EAU

April 13, 2021

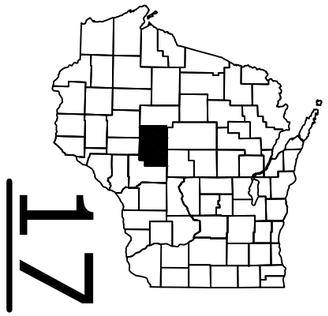
PROJECT ID: 7040-00-71

WITH: N/A

COUNTY: CLARK

ORDER OF SHEETS

TOTAL SHEETS = 108



N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GREENWOOD - SPENCER

ELM DRIVE TO EAST COUNTY LINE

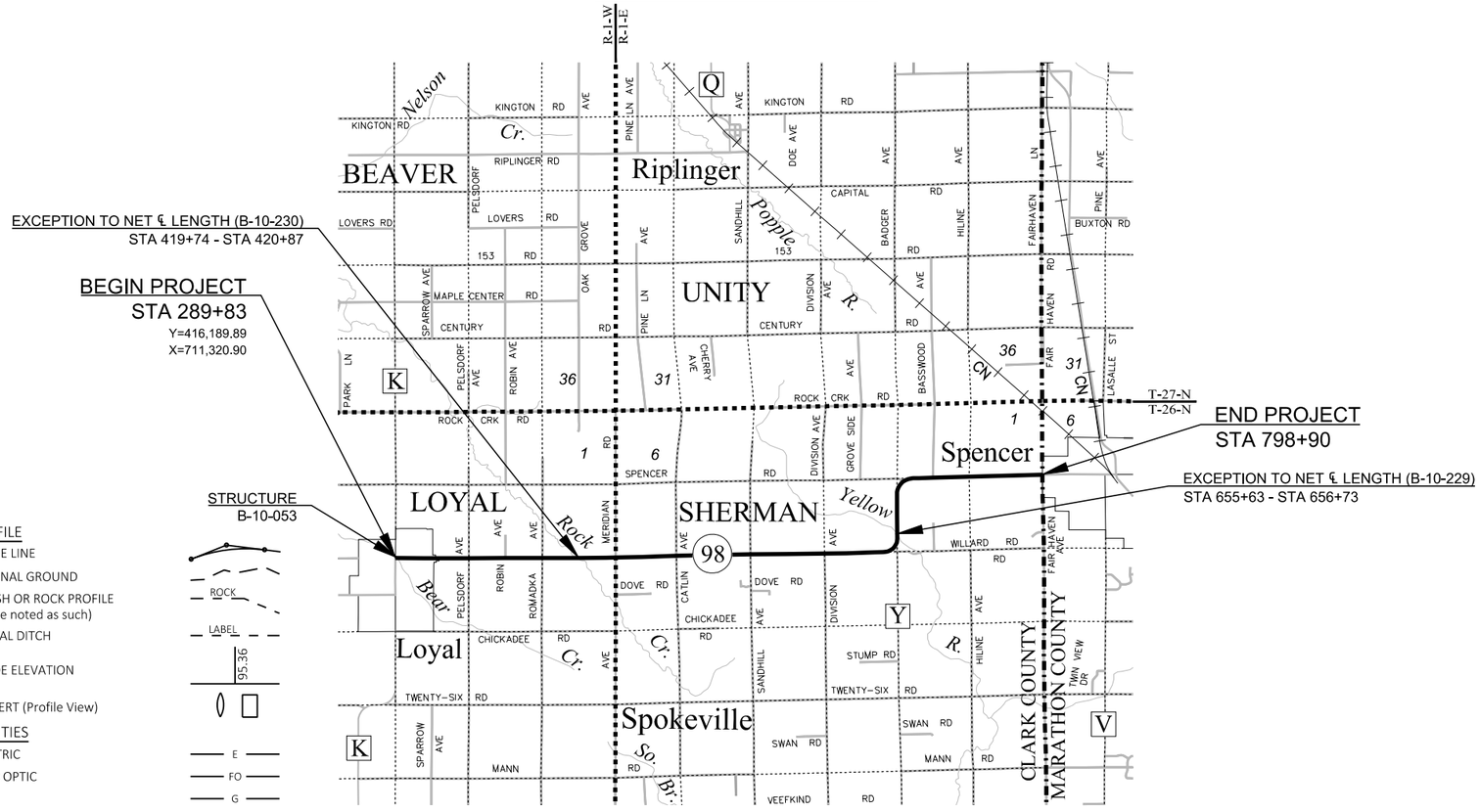
STH 98

CLARK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7040-00-71	WISC 2021268	1

STATE PROJECT NUMBER

7040-00-71



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 9.599 MI

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

DESIGN DESIGNATION

A.A.D.T.	2021	=	2,900 - 3,400
A.A.D.T.	2041	=	3,200 - 3,800
D.H.V.	2041	=	400 - 450
D.D.		=	60/40
T.		=	20.2%
DESIGN SPEED		=	35 MPH - 55 MPH
ESALS		=	1,090,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

emcs inc

500 North 17th Avenue
Wausau, WI 54401

WISCONSIN
SCOTT M. KAISER
E-41772-6
MOSINEE
WI
PROFESSIONAL ENGINEER

10/22/2020 (Date) Scott Kaiser (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	NATHAN ULNESS
Regional Examiner	TOU YANG
Regional Supervisor	JAMES KOENIG

APPROVED FOR THE DEPARTMENT

DATE: 10/26/2020 Nathan Ulness (Signature)

E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 10/22/2020 11:44 AM

PLOT BY : DREW NELSON

PLOT NAME :

GENERAL NOTES

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

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

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: SP6240, CONSTRUCTION YEAR: 1936
PROJECT NO: 7040-01-71, CONSTRUCTION YEAR: 1972
PROJECT NO: 7040-02-71, CONSTRUCTION YEAR: 1976
PROJECT NO: 7040-03-71, CONSTRUCTION YEAR: 1990
PROJECT NO: 7040-03-73, CONSTRUCTION YEAR: 2006
PROJECT NO: 7040-03-75/7040-03-80, CONSTRUCTION YEAR: 2015

ORDER OF SECTION 2 SHEETS

UTILITIES

COMMUNICATIONS

ASTREA
RUSS KENNY
105 KENT STREET
IRON MOUNTAIN, MI 49801
OFFICE PHONE: (906) 282-6434
RUSSELL.KENNY@ASTREACONNECT.COM

CHARTER COMMUNICATIONS
JESSE GRUNY
503 EAST IVES STREET
STE 316
MARSHFIELD, WI 54449
OFFICE PHONE: (715) 651-5605
JESSE.GRUNY@CHARTER.COM

FRONTIER COMMUNICATIONS OF WI LLC
RUSSELL RYAN
118 DIVISION STREET
PLYMOUTH, WI 53073
OFFICE PHONE: (920) 583-3275
MOBILE PHONE: (920) 737-9662
RUSSELL.W.RYAN@FTR.COM

ELECTRIC - DISTRIBUTION

CLARK ELECTRIC COOPERATIVE
JOSH BURNS
1209 WEST DAL-BERG STREET
GREENWOOD, WI 54437
OFFICE PHONE: (715) 456-3364
JBURNS@CECOOP.COM

DAIRYLAND POWER COOPERATIVE
ROB MALY
3200 EAST AVENUE SOUTH
LA CROSSE, WI 54602
OFFICE PHONE: (608) 787-1427
MOBILE PHONE: (608) 518-2633
ROB.MALY@DAIRYLANDPOWER.COM

XCEL ENERGY
PAMELA DENZINE
500 NORTH 5TH STREET
ABBOTSFORD, WI 54405
OFFICE PHONE: (715) 218-6637
PAMELA.DENZINE@XCELEERGY.COM

ELECTRIC - TRANSMISSION

XCEL ENERGY
MITCHELL DIENGER
414 NICOLLET MALL 5TH FLOOR
MINNEAPOLIS, MN 55401
OFFICE PHONE: (608) 321-3109
MOBILE PHONE: (608) 386-2233
MITCHELL.A.DIENGER@EXCELEERGY.COM

GAS/PETROLEUM

ENBRIDGE ENERGY
RYAN BOHMAN
4898 YOUNG RD
VESPER, WI 54489
MOBILE PHONE: (715) 213-0398
RYAN.BOHMAN@ENBRIDGE.COM

WE ENERGIES
LARRY KOCH
1921 8TH STREET SOUTH
WISCONSIN RAPIDS, WI 54494
OFFICE PHONE: (715) 421-7249
MOBILE PHONE: (715) 421-9293
LARRY.KOCH@WE-ENERGIES.COM

SANITARY SEWER

LOYAL WASTEWATER TREATMENT FACILITY
TERRY WEYER - DPW
301 NORTH MAIN STREET
LOYAL, WI 54446
OFFICE PHONE: (715) 255-8233
VPIEPER@LOYALWI.COM

WATER

LOYAL WASTEWATER TREATMENT FACILITY
TERRY WEYER - DPW
301 NORTH MAIN STREET
LOYAL, WI 54446
OFFICE PHONE: (715) 255-8233
VPIEPER@LOYALWI.COM

RUNOFF COEFFICIENT TABLE

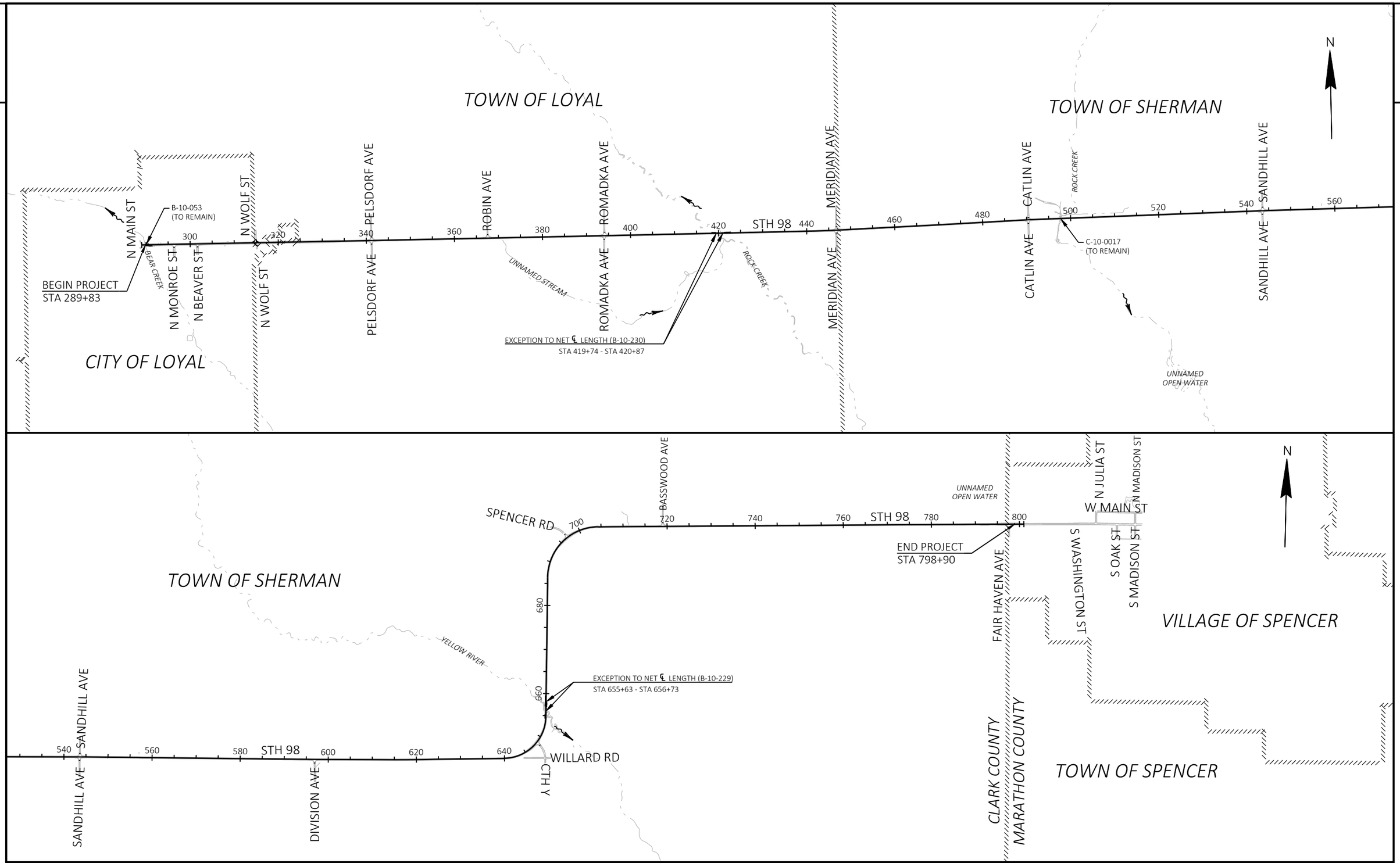
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 120 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.1 ACRES

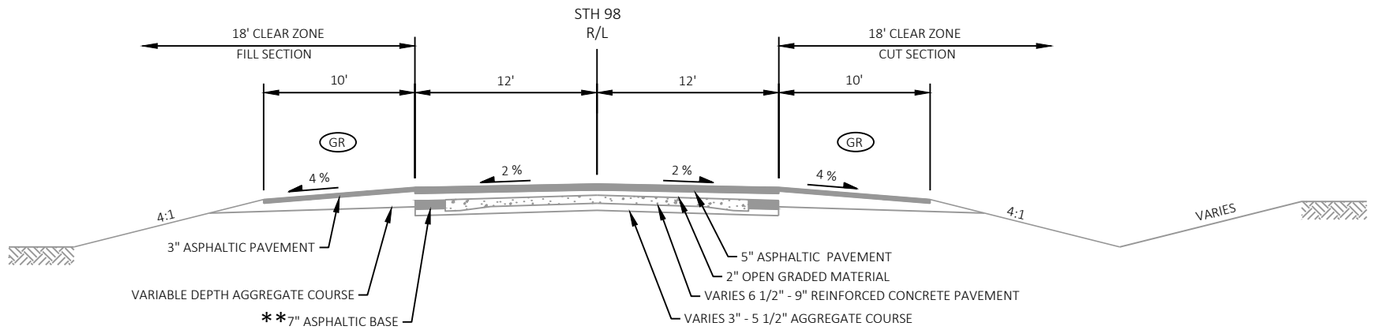
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

DNR LIAISON

LEAH NICOL
DNR WEST CENTRAL REGION HEADQUARTERS
1300 WEST CLAIREMONT AVE
EAU CLAIRE, WI 54701
(715) 934-9014
LEAH.NICOL@WISCONSIN.GOV

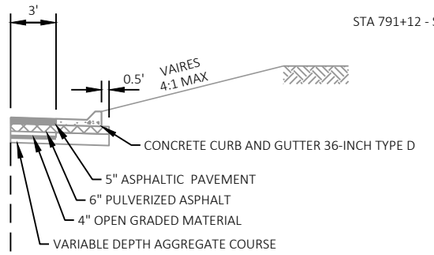


PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PROJECT OVERVIEW	SHEET 3	E

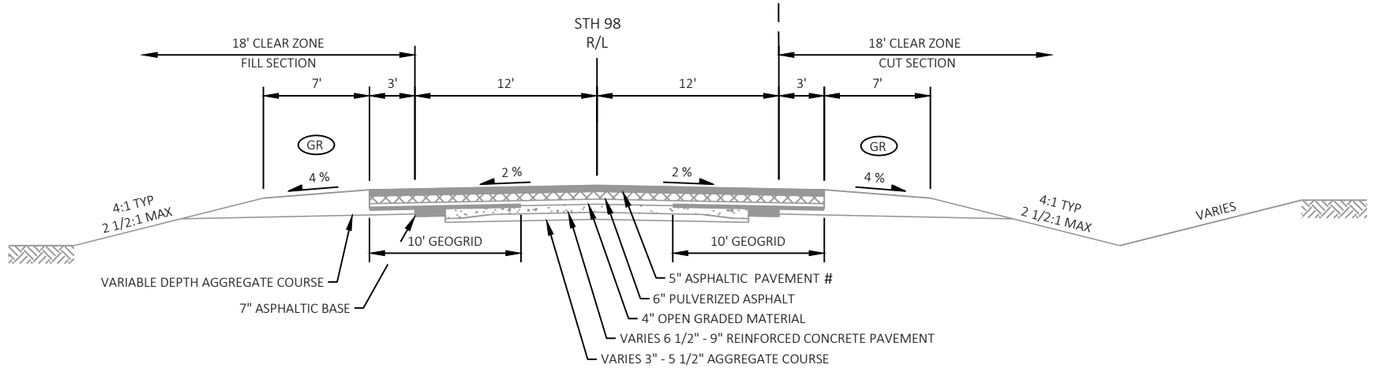


TYPICAL EXISTING SECTION

STA 289+83 - STA 334+84



STA 791+12 - STA 793+13



TYPICAL EXISTING SECTION

STA 334+84 - STA 419+74 (B-10-230)
STA 420+87 (B-10-230) - STA 638+17
STA 656+73 (B-10-229) - STA 684+59
STA 706+10 - STA 798+90

NOTES

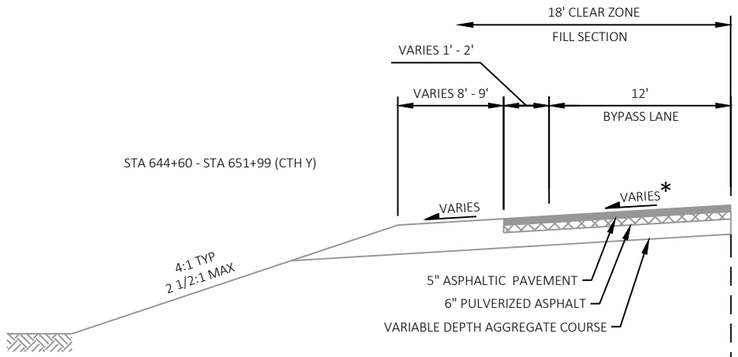
** 3' WIDE BY 9" OPEN GRADED MATERIAL IS PRESENT INSTEAD OF ASPHALTIC BASE, DRAINAGE OUTLETS ARE LOCATED APPROXIMATELY EVERY 200' BETWEEN STA 322+31 - STA 335+00

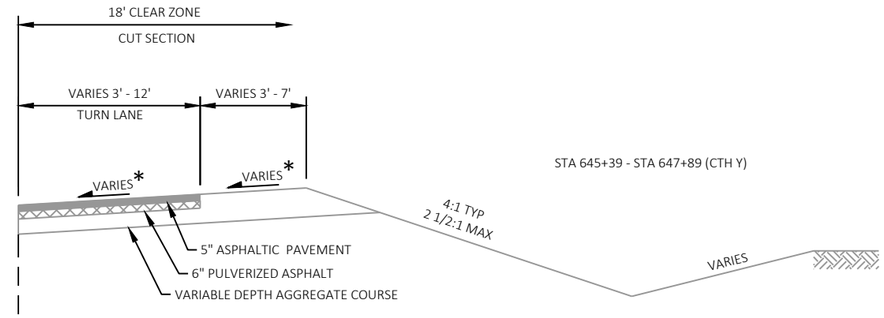
\# ASPHALTIC PAVEMENT DEPTH VARIES BETWEEN 5" AND 12" FROM STA 417+51 - STA 419+74 (B-10-230) AND BETWEEN 5" AND 7.5" FROM STA 420+87 (B-10-230) - STA 422+88.

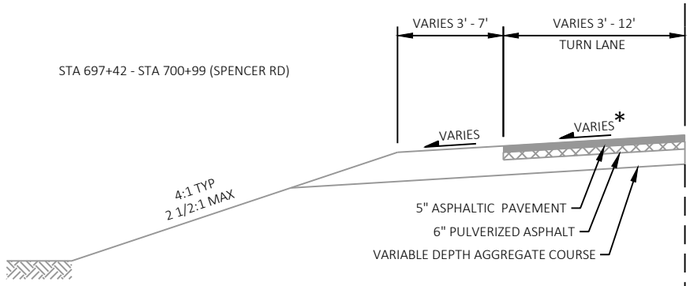
(GR) THE SHOULDER WIDTH NARROWS FROM 10' NORMAL TO 6' ADJACENT TO GUARDRAIL AT THE FOLLOWING LOCATIONS:
- STA 289+83 - STA 290+64, LT &RT
- STA 417+86 - STA 419+74, RT
- STA 418+37 - STA 419+74, LT
- STA 420+87 - STA 422+24, RT
- STA 420+87 - STA 422+74, LT
- STA 656+73 - STA 657+97, RT
- STA 656+73 - STA 659+51, LT

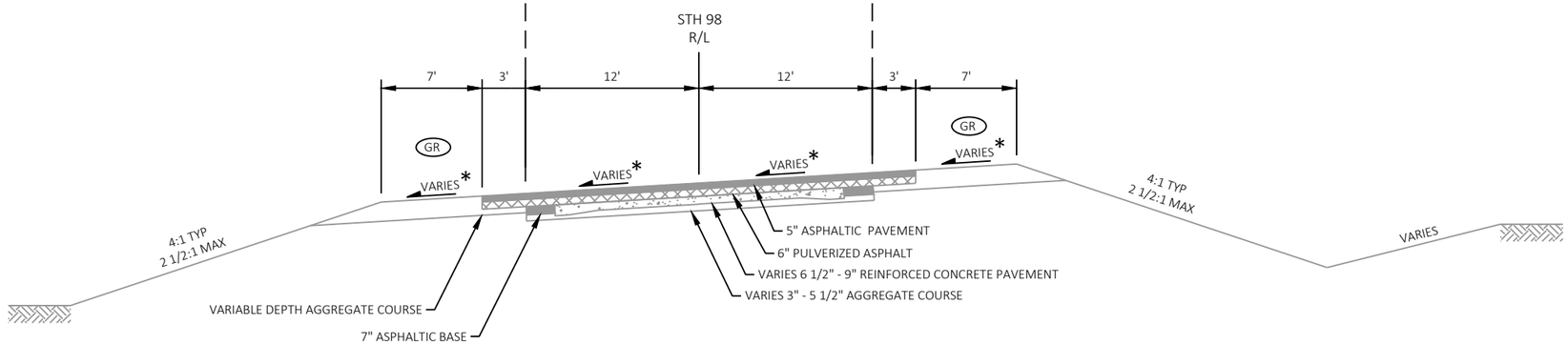
PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	TYPICAL SECTIONS	SHEET 4	E

2









TYPICAL EXISTING SECTION

STA 638+17 - STA 655+63 (B-10-229) #
STA 684+59 - STA 706+10

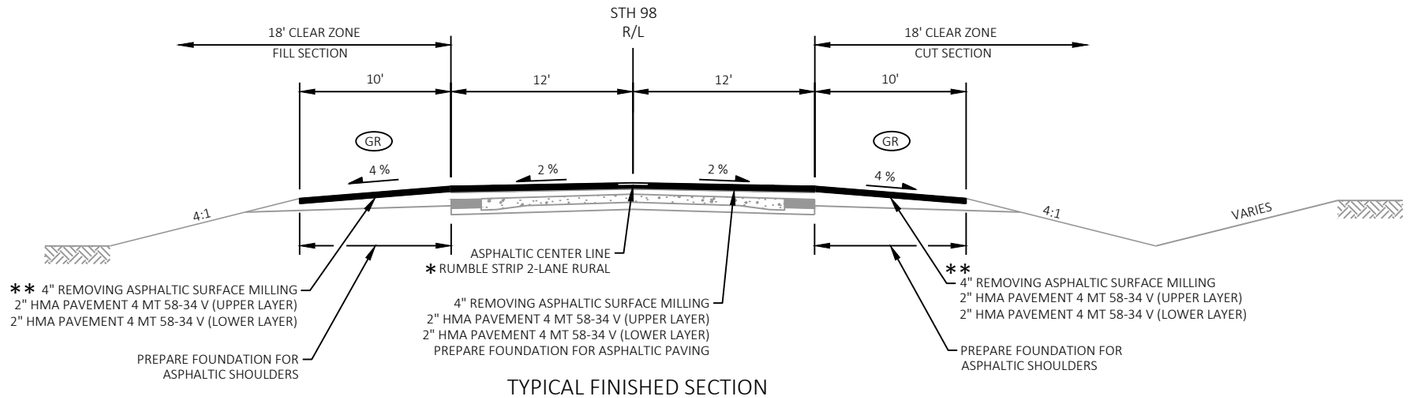
NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

\# ASPHALTIC PAVEMENT DEPTH VARIES BETWEEN 5" AND 6" FROM STA 653+38 - STA 655+63 (B-10-229).

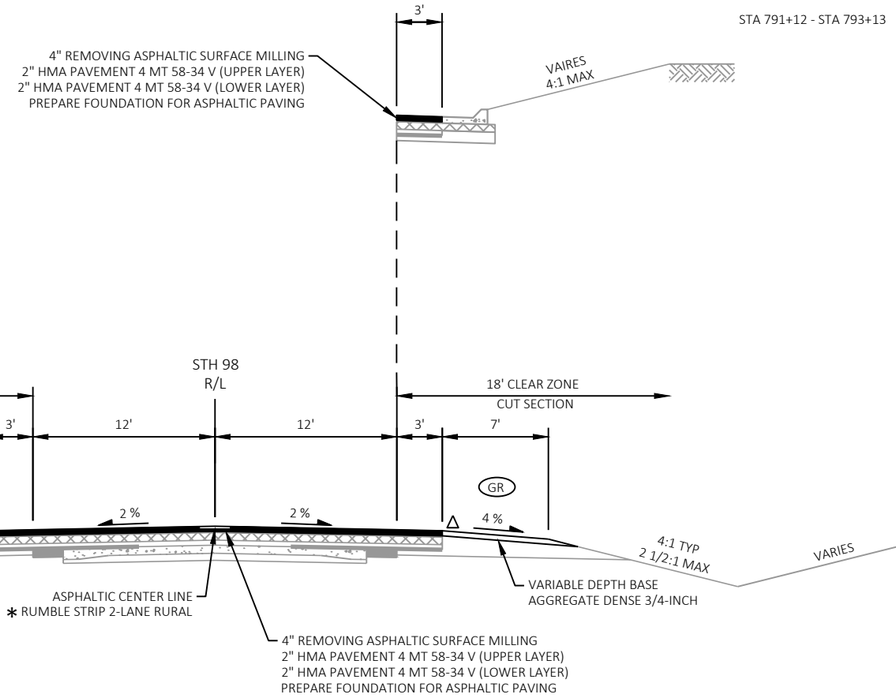
(GR) THE SHOULDER WIDTH NARROWS FROM 10' NORMAL TO 6' ADJACENT TO GUARDRAIL AT THE FOLLOWING LOCATIONS:
- STA 652+77 - STA 655+63, RT
- STA 654+39 - STA 655+63, LT

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	TYPICAL SECTIONS	SHEET 5	E



TYPICAL FINISHED SECTION

STA 289+83 - STA 334+84



TYPICAL FINISHED SECTION

STA 791+12 - STA 793+13

STA 334+84 - STA 419+74 (B-10-230)
STA 420+87 (B-10-230) - STA 638+17
STA 656+73 (B-10-229) - STA 684+59
STA 706+10 - STA 798+90

NOTES

* ASPHALTIC CENTERLINE RUMBLE STRIP FROM STA 324+70 TO STA 795+62

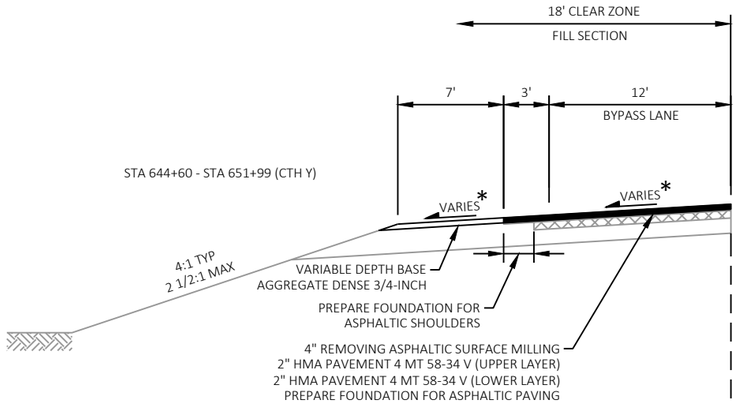
** INCLUDES REMOVING APPROX. 1" OF EXISTING BASE COURSE

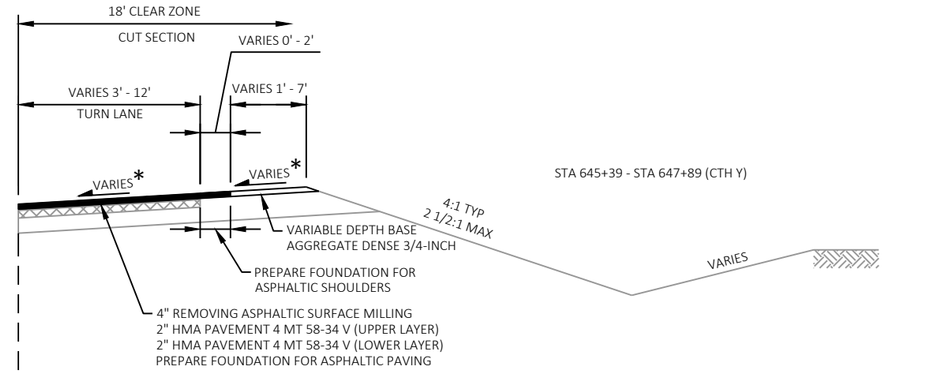
△ PAVEMENT SAFETY EDGE REQ'D, SEE SDD "SAFETY EDGE" FOR ADDITIONAL INFORMATION

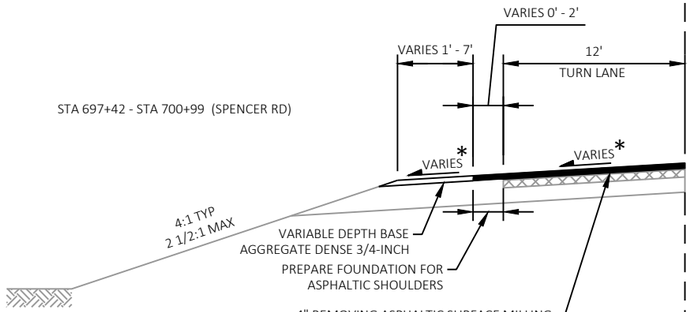
(GR) THE SHOULDER WIDTH NARROWS FROM 10' NORMAL TO 6' ADJACENT TO GUARDRAIL AT THE FOLLOWING LOCATIONS:
- STA 289+83 - STA 290+64, LT &RT
- STA 417+86 - STA 419+74, RT
- STA 418+37 - STA 419+74, LT
- STA 420+87 - STA 422+24, RT
- STA 420+87 - STA 422+74, LT
- STA 656+73 - STA 657+97, RT
- STA 656+73 - STA 659+51, LT

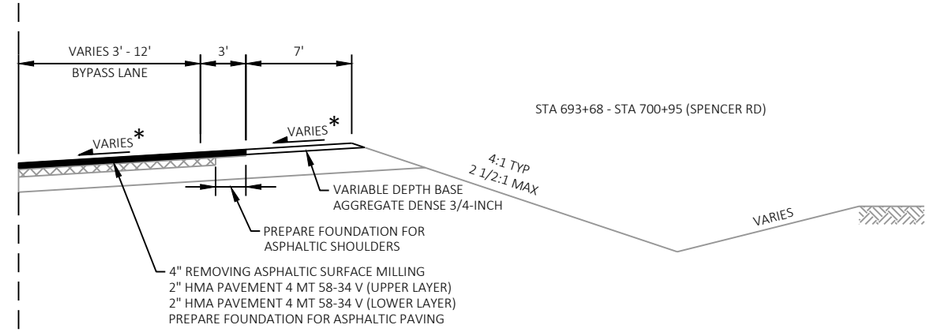
PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	TYPICAL SECTIONS	SHEET 6	E

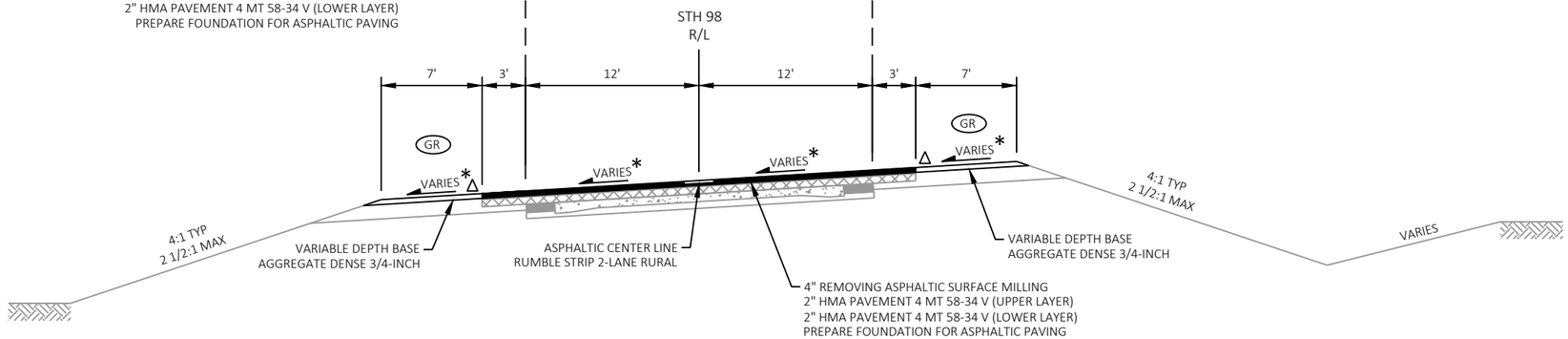
2











TYPICAL FINISHED SECTION

STA 638+17 - STA 655+63 (B-10-229)
STA 684+59 - STA 706+10

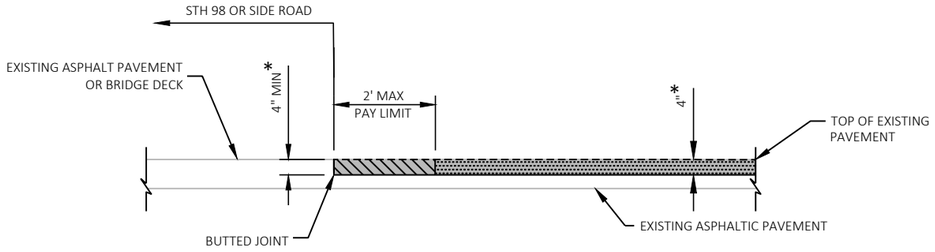
NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

Δ SAFETY EDGE REQ'D, SEE SDD "SAFETY EDGE" FOR ADDITIONAL INFORMATION

(GR) THE SHOULDER WIDTH NARROWS FROM 10' NORMAL TO 6' ADJACENT TO GUARDRAIL AT THE FOLLOWING LOCATIONS:
- STA 652+77 - STA 655+63, RT
- STA 654+39 - STA 655+63, LT

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	TYPICAL SECTIONS	SHEET 7	E



REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

REMOVING ASPHALTIC SURFACE MILLING

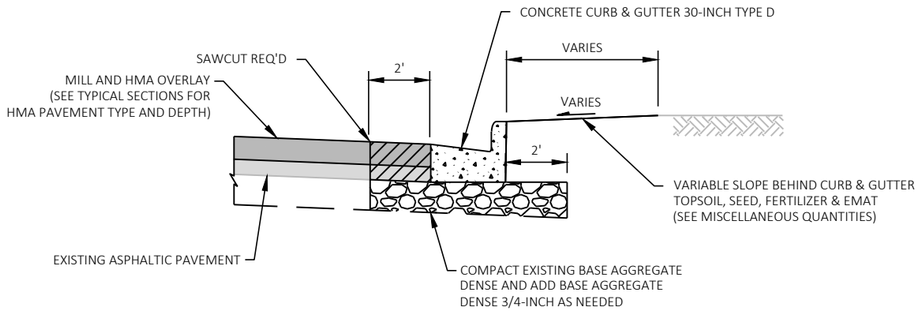
PROPOSED HMA PAVEMENT OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND LAYER THICKNESSES)

NOTE

* 2" MILL AND PAVING DEPTH ON THE SIDE ROADS, MATCH PROPOSED MAINLINE UPPER LAYER

BUTT JOINT DETAIL

STA 289+83 (BEGIN PROJECT)
STA 296+35, RT (N MONROE ST)
STA 301+65, RT (N BEAVER ST)
STA 314+82, LT (N WOLF ST)
STA 315+13, RT (N WOLF ST)
STA 341+18, RT (PELSDORF AVE)
STA 341+21, LT (PELSDORF AVE)
STA 367+57, LT (ROBIN AVE)
STA 394+01, RT (ROMADKA AVE)
STA 394+08, LT (ROMADKA AVE)
STA 419+74 (B-10-230)
STA 420+87 (B-10-230)
STA 446+69, RT (MERIDIAN AVE)
STA 446+78, LT (MERIDIAN AVE)
STA 490+34, RT (CATLIN AVE)
STA 490+43, LT (CATLIN AVE)
STA 543+51, RT (SANDHILL AVE)
STA 543+61, LT (SANDHILL AVE)
STA 596+90, RT (DIVISION AVE)
STA 648+39, RT (CTH Y)
STA 655+63 (B-10-229)
STA 656+73 (B-10-229)
STA 696+83, LT (SPENCER RD)
STA 719+01, LT (BASSWOOD AVE)
STA 797+62, RT (FAIR HAVEN AVE)
STA 798+90 (END PROJECT)



5" MINIMUM ASPHALTIC SURFACE PATCHING
(MATCH EXISTING PAVEMENT DEPTH)

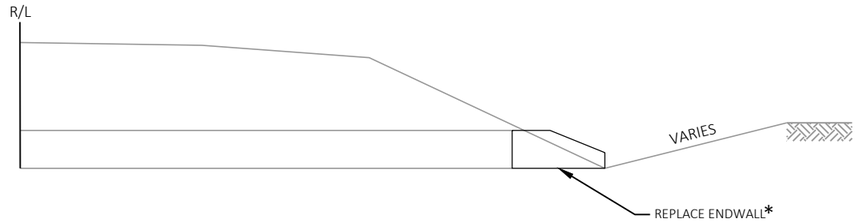
CONCRETE CURB & GUTTER REPLACEMENT DETAIL

WOLF ST INTERSECTION

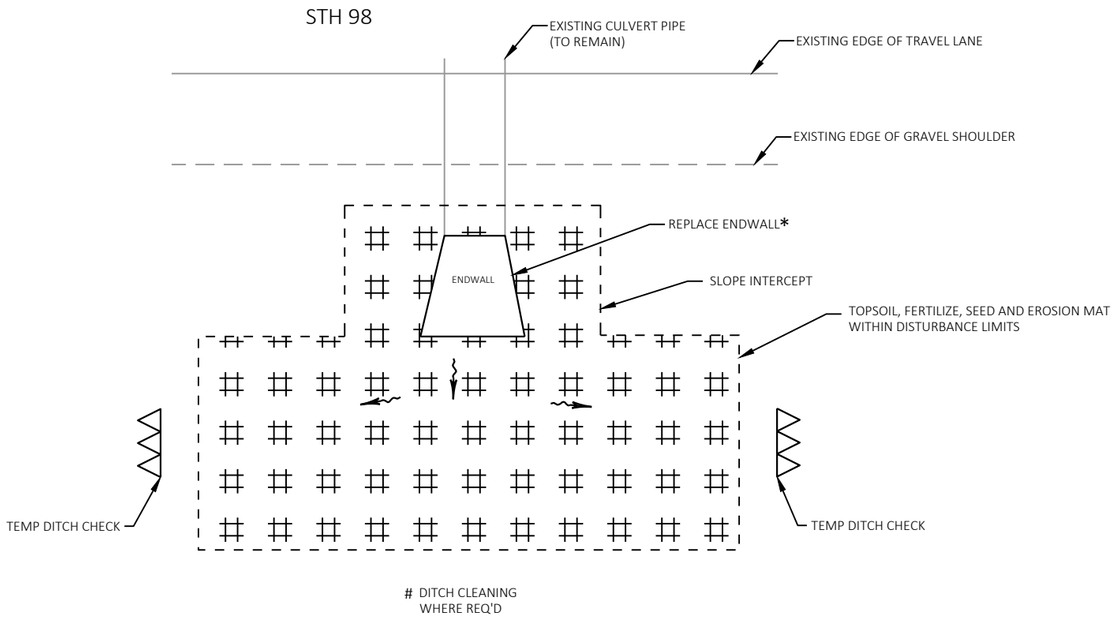
NOTES

COMPLETE CURB & GUTTER REPLACEMENTS AND ASPHALTIC SURFACE PATCHING TO MATCH THE EXISTING SURFACE PRIOR TO THE MILL AND OVERLAY OF STH 98.

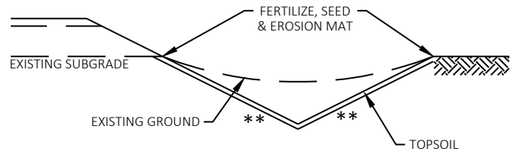
FOR DETAILS NOT SHOWN, SEE INTERSECTION DETAILS AND SDD "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES".



TYPICAL SECTION



PLAN VIEW



DITCH CLEANING DETAIL

EROSION CONTROL AT CULVERTS DETAIL

STA 346+90, RT∗
STA 461+48 - STA 461+68 , LT #
STA 578+56 - STA 578+70, LT #
STA 667+25 - STA 667+46, RT #
STA 689+54 - STA 690+66, RT #
STA 699+36, LT&RT ∗
STA 699+43, LT&RT ∗
STA 725+44, LT&RT ∗
STA 770+05 - STA 770+63, LT #
STA 778+74 - STA 778+89, LT&RT∗#
STA 797+06, RT∗
STA 797+32 - STA 797+46, LT&RT∗#

NOTES

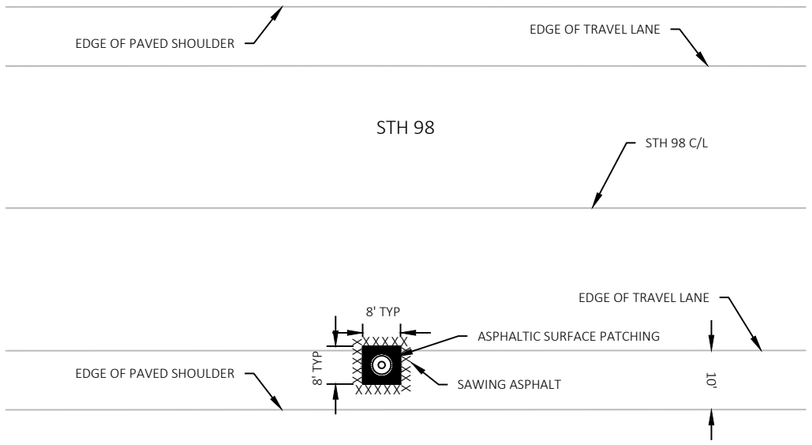
∗ ENDWALL REPLACEMENT WHERE REQ'D (SEE SECTION 5 PLANS)

∗∗ SLOPES VARY, 2.5:1 MAX

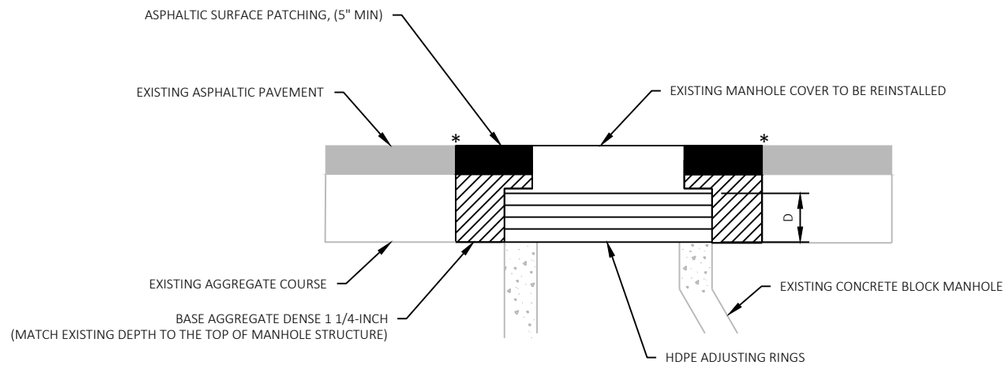
DITCH CLEANING, WHERE REQ'D (SEE SECTION 5 PLANS)

FLOW (DIRECTION VARIES)

FOR WORK AT THE UPSTREAM ENDWALLS, INSTALL CULVERT PIPE CHECKS PER SDD "TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

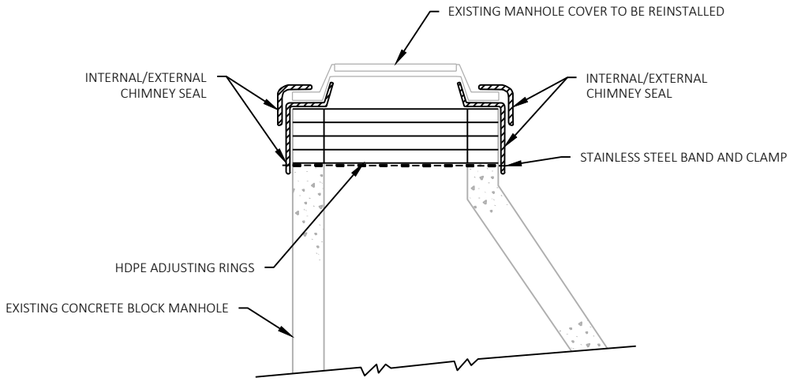


PLAN VIEW



ADJUSTING SANITARY SEWER MANHOLE COVERS

MANHOLE LOCATION	D
STA 291+58, LT	12"
STA 295+07, LT	4"
STA 296+36, RT	12"
STA 298+58, LT	14"
STA 298+92, RT	8"
STA 301+69, RT	20"
STA 305+00, RT	8"
STA 308+49, RT	12"
STA 311+27, RT	4"
STA 314+17, RT	12"



INTERNAL/EXTERNAL CHIMNEY SEAL DETAIL FOR SANITARY SEWER MANHOLES

ADJUSTING SANITARY MANHOLE COVERS DETAIL

SEE SECTION 5 PLANS FOR LOCATIONS

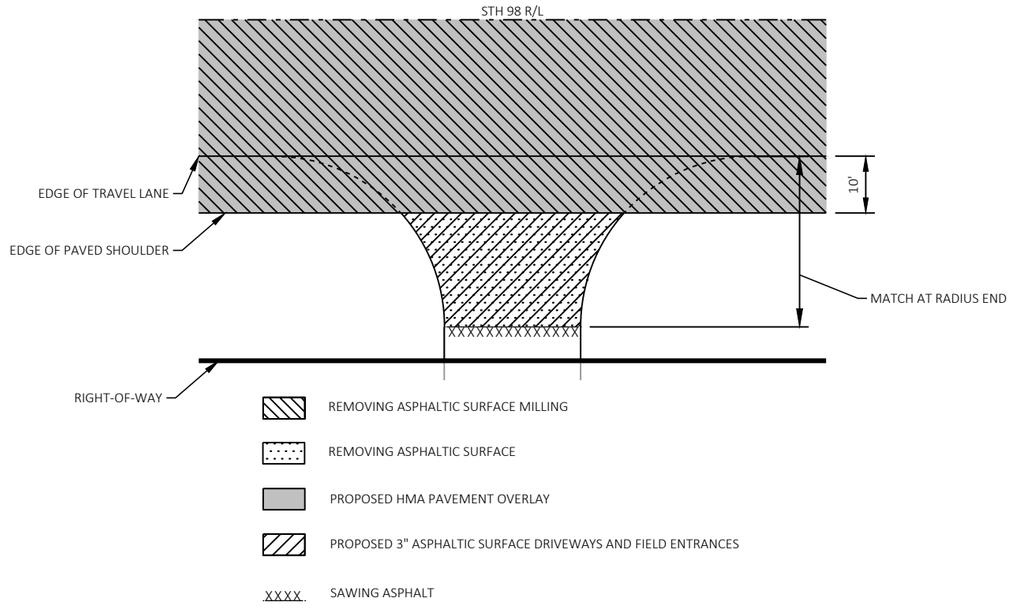
NOTES

* SAWCUT REQ'D

D = REMOVAL LIMITS OF EXISTING ADJUSTING RINGS, BLOCK & BRICK AND ANTICIPATED DEPTH OF HDPE ADJUSTING RINGS

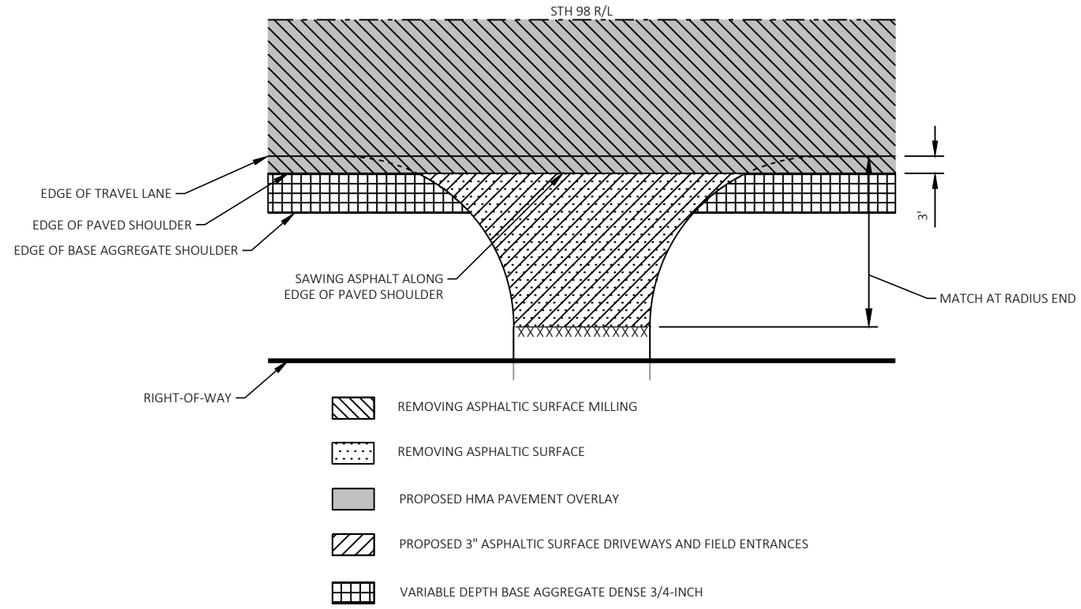
ASPHALTIC SURFACE PATCHING & COVER PLATE TEMPORARY ARE FOR MANAGEMENT OF TRAFFIC

2



URBAN PAVED DRIVEWAY DETAIL

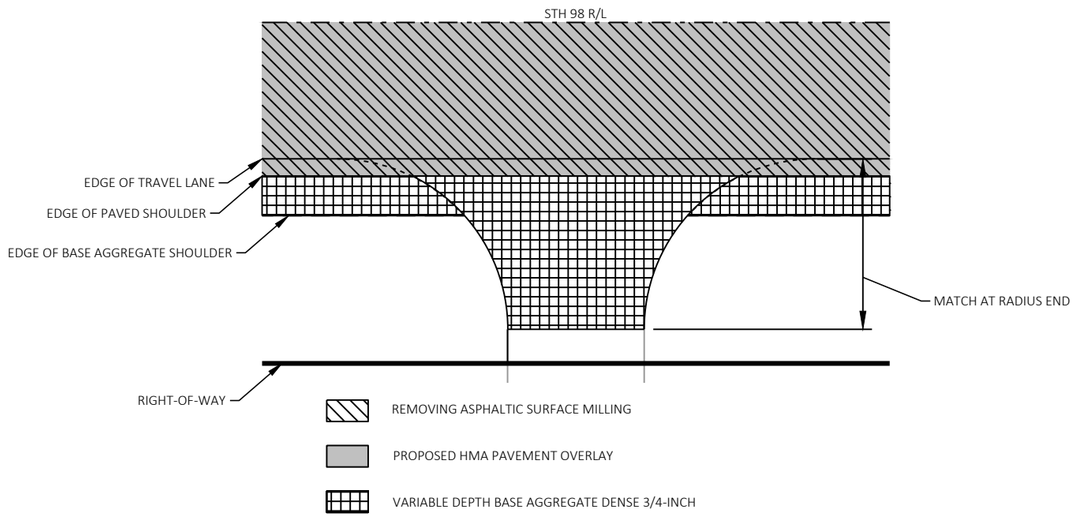
SEE SECTION 5 PLAN SHEETS FOR LOCATIONS



RURAL PAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

2



UNPAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CONSTRUCTION DETAILS	SHEET 11	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 04
PLOT DATE : 12/15/2020 3:18 PM PLOT BY : SCOTT KAISER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

2

EX R/W

EX R/W

N

LEGEND

- SAWCUT
- DELINEATED WETLAND BOUNDARY
- FLOW LINE
- SURFACE WATER FLOW
- D1 — 4" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- Y1 — MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)

NOTES

PAVE ASPHALTIC SURFACE DRIVEWAY WITH A "V" TO ACCOMMODATE DRAINAGE OFF OF THE DRIVEWAY AND SHOULDER.

THE LOCATION OF THE "V" FLOW LINE CAN BE MODIFIED TO FIT FIELD CONDITIONS.

EDGE OF PAVED SHOULDER

Y1

STH 98

290+50

291+00

291+50

Y1

Y1

STA 290+65.09
O/S 22.00, RT

STA 290+64.45
O/S 25.07, RT

STA 290+62.38
O/S 28.00, RT

STA 291+02.00
O/S 23.00, RT

D1

STA 291+02.33
O/S 28.00, RT

CAUTION

STA 291+42.86
O/S 28.00, RT

STA 291+47.28
O/S 22.00, RT

EDGE OF PAVED SHOULDER

EX R/W

EX R/W

ASPH
CE

BASE AGG
CE

EXISTING CULVERT
(TO REMAIN)

COMMERCIAL ENTRANCE DETAIL

STA 190+82, RT

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CONSTRUCTION DETAILS	SHEET 12	E

2

LEGEND

XXXX XXXX · SAWCUT

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)

C1 CONCRETE CURB & GUTTER 30-INCH TYPE D

Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)

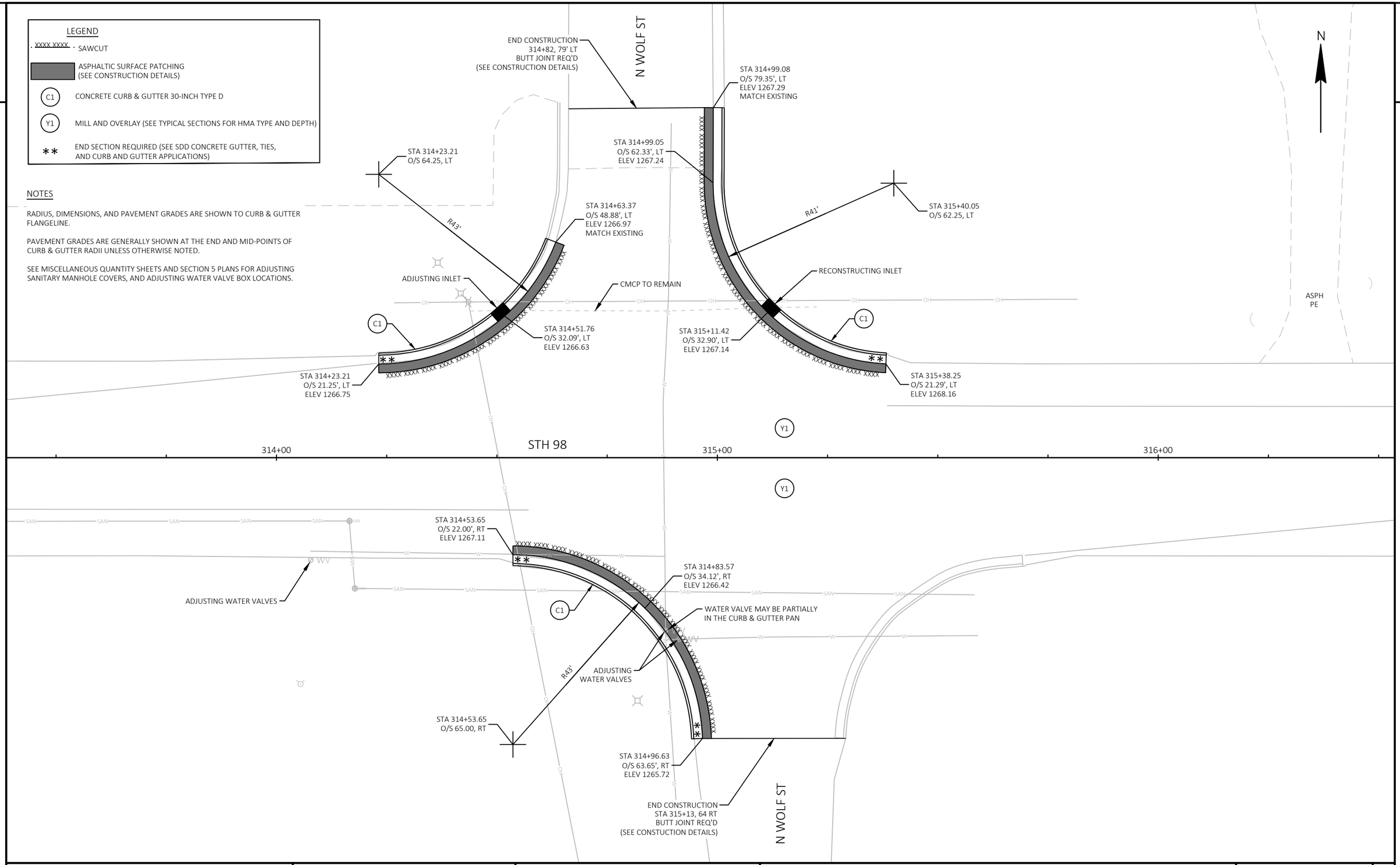
** END SECTION REQUIRED (SEE SDD CONCRETE GUTTER, TIES, AND CURB AND GUTTER APPLICATIONS)

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

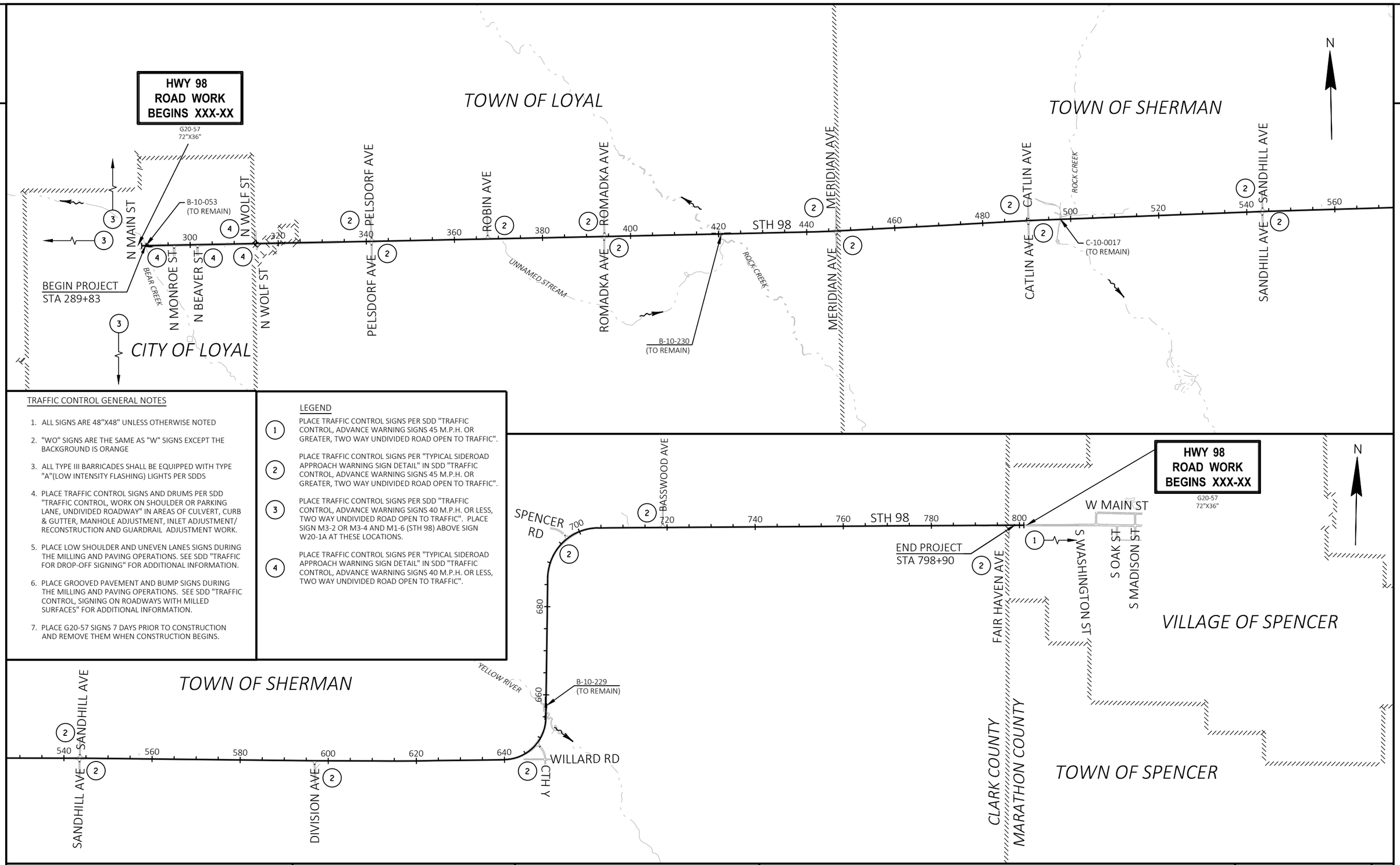
PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SEE MISCELLANEOUS QUANTITY SHEETS AND SECTION 5 PLANS FOR ADJUSTING SANITARY MANHOLE COVERS, AND ADJUSTING WATER VALVE BOX LOCATIONS.



PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	INTERSECTION DETAILS	SHEET 13	E

2



TRAFFIC CONTROL GENERAL NOTES

1. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE
3. ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A"(LOW INTENSITY FLASHING) LIGHTS PER SDDS
4. PLACE TRAFFIC CONTROL SIGNS AND DRUMS PER SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" IN AREAS OF CULVERT, CURB & GUTTER, MANHOLE ADJUSTMENT, INLET ADJUSTMENT/ RECONSTRUCTION AND GUARDRAIL ADJUSTMENT WORK.
5. PLACE LOW SHOULDER AND UNEVEN LANES SIGNS DURING THE MILLING AND PAVING OPERATIONS. SEE SDD "TRAFFIC FOR DROP-OFF SIGNING" FOR ADDITIONAL INFORMATION.
6. PLACE GROOVED PAVEMENT AND BUMP SIGNS DURING THE MILLING AND PAVING OPERATIONS. SEE SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR ADDITIONAL INFORMATION.
7. PLACE G20-57 SIGNS 7 DAYS PRIOR TO CONSTRUCTION AND REMOVE THEM WHEN CONSTRUCTION BEGINS.

LEGEND

(1) PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(2) PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(3) PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC". PLACE SIGN M3-2 OR M3-4 AND M1-6 (STH 98) ABOVE SIGN W20-1A AT THESE LOCATIONS.

(4) PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	TRAFFIC CONTROL OVERVIEW	SHEET 14	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\025000-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 10/22/2020 11:46 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

7040-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	2,465.000	2,465.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	190.000	190.000
0006	204.0125	Removing Asphaltic Surface Milling	TON	40,320.000	40,320.000
0008	204.0150	Removing Curb & Gutter	LF	165.000	165.000
0010	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	12.000	12.000
0012	205.0100	Excavation Common	CY	12.000	12.000
0014	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7040-00-71	LS	1.000	1.000
0016	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	115.000	115.000
0018	213.0100	Finishing Roadway (project) 01. 7040-00-71	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,900.000	8,900.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	110.000	110.000
0024	455.0605	Tack Coat	GAL	22,000.000	22,000.000
0026	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0028	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0030	460.6644	HMA Pavement 4 MT 58-34 V	TON	41,640.000	41,640.000
0032	465.0105	Asphaltic Surface	TON	500.000	500.000
0034	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0036	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	410.000	410.000
0038	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	42,850.000	42,850.000
0040	520.8700	Cleaning Culvert Pipes	EACH	9.000	9.000
0042	525.0318	Apron Endwalls for Culvert Pipe Aluminum 18-Inch	EACH	3.000	3.000
0044	525.0324	Apron Endwalls for Culvert Pipe Aluminum 24-Inch	EACH	5.000	5.000
0046	525.0330	Apron Endwalls for Culvert Pipe Aluminum 30-Inch	EACH	4.000	4.000
0048	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	190.000	190.000
0050	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0052	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0054	611.8120.S	Cover Plates Temporary	EACH	10.000	10.000
0056	614.0400	Adjusting Steel Plate Beam Guard	LF	845.000	845.000
0058	614.0950	Replacing Guardrail Posts and Blocks	EACH	14.000	14.000
0060	614.0951	Replacing Guardrail Rail and Hardware	LF	100.000	100.000
0062	614.0952	Replacing Guardrail Reflectors	EACH	5.000	5.000
0064	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7040-00-71	EACH	1.000	1.000
0066	619.1000	Mobilization	EACH	1.000	1.000
0068	624.0100	Water	MGAL	1.000	1.000
0070	625.0100	Topsoil	SY	590.000	590.000
0072	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0074	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0076	628.2008	Erosion Mat Urban Class I Type B	SY	590.000	590.000

7040-00-71

Line	Item	Item Description	Unit	Total	Qty
0078	628.7015	Inlet Protection Type C	EACH	3.000	3.000
0080	628.7504	Temporary Ditch Checks	LF	170.000	170.000
0082	628.7555	Culvert Pipe Checks	EACH	150.000	150.000
0084	629.0210	Fertilizer Type B	CWT	2.000	2.000
0086	630.0130	Seeding Mixture No. 30	LB	3.000	3.000
0088	630.0160	Seeding Mixture No. 60	LB	9.000	9.000
0090	630.0500	Seed Water	MGAL	3.000	3.000
0092	633.5200	Markers Culvert End	EACH	8.000	8.000
0094	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0096	637.2230	Signs Type II Reflective F	SF	4.500	4.500
0098	638.2102	Moving Signs Type II	EACH	5.000	5.000
0100	638.2602	Removing Signs Type II	EACH	7.000	7.000
0102	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0104	638.4000	Moving Small Sign Supports	EACH	5.000	5.000
0106	642.5001	Field Office Type B	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	300.000	300.000
0110	643.0420	Traffic Control Barricades Type III	DAY	20.000	20.000
0112	643.0705	Traffic Control Warning Lights Type A	DAY	24.000	24.000
0114	643.0900	Traffic Control Signs	DAY	3,239.000	3,239.000
0116	643.5000	Traffic Control	EACH	1.000	1.000
0118	646.1020	Marking Line Epoxy 4-Inch	LF	40,975.000	40,975.000
0120	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	92,650.000	92,650.000
0122	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	395.000	395.000
0124	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	2,945.000	2,945.000
0126	646.6120	Marking Stop Line Epoxy 18-Inch	LF	65.000	65.000
0128	649.0105	Temporary Marking Line Paint 4-Inch	LF	74,810.000	74,810.000
0130	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	34,460.000	34,460.000
0132	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	190.000	190.000
0134	650.8000	Construction Staking Resurfacing Reference	LF	50,684.000	50,684.000
0136	650.9910	Construction Staking Supplemental Control (project) 01. 7040-00-71	LS	1.000	1.000
0138	690.0150	Sawing Asphalt	LF	2,016.000	2,016.000
0140	690.0250	Sawing Concrete	LF	6.000	6.000
0142	740.0440	Incentive IRI Ride	DOL	38,566.000	38,566.000
0144	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0146	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	990.000	990.000
0148	SPV.0055	Special 01. Incentive Density PWL HMA Pavement	DOL	30,276.000	30,276.000
0150	SPV.0055	Special 02. Incentive Air Voids HMA Pavement	DOL	41,640.000	41,640.000
0152	SPV.0055	Special 03. Incentive Density HMA Pavement Longitudinal Joints	DOL	40,590.000	40,590.000

7040-00-71

Line	Item	Item Description	Unit	Total	Qty
0154	SPV.0060	Special 01. Adjusting Sanitary Manhole Covers	EACH	10.000	10.000
0156	SPV.0060	Special 02. Adjusting Water Valve Boxes	EACH	15.000	15.000
0158	SPV.0090	Special 01. Concrete Curb & Gutter Cure and Seal Treatment	LF	190.000	190.000
0160	SPV.0090	Special 02. Ditch Cleaning	LF	253.000	253.000
0162	SPV.0105	Special 01. Material Transfer Vehicle (7040-00-71)	LS	1.000	1.000

REMOVAL ITEMS

CATEGORY	STATION TO STATION	OFFSET	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0125 REMOVING ASPHALTIC SURFACE MILLING TON	204.0150 REMOVING CURB & GUTTER LF
0010						
	289+83 - 334+84	LT&RT	--	9	4,782	--
	334+84 - 419+74	LT&RT	--	8	6,257	--
	420+87 - 638+17	LT&RT	--	8	16,009	--
	638+17 - 655+63	LT&RT	--	8	1,547	--
	656+73 - 684+59	LT&RT	--	8	2,086	--
	684+59 - 706+10	LT&RT	--	--	1,895	--
	706+10 - 798+90	LT&RT	--	9	6,895	--
	MONROE ST.	RT	--	7	29	--
	BEAVER ST.	RT	--	7	28	--
	WOLF ST.	LT&RT	45	15	51	165
	PELSDORF AVE.	LT&RT	--	14	94	--
	ROBIN AVE.	LT	--	7	49	--
	ROMADKA AVE.	LT&RT	--	14	99	--
	MERIDIAN AVE.	LT&RT	--	14	100	--
	CATLIN AVE.	LT&RT	--	14	72	--
	SANDHILL AVE.	LT&RT	--	14	96	--
	CHURCH RD.	RT	--	7	47	--
	CTH Y	RT	--	7	40	--
	SPENCER RD.	LT	--	6	33	--
	BASSWOOD AVE.	LT	--	7	48	--
	FAIR HAVEN AVE.	RT	--	7	63	--
	PROJECT	LT&RT	2,360	--	--	--
CAT 0010 SUBTOTAL			2,405	190	40,320	165
0020	SANITARY MH ADJUSTMENTS					
	289+83 - 296+00	LT&RT	12	--	--	--
	296+00 - 300+00	LT&RT	16	--	--	--
	300+00 - 304+00	LT&RT	9	--	--	--
	304+00 - 312+00	LT&RT	17	--	--	--
	312+00 - 316+00	LT&RT	6	--	--	--
CAT 0020 SUBTOTAL			60	--	--	--
TOTALS			2,465	190	40,320	165

EARTHWORK ITEMS

CATEGORY	LOCATION	205.0100 EXCAVATION COMMON (NOTE 1) CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOTE 2) CY	AVAILABLE MATERIAL (NOTE 3) CY	UNEXPANDED FILL CY	EXPANDED FILL FACTOR 1.25 (NOTE 4) CY	MASS ORDINATE +/- (NOTE 5) CY
0010							
	STA 291+00, RT (DRIVEWAY)	12	2	10	0	0	10
TOTALS		12	2	10	0	0	10

NOTES
1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL = (AREA OF PROJECT PAVEMENT) * (TYPICAL DEPTH)
3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
4) EXPANDED FILL FACTOR = (UNEXPANDED FILL) * (FILL FACTOR)
5) MASS ORDINATE = AVAILABLE MATERIAL - (EXPANDED FILL); POSITIVE INDICATES AN EXCESS OF MATERIAL

MISCELLANEOUS ASPHALTIC ITEMS

CATEGORY	STATION TO STATION	OFFSET	211.0100.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (7040-00-71) LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	213.0100.01 FINISHING ROADWAY (7040-00-71) EACH	SPV.0105.01 MATERIAL TRANSFER VEHICLE (7040-00-71) LS
0010						
	289+83 - 334+84	LT & RT	--	92	--	--
	644+60 - 651+99	LT	--	8	--	--
	645+39 - 647+89	RT	--	3	--	--
	693+68 - 700+95	RT	--	8	--	--
	697+42 - 700+99	LT	--	4	--	--
	PROJECT		1	--	1	1
TOTALS			1	115	1	1

BASE AGGREGATE ITEMS

CATEGORY	STATION TO STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	COMMENTS
0010					
	290+65 - 291+47	RT	--	3	DRIVEWAY
	314+23 - 314+63	LT	6	--	N WOLF ST
	314+54 - 314+97	RT	8	--	N WOLF ST
	314+99 - 315+38	LT	9	--	N WOLF ST
	334+84 - 419+74	LT&RT	900	--	
	420+87 - 638+17	LT&RT	2,395	--	
	638+17 - 655+63	LT&RT	195	--	
	656+73 - 684+59	LT&RT	320	--	
	684+59 - 706+10	LT&RT	242	--	
	706+10 - 798+90	LT&RT	1,025	--	
	PROJECT	LT&RT	3,800	--	DRIVEWAYS
CAT 0010 SUBTOTAL			8,900	3	
0020	SANITARY MH ADJUSTMENTS				
	289+83 - 296+00	LT&RT	--	22	
	296+00 - 300+00	LT&RT	--	25	
	300+00 - 304+00	LT&RT	--	13	
	304+00 - 312+00	LT&RT	--	35	
	312+00 - 316+00	LT&RT	--	12	
CAT 0020 SUBTOTAL			--	107	
TOTALS			8,900	110	

CROSS DRAINS

CATEGORY	STATION	OFFSET	CULVERT NUMBER	204.9060.S.01 REMOVING APRON ENDWALLS EACH	520.8700 CLEANING CULVERT PIPES EACH	525.0318 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 18-INCH EACH	525.0324 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 24-INCH EACH	525.0330 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 30-INCH EACH	633.5200 MARKERS CULVERT END EACH	SPV.0090.02 DITCH CLEANING LF
0010										
	324+96	LT&RT	1826	--	1	--	--	--	1	--
	346+90	LT&RT	1826A	1	1	--	1	--	1	--
	371+12	LT&RT	1826B	--	1	--	--	--	--	--
	427+23	LT&RT	1827	--	1	--	--	--	1	--
	461+51	LT&RT	1829	--	1	--	--	--	1	20
	471+52	LT&RT	1830	--	1	--	--	--	1	--
	549+87	LT&RT	1832	--	1	--	--	--	--	--
	578+64	LT&RT	1834	--	--	--	--	--	--	14
	667+33	LT&RT	1835	--	--	--	--	--	1	21
	690+09	LT&RT	1836	--	1	--	--	--	1	110
	699+36	LT&RT	1837	2	--	--	2	--	--	--
	699+43	LT&RT	1838	2	--	--	2	--	--	--
	725+44	LT&RT	1839	2	--	--	--	2	--	--
	770+56	LT&RT	1841	--	1	--	--	--	1	56
	778+82	LT&RT	1842	2	--	--	--	2	--	15
	797+06	RT	1842A	1	--	1	--	--	--	--
	797+40	LT&RT	1842A	2	--	2	--	--	--	17
TOTALS				12	9	3	5	4	8	253

ASPHALTIC ITEMS

CATEGORY	STATION TO STATION	OFFSET	455.0605 TACK COAT GAL	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	460.6644 HMA PAVEMENT 4 MT 58-34 V TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	COMMENTS
0010											
	289+83 - 334+84	LT&RT	2,610	--	--	4,870	--	--	--	1,014	
	290+65 - 291+47	LT	--	--	--	--	--	--	12	--	DRIVEWAY
	334+84 - 419+74	LT&RT	3,415	--	--	6,479	--	--	--	7,265	
	420+87 - 638+17	LT&RT	8,732	--	--	16,574	--	--	--	20,105	
	638+17 - 655+63	LT&RT	845	--	--	1,597	--	--	--	1,635	
	656+73 - 684+59	LT&RT	1,140	--	--	2,159	--	--	--	2,765	
	684+59 - 706+10	LT&RT	1,035	--	--	1,957	--	--	--	1,511	
	706+10 - 798+90	LT&RT	3,761	--	--	7,139	--	--	--	8,554	
	MONROE ST	RT	16	--	--	29	--	--	--	--	
	BEAVER ST	RT	15	--	--	29	--	--	--	--	
	WOLF ST	LT&RT	28	--	--	52	--	15	--	--	
	PELSDORF AVE	LT&RT	51	--	--	95	--	--	--	--	
	ROBIN AVE	LT	27	--	--	50	--	--	--	--	
	ROMADKA AVE	LT&RT	54	--	--	101	--	--	--	--	
	MERIDIAN AVE	LT&RT	54	--	--	101	--	--	--	--	
	CATLIN AVE	LT&RT	39	--	--	74	--	--	--	--	
	SANDHILL AVE	LT&RT	52	--	--	98	--	--	--	--	
	CHURCH RD	RT	26	--	--	48	--	--	--	--	
	CTH Y	RT	22	--	--	41	--	--	--	--	
	SPENCER RD	LT	18	--	--	34	--	--	--	--	
	BASSWOOD AVE	LT	26	--	--	49	--	--	--	--	
	FAIR HAVEN AVE	RT	34	--	--	64	--	--	--	--	
	PROJECT	LT&RT	--	1	2	--	500	50	398	--	
CAT 0010 SUBTOTAL			22,000	1	2	41,640	500	65	410	42,850	
0020											
	289+83 - 296+00	LT&RT	--	--	--	--	--	7	--	--	SANITARY MH ADJUSTMENTS
	296+00 - 300+00	LT&RT	--	--	--	--	--	9	--	--	SANITARY MH ADJUSTMENTS
	300+00 - 304+00	LT&RT	--	--	--	--	--	5	--	--	SANITARY MH ADJUSTMENTS
	304+00 - 312+00	LT&RT	--	--	--	--	--	10	--	--	SANITARY MH ADJUSTMENTS
	312+00 - 316+00	LT&RT	--	--	--	--	--	4	--	--	SANITARY MH ADJUSTMENTS
CAT 0020 SUBTOTAL			--	--	--	--	--	35	--	--	
TOTALS			22,000	1	2	41,640	500	100	410	42,850	

NOTES
UNDISTRIBUTED ASPHALT SURFACE QUANTITY USED FOR ANY REPAIRS REQUIRED AFTER MILLING IS COMPLETE
UNDISTRIBUTED ASPHALTIC SURFACE PATCHING QUANTITY USED FOR MINOR REPAIRS REQUIRED TO MAINTAIN TRAFFIC ON THE EXISTING SURFACE

							QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
LOCATION	STA TO STA	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANE (UPPER LAYER)	289+83 - 798+90	UPPER LAYER	LOWER LAYER HMA SURFACE	4 MT 58-34 V	15,138	2"	INCENTIVE AIR VOIDS HMA PAVEMENT SPV.0055.02	INCENTIVE DENSITY PWL HMA PAVEMENT SPV.0055.01
12 FOOT DRIVING LANE (LOWER LAYER)	289+83 - 798+90	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-34 V	15,138	2"	INCENTIVE AIR VOIDS HMA PAVEMENT SPV.0055.02	INCENTIVE DENSITY PWL HMA PAVEMENT SPV.0055.01
SHOULDERS, SIDEROADS, TURN LANES	289+83 - 798+90	UPPER LAYER	LOWER LAYER HMA SURFACE	4 MT 58-34 V	6,115	2"	INCENTIVE AIR VOIDS HMA PAVEMENT SPV.0055.02	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
SHOULDERS, TURN LANES	289+83 - 798+91	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-34 V	5,250	2"	INCENTIVE AIR VOIDS HMA PAVEMENT SPV.0055.02	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
VARIOUS	VARIOUS	MAINTENANCE OF TRAFFIC ON EXISTING SURFACE	EXISTING ASPHALTIC PAVEMENT	ASPHALTIC SURFACE PATCHING	50	VARIES	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS	VARIOUS	REPAIRS AFTER MILLING	MILLED EXISTING HMA SURFACE	ASPHALTIC SURFACE	500	VARIES	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0500 SEED WATER MGAL
0010									
	314+23	-	314+63	LT	21	0.1	0.2	--	0.5
	314+54	-	314+97	RT	26	0.1	0.2	--	0.6
	314+99	-	315+38	LT	32	0.1	0.3	--	0.7
	346+90			LT&RT	18	0.1	0.1	0.4	0.4
	461+48	-	461+68	LT	13	0.1	0.1	0.2	0.3
	578+56	-	578+70	LT	16	0.1	0.1	0.2	0.4
	667+25	-	667+46	RT	31	0.1	--	0.9	0.7
	690+09			LT&RT	98	0.1	0.2	2.2	2.2
	699+36			LT&RT	26	0.1	0.1	0.5	0.6
	699+43			LT&RT	22	0.1	0.1	0.5	0.5
	725+44			LT&RT	40	0.1	0.1	0.8	1.0
	770+05	-	770+63	LT	47	0.1	0.3	0.5	1.0
	778+82			LT&RT	39	0.1	0.2	0.4	1.0
	797+06			RT	7	0.1	0.1	--	0.2
	797+32	-	797+46	LT	27	0.1	0.1	0.4	0.6
	797+40			LT&RT	7	0.1	0.1	--	0.2
	UNDISTRIBUTED				120	0.4	0.7	2.0	2.2
TOTALS					590	2.0	3.0	9.0	3.0

EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
0010							
	314+23	-	314+63	LT	21	--	--
	314+54	-	314+97	RT	26	--	--
	314+99	-	315+38	LT	32	--	--
	324+96			LT&RT	--	--	6
	346+90			LT&RT	18	--	6
	371+12			LT&RT	--	--	8
	427+23			LT&RT	--	--	12
	461+48	-	461+68	LT	13	15	6
	471+52			LT&RT	--	--	6
	549+87			LT&RT	--	--	12
	578+56	-	578+70	LT	16	15	6
	667+25	-	667+46	RT	31	15	8
	690+09			LT&RT	98	45	8
	699+36			LT&RT	26	--	6
	699+43			LT&RT	22	--	6
	725+44			LT&RT	40	--	8
	770+05	-	770+63	LT	47	15	10
	778+82			LT&RT	39	15	8
	797+06			RT	7	--	4
	797+32	-	797+46	LT	27	15	--
	797+40			LT&RT	7	--	4
	UNDISTRIBUTED				120	35	26
TOTALS					590	170	150

NOTE
SEE CONSTRUCTION DETAILS FOR ADDITIONAL LOCATION INFORMATION

CONCRETE CURB & GUTTER AND INLET ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	611.0430 RECONSTRUCTING INLETS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0090.01 CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT LF
0010								
	314+23	-	314+63	LT	63	--	1	63
	314+54	-	314+97	RT	50	--	--	50
	314+99	-	315+38	LT	77	1	--	77
TOTALS					190	1	1	190

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	STAGE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.5000 TRAFFIC CONTROL EACH
0010											
	PROJECT	85	--	--	36	3,060	--	--	--	--	1
	ADVANCED NOTICE SIGNING	7	--	--	2	14	--	--	--	--	--
	MILLING AND PAVING OPERATIONS	5	--	--	28	140	--	--	--	--	--
	SHOULDER CLOSURES	3	100	300	7	21	--	--	--	--	--
	SIDE ROAD CLOSURES	2	--	--	2	4	10	20	12	24	--
TOTALS				300		3,239		20		24	1

NOTE
MILLING AND PAVING OPERATION QUANTITIES ONLY INCLUDE THE SIGNS FOR TRAFFIC ON THE MILLED SURFACE PER SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" AND "TRAFFIC CONTROL, DROP-OFF SIGNING"

GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EACH	614.0951 REPLACING GUARDRAIL RAIL AND HARDWARE LF	614.0952 REPLACING GUARDRAIL REFLECTORS EACH
0010								
	290+00	-	290+65	LT	65	--	--	--
	290+00	-	290+64	RT	64	--	--	--
	418+36	-	419+42	LT	106	--	--	--
	421+19	-	422+74	LT	155	--	--	--
	654+39	-	655+45	LT	106	--	--	--
	656+91	-	657+97	RT	106	--	--	--
	657+08	-	659+51	LT	243	--	--	--
	PROJECT				--	14	100	5
TOTALS					845	14	100	5

WATER

CATEGORY	LOCATION	624.0100 MGAL
0010	PROJECT	1
TOTAL		1

NOTE
WATER IS FOR COMPACTION AT DRIVEWAYS AND OTHER MINOR SPOT REPAIRS.

EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT	3	2
TOTALS		3	2

3

ADJUSTING SANITARY MANHOLES AND WATER VALVES

CATEGORY	STATION	OFFSET	611.8120.S COVER PLATES TEMPORARY EACH	SPV.0060.01 ADJUSTING SANITARY MANHOLE COVERS EACH	SPV.0060.02 ADJUSTING WATER VALVE BOXES EACH
0020					
	291+58	LT	1	1	--
	295+07	LT	1	1	--
	296+32	RT	--	--	1
	296+36	RT	1	1	--
	296+44	RT	--	--	1
	296+54	RT	--	--	1
	296+69	RT	--	--	1
	298+58	LT	1	1	--
	298+92	RT	1	1	--
	301+30	RT	--	--	1
	301+41	RT	--	--	1
	301+62	RT	--	--	1
	301+67	RT	--	--	1
	301+69	RT	1	1	--
	301+78	RT	--	--	1
	301+87	RT	--	--	1
	304+85	RT	--	--	1
	305+00	RT	1	1	--
	305+62	RT	--	--	1
	308+41	RT	--	--	1
	308+49	RT	1	1	--
	311+27	RT	1	1	--
	314+17	RT	1	1	--
	314+88	RT	--	--	1
	314+91	RT	--	--	1
TOTALS			10	10	15

INLET PROTECTION

CATEGORY	LOCATION	628.7015 INLET PROTECTION TYPE C EACH
0010		
	N WOLF ST	2
	UNDISTRIBUTED	1
TOTAL		3

3

REMOVING AND MOVING SIGNS

CATEGORY	SIGN NUMBER	SIGN CODE	SIGN DIMENSION W IN	X	H IN	DESCRIPTION	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	637.223 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
0010												
	12-1	W13-1	18	X	18	ADVISORY SPEED LIMIT 45	--	2.25	--	1	--	--
	13-1	W13-1	18	X	18	ADVISORY SPEED LIMIT 45	--	2.25	--	1	--	--
	UNDISTRIBUTED						5	--	5	5	5	5
TOTALS							5	4.50	5	7	5	5

NOTE
THE UNDISTRUBUTED SIGNING QUANTITIES ARE FOR SIGNS THAT NEED TO BE MOVED DUE TO CONSTRUCTION OPERATIONS.

LONG LINE PAVEMENT MARKING ITEMS

CATEGORY	STATION TO STATION	OFFSET	646.1020 MARKING LINE EPOXY 4-INCH SOLID WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH 3' LINE 9' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH SOLID WHITE LF	646.3040 MARKING LINE GROOVED WET REF EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3040 MARKING LINE GROOVED WET REF EPOXY 8-INCH SOLID WHITE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH SOLID YELLOW LF	646.6120 MARKING STOP LINE EPOXY 18-INCH SOLID WHITE LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH SOLID YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	COMMENTS
0010																		
	289+83 - 324+70	LT & RT	6,515	--	--	--	--	--	--	--	875	2,070	--	1,750	4,140	--	--	
	301+65	RT	--	--	--	--	--	--	--	--	--	--	17	--	--	--	--	BEAVER ST
	314+82	LT	--	--	--	--	--	--	--	--	--	--	15	--	--	--	--	WOLF ST
	315+13	RT	--	--	--	--	--	--	--	--	--	--	16	--	--	--	--	WOLF ST
	324+70 - 334+84	LT & RT	--	263	863	--	--	2,028	--	--	--	--	--	526	1,726	263	863	
	334+84 - 419+74	LT & RT	--	2,125	1,886	116	--	15,860	--	--	--	--	--	4,250	3,772	2,125	1,886	
	419+74 - 638+17	LT & RT	--	5,463	9,042	158	--	42,560	--	--	--	--	--	10,926	18,084	5,463	9,042	
	638+17 - 655+63	LT & RT	--	--	3,267	63	63	3,354	50	102	--	--	--	--	6,534	--	3,267	
	648+39	RT	--	--	--	--	--	--	--	--	--	--	17	--	--	--	--	CTH Y
	655+63 - 684+59	LT & RT	--	725	1,695	--	--	5,793	--	--	--	--	--	1,450	3,390	725	1,695	
	684+59 - 706+10	LT & RT	--	113	3,851	52	63	4,192	68	75	--	--	--	226	7,702	113	3,851	
	706+10 - 798+90	LT & RT	--	2,150	3,017	25	63	18,260	--	100	--	--	--	4,300	6,034	2,150	3,017	
TOTALS			6,515	10,839	23,621	414	189	92,047	118	277	875	2,070	65	23,428	51,382	10,839	23,621	
				40,975			92,650			395		2,945			74,810		34,460	

NOTES:
PLACE TEMPORARY MARKING LINE PAINT ON MILLED AND LOWER LAYER SURFACES
PLACE TEMPORARY MARKING LINE EPOXY ON FINISHED SURFACES PRIOR TO PLACEMENT OF CENTERLINE RUMBLE STRIPS
PLACE MARKING LINE SAME DAY EXPOXY ON FINISHED SURFACES IN AREAS WITHOUT CENTERLINE RUMBLE STRIPS
PLACE MARKING LINE EPOXY ON FINISHED SURFACE OF CENTERLINE AFTER PLACEMENT OF CENTERLINE RUMBLE STRIPS
PLACE MARKING LINE GROOVED WET REF EPOXY 8-INCH TO DELINEATE THE RIGHT TURN LANE AT CTH Y, SPECER RD AND FAIR HAVEN AVE

CONSTRUCTION STAKING

CATEGORY	STATION TO STATION	OFFSET	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (7040-00-71) LS
0010					
	289+83 - 334+84	LT&RT	--	4,501	--
	314+23 - 314+63	LT	50	--	--
	314+54 - 314+97	RT	63	--	--
	314+99 - 315+38	LT	77	--	--
	334+84 - 419+74	LT&RT	--	8,490	--
	420+87 - 638+17	LT&RT	--	21,730	--
	638+17 - 655+63	LT&RT	--	1,746	--
	656+73 - 684+59	LT&RT	--	2,786	--
	684+59 - 706+10	LT&RT	--	2,151	--
	706+10 - 798+90	LT&RT	--	9,280	--
	PROJECT		--	--	1
TOTALS			190	50,684	1

SAWING

CATEGORY	STATION TO STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
0010					
	290+65 - 291+47	RT	40	--	DRIVEWAY
	314+23 - 314+63	LT	60	3	N WOLF ST
	314+54 - 314+97	RT	75	--	N WOLF ST
	314+99 - 315+38	LT	86	3	N WOLF ST
	PROJECT	LT&RT	971	--	DRIVEWAYS
CAT 0010 SUBTOTALS			1,232	6	
0020					
	289+83 - 296+00	LT&RT	128	--	SANITARY MH ADJUSTMENTS
	296+00 - 300+00	LT&RT	228	--	SANITARY MH ADJUSTMENTS
	300+00 - 304+00	LT&RT	136	--	SANITARY MH ADJUSTMENTS
	304+00 - 312+00	LT&RT	228	--	SANITARY MH ADJUSTMENTS
	312+00 - 316+00	LT&RT	64	--	SANITARY MH ADJUSTMENTS
CAT 0020 SUBTOTALS			784	--	
TOTALS			2,016	6	

NOTES
PAVE ASPHALTIC SURFACE DRIVEWAY AT STA 291+00, RT WITH A "V" TO ACCOMMODATE DRAINAGE AWAY FROM ROADWAY AND DRIVEWAY. SEE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

MATCH EXISTING SANITARY MANHOLE COVER ELEVATIONS LOCATED AT STA 290+48 AND STA 291+58 ON CENTERLINE.

LEGEND
- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N MAIN ST
BP: 289+00.00
STA 290+00 - STA 290+65, LT
STEEL PLATE BEAM GUARD TO REMAIN
ADJUSTING STEEL PLATE BEAM GUARD REQ'D
PAVE TO FACE OF RAIL
SANITARY MANHOLE (NO ADJUSTMENT)
XCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)
LOYAL WWTF (SEWER)
CHARTER COMMUNICATION (COMMUNICATION)
XCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)
XCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)
XCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)
STA 293+06, LT ASPH CE
STA 294+05, LT BASE AGG PE
STA 295+57, LT BASE AGG PE
STA 297+12, LT BASE AGG PE
STA 298+19, LT BASE AGG PE
STA 298+66, LT BASE AGG CE
STA 301+30, LT BASE AGG CE
STA 302+17, LT ASPH PE
S89° 57' 02"E
STH 98
290 292 294 296 298 300 302

BEGIN PROJECT
STA 289+83
Y=416,189.89
X=711,320.90
BEGIN MILL & OVERLAY
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
CP/BM #511
Y = 416,156.05
X = 711,264.20
ELEV = 1214.11
FENO 1000 W/ALUMINUM CAP SET
B-10-053 (TO REMAIN)
WE ENERGIES (GAS)
STA 290+82, RT ASPH CE
STA 291+29, RT BASE AGG CE
CAUTION
SEE CONSTRUCTION DETAIL FOR DRAINAGE IMPROVEMENTS AT CE
STA 292+98, RT BASE AGG CE
BEAR CREEK
STA 290+00 - STA 290+64, RT
STEEL PLATE BEAM GUARD TO REMAIN
ADJUSTING STEEL PLATE BEAM GUARD REQ'D
PAVE TO FACE OF RAIL
LOYAL WWTF (SEWER)
END CONSTRUCTION 296+35, 66' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
N MONROE ST
CHARTER COMMUNICATION (COMMUNICATION)
LOYAL WWTF (WATER)
STA 298+84, RT BASE AGG PE
STA 299+31, RT BASE AGG PE
LOYAL WWTF (SEWER)
LOYAL WWTF (WATER)
END CONSTRUCTION 301+65, 65' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
N BEAVER ST
STA 302+69, RT ASPH PE
STA 303+16, RT ASPH PE

LOYAL PROPERTIES LLC
BLUEBERRY ACRES LLC
GRAND EAGLE INVESTMENT CORP
DAWN M BROCK
VAUGHN D LUCHT
KEVIN RUETH
DANIEL N ROTH
HEDWIG BAUER REVOCABLE TRUST
EUGENE P GAUGER JR
NORMA MARIE GAUGER
NSE PROPERTIES LLC
PROPERTIES PLUS DIVERSIFIED LLC
DOUGLAS E KINNICK
ALLEN S PAYNE
LISA PAYNE
GARY T THALER
CYNTHIA THALER
DANIEL DAVEL
MARK WIECHERS

TONY A SCHOONOVER
BRENDA SCHOONOVER
DOROTHY GRUHLKE
GRANDMA'S KITCHEN OF LOYAL LLC
MEMORIAL HOSPITAL INC
MATTHEW D STARK
JENNAH S FULWILER
DOMINE PROPERTIES LLC
JAMES R YOUNG
DEBRA A YOUNG
DAVID THEWES
DANIEL ROWLEY
DOROTHY WEYHMILLER
LOYAL HISTORICAL SOCIETY INC
AARON E SHIRK
DANA M SHIRK
ROBERT G TRIMBLE
KATHY J TRIMBLE
CHARLES H RUETH
BRENDA L RUETH
MECHELKE REVOCABLE LIVING TRUST
MECHELKE REVOCABLE LIVING TRST
CITY OF LOYAL
SUSAN L ROLLINS
LEONARD L HOWARD
JENAE E WEYER
DEREK J WEYER

LANDMARK REFERENCE MONUMENTS (BY OTHERS)
T 26 N
R 1 W
10
15
N WOLF ST
END CONSTRUCTION 314+82, 79' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
EXCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)
SEE INTERSECTION DETAIL FOR CURB & GUTTER AND INLET IMPROVEMENTS AT N WOLF ST
END CONSTRUCTION 315+13, 64' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
STA 303+54, LT ASPH PE
STA 305+24, LT BASE AGG PE
STA 305+98, LT BASE AGG PE
STA 307+04, LT BASE AGG CE
STA 308+52, LT BASE AGG CE
STA 308+97, LT ASPH PE
STA 309+68, LT ASPH CE
STA 311+05, LT CONC PE
STA 312+85, LT ASPH CE
STA 316+36, LT ASPH PE
304 306 308 S89° 57' 02"E 310 STH 98 312 314 316 318
STA 303+16, RT ASPH PE
STA 304+03, RT ASPH PE
STA 305+68, RT BASE AGG CE
STA 307+92, LT&RT
CULVERT 1825
EXISTING 42" PCP TO REMAIN
3° SKEW LHF
MARKERS FOR CULVERT END REQ'D
STA 308+55, RT BASE AGG CE
STA 309+28, RT ASPH CE
STA 310+00, RT BASE AGG PE
STA 310+78, RT BASE AGG PE
STA 311+67, RT BASE AGG PE
STA 312+28, RT BASE AGG PE
STA 317+82, RT ASPH PE
LOYAL WWTF (SEWER)
LOYAL WWTF (WATER)
FRONTIER COMMUNICATION OF WI (COMMUNICATION)
EXCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 23 E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01
PLOT DATE : 10/22/2020 11:47 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N

JOHN L BLOOM

ZETTLERS FARM, HOME & PAINT CENTER LLC

TYLER A MUELLER
LINDSEY E MUELLER

VAUGHN A LOOS

VAUGHN A LOOS

R/W

STA 319+41, LT ASPH PE

STA 319+97, LT ASPH PE

STA 321+70, LT ASPH CE

STA 322+83, LT ASPH PE

XCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)

CHARTER COMMUNICATION (COMMUNICATION)

STA 327+32, LT BASE AGG FE

STA 331+47, LT BASE AGG PE

STA 332+90, LT BASE AGG PE

R/W

318 320 322 324 S89° 57' 02"E 326 STH 98 328 330 332

STA 318+71, RT ASPH PE

STA 320+04, RT ASPH PE

STA 320+65, RT ASPH PE

STA 327+33, RT BASE AGG FE

R/W

ROBERT MILZ

JOANNE M KOBISKE
CONNIE A KOBISKE

WALL

FRONTIER COMMUNICATION OF WI (COMMUNICATION)

STA 324+96, LT&RT
CULVERT 1826
EXISTING 24" PCP TO REMAIN
1° SKEW LHF
1-CLEANING CULVERT PIPE REQ'D
MARKERS FOR CULVERT END REQ'D

CHARTER COMMUNICATION (COMMUNICATION)

REVOCABLE LIVING TRUST
JANE P WANGEN

JANE P WANGEN
REVOCABLE LIVING TRUST

CONNIE A PORTER

WM

5

5

N

T 26 N
10 11
15 14
R 1 W

LANDMARK REFERENCE MONUMENTS (BY OTHERS)

R/W

PELSDORF AVE

JOSHUA T SHAFTO &
ERIN SHAFTO REVOCABLE TRUST

END CONSTRUCTION
341+21, 81' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

Y = 416,185.45
X = 716,460.32

XCEL ENERGY (ELECTRIC)

VAUGHN A LOOS

VAUGHN A LOOS

ASTREA (COMMUNICATION)

R/W

STA 342+26, LT BASE AGG PE

334 336 338 S89° 57' 02"E 340 STH 98 342 N89° 56' 55"E 344 346 348

STA 335+13, RT BASE AGG FE

R/W

STA 333+62, RT BASE AGG PE

CP/BM #510
Y = 416,128.95
X = 716,409.08
ELEV = 1285.42
FENO 1000 W/ALUMINUM CAP SET

END CONSTRUCTION
341+18, 78' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

PI: 341+22.42

PELSDORF AVE

R/W

R/W

CHARTER COMMUNICATION (COMMUNICATION)

FRONTIER COMMUNICATION OF WI (COMMUNICATION)

REVOCABLE LIVING TRUST
JANE P WANGEN

LEE L BENDER

STA 346+90, LT&RT
CULVERT 1826A
EXISTING 24" PCP TO REMAIN
2° SKEW RHF
1-REMOVE STEEL AEW (RT)
1-APRON ENDWALL FOR CULVERT PIPE
ALUMINUM 24-INCH REQ'D (RT)
1-CLEANING CULVERT PIPE REQ'D
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 24	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02

PLOT DATE : 10/22/2020 11:47 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

VAUGHN A LOOS

RICHARD H CARLBERG JR
SALLY J CARLBERG

JACK KADOLPH
VICKI KADOLPH

N

R/W

STA 348+80, LT
BASE AGG
FE

STA 358+01, LT
BASE AGG
PE

350 352 354 N89° 56' 55"E 356 STH 98 358 360 362

LEE L BENDER

BONNIE M BENDER

5

5

JACK KADOLPH
VICKI KADOLPH

T 26 N
11
14
R 1 W

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

ROBIN AVE

END CONSTRUCTION
367+57, 80' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

CLARK ELECTRIC COOPERATIVE
(ELECTRIC)

STA 371+12, LT&RT
CULVERT 1826B
EXISTING 30" PCP TO REMAIN
1-CLEANING CULVERT PIPES REQ'D
MARKERS FOR CULVERT END REQ'D

ASTREA
(COMMUNICATION)

PAUL J BUGAR

STA 370+81, LT
BASE AGG
FE

364 366 368 N89° 56' 55"E 370 372 STH 98 374 376 378

STA 364+13, RT
BASE AGG
FE

STA 365+54, RT
BASE AGG
PE

STA 370+85, RT
BASE AGG
PE

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

CHARTER COMMUNICATION
(COMMUNICATION)

BONNIE M BENDER

BONNIE M BENDER
LEE BENDER

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 25	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03

PLOT DATE : 10/22/2020 11:47 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

PAUL J BUGAR

PAUL J BUGAR & SUSANN M BUGAR
MARY M HOESLY

N

CP/BM #512
Y = 416,254.17
X = 721,778.43
ELEV = 1268.39
FENO 1000 W/ALUMINUM CAP SET

R/W

ROMADKA AVE

END CONSTRUCTION
394+08, 81' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 383+22, LT
BASE AGG
CE

STA 388+06, LT
BASE AGG
PE

Y = 416,190.18
X = 721,742.09

N89° 51' 08"E

380 382 384 386 STH 98 388 390 392 N89° 56' 55"E 394

STA 382+59, RT
BASE AGG
PE

BONNIE M BENDER
LEE BENDER

SIGN

LAVERNE E KADOLPH
ROGER K KADOLPH

26
T N
11 12
14 13
R W
1

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

END CONSTRUCTION
394+01, 81' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

PI: 394+04.19

5

5

RICHARD MCBRIDE
IRENE MCBRIDE

DAIRYLAND POWER COOP
SUBSTATION

CLARK ELECTRIC COOPERATIVE
(ELECTRIC)

GUY

STA 395+48, LT
BASE AGG
PE

396 398 400 N89° 51' 08"E 402 STH 98 404 406 408 410

STA 402+95, RT
BASE AGG
PE

RICK F RUETH
PAMELA R RUETH

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 26	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 04

PLOT DATE : 10/22/2020 11:48 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N

RICHARD MCBRIDE
IRENE MCBRIDE

STA 418+36 - STA 419+42, LT
MGS GUARDRAIL TO REMAIN
ADJUSTING STEEL PLATE BEAM GUARD REQ'D
PAVE TO FACE OF RAIL

RANDALL L WEAVER

RANDALL L WEAVER

EXCEPTION TO NET ℄ LENGTH (B-10-230)
STA 419+74 - STA 420+87

CLARK ELECTRIC COOPERATIVE
(ELECTRIC)

ASTREA
(COMMUNICATION)

PI: 417+09.01

END CONSTRUCTION
STA 419+74
END MILL & OVERLAY
BUTT JOINT REQ'D
(SEE CONSTUCTION DETAILS)

STA 421+19 - STA 422+74, LT
MGS GUARDRAIL TO REMAIN
ADJUSTING STEEL PLATE BEAM GUARD REQ'D
PAVE TO FACE OF RAIL

R/W

410 412 414 416 N89° 51' 08"E STH 98 418 N89° 52' 36"E 420 422 424

R/W

Y = 416,196.12
X = 724,046.90

BM BRASS DISK
(DO NOT DISTURB)

R/W

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

CHARTER COMMUNICATION
(COMMUNICATION)

ROCK CREEK

BEGIN CONSTRUCTION
STA 420+87
BEGIN MILL & OVERLAY
BUTT JOINT REQ'D
(SEE CONSTUCTION DETAILS)

RICK F RUETH
PAMELA R RUETH

STA 417+86 - STA 422+25, RT
MGS GUARDRAIL TO REMAIN
PAVE TO FACE OF RAIL

PAMELA R RUETH
RICKY F RUETH

T 26 N
R 12 13 W
1

DO NOT DISTURB

5

5

N

RANDALL L WEAVER

GLICK FAMILY REVOCABLE
LIVING TRUST

TERRANCE C WEYER
SHIRLEY R WEYER

MICHAEL JOHN FULWILER
CHARLENE MARY FULWILER

RUINS

POOL

CLARK ELECTRIC COOPERATIVE
(ELECTRIC)

ASTREA
(COMMUNICATION)

R/W

STA 428+99, LT
BASE AGG
PE

STA 434+68, LT
ASPH
PE

R/W

426 428 430 N89° 52' 36"E 432 STH 98 434 436 438 440

STA 429+03, RT
BASE AGG
FE

STA 432+29, RT
BASE AGG
PE

STA 438+84, RT
BASE AGG
PE

R/W

R/W

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

STA 427+23, LT&RT
CULVERT 1827
EXISTING 5'H X 3.5'W CONCRETE BOX
CULVERT PIPE TO REMAIN
1-CLEANING CULVERT PIPE REQ'D
MARKERS FOR CULVERT END REQ'D

STA 436+97, LT&RT
CULVERT 1828
EXISTING 24" RCCP TO REMAIN
MARKERS FOR CULVERT END REQ'D

PAMELA R RUETH
RICKY F RUETH

SCOTT RADUE
KATRINA K RADUE

PAMELA R RUETH
RICK F RUETH

TANKS

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 27	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 05

PLOT DATE : 10/22/2020 11:48 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N

MERIDIAN AVE

R/W

MICHAEL JOHN FULWILER
CHARLENE MARY FULWILER

DONNA M SMITH

JACK KADOLPH
VICTORIA KADOLPH

PC: 442+02.77

PT: 445+71.47

CLARK ELECTRIC COOPERATIVE
(ELECTRIC)

END CONSTRUCTION
446+78, 80' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 448+73, LT
BASE AGG
PE

440 N89° 52' 36"E 442 CURVE 1 444 446 N88° 07' 36"E 448 STH 98 450 452 454

STA 445+76, RT
BASE AGG
FE

STA 449+70, RT
ASPH
PE

STA 452+54, RT
ASPH
PE

CURVE NO. 1
PI STA = 443+87.13
Y = 416201.88
X = 726725.02
PC STA = 442+02.77
Y=416201.48
X=726540.65
PT STA = 445+71.47
Y=416207.91
X=726909.29
DELTA = 1°45'01"
D = 0°28'29"
T = 184.37'
L = 368.71'
R = 12070.00'
EXISTING SE = NC
PROPOSED SE = NC

GLICK FAMILY REVOCABLE
LIVING TRUST

LANDMARK
REFERENCE
MONUMENT
(BY OTHERS)

END CONSTRUCTION
446+69, 83' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

RUTH E HORST
CLAIR W HORST

KAREN J MEWS
RICKY L MEWS

ALLEN E BRUBACKER
MARTHA Z BRUBACKER

5

5

JACK KADOLPH
VICTORIA KADOLPH

ROBERT L LOOS
JACKLYN H LOOS

HENRY E AUMANN JR
LOIS M AUMANN

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

CLARK ELECTRIC COOPERATIVE
(ELECTRIC)

FROM STA 461+48, 49'LT TO STA 461+68, 54'LT
DITCH CLEANING

ASTREA
(COMMUNICATION)

STA 456+97, LT
BASE AGG
FE

STA 466+99, LT
BASE AGG
PE

PI: 470+12.19

456 458 460 462 STH 98 464 466 468 N88° 07' 36"E 470

Y = 416,287.70
X = 729,348.70

N87° 57' 12"E

STA 457+18, RT
BASE AGG
FE

STA 464+29, RT
ASPH
CE

STA 467+28, RT
BASE AGG
PE

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

CP/BM #503
Y = 416,191.10
X = 728,040.05
ELEV = 1283.48
NGS AE8641 BRASS CAP
(DO NOT DISTURB)

STA 461+51, LT&RT
CULVERT 1829
EXISTING 24" RCCP TO REMAIN
2° SKEW LHF
1-CLEANING CULVERT PIPE REQ'D
MARKERS FOR CULVERT END REQ'D

CAMPER & RECREATION INC

CAMPER & RECREATION INC

ALLEN E BRUBACKER
MARTHA Z BRUBACKER

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 28	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 06

PLOT DATE : 10/22/2020 11:48 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N

HENRY E AUMANN JR
LOIS M AUMANN

JEROME MURPHY
SUSAN RAE MURPHY

ROGER RUETH
CHRISTOPHER & ROBIN RUETH

CLARK ELECTRIC COOPERATIVE (ELECTRIC)

ASTREA (COMMUNICATION)

R/W

RUINS

STA 474+70, LT
BASE AGG
FE

STA 475+65, LT
BASE AGG
FE

STA 479+41, LT
BASE AGG
PE

FE

472 474 476 N87° 57' 12"E 478 STH 98 480 482 484 486

STA 473+65, RT
BASE AGG
PE

STA 479+42, RT
BASE AGG
PE

CHARTER COMMUNICATION (COMMUNICATION)

FRONTIER COMMUNICATION OF WI (COMMUNICATION)

DIETSCHE FAMILY FARMS LLC

DEBRA LUCHT
BRANDON LUCHT

RICK F RUETH
PAMELA R RUETH

STA 471+52, LT&RT
CULVERT 1830
EXISTING 24" PCP TO REMAIN
1° SKEW LHF
1-CLEANING CULVERT PIPE REQ'D
MARKERS FOR CULVERT END REQ'D

5

5

LARRY L LUCHT

CATLIN AVE

PI: 490+71.98

END CONSTRUCTION
490+43, 47' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 489+47, LT
BASE AGG
PE

FRONTIER COMMUNICATION OF WI (COMMUNICATION)

ASTREA (COMMUNICATION)

ROGER RUETH
CHRISTOPHER & ROBIN RUETH

ROCK CREEK

486 488 N87° 57' 12"E 490 N88° 55' 43"E 492 STH 98 494 496 498 500

Y = 416,361.26
X = 731,407.18

CHARTER COMMUNICATION (COMMUNICATION)

CP/BM #513
Y = 416,290.26
X = 731,423.88
ELEV = 1266.64
FENO 1000 W/ALUMINUM CAP SET

FRONTIER COMMUNICATION OF WI (COMMUNICATION)

STA 497+83
C-10-0017
EXISTING 6'8"H X 14'W
CONCRETE BOX TO REMAIN
0° SKEW

LANDMARK REFERENCE MONUMENTS (BY OTHERS)

T 26 N
7 8
18 17
R 1 E

END CONSTRUCTION
490+34, 83' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 29	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 07

PLOT DATE : 10/22/2020 11:48 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N

ROGER RUETH
CHRISTOPHER & ROBIN RUETH

LARRY LUCHT
DEBBIE LUCHT

DAVID S LABARGE
KIM M LABARGE

R/W

STA 505+66, LT
BASE AGG
PE

STA 513+25, LT
BASE AGG
PE

INL

502 504 506 N88° 55' 43"E 508 STH 98 510 512 514 516

STA 512+39, RT
BASE AGG
PE

5

ROGER RUETH
CHRISTOPHER & ROBIN RUETH

DONALD J BUGAR
REVOCABLE TRUST

ROGER RUETH
CHRISTOPHER & ROBIN RUETH

MICHAEL J LYONS
KATHLEEN A LYONS

STA 519+98, LT
BASE AGG
FE

STA 525+63, LT
BASE AGG
PE

516 518 520 522 N88° 55' 43"E 524 STH 98 526 528 530

STA 529+07, RT
BASE AGG
PE

STA 529+83, RT
BASE AGG
PE

SIGN

T 26 N
8
17
R 1 E

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

ROGER RUETH
CHRISTOPHER & ROBIN RUETH

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 30	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 08

PLOT DATE : 10/22/2020 11:49 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

ERVIN SHOWALTER
ANNA SHOWALTER

GEORGE E WUNROW III

SANDHILL AVE

DIETSCHE FARM PROPERTIES LLC

RICHARD BUKOVEC
JOAN BUKOVEC

STA 534+83, LT
ASPH
PE

R/W

END CONSTRUCTION
543+61, 81' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

XCEL ENERGY
(ELECTRIC)

STA 542+35, LT
BASE AGG
PE

PI: 545+30.43

532 534 536 538 STH 98 540 542 544 546

N88° 55' 43"E

N89° 28' 56"E

Y = 416,463.33
X = 736,864.67

N

STA 535+60, RT
BASE AGG
PE

STA 532+56, RT
BASE AGG
FE

SIGN

ROGER RUETH
CHRISTOPHER & ROBIN RUETH

GARY L RUETH
SHELBY A RUETH

ROGER A RUETH
ROBIN L & CHRISTOPHER A RUETH

CP/BM #518
Y = 416,391.79
X = 736,653.40
ELEV = 1317.01
FENO 1000 W/ALUMINUM CAP SET

END CONSTRUCTION
543+51, 81' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

JANETTE SCHULTZ REV TRUST

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

T 26 N
R 8 9 E
17 16
1

5

5

DIETSCHE FARM PROPERTIES LLC

XCEL ENERGY
(ELECTRIC)

ASTREA
(COMMUNICATION)

UNNAMED STREAM

STA 557+00, LT&RT
CULVERT 1833A
EXISTING 42" PCP TO REMAIN
MARKERS FOR CULVERT END REQ'D

STA 547+24, LT
BASE AGG
PE

548 550 552 N89° 28' 56"E 554 STH 98 556 558 560 562

STA 547+20, RT
BASE AGG
FE

STA 558+43, RT
BASE AGG
PE

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

CHARTER COMMUNICATION
(COMMUNICATION)

STA 549+87,LT&RT
CULVERT 1832
EXISTING 4'H X 3.5'W CPC BOX TO REMAIN
1-CLEANING CULVERT PIPE REQ'D
MARKERS FOR CULVERT END REQ'D

ANT.

JOHN NELSON
KAREN NELSON

BEVERLY G ZUPANC
JOE A ZUPANC JR

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 31	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 09

PLOT DATE : 10/22/2020 11:49 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

T 26 N
9
16
R 1 E

LANDMARK REFERENCE MONUMENTS (BY OTHERS)

N

DOUGLAS ROEHL
KIM FRICKE

MICHAEL STUMPNER

R/W

STA 563+66, LT
BASE AGG
FE

STA 568+11, LT
BASE AGG
PE

STA 576+29, LT
BASE AGG
FE

562 564 566 N89° 28' 56"E 568 STH 98 570 572 574 576

STA 571+73, RT
BASE AGG
PE

STA 575+52, RT
BASE AGG
CE

STA 575+97, RT
BASE AGG
CE

AARON D GILBERT
JENNIFER A GILBERT

JOHN W OBERHOLTZER
VERNA MAE OBERHOLTZER

BEVERLY G ZUPANC
JOE A ZUPANC JR

5

5

MICHAEL STUMPNER

MICHAEL STUMPNER

FROM STA 578+56, 37'LT TO STA 578+70, 38' LT
DITCH CLEANING

ASTREA
(COMMUNICATION)

PI: 587+00.87

ANT.

MICHAEL STUMPNER

STA 589+68, LT
BASE AGG
PE

578 580 582 584 STH 98 586 N89° 28' 56"E 588 N89° 24' 10"E 590 592

Y = 416,501.02
X = 741,034.94

STA 589+92, RT
BASE AGG
PE

XCEL ENERGY
(ELECTRIC)

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

STA 578+64, LT&RT
CULVERT 1834
EXISTING 24" PCP TO REMAIN
2° SKEW RHF
MARKERS FOR CULVERT END REQ'D

JOHN W OBERHOLTZER
VERNA MAE OBERHOLTZER

ELI H WEAVER
NAOMI H WEAVER

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 32	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 10

PLOT DATE : 10/22/2020 11:49 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N

STA 598+23, LT&RT
CULVERT 1834A
EXISTING 30" PCP TO REMAIN
4° SKEW LHF
MARKERS FOR CULVERT END REQ'D

PI: 596+90.79

Y = 416,511.34
X = 742,024.81

ASTREA
(COMMUNICATION)

MICHAEL STUMPNER

ELI H WEAVER
NAOMI H WEAVER

R/W

STA 602+48, LT
BASE AGG
FE

STA 603+67, RT
BASE AGG
PE

STA 605+27, RT
BASE AGG
PE

594 N89° 24' 10"E 596 598 N89° 01' 49"E 600 STH 98 602 604 606 608

XCEL ENERGY
(ELECTRIC)

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

CP/BM #517
Y = 416,454.36
X = 742,055.23
ELEV = 1296.39
FENO 1000 W/ALUMINUM CAP SET

MARVIN J DIETSCHE
KATHLEEN E DIETSCHE

SEPTIC

T 26 N
R 9 10 E
15 16
1

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

END CONSTRUCTION
596+90, 81' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

DIVISION AVE

SHERI L SIMON
CHARLES P SIMON

SIGN

STA 608+80, LT
BASE AGG
PE

STA 610+17, LT
BASE AGG
FE

608 610 612 STH 98 614 N89° 01' 49"E 616 CURVE 2 618 620 N88° 13' 12"E 622 N87° 53' 35"E

PC: 615+07.01

PT: 617+82.11

PI: 621+55.62

IRVIN R GARMAN
NORENE N GARMAN

MARVIN DIETSCHE
KATHY DIETSCHE

STA 616+64, LT
BASE AGG
PE

STA 618+38, RT
BASE AGG
PE

STA 623+00, LT
BASE AGG
PE

Y = 416,560.28
X = 744,489.12

CURVE NO. 2
PI STA = 616+44.56
Y = 416544.40
X = 743978.30
PC STA = 615+07.01
Y=416542.07
X=743840.77
PT STA = 617+82.11
Y=416548.67
X=744115.78
DELTA = 0°48'37"
D = 0°17'40"
T = 137.55'
L = 275.10'
R = 19452.72'
EXISTING SE = NC
PROPOSED SE = NC

DIETSCHE FARM PROPERTIES LLC

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 33	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 11

PLOT DATE : 10/22/2020 11:49 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

N

DIETSCHE FARM PROPERTIES LLC

PI: 624+17.22

R/W

STA 623+00, LT
BASE AGG
PE

Y = 416,569.89
X = 744,750.54

624

N88° 06' 34"E

626

628

630

STH 98

632

634

N88° 06' 34"E

PI: 636+01.09

Y = 416,608.95
X = 745,933.77

N87° 54' 59"E

638

636

N87° 53' 35"E

STA 623+42, RT
BASE AGG
PE

R/W

R/W

R/W

REMOVE AND REPLACE
EXISTING ADVISORY SPEED SIGN

TO REMAIN

REMOVE

W13-1
18"X18"

12-1
NEW SIGN

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS

T 26 N
10
15
R 1 E

DIETSCHE FARM PROPERTIES LLC

DIETSCHE FARM PROPERTIES LLC

5

5

CURVE NO. 3
PI STA = 649+23.40
Y = 416657.03
X = 747255.20
PC STA = 639+97.15
Y=416623.35
X=746329.56
PT STA = 654+68.61
Y=417583.27
X=747250.79
DELTA = 88°11'21"
D = 5°59'36"
T = 926.25'
L = 1471.46'
R = 956.00'
EXISTING SE = 5.8%
PROPOSED SE = 6.0%
SE TRANSITION
STA 638+44 = NC
STA 639+46 = RC
STA 640+48 = 6.0%
STA 653+82 = 6.0%
STA 654+69 = RC
STA 655+74 = NC

DIETSCHE FARM PROPERTIES LLC

R/W

638

N87° 54' 59"E

PC: 639+97.15

640

642

644

CURVE 3

646

STH 98

648

650

652

654

R/W

R/W

R/W

STA 642+85, LT
BASE AGG
FE

DIETSCHE FARM PROPERTIES LLC

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

ASTREA
(COMMUNICATION)

WILLIAM WALTER RESS
BETTY RESS

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

XCEL ENERGY
(ELECTRIC-TRANSMISSION AND
ELECTRIC-DISTRIBUTION)

CP/BM #516
Y = 416,955.17
X = 747,150.13
ELEV = 1290.87
FENO 1000 W/ALUMINUM CAP SET

END CONSTRUCTION
648+39, 95' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

CTH Y

R/W

JIMMIE LEE HEWITT JR

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 34	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 12

PLOT DATE : 10/22/2020 11:49 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

STA 654+39 - STA 655+45, LT
MGS GUARDRAIL TO REMAIN
ADJUSTING STEEL PLATE BEAM GUARD REQ'D
PAVE TO FACE OF RAIL

END CONSTRUCTION
STA 655+63
END MILL & OVERLAY
BUTT JOINT REQ'D
(SEE CONSTUCTION DETAILS)

EXCEPTION TO NET ℄ LENGTH (B-10-229)
STA 655+63 - STA 656+73

STA 657+08 - STA 659+51, LT
MGS GUARDRAIL TO REMAIN
ADJUSTING STEEL PLATE BEAM GUARD REQ'D
PAVE TO FACE OF RAIL

TO REMAIN
50 MPH REMOVE
45 MPH W13-1 18"X18"
13-1 NEW SIGN

REMOVE AND REPLACE
EXISTING ADVISORY SPEED SIGN

XCEL ENERGY
(ELECTRIC-TRANSMISSION
AND ELECTRIC-DISTRIBUTION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

ASTREA
(COMMUNICATION)

XCEL ENERGY
(ELECTRIC-TRANSMISSION
AND ELECTRIC-DISTRIBUTION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

ASTREA
(COMMUNICATION)

STA 667+33, LT&RT
CULVERT 1835
EXISTING 30" PCP TO REMAIN
1° SKEW LHF
MARKERS FOR CULVERT END REQ'D

DIETSCHE FARM PROPERTIES LLC

DIETSCHE FARM PROPERTIES LLC

PT: 654+68.61

PI: 658+53.08

YELLOW RIVER

STH 98

654 656 N0° 16' 22"W 658 N0° 24' 28"W 660 662 664 666 668

STA 663+95, LT
BASE AGG
FE

STA 660+50, RT
BASE AGG
PE

STA 661+13, RT
BASE AGG
PE

STA 663+87, RT
BASE AGG
FE

Y = 417,967.73
X = 747,247.96

BM BRASS DISK
(DO NOT DISTURB)

BEGIN CONSTRUCTION
STA 656+73
BEGIN MILL & OVERLAY
BUTT JOINT REQ'D
(SEE CONSTUCTION DETAILS)

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

CHARTER COMMUNICATION
(COMMUNICATION)

FROM STA 667+25, 40'RT TO STA 667+46, 43' RT
DITCH CLEANING

STA 652+77 - STA 655+68, RT
MGS GUARDRAIL TO REMAIN
PAVE TO FACE OF RAIL

STA 656+91 - STA 657+97, RT
MGS GUARDRAIL TO REMAIN
ADJUSTING STEEL PLATE BEAM GUARD REQ'D
PAVE TO FACE OF RAIL

ROBERT L GARBISCH
DEBORAH S GARBISCH

MARVIN DIETSCHE
KATHY DIETSCHE

GLICK FAMILY REVOCABLE
LIVING TRUST

WILLIAM WALTER RESS
BETTY RESS

DIETSCHE FARM PROPERTIES LLC

DIETSCHE FARM PROPERTIES LLC

PI: 671+57.80

Y = 419,272.42
X = 747,239.68

670 N0° 24' 28"W 672 N0° 23' 55"W 674 676 STH 98 678 680 682 684

STA 679+24, LT
BASE AGG
PE

STA 679+20, RT
BASE AGG
FE

STA 684+12, RT
BASE AGG
FE

STA 670+95, RT
BASE AGG
PE

GLICK FAMILY REVOCABLE
LIVING TRUST

DIETSCHE FARM PROPERTIES LLC

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

T 26 N
10 11
R 1 E

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 35	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 13

PLOT DATE : 10/22/2020 11:50 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

STA 690+09, LT&RT
CULVERT 1836
EXISTING 30" PCP TO REMAIN
1° SKEW LHF
1-CLEANING CULVERT PIPE REQ'D
MARKERS FOR CULVERT END REQ'D

ASTREA
(COMMUNICATION)

DIETSCHE FARM PROPERTIES LLC

STA 689+07, LT
BASE AGG
FE

PCC: 687+98.12

PC: 686+30.42

PI: 684+55.10

CURVE 4

CURVE 5

STH 98

R/W

SPENCER RD

MICHAEL WEAVER

STA 699+36, LT&RT
CULVERT 1837
EXISTING 24" PCP TO REMAIN
2° SKEW LHF
2-REMOVE STEEL AEW (LT&RT)
2-APRON ENDWALL FOR CULVERT PIPE
ALUMINUM 24-INCH REQ'D (LT&RT)
MARKERS FOR CULVERT END REQ'D

END CONSTRUCTION
696+83, 91' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

684 686 688 690 692 694 696 698 700

N0° 39' 59"W

N0° 23' 55"W

Y = 420,569.68
X = 747,230.65

STA 684+12, RT
BASE AGG
FE

MARVIN DIETSCHE
KATHY DIETSCHE

STA 689+54, 42'RT TO STA 690+66, 41'RT
DITCH CLEANING

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

UNNAMED STREAM

CURVE NO. 4
PI STA = 687+14.40
Y = 420828.97
X = 747227.64
PC STA = 686+30.42
Y=420745.00
X=747228.61
PCC STA = 687+98.12
Y=420912.32
X=747237.90
DELTA = 7°41'14"
D = 4°35'01"
T = 83.98'
L = 167.71'
R = 1250.00'
EXISTING SE = 6.0%
PROPOSED SE = 6.0%
SE TRANSITION
STA 684+70 = NC
STA 685+77 = RC
STA 686+84 = 6.0%

CURVE NO. 5
PI STA = 697+83.38
Y = 421890.19
X = 747358.33
PCC STA = 687+98.12
Y=420912.32
X=747237.90
PT STA = 704+28.08
Y=421922.45
X=748343.05
DELTA = 81°06'09"
D = 4°58'33"
T = 985.25'
L = 1629.95'
R = 1151.50'
EXISTING SE = 6.0%
PROPOSED SE = 6.0%
SE TRANSITION
STA 703+75 = 6.0%
STA 704+81 = RC
STA 705+88 = NC

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

UNNAMED
OPEN WATER

JEFFERY S LUKES

ASTREA
(COMMUNICATION)

STA 702+31, LT
BASE AGG
FE

STA 704+16, LT
BASE AGG
FE

PT: 704+28.08

PI: 706+28.89

PHILLIP J IVACIC
MATTHEW P IVACIC

UNNAMED STREAM

XCEL ENERGY
(ELECTRIC-TRANSMISSION)

ASTREA
(COMMUNICATION)

700 702 704 706 708 710 712 714

N88° 07' 23"E

N88° 27' 44"E

STA 705+22, RT
BASE AGG
FE

Y = 421,929.03
X = 748,543.76

CHARTER COMMUNICATION
(COMMUNICATION)

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

STA 699+43, LT&RT
CULVERT 1838
EXISTING 24" PCP TO REMAIN
2° SKEW LHF
2-REMOVE STEEL AEW (LT&RT)
2-APRON ENDWALL FOR CULVERT PIPE
ALUMINUM 24-INCH REQ'D (LT&RT)
MARKERS FOR CULVERT END REQ'D

DIETSCHE FARM PROPERTIES LLC

STA 711+32, LT&RT
CULVERT 1838A
EXISTING 30" PCP TO REMAIN
2° SKEW LHF
MARKERS FOR CULVERT END REQ'D

N

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 36	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 14

PLOT DATE : 10/22/2020 11:50 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

BASSWOOD AVE

T 26 N
2
11
R 1 E

LANDMARK REFERENCE MONUMENTS (BY OTHERS)

PHILLIP J IVACIC
MATTHEW P IVACIC

END CONSTRUCTION
719+01, 83' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

MARA-WOOD FARMS INC

UNNAMED STREAM

XCEL ENERGY
(ELECTRIC)

ASTREA
(COMMUNICATION)

R/W

716 718 720 722 724 726 728 730

N88° 27' 44"E

STH 98

STA 718+13, RT
BASE AGG
FE

CP/BM #515
Y = 421,923.10
X = 749,710.34
ELEV = 1304.17
FENO 1000 W/ALUMINUM CAP SET

DIETSCHE FARM PROPERTIES LLC

STALTER LIVING TRUST

STA 725+44, LT&RT
CULVERT 1839
EXISTING 30" PCP TO REMAIN
3° SKEW RHF
2-REMOVE STEEL AEW (LT&RT)
2-APRON ENDWALL FOR CULVERT PIPE
ALUMINUM 30-INCH REQ'D (LT&RT)
MARKERS FOR CULVERT END REQ'D

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

N

MARA-WOOD FARMS INC

MARA-WOOD FARMS INC

MARA-WOOD FARMS INC

MARA-WOOD FARMS INC

XCEL ENERGY
(ELECTRIC)

ASTREA
(COMMUNICATION)

STA 738+31, LT
BASE AGG
PE

730 732 734 N88° 27' 44"E 736 STH 98 738 740 742 744

STA 736+84, RT
BASE AGG
PE

MARVIN DIETSCHE

STALTER LIVING TRUST

MARVIN J DIETSCHE
KATHLEEN E DIETSCHE

UNNAMED STREAM

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

STA 741+74, LT&RT
CULVERT 1840
EXISTING 24" PCP TO REMAIN
1° SKEW LHF
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 37	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 15

PLOT DATE : 10/22/2020 11:50 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- ADJUSTING STEEL PLATE BEAM GUARD
- PERMITTED WETLAND IMPACTS
- ADJUSTING SANITARY MANHOLES
- ADJUSTING WATER VALVES

STALTER LIVING TRUST

CAROL J KENNEDY

DONALD A SMITH

JEFFREY A WEYER

ROBERT HINRICHSEN
DORLA HINRICHSEN

N

PI: 746+43.82

R/W

STA 752+08, LT
BASE AGG
FE

STA 753+65, LT
BASE AGG
CE

STA 754+76, LT
BASE AGG
CE

STA 758+10, LT
BASE AGG
PE

746 | N88° 23' 26"E | 748 | 750 | 752 | STH 98 | 754 | 756 | 758 | 760

N88° 27' 44"E

Y = 422,036.77
X = 752,557.24

STA 751+75, RT
BASE AGG
PE

STA 752+85, RT
BASE AGG
FE

T26 N
R1 E
2 1
11 12

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

MARVIN J DIETSCHE
KATHLEEN E DIETSCHE

DONNA M BURT

KATHLEEN E DIETSCHE
MARVIN J DIETSCHE

STALTER LIVING TRUST

5

5

ROBERT HINRICHSEN
DORLA HINRICHSEN

CLIFFORD JOHNSON

FROM STA 770+05, 45'LT TO STA 770+63, 36'LT
DITCH CLEANING

XCEL ENERGY
(ELECTRIC)

ASTREA
(COMMUNICATION)

PI: 772+95.07

STA 762+85, LT
BASE AGG
PE

STA 773+60, LT
BASE AGG
PE

STA 775+44, LT
BASE AGG
PE

760 | 762 | 764 | 766 | STH 98 | 768 | 770 | 772 | N88° 23' 26"E | 774 | N88° 32' 11"E

Y = 422,111.23
X = 755,207.45

STA 761+01, RT
BASE AGG
PE

STA 775+12, RT
BASE AGG
FE

FRONTIER COMMUNICATION OF WI
(COMMUNICATION)

STA 770+56, LT&RT
CULVERT 1841
EXISTING 36" PCP TO REMAIN
3° SKEW RHF
MARKERS FOR CULVERT END REQ'D

T26 N
R1 E
1
12

LANDMARK
REFERENCE
MONUMENTS
(BY OTHERS)

BRADLY J SHINKLE
SIERRA S SHELLEY

STALTER LIVING TRUST

ROGER D GRIEPENTROG
MARY ANN M GRIEPENTROG

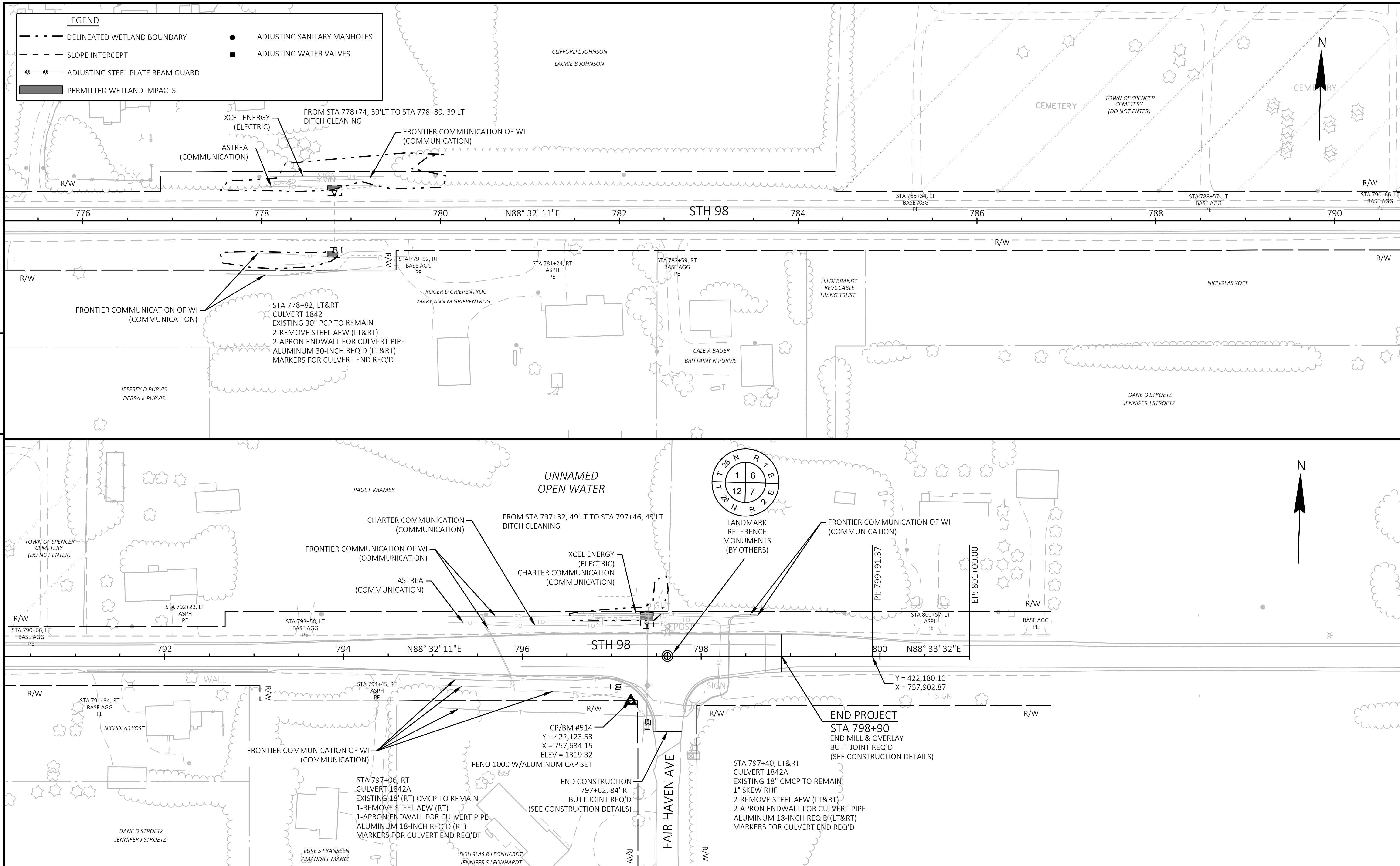
JEFFREY D PURVIS
DEBRA K PURVIS

DENNIS & RENEE HINRICHSEN TRTE
HINRICHSEN REVOCABLE TRUST

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 38	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 16

PLOT DATE : 10/22/2020 11:50 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

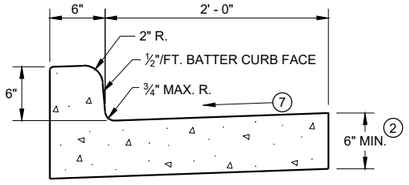

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
ADJUSTING STEEL PLATE BEAM GUARD
PERMITTED WETLAND IMPACTS
ADJUSTING SANITARY MANHOLES
ADJUSTING WATER VALVES
CLIFFORD L JOHNSON
LAURIE B JOHNSON
CEMETERY
TOWN OF SPENCER CEMETERY (DO NOT ENTER)
N
XCEL ENERGY (ELECTRIC)
FROM STA 778+74, 39'LT TO STA 778+89, 39'LT DITCH CLEANING
FRONTIER COMMUNICATION OF WI (COMMUNICATION)
ASTREA (COMMUNICATION)
R/W
STA 785+34, LT BASE AGG PE
STA 788+57, LT BASE AGG PE
STA 790+66, LT BASE AGG PE
776
778
780
N88° 32' 11"E
782
STH 98
784
786
788
790
STA 779+52, RT BASE AGG PE
STA 781+24, RT ASPH PE
STA 782+59, RT BASE AGG PE
HILDEBRANDT REVOCABLE LIVING TRUST
NICHOLAS YOST
FRONTIER COMMUNICATION OF WI (COMMUNICATION)
STA 778+82, LT&RT
CULVERT 1842
EXISTING 30" PCP TO REMAIN
2-REMOVE STEEL AEW (LT&RT)
2-APRON ENDWALL FOR CULVERT PIPE ALUMINUM 30-INCH REQ'D (LT&RT)
MARKERS FOR CULVERT END REQ'D
ROGER D GRIEPENTROG
MARY ANN M GRIEPENTROG
CALE A BAUER
BRITTAINY N PURVIS
JEFFREY D PURVIS
DEBRA K PURVIS
DANE D STROETZ
JENNIFER J STROETZ
5
5
UNNAMED OPEN WATER
PAUL F KRAMER
T 26 N R 1 E
1 6
12 7
T 26 N R 2 E
LANDMARK REFERENCE MONUMENTS (BY OTHERS)
CHARTER COMMUNICATION (COMMUNICATION)
FROM STA 797+32, 49'LT TO STA 797+46, 49'LT DITCH CLEANING
FRONTIER COMMUNICATION OF WI (COMMUNICATION)
XCEL ENERGY (ELECTRIC)
CHARTER COMMUNICATION (COMMUNICATION)
ASTREA (COMMUNICATION)
TOWN OF SPENCER CEMETERY (DO NOT ENTER)
PI: 799+91.37
EP: 801+00.00
STA 792+23, LT ASPH PE
STA 793+58, LT BASE AGG PE
STA 790+66, LT BASE AGG PE
STA 800+57, LT ASPH PE
BASE AGG PE
792
794
N88° 32' 11"E
796
STH 98
798
800
N88° 33' 32"E
WALL
STA 791+34, RT BASE AGG PE
NICHOLAS YOST
STA 794+45, RT ASPH PE
Y = 422,180.10
X = 757,902.87
END PROJECT
STA 798+90
END MILL & OVERLAY
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
CP/BM #514
Y = 422,123.53
X = 757,634.15
ELEV = 1319.32
FENO 1000 W/ALUMINUM CAP SET
FRONTIER COMMUNICATION OF WI (COMMUNICATION)
STA 797+06, RT
CULVERT 1842A
EXISTING 18"(RT) CMCP TO REMAIN
1-REMOVE STEEL AEW (RT)
1-APRON ENDWALL FOR CULVERT PIPE ALUMINUM 18-INCH REQ'D (RT)
MARKERS FOR CULVERT END REQ'D
END CONSTRUCTION
797+62, 84' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
FAIR HAVEN AVE
STA 797+40, LT&RT
CULVERT 1842A
EXISTING 18" CMCP TO REMAIN
1° SKEW RHF
2-REMOVE STEEL AEW (LT&RT)
2-APRON ENDWALL FOR CULVERT PIPE ALUMINUM 18-INCH REQ'D (LT&RT)
MARKERS FOR CULVERT END REQ'D
DANE D STROETZ
JENNIFER J STROETZ
LUKE S FRANSEEN
AMANDA L MANCL
DOUGLAS R LEONHARDT
JENNIFER S LEONHARDT
SIGN

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	PLAN	SHEET 39	E

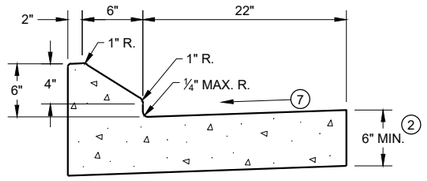
Standard Detail Drawing List

08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B29-01	SAFETY EDGE
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)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
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
15D45-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

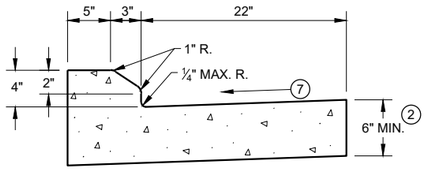
6



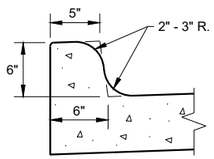
TYPES A[1] & D



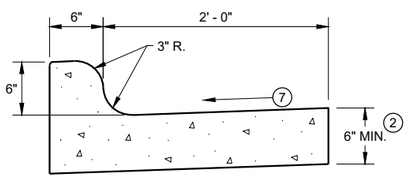
6" SLOPED CURB TYPES G[1] & J



4" SLOPED CURB TYPES G[1] & J

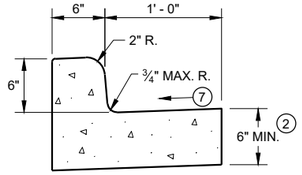


TYPES K[1] & L
(OPTIONAL CURB SHAPE)



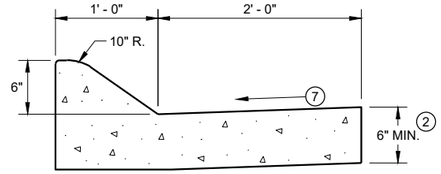
TYPES K[1] & L

CONCRETE CURB AND GUTTER 30"

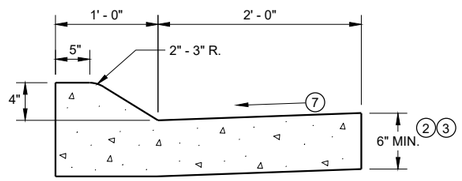


TYPES A[1] & D

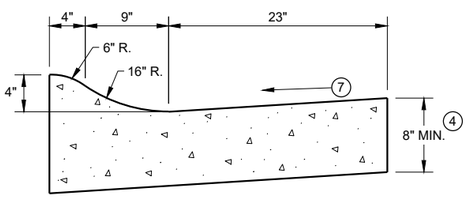
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A[1] & D



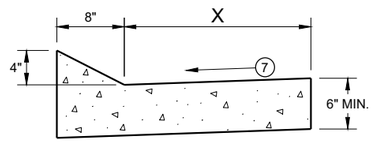
4" SLOPED CURB TYPES A[1] & D



4" SLOPED CURB TYPES R[1] & T[5]

CONCRETE CURB AND GUTTER 36"

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

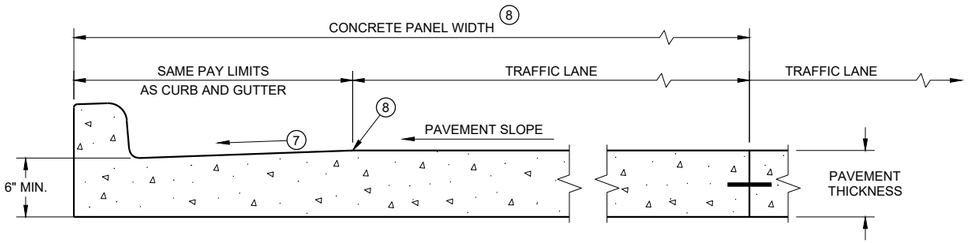


TYPES TBT & TBTT[1]

CONCRETE CURB AND GUTTER

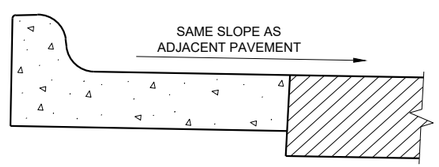
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

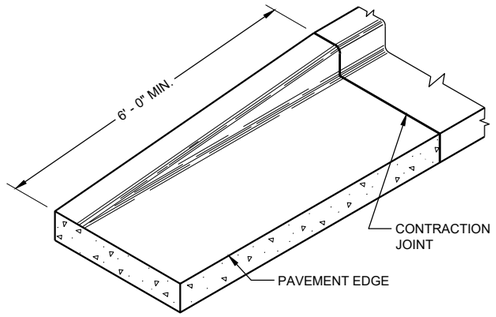
1. TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
3. USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
4. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
5. THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
6. WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
7. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
8. INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

CONCRETE CURB AND GUTTER

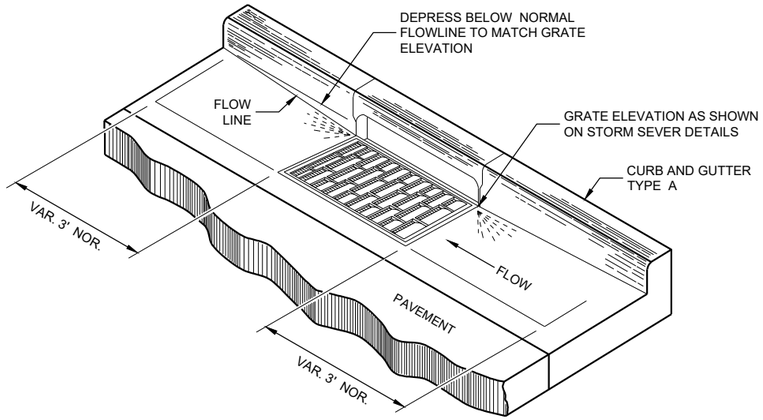
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 21a
SDD 08D01 - 21a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

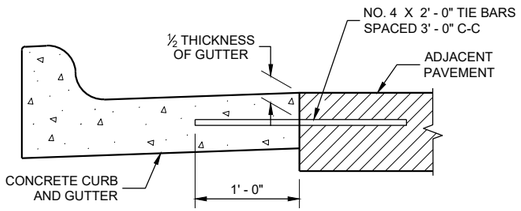
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

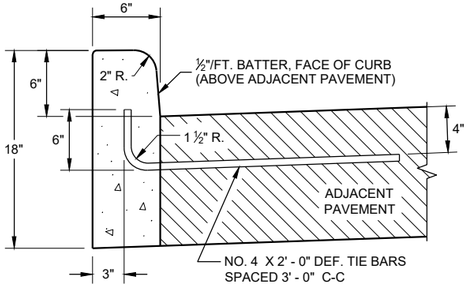
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

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

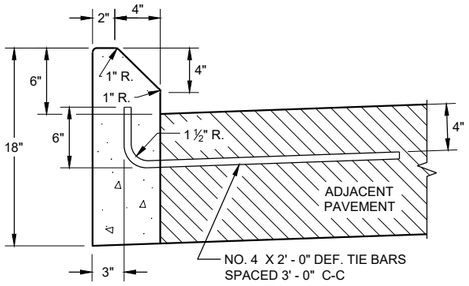
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

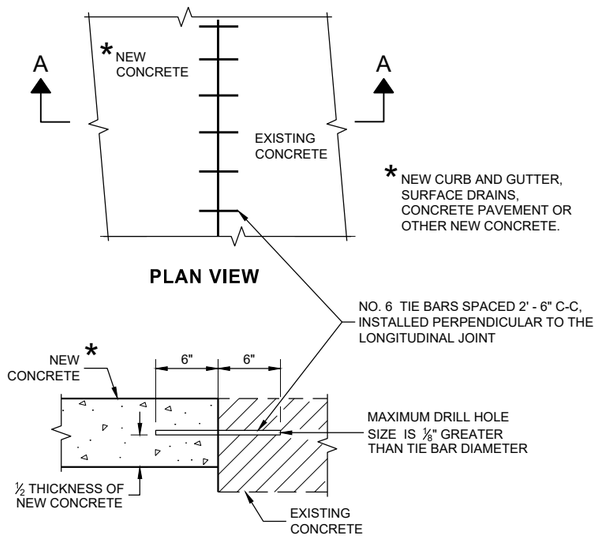


TYPES A (1) & D



TYPES G (1) & J

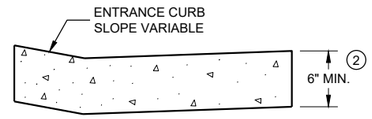
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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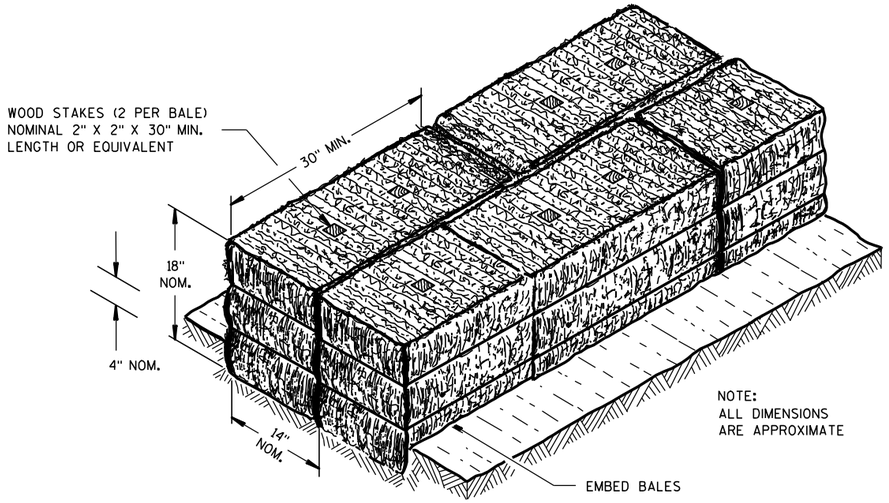
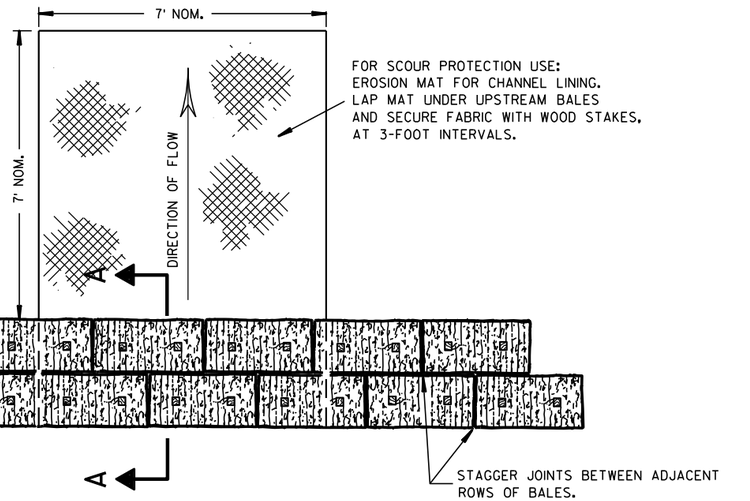
SDD08D01 - 21b

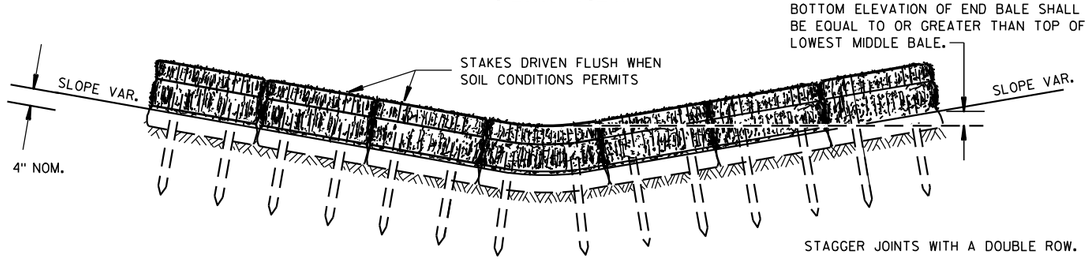
SDD08D01 - 21b



SECTION A-A



PLAN VIEW



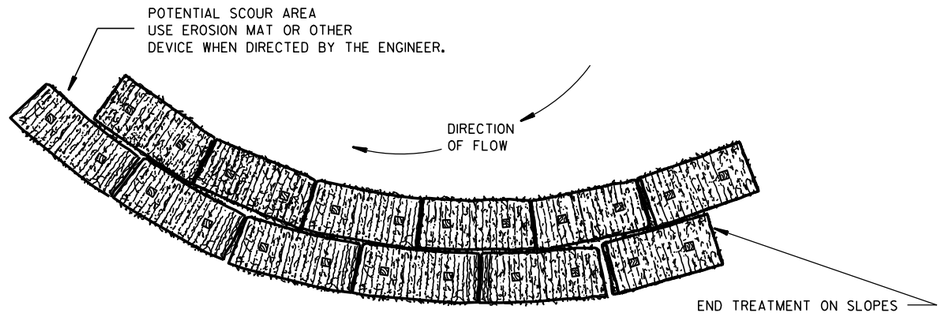
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

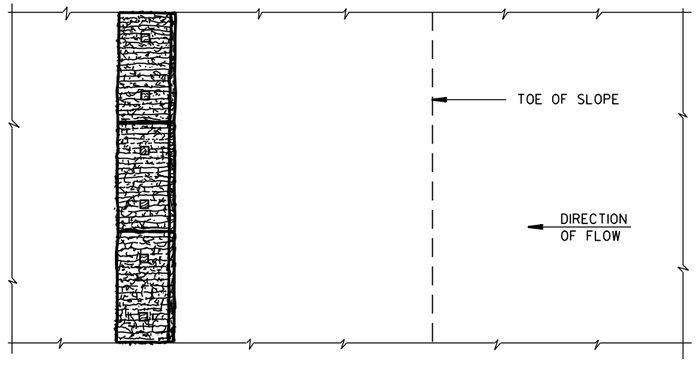
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

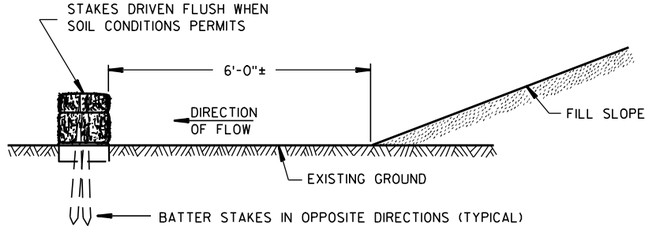


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

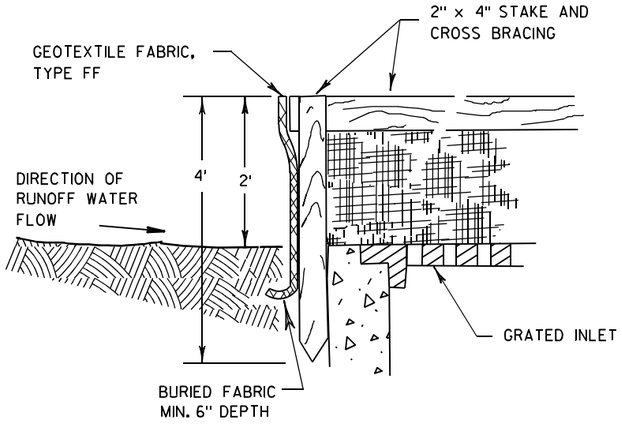
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

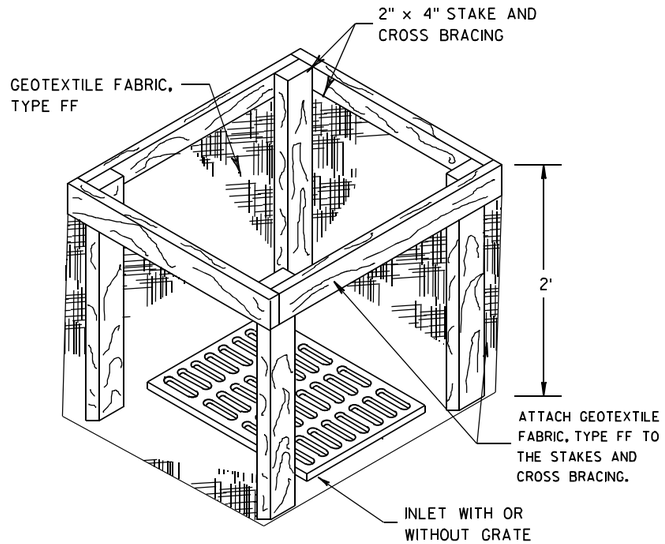
EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

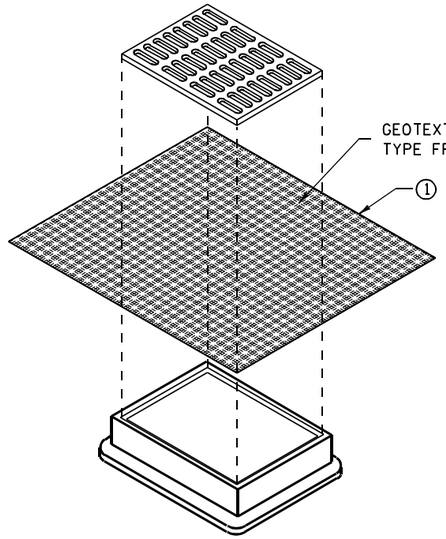
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



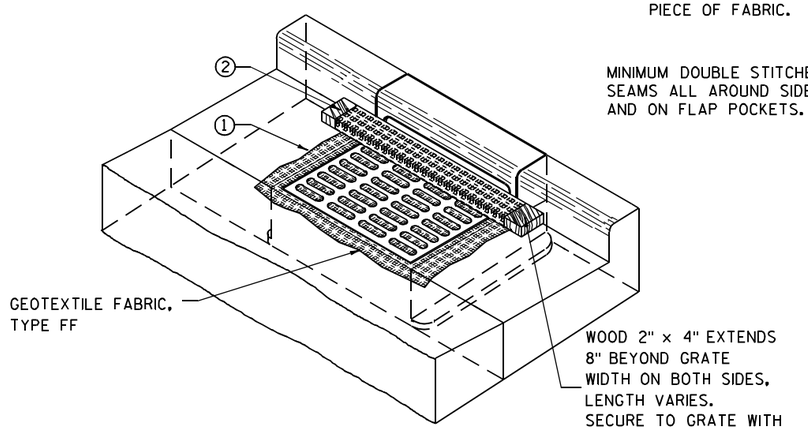


INLET PROTECTION, TYPE A

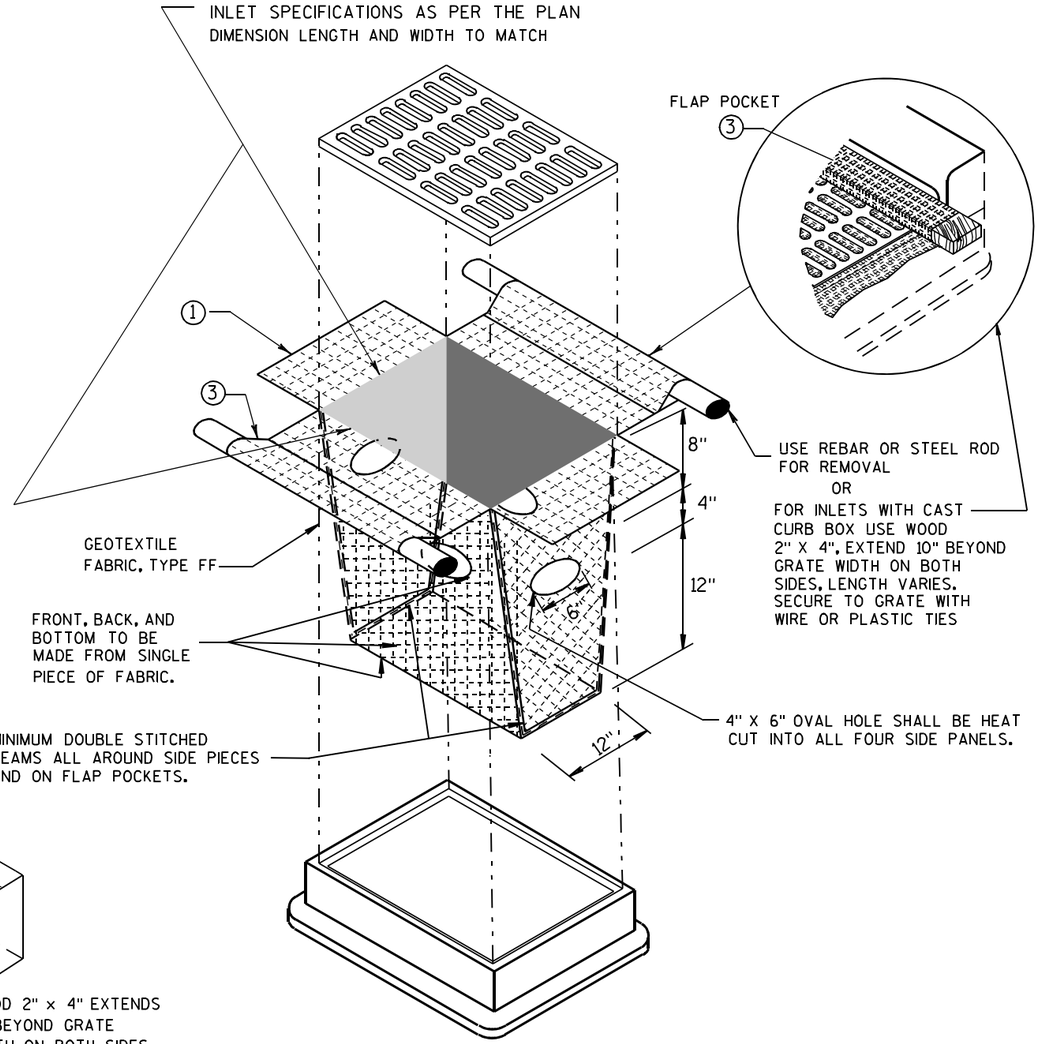


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

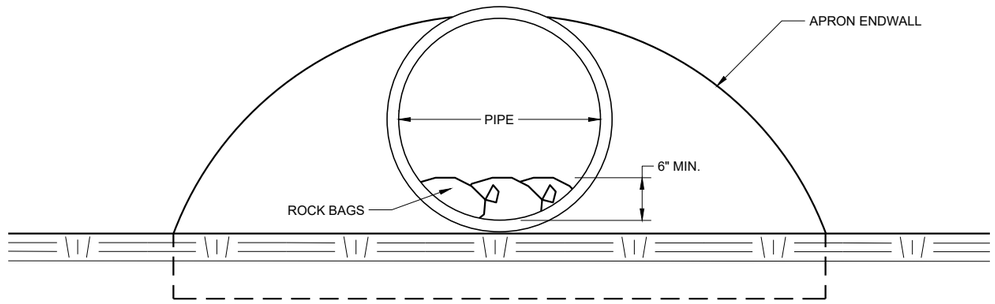
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

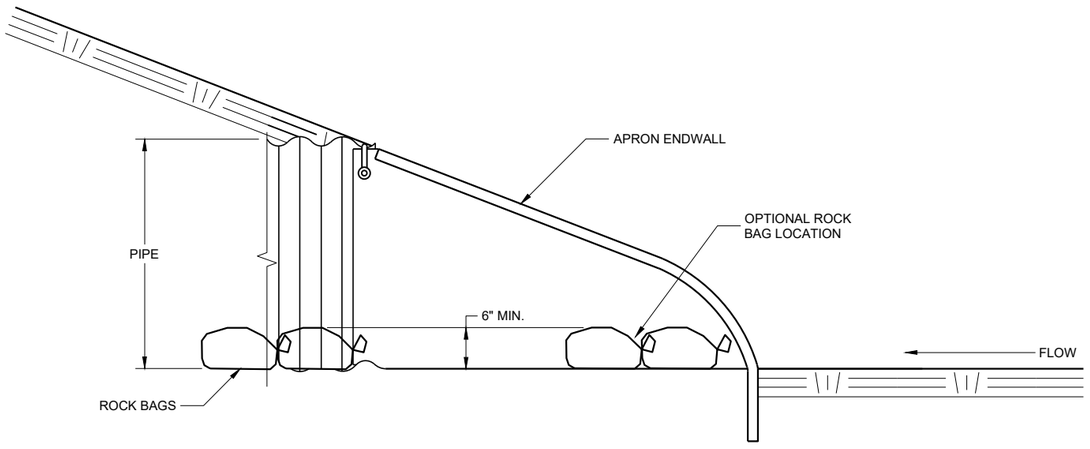
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

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SDD 08E15 - 01

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SDD 08E15 - 01

METAL APRON ENDWALLS

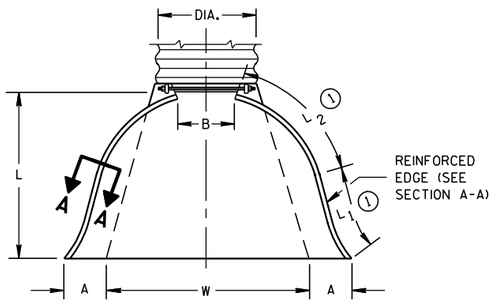
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

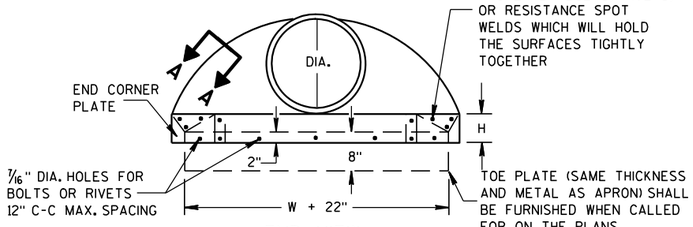
REINFORCED CONCRETE APRON ENDWALLS

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

*MINIMUM
**MAXIMUM



PLAN VIEW



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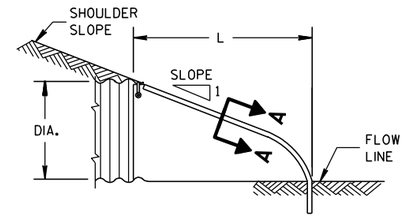
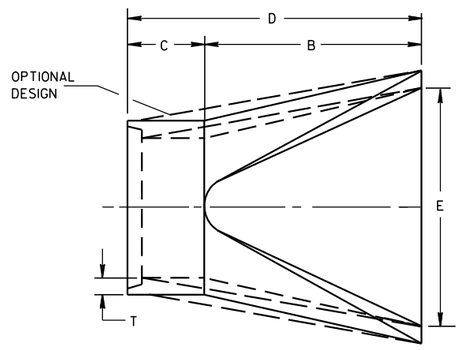
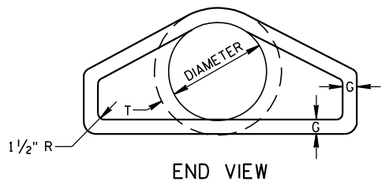


SIDE ELEVATION

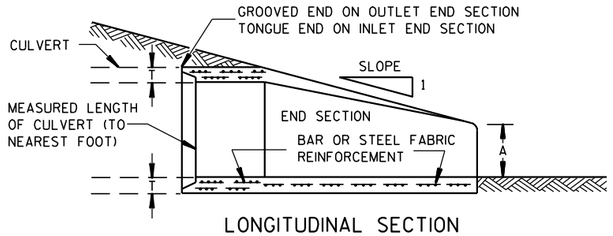
METAL ENDWALLS



PLAN

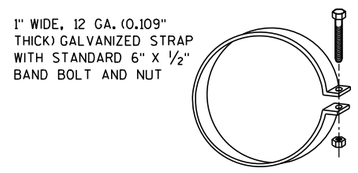


END VIEW



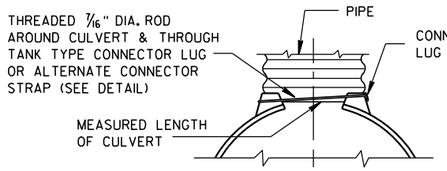
LONGITUDINAL SECTION

CONCRETE ENDWALLS

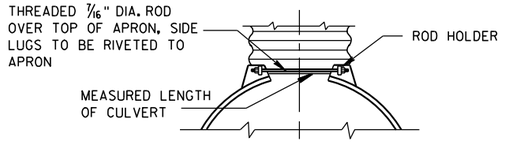


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

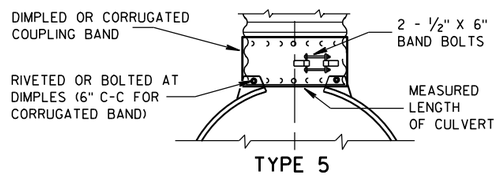


TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

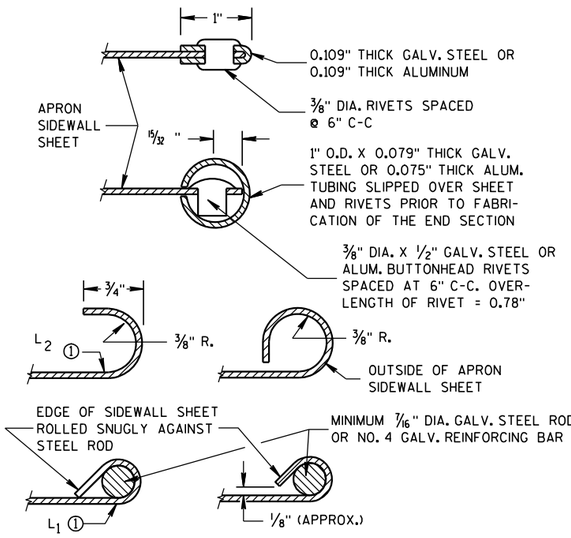
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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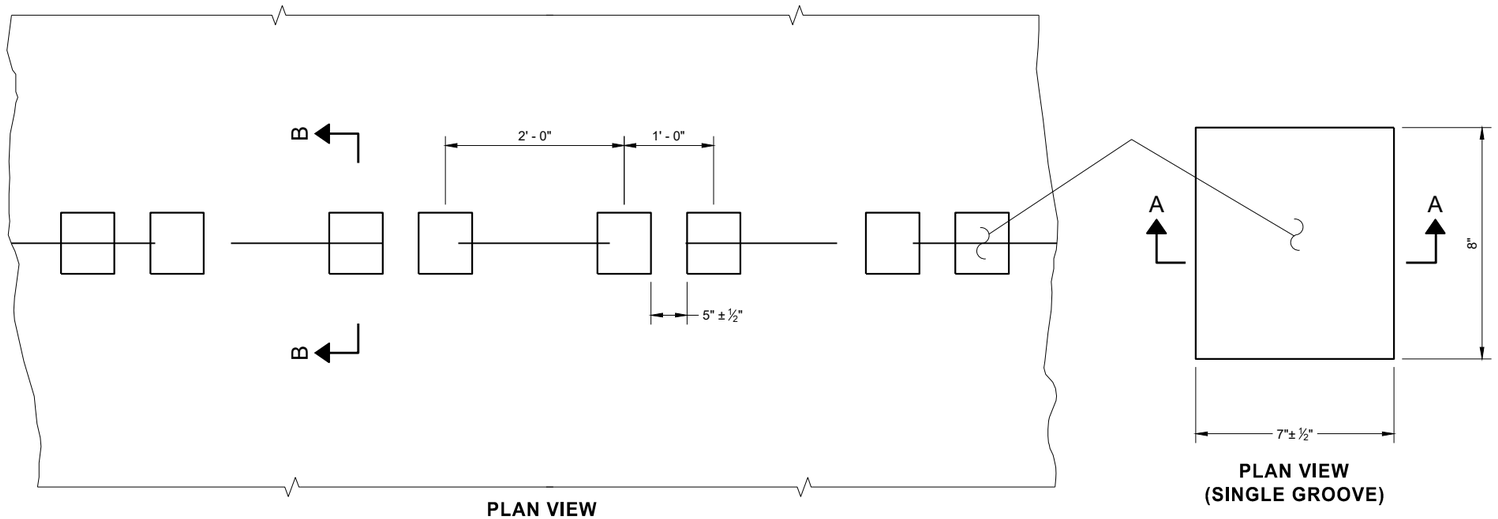
S.D.D. 8 F 1-11



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

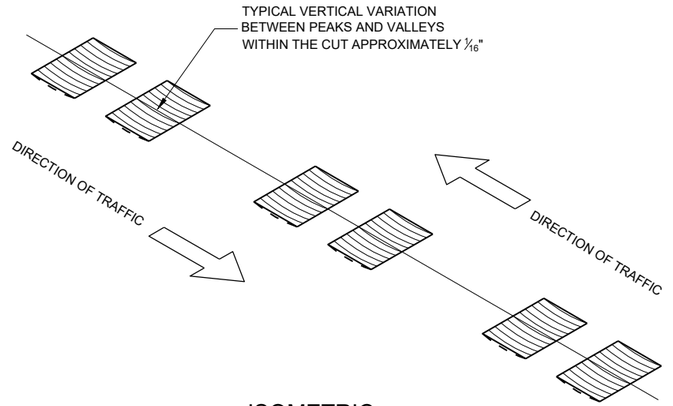
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

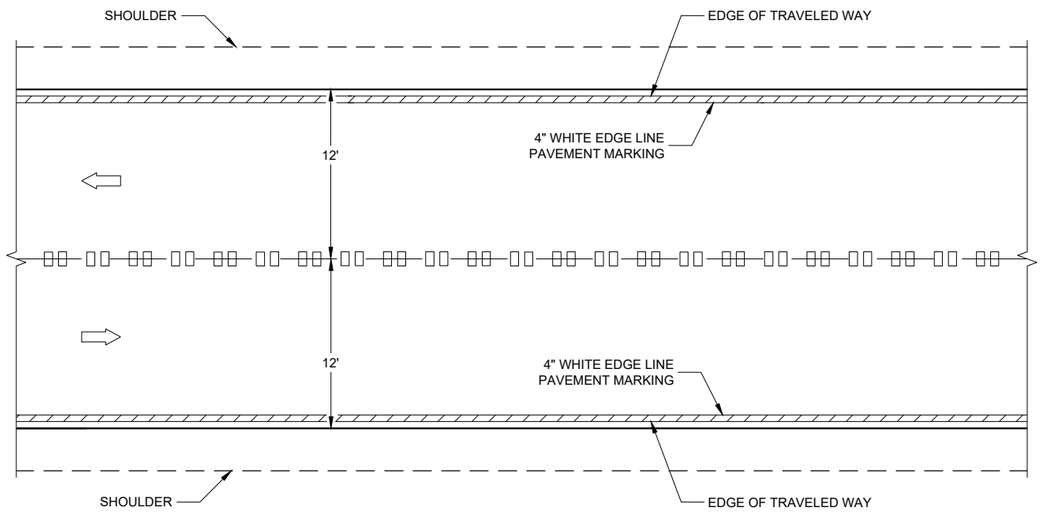
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

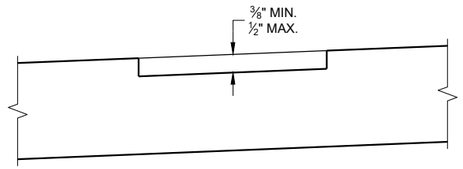
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



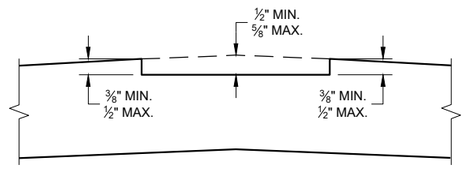
ISOMETRIC



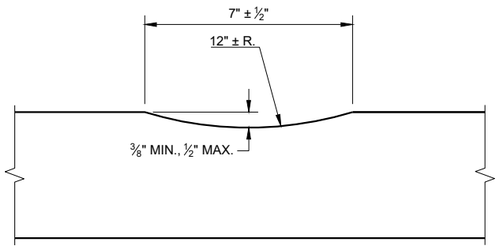
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



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

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SDD 13A11 - 03a

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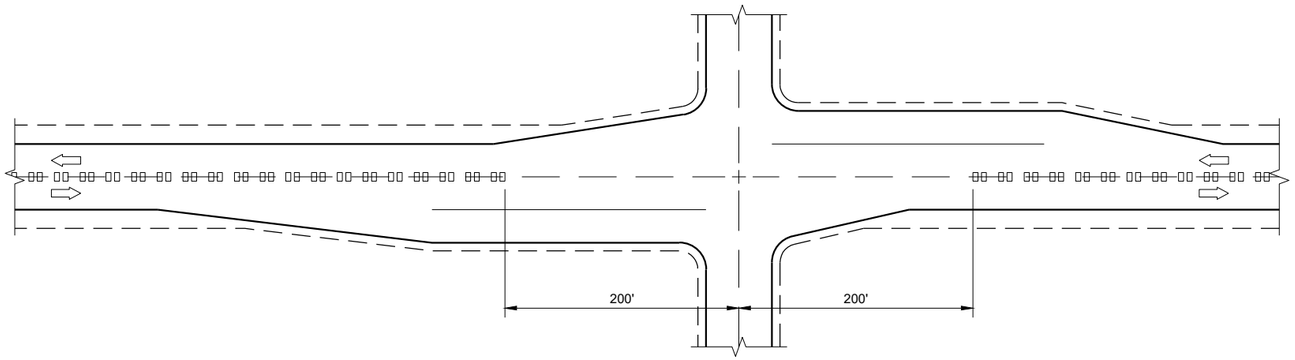
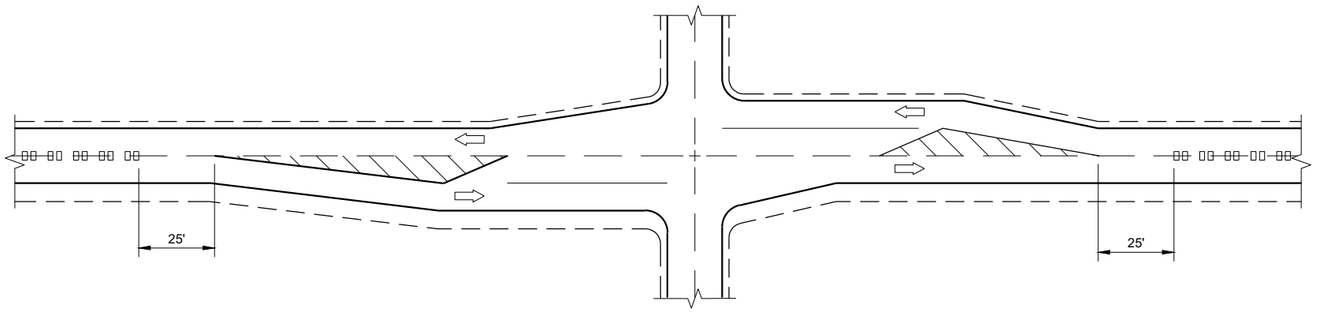
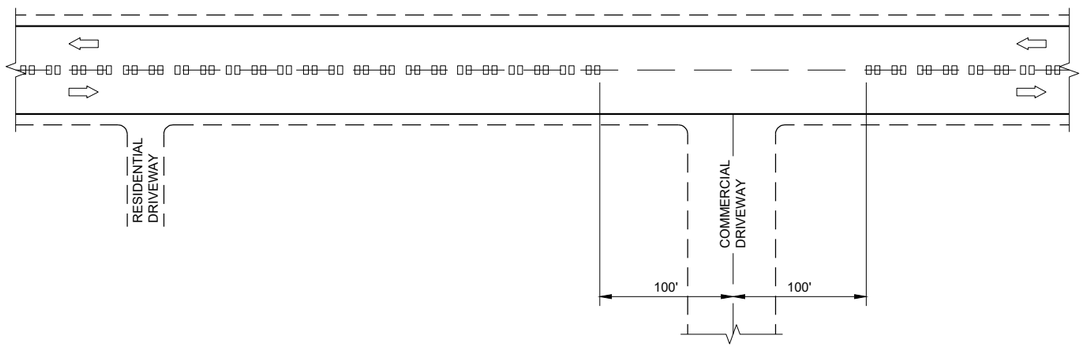
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



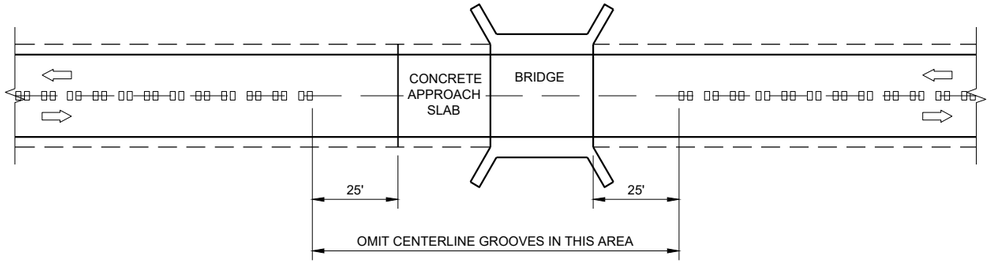
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



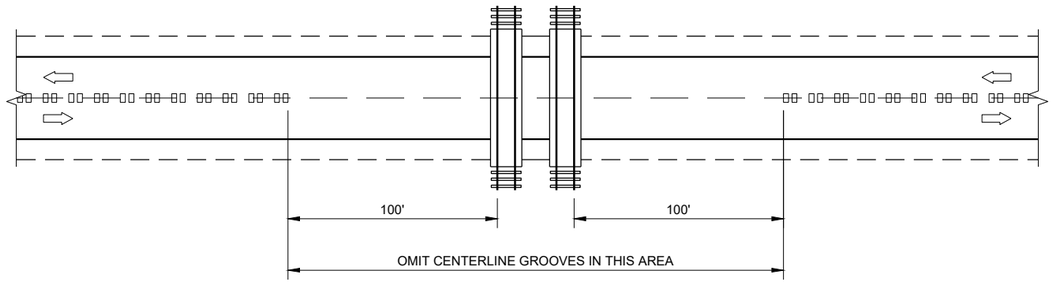
CENTERLINE GROOVES AT DRIVEWAYS (1)

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

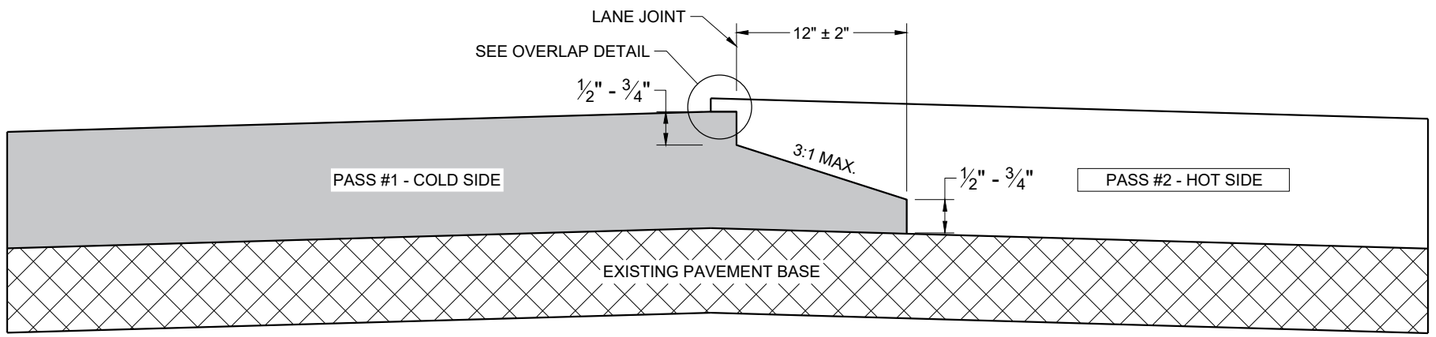
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

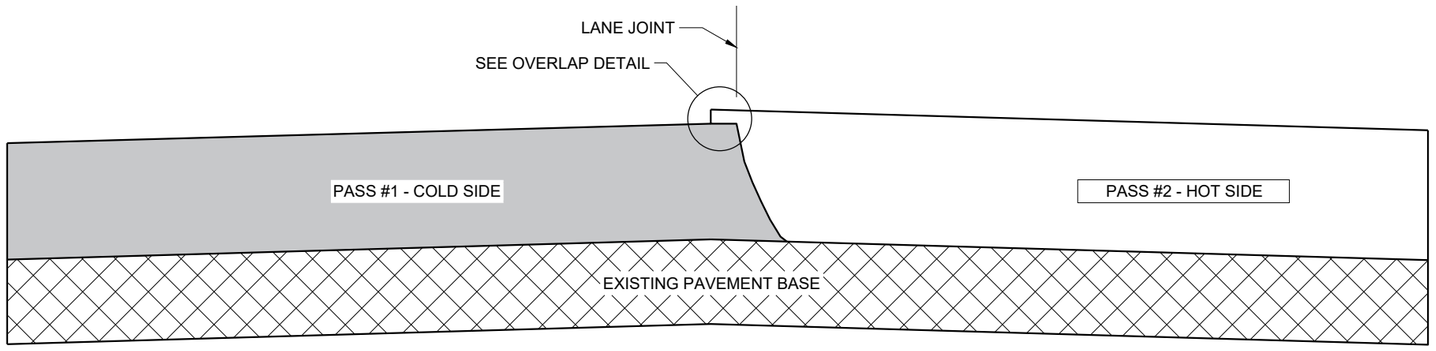
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

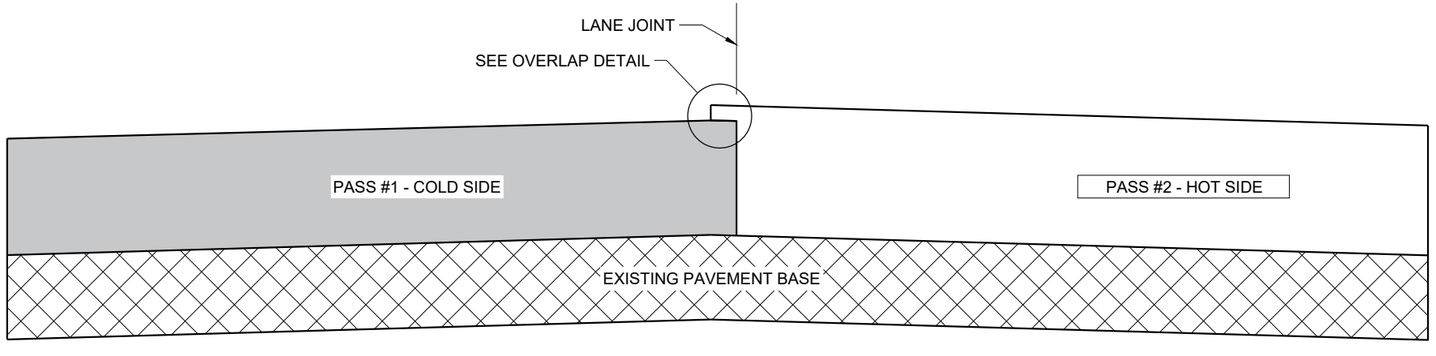
6
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

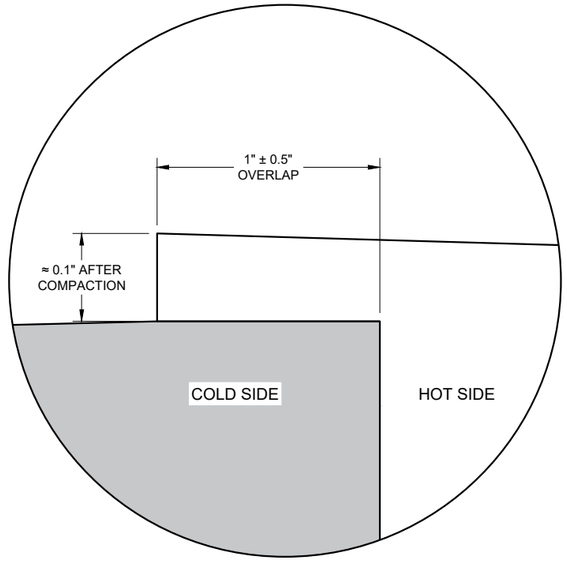
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

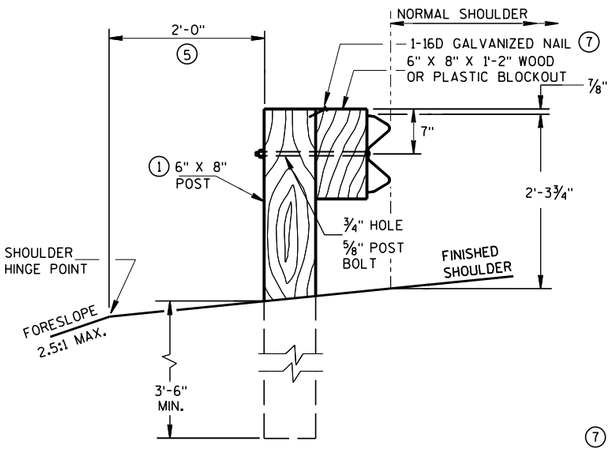
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

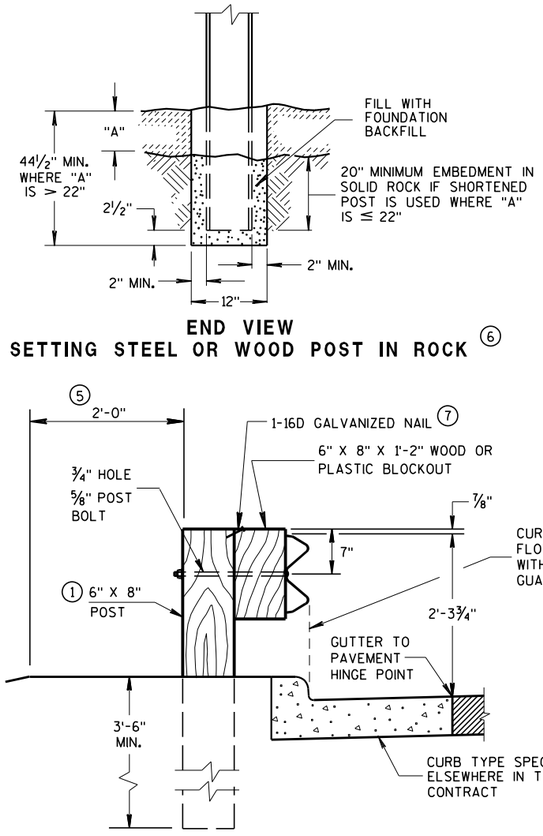
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.

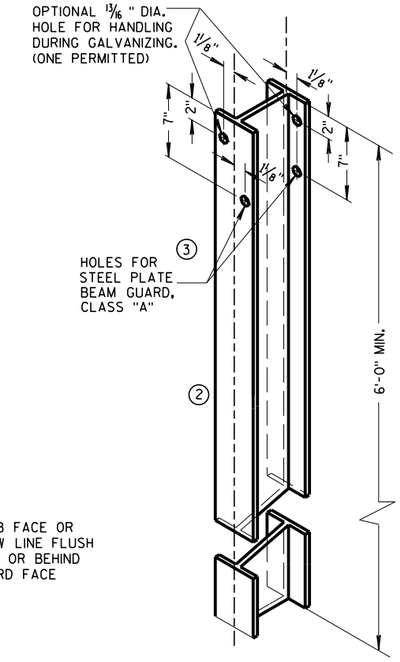


END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



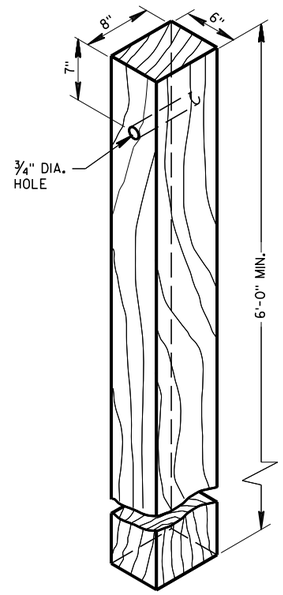
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

END VIEW
LOCATED ALONG A CURBED ROADWAY

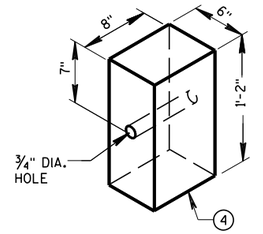


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

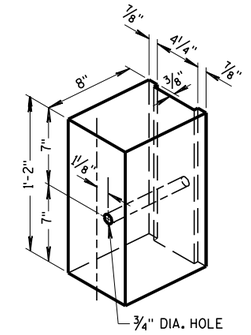
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



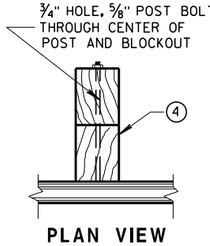
WOOD POST
(6"X8") NOMINAL



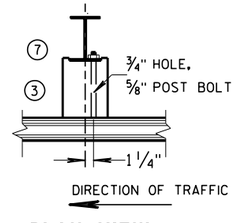
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



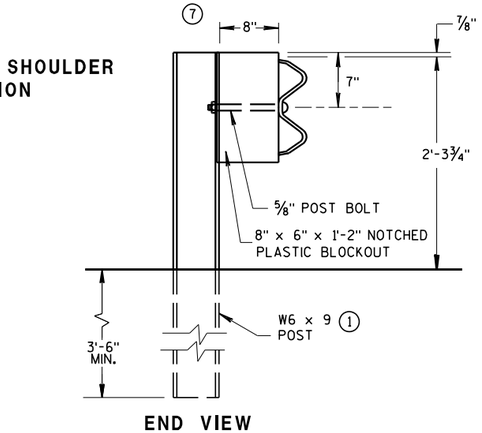
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



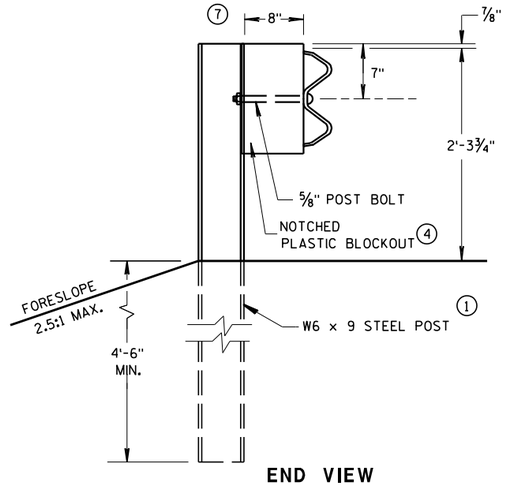
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



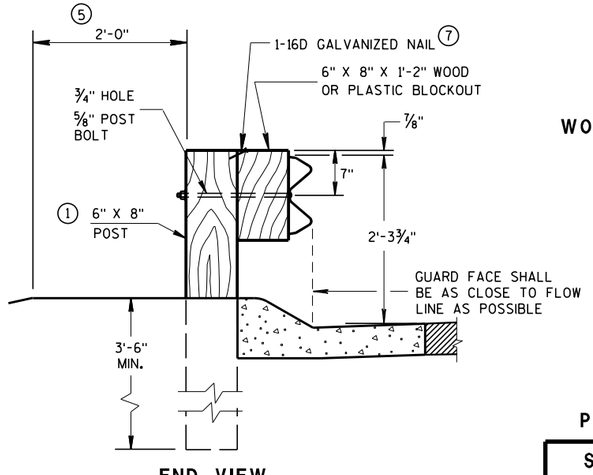
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

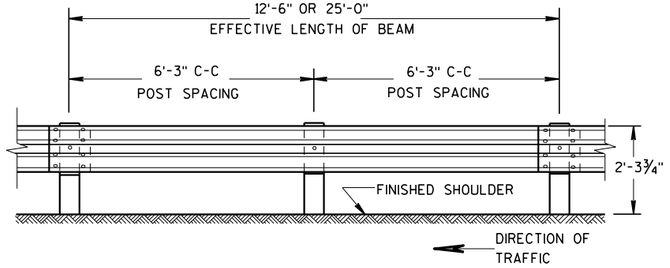
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

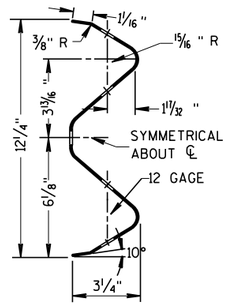
S.D.D. 14 B 15-11a

S.D.D. 14 B 15-11a

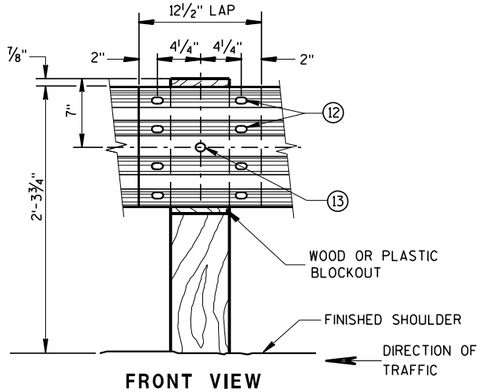


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

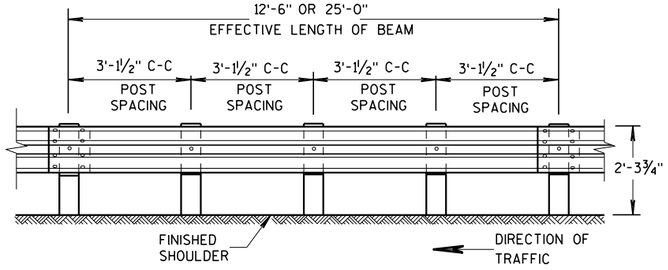
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

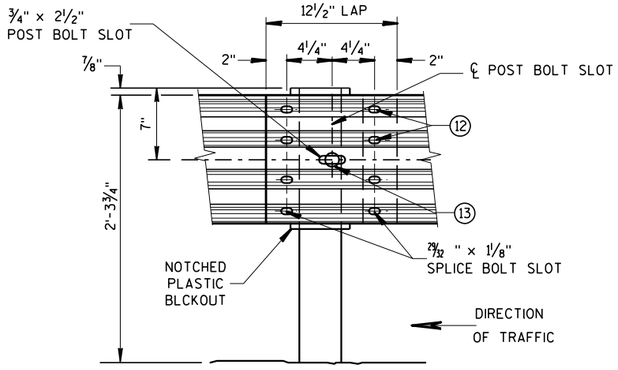
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



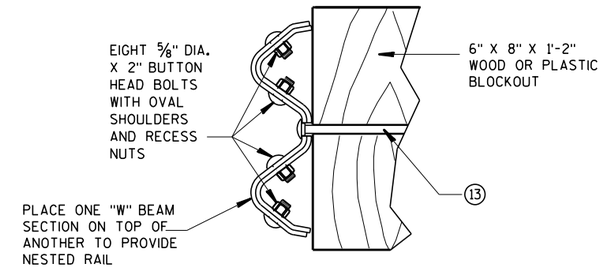
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

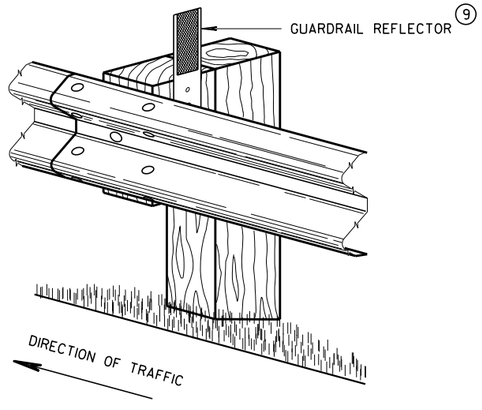


NESTED W BEAM (NW)

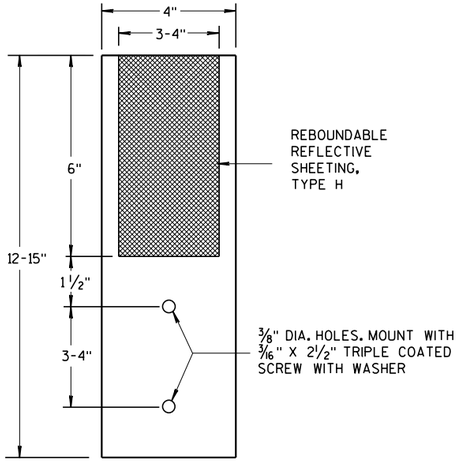
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCO 51
DEPARTMENT OF TRANSPORTATION

6

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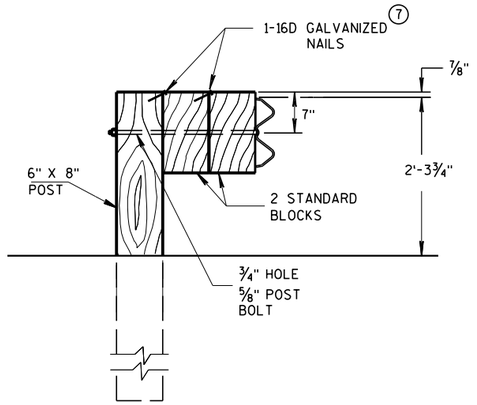
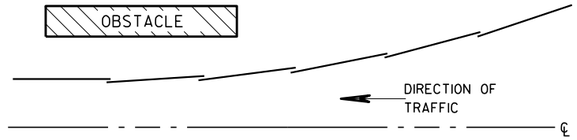
6

S.D.D. 14 B 15-11b

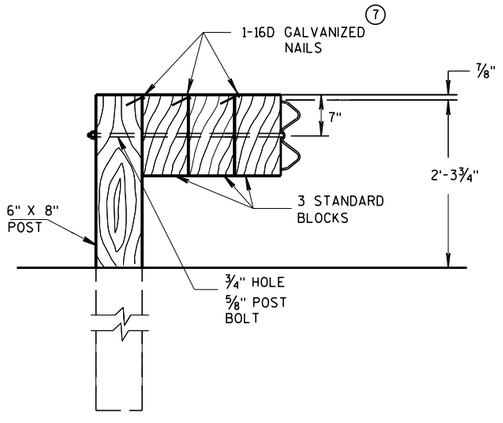


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

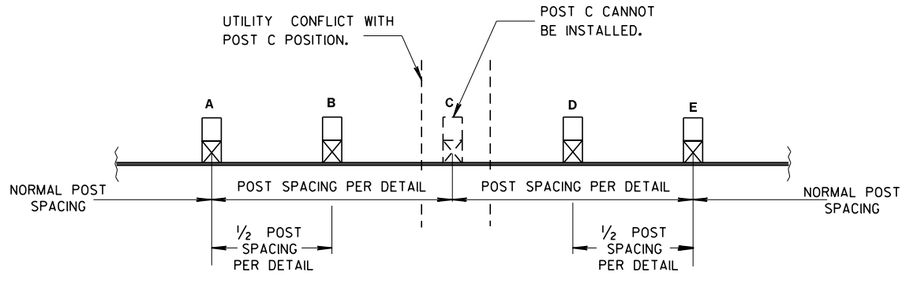


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

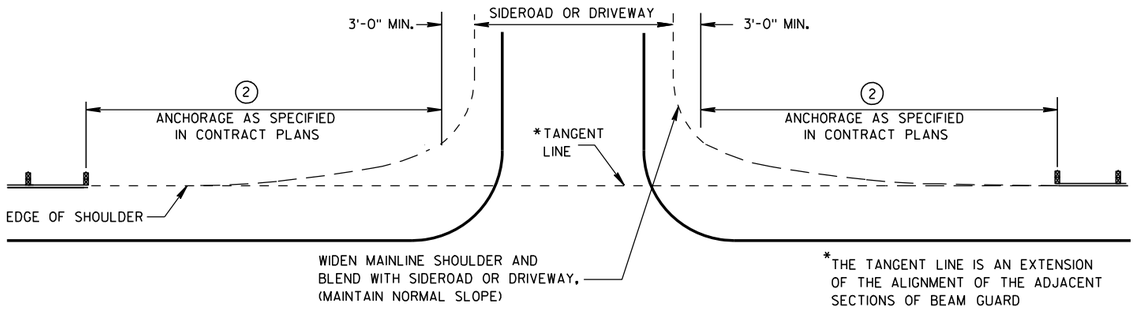
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

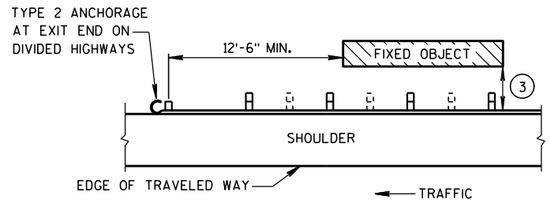
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6
S.D.D. 14 B 15-11c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

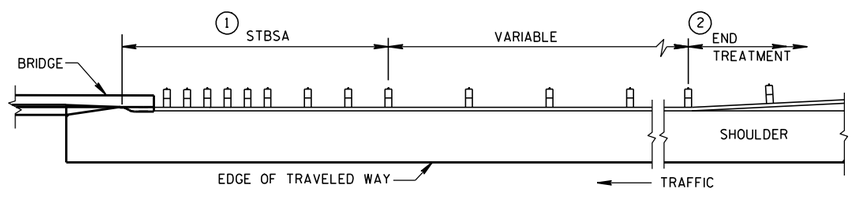
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

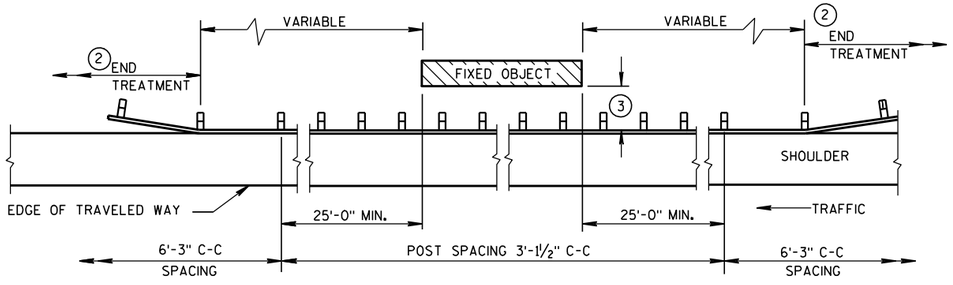
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

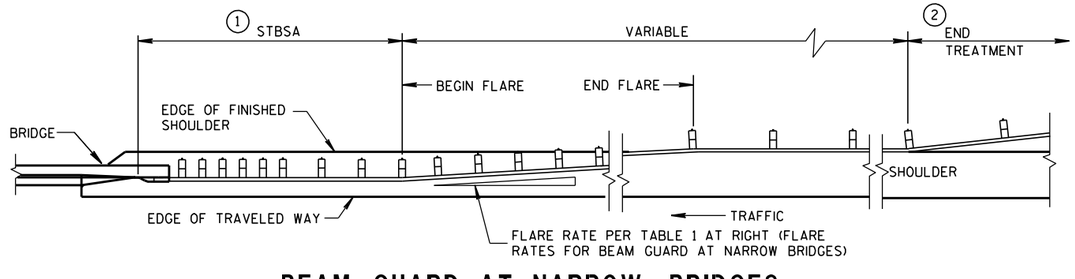


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

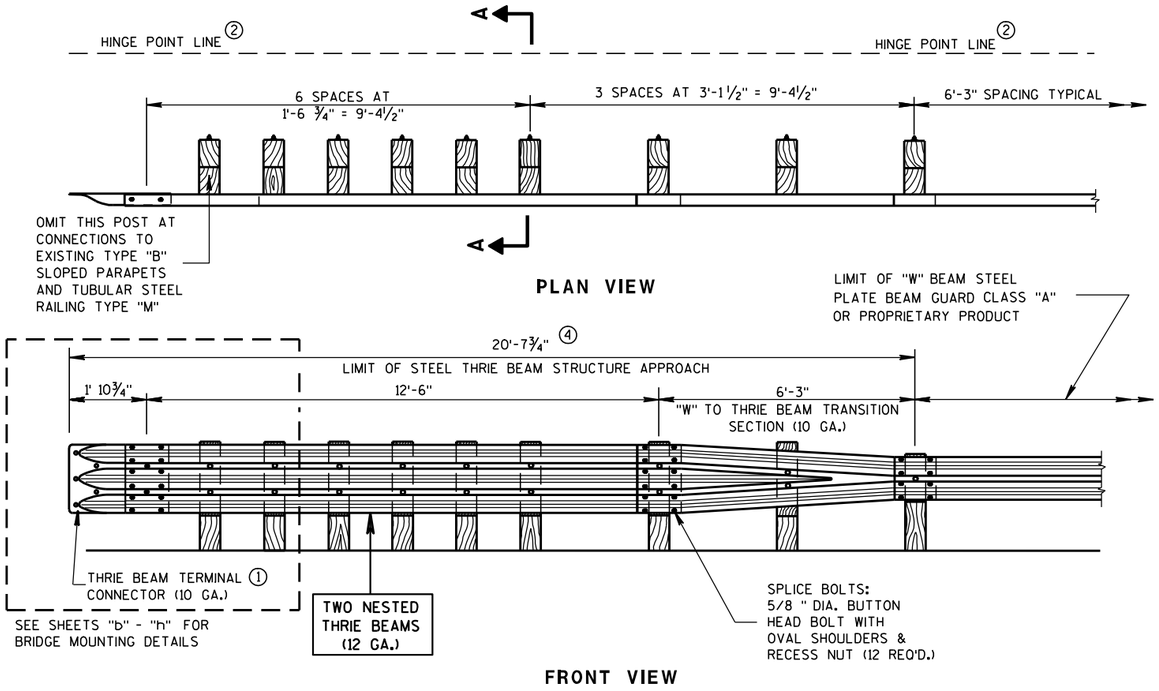
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-21-07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



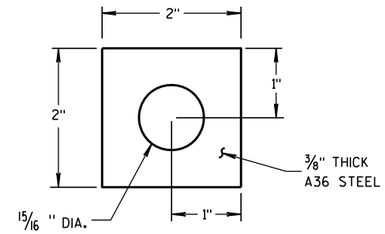


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

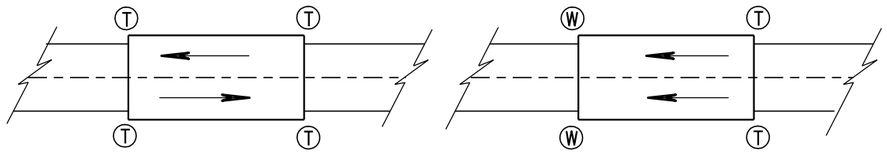
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



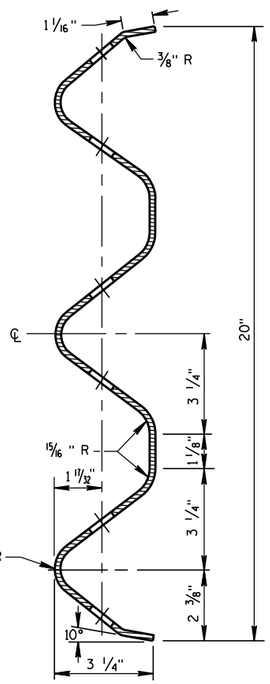
TWO WAY TRAFFIC

ONE WAY TRAFFIC

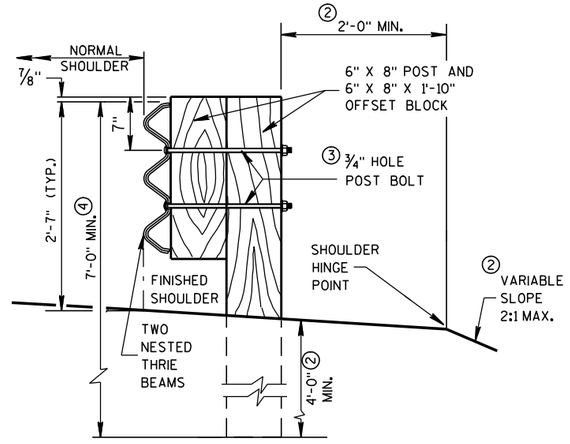
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

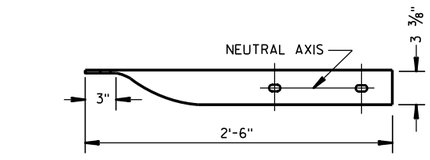
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

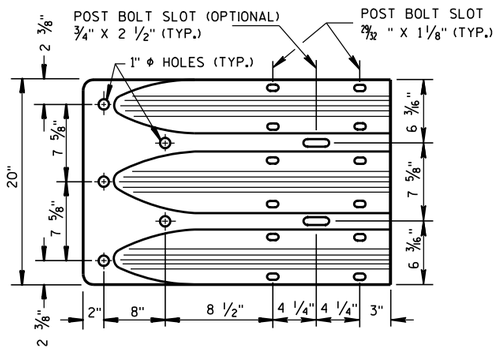


SECTION THRU THRIE BEAM RAIL ELEMENT

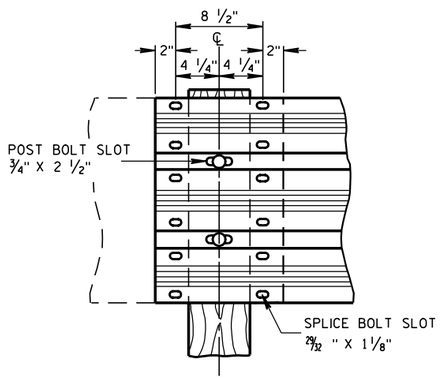


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



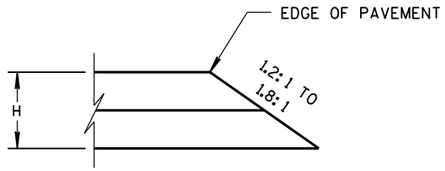
THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

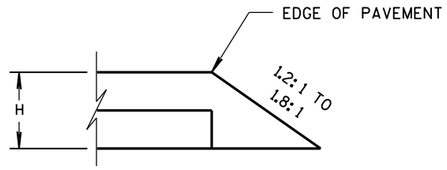
APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA



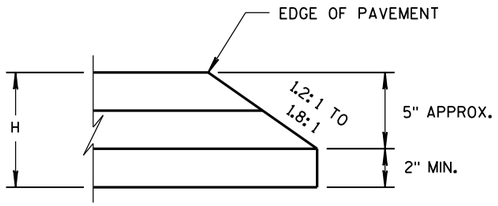
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



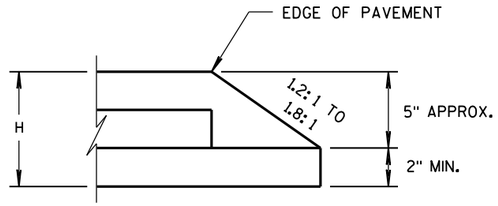
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

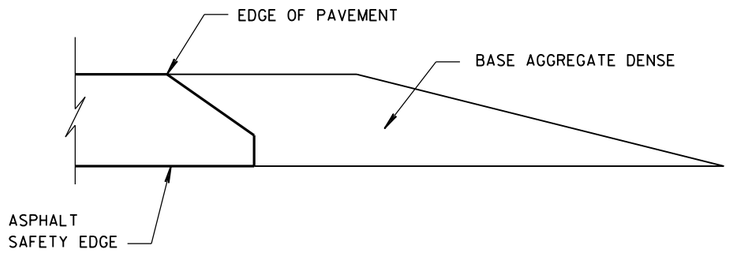
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(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.

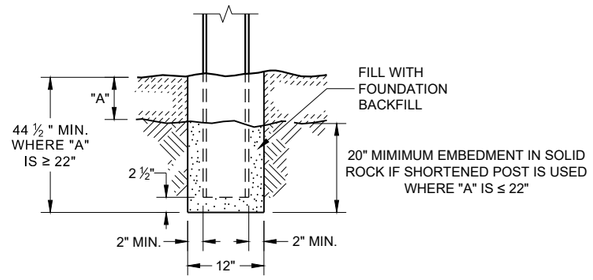
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

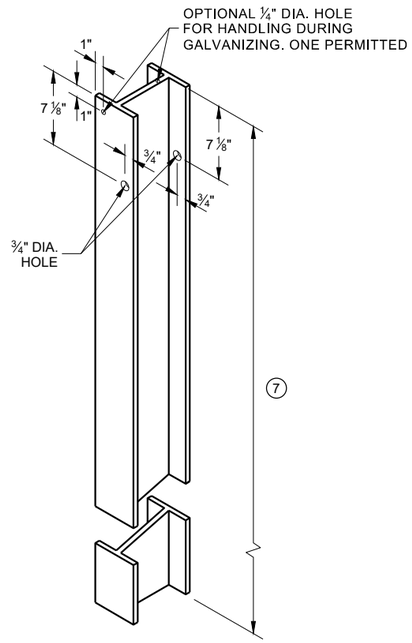
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

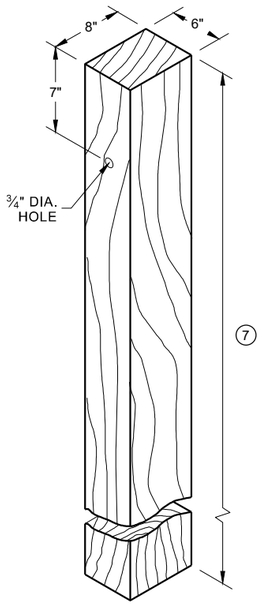
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



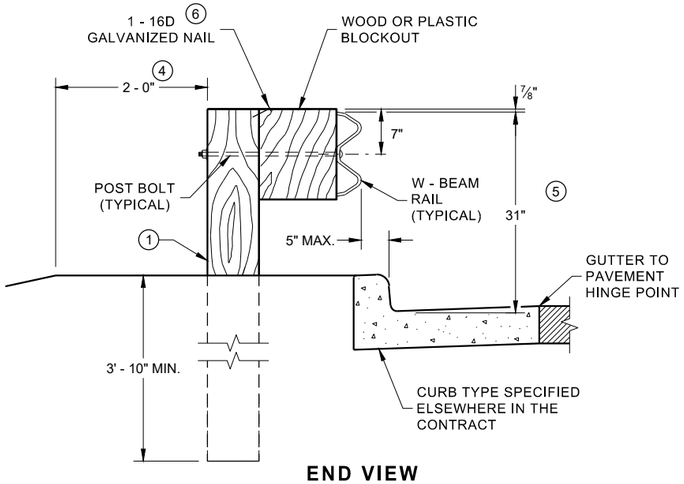
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



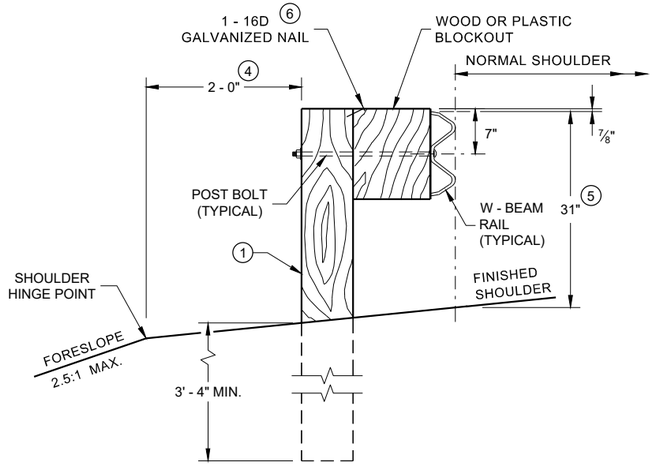
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



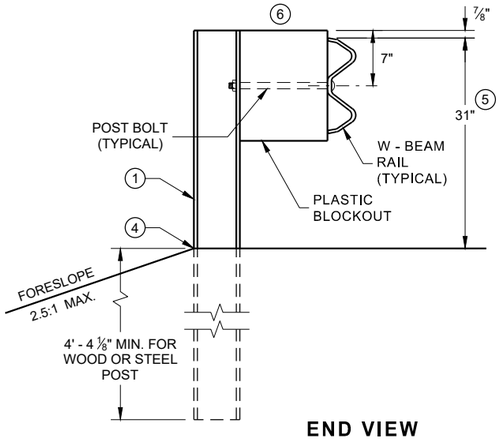
WOOD POST (6" X 8") NOMINAL (1)



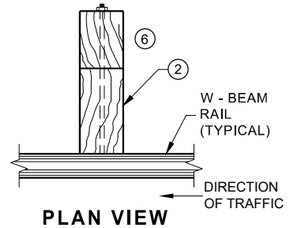
END VIEW
LOCATED ALONG A CURBED ROADWAY



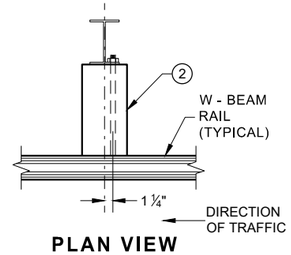
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



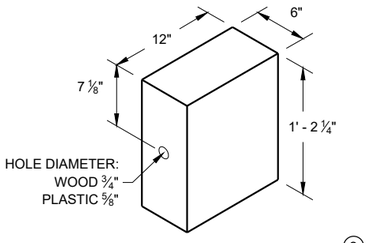
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

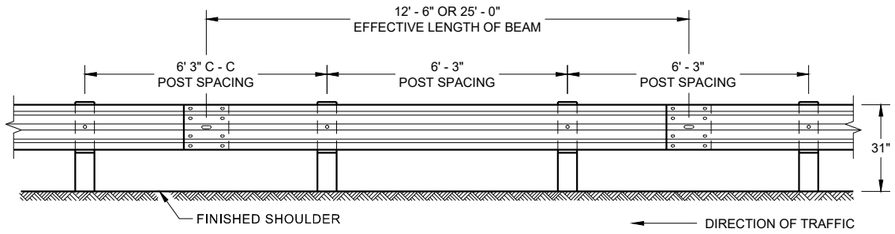


WOOD OR PLASTIC BLOCKOUT (2)

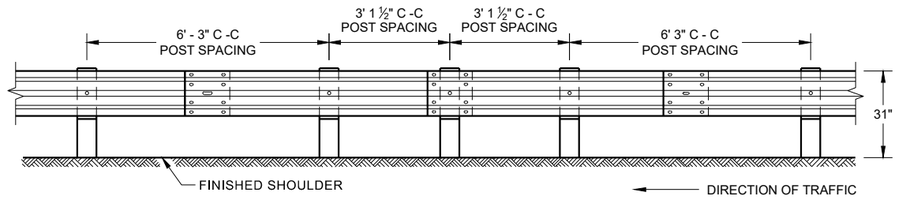
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

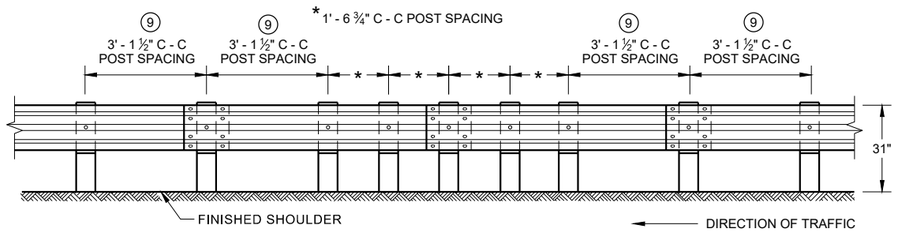
SDD 14B42 - 06a



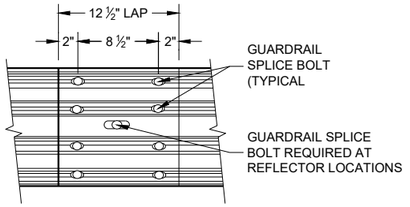
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

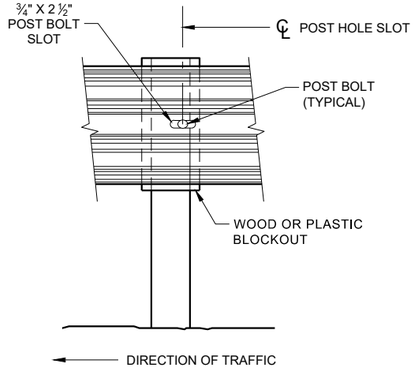
GENERAL NOTES

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

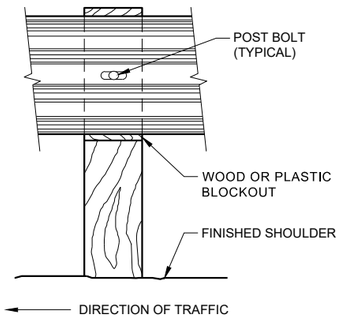
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

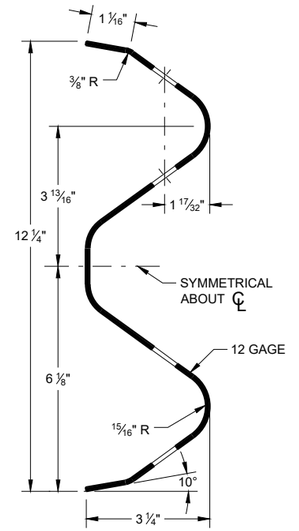
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



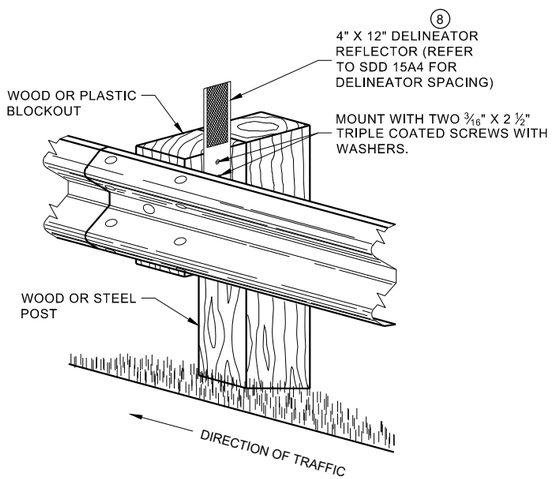
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

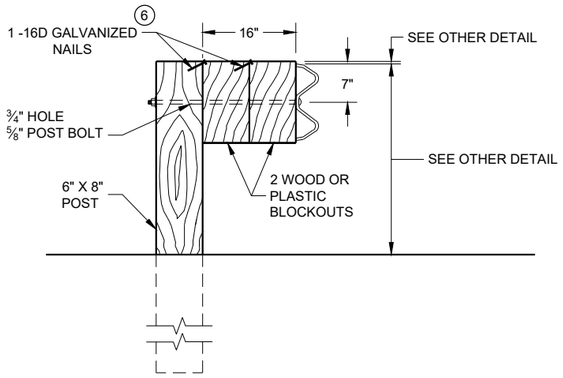


ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

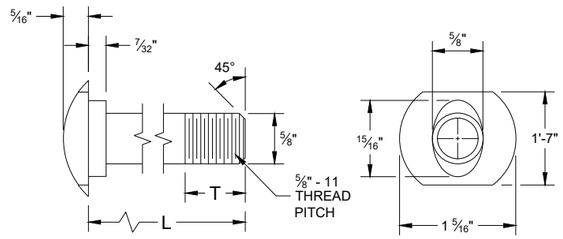


DETAIL FOR 16" BLOCKOUT DEPTH

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.

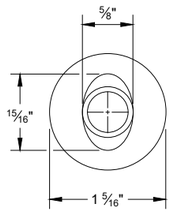
NOTE:

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.

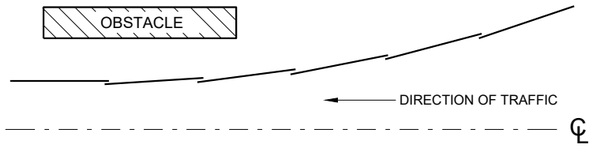


POST BOLT TABLE

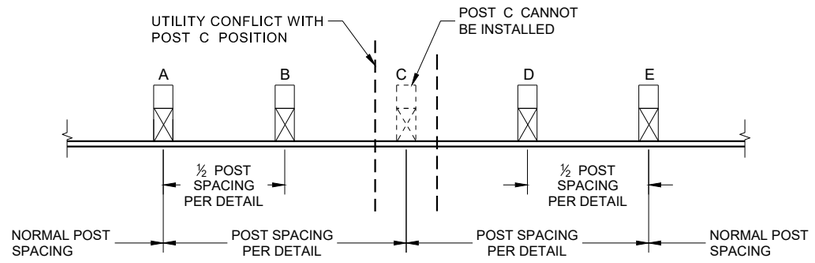
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



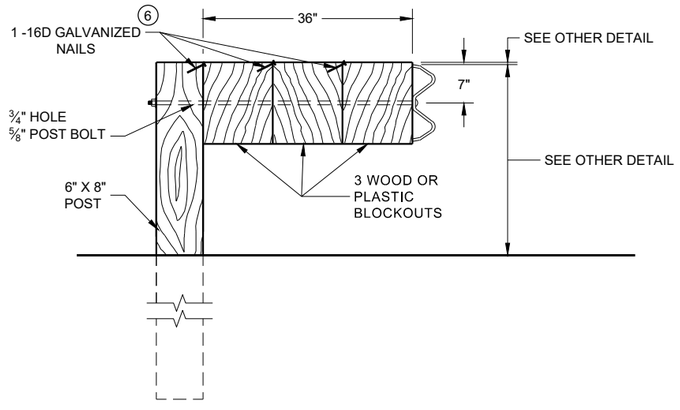
ALTERNATE BOLT HEAD



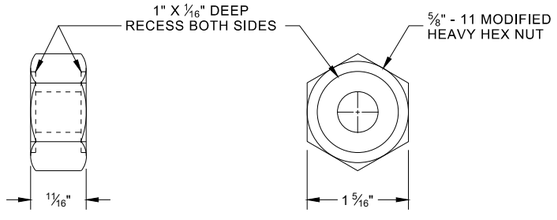
PLAN VIEW
BEAM LAPPING DETAIL



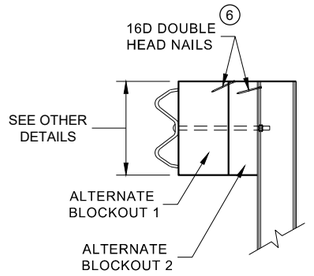
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



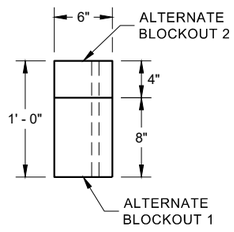
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

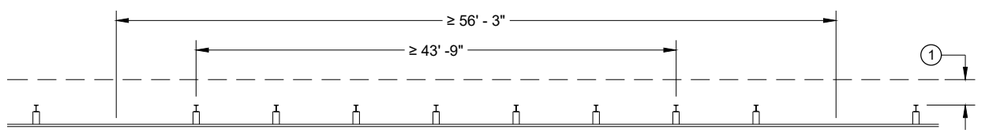
ALTERNATE WOOD BLOCKOUT DETAIL

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.

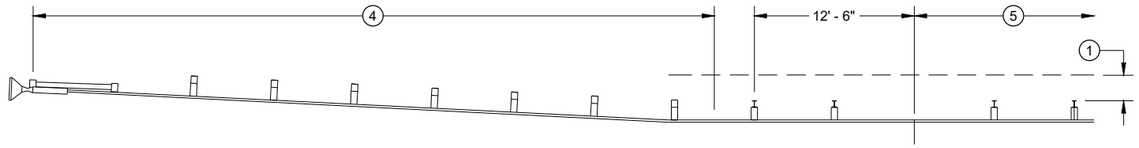
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

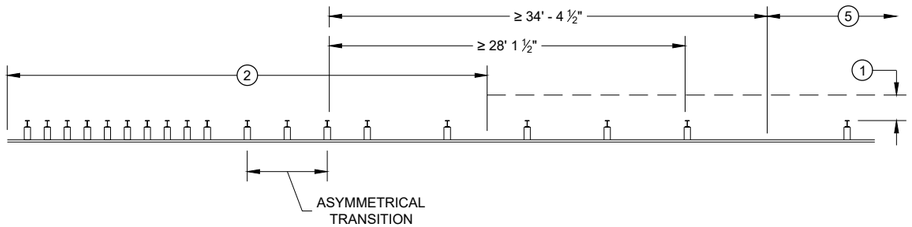
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



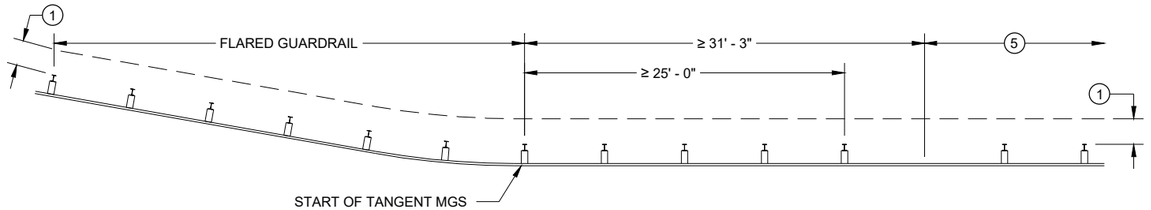
MISSING POST IN NORMAL BEAM GUARD RUN



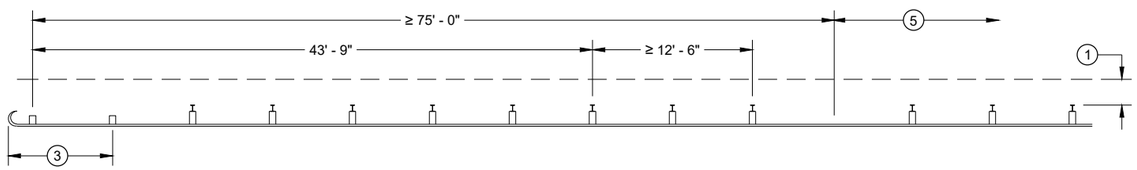
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



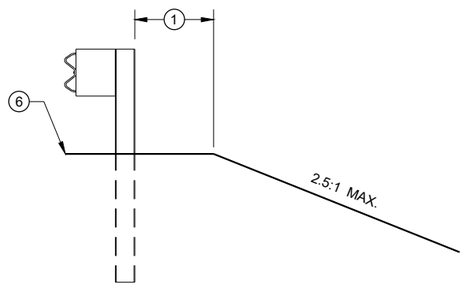
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



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

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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.

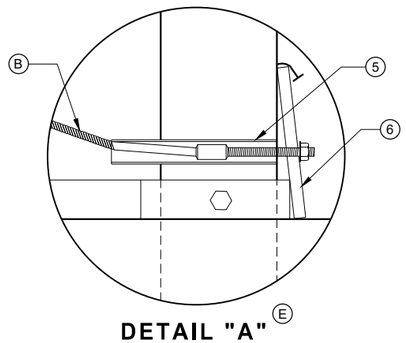
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

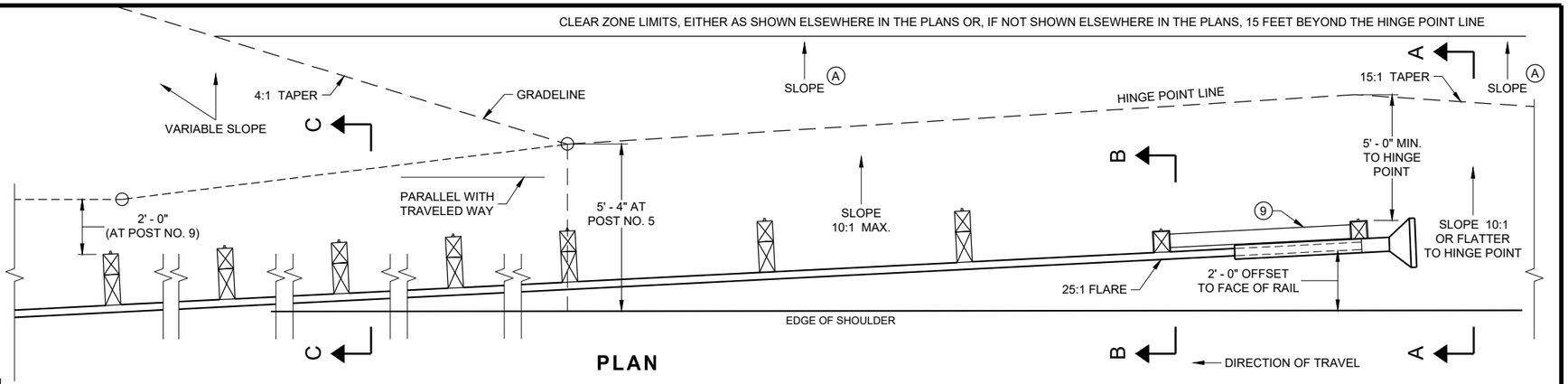
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

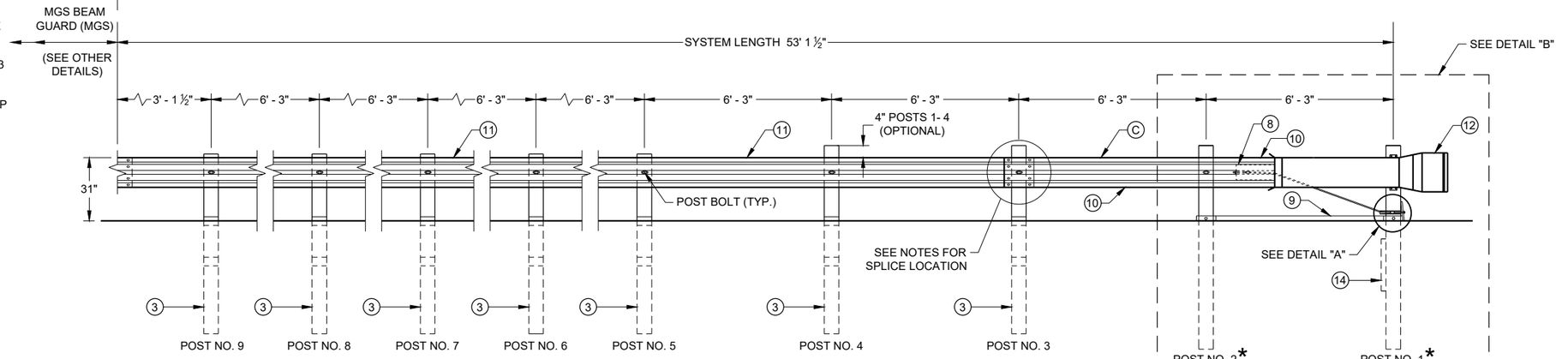
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



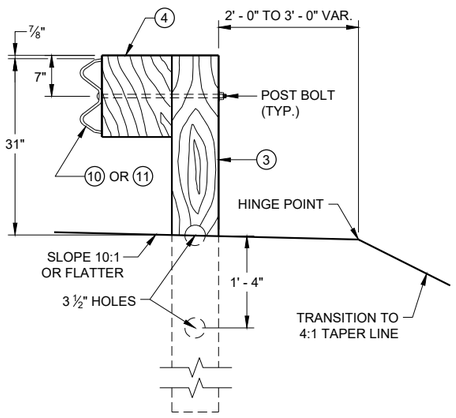
DETAIL "A" (E)



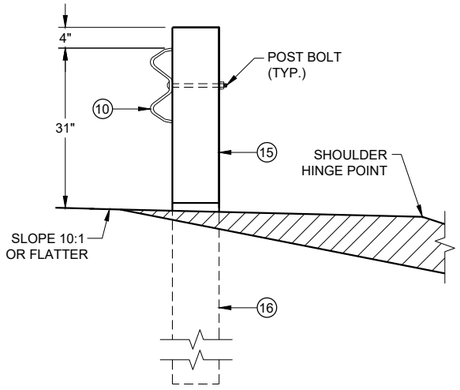
PLAN



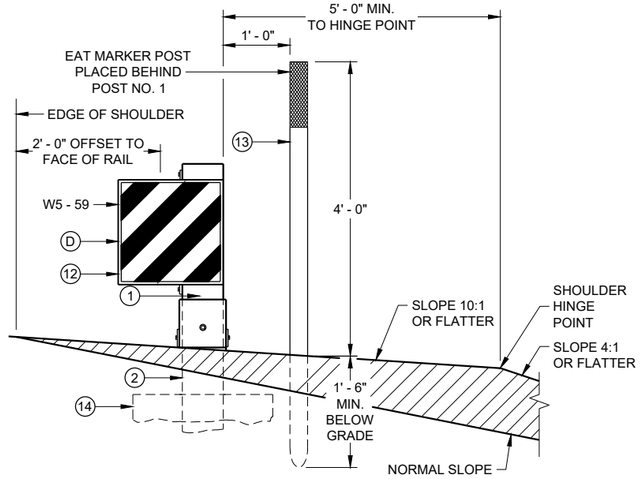
ELEVATION



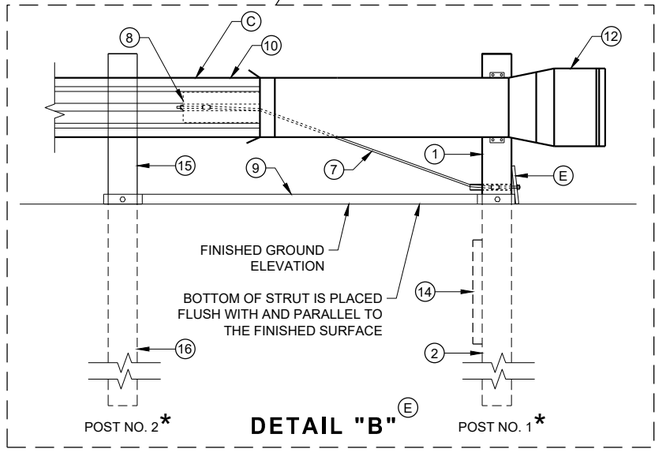
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



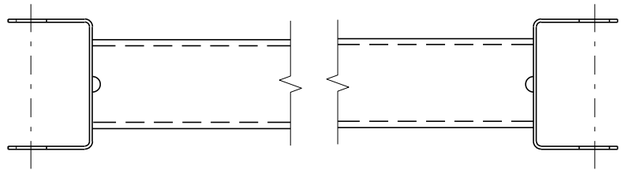
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

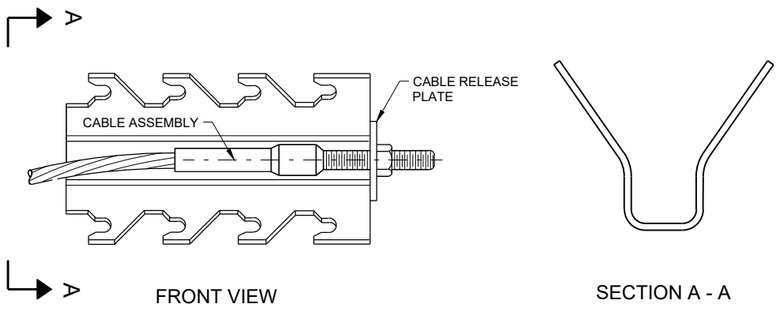
SDD 14B44 - 04a



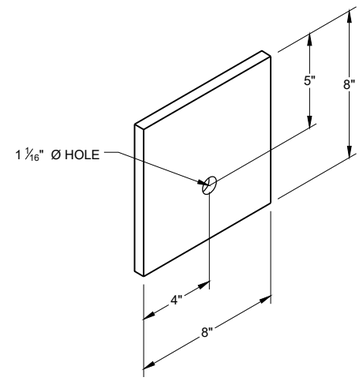
GENERIC GROUND STRUT ⑨ Ⓔ

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

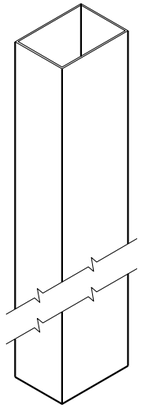
6

SDD 14B44 - 04b

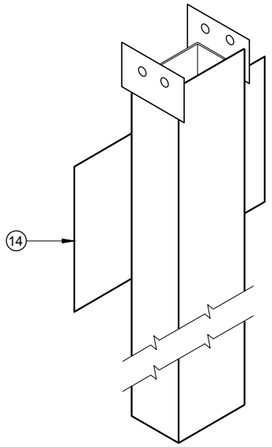
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

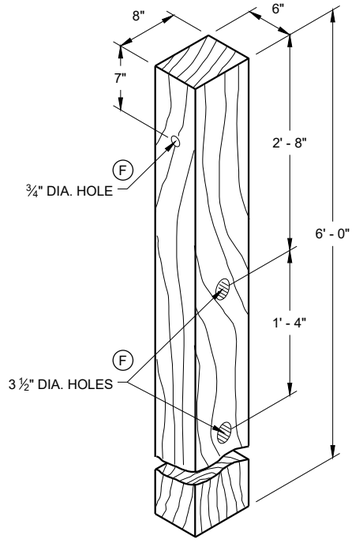
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



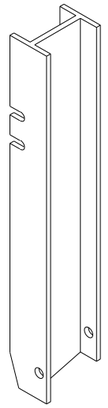
UPPER POST NO. 1 (1) (E)



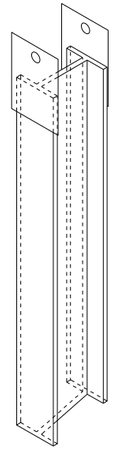
LOWER POST NO. 1 (2) (E)



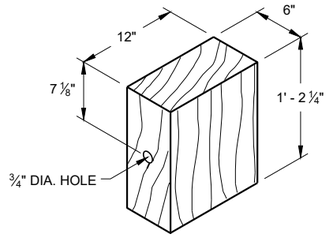
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



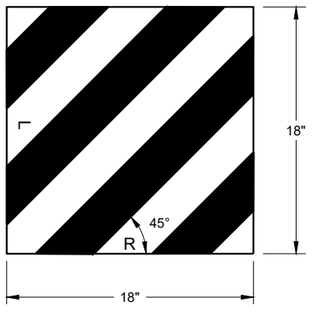
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

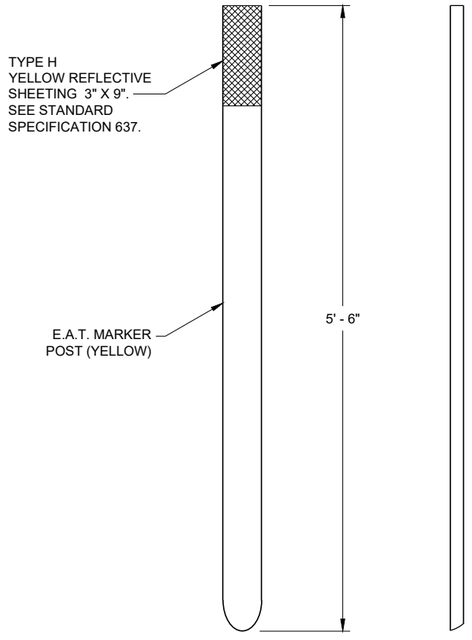


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



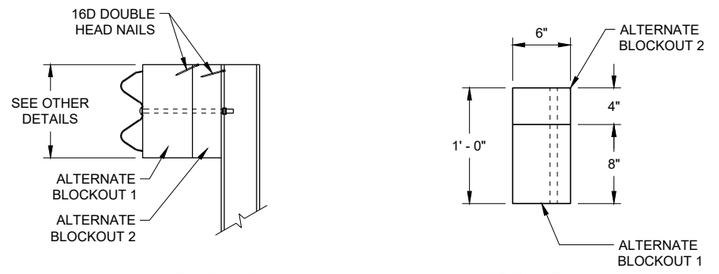
W5 - 59

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)

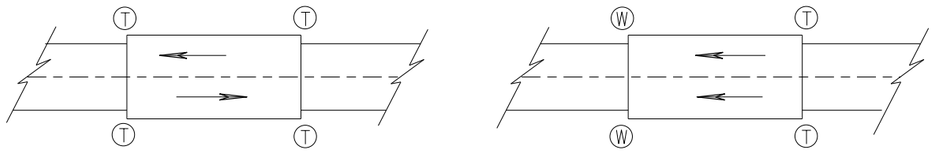
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

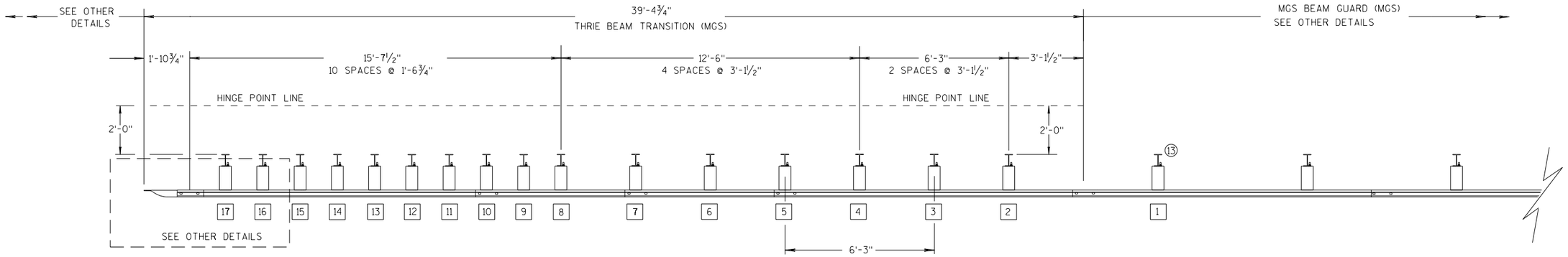
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

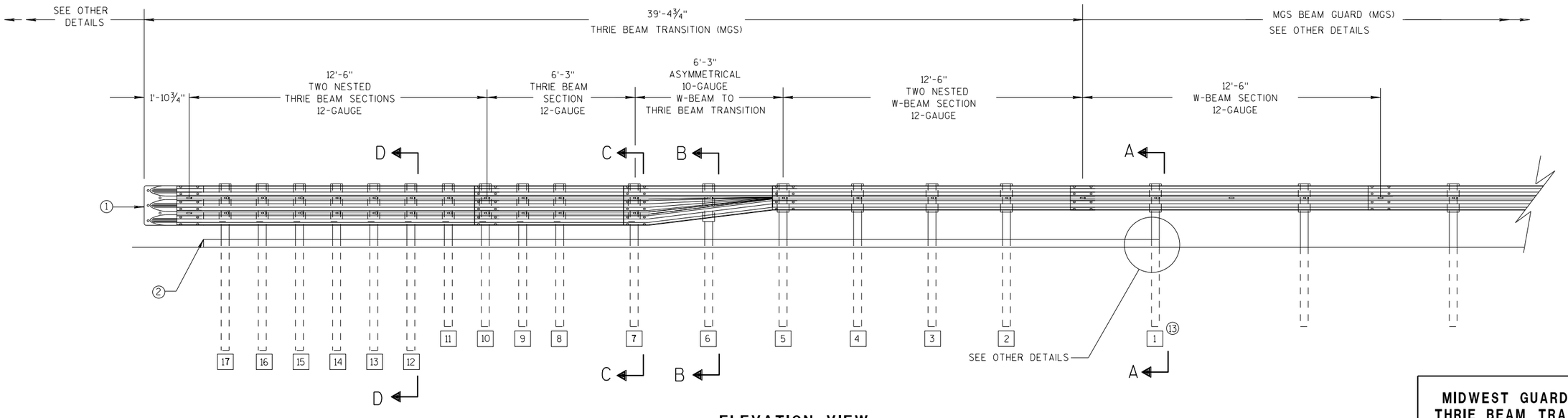
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

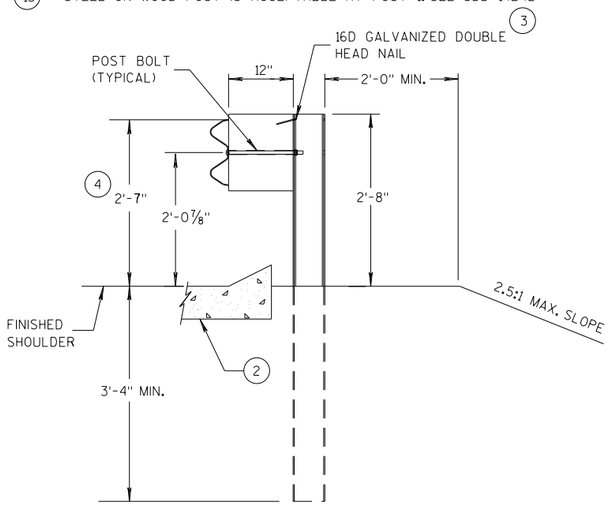
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

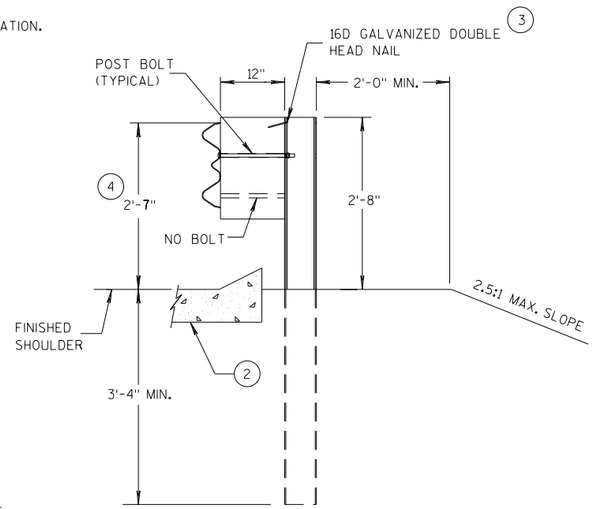
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



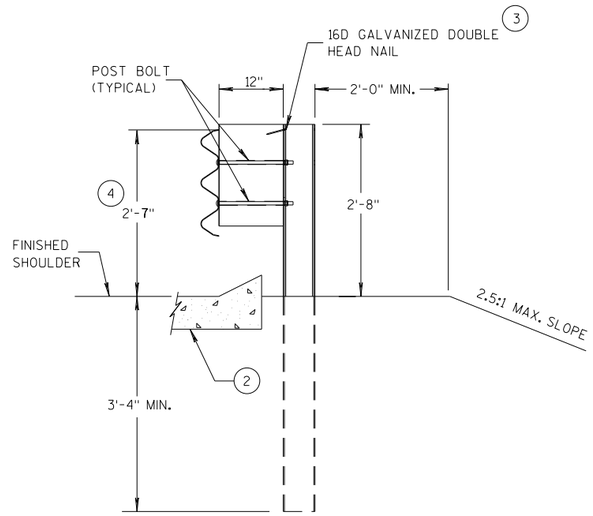
SECTION A-A (13)

POSTS 1-5



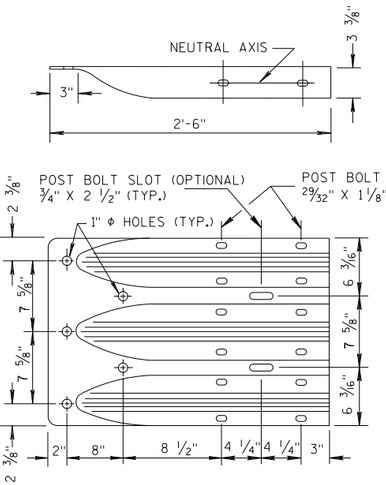
SECTION B-B

POST 6

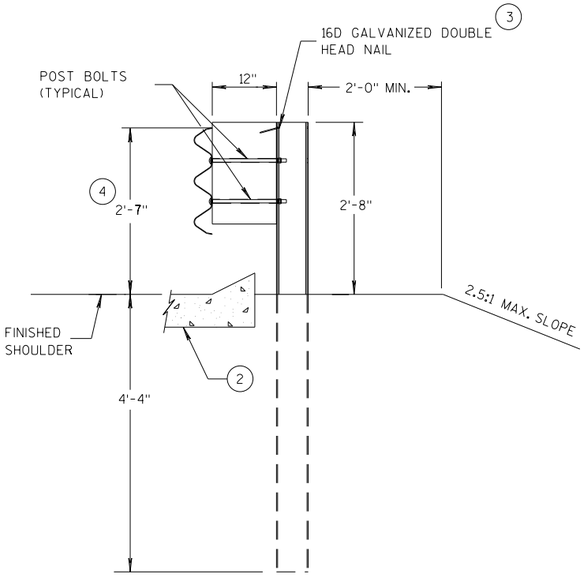


SECTION C-C

POSTS 7-11

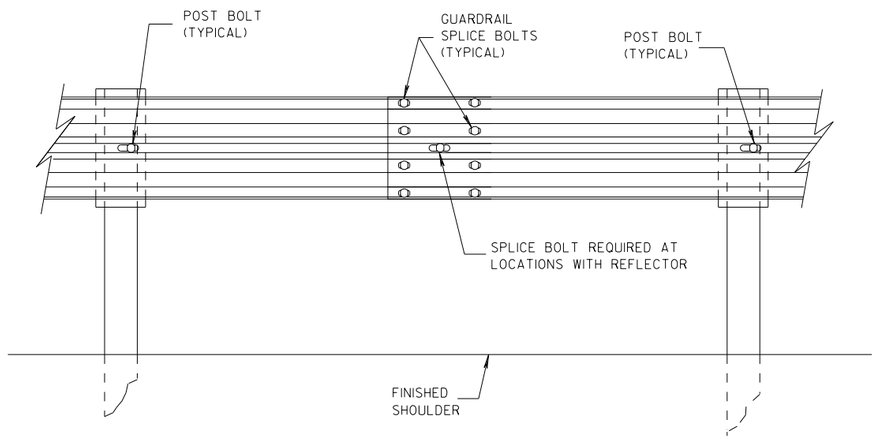


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

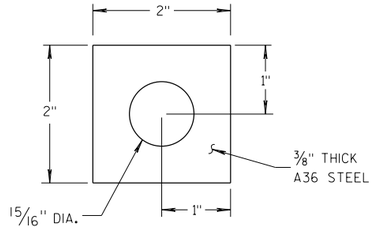
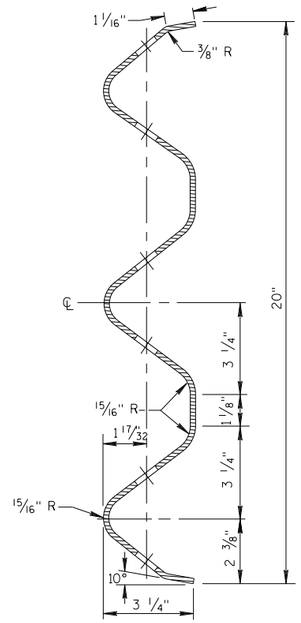


PLATE WASHER DETAIL



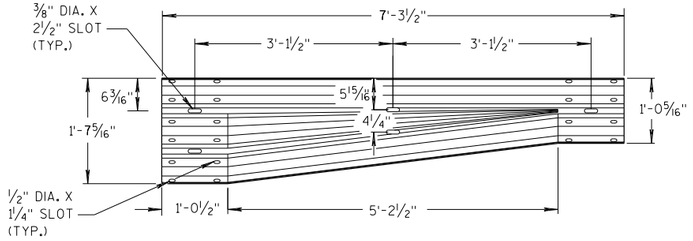
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

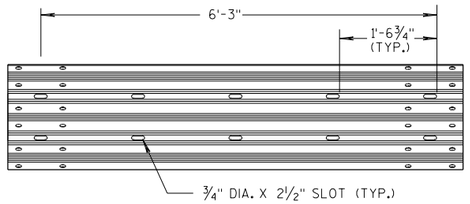
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

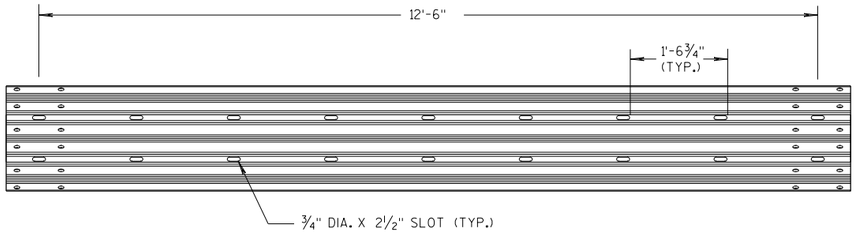
S.D.D. 14 B 45-5b



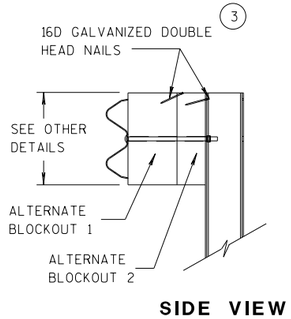
W-BEAM TO THRIE BEAM TRANSITION SECTION



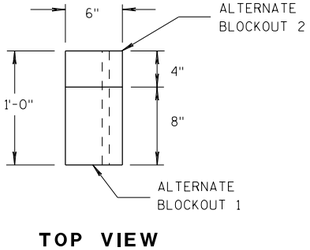
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

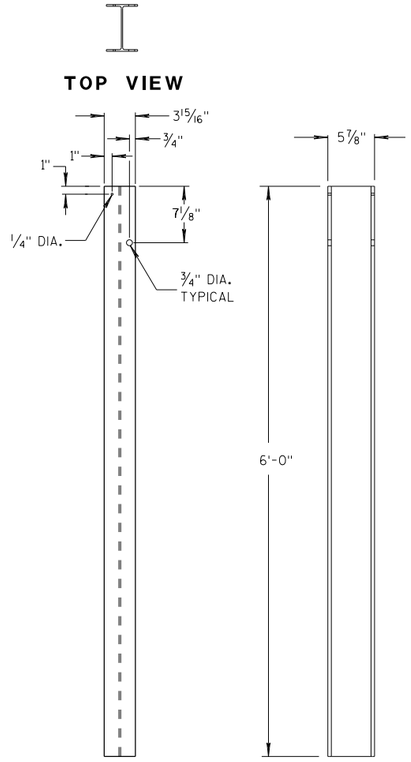


SIDE VIEW



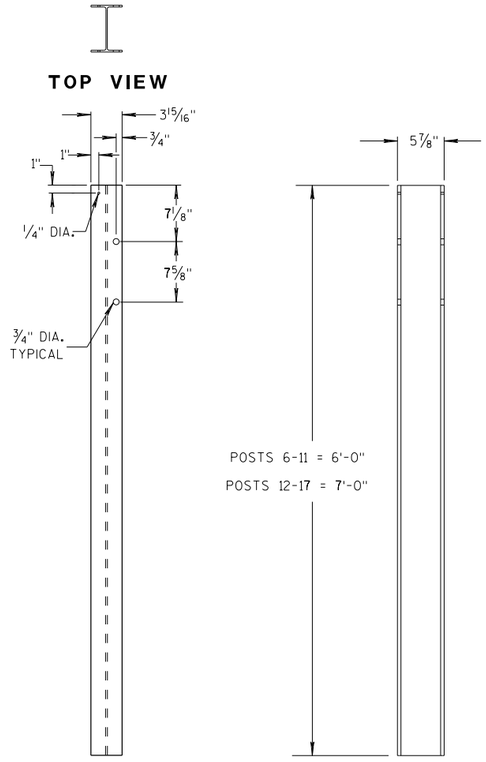
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



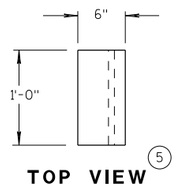
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

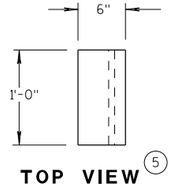


FRONT VIEW SIDE VIEW

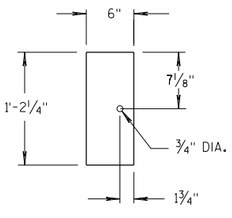
STEEL POSTS 6-17



TOP VIEW (5)

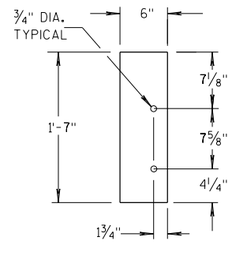


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS 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.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

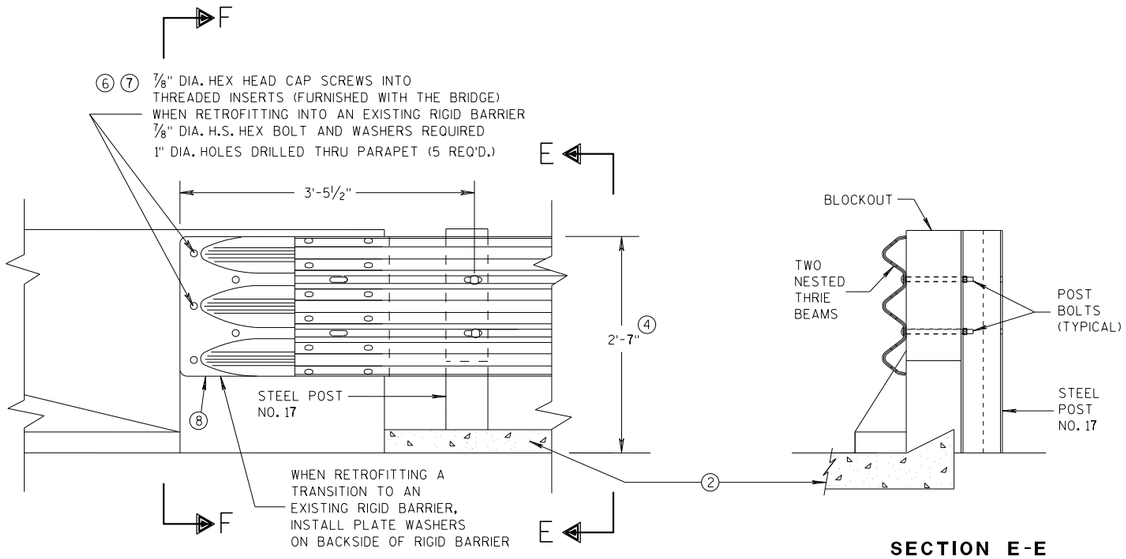
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

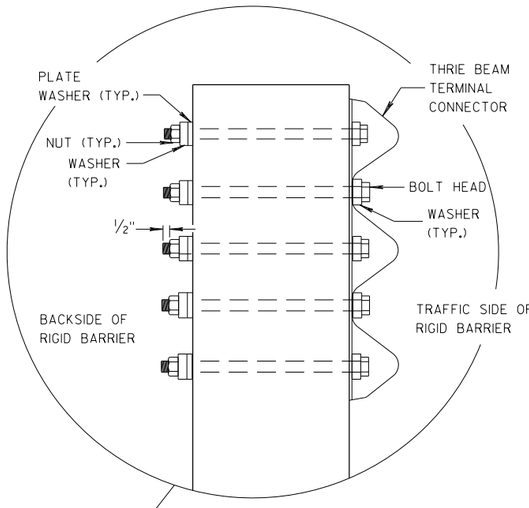
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

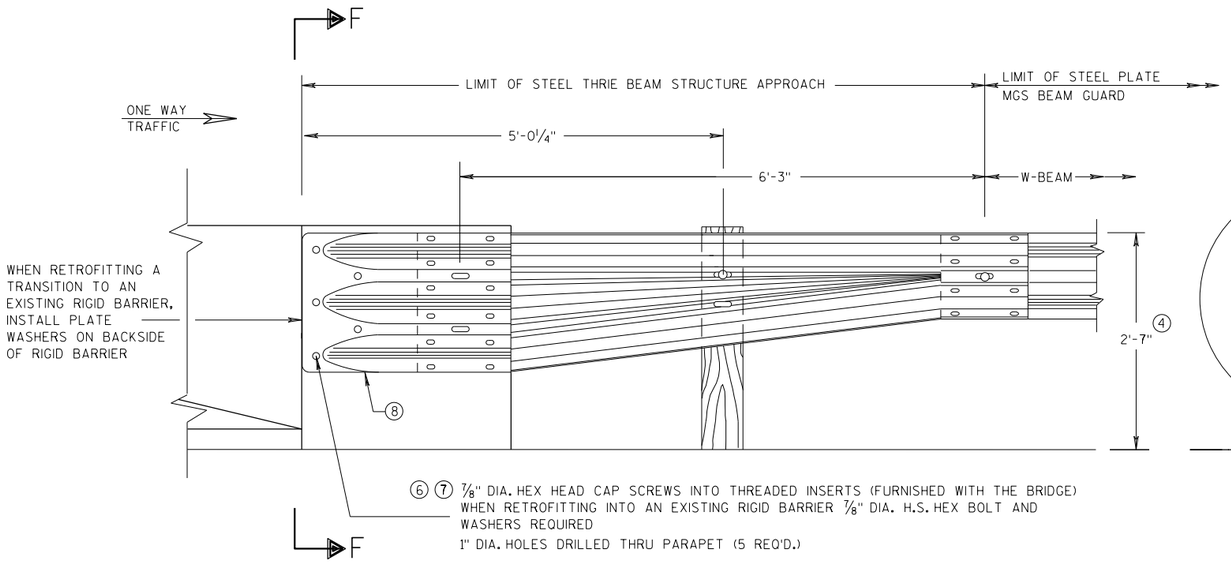
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

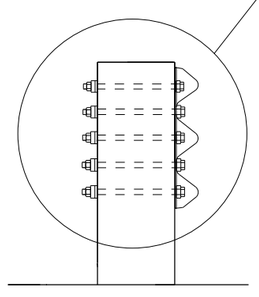
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

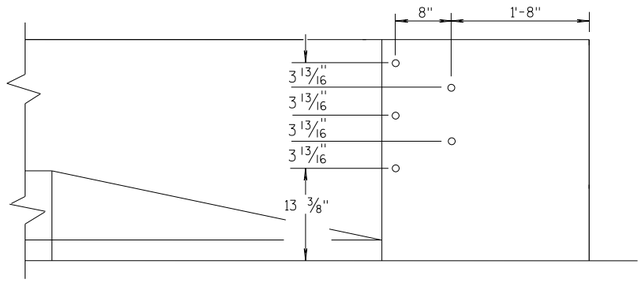




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
[illegible]NT
FHWA

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S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

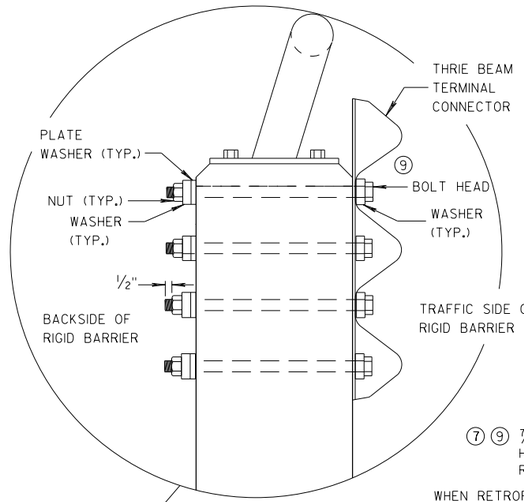
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

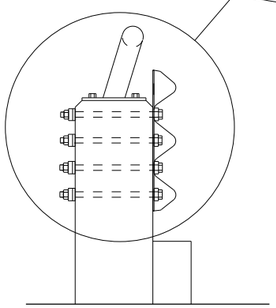
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

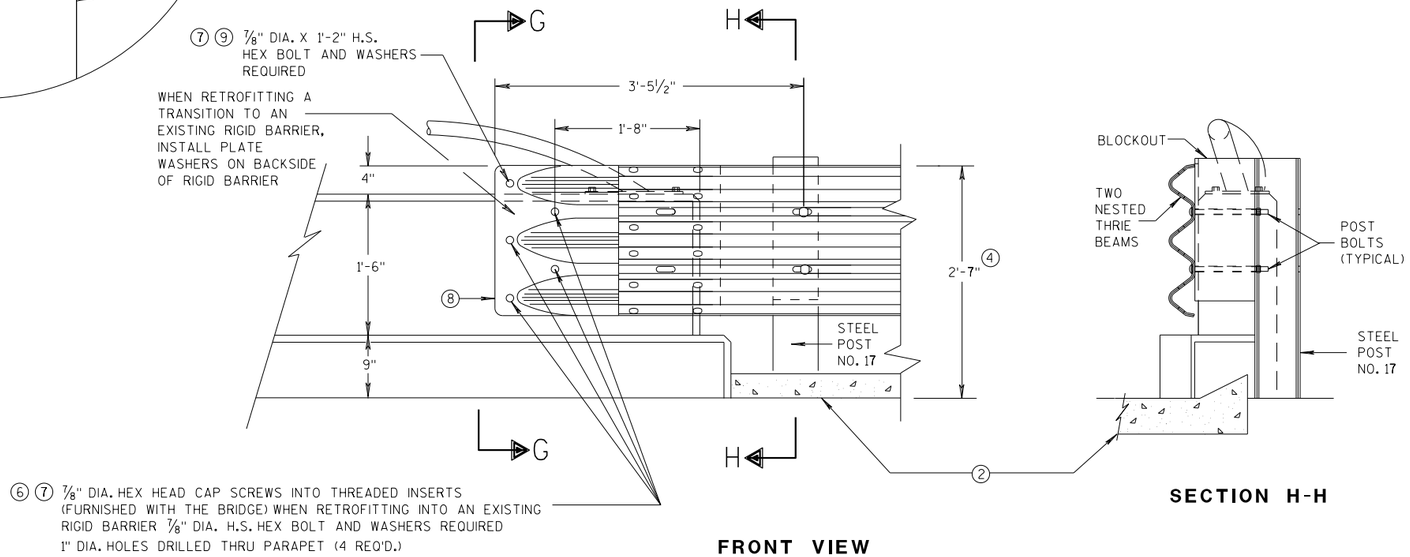
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





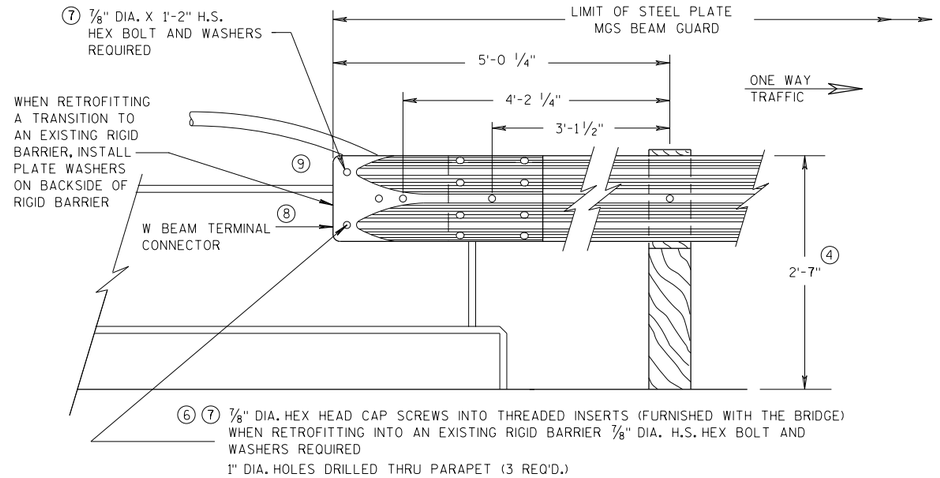
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

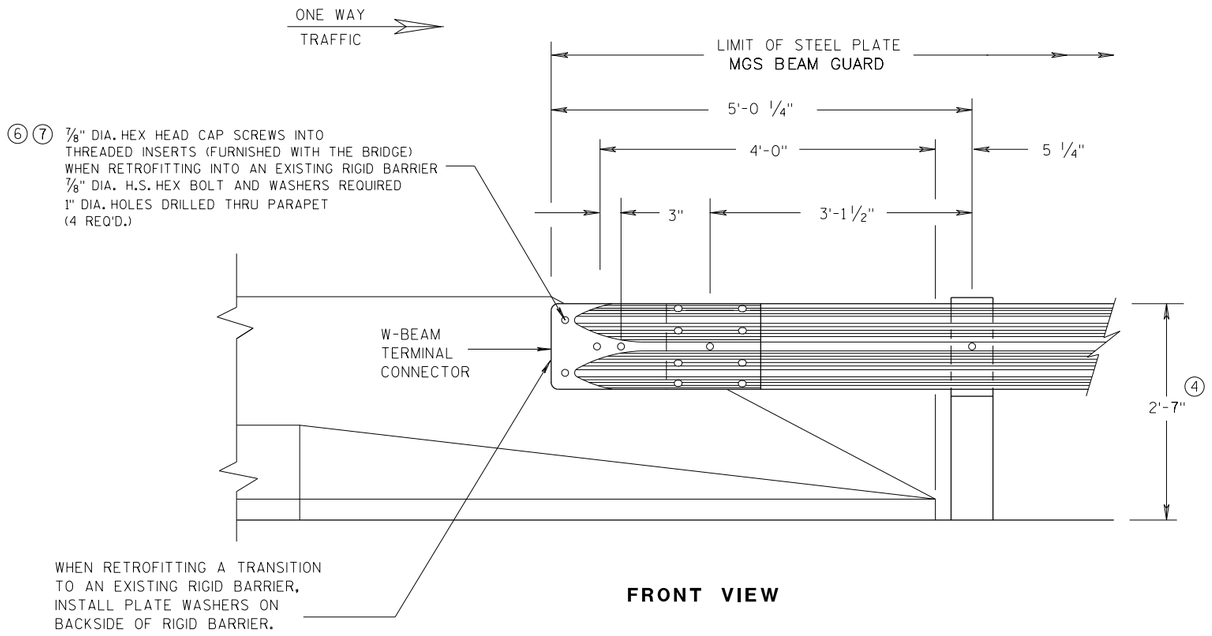
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
FHWA

6

S.D.D. 14 B 45-5e

6

S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

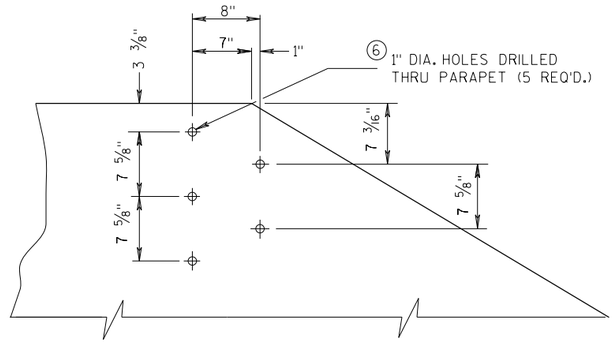
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

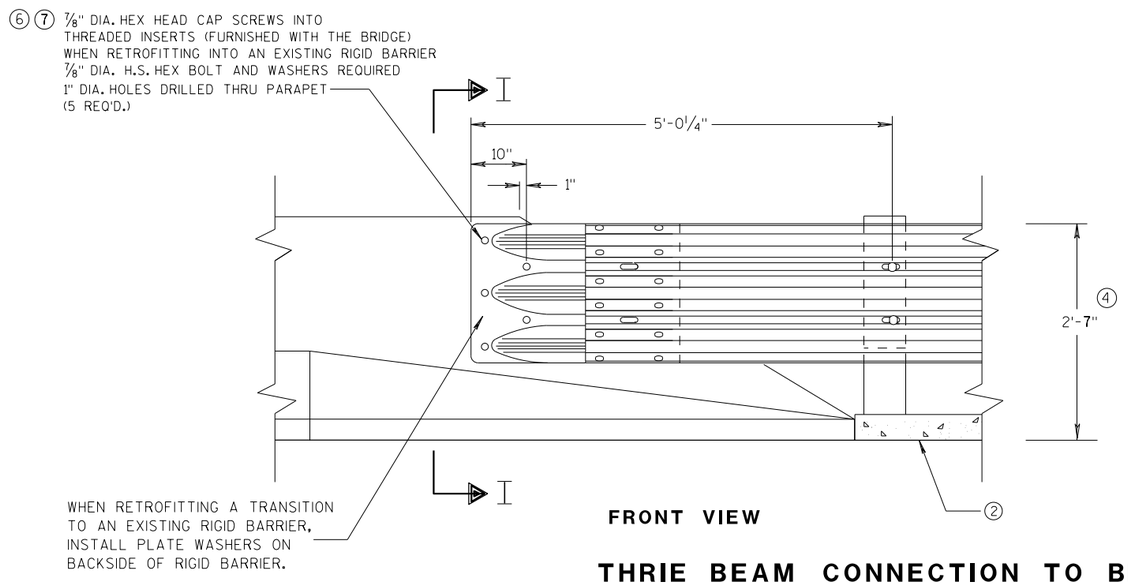
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

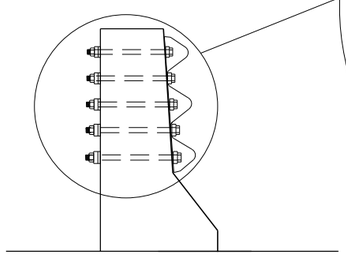
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



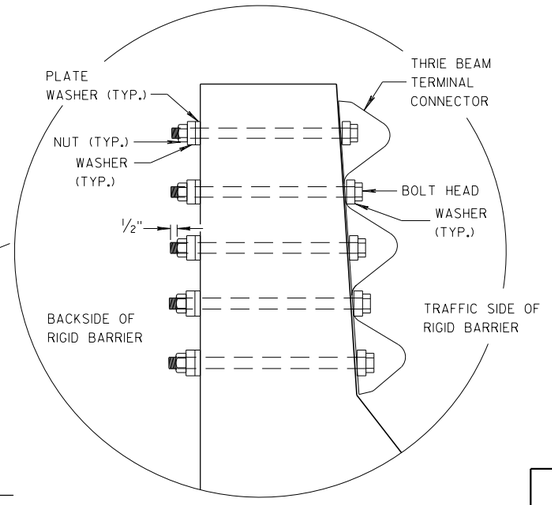
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
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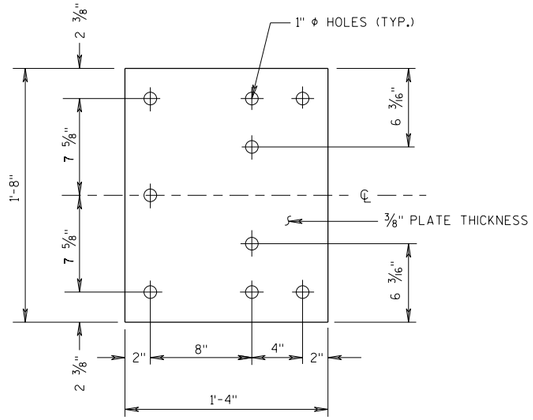
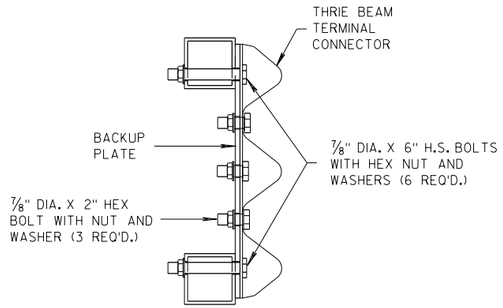
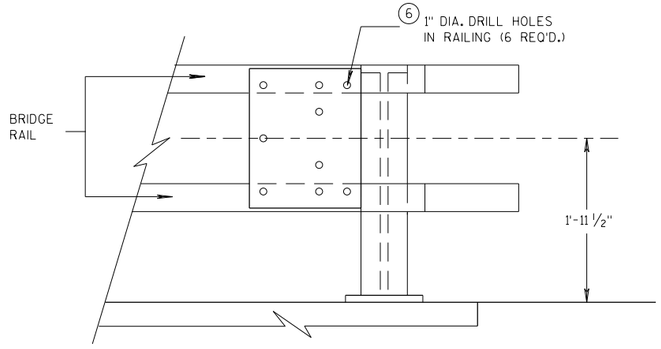


BACK-UP PLATE DETAIL



SECTION J-J

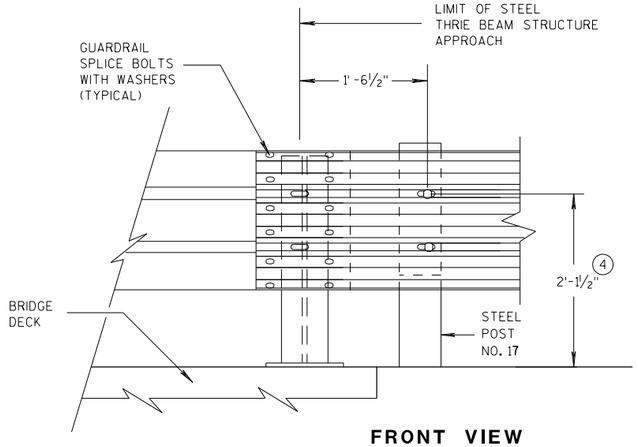


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

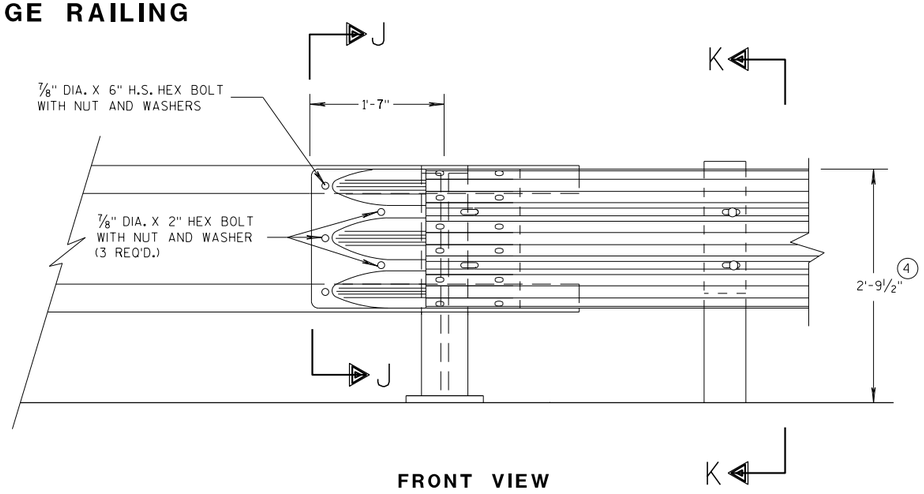
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

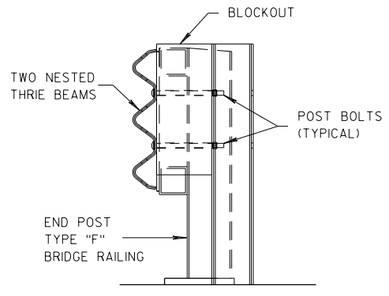


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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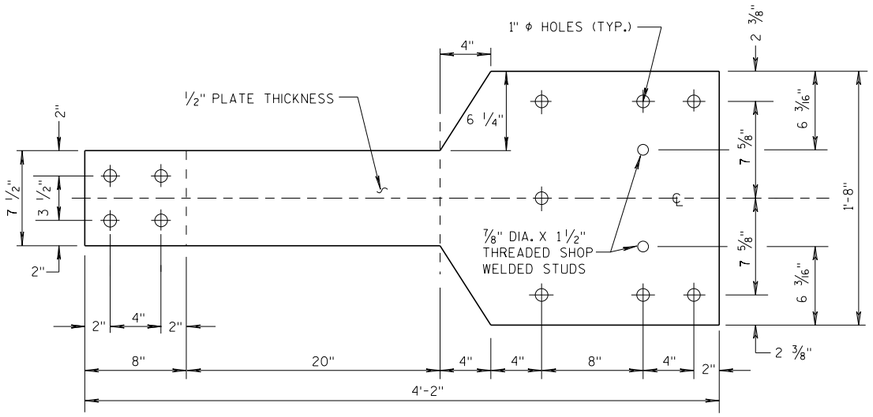
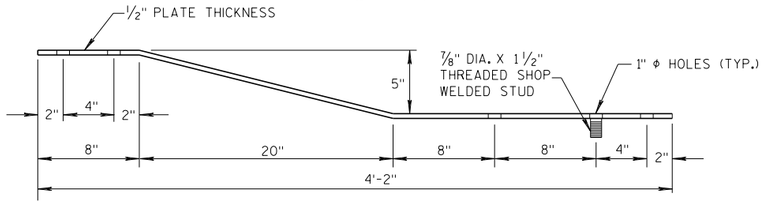
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

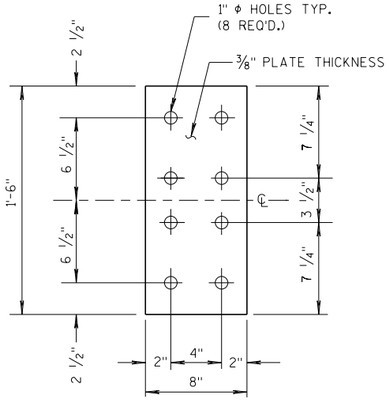


FRONT VIEW



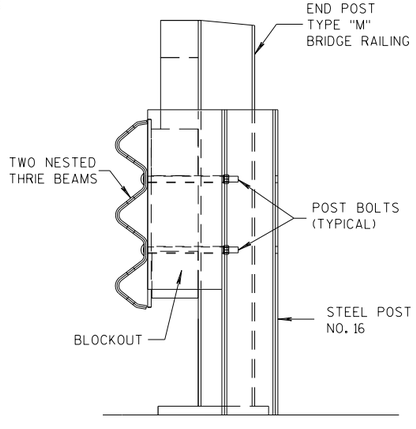
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

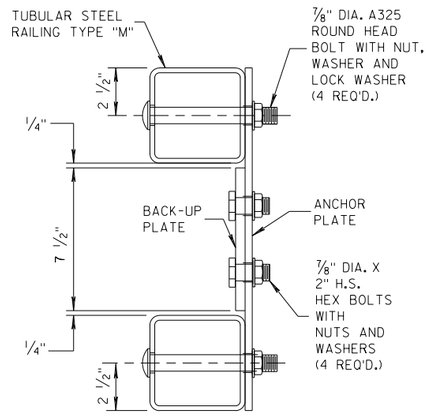


FRONT VIEW

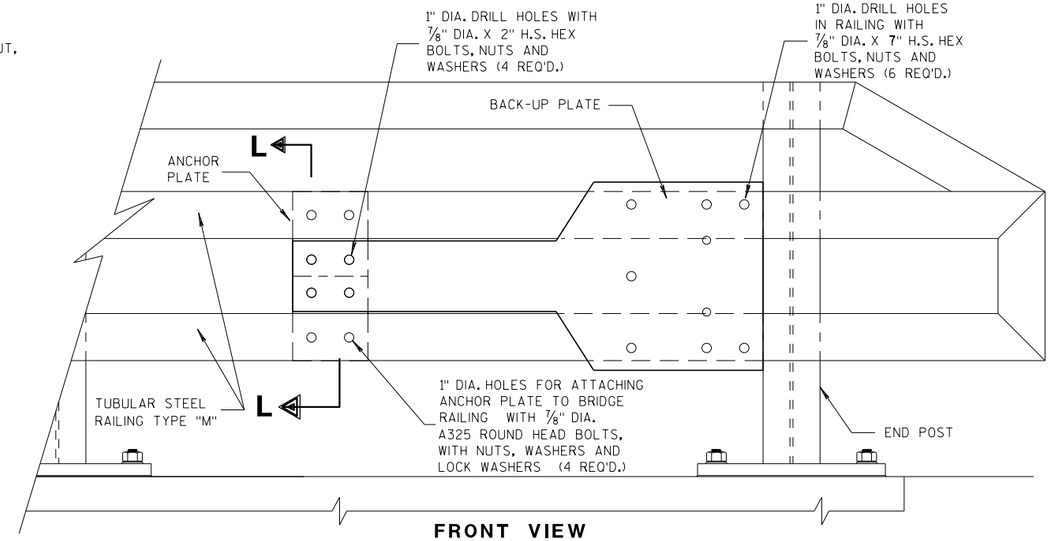
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

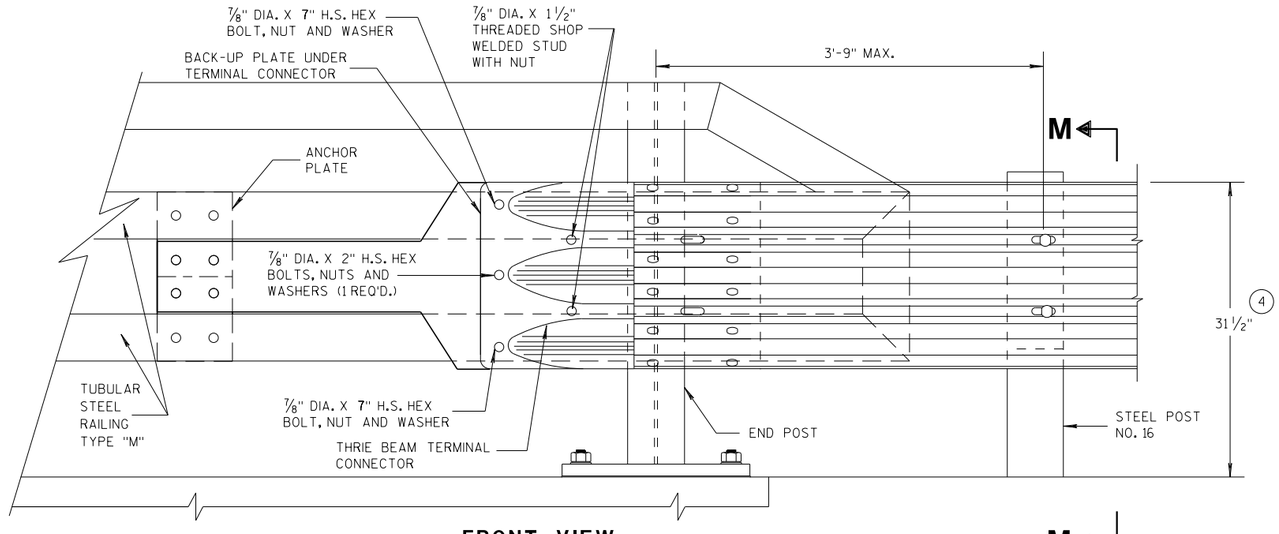


SECTION L-L

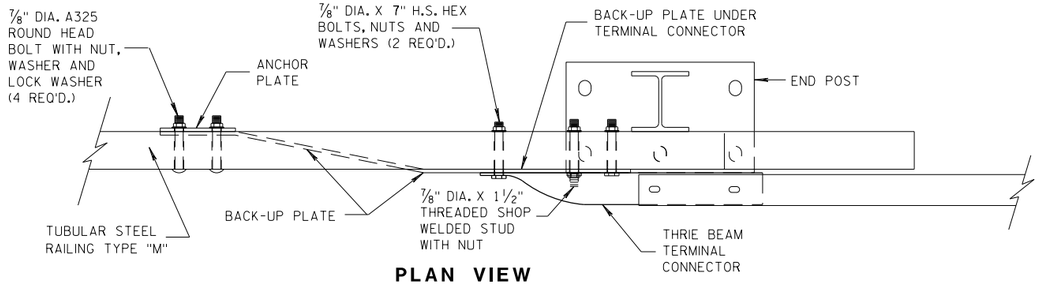


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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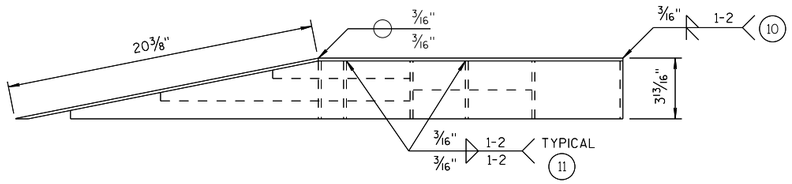

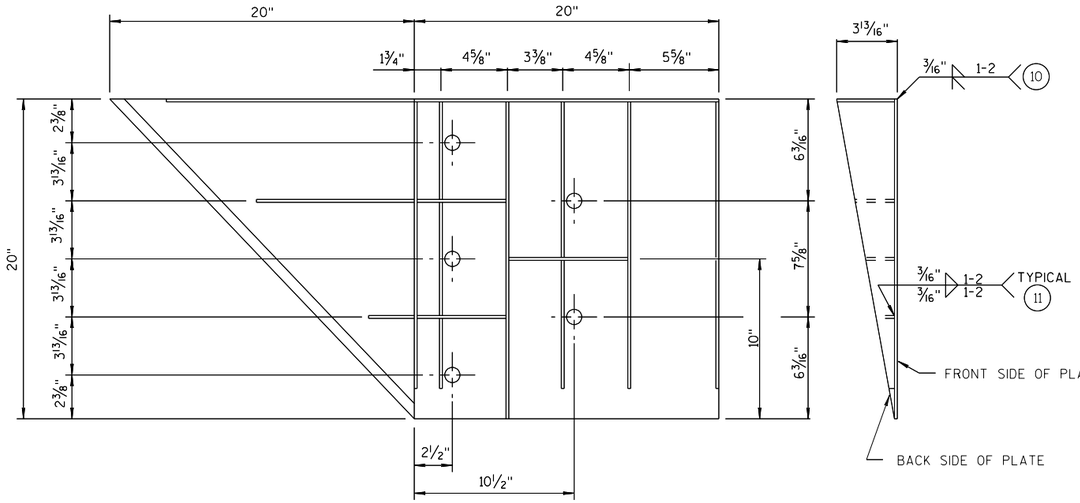

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

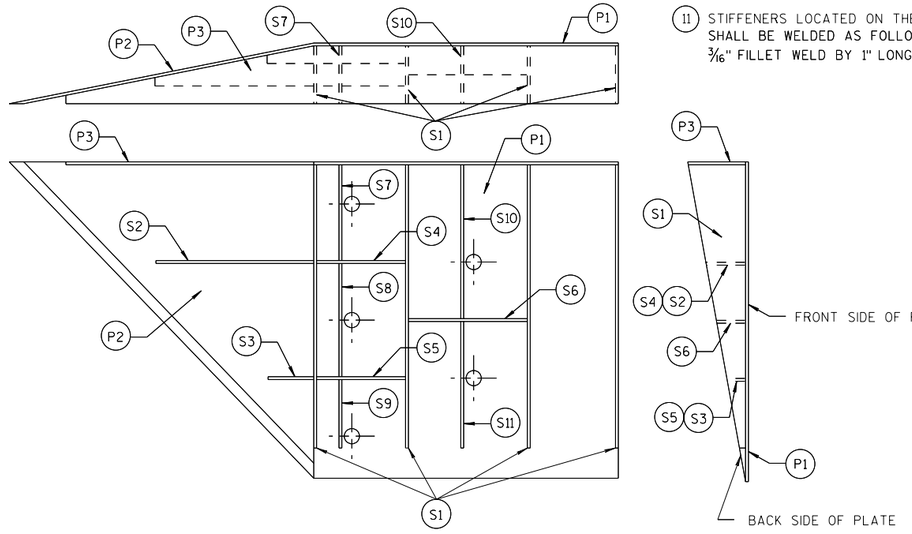

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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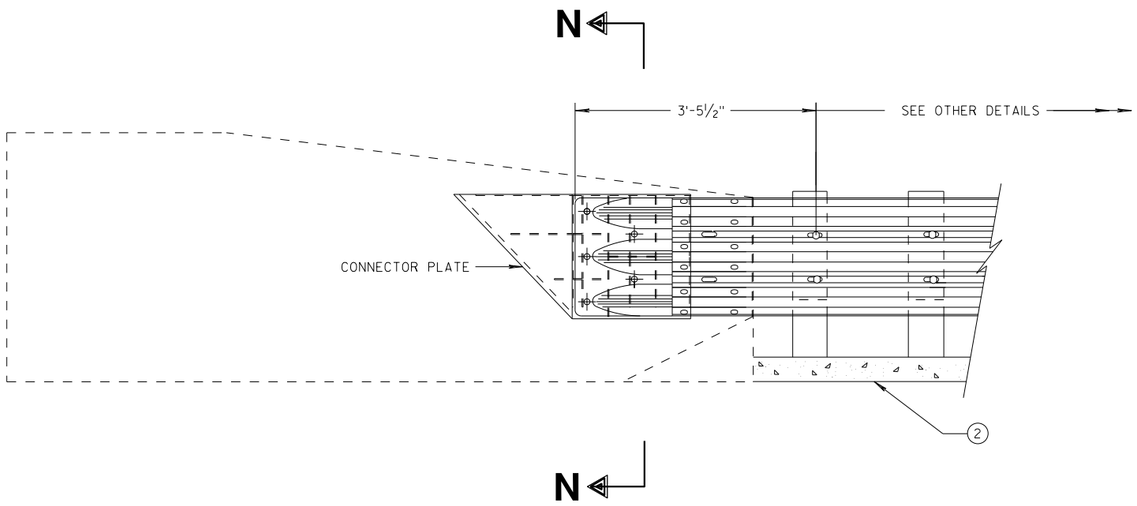
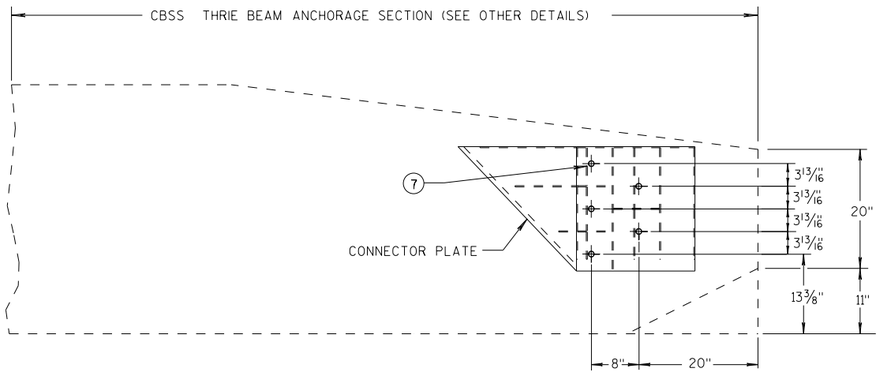


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



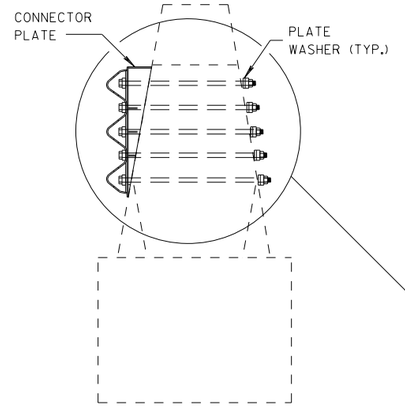
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

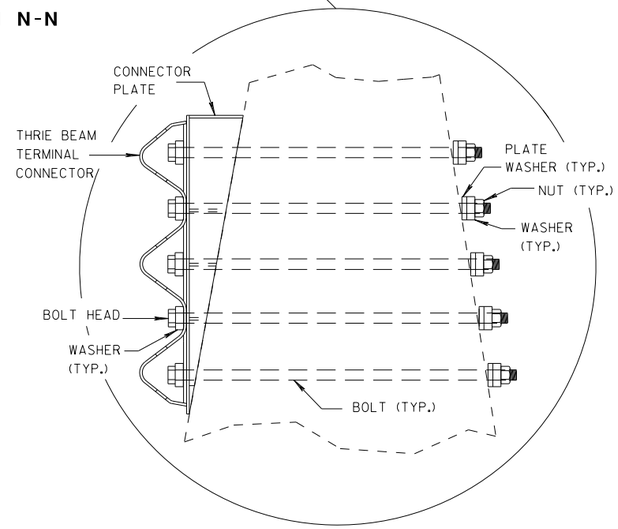
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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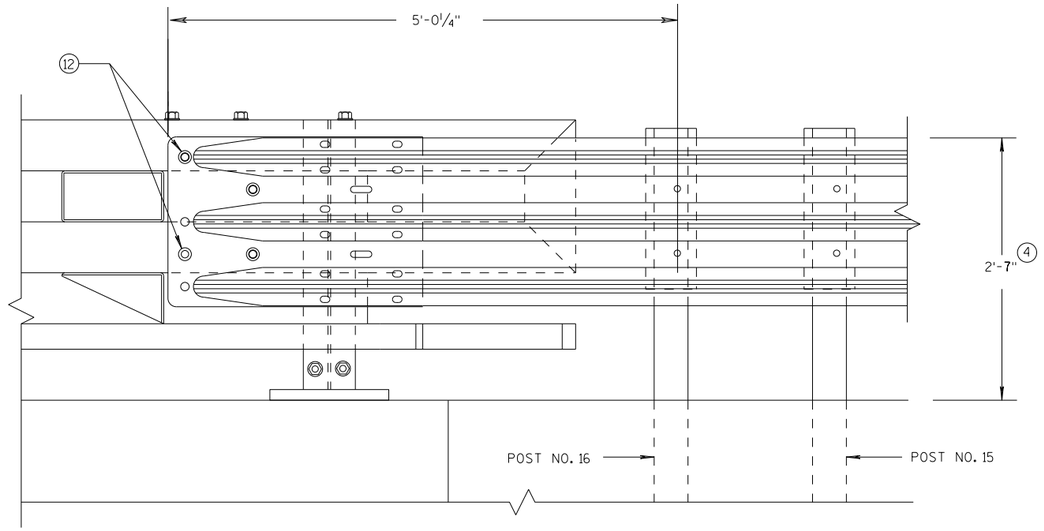
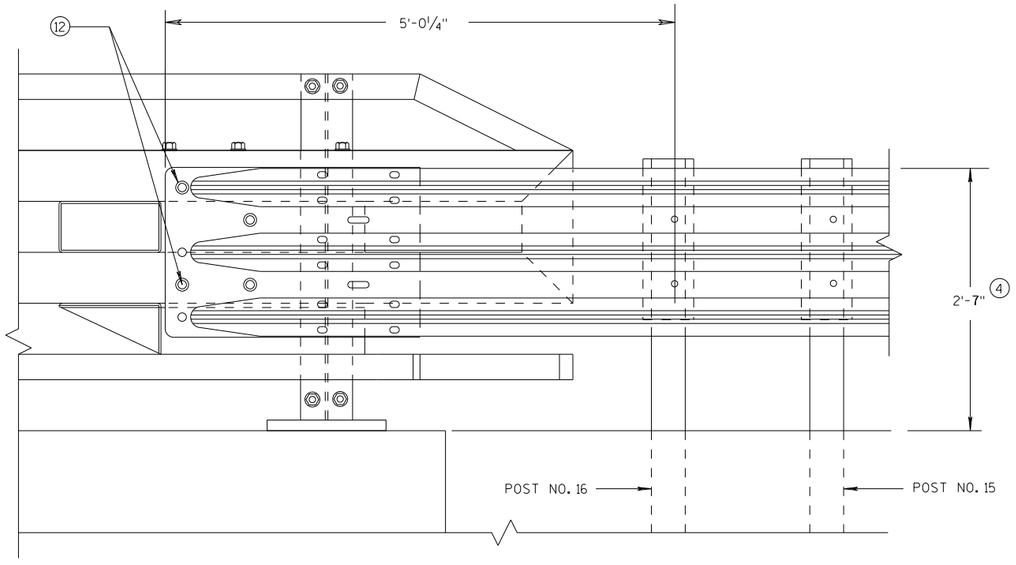


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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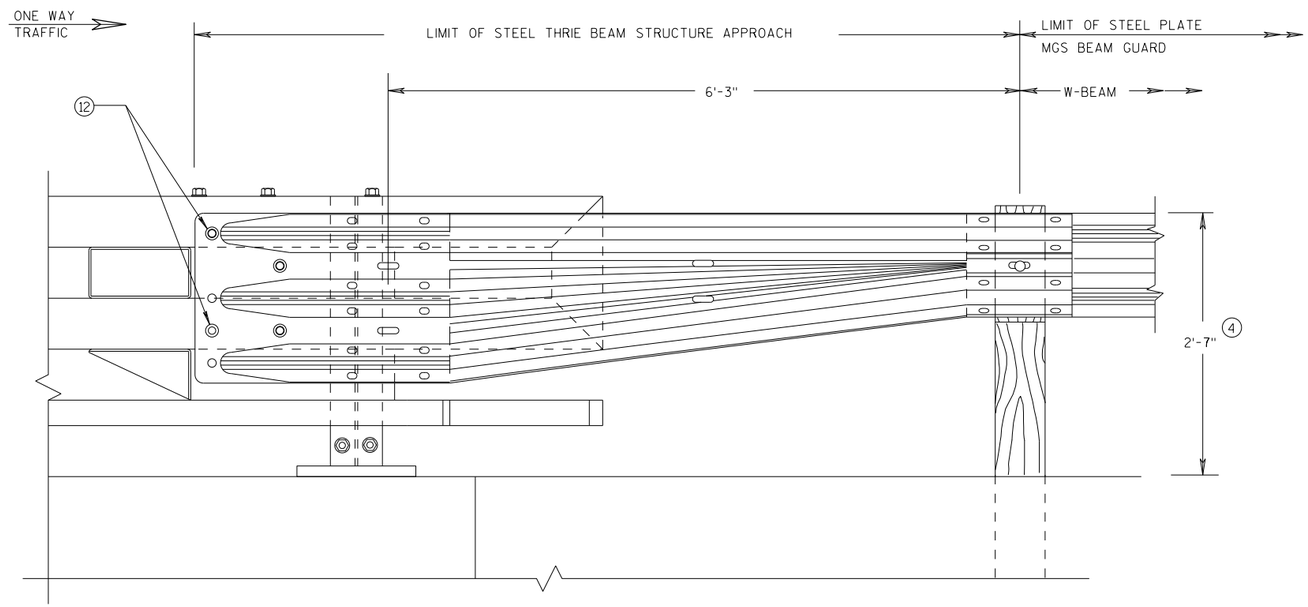


FRONT VIEW

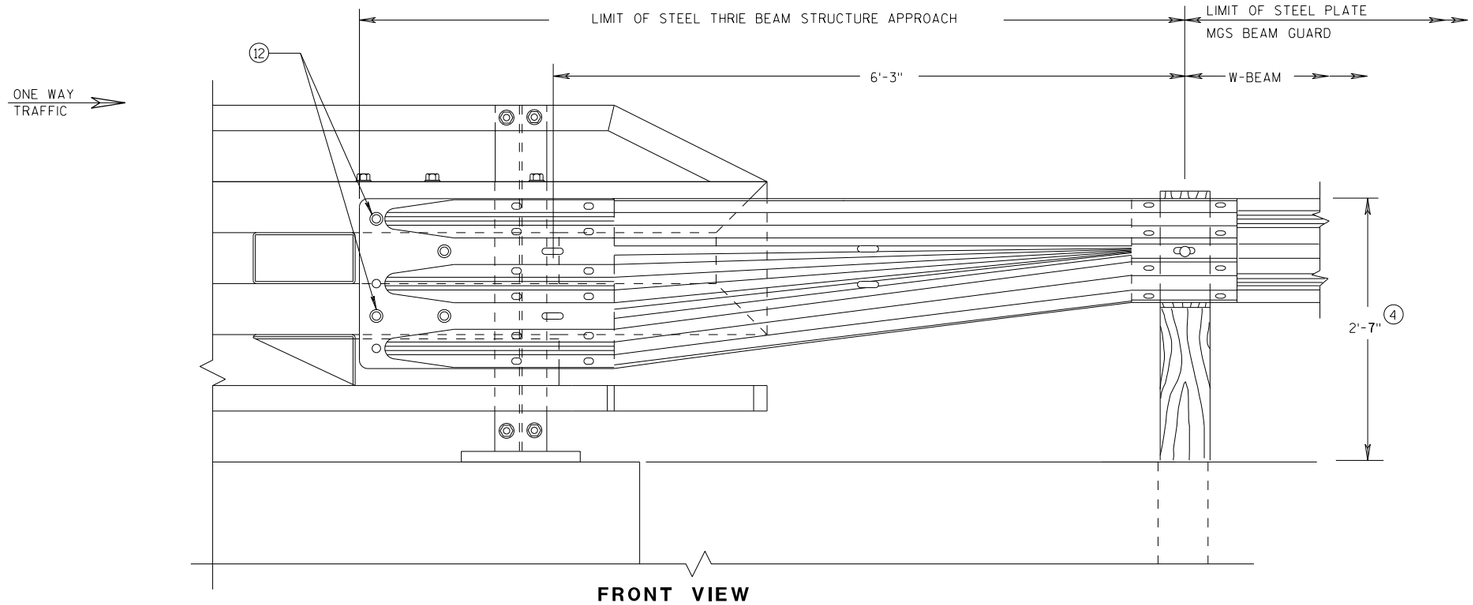
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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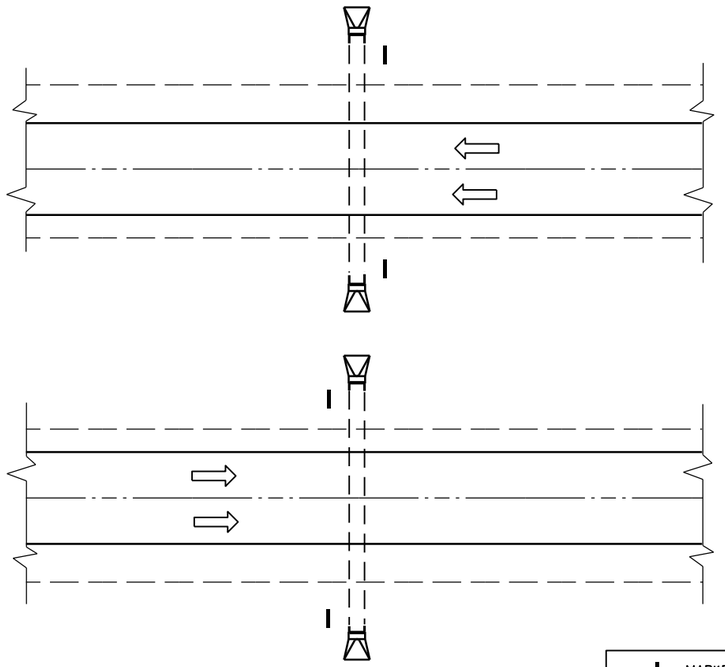
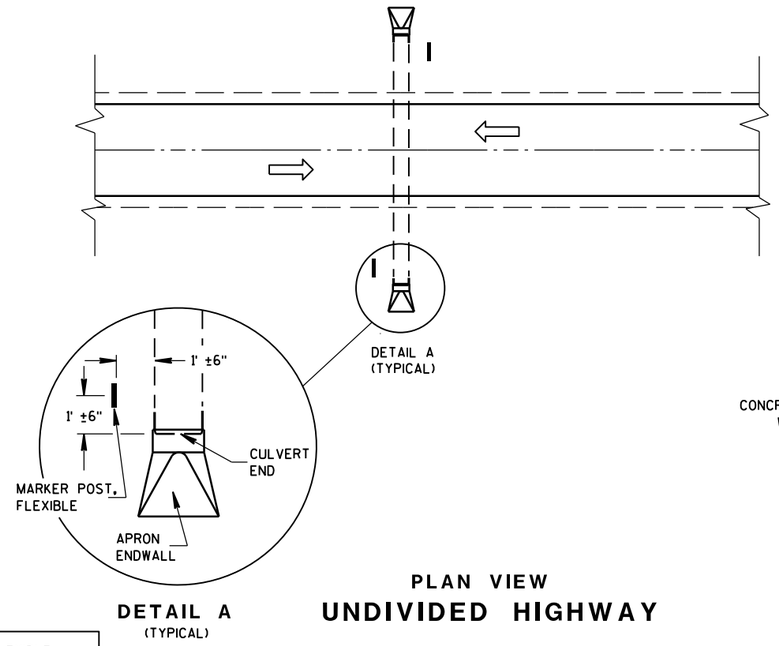


PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

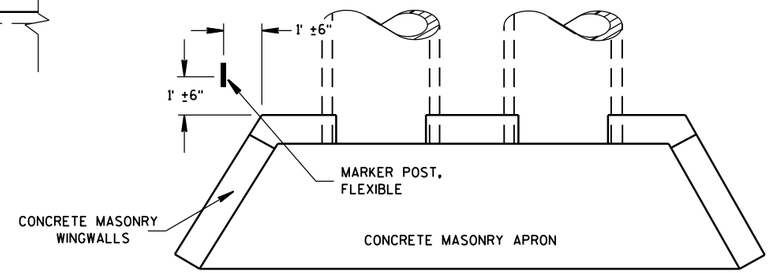
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

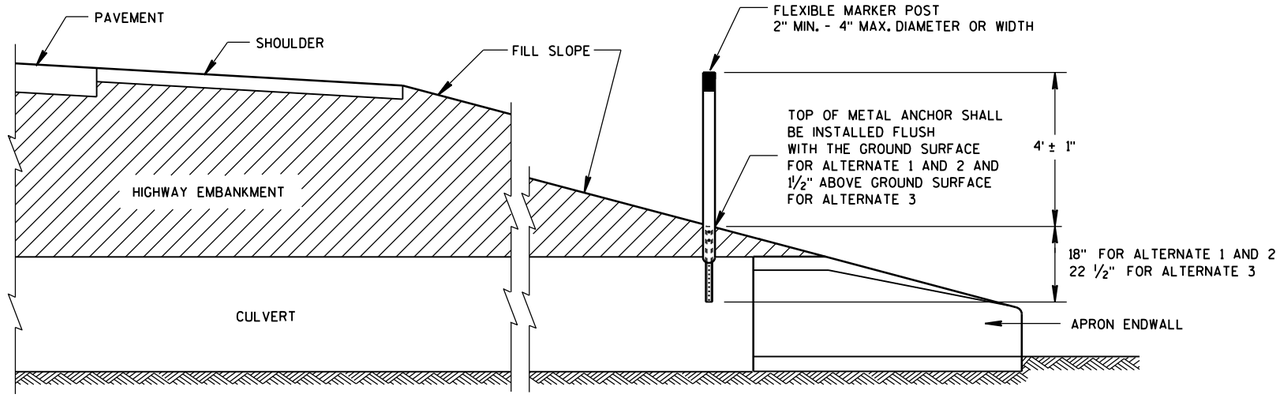
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

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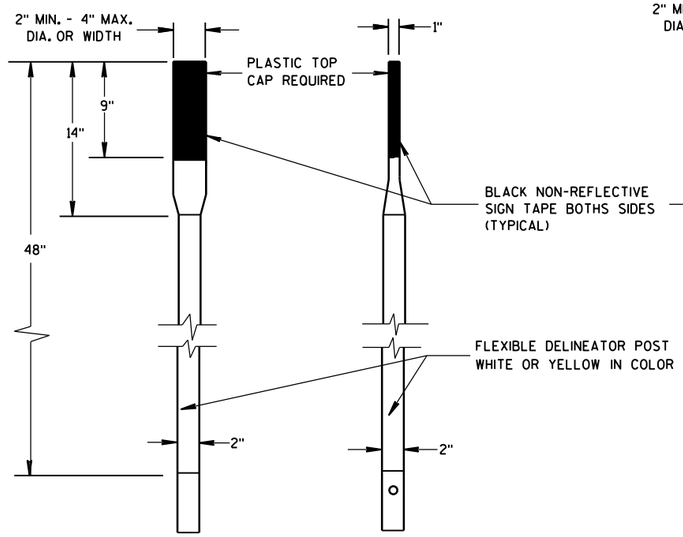
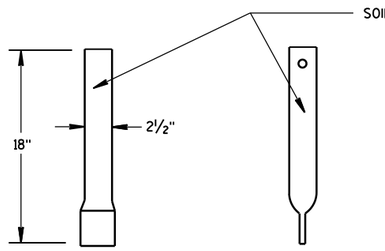
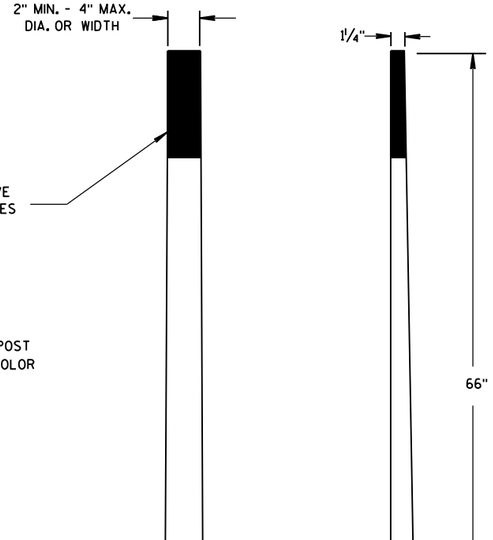




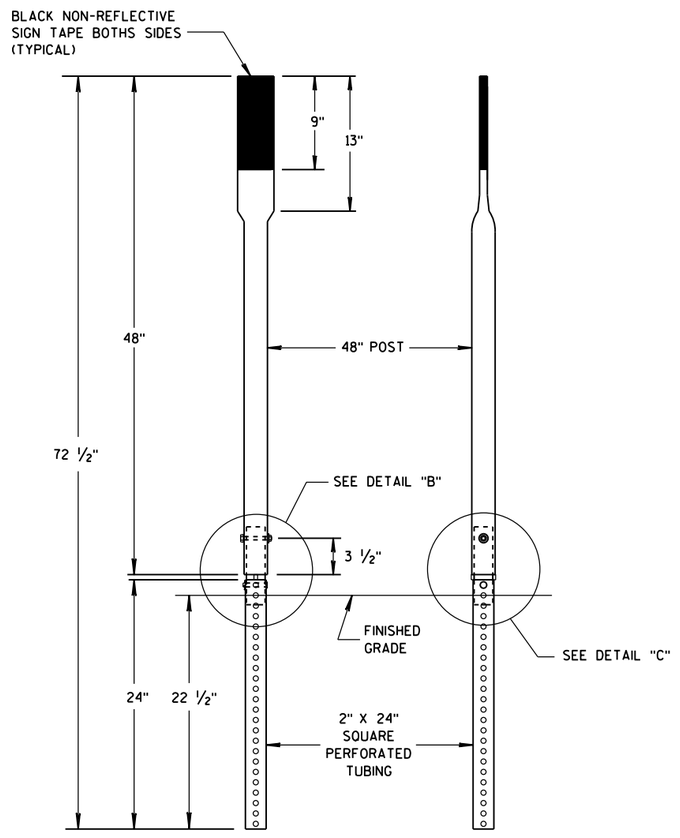
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

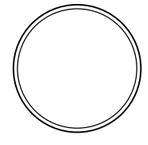
ALTERNATE 2



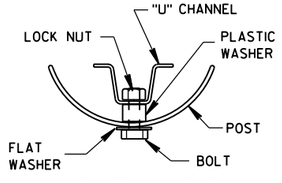
FRONT VIEW SIDE VIEW

ALTERNATE 3

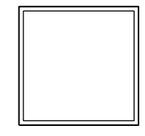
FLEXIBLE MARKER POSTS



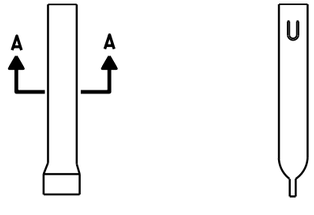
SECTION A-A



SECTION B-B

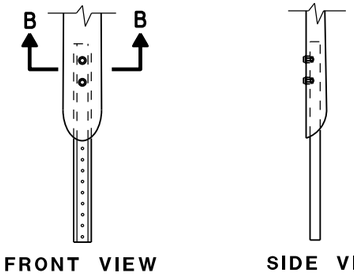


SECTION C-C



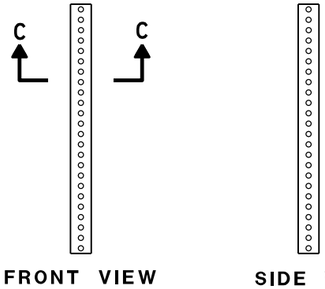
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

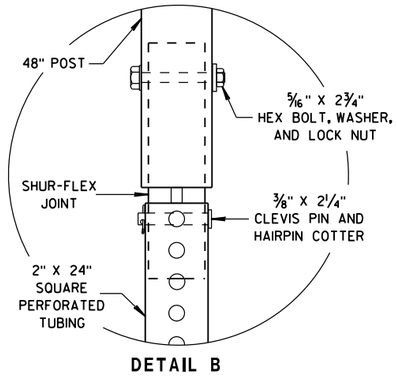
ALTERNATE 2



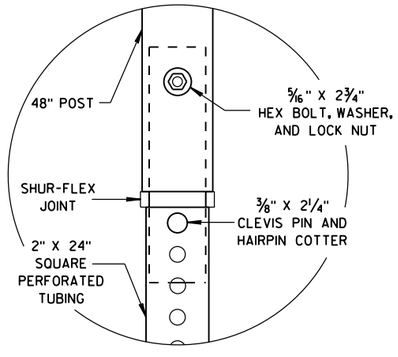
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



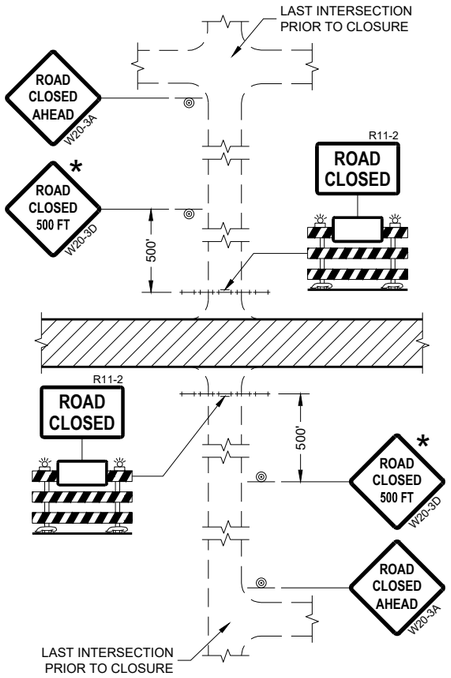
DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

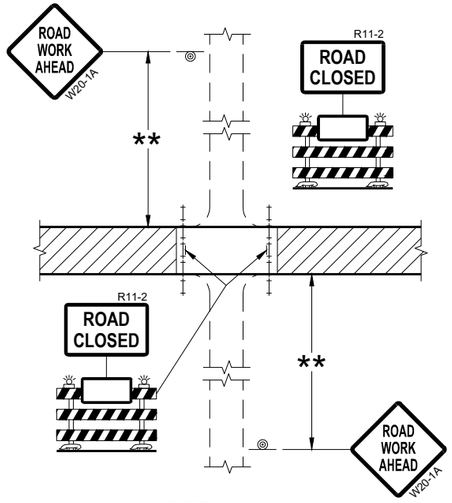
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6
S.D.D. 15 A 3-2b



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

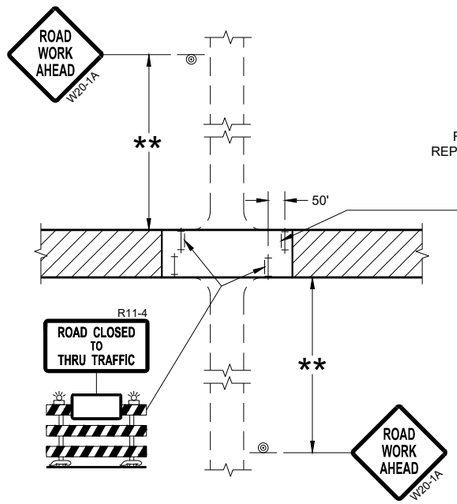
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

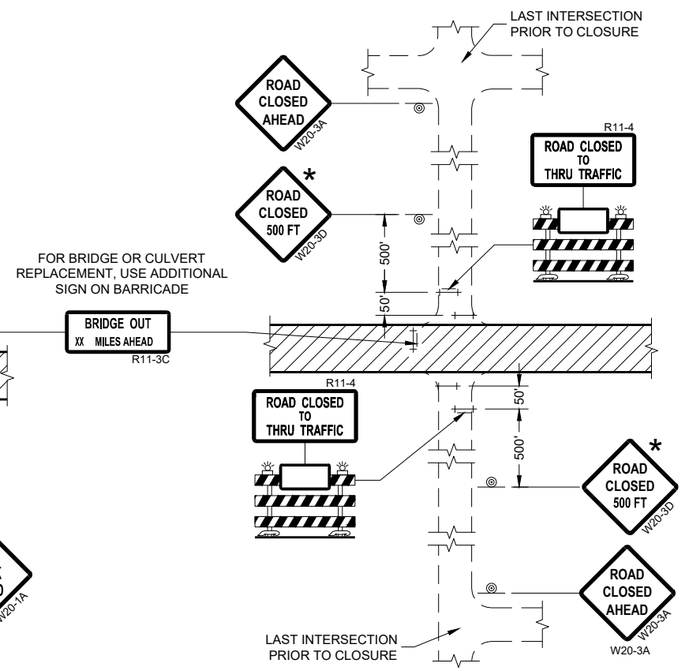
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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



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



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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

GENERAL NOTES

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

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

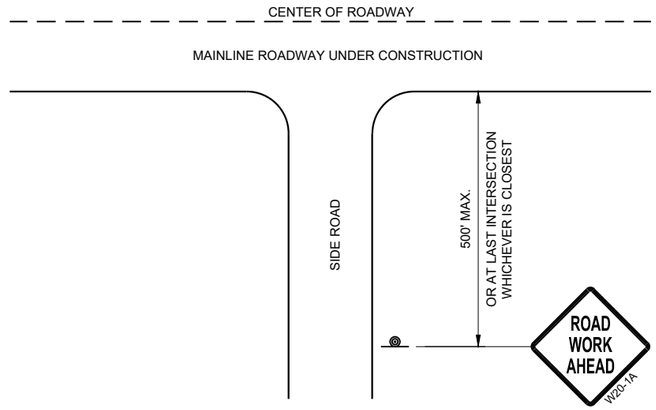
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



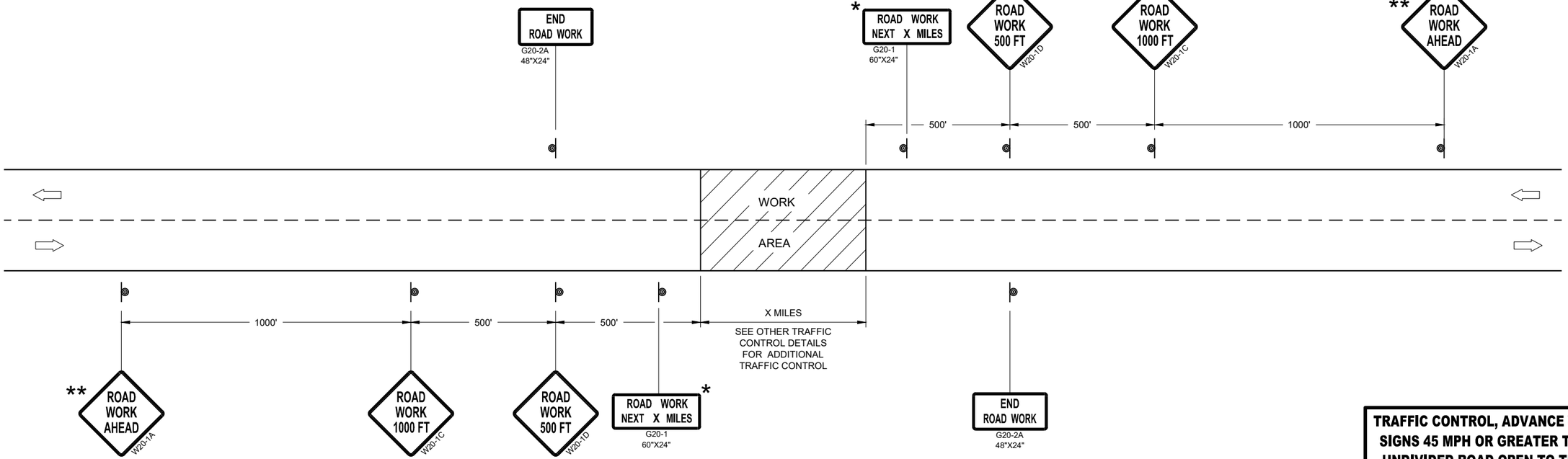
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

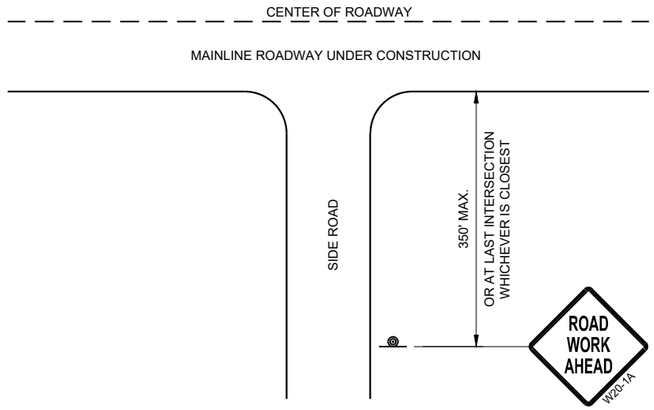
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



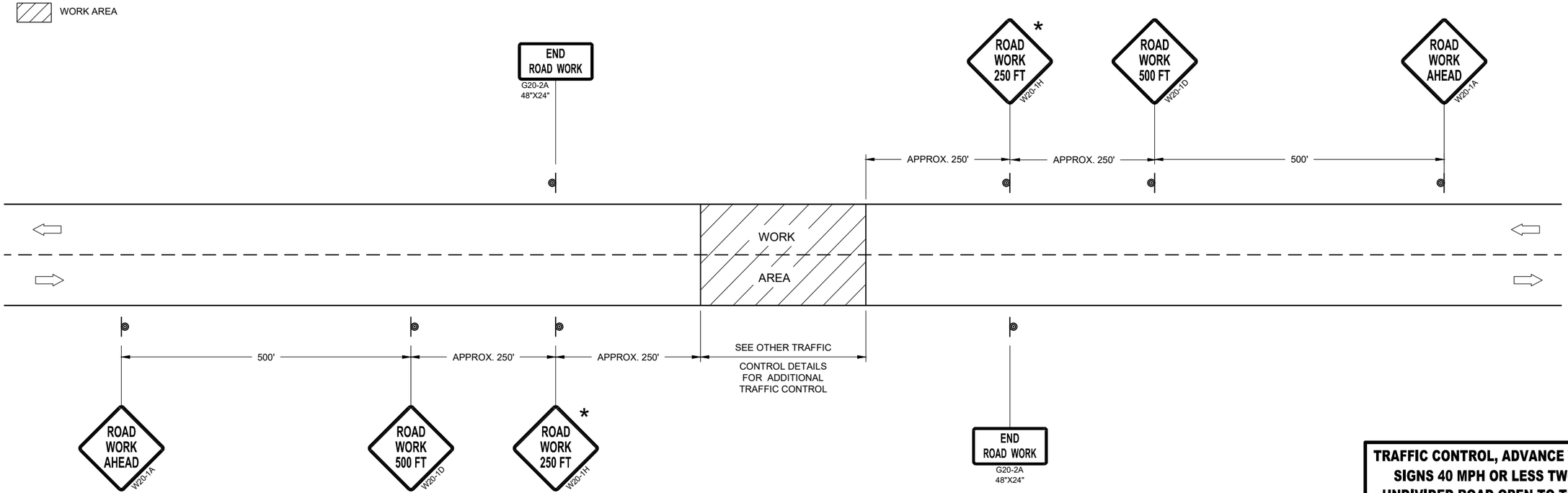
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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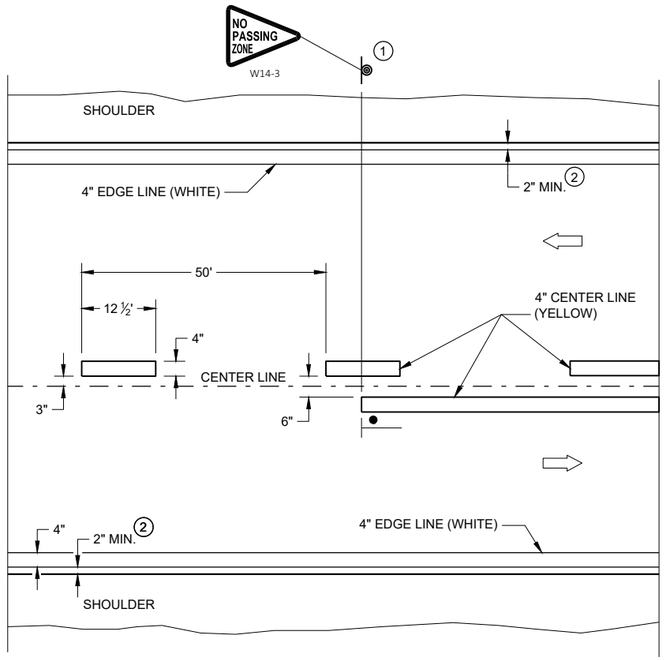
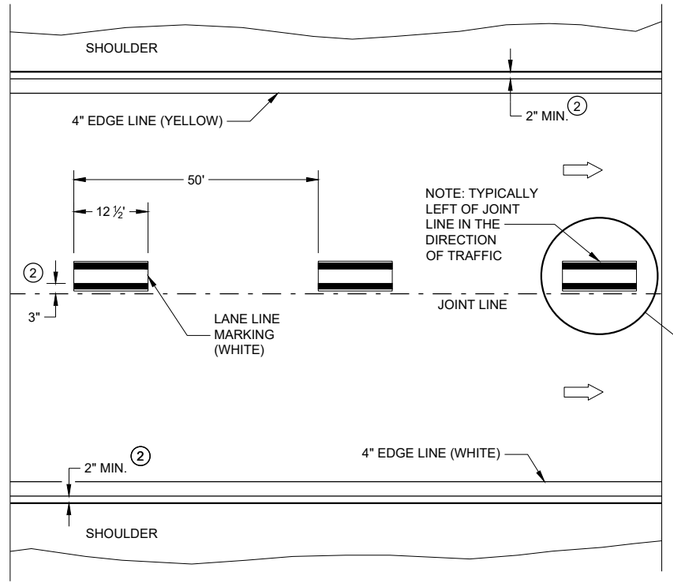
SDD 15C05 - 05

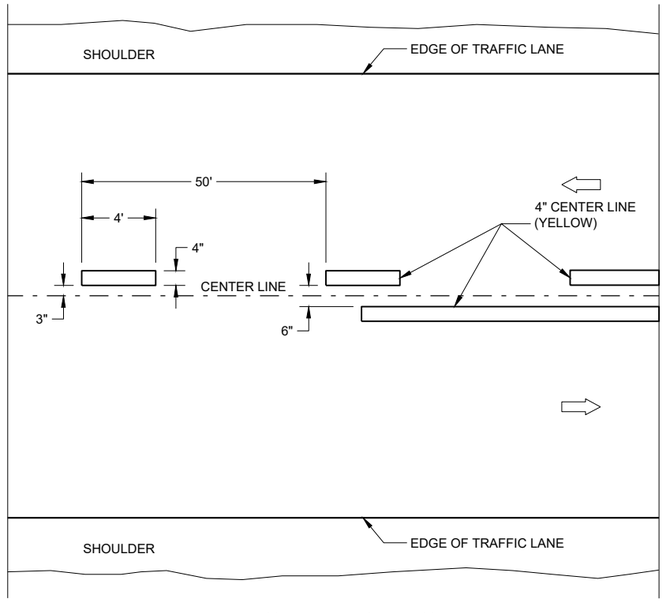


TWO WAY TRAFFIC

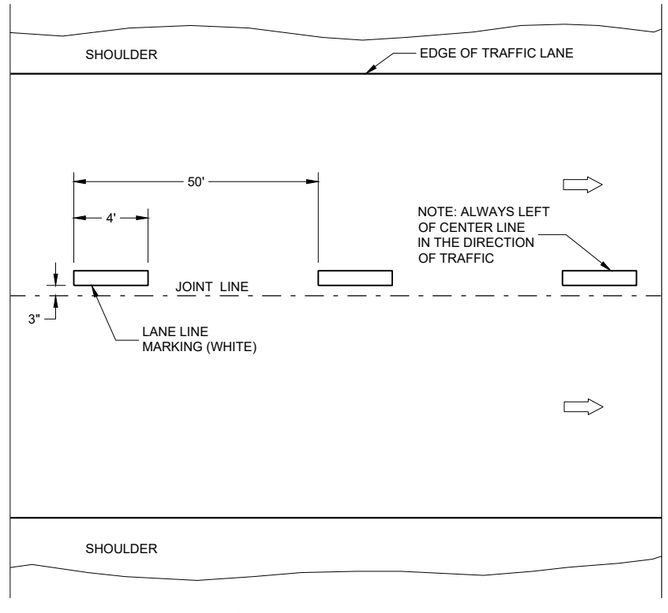


ONE WAY TRAFFIC

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.

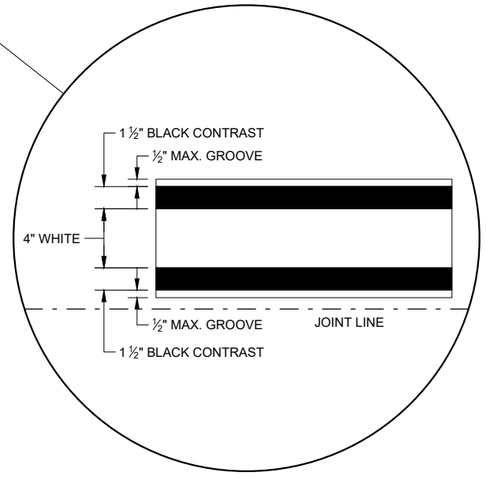
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

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

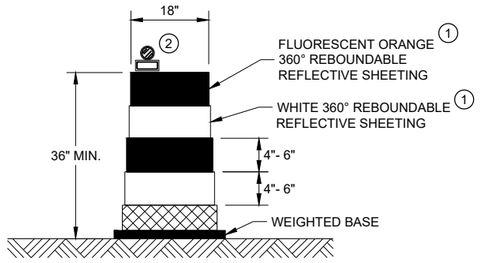
FHWA

SDD 15C08 - 20a

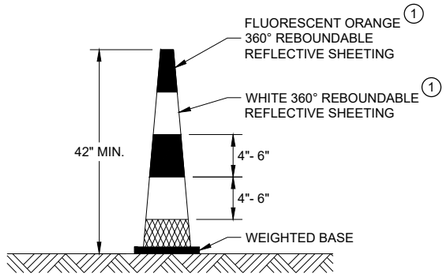
SDD 15C08 - 20a

GENERAL NOTES

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

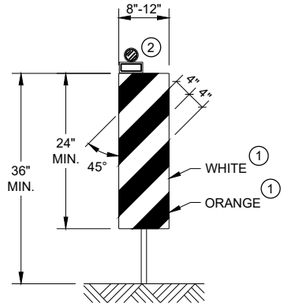


DRUM



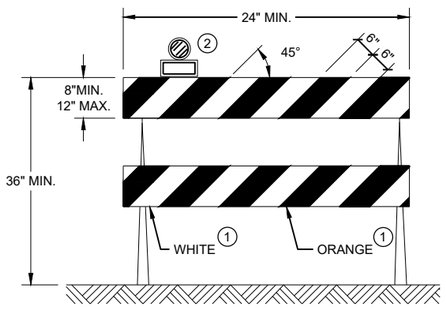
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



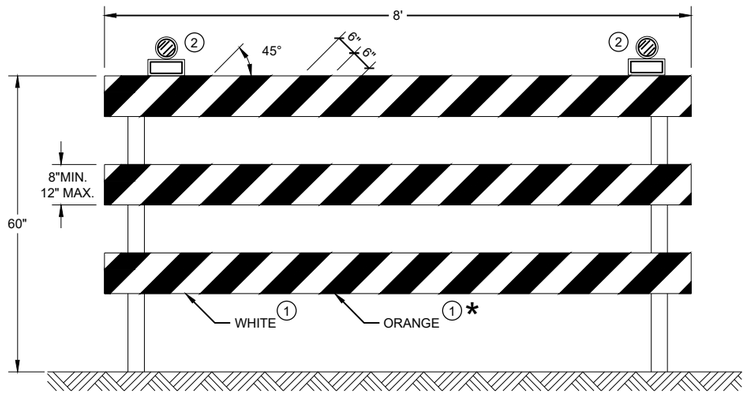
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD15C11 - 08b

6

SDD15C11 - 08b

LEGEND

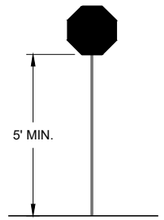
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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



STOP/SLOW PADDLE 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.

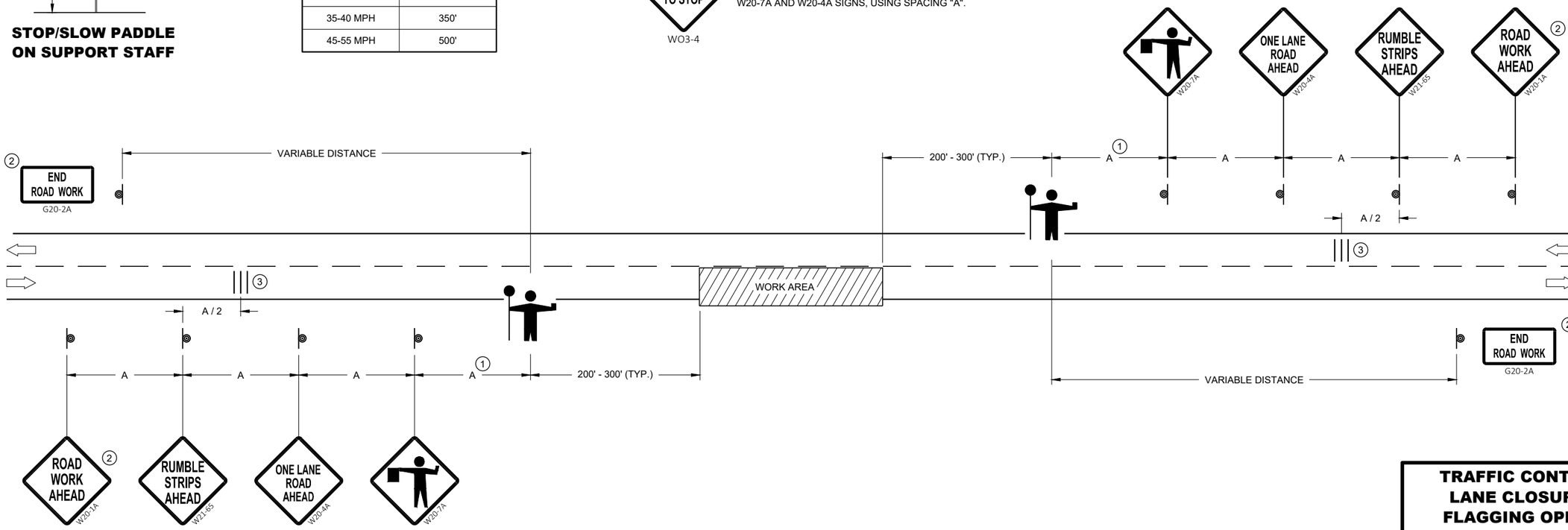
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C12 - 07

SDD 15C12 - 07

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

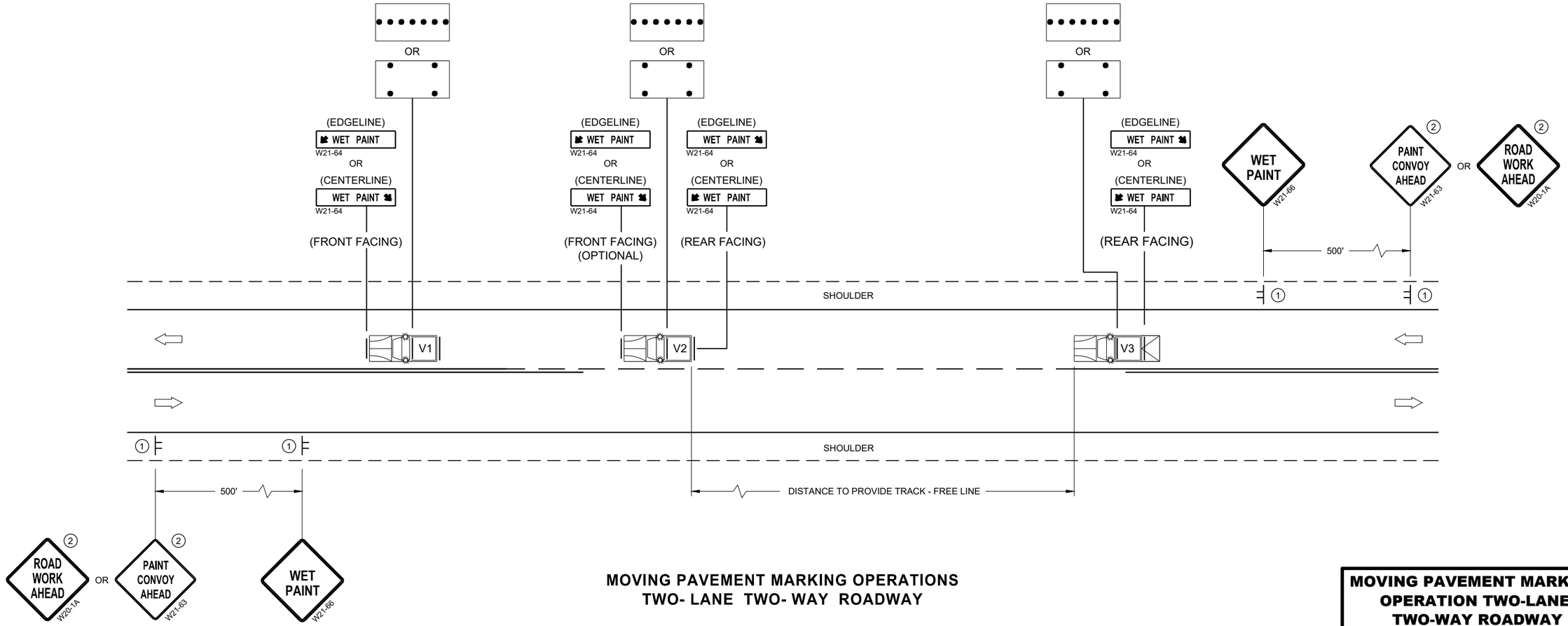
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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

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

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



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

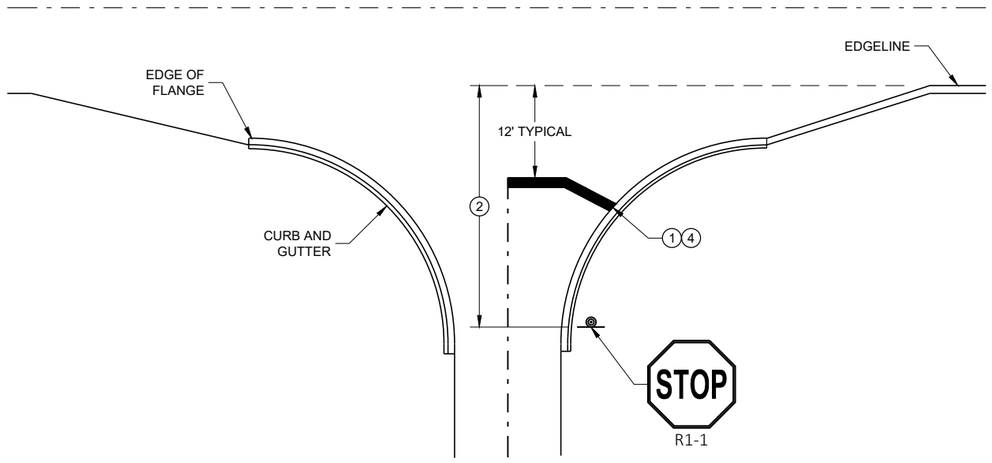
SDD 15C19 - 06a

SDD 15C19 - 06a

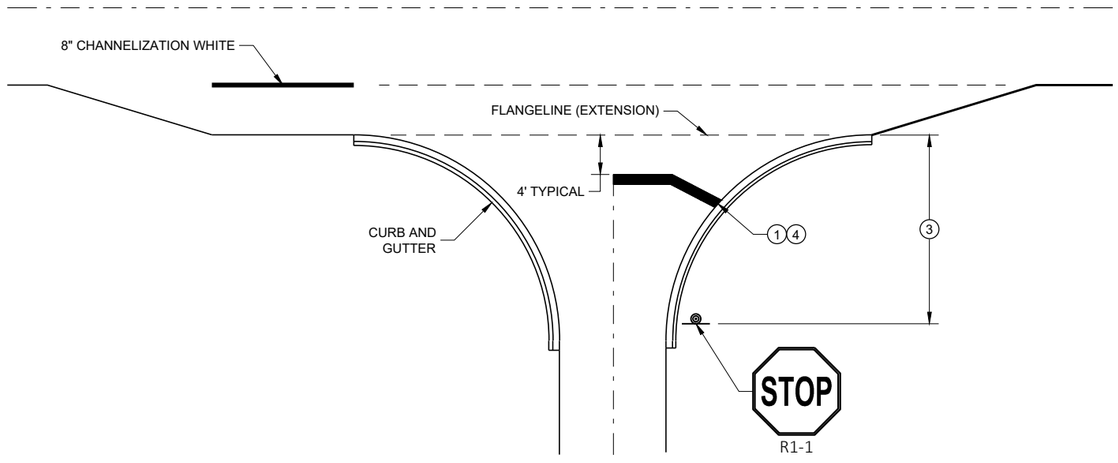
GENERAL NOTES

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

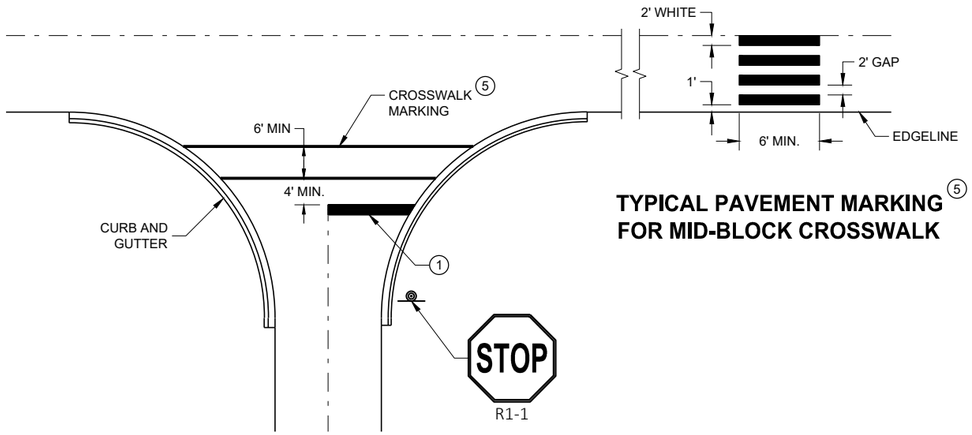
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

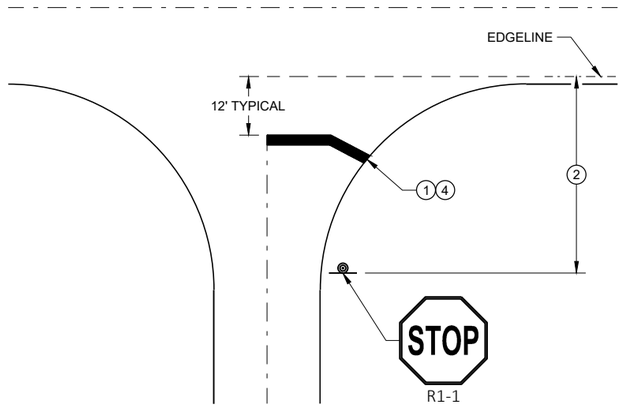


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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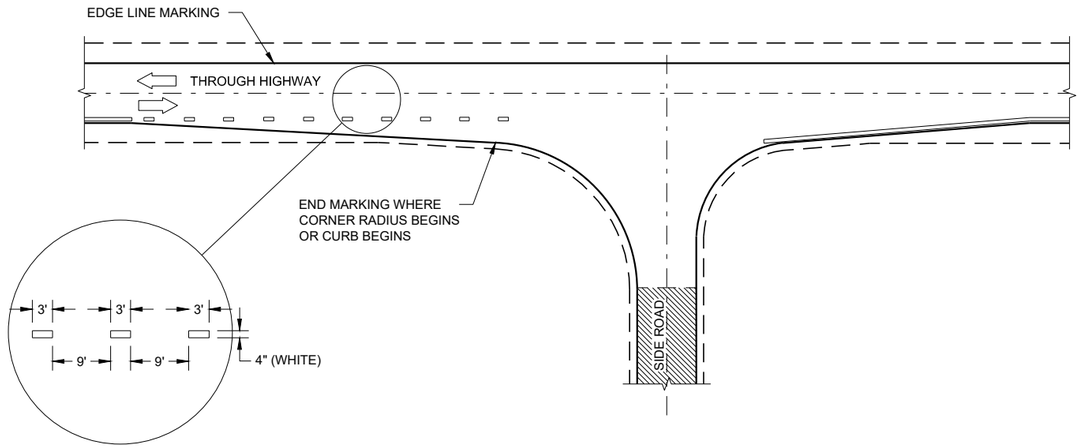
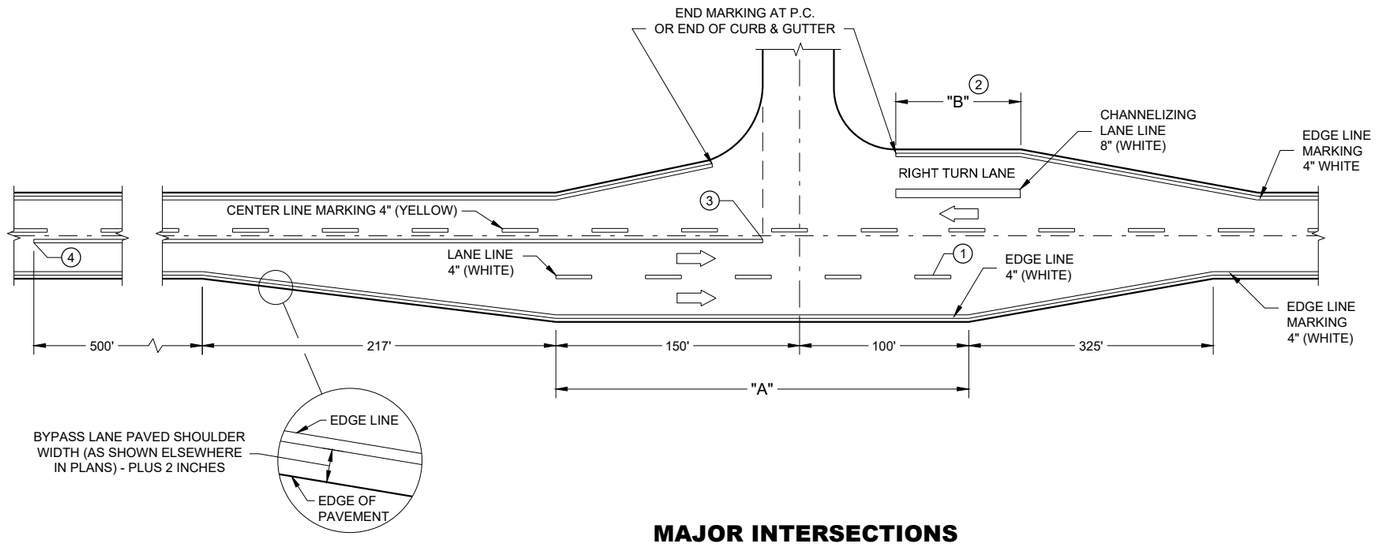
SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

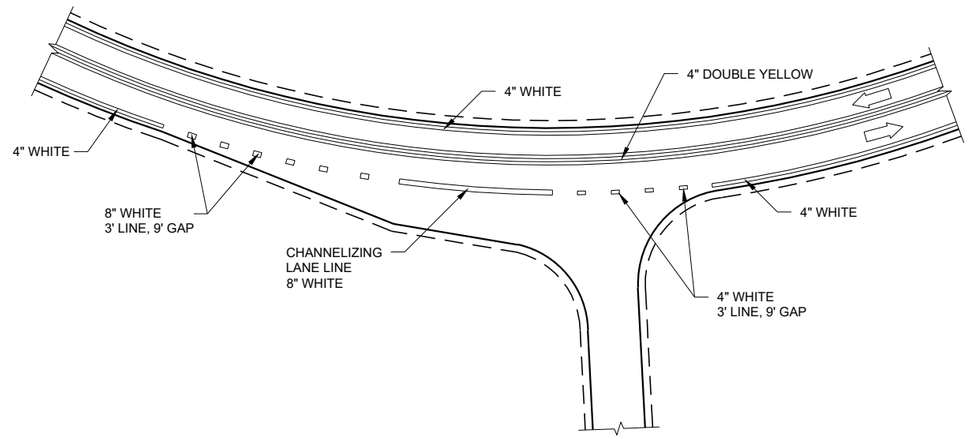
GENERAL NOTES

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
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04a

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SDD 15C35 - 04a

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.

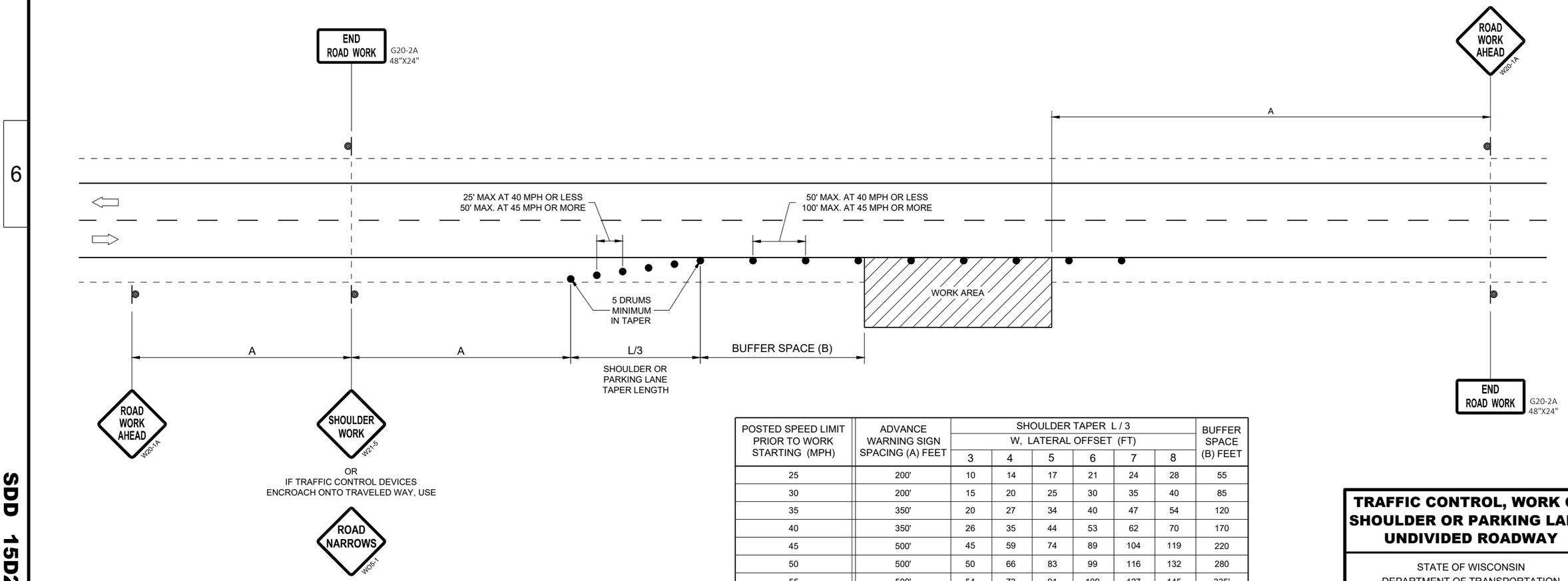
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

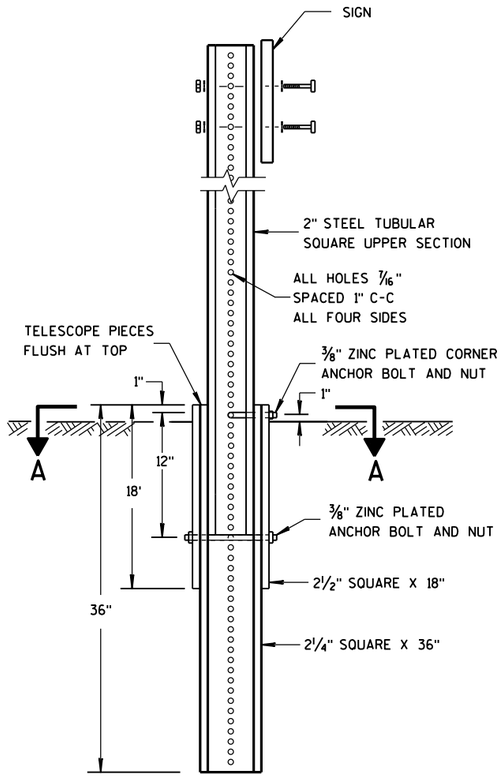
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

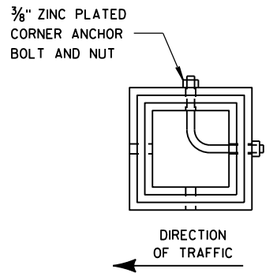
FHWA

SDD 15D28 - 04

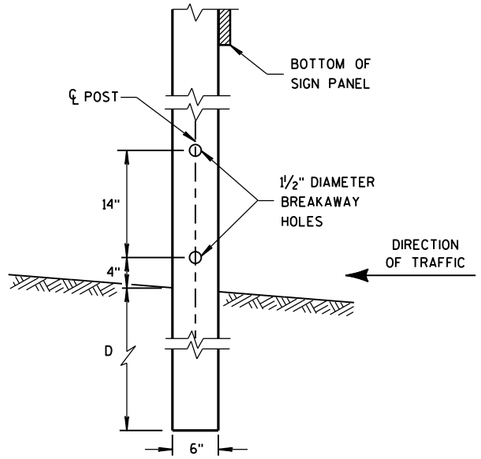
SDD 15D28 - 04



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



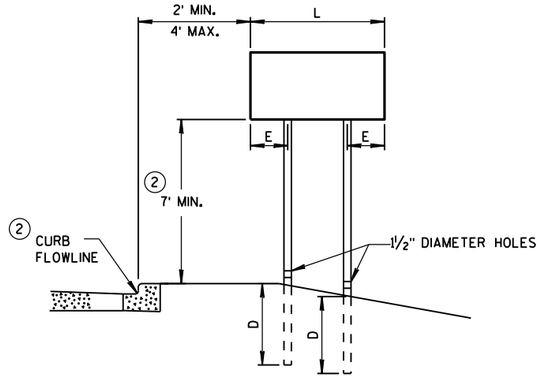
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

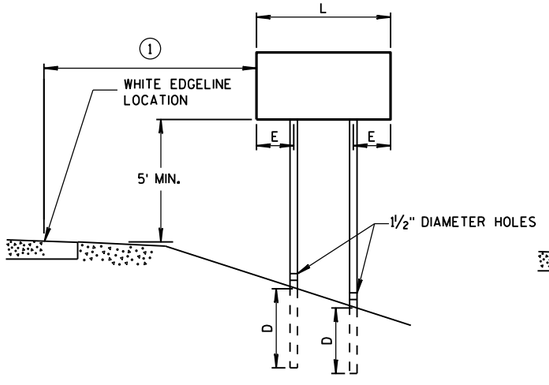
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

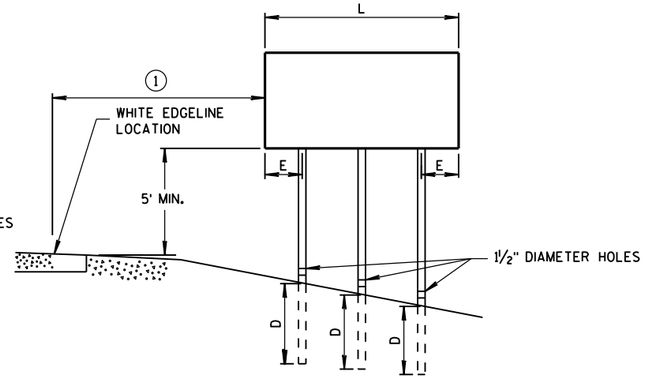
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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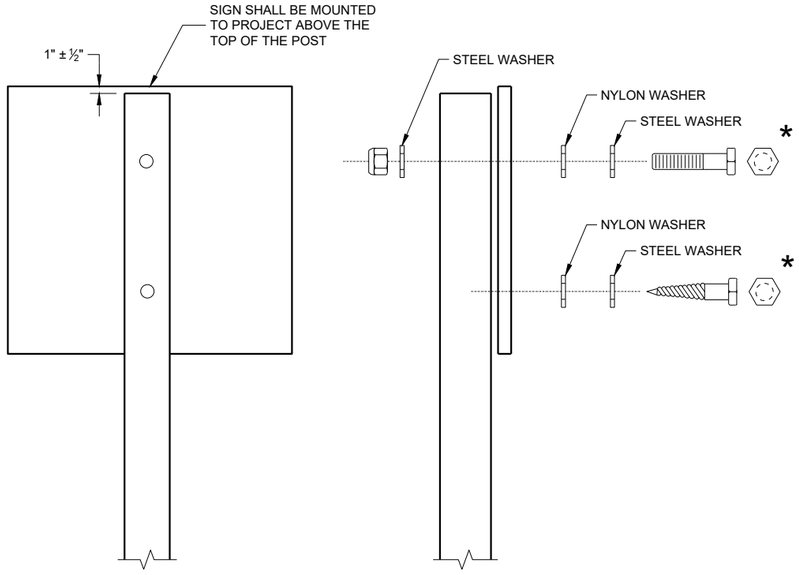
S.D.D. 15 D 38-2a



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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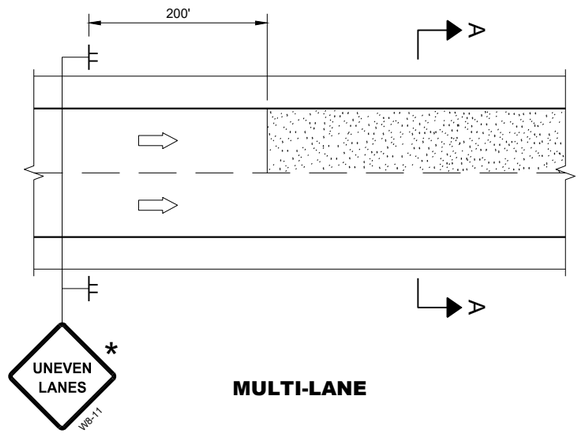
SDD 15D38 - 02b

SDD15D38 - 02b

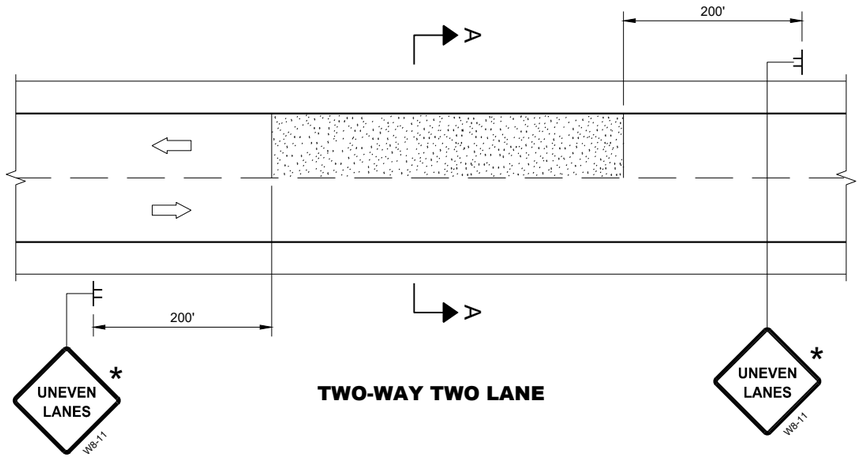
ATTACHMENT OF SIGNS TO POSTS

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.

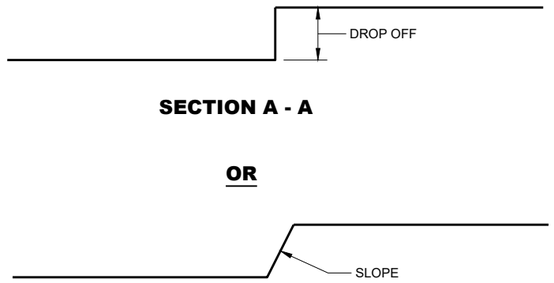
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

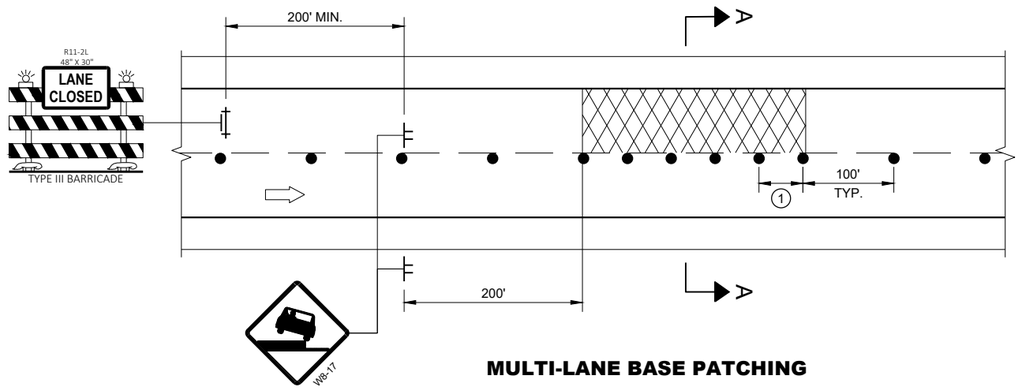
* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

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

LEGEND

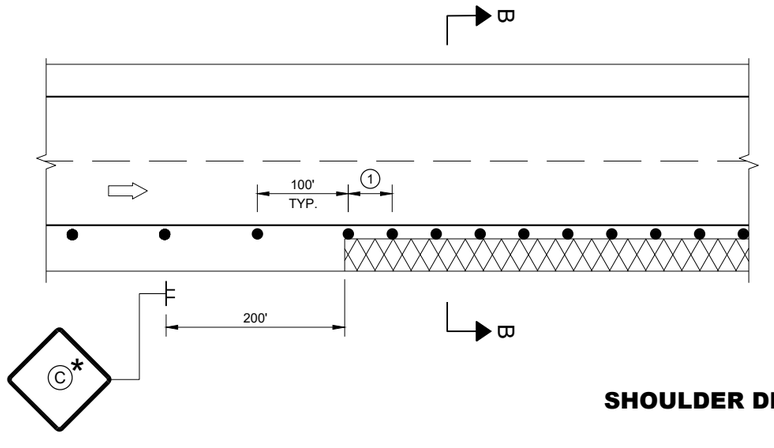
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



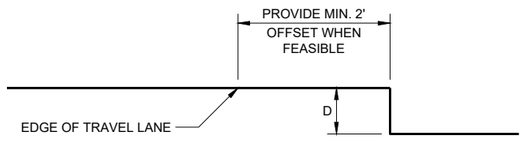


MULTI-LANE BASE PATCHING

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.

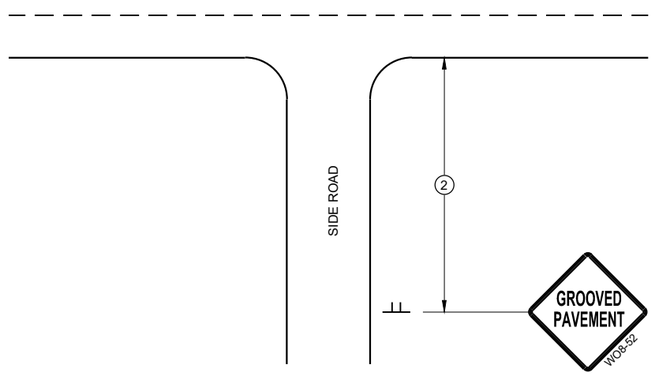
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

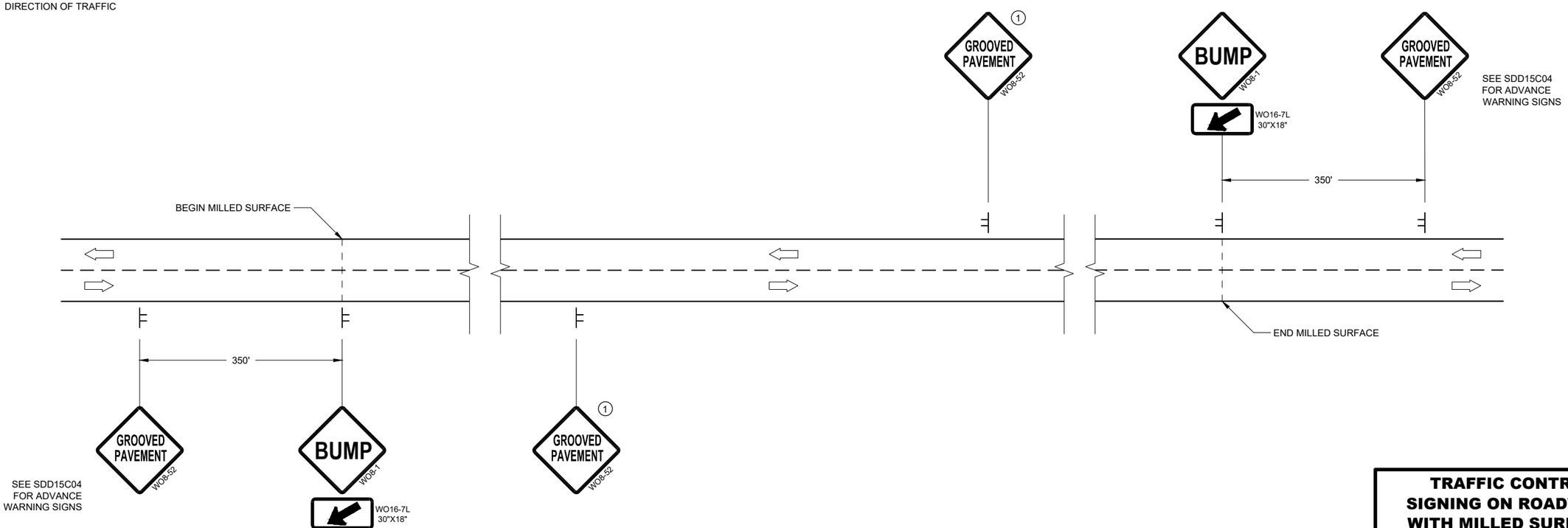
LEGEND

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 ENGINEER

FHWA

6
SDD 15D44 - 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.

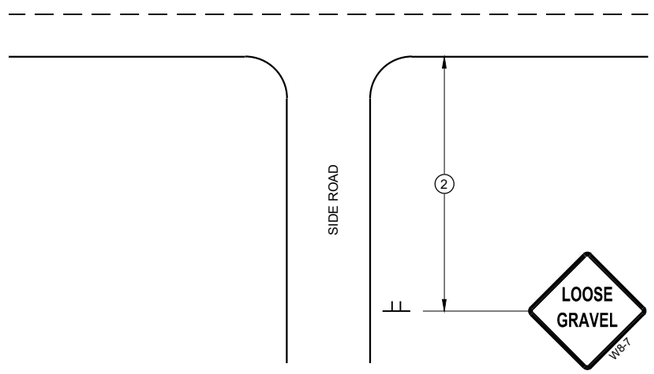
(1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

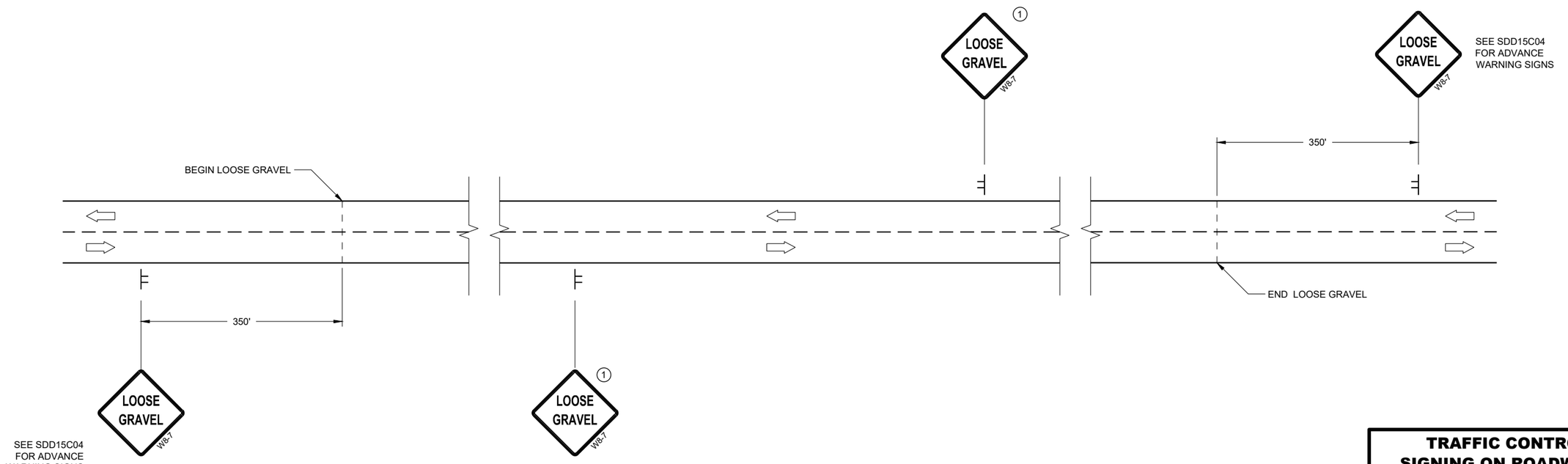
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

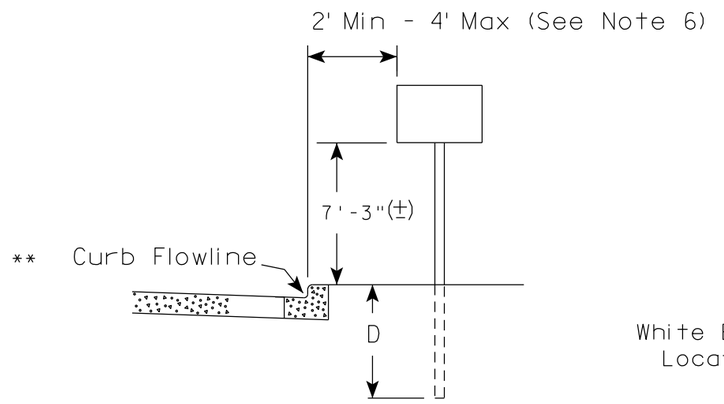
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

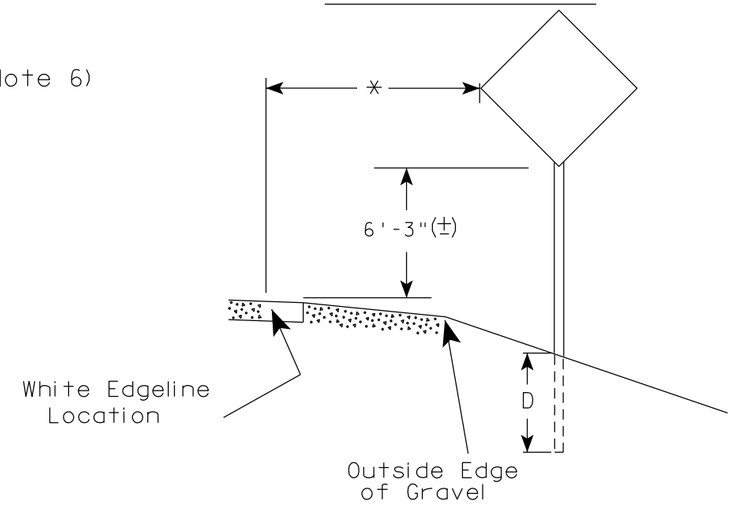
6

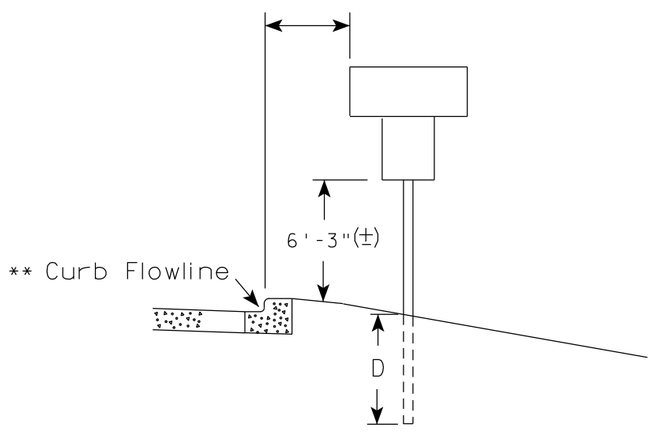
SDD 15D45 - 02

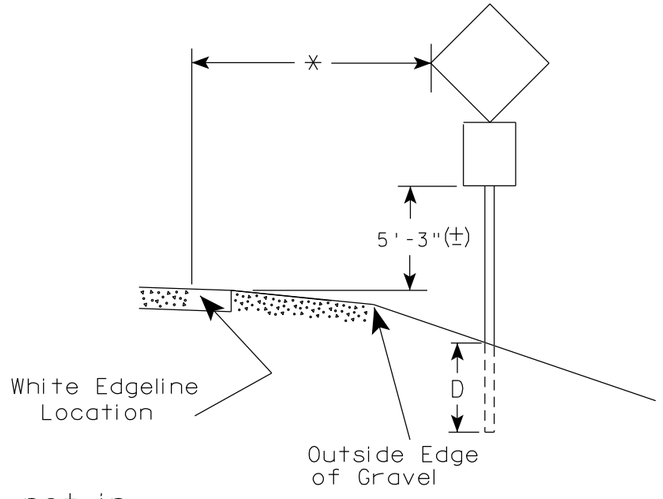
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

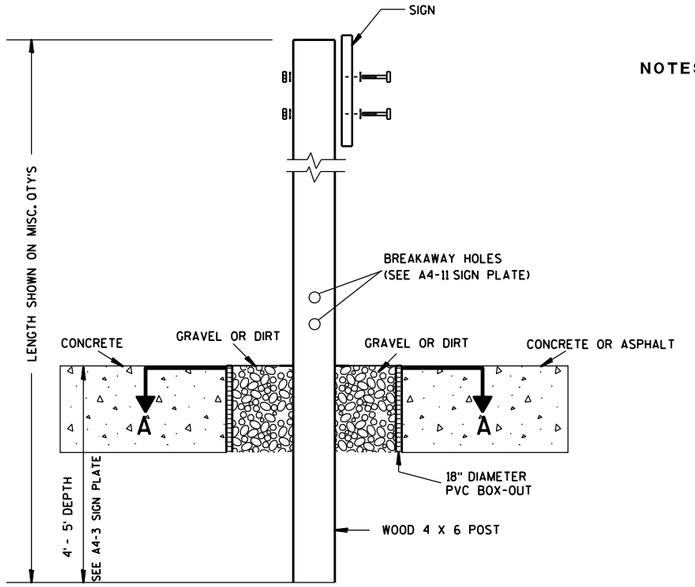
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

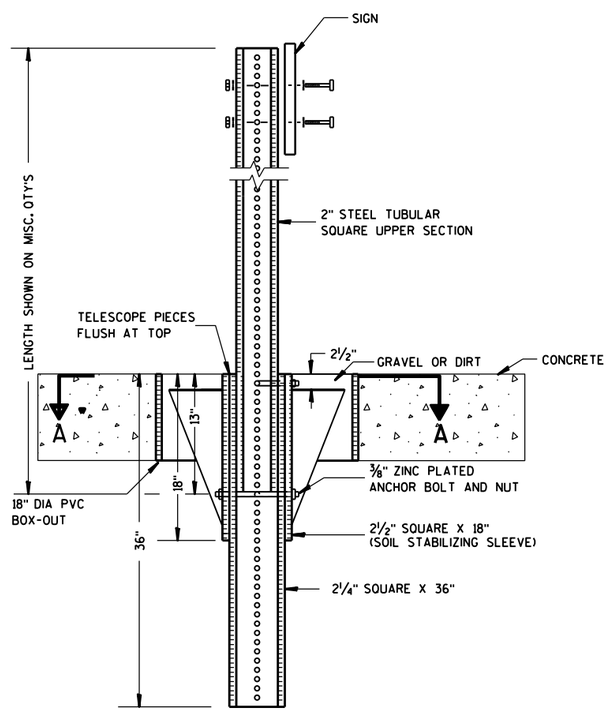
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 92	E



ELEVATION VIEW

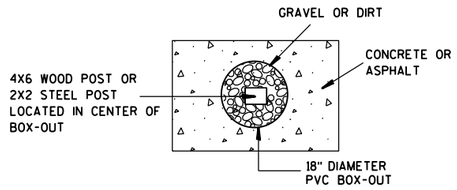
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

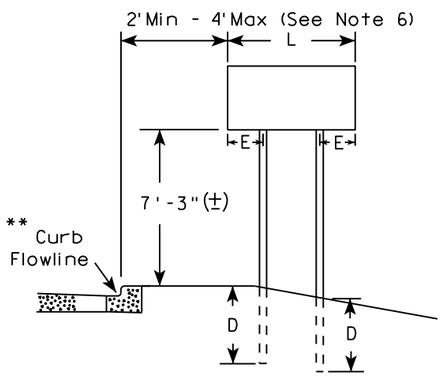
APPROVED Matthew R Rauch
for State Traffic Engineer

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

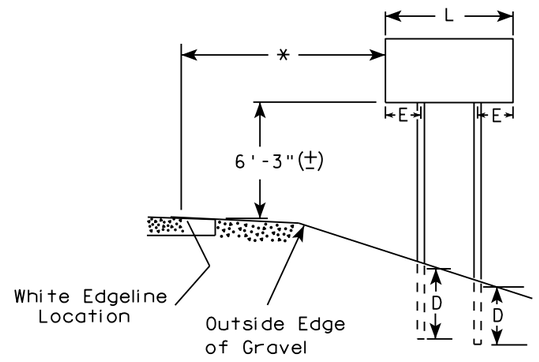
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

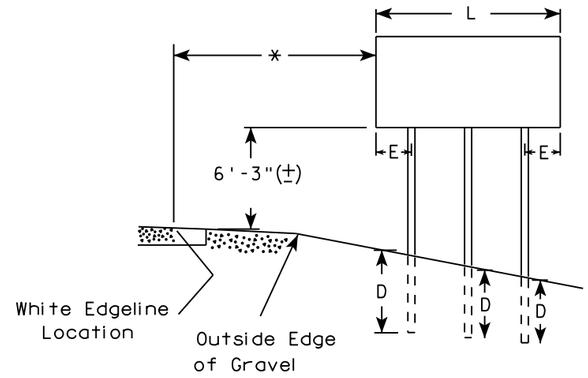
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

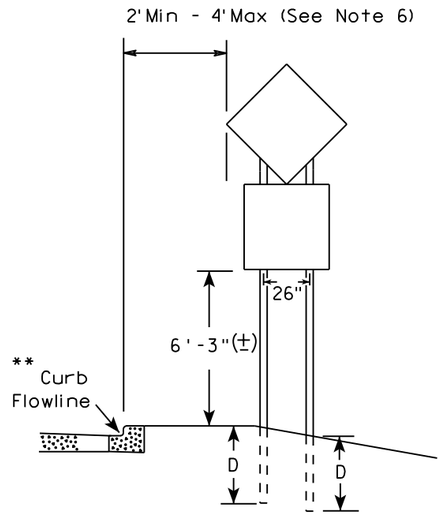
URBAN AREA



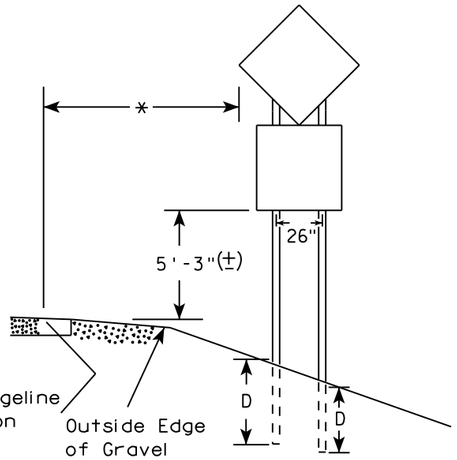
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

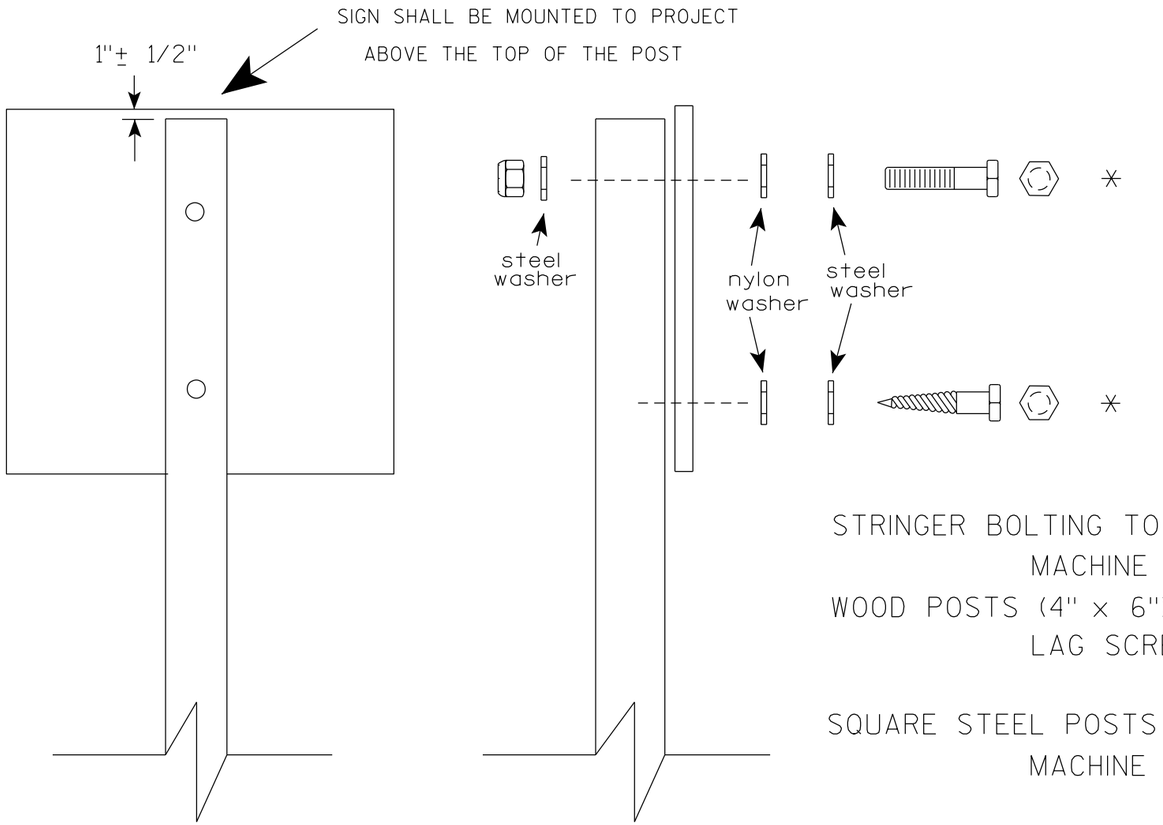
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

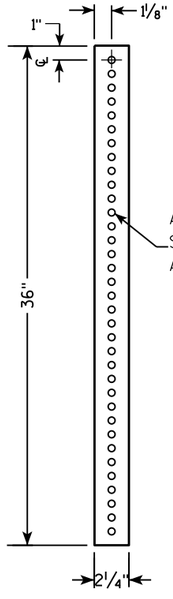
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

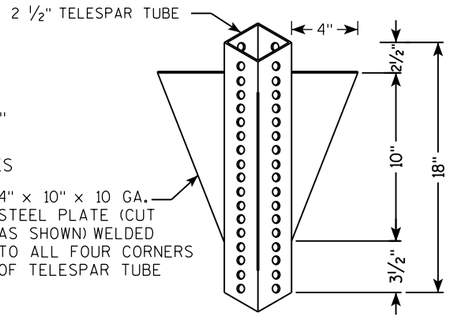
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

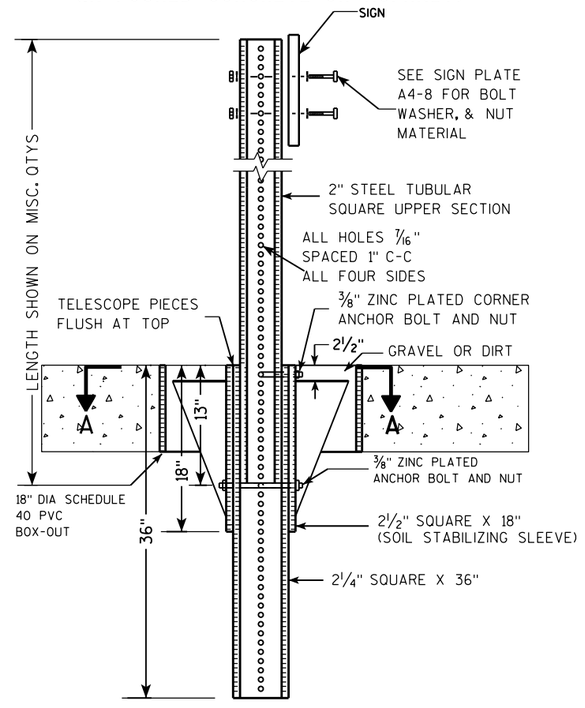
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



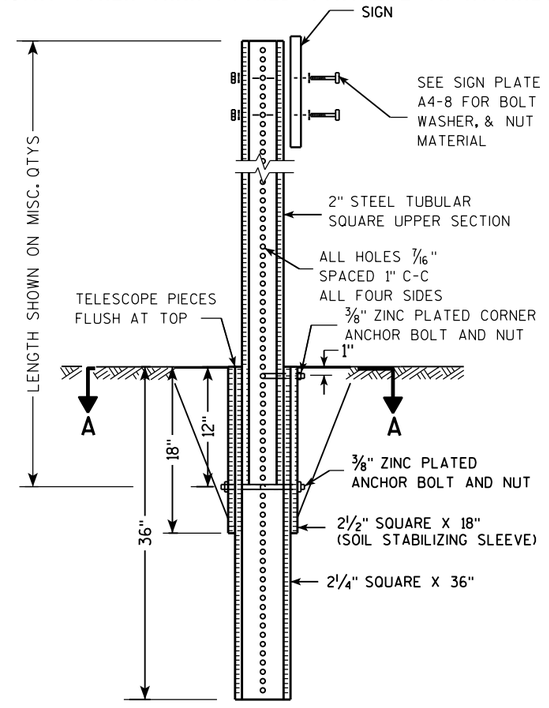
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

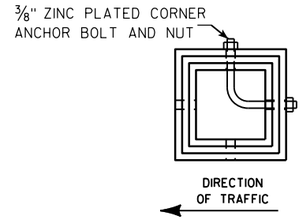


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

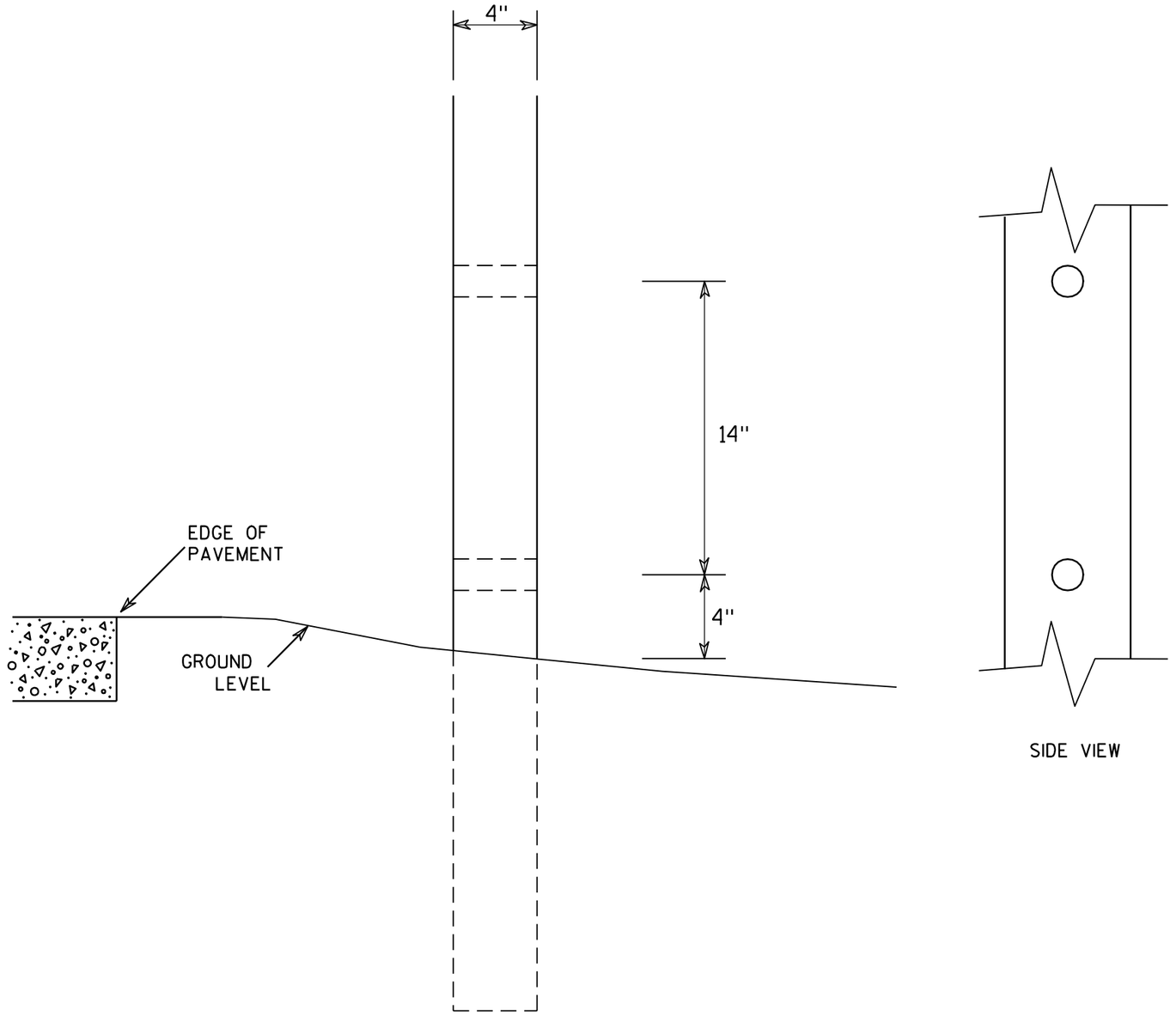
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 96 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

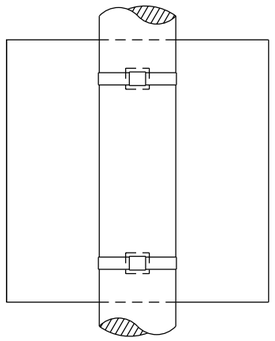
APPROVED Chester J Spang for State Traffic Engineer

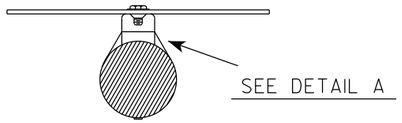
DATE 3/27/97 PLATE NO. A4-11.2

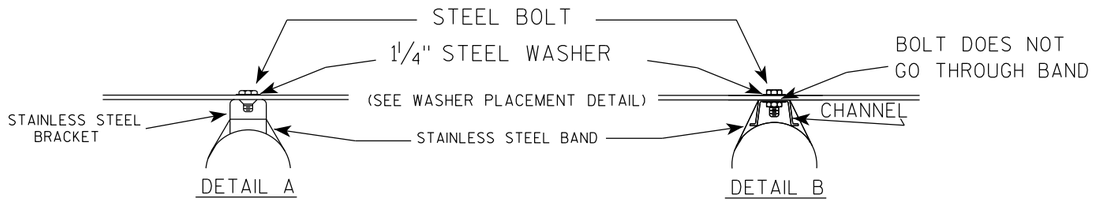
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 97	E

BANDING

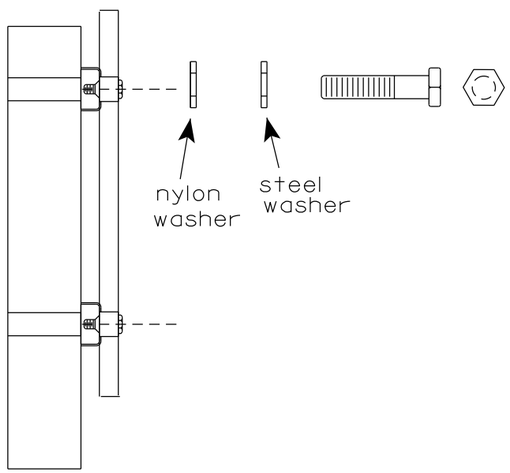
SINGLE SIGN







WASHER PLACEMENT

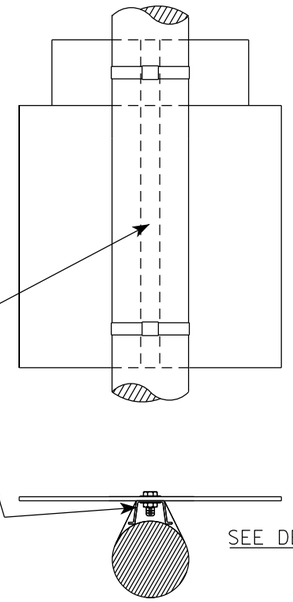


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

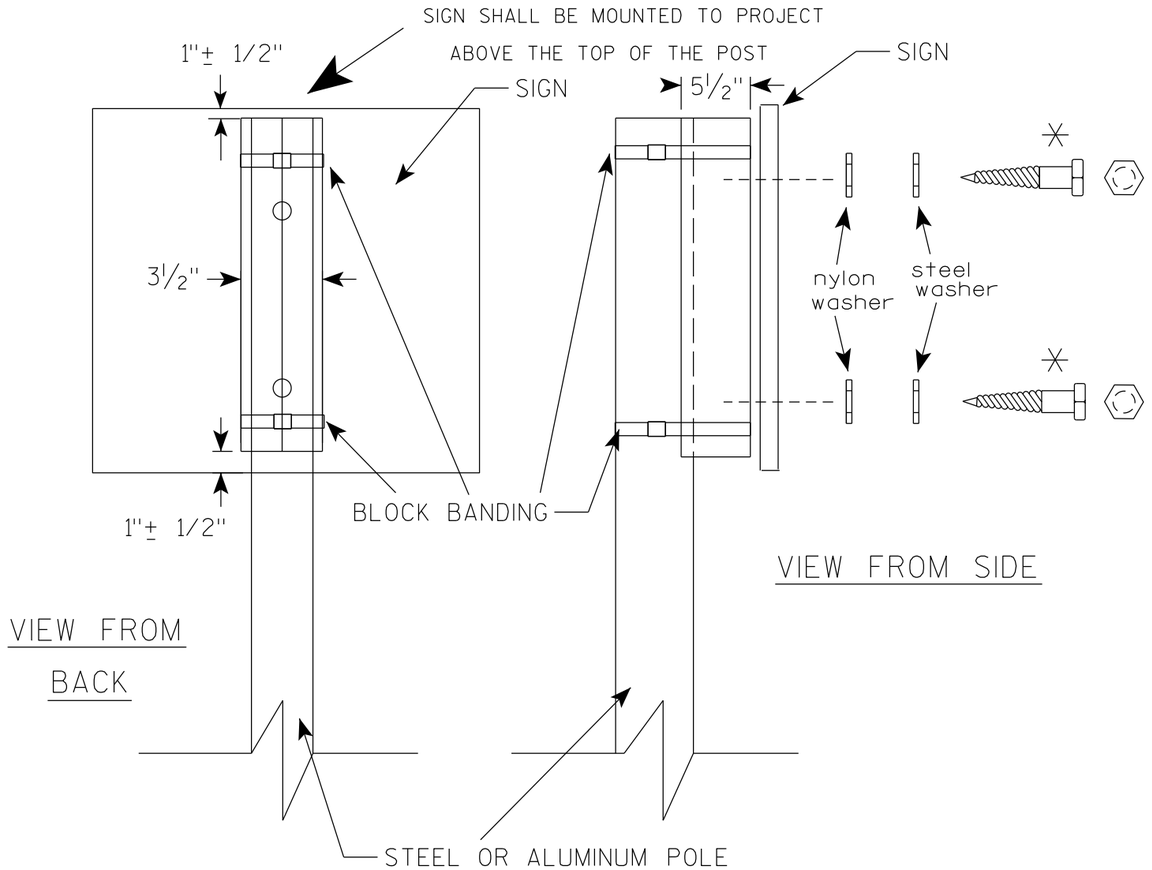
DATE 6/10/19 PLATE NO. A5-9.4

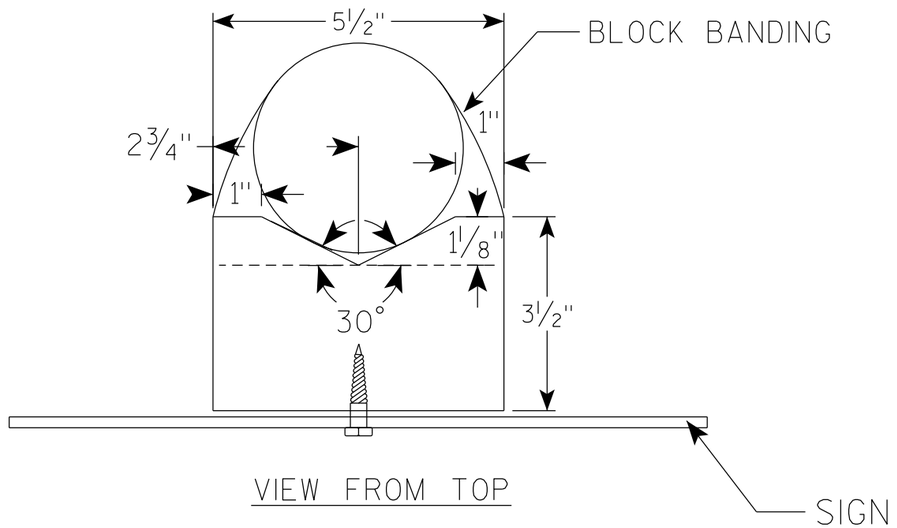
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

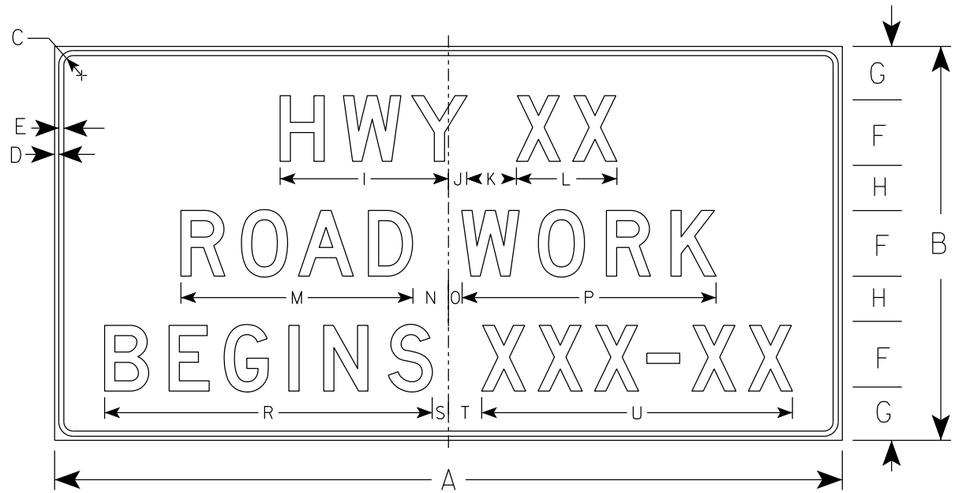
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 99 | E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/4	3 1/2	1 1/2	23 1/4		29 7/8	1 3/4	3 1/4	28 1/2						18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	4 3/8	1 5/8	31		39 1/4	2	4	37 7/8						32.0
5																											

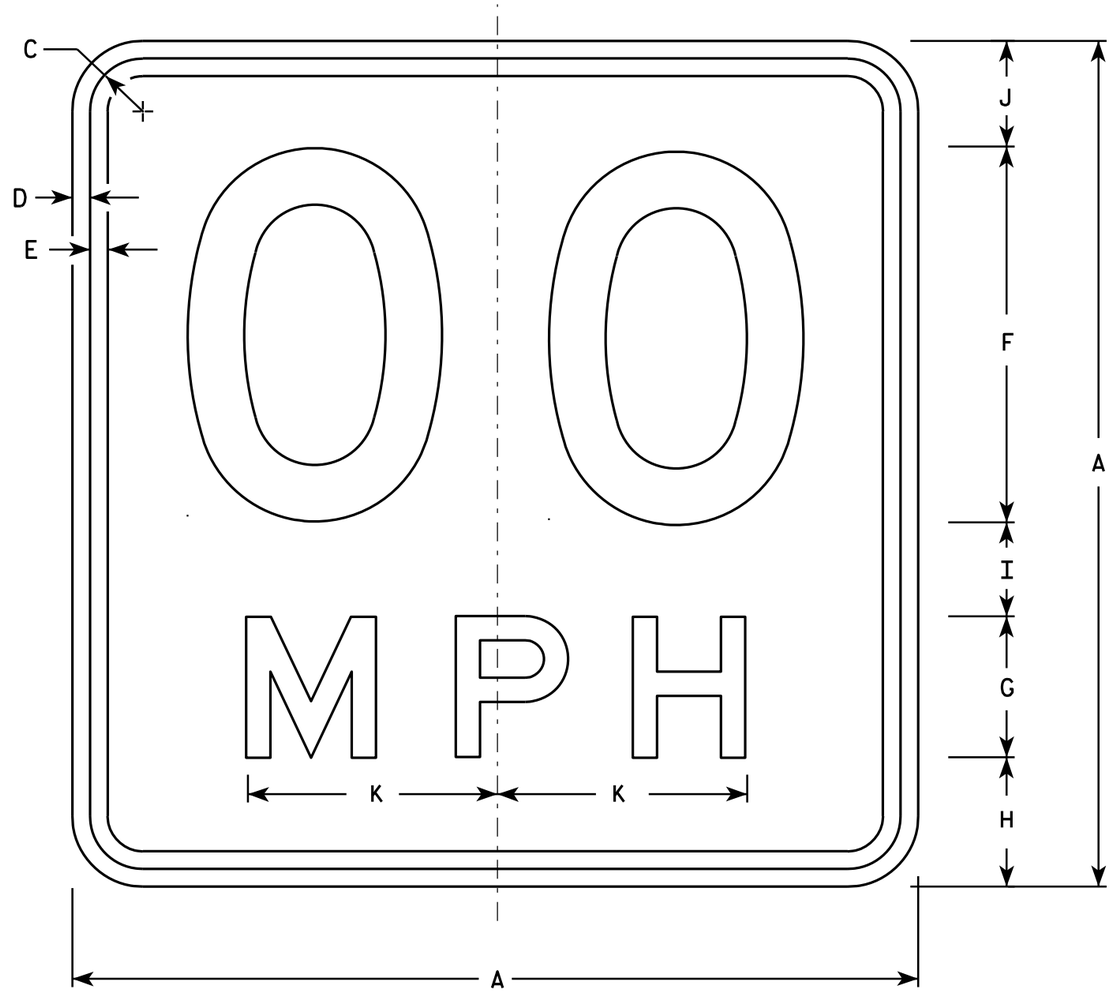
STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 100	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

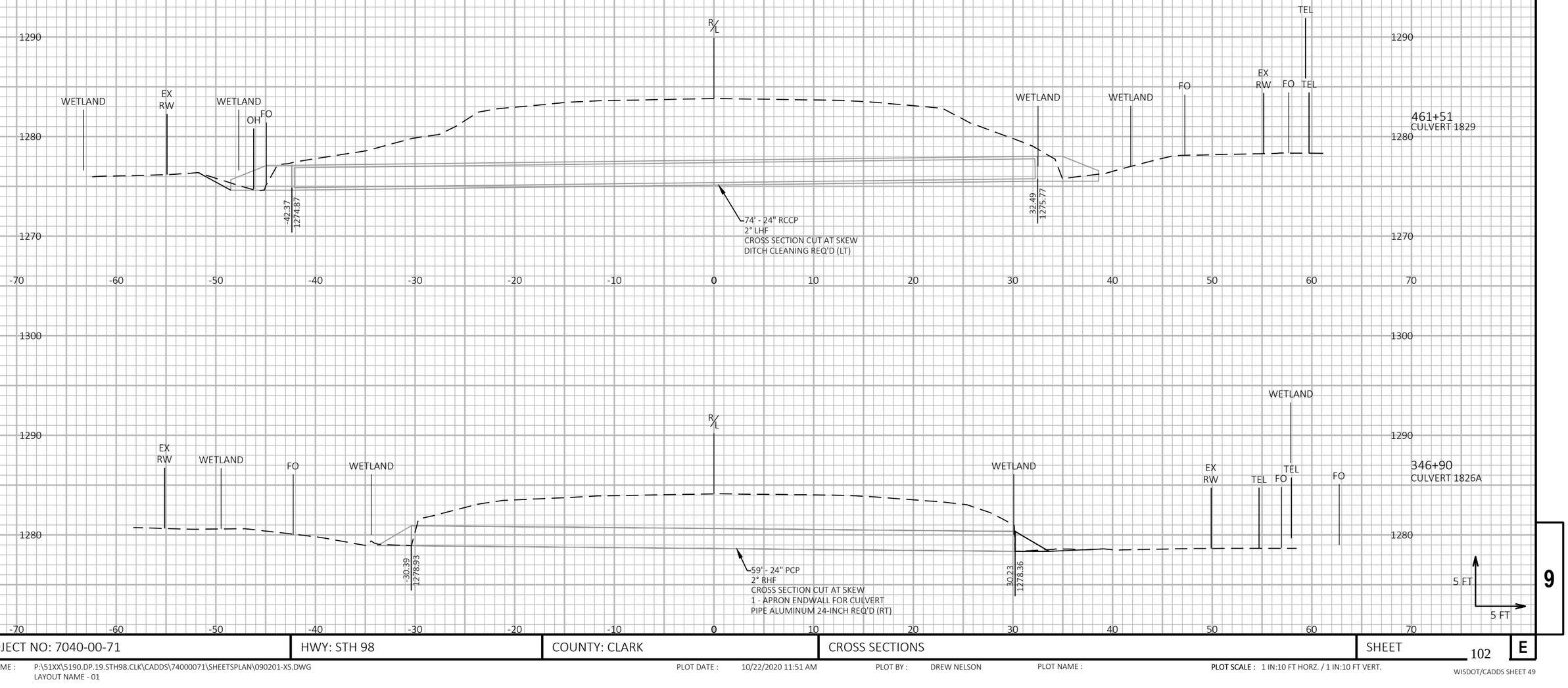
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 101 | E



9

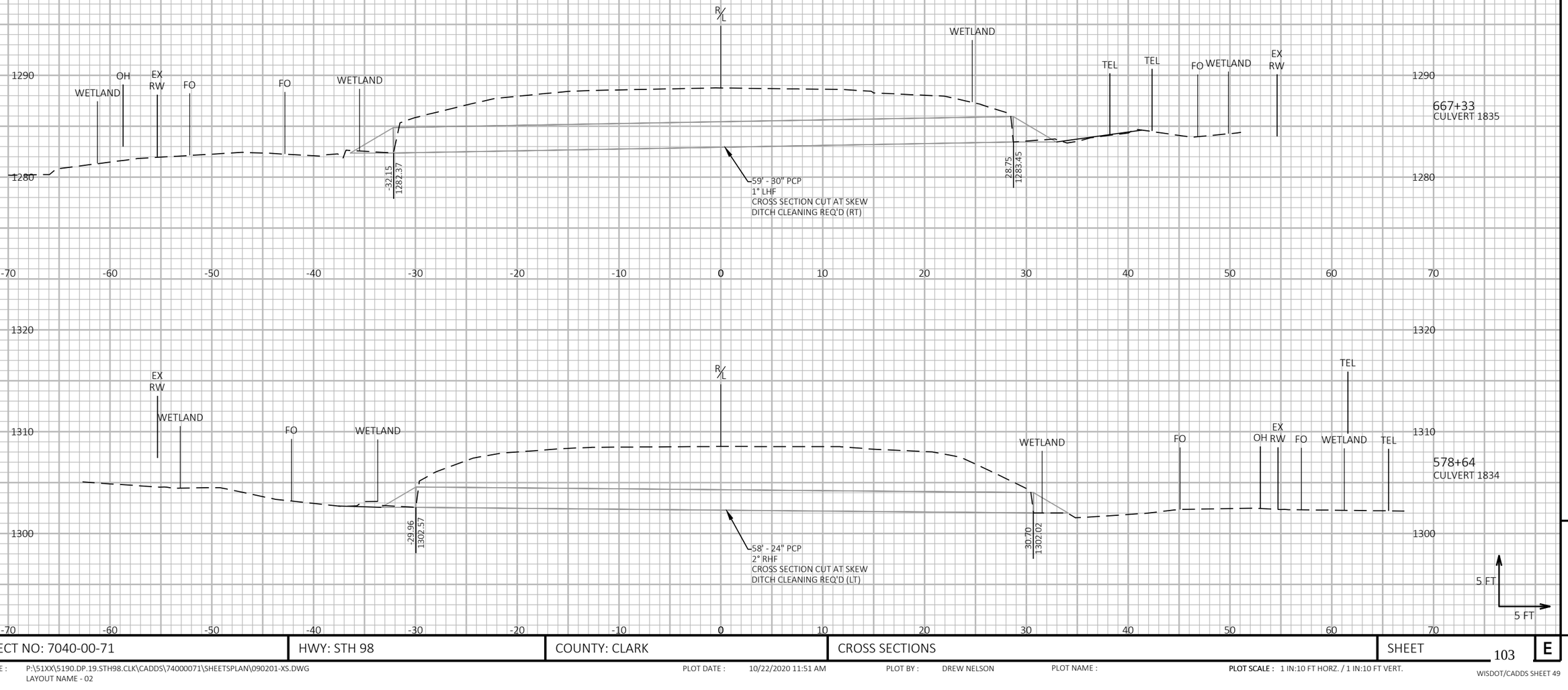
9

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CROSS SECTIONS	SHEET 102	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/22/2020 11:51 AM PLOT BY : DREW NELSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CROSS SECTIONS	SHEET 103	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

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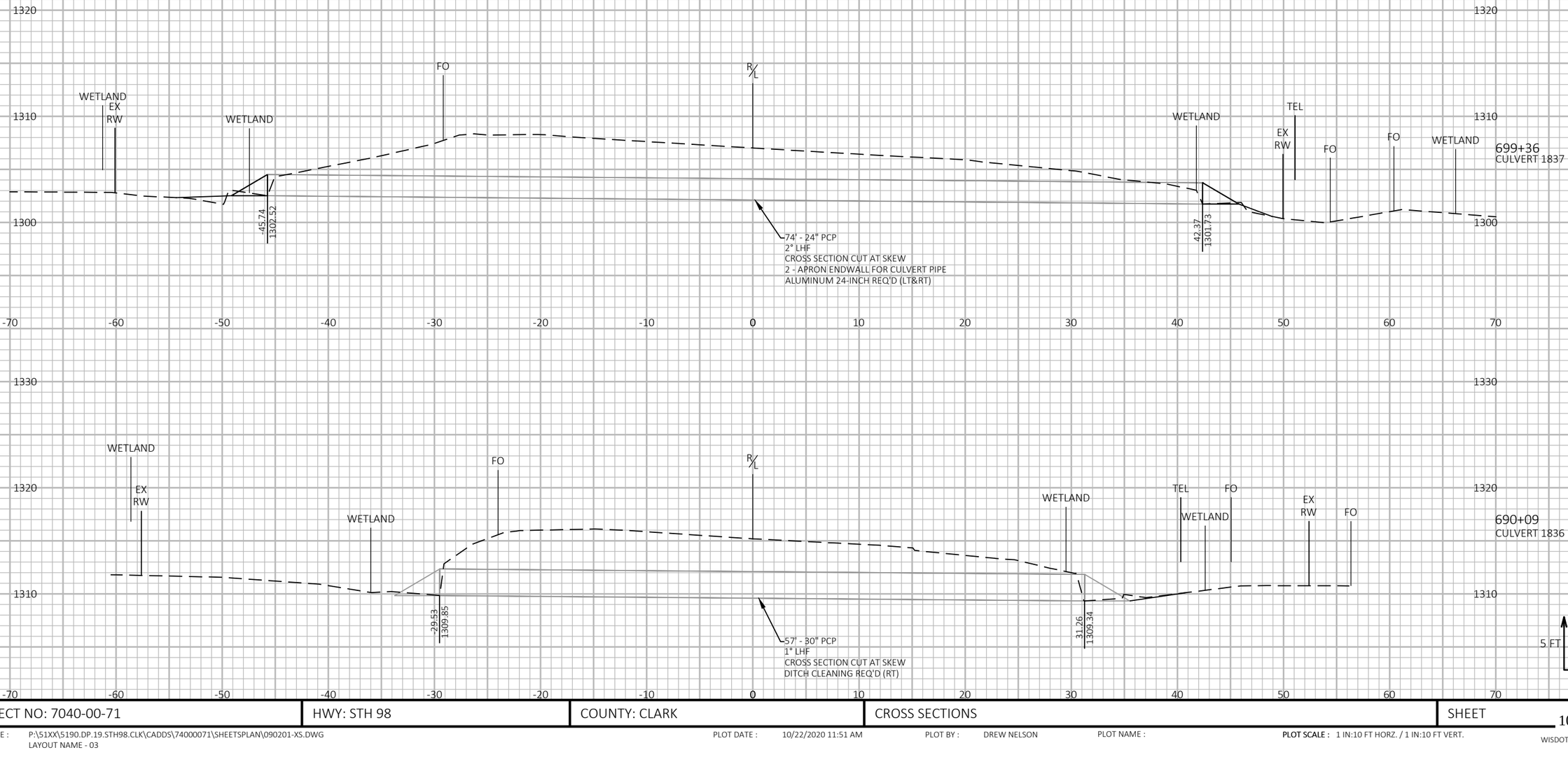
WISDOT/CADDS SHEET 49



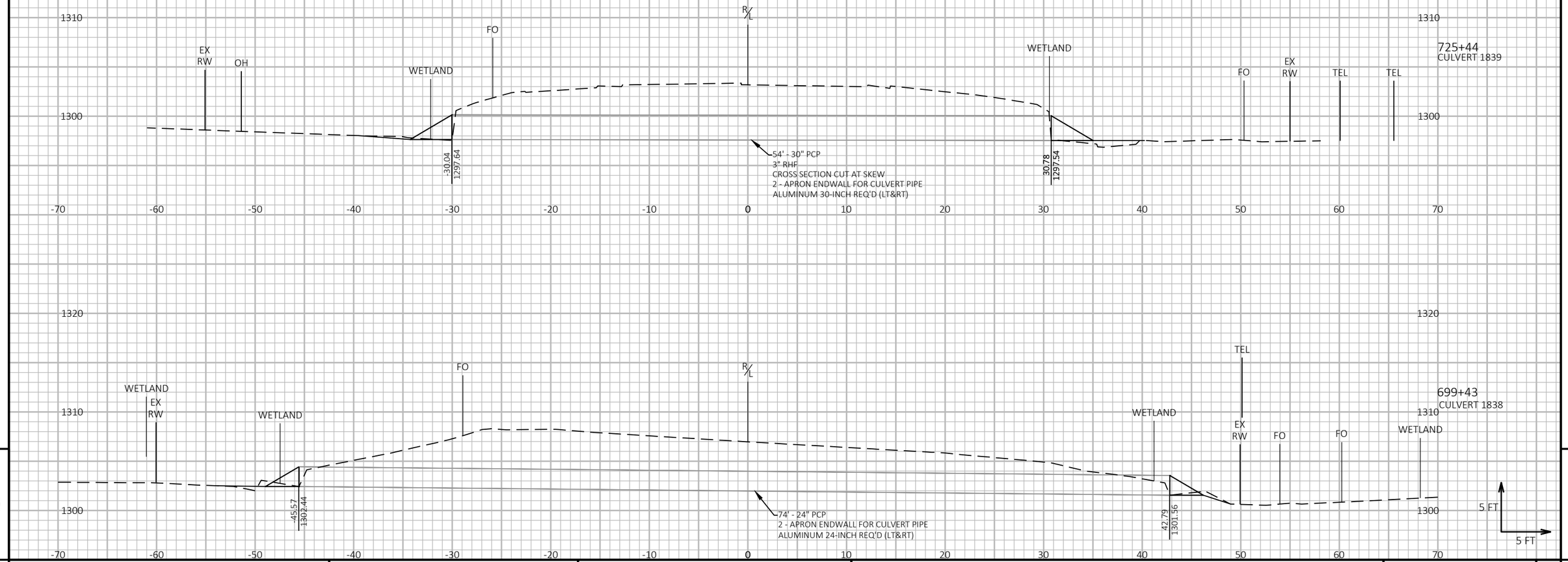
9 9

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CROSS SECTIONS	SHEET 104	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/22/2020 11:51 AM PLOT BY : DREW NELSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

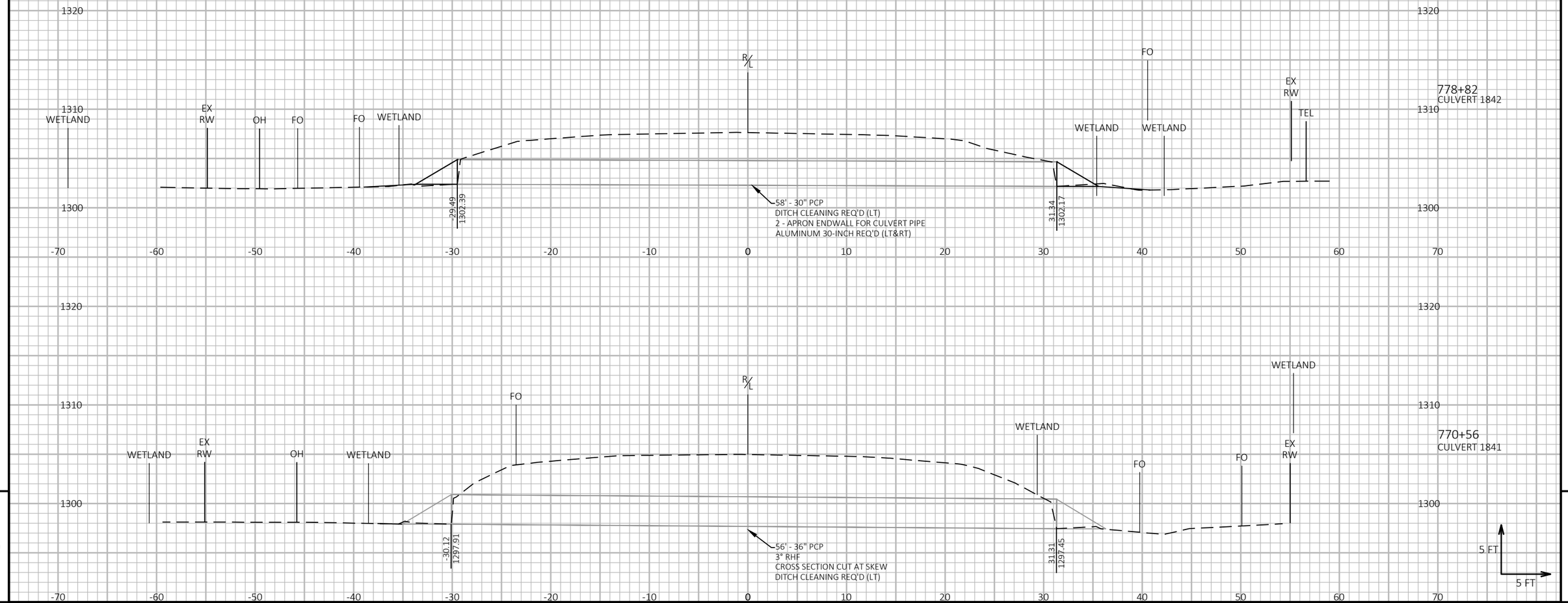
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CROSS SECTIONS	SHEET 105	E



9

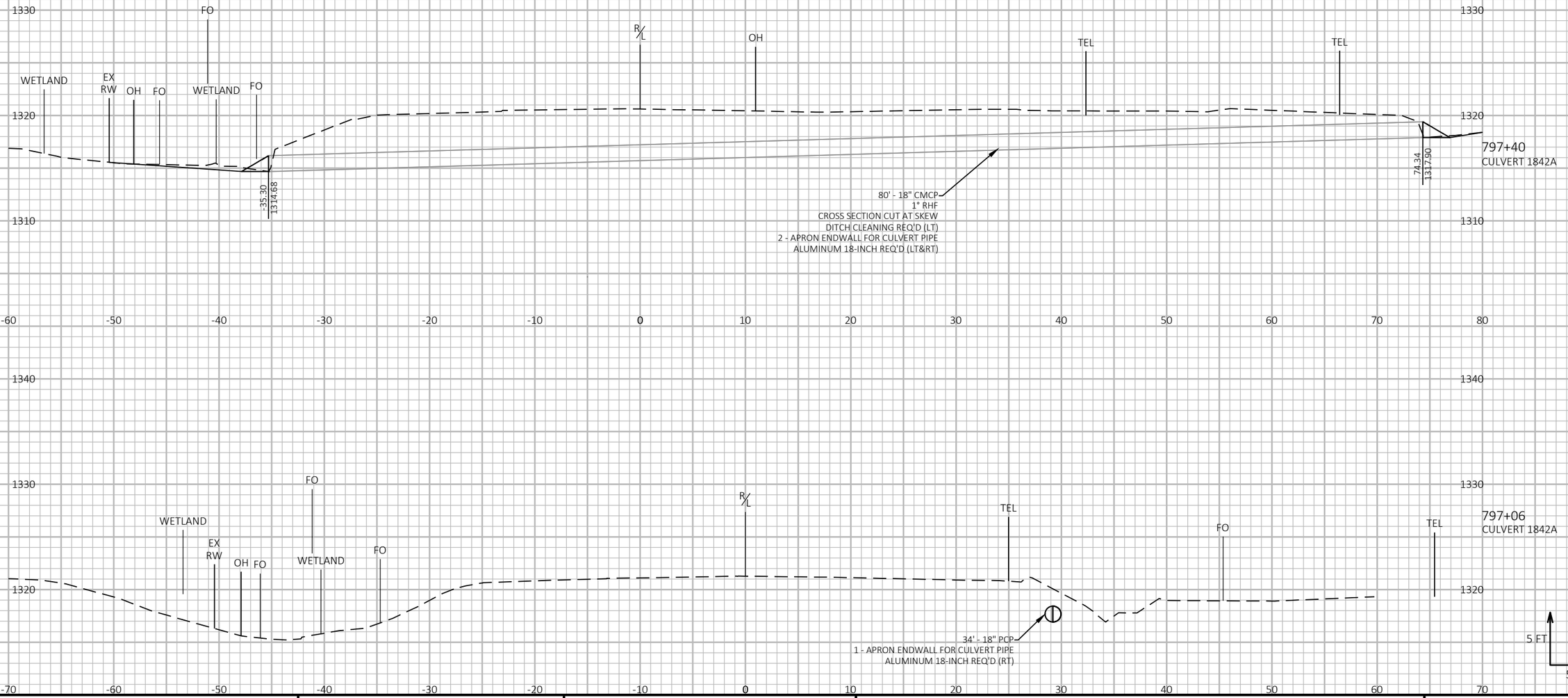
9

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CROSS SECTIONS	SHEET 106	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 10/22/2020 11:51 AM PLOT BY : DREW NELSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 7040-00-71	HWY: STH 98	COUNTY: CLARK	CROSS SECTIONS	SHEET 107	E

FILE NAME : P:\51XX\5190.DP.19.STH98.CLK\CADDS\74000071\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 10/22/2020 11:51 AM PLOT BY : DREW NELSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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