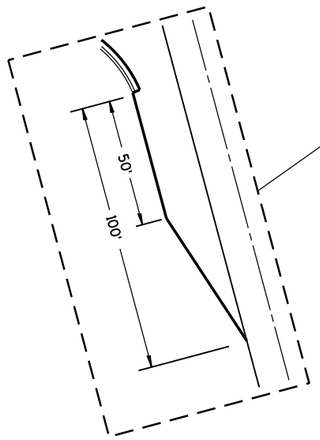
θ = MORE THAN 80°

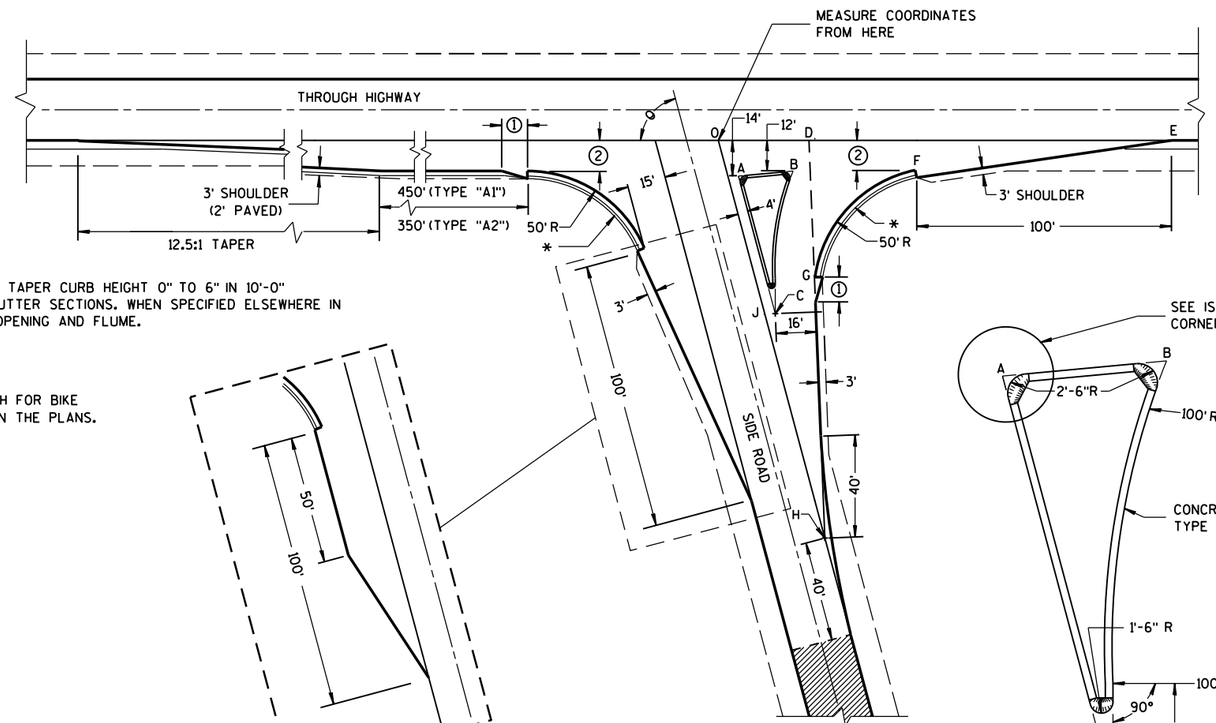
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

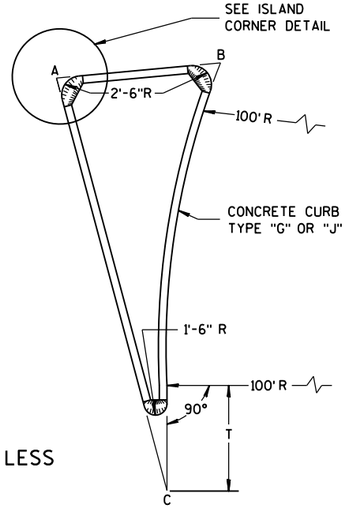
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE





θ = ACUTE ANGLES 80° OR LESS

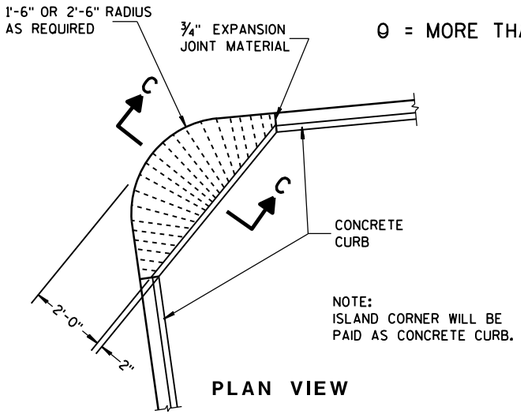


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

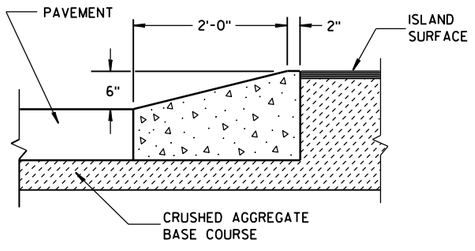
ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

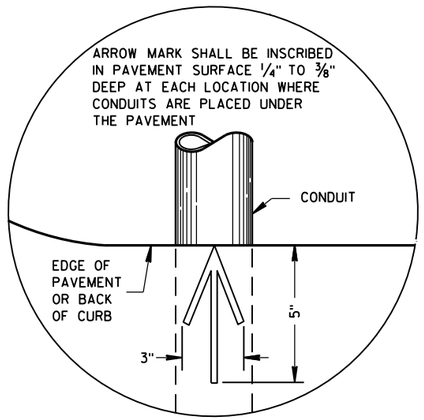
(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

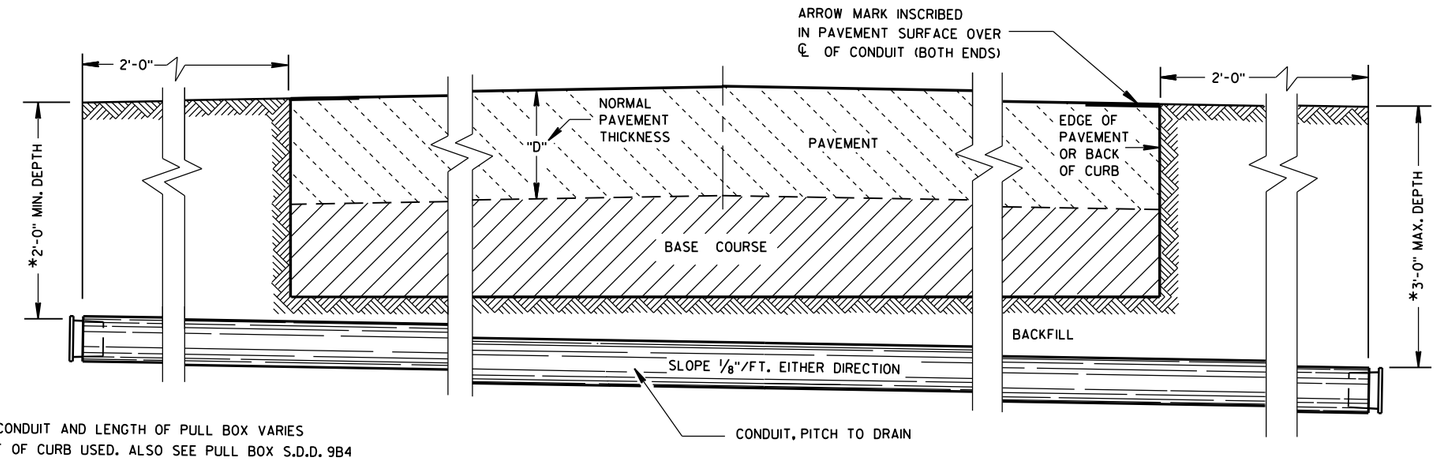
APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 9 A 1-13b



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

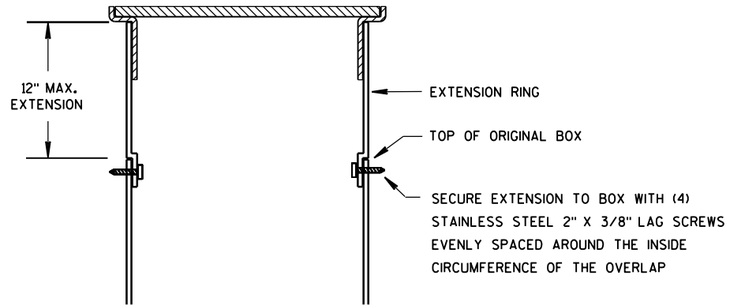
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

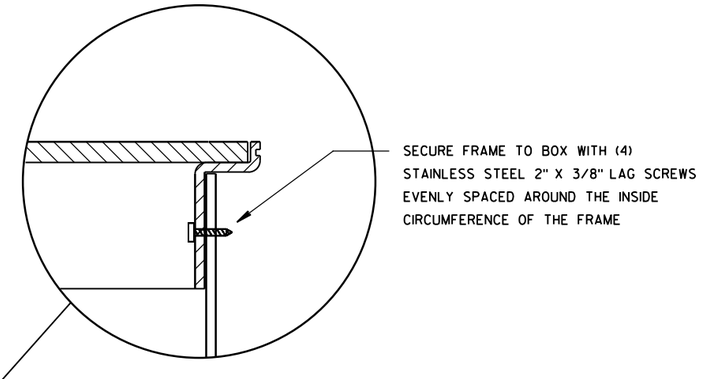
* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

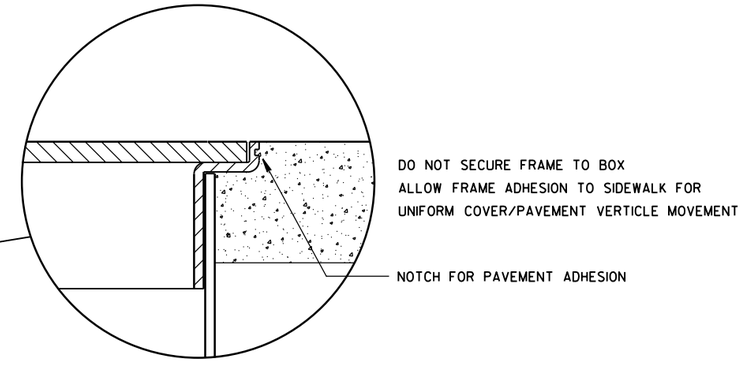


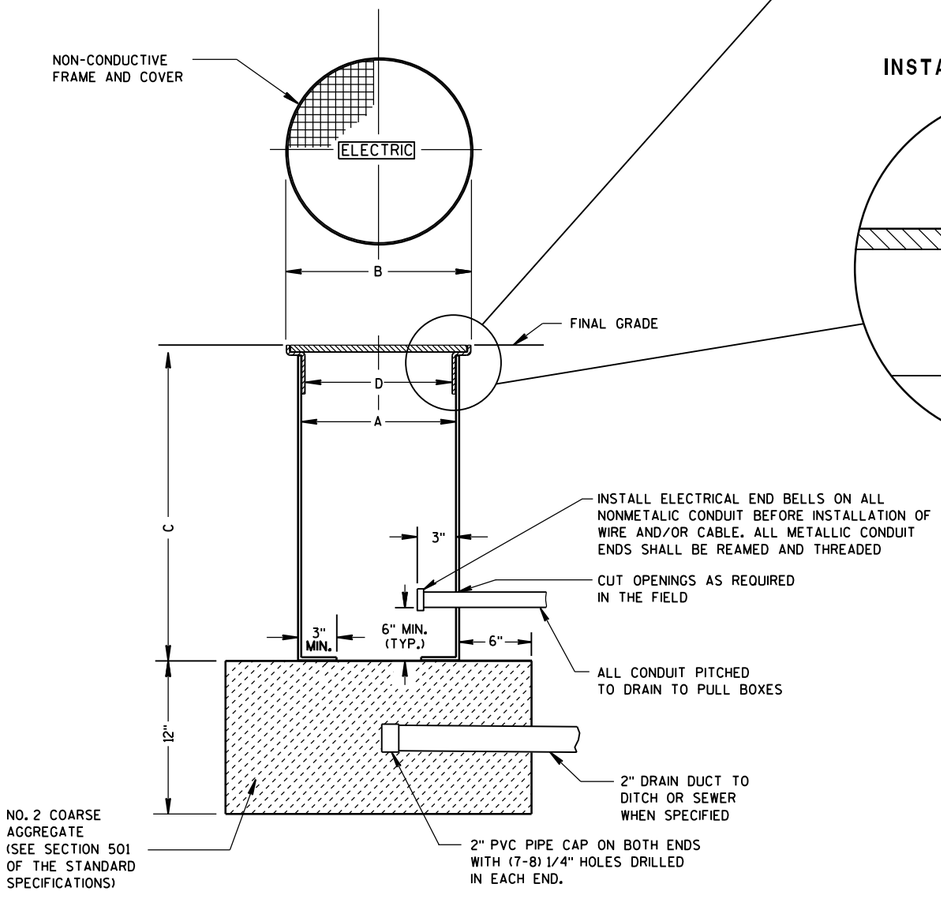
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE 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 BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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.

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

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

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.

PULL BOX NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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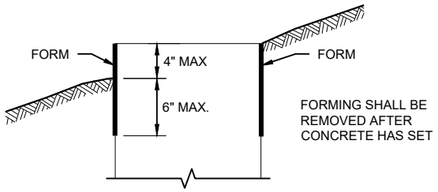
S.D.D. 9 B 16-1

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 DRAWINGSHALL 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 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 A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X 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 NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

WHEN REQUIRED TO CONNECT NON-METALLIC 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 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES 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.

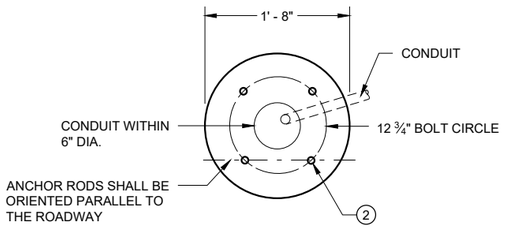
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

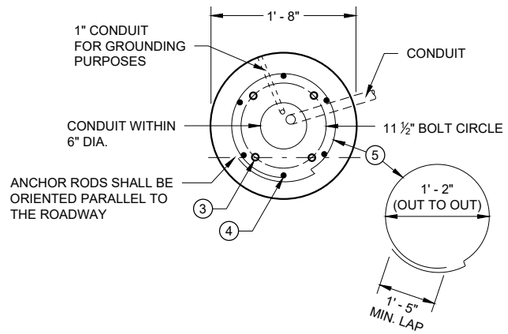
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

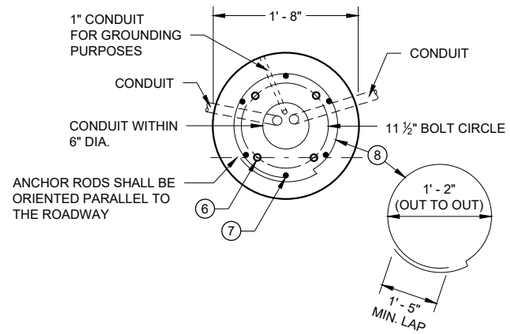
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

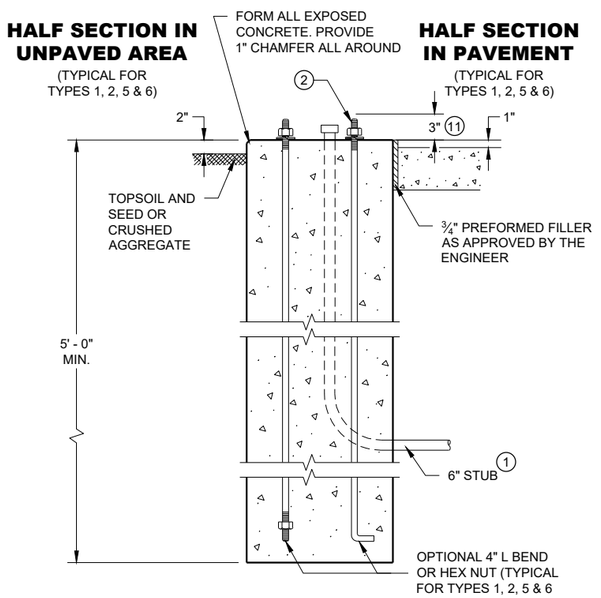
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

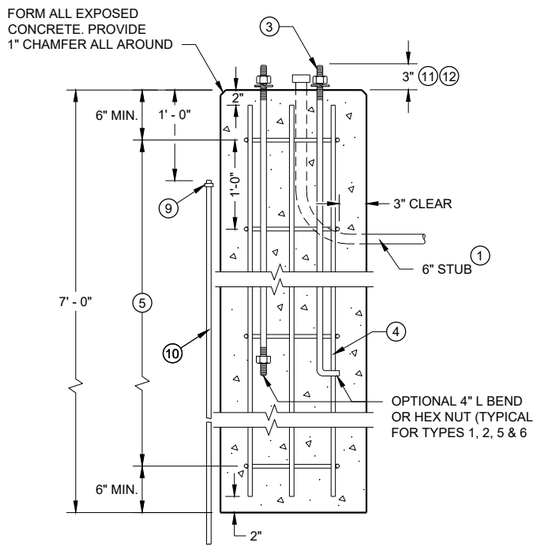




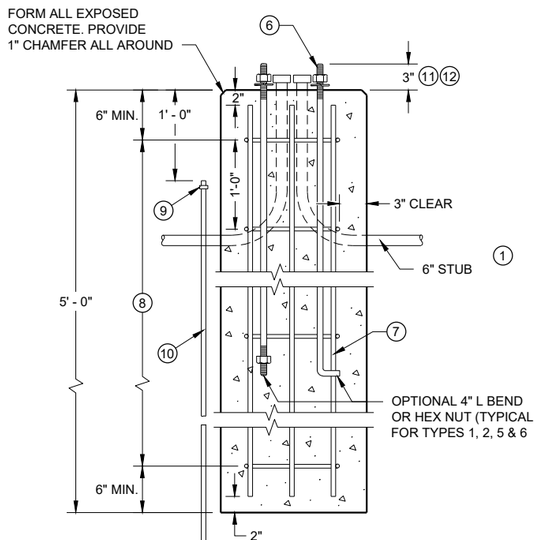




TYPE 1



TYPE 2



TYPE 5 & 6

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 OF 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 STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

6
SDD 09C02 - 09

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.

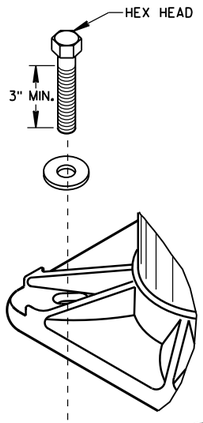
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

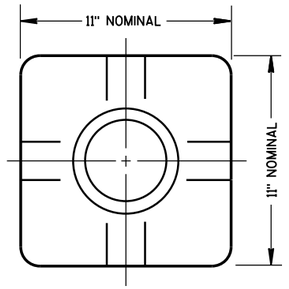
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

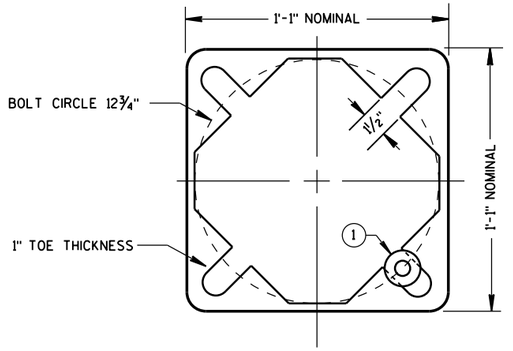
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

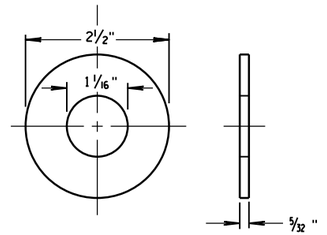




TOP VIEW
(PEDESTAL BASE)

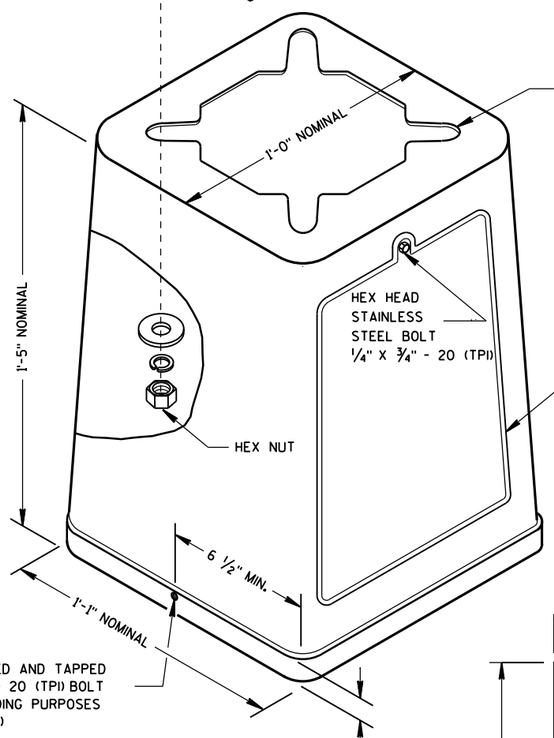


BOTTOM VIEW
(PEDESTAL BASE)

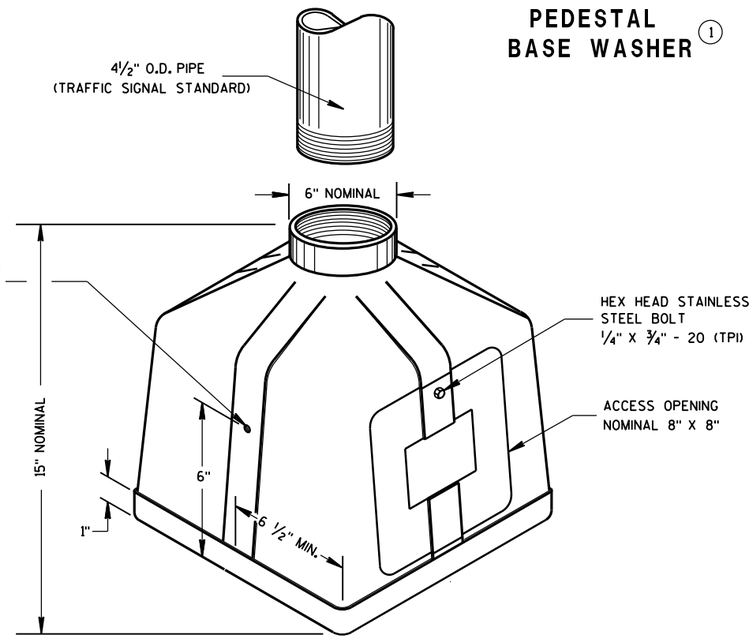


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

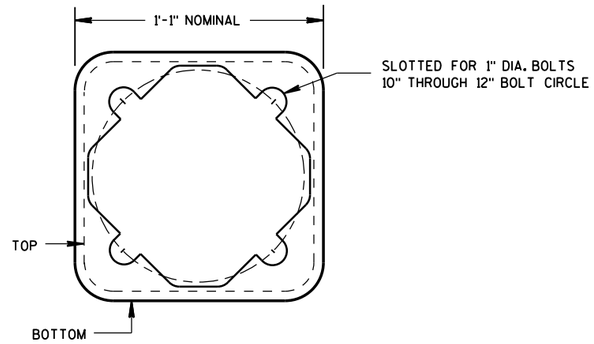


ISOMETRIC VIEW

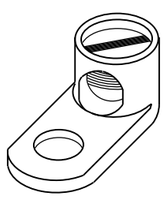


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

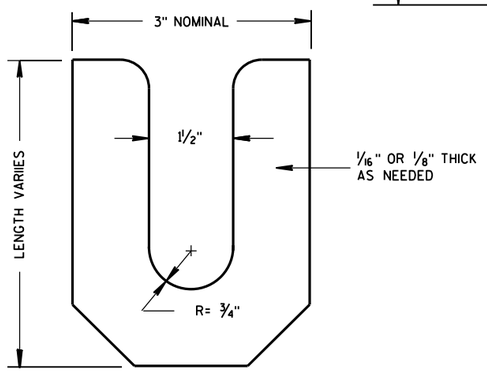


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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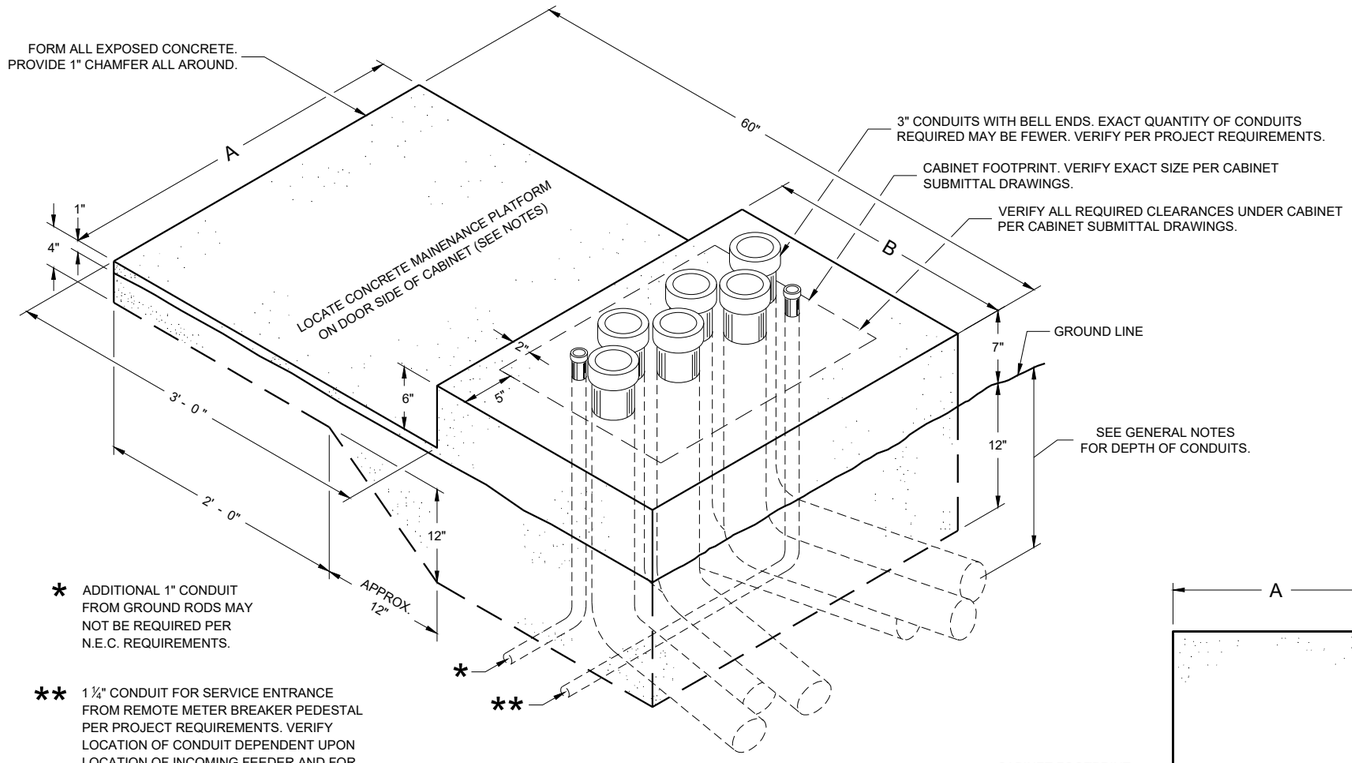


* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

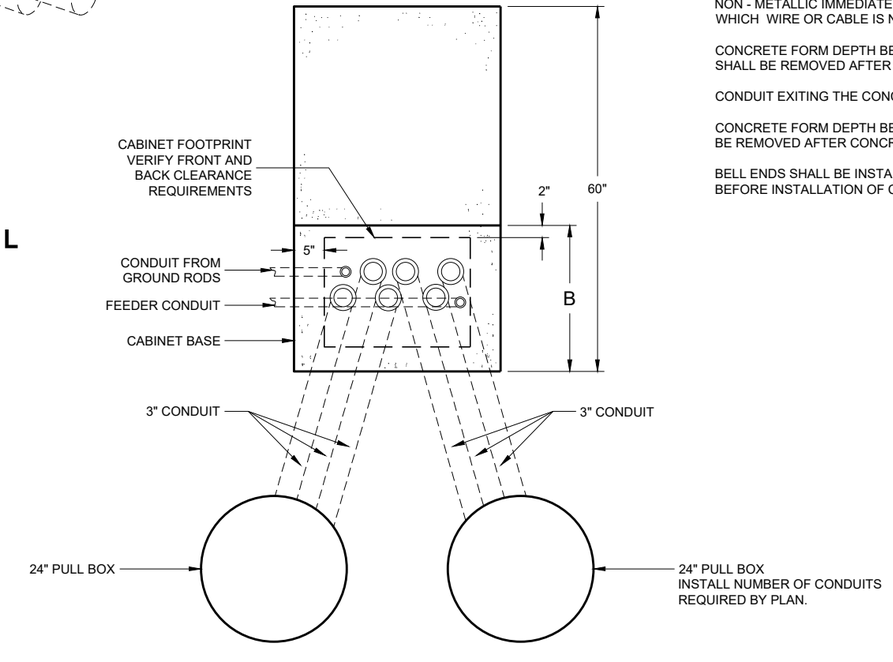
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC 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.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

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 EQUALS 6 TIMES 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 NON - METALLIC 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 NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH 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.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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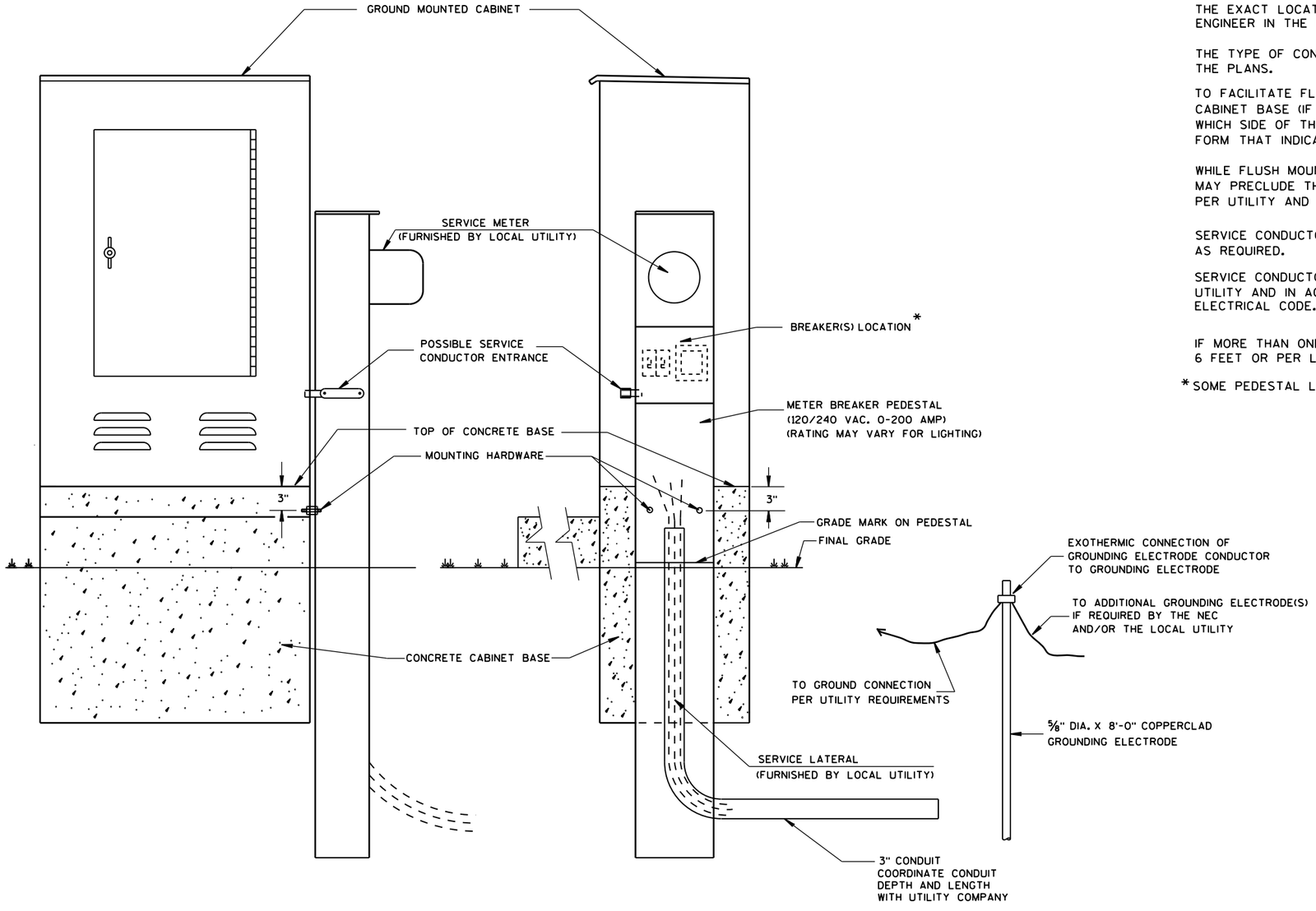
SDD 09C14 - 03



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.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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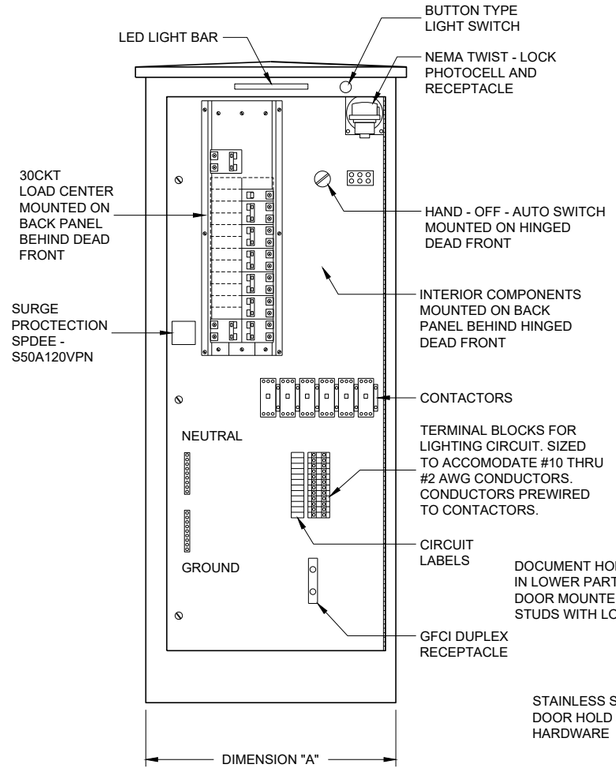
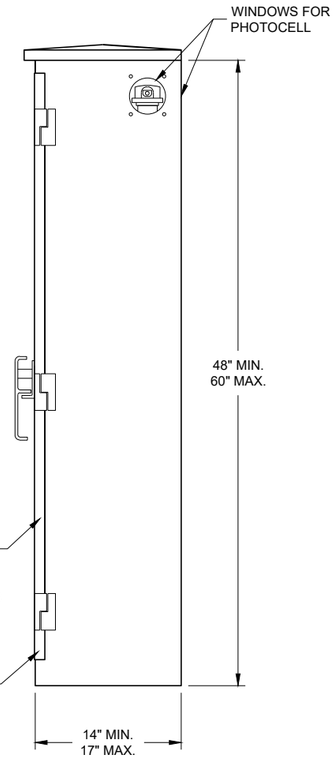
S.D.D. 9 D 1-5

FRONT INTERIOR ELEVATION



SIDE VIEW



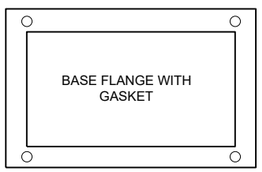
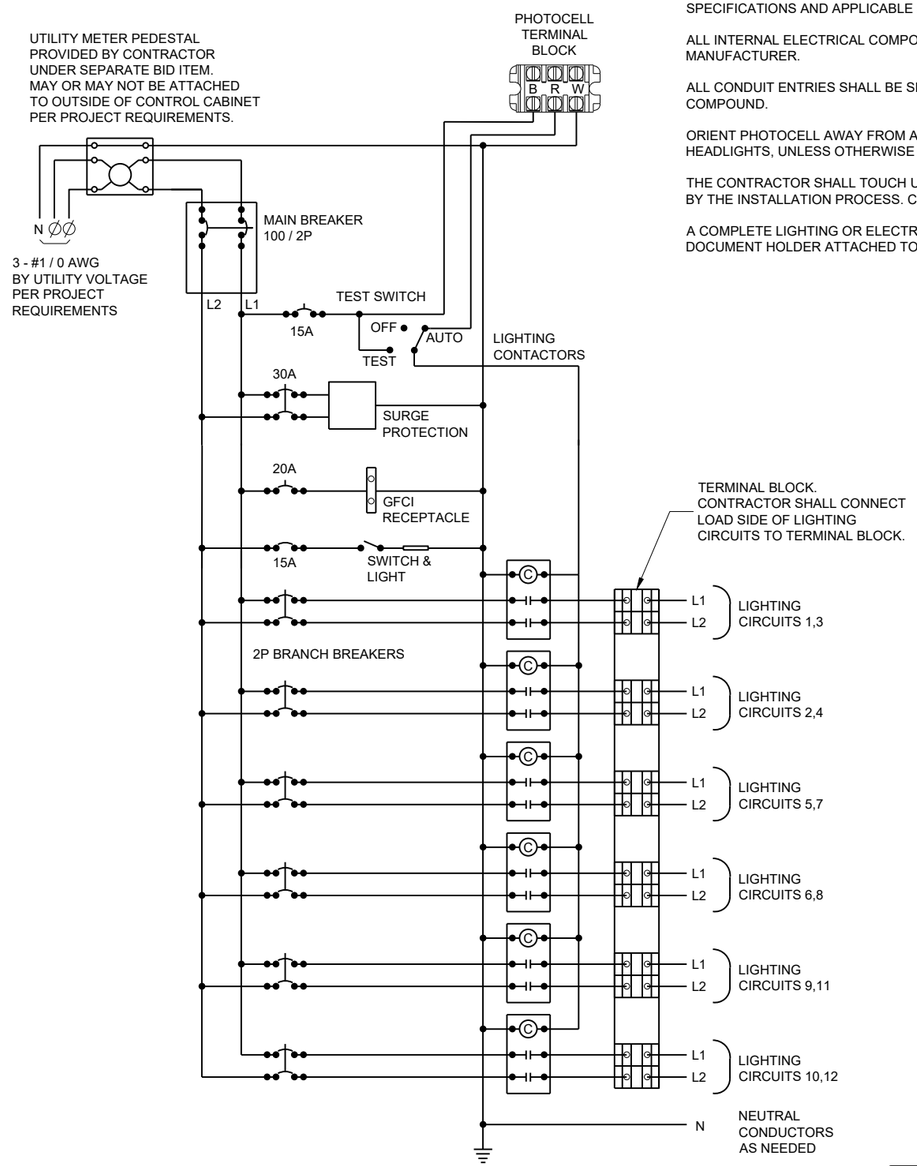


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

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 CABINENT MANUFACTURER.

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

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

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.

LIGHTING CONTROL CABINET
120 / 240 VOLT

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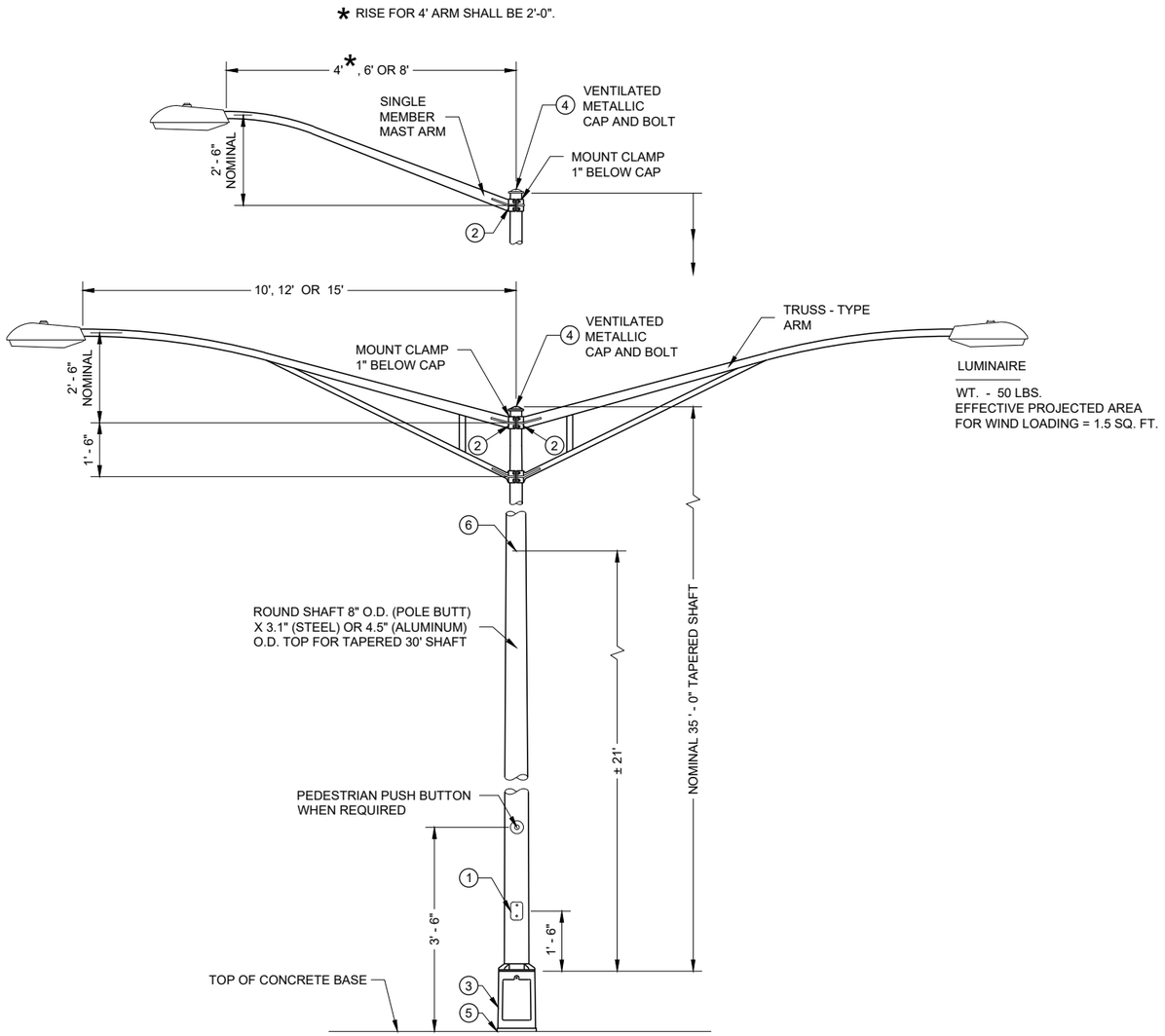


TYPE 6 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

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

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

ALL TYPE 6 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 6 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 6 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.219".

TYPE 6 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ 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 AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

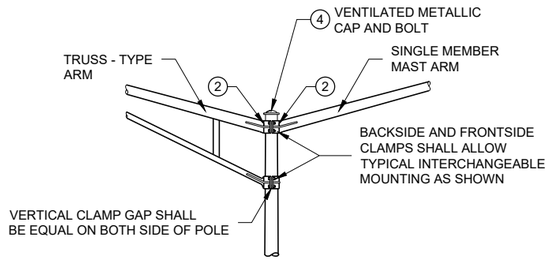
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(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 POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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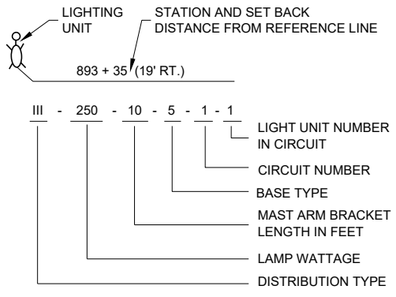
GENERAL NOTES

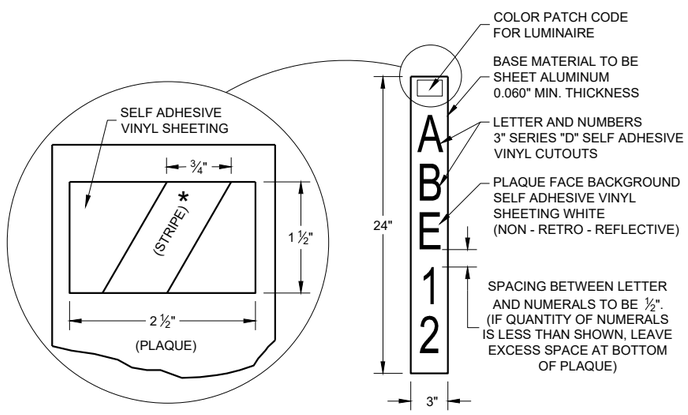
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 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.



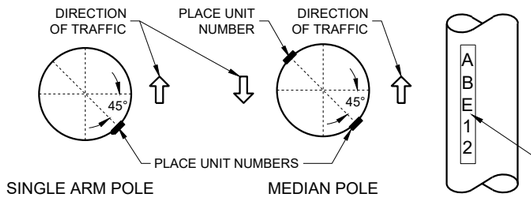
LIGHTING UNIT CODE
(TYPICAL)



COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)	(MERCURY VAPOR)
1000 WATT - NO PATCH	400 WATT - NO PATCH
400 WATT - ORANGE	250 WATT - YELLOW
310 WATT - BLUE	
250 WATT - ORANGE W / WHITE STRIPE *	
200 WATT - RED	
150 WATT - GREEN	
100 WATT - BROWN	

IDENTIFICATION PLAQUE



NOTES

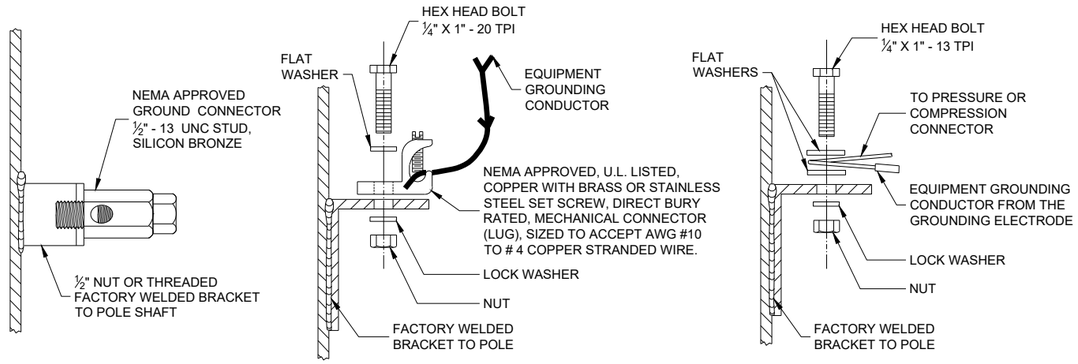
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

2) UNIT NUMBER: ONE REQUIRED FOR SINGLE ARM POLES. TWO REQUIRED FOR MEDIAN MOUNT POLES.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUMINUM POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES).

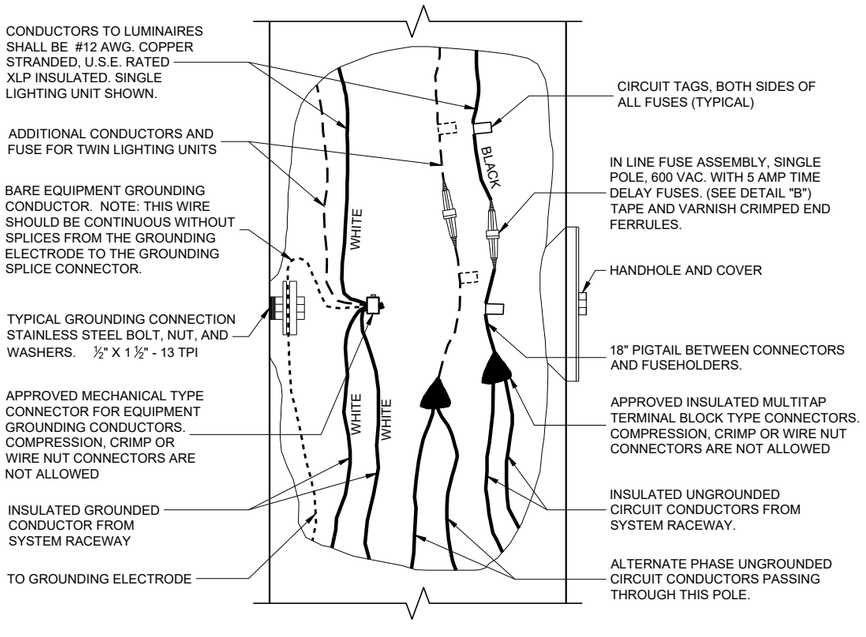
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL, ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

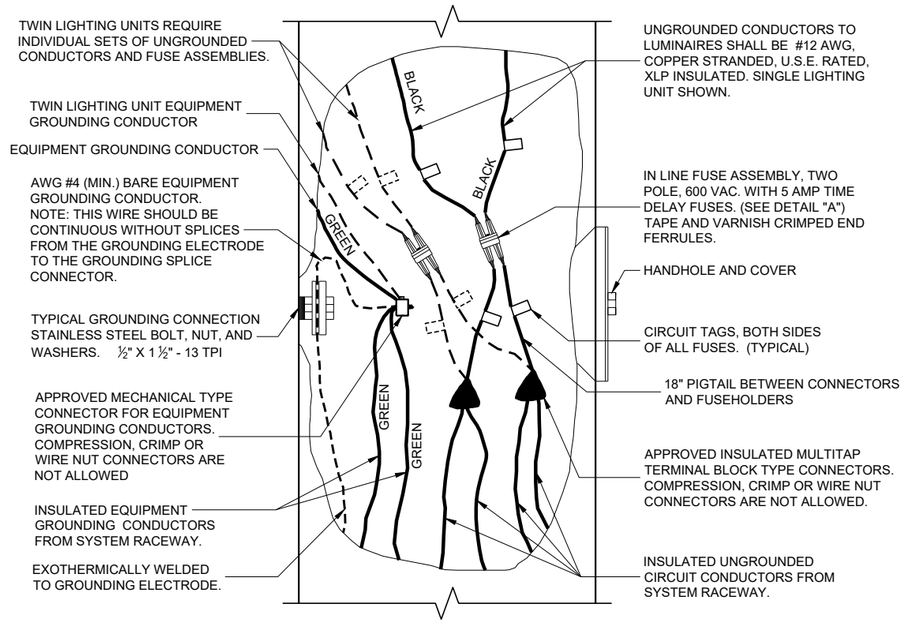


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

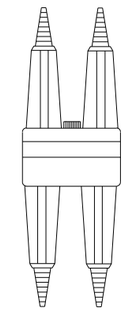
OLD EXISTING FREEWAY WIRING (SOME AREAS)



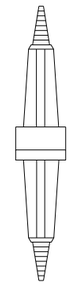
2 WIRE - 120, 240, OR 480 VAC TO GROUND



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



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 77

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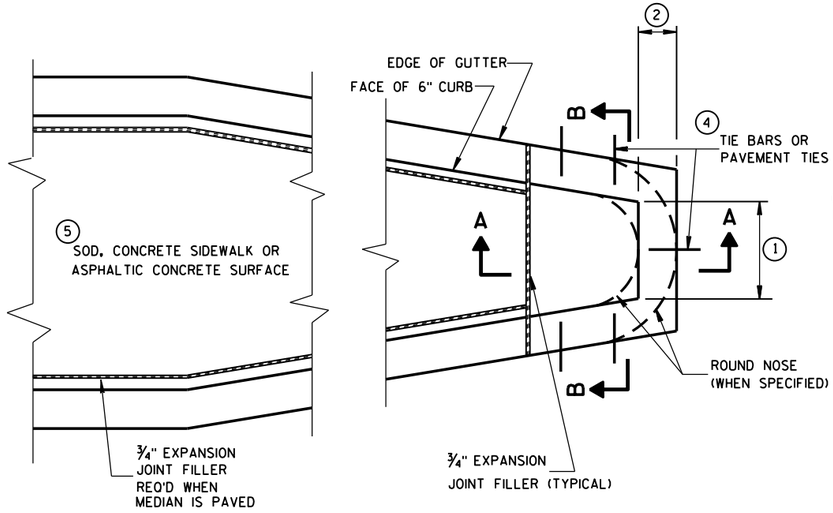
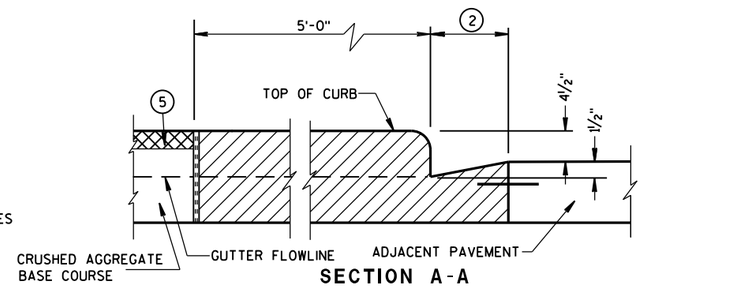
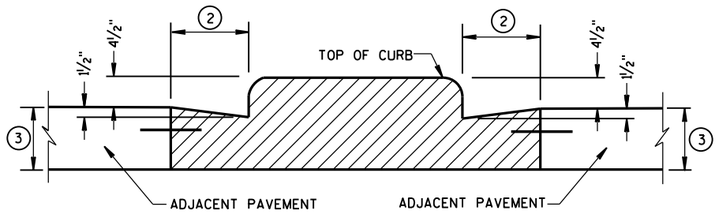






CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

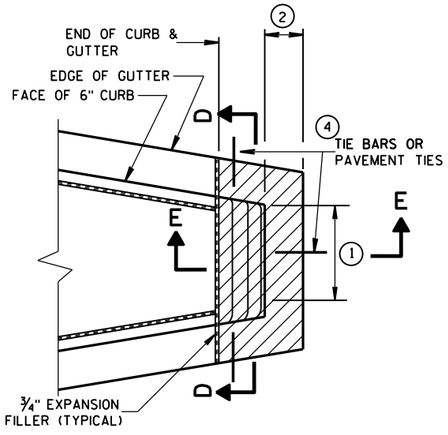
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

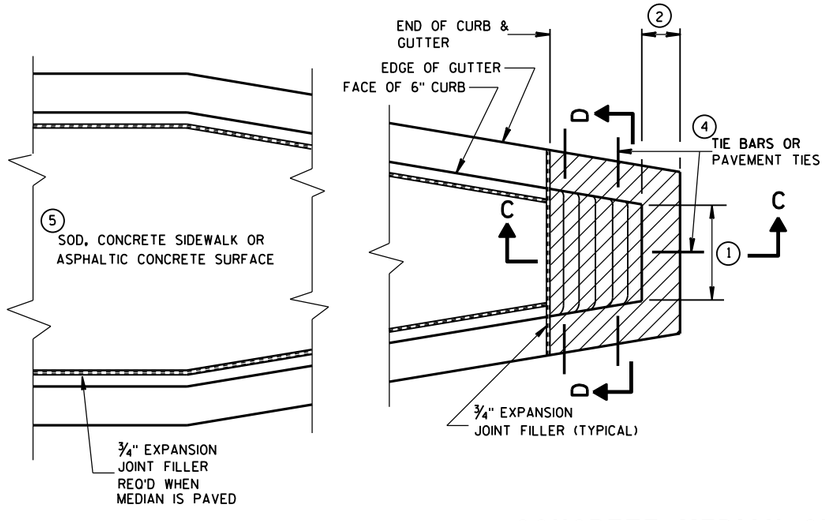
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

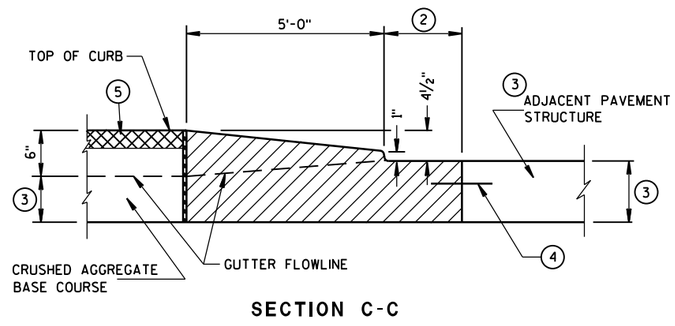
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

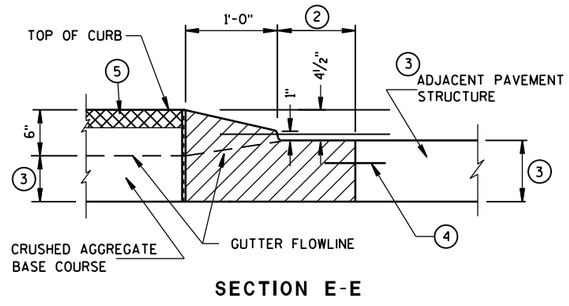
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



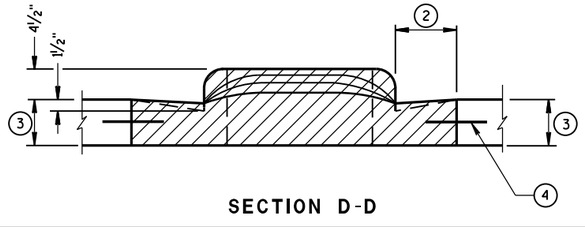






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER

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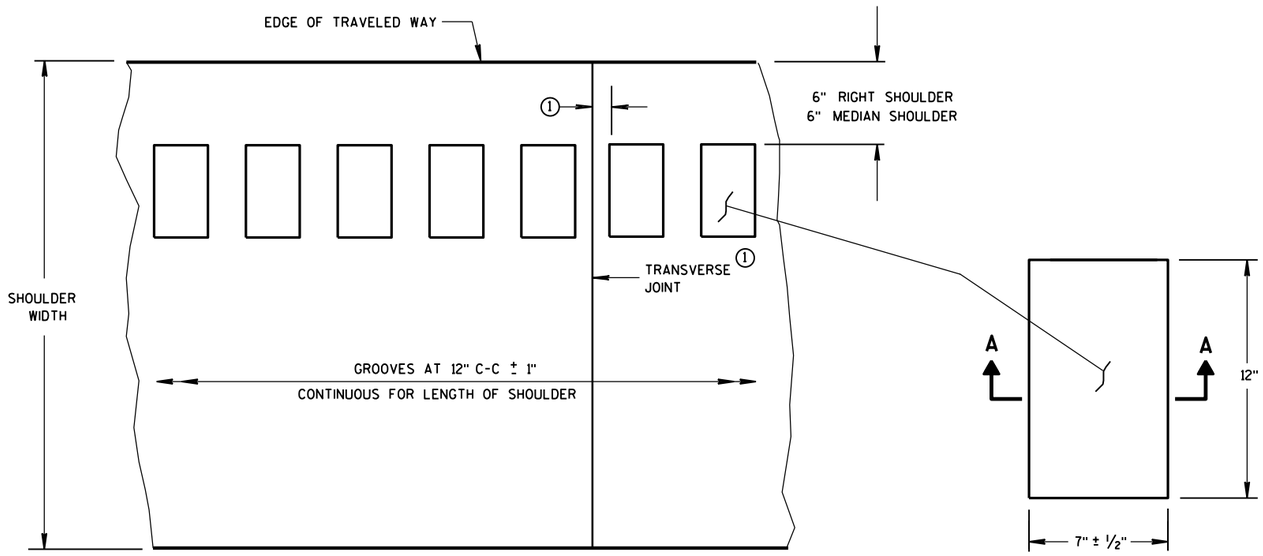
S.D.D. 11 B 2-2



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

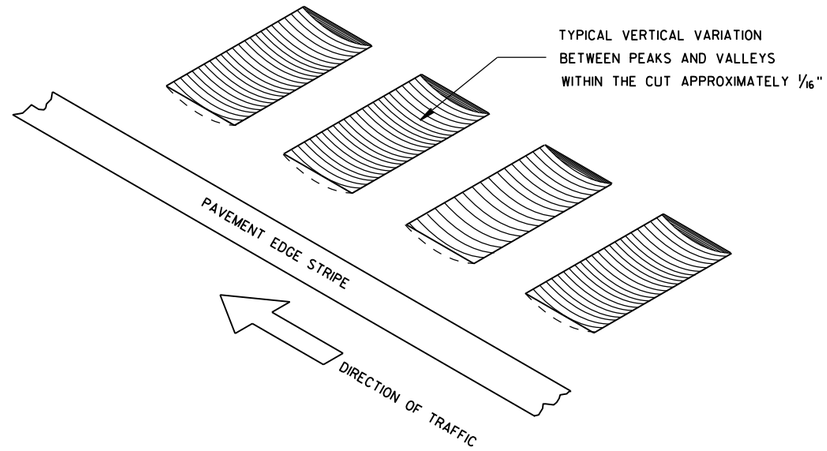
GENERAL NOTES

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

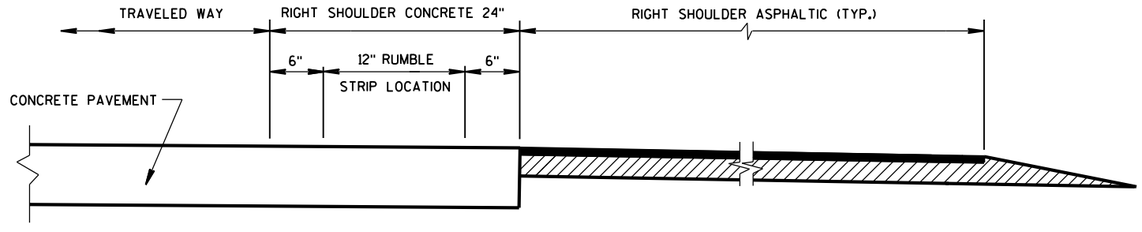
RUMBLE STRIPS ON EXPRESSWAYS

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

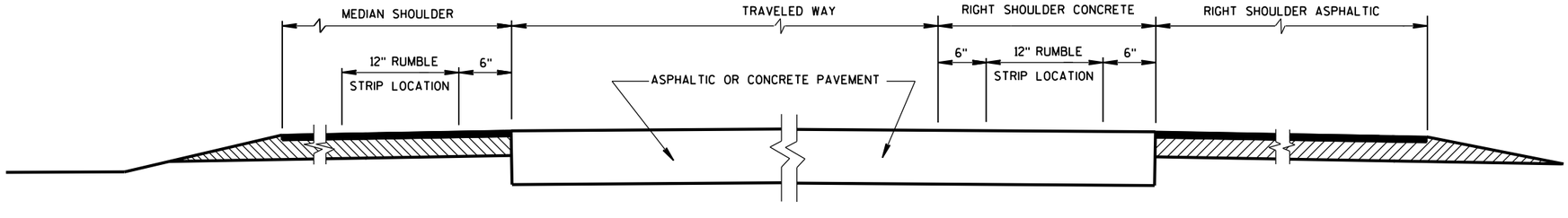
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



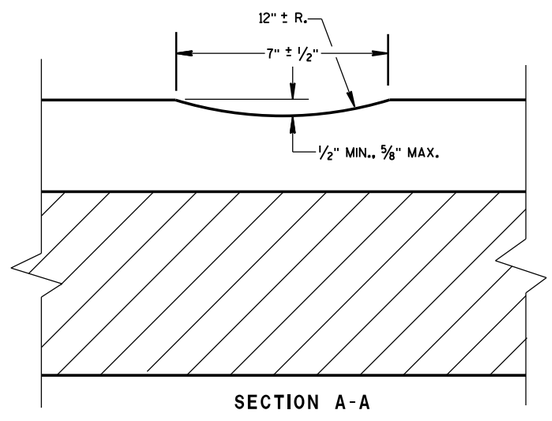
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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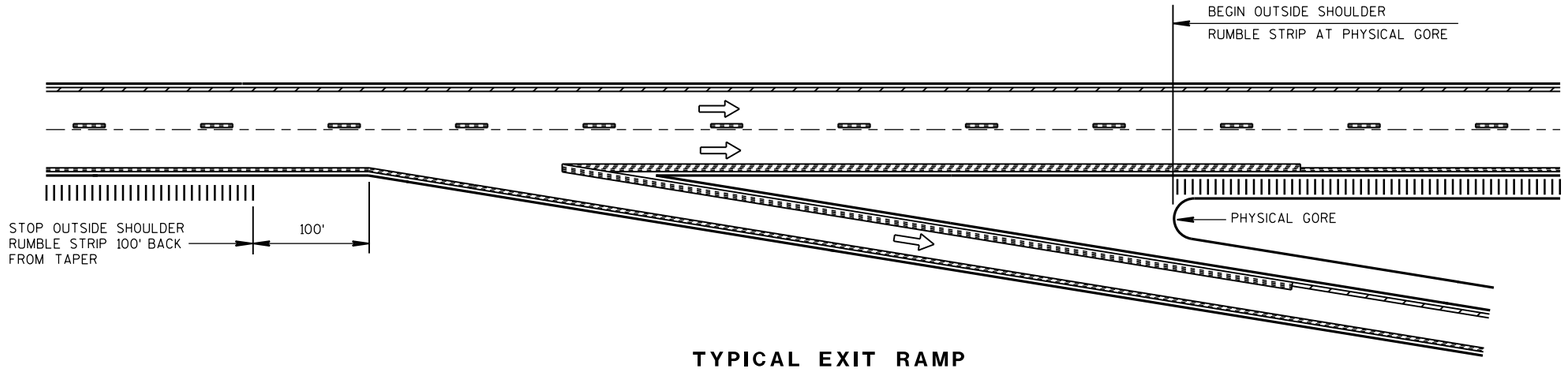
S.D.D. 13 A 5-5a



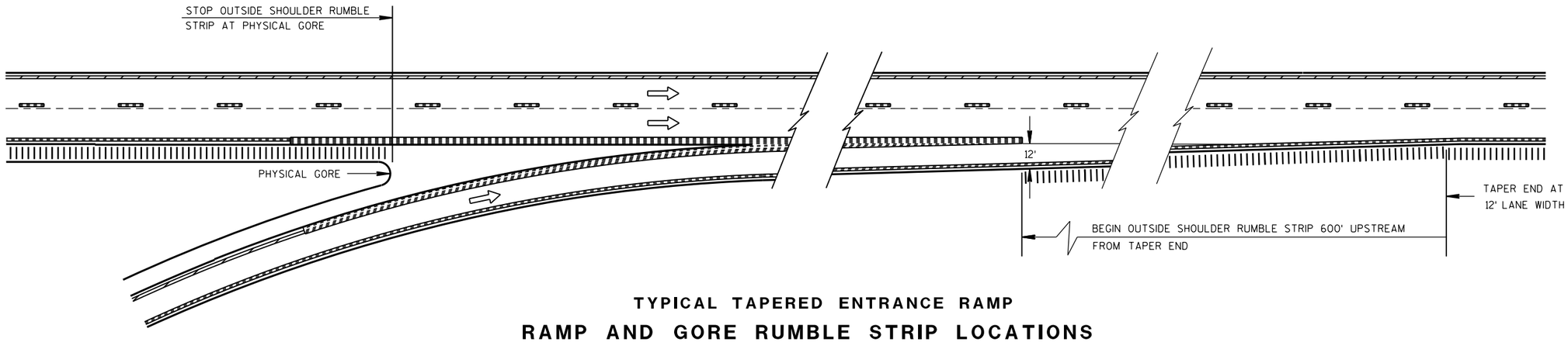
TYPICAL EXIT RAMP

NOTES:

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

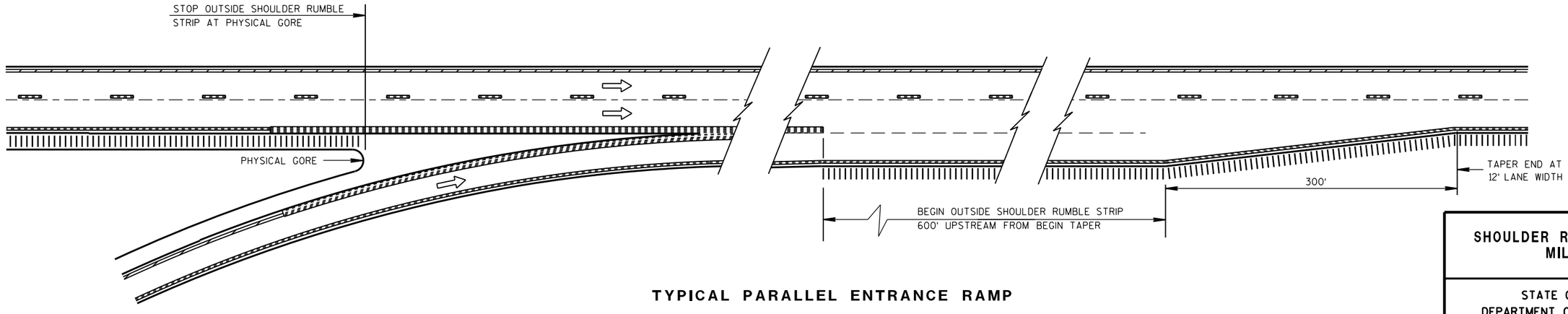
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

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

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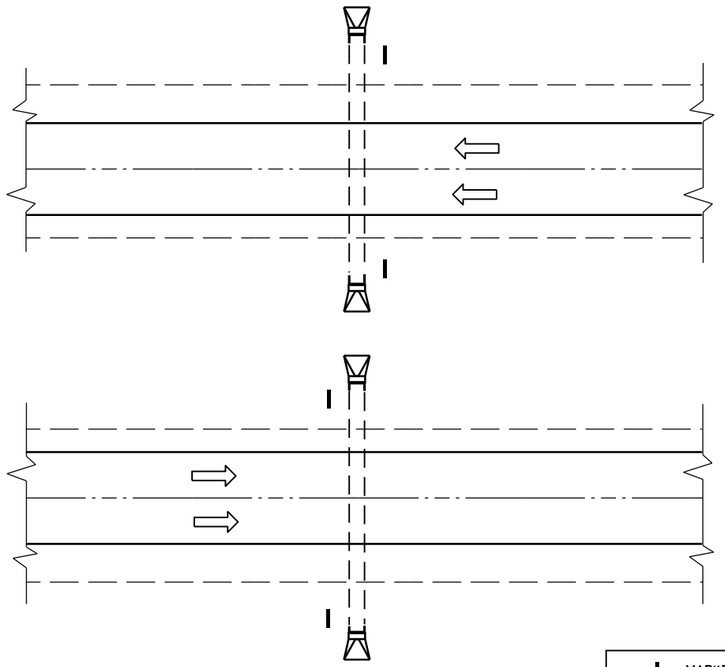
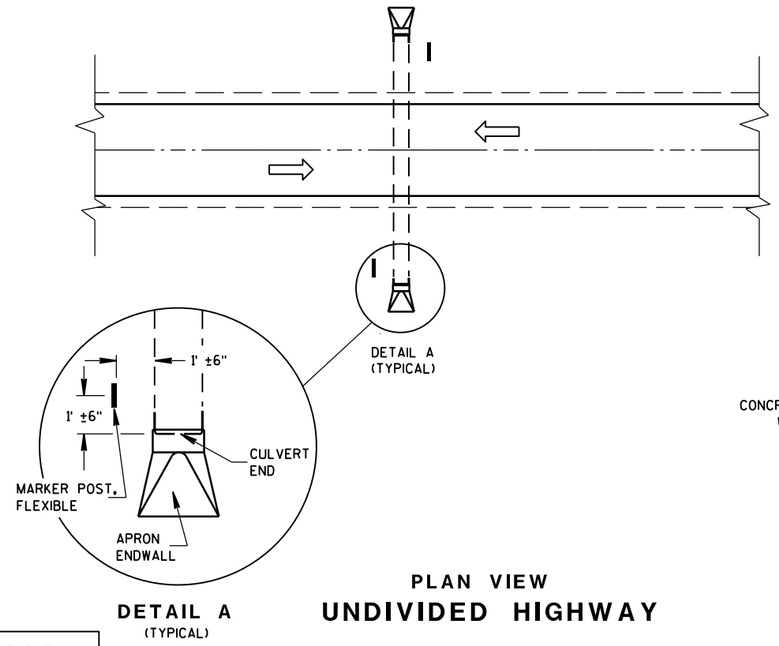
S.D.D. 13 A 5-5b



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

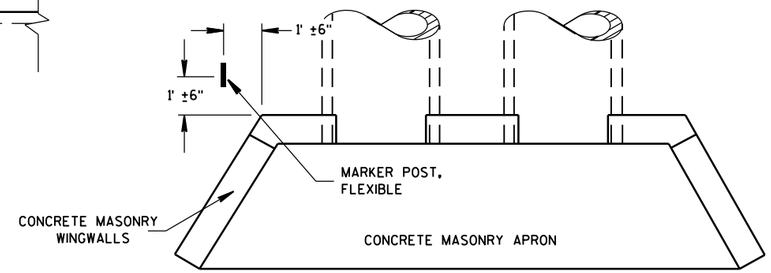
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

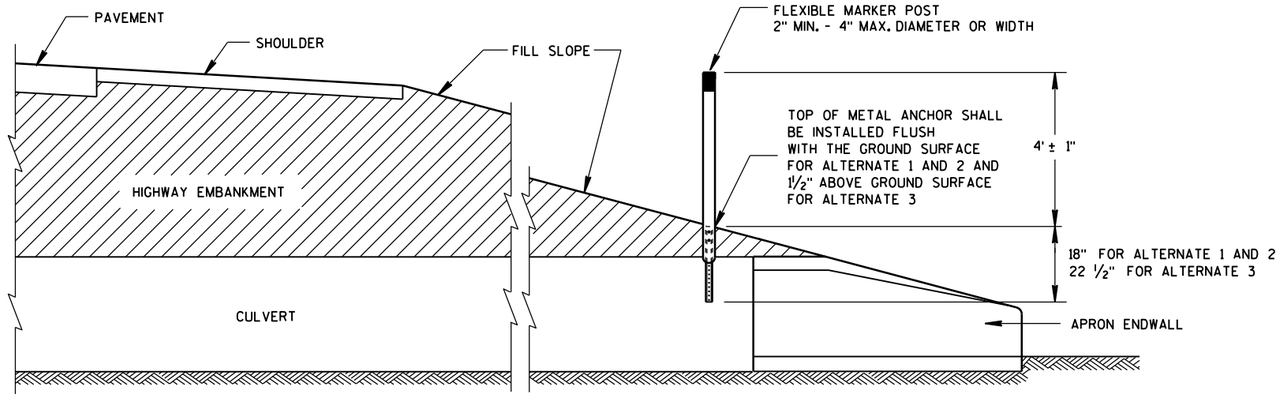
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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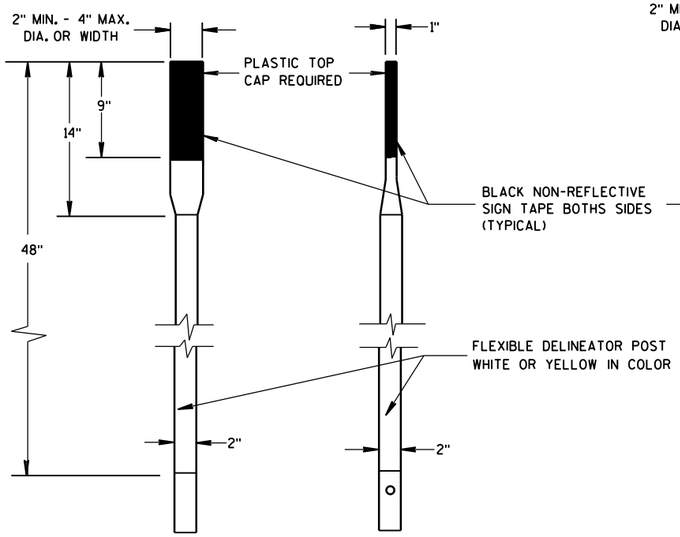
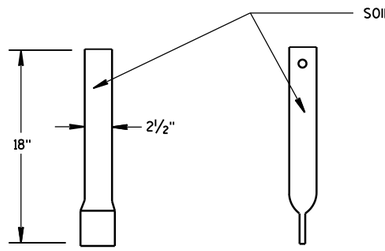
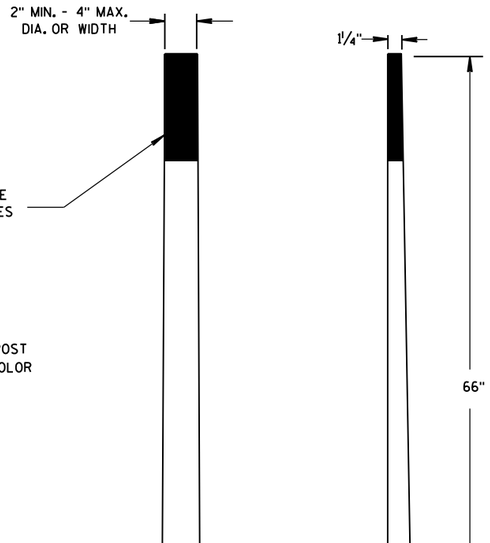
S.D.D. 15 A 3-2a





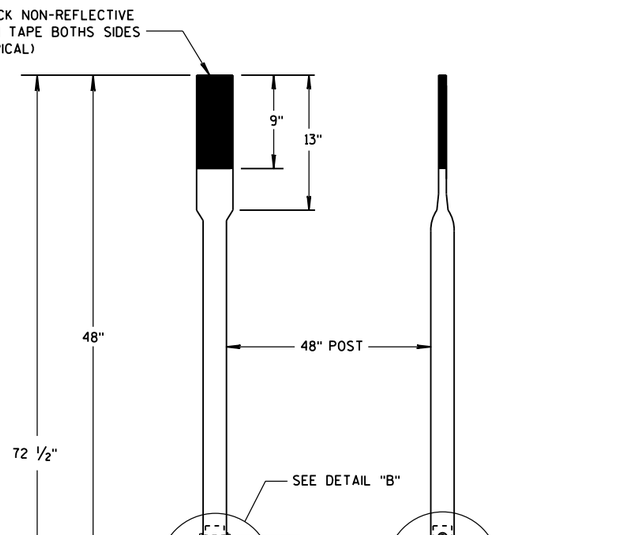
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

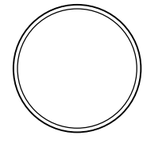
ALTERNATE 2



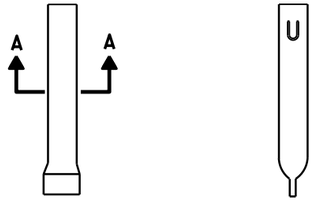
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

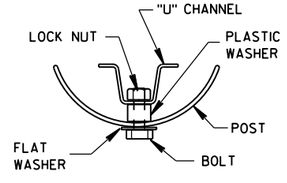


SECTION A-A

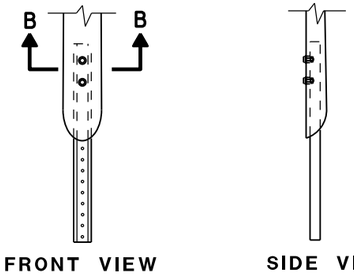


FRONT VIEW SIDE VIEW

ALTERNATE 1

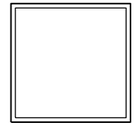


SECTION B-B

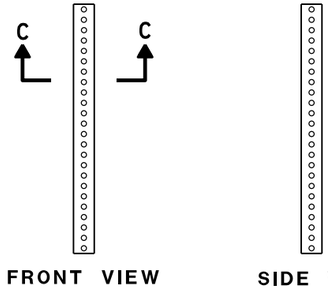


FRONT VIEW SIDE VIEW

ALTERNATE 2



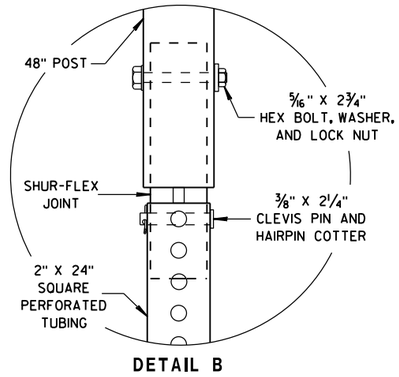
SECTION C-C



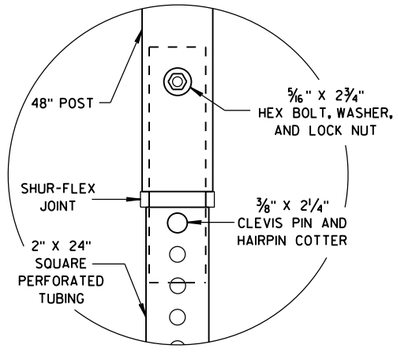
FRONT VIEW SIDE VIEW

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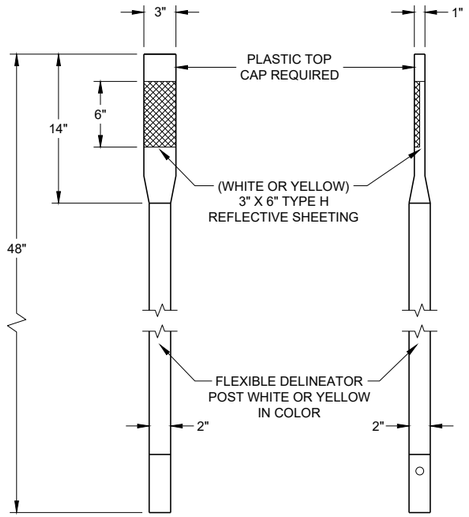
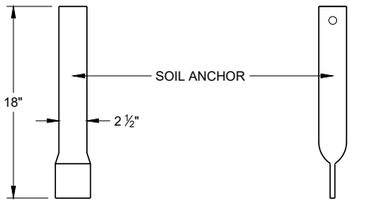
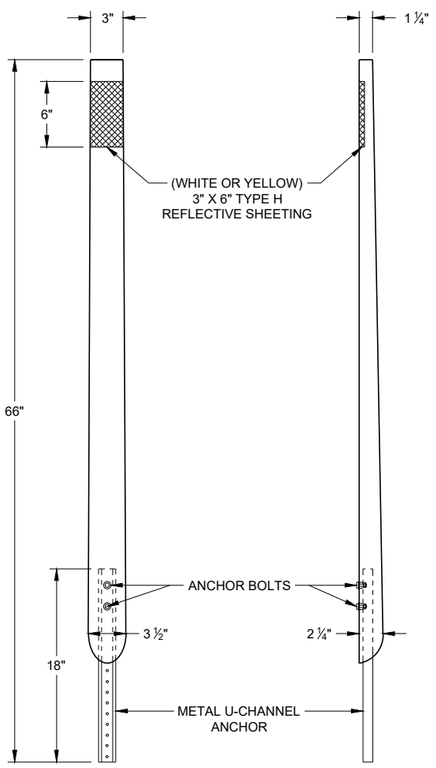
S.D.D. 15 A 3-2b





FRONT VIEW SIDE VIEW

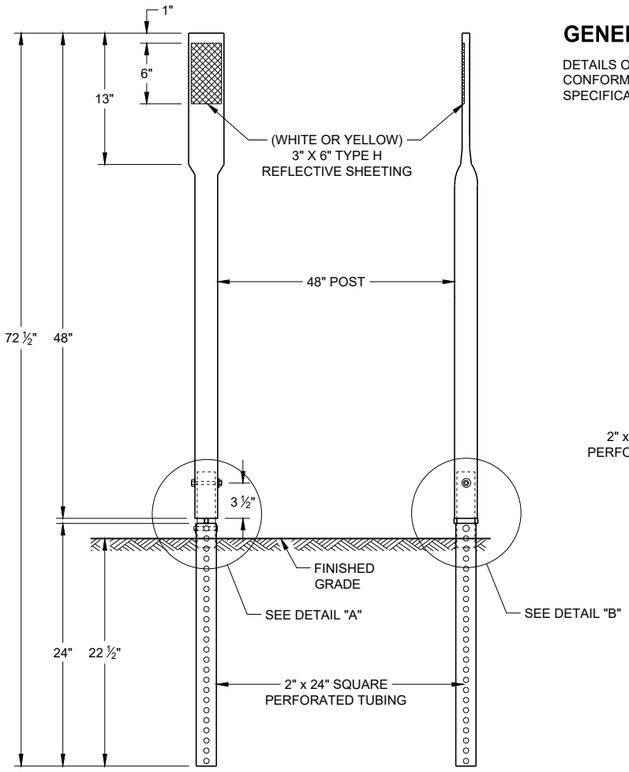
ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2

FLEXIBLE DELINEATOR POSTS

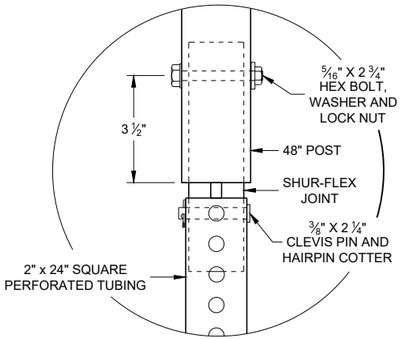


FRONT VIEW SIDE VIEW

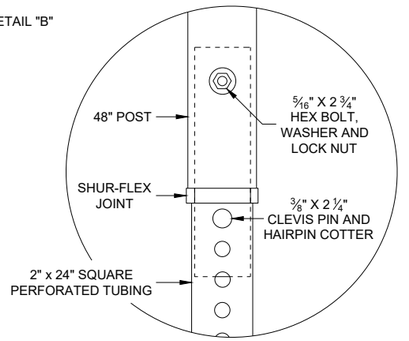
ALTERNATE 3

GENERAL NOTES

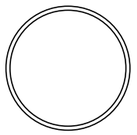
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



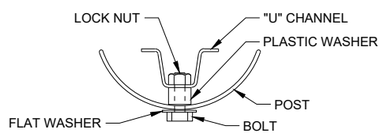
DETAIL A



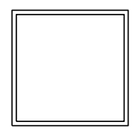
DETAIL B



SECTION A - A



SECTION B - B

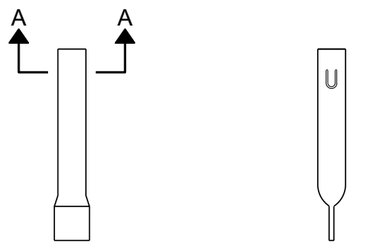


SECTION C - C

REFLECTOR SPACING TABLE

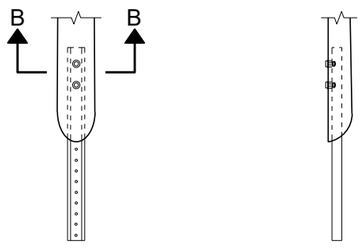
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER



FRONT VIEW SIDE VIEW

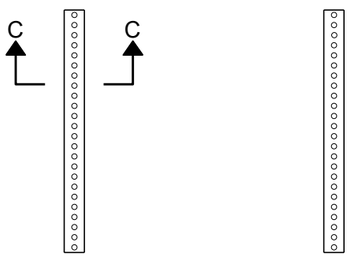
ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15A04 - 05a

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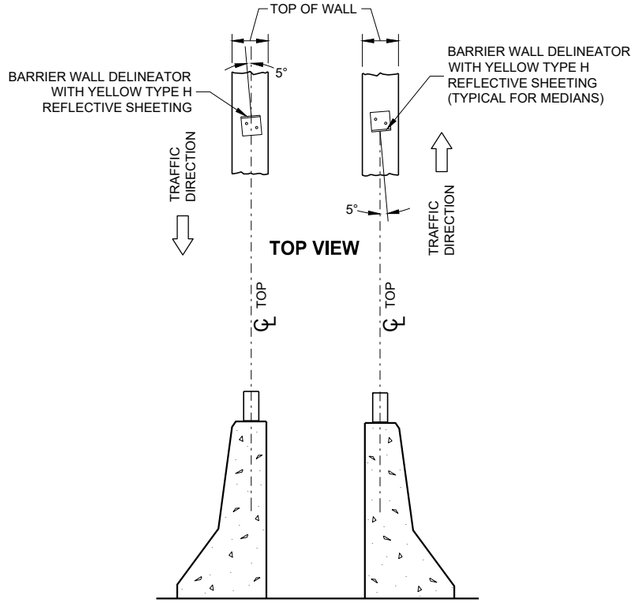
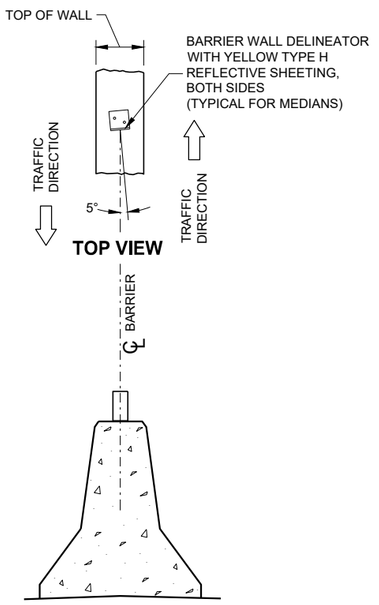
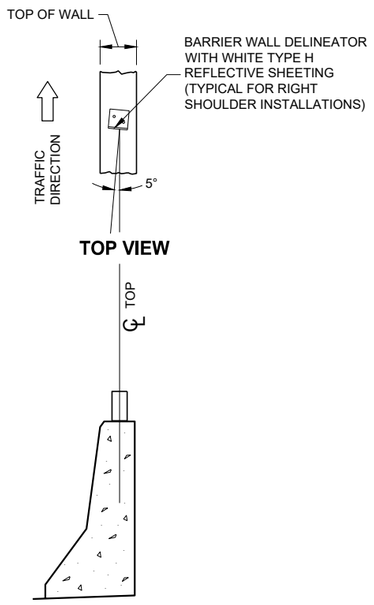


SIDE VIEW
DOUBLE BARRIERS IN MEDIAN

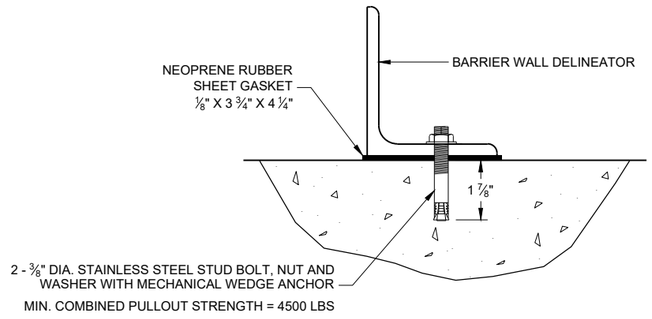


SIDE VIEW
MEDIAN BARRIER

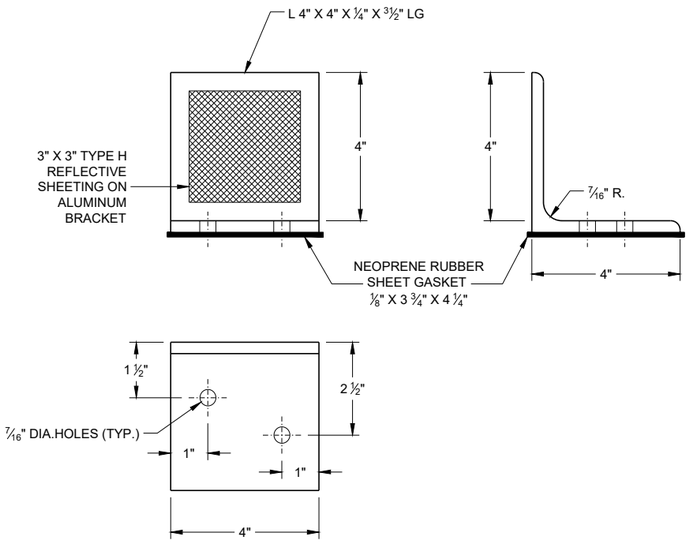


SIDE VIEW
TO RIGHT OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR BARRIER WALL DELINEATOR MOUNTED ON CONCRETE BARRIERS



BARRIER WALL DELINEATOR MOUNTING DETAIL



BARRIER WALL DELINEATOR

REFLECTOR SPACING TABLE

REFLECTOR SPACING	MINIMUM NUMBER OF REFLECTORS
100' C-C	3

BARRIER WALL DELINEATOR WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

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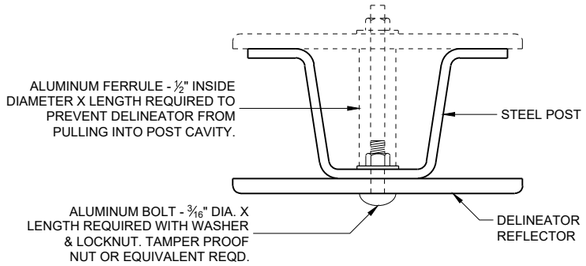
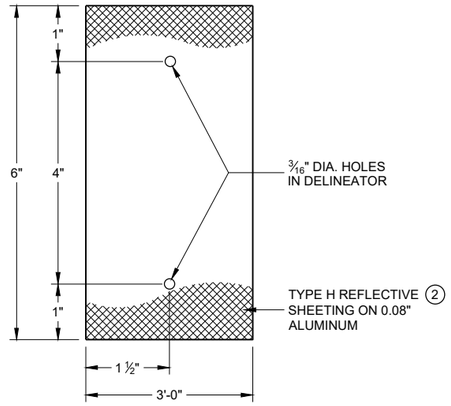
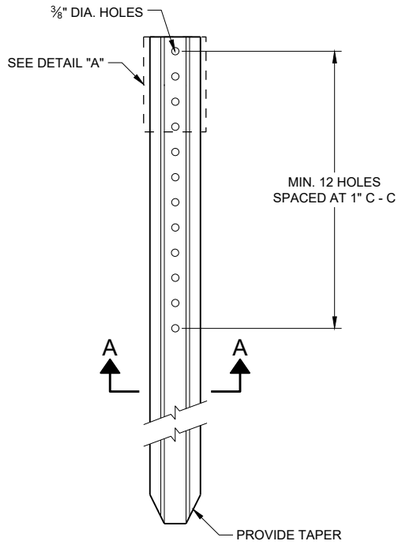
SDD 15A04 - 05b



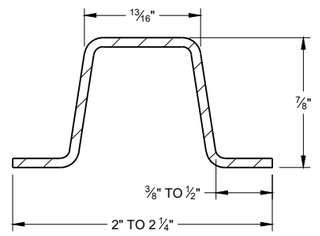
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



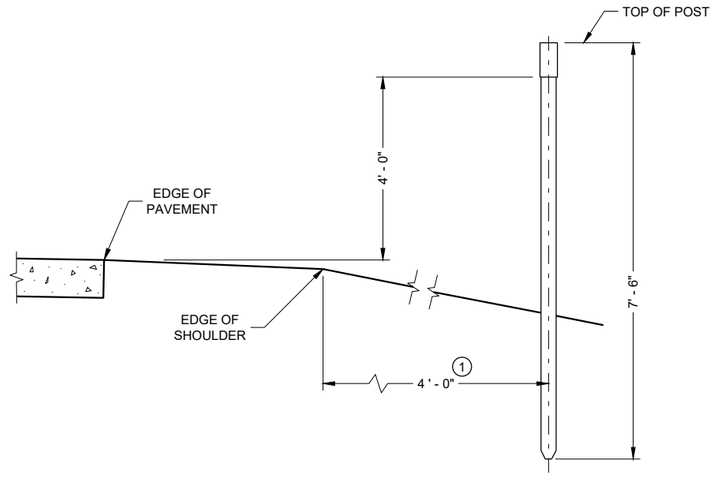
SECTION A - A

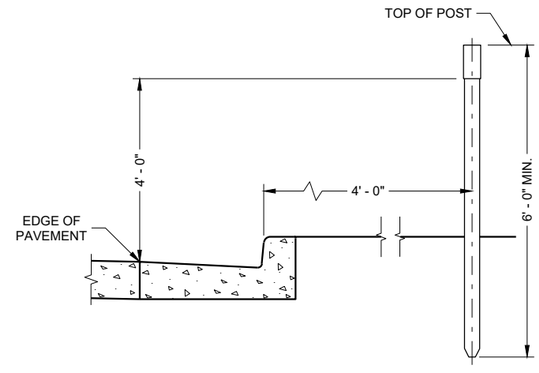
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

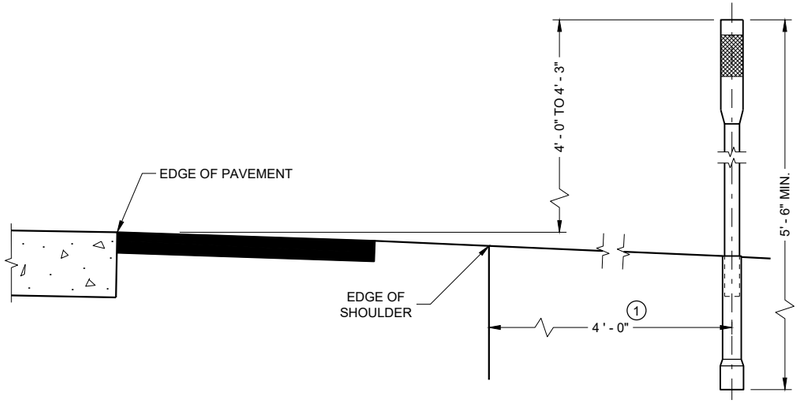
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

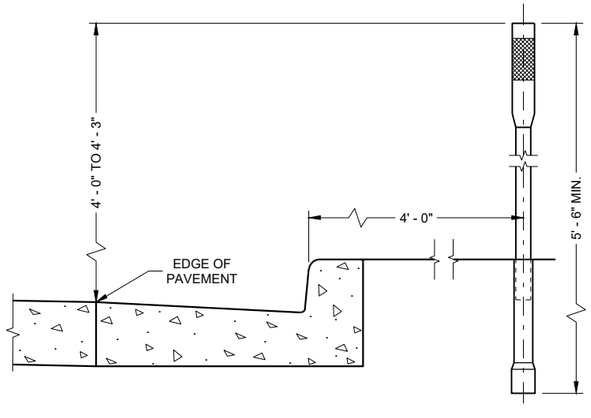
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF TEH STANDARD 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. FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

SDD 15A04 - 05c

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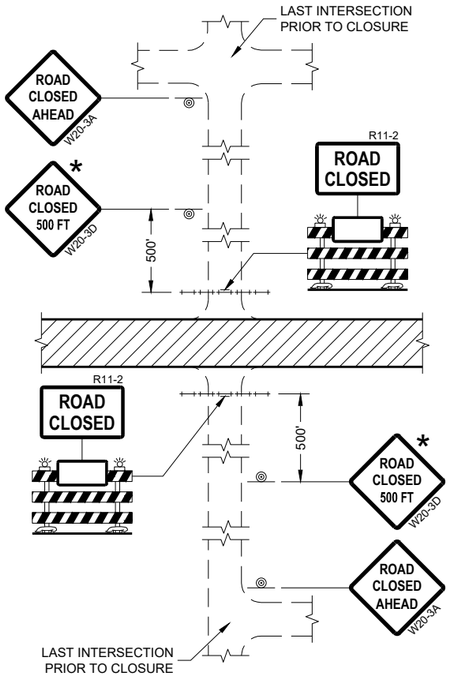
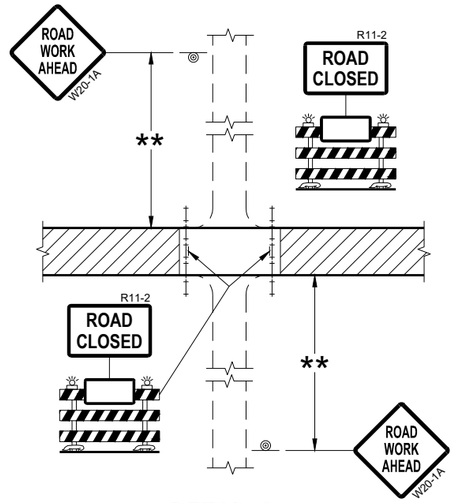
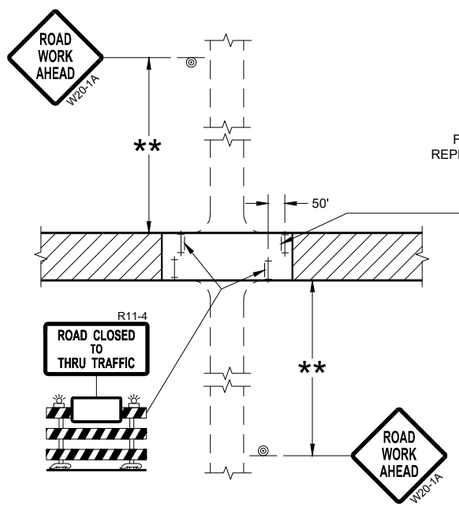


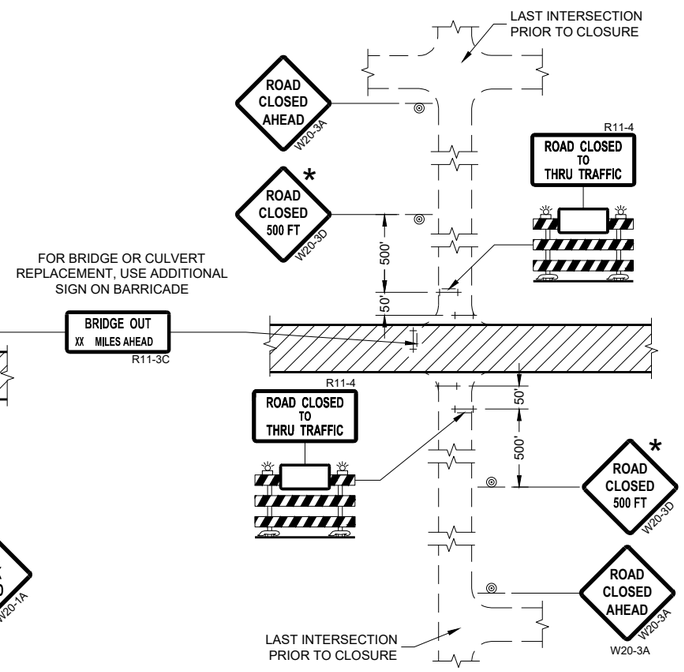
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C03 - 05

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SDD 15C03 - 05

GENERAL NOTES

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

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

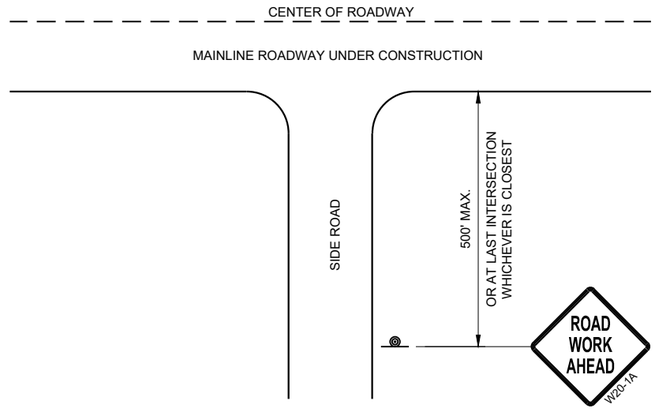
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



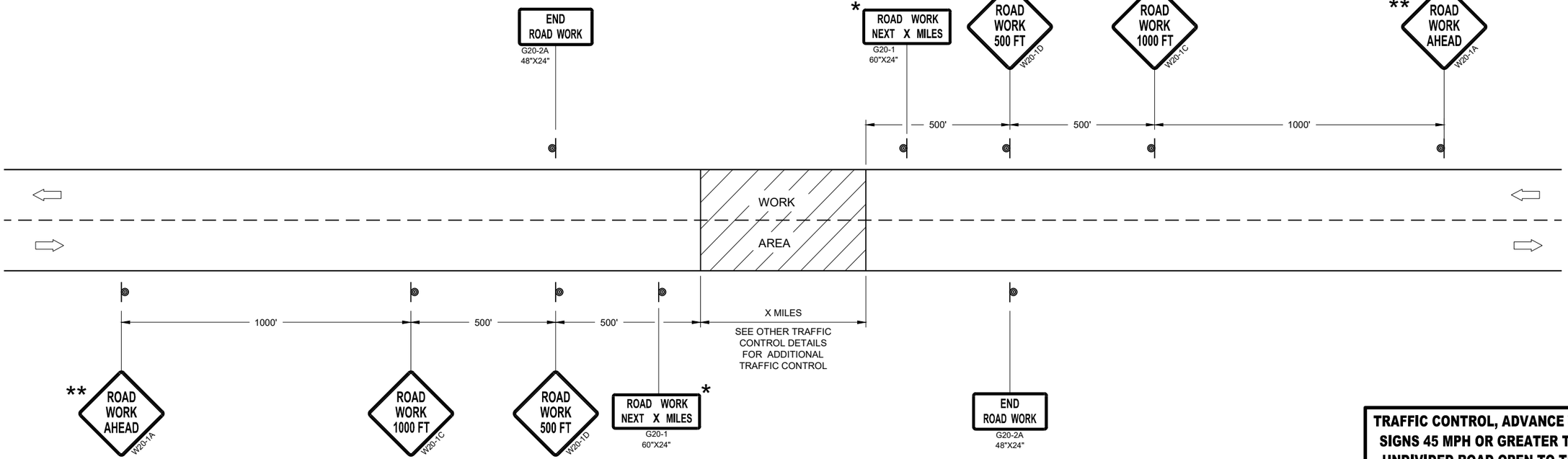
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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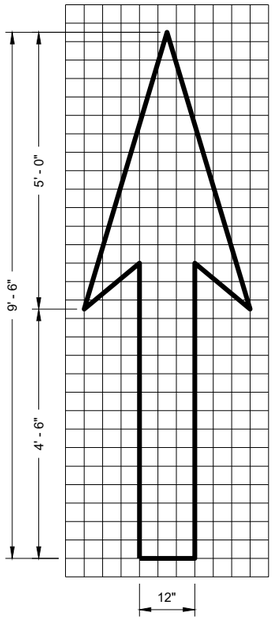
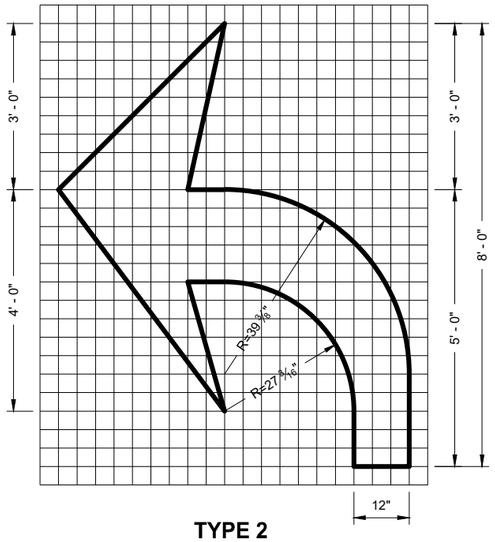
SDD 15C04 - 05

GENERAL NOTES

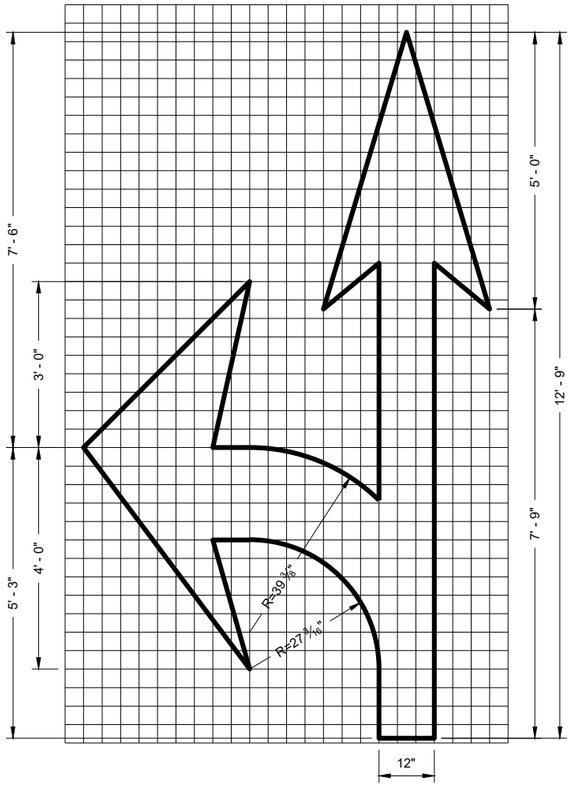
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



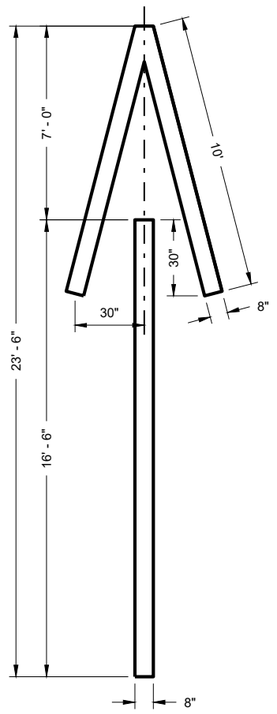
TYPE 1



TYPE 2



TYPE 3



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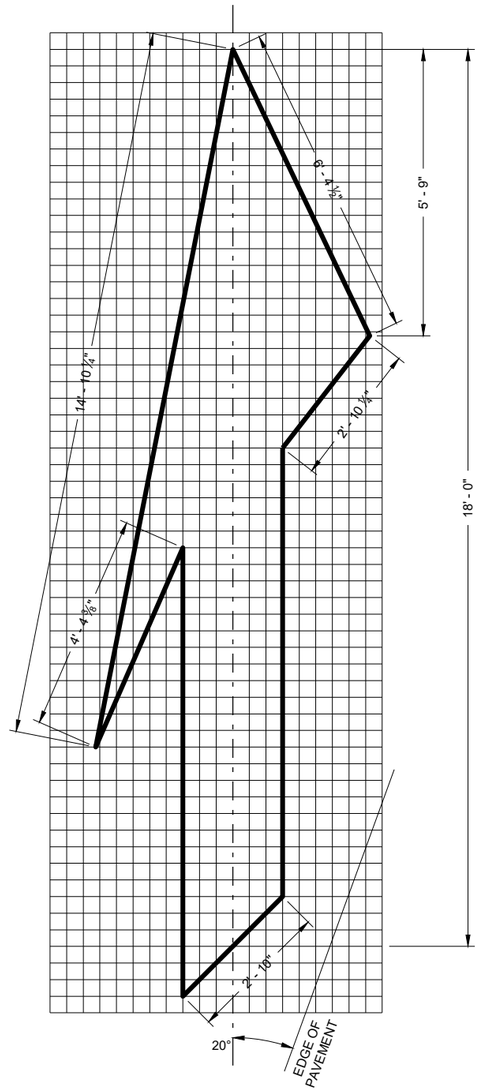
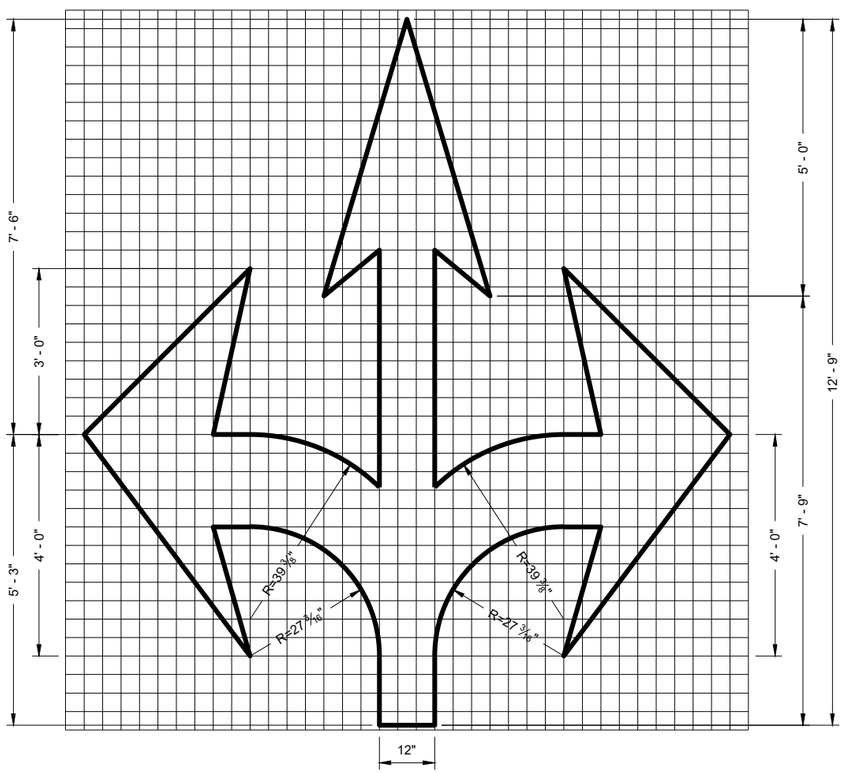
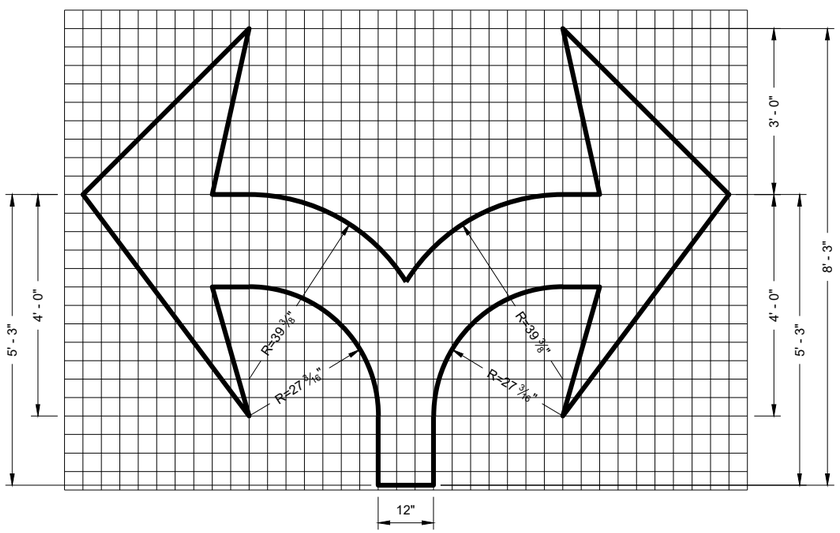


TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

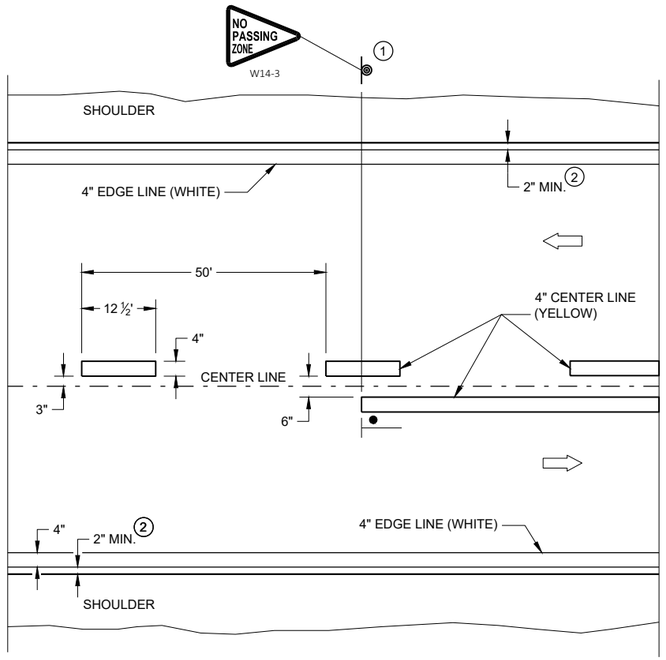
FHWA

6

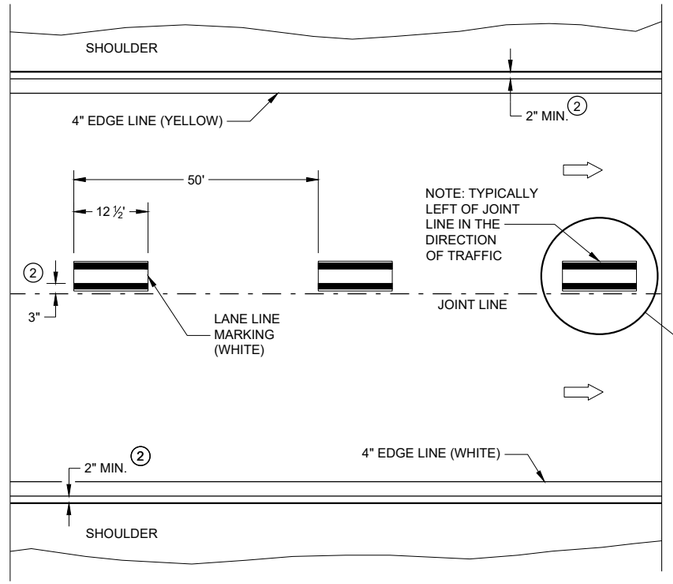
SDD 15C07 - 15c

6

SDD 15C07 - 15c

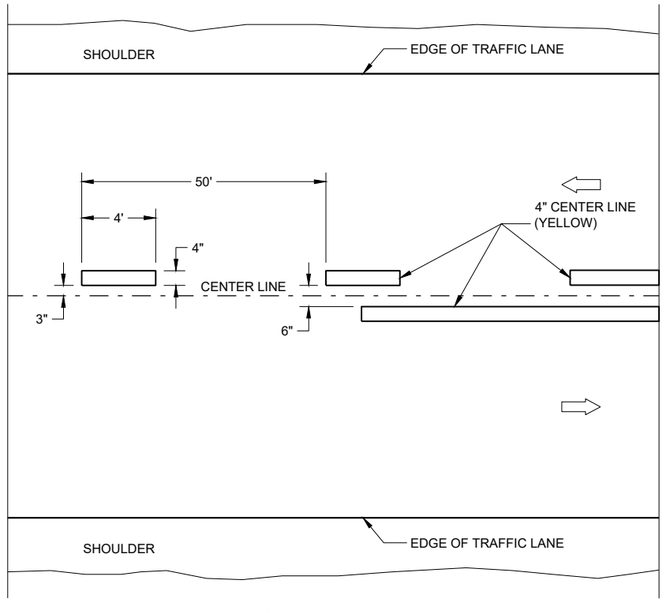


TWO WAY TRAFFIC

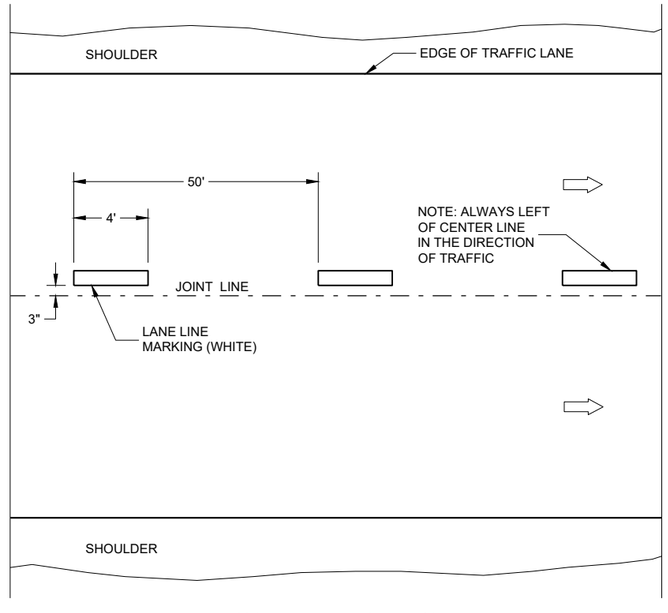


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

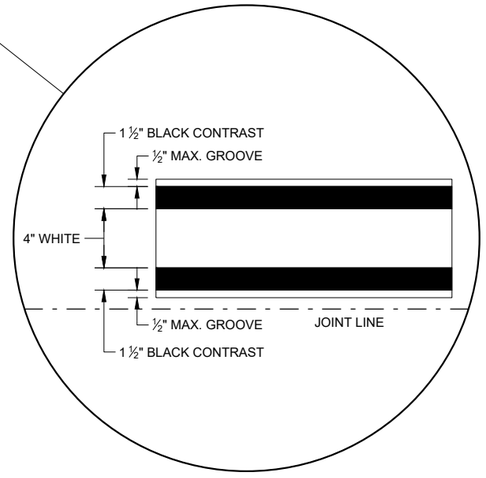
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

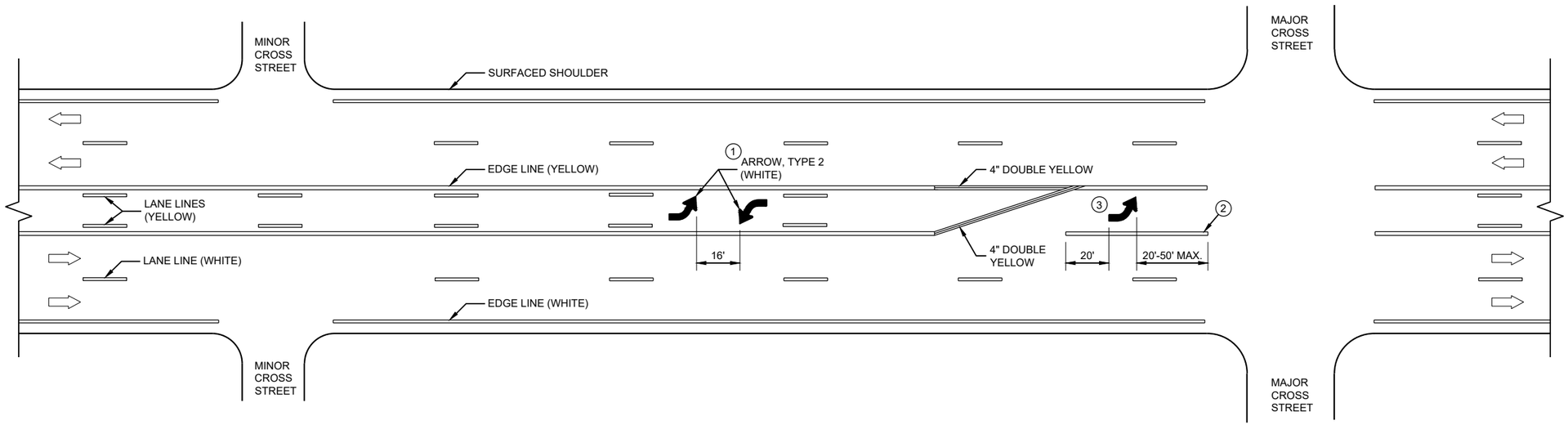
SDD 15C08 - 20a

SDD 15C08 - 20a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

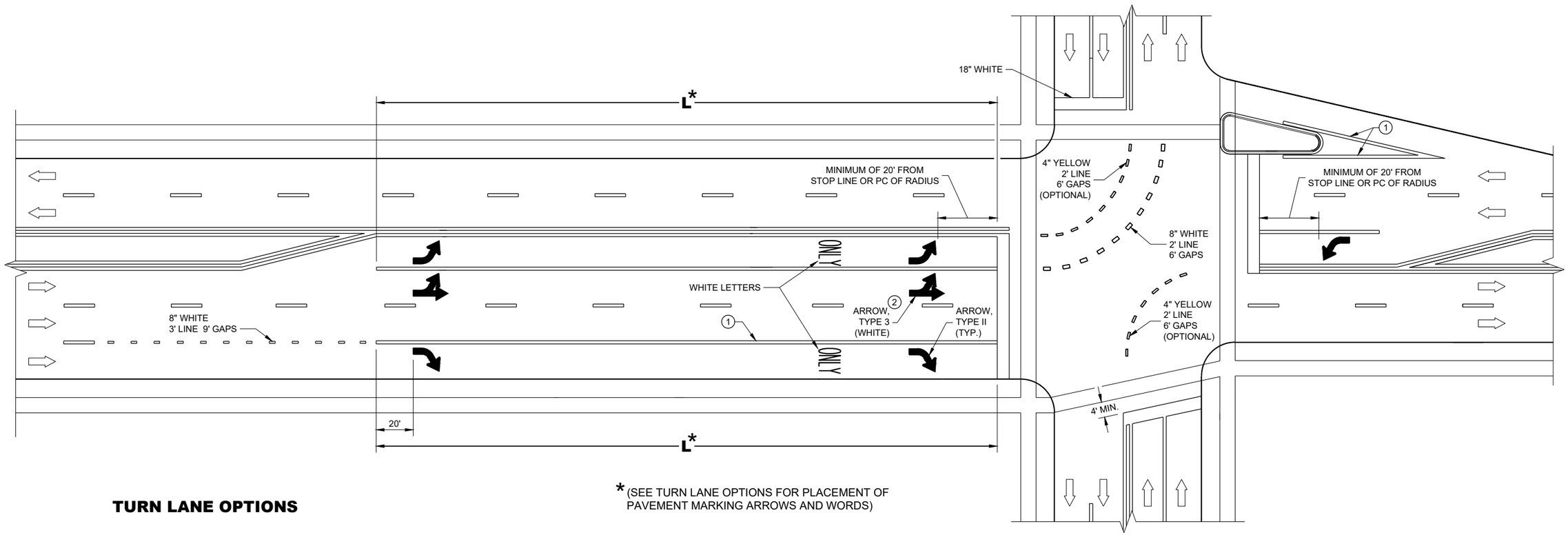
SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

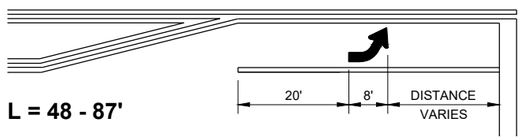
SDD 15C08 - 20b



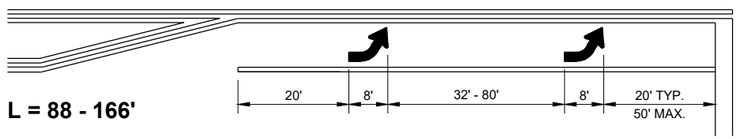
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

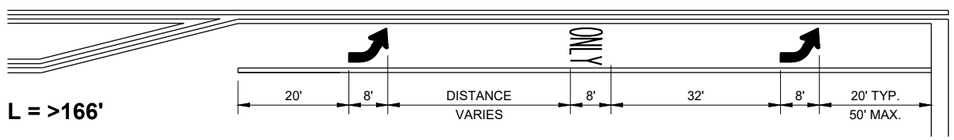
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

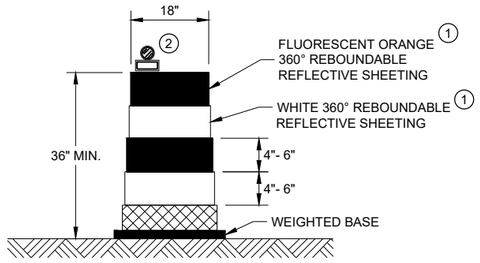
6

SDD 15C08 - 20c

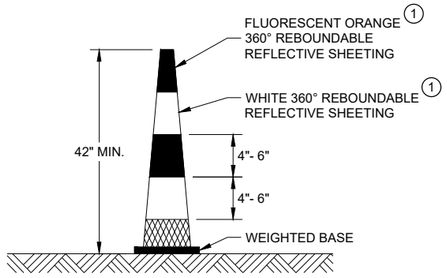
GENERAL NOTES

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

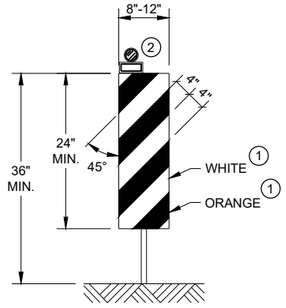


DRUM



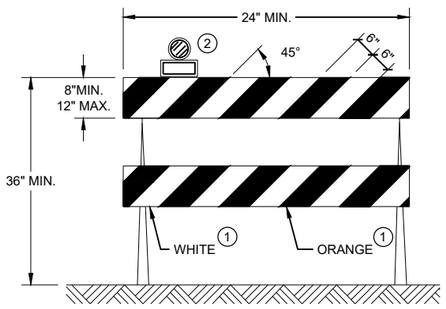
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



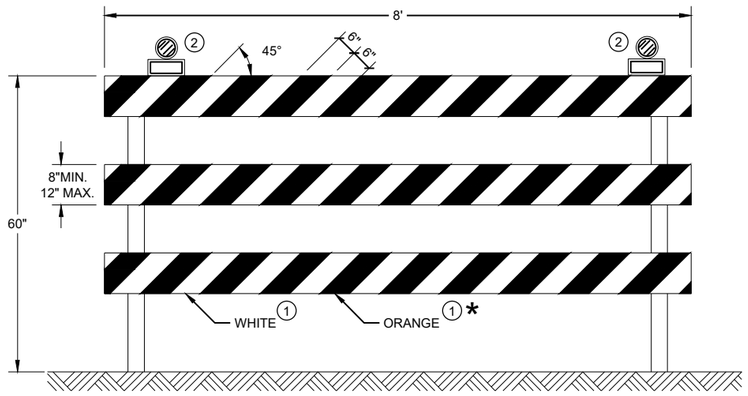
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15C11 - 07b

6

SDD 15C11 - 07b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

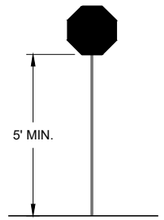
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



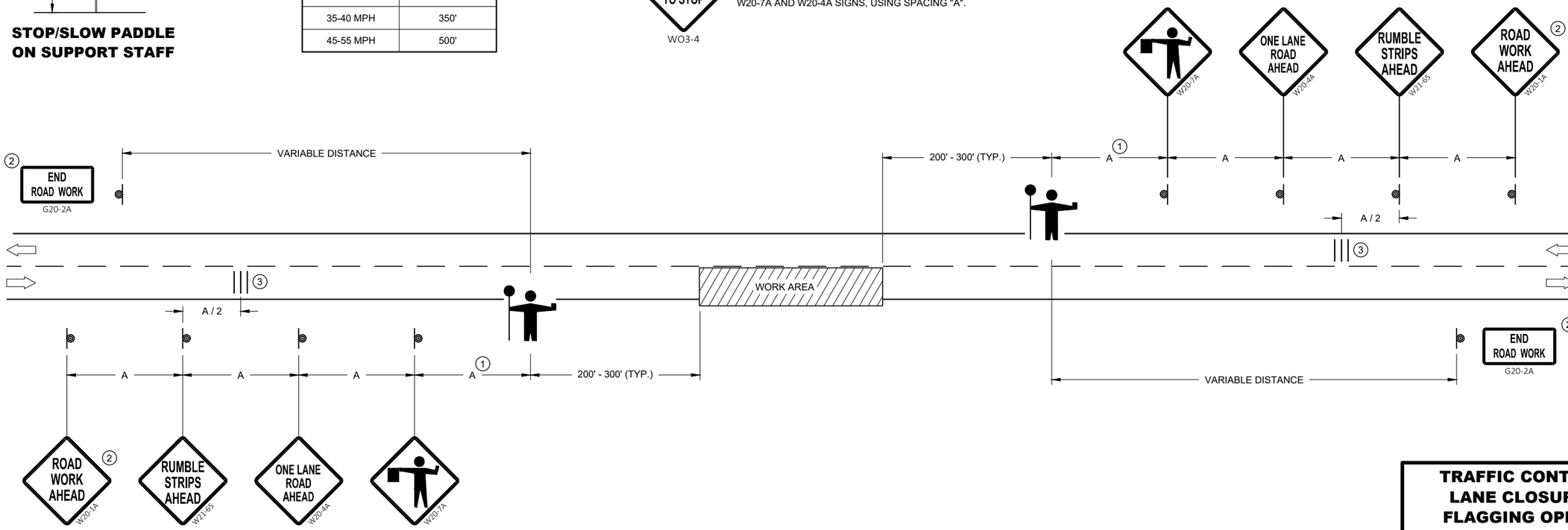
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

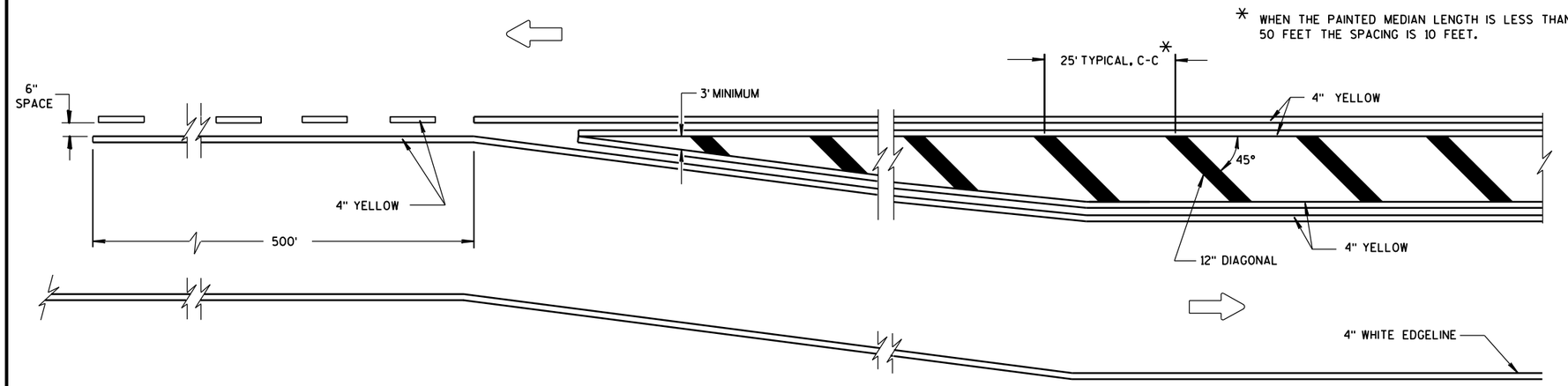
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C12 - 07

SDD 15C12 - 07

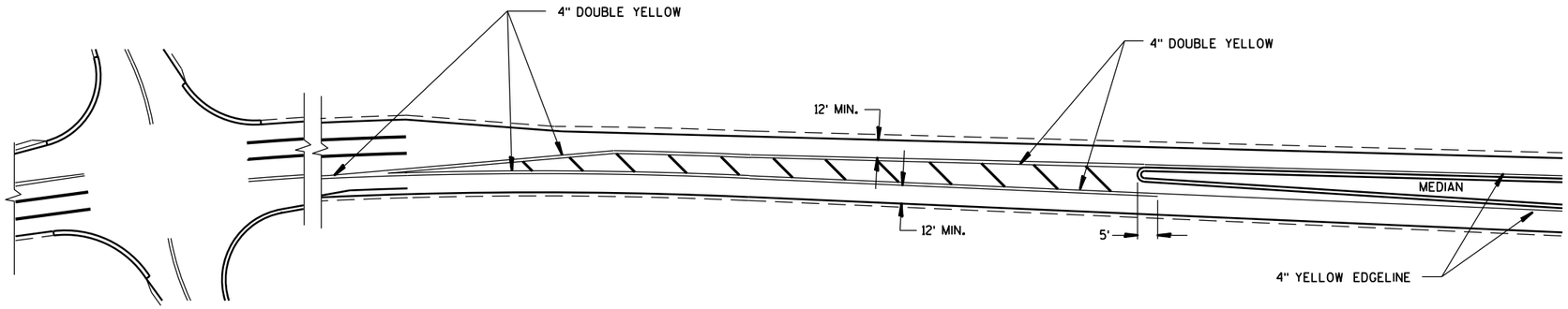


MEDIAN ISLAND DETAIL

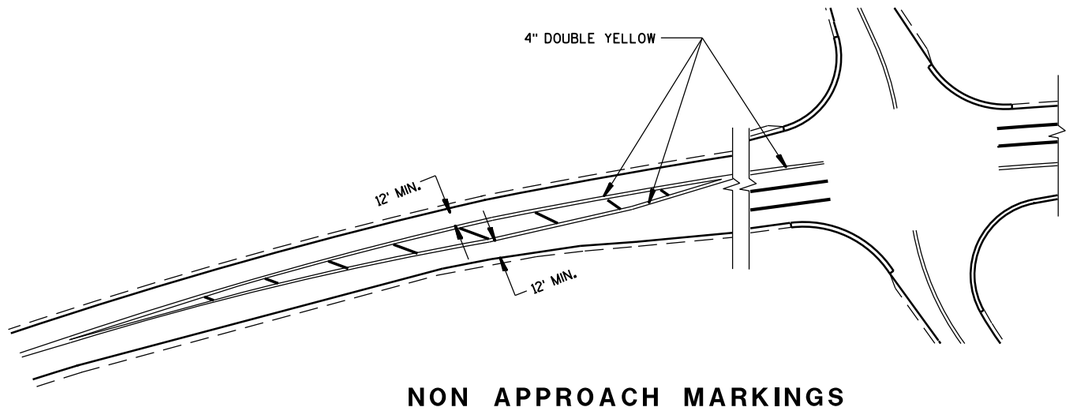
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE FHWA	/S/ Matthew Rauch STATE SIGNING AND MARK ENGINEER

6

S.D.D. 15 C 18-4

6

S.D.D. 15 C 18-4

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

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 OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

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 AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

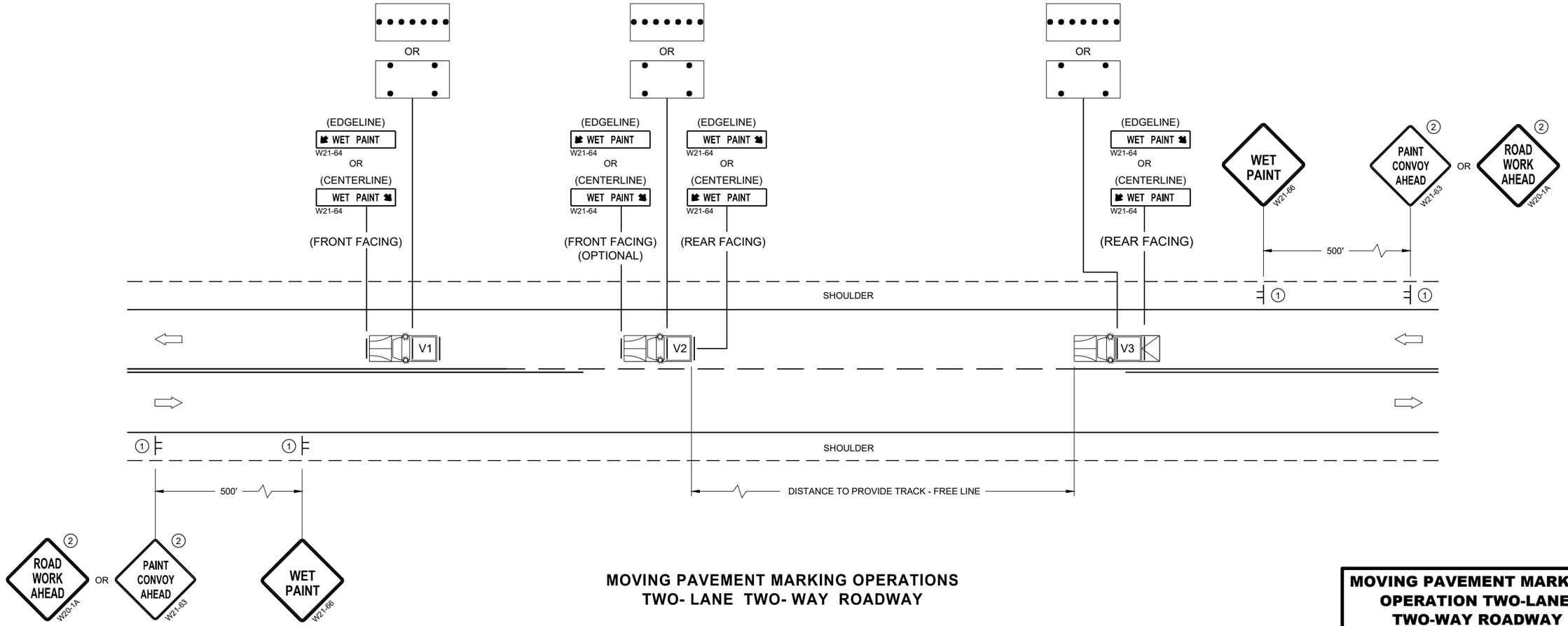
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 18" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

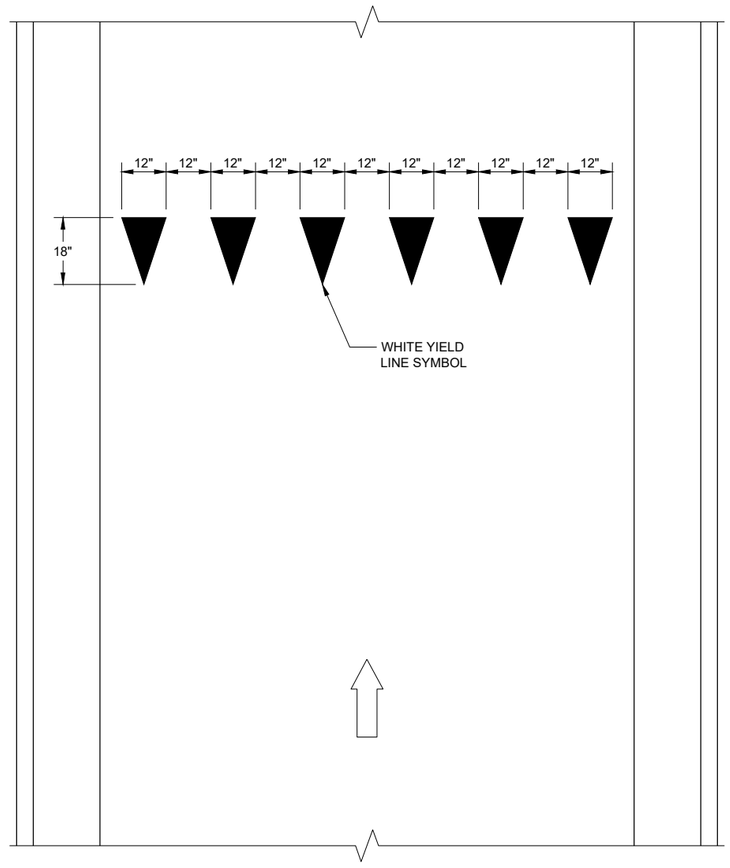
APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C19 - 06a

SDD 15C19 - 06a

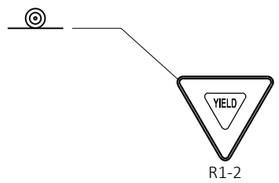


YIELD LINE

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL



R1-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-81-2016
DATE

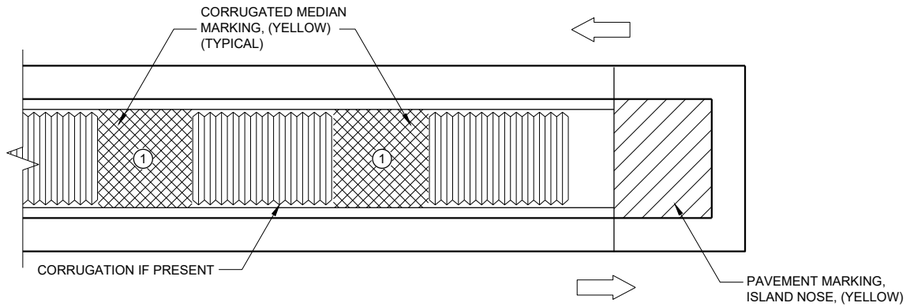
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

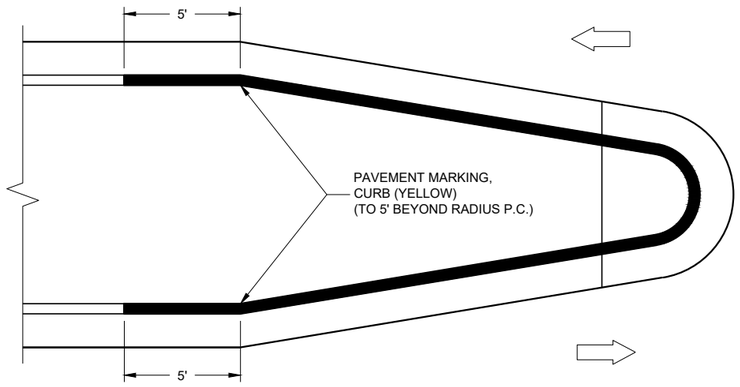
6

SDD 15C20 - 02

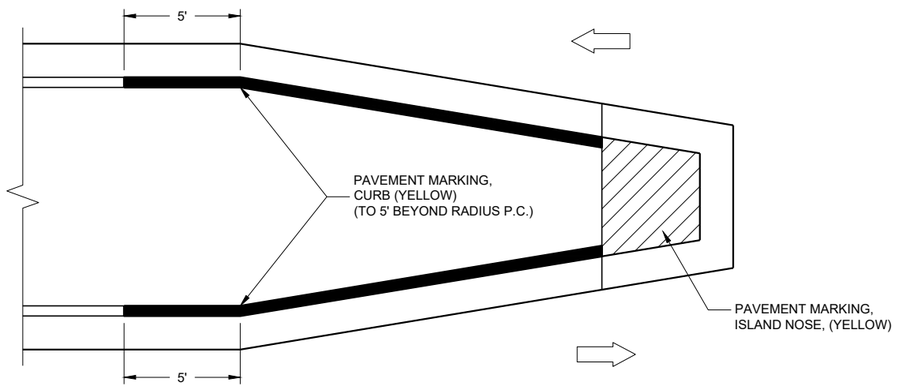
SDD 15C20 - 02



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE

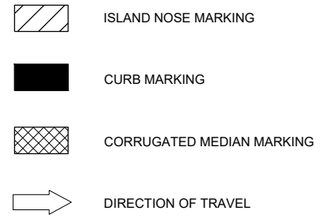


MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

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

FHWA

6

6

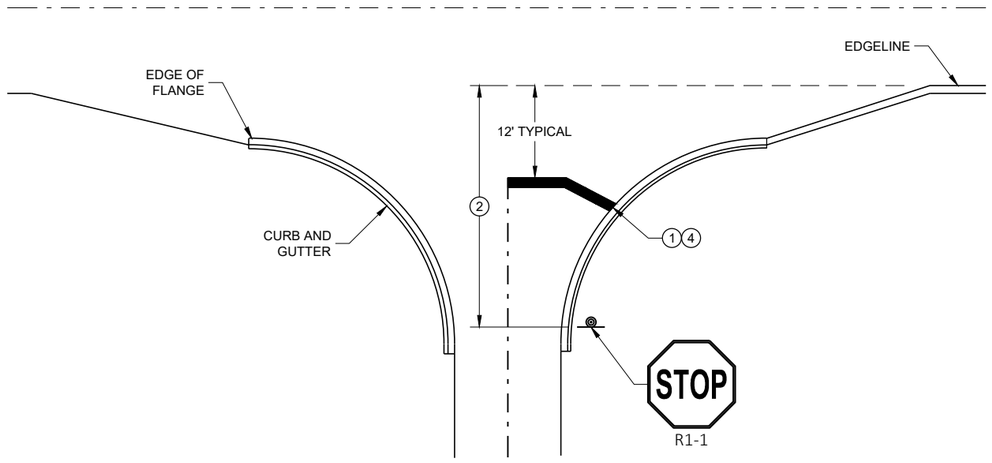
SDD 15C27 - 03b

SDD15C27 - 03b

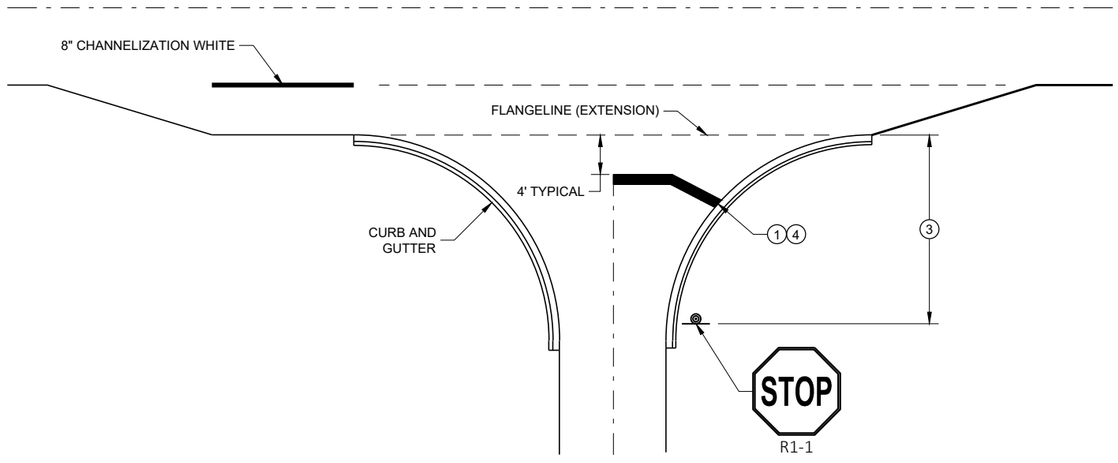
GENERAL NOTES

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

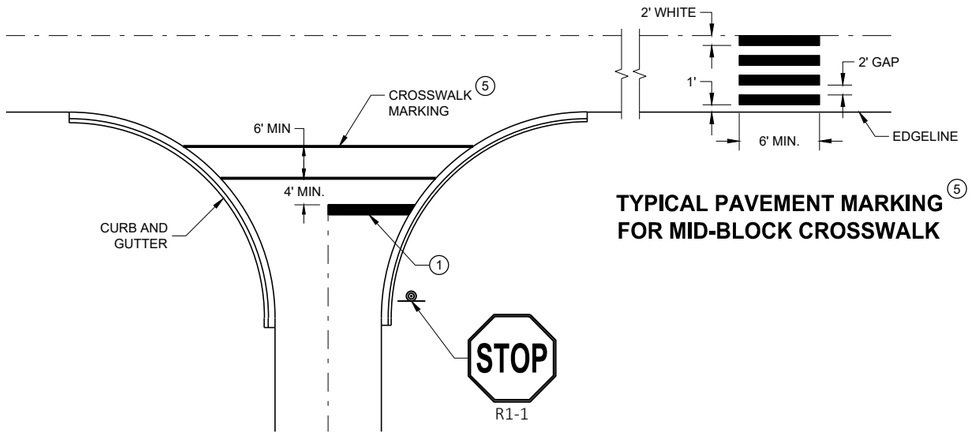
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

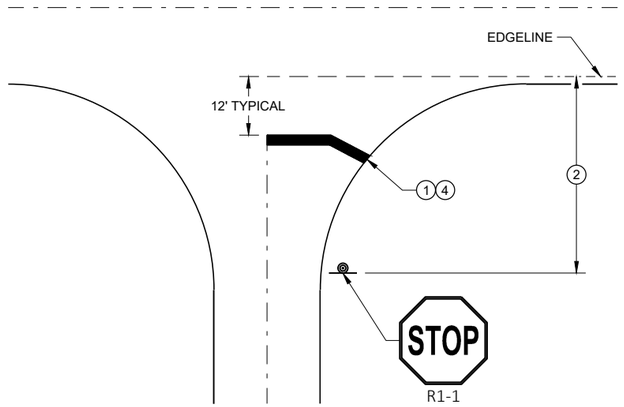


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6
SDD 15C33 - 04

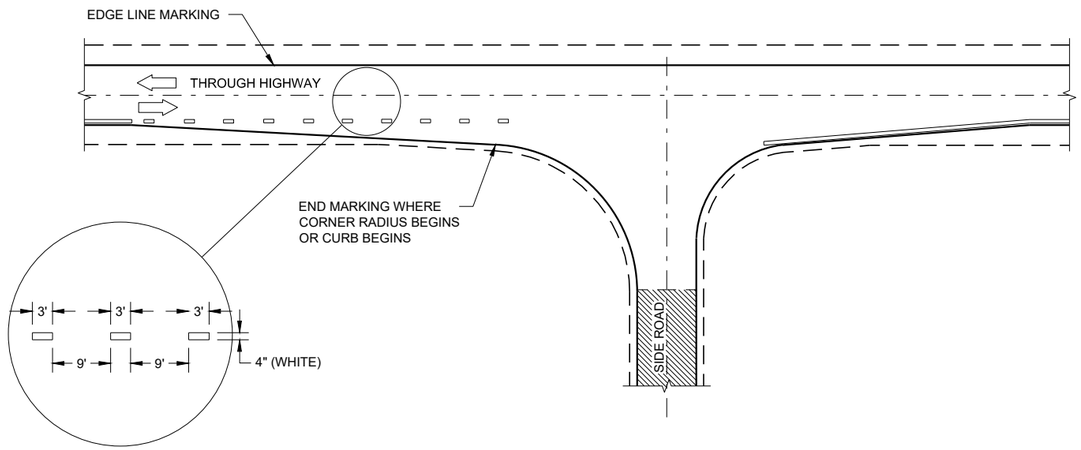
GENERAL NOTES

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

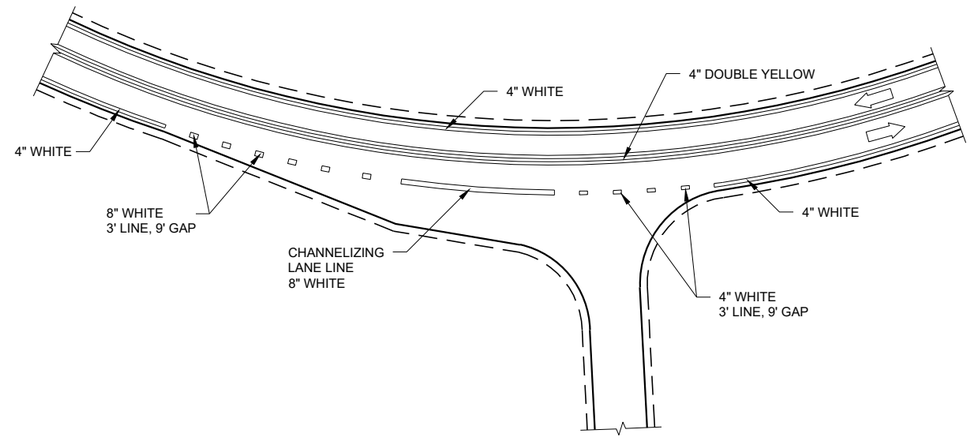
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

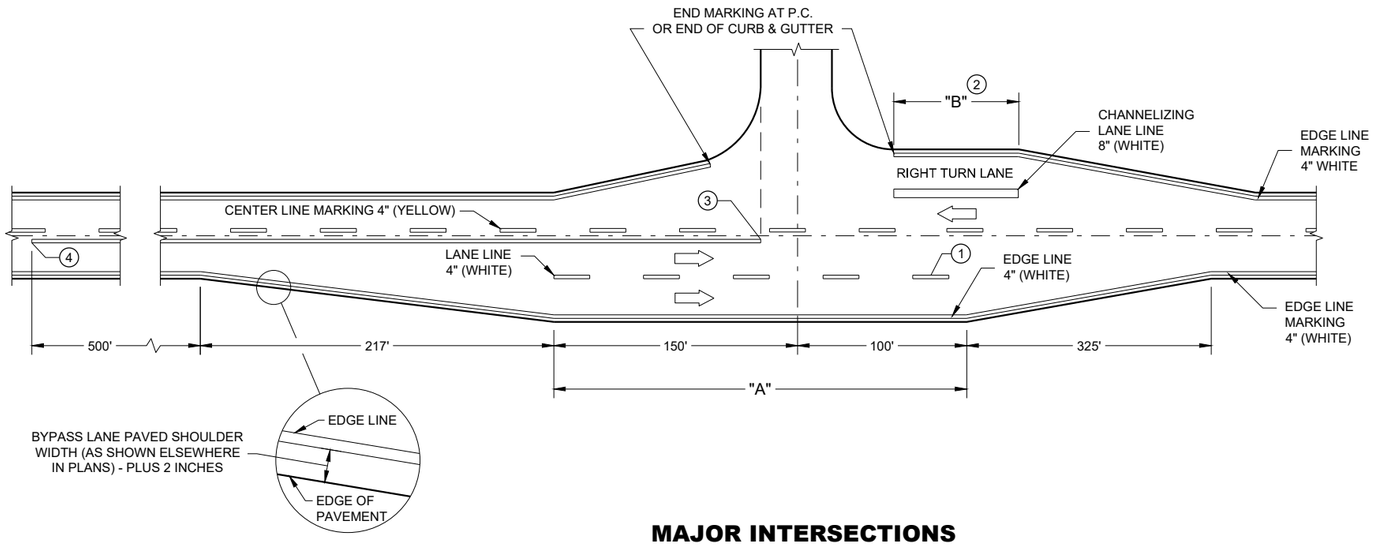
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04a

6

SDD 15C35 - 04a

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

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

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

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

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

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

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

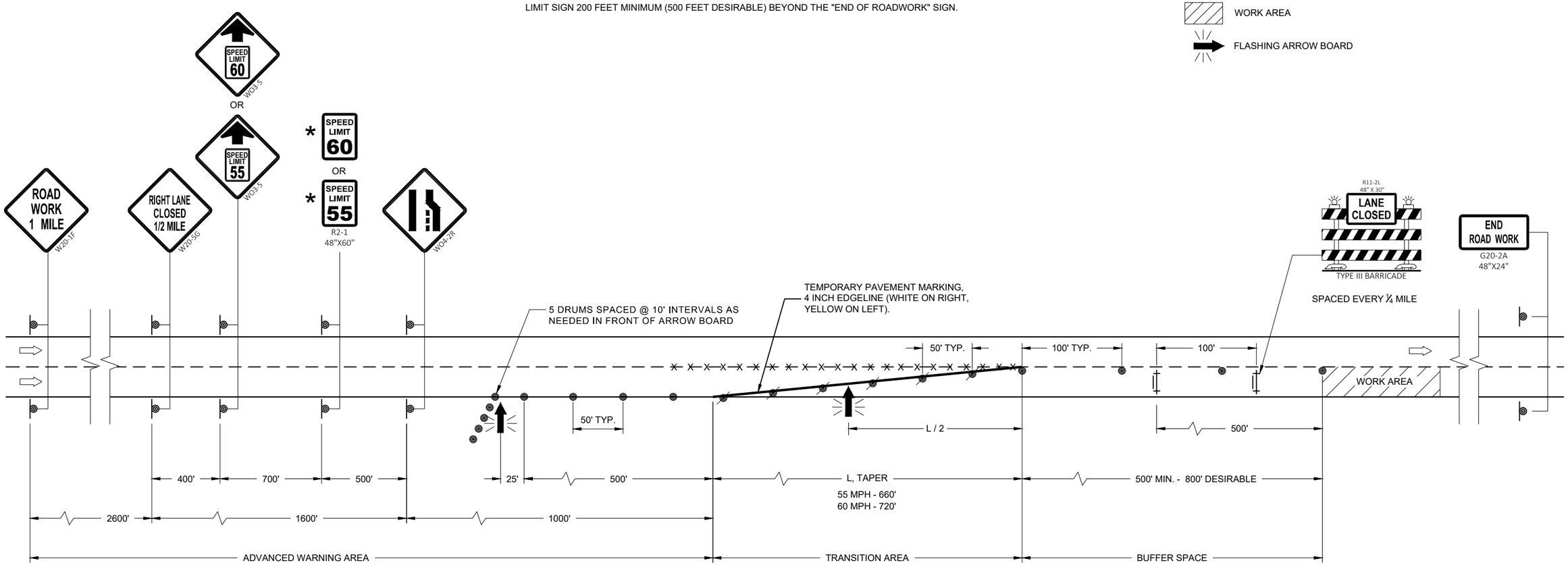
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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

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

LEGEND

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



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

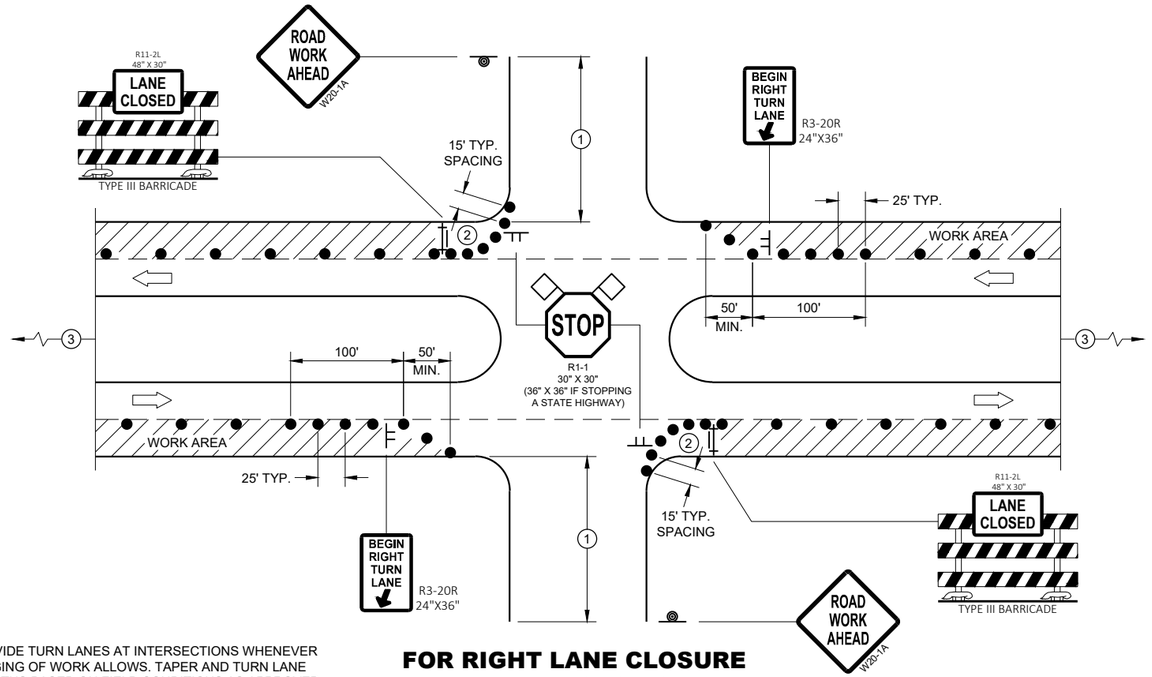
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15D12 - 08b

6
SDD 15D12 - 08b



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

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

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

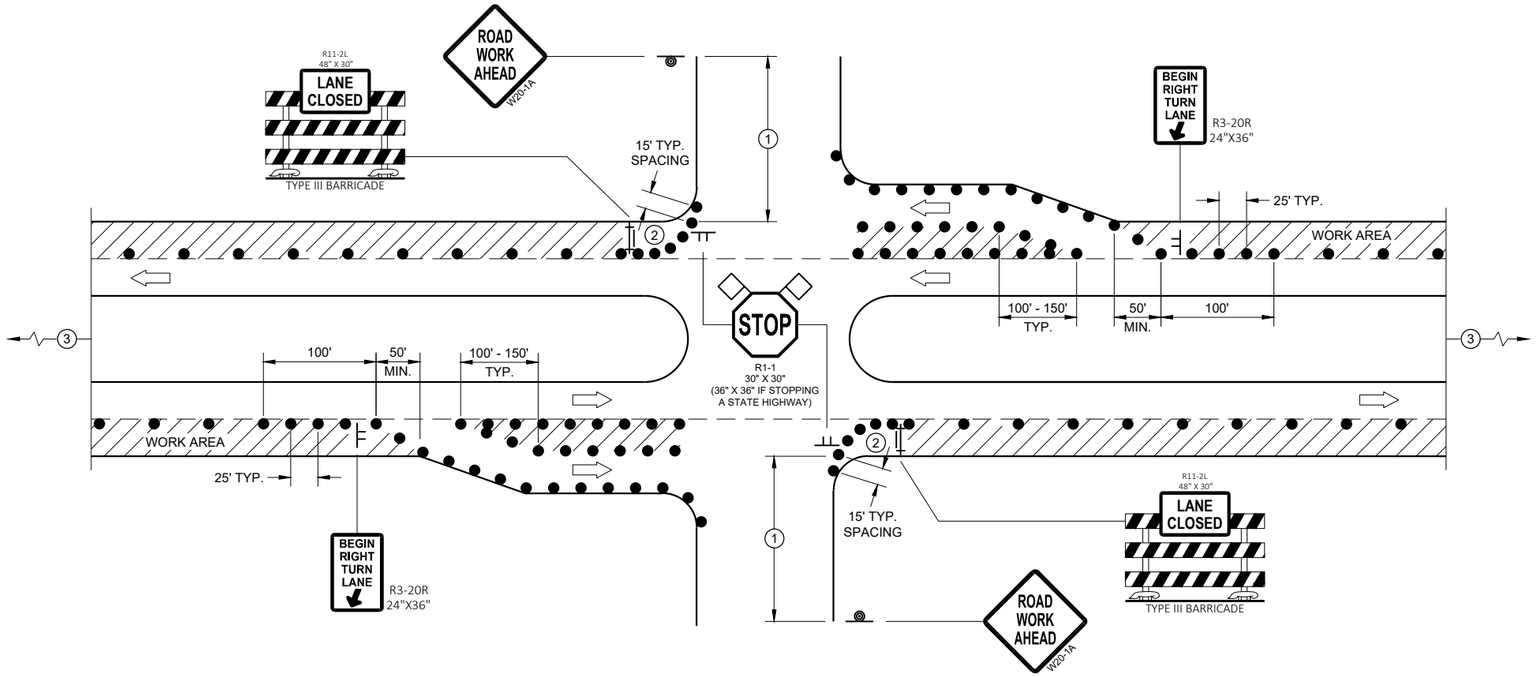
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

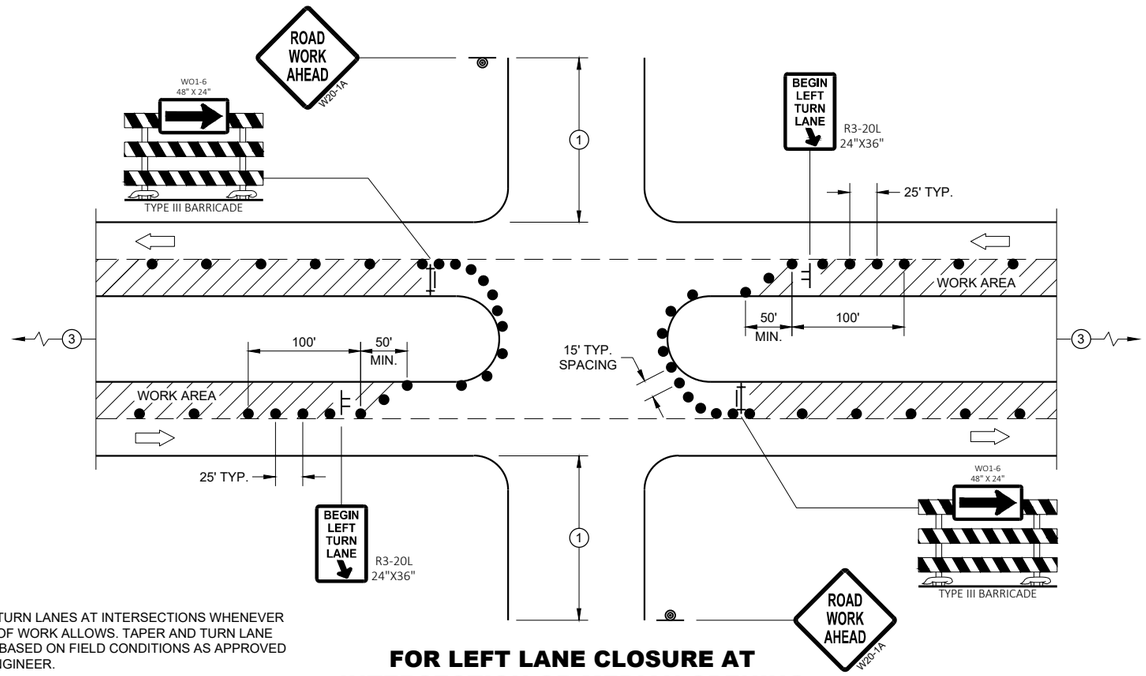
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D21 - 06a

SDD 15D21 - 06a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

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

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

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

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

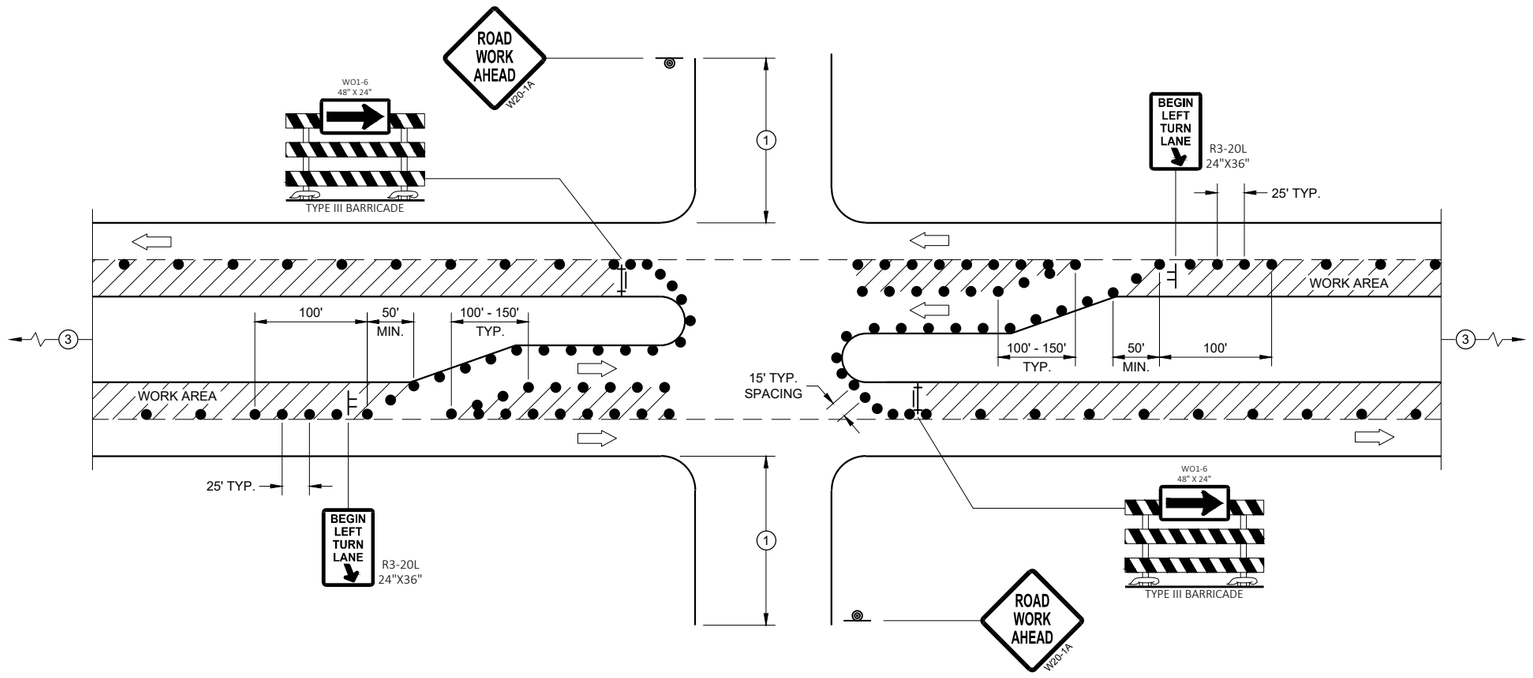
(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

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



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15D21 - 06b

SDD 15D21 - 06b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

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

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

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

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

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

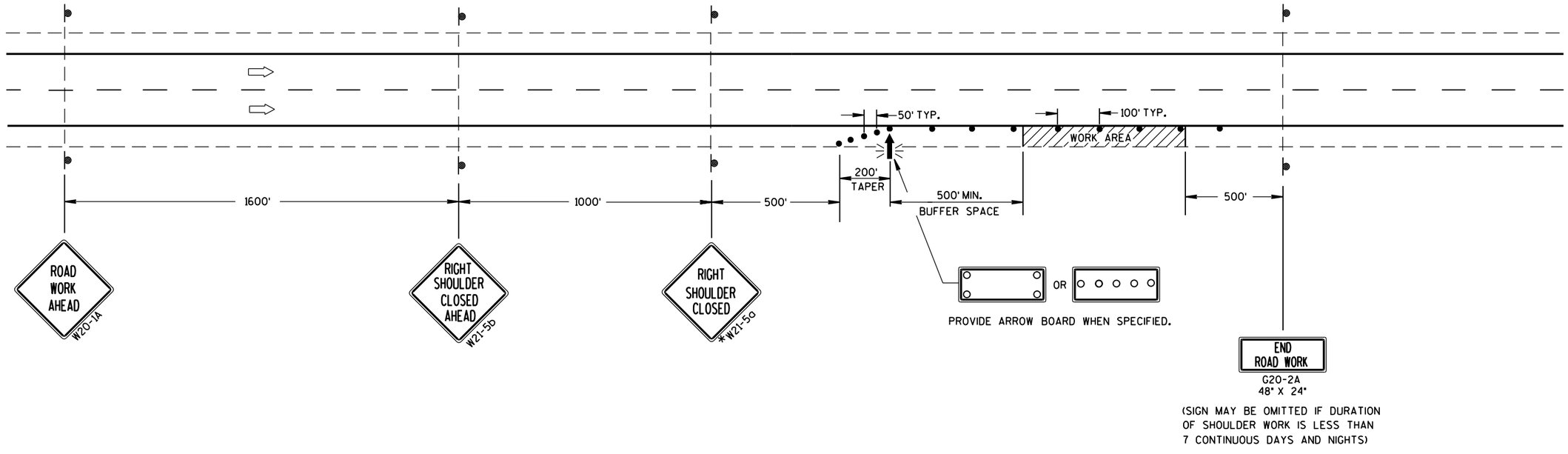
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

S.D.D. 15 D 27-3

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET
0-30	200'
35-40	350'
45-55	500'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

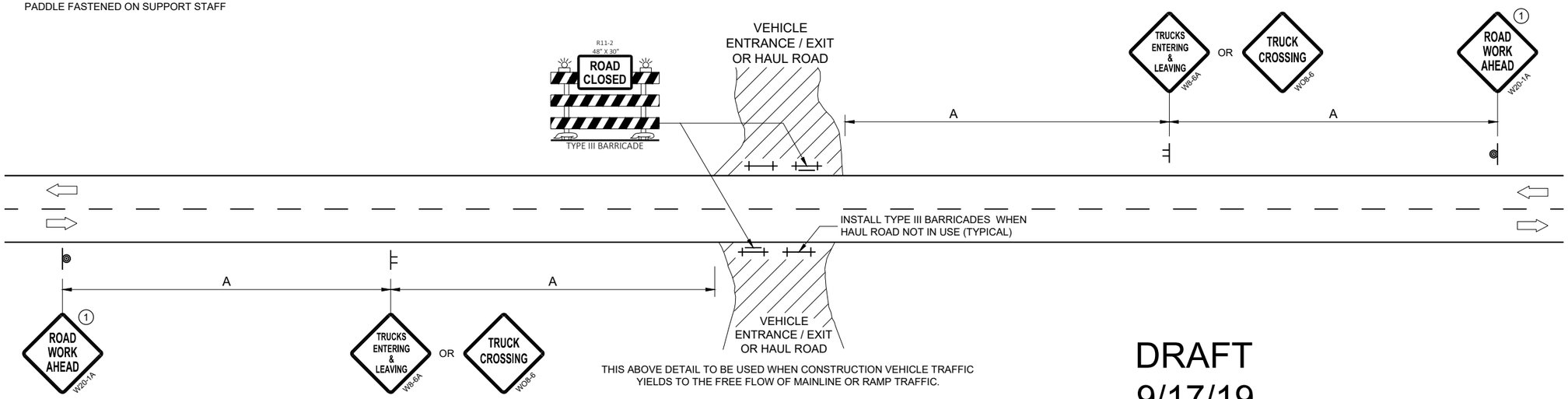
WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

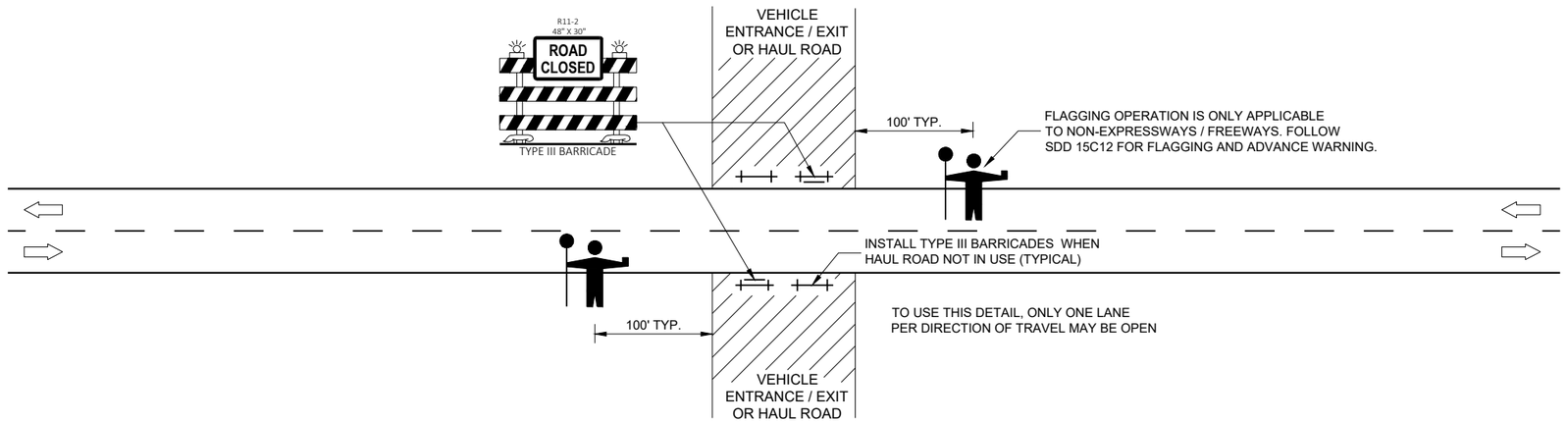
PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

(1) THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE / EXIT CONDITIONS ARE SEPARATED BY MORE THAN TWO MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.



THIS ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC.

DRAFT
9/17/19



TO USE THIS DETAIL, ONLY ONE LANE PER DIRECTION OF TRAVEL MAY BE OPEN

THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

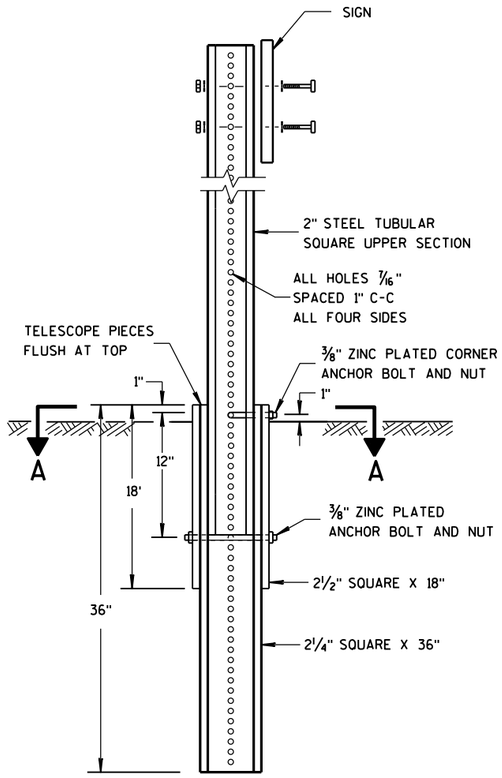
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

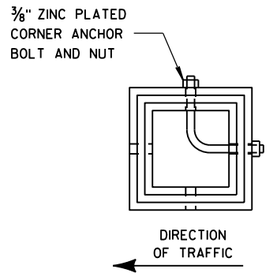
FHWA

SDD 15D29 - 06

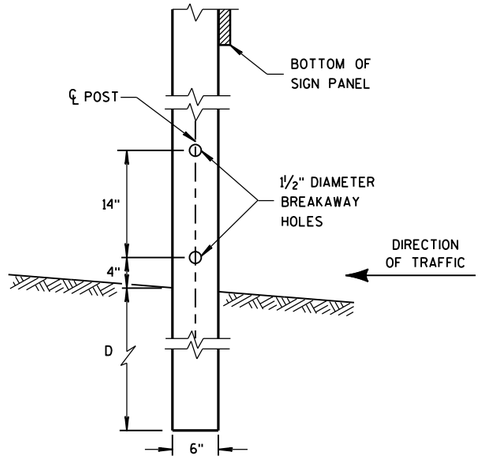
SDD 15D29 - 06



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



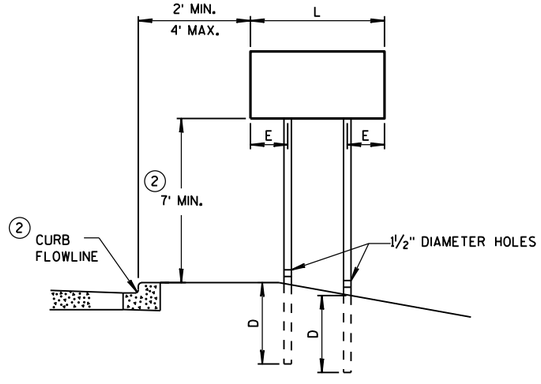
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

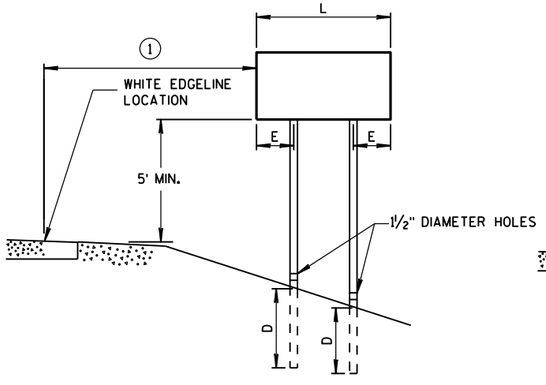
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

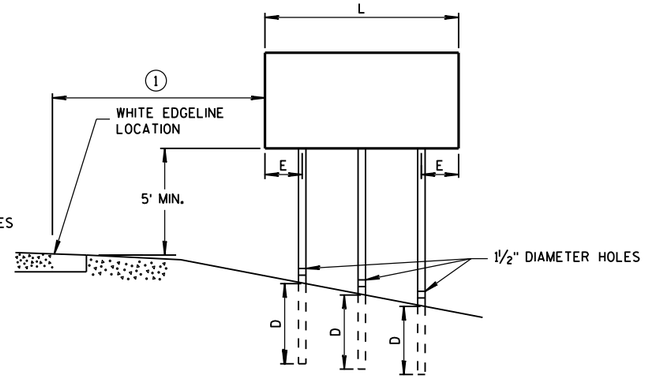
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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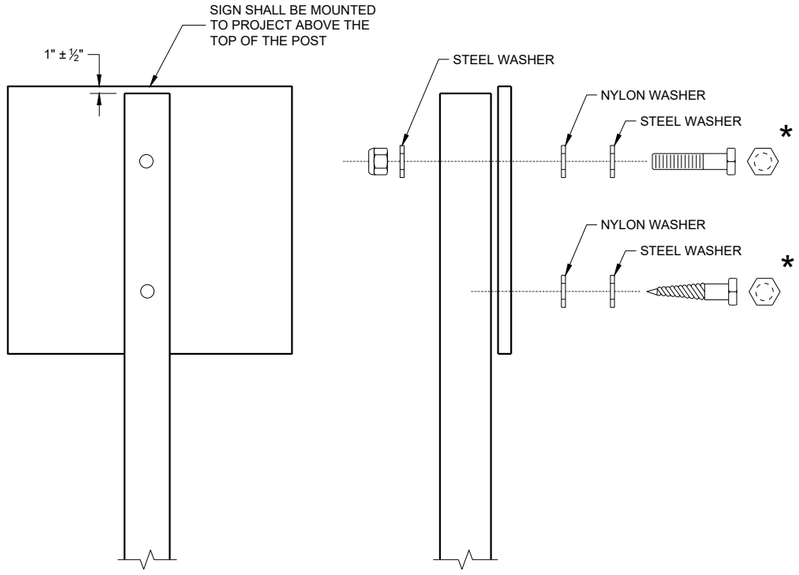
S.D.D. 15 D 38-2a



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

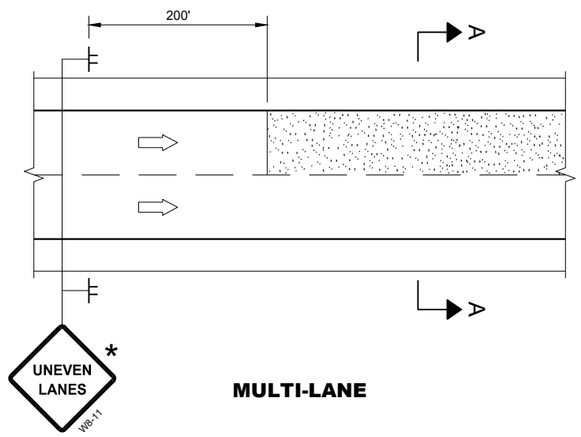
SDD 15D38 - 02b

SDD15D38 - 02b

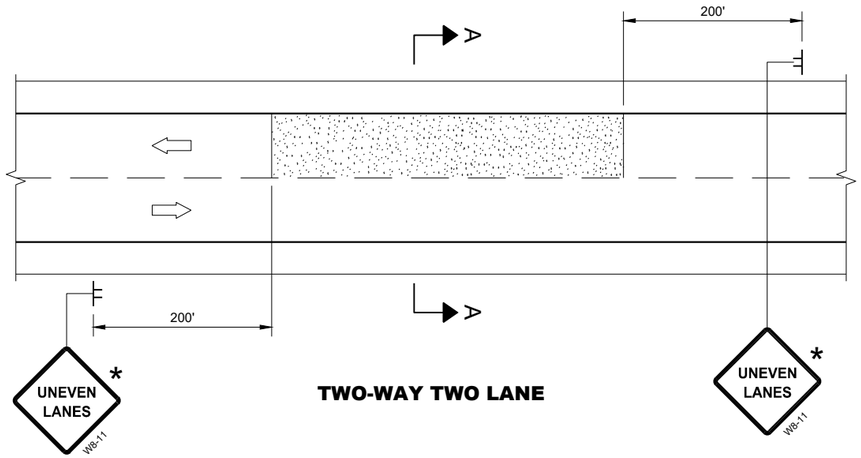
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

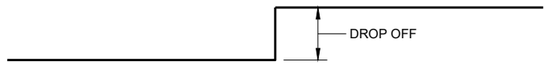
APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA



MULTI-LANE

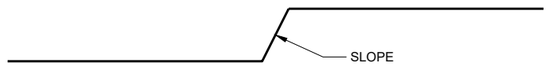


TWO-WAY TWO LANE

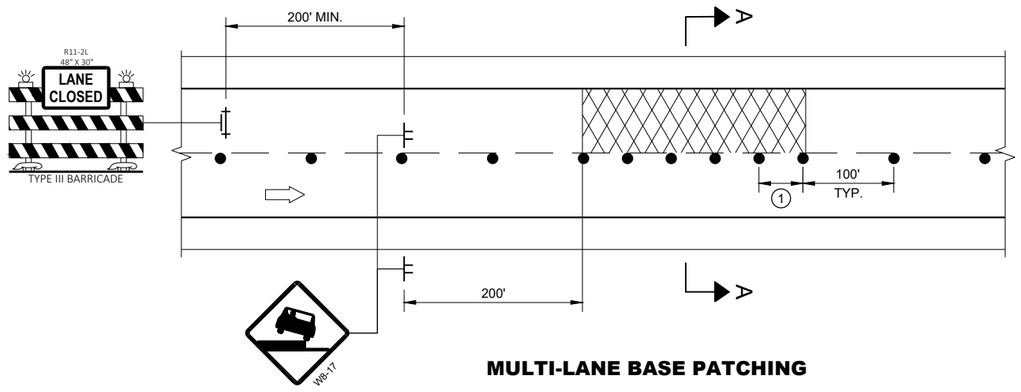


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

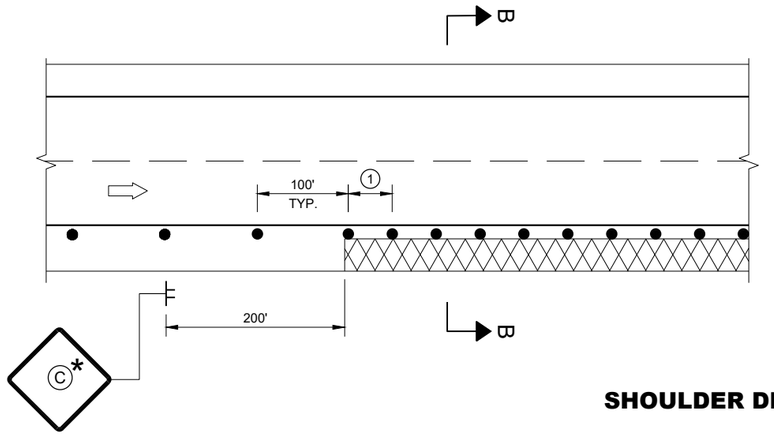
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

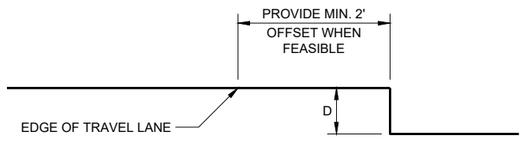
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

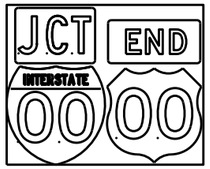
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

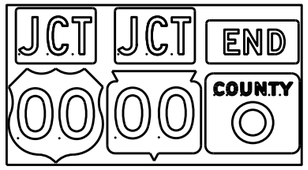
6
SDD 15D39 - 02

TYPICAL ASSEMBLIES

J1-1

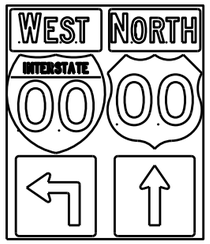


J1-2

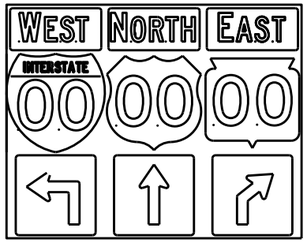


J1-3

J2-1



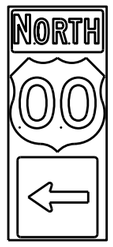
J2-2



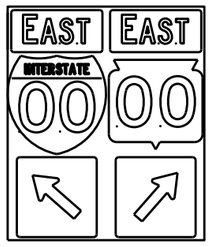
J2-3

JV

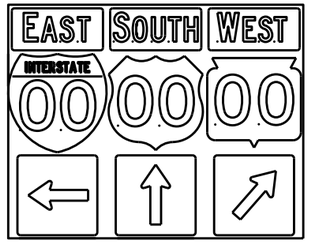
(Typical Vertical J-Assembly
See Note 10 and 11)



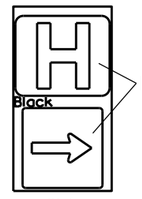
J3-1



J3-2



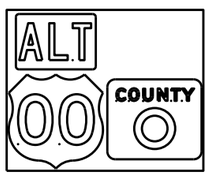
J3-3



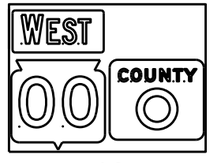
Blue Background

JH-1

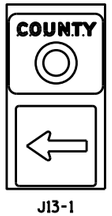
J4-1



J4-2



J4-2



J13-1

J12-1

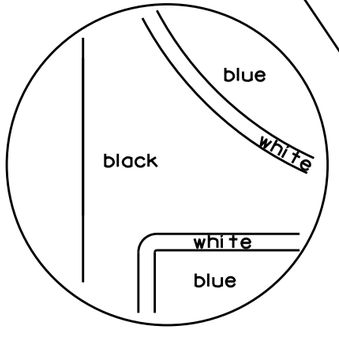
J32-1

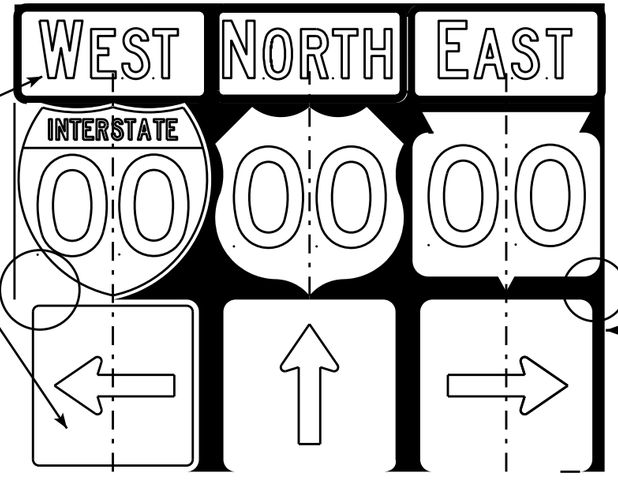
J33-1

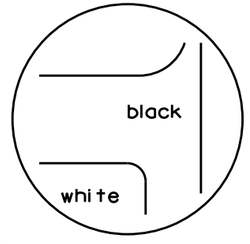
J23-1

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

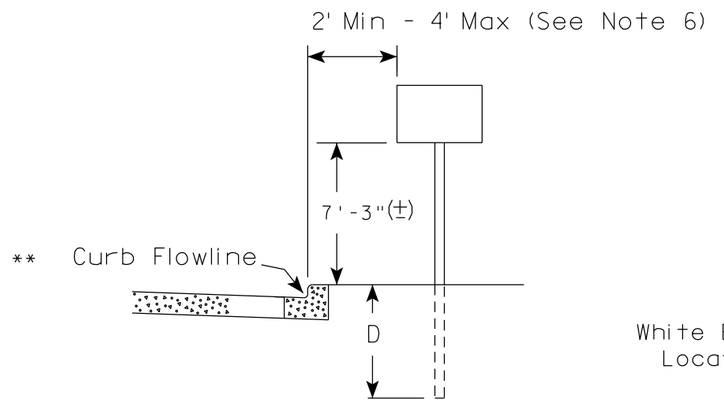
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

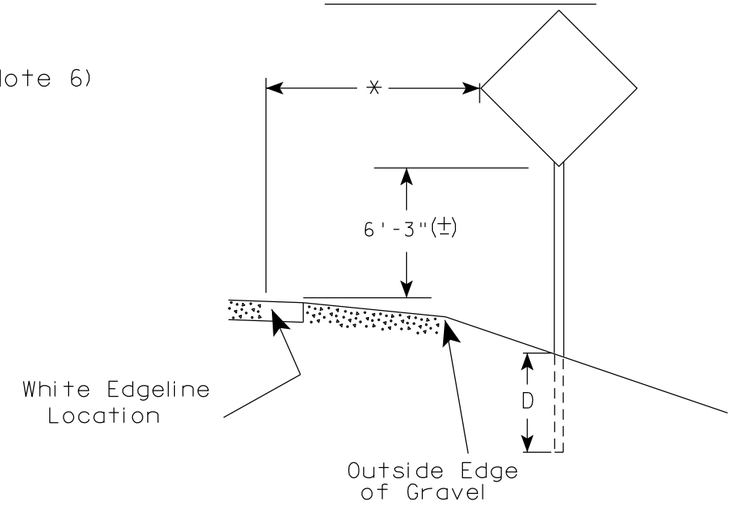
PROJECT NO: | SHEET NO: E

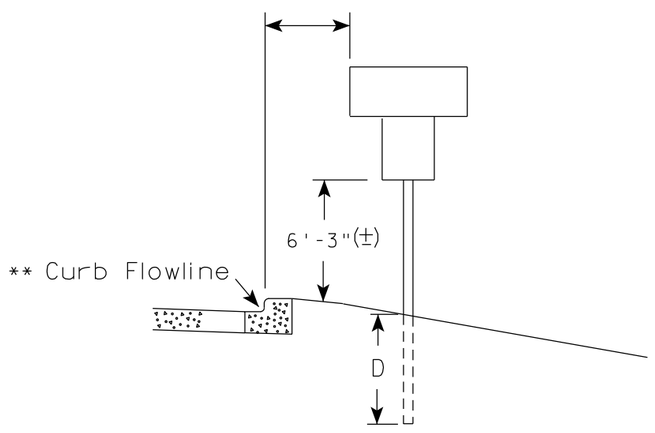
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

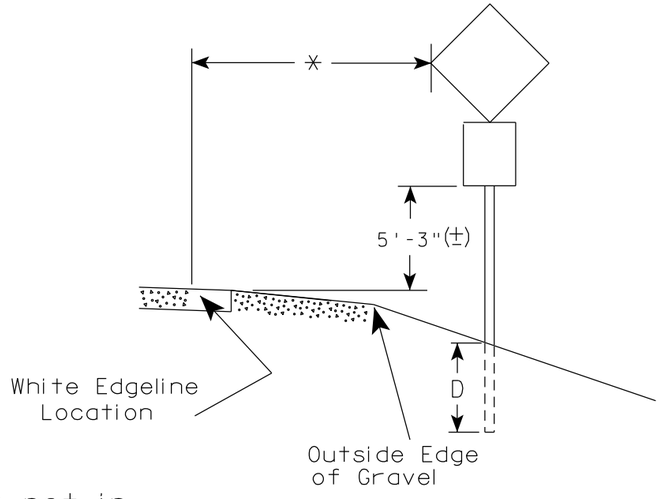
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

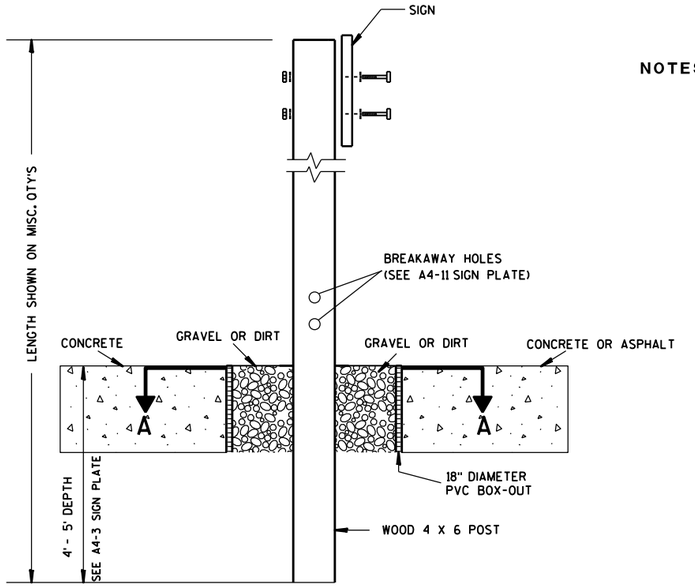
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

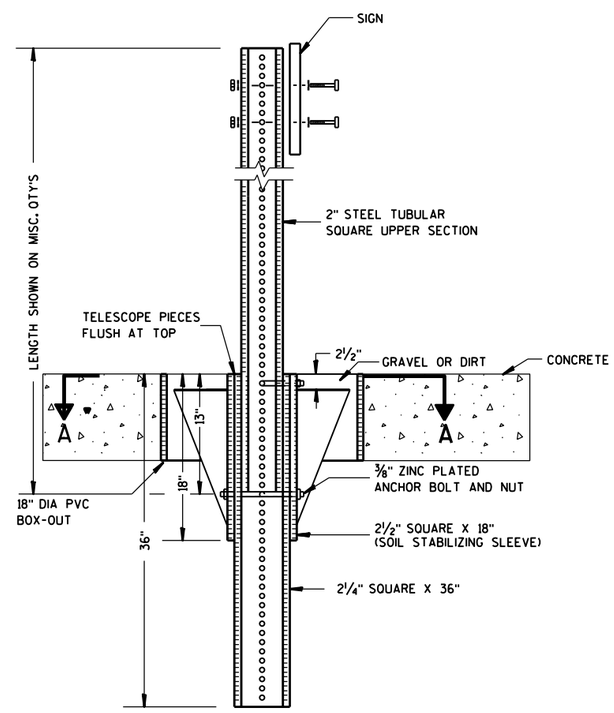
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E



ELEVATION VIEW

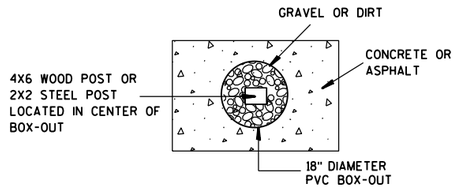
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

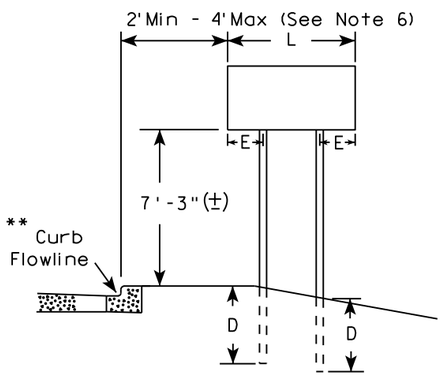
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

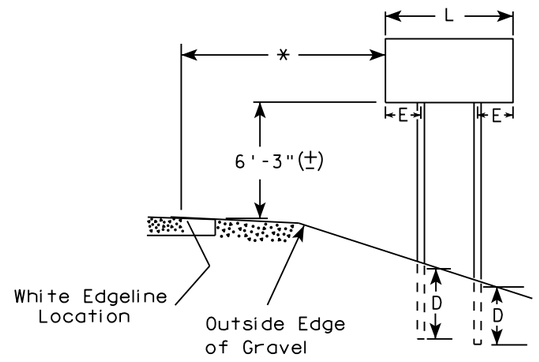
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

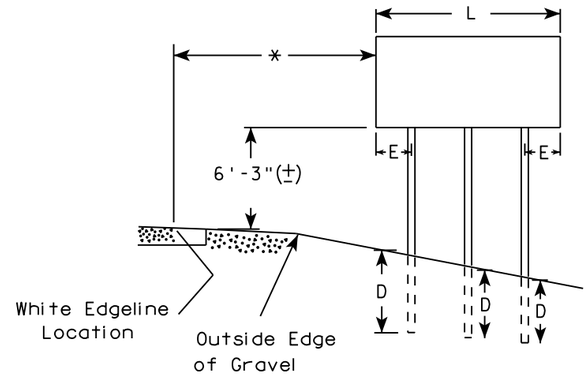
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

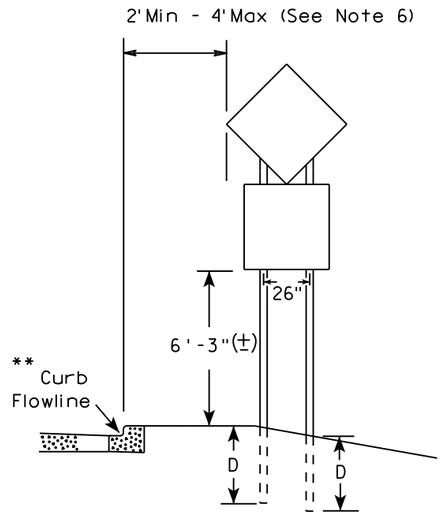
URBAN AREA



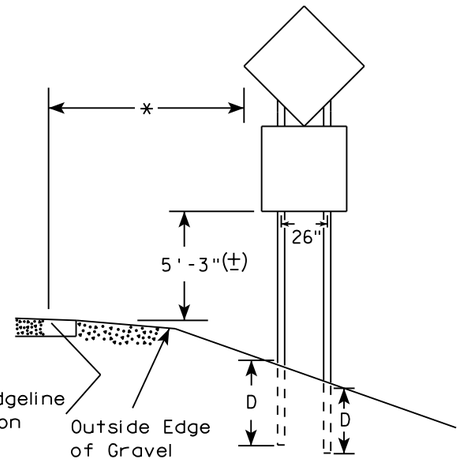
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

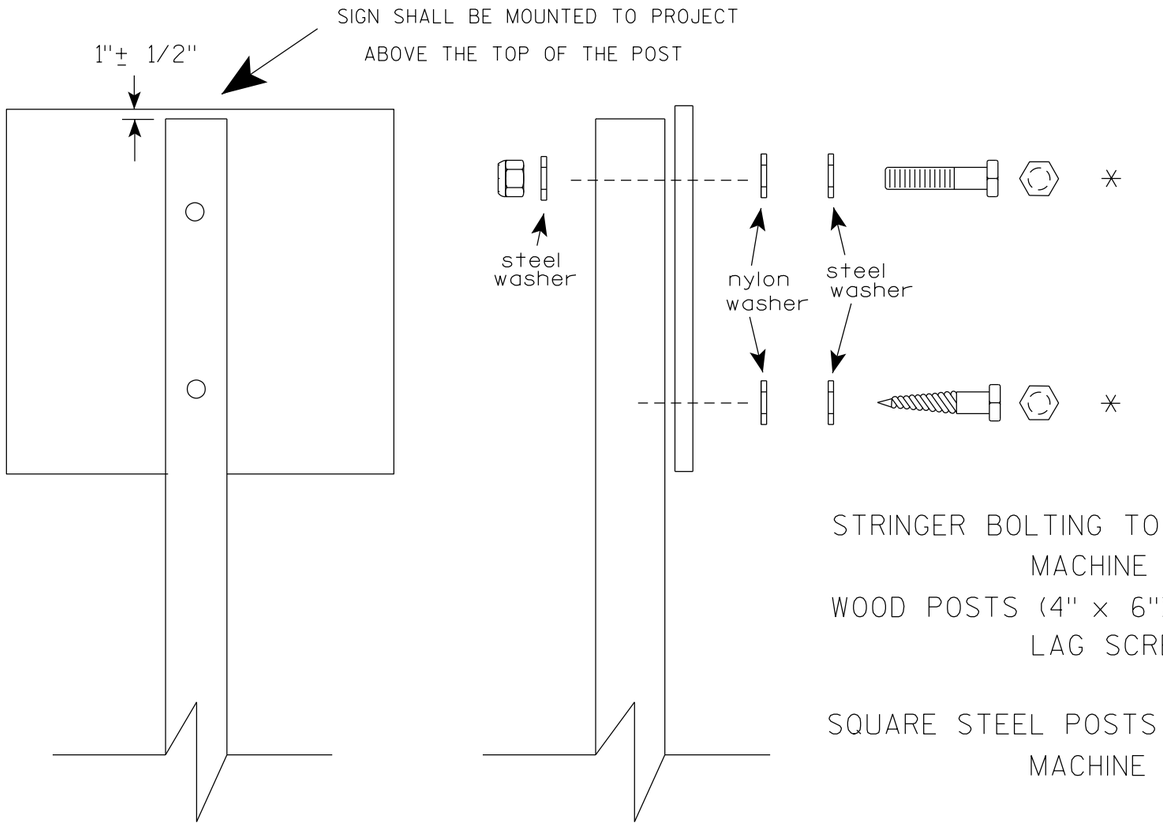
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 111	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

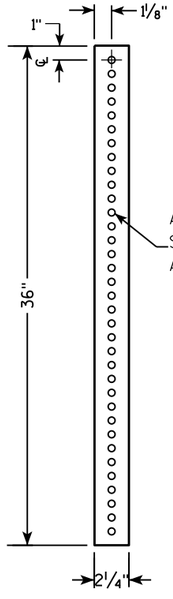
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

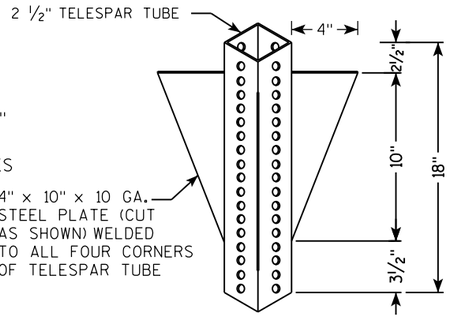
SHEET NO: 112 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

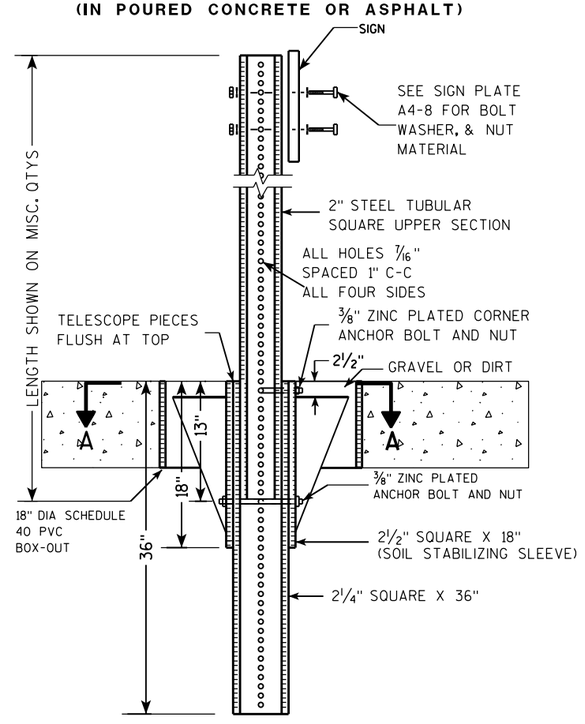
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



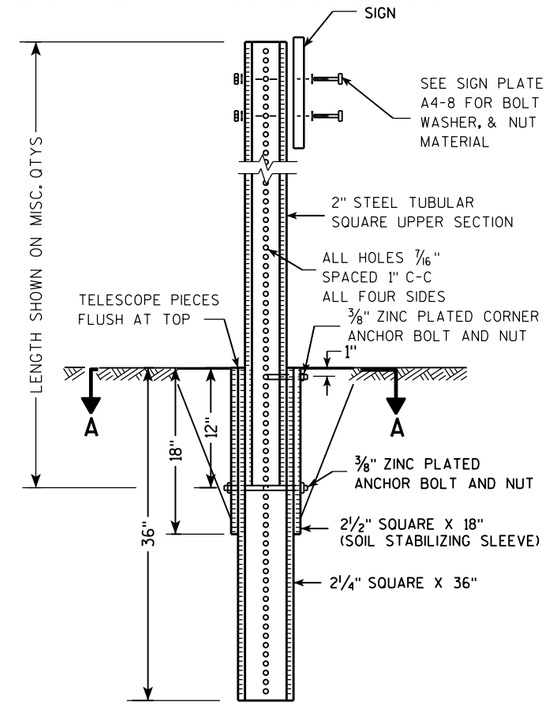
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

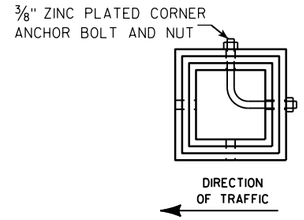


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

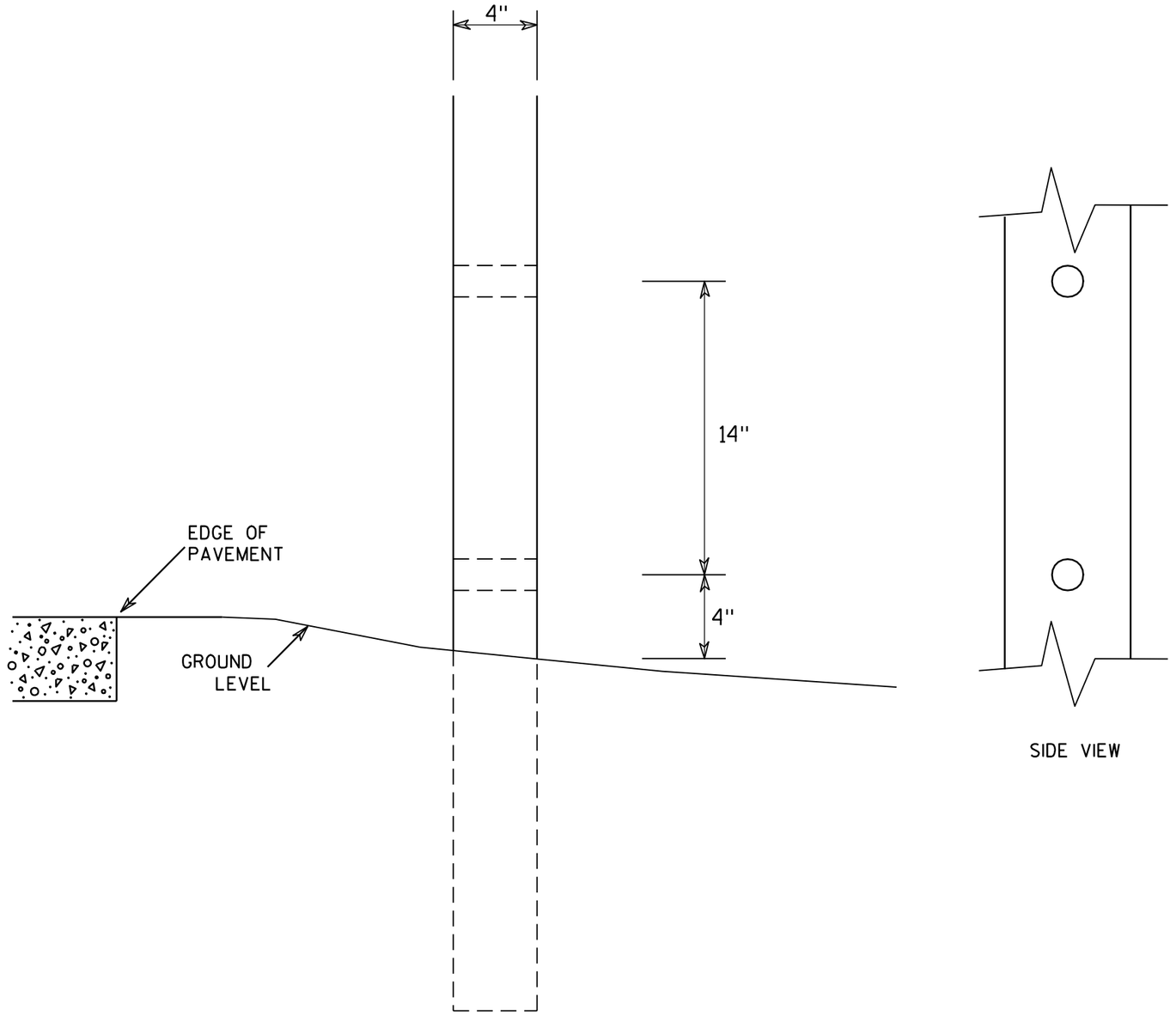
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



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

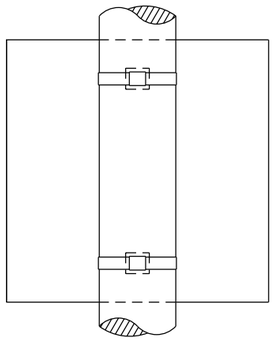
APPROVED Chester J Spang
for State Traffic Engineer

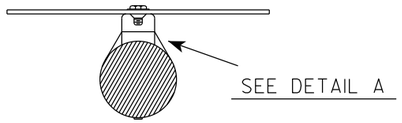
DATE 3/27/97 PLATE NO. A4-11.2

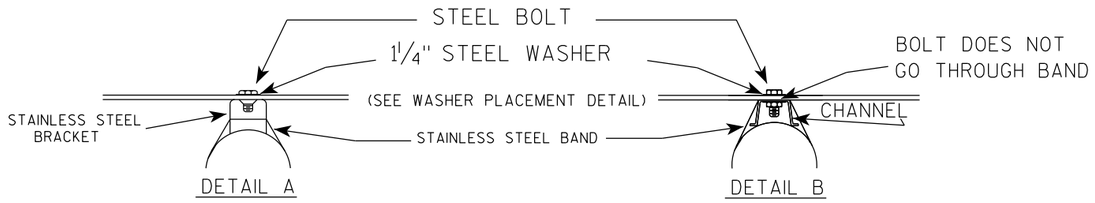
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E

BANDING

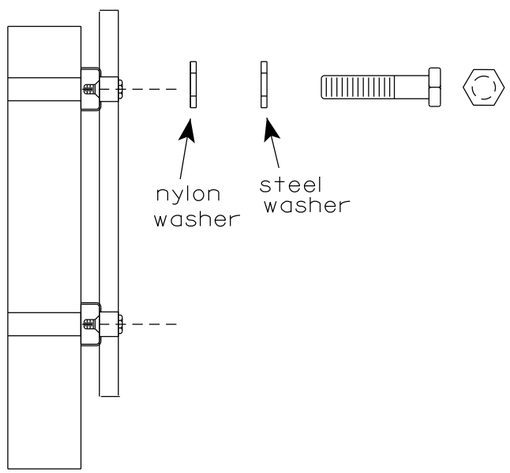
SINGLE SIGN







WASHER PLACEMENT

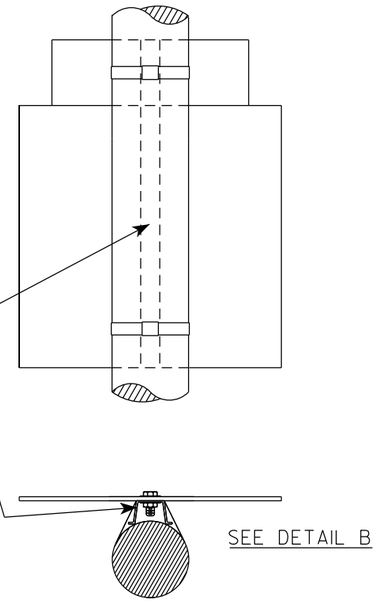


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

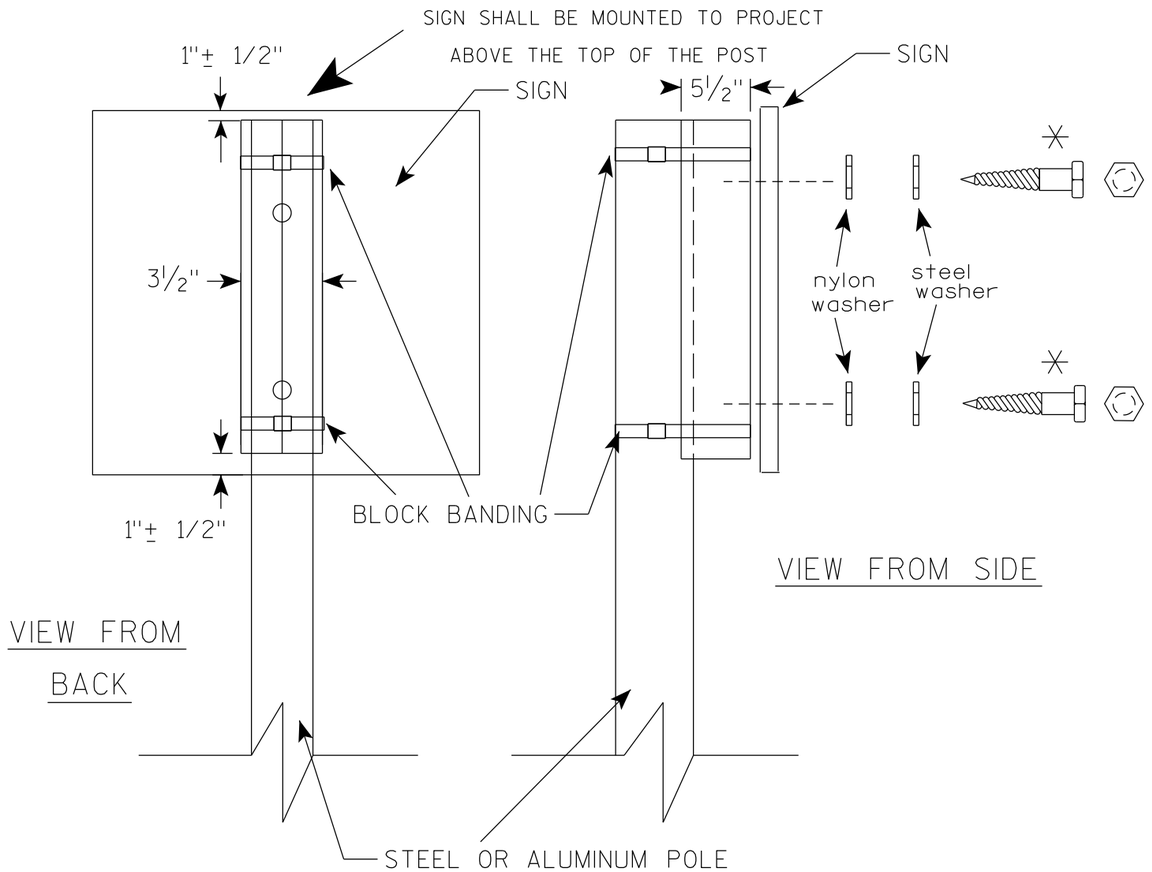
DATE 6/10/19 PLATE NO. A5-9.4

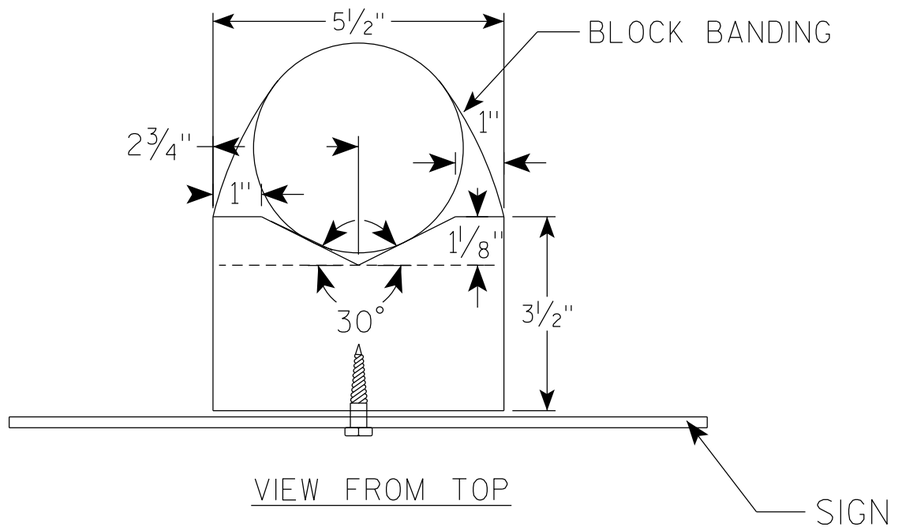
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 115	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

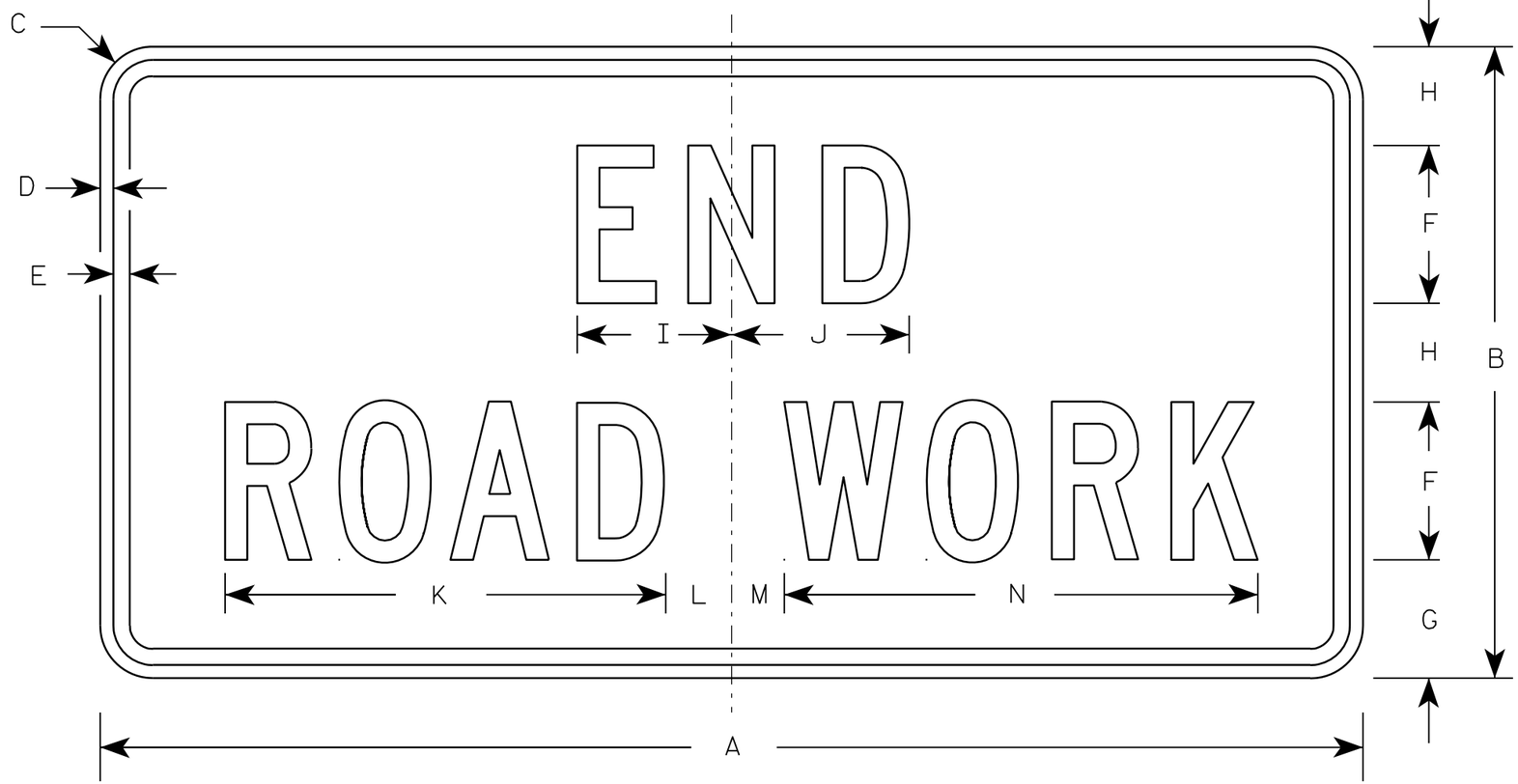
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 116 | 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

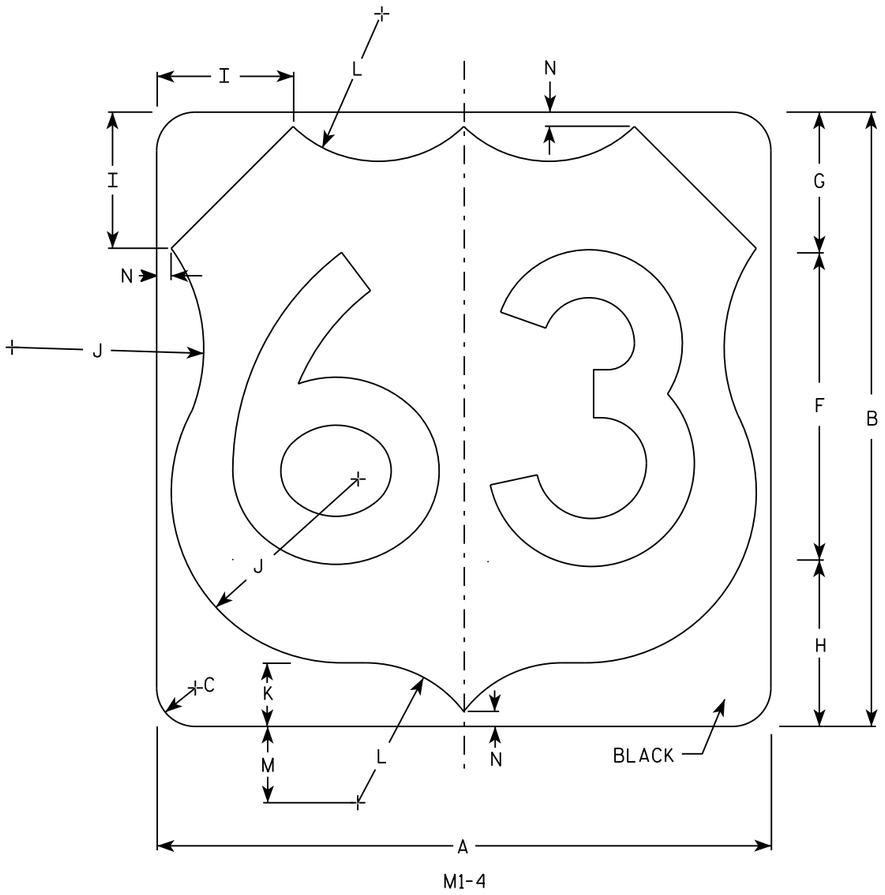
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

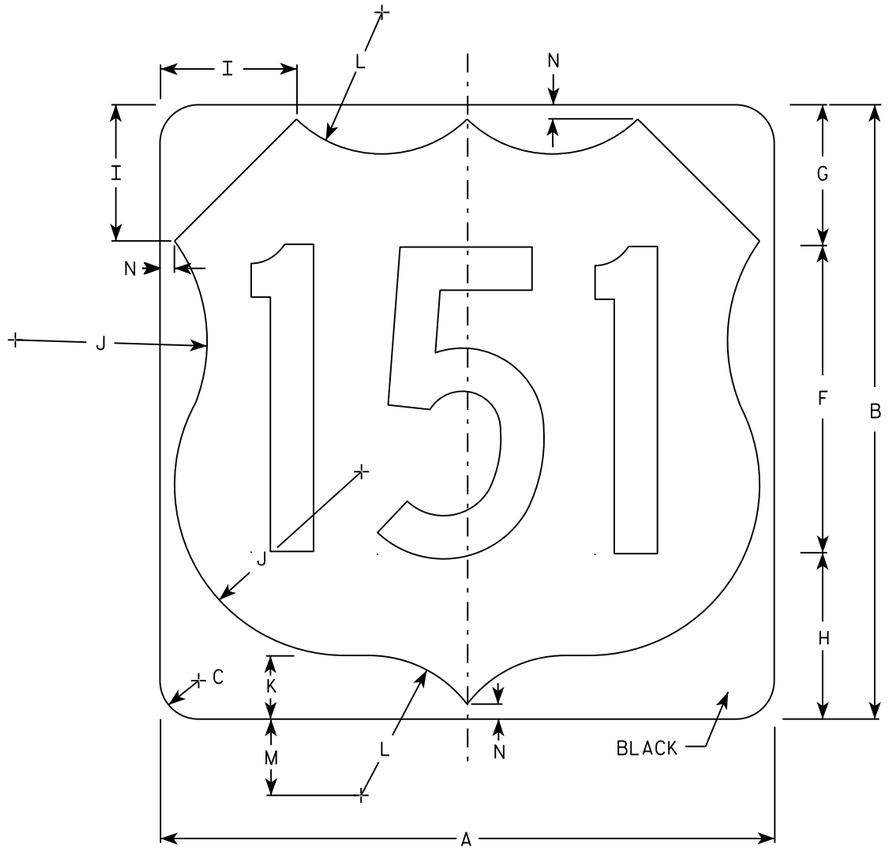
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 117	E

NOTES

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



M1-4



M1-4

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	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

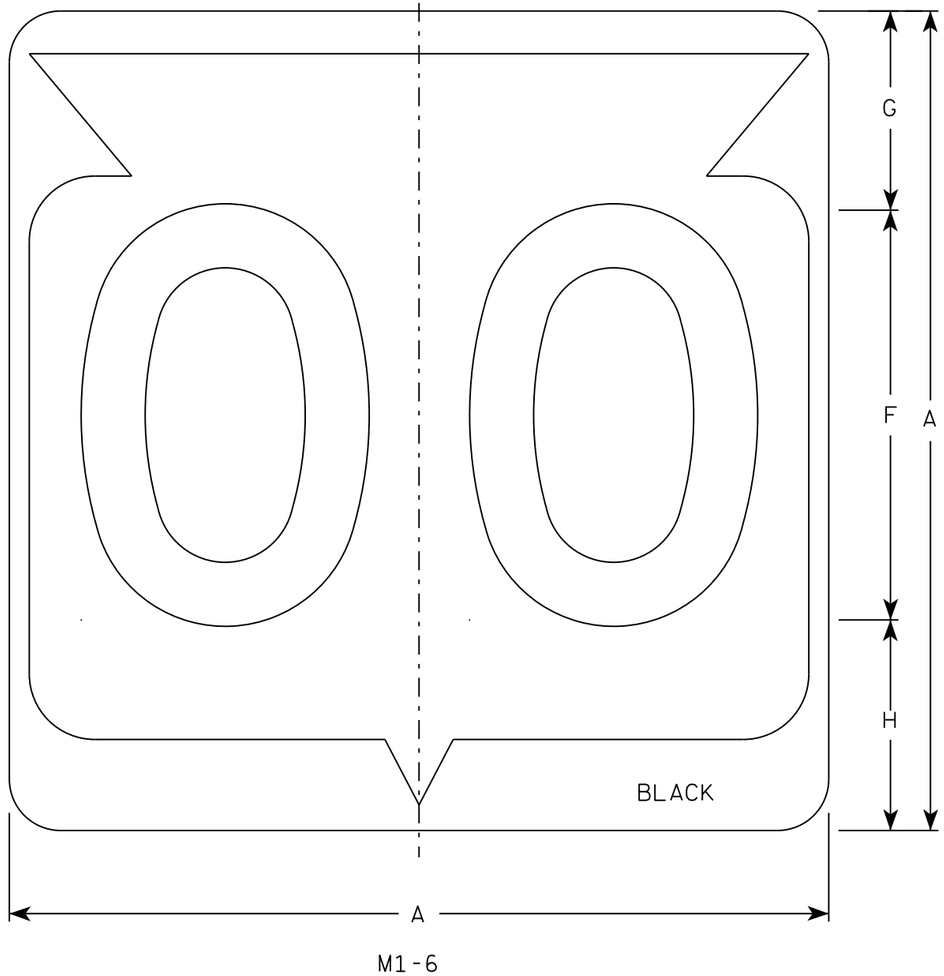
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

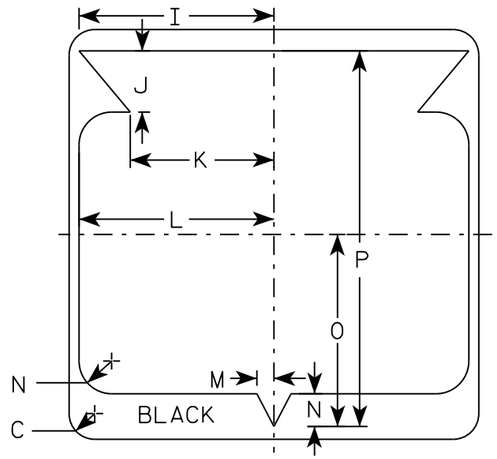
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 118	E



M1-6

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

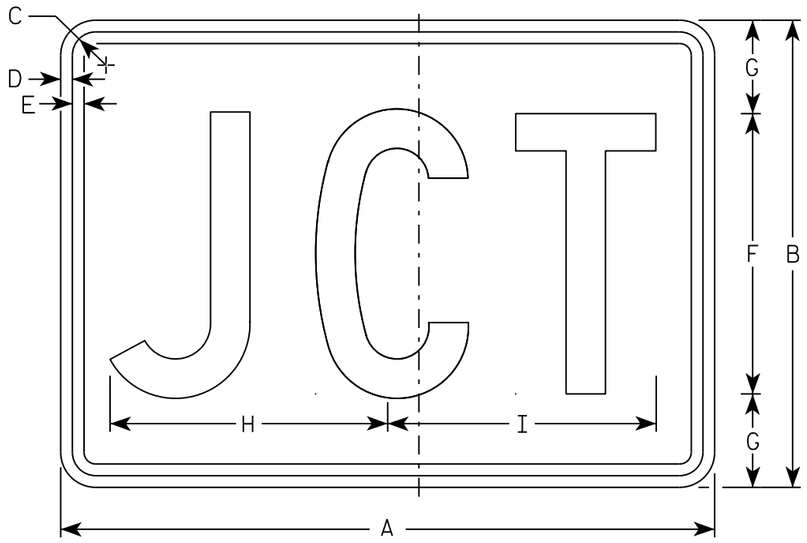
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

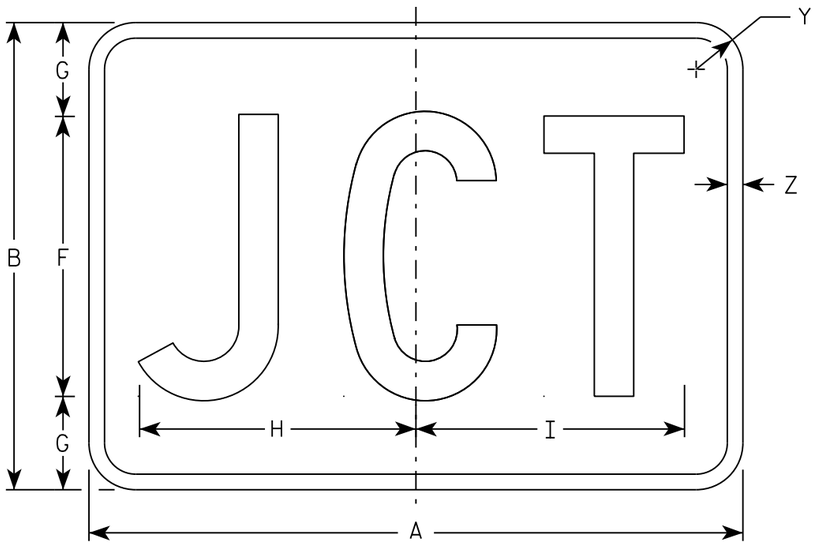
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 119 | E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is 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. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

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	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

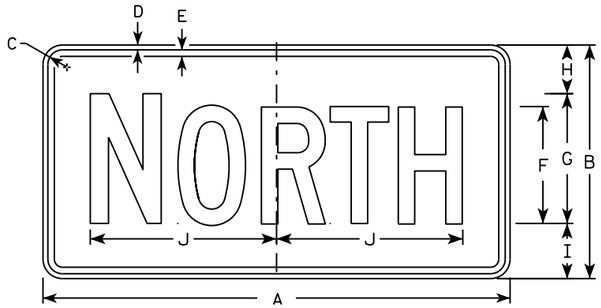
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

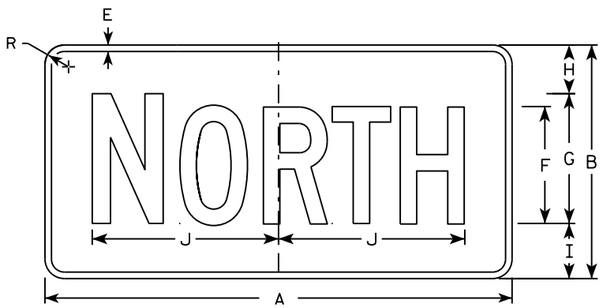
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 120 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



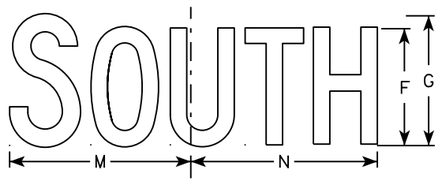
M3-1
MM3-1
MP3-1



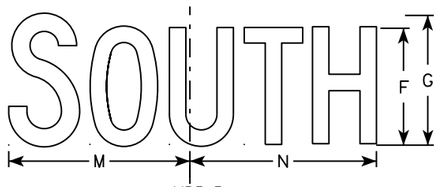
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

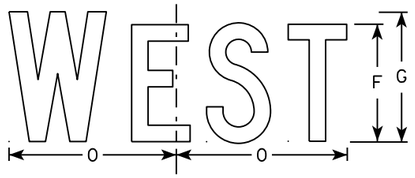
MB3-2
MK3-2
MN3-2



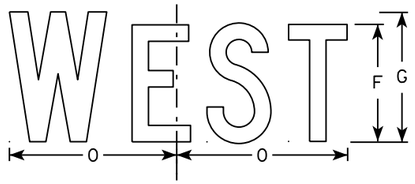
M3-3
MM3-3
MP3-3



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

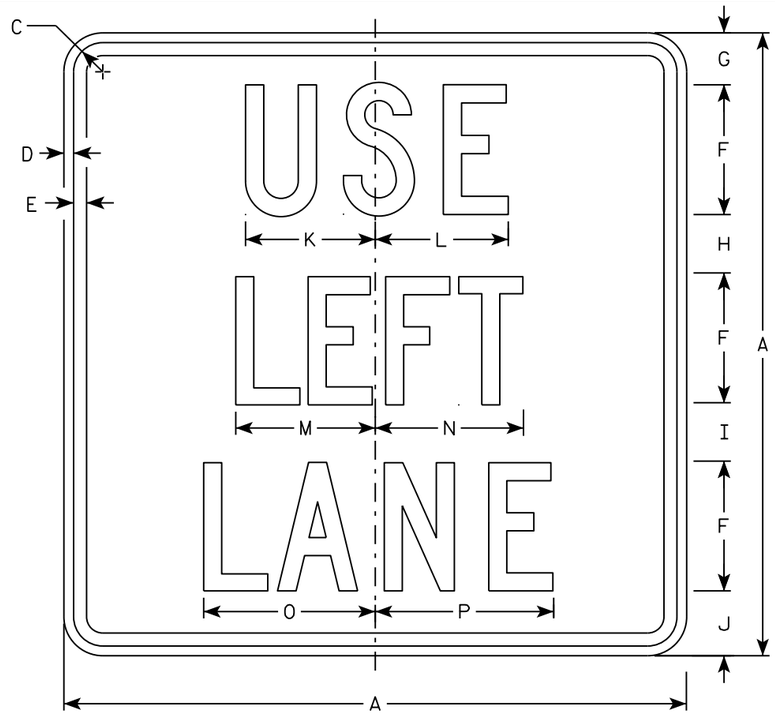
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

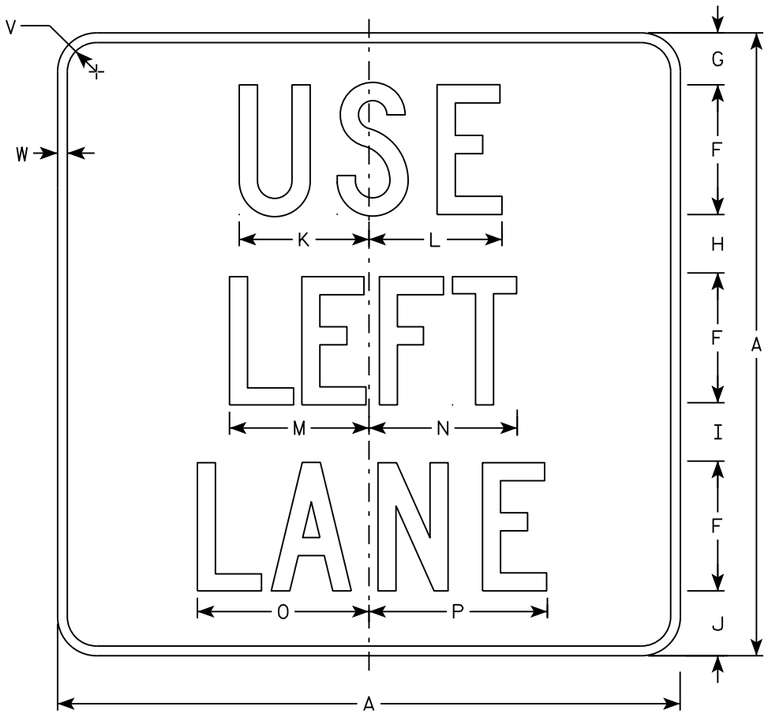
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-20L

A

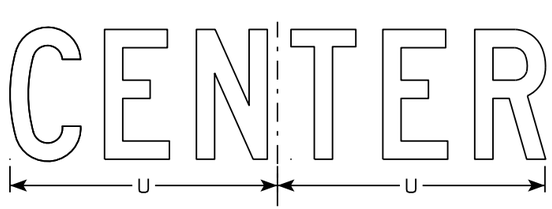
M4-20L
MM4-20L
M04-20L
MP4-20L



MB4-20L

A

MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C

M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
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. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

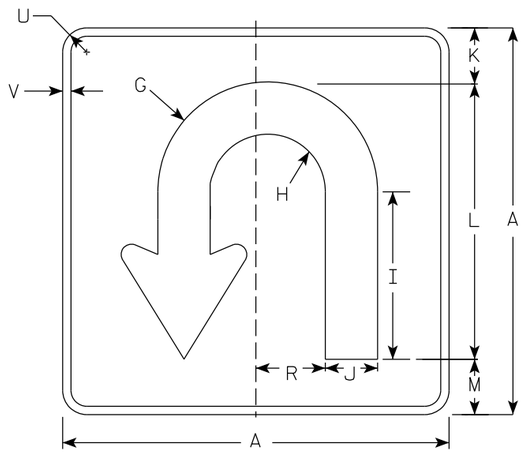
STANDARD SIGN
M4-20

WISCONSIN DEPT OF TRANSPORTATION

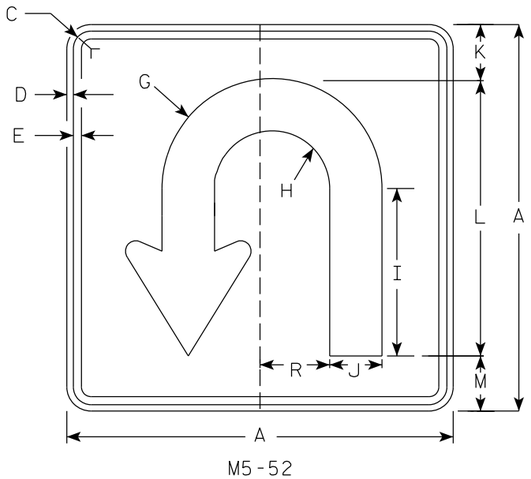
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 10/15/15 PLATE NO M4-20.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



M5-52



M5-52

NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See note 4
3. M5-52 Background - White
   Message - Black

   MB5-52 Background - Blue
   Message - White

   MK5-52 Background - Green
   Message - White

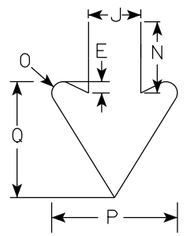
   MM5-52 Background - White
   Message - Green

   MN5-52 Background - Brown
   Message - White

   M05-52 Background - Orange - Type F Reflective
   Message - Black

   MP5-52 Background - White
   Message - Blue

   MR5-52 Background - Brown
   Message - Yellow



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																											
2	21		1 1/8	3/8	3/8		6	3 1/8	9 1/8	2 7/8	3	15	3	3 7/8	5/8	6 7/8	6 3/4	3 3/4			1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4			2 1/2	5/8					6.25
4																											
5																											

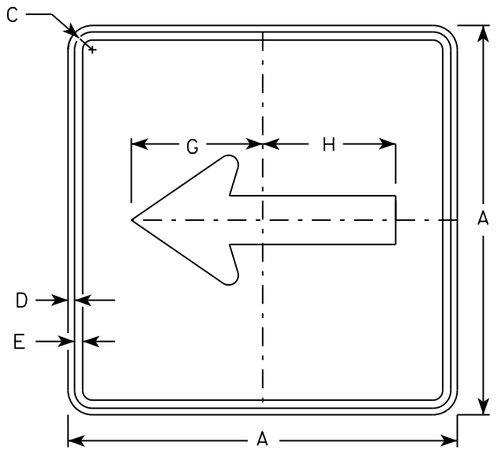
STANDARD SIGN
M5-52
SERIES

WISCONSIN DEPT OF TRANSPORTATION

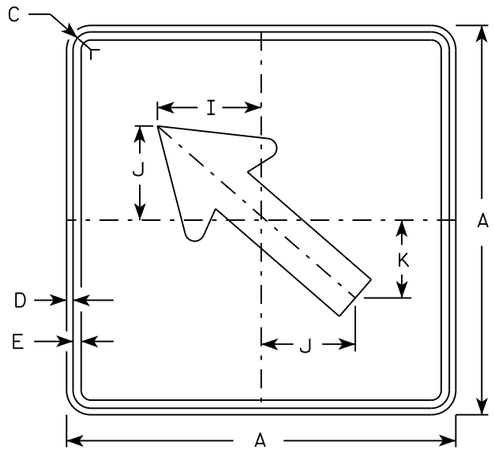
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. M5-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 123	E



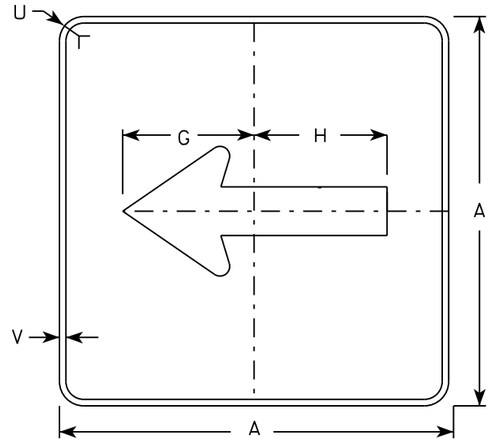
M6-1
MM6-1
MO6-1
MP6-1



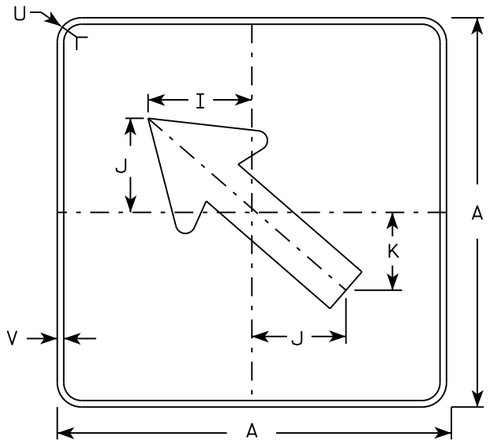
M6-2
MM6-2
MO6-2
MP6-2

NOTES

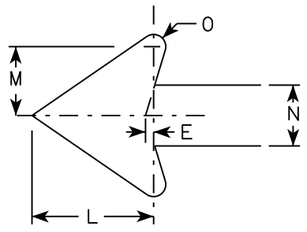
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

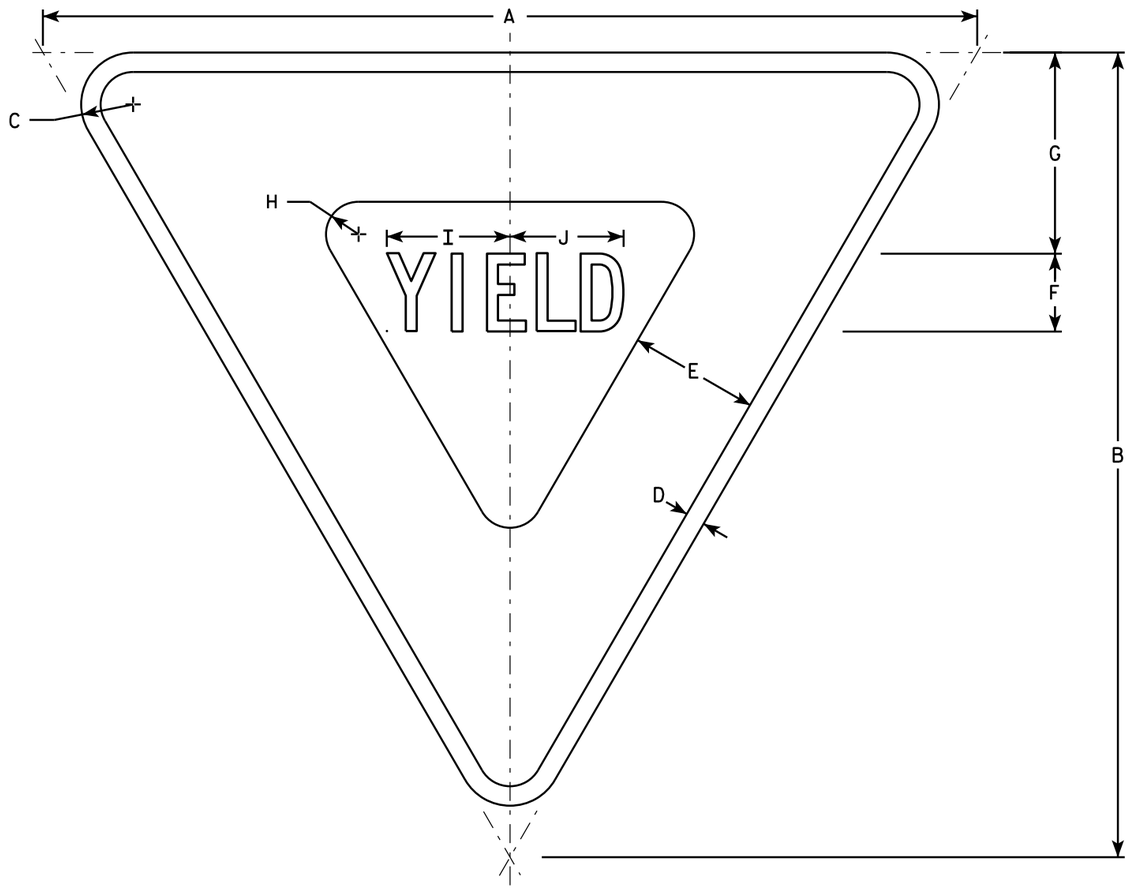
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 124 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

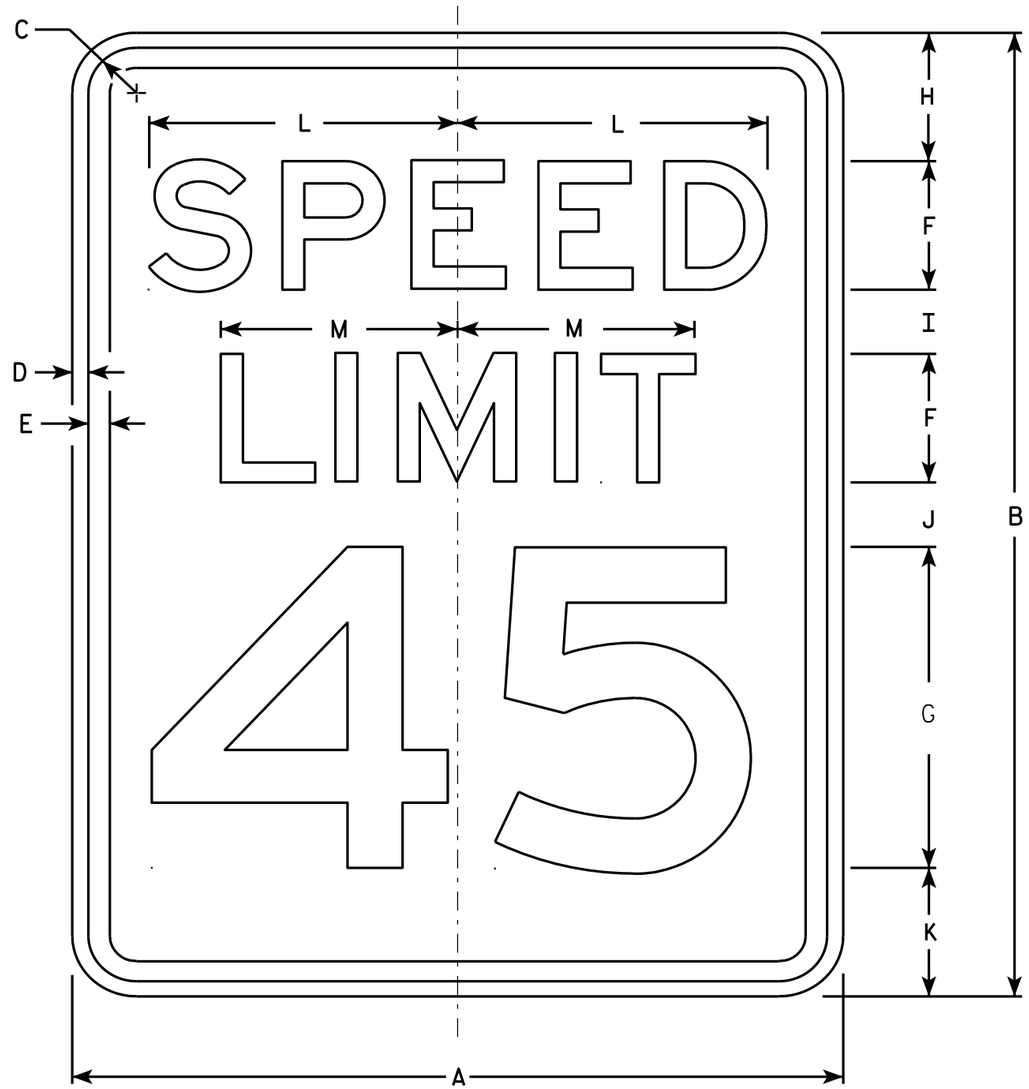
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

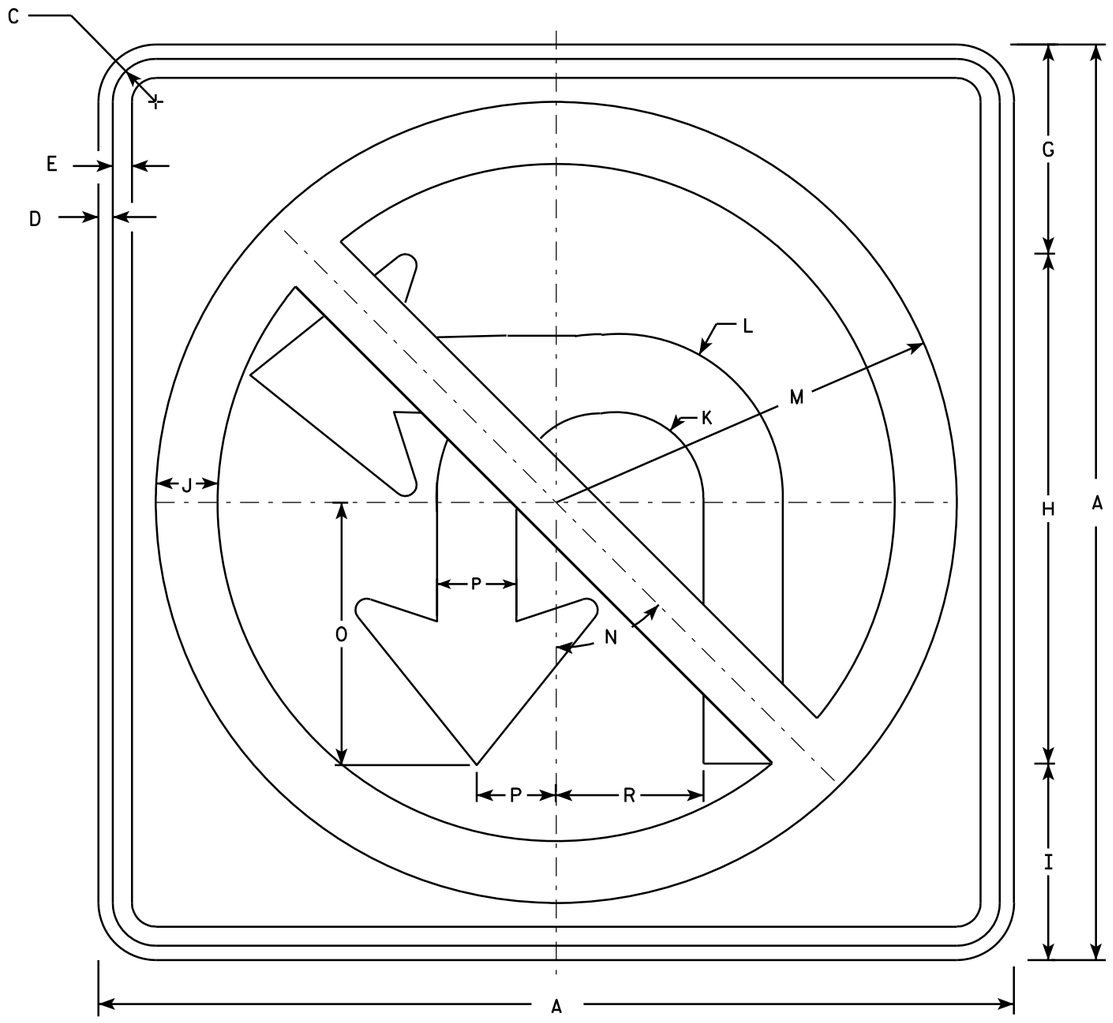
STANDARD SIGN
R2-1

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: 126 | E



R3-18

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.

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		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

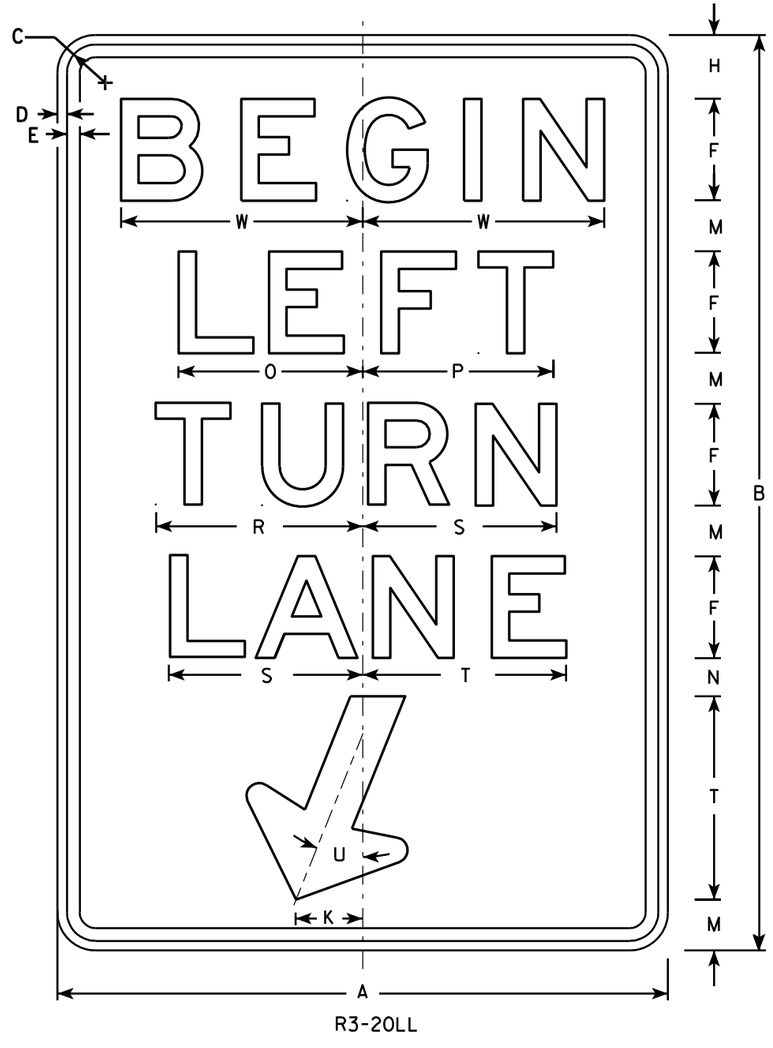
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

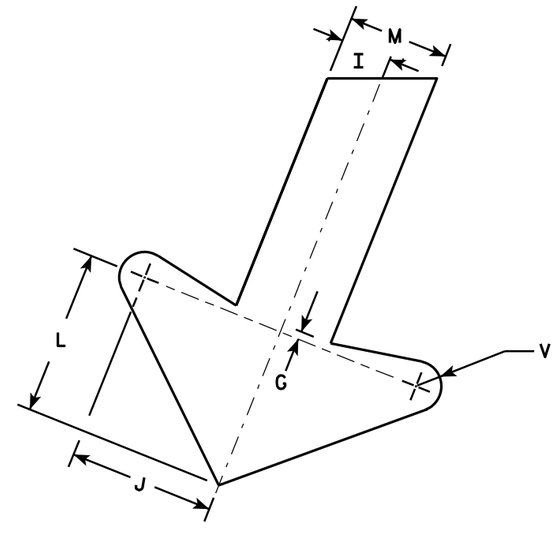
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 127	E



R3-20LL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20LL

WISCONSIN DEPT OF TRANSPORTATION

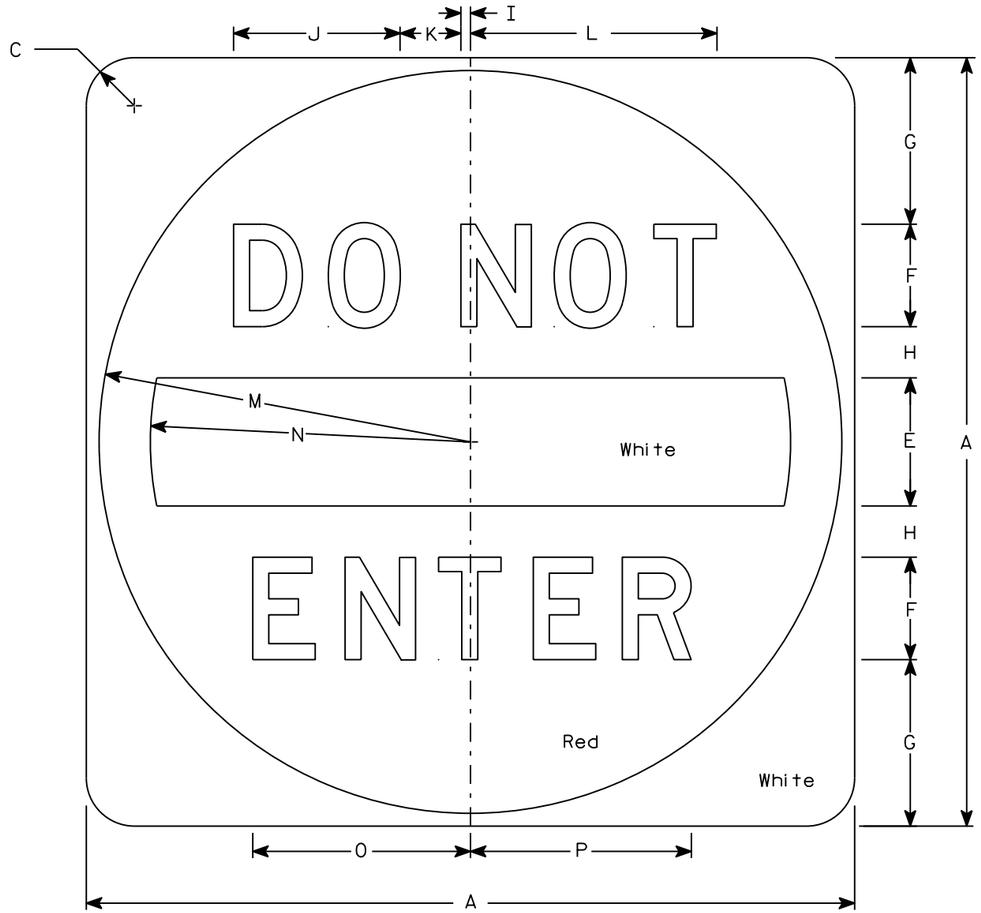
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20LL.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 128	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R320LL.DGN PLOT DATE : 15-OCT-2010 14:38 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

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											6.25
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

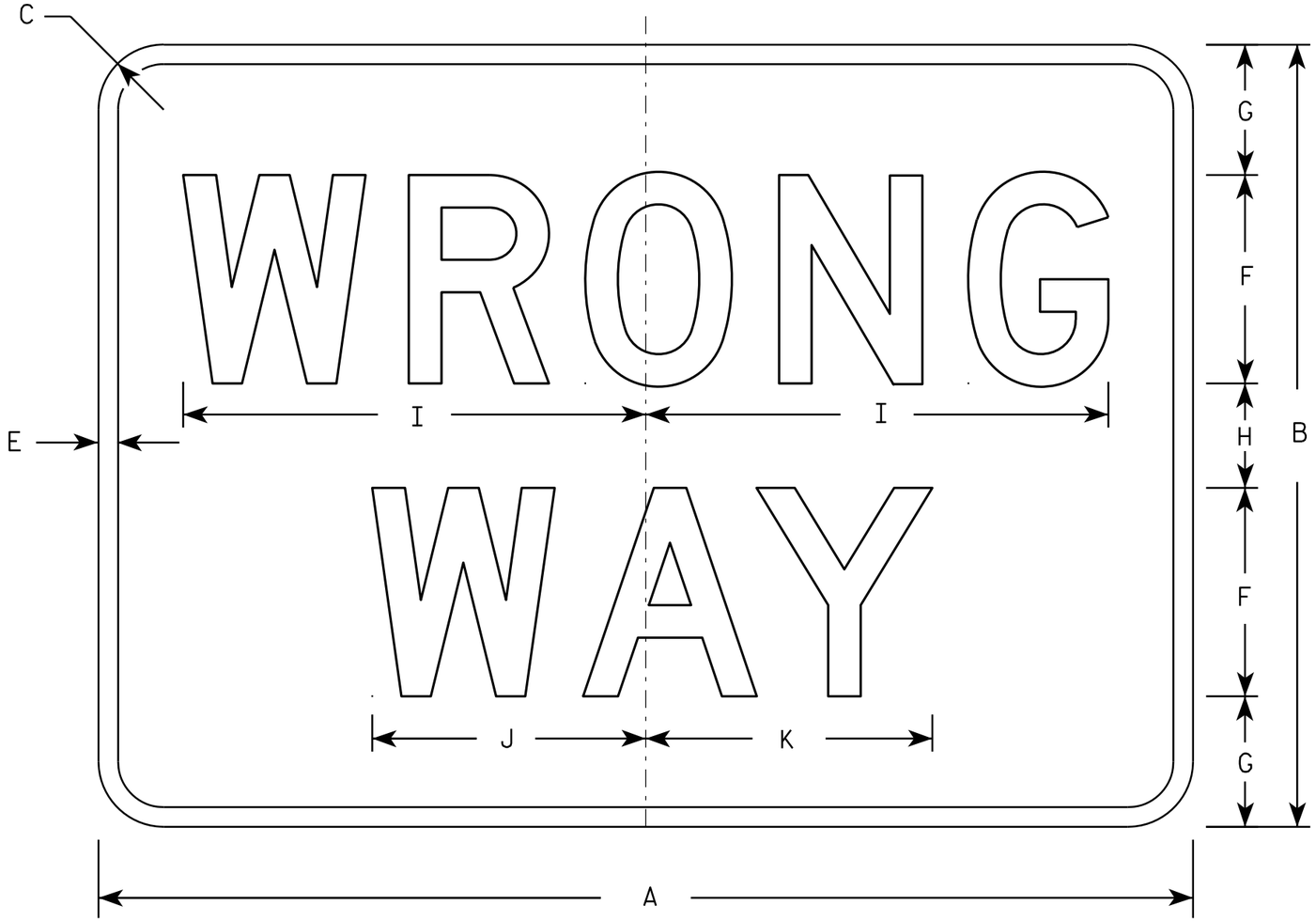
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 129 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

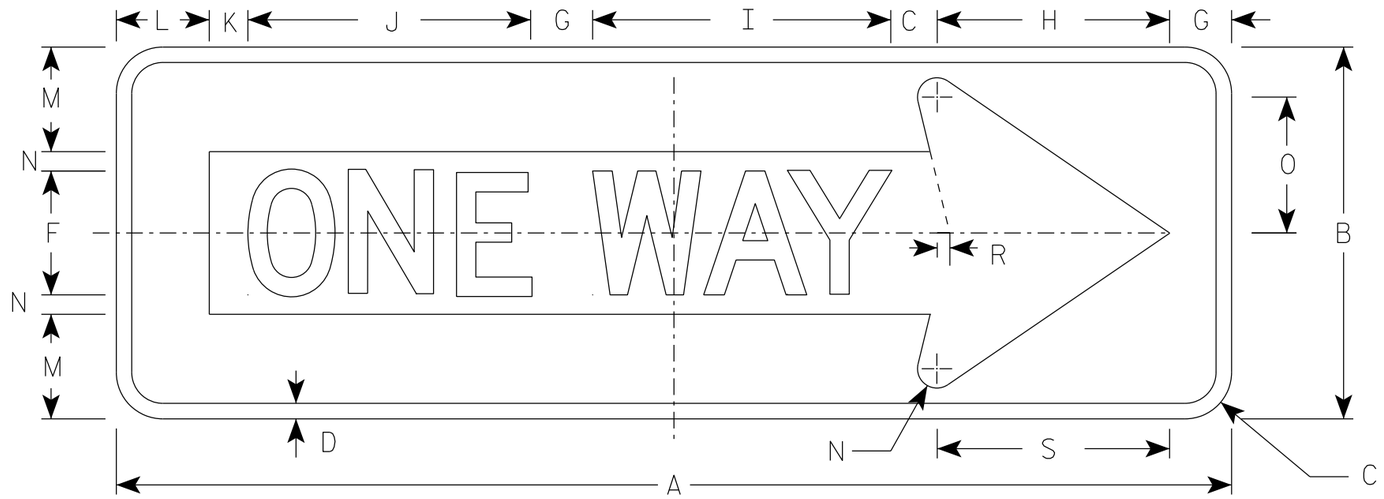
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

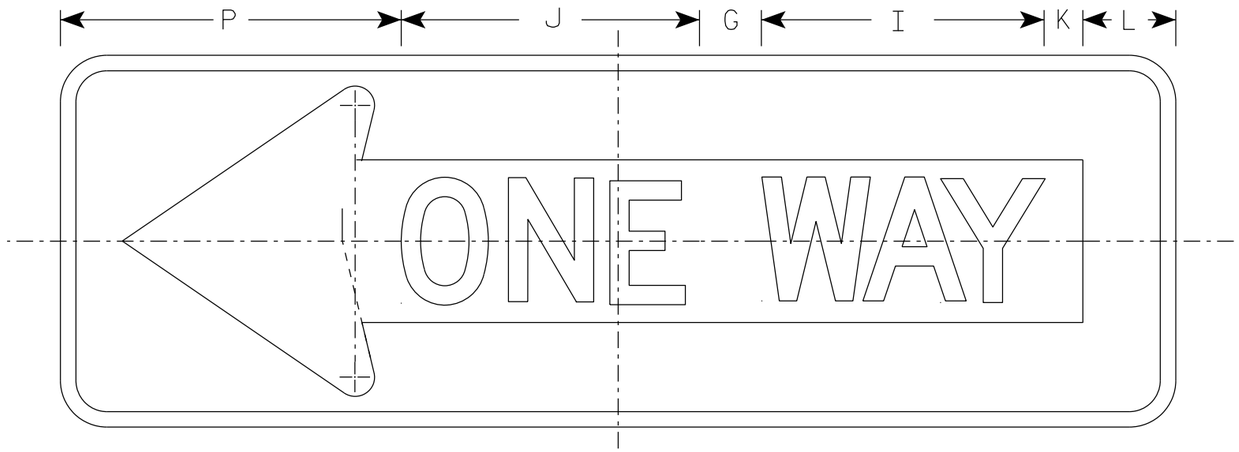
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 130 | E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

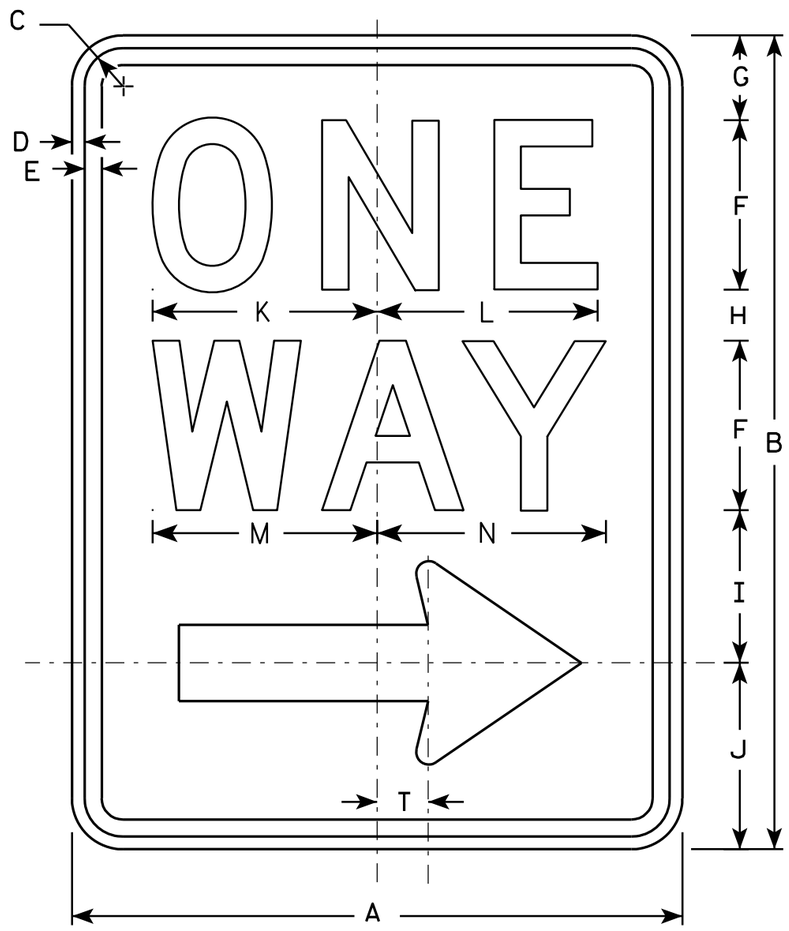
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

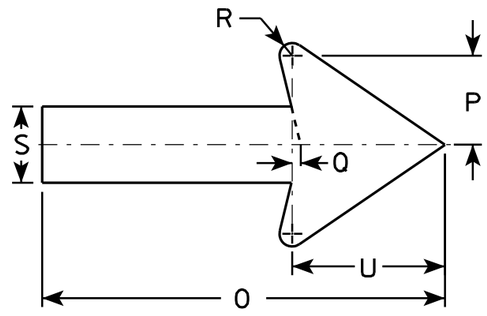
SHEET NO: 131 E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

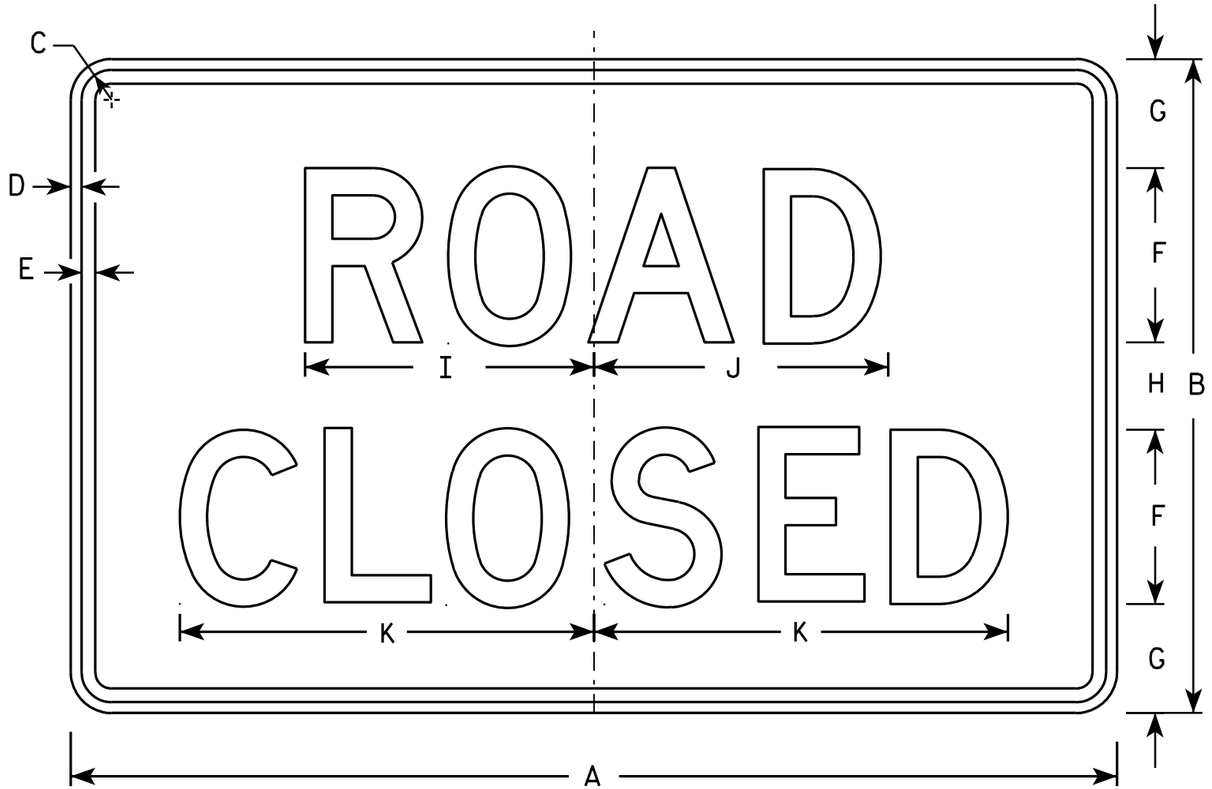
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

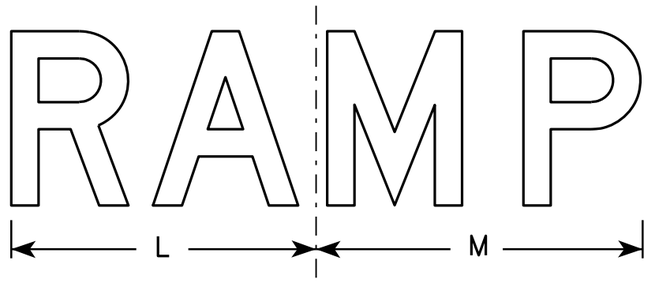
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 132	E



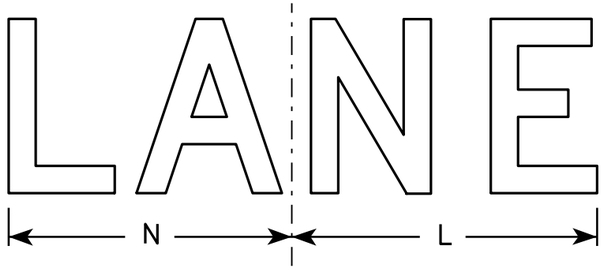
R11-2

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

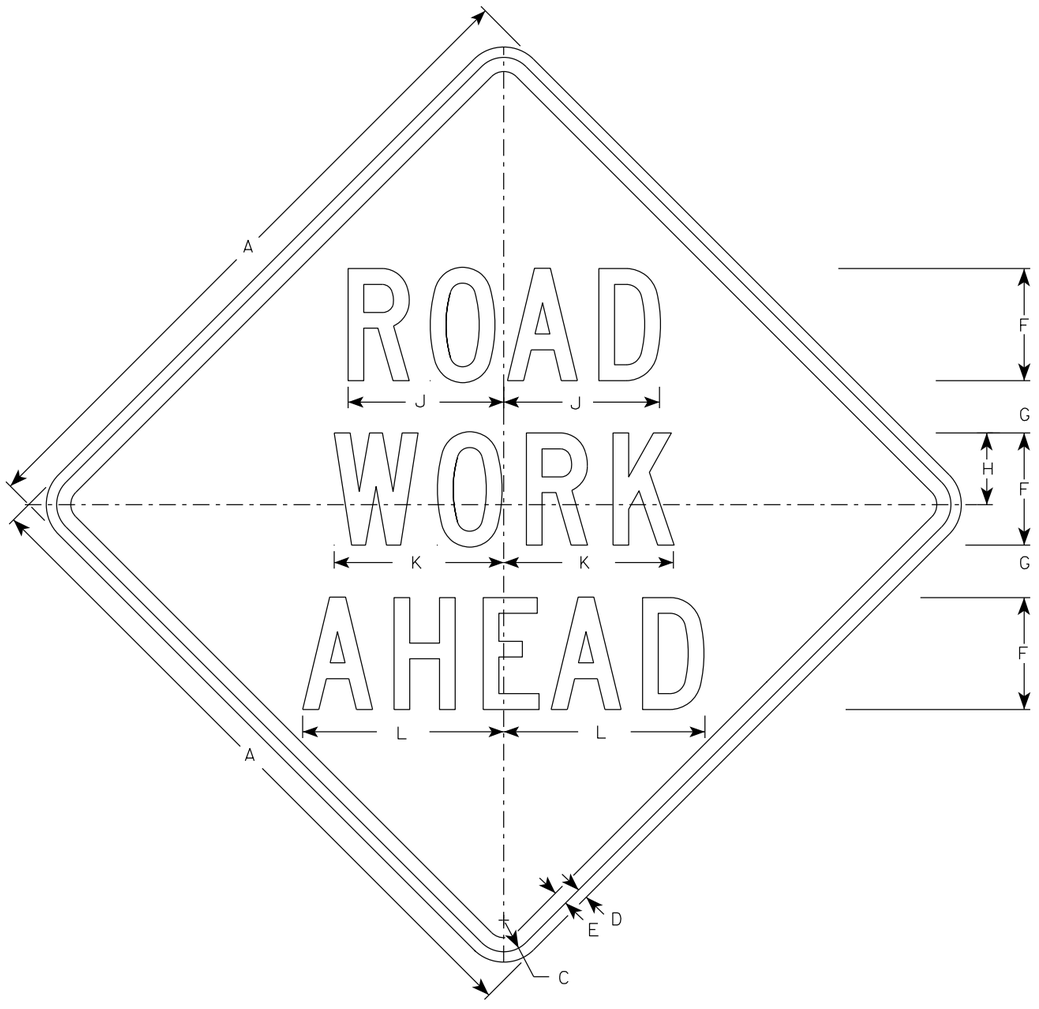
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

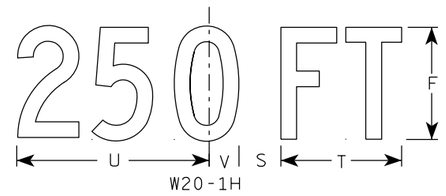
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 133	E

NOTES

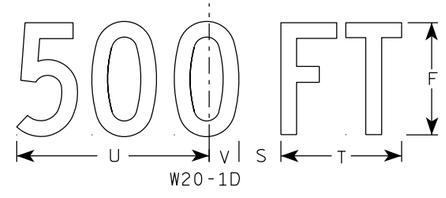
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



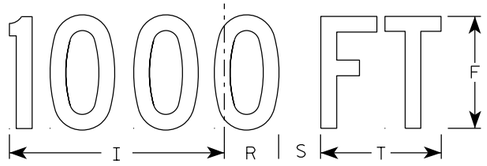
W20-1A



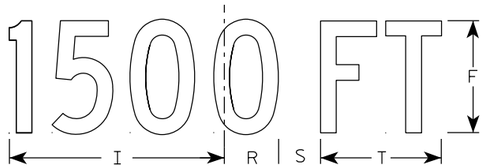
W20-1H



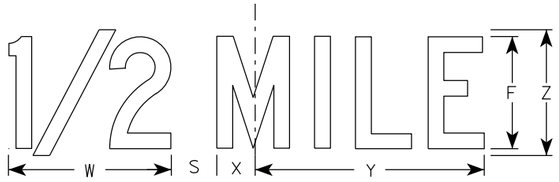
W20-1D



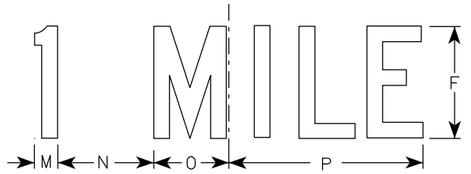
W20-1C



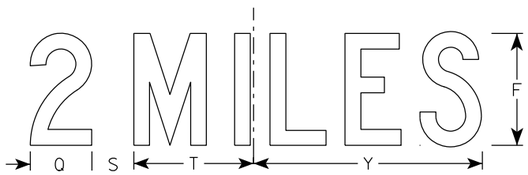
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

SHEET NO: E

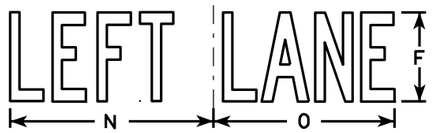
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

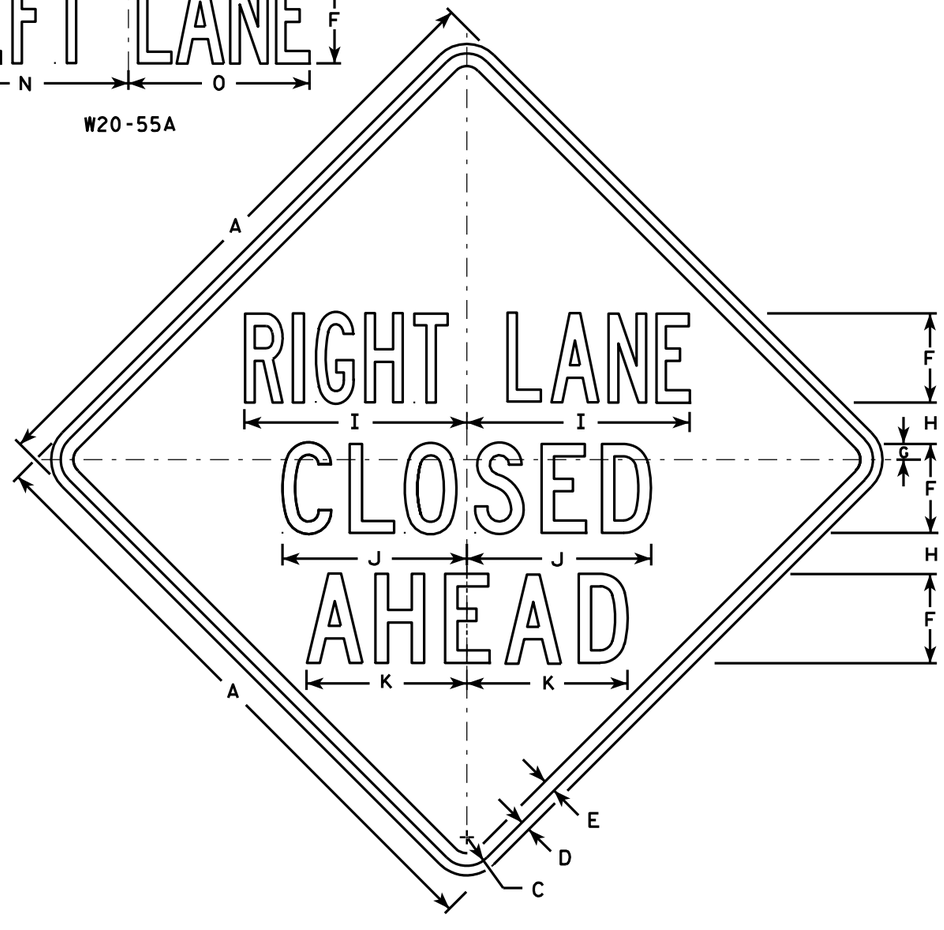
7

7

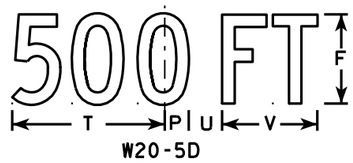
W20-56A



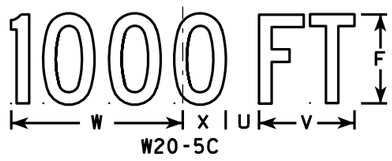
W20-55A



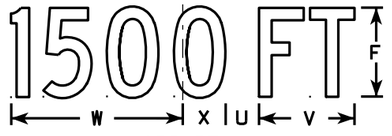
W20-5A



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

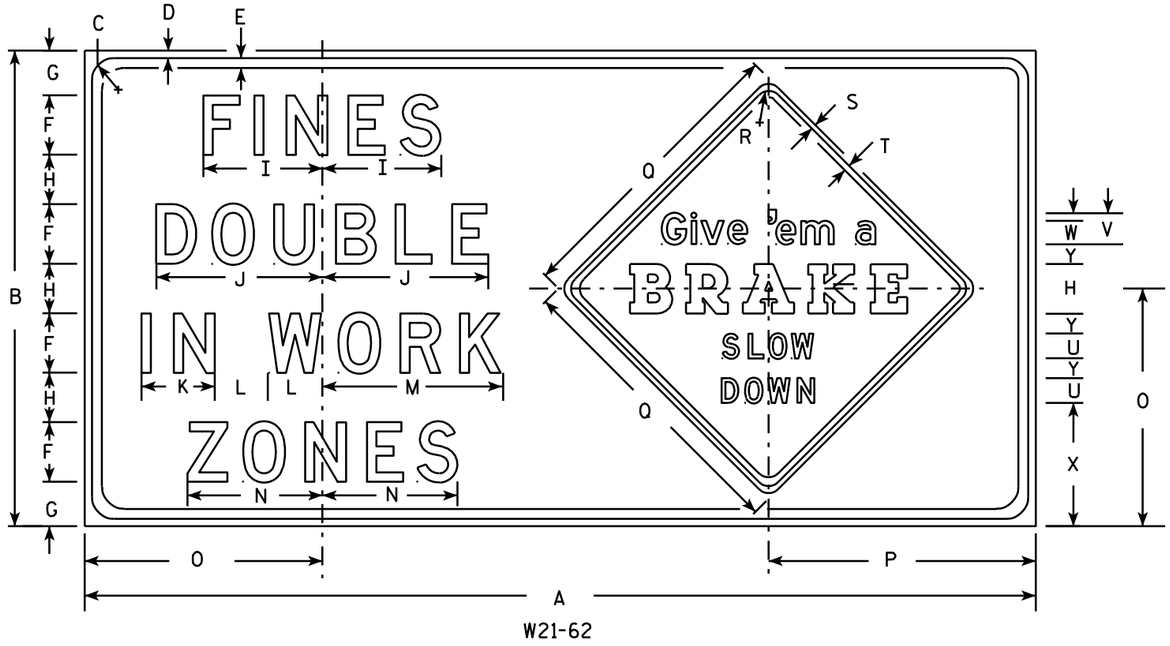
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 135 | E

7

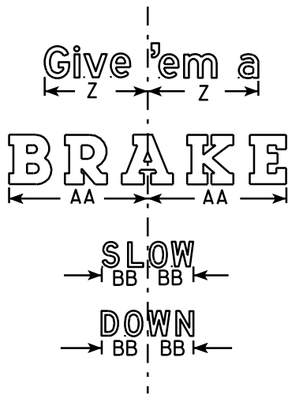
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42

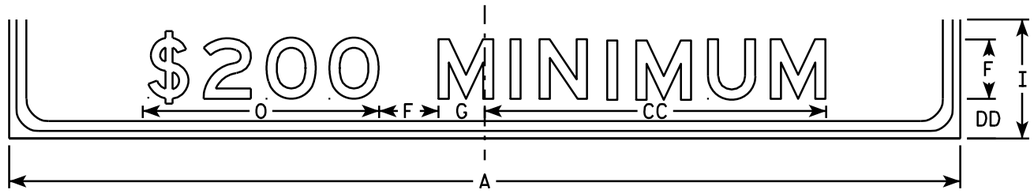


W21-62

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 - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.





W21-62P

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	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

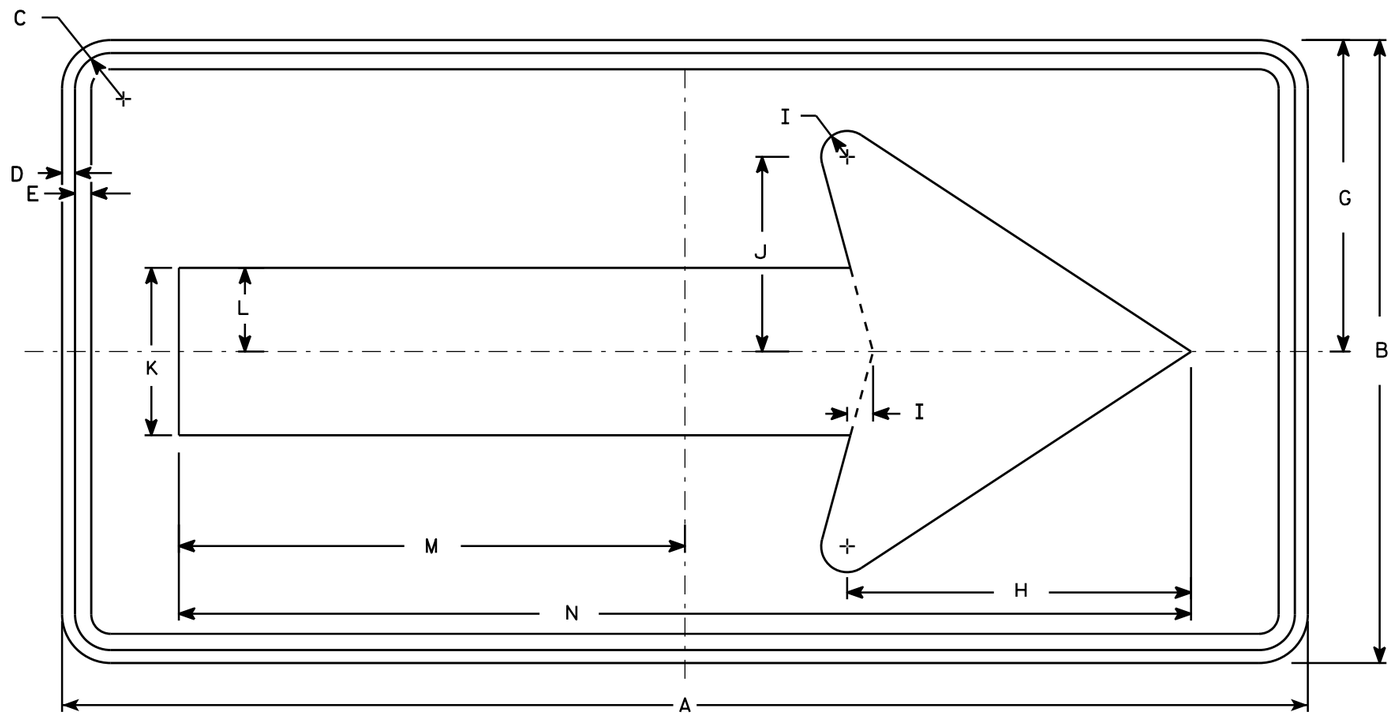
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 136	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

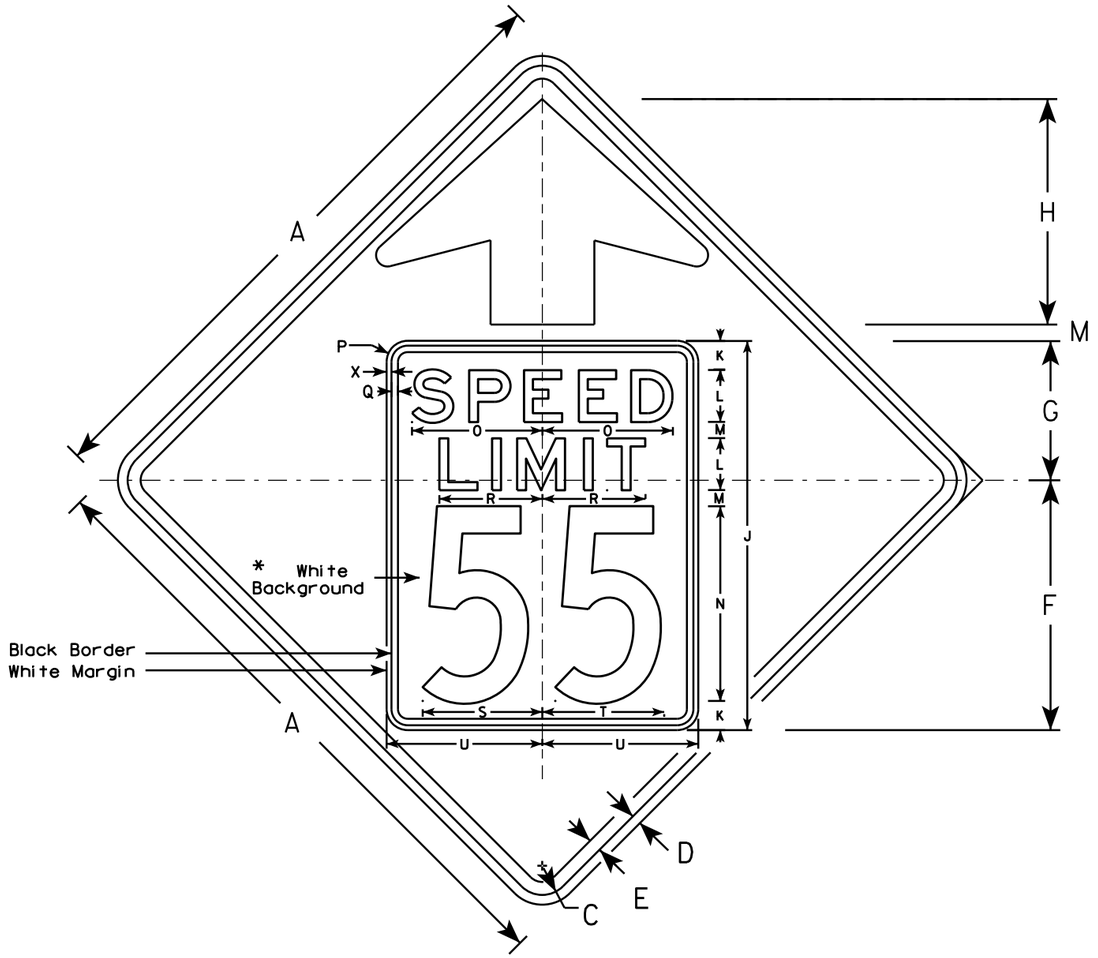
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

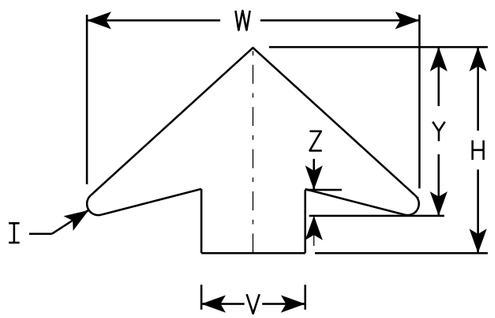


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

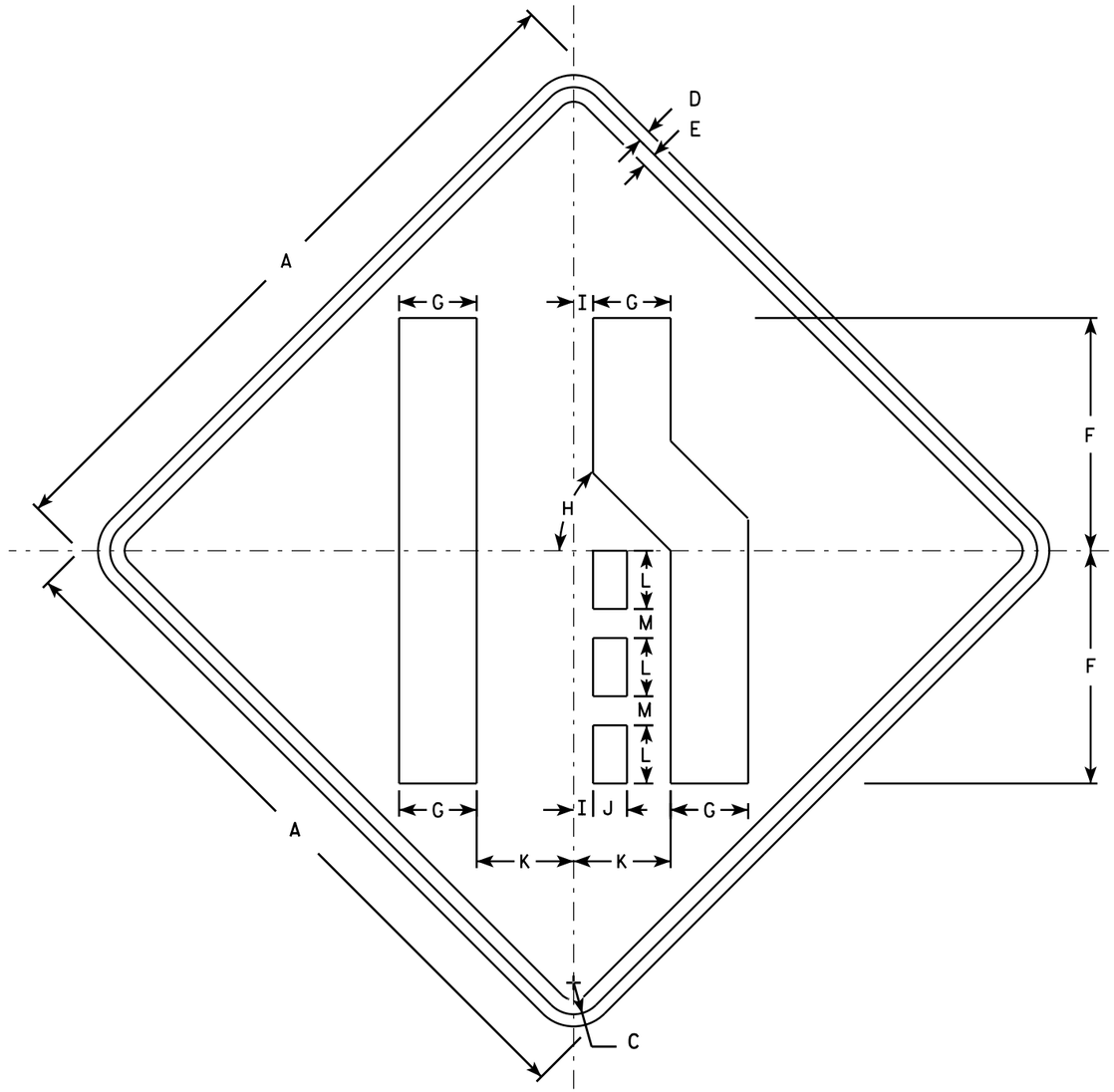
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

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

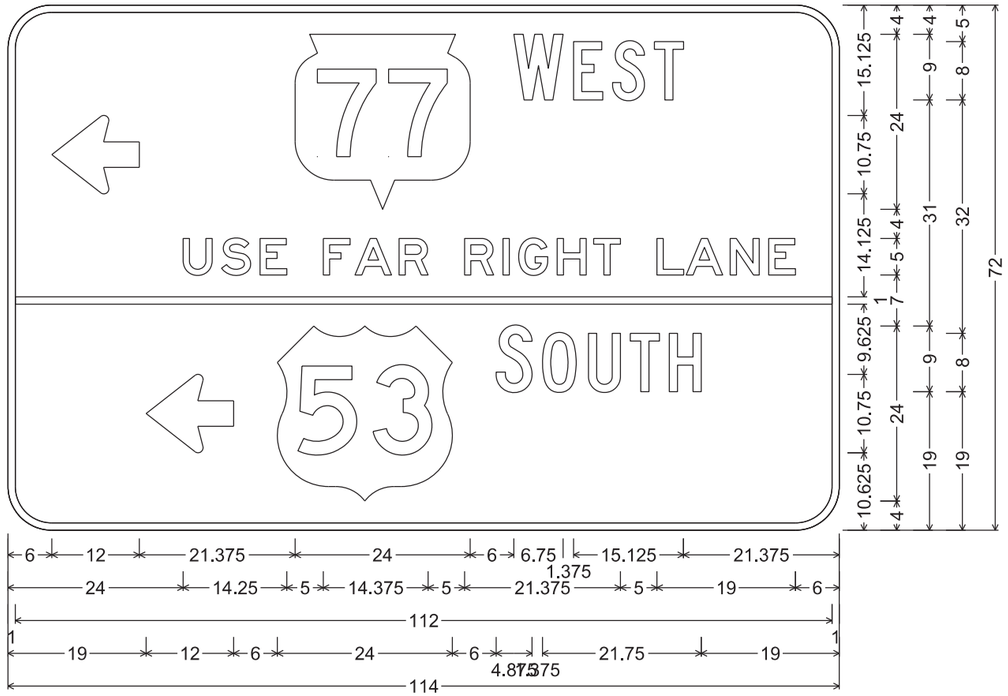
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

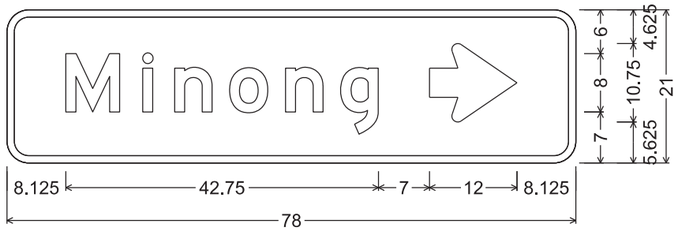
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 139 W04-2.1

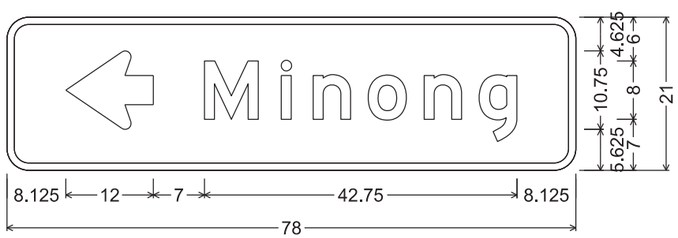
PROJECT NO: | SHEET NO: E



6.000" Radius, 1.000" Border;
"WEST", C; "USE", E; "FAR", E; "RIGHT", E; "LANE", E; "SOUTH", C



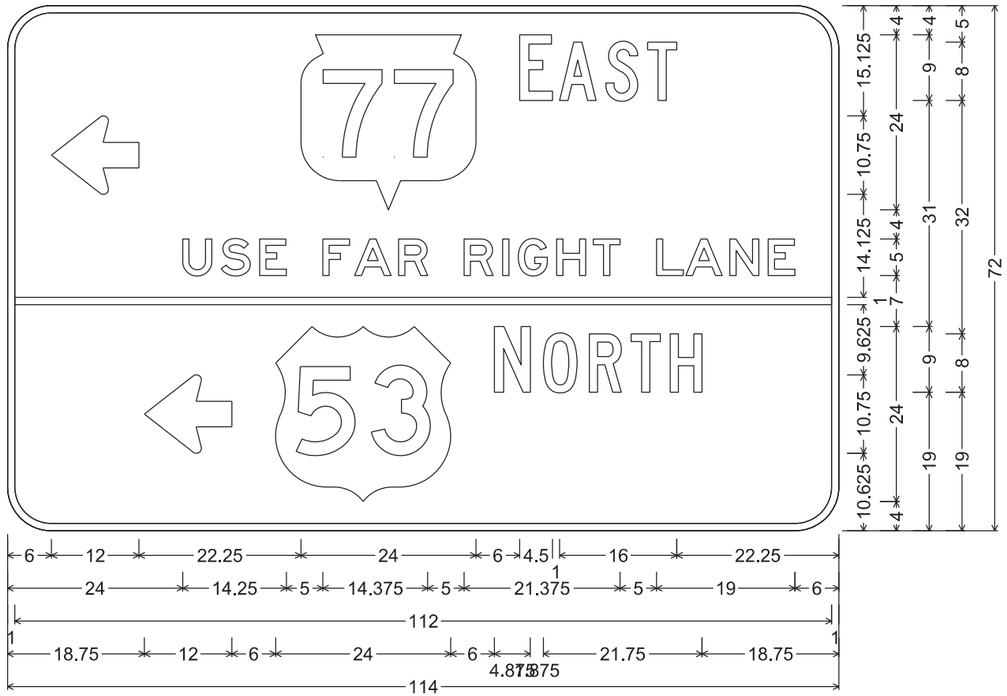
D1-1; 3.000" Radius, 1.000" Border;
"Minong", E



D1-1; 3.000" Radius, 1.000" Border;
"Minong", E

NOTES

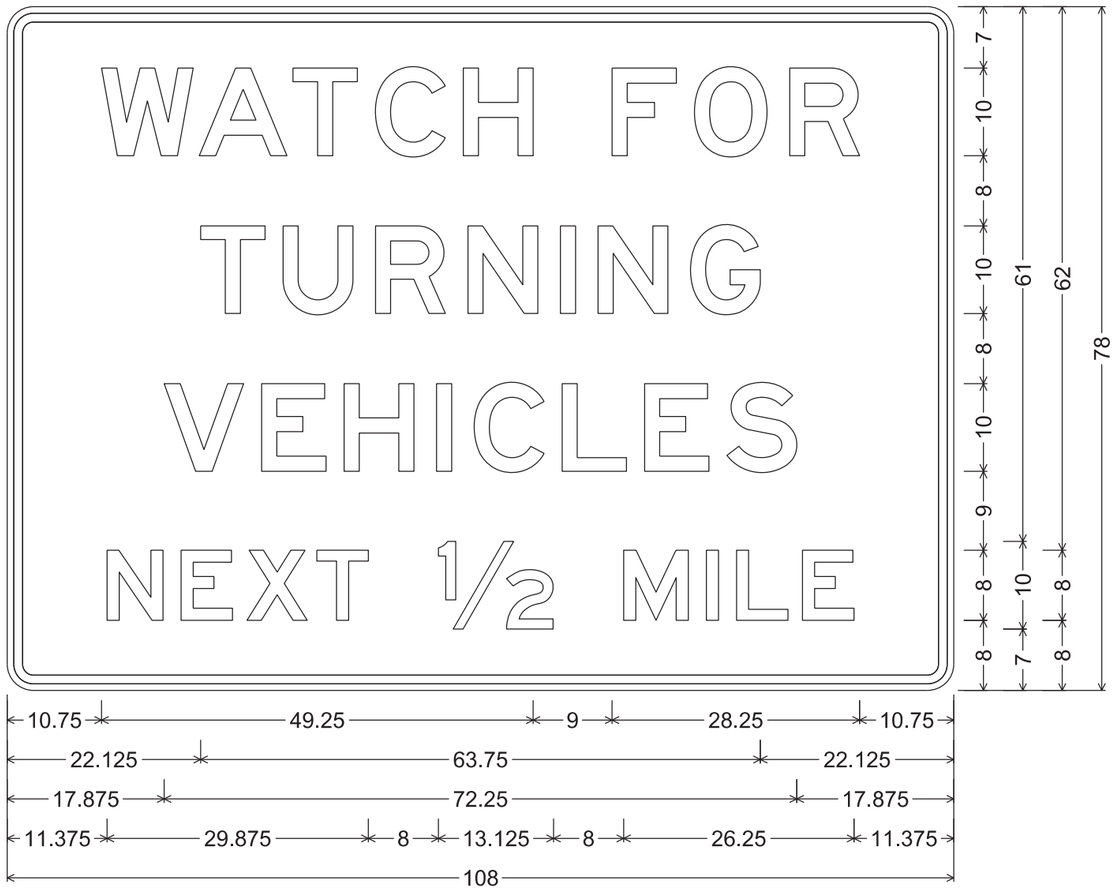
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - As noted



6.000" Radius, 1.000" Border;
"EAST", C; "USE", E; "FAR", E; "RIGHT", E; "LANE", E; "NORTH", C

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E



3.000" Radius, 1.000" Border, 0.750" Indent

7

7

STAGE 1 - AliProf-STH77E

STATION	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3	CUMULATIVE VOL (CY) CUT 1.00 NOTE 1	CUMULATIVE VOL (CY) EXPANDED FILL 1.30	MASS ORDINATE NOTE 8
20+75	118.16	3.57	0	0	0	0	0
21+00	91.50	11.79	97	7	97	9	88
21+25	82.92	0.92	81	6	178	17	161
21+50	68.61	0.00	70	0	248	17	231
21+70	52.57	0.00	45	0	293	17	275

STAGE 1 - AliProf-STH77W

STATION	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3	CUMULATIVE VOL (CY) CUT 1.00 NOTE 1	CUMULATIVE VOL (CY) EXPANDED FILL 1.30	MASS ORDINATE NOTE 8
08+20	34.40	0.00	0	0	0	0	0
08+50	38.81	0.00	41	0	41	0	41
08+75	46.85	0.00	40	0	80	0	80
09+00	56.59	0.00	48	0	128	0	128
09+25	86.90	7.35	66	3	195	4	190
09+34	97.02	21.96	30	5	224	11	214

STAGE 2 - AliProf-US53SB

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
689+00	10.21	12.19	0	0	0	0	0
689+50	10.46	0.09	19	11	19	15	4
690+00	12.28	0.11	21	0	40	15	25
690+50	12.64	0.02	23	0	63	15	48
691+00	10.83	0.29	22	0	85	16	69
691+50	10.21	0.02	19	0	104	16	89
692+00	26.14	0.49	34	0	138	17	122
692+40	20.66	1.20	35	1	173	18	155
692+50	19.23	0.54	7	0	180	19	162
693+00	15.92	1.37	33	2	213	21	192
693+50	16.05	1.53	30	3	242	24	218
694+00	15.95	1.49	30	3	272	28	244
694+50	15.34	2.55	29	4	301	33	268
695+00	13.85	5.79	27	8	328	43	285
695+50	13.75	3.13	26	8	354	54	300
696+00	14.90	3.40	27	6	380	62	319
696+50	18.84	0.00	31	3	411	66	346
697+30	0.00	0.00	28	0	439	66	374

STAGE 3 - AliProf-US53NB

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
683+65	9.04	0.00	0	0	0	0	0
684+50	9.30	0.00	29	0	29	0	29
685+00	9.71	0.00	18	0	46	0	46
685+50	10.07	0.00	18	0	65	0	65
686+00	11.15	0.00	20	0	84	0	84

STAGE 3 - AliProf-US53NB

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
688+50	29.84	0.00	0	0	0	0	0
689+00	13.56	6.41	40	6	40	8	32
689+50	13.32	15.81	25	21	65	34	31
690+00	14.10	7.38	25	21	90	62	28
690+50	14.89	6.75	27	13	117	79	38
691+70	14.87	8.75	66	34	183	124	59

STAGE 3 - AliProf-US53SB

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
686+00	15.74	13.87	0	0	0	0	0
686+50	19.25	15.69	32	27	32	36	-3
687+00	61.40	0.00	75	15	107	54	53

STATION	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
679+00	13.39	0.85	0	0	0	0	0
679+50	13.56	1.15	25	2	25	2	23
680+00	13.98	3.08	26	4	50	7	43
680+50	14.00	17.31	26	19	76	32	44
681+00	14.39	12.99	26	28	103	69	34
681+50	14.16	10.27	26	22	129	97	33
682+00	14.51	7.70	27	17	156	118	37
682+50	15.66	4.12	28	11	184	132	51
683+00	19.66	0.25	33	4	216	138	79
683+50	25.86	0.00	42	0	258	138	120
683+65	26.55	0.00	15	0	273	138	135

STAGE 2 - AliProf-US53NB

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
691+70	15.11	6.38	0	0	0	0	0
692+00	14.83	9.19	17	9	17	11	5
692+50	15.01	7.12	28	15	44	31	13
693+00	14.36	7.73	27	14	71	49	23
693+50	15.44	6.81	28	13	99	66	33
694+00	15.84	5.58	29	11	128	81	47
694+50	15.98	5.85	29	11	157	95	63
695+00	18.71	2.49	32	8	190	105	85
695+50	21.28	2.23	37	4	227	111	116
696+00	19.92	0.81	38	3	265	114	150
696+50	19.45	0.80	36	1	301	116	185

STAGE 2 - AliProf-US53SB

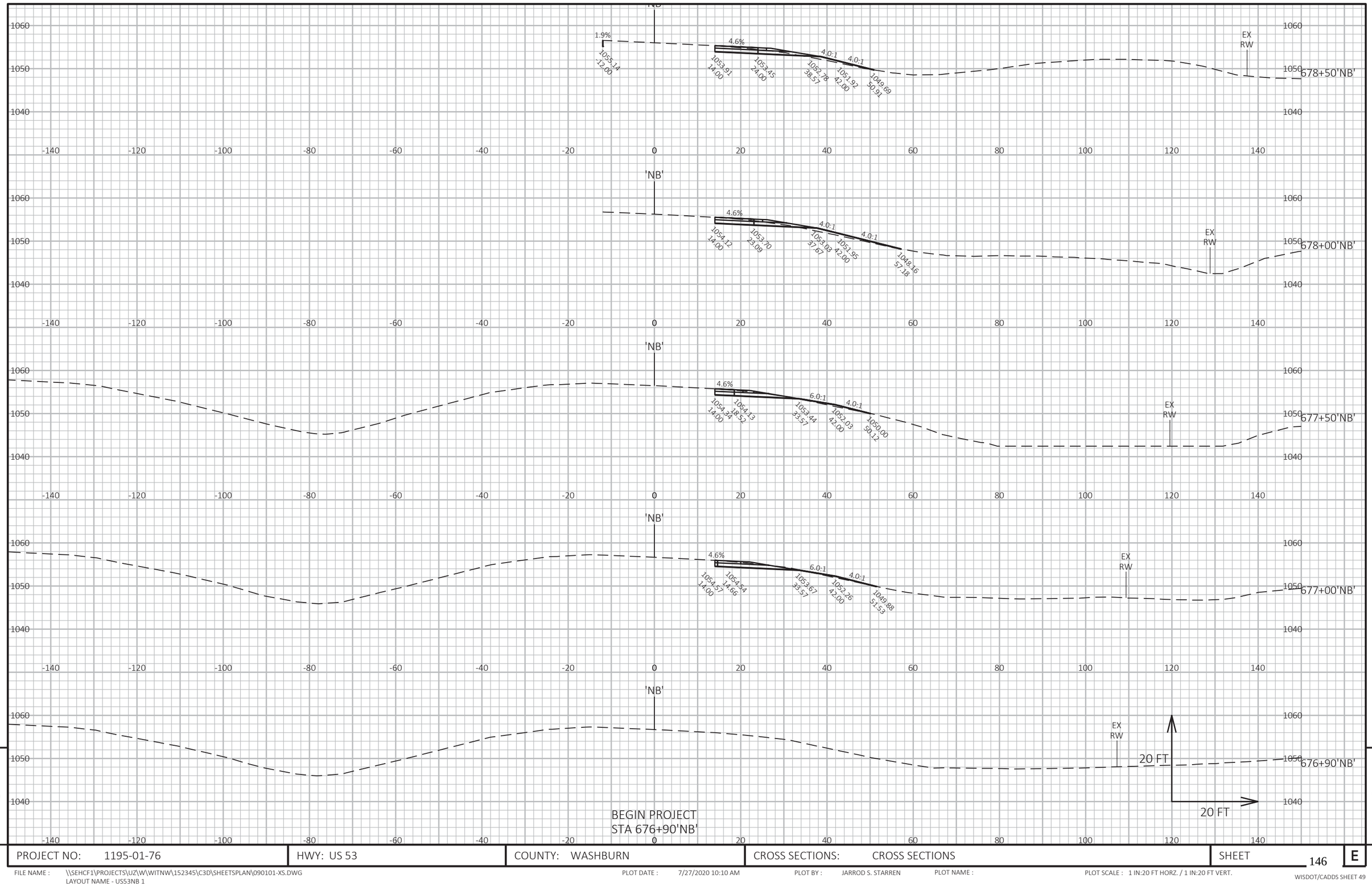
STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
679+00	14.95	21.82	0	0	0	0	0
679+50	15.04	23.57	28	42	28	55	-27
680+00	15.15	20.72	28	41	56	108	-52
680+50	14.95	15.72	28	34	84	152	-68
681+00	14.07	22.64	27	36	110	198	-88
681+50	13.32	25.48	25	45	136	256	-120
682+00	12.50	21.31	24	43	160	312	-152
682+50	12.12	22.88	23	41	183	365	-183
683+00	12.79	26.67	23	46	206	425	-219
683+50	11.78	32.92	23	55	228	497	-268
684+00	12.25	27.83	22	56	251	570	-319
684+50	13.06	21.03	23	45	274	629	-355
685+00	14.36	18.17	25	36	299	676	-376
685+50	15.15	20.39	27	36	327	722	-396
686+00	15.74	13.87	29	32	355	764	-408

STAGE 1 - AliProf-US53NB

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
676+90	0.00	0.00	0	0	0	0	0
677+00	18.17	2.54	3	0	3	1	3
677+50	16.95	3.68	33	6	36	8	28
678+00	16.84	8.84	31	12	67	23	44
678+50	17.83	5.77	32	14	99	41	59
679+00	16.93	4.78	32	10	131	53	78
679+50	16.88	7.63	31	11	163	68	94
680+00	16.62	8.92	31	15	194	88	105
680+50	16.35	8.26	31	16	224	109	115
681+00	15.67	7.19	30	14	254	128	126
681+50	16.08	6.67	29	13	283	144	139
682+00	16.47	6.65	30	12	313	160	153
682+50	16.33	7.58	30	13	344	177	166
683+00	20.39	4.79	34	11	378	192	186
683+50	27.58	0.07	44	5	422	198	224
683+60	28.50	0.01	10	0	433	198	234

STAGE 1 - AliProf-US53SB

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.30	MASS ORDINATE
			NOTE 1	NOTE 3	NOTE 1		NOTE 8
692+40	22.45	0.00	0	0	0	0	0
692+50	21.69	0.00	8	0	8	0	8
693+00	18.48	0.99	37	1	45	1	44
693+50	18.91	2.48	35	3	80	5	75
694+00	17.90	1.97	34	4	114	11	103
694+50	17.24	1.80	33	3	147	15	131
695+00	17.86	1.18	33	3	179	19	160
695+50	17.39	1.37	33	2	212	22	190
696+00	18.09	8.78	33	9	245	34	210
696+50	19.96	49.15	35	54	280	104	176
697+50	17.70	67.03	70	215	350	384	-34
698+00	18.80	0.49	34	63	383	465	-81
698+50	17.41	0.14	34	1	417	466	-49
698+80	19.00	0.00	20	0	437	466	-29



9

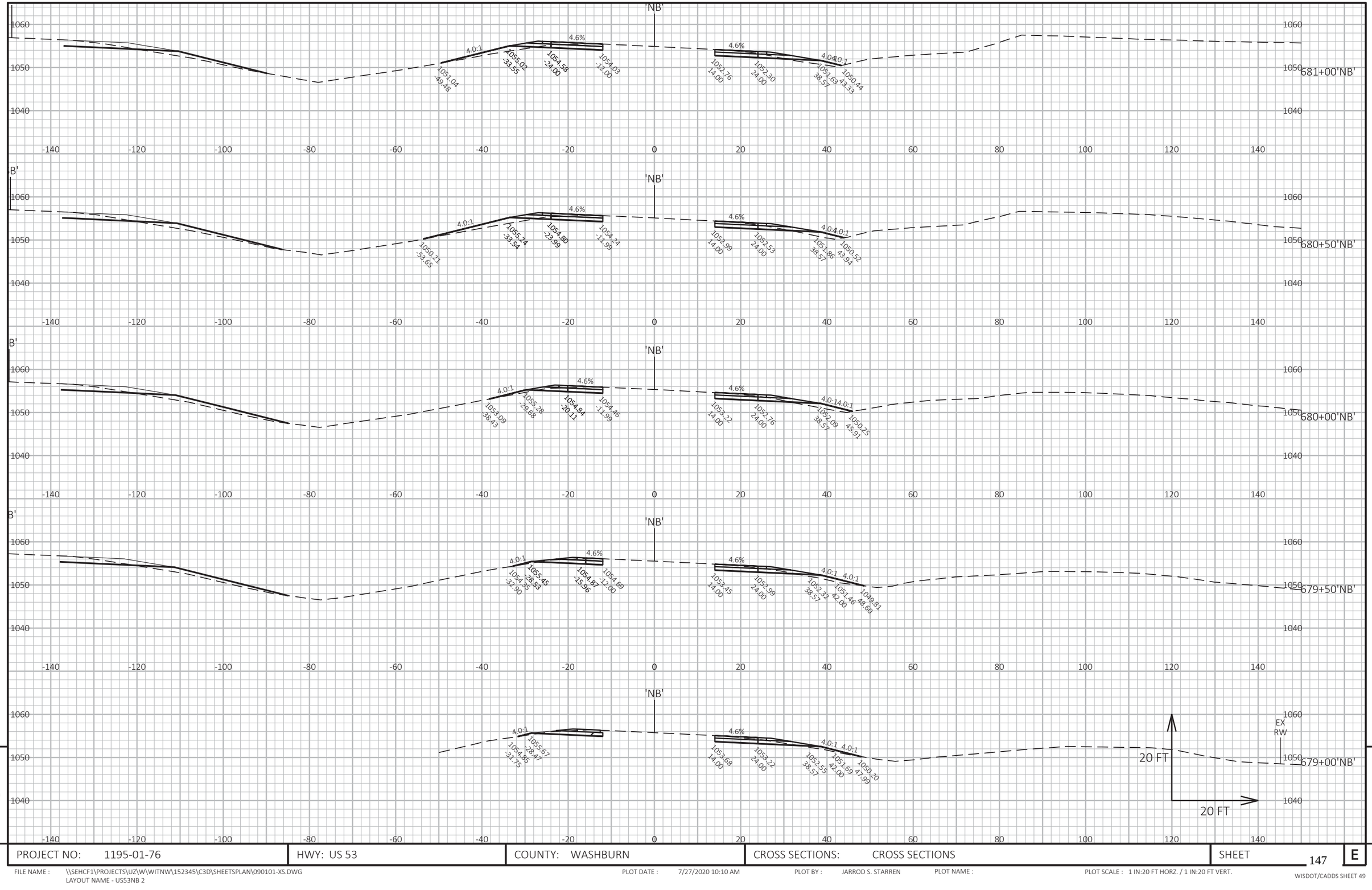
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 146	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 1

PLOT DATE : 7/27/2020 10:10 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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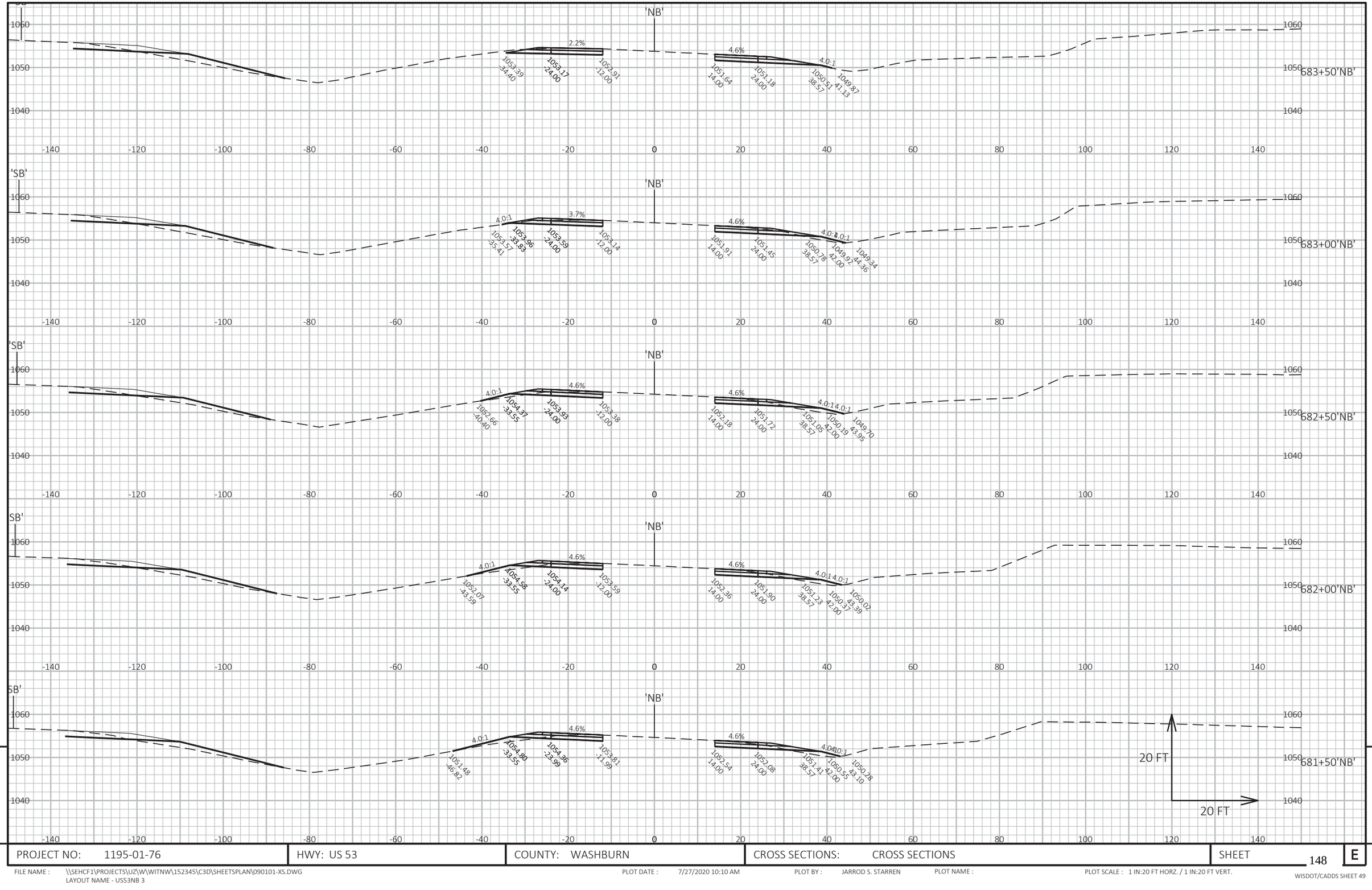
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 147	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 2

PLOT DATE : 7/27/2020 10:10 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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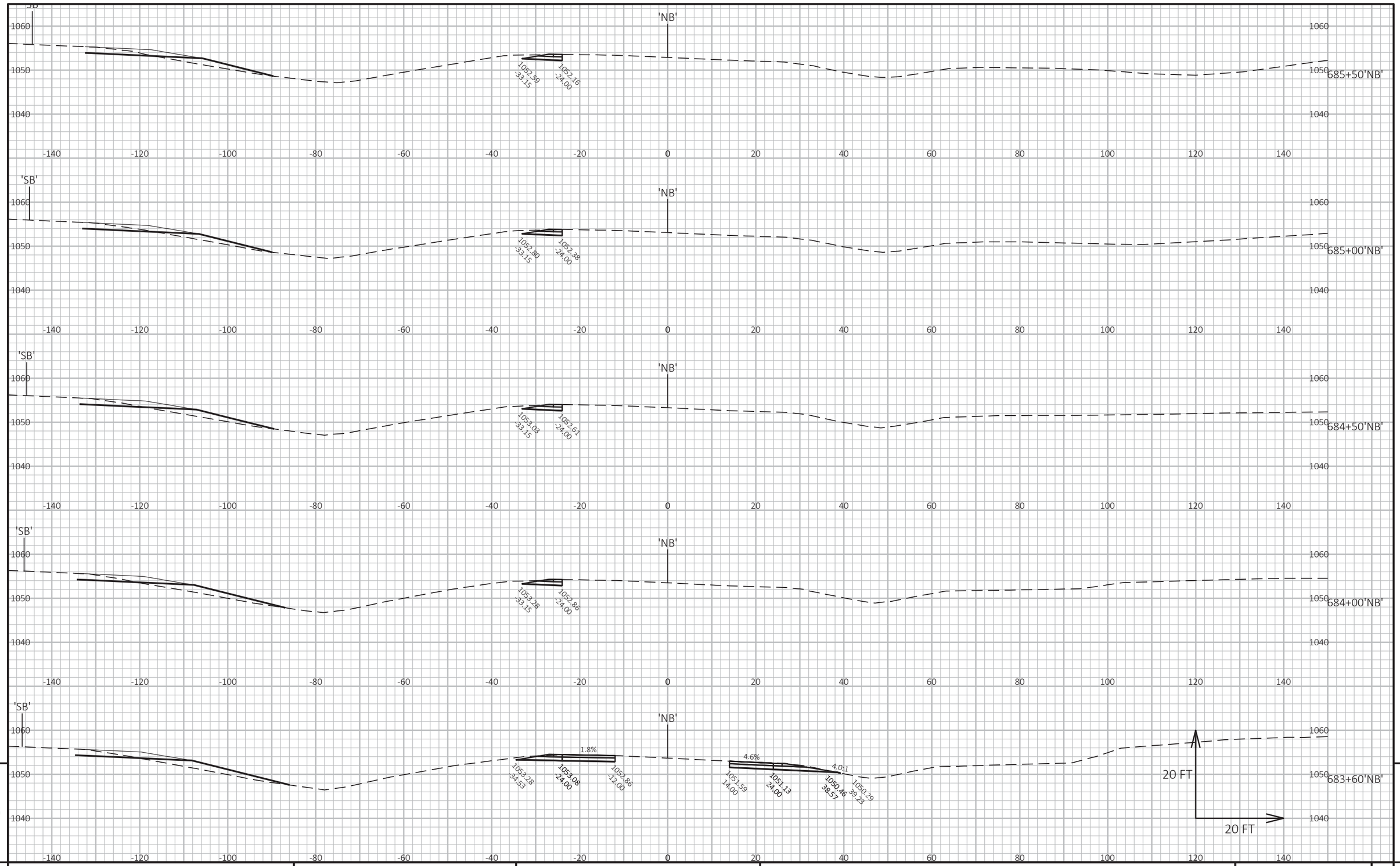
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 148	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 3

PLOT DATE : 7/27/2020 10:10 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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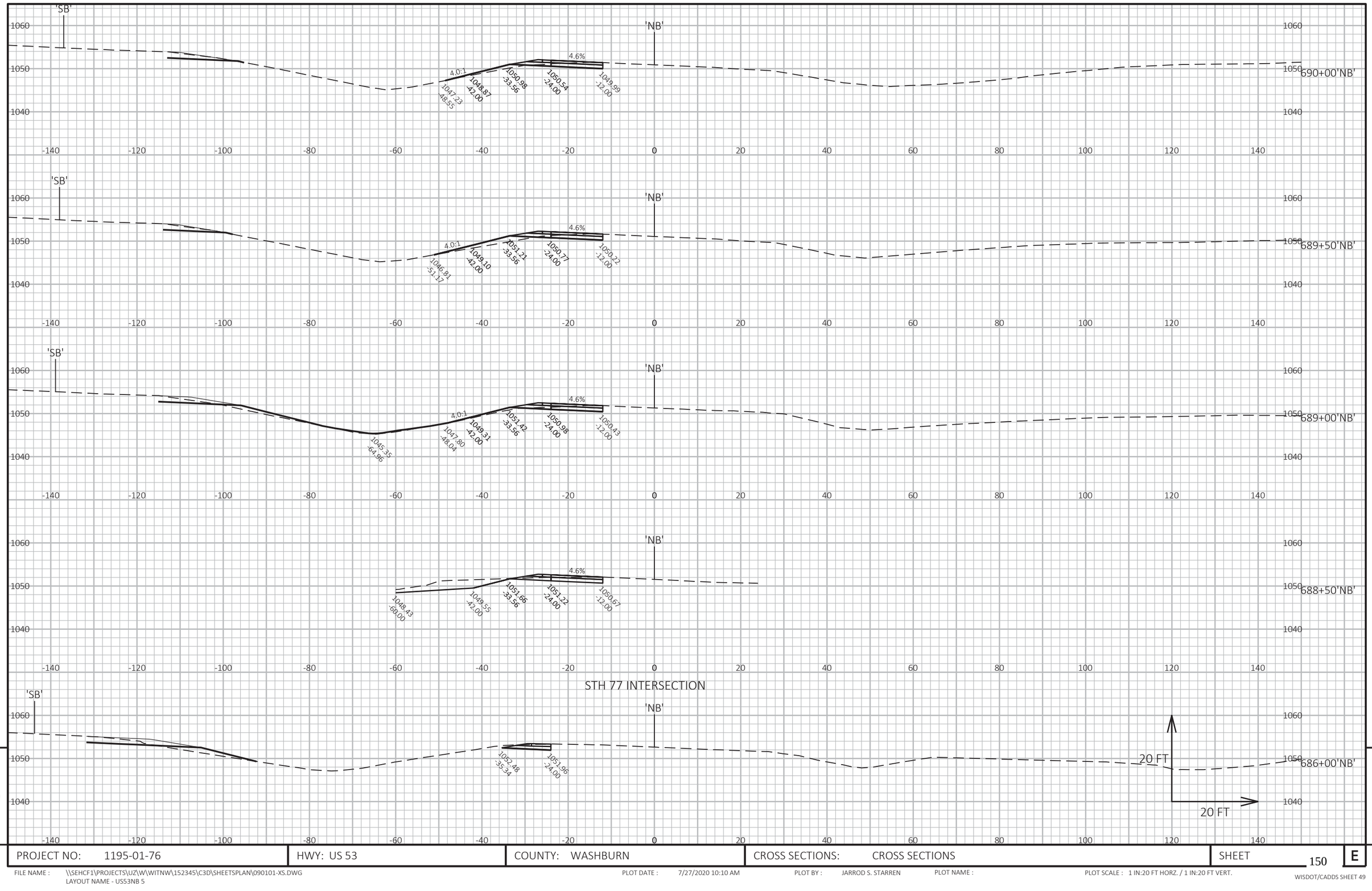
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 149	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 4

PLOT DATE : 7/27/2020 10:10 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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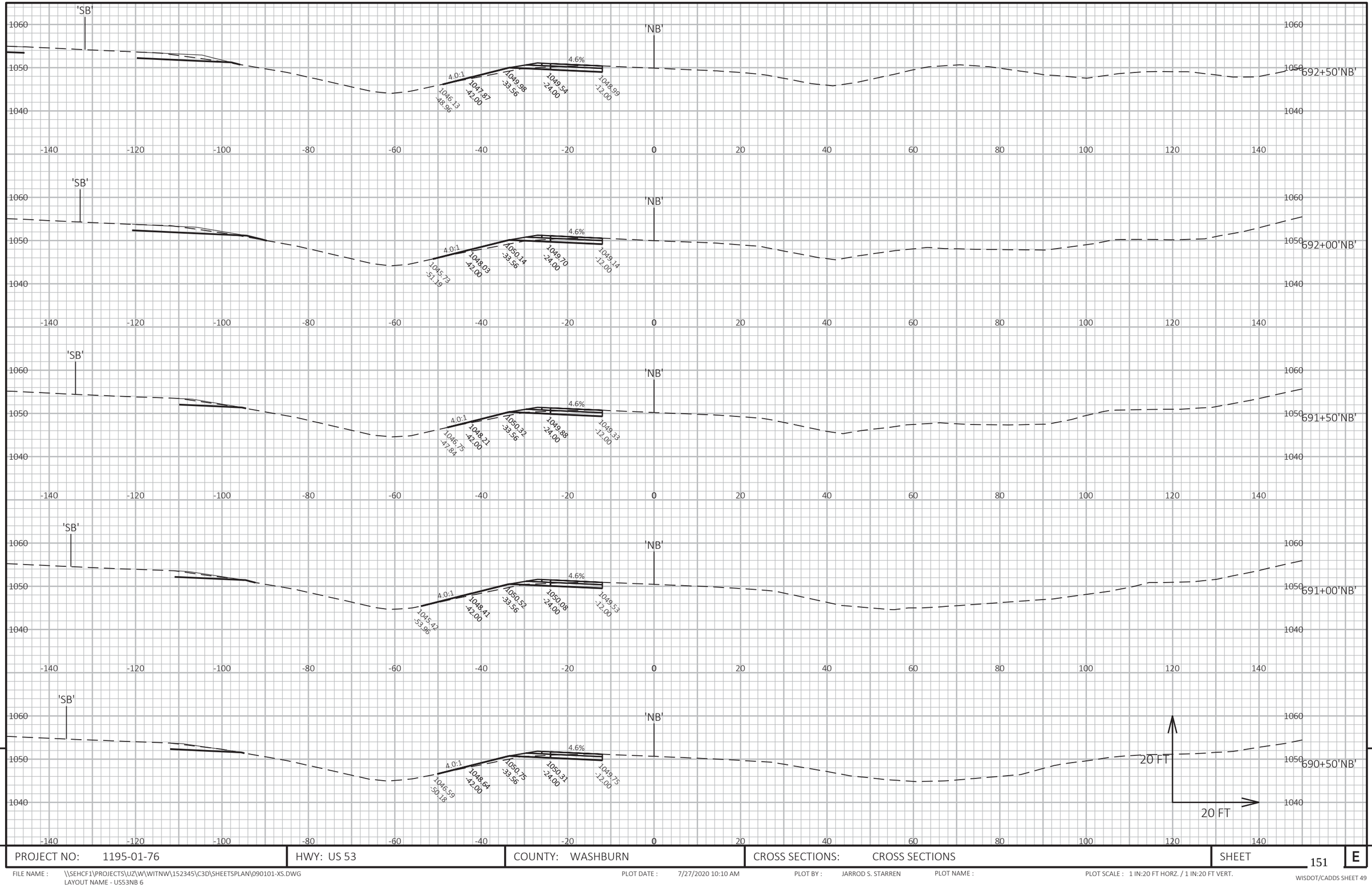
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 150	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 5

PLOT DATE : 7/27/2020 10:10 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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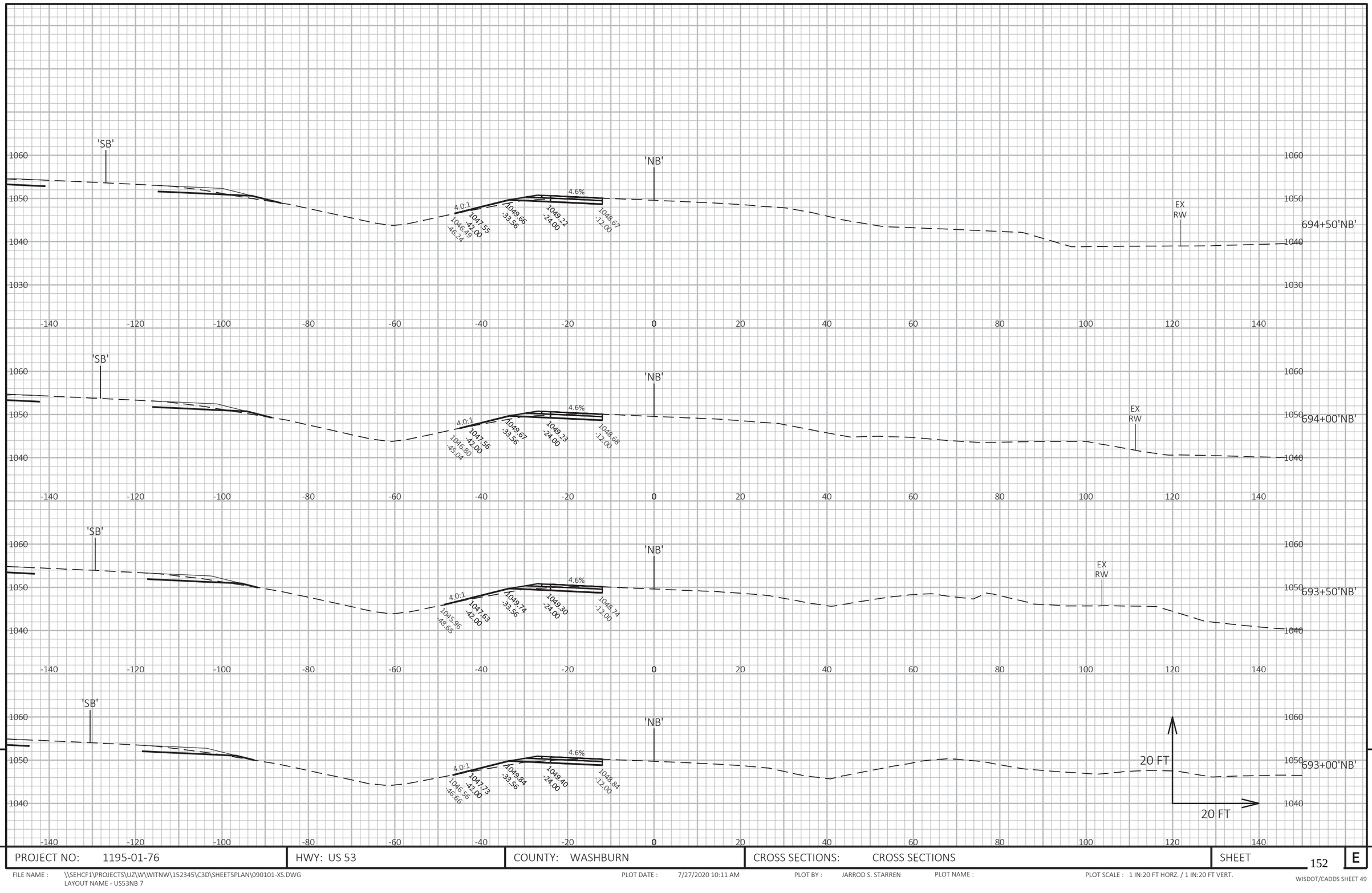
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 151	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 6

PLOT DATE : 7/27/2020 10:10 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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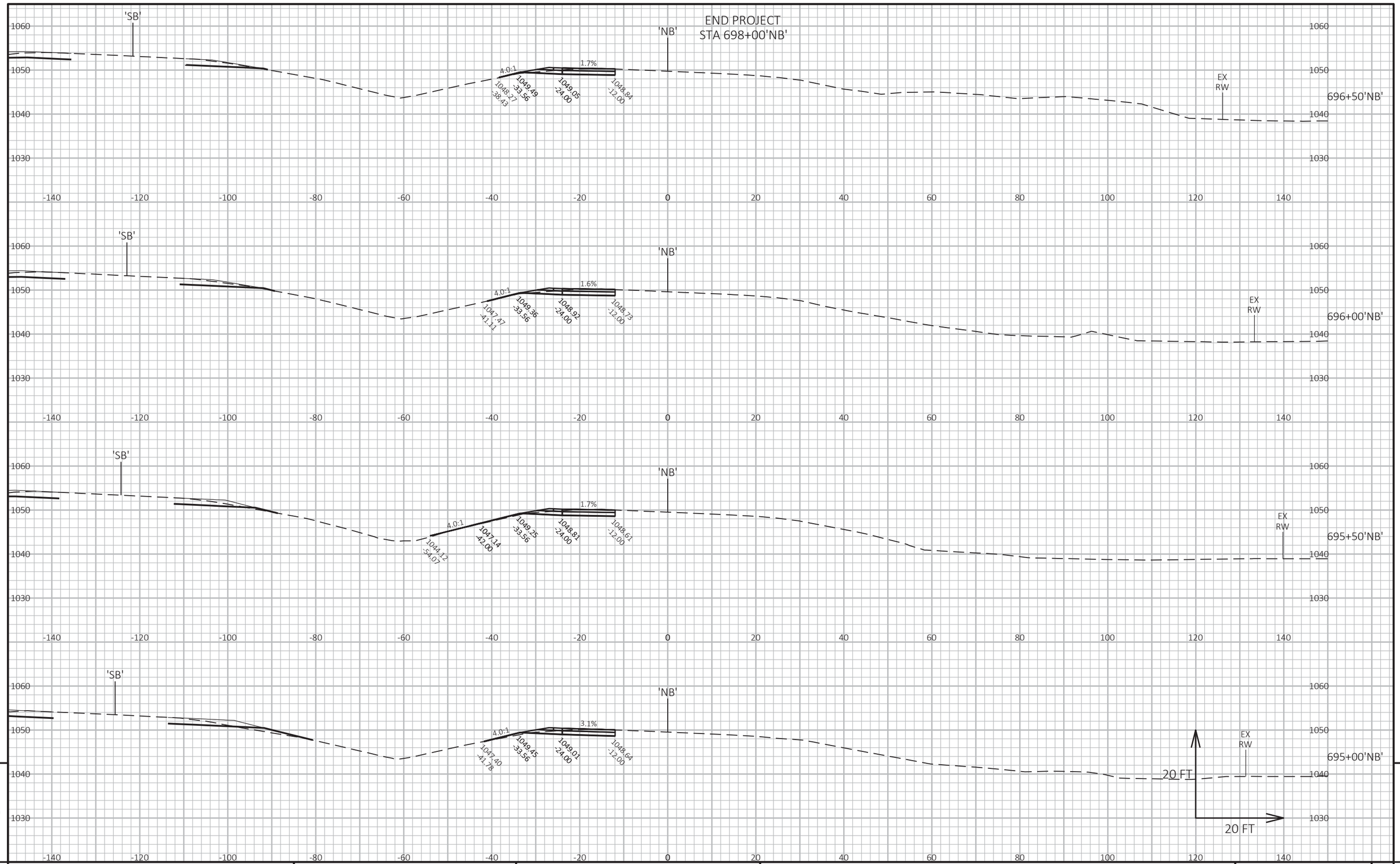
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 152	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 7

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

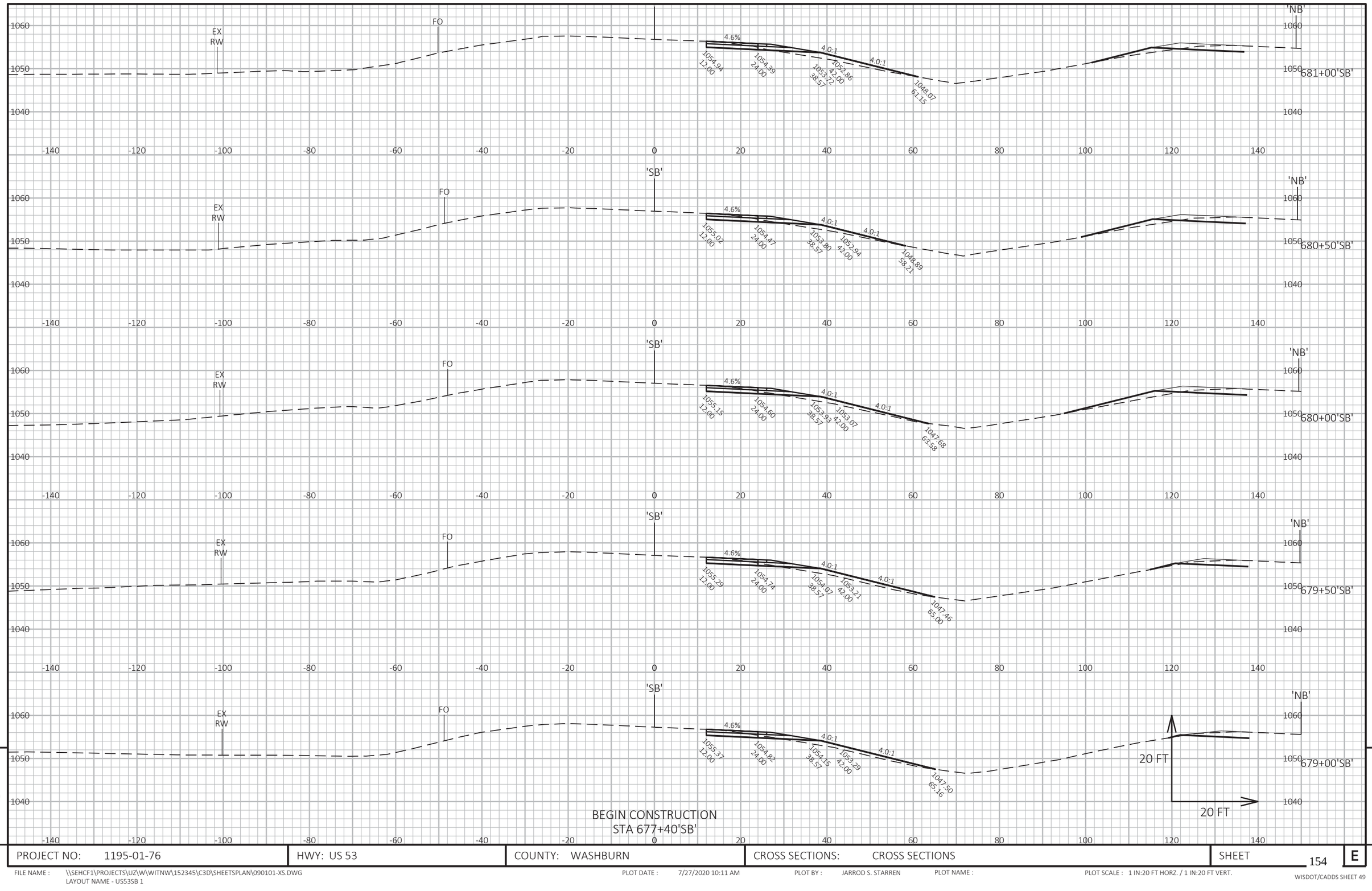
9

PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 153	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53NB 8

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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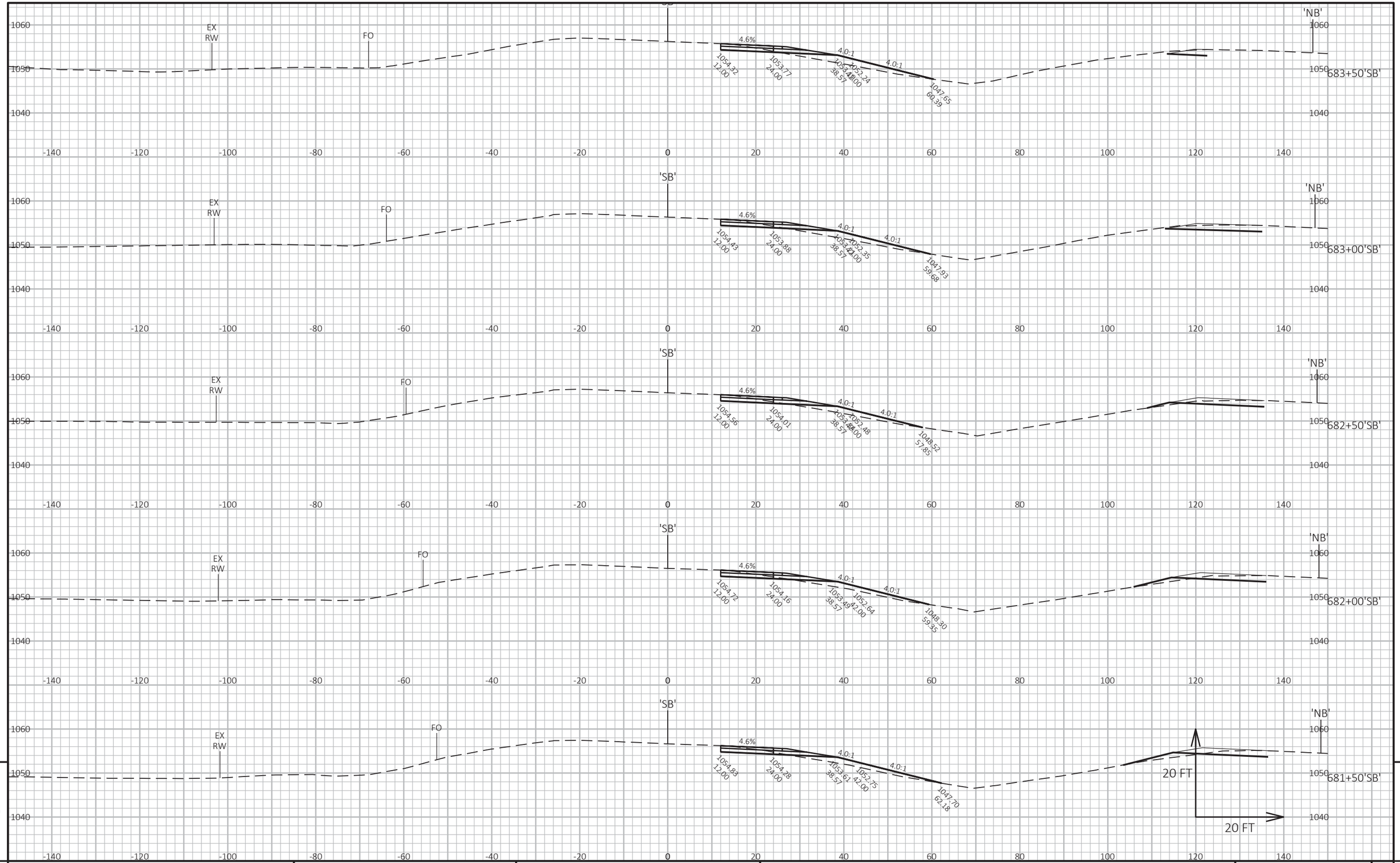
PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 154	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 1

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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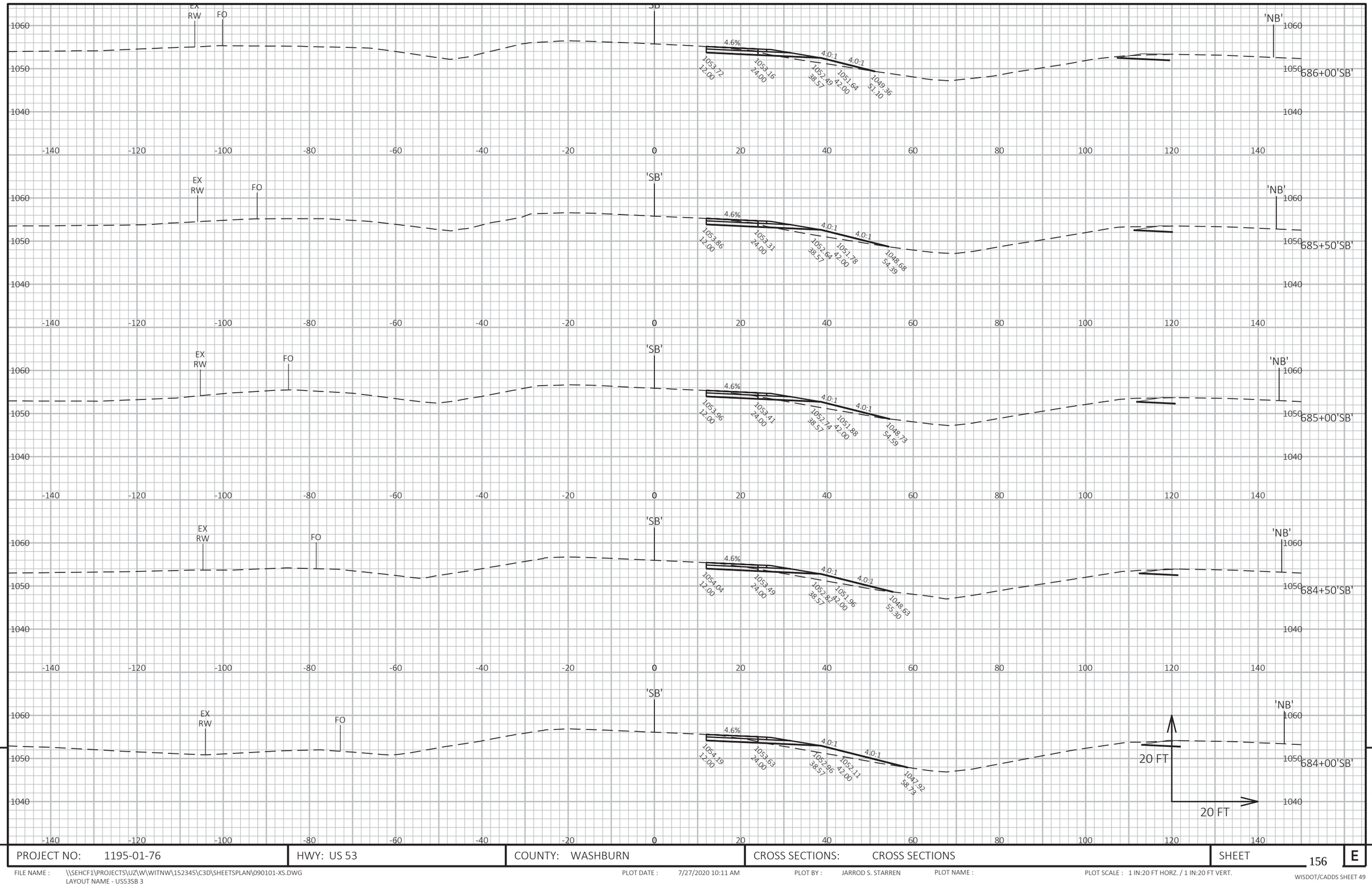
PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 155	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 2

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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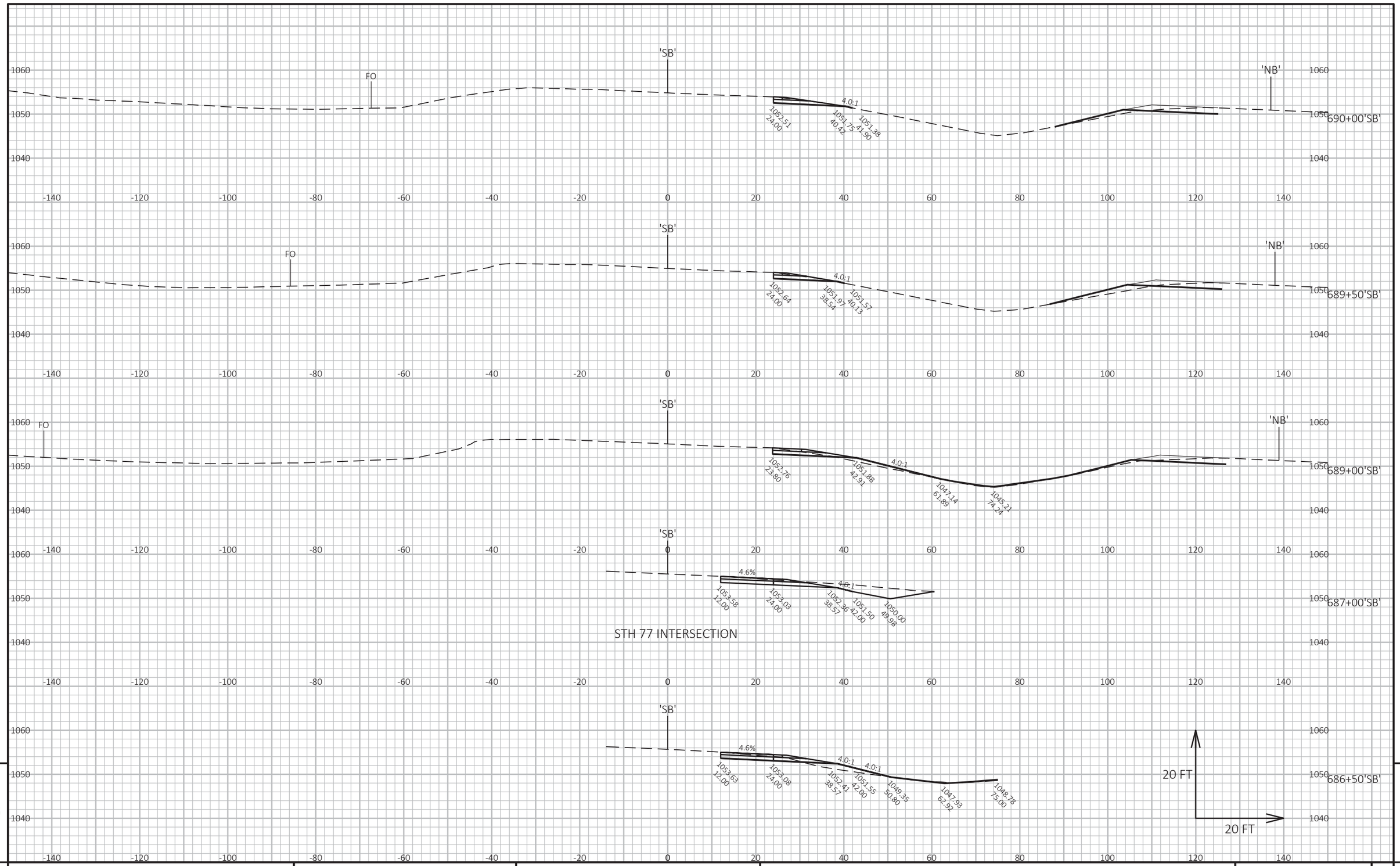
PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 156	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 3

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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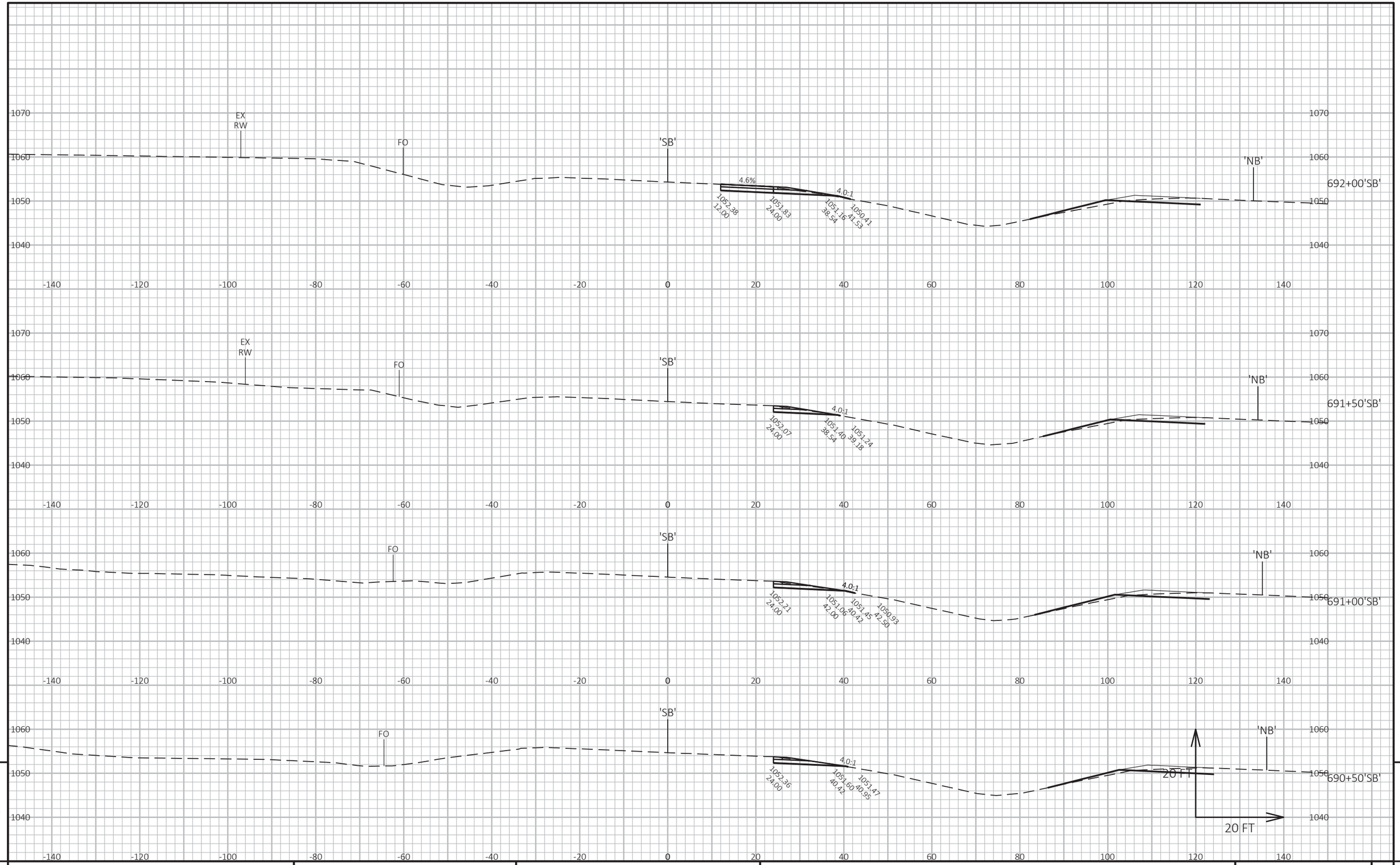
PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 157	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 4

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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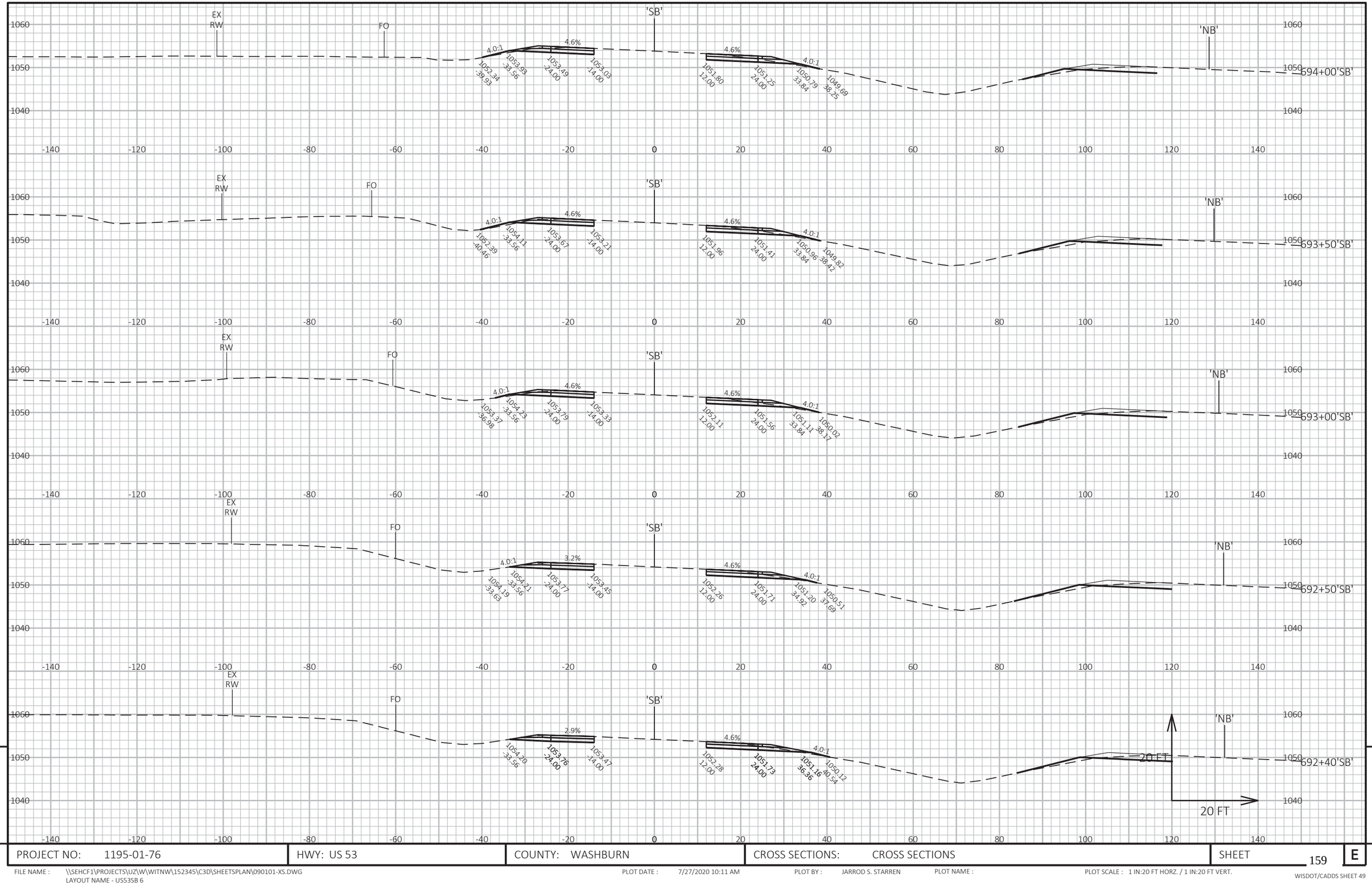
PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 158	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 5

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 159	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 6

PLOT DATE : 7/27/2020 10:11 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

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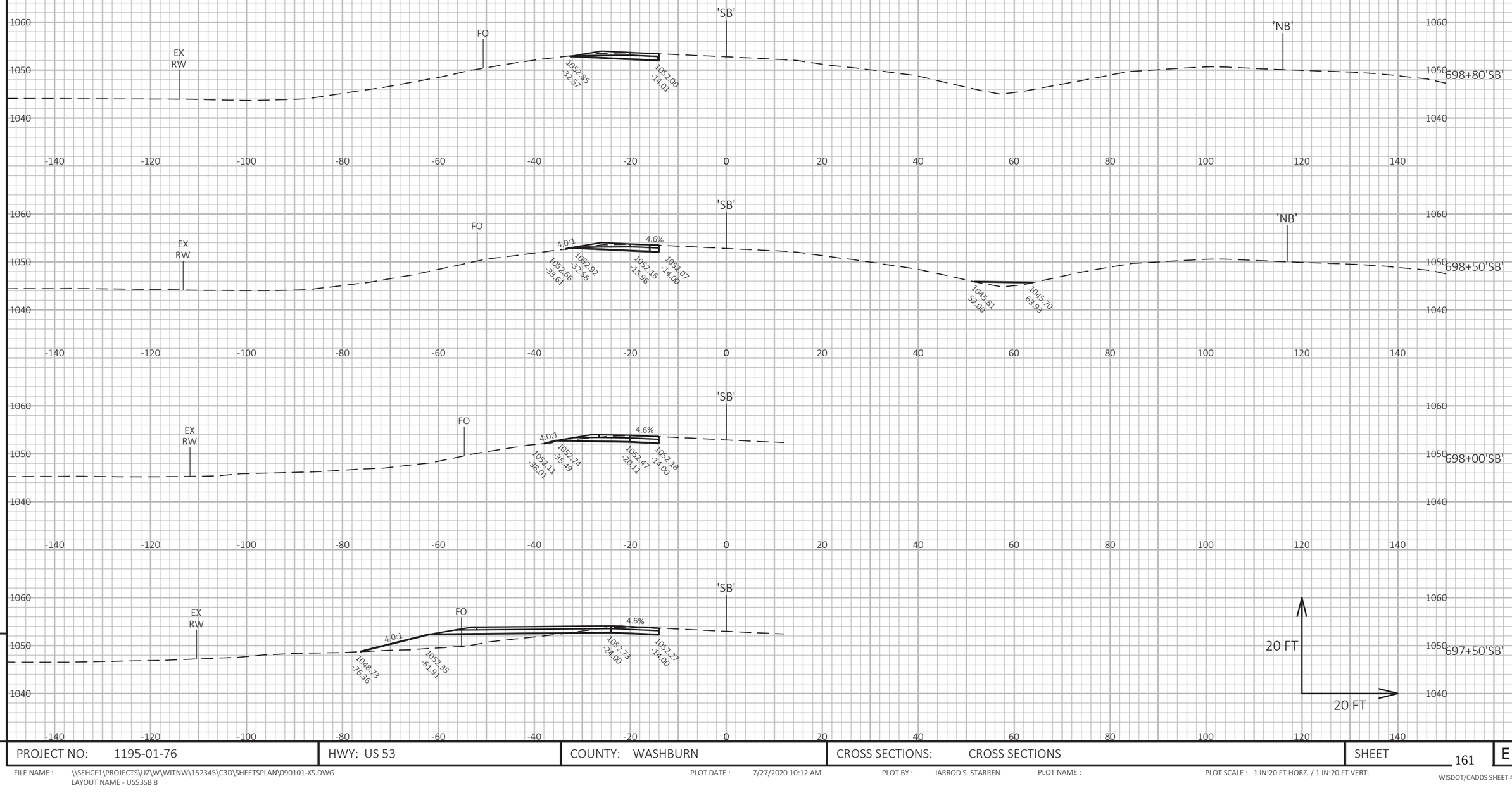
PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 160	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 7

PLOT DATE : 7/27/2020 10:12 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 698+80'SB'

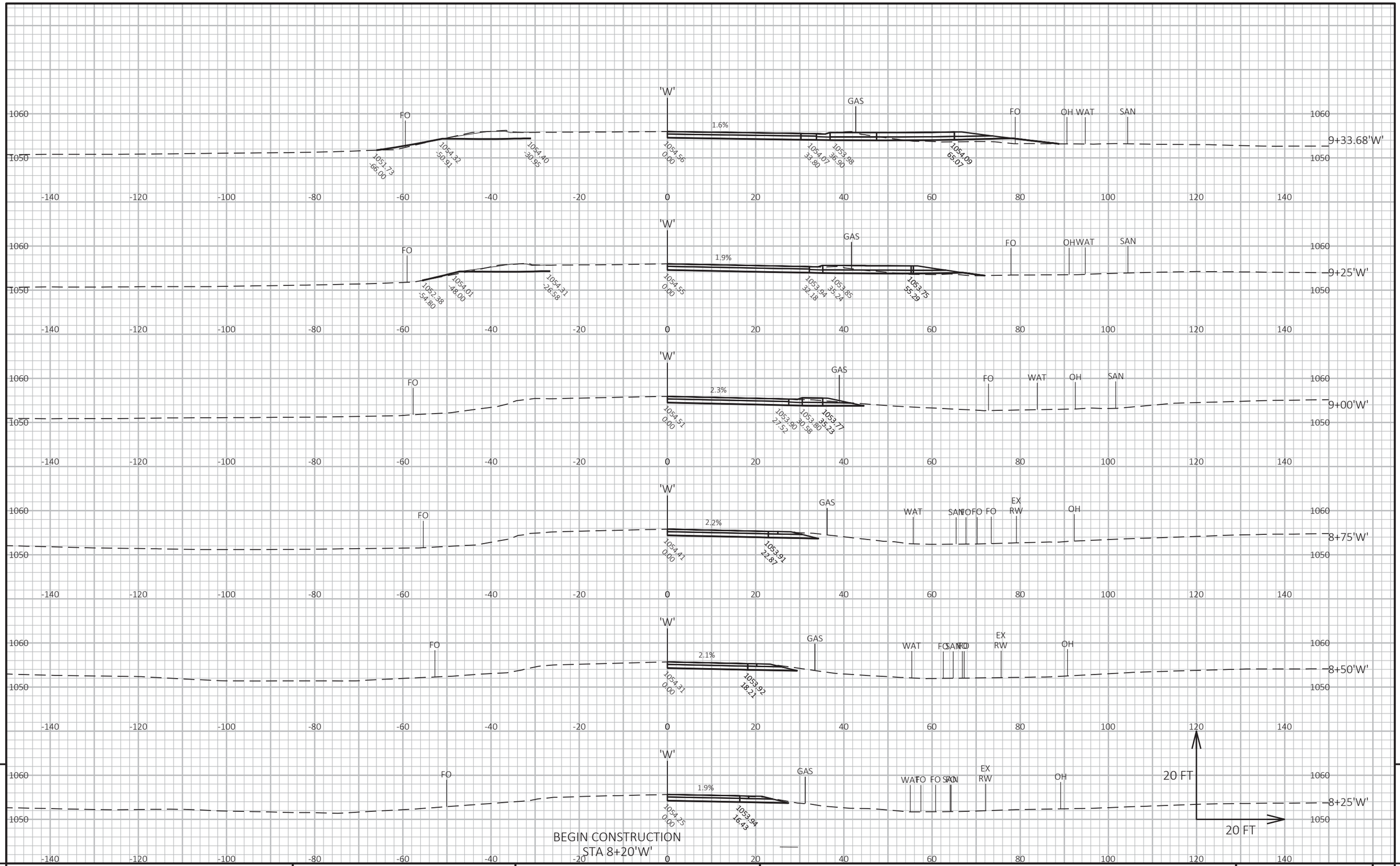


PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 161 E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - US53SB 8

PLOT DATE : 7/27/2020 10:12 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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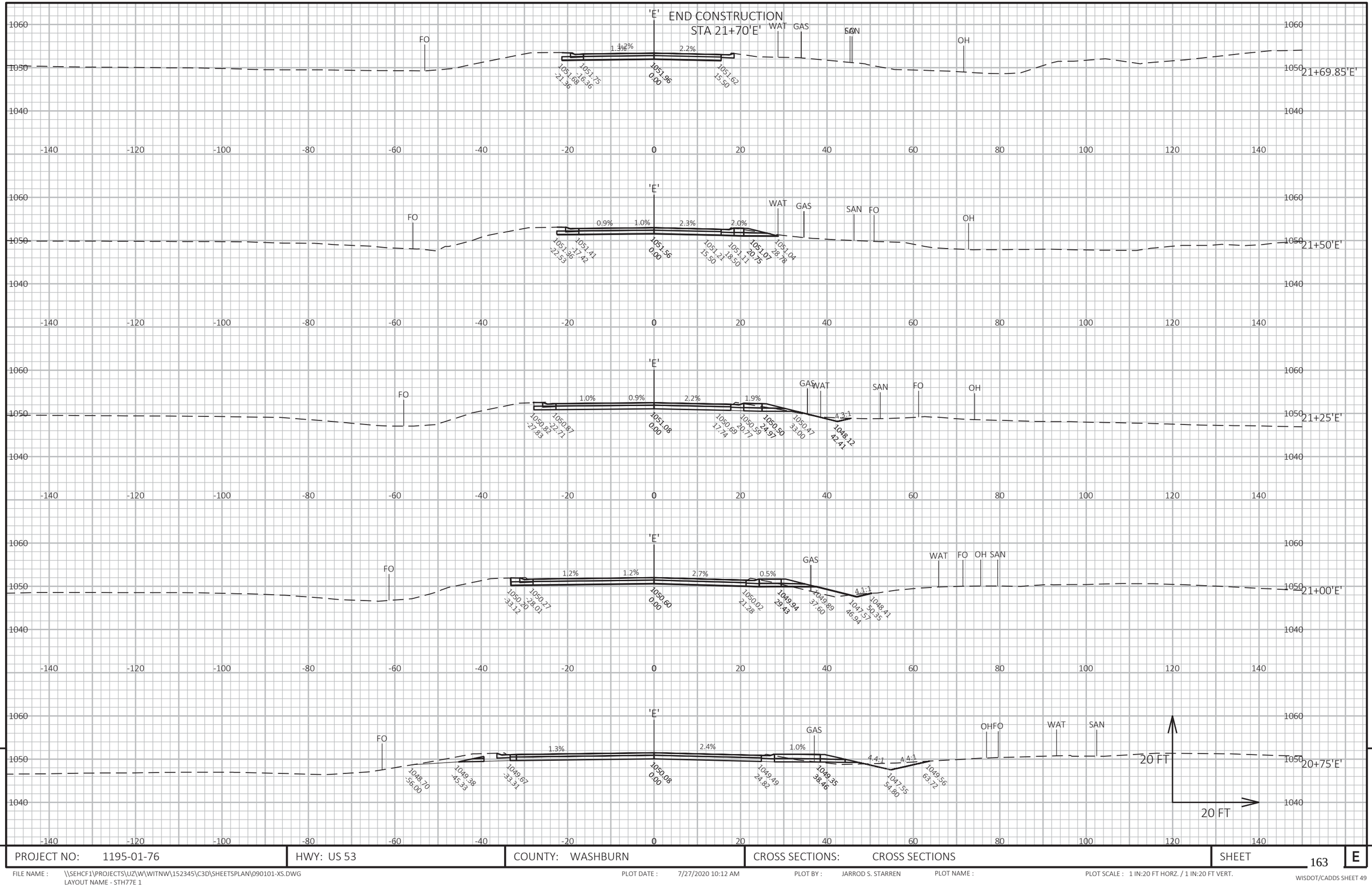
PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 162	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - STH77W 1

PLOT DATE : 7/27/2020 10:12 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1195-01-76	HWY: US 53	COUNTY: WASHBURN	CROSS SECTIONS: CROSS SECTIONS	SHEET 163	E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\152345\C3D\SHEETSPLAN\090101-XS.DWG
LAYOUT NAME - STH77E 1

PLOT DATE : 7/27/2020 10:12 AM PLOT BY : JARROD S. STARREN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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