SUP

PROJECT ID: 1570-05-63,1570-05-73

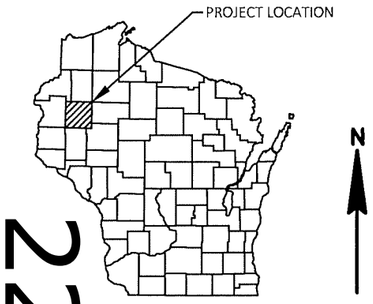
COUNTY: BARRON

SEPTEMBER 2021

ORDER OF SHEETS

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

TOTAL SHEETS = 116



22

DESIGN DESIGNATION 1570-05-03

A.A.D.T.	2023	=	8100
A.A.D.T.	2043	=	9600
D.H.V.		=	2600 (2043)
D.D.		=	5760 (2043)
T.		=	32.3%
DESIGN SPEED		=	55 MPH
ESALS		=	5,400,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1570-05-63	WISC 2021499	1
1570-05-73	WISC 2021500	1

TURTLE LAKE - CAMERON

CTH P TO WYE STREET

USH 8

BARRON COUNTY

STATE PROJECT NUMBER

1570-05-63

TURTLE LAKE - CAMERON

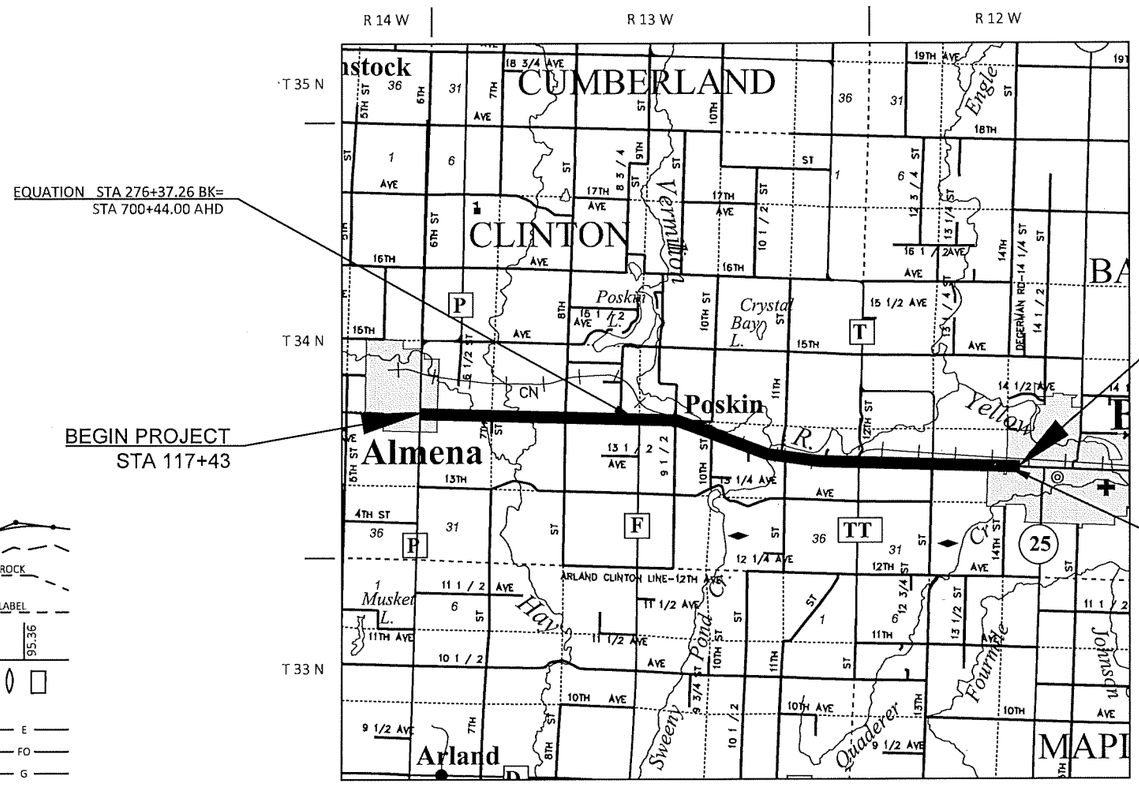
CTH P TO WYE STREET

USH 8

BARRON COUNTY

STATE PROJECT NUMBER

1570-05-73



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 8.3 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BARRON COUNTY, NAD83 (1991), 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 (1991). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	NW REGION
Designer	MATTHEW BECKLIN, PE
Project Manager	BETH CUNNINGHAM, PE
Regional Examiner	NW REGION
Regional Supervisor	ANDREW STENSLAND, PE

APPROVED FOR THE DEPARTMENT

DATE 02/03/2020 Beth Cunningham (Signature)

E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\010101_TI.DWG PLOT DATE : 2/3/2020 12:11 PM PLOT BY : BECKLIN, MATTHEW R PLOT NAME :

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
APPROX.	APPROXIMATE
A.E.W	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS.	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT OF TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWING
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY
V.C.	VERTICAL CURVE

UTILITIES

COMMUNICATION LINE

CHARTER COMMUNICATIONS
JAMEY OLDEEN
2304 S MAIN ST
RICE LAKE, WI 54868
715-719-0564
JAMEY.OLDEEN@CHARTER.COM

CENTURYLINK
MONTY PARKER
20 S WILSON AVE
RICE LAKE, WI 54868
715-234-5528
MONTY.PARKER@CENTURYLINK.COM

MOSAIC TELECOM
DENNIS RUSSETT
401 S 1ST ST
P.O. BOX 664
CAMERON, WI 54822
715-458-5378
CTCDENNIS@MOSAICTELECOM.COM

ELECTRICITY - DISTRIBUTION

BARRON ELECTRIC COOPERATIVE
NATE STEINES
1434 N. STH 25
BARRON, WI 54812
800-322-1008
NSTEINES@BARRONELECTRIC.COM

BARRON LIGHT AND WATER UTILITY (ELECTRIC)
JEREMY SCHLOSSER
1303 E DIVISION AVE
BARRON, WI 54812
715-537-3855
BLWD@CHIBARDUN.NET

DAIRYLAND POWER COOPERATIVE
ROB MALY
3200 EAST AVE S
PO BOX 817
LA CROSSE, WI 54602
608-788-4000
ROB.MALY@DAIRYLANDPOWER.COM

ELECTRICITY - TRANSMISSION
XCEL ENERGY
MITCHELL DIENGER
414 NICOLLET MALL 5TH FLOOR
MINNEAPOLIS, MN
612-321-9109
MITCHELL.A.DIENGER@XCELENERGY.COM

SEWER

ALMENA MUNICIPAL WATER UTILITY (SEWER)
WAYNE BECKER
345 LIGHTNING AVE
ALMENA, WI 54805
715-357-3320
PUBLICWORKS@CHIBARDUN.NET

BARRON LIGHT AND WATER UTILITY (SEWER)
MIKE ROMSOS
1295 16TH ST
BARRON, WI 54812
715-418-0341
BC-WWTP@CHIBARDUN.NET

WATER

BARRON LIGHT AND WATER UTILITY (WATER)
RICK JARI
1303 E DIVISION AVE
BARRON, WI 54812
715-537-3855
BLWD@CHIBARDUN.NET

ALMENA MUNICIPAL WATER UTILITY (WATER)
WAYNE BECKER
345 LIGHTNING AVE
ALMENA, WI 54805
715-357-3320
PUBLICWORKS@CHIBARDUN.NET

GAS/PETROLEUM

MARABOU SUPERIOR PIPELINE
JESSE KLANKE
450 FEARS RD, SUITE 850
HOUSTON, TX 77067
713-278-0600
JESSEK@MMSLP.COM

WE ENERGIES
STEVEN CHAVERS
104 W. SOUTH STREET
RICE LAKE, WI
715-234-9605
STEVEN.CHAVERS@WE-ENERGIES.COM

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

GENERAL NOTES

HORIZONTAL CONTROL POINTS AND ANY OTHER SURVEY INFORMATION WILL BE PROVIDED BY NORTHWEST REGIONAL TECHNICAL SERVICES UPON REQUEST.

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

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

DISTRIBUTED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE SALVAGED TOPSOIL, FERTILIZED, SEEDED AND EROSION MATTED AS DIRECTED BY THE ENGINEER. EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE COUNTY SURVEYOR REGARDING MONUMENT AND PROPERTY CORNER PRESERVATION.

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

IT IS THE CONTRACTORS RESPONSIBILITY TO CALL DIGGERS HOTLINE PRIOR TO BEGINNING WORK OPERATIONS AND TO CONFIRM ALL UTILITY LOCATIONS.

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

TYPICAL FINISHED SECTIONS SHOW THE GENERAL ROADWAY FEATURES THROUGHOUT THE PROJECT. SLOPES AND DISTANCES MAY VARY WITHIN THE STATION LIMITS.

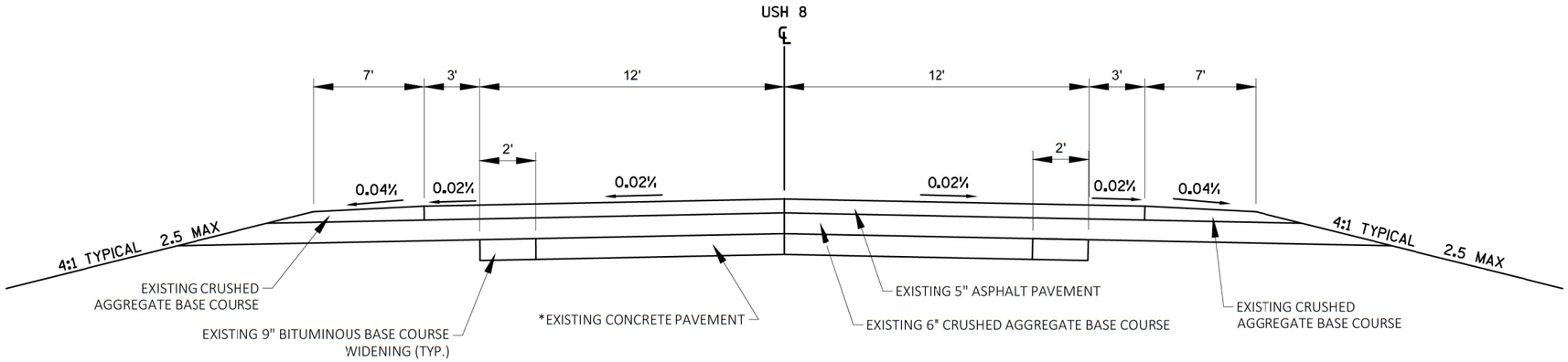
BARRON COUNTY HIGHWAY DEPARTMENT

MARK SERVI, HIGHWAY COMMISSIONER
BARRON COUNTY HIGHWAY DEPARTMENT
260 N 7TH ST
BARRON, WI 54812
(715) 637 - 3755

WISCONSIN DNR - LIASON

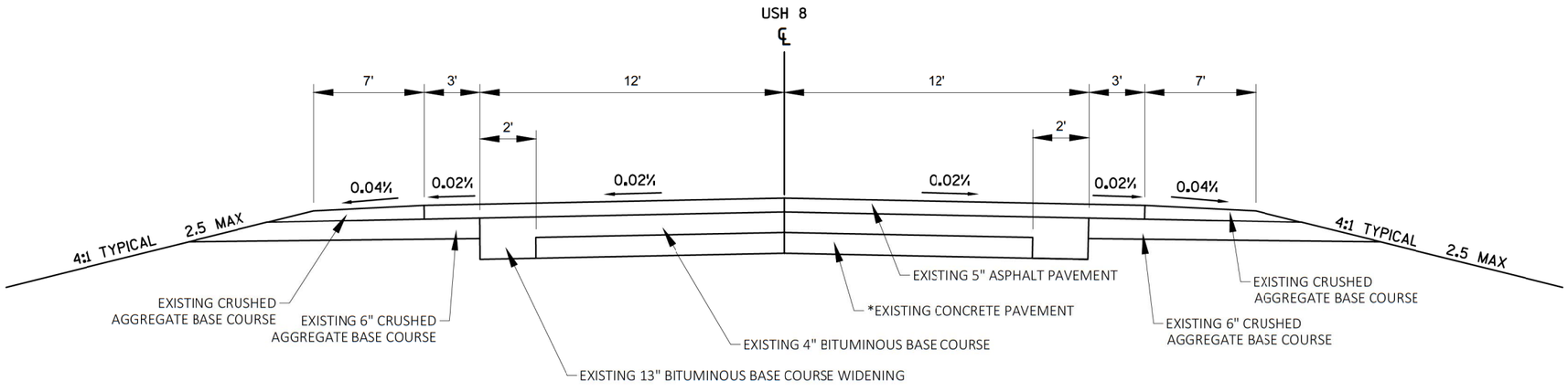
DEPARTMENT OF NATURAL RESOURCES
SPOONER - DNR SERVICE CENTER
810 W MAPLE ST
SPOONER, WI 54801
ATTN: AMY CRONK
(715) 635 - 4229
AMY.CRONK@WISCONSIN.GOV

2



USH 8 EXISTING TYPICAL SECTION

117+43-154+62
170+59-190+12
232+39-244+78
860+56-866+55
910+09-919+79

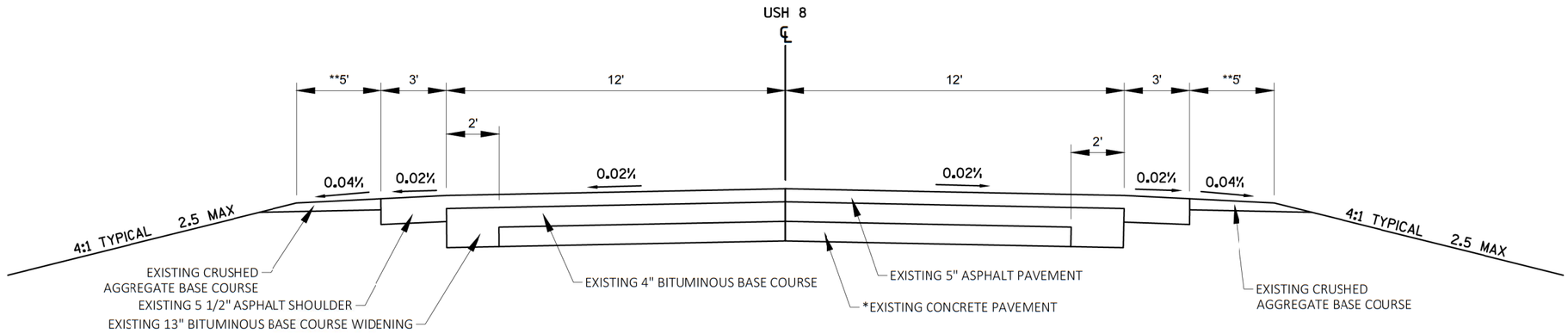


USH 8 EXISTING TYPICAL SECTION

154+62-170+59
190+12-203+60

*CONCRETE PAVEMENT VARIES IN THICKNESS, 6.5" AT CENTER AND 9" AT EDGE

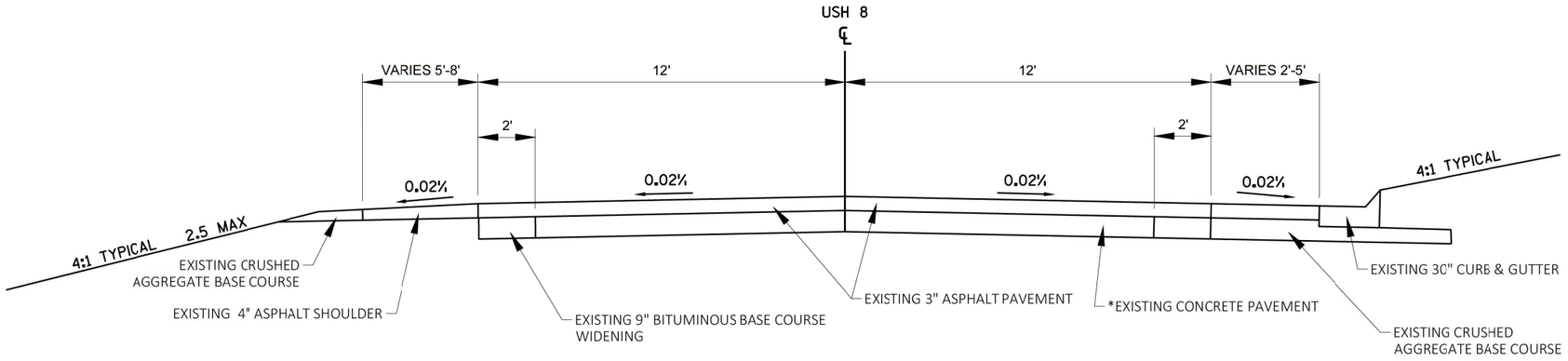
PROJECT NO: 1570-05-63/73	HWY: USH 8	COUNTY: BARRON	PLAN: EXISTING TYPICAL SECTIONS	SHEET 3	E



USH 8 EXISTING TYPICAL SECTION

203+60-232+39
244+78-276+37 (STA EQUATION)
702+66-725+79
730+70-735+29
738+93-860+56
866+55-910+09
919+79-973+64 (STA EQUATION)
9+56 (STA EQUATION)-10-72

STATION EQUATIONS:
STA 276+37 BACK - STA 700+40 AHEAD
STA 973+64 BACK - STA 9+56 AHEAD



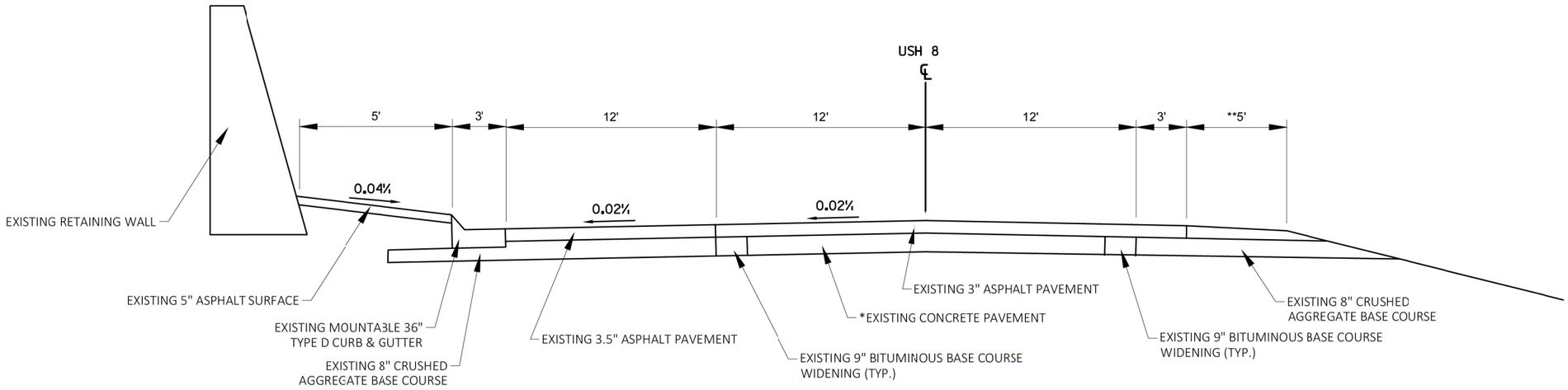
USH 8 EXISTING TYPICAL SECTION

725+79-730+70
735+29-736+37
737+62-738+93
10+72-15+81

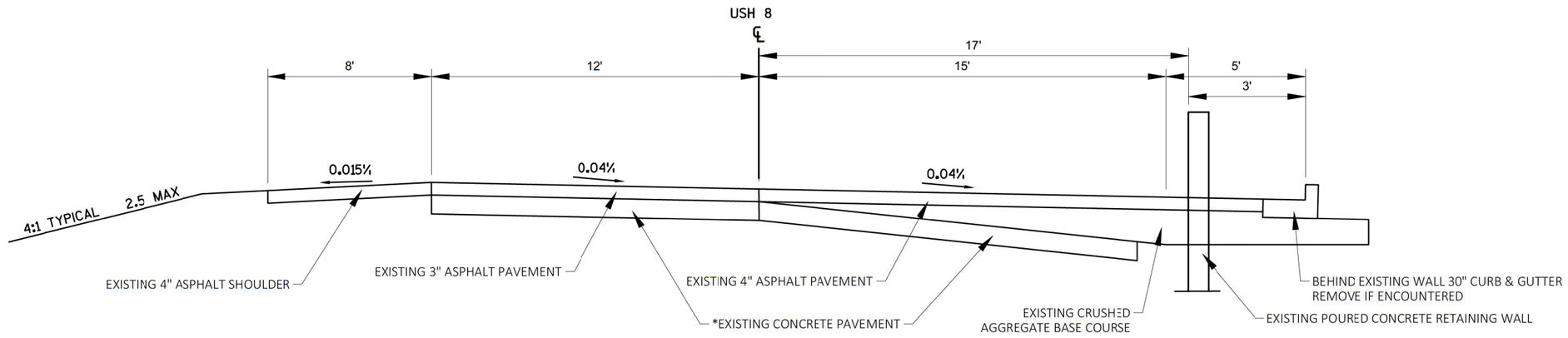
NOTE
*CONCRETE PAVEMENT VARIES IN THICKNESS, 6.5" AT CENTER AND 9" AT EDGE

**EXISTING AGGREGATE BASE SHOULDER WIDTH AS SHOWN IS BASED ON AS-BUILT INFORMATION. ACTUAL AGGREGATE BASE SHOULDER WDTH IS 7-FEET BASED ON CURRENT FIELD SURVEY INOFRMATION.

PROJECT NO: 1570-05-63/73	HWY: USH 8	COUNTY: BARRON	PLAN: EXISTING TYPICAL SECTIONS	SHEET 4	E



USH 8 EXISTING TYPICAL SECTION
700+40-702+66



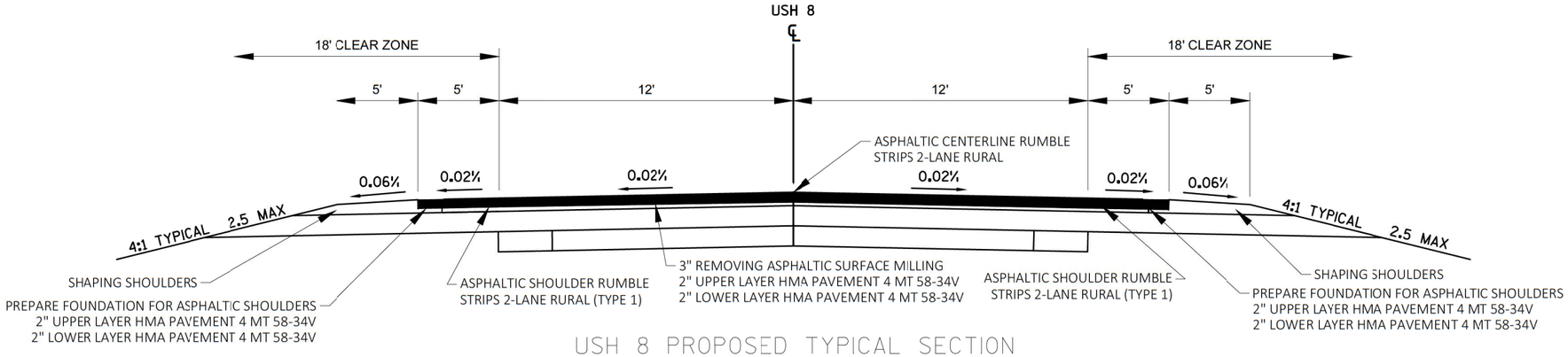
USH 8 EXISTING TYPICAL SECTION
736+37-737+62

NOTE
*CONCRETE PAVEMENT VARIES IN THICKNESS, 6.5" AT CENTER AND 9" AT EDGE

**EXISTING AGGREGATE BASE SHOULDER WIDTH AS SHOWN IS BASED ON AS-BUILT INFORMATION. ACTUAL AGGREGATE BASE SHOULDER WDTH IS 7-FEET BASED ON CURRENT FIELD SURVEY INOFRMATION.

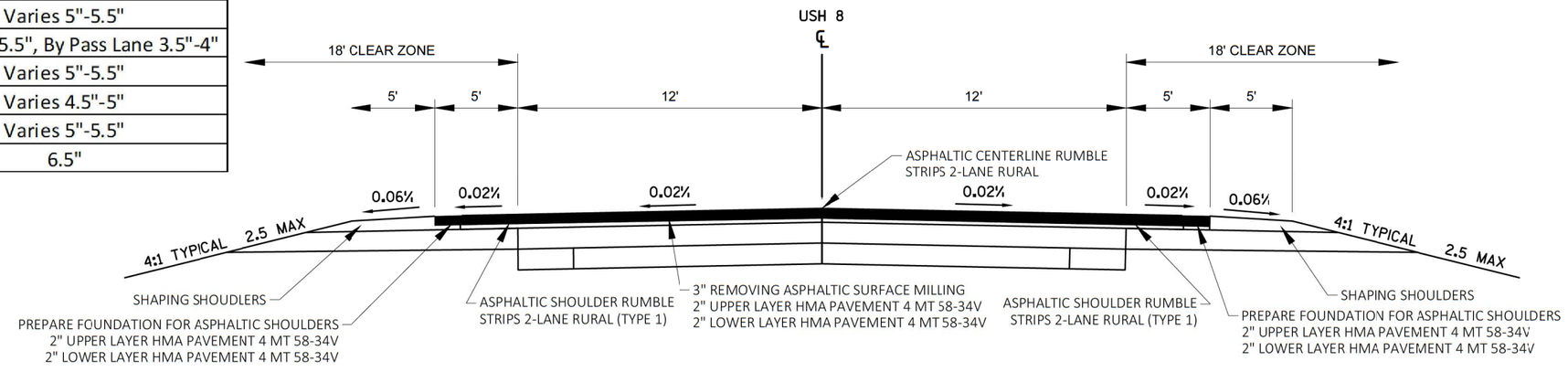
PROJECT NO: 1570-05-63/73	HWY: USH 8	COUNTY: BARRON	PLAN: EXISTING TYPICAL SECTIONS	SHEET 5	E

2



USH 8 PROPOSED TYPICAL SECTION
117+43-154+62
170+59-190+12
232+39-244+78
860+56-866+55
910+09-919+79

Station	Station	HMA Depth (Inches)
117+43	136+00	7"
136+00	159+00	5.5"
159+00	169+00	9.5"
169+00	190+00	5.5"
190+00	204+00	9"
204+00	233+00	Varies 5"-5.5"
233+00	245+00	5.5"
245+00	272+00	Varies 5"-5.5"
272+00	708+00	Varies 5"-5.5", By Pass Lane 3.5"-4"
708+00	734+00	Varies 5"-5.5"
734+00	740+00	Varies 4.5"-5"
740+00	10+72	Varies 5"-5.5"
10+72	15+81	6.5"



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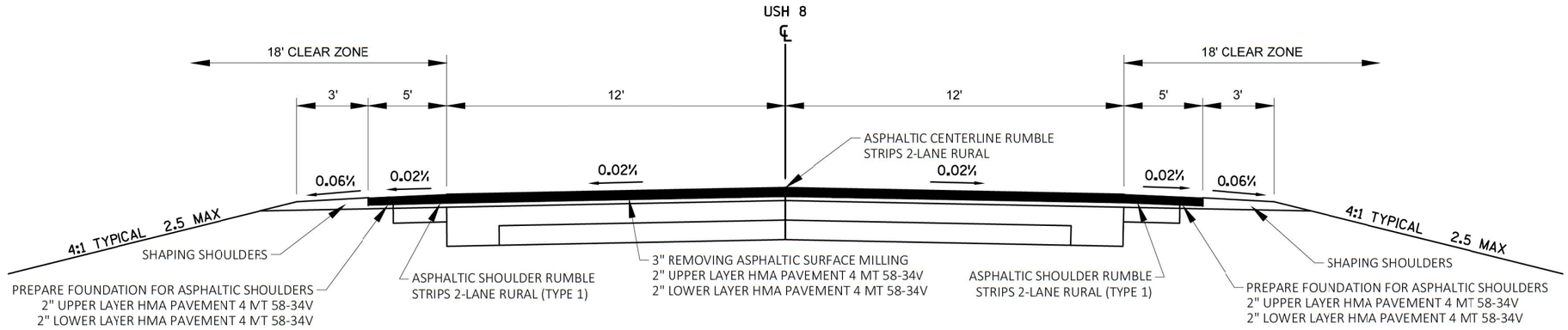
190+12-203+60

2



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203+60-232+39
244+78-276+37 (STA EQUATION)
702+66-725+79
730+70-735+29
738+93-860+56
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919+79-973+64 (STA EQUATION)
9+56 (STA EQUATION)-10+72

Station	Station	HMA Depth (Inches)
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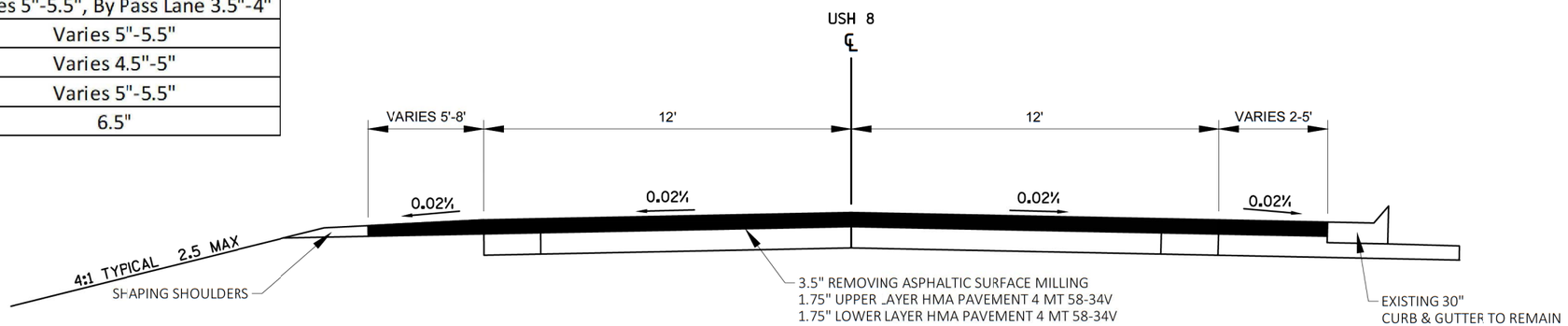
740+00	10+72	Varies 5"-5.5"
10+72	15+81	6.5"

STATION EQUATIONS:
STA 276+37 BACK - STA 700+40 AHEAD
STA 973+64 BACK - STA 9+56 AHEAD



USH 8 PROPOSED TYPICAL SECTION
725+79-730+70
735+29-735+37
737+62-738+93
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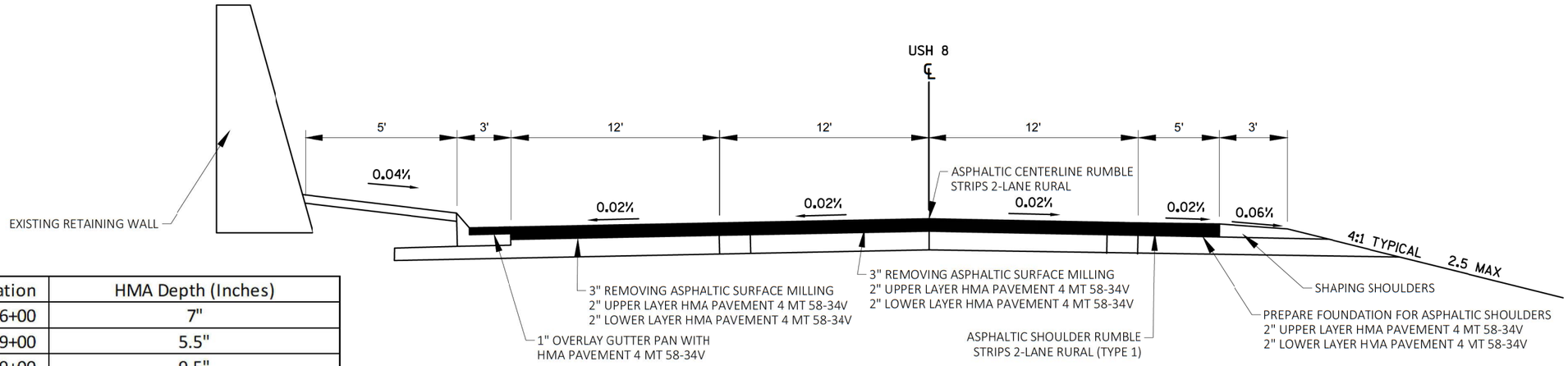
2



USH 8 PROPOSED TYPICAL SECTION
700+40-702+66

Station	Station	HMA Depth (Inches)
117+43	136+00	7"
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159+00	169+00	9.5"
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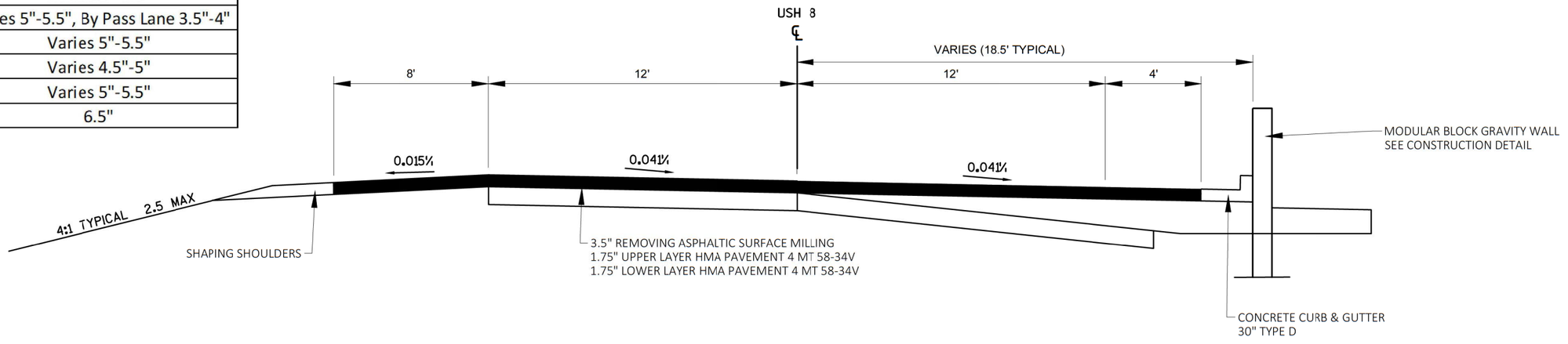
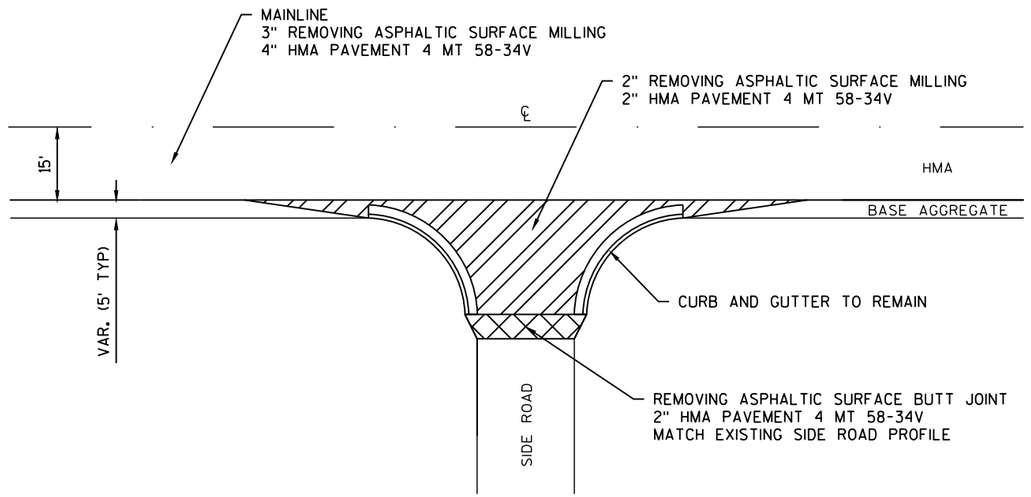
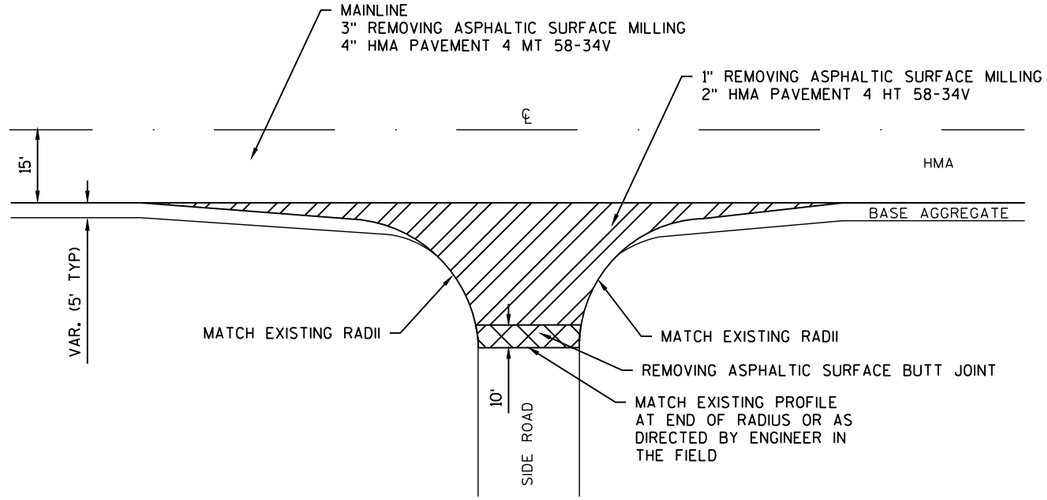


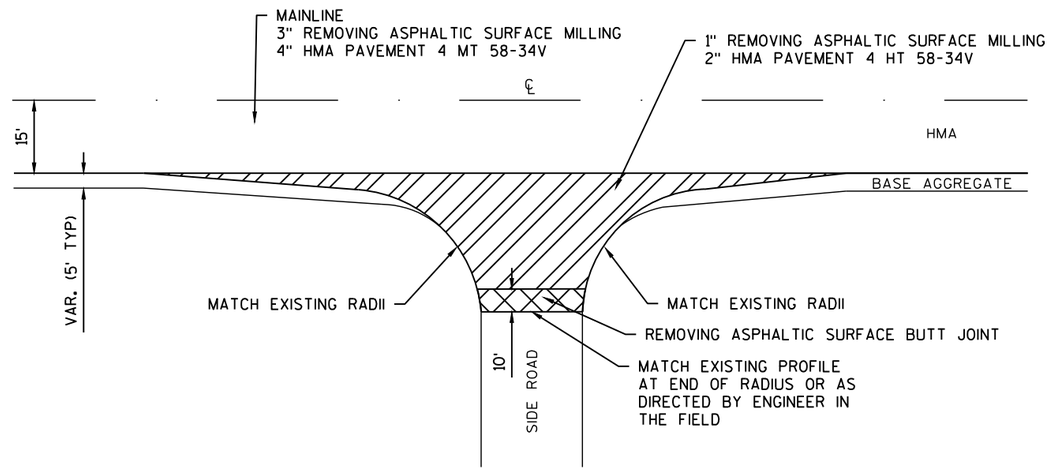
USH 8 PROPOSED TYPICAL SECTION
736+37-737+62



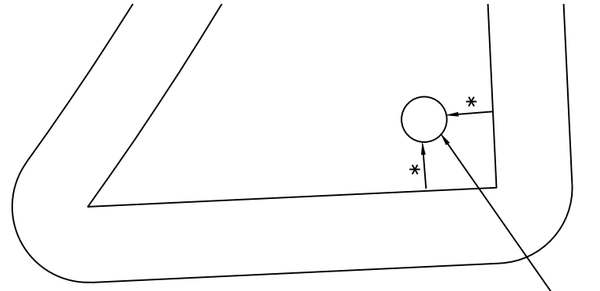
PAVING DETAIL
SIDEROADS WITH EXISTING CURB & GUTTER



PAVING DETAIL
UNPAVED SIDEROAD



PAVING DETAIL
SIDEROADS WITH PAVED SURFACE WITHOUT CURB & GUTTER

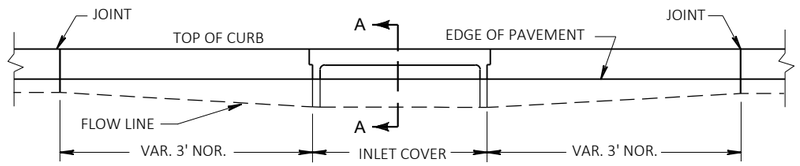


* DISTANCE TO BE LAID OUT IN THE FIELD BASED ON SIGN SIZE. TWO FOOT MINIMUM CLEARANCE BETWEEN THE EDGE OF SIGN AND THE FACE OF CURB

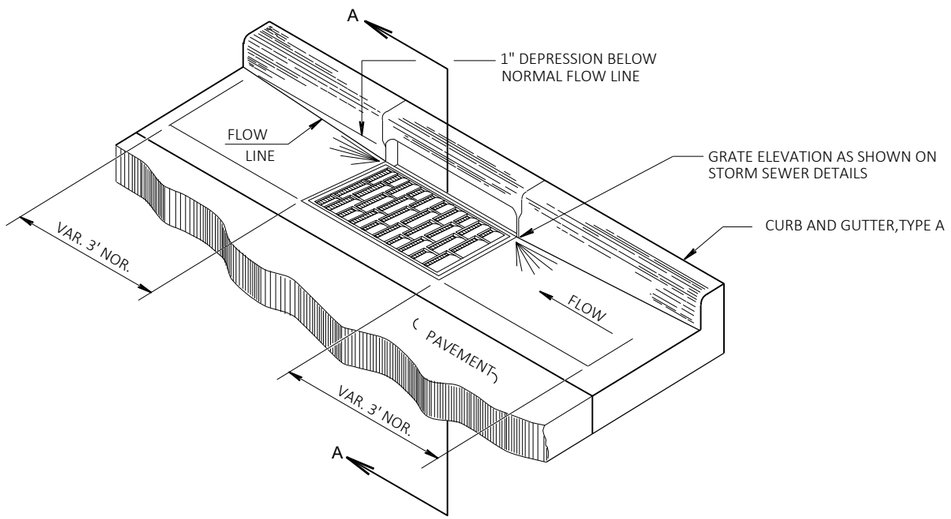
USE A 18-INCH MINIMUM INSIDE DIAMETER PVC PIPE BOX OUT IN THE CONCRETE FOR SIGN POST (TYP). THE NUMBER OF BOX OUTS REQUIRED VARIES BY WIDTH OF THE SIGN AND SHALL BE VERIFIED BEFORE PLACING THE CONCRETE IN THE ISLAND.

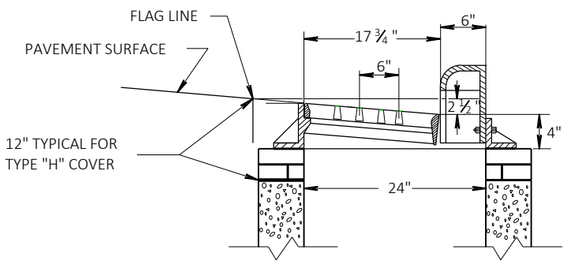
ISLAND SIGN LOCATION DETAIL (TYP.)

NOTIFY THE REGIONAL TRAFFIC UNIT (715) 836-2853 A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.



ELEVATION

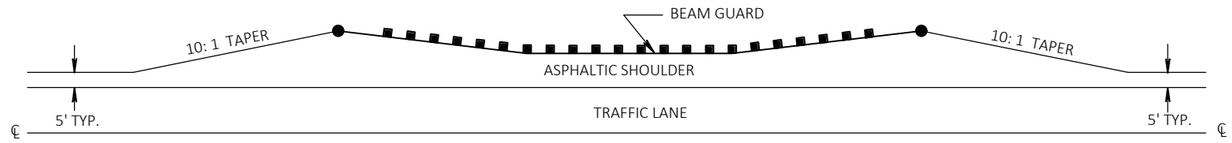




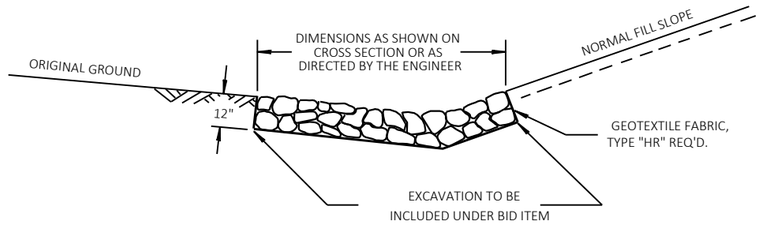
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

(TYPE 3-H INLET SHOWN)

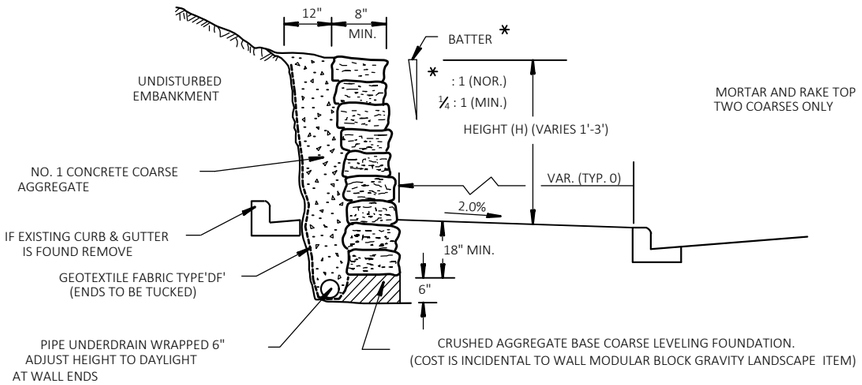


DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

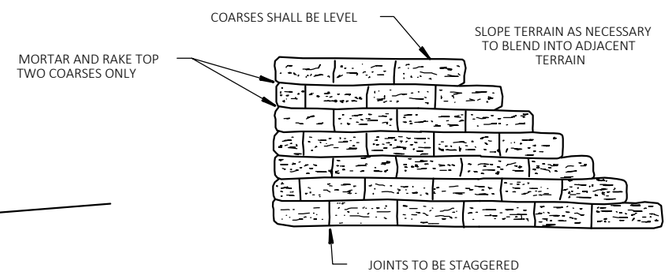


DETAIL FOR RIPRAP IN DITCHES

2



SIDE VIEW

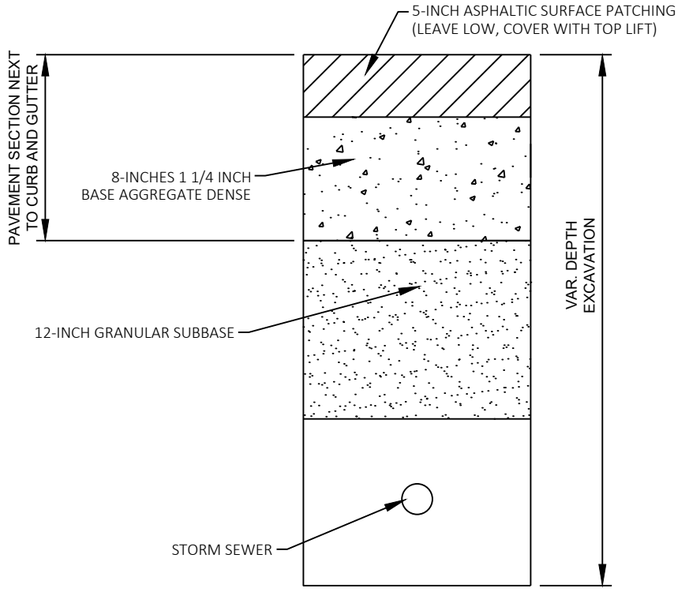


FRONT VIEW

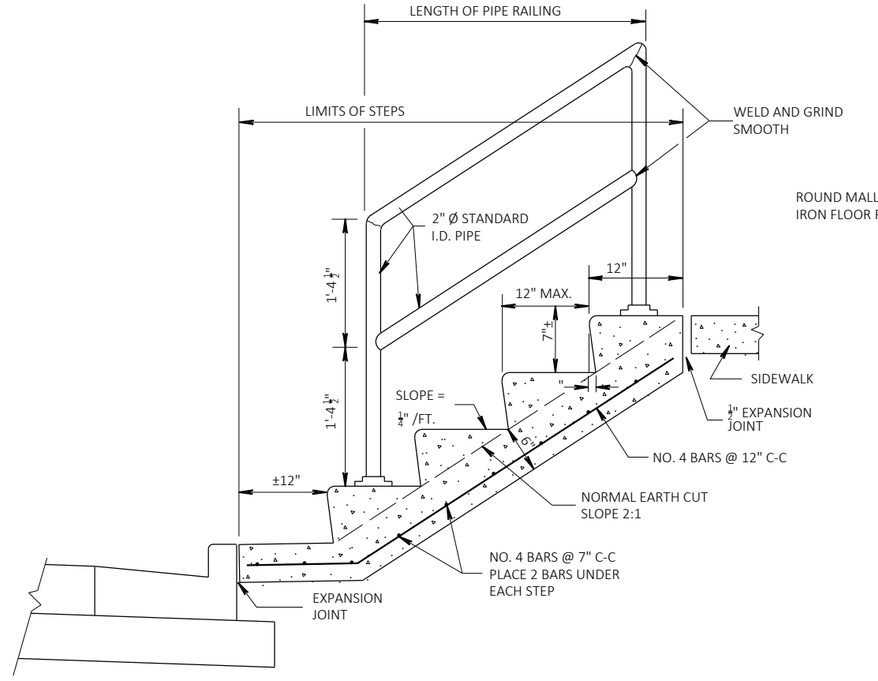
SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
WALL BACKFILL	120	30	0
RETAINED AND FOUNDATION SOIL (PRESUMPTIVE) (FREEON SILT LOAM)	120	28	0

MEASURED AND PAID FOR AS "WALL MODULAR BLOCK GRAVITY LANDSCAPE",
PAY HEIGHT = H + 18"

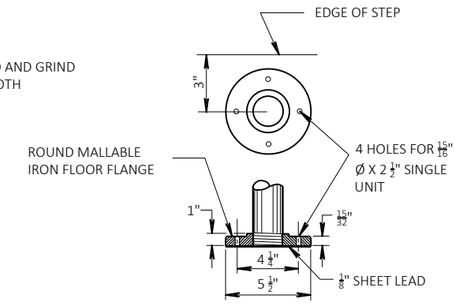
DETAIL FOR WALL MODULAR BLOCK GRAVITY LANDSCAPE



PAVEMENT EXCAVATION AND REPLACEMENT FOR STORM SEWER WORK AND CURB AND GUTTER



CONCRETE STEPS DETAIL



FLANGE DETAIL

NOTE:

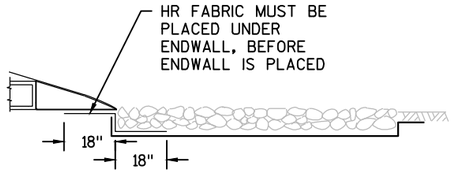
THE EXACT LOCATION, WIDTHS, & NUMBER OF STEPS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

STEEL REINFORCEMENT AND PIPE RAILING NOT REQUIRED ON STEPS WITH 2 RISERS OR LESS.

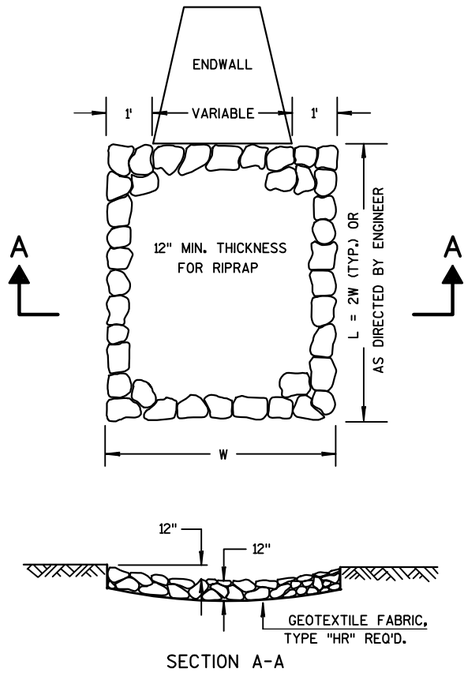
MINIMUM WIDTH OF STEP EQUALS 4 FEET.

RAILING TO BE PLACED ON LEFT ASCENDING SIDE OF STEPS ONLY.

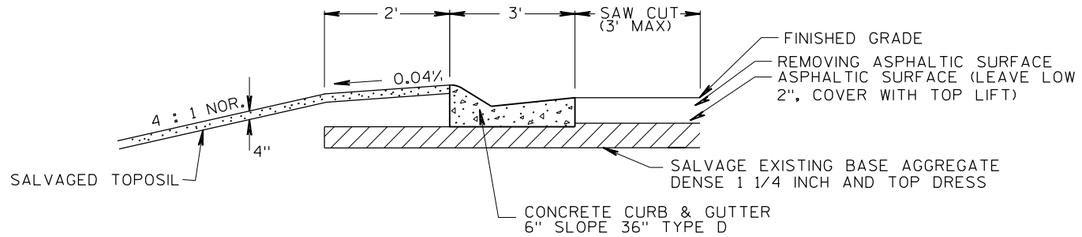
HR FABRIC MAY BE INSTALLED AS TWO SEPARATE PIECES, OVERLAPPING AS SHOWN OR AS APPROVED BY THE ENGINEER IN THE FIELD. EXTRA QUANTITY FOR OVERLAP IS INCIDENTAL TO THE CONTRACT.



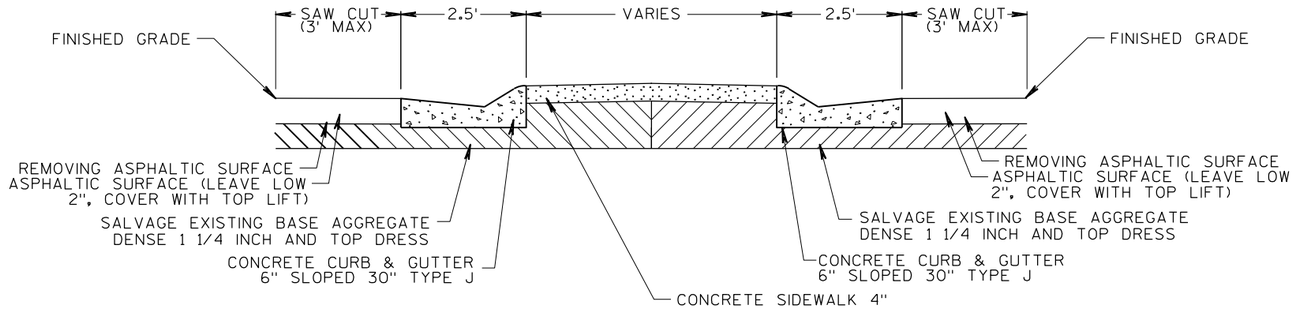
HR FABRIC INSTALLATION



RIPRAP TREATMENT AT CULVERTS

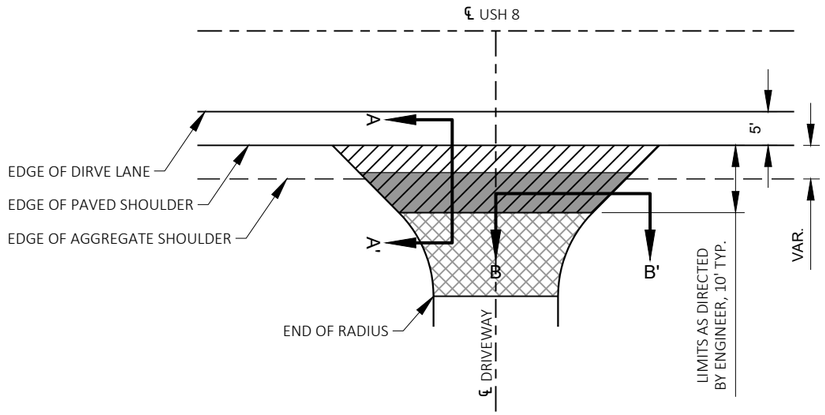


BERM DETAIL BEHIND CURB & GUTTER



CURB ISLAND DETAIL 30" MOUNTABLE CURB & GUTTER

2



RESTORE RURAL PAVED DRIVEWAY DETAIL

LEGEND

= ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (DEPTH VARIES, 2" TYP., 1.5" MIN.)

= REMOVING ASPHALTIC SURFACE BUTT JOINTS

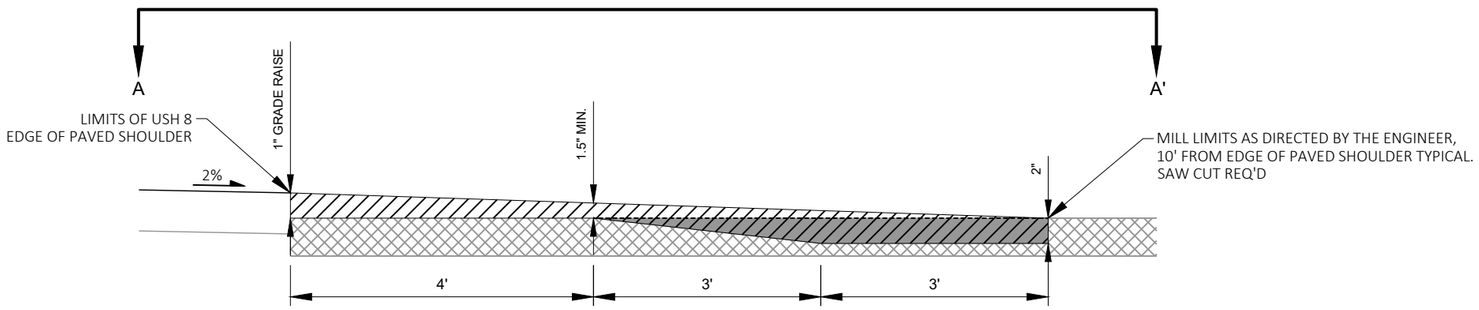
= EXISTING ASPHALTIC DRIVEWAY

NOTES

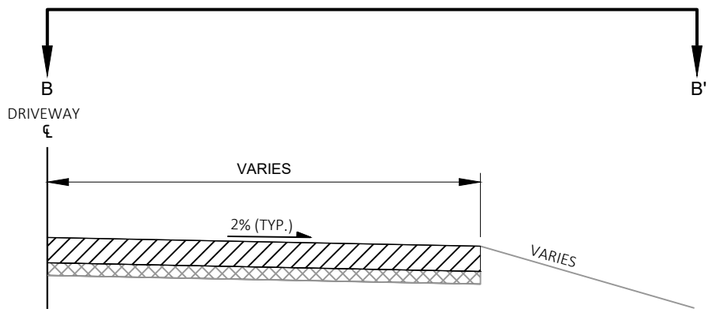
NOT TO SCALE.

MATCH EXISTING PAVED SURFACE WIDTH, RADII AND TAPERS.

ANY ADDITIONAL BASE AGG. DENSE REQUIRED SHALL BE PAID UNDER ITEM 'BASE AGGREGATE DENSE 3/4-INCH'.

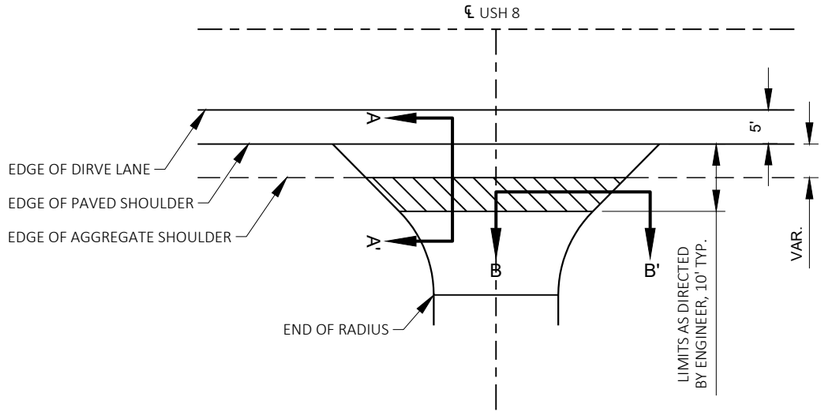


DETAIL OF RURAL PAVED DRIVEWAY BUTT JOINT (A-A')



TYPICAL PAVED DRIVEWAY HALF SECTION (B-B')

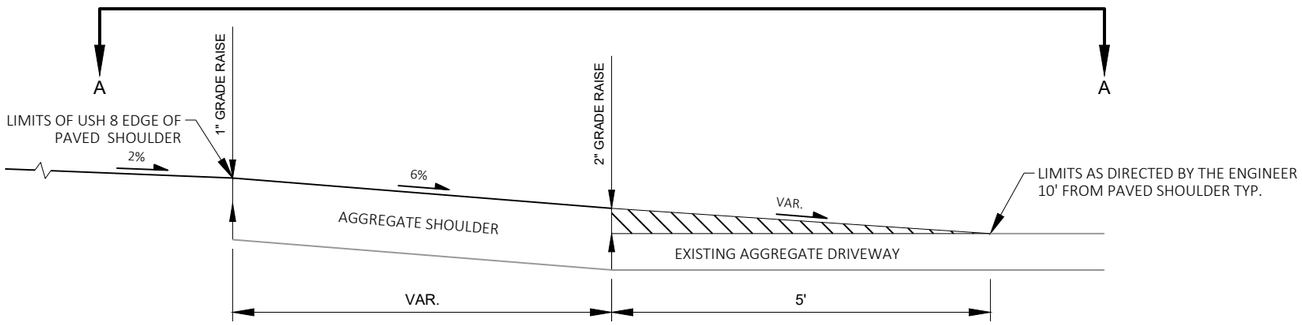
PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: POLK	PLAN: CONSTRUCTION DETAILS	SHEET 13	E



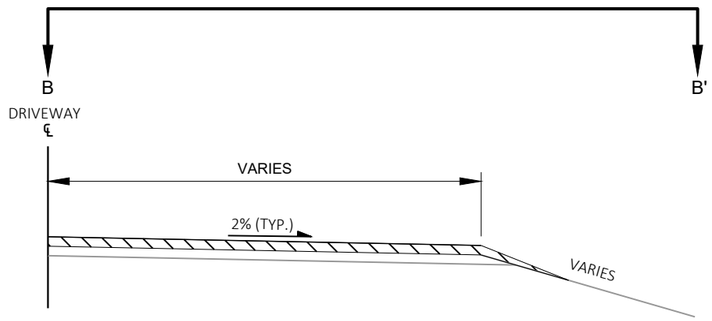
RESTORE AGGREGATE DRIVEWAY DETAIL

LEGEND

= EACH ENTRANCE SHALL RECEIVE ADEQUATE BASE AGGREGATE DENSE 3/4-INCH AFTER MAINLINE PAVING TO BRING ENTRANCE UP TO SHOULDER PAVEMENT GRADE. MATCH EXISTING DRIVEWAY WIDTH AND RADII.

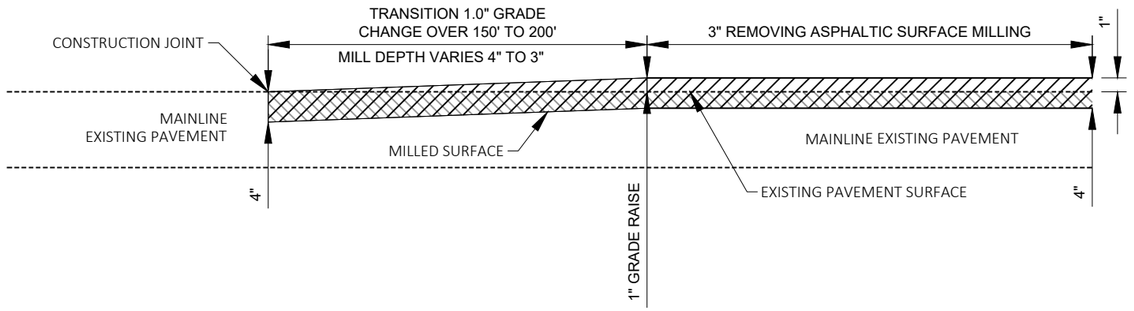


DETAIL OF RURAL AGGREGATE DRIVEWAY (A-A')

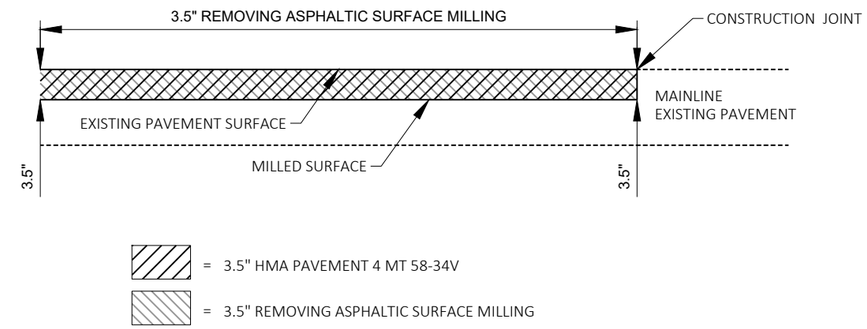


TYPICAL AGGREGATE DRIVEWAY HALF SECTION (B-B')

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: POLK	PLAN: CONSTRUCTION DETAILS	SHEET 14	E



DETAIL OF MAINLINE CONSTRUCTION JOINT - BEGIN OF PROJECT

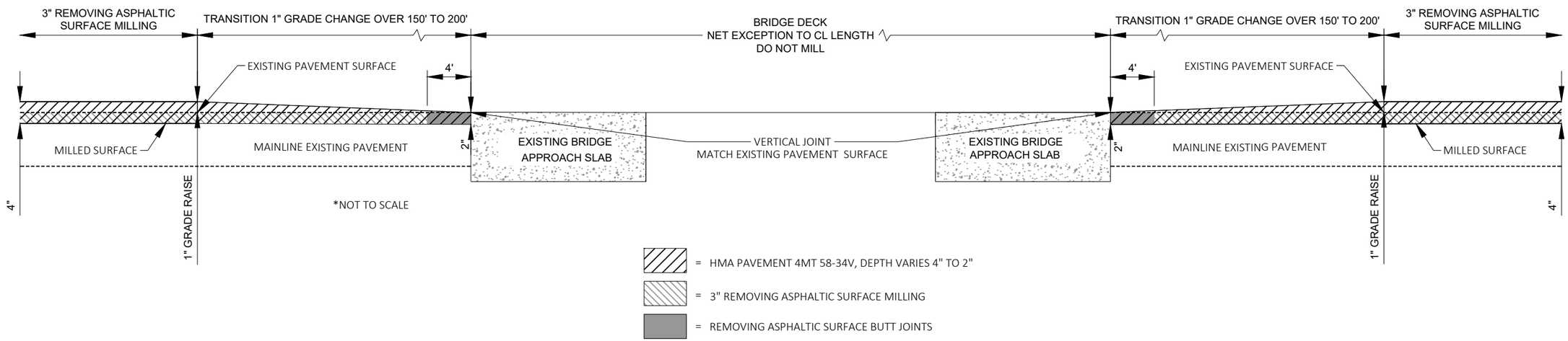


DETAIL OF MAINLINE CONSTRUCTION JOINT - END OF PROJECT

NOTES:

NOT TO SCALE

EXACT DIMENSIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.



DETAIL OF MAINLINE BUTT JOINT AT BRIDGE

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: POLK	PLAN: CONSTRUCTION DETAILS	SHEET 19

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\021002_CD.DWG
LAYOUT NAME - CD-4

PLOT DATE : 6/7/2021 10:18 AM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

HORIZONTAL DATUM	HAD 83(1991)
VERTICAL DATUM	NAVD 88(1991)
GEOID	GEOID03

PT ID	X	Y	Z	REMARKS
ALMENA SPO	267110.84	100739.79	1138.83	MON
BARRON	299833.20	97755.56	1157.32	MON
CP100	261393.18	100822.23	1163.12	CP REBAR
CP102	269000.66	100698.49	1146.57	CP REBAR
CP103	274923.51	100684.30	1207.89	CP REBAR
CP104	278196.12	100432.67	1168.07	CP REBAR
CP105	286865.16	97948.95	1141.99	CP REBAR
CP106	290660.04	97886.34	1166.22	CP REBAR
CP107	293546.75	97861.40	1161.44	CP REBAR
CP108	298023.91	97844.47	1159.10	CP REBAR
CP 7	252920.51	100850.91	1192.22	CP
CP 8	258628.21	100734.51	1213.73	CP
CP 9	263846.97	100759.69	1145.96	CP
CP 10	273060.29	100778.18	1242.85	CP
CP 11	276612.73	100681.89	1208.45	CP
CP 12	282129.40	98922.06	1152.52	CP
CP 13	287817.83	98148.20	1139.41	CP
CP 14	290568.43	97830.56	1169.00	CP
CP 15	295600.67	97913.68	1144.17	CP
CP 18	314648.66	97659.44	1101.46	CP

2

NOTE: ALL ELEVATIONS REFERENCE THE FLAG OF CURB.

ELEVATIONS ACCOUNT FOR THE 1-INCH RAISE IN PROFILE

CC CURVE 3
X:258491.37
Y:100867.14
STA 121+79.94
OFFSET -84.11

CC CURVE 2
X:258525.78
Y:100866.58
STA 122+14.35
OFFSET -83.88

CONCRETE MEDIAN SLOPED NOSE

STA 122+62.96
OFFSET -85.24
ELEVATION 1211.72

STA 122+77.68
OFFSET -74.71
ELEVATION 1211.91

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

STA 122+74.18
OFFSET -56.54
ELEVATION 1211.90

0.7%

MIDPOINT
STA 122+49.34
OFFSET -51.22
ELEVATION 1211.46

STA 122+67.34
OFFSET -39.36
ELEVATION 1211.94

ASPHALTIC FLUME

CURVE 2
50' RADIUS

0.7%

STA 122+14.17
OFFSET -35.29
ELEVATION 1211.20

CTH P

STA 123+20.90
OFFSET -74.96
ELEVATION 1211.79

STA 122+79.85
OFFSET -76.50
ELEVATION 1211.98

STA 122+81.67
OFFSET -74.54
ELEVATION 1212.04

STA 122+81.78
OFFSET -58.35
ELEVATION 1212.17

CURVE 3
100' RADIUS

STA 122+81.86
OFFSET -42.15
ELEVATION 1212.28

STA 122+80.95
OFFSET -39.59
ELEVATION 1212.30

STA 122+67.52
OFFSET -37.26
ELEVATION 1211.99

STA 122+78.60
OFFSET -38.20
ELEVATION 1212.28

STA 122+69.49
OFFSET -36.48
ELEVATION 1212.04

STA 122+74.04
OFFSET -37.33
ELEVATION 1212.17

ASPHALTIC FLUME

CC CURVE 4
X:258681.31
Y:100866.30
STA 123+69.88
OFFSET -85.03

CURVE 4
50' RADIUS

CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

1.7%

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

MIDPOINT
STA 123+34.90
OFFSET -49.30
ELEVATION 1212.30

2.3%

STA 123+60.87
OFFSET -35.86
ELEVATION 1213.00

122+00

123+00

124+00

STA 122+34.77
OFFSET 26.23
ELEVATION 1211.87

ASPHALTIC FLUME

1.2%

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

MIDPOINT
STA 122+60.71
OFFSET 40.04
ELEVATION 1212.24

1.5%

CURVE 1
50' RADIUS

CC CURVE 1
X:258535.24
Y:100707.29
STA 122+25.28
OFFSET 75.32

STA 122+74.50
OFFSET 65.99
ELEVATION 1212.68

STA 123+17.00
OFFSET 28.35
ELEVATION 1213.16

STA 123+14.65
OFFSET 29.74
ELEVATION 1213.19

STA 123+13.72
OFFSET 32.29
ELEVATION 1213.15

STA 123+21.56
OFFSET 27.53
ELEVATION 1213.13

STA 123+26.12
OFFSET 26.69
ELEVATION 1213.08

STA 123+28.09
OFFSET 27.47
ELEVATION 1213.05

STA 123+28.26
OFFSET 29.58
ELEVATION 1213.03

2.0%

STA 123+81.61
OFFSET 25.81
ELEVATION 1213.25

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

MIDPOINT
STA 123+48.24
OFFSET 39.97
ELEVATION 1212.69

CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

STA 123+21.32
OFFSET 46.73
ELEVATION 1213.01

STA 123+13.70
OFFSET 48.48
ELEVATION 1213.08

CONCRETE MEDIAN SLOPED NOSE

0.6%

CURVE 5
100' RADIUS

STA123+14.71
OFFSET 64.67
ELEVATION 1213.05

CURVE 6
50' RADIUS

STA 123+15.89
OFFSET 66.66
ELEVATION 1213.00

STA 123+32.74
OFFSET 72.87
ELEVATION 1212.48

CC CURVE 5
X:258725.34
Y:100706.01
STA 124+15.40
OFFSET 74.85

CC CURVE 6
X:258693.49
Y:100704.43
STA 123+83.56
OFFSET 76.72

STA 123+17.71
OFFSET 64.87
ELEVATION 1212.96

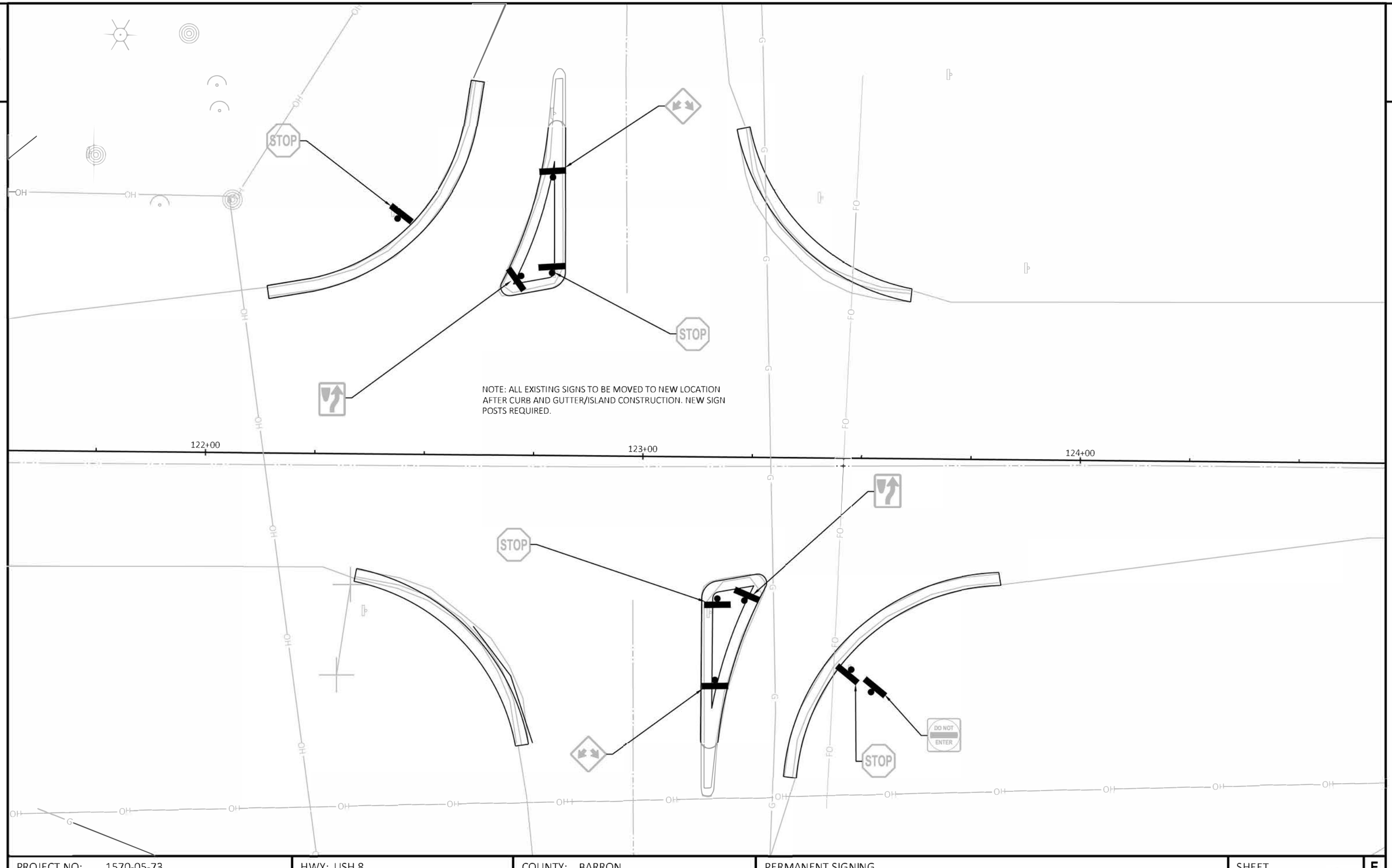
CTH P

ASPHALTIC FLUME

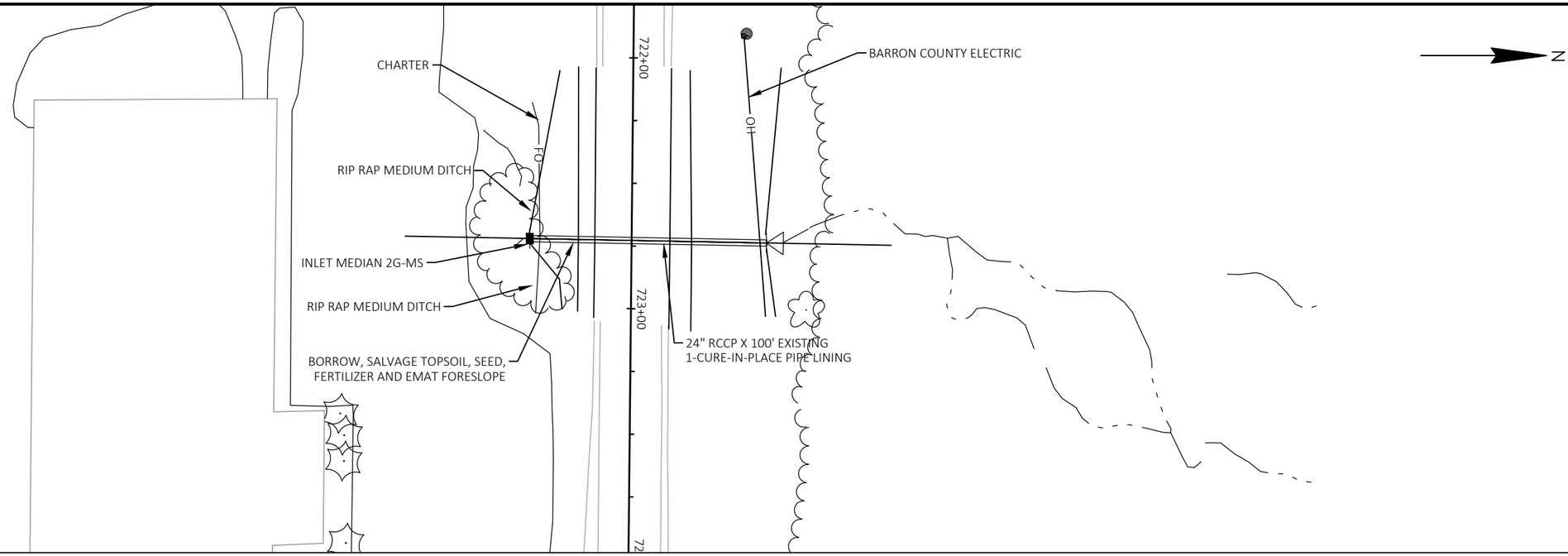
PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	INTERSECTION DETAIL	SHEET 17	E

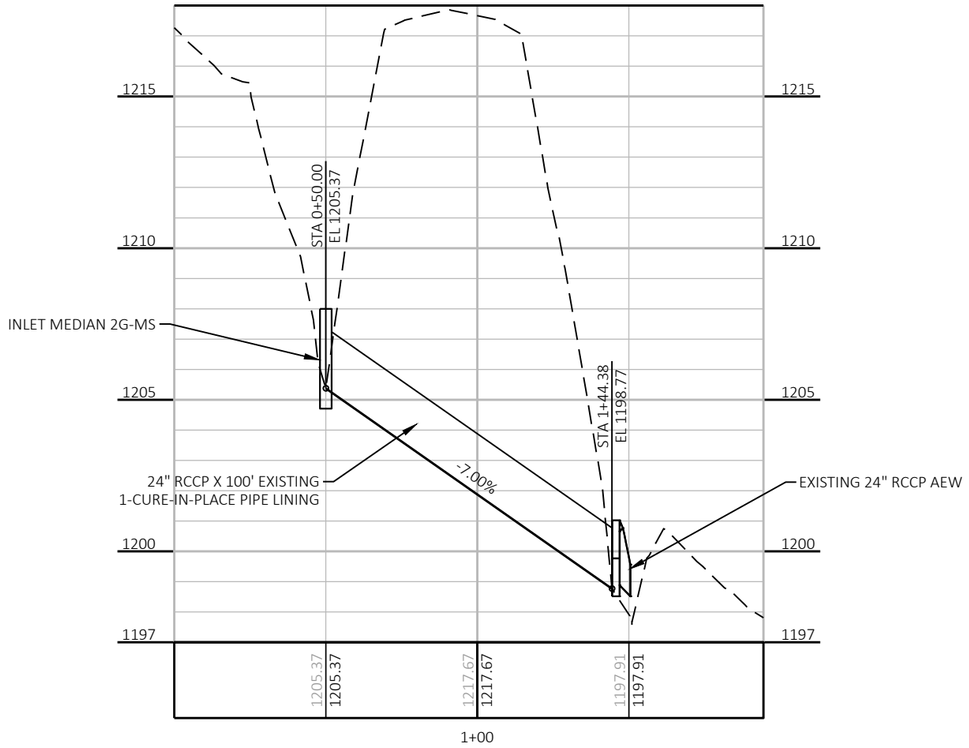
FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 01
PLOT DATE : 5/3/2021 11:58 AM
PLOT BY : BECKLIN, MATTHEW R
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	PERMANENT SIGNING	SHEET 18	E


CHARTER
RIP RAP MEDIUM DITCH
INLET MEDIAN 2G-MS
RIP RAP MEDIUM DITCH
BORROW, SALVAGE TOPSOIL, SEED, FERTILIZER AND EMAT FORESLOPE
FO
722+00
723+00
OH
BARRON COUNTY ELECTRIC
24" RCCP X 100' EXISTING
1-CURE-IN-PLACE PIPE LINING
N


1215
1210
1205
1200
1197
STA 0+50.00
EL 1205.37
STA 1+44.38
EL 1198.77
INLET MEDIAN 2G-MS
24" RCCP X 100' EXISTING
1-CURE-IN-PLACE PIPE LINING
-7.00%
EXISTING 24" RCCP AEW
1205.37
1217.67
1197.91
1+00

CURB AND GUTTER GRADES		
STA (USH 8)	OFFSET	ELEVATION (FLAG)
729+94	17.80	1197.61
730+18	17.80	1196.84
730+42	17.80	1195.92
730+50	19.25	1195.25
730+60	26.20	1194.02
730+68	40.00	1193.26
730+69	52.00	1193.30

2

2

N

9 1/2 ST

USH 8

USH 8

730+00

731+00

732+00

STA 730+00, 19.3' RT
INLETS 2X3-H
10.1

STA 730+37, 19.3' RT
INLETS 4-FT DIAMETER-H
10.2

REMOVING INLET

10LF - REMOVE STORM SEWER
AS NECESSARY FOR INLET INSTALL

10.3 STA 730+85, 19.2' RT
MANHOLE 6-FT DIAMETER-J

STA 732+06, 19' RT
MANHOLE 6-FT DIAMETER-J
10.4

TIE NEW MANHOLE INTO EXISTING 30" RCCP
REMOVE 6' OF EXISTING 30" RCCP
INSTALL MANHOLE AROUND EXISTING PIPE

P-1

P-2

P-3

P-4

RADIUS 30'

12'

EDGE OF HOUSE

AVOID IMPACT TO EXISTING LANDSCAPING

ABANDON SEWER IN PLACE

RW

10LF - REMOVE STORM SEWER
AS NECESSARY FOR INLET INSTALL

STA 730+67, 40.5' RT
INLETS 4-FT DIAMETER-H
10.5

REMOVING INLET

10LF - REMOVE STORM SEWER
AS NECESSARY FOR INLET INSTALL

EXISTING GUARDRAIL

AVOID IMPACT TO EXISTING DECK AREA

ABANDON SEWER IN PLACE

RW

TLE

10LF - REMOVE STORM SEWER
NEAR EDGE OF DECK.

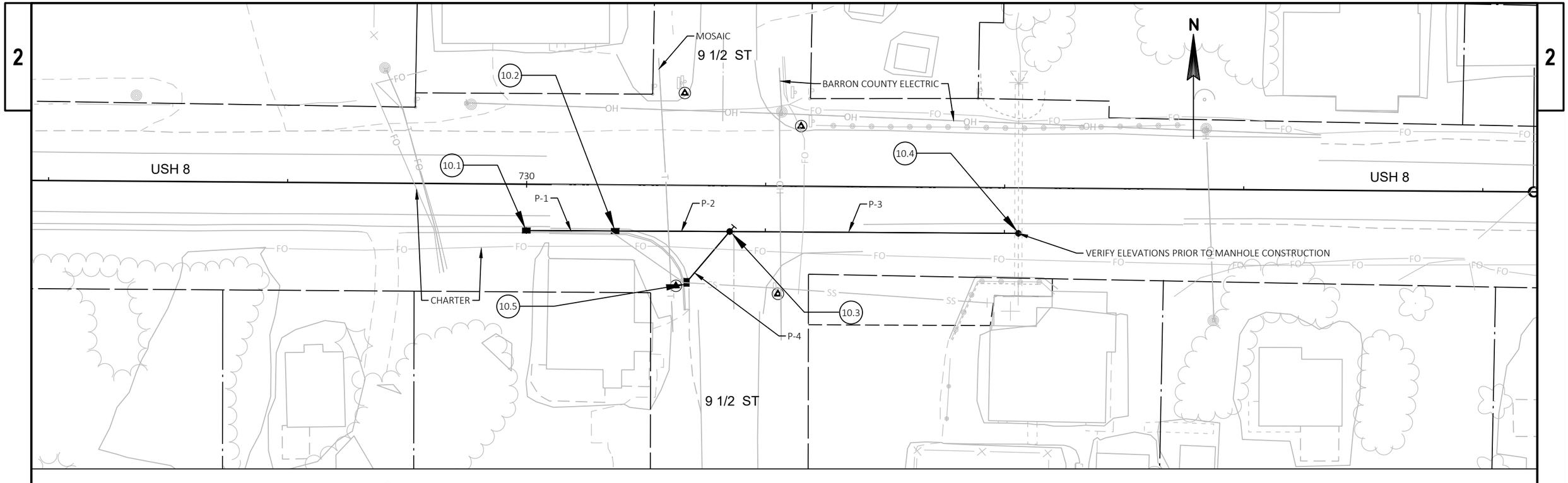
REMOVE AND REPLACE GUARDRAIL RAIL AND HARDWARE AS NECESSARY.
REPAIR SLOPE WITH RIP RAP.

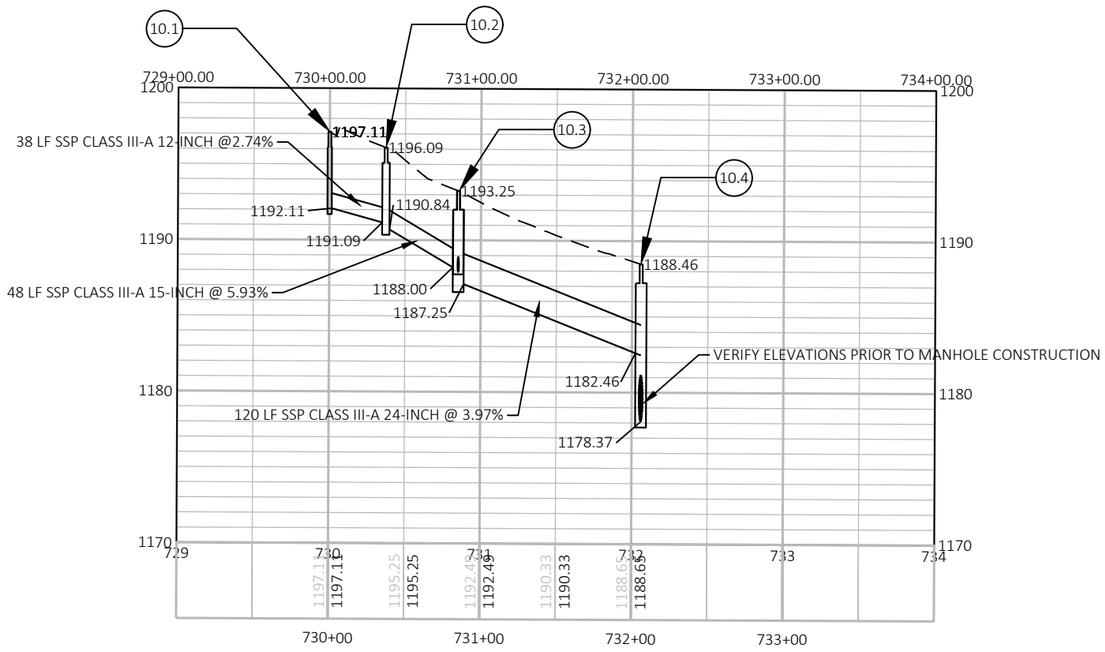
9 1/2 ST

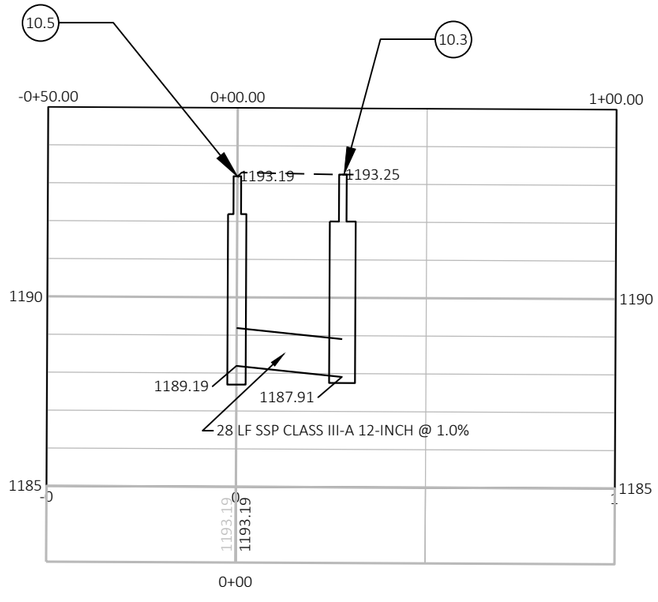
PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	STORM SEWER LAYOUT	SHEET 20	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\021120_STORM.DWG
LAYOUT NAME - 01

PLOT DATE : 6/10/2021 9:41 AM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : ##########



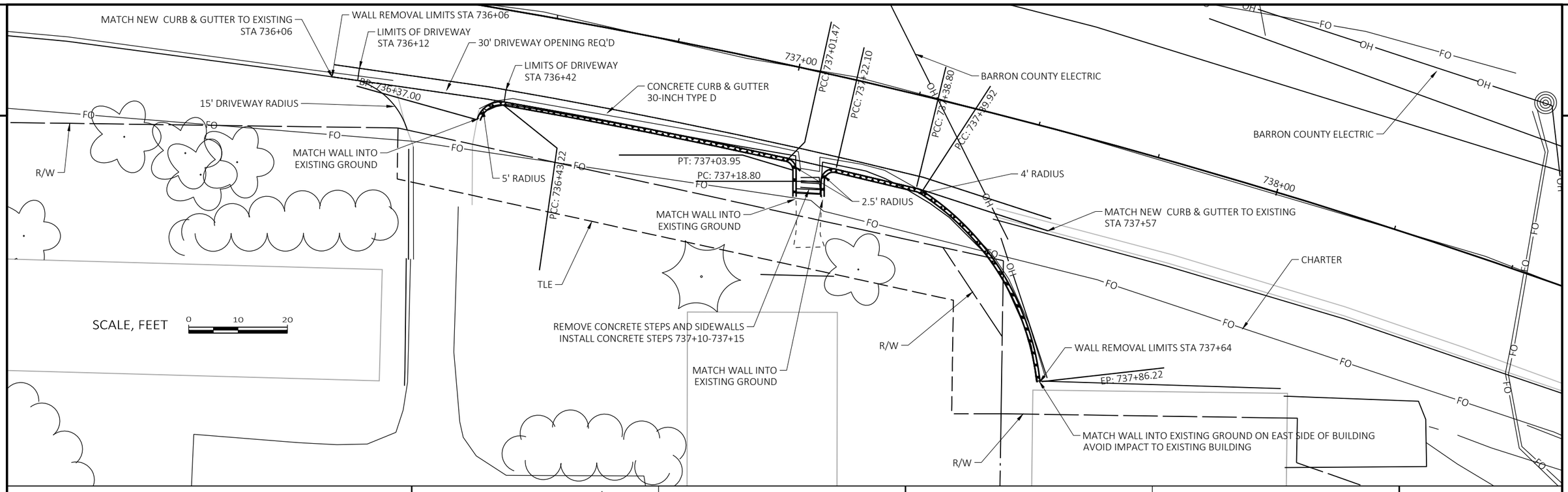




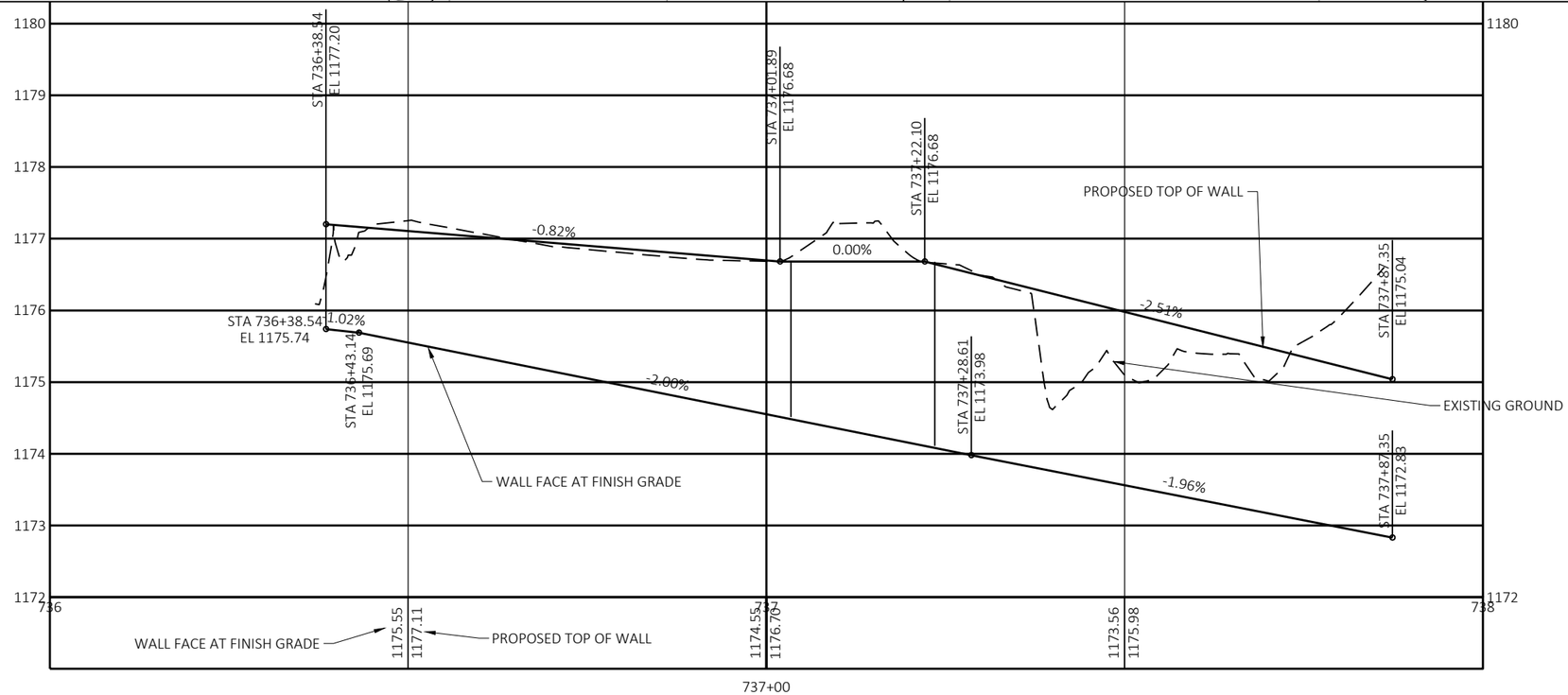
NOTE: RIM ELEVATIONS REFERNCE GRATE/ FLAG OF CURB & GUTTER

PIPE ELEVATIONS REFERENCE PIPE INVERT

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	STORM SEWER LAYOUT	SHEET 21	E



CURB AND GUTTER GRADES		
STA (USH 8)	OFFSET	ELEVATION (FLAG)
736+06	16.50	1176.31
736+25	16.50	1175.67
736+43	16.00	1175.27
736+51	16.00	1175.11
736+61	16.00	1174.91
736+76	16.00	1174.61
736+90	16.00	1174.33
737+00	16.00	1174.13
737+01	16.00	1174.11
737+12	16.00	1173.69
737+17	16.00	1173.59
737+25	16.30	1173.44
737+33	17.13	1173.30
737+46	17.60	1173.10
737+57	17.74	1172.96



PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	WALL MODULAR BLOCK GRAVITY LANDSCAPE	SHEET 22	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSOTHER\FILES FROM SSR\RETAINING WALL PLAN AND PROFILE.DWG
LAYOUT NAME - Plan 1 IN 100 FT (2)
PLOT DATE : 6/10/2021 11:02 AM
PLOT BY : BECKLIN, MATTHEW R
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

					1570-05-63	1570-05-73
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0002	204.0110	Removing Asphaltic Surface	SY	467.000		467.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,450.000		1,450.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	166,531.000		166,531.000
0008	204.0150	Removing Curb & Gutter	LF	725.000		725.000
0010	204.0220	Removing Inlets	EACH	2.000		2.000
0012	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	40.000		40.000
0014	204.0291.S	Abandoning Sewer	CY	9.000		9.000
0016	204.9060.S	Removing (item description) 01. Retaining Wall	EACH	1.000		1.000
0018	204.9105.S	Removing (item description) 01. Concrete Steps and Sidewalls	LS	1.000		1.000
0020	208.0100	Borrow	CY	55.000		55.000
0022	209.1500	Backfill Granular Grade 1	TON	265.000		265.000
0024	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1570-05-73	LS	1.000		1.000
0026	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	878.000	878.000	
0028	213.0100	Finishing Roadway (project) 01. 1570-05-73	EACH	1.000		1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,260.000		8,260.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	320.000		320.000
0034	305.0500	Shaping Shoulders	STA	843.000		843.000
0036	455.0605	Tack Coat	GAL	24,050.000	1,165.000	22,885.000
0038	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000		1.000
0040	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000		1.000
0042	460.2000	Incentive Density HMA Pavement	DOL	16,230.000	2,810.000	13,420.000
0044	460.2005	Incentive Density PWL HMA Pavement	DOL	13,090.000		13,090.000
0046	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	11,230.000		11,230.000
0048	460.2010	Incentive Air Voids HMA Pavement	DOL	17,025.000		17,025.000
0050	460.6644	HMA Pavement 4 MT 58-34 V	TON	40,228.000	3,728.000	36,500.000
0052	465.0105	Asphaltic Surface	TON	300.000		300.000
0054	465.0110	Asphaltic Surface Patching	TON	130.000		130.000
0056	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	76.000		76.000
0058	465.0315	Asphaltic Flumes	SY	20.000		20.000
0060	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	56,015.000	56,015.000	
0062	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	31,761.000		31,761.000
0064	520.8700	Cleaning Culvert Pipes	EACH	11.000		11.000
0066	520.9700.S	Culvert Pipe Liners (size) 01. 18-INCH	LF	54.000		54.000
0068	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	1.000		1.000
0070	524.0124	Culvert Pipe Salvaged 24-Inch	LF	24.000		24.000
0072	524.0148	Culvert Pipe Salvaged 48-Inch	LF	12.000		12.000
0074	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	265.000		265.000
0076	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	230.000		230.000
0078	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	270.000		270.000
0080	602.0405	Concrete Sidewalk 4-Inch	SF	204.000		204.000
0082	602.1500	Concrete Steps	SF	60.000		60.000
0084	606.0200	Riprap Medium	CY	32.000		32.000
0086	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	66.000		66.000
0088	608.3015	Storm Sewer Pipe Class III-A 15-Inch	LF	48.000		48.000
0090	608.3024	Storm Sewer Pipe Class III-A 24-Inch	LF	120.000		120.000
0092	611.0530	Manhole Covers Type J	EACH	2.000		2.000
0094	611.0624	Inlet Covers Type H	EACH	3.000		3.000
0096	611.0642	Inlet Covers Type MS	EACH	2.000		2.000
0098	611.2006	Manholes 6-FT Diameter	EACH	2.000		2.000
0100	611.3004	Inlets 4-FT Diameter	EACH	2.000		2.000
0102	611.3230	Inlets 2x3-FT	EACH	1.000		1.000
0104	611.3902	Inlets Median 2 Grate	EACH	1.000		1.000
0106	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	158.000		158.000
0108	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-	EACH	1.000		1.000

Line	Item	Item Description	Unit	Total	1570-05-63 Qty	1570-05-73 Qty
		Inch				
0110	614.0010	Barrier System Grading Shaping Finishing	EACH	2.000		2.000
0112	614.0400	Adjusting Steel Plate Beam Guard	LF	2,741.000		2,741.000
0114	614.0920	Salvaged Rail	LF	514.000		514.000
0116	614.0925	Salvaged Guardrail End Treatments	EACH	6.000		6.000
0118	614.0951	Replacing Guardrail Rail and Hardware	LF	10.000		10.000
0120	614.2300	MGS Guardrail 3	LF	576.000		576.000
0122	614.2610	MGS Guardrail Terminal EAT	EACH	4.000		4.000
0124	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1570-05-73	EACH	1.000		1.000
0126	619.1000	Mobilization	EACH	1.000	0.070	0.930
0128	620.0300	Concrete Median Sloped Nose	SF	20.000		20.000
0130	624.0100	Water	MGAL	1.000		1.000
0132	625.0500	Salvaged Topsoil	SY	840.000		840.000
0134	628.1504	Silt Fence	LF	1,320.000		1,320.000
0136	628.1520	Silt Fence Maintenance	LF	1,320.000		1,320.000
0138	628.1905	Mobilizations Erosion Control	EACH	3.000		3.000
0140	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000		3.000
0142	628.2004	Erosion Mat Class I Type B	SY	400.000		400.000
0144	628.2008	Erosion Mat Urban Class I Type B	SY	2,440.000		2,440.000
0146	628.7020	Inlet Protection Type D	EACH	4.000		4.000
0148	629.0210	Fertilizer Type B	CWT	0.580		0.580
0150	630.0120	Seeding Mixture No. 20	LB	42.000		42.000
0152	630.0140	Seeding Mixture No. 40	LB	4.000		4.000
0154	633.5200	Markers Culvert End	EACH	57.000		57.000
0156	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	9.000		9.000
0158	638.2102	Moving Signs Type II	EACH	9.000		9.000
0160	642.5001	Field Office Type B	EACH	1.000		1.000
0162	643.0300	Traffic Control Drums	DAY	1,700.000		1,700.000
0164	643.0420	Traffic Control Barricades Type III	DAY	40.000		40.000
0166	643.0705	Traffic Control Warning Lights Type A	DAY	40.000		40.000
0168	643.0715	Traffic Control Warning Lights Type C	DAY	1,700.000		1,700.000
0170	643.0900	Traffic Control Signs	DAY	7,662.000		7,662.000
0172	643.5000	Traffic Control	EACH	1.000		1.000
0174	645.0120	Geotextile Type HR	SY	111.000		111.000
0176	646.1020	Marking Line Epoxy 4-Inch	LF	74,329.000		74,329.000
0178	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	87,871.000		87,871.000
0180	646.3020	Marking Line Epoxy 8-Inch	LF	240.000		240.000
0182	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	2,545.000		2,545.000
0184	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	74,329.000		74,329.000
0186	646.5020	Marking Arrow Epoxy	EACH	16.000		16.000
0188	646.5120	Marking Word Epoxy	EACH	6.000		6.000
0190	646.6120	Marking Stop Line Epoxy 18-Inch	LF	68.000		68.000
0192	646.7120	Marking Diagonal Epoxy 12-Inch	LF	880.000		880.000
0194	649.0105	Temporary Marking Line Paint 4-Inch	LF	148,658.000		148,658.000
0196	650.4000	Construction Staking Storm Sewer	EACH	5.000		5.000
0198	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	740.000		740.000
0200	650.8000	Construction Staking Resurfacing Reference	LF	43,841.000		43,841.000
0202	650.9910	Construction Staking Supplemental Control (project) 01. Retaining Wall	LS	1.000		1.000
0204	690.0150	Sawing Asphalt	LF	2,692.000		2,692.000
0206	740.0440	Incentive IRI Ride	DOL	33,200.000		33,200.000
0208	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	900.000		900.000
0210	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,300.000		1,300.000
0212	SPV.0090	Special 01. Concrete Curb & Gutter Cure and Seal Treatment	LF	740.000		740.000

					1570-05-63	1570-05-73
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0214	SPV.0090	Special 02. Cure-In-Place Pipe Lining	LF	94.000		94.000
0216	SPV.0090	Special 03. Heavy Duty Silt Fence	LF	157.000		157.000
0218	SPV.0105	Special 01. Material Transfer Vehicle	LS	1.000		1.000
0220	SPV.0165	Special 01. Wall Modular Block Gravity Landscape	SF	545.000		545.000
0222	SPV.0165	Special 02. Concrete Sidewalk Cure and Seal Treatment	SF	204.000		204.000

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

CATEGORY	STATION TO	STATION	LOCATION	211.0400 STA	REMARKS
0010	117+43 -	15+81	USH 8	439	LT
0010	117+43 -	15+81	USH 8	439	RT
			TOTAL 0010	878	

HMA PAVEMENT 4 MT 58-34 V

CATEGORY	STATION TO	STATION	LOCATION	460.6644 TON	REMARKS
0010	117+43 -	15+81	USH 8	880	LT, LOWER
0010	117+43 -	15+81	USH 8	984	RT, LOWER
0010	117+43 -	15+81	USH 8	880	LT, UPPER
0010	117+43 -	15+81	USH 8	984	RT, UPPER
			TOTAL 0010	3728	

NOTE: 1570-05-63 BID ITEMS ARE PAYMENT FOR WIDENING PAVED SHOULDERS TO 5 FEET AND INSTALLING SHOULDER RUMBLE STRIPS

TACK COAT

CATEGORY	STATION TO	STATION	LOCATION	455.0605 GAL	REMARKS
0010	117+43 -	15+81	USH 8	550	LT
0010	117+43 -	15+81	USH 8	615	RT
			TOTAL 0010	1165	

ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL

CATEGORY	STATION TO	STATION	LOCATION	465.0425 LF	REMARKS
0010	133+86 -	272+64	USH 8	10200	LT, TYPE 1
0010	708+11 -	722+43	USH 8	1500	LT, TYPE 1
0010	745+15 -	973+64	USH 8	16780	LT, TYPE 1
0010	9+56 -	10+00	USH 8	35	LT, TYPE 1
0010	133+86 -	275+03	USH 8	10200	RT, TYPE 1
0010	706+45 -	722+43	USH 8	1485	RT, TYPE 1
0010	745+15 -	973+64	USH 8	15780	RT, TYPE 1
0010	9+56 -	10+00	USH 8	35	RT, TYPE 1
			TOTAL 0010	56015	

MOBILIZATION

CATEGORY	STATION TO	STATION	LOCATION	619.1000 EACH
0010	117+43 -	15+81	USH 8	0.07
			TOTAL 0010	0.07

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REMOVING ASPHALTIC SURFACE

CATEGORY	STATION TO	STATION	LOCATION	204.0110 SY	REMARKS
0010			CTH P	36	SOUTH PORKCHOP ISLAND
0010			CTH P	35	NORTH PORKCHOP ISLAND
0010			CTH P	20	SW RADIUS
0010			CTH P	25	SE RADIUS
0010			CTH P	26	NW RADIUS
0010			CTH P	21	NE RADIUS
0010	729+95	730+37	USH 8	36	10.1 to 10.2
0010	730+37	730+85	USH 8	53	10.2 TO 10.3
0010	730+57	730+67	USH 8	30	10.5 TO 10.3
0010	730+85	732+06	USH 8	135	10.3 TO 10.4
0010	736+37	737+63	USH 8	50	RETAINING WALL
			TOTAL 0010	467	

REMOVING CURB & GUTTER

CATEGORY	STATION TO	STATION	LOCATION	204.0150 LF	REMARKS
0010			CTH P	115	SOUTH PORKCHOP ISLAND
0010			CTH P	115	NORTH PORKCHOP ISLAND
0010			CTH P	60	SW RADIUS
0010			CTH P	73	SE RADIUS
0010			CTH P	76	NW RADIUS
0010			CTH P	61	NE RADIUS
0010	729+95	730+50	USH 8	65	10.1 to 10.2
0010	730+57	730+67	USH 8	25	FOR 10.5
0010	736+37	737+63	USH 8	135	RETAINING WALL
			TOTAL 0010	725	

REMOVING STORM SEWER

CATEGORY	STATION TO	STATION	LOCATION	204.0245 LF	REMARKS
0010	730+35	730+67	USH 8	10	AROUND INLET
0010	730+67	730+77	USH 8	20	AROUND INLET
0010	730+83	731+93	USH 8	10	NEAR DECK STRUCTURE
			TOTAL 0010	40	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	LOCATION	204.0115 SY	REMARKS
0010	USH 8	20	LIGHTING CREEK BRIDGE
0010	USH 8	20	LIGHTING CREEK BRIDGE
0010	USH 8	20	HAY RIVER BRIDGE
0010	USH 8	20	HAY RIVER BRIDGE
0010	USH 8	695	INTERSECTIONS
0010	USH 8	675	BUTT JOINTS FOR RESTORING ASPHALT DRIVEWAYS
	TOTAL 0010	1450	

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION TO	STATION	LOCATION	204.0120 SY
0010	117+43	15+81	USH 8	160431
0010			INTERSECTIONS	6100
			TOTAL 0010	166531

REMOVING INLETS

CATEGORY	STATION	LOCATION	204.0220 EACH
0010	730+35	USH 8	1
0010	730+67	USH 8	1
		TOTAL 0010	2

ABANDONING SEWER

CATEGORY	STATION TO	STATION	LOCATION	204.0291.S CY	REMARKS
0010	730+35	730+67	USH 8	1	12-INCH
0010	730+67	731+93	USH 8	8	18-INCH
			TOTAL 0010	9	

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REMOVING 01. RETAINING WALL

CATEGORY	LOCATION	204.9060.S.01 EACH
0010	RETAINING WALL	1
	TOTAL 0010	1

REMOVING 01. CONCRETE STEPS AND SIDEWALLS

CATEGORY	LOCATION	204.9105.S.01 LS
0010	RETAINING WALL	1
	TOTAL 0010	1

BORROW

CATEGORY	STATION	LOCATION	208.0100 CY	REMARKS
0010	710+76	USH 8	10	SLOPE REPAIR
0010	722+73	USH 8	20	ROADWAY FORESLOPE
0010	756+90	USH 8	10	SLOPE REPAIR
0010	759+58	USH 8	15	SLOPE REPAIR
		TOTAL 0010	55	

BACKFILL GRANULAR GRADE 1

CATEGORY	STATION TO	STATION	LOCATION	209.1500 TON	REMARKS
0010	729+95 -	730+37	USH 8	23	10.1 to 10.2
0010	730+37 -	730+85	USH 8	35	10.2 TO 10.3
0010	730+57 -	730+67	USH 8	19	10.5 TO 10.3
0010	730+85 -	732+06	USH 8	88	10.3 TO 10.4
0010	736+37 -	737+63	USH 8	100	RETAINING WALL
			TOTAL 0010	265	

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0110 TON	REMARKS
0010	117+43 -	15+81	USH 8	3980	RT AGGREGATE SHOULDLER
0010	117+43 -	15+81	USH 8	3940	LT AGGREGATE SHOULDLER
0010	117+43 -	15+81	USH 8	340	RESTORE PE, FE, CE
			TOTAL 0010	8260	

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0120 TON	REMARKS
0010			CTH P	20	SOUTH PORKCHOP ISLAND
0010			CTH P	20	NORTH PORKCHOP ISLAND
0010			CTH P	17	SW RADIUS
0010			CTH P	18	SE RADIUS
0010			CTH P	19	NW RADIUS
0010			CTH P	16	NE RADIUS
0010	729+95 -	730+37	USH 8	18	10.1 to 10.2
0010	730+37 -	730+85	USH 8	27	10.2 TO 10.3
0010	730+57 -	730+67	USH 8	15	10.5 TO 10.3
0010	730+85 -	732+06	USH 8	70	10.3 TO 10.4
0010	736+37 -	737+63	USH 8	80	RETAINING WALL
			TOTAL 0010	320	

SHAPING SHOULDERS

CATEGORY	STATION TO	STATION	LOCATION	305.0500 STA	REMARKS
0010	117+43 -	745+00	USH 8	204	LT
0010	767+00	15+81	USH 8	213	LT
0010	117+43 -	726+00	USH 8	189	RT
0010	739+00	11+00	USH 8	237	RT
			TOTAL 0010	843	

TACK COAT

CATEGORY	STATION TO	STATION	LOCATION	455.0605 GAL	REMARKS
0010	117+43 -	15+81	USH 8	11230	LOWER LAYER
0010	117+43 -	15+81	USH 8	11230	UPPER LAYER
0010			USH 8	425	INTERSECTIONS
			TOTAL 0010	22885	

HMA PAVEMENT 4 MT 58-34 V

CATEGORY	STATION TO	STATION	LOCATION	460.6644 TON	REMARKS
0010	117+43 -	15+81	USH 8	17910	LOWER LAYER
0010	117+43 -	15+81	USH 8	17910	UPPER LAYER
0010			USH 8	680	INTERSECTIONS
			TOTAL 0010	36500	

ASPHALTIC SURFACE

CATEGORY	LOCATION	465.0105 TON	REMARKS
0010	USH 8	300	WEDGING/LEVELING LAYER
	TOTAL 0010	300	

ASPHALTIC SURFACE PATCHING

CATEGORY	STATION TO STATION	LOCATION	465.0110 TON	REMARKS
0010		CTH P	10	SOUTH PORKCHOP ISLAND
0010		CTH P	10	NORTH PORKCHOP ISLAND
0010		CTH P	6	SW RADIUS
0010		CTH P	6	SE RADIUS
0010		CTH P	7	NW RADIUS
0010		CTH P	6	NE RADIUS
0010	729+95 - 730+37	USH 8	10	10.1 to 10.2
0010	730+37 730+85	USH 8	15	10.2 TO 10.3
0010	730+57 730+67	USH 8	8	10.5 TO 10.3
0010	730+85 732+06	USH 8	38	10.3 TO 10.4
0010	736+37 - 737+63	USH 8	14	RETAINING WALL
		TOTAL 0010	130	

ASPHALT CENTER LINE RUMBLE STRIPS 2-LANE RURAL

CATEGORY	STATION TO	STATION	LOCATION	465.0475 LF
0010	133+86 -	276+37	USH 8	12450
0010	700+44 -	722+43	USH 8	1800
0010	745+15 -	776+44	USH 8	2730
0010	796+27 -	973+64	USH 8	14737
0010	9+56 -	10+00	USH 8	44
			TOTAL 0010	31761

ASPHALTIC FLUMES

CATEGORY	STATION	LOCATION	465.0315 SY	REMARKS
0010	122+12	USH 8	5	LT
0010	122+74	USH 8	5	RT
0010	123+23	USH 8	5	LT
0010	123+35	USH 8	5	RT
		TOTAL 0010	20	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	LOCATION	465.0120 TON	REMARKS
0010	USH 8	76	RESTORING ASPHALT DRIVEWAYS
	TOTAL 0010	76	

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR THIS PROJECT:

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TON	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
DRIVING LANES & PASSING LANE	117+43 - 15+81	UPPER LAYER	4 MT 58-34 V	4 MT 58-34 V	13,220	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
DRIVING LANES & PASSING LANE	117+43 - 15+81	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-34 V	13,220	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE BY ORDINARY COMPACTION
SHOULDER, MEDIAN, SIDEROADS AND TURN LANES	117+43 - 15+81	UPPER LAYER	4 MT 58-34 V	4 MT 58-34 V	7,564	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR DENSITY
SHOULDER, MEDIAN, SIDEROADS AND TURN LANES	117+43 - 15+81	LOWER LAYER	MILLED EXISTING HMA SURFACE/ BASE AGGREGATE	4 MT 58-34 V	6,884	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE BY ORDINARY COMPACTION
HMA PAVING FOUNDATION	VARIOUS	LEVELING AND WEDGING	VARIES	ASPHALTIC SURFACE	300	VARIES	QMP AS PER STANDARD SPECIFICATIONS 465	ACCEPTANCE BY ORDINARY COMPACTION
PAVED DRIVEWAYS	VARIOUS	SINGLE LAYER	MILLED EXISTING HMA SURFACE	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	76	VARIES	QMP AS PER STANDARD SPECIFICATIONS 465	ACCEPTANCE BY ORDINARY COMPACTION
PATCHING FOR REMOVALS	VARIOUS	REMOVALS	BASE AGGREGATE	ASPHALTIC SURFACE PATCHING	130	VARIES	QMP AS PER STANDARD SPECIFICATIONS 465	ACCEPTANCE BY ORDINARY COMPACTION

CLEANING CULVERT PIPES

CATEGORY	STATION	LOCATION	520.8700 EACH
0010	136+01	USH 8	1
0010	219+23	USH 8	1
0010	747+63	USH 8	1
0010	766+92	USH 8	1
0010	812+96	USH 8	1
0010	846+85	USH 8	1
0010	859+38	USH 8	1
0010	876+60	USH 8	1
0010	888+68	USH 8	1
0010	929+37	USH 8	1
0010	945+53	USH 8	1
TOTAL 0010			11

CULVERT PIPE LINERS (18-INCH)

CATEGORY	STATION	LOCATION	520.9700.S LF
0010	812+96	USH 8	54
TOTAL 0010			54

CLEANING CULVERT PIPES FOR LINER VERIFICATION

CATEGORY	STATION	LOCATION	520.9750.S EACH
0010	812+96	USH 8	1
TOTAL 0010			1

CULVERT PIPE SALVAGED 24-INCH

CATEGORY	STATION	LOCATION	524.0124 LF	REMARKS
0010	722+73	USH 8	8	RT
0010	759+58	USH 8	8	LT
0010	812+96	USH 8	8	RT
TOTAL 0010			24	

CONCRETE CURB & GUTTER 30-INCH TYPE D

CATEGORY	STATION TO	STATION	LOCATION	601.0411 LF	REMARKS
0010	736+00 -	737+75	USH 8	175	RT
0010	729+95 -	730+50	USH 8	65	10.1 TO 10.2
0010	730+57 -	730+67	USH 8	25	10.50
TOTAL 0010				265	

CULVERT PIPE SALVAGED 48-INCH

CATEGORY	STATION	LOCATION	524.0148 LF	REMARKS
0010	150+27	USH 8	8	LT
0010	900+27	USH 8	4	LT
TOTAL 0010			12	

CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

CATEGORY	LOCATION	601.0415 LF	REMARKS
0010	CTH P	115	SOUTH PORKCHOP ISLAND
0010	CTH P	115	NORTH PORKCHOP ISLAND
TOTAL 0010		230	

SPECIAL 02. CONCRETE SIDEWALK CURE AND SEAL TREATMENT

CATEGORY	LOCATION	CONCRETE SIDEWALK 4-INCH 602.0405 SF	SPV.0165.02 SF	REMARKS
0010	CTH P	102	102	SOUTH PORKCHOP ISLAND
0010	CTH P	102	102	NORTH PORKCHOP ISLAND
TOTAL 0010		204	204	

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

CATEGORY	LOCATION	601.0557 LF	REMARKS
0010	CTH P	60	SW RADIUS
0010	CTH P	73	SE RADIUS
0010	CTH P	76	NW RADIUS
0010	CTH P	61	NE RADIUS
TOTAL 0010		270	

CONCRETE STEPS

CATEGORY	LOCATION	602.1500 SF	REMARKS
0010	RETAINING WALL	60	APPROXIMATELY 5' WIDE AND 3.5 FEET HIGH
TOTAL 0010		60	

RIPRAP MEDIUM

CATEGORY	STATION	LOCATION	606.0200 CY	REMARKS
0010	722+73	USH 8	20	APPROXIMATE SIZE 50'X6'
0010	747+63	USH 8	3	APPROXIMATE SIZE 12'X6'
0010	754+21	USH 8	3	APPROXIMATE SIZE 13'X6.5'
0010	756+90	USH 8	3	APPROXIMATE SIZE 12'X6'
0010	759+58	USH 8	3	APPROXIMATE SIZE 12'X6'
TOTAL 0010			32	

STORM SEWER PIPE CLASS III-A 12-INCH

CATEGORY	STATION	TO	STATION	LOCATION	608.3012 LF	REMARKS
0010	730+00	-	730+37	USH 8	38	P-1
0010	730+67	-	730+85	USH 8	28	P-4
				TOTAL 0010	66	

STORM SEWER PIPE CLASS III-A 15-INCH

CATEGORY	STATION	TO	STATION	LOCATION	608.3015 LF	REMARKS
0010	730+37	-	730+67	USH 8	48	P-2
				TOTAL 0010	48	

STORM SEWER PIPE CLASS III-A 24-INCH

CATEGORY	STATION	TO	STATION	LOCATION	608.3024 LF	REMARKS
0010	730+67	-	732+06	USH 8	120	P-3
				TOTAL 0010	120	

MANHOLE COVERS TYPE J

CATEGORY	STATION	LOCATION	611.0530 EACH	REMARKS
0010	730+67	USH 8	1	10.3
0010	732+06	USH 8	1	10.4
		TOTAL 0010	2	

INLET COVERS TYPE H

CATEGORY	STATION	LOCATION	611.0624 EACH	REMARKS
0010	730+00	USH 8	1	10.1
0010	730+67	USH 8	1	10.2
0010	730+67	USH 8	1	10.5
		TOTAL 0010	3	

INLET COVERS TYPE MS

CATEGORY	STATION	LOCATION	611.0642 EACH	REMARKS
0010	722+73	USH 8	2	TWO SLOPE
		TOTAL 0010	2	

MANHOLES 6-FT DIAMETER

CATEGORY	STATION	LOCATION	611.2006 EACH	REMARKS
0010	730+85	USH 8	1	10.3
0010	732+06	USH 8	1	10.4
		TOTAL 0010	2	

INLETS 4-FT DIAMETER

CATEGORY	STATION	LOCATION	611.3004 EACH	REMARKS
0010	730+37	USH 8	1	10.2
0010	730+67	USH 8	1	10.5
		TOTAL 0010	2	

INLETS 2X3-FT

CATEGORY	STATION	LOCATION	611.3230 EACH	REMARKS
0010	730+00	USH 8	1	10.1
		TOTAL 0010	1	

INLETS MEDIAN 2 GRATE

CATEGORY	STATION	LOCATION	611.3902 EACH	REMARKS
0010	722+73	USH 8	1	TWO SLOPE
		TOTAL 0010	1	

PIPE UNDERDRAIN WRAPPED 6-INCH

CATEGORY	LOCATION	612.0406 LF
0010	RETAINING WALL	158
	TOTAL 0010	158

APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH

CATEGORY	LOCATION	612.0806 EACH	REMARKS
0010	RETAINING WALL	1	RODENT PROOF
	TOTAL 0010	1	

3

BARRIER SYSTEM GRADING SHAPING FINISHING

					*	*	*	*	*	
					614.0010	BORROW	TOPSOIL	FERTILIZER	SEEDING	STAKING
CATEGORY	STATION	TO	STATION	LOCATION	EACH	CY	SY	LB	LB	EACH	REMARKS
0010	799+08		802+95	USH 8	1	160	1164	70	30	1	RT
0010	799+58	-	803+45	USH 8	1	105	930	60	25	1	LT
				TOTAL 0010	2						

*FOR INFORMATION ONLY AND INCIDENTAL TO BID ITEM 614.0010

SALVAGED RAIL

					614.0920	
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	731+21	-	732+75	USH 8	154	LT
0010	800+24	-	802+04	USH 8	180	RT
0010	800+24	-	802+04	USH 8	180	LT
				TOTAL 0010	514	

3

ADJUSTING STEEL PLATE BEAM GUARD

					614.0400	
CATEGORY	STATION	TO	STATION	LOCATION	LF	
0010	194+73	-	195+65	USH 8	92	
0010	193+85	-	195+65	USH 8	180	
0010	196+71	-	198+51	USH 8	180	
0010	196+71	-	197+43	USH 8	72	
0010	744+69	-	767+78	USH 8	2309	
				TOTAL 0010	2741	

SALVAGED GUARDRAIL END TREATMENTS

			614.0925	
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	731+21	USH 8	1	LT
0010	732+75	USH 8	1	LT
0010	800+24	USH 8	1	RT
0010	800+24	USH 8	1	LT
0010	802+04	USH 8	1	RT
0010	802+04	USH 8	1	LT
		TOTAL 0010	6	

REPLACING GUARDRAIL RAIL AND HARDWARE

					614.0951	
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	731+80	-	731+85	USH 8	10	AS NEEDED FOR STORM SEWER
				TOTAL 0010	10	

MGS GUARDRAIL 3

					614.2300	
CATEGORY	STATION	TO	STATION	LOCATION	LF	
0010	799+58	-	802+45	USH 8	288	
0010	800+07	-	802+95	USH 8	288	
				TOTAL 0010	576	

MGS GUARDRAIL TERMINAL EAT

					614.2610	
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	799+08	-	799+58	USH 8	1	RT
0010	799+58	-	800+08	USH 8	1	LT
0010	802+44	-	802+95	USH 8	1	RT
0010	802+94	-	803+45	USH 8	1	LT
				TOTAL 0010	4	

MOBILIZATION

					619.1000	
CATEGORY	STATION	TO	STATION	LOCATION	EACH	
0010	117+43	-	15+81	USH 8	0.93	
				TOTAL 0010	0.93	

3

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	LOCATION	620.0300 SF	REMARKS
0010	CTH P	10	SOUTH PORKCHOP ISLAND
0010	CTH P	10	NORTH PORKCHOP ISLAND
	TOTAL 0010	20	

WATER

CATEGORY	STATION TO	STATION	LOCATION	624.0100 MGAL
0010	117+43 -	15+81	USH 8	1
			TOTAL 0010	1

SALVAGED TOPSOIL

CATEGORY	STATION	LOCATION	625.0500 SY	REMARKS
0010	150+27	USH 8	40	
0010	710+76	USH 8	40	
0010	722+73	USH 8	250	
0010	756+90	USH 8	60	
0010	759+58	USH 8	60	
0010	812+96	USH 8	40	
0010	900+27	USH 8	40	
0010		CTH P	150	CURB AND GUTTER
0010		STORMSEWER	10	
0010		RETAINING WALL	150	
		TOTAL 0010	840	

CATEGORY	STATION TO	STATION	LOCATION	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF
0010	797+80 -	804+40	USH 8	660	660
0010	798+30 -	804+90	USH 8	660	660
			TOTAL 0010	1320	1320

CATEGORY	STATION TO	STATION	LOCATION	MOBILIZATIONS EROSION CONTROL 628.1905 EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL 628.1910 EACH
0010	117+43 -	15+81	USH 8	3	3
			TOTAL 0010	3	3

EROSION MAT CLASS I TYPE B

CATEGORY	STATION	LOCATION	628.2004 SY
0010		CTH P	150
0010	722+73	USH 8	250
		TOTAL 0010	400

INLET PROTECTION TYPE D

CATEGORY	STATION	LOCATION	628.7020 EACH
0010	730+00	USH 8	1
0010	730+37	USH 8	1
0010	730+67	USH 8	1
0010	11+91	USH 8	1
		TOTAL 0010	4

EROSION MAT URBAN CLASS I TYPE B

CATEGORY	LOCATION	LOCATION	628.2008 SY	REMARKS
0010	150+27	USH 8	40	
0010	710+76	USH 8	40	
0010	756+90	USH 8	60	
0010	759+58	USH 8	60	
0010	812+96	USH 8	40	
0010	900+27	USH 8	40	
0010		USH 8	1100	BEAM GUARD RT
0010		USH 8	900	BEAM GUARD LT
0010		STORMSEWER	10	
0010		RETAINING WALL	150	
		TOTAL 0010	2440	

FERTILIZER TYPE B

CATEGORY	STATION	LOCATION	629.0210 CWT
0010	150+27	USH 8	0.03
0010	710+76	USH 8	0.03
0010	722+73	USH 8	0.15
0010	756+90	USH 8	0.05
0010	759+58	USH 8	0.05
0010	812+96	USH 8	0.03
0010	900+27	USH 8	0.03
0010		CTH P	0.10
0010		STORMSEWER	0.01
0010		RETAINING WALL	0.10
		TOTAL 0010	0.58

SEEDING MIXTURE NO. 20

CATEGORY	STATION	LOCATION	630.0120 LB
0010	150+27	USH 8	3
0010	710+76	USH 8	3
0010	722+73	USH 8	17
0010	756+90	USH 8	4
0010	759+58	USH 8	4
0010	812+96	USH 8	3
0010	900+27	USH 8	3
0010		CTH P	5
		TOTAL 0010	42

SEEDING MIXTURE NO. 40

CATEGORY	LOCATION	630.0140 LB
0010	STORMSEWER	1
0010	RETAINING WALL	3
	TOTAL 0010	4

3

MARKERS CULVERT END

CATEGORY	STATION	LOCATION	633.5200 EACH
0010	136+01	USH 8	1
0010	150+27	USH 8	2
0010	169+32	USH 8	2
0010	219+23	USH 8	2
0010	229+89	USH 8	2
0010	240+25	USH 8	2
0010	710+76	USH 8	2
0010	712+86	USH 8	2
0010	722+73	USH 8	2
0010	743+07	USH 8	2
0010	747+63	USH 8	2
0010	754+21	USH 8	2
0010	756+90	USH 8	2
0010	759+58	USH 8	2
0010	766+92	USH 8	2
0010	776+80	USH 8	2
0010	812+96	USH 8	2
0010	834+21	USH 8	2
0010	839+75	USH 8	2
0010	846+85	USH 8	2
0010	859+38	USH 8	2
0010	862+35	USH 8	2
0010	872+00	USH 8	2
0010	876+60	USH 8	2
0010	888+68	USH 8	2
0010	900+27	USH 8	2
0010	920+23	USH 8	2
0010	929+37	USH 8	2
0010	945+53	USH 8	2
TOTAL 0010			57

MOVING SIGNS TYPE II / POSTS WOOD 4X6-INCH X 16-FT

CATEGORY	STATION	OFFSET (FT)	SIGN	LOCATION	638.2102 EACH	634.0616 EACH
0010	123+16	36 RT	STOP	USH 8	1	1
0010	123+26	36 RT	KEEP RIGHT	USH 8	1	1
0010	123+16	74 RT	ISLAND MARKER	USH 8	1	1
0010	123+48	48 RT	STOP	USH 8	1	1
0010	123+50	48 RT	DO NOT ENTER	USH 8	1	1
0010	122+80	42 LT	STOP	USH 8	1	1
0010	122+70	40 LT	KEEP RIGHT	USH 8	1	1
0010	122+80	86 LT	ISLAND MARKER	USH 8	1	1
0010	122+43	55 LT	STOP	USH 8	1	1
TOTAL 0010					9	9

FIELD OFFICE TYPE B

CATEGORY	STATION TO	STATION	LOCATION	642.5001 EACH
0010	117+43 -	15+81	USH 8	1
TOTAL 0010				1

TRAFFIC CONTROL DRUMS

CATEGORY	STATION TO	STATION	LOCATION	643.0300 DAY	REMARKS
0010	272+64 -	708+11	USH 8	100	BY-PASS/CLIMBING LANE
0010	729+00 -	733+00	USH 8	200	INLET WORK
0010	734+00 -	739+00	USH 8	700	RETAINING WALL
0010	117+43 -	15+81	USH 8	200	CULVERT WORK
0010			CTH P	500	RADI AND ISLANDS
TOTAL 0010				1700	

TRAFFIC CONTROL BARRICADES TYPE III

CATEGORY	STATION	LOCATION	643.0420 DAY	REMARKS
0010	730+90	USH 8	20	9 1/2 ST CLOSURE FOR STORM SEWER WORK
0010		USH 8	20	BY-PASS/CLIMBING LANE
TOTAL 0010			40	

TRAFFIC CONTROL WARNING LIGHTS TYPE A

CATEGORY	STATION	LOCATION	643.0705 DAY	REMARKS
0010	730+90	USH 8	20	9 1/2 ST CLOSURE FOR STORM SEWER WORK
0010		USH 8	20	BY-PASS/CLIMBING LANE
TOTAL 0010			40	

TRAFFIC CONTROL WARNING LIGHTS TYPE C

CATEGORY	STATION TO	STATION	LOCATION	643.0715 DAY	REMARKS
0010	272+64 -	708+11	USH 8	100	BY-PASS/CLIMBING LANE
0010	729+00 -	733+00	USH 8	200	INLET WORK
0010	734+00 -	739+00	USH 8	700	RETAINING WALL
0010	117+43 -	15+81	USH 8	200	CULVERT WORK
0010			CTH P	500	RADI AND ISLANDS
TOTAL 0010				1700	

TRAFFIC CONTROL SIGNS

CATEGORY	STATION TO	STATION	LOCATION	643.0900 DAY	REMARKS
0010	117+43 -	15+81	USH 8	2500	ADVANCE WARNING
0010	117+43 -	15+81	USH 8	4662	SIDE ROADS
0010	117+43 -	15+81	USH 8	500	LANE CLOSURE
TOTAL 0010				7662	

3

GEOTEXTILE TYPE HR

645.0120

CATEGORY	STATION	LOCATION	SY	REMARKS
0010	722+73	USH 8	50	APPROXIMATE SIZE 50'X6'
0010	747+63	USH 8	15	APPROXIMATE SIZE 12'X6'
0010	754+21	USH 8	16	APPROXIMATE SIZE 13'X6.5'
0010	756+90	USH 8	15	APPROXIMATE SIZE 12'X6'
0010	759+58	USH 8	15	APPROXIMATE SIZE 12'X6'
TOTAL 0010			111	

MARKING LINE GROOVED WET REF EPOXY 4-INCH

646.1040

CATEGORY	STATION TO	STATION	LOCATION	LF	REMARKS
0010	117+43 -	15+81	USH 8	43843	EDGELINE
0010	117+43 -	15+81	USH 8	43843	EDGELINE
0010	275+12 -	705+93	USH 8	185	CTH F BY PASS LANE
TOTAL 0010				87871	

MARKING LINE EPOXY 8-INCH

646.3020

CATEGORY	LOCATION	LF	REMARKS
0010	CTH P	120	SOUTH PORKCHOP ISLAND
0010	CTH P	120	NORTH PORKCHOP ISALND
TOTAL 0010		240	

MARKING LINE GROOVED WET REF EPOXY 8-INCH

646.3040

CATEGORY	STATION TO	STATION	LOCATION	LF	REMARKS
0010	118+75 -	122+33	USH 8	360	TURN LANE
0010	121+28 -	122+27	USH 8	100	TURN LANE
0010	123+49 -	126+99	USH 8	350	TURN LANE
0010	123+49 -	126+99	USH 8	350	TURN LANE
0010	700+60 -	703+95	USH 8	335	TURN LANE
0010	781+55 -	786+15	USH 8	460	TURN LANE
0010	787+30 -	788+30	USH 8	100	TURN LANE
0010	787+32 -	792+20	USH 8	490	TURN LANE
TOTAL 0010				2545	

MARKING LINE EPOXY 4-INCH

646.1020

CATEGORY	STATION TO	STATION	LOCATION	LF	REMARKS
0010	117+43 -	133+80	USH 8	6547	DOUBLE DOUBLE SOLID YELLOW
0010	133+80 -	140+13	USH 8	1267	DOUBLE SOLID YELLOW
0010	140+13 -	151+27	USH 8	1393	SOLID-SKIP YELLOW
0010	151+27 -	173+98	USH 8	568	SKIP YELLOW
0010	173+98 -	185+07	USH 8	1386	SOLID-SKIP YELLOW
0010	185+07 -	189+82	USH 8	950	DOUBLE SOLID YELLOW
0010	189+82 -	200+91	USH 8	1386	SOLID-SKIP YELLOW
0010	200+91 -	232+64	USH 8	793	SKIP YELLOW
0010	232+64 -	241+09	USH 8	1056	SOLID-SKIP YELLOW
0010	241+09 -	243+20	USH 8	53	SKIP YELLOW
0010	243+20 -	252+18	USH 8	1122	SOLID-SKIP YELLOW
0010	252+18 -	256+93	USH 8	119	SKIP YELLOW
0010	256+93 -	268+02	USH 8	1386	SOLID-SKIP YELLOW
0010	268+02 -	276+37	USH 8	1671	DOUBLE SOLID YELLOW
0010	700+44 -	758+57	USH 8	11627	DOUBLE SOLID YELLOW
0010	758+57 -	769+66	USH 8	1386	SOLID-SKIP YELLOW
0010	769+66 -	774+94	USH 8	1056	DOUBLE SOLID YELLOW
0010	774+94 -	780+50	USH 8	2224	DOUBLE DOUBLE SOLID YELLOW
0010	780+50 -	786+20	USH 8	1140	DOUBLE SOLID YELLOW
0010	787+25 -	788+25	USH 8	200	DOUBLE SOLID YELLOW
0010	787+25 -	795+25	USH 8	3200	DOUBLE DOUBLE SOLID YELLOW
0010	795+25 -	812+15	USH 8	3379	DOUBLE SOLID YELLOW
0010	812+15 -	831+15	USH 8	2376	SOLID-SKIP YELLOW
0010	831+15 -	833+27	USH 8	53	SKIP YELLOW
0010	833+27 -	841+71	USH 8	1056	SOLID-SKIP YELLOW
0010	841+71 -	843+83	USH 8	53	SKIP YELLOW
0010	843+83 -	854+39	USH 8	1320	SOLID-SKIP YELLOW
0010	854+39 -	973+64	USH 8	23851	DOUBLE SOLID YELLOW
0010	9+56 -	13+50	USH 8	788	DOUBLE SOLID YELLOW
0010	13+50 -	15+81	USH 8	924	DOUBLE DOUBLE SOLID YELLOW
TOTAL 0010				74329	

MARKING LINE SAME DAY EPOXY 4-INCH

646.4520

CATEGORY	STATION TO	STATION	LOCATION	LF	REMARKS
0010	117+43 -	15+81	USH 8	74329	CENTERLINE
TOTAL 0010				74329	

3

MARKING ARROW EPOXY

CATEGORY	STATION	LOCATION	646.5020 EACH	REMARKS
0010	119+10	USH 8	1	RT TURN LANE
0010	122+30	USH 8	1	RT TURN LANE
0010	121+50	USH 8	1	LT TURN LANE
0010	122+30	USH 8	1	LT TURN LANE
0010	123+80	USH 8	1	LT TURN LANE
0010	126+80	USH 8	1	LT TURN LANE
0010	123+80	USH 8	1	RT TURN LANE
0010	126+80	USH 8	1	RT TURN LANE
0010	700+80	USH 8	1	RT TURN LANE
0010	703+75	USH 8	1	RT TURN LANE
0010	781+75	USH 8	1	LT TURN LANE
0010	785+90	USH 8	1	LT TURN LANE
0010	787+55	USH 8	1	LT TURN LANE
0010	788+10	USH 8	1	LT TURN LANE
0010	787+55	USH 8	1	RT TURN LANE
0010	792+00	USH 8	1	RT TURN LANE
		TOTAL 0010	16	

MARKING WORD EPOXY ONLY

CATEGORY	STATION	LOCATION	646.5120 EACH	REMARKS
0010	121+90	USH 8	1	RT TURN LANE
0010	124+20	USH 8	1	LT TURN LANE
0010	124+20	USH 8	1	RT TURN LANE
0010	703+35	USH 8	1	RT TURN LANE
0010	785+50	USH 8	1	LT TURN LANE
0010	791+60	USH 8	1	RT TURN LANE
		TOTAL 0010	6	

MARKING STOP LINE EPOXY 18-INCH

CATEGORY	LOCATION	646.6120 LF	REMARKS
0010	CTH P	14	LT
0010	CTH P	20	LT
0010	CTH P	14	RT
0010	CTH P	20	RT
	TOTAL 0010	68	

MARKING DIAGONAL EPOXY 12-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.7120 LF
0010	117+43	- 133+19	USH 8	540
0010	788+25	- 793+64	USH 8	215
0010	13+60	- 15+81	USH 8	125
			TOTAL 0010	880

TEMPORARY MARKING LINE PAINT 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	649.0105 LF	REMARKS
0010	117+43	- 15+81	USH 8	74329	CENTERLINE
0010	117+43	- 15+81	USH 8	74329	CENTERLINE
			TOTAL 0010	148658	

CONSTRUCTION STAKING STORM SEWER

CATEGORY	STATION	LOCATION	650.4000 EACH	REMARKS
0010	730+00	USH 8	1	10.1
0010	730+37	USH 8	1	10.2
0010	730+67	USH 8	1	10.3
0010	730+85	USH 8	1	10.4
0010	732+06	USH 8	1	10.5
		TOTAL 0010	5	

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

CATEGORY	STATION TO	STATION	LOCATION	650.5500 LF	REMARKS
0010	736+00	- 737+75	USH 8	175	RT
0010	729+95	730+50	USH 8	55	10.1 TO 10.2
0010	730+57	- 730+67	USH 8	10	10.5
0010			CTH P	115	SOUTH PORKCHOP ISLAND
0010			CTH P	115	NORTH PORKCHOP ISLAND
0010			CTH P	60	SW RADIUS
0010			CTH P	73	SE RADIUS
0010			CTH P	76	NW RADIUS
0010			CTH P	61	NE RADIUS
			TOTAL 0010	740	

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION TO	STATION	LOCATION	650.8000 LF
0010	117+43	- 15+81	USH 8	43841
			TOTAL 0010	43841

SAWING ASPHALT

CATEGORY	STATION		STATION	LOCATION	690.0150 LF	REMARKS
0010			117+43	USH 8	45	START
0010			122+95	USH 8	44	CTH P
0010			123+03	USH 8	34	CTH P
0010			174+92	USH 8	21	7TH ST
0010			227+40	USH 8	31	8TH ST
0010			227+43	USH 8	56	8TH ST
0010			267+35	USH 8	32	8 3/4 ST
0010			704+71	USH 8	26	CTH F
0010			730+83	USH 8	29	9 1/2 ST
0010			730+84	USH 8	24	9 1/2 ST
0010			739+10	USH 8	30	9 3/4 ST
0010			739+19	USH 8	38	14TH AVE
0010			758+77	USH 8	28	10TH ST
0010			787+01	USH 8	22	10 1/2 ST
0010			787+01	USH 8	117	SAND PLANT ENTRANCE
0010			811+20	USH 8	37	11TH ST
0010			814+28	USH 8	33	11TH ST
0010			867+44	USH 8	22	12TH ST
0010			867+45	USH 8	26	CTH TT
0010			920+44	USH 8	34	13TH ST
0010			920+52	USH 8	34	CTH T
0010			15+83	USH 8	44	END
0010				CTH P	120	SOUTH PORKCHOP ISLAND
0010				CTH P	120	NORTH PORKCHOP ISLAND
0010				CTH P	370	SW,SE,NW,NE RADIUS
0010	729+92		732+12	USH 8	550	STORMSEWER
0010	736+00	-	737+75	USH 8	175	RETAINING WALL
0010				USH 8	550	RURAL ASPHALT DRIVEWAYS
				TOTAL 0010	2692	

SPECIAL 01. CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT

CATEGORY	STATION TO		STATION	LOCATION	SPV.0090.01 LF	REMARKS
0010	736+00	-	737+75	USH 8	175	RT
0010	729+95		730+50	USH 8	55	10.1 TO 10.2
0010	730+57	-	730+67	USH 8	10	10.5
0010				CTH P	115	SOUTH PORKCHOP ISLAND
0010				CTH P	115	NORTH PORKCHOP ISLAND
0010				CTH P	60	SW RADIUS
0010				CTH P	73	SE RADIUS
0010				CTH P	76	NW RADIUS
0010				CTH P	61	NE RADIUS
				TOTAL 0010	740	

SPECIAL 02. CURE-IN-PLACE PIPE LINING

CATEGORY	STATION	LOCATION	SPV.0090.02 LF
0010	722+73	USH 8	94
		TOTAL 0010	94

SPECIAL 03. HEAVY DUTY SILT FENCE

CATEGORY	STATION TO		STATION	LOCATION	SPV.0090.03 LF	REMARKS
0010	802+18	-	803+51	USH 8	157	RT, BEAM GUARD REPLACEMENT
				TOTAL 0010	157	

SPECIAL 01. WALL MODULAR BLOCK GRAVITY LANDSCAPE

CATEGORY	LOCATION	SPV.0165.01 SF
0010	RETAINING WALL	545
	TOTAL 0010	545

TRANSPORTATION PROJECT PLAT NO: 1570-05-23-4.01

THAT PART OF LOTS 1 AND 7 OF BLOCK A, VILLAGE OF POSKIN, LOCATED IN THE NW 1/4 OF THE NE 1/4, SECTION 27, TOWNSHIP 34 NORTH, RANGE 13 WEST, TOWN OF CLINTON, BARRON COUNTY, WISCONSIN.

RELOCATION ORDER OF USH 8, TURTLE LAKE - CAMERON, CTH P TO WYE STREET, TOWN OF CLINTON, BARRON COUNTY.

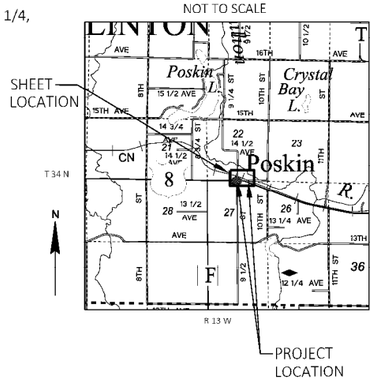
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN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

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

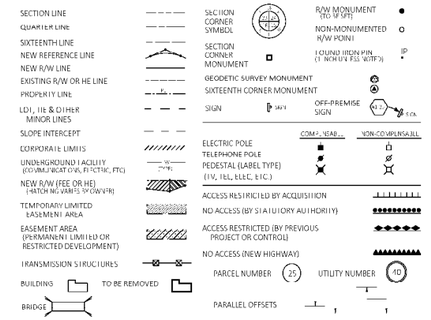
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE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

LOCATION SKETCH

NOT TO SCALE



CONVENTIONAL SYMBOLS



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

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SF REQUIRED			TLE SF
			NEW	EXISTING	TOTAL	
1	NICHOLAS D DOWD	TLE	-	-	-	1026
2	JOSEPH R AND DONNA RAE JULEFF	FEE/TLE	128	-	128	1633

Document Number: 857039
MARGO KATTERHAGEN
Barron County, Wisconsin
Register of Deeds
Recorded On:
09/03/2019 09:03:59 AM
Number of Pages: 1
SUBMITTER: SIMPLIFILE
****The above recording information verifies that this document has been electronically recorded and returned to the submitter.****

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1570-05-23-4.01
AMENDMENT NO:____

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
200	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS

ROAD NAME	BASIS OF EXISTING R/W	YEAR
USH 8	R/W PLAT DIVISION JOB NO'S 8565 - 8487, FAP 408H & 101	1955
USH 8	R/W PLAT NRH & NRM PROJECT NO 101	1933
USH 8	R/W PLAT 1576-02-21 & FPN FO 21(26)	-

STATION & OFFSET TABLE

POINT	STATION	OFFSET
304	737+40.76	40.00' RT

UTILITY EASEMENT TABLE

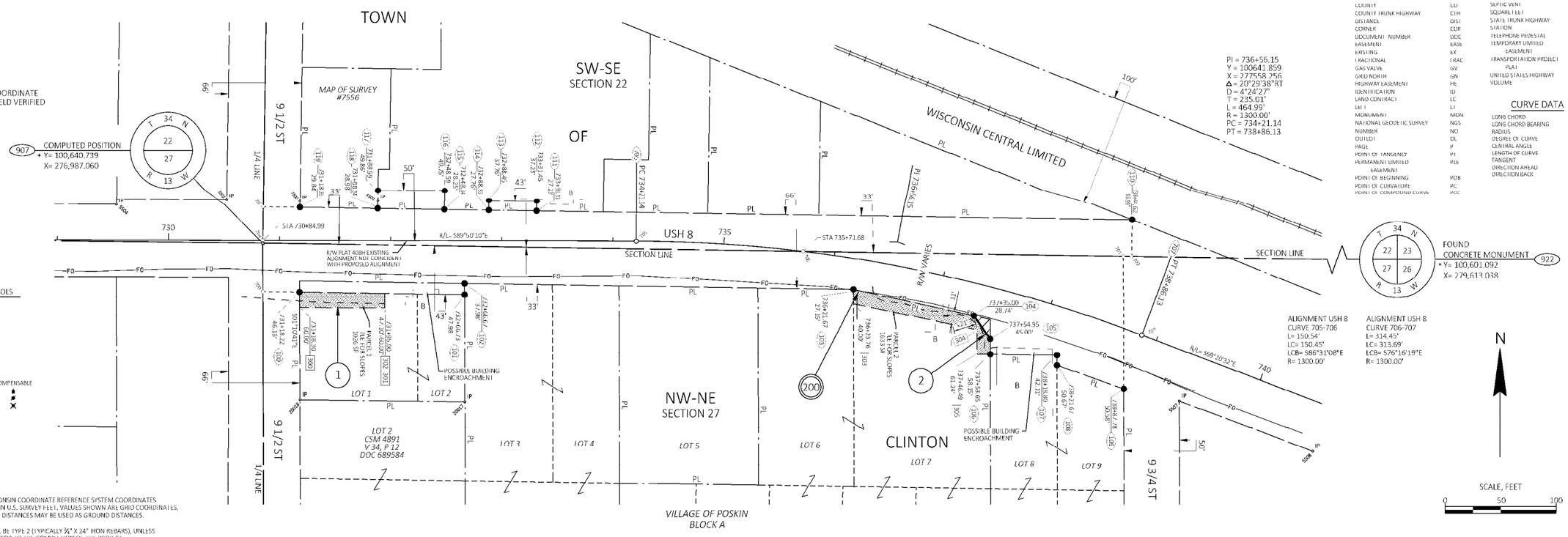
UTILITY NUMBER	PARCEL	RECORDING INFORMATION	NAME
200	2	NO RECORD OF EASEMENT	

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
BUILDING	B	RIGHT	RI
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	TELEPHONE PEDESTAL	TP
DOCUMENT NUMBER	DOC	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE	TRANSPORTATION PROJECT PLAT	TPP
EXISTING	EX	UNITED STATES HIGHWAY	USH
FRACTIONAL	FRAC	VOLUME	V
GAS VALVE	GV		
GRID NORTH	GN		
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LOT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

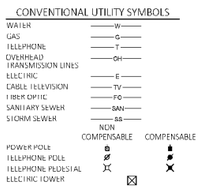
CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB



* BARRON COUNTY PUBLISHED COORDINATE VALUE. COORDINATE VALUES FIELD VERIFIED WITH CORNER TIE SHEETS.

CONVENTIONAL UTILITY SYMBOLS



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), BARRON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLES) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

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

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

COURSE TABLE

FROM	TO	DIRECTION	DISTANCE	FROM	TO	DIRECTION	DISTANCE
907	700	S 00° 10' 42" E	43.01'	702	110	N 00° 51' 54" E	33.00'
700	100	S 89° 08' 06" E	33.01'	110	111	N 89° 08' 06" W	535.96'
100	101	S 89° 08' 06" E	148.52'	111	112	N 00° 50' 16" E	10.00'
101	102	N 00° 10' 41" W	10.00'	112	113	N 89° 08' 06" W	43.00'
102	103	S 89° 08' 06" E	350.06'	113	114	S 00° 50' 16" W	10.00'
103	104	S 77° 40' 55" E	110.87'	114	115	N 89° 08' 06" W	40.00'
104	105	S 35° 33' 55" E	25.30'	115	116	N 00° 50' 16" E	21.50'
105	106	S 00° 09' 29" E	13.62'	116	117	N 89° 43' 57" W	60.00'
106	107	S 89° 08' 06" E	60.01'	117	118	S 00° 50' 16" W	20.88'
107	108	S 00° 09' 29" E	9.00'	118	119	N 89° 08' 06" W	70.00'
108	109	S 70° 48' 26" E	63.59'	119	703	N 89° 08' 06" W	33.00'
109	701	N 00° 09' 29" W	118.01'	703	704	S 00° 50' 18" W	30.25'
701	702	S 89° 08' 06" E	7.39'	704	907	S 00° 50' 18" W	2.75'

COURSE TABLE - SECTION LINE

FROM	TO	DIRECTION	DISTANCE
907	706	S 89° 08' 06" E	486.42'
706	701	S 89° 08' 06" E	288.13'
701	702	S 89° 08' 06" E	7.39'
702	922	S 89° 08' 06" E	1844.34'
922	907	S 89° 08' 06" E	2626.28'

RECOVERED MONUMENTS

POINT	Y	X	DESCRIPTION
5500	100680.095	277020.418	3/4" IRON PIPE
5501	100680.511	277090.824	3/4" IRON PIPE
5503	100681.682	276954.658	3/4" IRON PIPE
5504	100675.756	276855.437	3/4" IRON PIPE
5507	100500.156	277811.878	3/4" IRON PIPE
5508	100459.482	277931.983	3/4" IRON PIPE
20017	100499.487	277168.870	3/4" IRON PIPE
20018	100501.316	277020.642	3/4" IRON PIPE

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, NEIL C. BOWE, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN NEIL C. BOWE S-2827 CHIPPEWA FALLS WI LAND SURVEYOR

SIGNATURE: _____ DATE: 8/20/19

PRINT NAME: NEIL C. BOWE

REGISTRATION NUMBER: S-2827

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

SIGNATURE: _____ DATE: 8/20/19

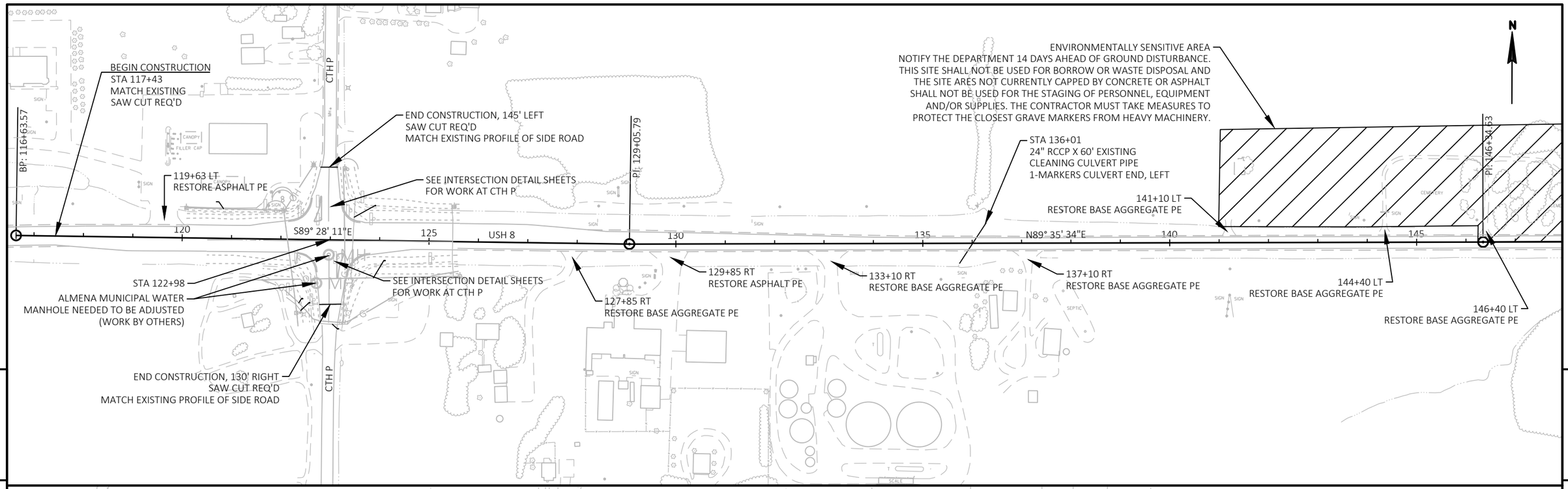
PRINT NAME: DEBRA B. STENSLAND

FILE NAME : P:\WIDOT\19017 - NW REGION SURVEY SERVICES (WO 11)\19017-1 STH 8 UTILITY SURVEY\C3D\RW\040101-RP_RD01.DWG

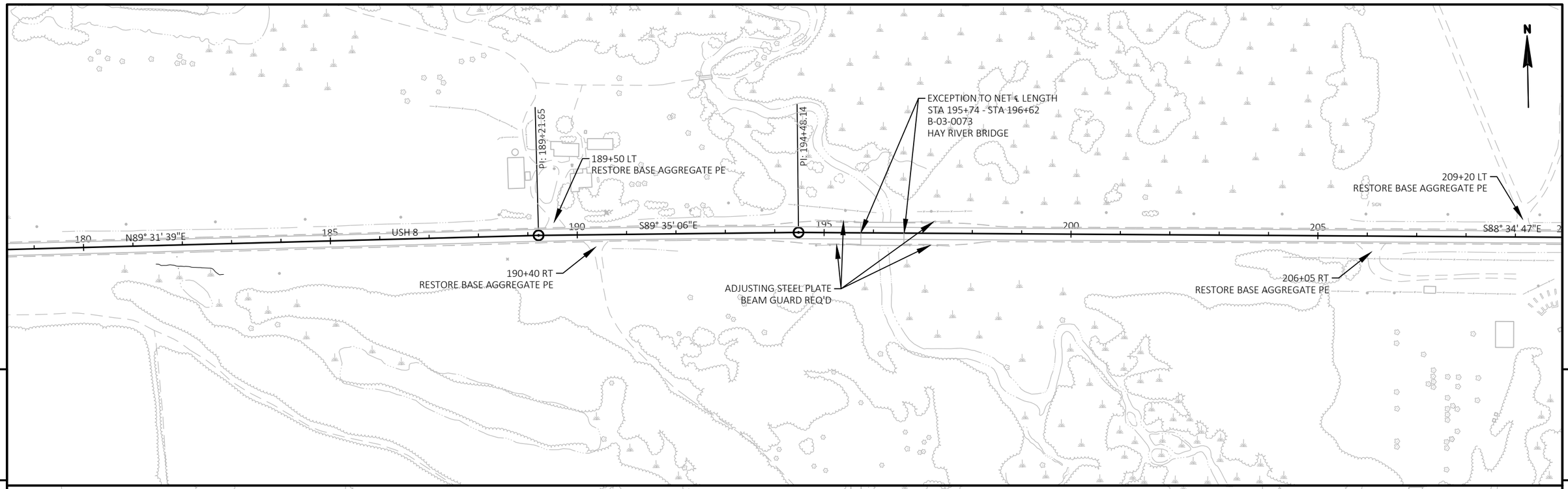
PLOT DATE : 8/26/2019 9:05 AM

APPRAISAL PLAT DATE: 8/26/2019

WISDOT 8080-07-20-4.01



PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	PLAN	SHEET 39 E



PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	PLAN	SHEET 40	E

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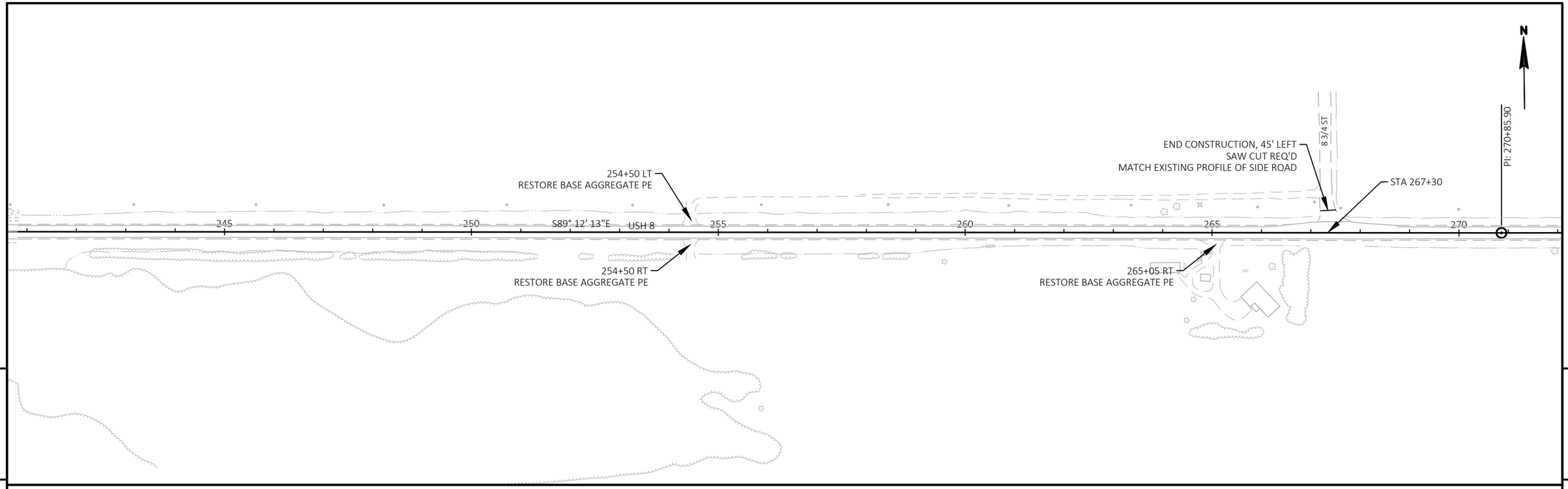
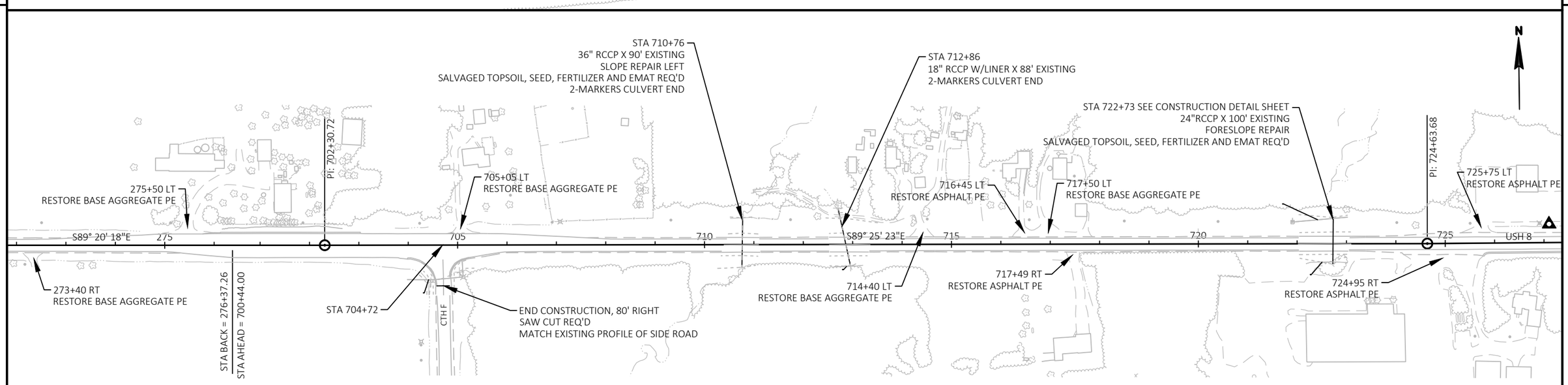
LAYOUT NAME - 02

PLOT DATE : 5/3/2021 12:10 PM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : ##########





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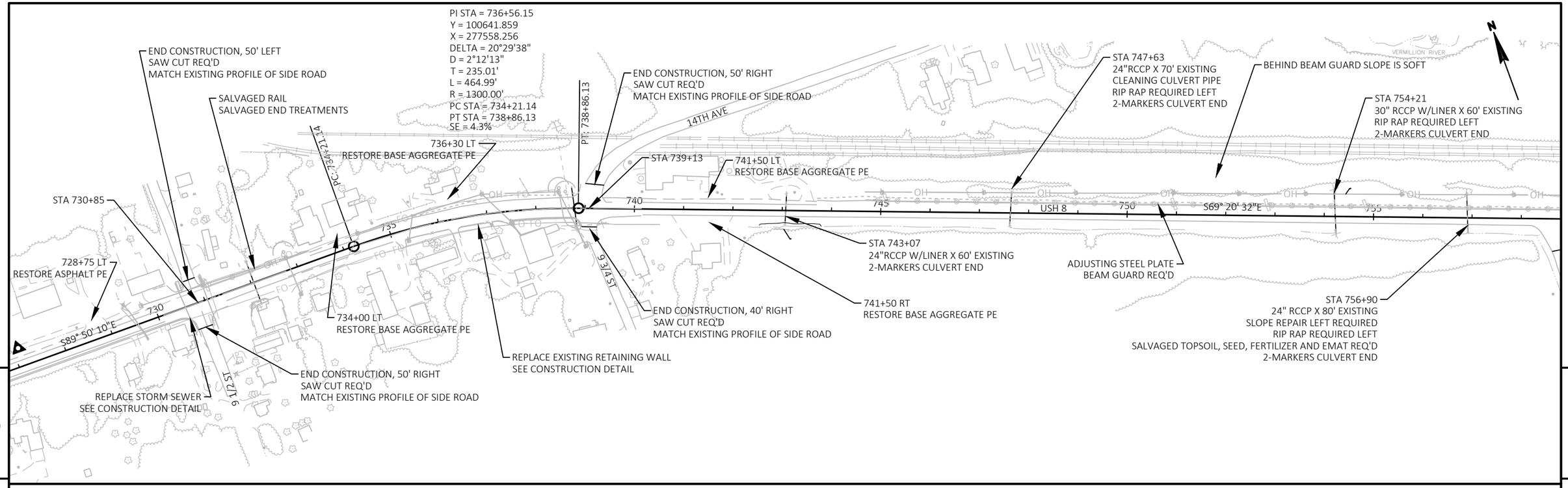

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LAYOUT NAME - 04

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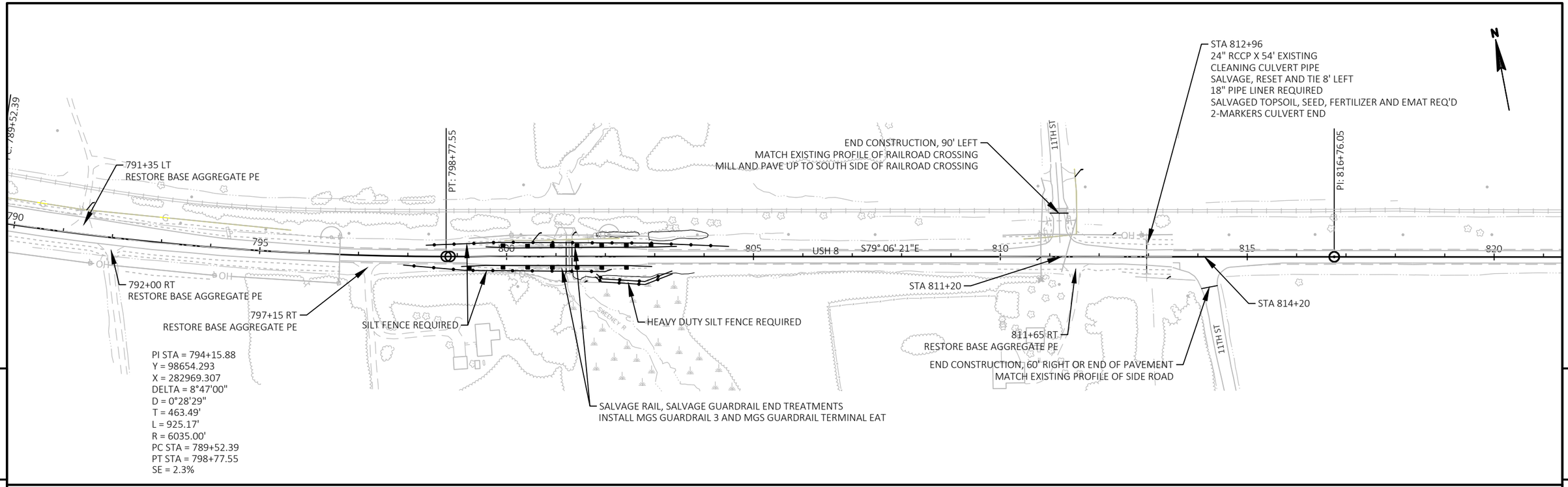
WISDOT/CADDS SHEET 44



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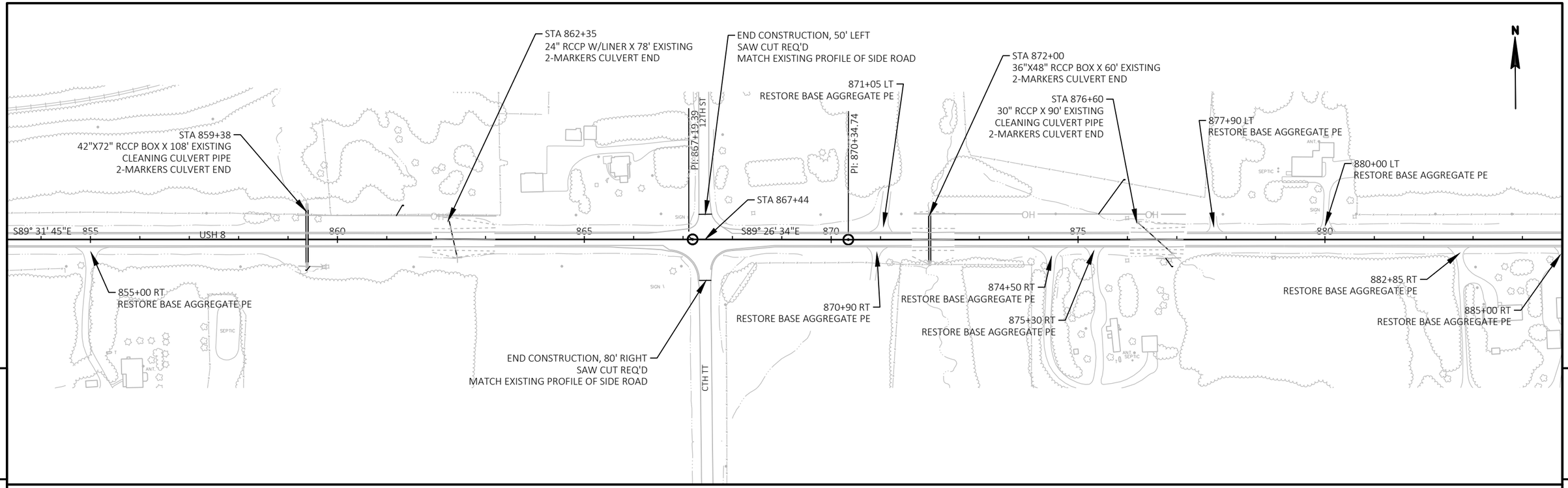

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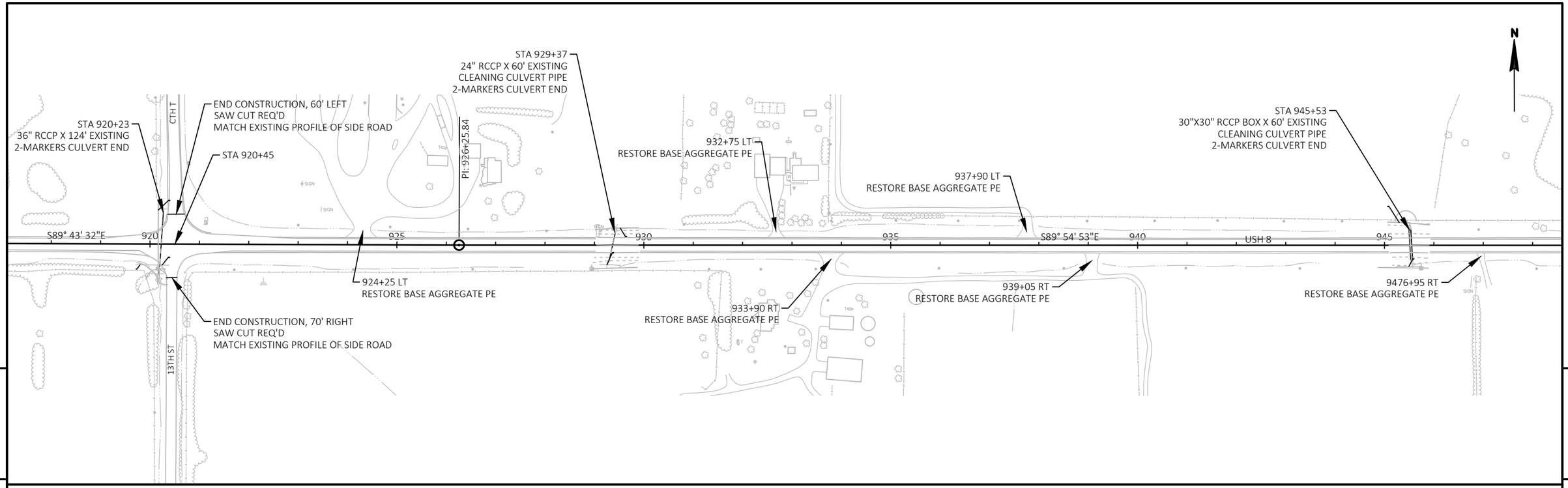

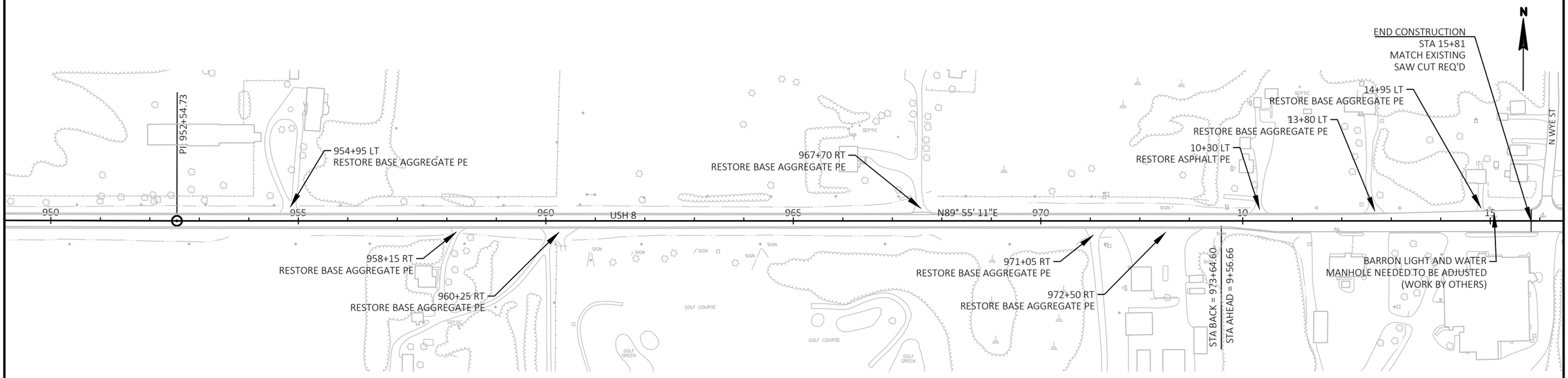

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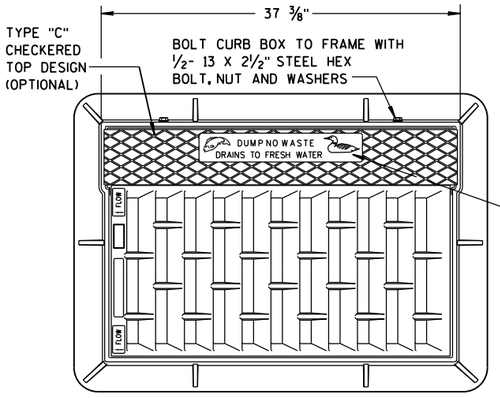
LAYOUT NAME - 07

PLOT DATE : 5/3/2021 12:14 PM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : ############

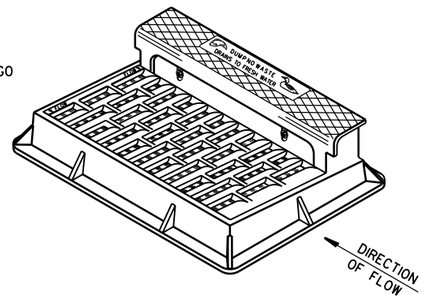
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A08-01	ASPHALTIC RUMBLE STRIPS AT INTERSECTION
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-05A	PAVEMENT MARKINGS, MEDIAN ISLANDS
15C18-05B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C18-05C	PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C35-04B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-04C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D50-01A	TRAFFIC CONTROL, ADDED LANE CLOSURE WITHOUT LANE SHIFT

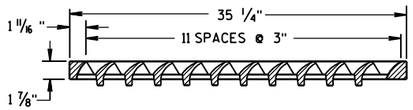
6

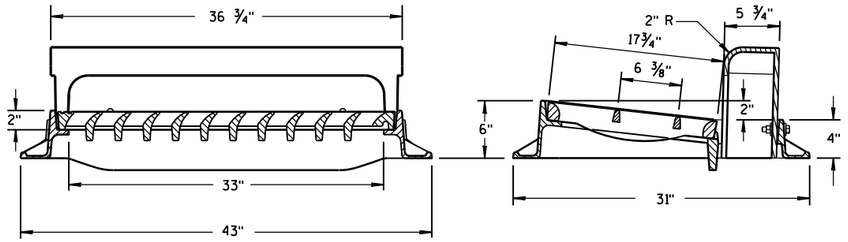


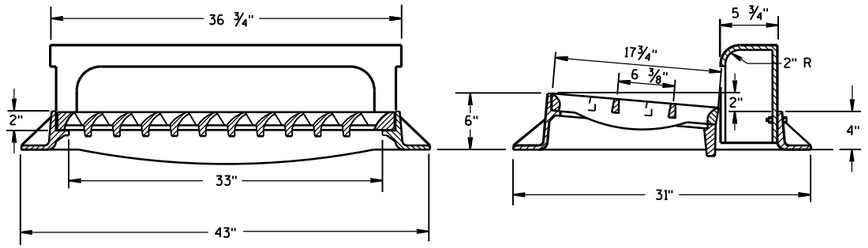
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

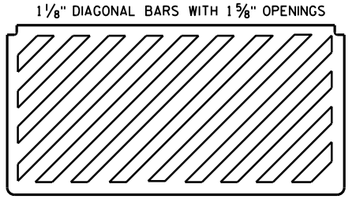






TYPE "H"

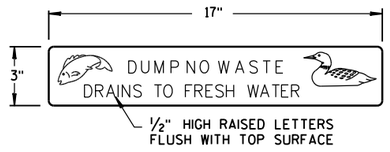
NOTE: EITHER CASTING IS ACCEPTABLE



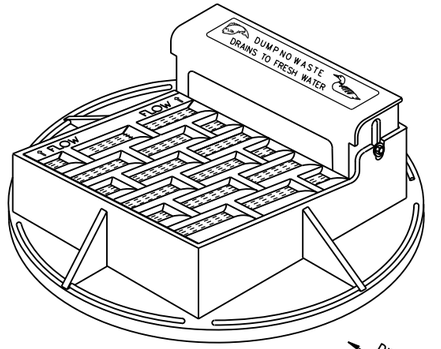
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

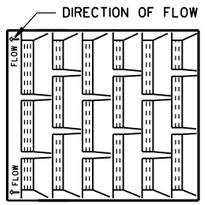
NOTE:
GRATE IS REVERSIBLE.

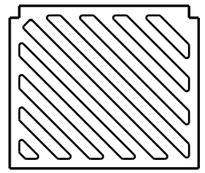
GENERAL NOTES

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

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

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

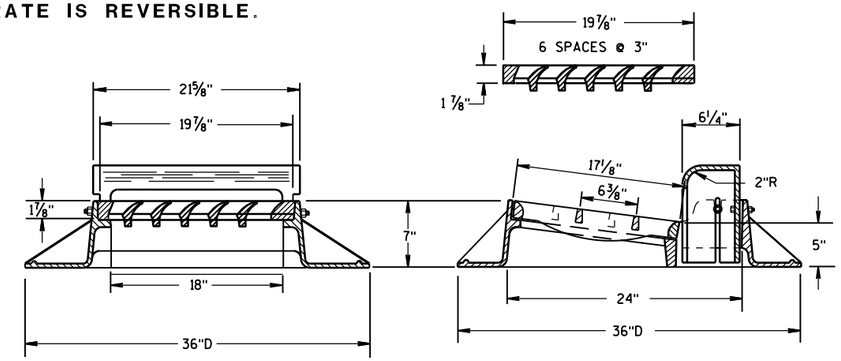




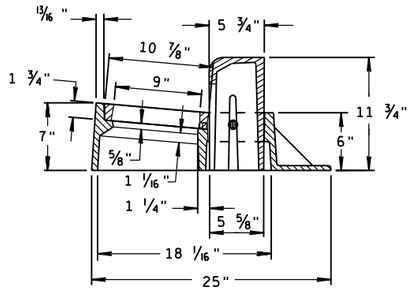
SPECIAL GRATE FOR TYPE "A" COVER

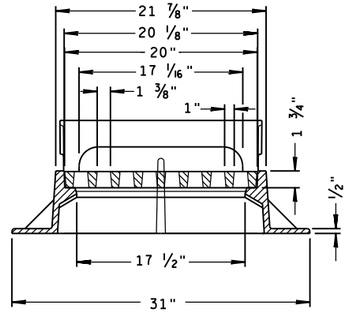
(MEASURES 19 3/4" X 17" X 1 7/8")

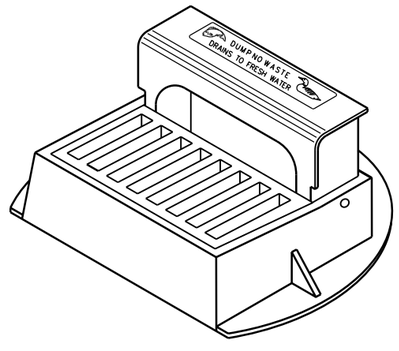
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

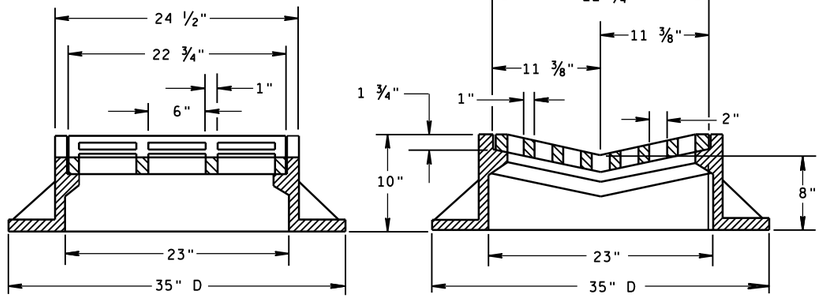
INLET COVERS
TYPE A, H, A-S, H-S & Z

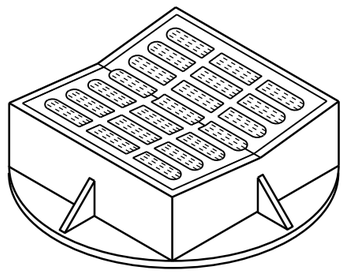
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

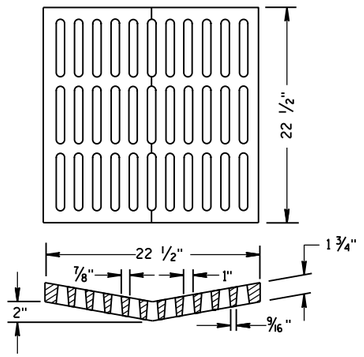
6

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



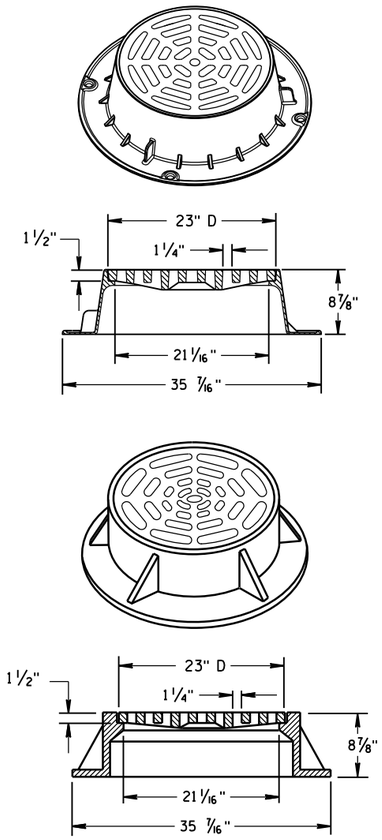


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

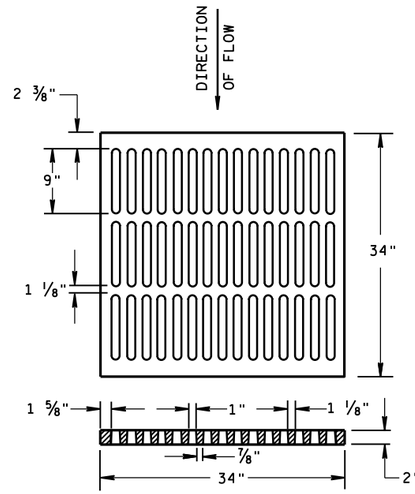
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

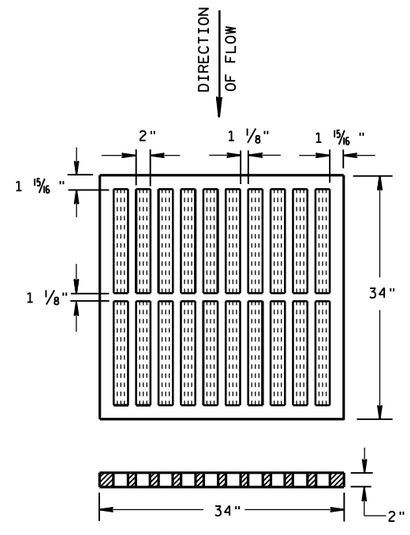
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



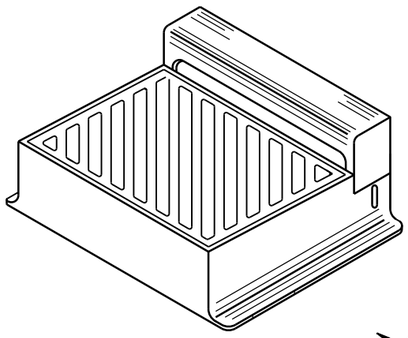
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

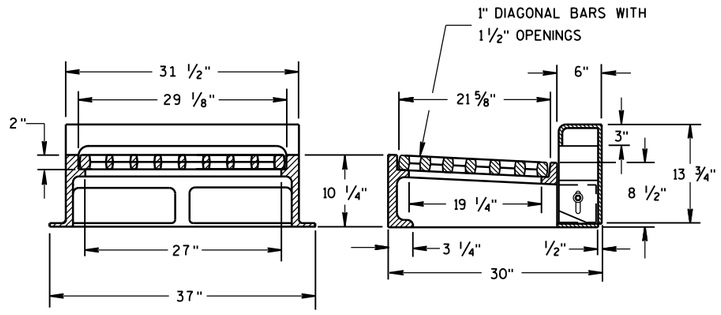


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

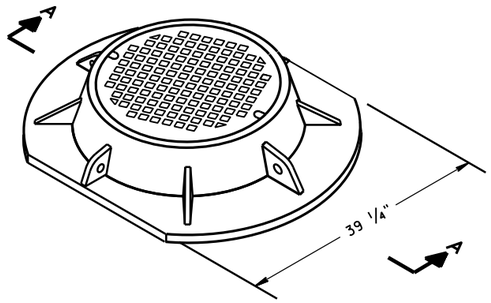
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

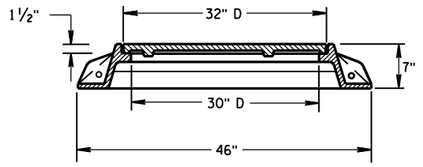
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

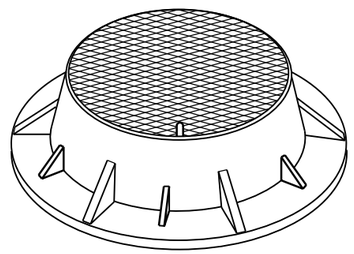
6

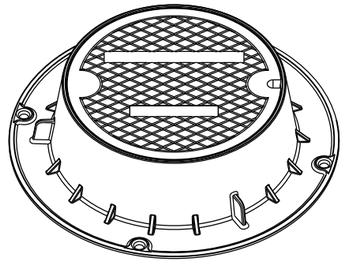
S.D.D. 8 A 5-19b

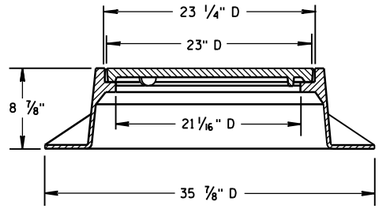


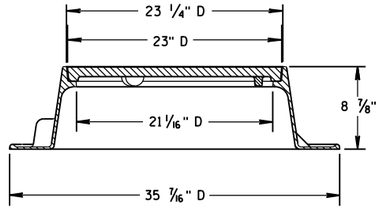


SECTION A-A
TYPE "K"









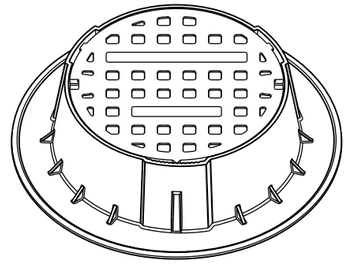
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

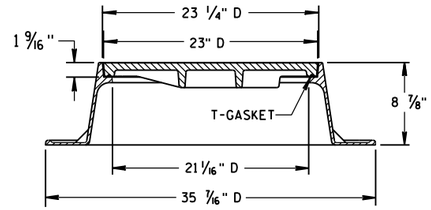
GENERAL NOTES

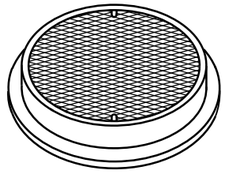
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

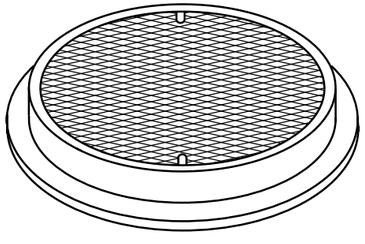
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

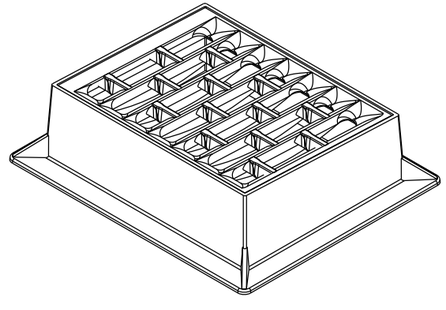
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

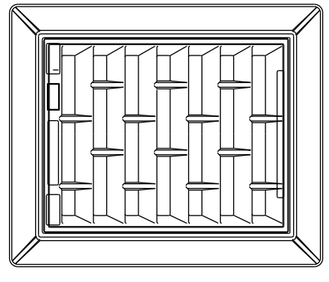


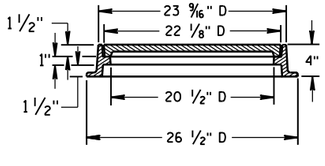




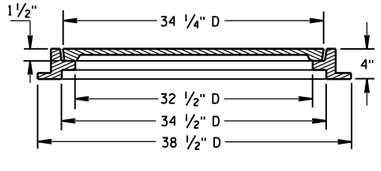




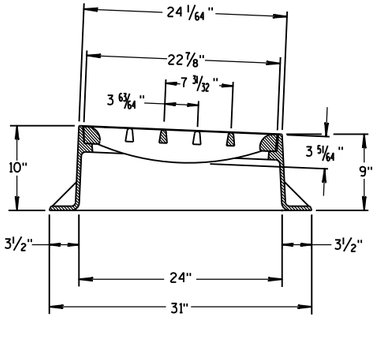


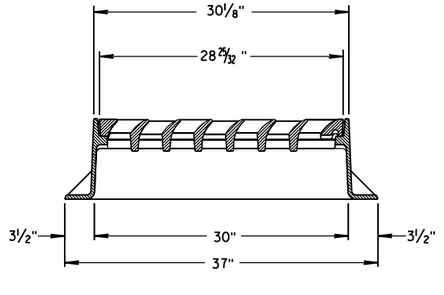


TYPE "L"

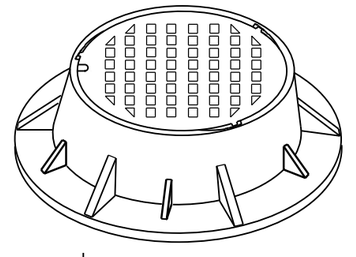


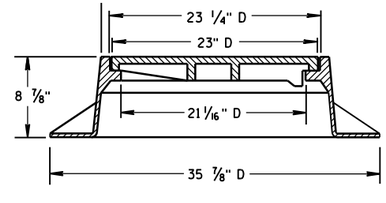
TYPE "M"





INLET COVER TYPE "BW"





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

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

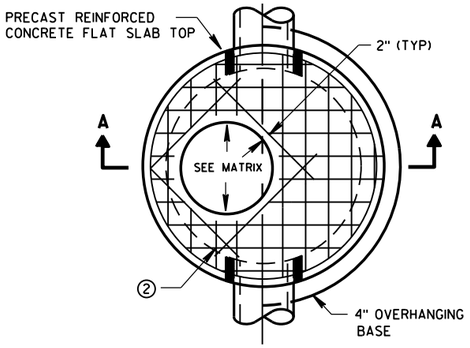
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

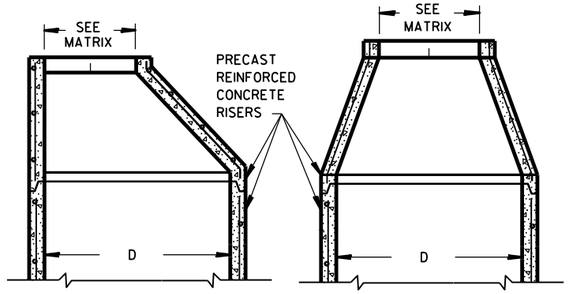
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

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

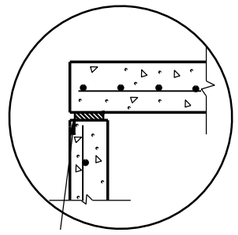


PLAN VIEW CIRCULAR OPENING

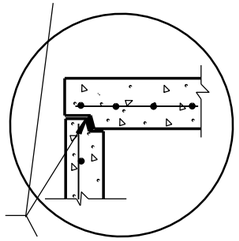


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

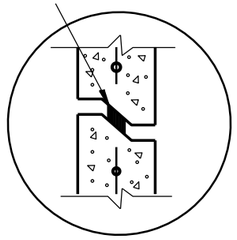


TOP WITH PLAIN END JOINT



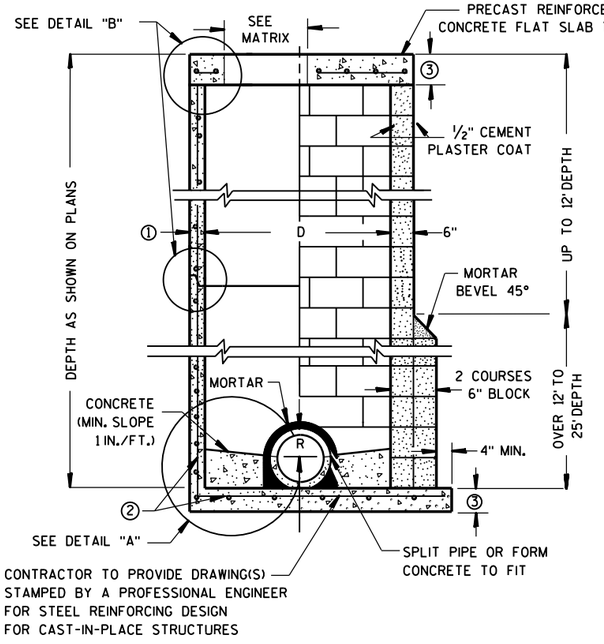
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



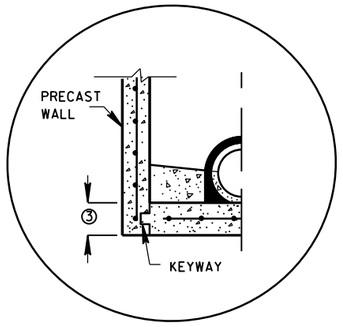
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

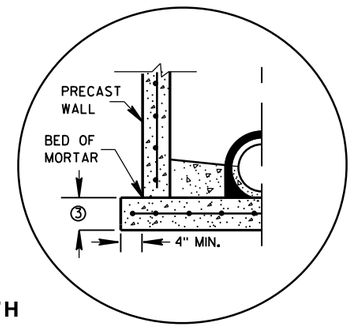


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

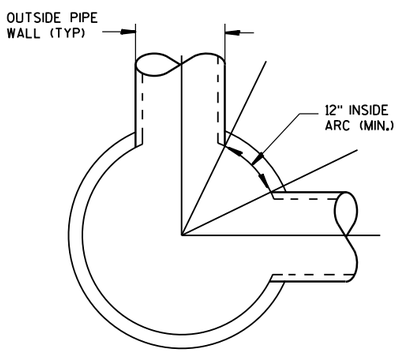


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

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

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

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

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

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

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

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

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

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

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

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

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

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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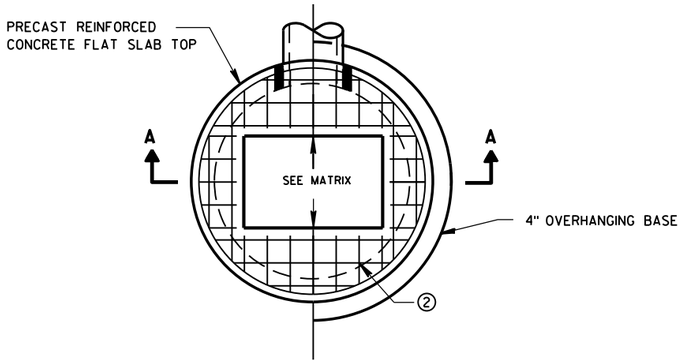
Sept., 2016
DATE

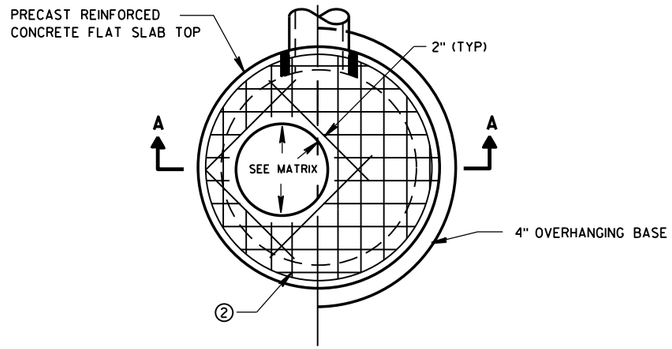
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

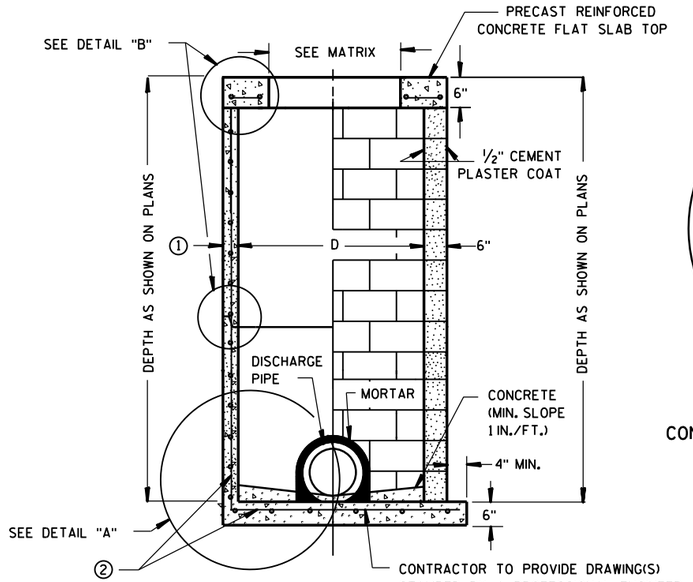
6
S.D.D. 8 B 9-2



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

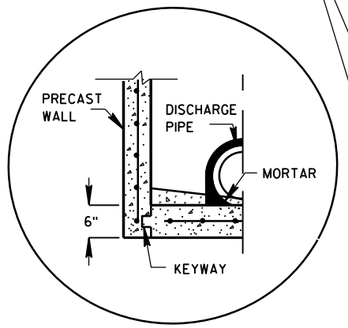


SECTION A-A

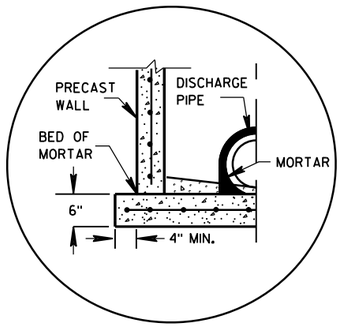
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

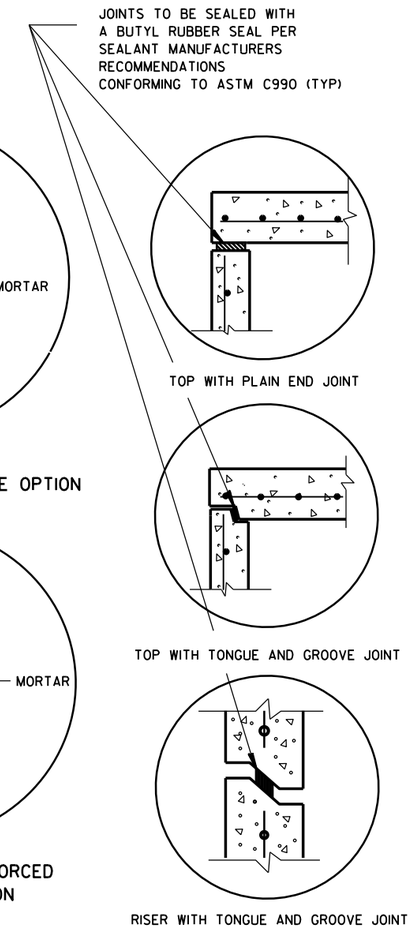


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "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.

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

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF 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.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

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

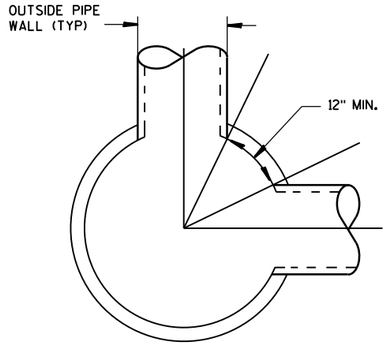
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

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

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

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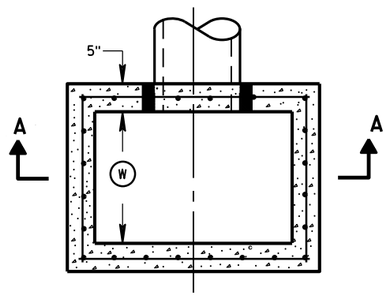
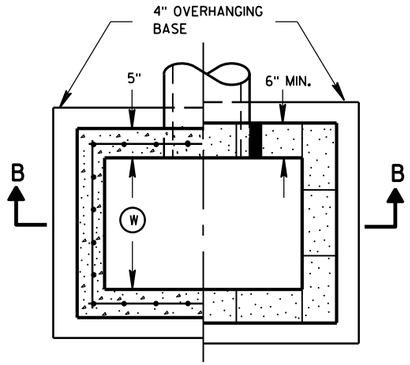
INLETS 3-FT AND 4-FT DIAMETER

6

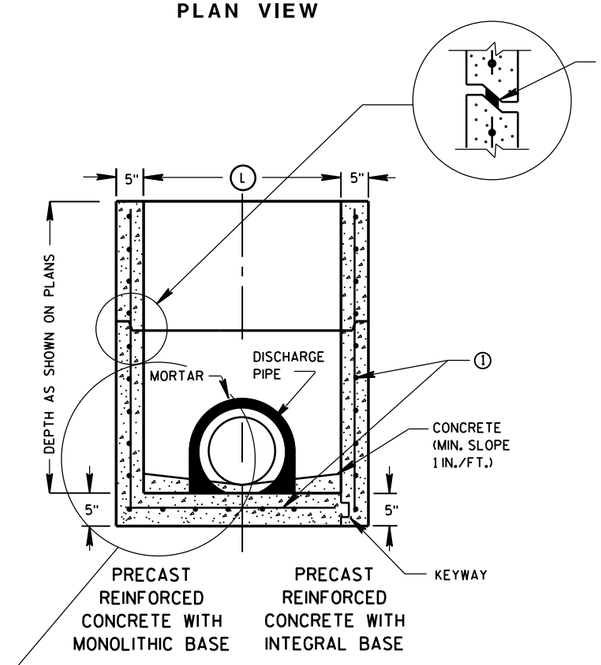
S.D.D. 8 C 6-2



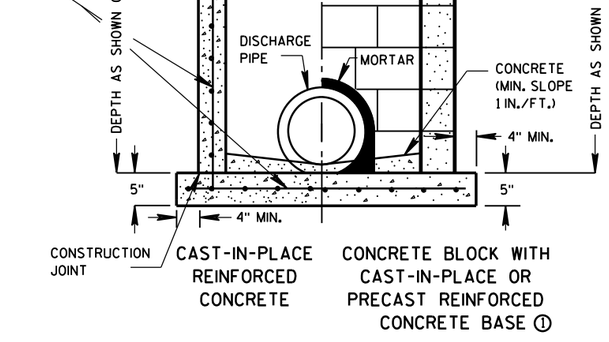
PLAN VIEW



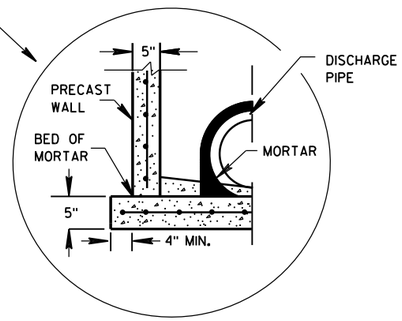
PLAN VIEW



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.

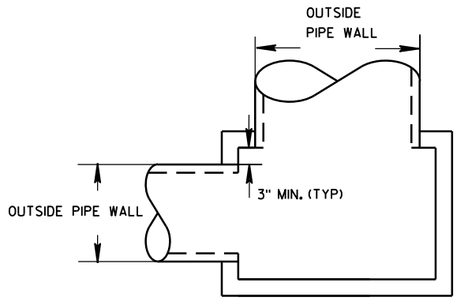
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

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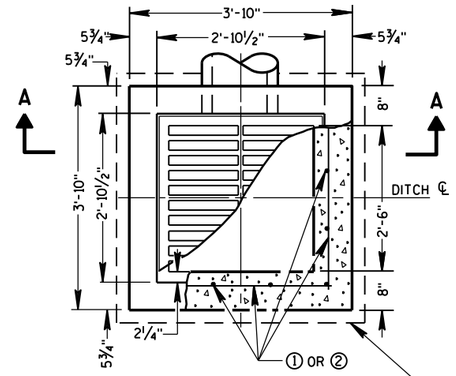
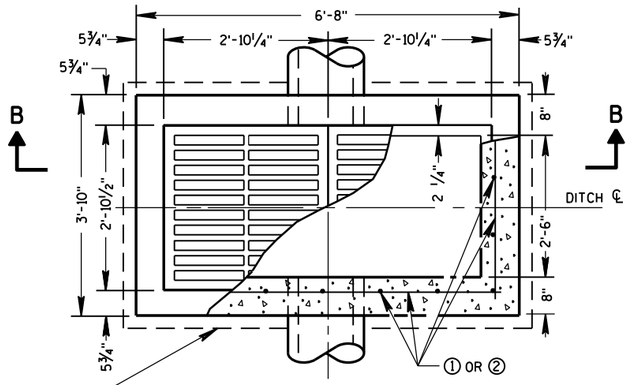
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

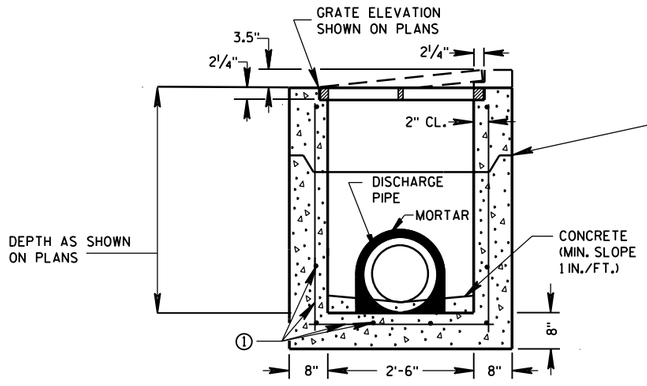


PLAN VIEW

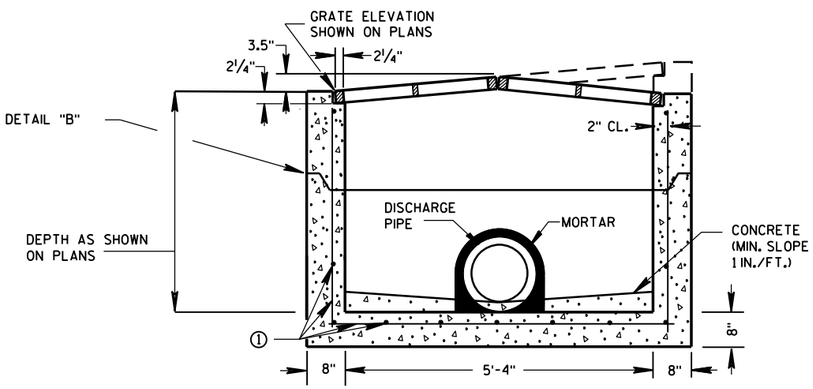


PLAN VIEW

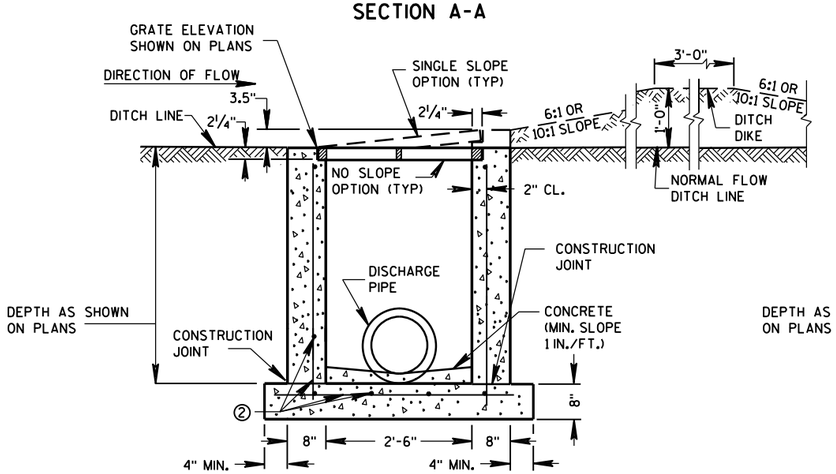
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



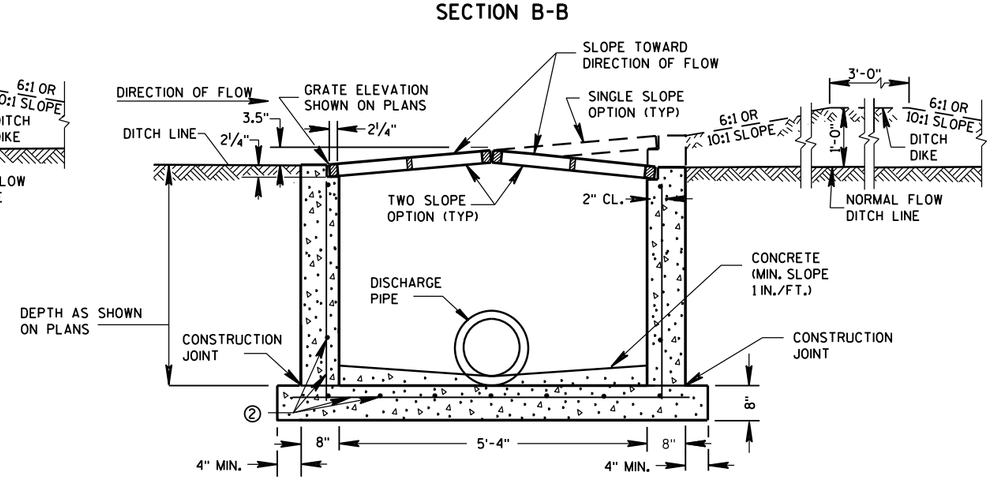
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

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.

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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.

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

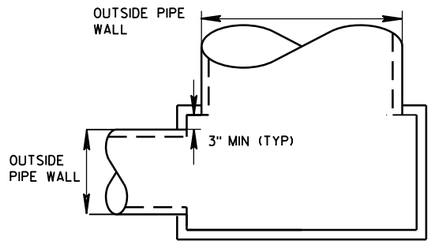
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

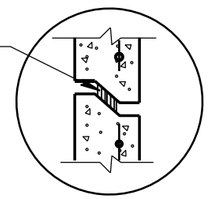
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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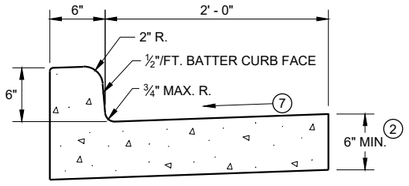
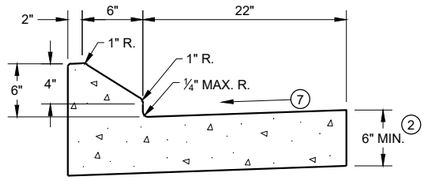
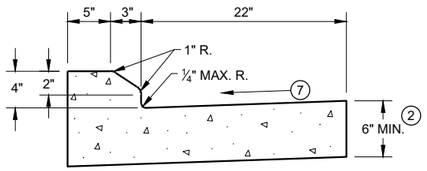


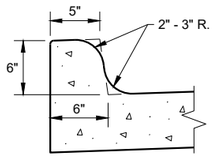
TYPES A (1) & D



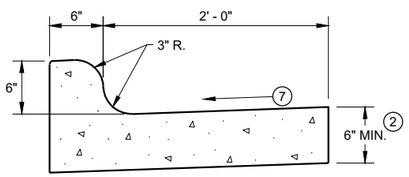
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

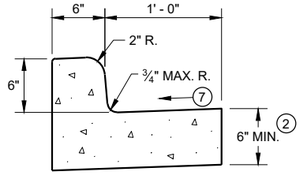


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



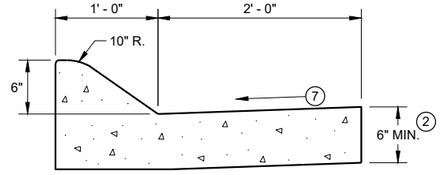
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

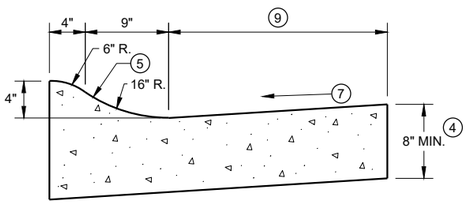
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

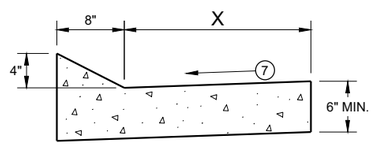
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

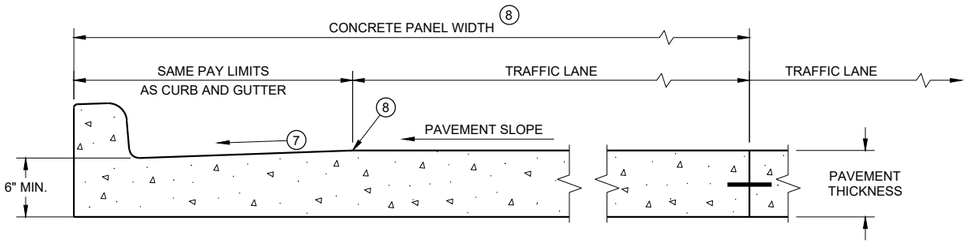


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

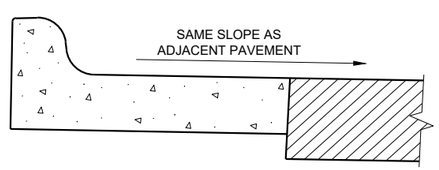
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES 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.

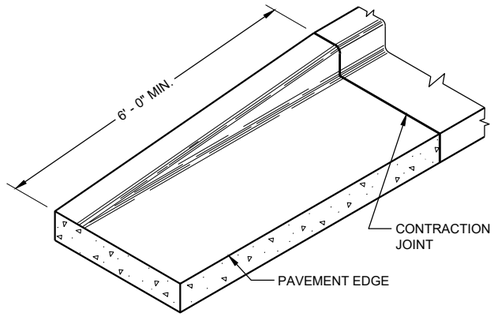
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

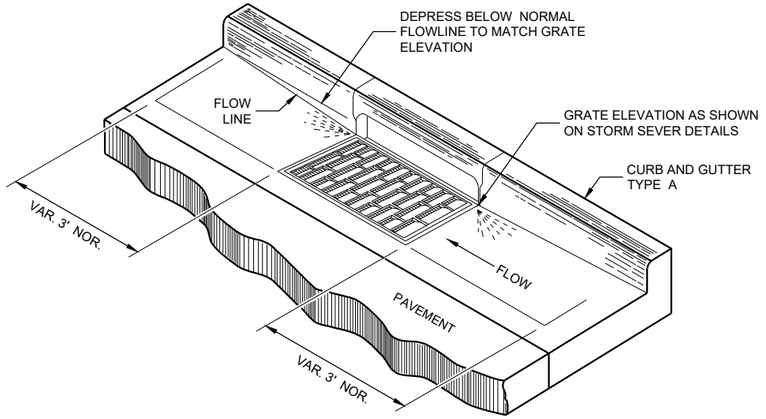
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a



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.

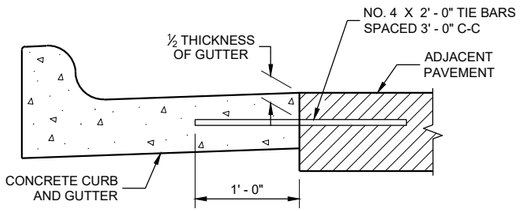
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

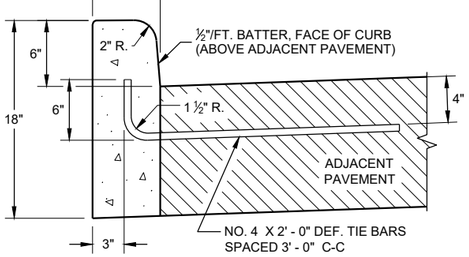
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

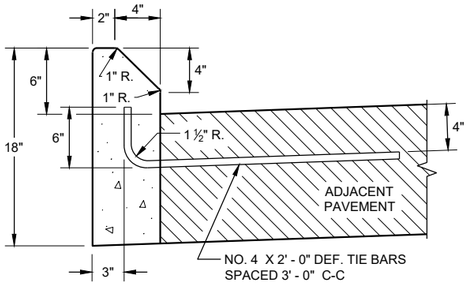
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

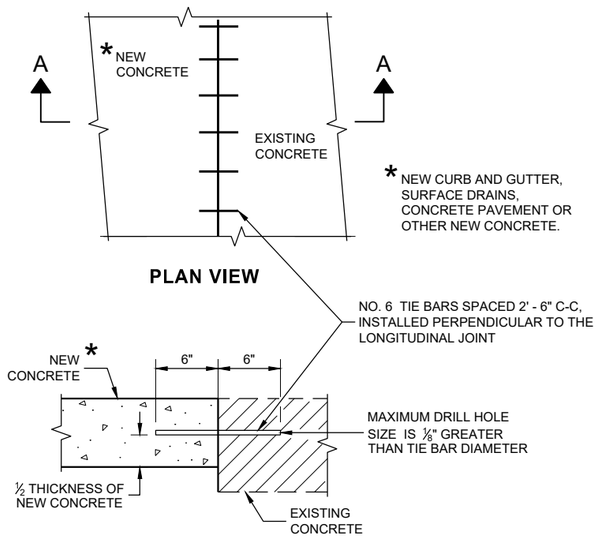


TYPES A (1) & D

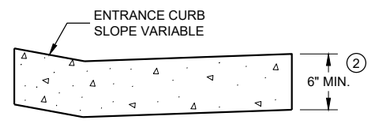


TYPES G (1) & J

CONCRETE CURB



TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

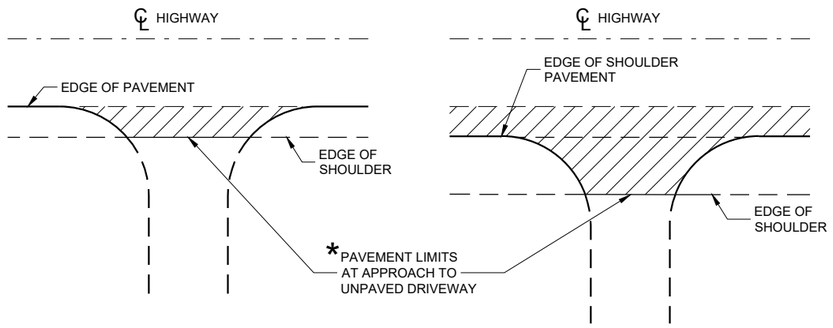
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

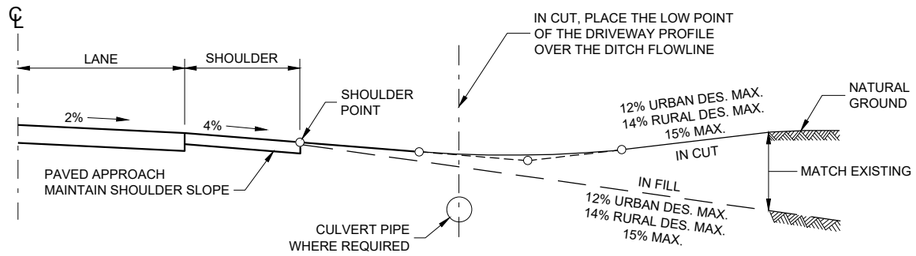
SDD08D01 - 22b



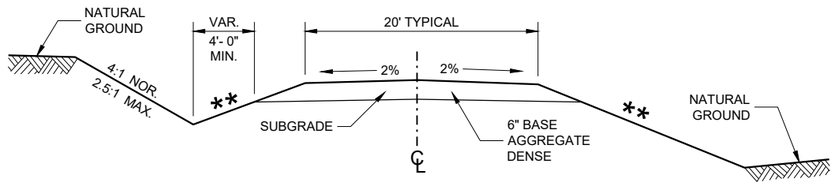
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

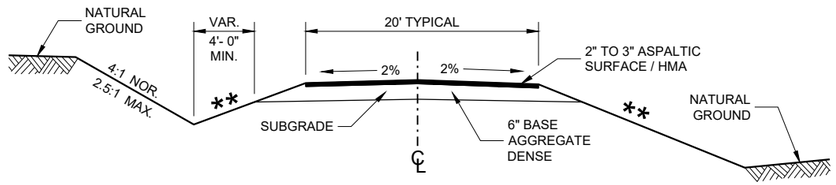


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

SDD 08D21 - 01

SDD 08D21 - 01

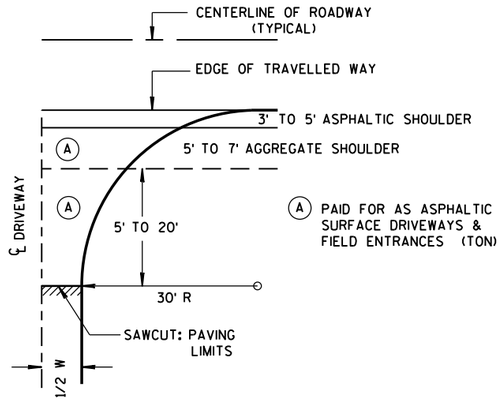
DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017
DATE

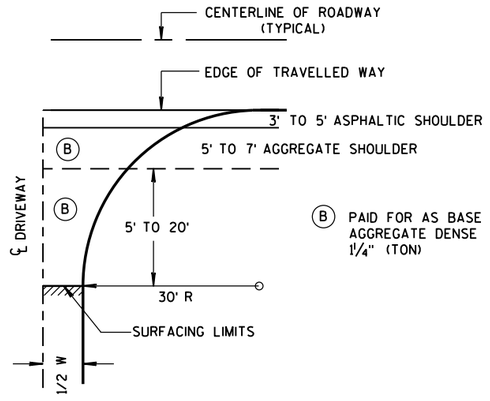
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA



PLAN VIEW
HALF SECTION

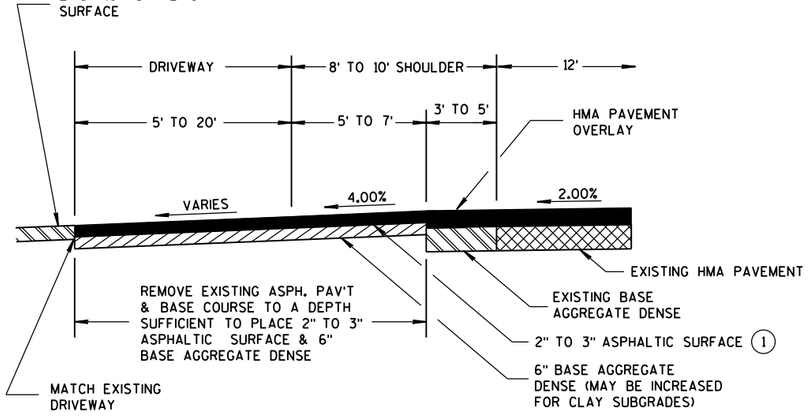
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

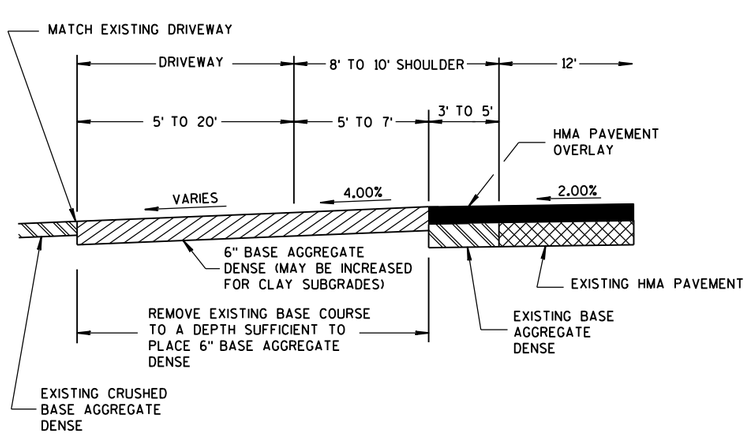
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 D 22-1

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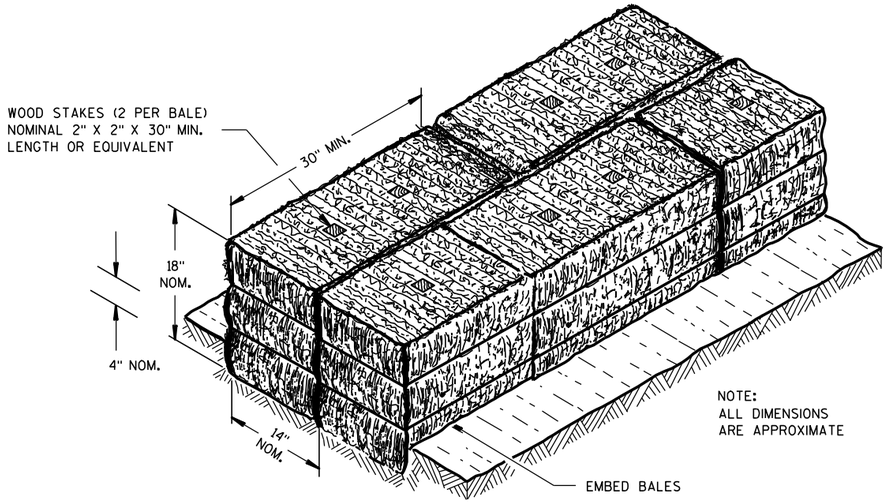
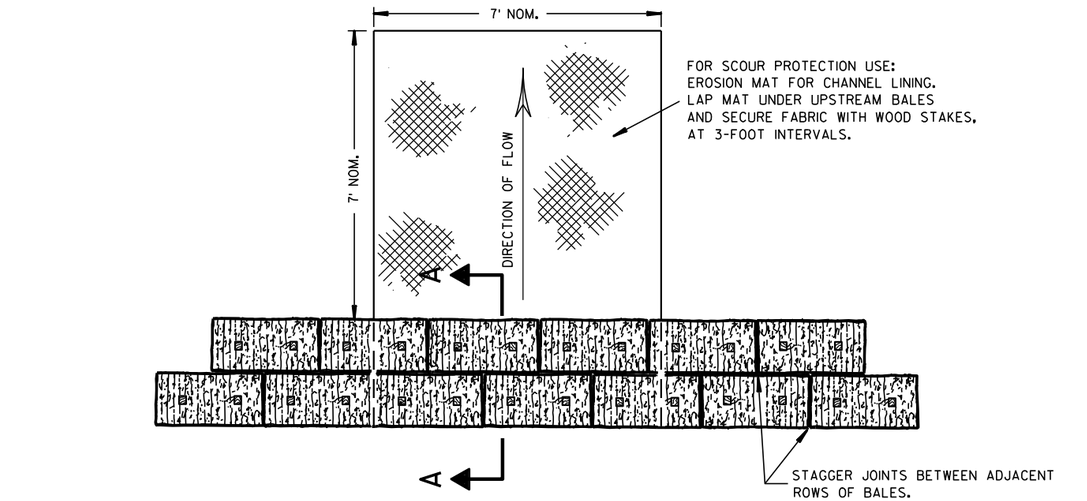
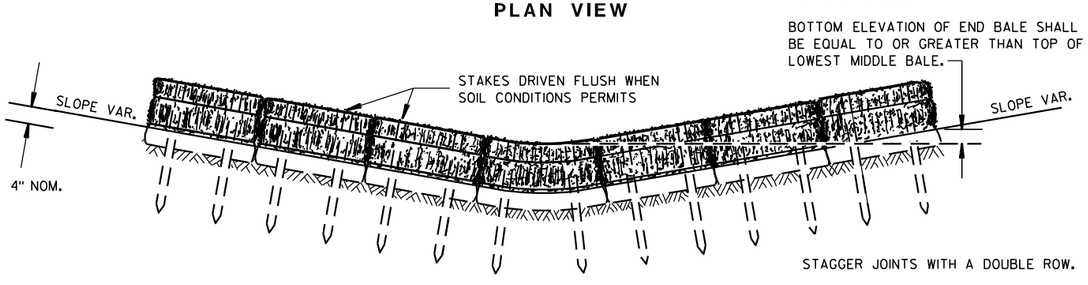
S.D.D. 8 D 22-1



SECTION A-A



PLAN VIEW



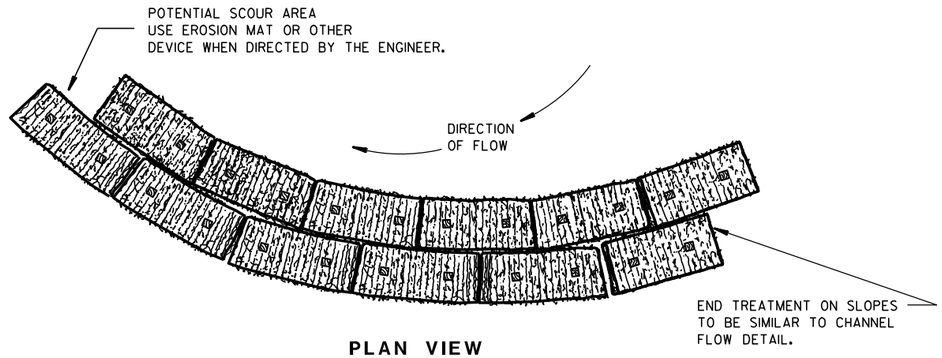
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

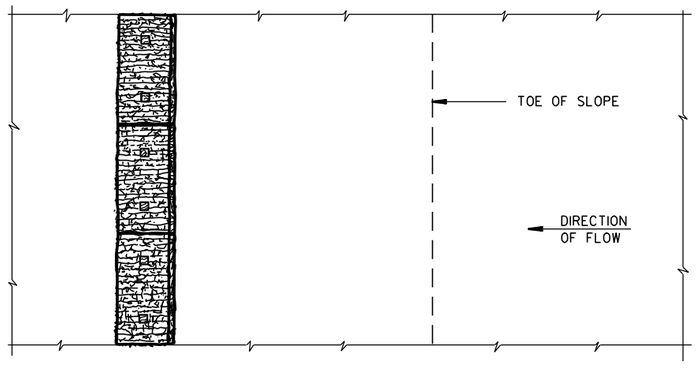
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

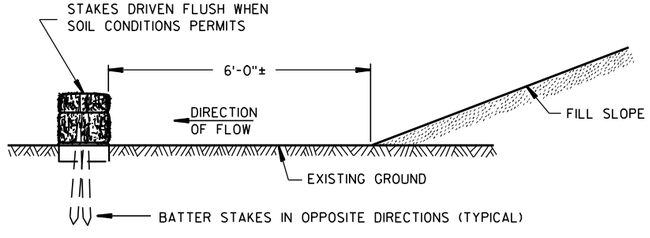


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

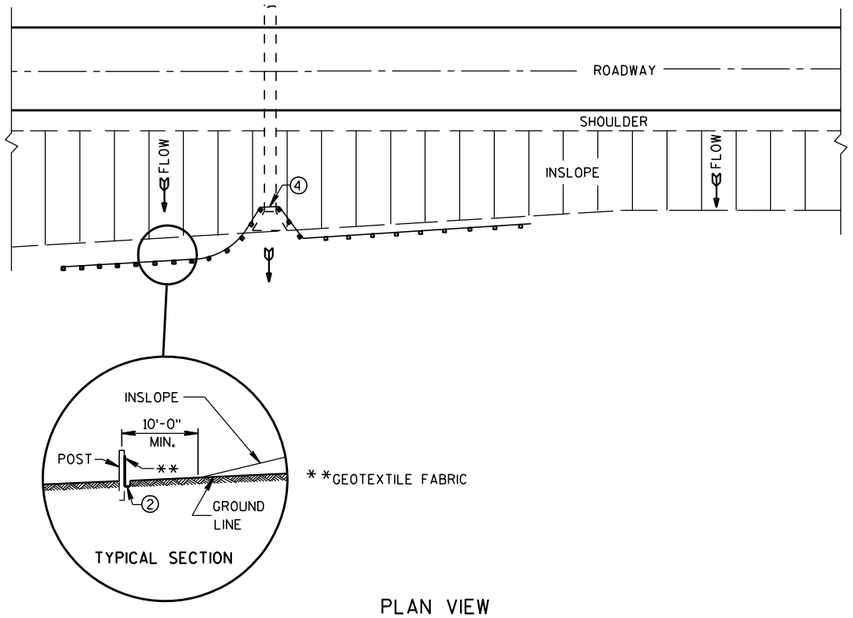
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

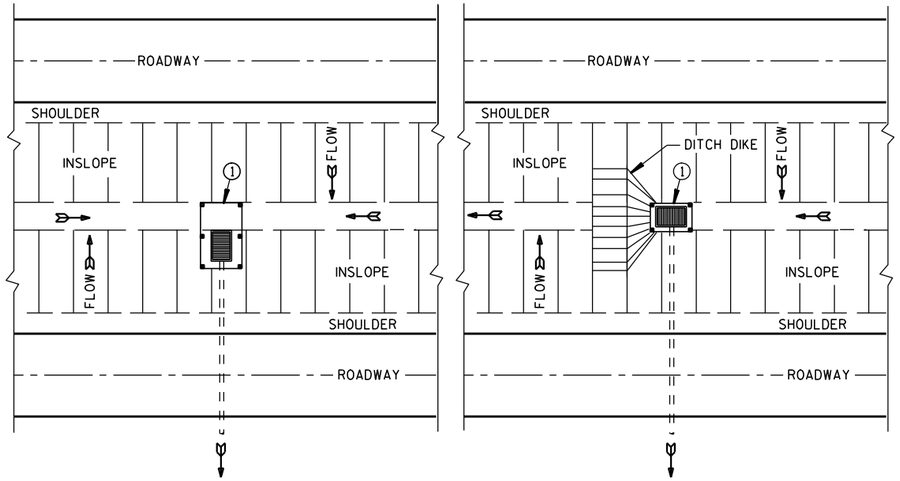
6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



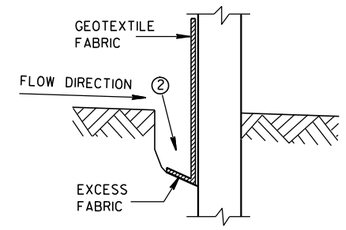
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

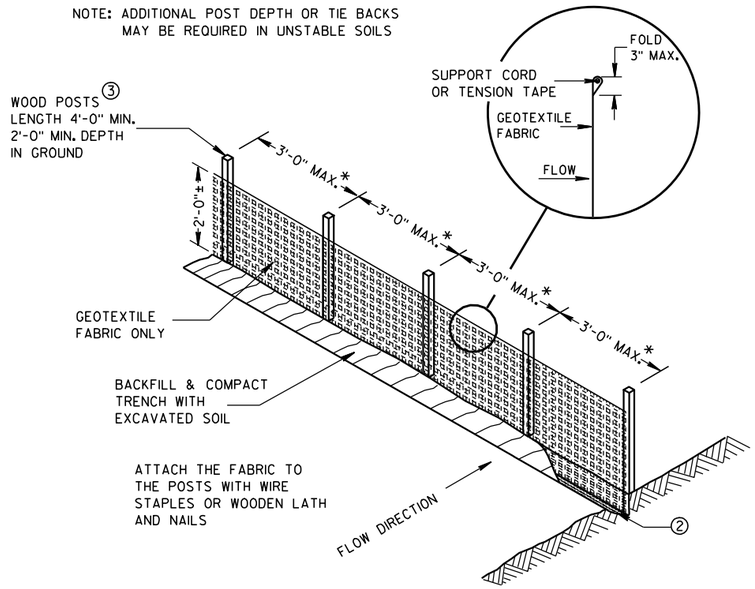
GENERAL NOTES

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

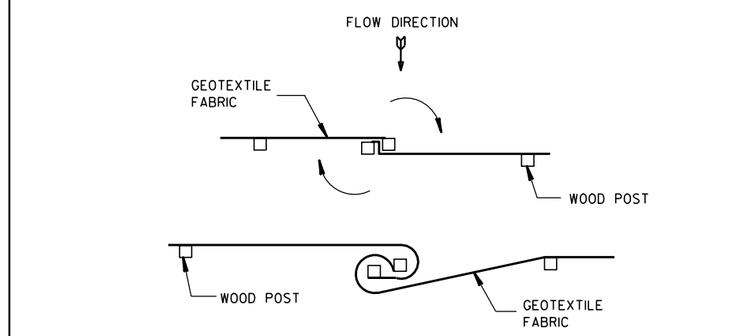
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



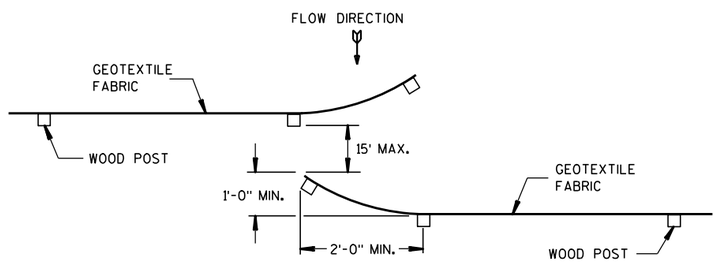
TRENCH DETAIL



SILT FENCE

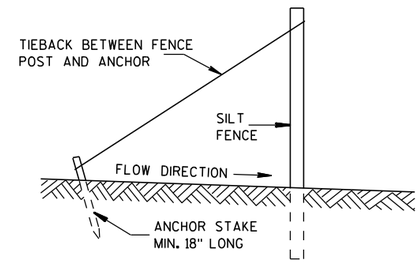


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

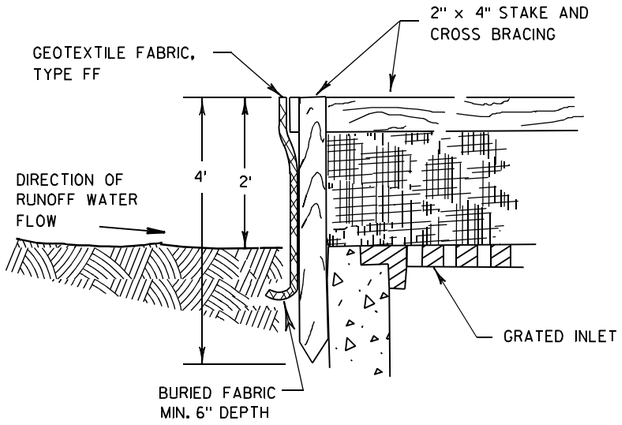
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

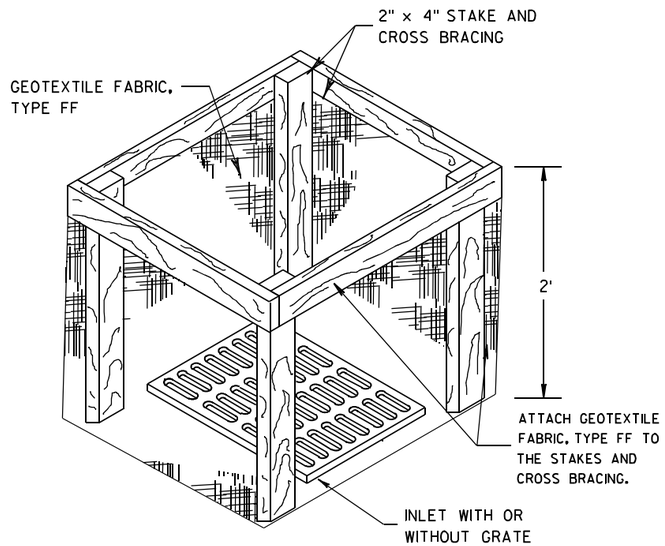
6

S.D.D. 8 E 9-6

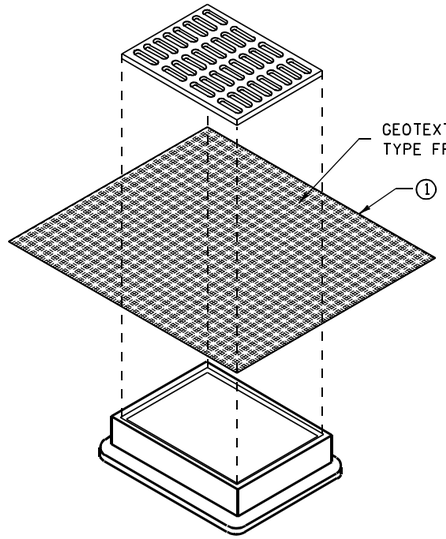
6

S.D.D. 8 E 9-6



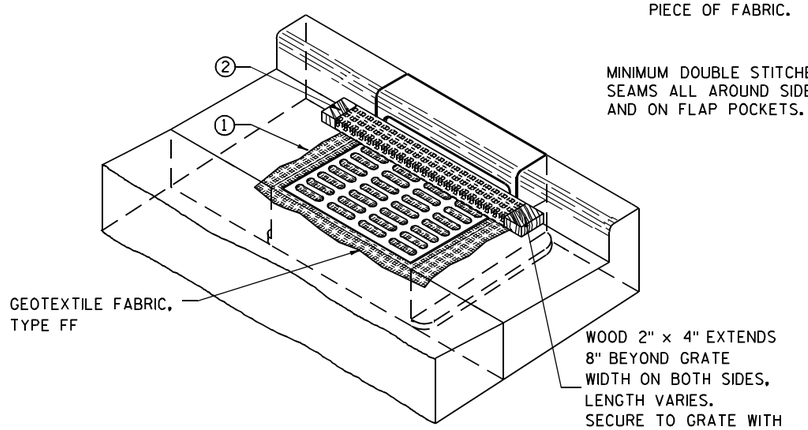


INLET PROTECTION, TYPE A

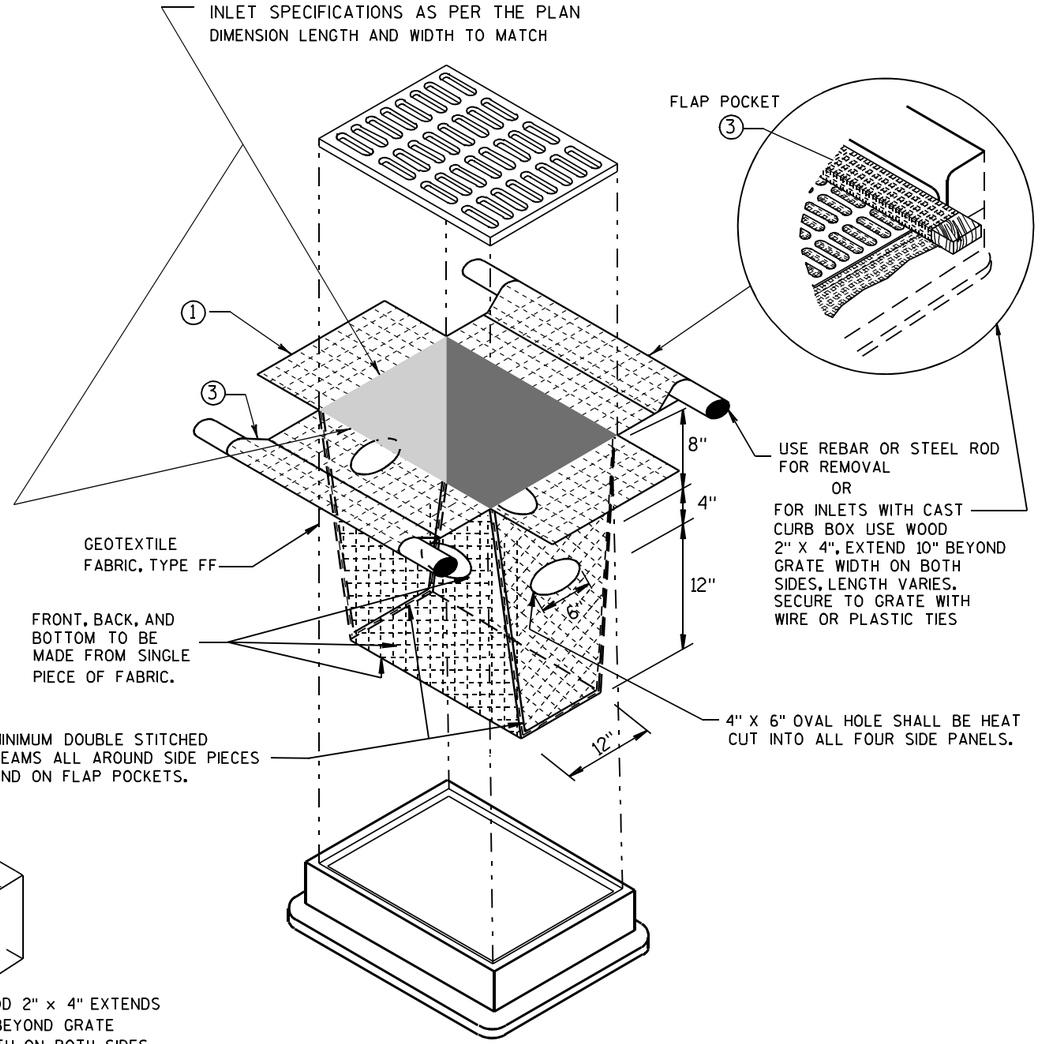


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2

METAL APRON ENDWALLS

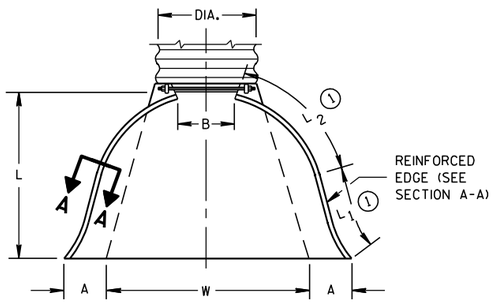
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

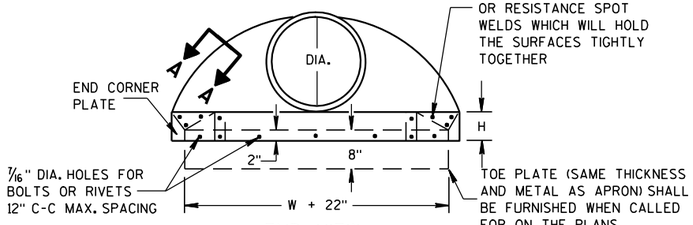
REINFORCED CONCRETE APRON ENDWALLS

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

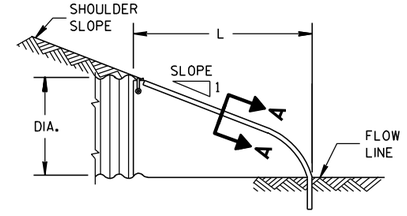
*MINIMUM
**MAXIMUM



PLAN VIEW

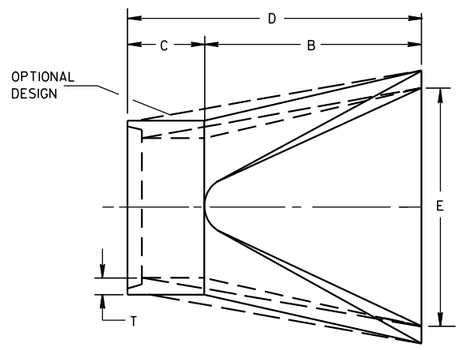


END VIEW

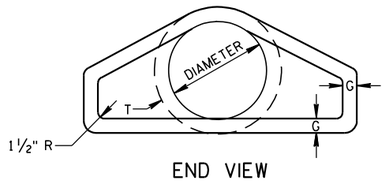


SIDE ELEVATION

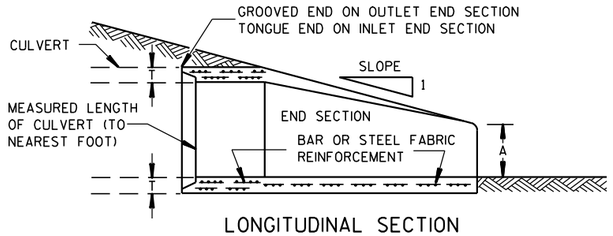
METAL ENDWALLS



PLAN

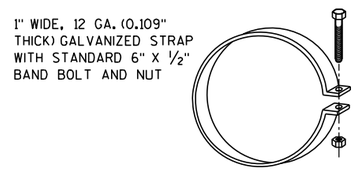


END VIEW



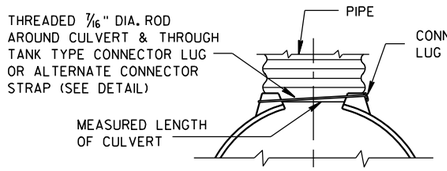
LONGITUDINAL SECTION

CONCRETE ENDWALLS

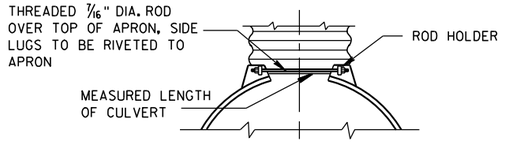


ALTERNATE FOR TYPE 1 CONNECTION

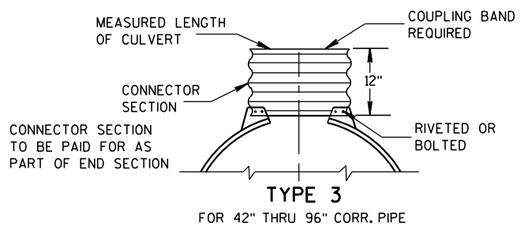
END SECTION CONNECTOR STRAP



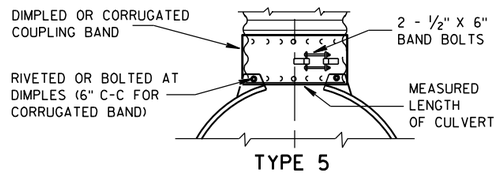
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

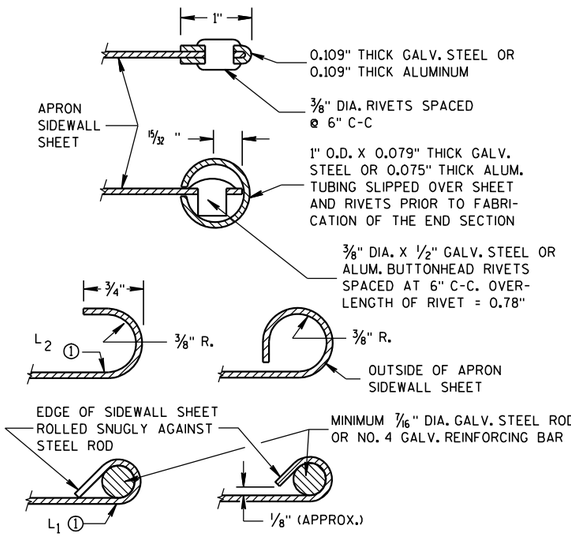
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

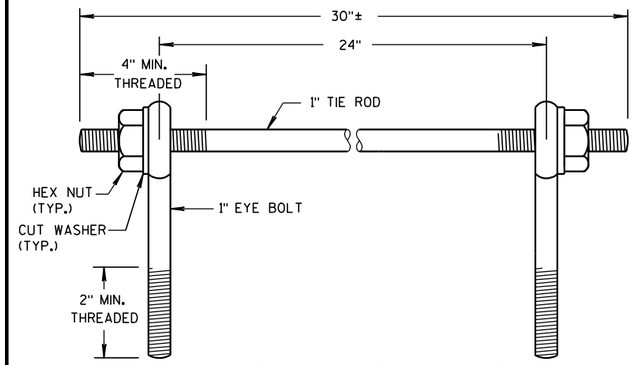
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

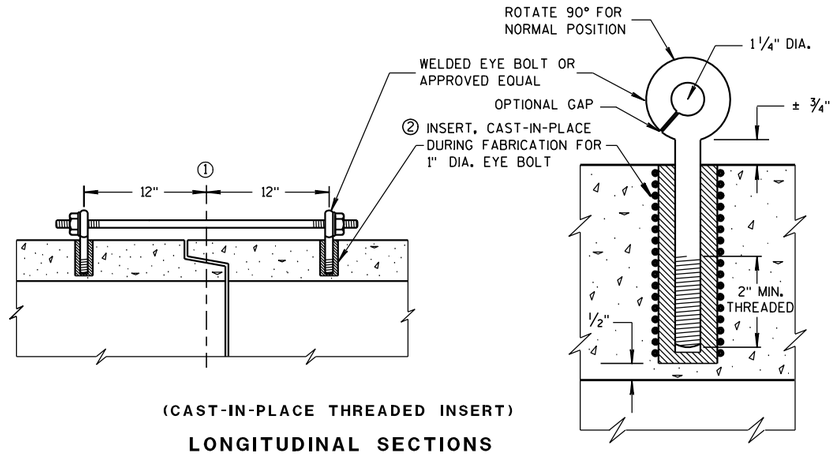
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

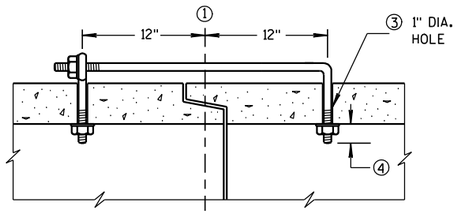
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

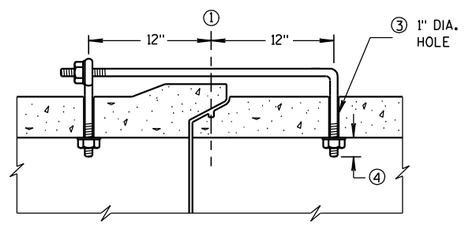
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

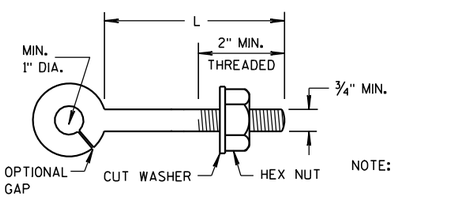


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

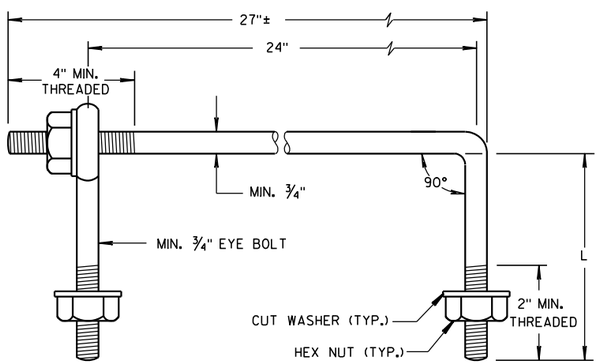
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

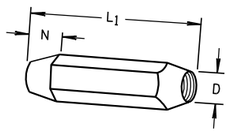
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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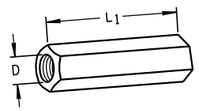
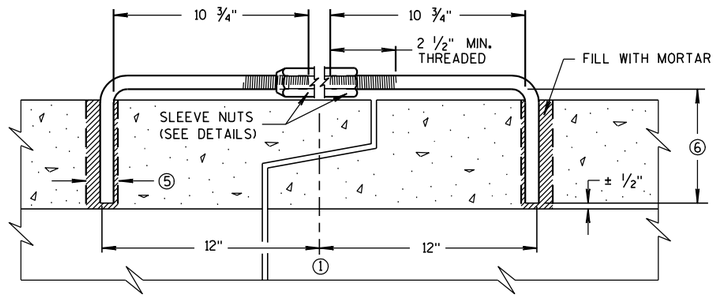


PLAIN

RIGHT AND LEFT THREADS

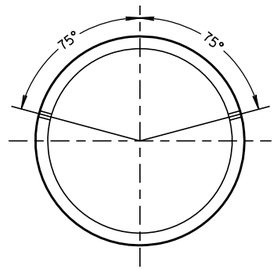
SLEEVE NUTS



LONGITUDINAL SECTION

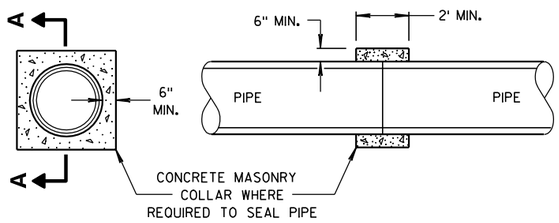
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
62
FHWA

6

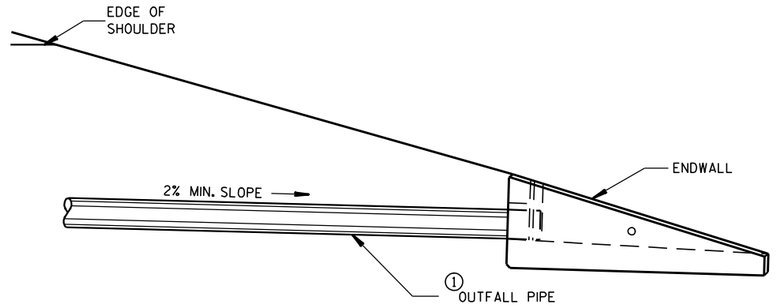
S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

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

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



INSTALLATION DETAIL

GENERAL NOTES

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

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

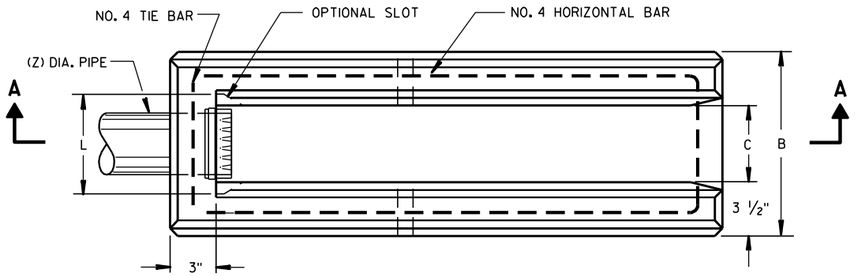
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

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

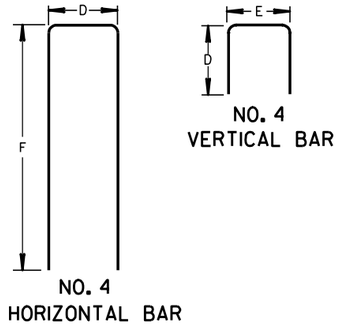
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE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

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

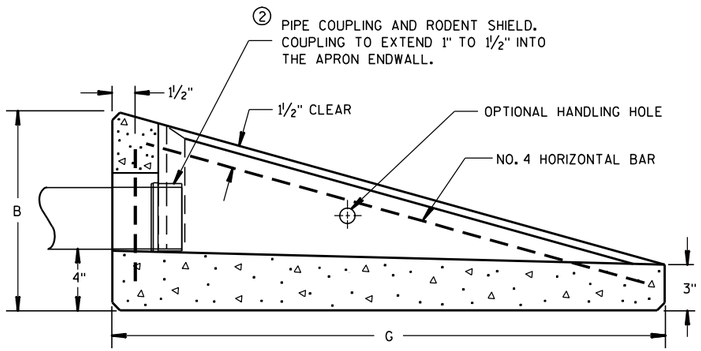
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL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



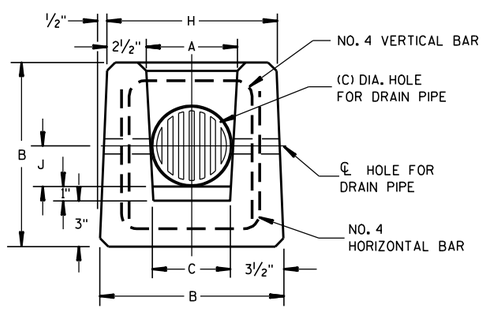
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

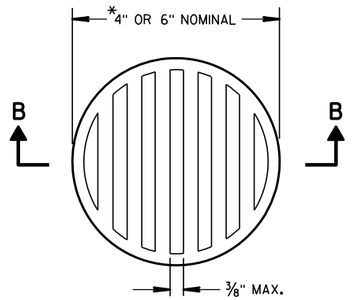


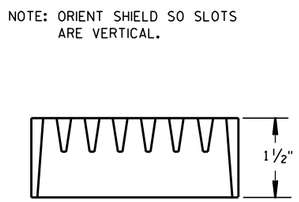
SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN





SECTION B-B

② RODENT SHIELD

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

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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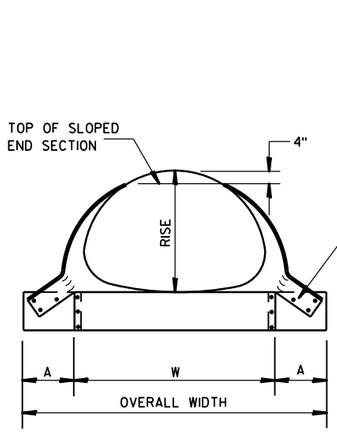
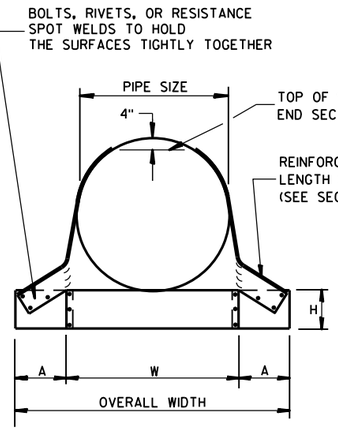
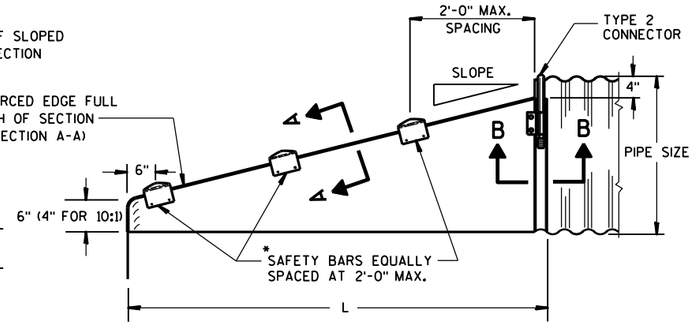
S.D.D. 8 F 6-4



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

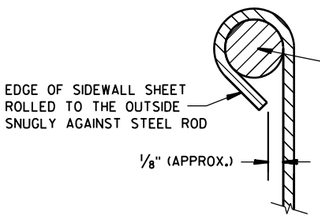
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

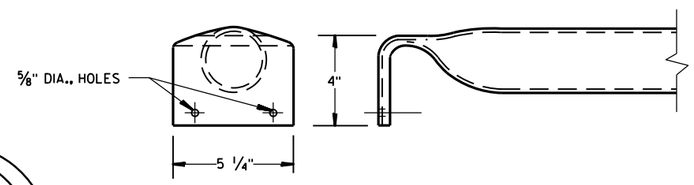
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

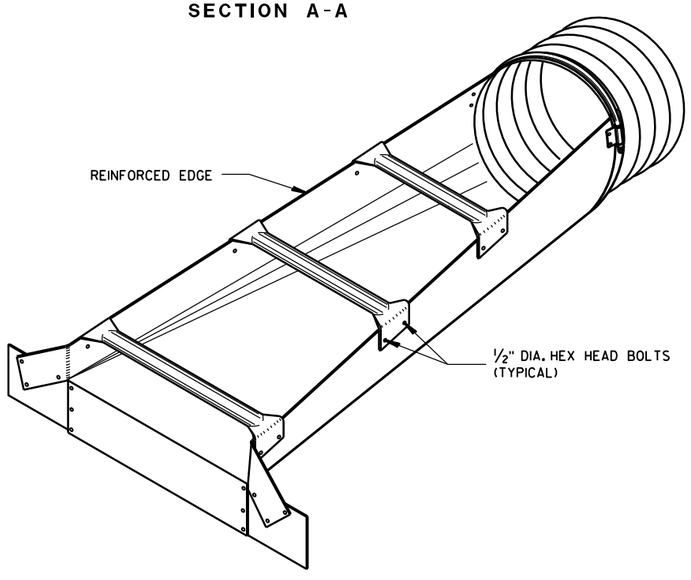


DETAIL OF SAFETY BAR

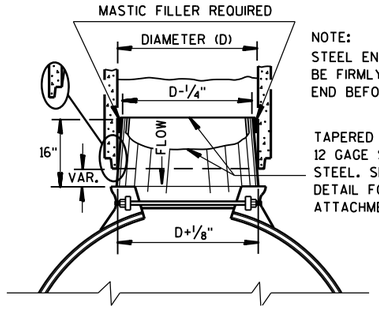
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

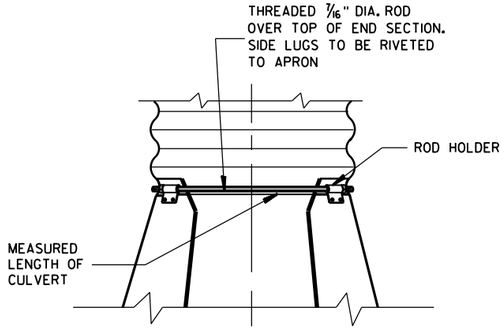
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



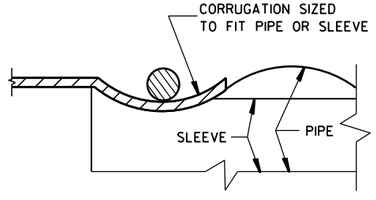
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 F 7-5

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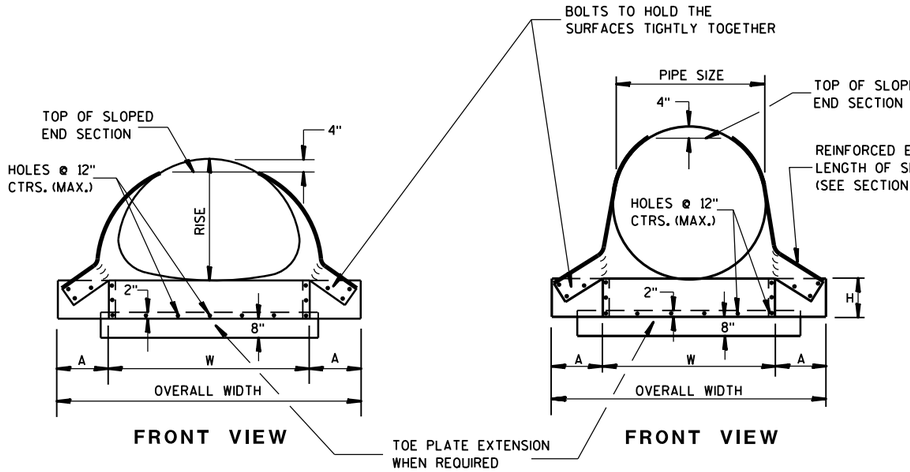
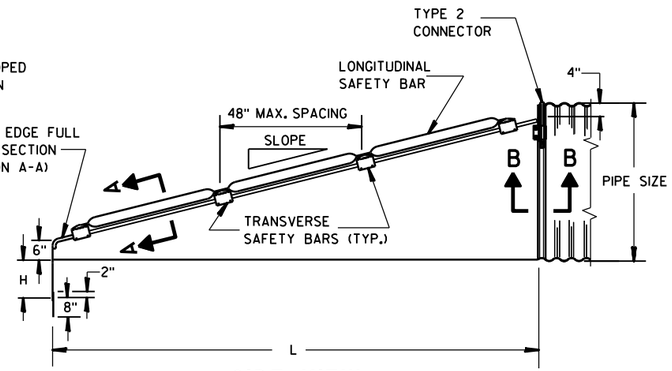
S.D.D. 8 F 7-5



FRONT VIEW

FRONT VIEW



SIDE VIEW
(48" SIZE ILLUSTRATED)

GENERAL NOTES

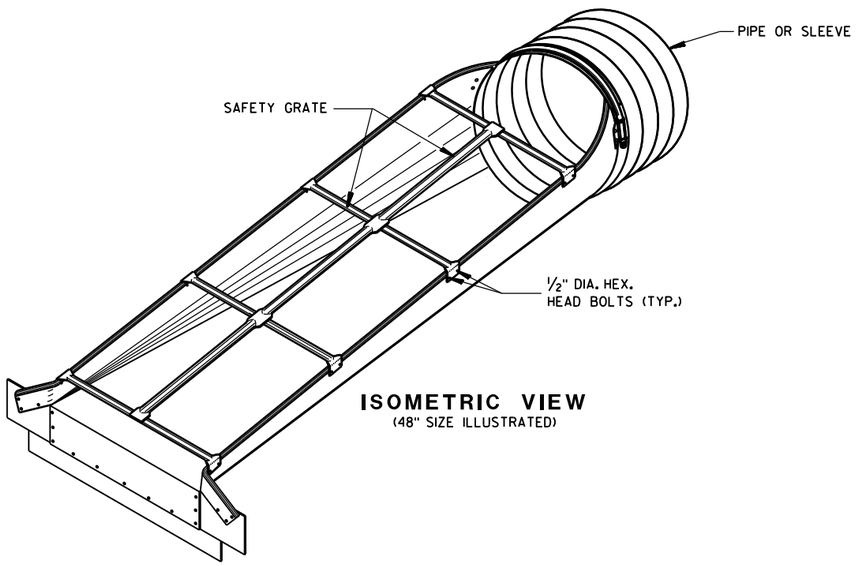
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

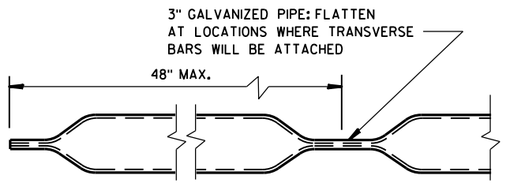
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS

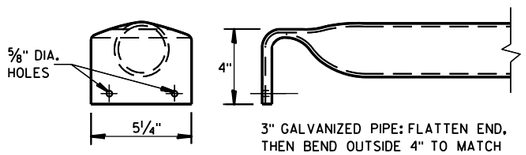
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300



ISOMETRIC VIEW
(48" SIZE ILLUSTRATED)



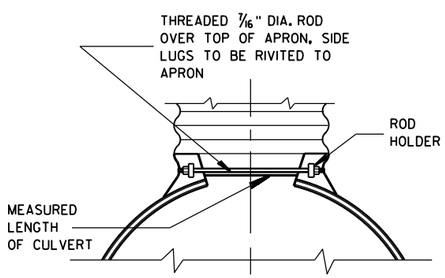
LONGITUDINAL SAFETY BAR



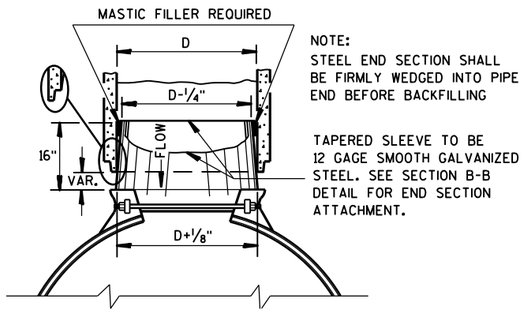
TRANSVERSE SAFETY BAR

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

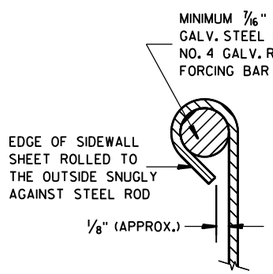
EQUIV. DIA. (IN.)	INCHES		MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	SPAN	RISE	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



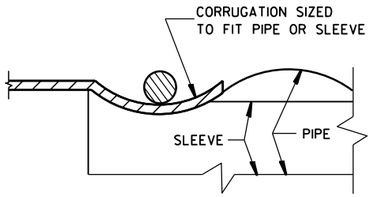
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



SECTION B-B

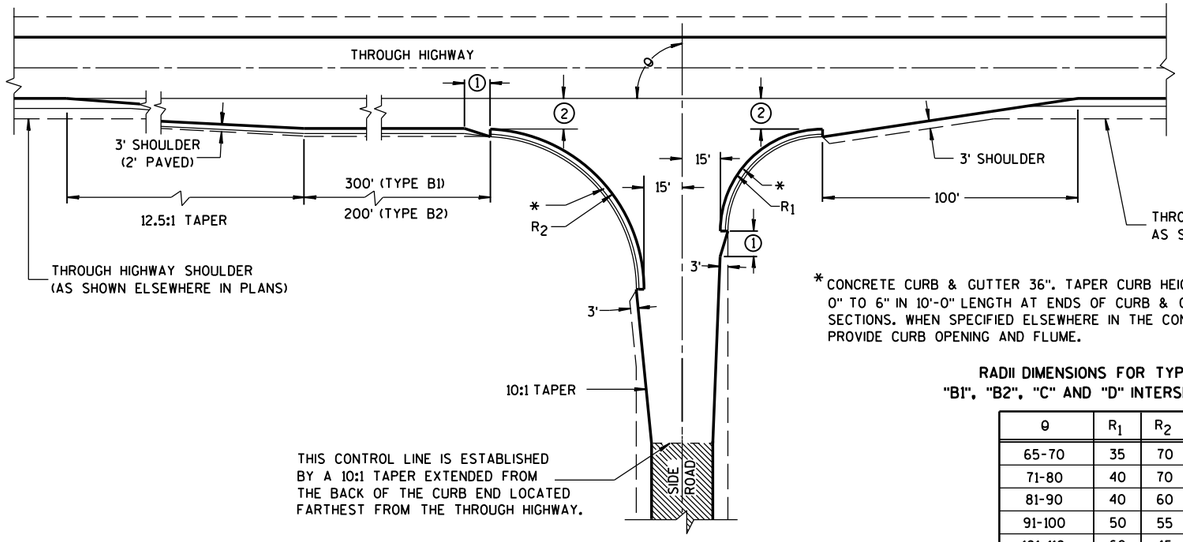
STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 8-2

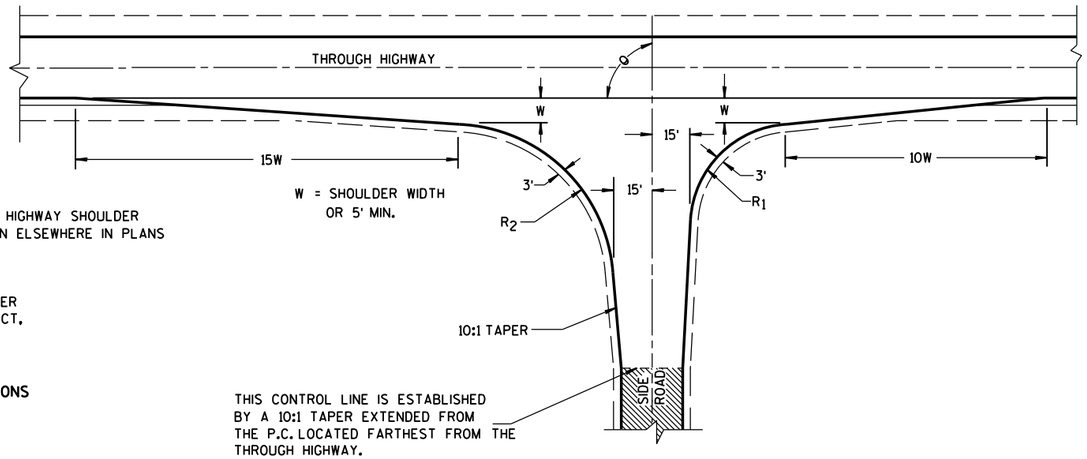


TYPE "B1" AND "B2"

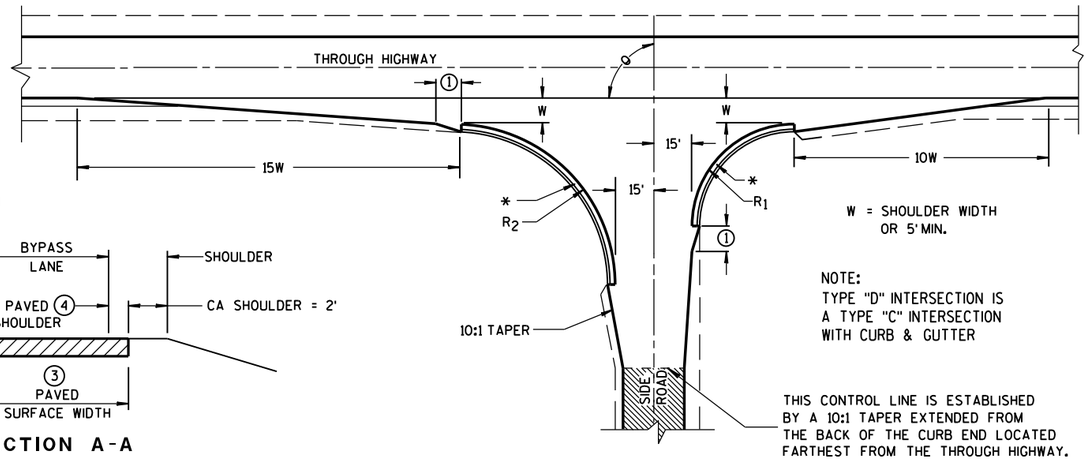
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

(1) 10-FT TYPICAL.

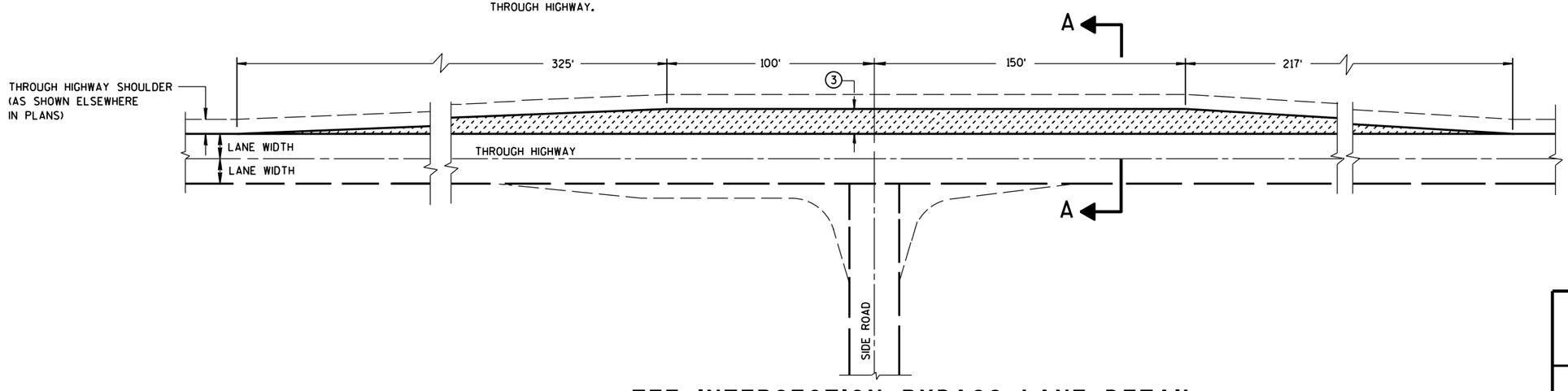
(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

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

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

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

SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



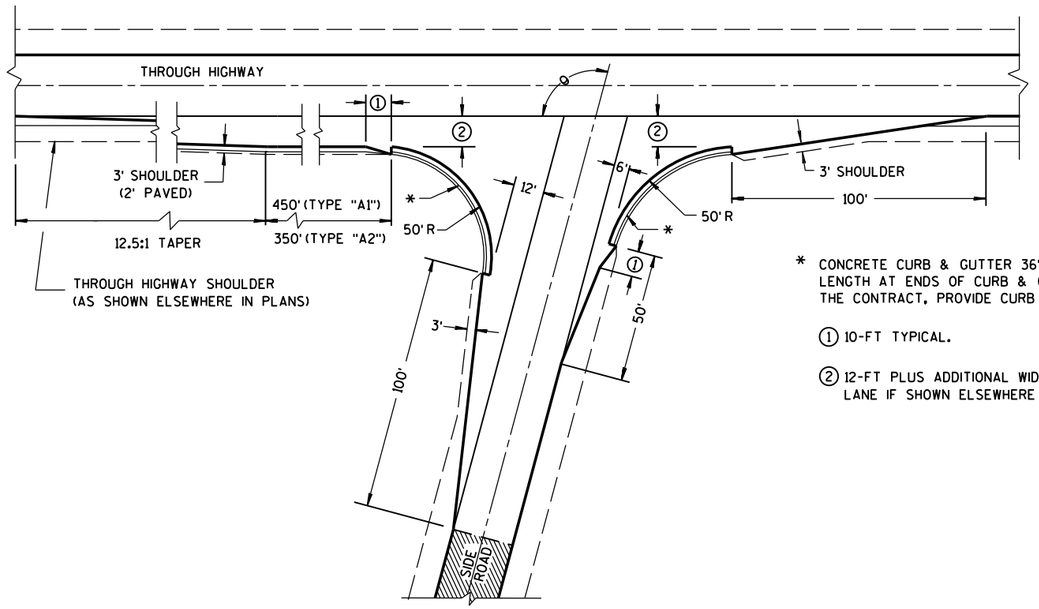
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



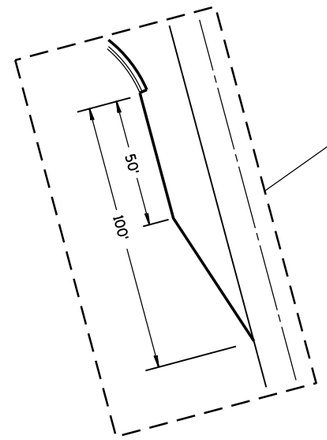
θ = MORE THAN 80°

* 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.

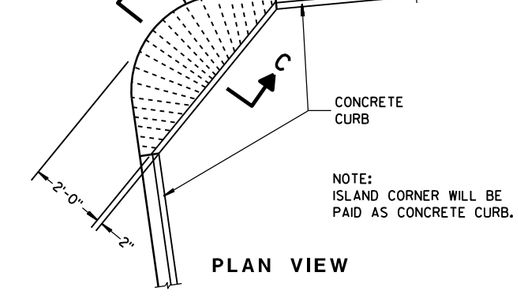
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE



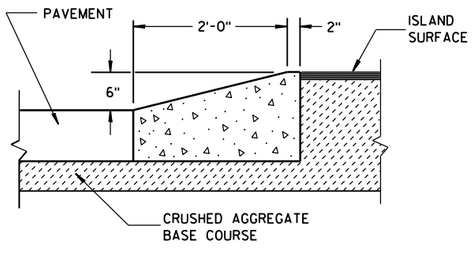
θ = ACUTE ANGLES 80° OR LESS

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



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

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

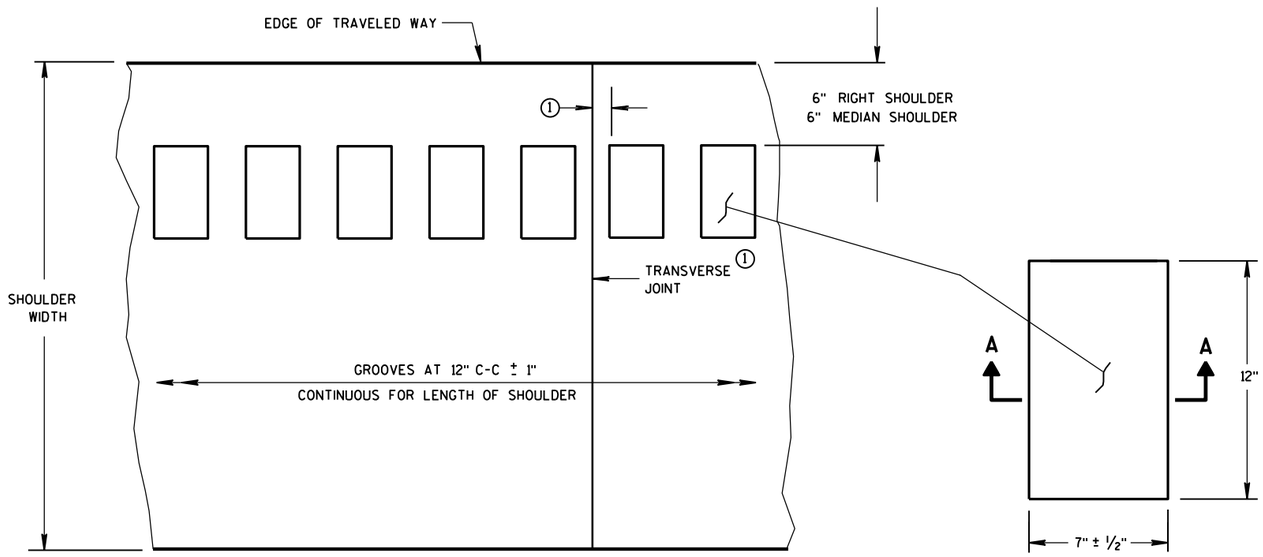
AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

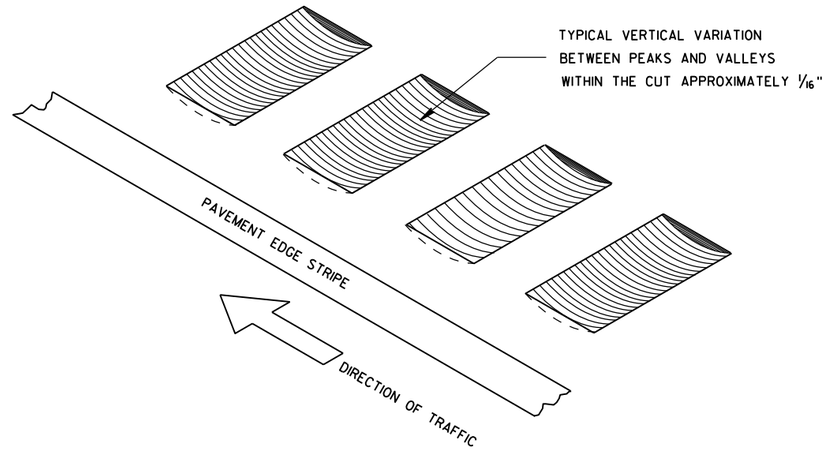
GENERAL NOTES

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

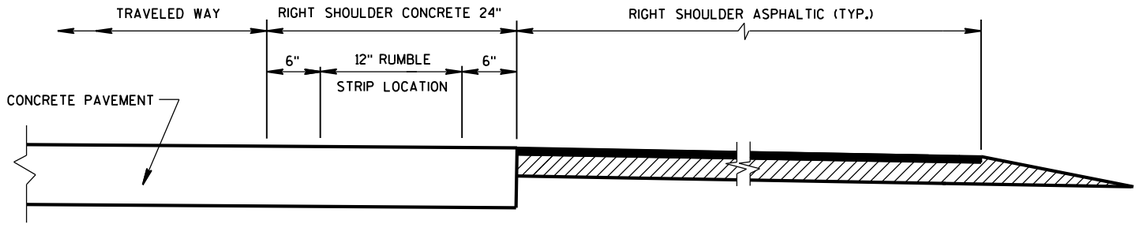
RUMBLE STRIPS ON EXPRESSWAYS

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

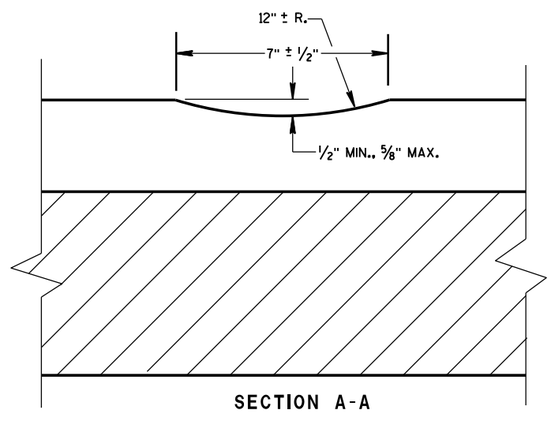
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



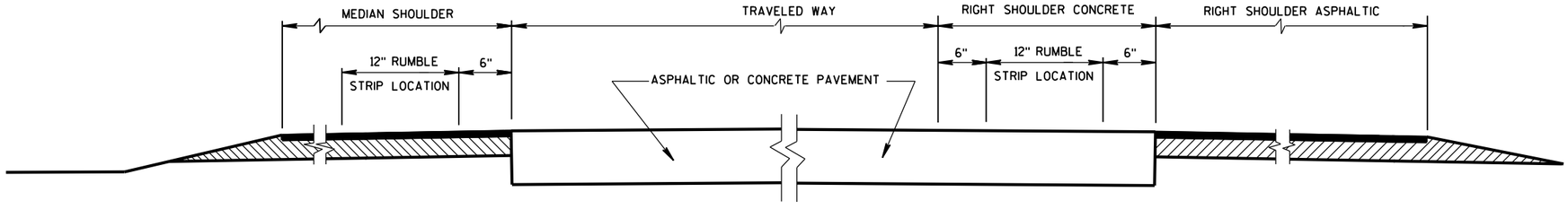
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

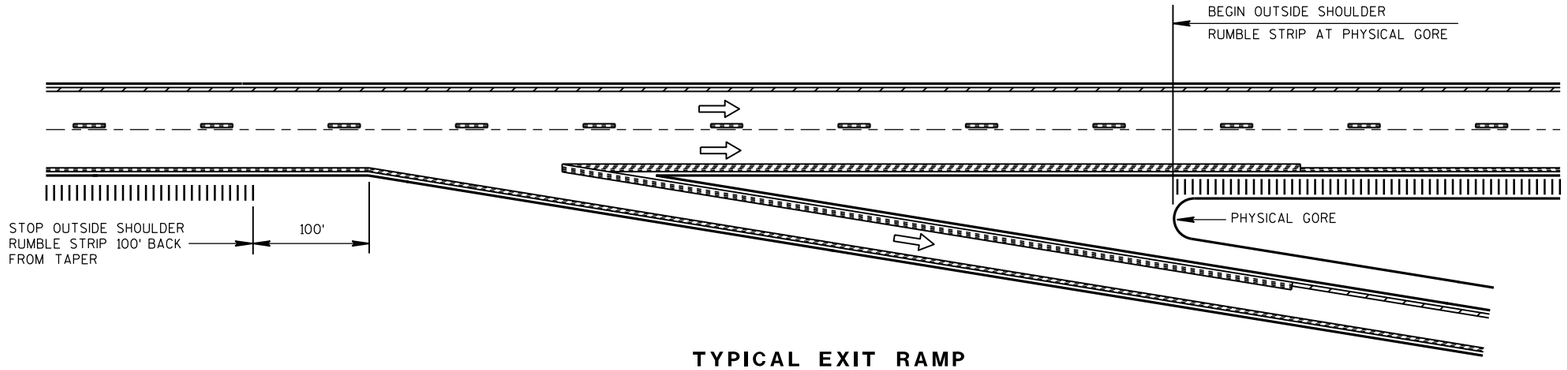
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

6

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



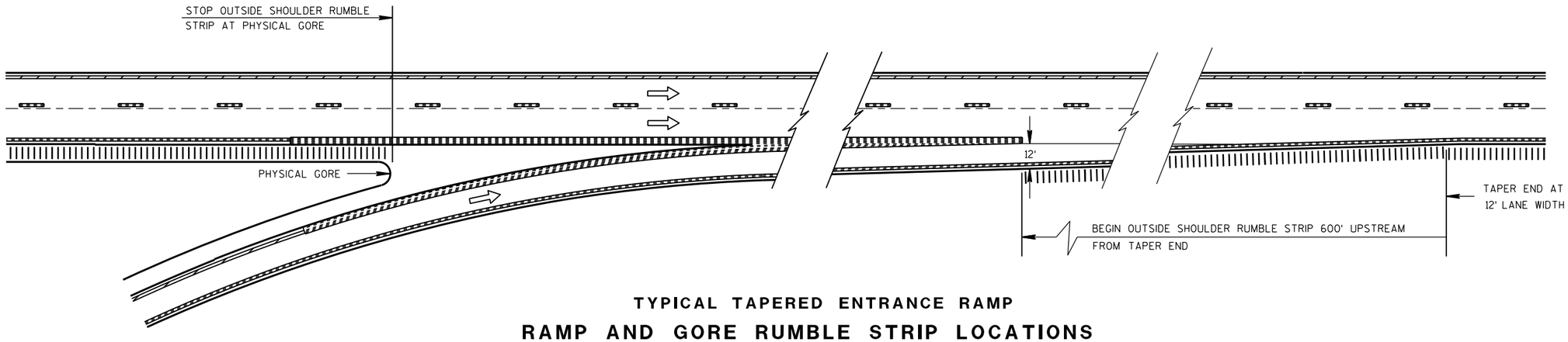
TYPICAL EXIT RAMP

NOTES:

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

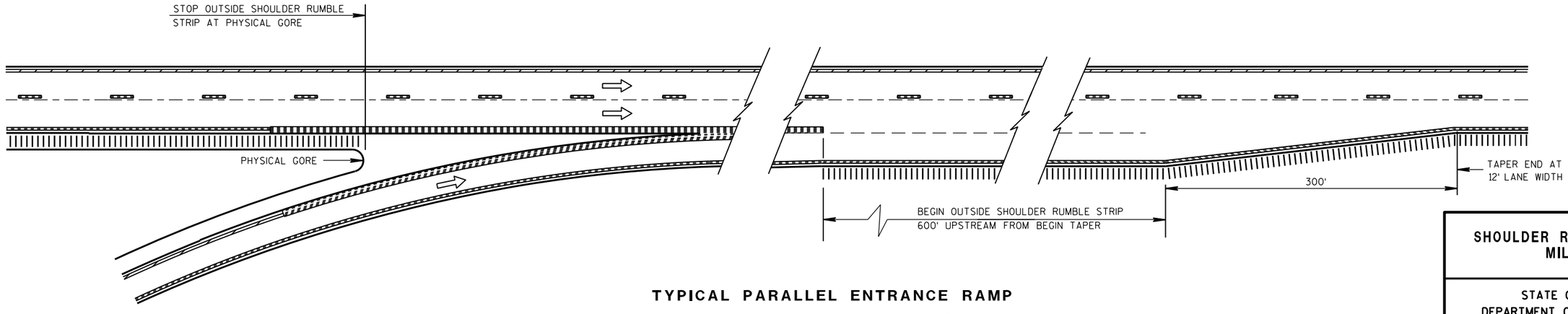
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

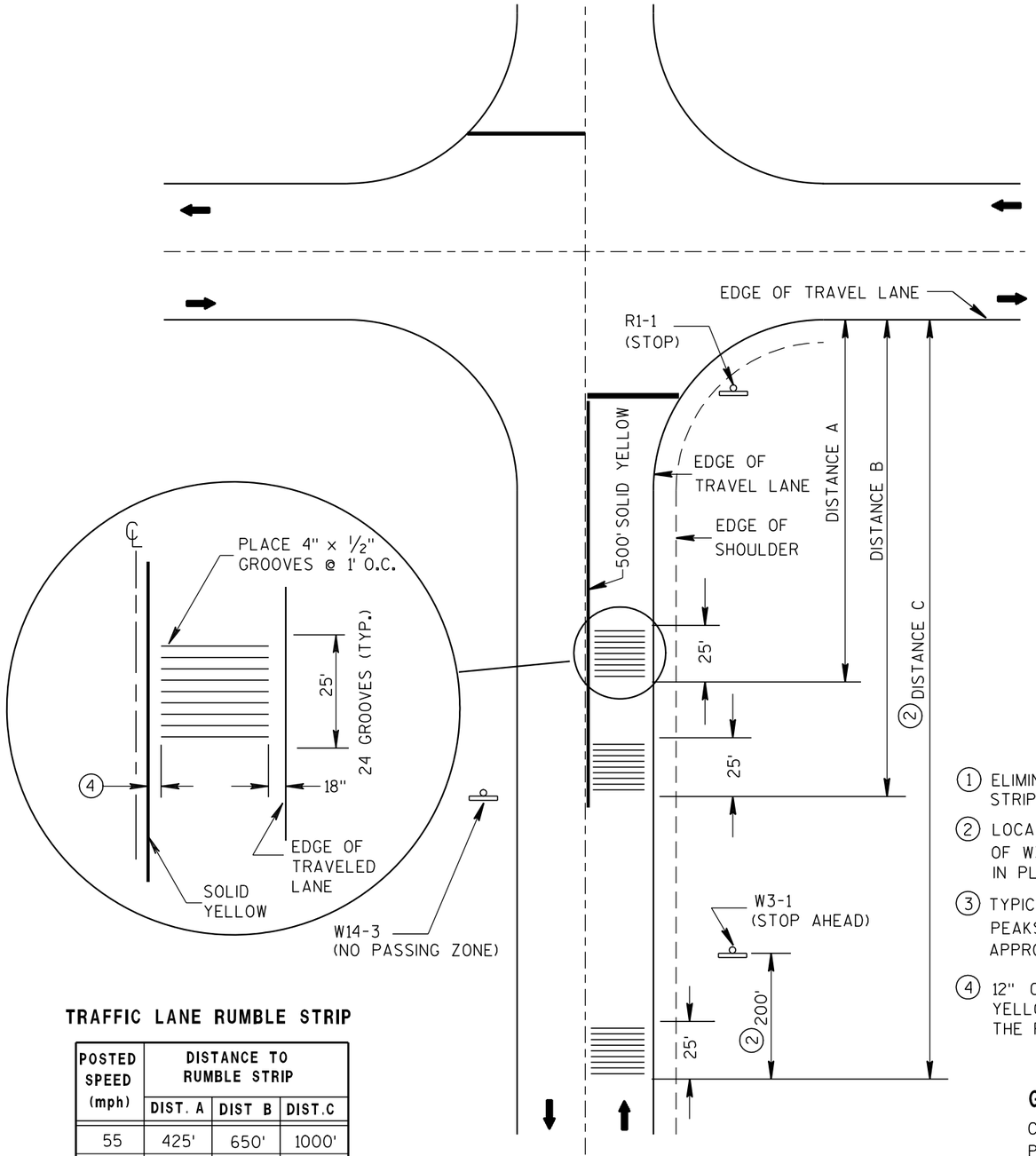
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

6

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



ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

PLAN VIEW

RUMBLE STRIP LOCATION

TRAFFIC LANE RUMBLE STRIP

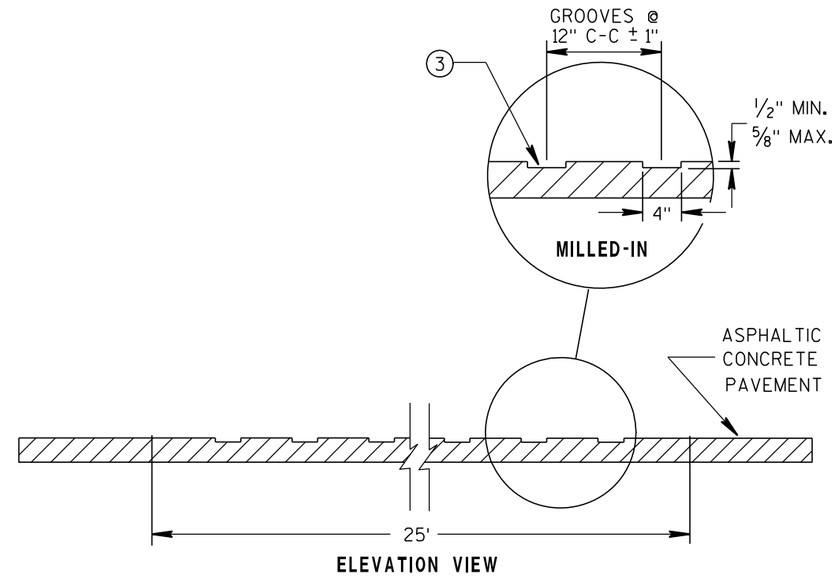
POSTED SPEED (mph)	DISTANCE TO RUMBLE STRIP		
	DIST. A	DIST B	DIST.C
55	425'	650'	1000'
50	325'	450'	800'
45	275'	400'	650'
40	225'	(1)	550'
35	175'	(1)	475'
≤ 30	125'	(1)	425'

(1) ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.

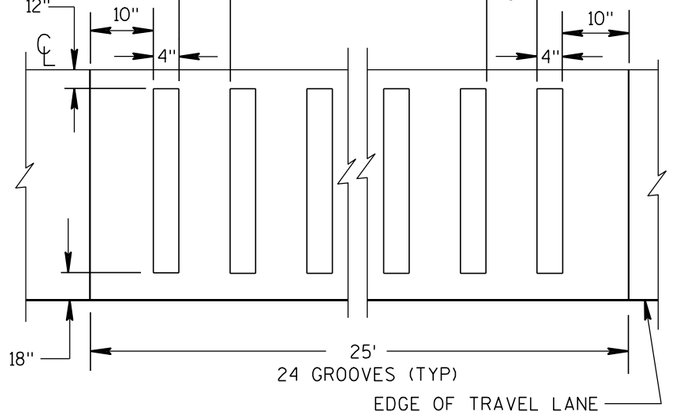
(2) LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.

(3) TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY 1/16"

(4) 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.



ELEVATION VIEW



PLAN VIEW

ASPHALTIC PAVEMENT MILLED-IN

GENERAL NOTES

CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

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

ASPHALTIC RUMBLE STRIPS AT INTERSECTION

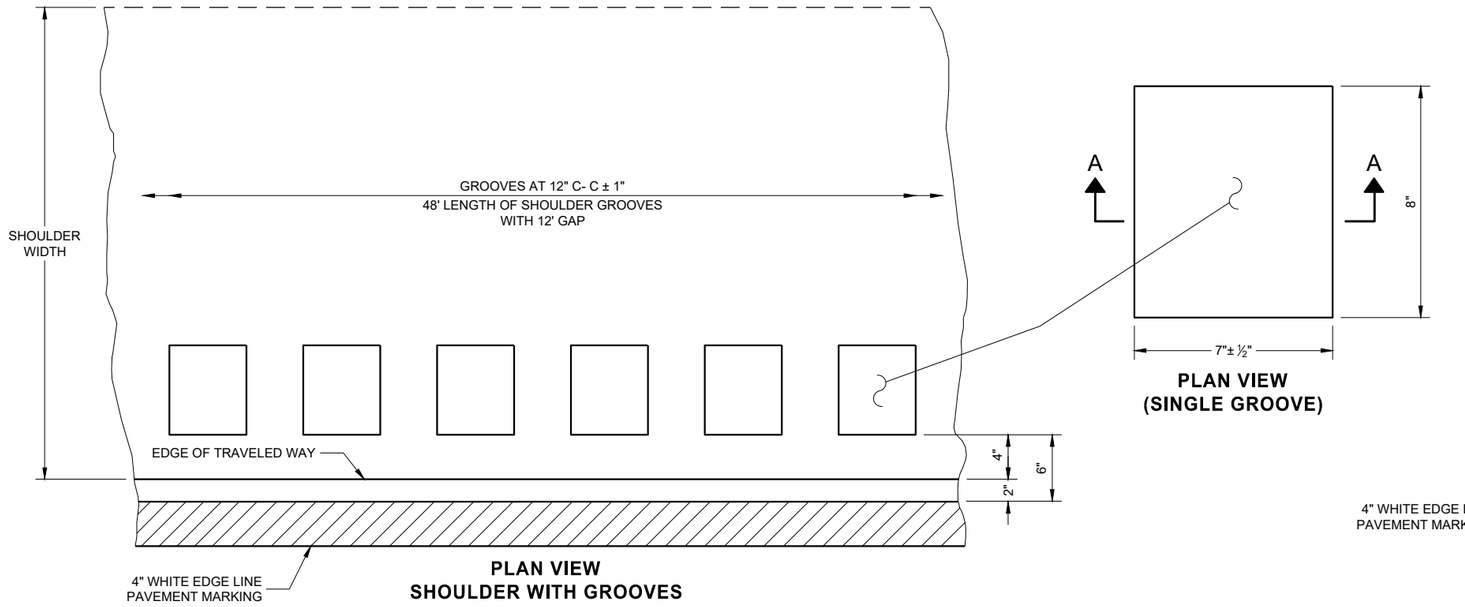
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/17/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS 170
ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

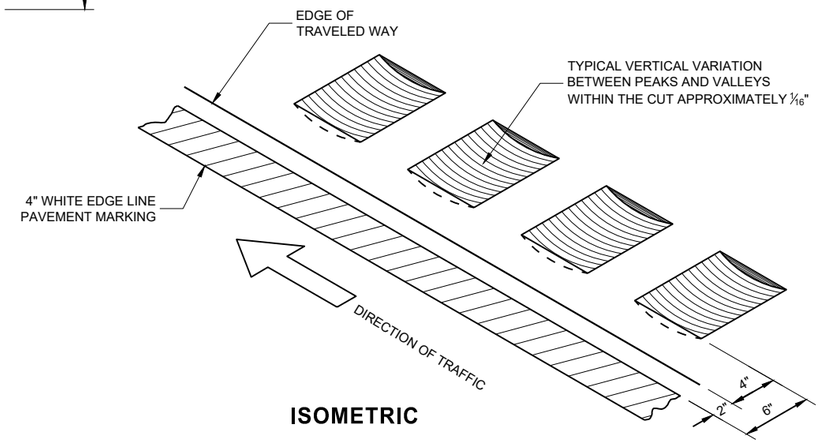
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

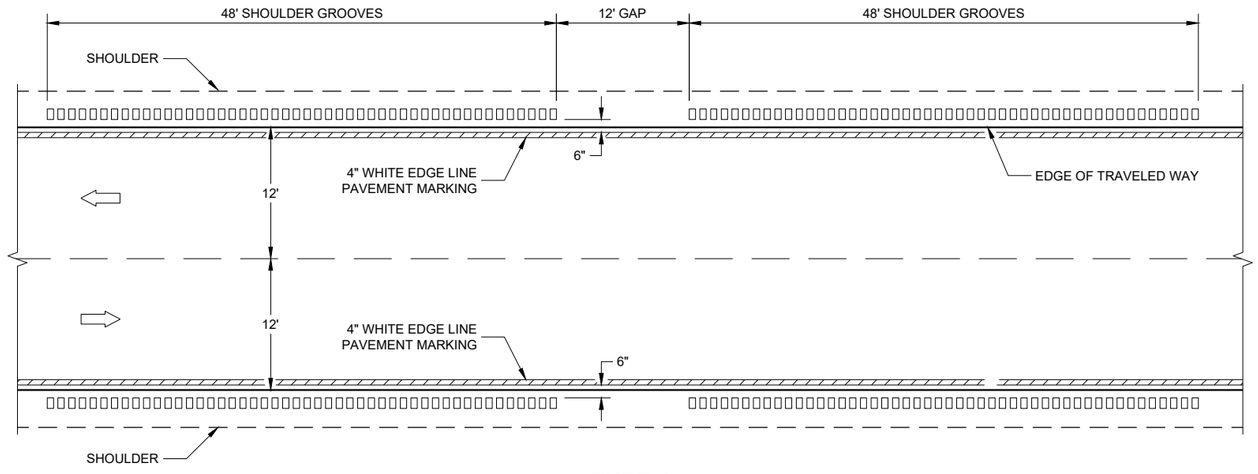
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

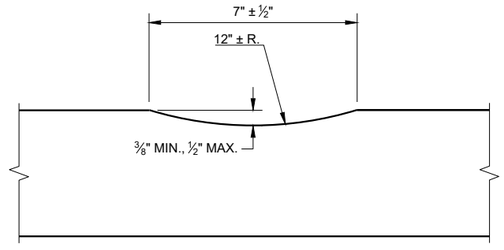
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

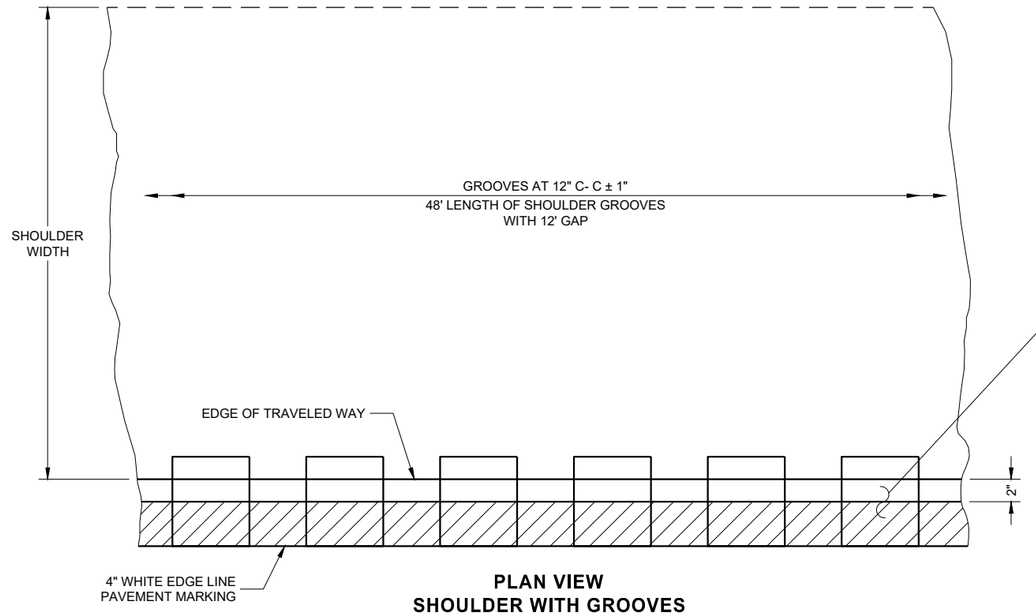
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

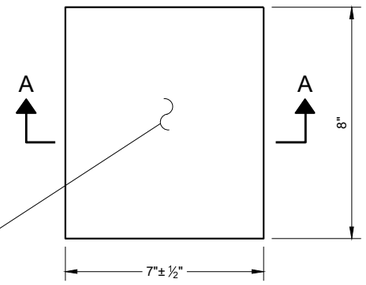
SDD 13A10 - 02a

6

SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



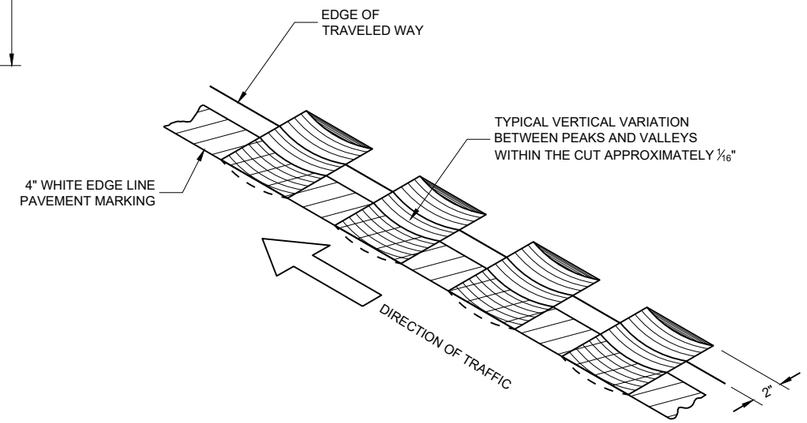
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

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

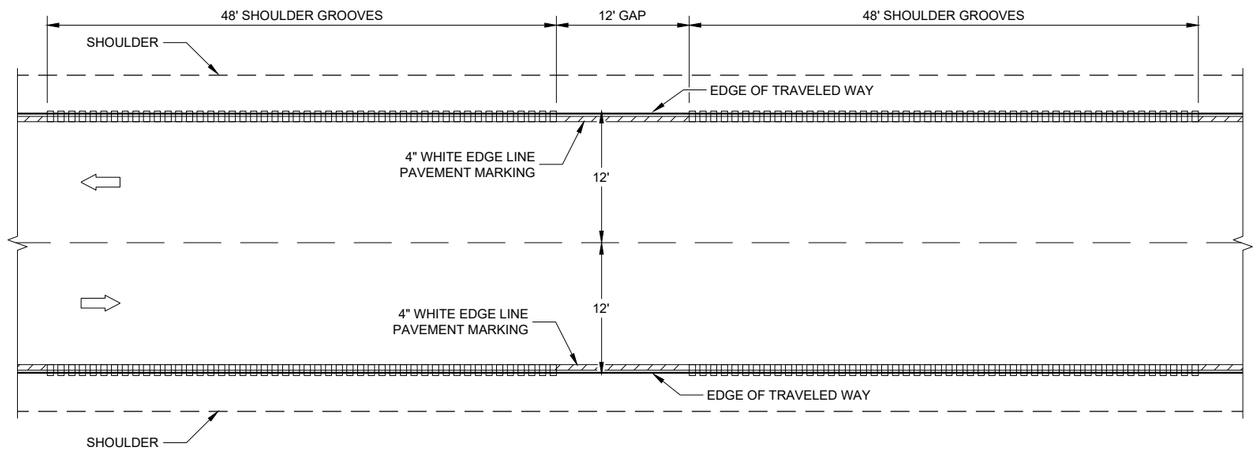
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

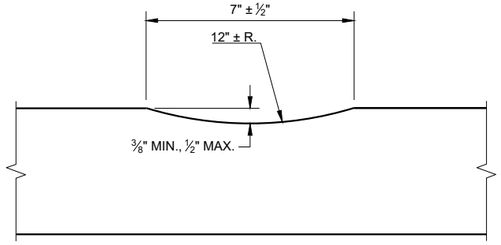


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



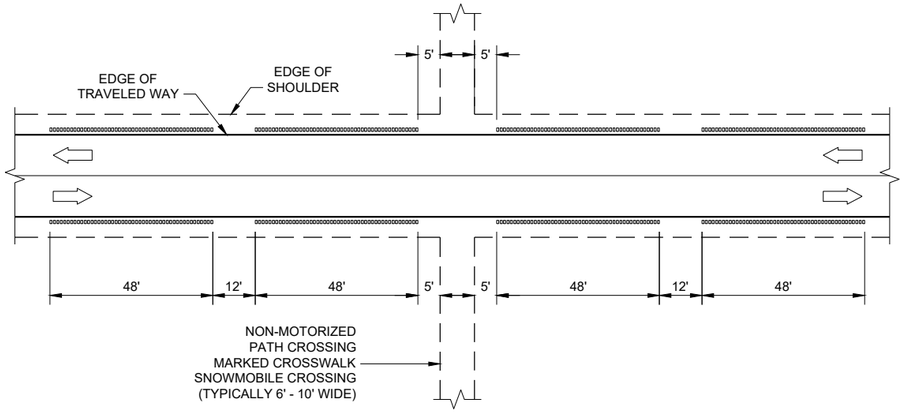
SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

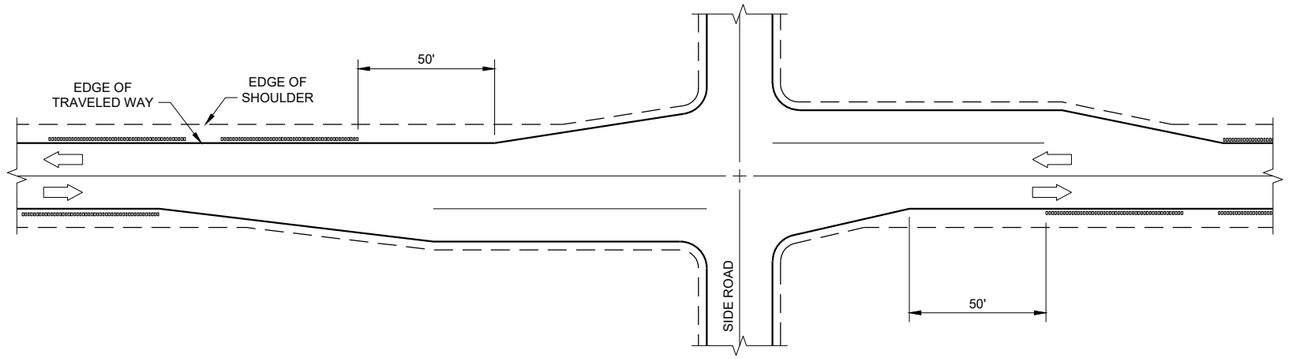
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02b

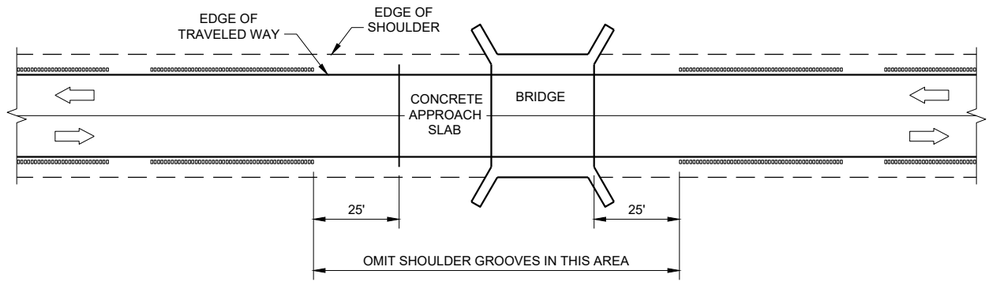
SDD 13A10 - 02b



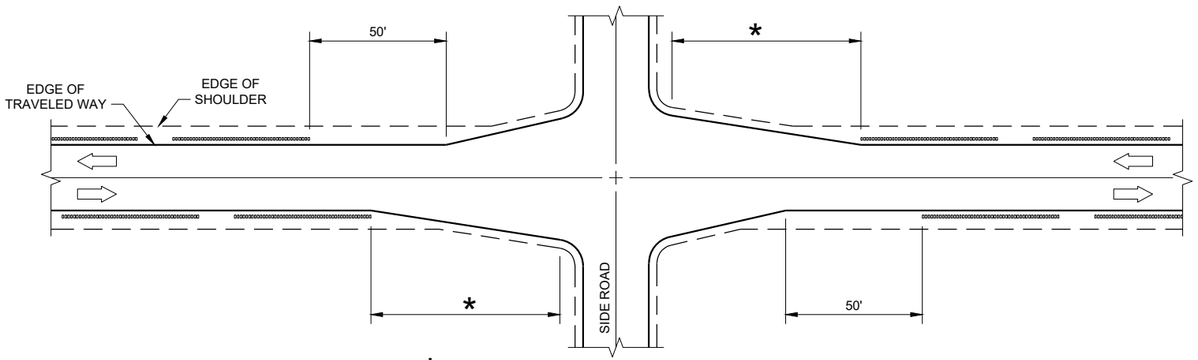
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

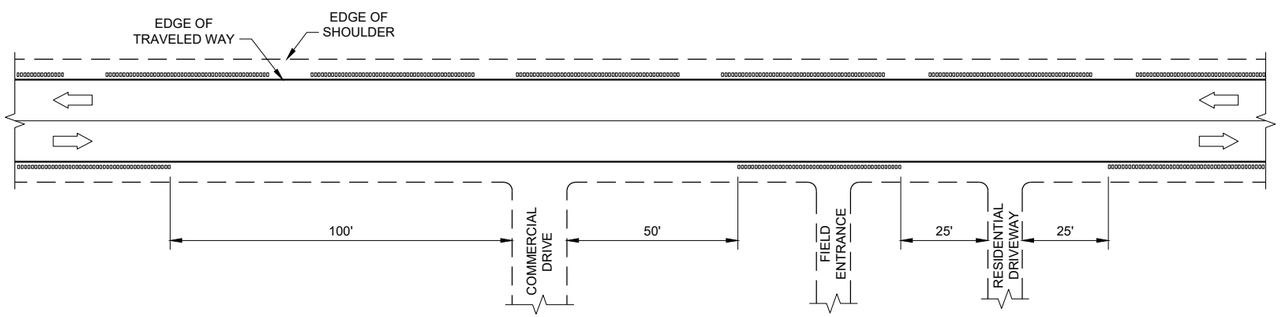


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

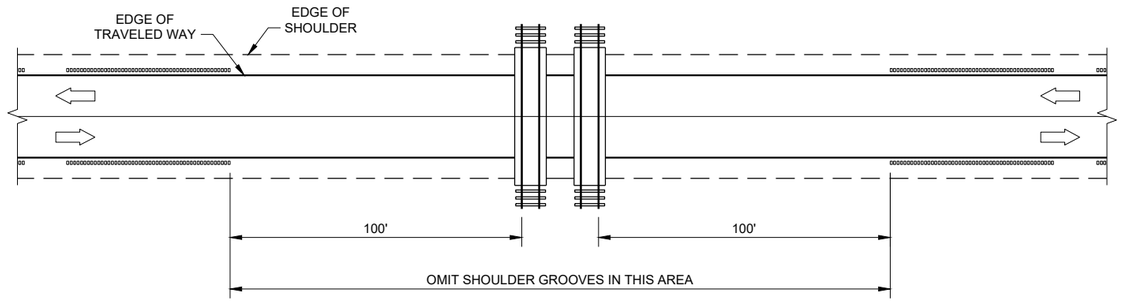
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

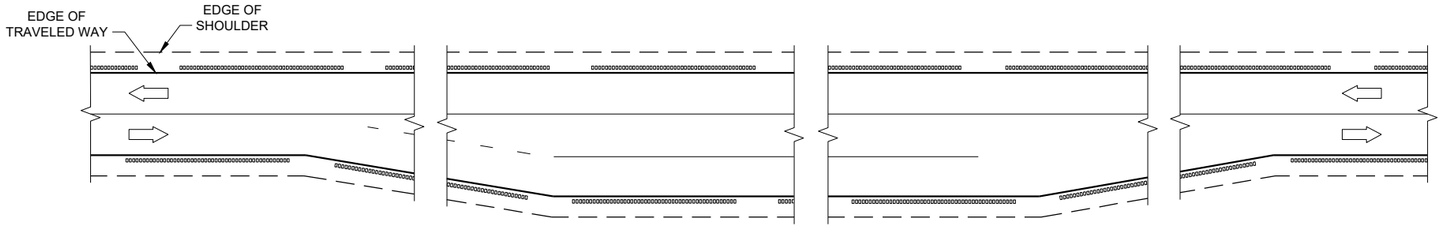
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

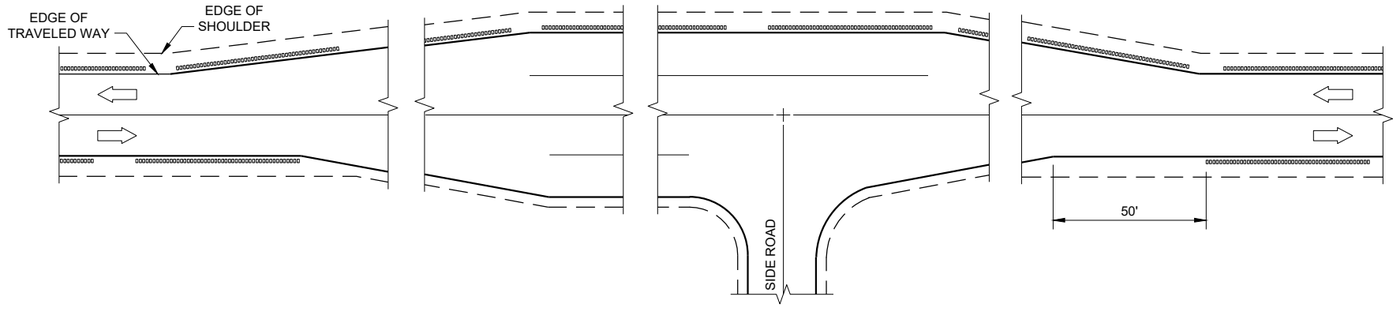
SDD 13A10 - 02c
SDD 13A10 - 02c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

SDD 13A10 - 02d

SDD13A10 - 02d

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

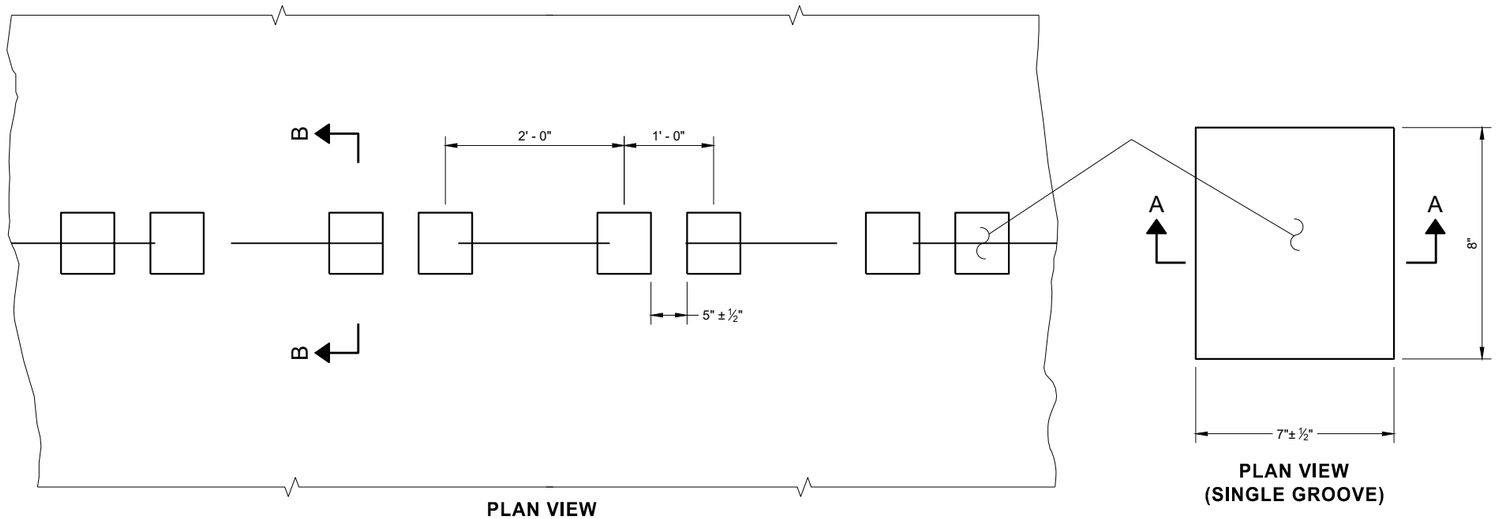
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

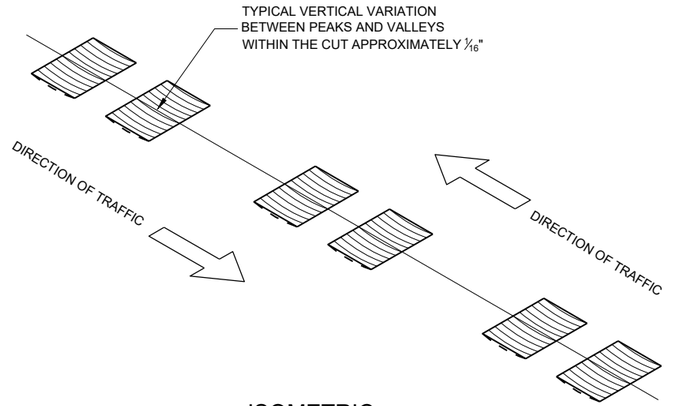
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

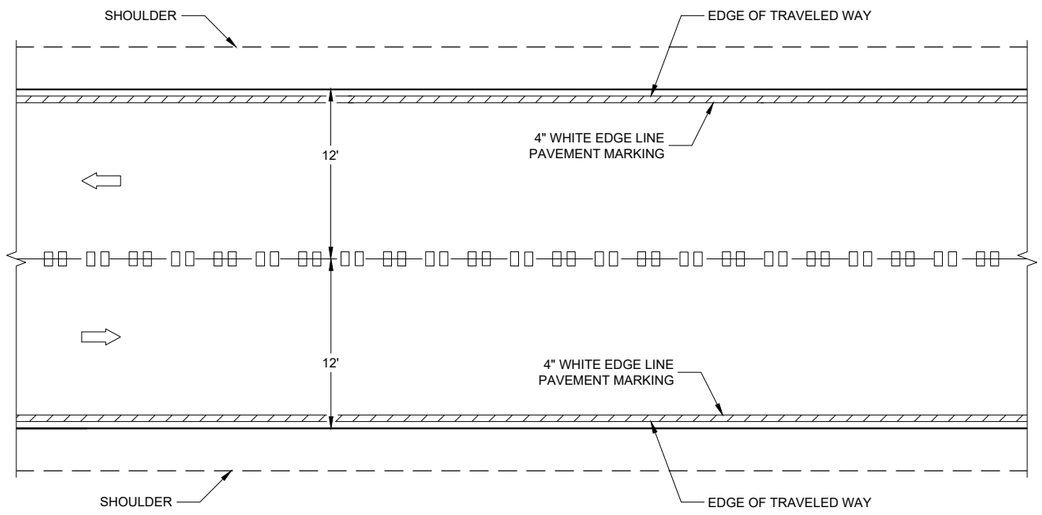
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

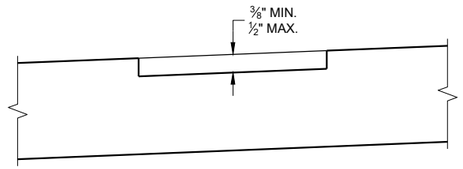
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



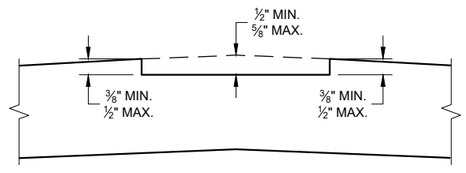
ISOMETRIC



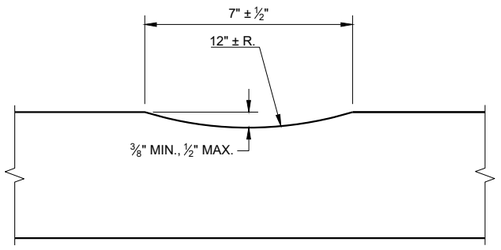
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

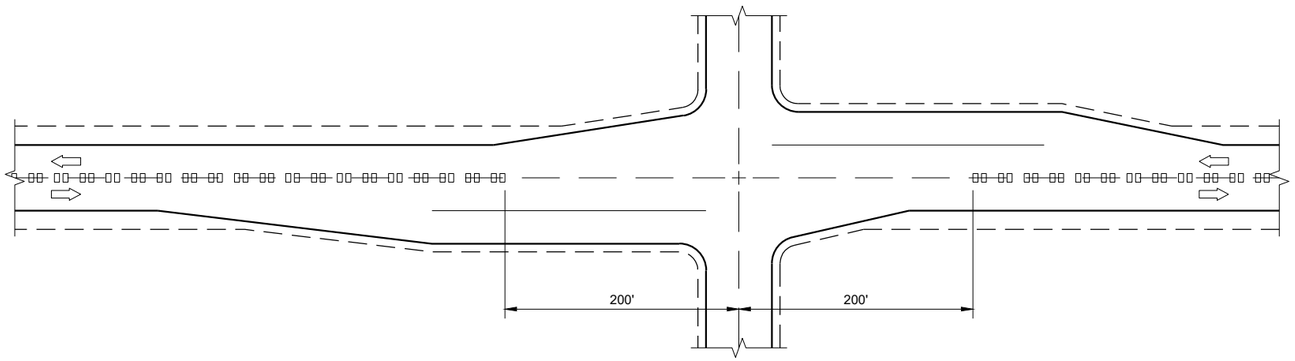
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

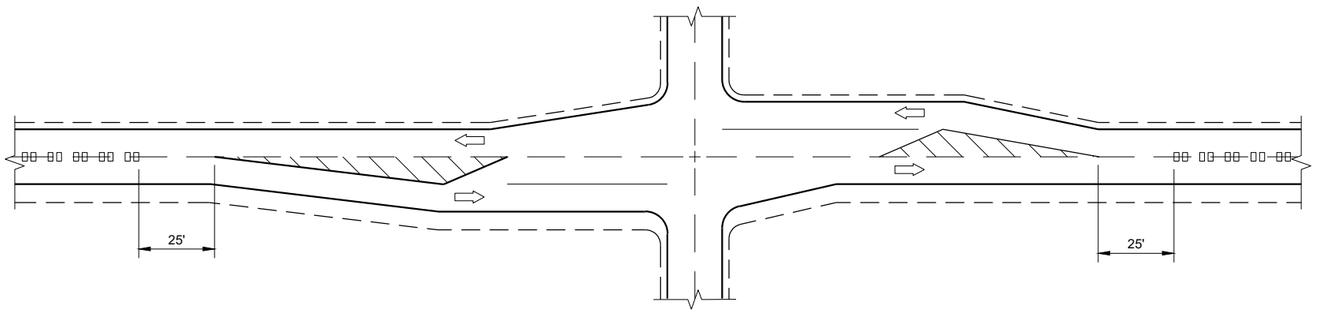
SDD 13A11 - 03a

6

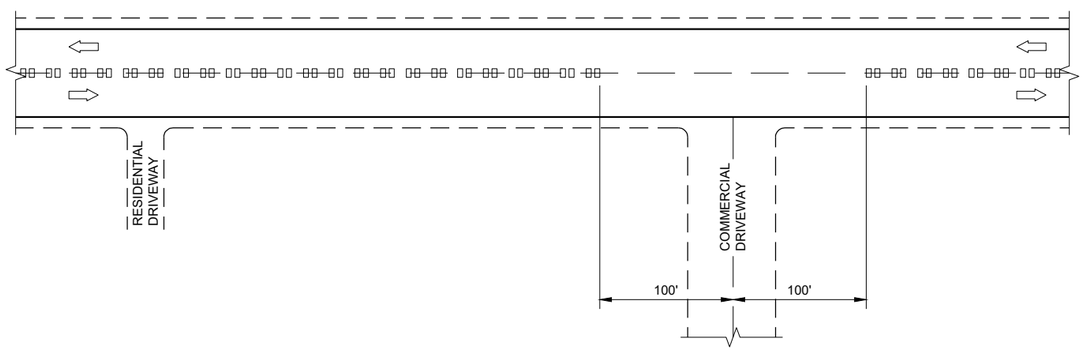
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



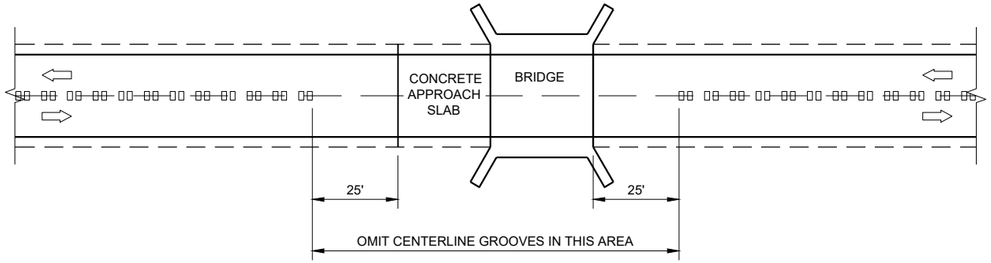
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



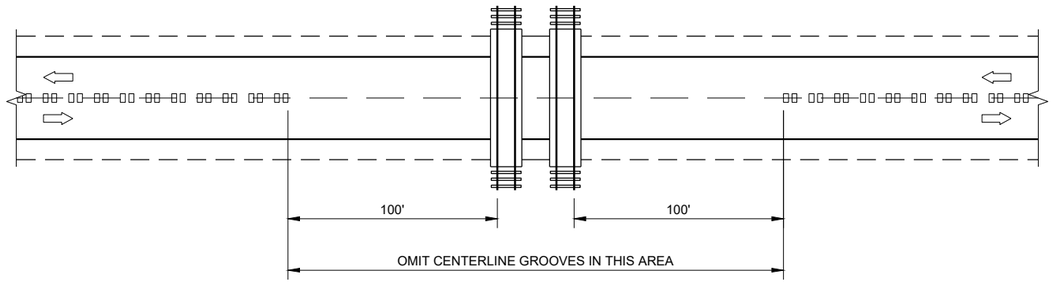
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

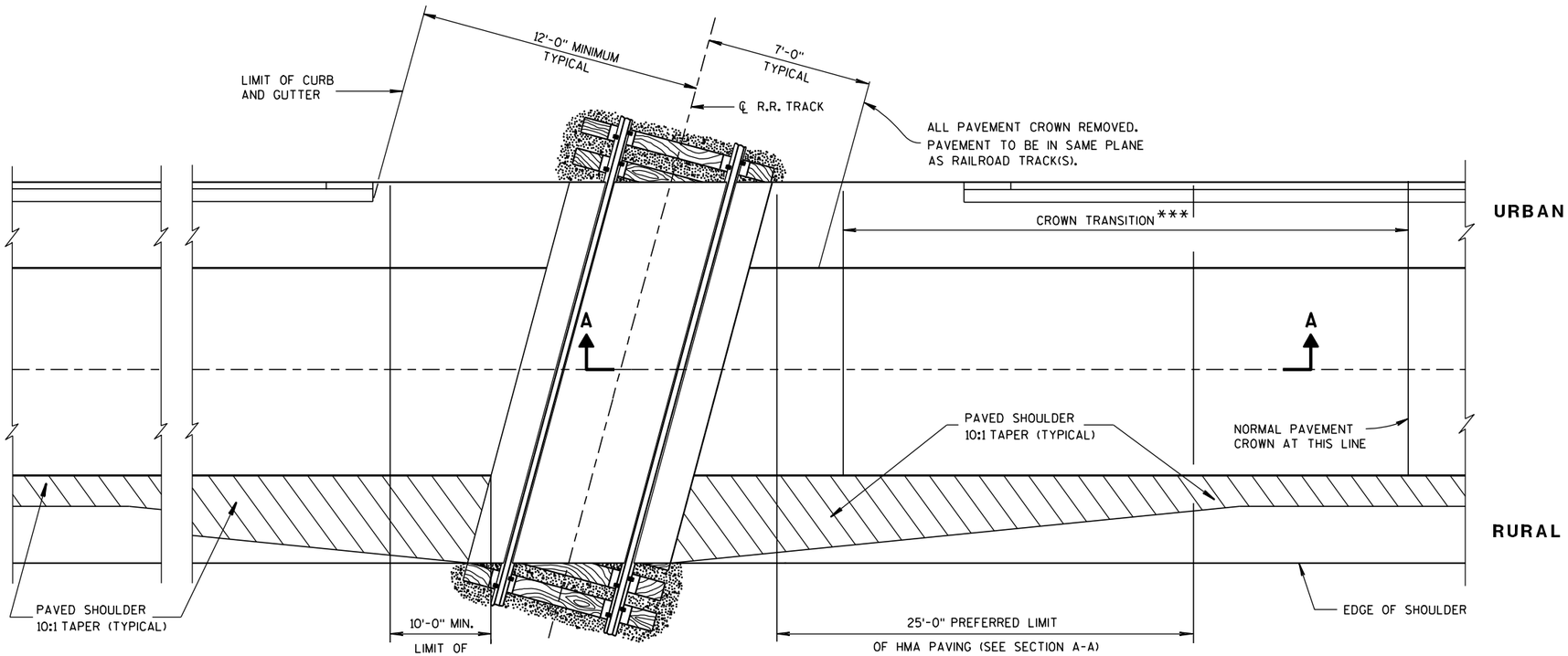
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

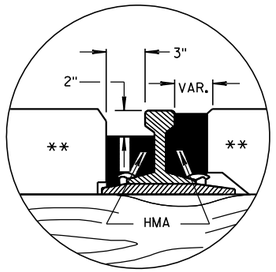
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6
SDD 13A11 - 03b





DETAIL B

HMA FLANGEWAY AND FIELD FILLERS

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.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

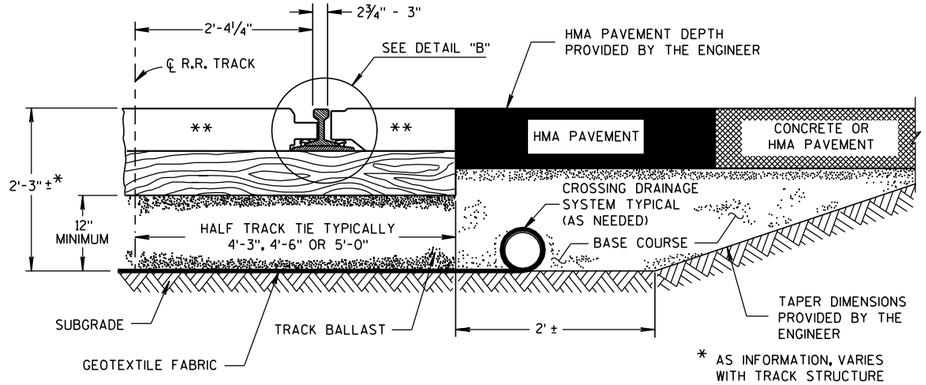
HMA PAVEMENT APPROACHES AND HMA PAVEMET CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

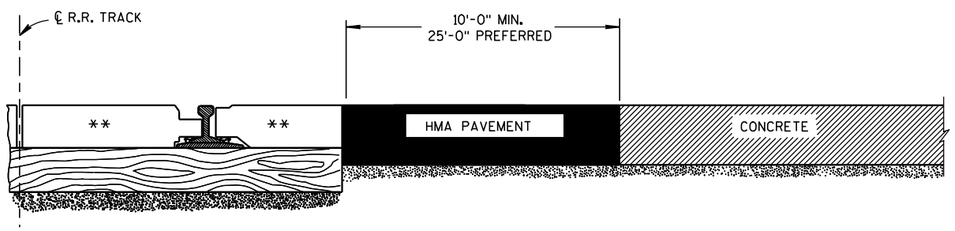
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.



TYPICAL HALF SECTION



SECTION A-A

CONCRETE PAVEMENT APPROACH

SECTION A-A

HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-28-09 DATE
/S/ Ronald E. Adams
CHIEF, RAILROADS & HAI 77 CTION
FHWA

6

S.D.D. 13 B 1-10

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S.D.D. 13 B 1-10

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

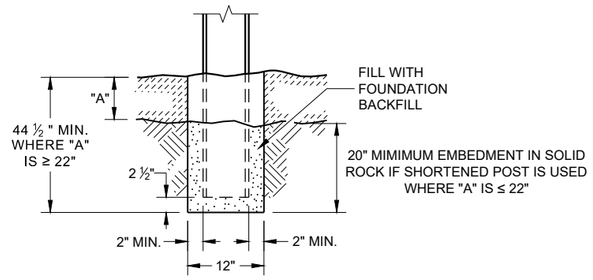
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

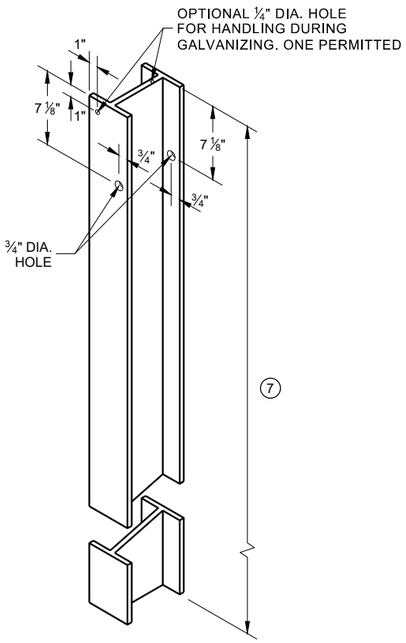
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

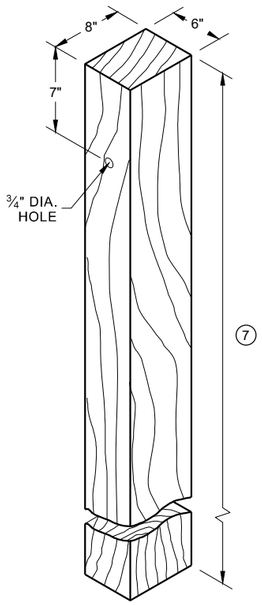
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



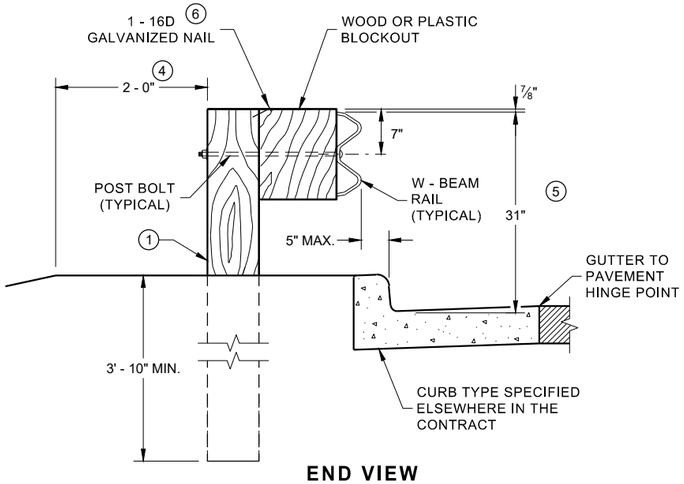
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



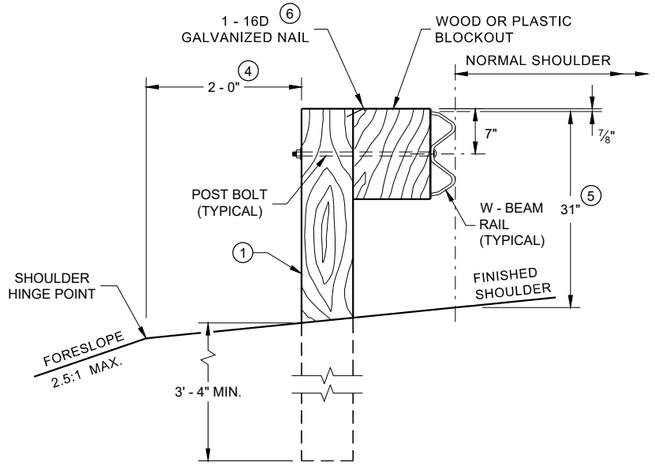
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



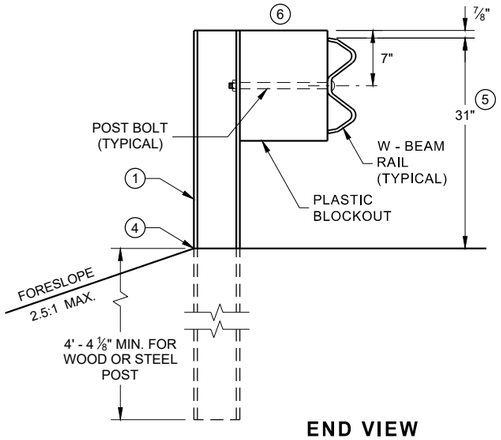
WOOD POST (6" X 8") NOMINAL (1)



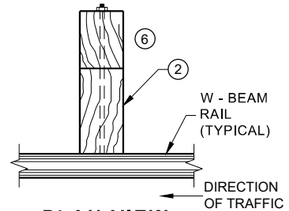
END VIEW
LOCATED ALONG A CURBED ROADWAY



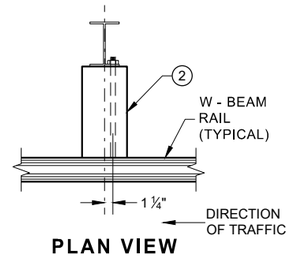
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



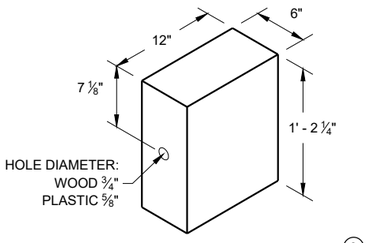
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06a

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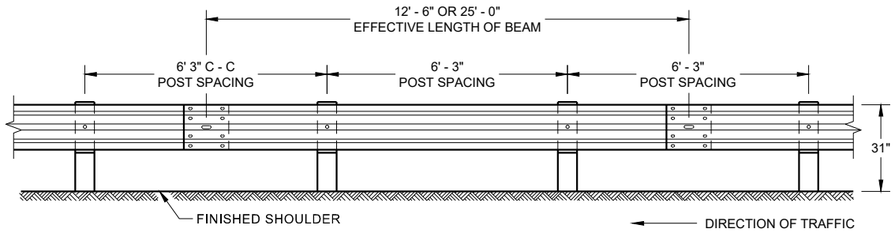
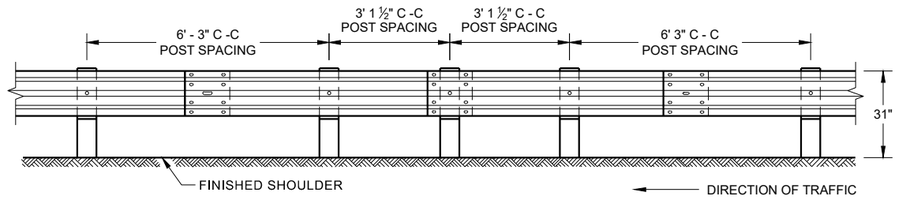
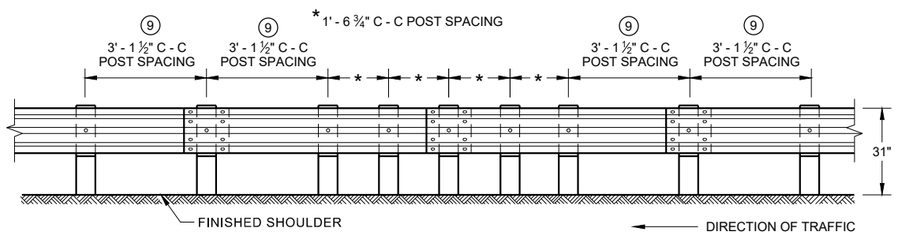
SDD 14B42 - 06a



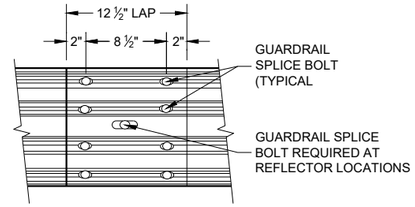
FRONT VIEW
POST SPACING STANDARD INSTALLATION



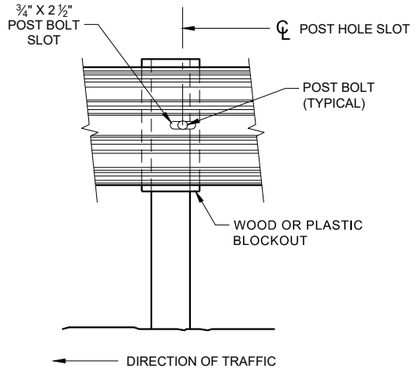
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



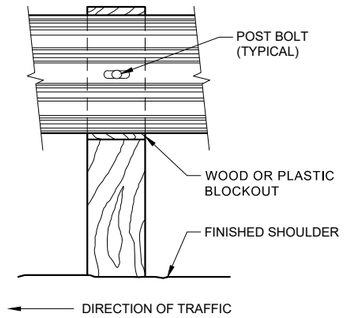
FRONT VIEW
QUARTER POST SPACING (QS)



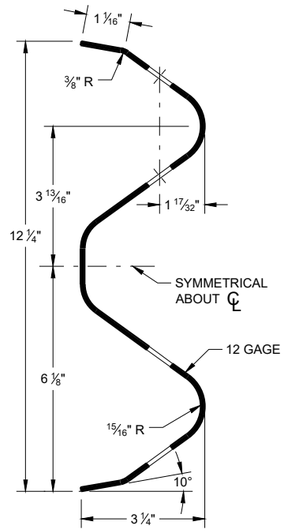
FRONT VIEW
MID-SPAN BEAM SPLICE



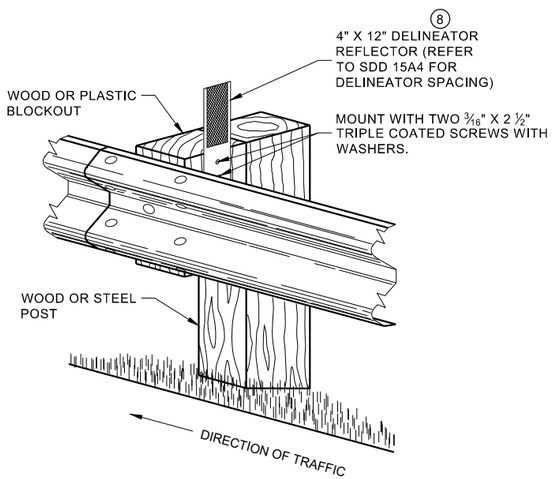
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

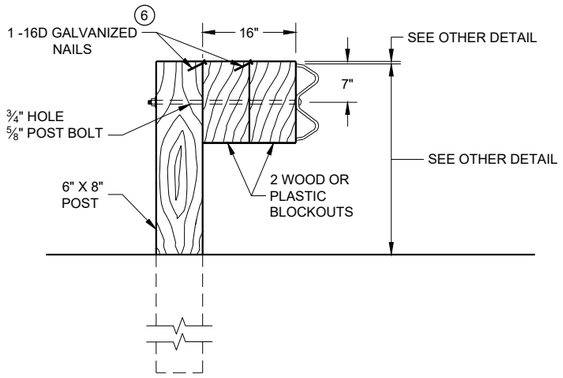
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

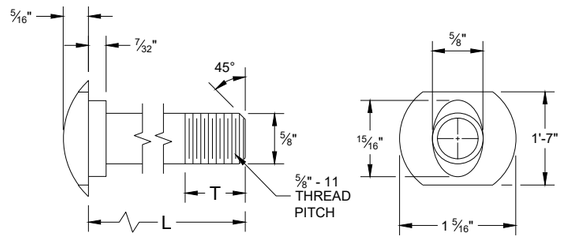


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

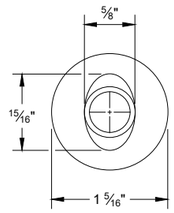
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

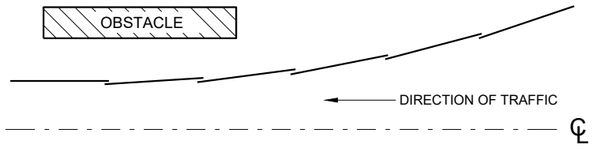


POST BOLT TABLE

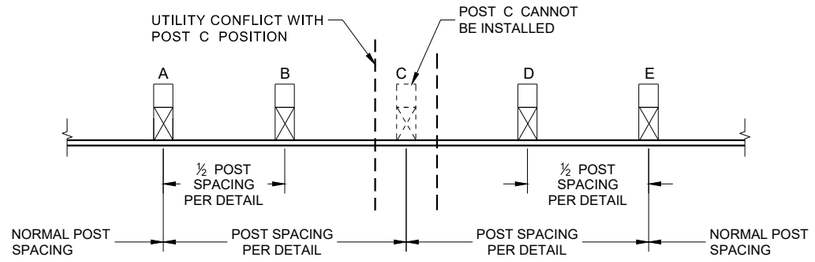
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



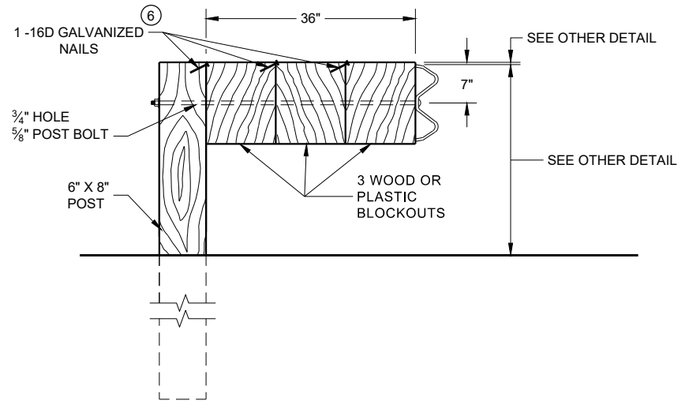
ALTERNATE BOLT HEAD



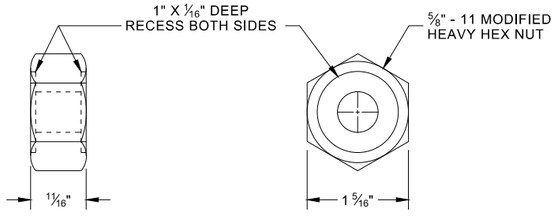
PLAN VIEW
BEAM LAPPING DETAIL



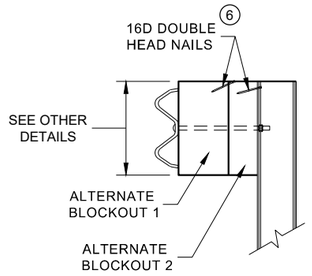
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



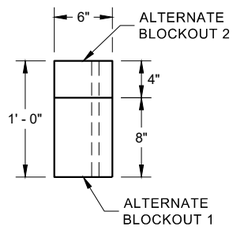
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

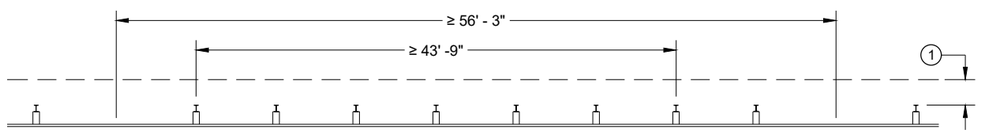
ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

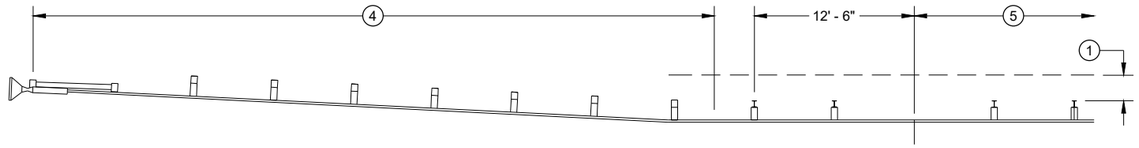
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

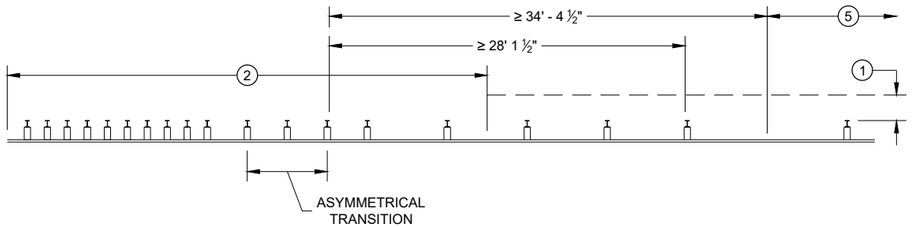
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



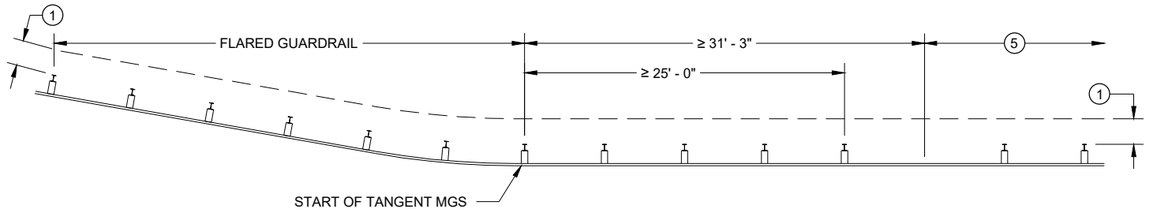
MISSING POST IN NORMAL BEAM GUARD RUN



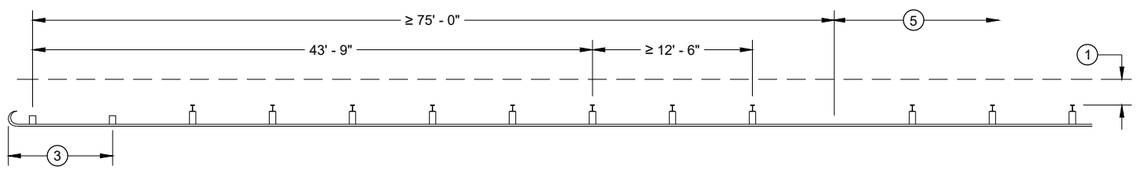
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



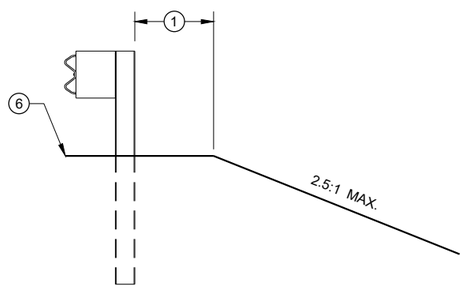
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

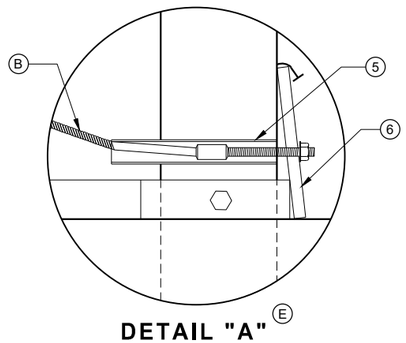
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

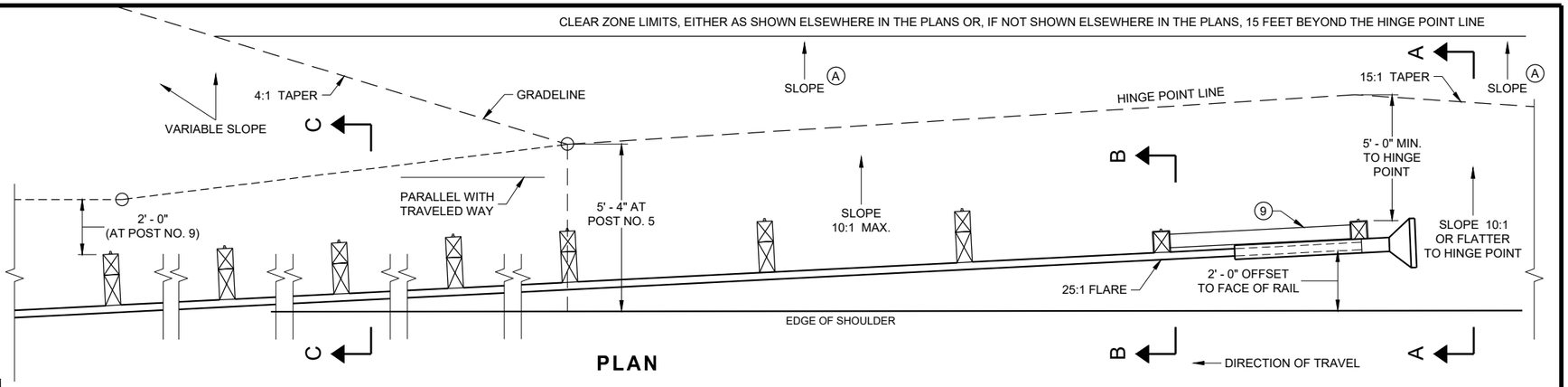
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

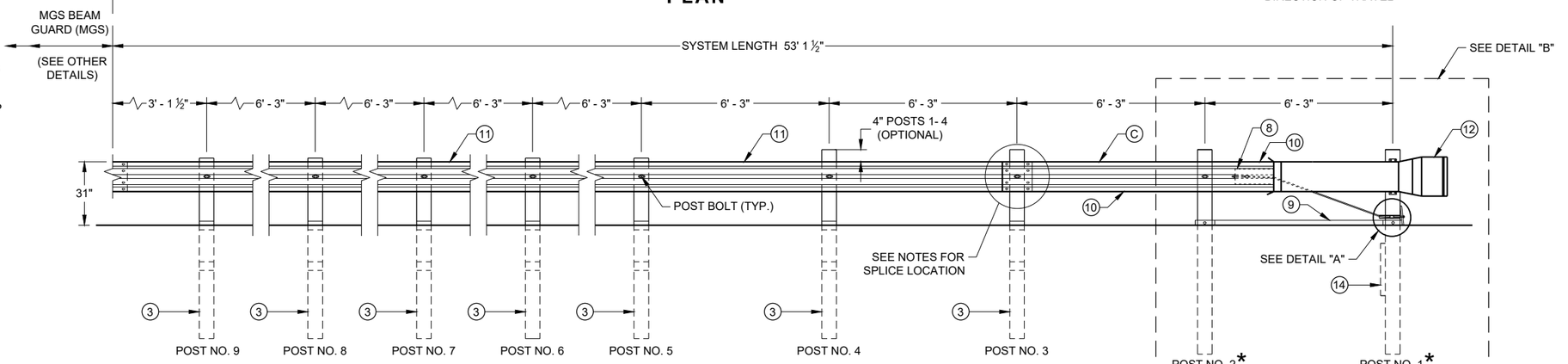
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



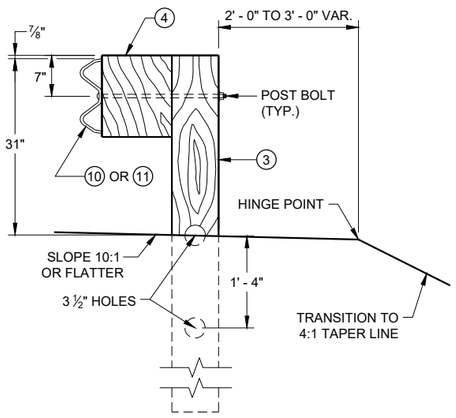
DETAIL "A" (E)



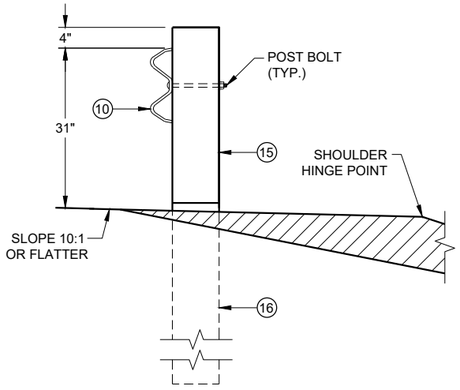
PLAN



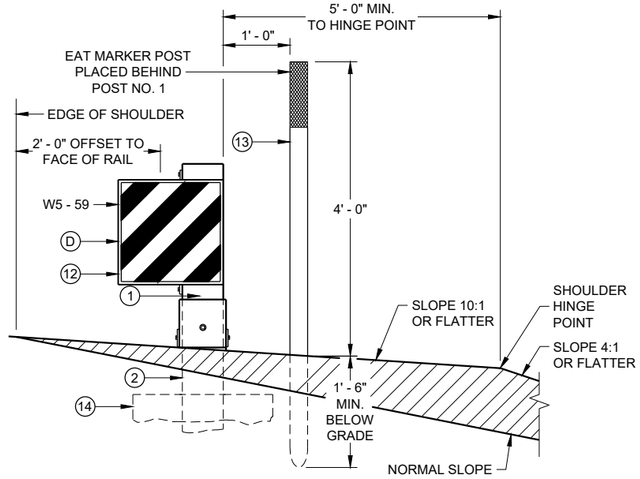
ELEVATION



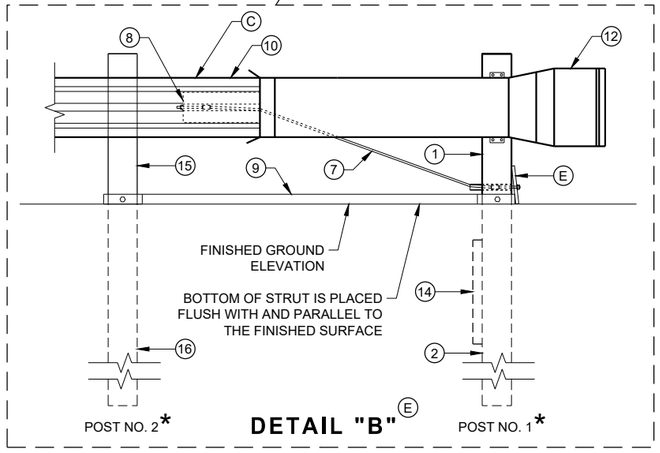
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



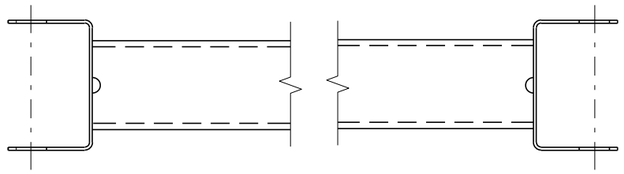
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

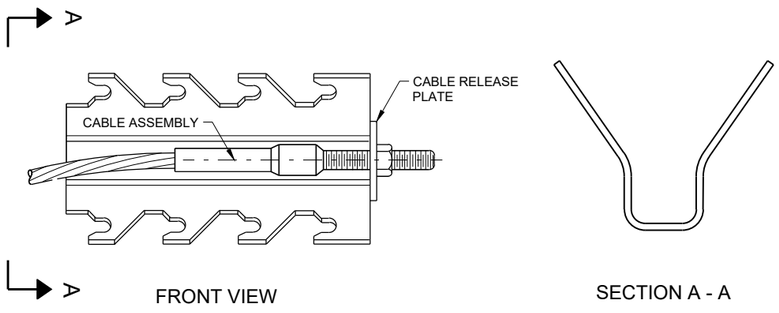
SDD 14B44 - 04a



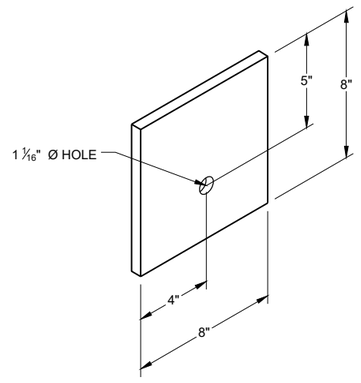
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

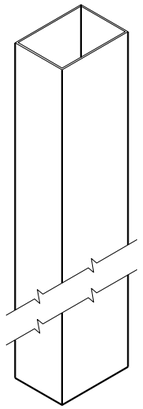
6

SDD 14B44 - 04b

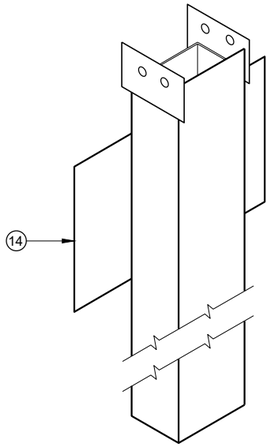
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

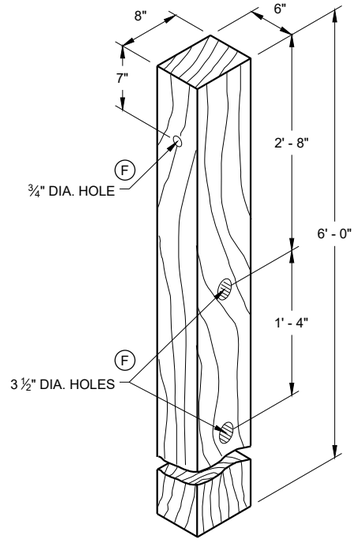
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



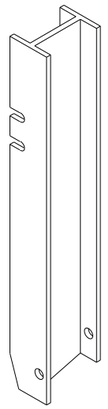
UPPER POST NO. 1 (1) (E)



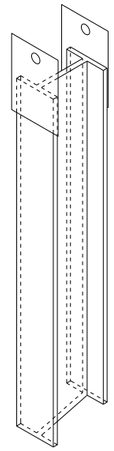
LOWER POST NO. 1 (2) (E)



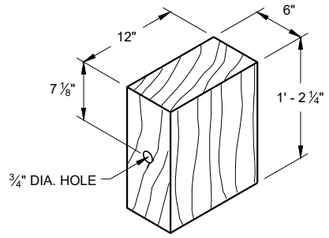
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



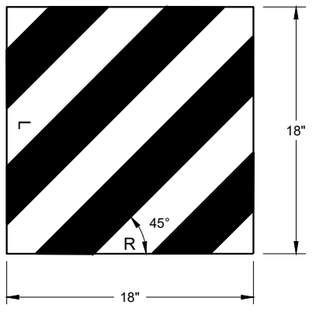
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

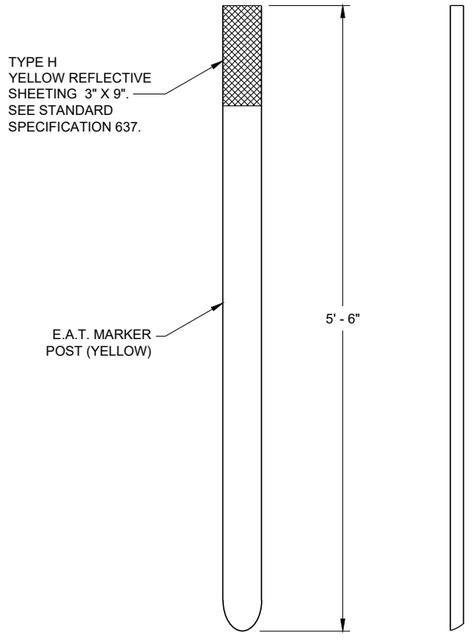


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



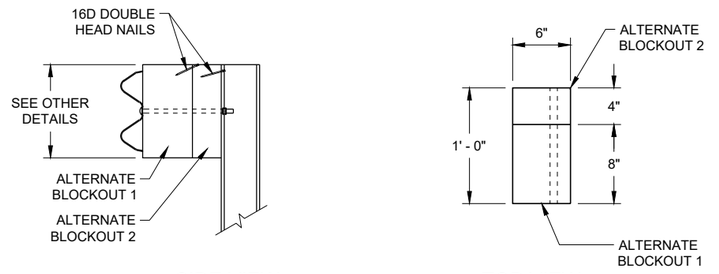
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B44 - 04c

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.

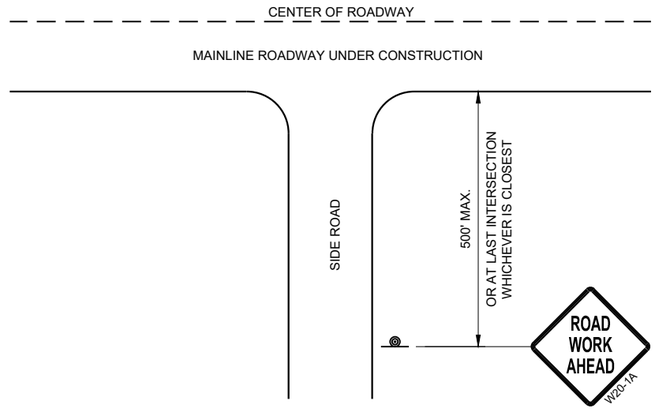
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



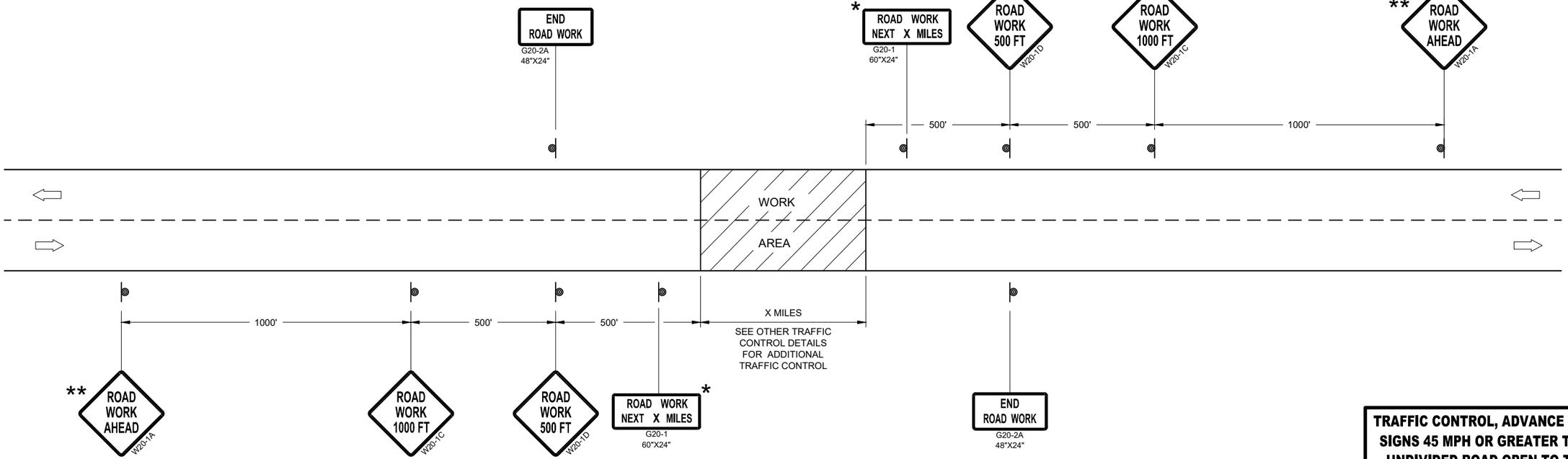
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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 TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

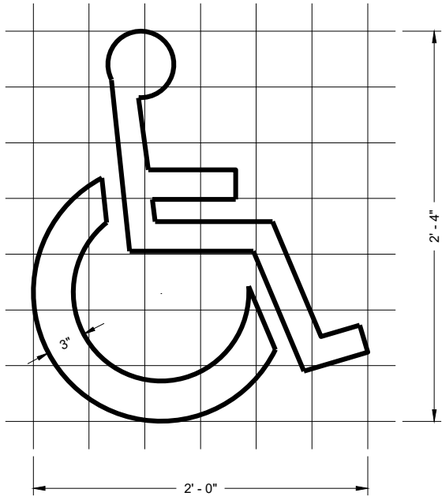
FHWA

6

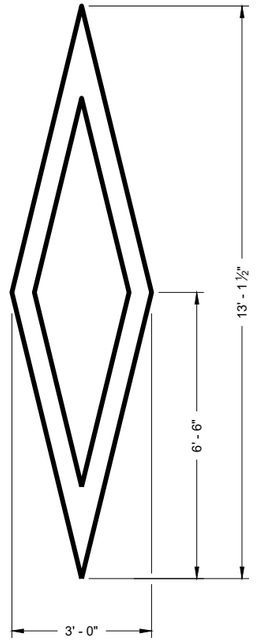
SDD 15C04 - 05

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

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SDD 15C07 - 15a

SDD 15C07 - 15a

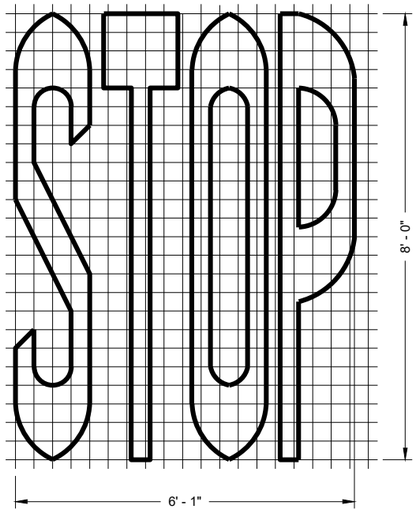
PAVEMENT MARKING SYMBOLS

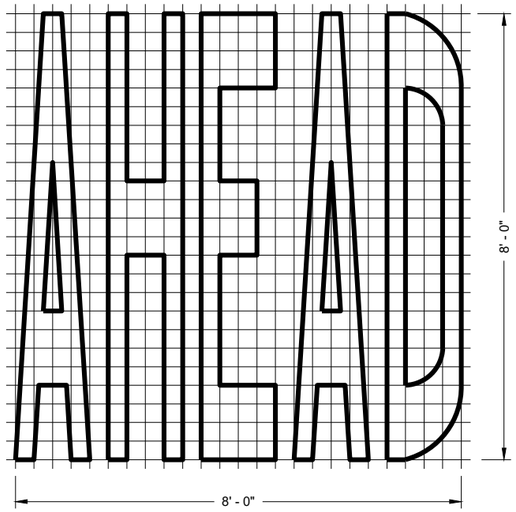
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

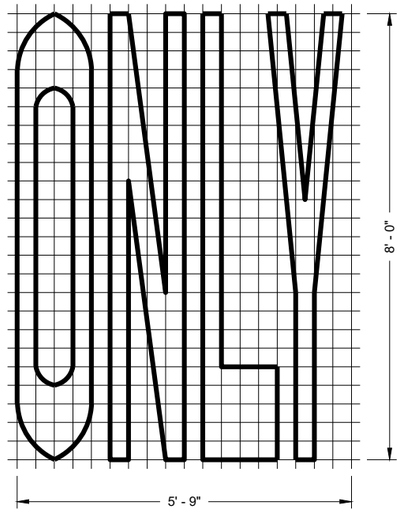
APPROVED
November 2019
DATE

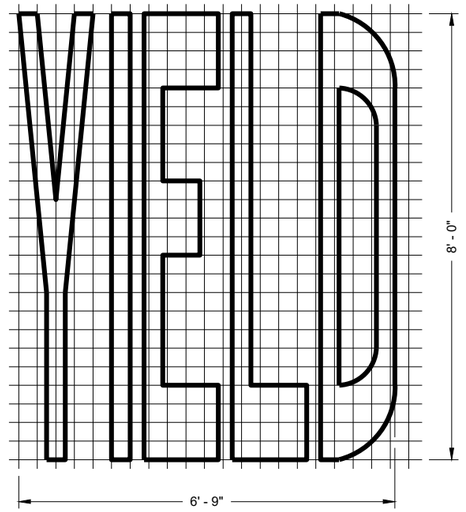
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

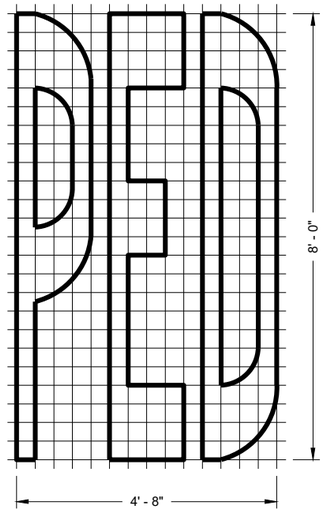
FHWA

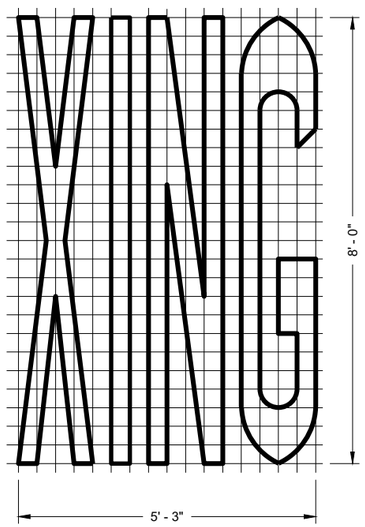


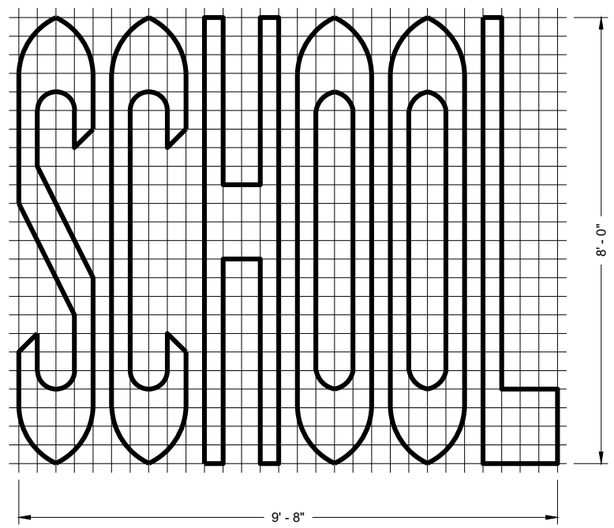




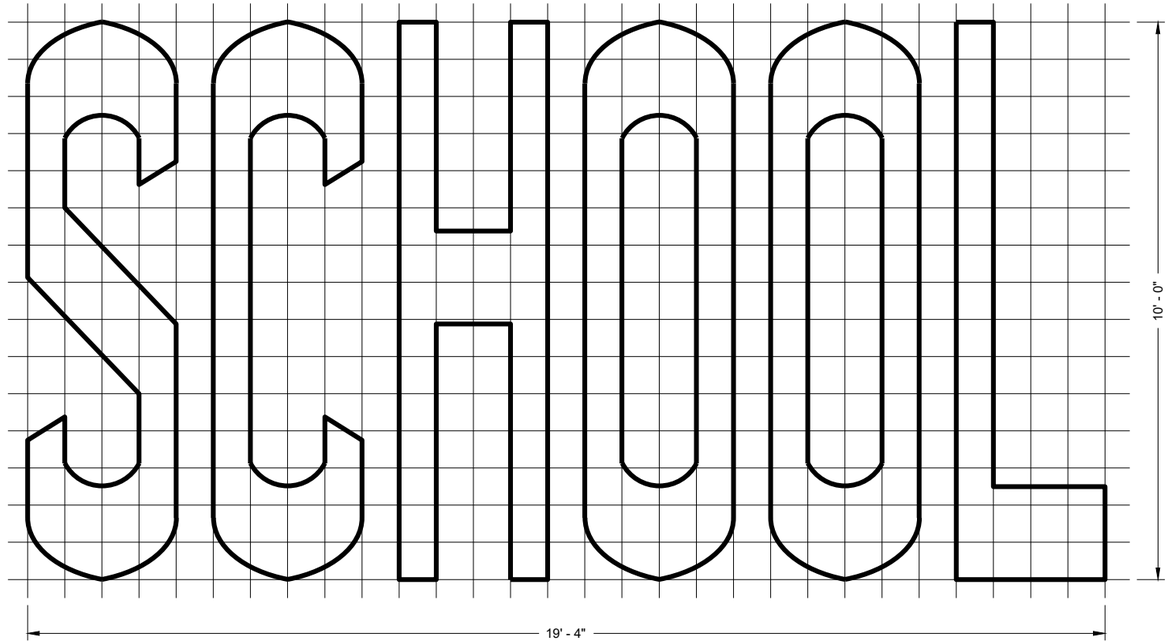








SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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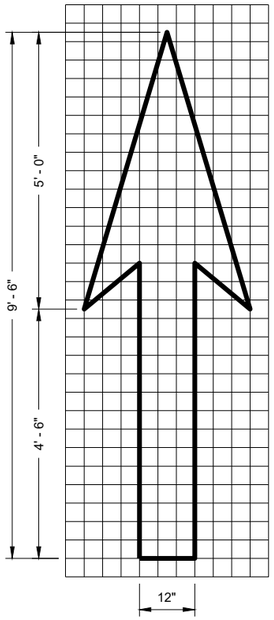
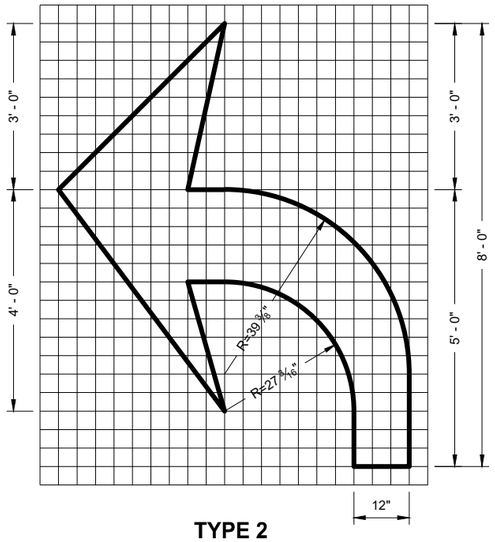
SDD 15C07 - 15b

GENERAL NOTES

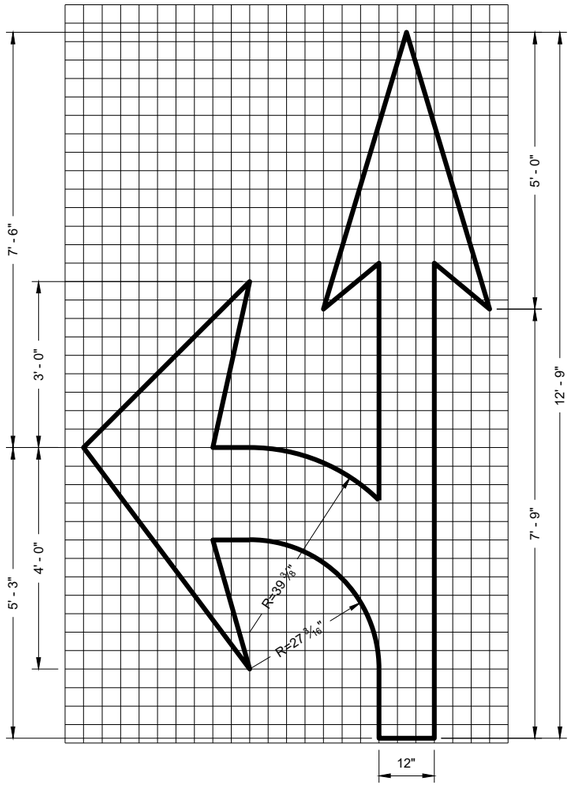
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



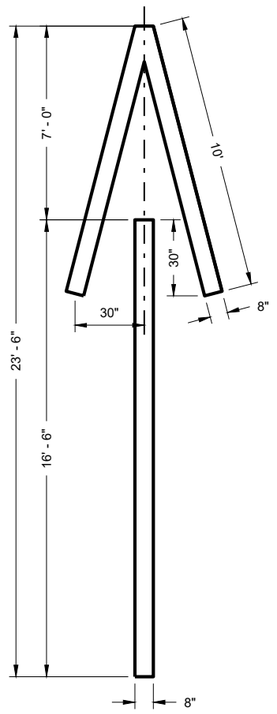
TYPE 1



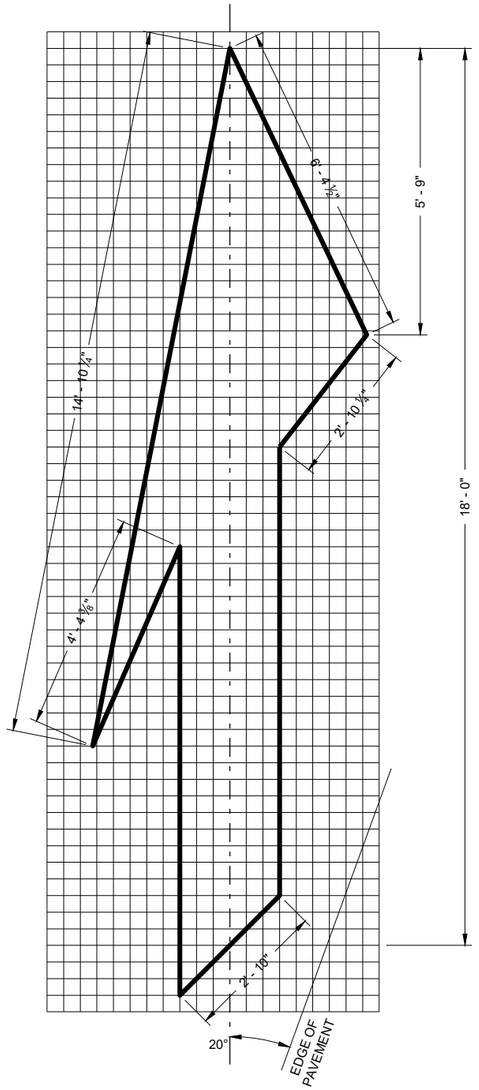
TYPE 2



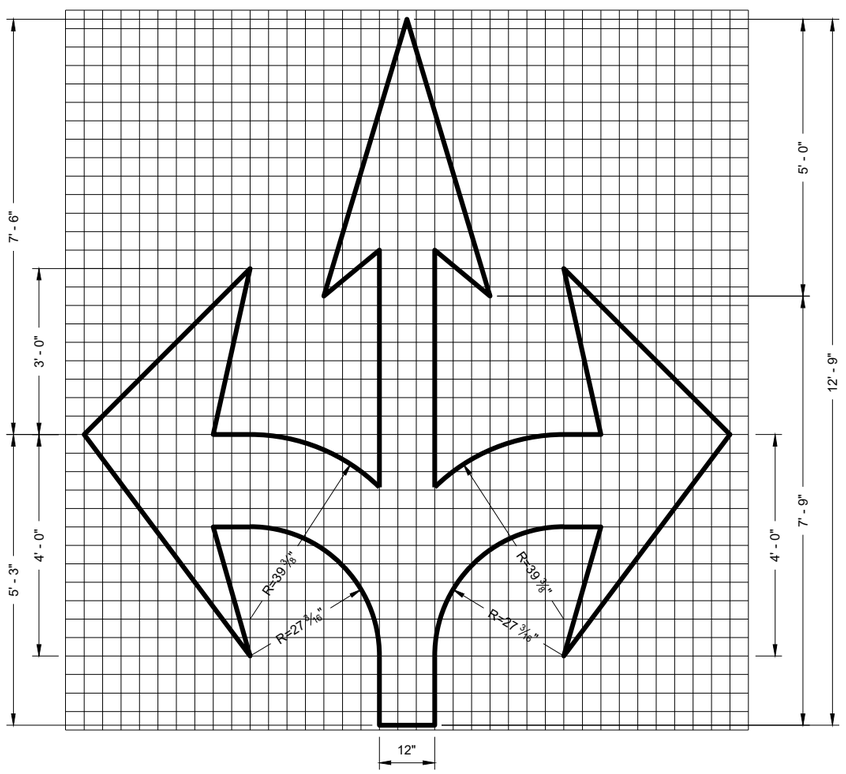
TYPE 3



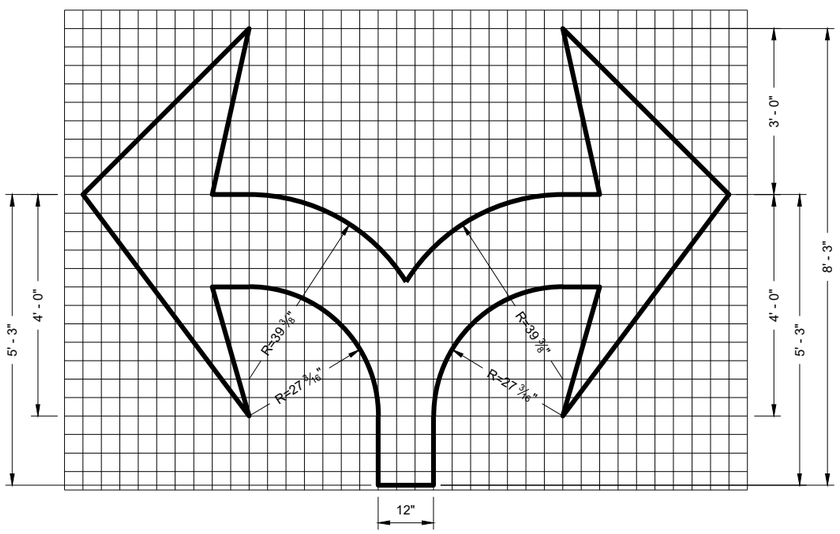
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

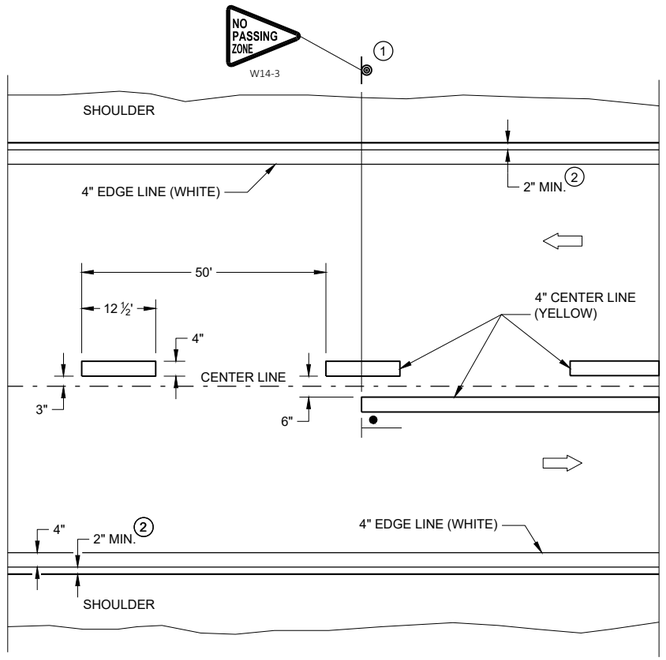
FHWA

6

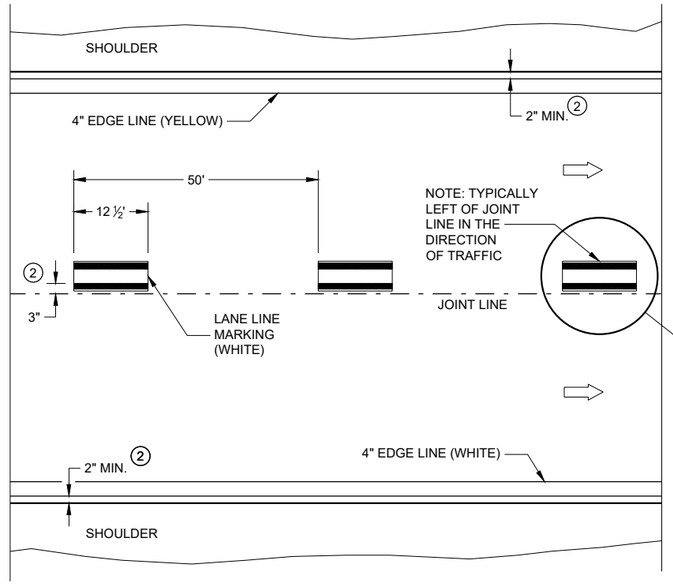
SDD 15C07 - 15c

6

SDD 15C07 - 15c

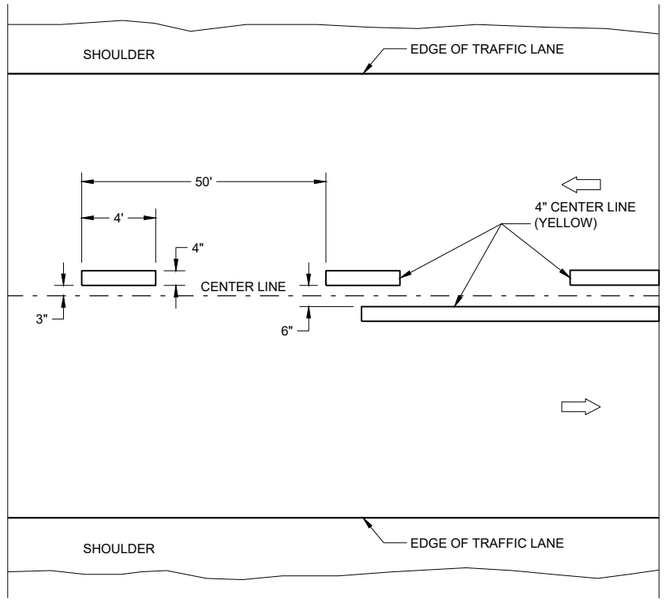


TWO WAY TRAFFIC

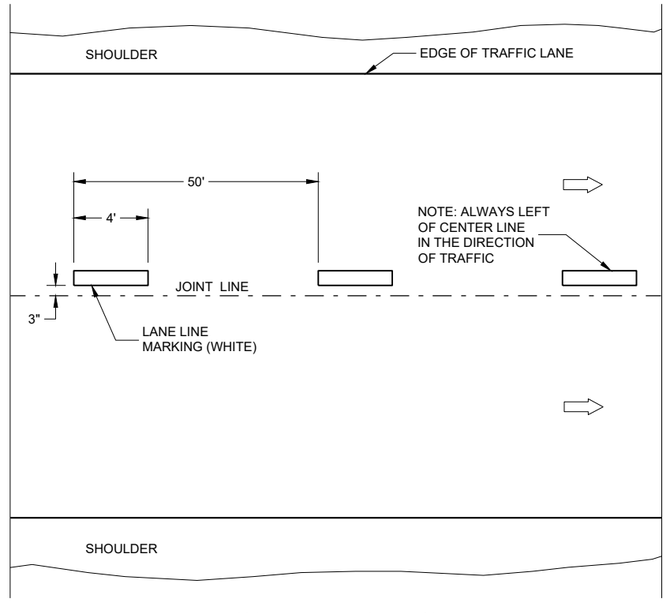


ONE WAY TRAFFIC

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.

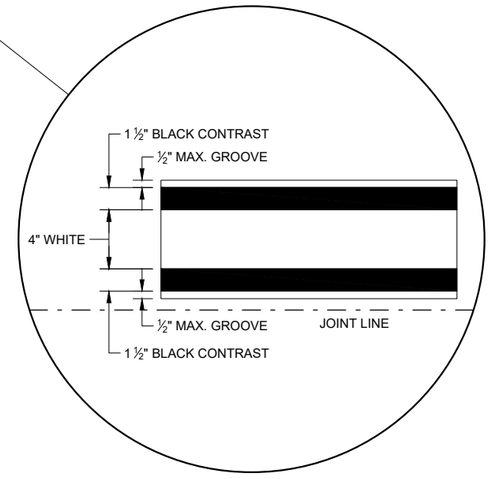
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

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

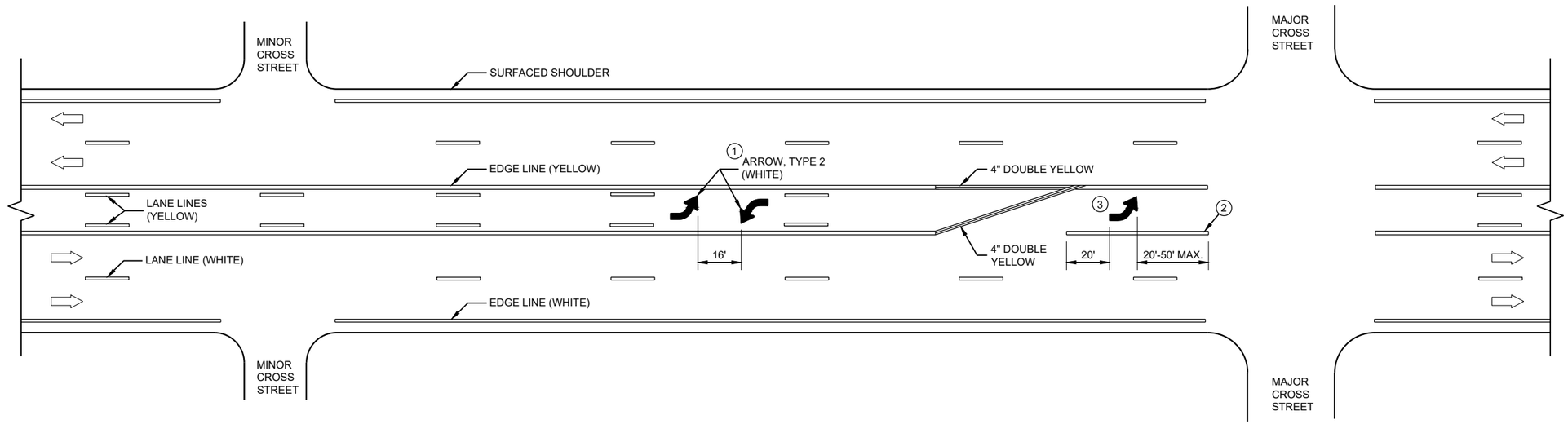
SDD 15C08 - 20a

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

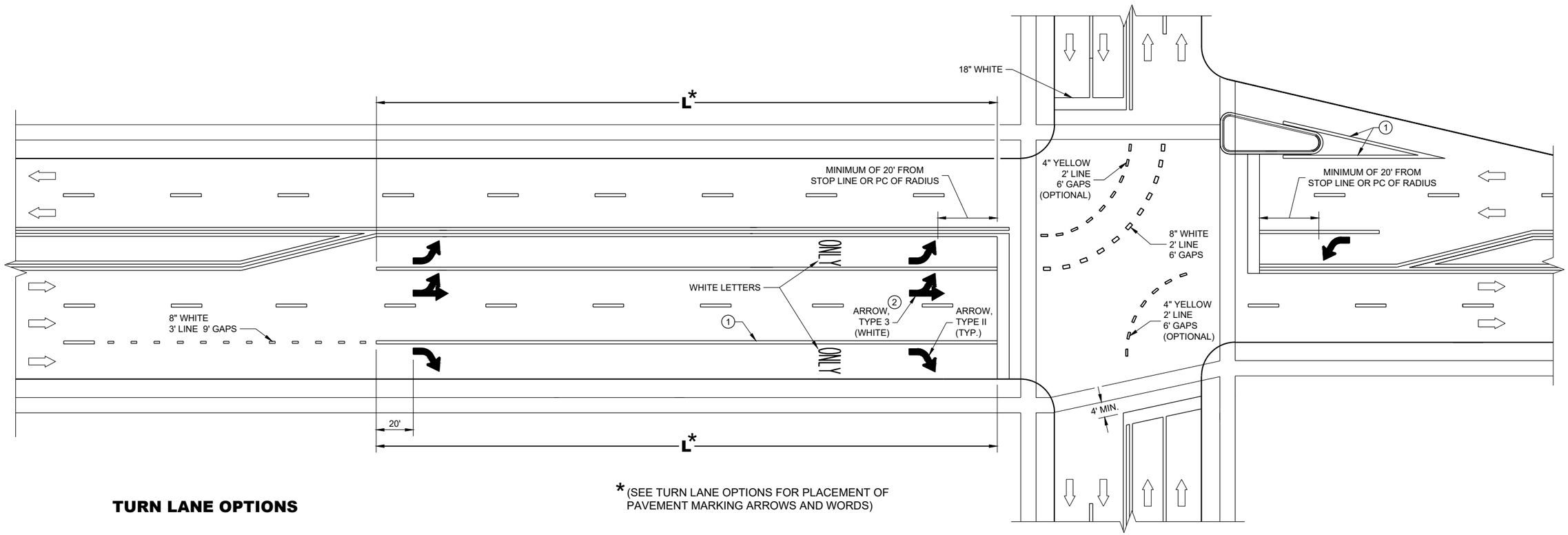
6

SDD 15C08 - 20b

SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

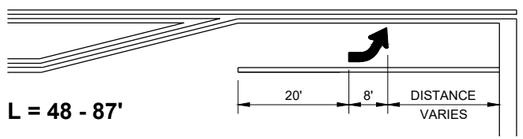
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



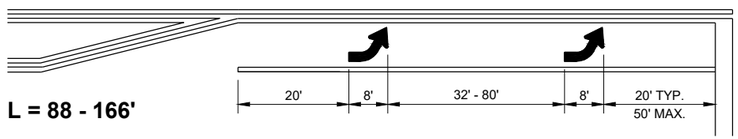
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

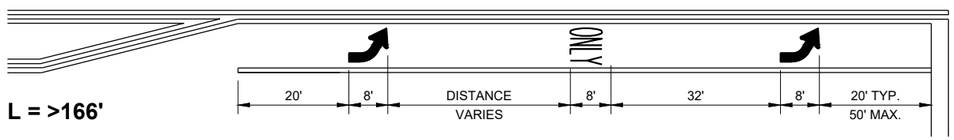
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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
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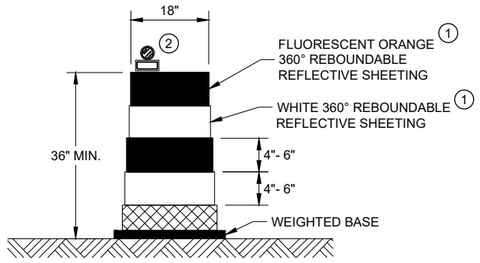
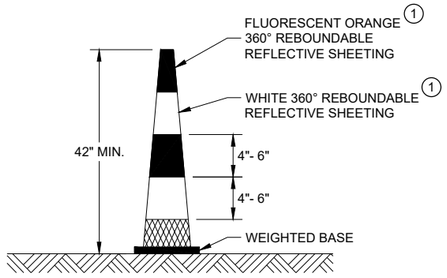
GENERAL NOTES

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.

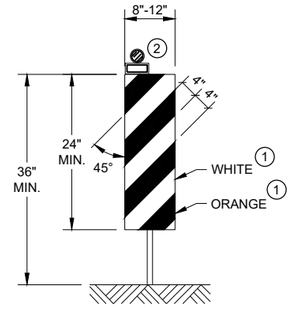


DRUM



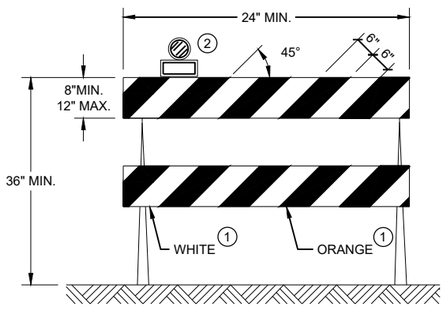
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



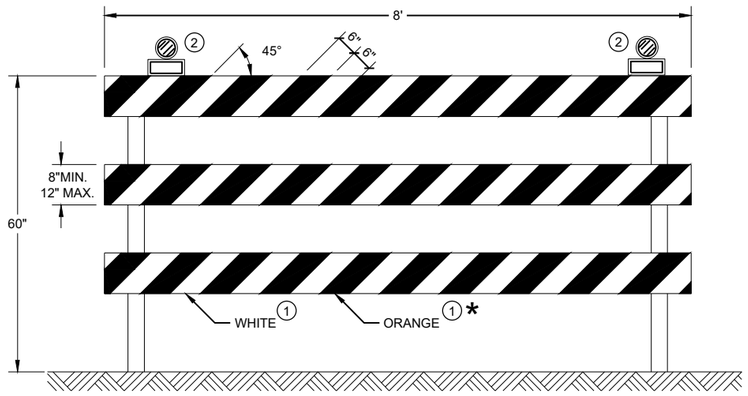
VERTICAL PANEL

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
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DATE
/S/ Andrew Heidtke
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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.

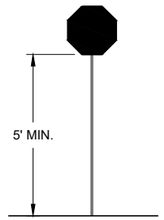
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

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.



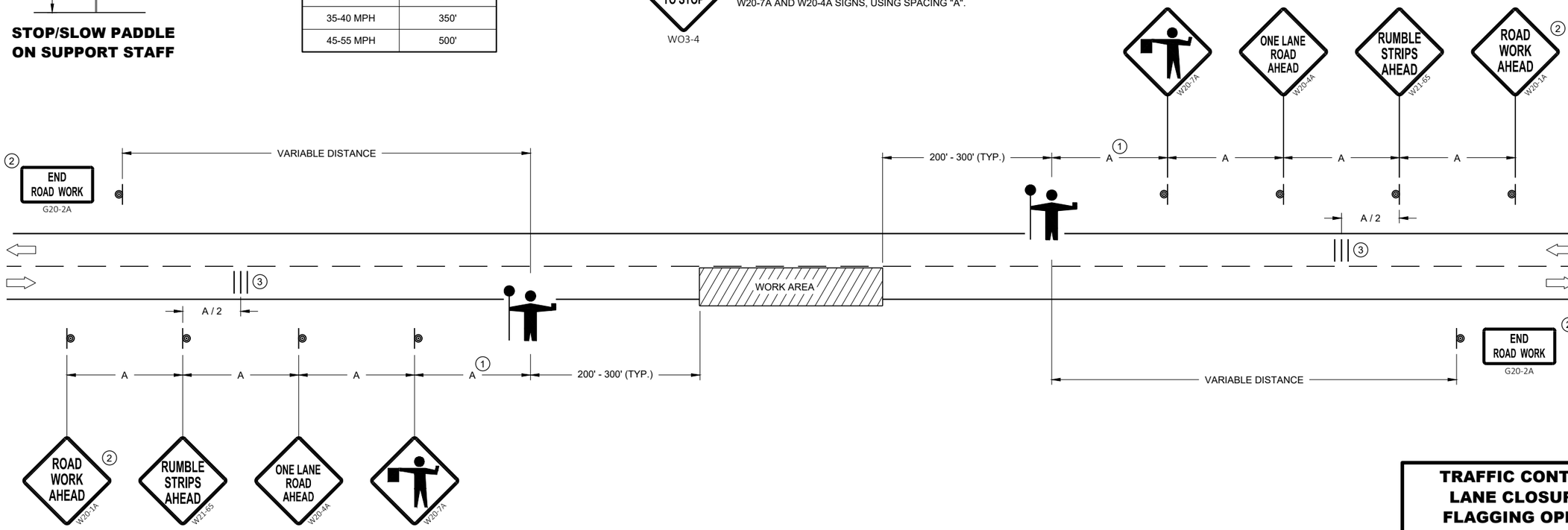
STOP/SLOW PADDLE ON SUPPORT STAFF

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
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May 2019
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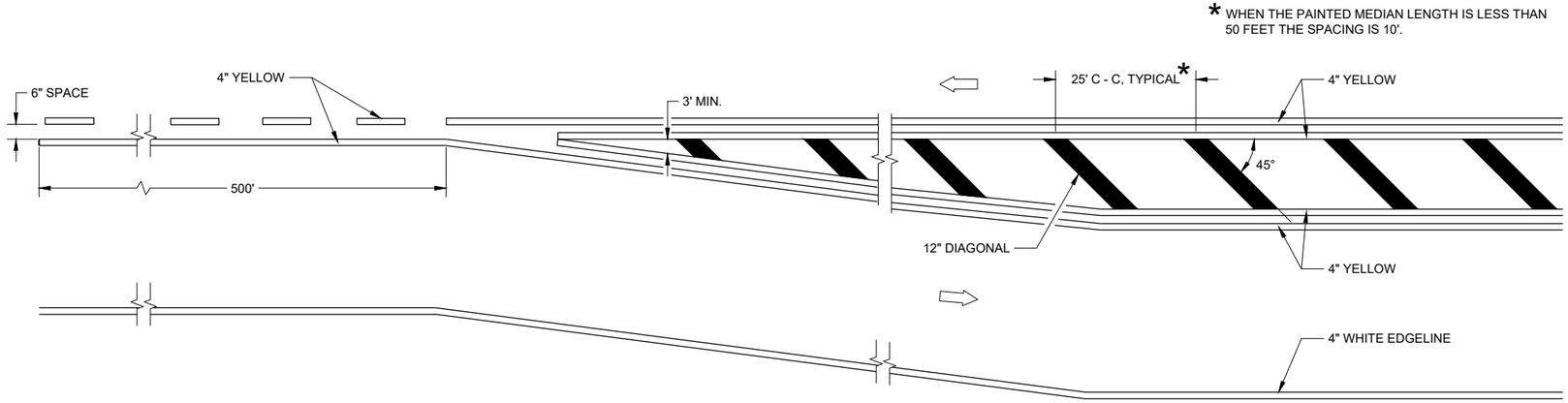
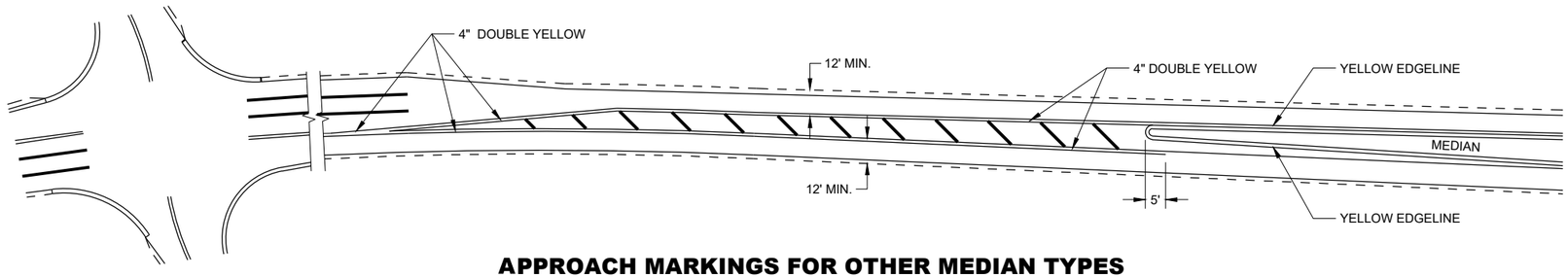


MEDIAN ISLAND DETAIL

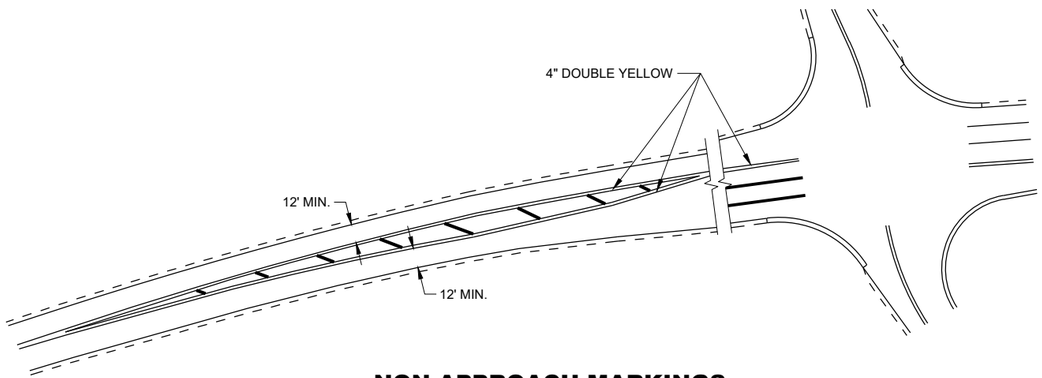
GENERAL NOTES

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

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
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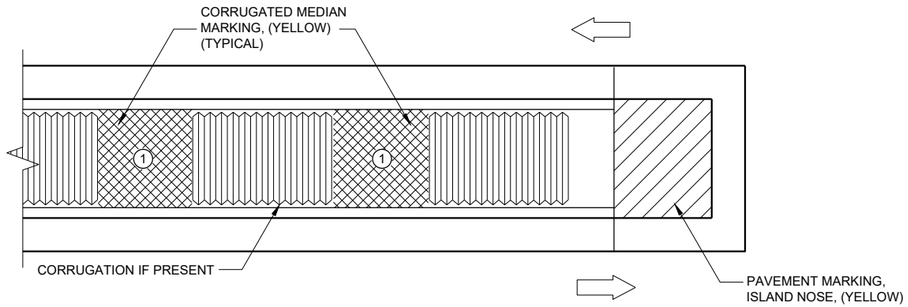
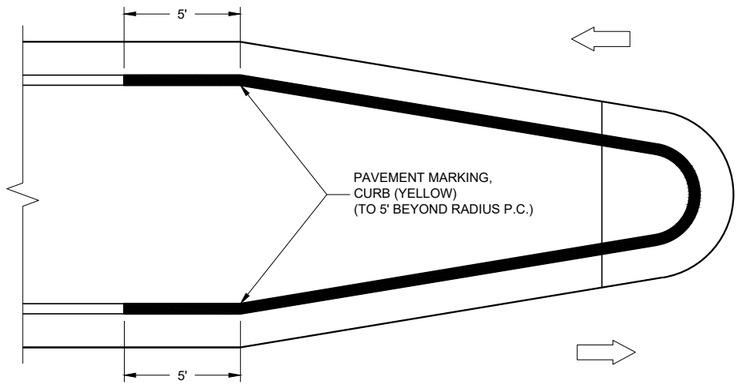
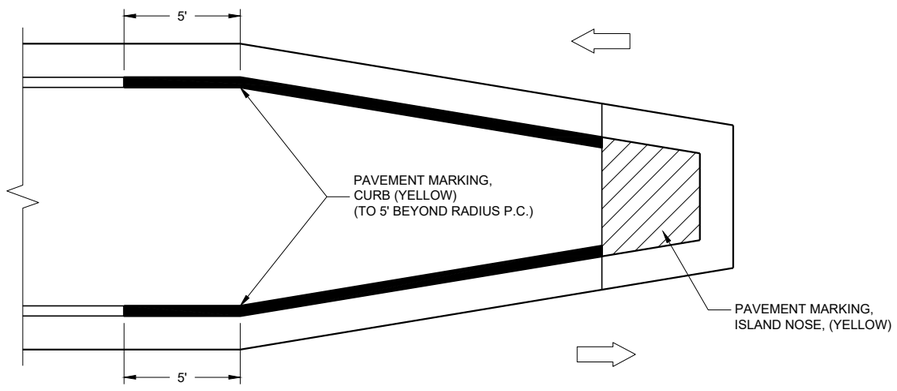


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



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.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

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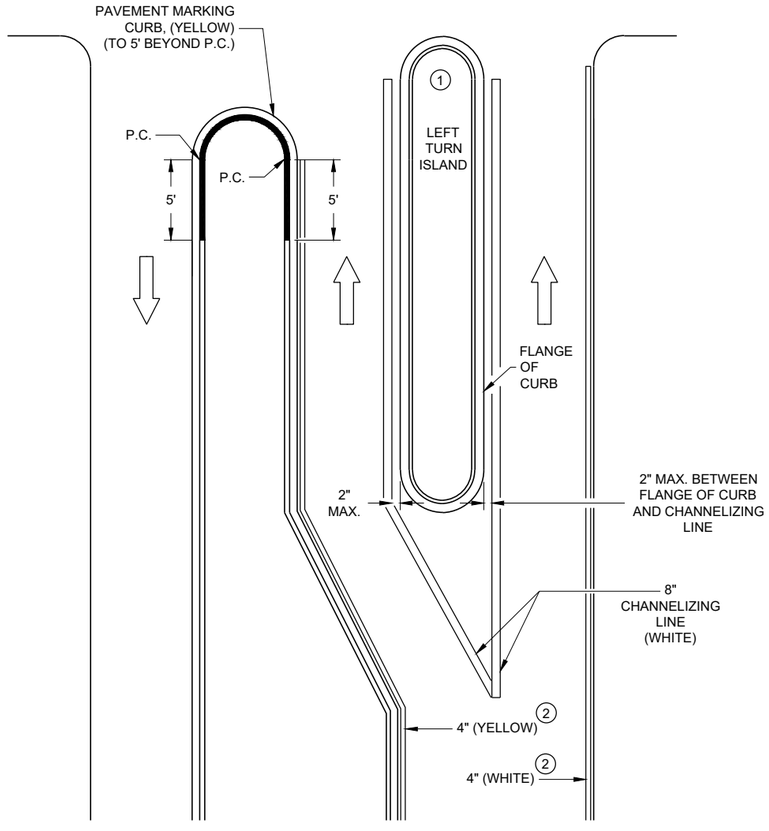
REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

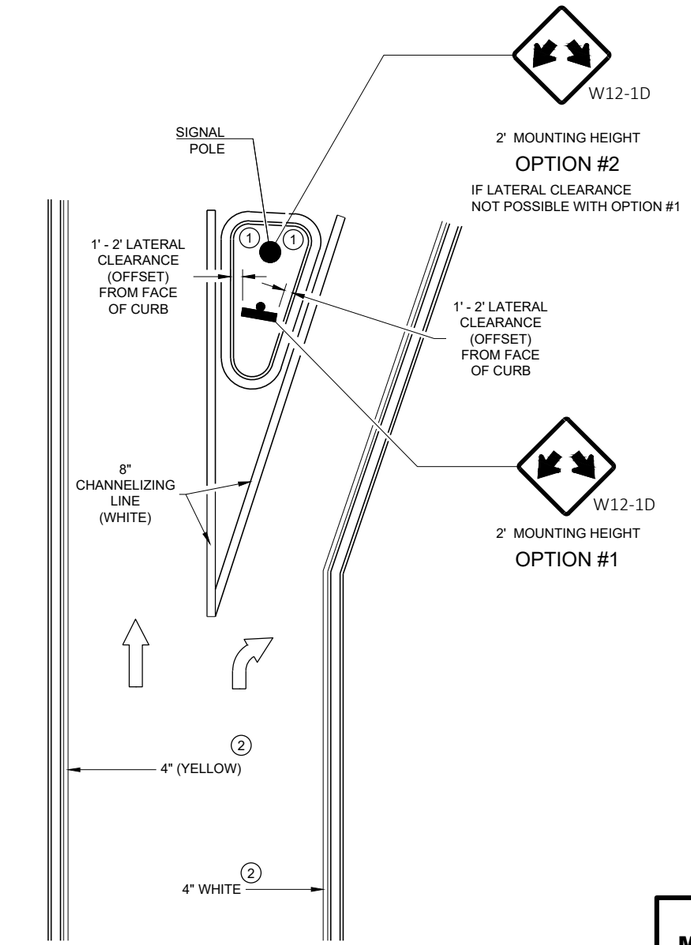
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

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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.

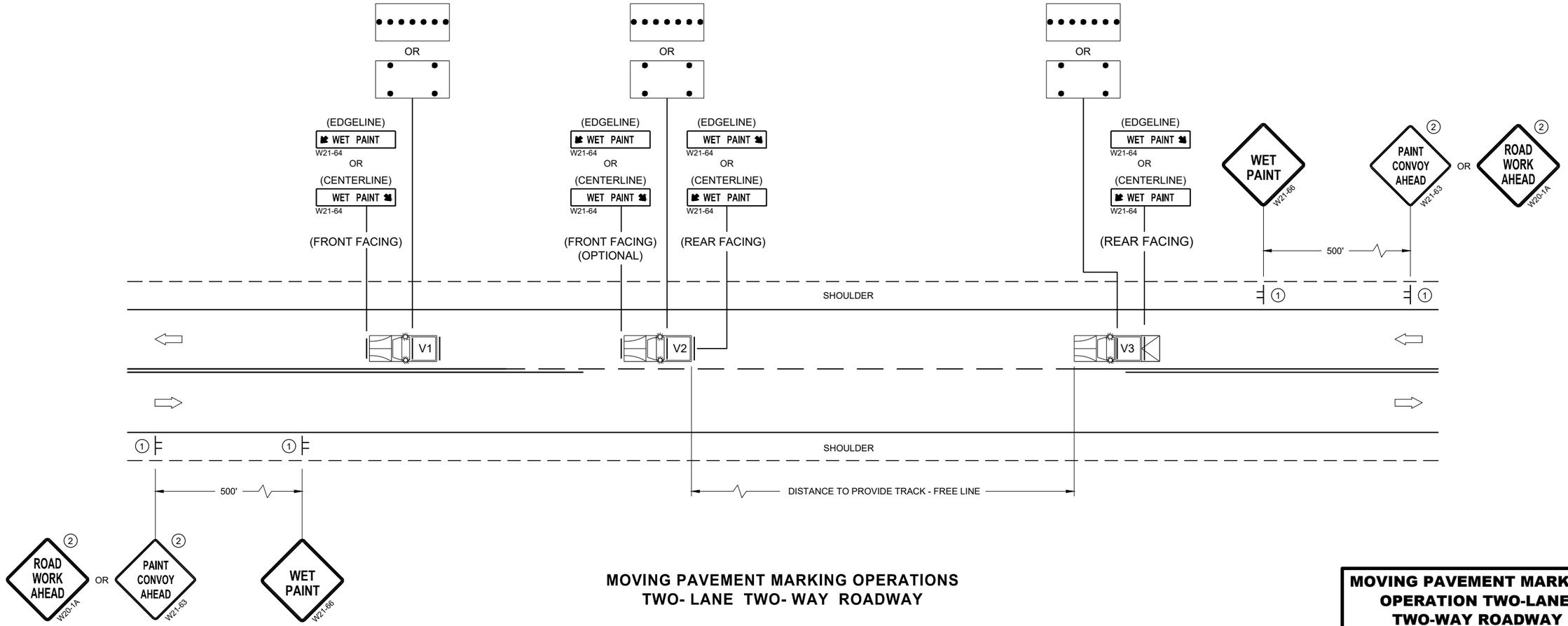
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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WORK ZONE ENGINEER

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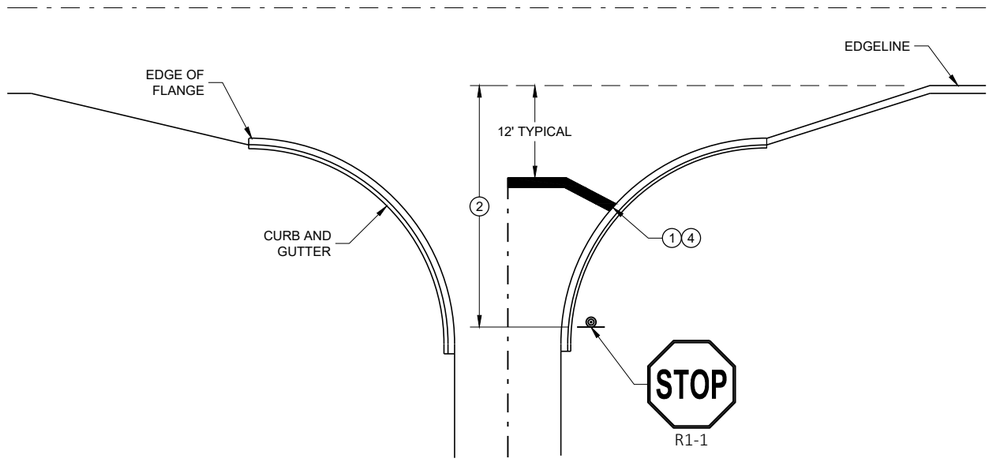
SDD 15C19 - 06a

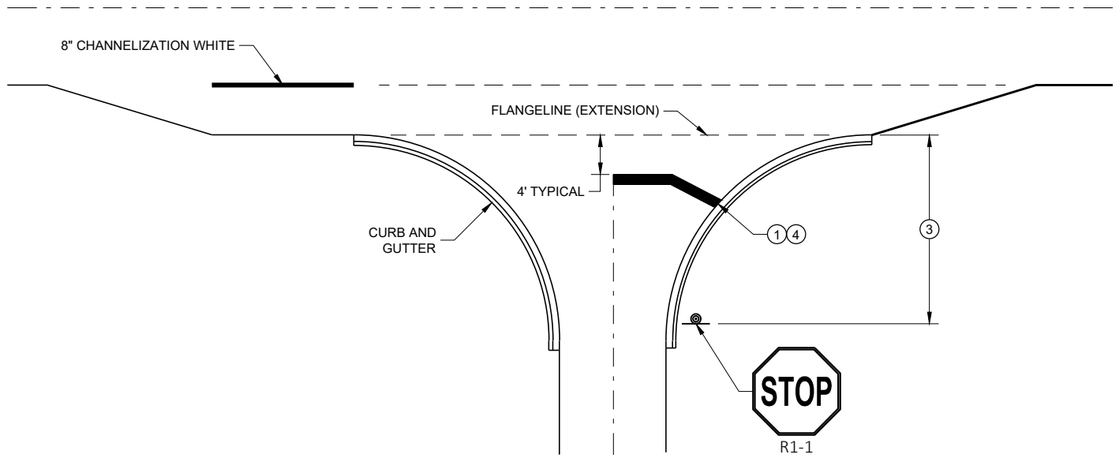
GENERAL NOTES

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

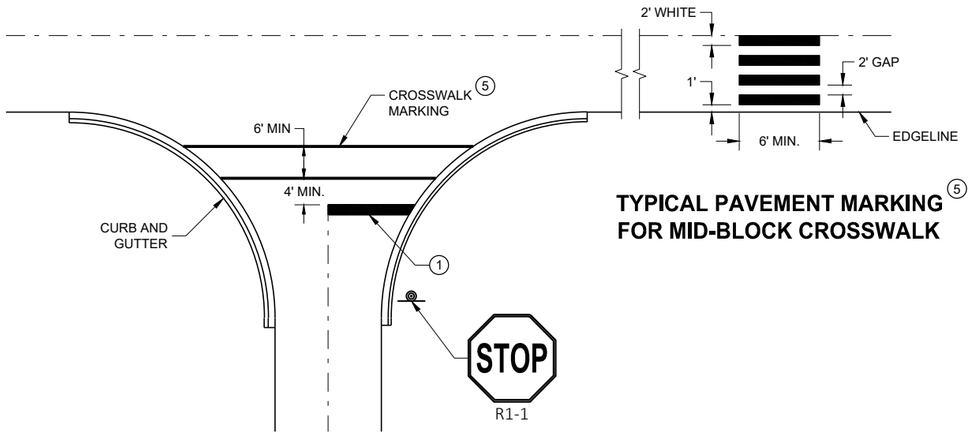
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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

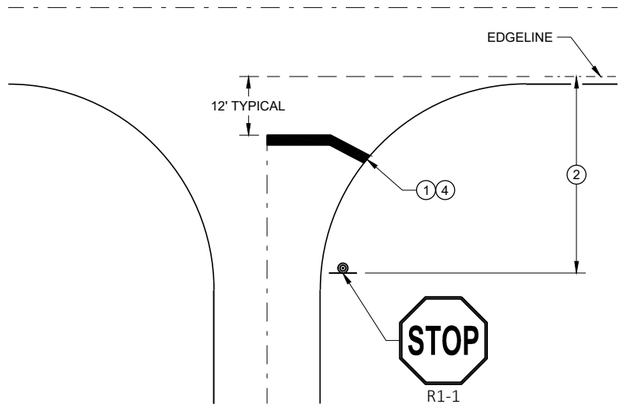


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



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

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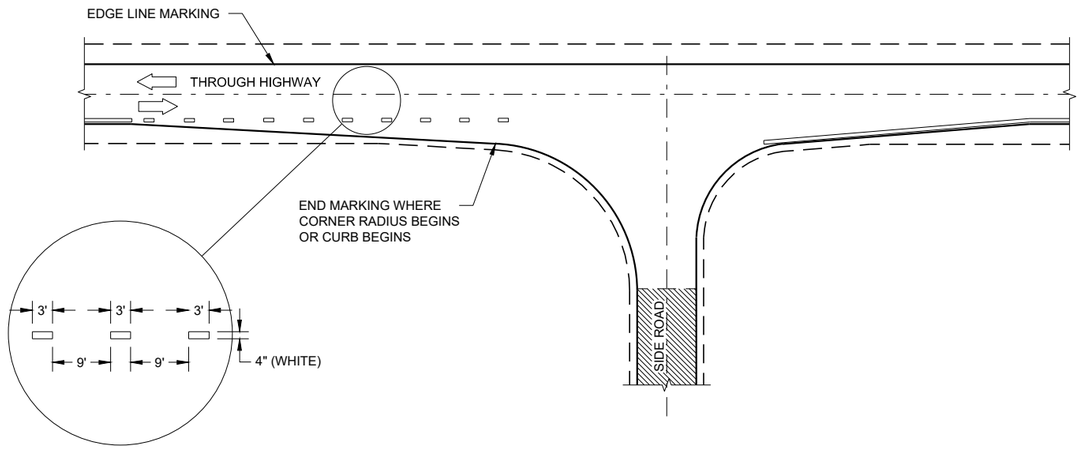
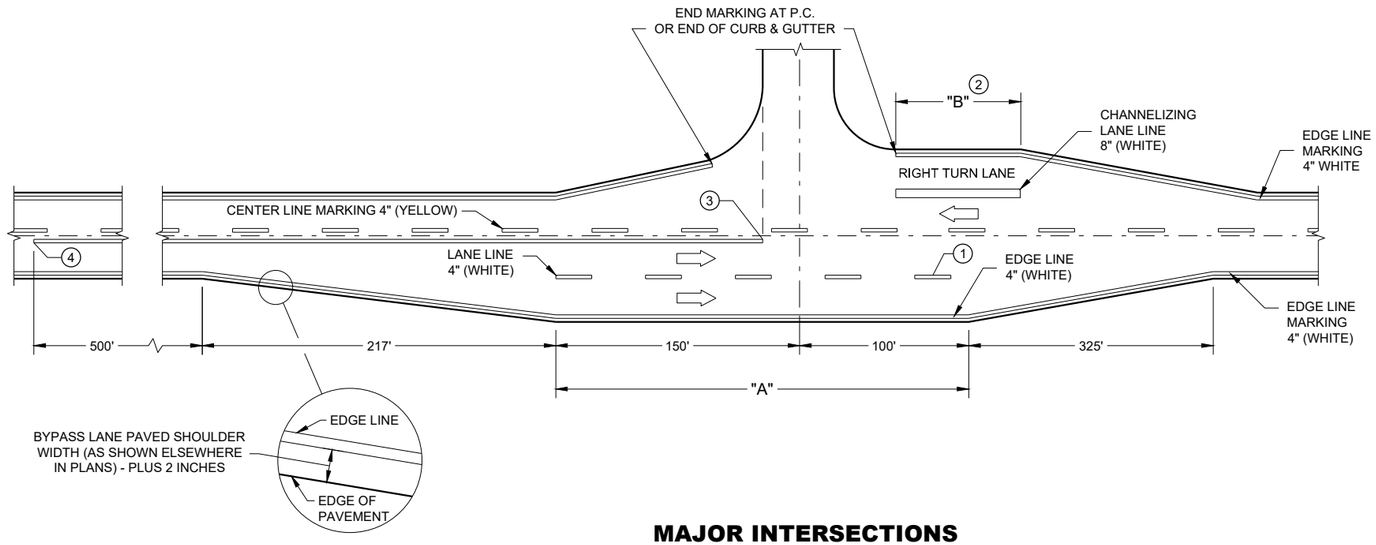


MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

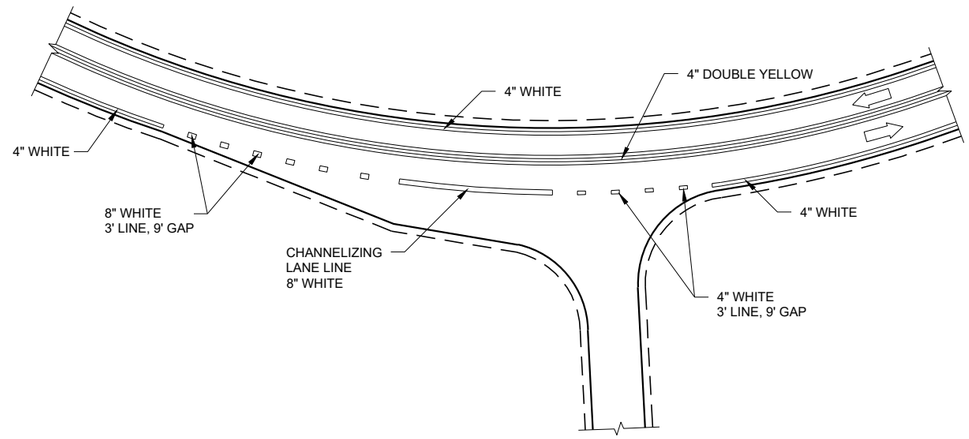
GENERAL NOTES

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



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
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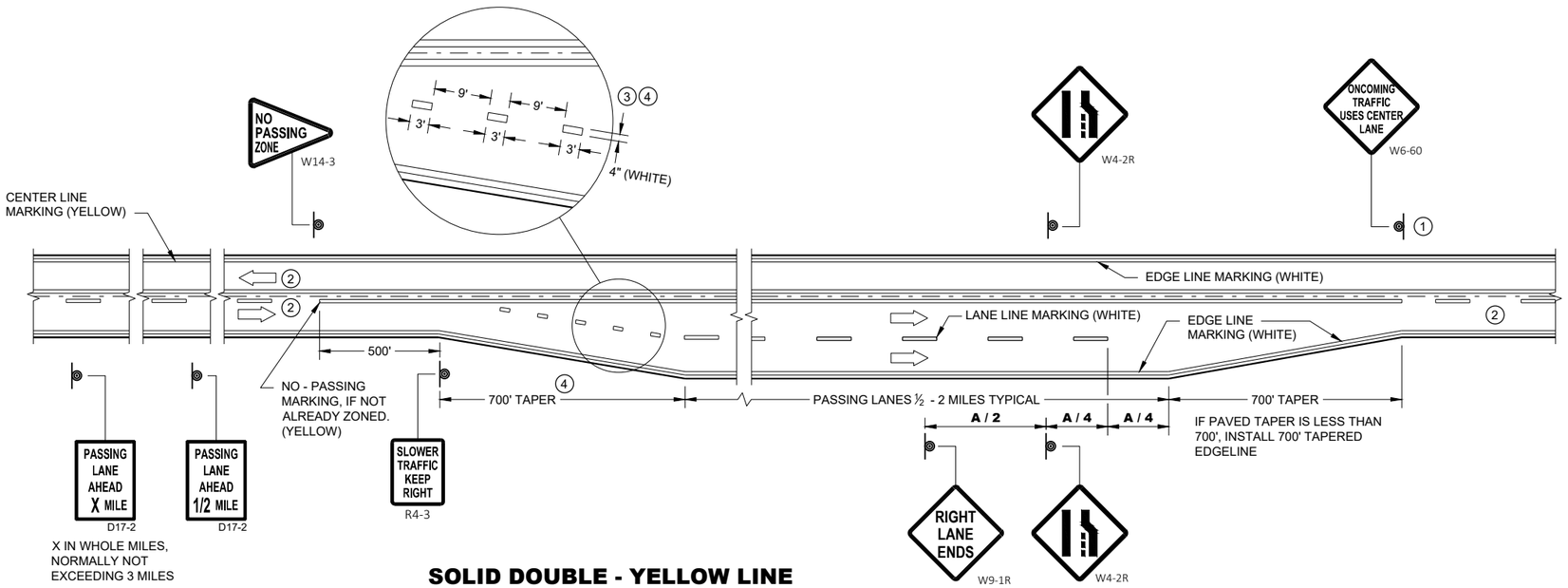


SOLID DOUBLE - YELLOW LINE
(THROUGHOUT ENTIRE PASSING / CLIMBING LANE)

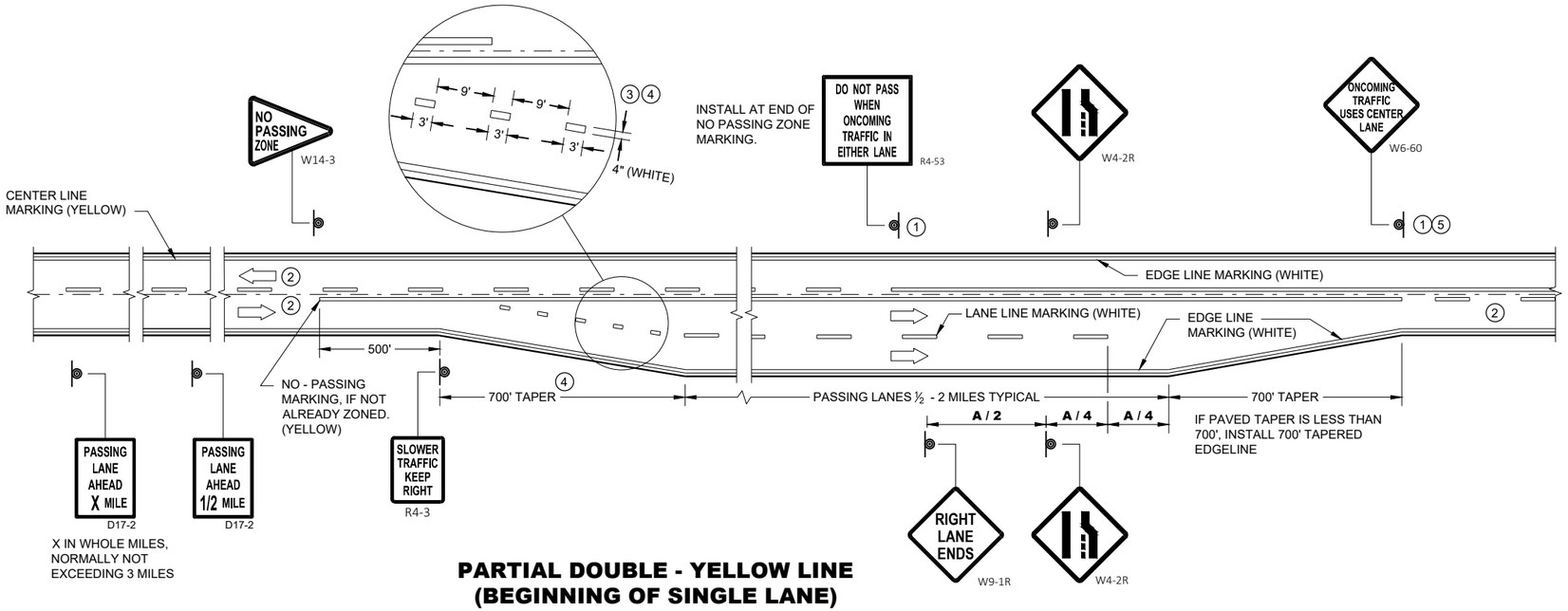
GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990



PARTIAL DOUBLE - YELLOW LINE
(BEGINNING OF SINGLE LANE)

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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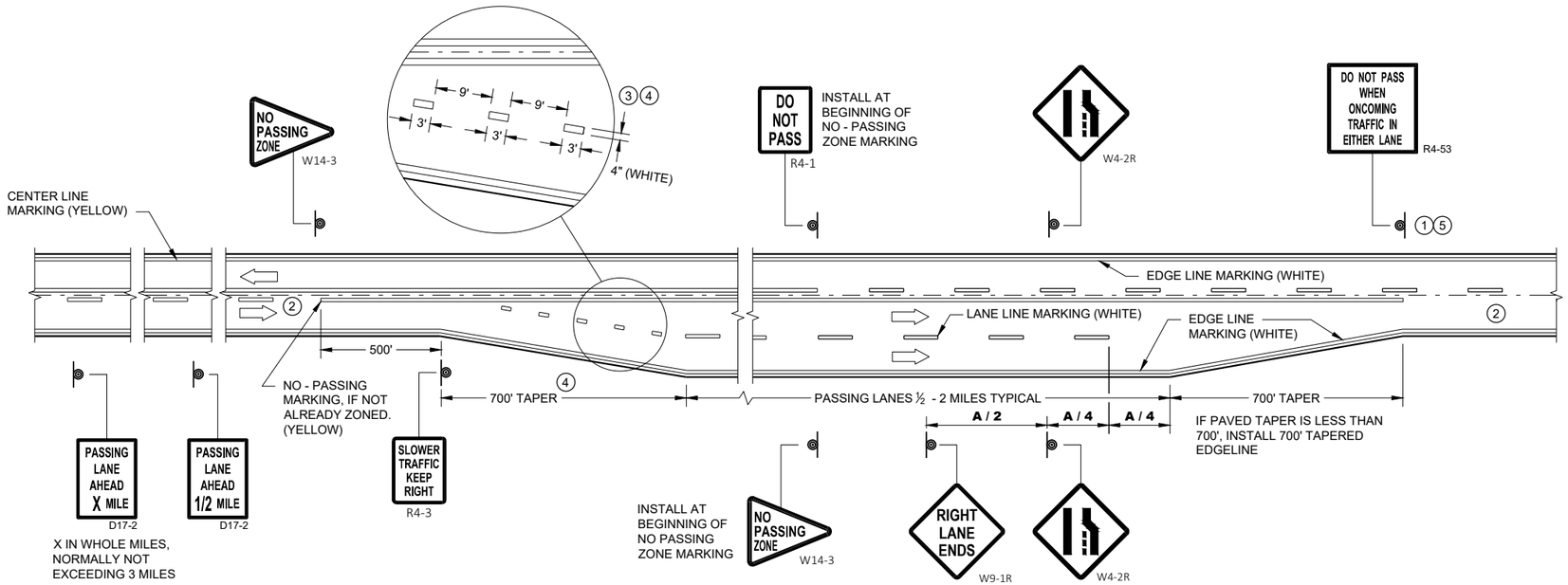
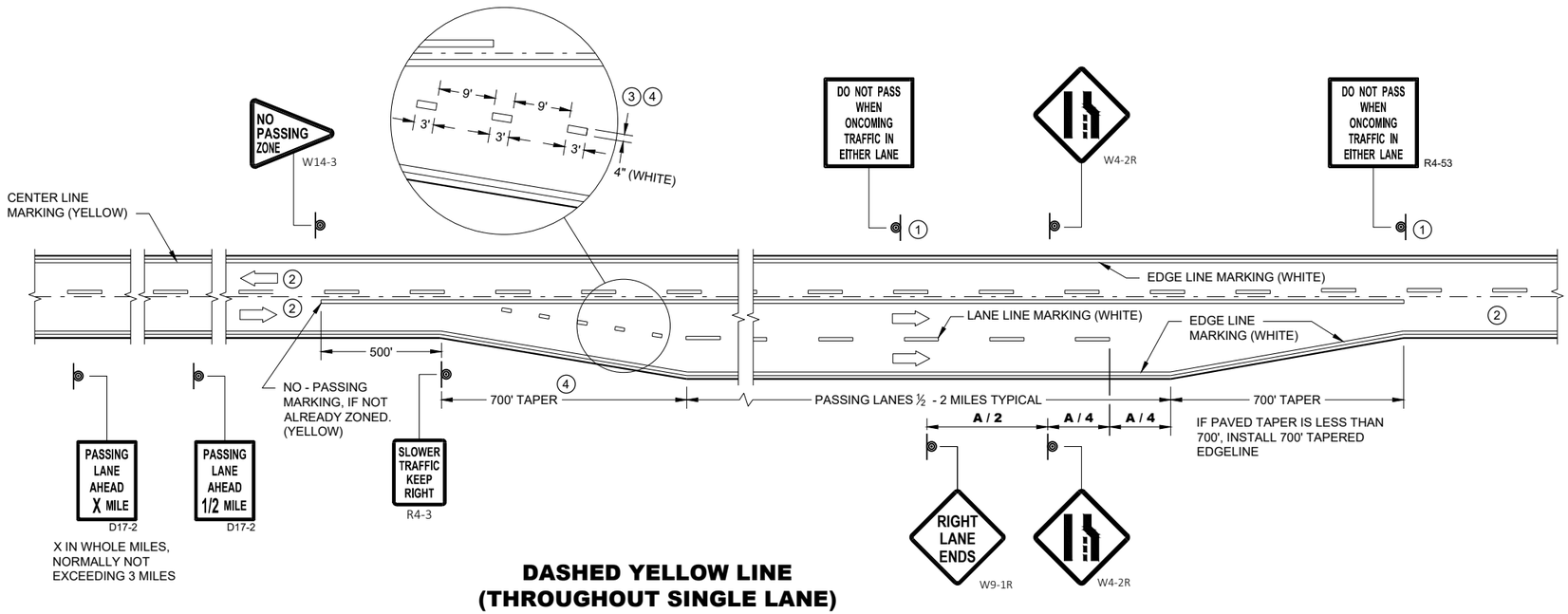
SDD 15C35 - 04b

SDD 15C35 - 04b



SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)



DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

PAVEMNET MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C35 - 04c

SDD 15C35 - 04c

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

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

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

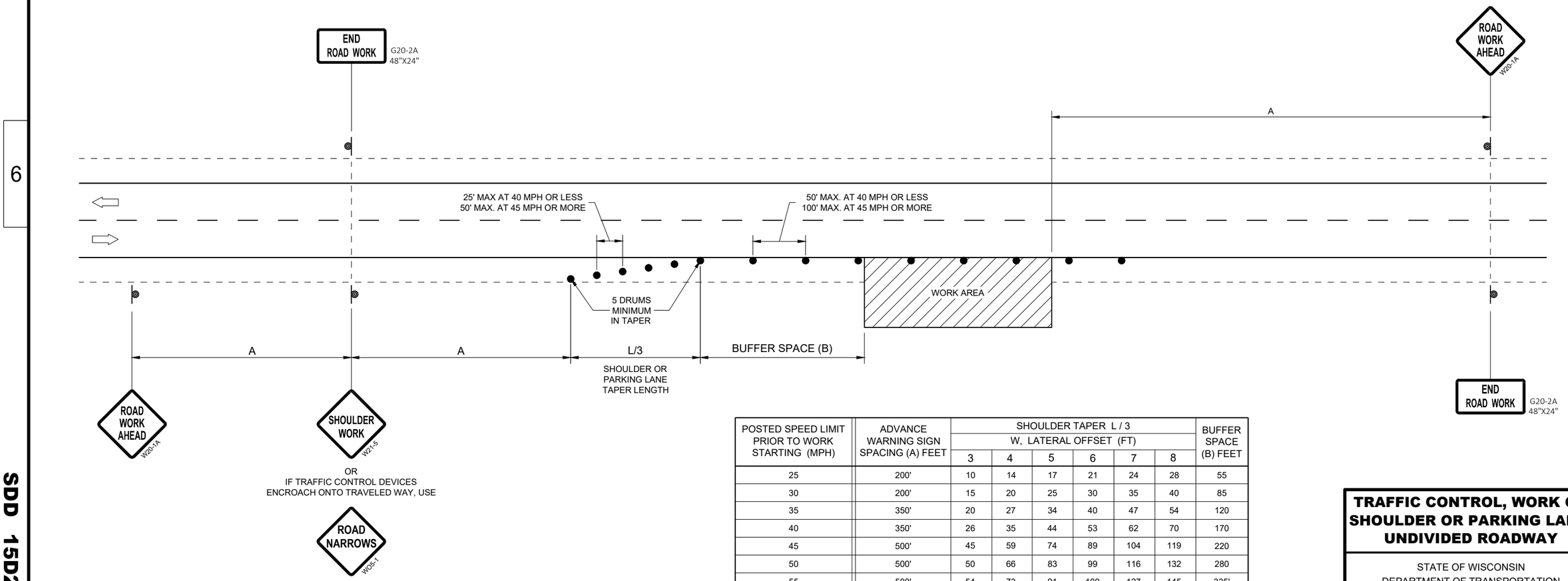
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

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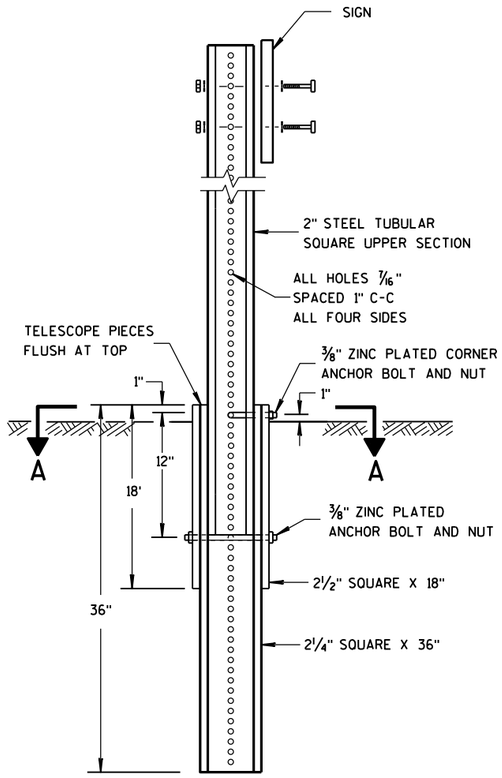
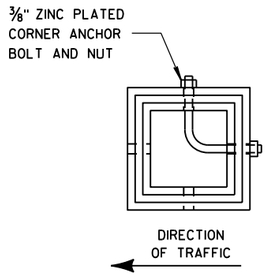
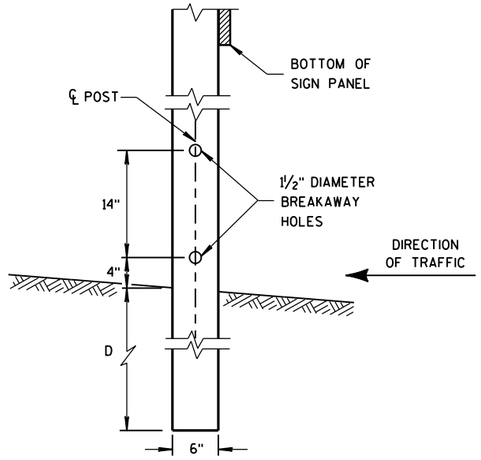
SDD 15D28 - 04



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



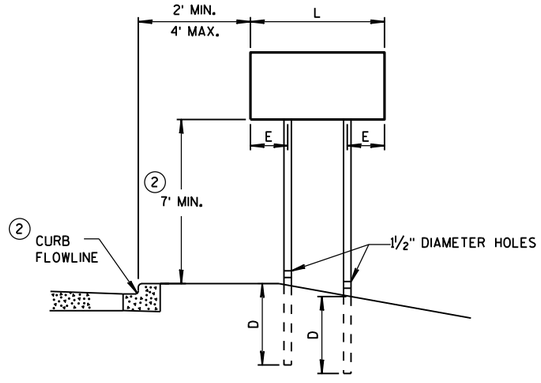
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

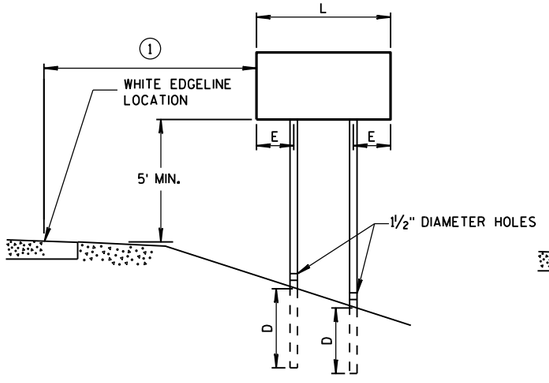
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

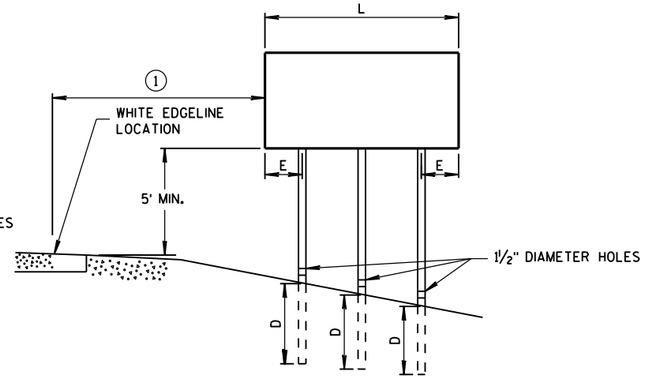
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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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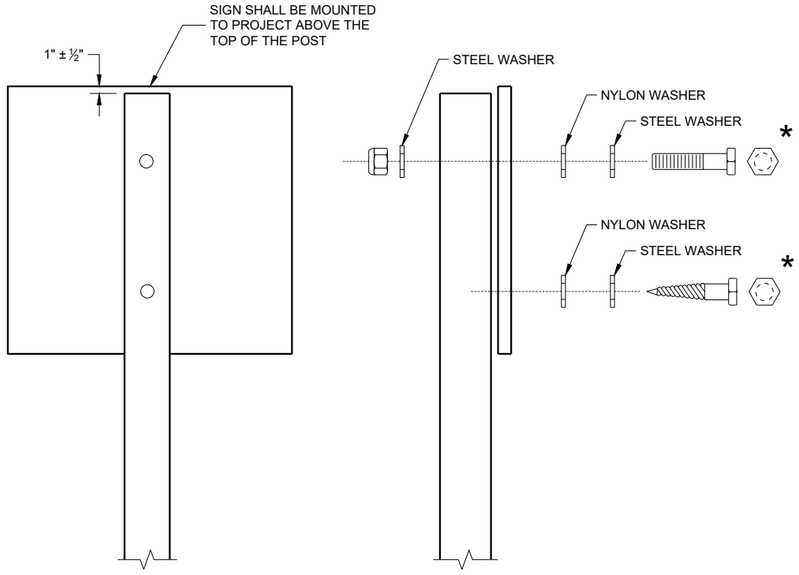
S.D.D. 15 D 38-2a



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.

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SDD 15D38 - 02b

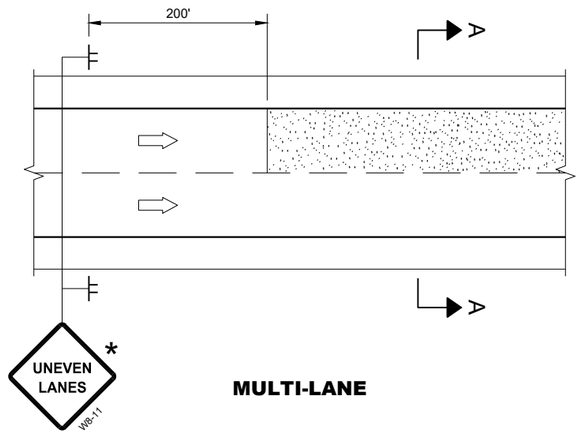
SDD15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

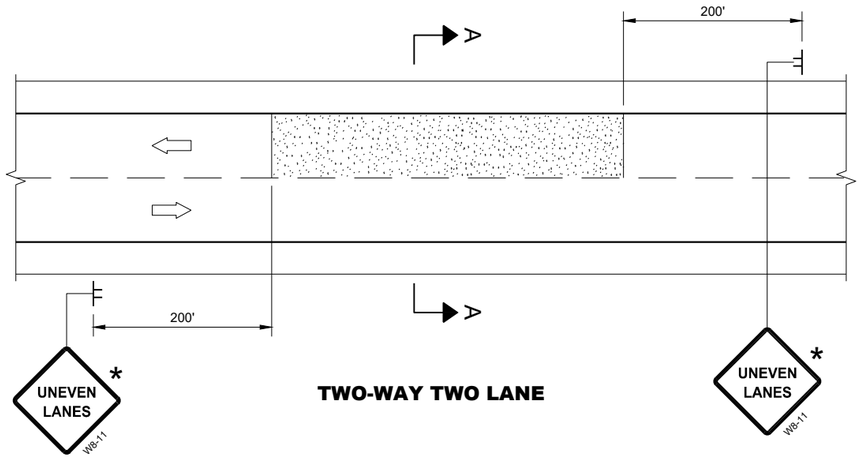
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

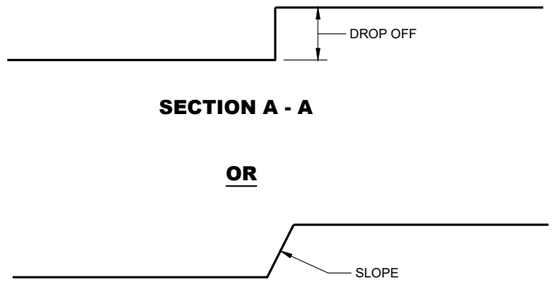
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

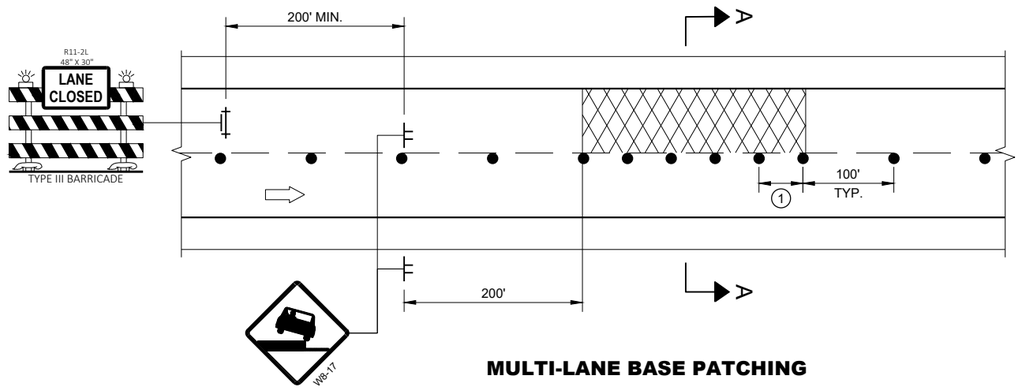
LEGEND

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



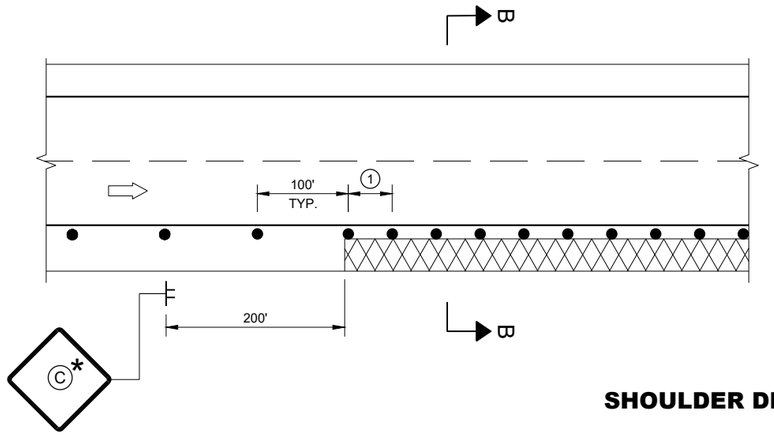
SECTION A - A

SECTION A - A

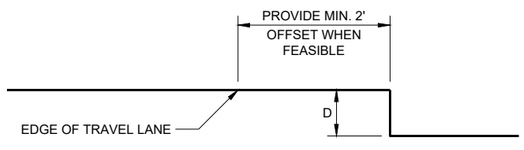


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

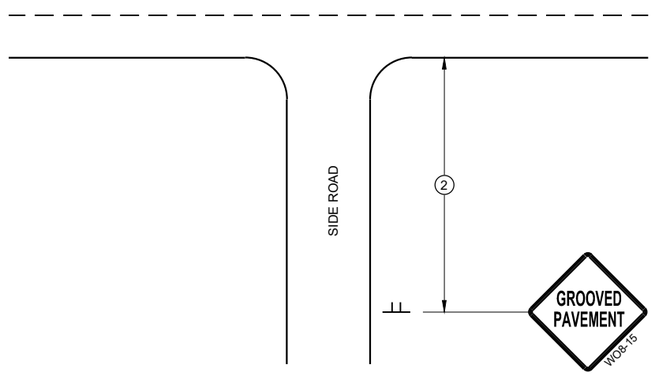
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

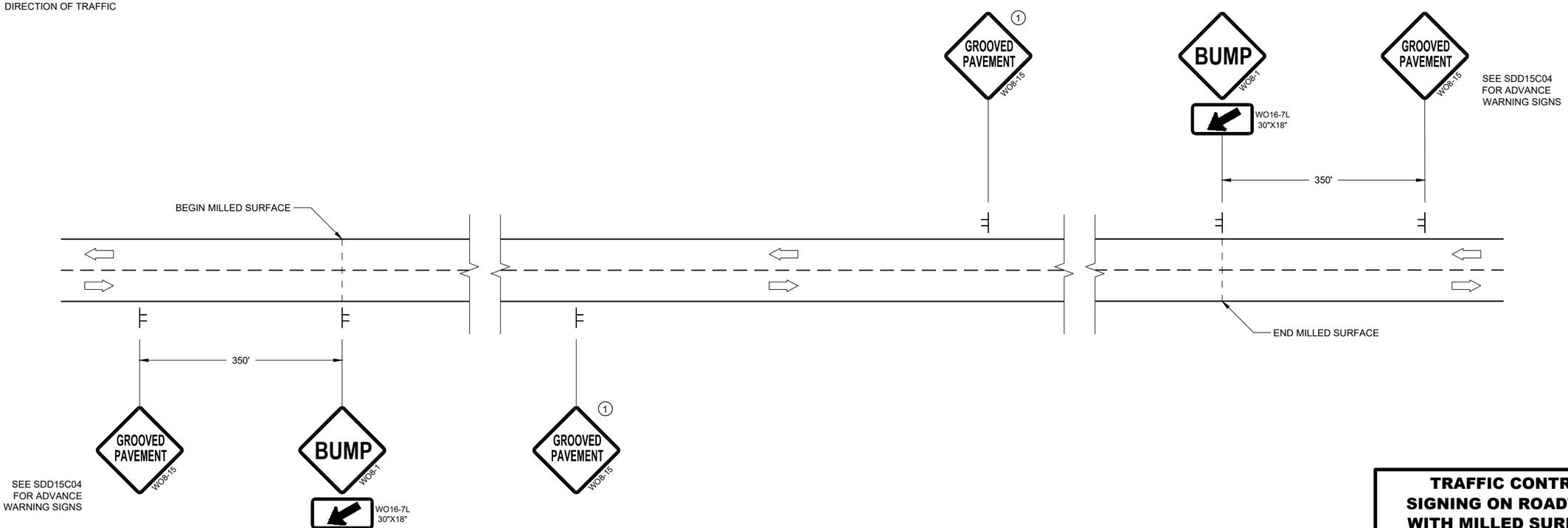
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D44 - 02

LEGEND

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					
		3	4	5	6	7	8
25	200	10	14	17	21	24	28
30	200	15	20	25	30	35	40
35	350	20	27	34	40	47	54
40	350	26	35	44	53	62	70
45	500	45	59	74	89	104	119
50	500	50	66	83	99	116	132
55	500	54	73	91	109	127	145

GENERAL NOTES

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

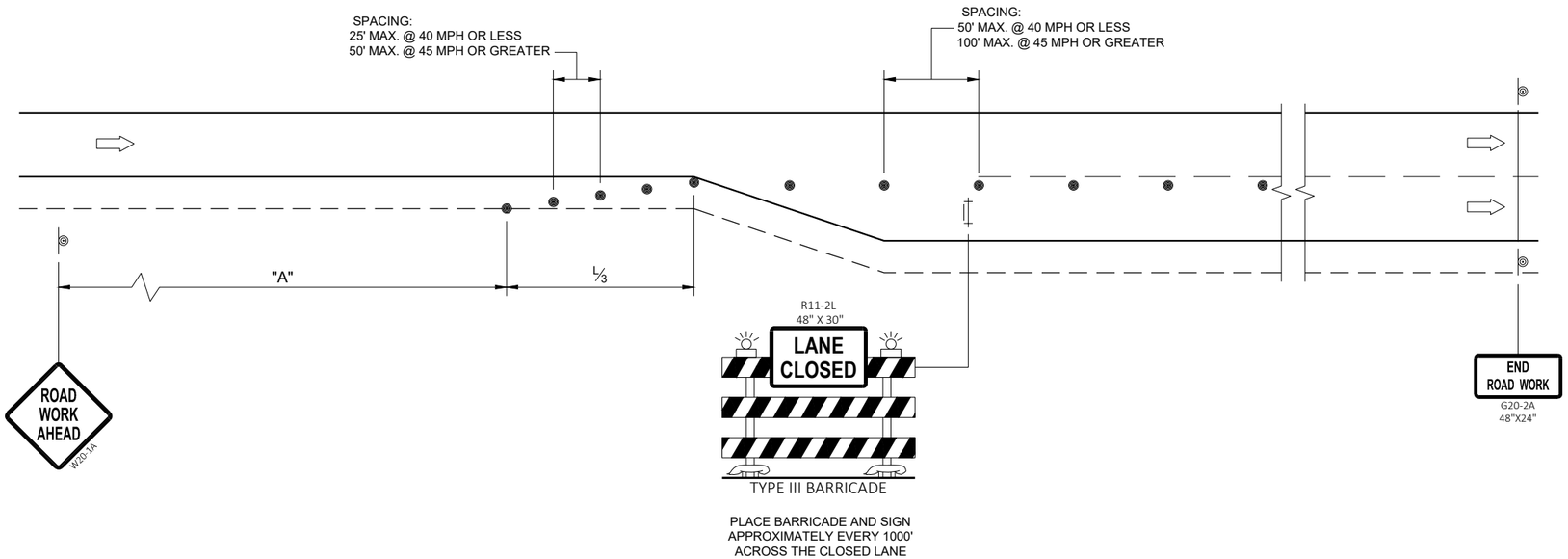
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.



PLACE BARRICADE AND SIGN APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE

ADDED LANE CLOSURE WITHOUT LANE SHIFT

TRAFFIC CONTROL
ADDED LANE CLOSURE
WITHOUT LANE SHIFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

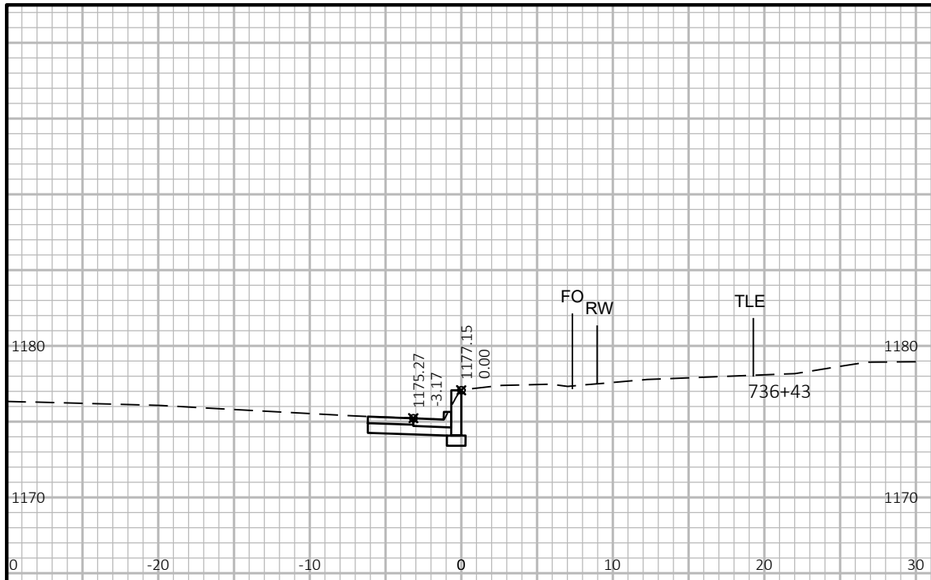
FHWA

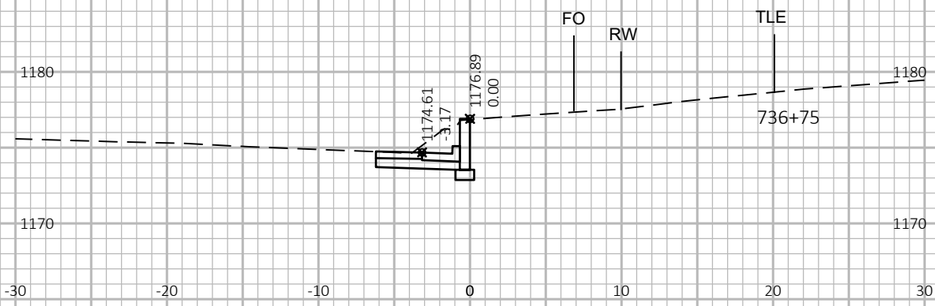
6

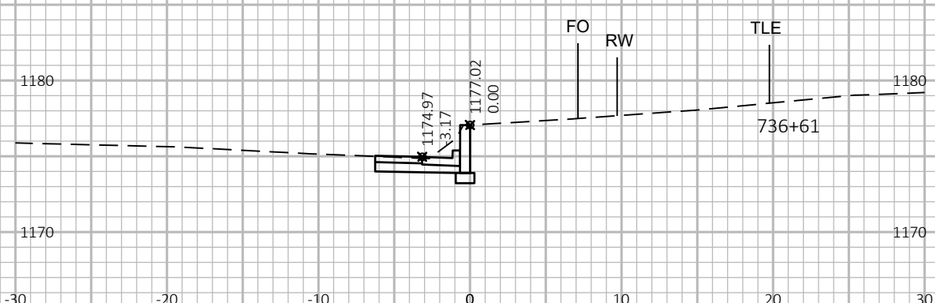
SDD 15D50 - 01a

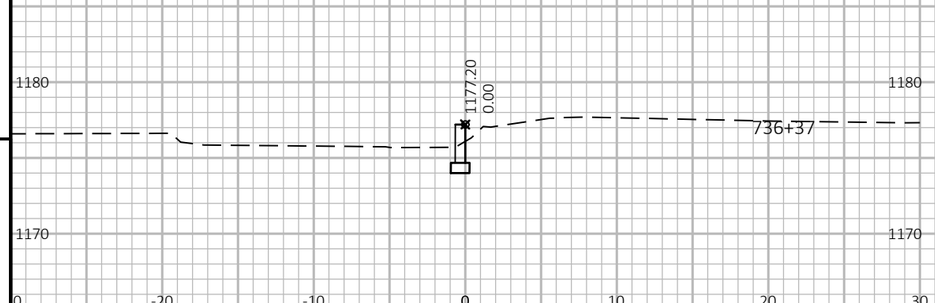
6

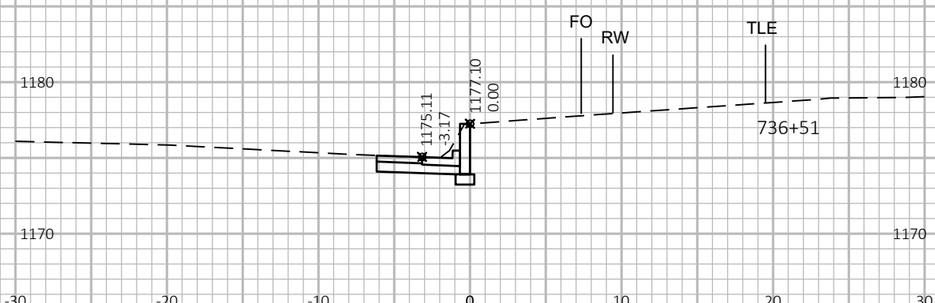
SDD 15D50 - 01a

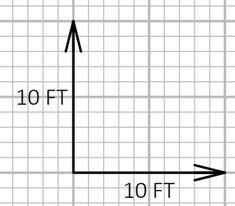












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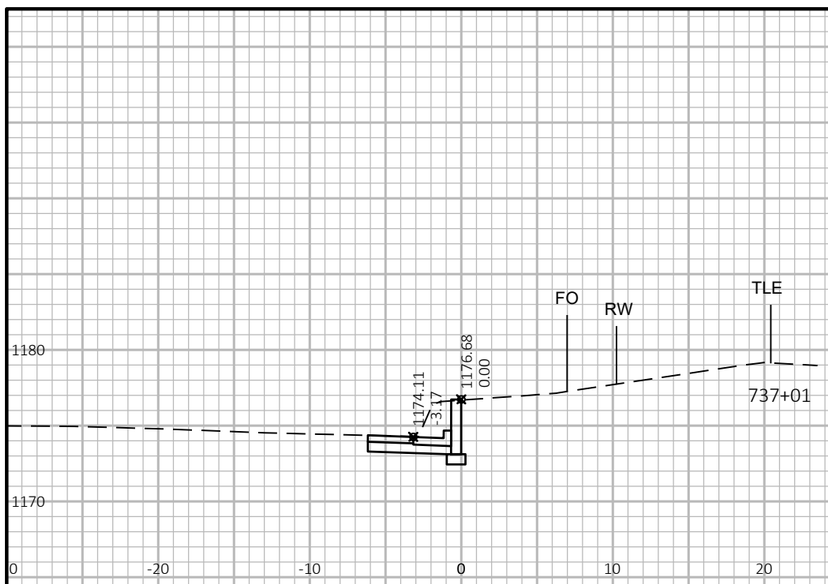
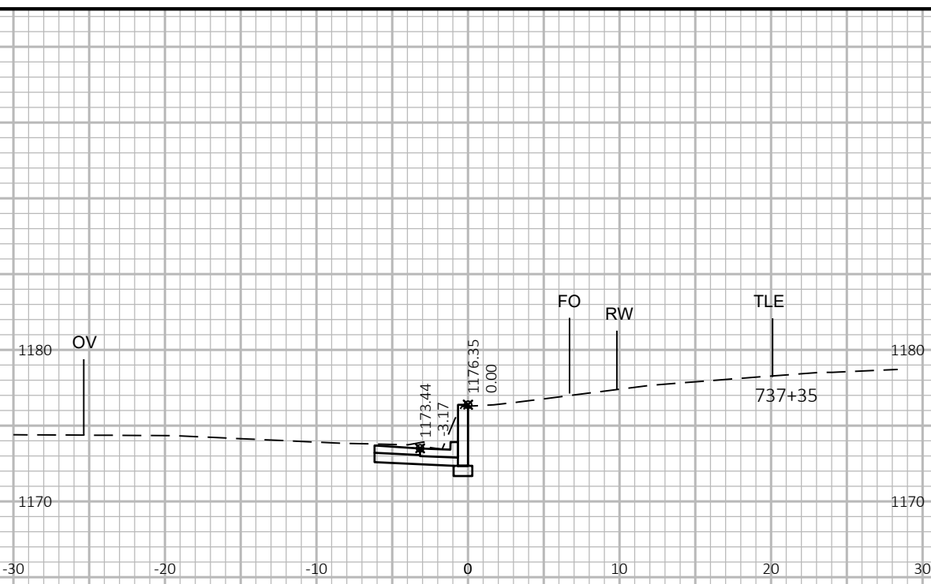
PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: WALL MODULAR BLOCK GRAVITY LANDSCAPE	SHEET 108	E

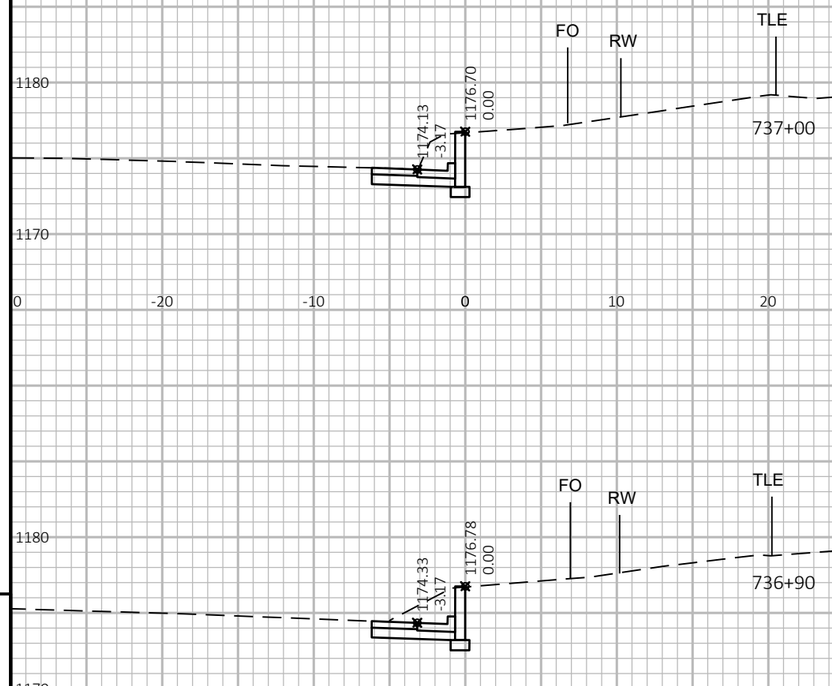
FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSOTHER\FILES FROM SSR\RETAINING WALL CROSS SECTION.DWG
LAYOUT NAME - Section Sheet - (5)

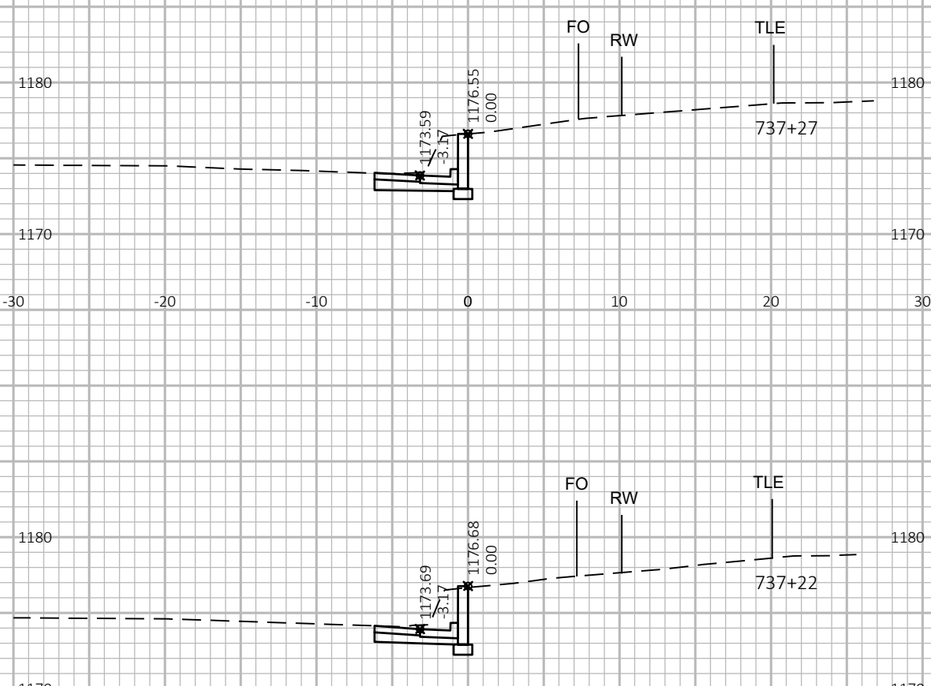
PLOT DATE : 6/10/2021 10:49 AM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

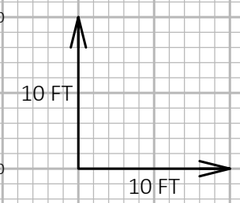
WISDOT/CADDS SHEET 49











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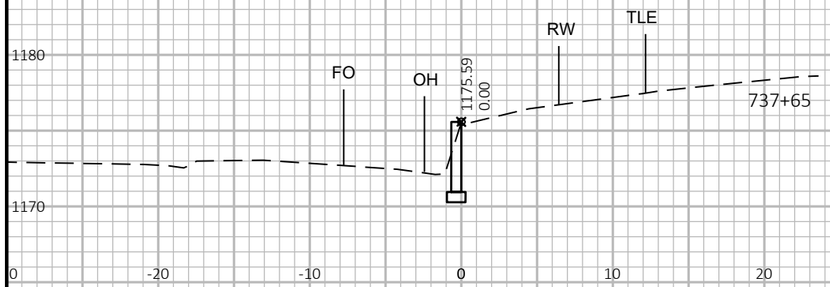
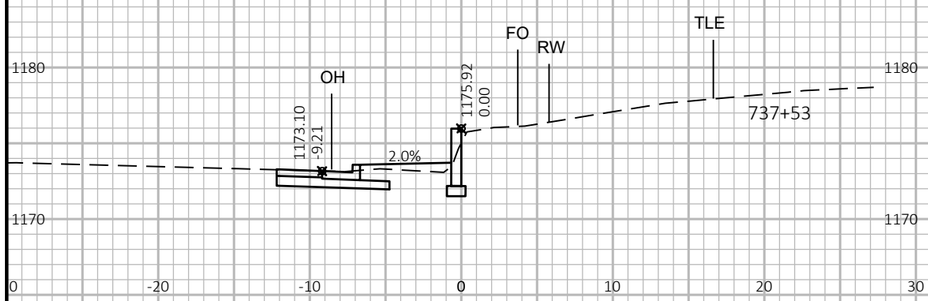
PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: WALL MODULAR BLOCK GRAVITY LANDSCAPE	SHEET 109	E

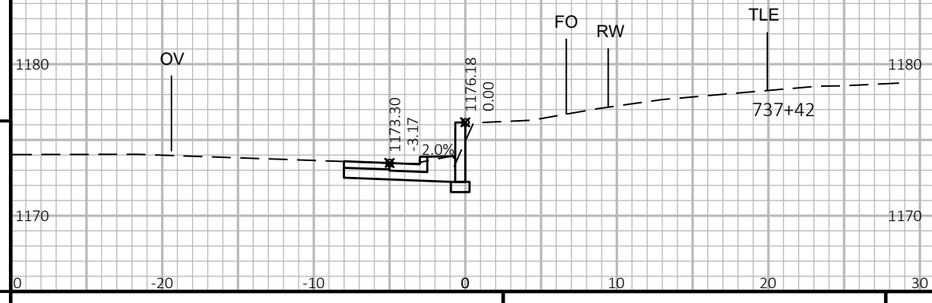
FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSOTHER\FILES FROM SSR\RETAINING WALL CROSS SECTION.DWG
LAYOUT NAME - Section Sheet - (6)

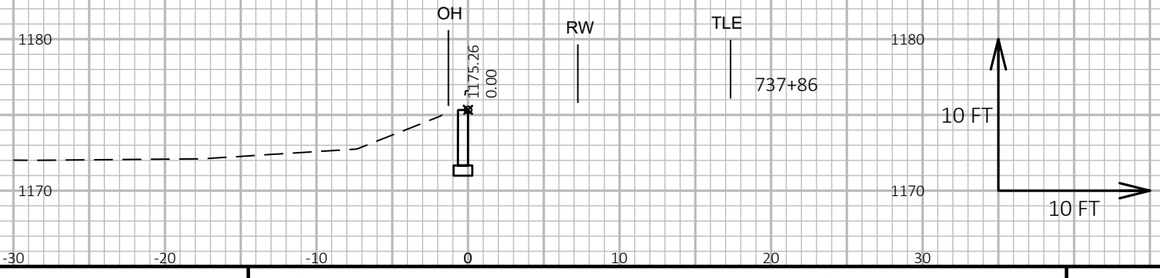
PLOT DATE : 6/10/2021 10:49 AM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









9

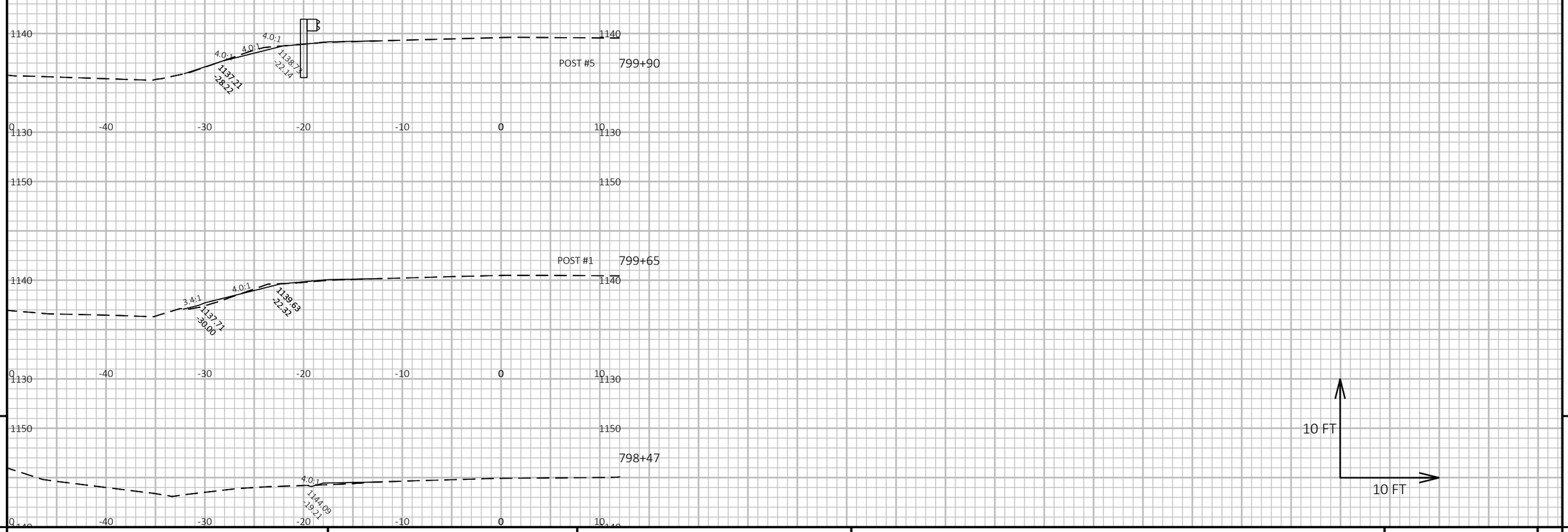
9

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: WALL MODULAR BLOCK GRAVITY LANDSCAPE	SHEET 110	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSOTHER\FILES FROM SSR\RETAINING WALL CROSS SECTION.DWG
LAYOUT NAME - Section Sheet - (7)

PLOT DATE : 6/10/2021 10:50 AM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



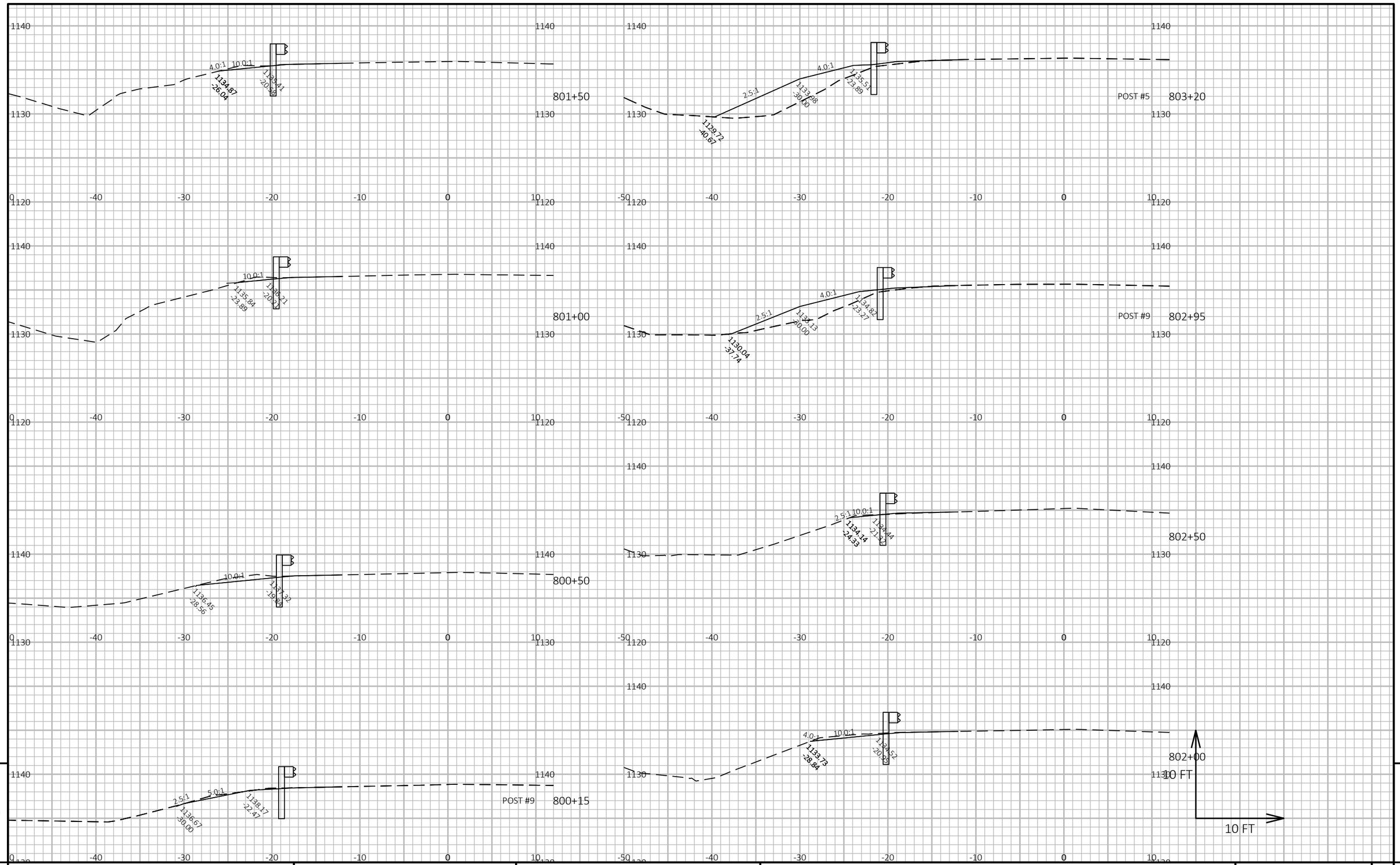
9

9

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: BEAM GUARD	SHEET 111	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\090201_XS LEFT.DWG
LAYOUT NAME - 7

PLOT DATE : 4/29/2021 1:39 PM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: BEAM GUARD	SHEET 112	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\090201_XS LEFT.DWG
LAYOUT NAME - 8

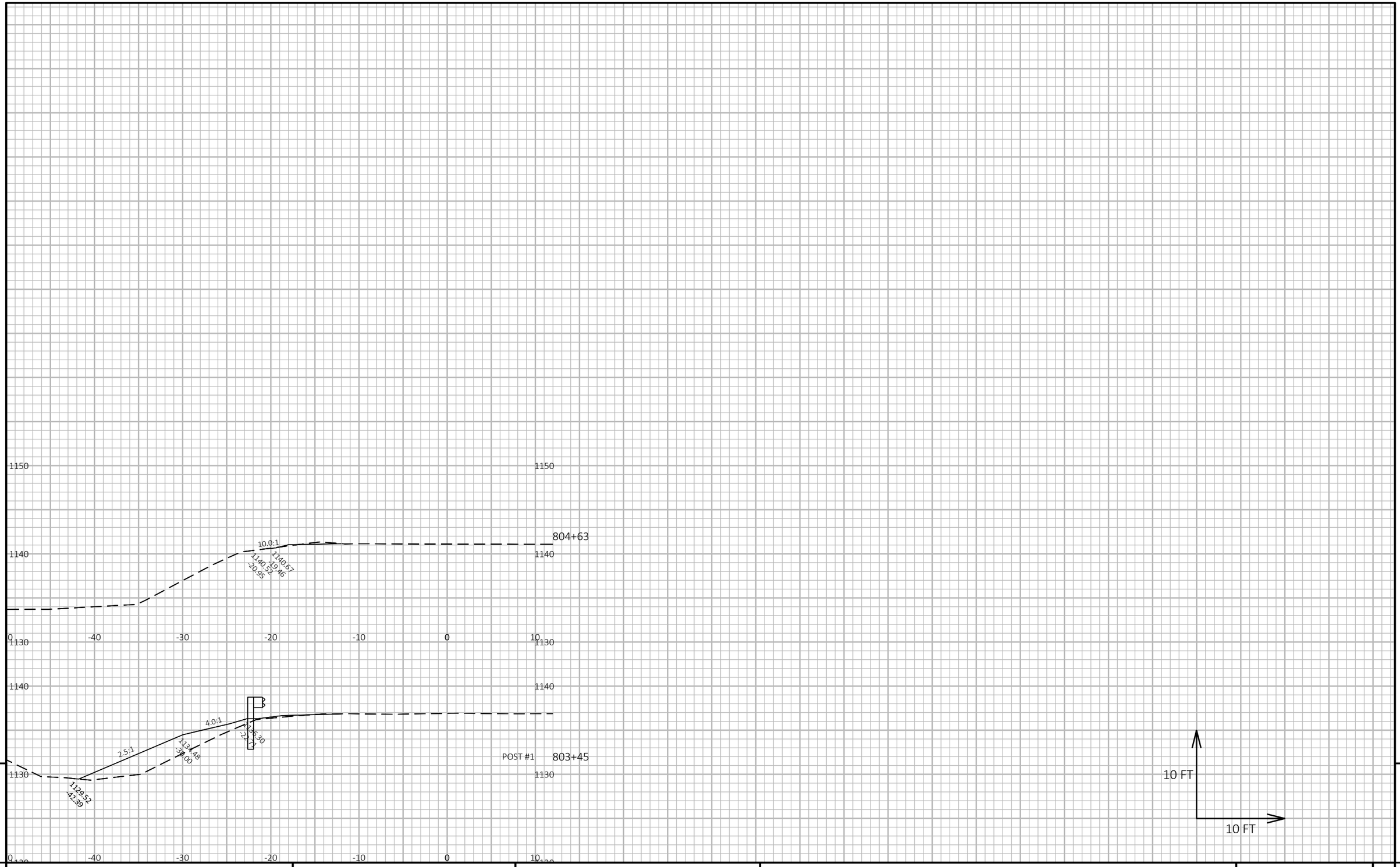
PLOT DATE : 4/29/2021 1:39 PM

PLOT BY : BECKLIN, MATTHEW R

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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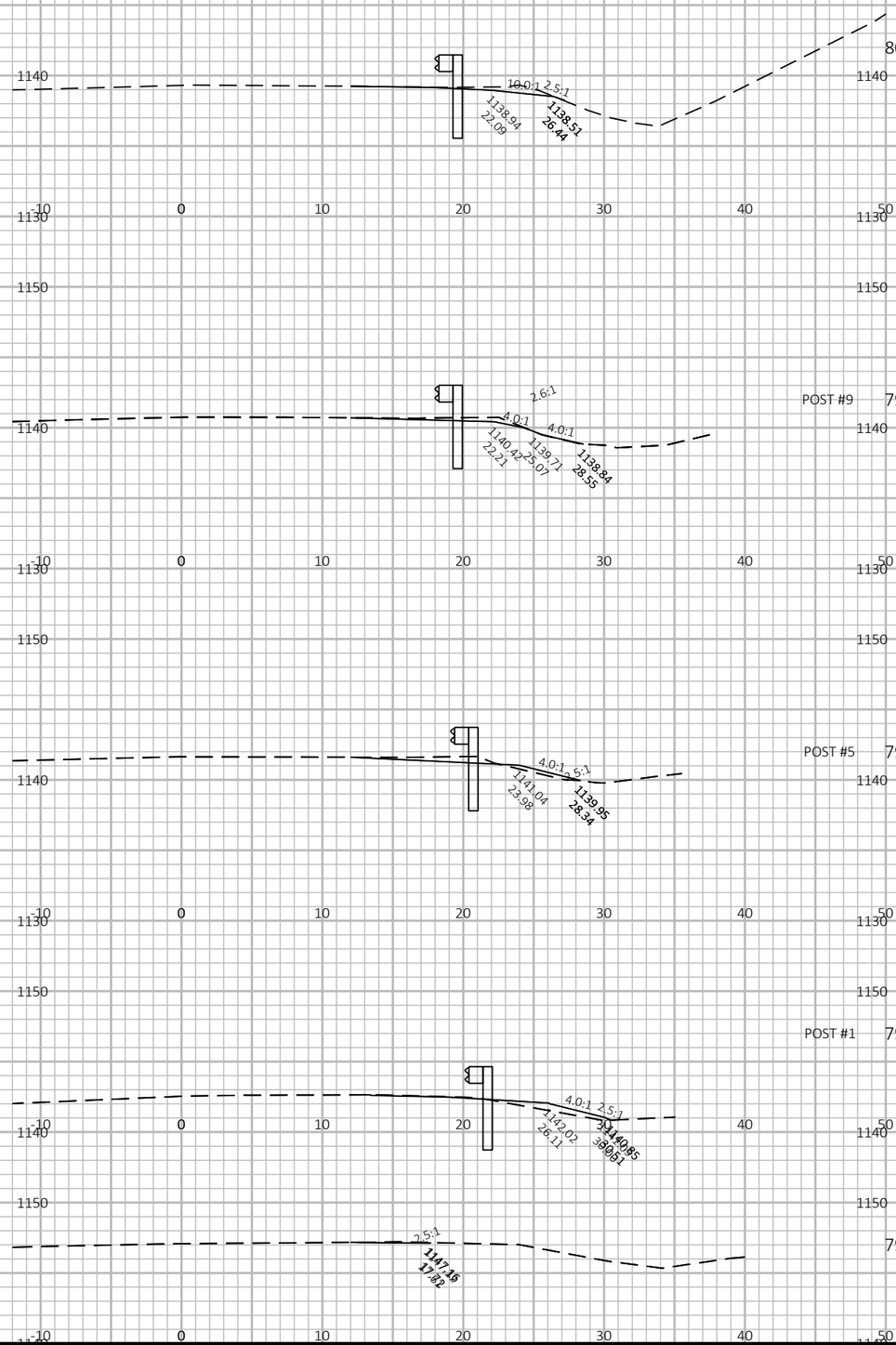
PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: BEAM GUARD	SHEET 113	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\090201_XS LEFT.DWG
LAYOUT NAME - 9

PLOT DATE : 4/29/2021 1:40 PM PLOT BY : BECKLIN, MATTHEW R PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: BEAM GUARD	SHEET 114	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\090201_XS RIGHT.DWG
LAYOUT NAME - 1

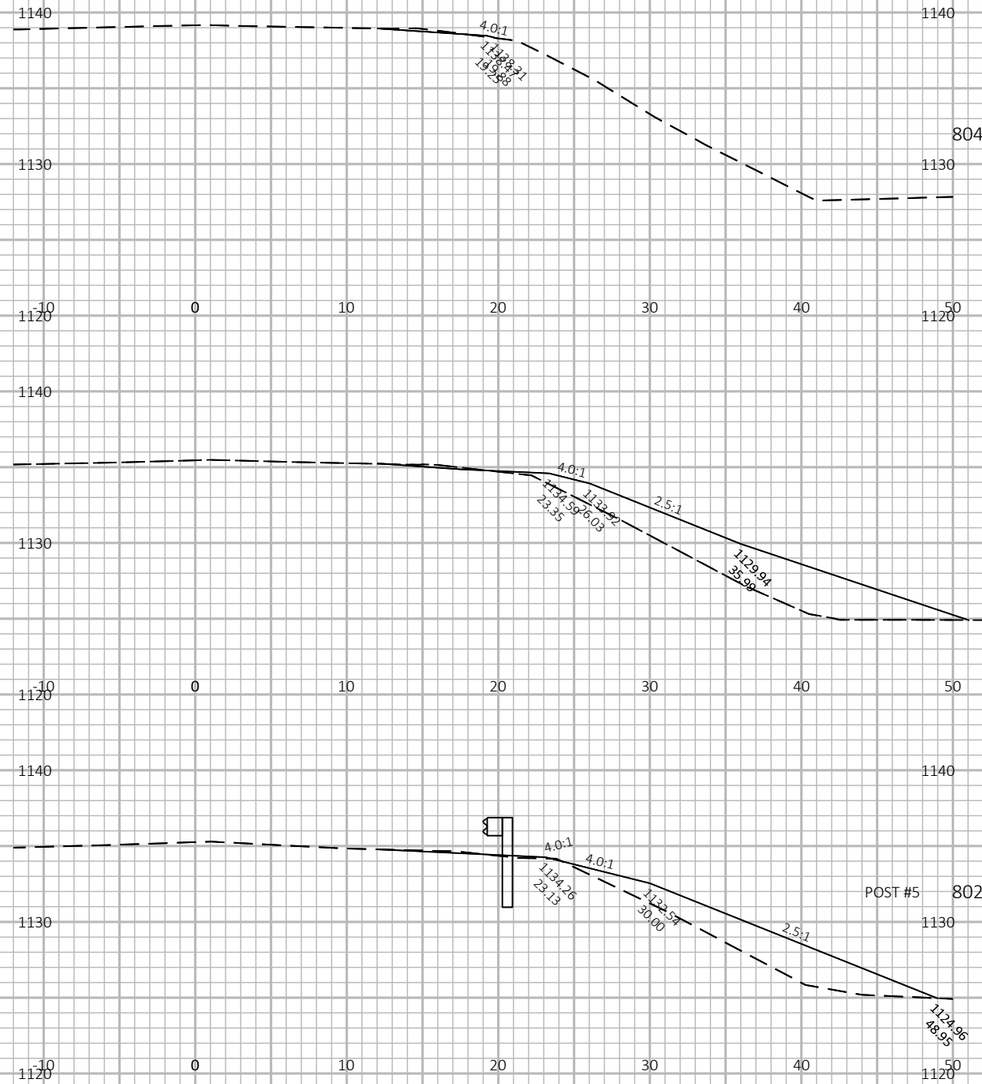
PLOT DATE : 4/29/2021 1:48 PM

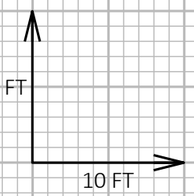
PLOT BY : BECKLIN, MATTHEW R

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

PROJECT NO: 1570-05-73	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: BEAM GUARD	SHEET 115	E

FILE NAME : C:\WISDOT\DESIGN\15700503\SHEETSPLAN\090201_XS RIGHT.DWG
LAYOUT NAME - 2

PLOT DATE : 4/29/2021 1:48 PM PLOT BY : BECKLIN, MATTHEW R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

Wisconsin Department of Transportation

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