SUP

MAY 2019

PROJECT ID: 1550-04-73/75

WITH: 1550-06-74, 1550-22-71

COUNTY: WASHBURN

ORDER OF SHEETS

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

TOTAL SHEETS = 46



N

DESIGN DESIGNATION 1550-04-30

A.A.D.T.	2019	=	5,440
A.A.D.T.	2039	=	6,270
D.H.V.	2039	=	850
D.D.		=	61/39
T.		=	11.0%
DESIGN SPEED		=	35-55 MPH
ESALS		=	1,400,000

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CUMBERLAND - SPOONER

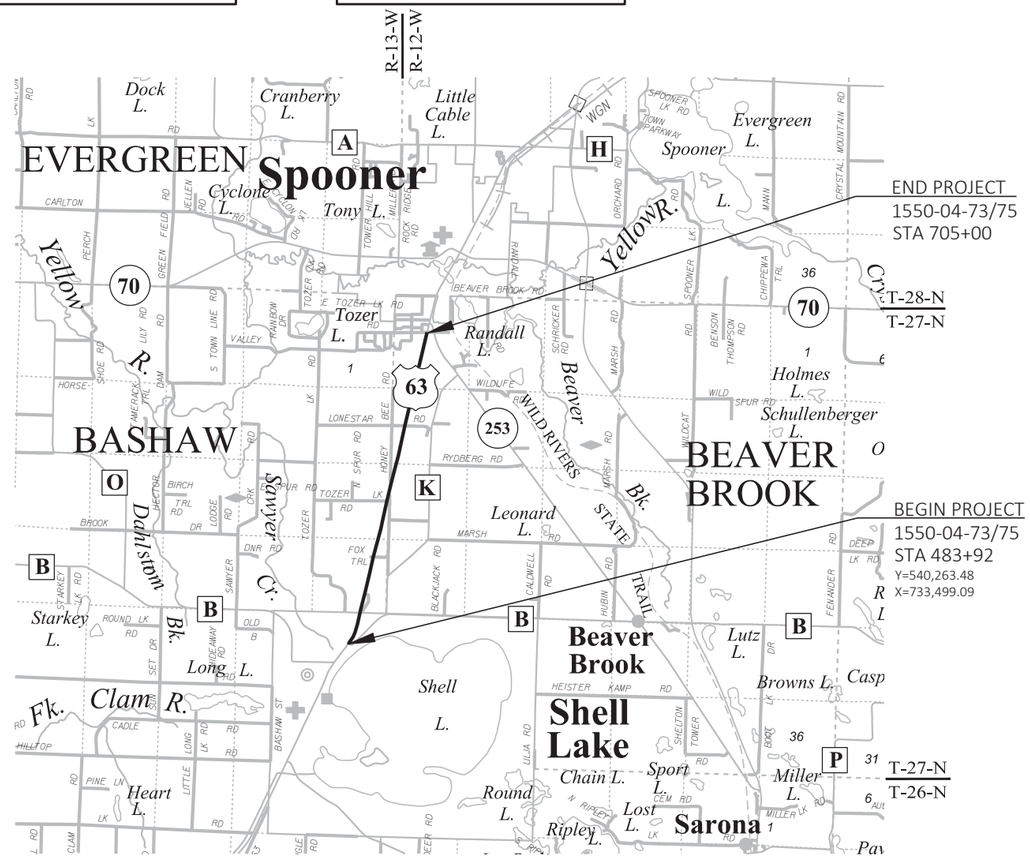
N JUNCTION CTH B TO GREEN VALLEY RD

USH 63

WASHBURN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1550-04-73	WISC 2019322	1
1550-04-75	WISC 2019323	1

STATE PROJECT NUMBER	STATE PROJECT NUMBER
1550-04-73	1550-04-75



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 4.187 Miles

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WASHBURN COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), 1991 ADJUSTMENT.

emcs inc

500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E-35808
WAUSAU, WI
PROFESSIONAL ENGINEER

12/31/18 (Date) Stephanie G. Christensen (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	BETH CUNNINGHAM, PE
Regional Examiner	BETH CUNNINGHAM, PE
Regional Supervisor	ANDREW STENSLAND, PE

APPROVED FOR THE DEPARTMENT

DATE: 1/2/19 (Signature)

E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500473\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 12/31/2018 8:29 AM

PLOT BY : DREW NELSON

PLOT NAME :

GENERAL NOTES

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

PROJECT ID 1550-04-75 INCLUDES WORK ASSOCIATED WITH SHOULDER PAVEMENT WIDENING (2-FEET) AND ASPHALTIC SHOULDER RUMBLE STRIPS. PROJECT ID 1550-04-73 INCLUDES ALL OTHER WORK. SEE MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 8549, CONSTRUCTION YEAR: 1934
PROJECT NO: 385C(3), CONSTRUCTION YEAR: 1939
PROJECT NO: 1550-01-71, CONSTRUCTION YEAR: 1983
PROJECT NO: 1550-15-60, CONSTRUCTION YEAR: 1998

PAVEMENT CORE LOG

CORE NO.	STATION	OFFSET	ASPHALTIC PAVEMENT THICKNESS (IN)
1	485+00	4' LT	6.75
2	500+00	9' RT	5
3	515+00	6' LT	6
4	530+00	5' RT	5.25
5	545+00	8' LT	5.5
6	560+00	6' RT	6.25
7	575+00	4' LT	5.5
8	590+00	8' RT	6
9	605+00	6' LT	5.5
10	620+00	4' RT	5.75
11	635+00	8' LT	5.5
12	650+00	6' RT	5.25
13	665+00	4' LT	5.5
14	680+00	8' RT	6
15	695+00	6' LT	6.25

UTILITIES

COMMUNICATIONS

CENTURYLINK
RUSSELL VANCE
135 N 21ST STREET
SUPERIOR, WI 54880
(715) 392-0045 (OFFICE)
(715) 919-8003 (MOBILE)
RUSSELL.VANCE@CENTURYLINK.COM

CHARTER COMMUNICATIONS
TOM HAASE
2304 S. MAIN ST.
RICE LAKE, WI. 54868
(715) 719-0564
(715) 418-9317
TOM.HAASE@CHARTER.COM

MOSAIC TELECOM
DENNIS RUSSETT
401 S. 1ST ST.
CAMERON, WI 54822
(715) 458-5378 OFFICE
(715) 458-5518 MOBILE
CTCDENNIS@MOSAICTELECOM.COM

ELECTRIC - DISTRIBUTION

BARRON ELECTRIC COOPERATIVE
SCOTT DEVOE
1550 PAULSON DRIVE
SPOONER, WI 54801
(715) 637-6131
SDEVOE@BARRONELECTRIC.COM

XCEL ENERGY
STACEY HAUGEN
2911 S. PIONEER AVE.
RICE LAKE, WI 54868
(715) 579-9710
STACEY.RAETHER@XCELENERGY.COM

GAS/PETROLEUM

WE ENERGIES
RYAN MIENTKE
1921 S. 8TH ST.
WISCONSIN RAPIDS, WI 54494
(715) 421-7249 OFFICE
(715) 421- 9293 MOBILE
RYAN.MIENTKE@WE-ENERGIES.COM
EMERGENCY 24-HOUR DISPATCH 1-800-261-5325

WATER

SHELL LAKE MUNICIPAL UTILITIES
MITCH BROWN
P.O. BOX 520
SHELL LAKE, WI 54871-0520
(715) 468-7679 OFFICE
(715) 416-0547 MOBILE
MITCHB@SHELLLAKE.ORG

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

ORDER OF SECTION 2 SHEETS

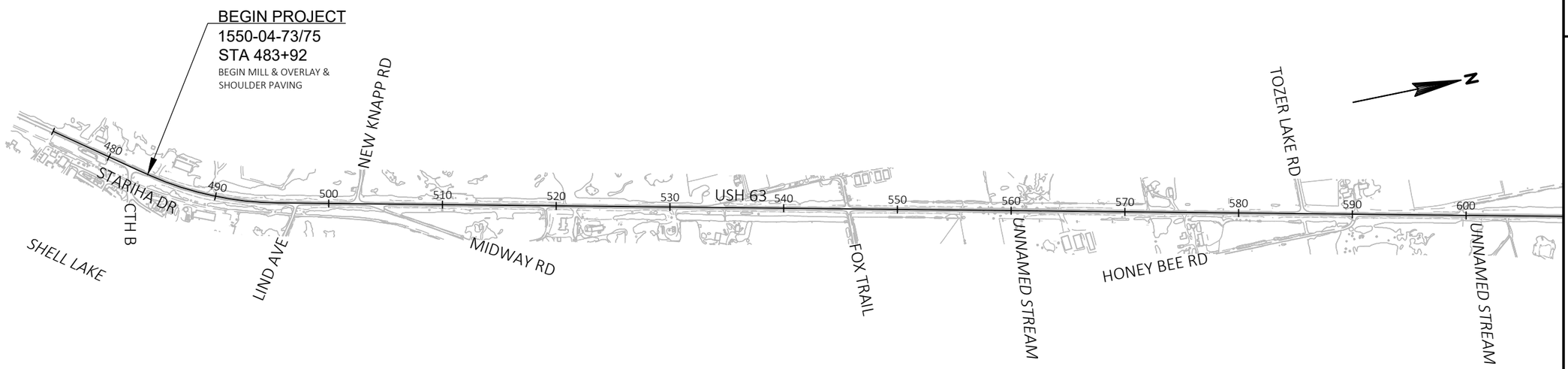
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
TRAFFIC CONTROL

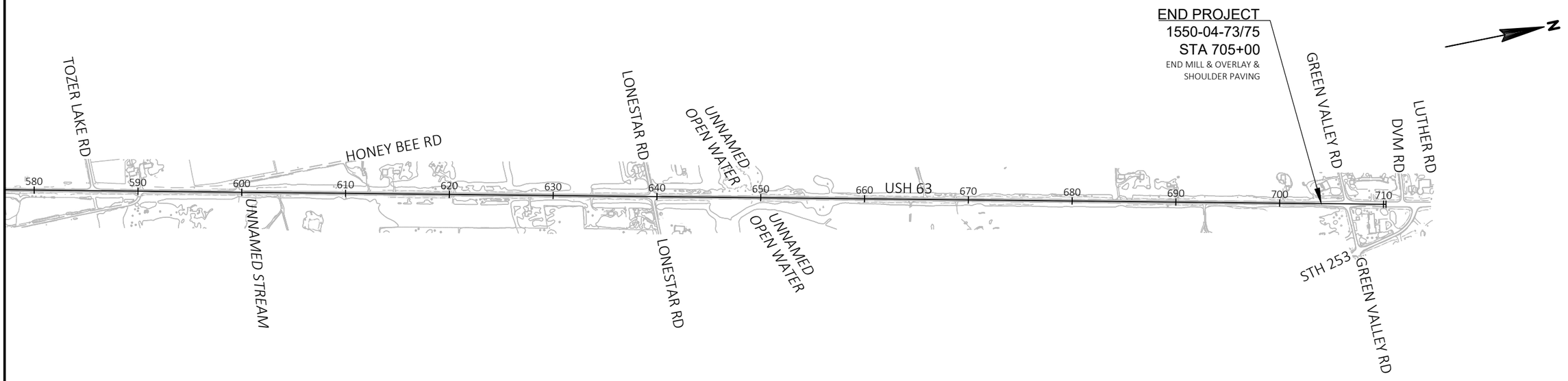
OTHER CONTACTS

DNR LIAISON

SHAWN HASELEU
810 W MAPLE ST
SPOONER, WI 54801
(715) 635-4228
SHAWN.HASELEU@WISCONSIN.GOV

2

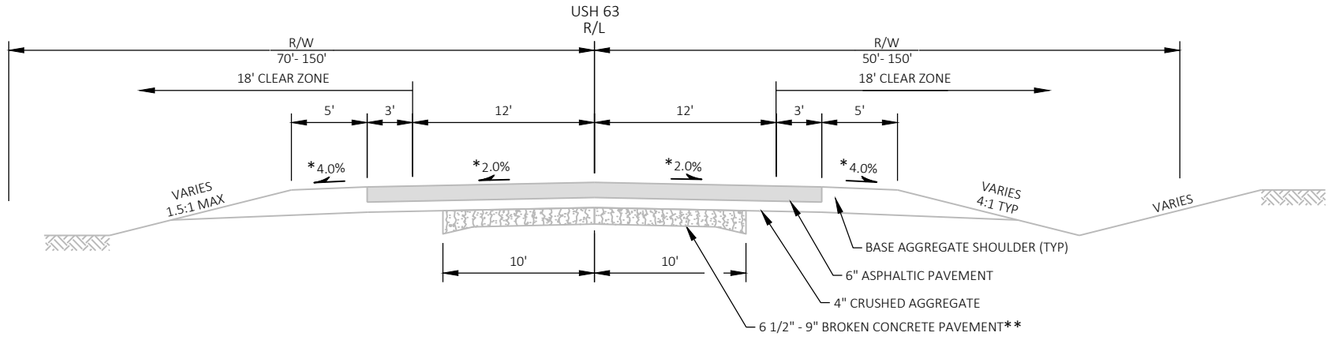




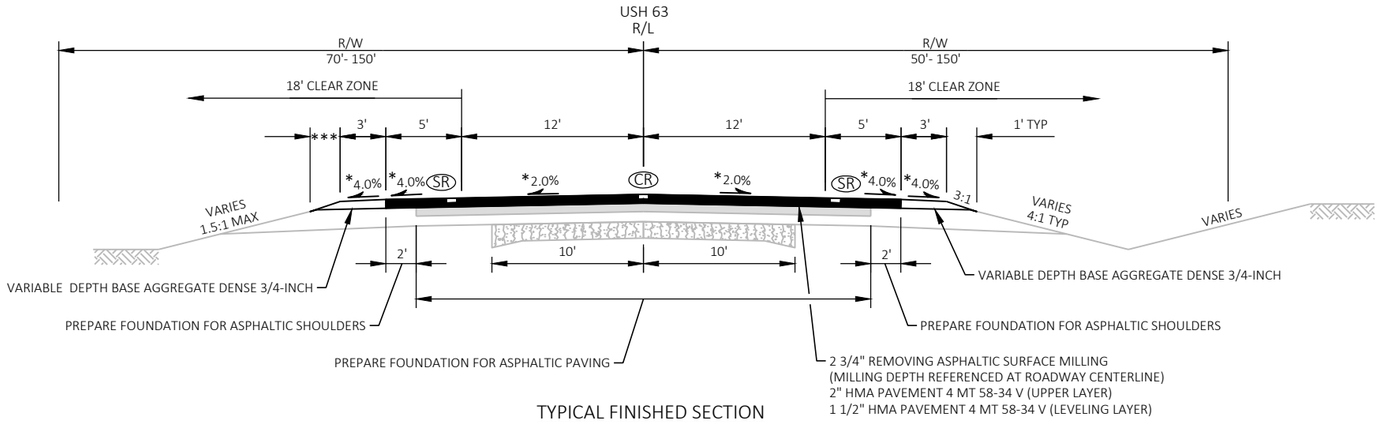
PROJECT NO:1550-04-73/75	HWY:USH 63	COUNTY:WASHBURN	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500473\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 1/8/2019 8:37 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : ############



TYPICAL EXISTING SECTION
USH 63
STA 483+92 - STA 705+00



TYPICAL FINISHED SECTION
USH 63
STA 483+92 - STA 705+00

NOTES

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

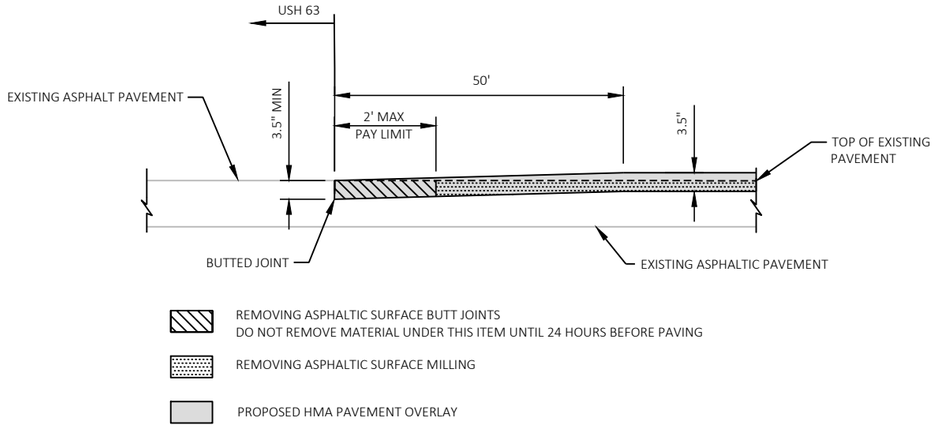
** CONCRETE MAY NOT BE BROKEN IN ALL LOCATIONS.

*** VARY SLOPE OF BASE AGGREGATE TO MATCH EXISTING GROUND, TYPICALLY 2' FROM EDGE OF SHOULDER IN EXISTING FILL SECTIONS.

(SR) STA 490+50 - STA 701+25: ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL. SEE SDD FOR "2-LANE RURAL SHOULDER RUMBLE STRIPS, MILLING" FOR ADDITIONAL INFORMATION.

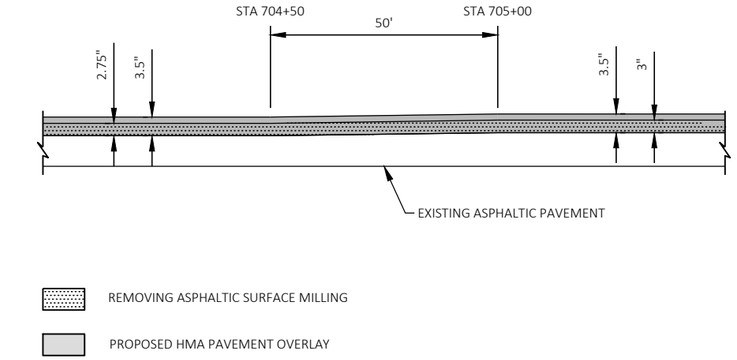
(CR) STA 490+50 - STA 701+25: ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE SDD FOR "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION.

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS IS REQUIRED FOR THE CENTERLINE UPPER LAYER OF HMA PAVEMENT.



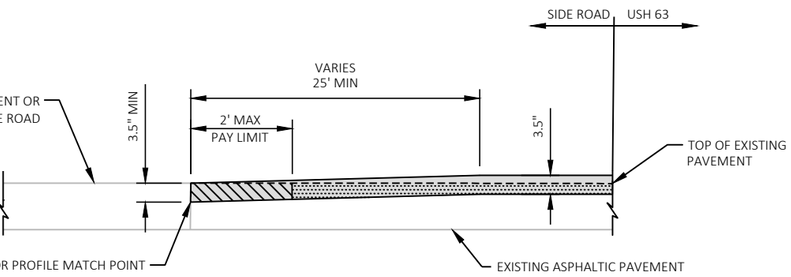
USH 63 BUTT JOINT DETAIL

STA 483+92



MILL DEPTH TRANSITION DETAIL

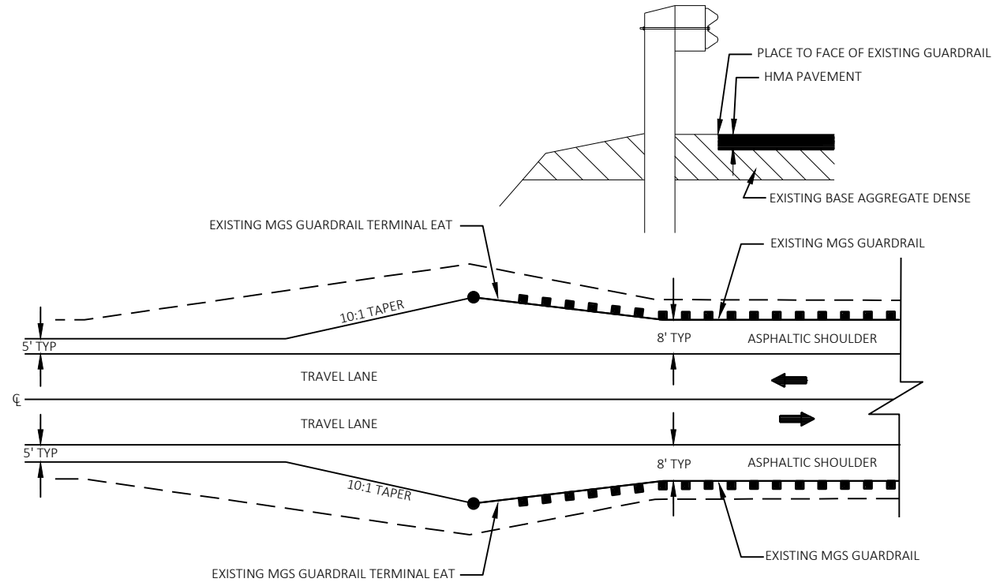
USH 63



SIDE ROAD BUTT JOINT AND PROFILE MATCH DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

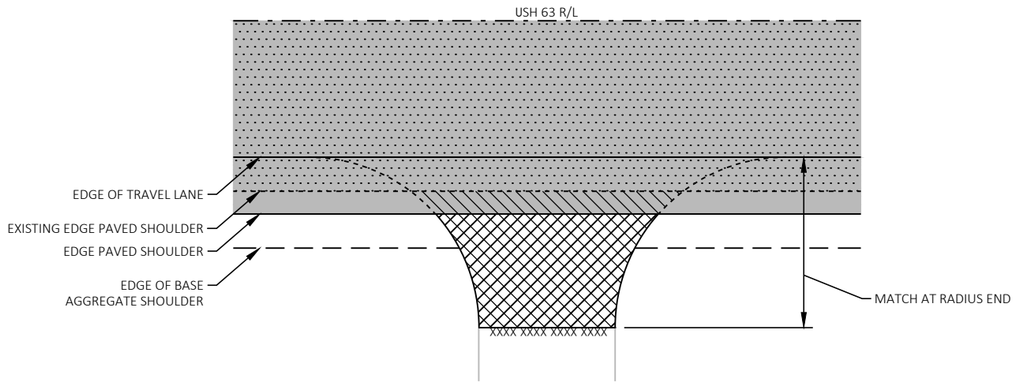
NOTE
TRANSITION PROFILE TO MATCH EXISTING BASE AGGREGATE SIDE ROADS WITH VARIABLE DEPTH MILLING AS SHOWN. PAYMENT FOR BUTT JOINTS WILL NOT BE PAID AT BASE AGGREGATE SURFACE SIDE ROADS.



PAVED SHOULDER AT GUARDRAIL DETAIL

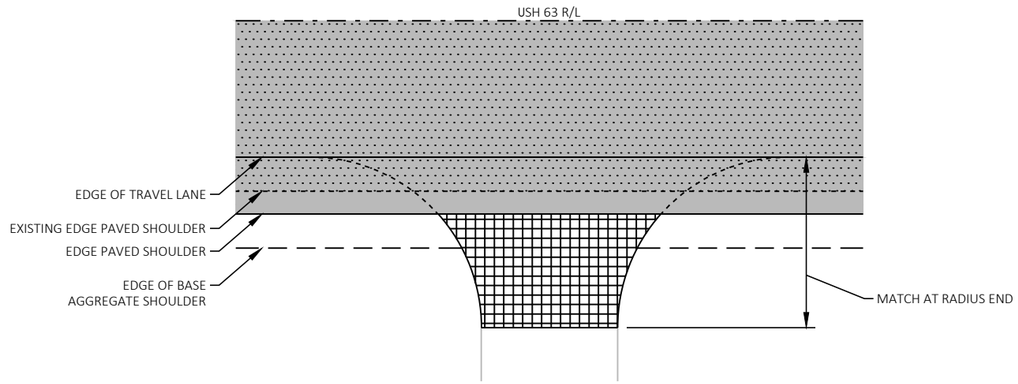
STA 560+00, LT & RT

NOTE
SEE PLAN SHEETS FOR LOCATIONS.



PAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS



UNPAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

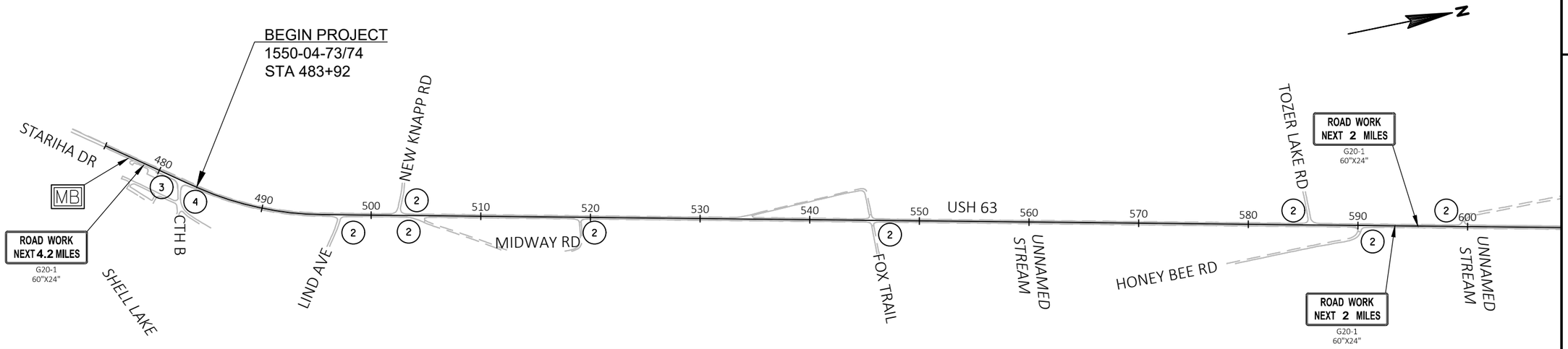
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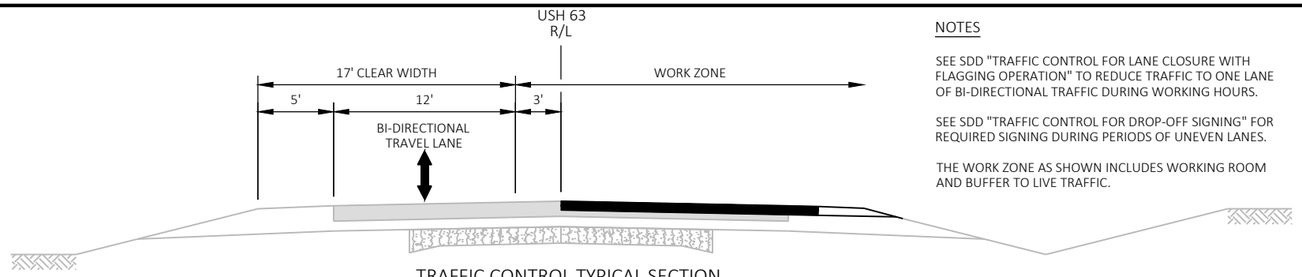
RUNOFF COEFFICIENT TABLE

	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 = 76.36 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0 ACRES

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500473\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 02
PLOT DATE : 1/8/2019 8:38 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42





TRAFFIC CONTROL TYPICAL SECTION
USH 63

TYPICAL STAGING FOR MILL AND OVERLAY OPERATIONS (WORK ZONE FOR USH 63 NB SHOWN, MIRROR TYPICAL SECTION FOR USH 63 SB WORK ZONE)

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR REQUIRED SIGNING DURING PERIODS OF UNEVEN LANES.

THE WORK ZONE AS SHOWN INCLUDES WORKING ROOM AND BUFFER TO LIVE TRAFFIC.

LEGEND

PAVEMENT CONSTRUCTION AREA

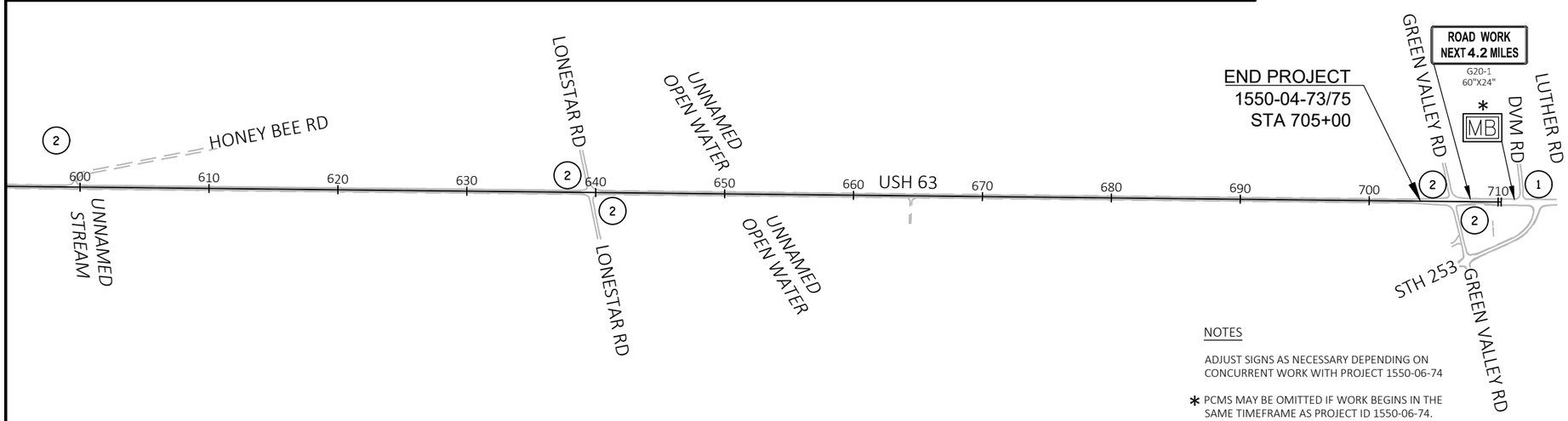
TRAFFIC CONTROL SIGNS PCMS MESSAGES		
	PRIOR TO CONSTRUCTION	
PCMS SIGN LOCATION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
USH 63 NB 0.1 MILES SOUTH OF CTH B	USH 63 WORK STARTS	WEEK DAY STARTING DATE
USH 63 SB 0.1 MILES NORTH OF GREEN VALLEY RD	USH 63 WORK STARTS	WEEK DAY STARTING DATE

PCMS GENERAL NOTES

ADJUST TRAFFIC CONTROL PCMS MESSAGES AS NEEDED BASED ON CONSTRUCTION SCHEDULE.

CONSIDER GEOMETRICS WHEN LOCATING MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1,000 FEET IN FRONT OF THE MESSAGE BOARD. PLACE MESSAGE BOARDS AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.

PLACE TRAFFIC CONTROL SIGNS PCMS AND DISPLAY THE MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK. ADJUST THE MESSAGE DATE ACCORDINGLY.



NOTES

ADJUST SIGNS AS NECESSARY DEPENDING ON CONCURRENT WORK WITH PROJECT 1550-06-74

* PCMS MAY BE OMITTED IF WORK BEGINS IN THE SAME TIMEFRAME AS PROJECT ID 1550-06-74.

TRAFFIC CONTROL GENERAL NOTES

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

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

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".

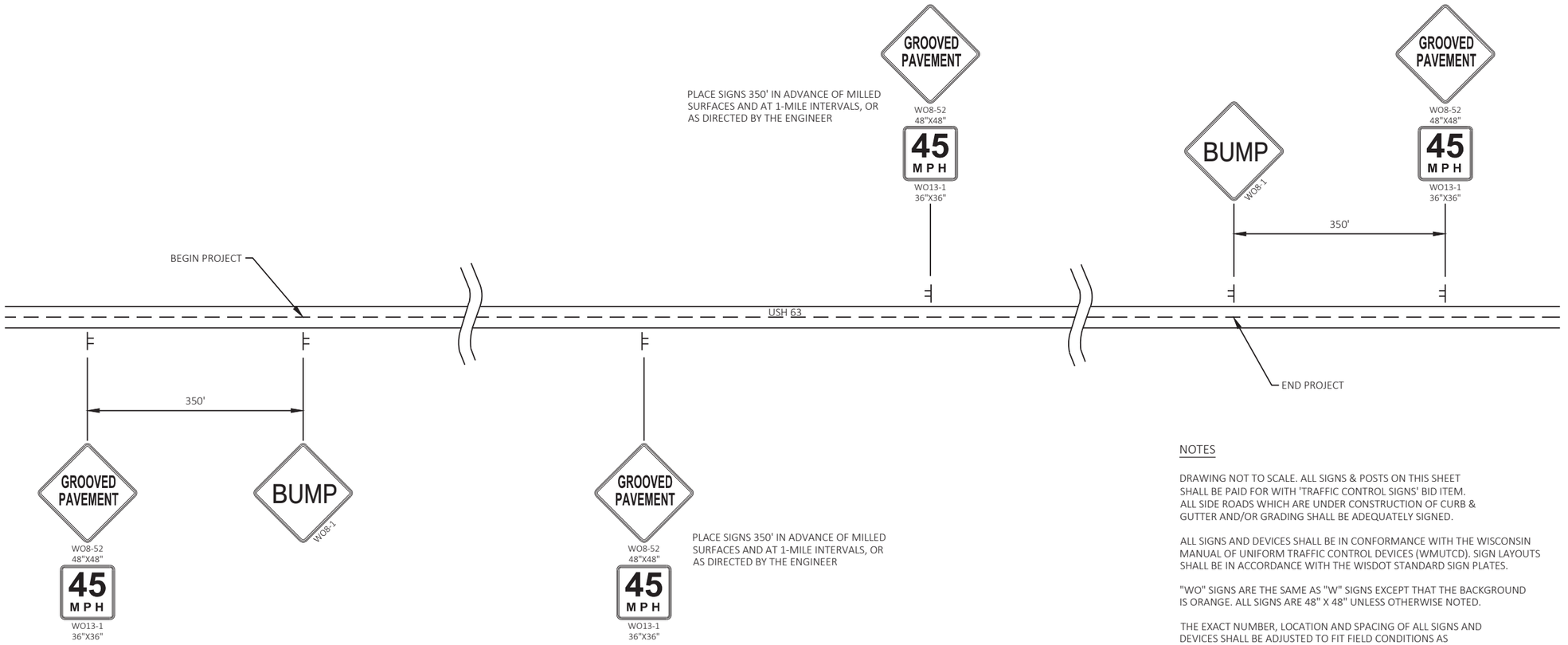
3 PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

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".

MB TRAFFIC CONTROL SIGN PCMS

PROJECT NO:1550-04-73/75	HWY:USH 63	COUNTY:WASHBURN	TRAFFIC CONTROL - OVERVIEW	SHEET 7	E

2



NOTES

DRAWING NOT TO SCALE. ALL SIGNS & POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB & 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.

DETAIL FOR SIGNING ON MAINLINE MILLED SURFACES

PROJECT NO:1550-04-73/75	HWY:USH 63	COUNTY:WASHBURN	TRAFFIC CONTROL DETAILS	SHEET 8	E

					1550-04-73	1550-04-75
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0010	204.0110	Removing Asphaltic Surface	SY	285.000	285.000	
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	40.000	40.000	
0014	204.0125	Removing Asphaltic Surface Milling	TON	11,485.000	11,485.000	
0026	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1550-04-73	LS	1.000	1.000	
0032	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	430.000		430.000
0034	213.0100	Finishing Roadway (project) 01. 1550-04-73	EACH	1.000	1.000	
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,005.000	1,005.000	
0048	455.0605	Tack Coat	GAL	9,720.000	9,165.000	555.000
0050	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000	
0052	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000	
0056	460.2005	Incentive Density PWL HMA Pavement	DOL	6,720.000	6,720.000	
0058	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	8,850.000	8,850.000	
0060	460.2010	Incentive Air Voids HMA Pavement	DOL	9,450.000	8,400.000	1,050.000
0068	460.6644	HMA Pavement 4 MT 58-34 V	TON	16,840.000	15,000.000	1,840.000
0074	465.0110	Asphaltic Surface Patching	TON	200.000	200.000	
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	50.000	50.000	
0082	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	37,550.000		37,550.000
0084	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	16,850.000	16,850.000	
0124	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1550-04-73	EACH	1.000	1.000	
0130	619.1000	Mobilization	EACH	0.400	0.350	0.050
0132	624.0100	Water	MGAL	20.000	20.000	
0172	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000	
0176	638.2102	Moving Signs Type II	EACH	5.000	5.000	
0180	638.3000	Removing Small Sign Supports	EACH	5.000	5.000	
0182	638.4000	Moving Small Sign Supports	EACH	5.000	5.000	
0184	642.5201	Field Office Type C	EACH	0.400	0.400	
0186	643.0300	Traffic Control Drums	DAY	10,670.000	10,670.000	
0188	643.0310.S	Temporary Portable Rumble Strips 01. 1550-04-73	LS	1.000	1.000	
0200	643.0900	Traffic Control Signs	DAY	2,300.000	2,300.000	
0202	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000	
0204	643.5000	Traffic Control	EACH	0.400	0.400	
0208	646.1020	Marking Line Epoxy 4-Inch	LF	30,115.000	30,115.000	
0210	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	42,980.000	42,980.000	
0230	648.0100	Locating No-Passing Zones	MI	4.190	4.190	
0232	649.0105	Temporary Marking Line Paint 4-Inch	LF	60,230.000	60,230.000	
0234	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	30,115.000	30,115.000	
0244	650.8000	Construction Staking Resurfacing Reference	LF	22,108.000	22,108.000	
0246	650.9910	Construction Staking Supplemental Control (project) 01.	LS	1.000	1.000	

					1550-04-73	1550-04-75
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
		1550-04-73				
0254	690.0150	Sawing Asphalt	LF	70.000	70.000	
0258	740.0440	Incentive IRI Ride	DOL	16,800.000	16,800.000	
0260	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000	
0262	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	630.000	630.000	

3

REMOVAL ITEMS

PROJECT	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	COMMENTS
1550-04-73								
	483+92	-	535+00	LT&RT	--	13	2,730	
	535+00	-	585+00	LT&RT	--	--	2,540	
	585+00	-	640+00	LT&RT	--	16	2,940	
	640+00	-	705+00	LT&RT	--	11	3,275	
	483+92	-	705+00	LT&RT	285	--	--	DRIVEWAYS
PROJECT 1550-04-73 TOTALS					285	40	11,485	

BASE AGGREGATE DENSE 3/4-INCH

PROJECT	STATION	TO	STATION	OFFSET	305.0110 TON	COMMENTS
1550-04-73						
	483+92	-	535+00	LT&RT	187	
	535+00	-	585+00	LT&RT	192	
	585+00	-	640+00	LT&RT	204	
	640+00	-	705+00	LT&RT	252	
	483+92	-	705+00	LT&RT	170	DRIVEWAYS
PROJECT 1550-04-73 TOTALS					1,005	

3

ASPHALTIC ITEMS

PROJECT	STATION	TO	STATION	OFFSET	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	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 4MT 58-34 V LEVELING LAYER TON	460.6644 HMA PAVEMENT 4MT 58-34 V UPPER LAYER TON	PWL DENSITY INCENTIVE TON*	PWL AIR VOIDS TON**	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	COMMENTS
1550-04-73																	
	483+92	-	535+00	LT&RT	--	2,180	--	--	1,500	2,000	1,600	2,000	--	--	--	2,500	
	535+00	-	585+00	LT&RT	--	2,032	--	--	1,395	1,860	1,488	1,860	--	--	--	4,200	
	585+00	-	640+00	LT&RT	--	2,342	--	--	1,610	2,148	1,718	2,148	--	--	--	4,150	
	640+00	-	705+00	LT&RT	--	2,611	--	--	1,795	2,392	1,914	2,392	--	--	--	6,000	
	483+92	-	705+00	LT&RT	--	--	--	--	--	--	--	--	--	50	--	--	DRIVEWAYS
	PROJECT				--	--	1	1	300	--	--	--	200	--	--	--	
PROJECT 1550-04-73 TOTALS					--	9,165	1	1	6,600	8,400	6,720	8,400	200	50	--	16,850	
									15,000								
1550-04-75																	
	483+92	-	535+00	LT&RT	96	108	--	--	176	235	--	235	--	--	7,360	--	
	535+00	-	585+00	LT&RT	99	132	--	--	182	241	--	241	--	--	9,133	--	
	585+00	-	640+00	LT&RT	105	141	--	--	192	257	--	257	--	--	9,485	--	
	640+00	-	705+00	LT&RT	130	174	--	--	240	317	--	317	--	--	11,572	--	
	PROJECT				--	--	--	--	--	--	--	--	--	--	--	--	
PROJECT 1550-04-75 TOTALS					430	555	--	--	790	1,050	--	1,050	--	--	37,550	--	
TOTALS					430	9,720	1	1	7,390	9,450	6,720	9,450	200	50	37,550	16,850	
									16,840								

NOTES

CENTERLINE RUMBLE STRIPS BEGIN AT STATION 490+50 AND END STATION 701+50

ASPHALTIC SURFACE PATCHING ITEM USED FOR REPAIRS REQUIRING ASPHALTIC MATERIAL DURING PREPARING FOUNDATION FOR ASPHALTIC PAVING

LEVELING LAYER DENSITY WILL BE ACCEPTED BASED ON ORDINARY COMPACTION PRACTICES, NO DENSITY INCENTIVE IS TO BE PAID

* TONNAGE IS ELIGIBLE FOR INCENTIVE DENSITY PWL 460.2005 AND INCENTIVE AIR VOIDS 460.2010

** TONNAGE IS ELIGIBLE FOR INCENTIVE AIR VOIDS 460.2010 AND DENSITY IS TESTED FOR ACCEPTANCE IN THOSE AREAS.

3

REMOVING AND MOVING SIGN ITEMS

PROJECT	LOCATION	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
1550-04-73					
	UNDISTRIBUTED	5	5	5	5
PROJECT 1550-04-73 TOTALS		5	5	5	5

TRAFFIC CONTROL ITEMS

PROJECT	LOCATION	DURATION DAYS	643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS LS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH
1550-04-73										
	PRIOR TO CONSTRUCTION	7	--	10	70	--	--	2	14	--
	PROJECT	50	1	212	10,600	46	2,300	--	--	0.4
PROJECT 1550-04-73 TOTALS			1		10,670		2,300		14	0.4

3

PAVEMENT MARKING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	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 SOLID WHITE LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH 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
1550-04-73											
	483+92	-	535+00	LT&RT	730	6,510	48	9,653	14,480	730	6,510
	535+00	-	585+00	LT&RT	875	6,400	24	9,805	14,550	875	6,400
	585+00	-	640+00	LT&RT	925	4,750	55	10,435	11,350	925	4,750
	640+00	-	705+00	LT&RT	975	8,950	13	12,947	19,850	975	8,950
PROJECT 1550-04-73 TOTALS					3,505	26,610	140	42,840	60,230	3,505	26,610
					30,115		42,980			30,115	

IN AREAS OF CENTERLINE RUMBLE STRIPS, ONE APPLICATION OF TEMPORARY MARKING LINE EPOXY IS INCLUDED FOR USE PRIOR TO INSTALLING RUMBLE STRIPS AND ONE APPLICATION OF MARKING LINE EPOXY IS INCLUDED FOR USE AFTER INSTALLING RUMBLE STRIPS.
TWO APPLICATIONS OF TEMPORARY MARKING LINE PAINT ON THE CENTERLINE ARE INCLUDED FOR USE DURING MILLING AND OVERLAY OPERATIONS.

3

LOCATING NO-PASSING ZONES

PROJECT	LOCATION	648.0100 MI
1550-04-73		
	PROJECT	4.19
PROJECT 1550-04-73 TOTAL		4.19

WATER

PROJECT	LOCATION	624.0100 MGAL
1550-04-73		
	PROJECT	20
PROJECT 1550-04-73 TOTAL		20

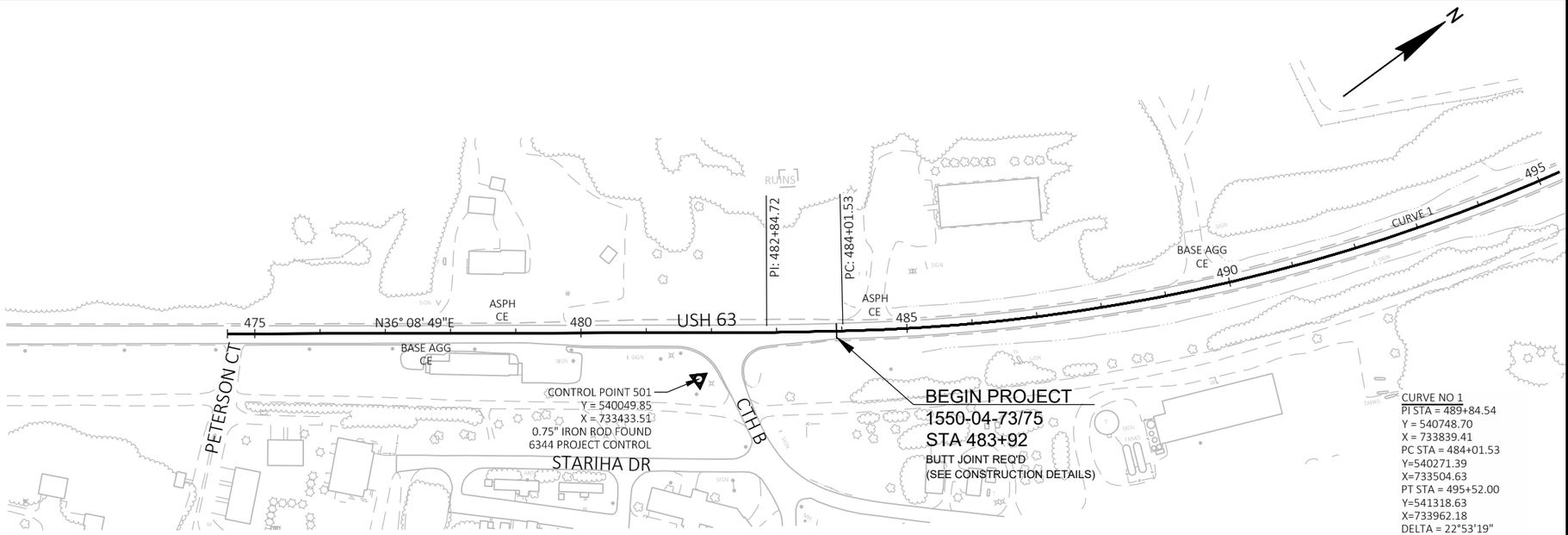
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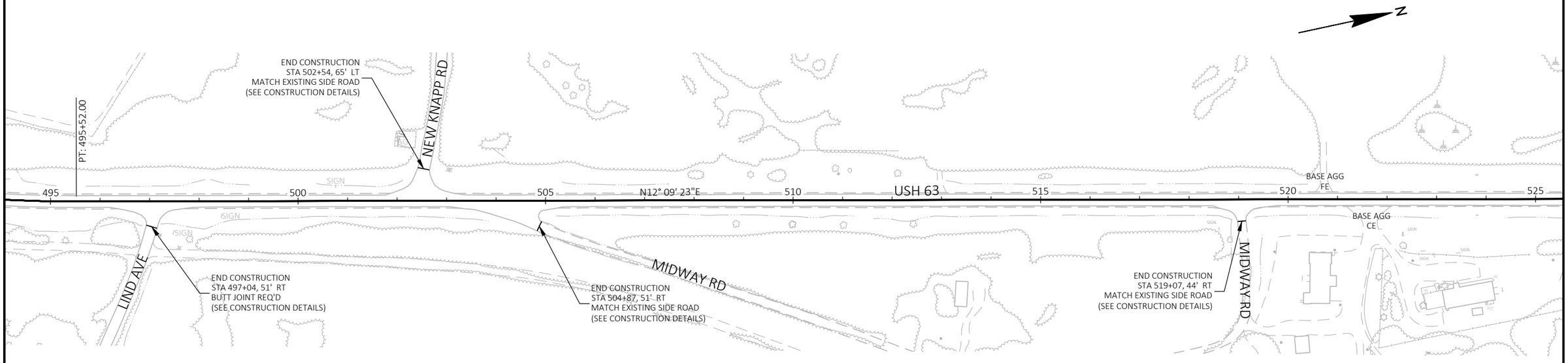
CONSTRUCTION STAKING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1550-04-73) LS
1550-04-73						
	483+92	-	705+00	LT&RT	22,108	1
PROJECT 1550-04-73 TOTALS					22,108	1

SAWING ASPHALT

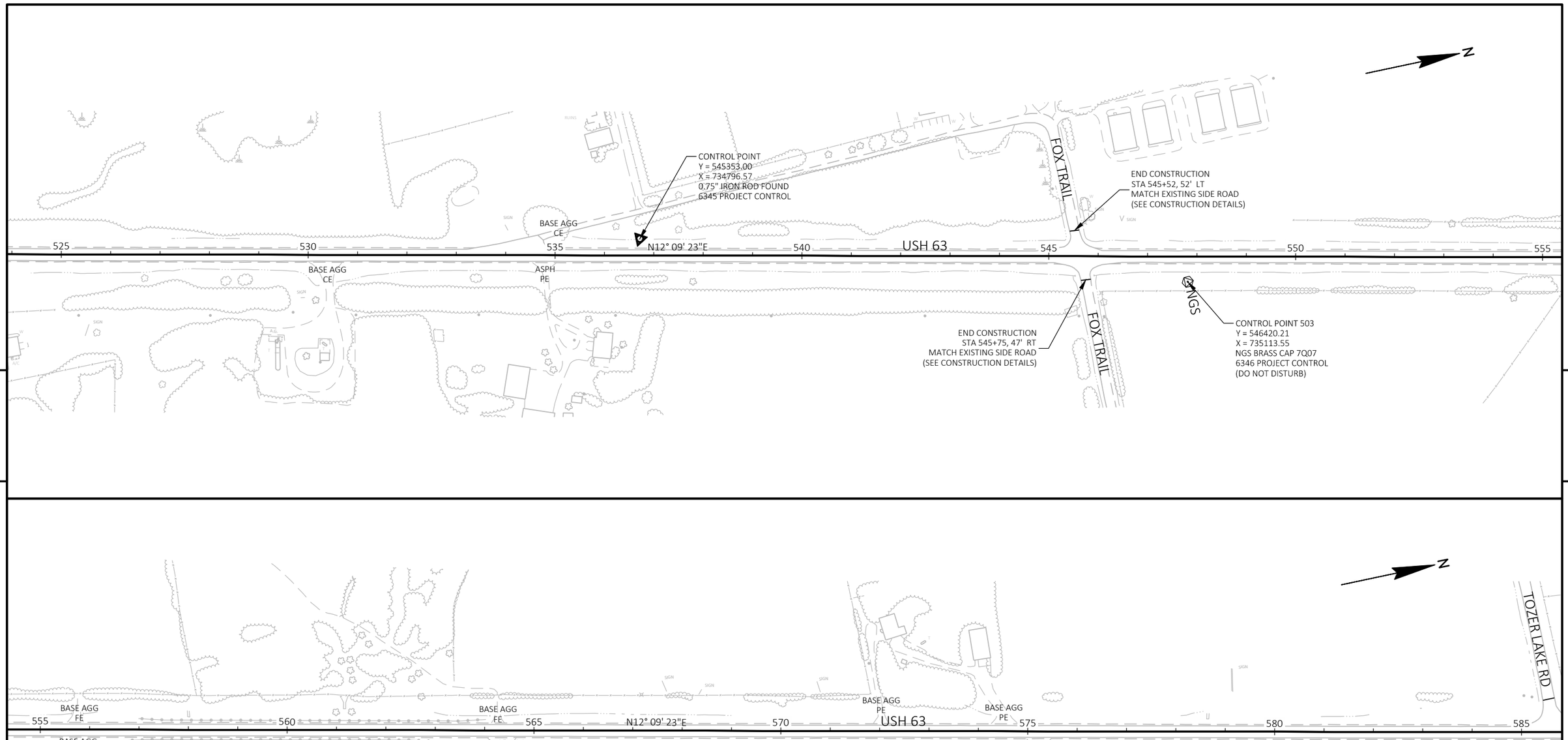
PROJECT	STATION	OFFSET	690.0150 LF	COMMENTS
1550-04-73				
	484+53	LT	28	DRIVEWAY
	534+80	RT	14	DRIVEWAY
	620+51	LT	15	DRIVEWAY
	700+31	LT	13	DRIVEWAY
PROJECT 1550-04-73 TOTALS			70	





PROJECT NO: 1550-04-73/75	HWY: USH 63	COUNTY:WASHBURN	PLAN	SHEET 14	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500473\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - PS-1
PLOT DATE : 1/8/2019 8:40 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:200 FT



5

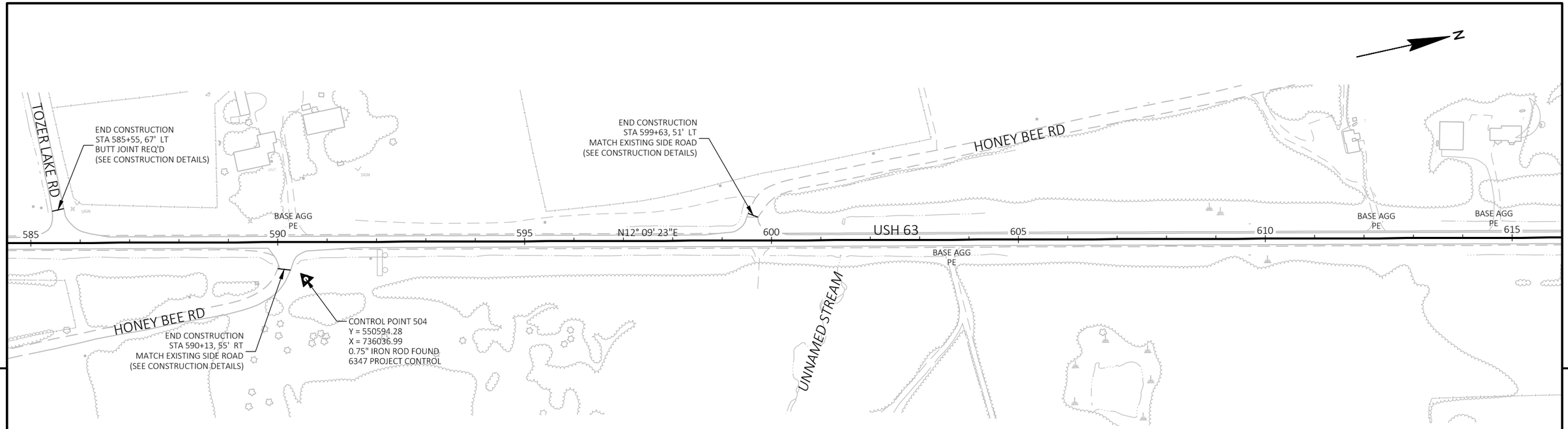
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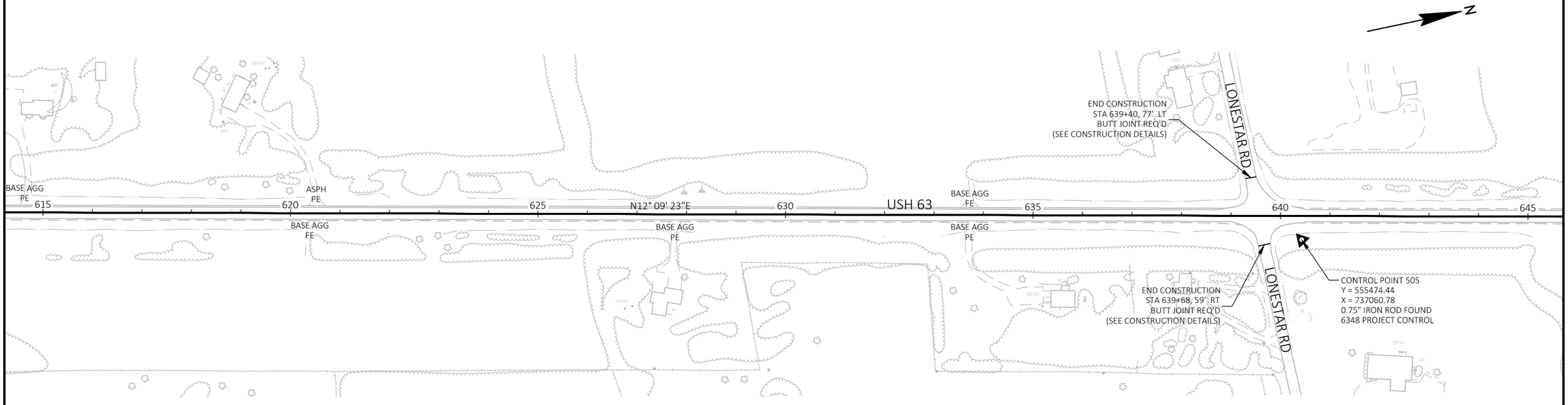
PROJECT NO: 1550-04-73/75	HWY: USH 63	COUNTY:WASHBURN	PLAN	SHEET 15	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500473\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - PS-2

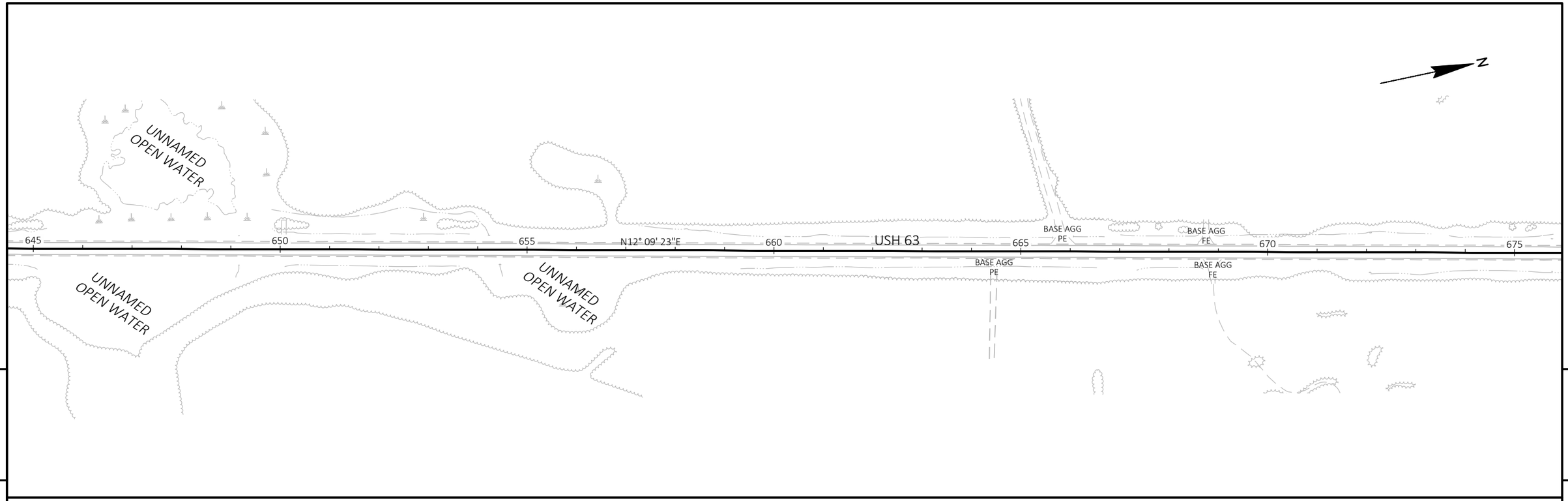
PLOT DATE : 1/8/2019 8:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42



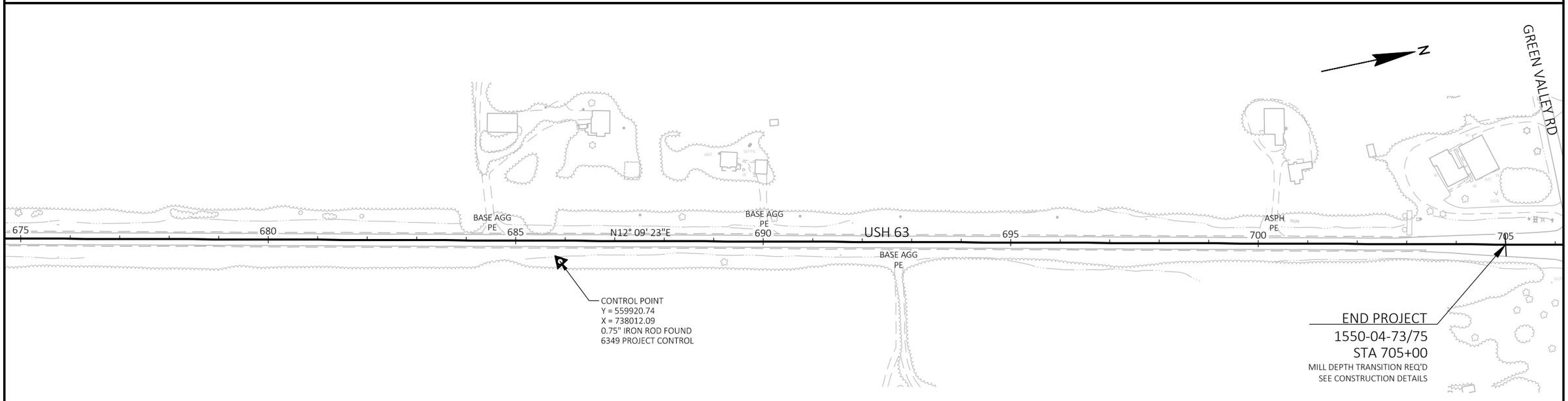


PROJECT NO: 1550-04-73/75	HWY: USH 63	COUNTY:WASHBURN	PLAN	SHEET 16	E



5

5



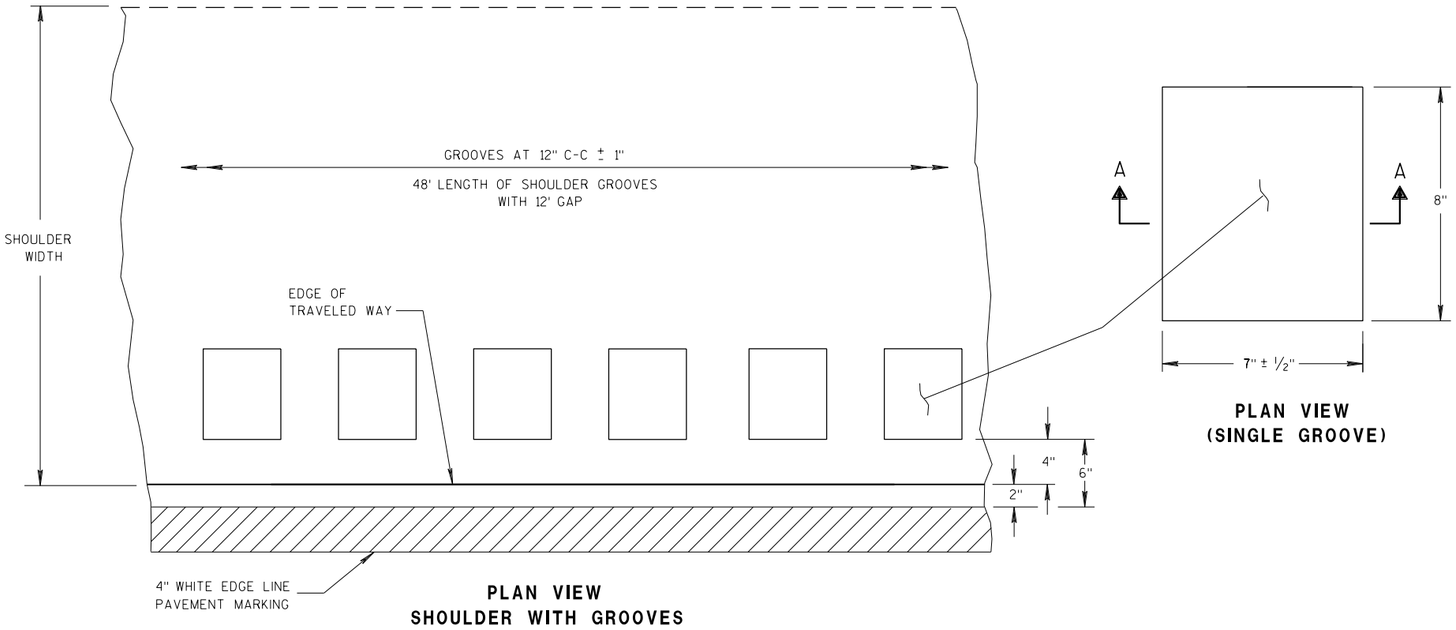
PROJECT NO: 1550-04-73/75	HWY: USH 63	COUNTY:WASHBURN	PLAN	SHEET 17	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500473\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - PS-4

PLOT DATE : 1/8/2019 8:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:200 FT

Standard Detail Drawing List

13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
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
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D28-03	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



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

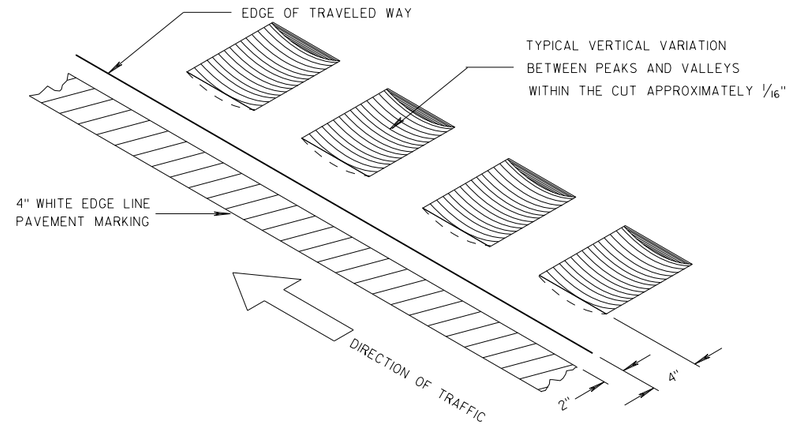
GENERAL NOTES

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

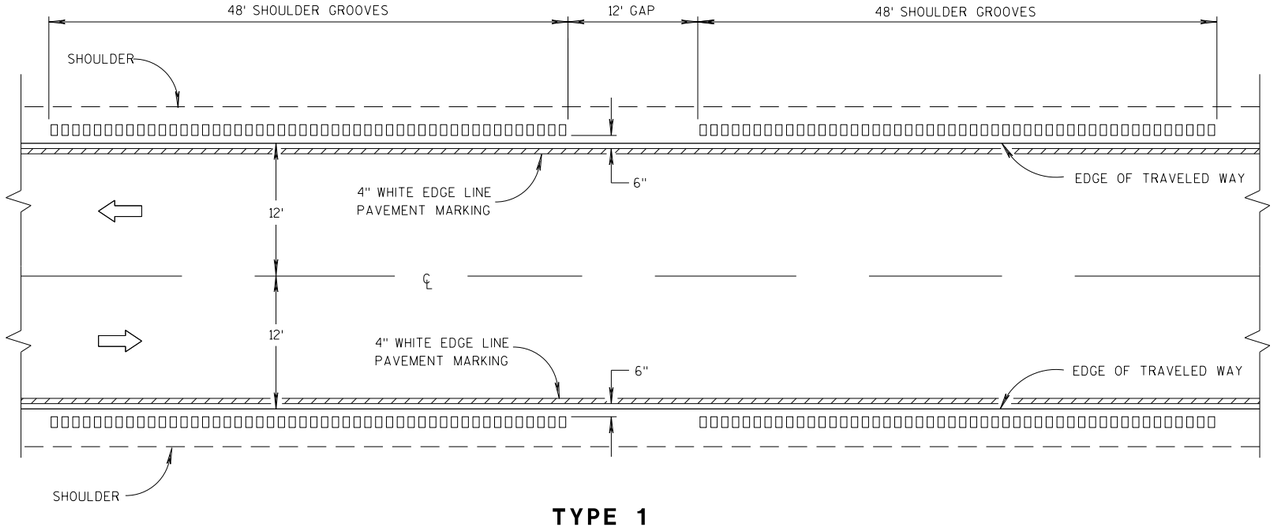
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

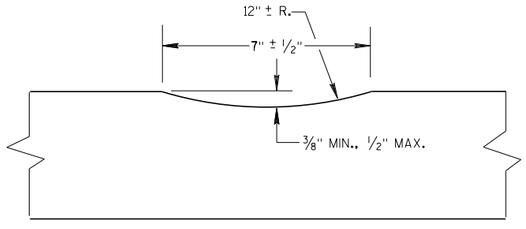
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



ISOMETRIC



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

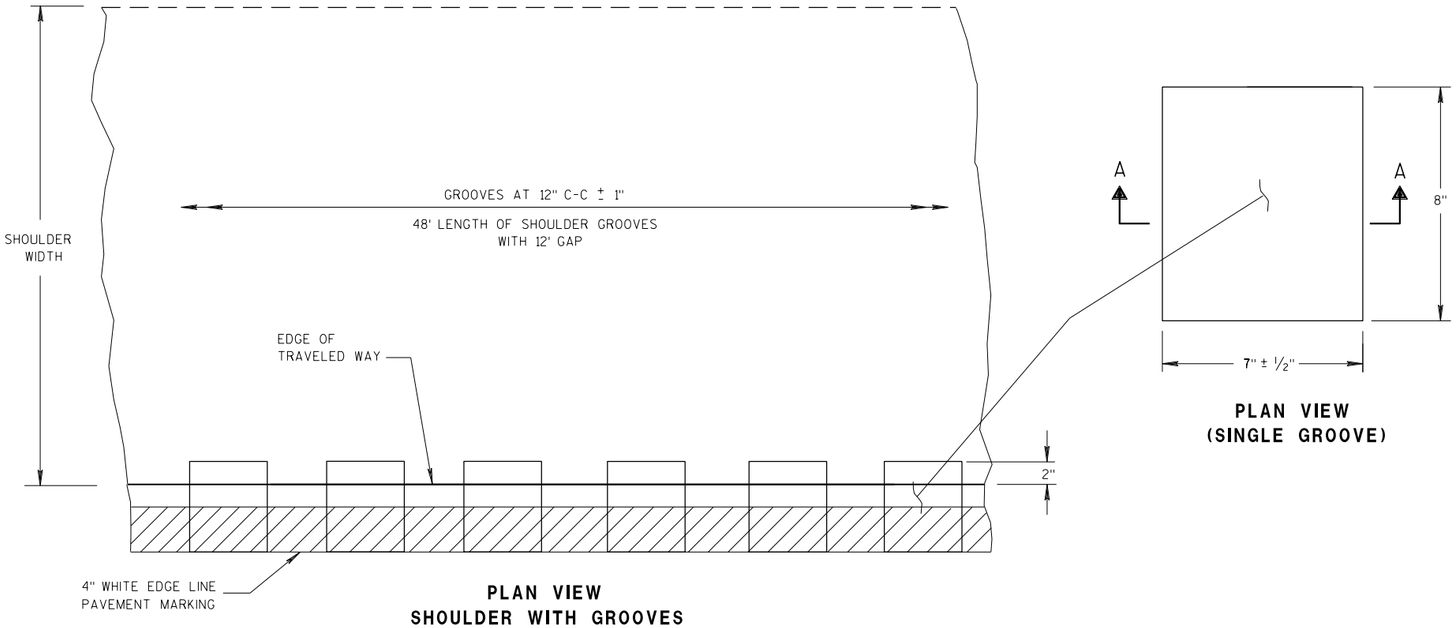
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT, 19

6

S.D.D. 13 A 10-2a

6

S.D.D. 13 A 10-2a



PLAN VIEW
SHOULDER WITH GROOVES

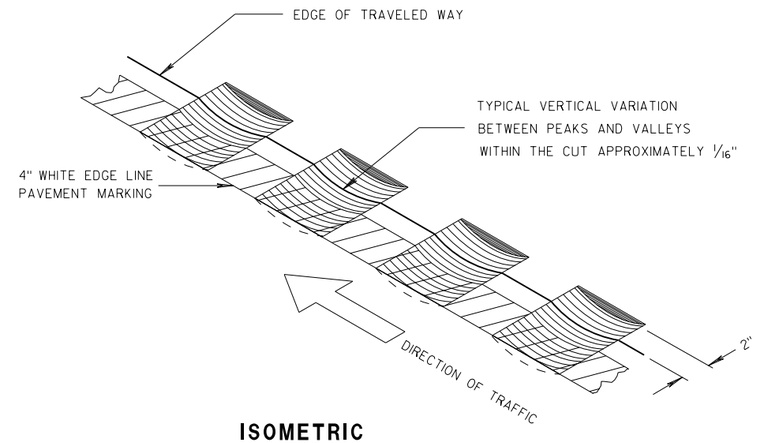
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

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

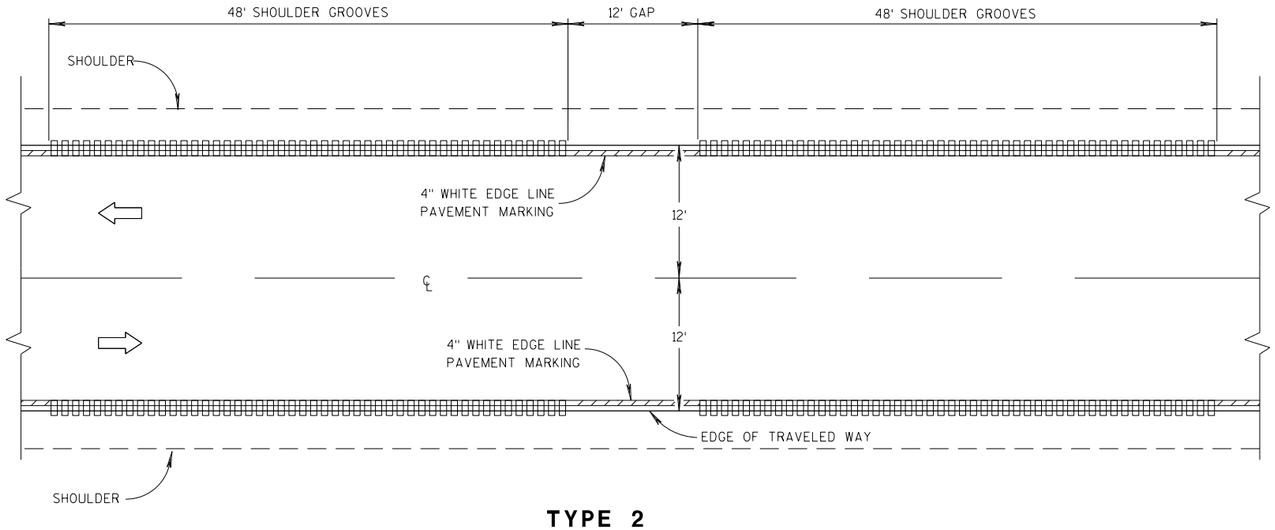
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

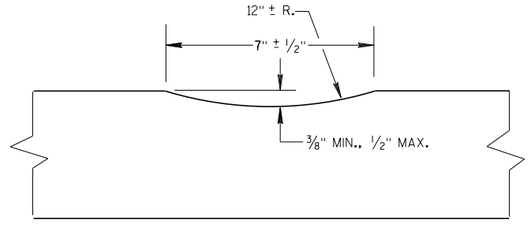


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

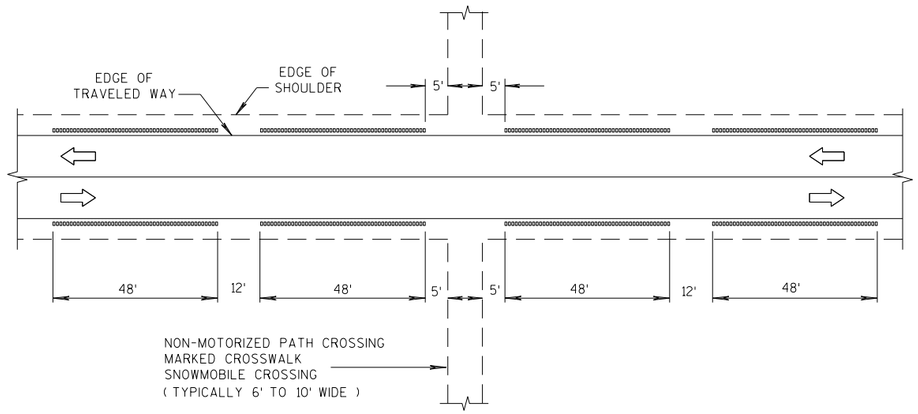
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT, 20

6

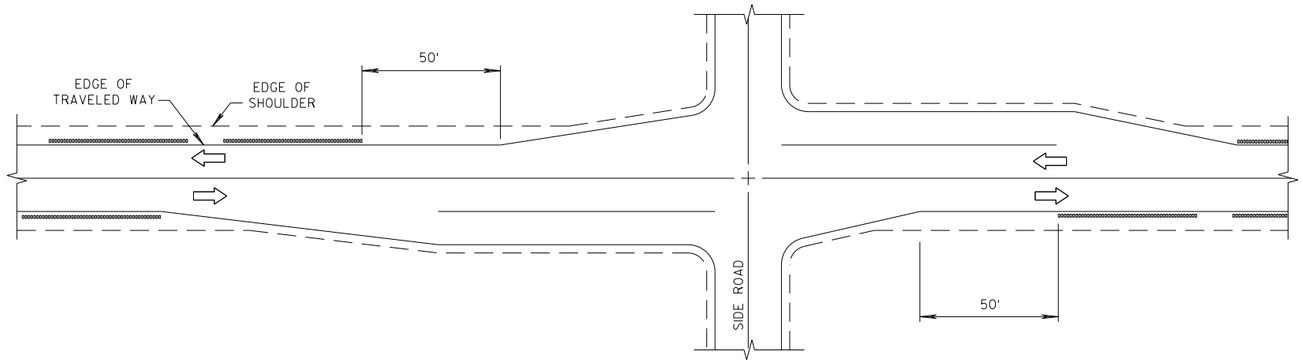
S.D.D. 13 A 10-2b

6

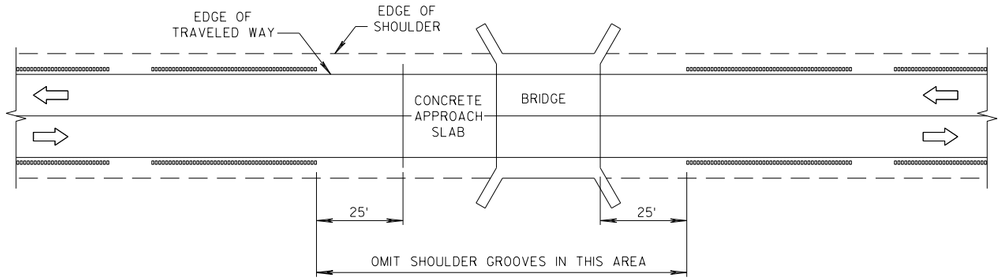
S.D.D. 13 A 10-2b



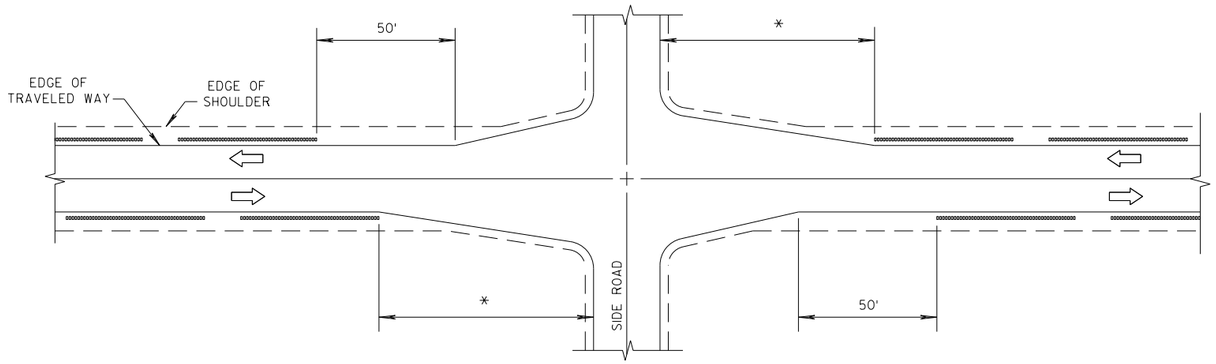
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT WITH RIGHT TURN LANE

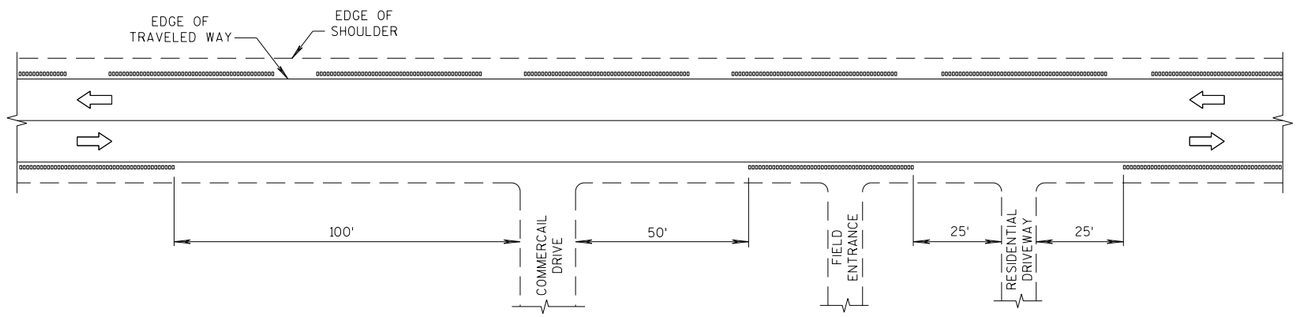


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

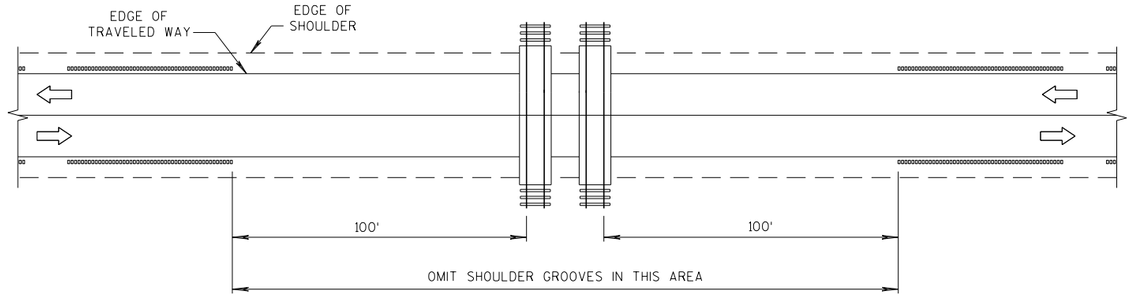
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT. 21

6

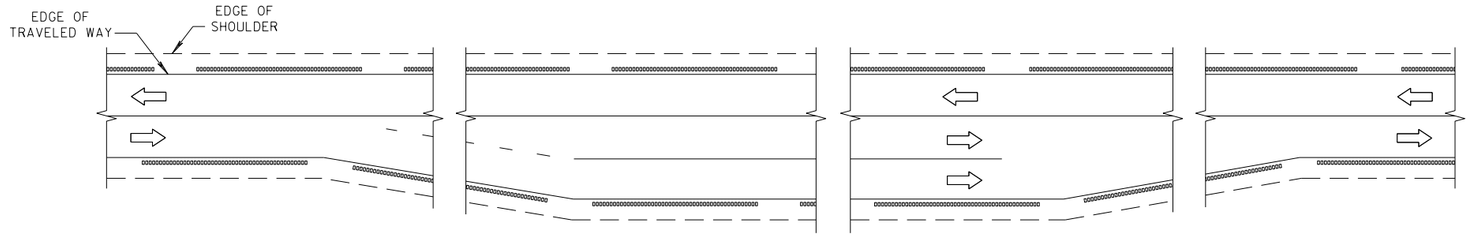
S.D.D. 13 A 10-2c

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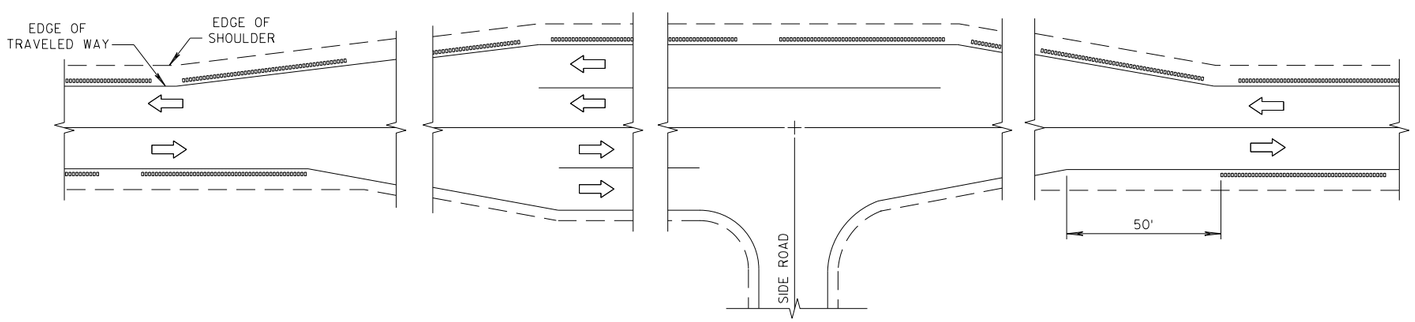
S.D.D. 13 A 10-2c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

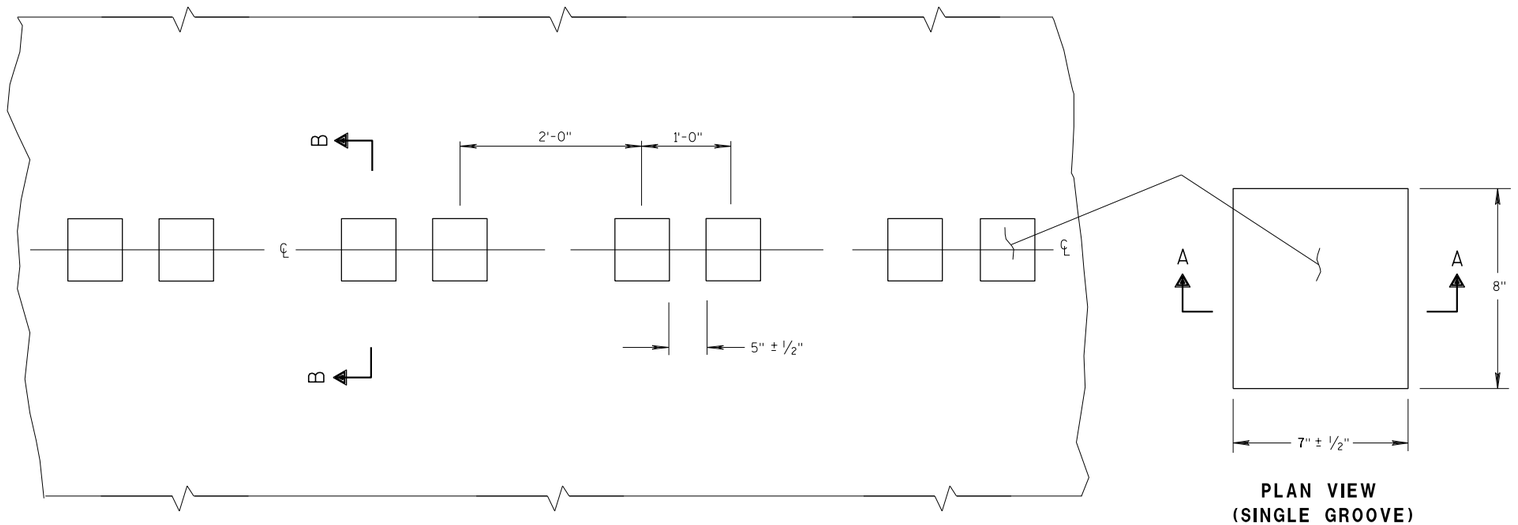
2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEV UNIT SUPERVISOR

6
S.D.D. 13 A 10-2d



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

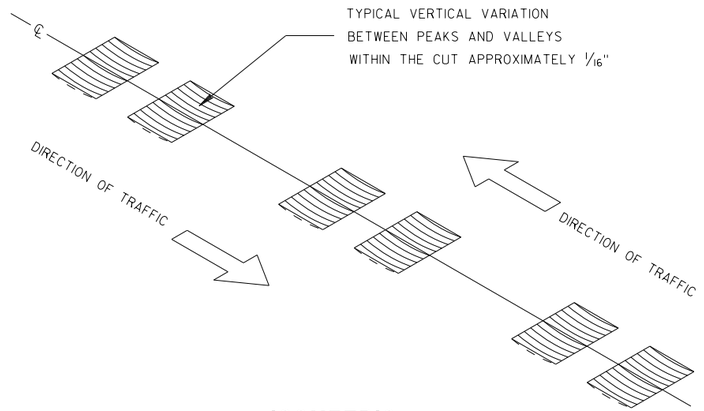
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

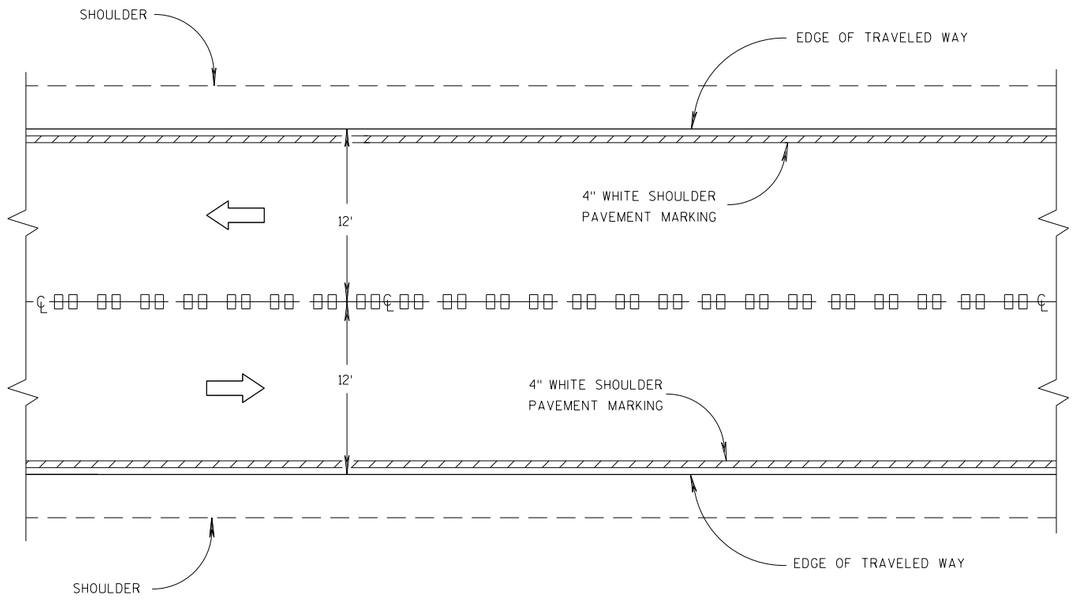
INSTALL PERMANENT MARKING EPOXY 4-INCH AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

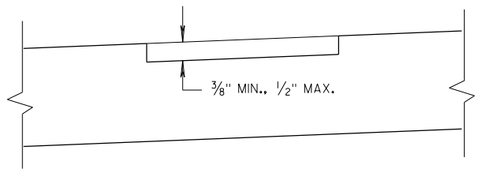
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



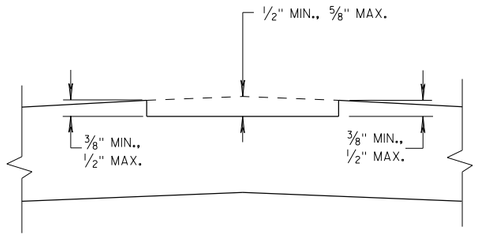
ISOMETRIC



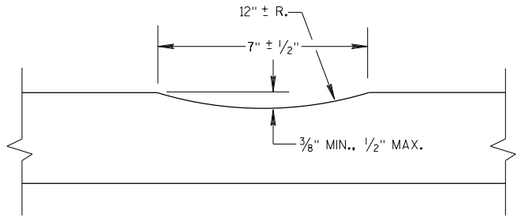
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY

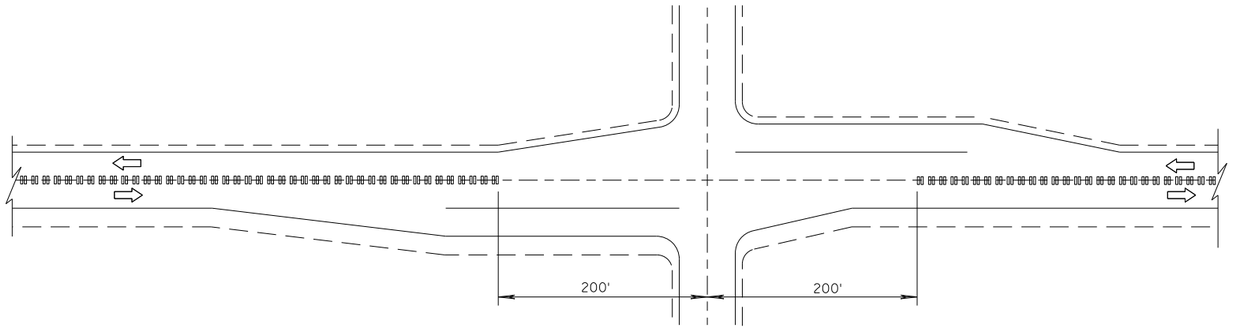


SECTION A-A

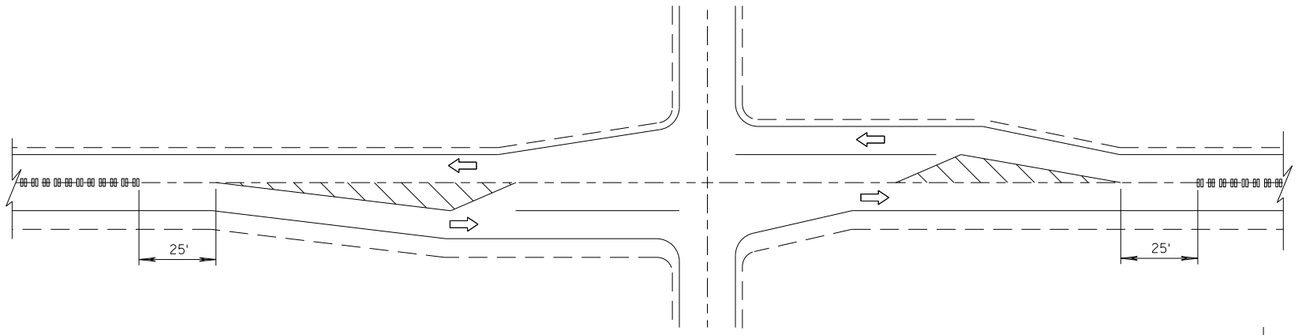
2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

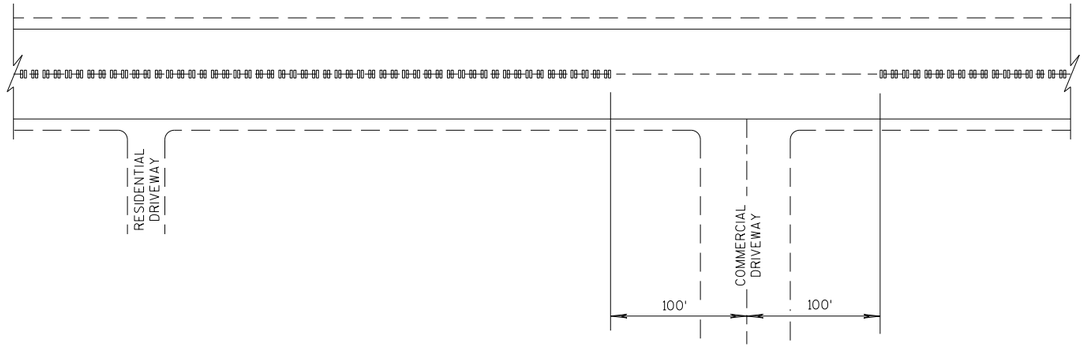
6
S.D.D. 13 A 11-3a



CENTER LINE GROOVES AT INTERSECTIONS

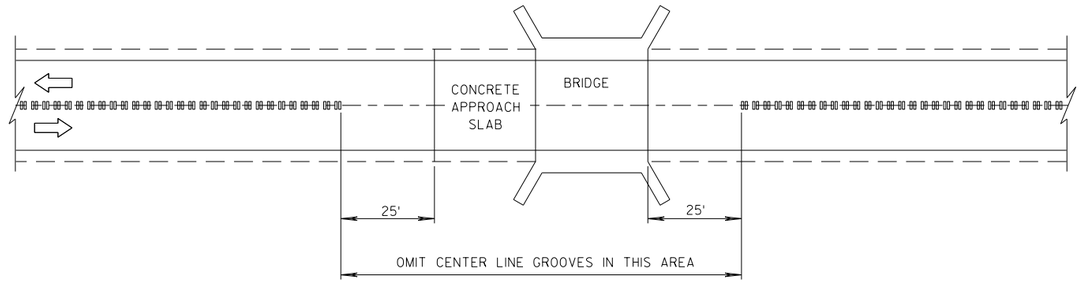


CENTER LINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)

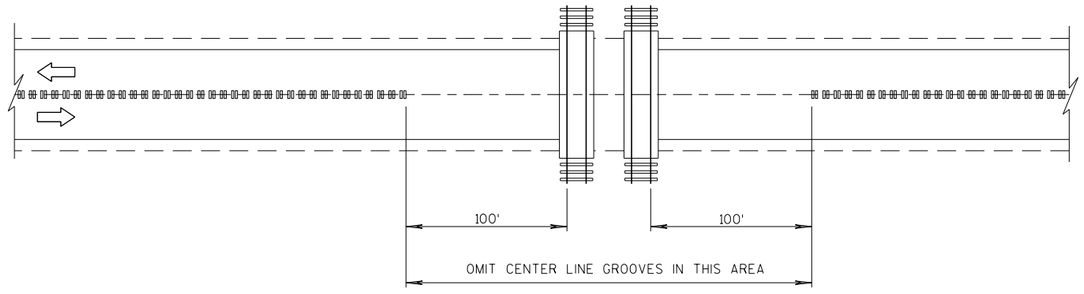


CENTER LINE GROOVES AT DRIVEWAYS (1)

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Rodney T — ROADWAY STANDARDS DE UNIT SUPERVISOR

FHWA

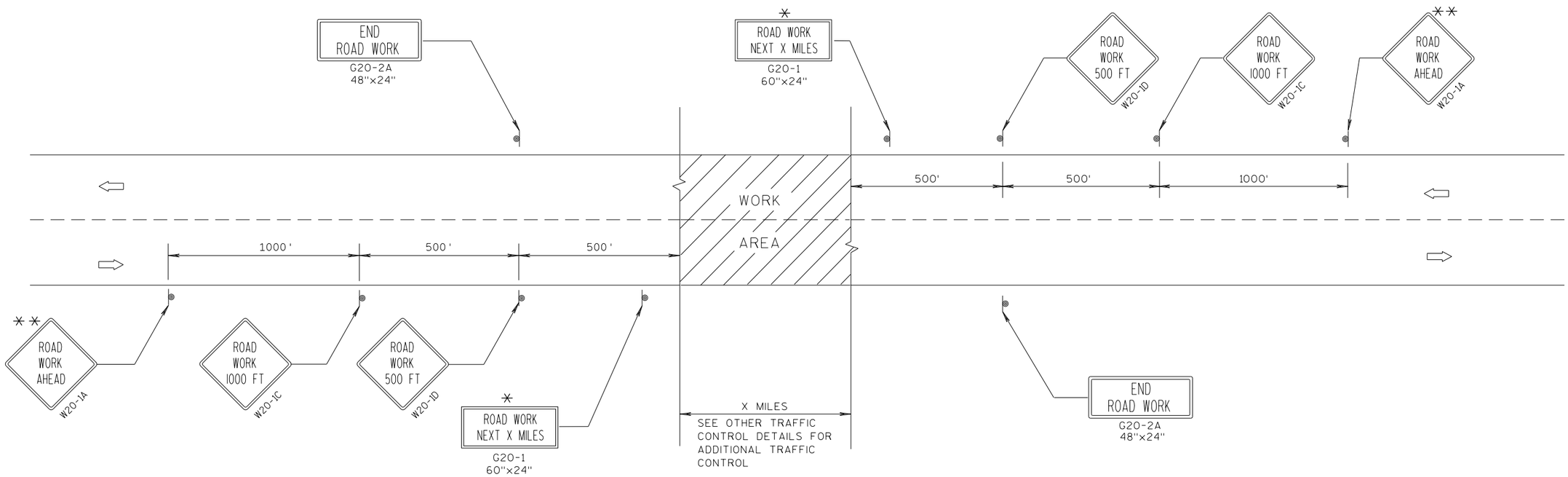
6

S.D.D. 13 A 11-3b

6

S.D.D. 13 A 11-3b

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

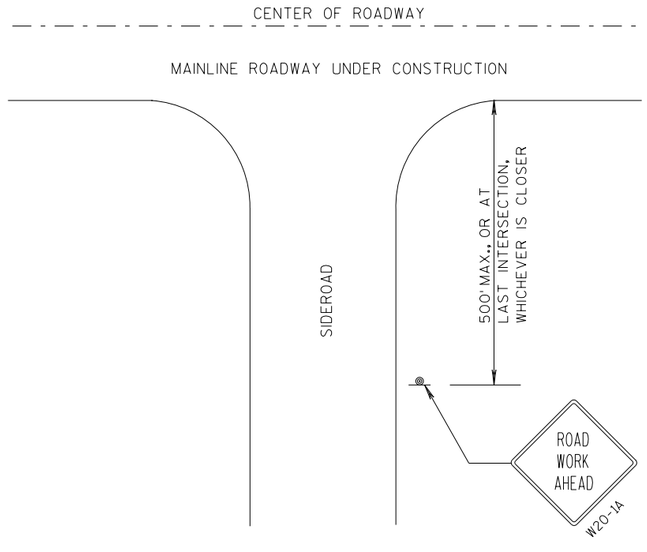
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

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

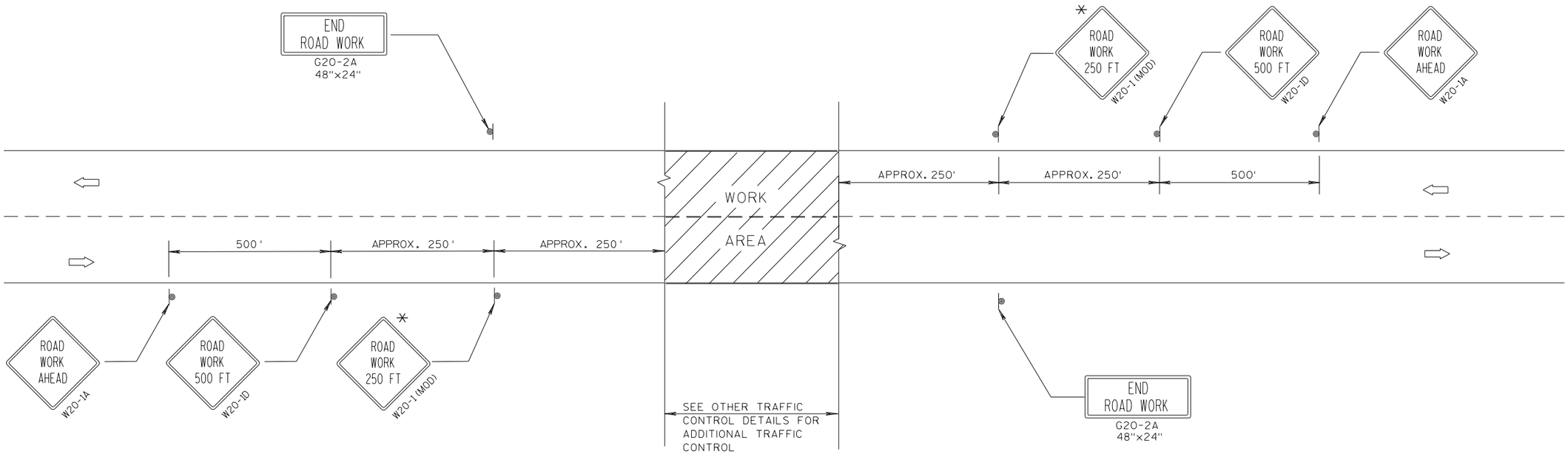
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

6

S.D.D. 15 C 4-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

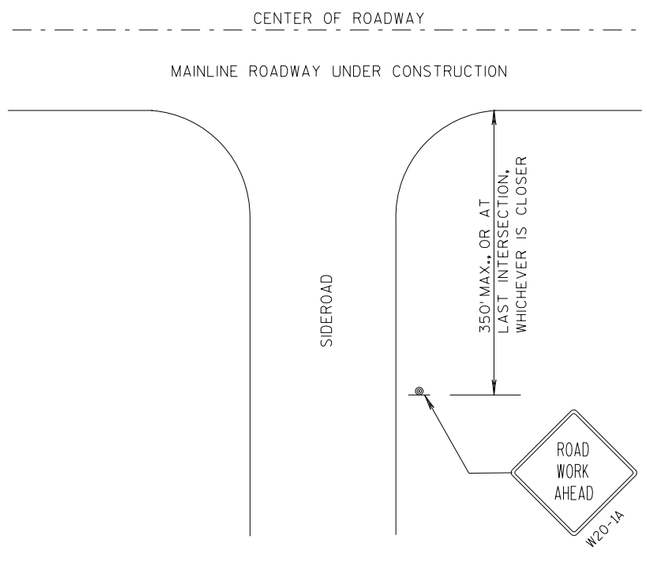
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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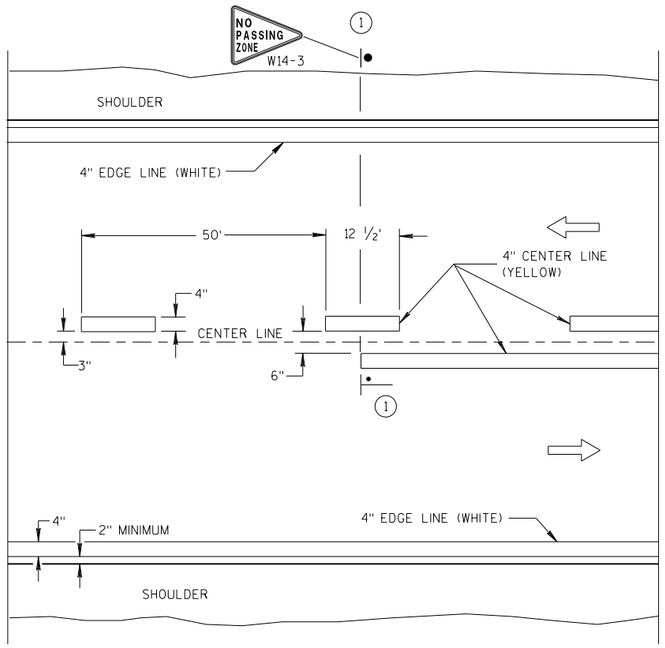
7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

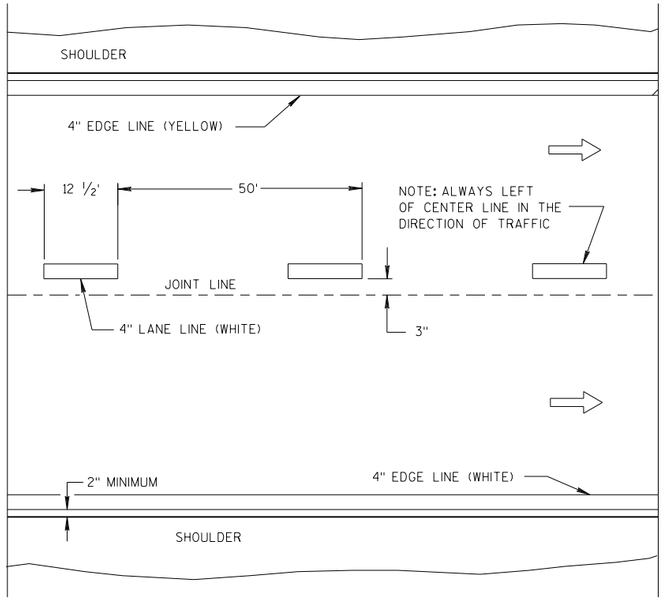
FHWA

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S.D.D. 15 C 5-5



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

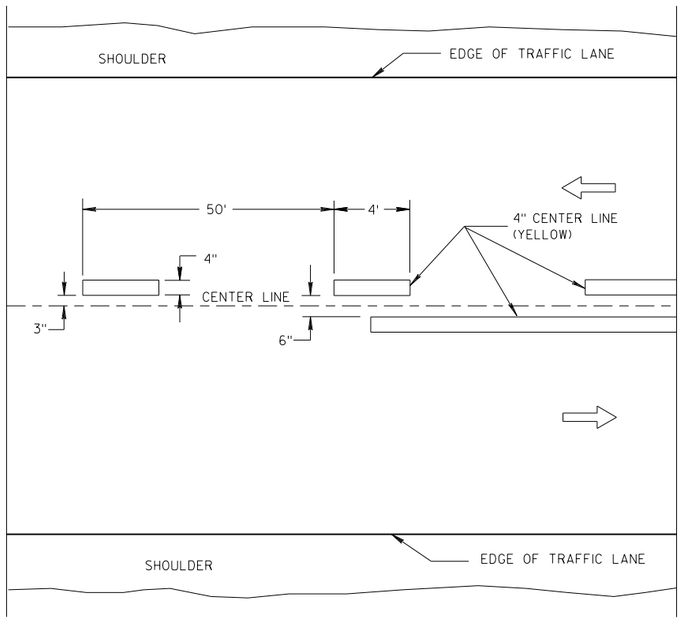
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

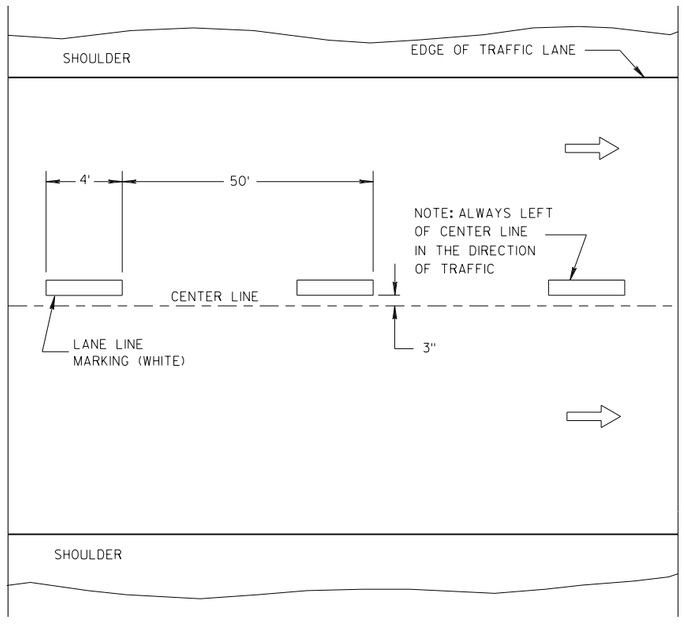
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

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

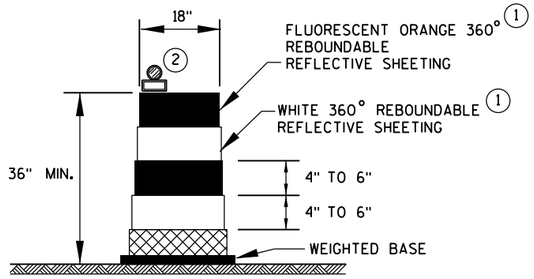
FHWA

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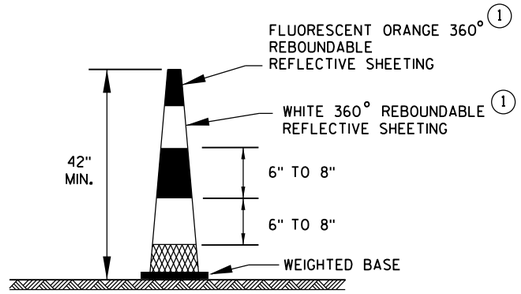
S.D.D. 15 C 8-19a

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S.D.D. 15 C 8-19a



DRUM

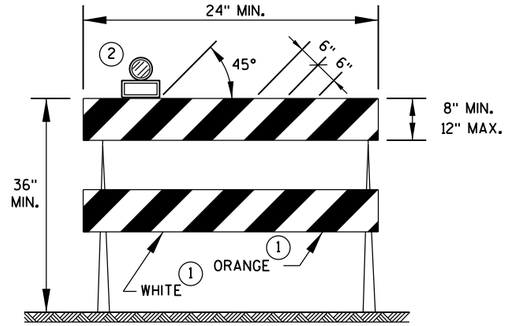


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

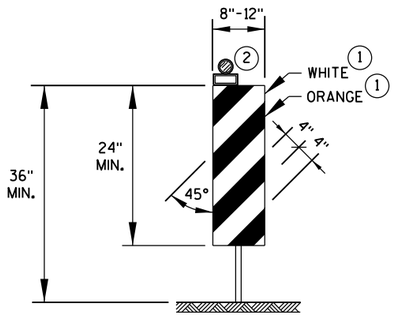
GENERAL NOTES

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.



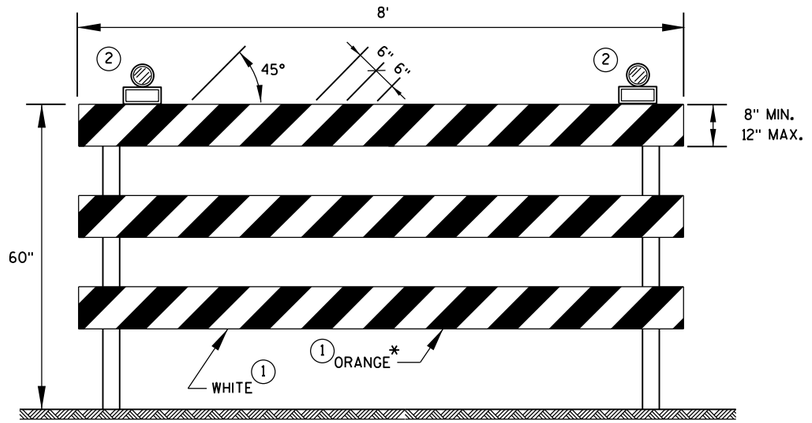
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

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S.D.D. 15 C 11-7b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

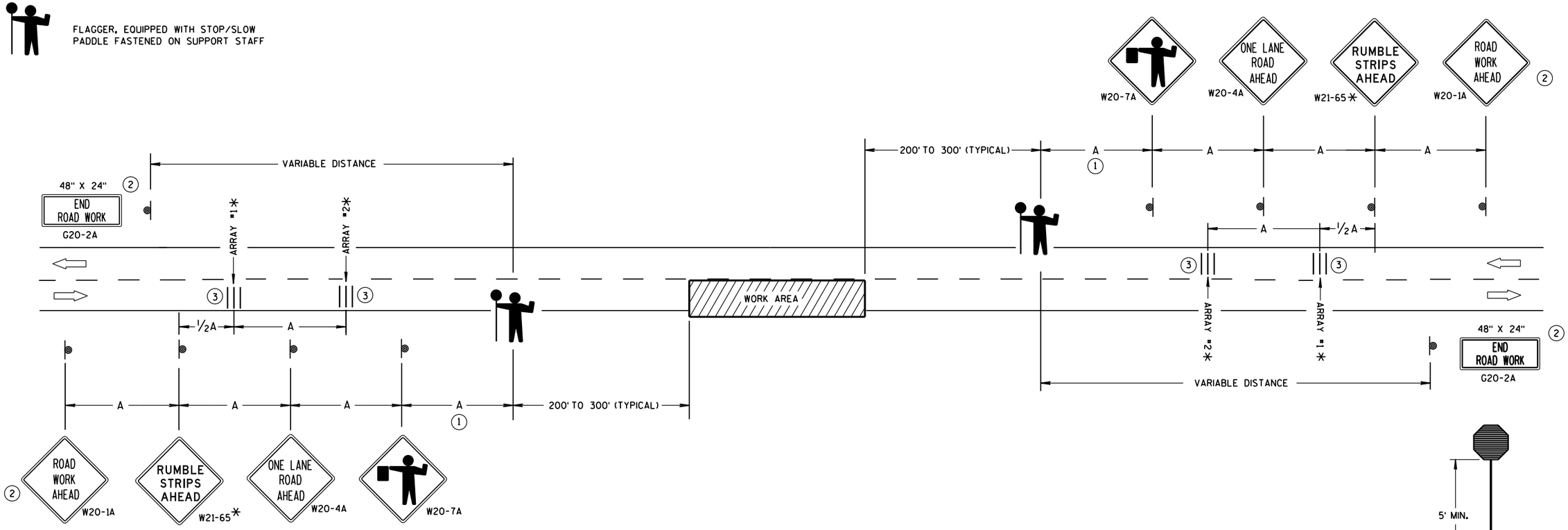
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

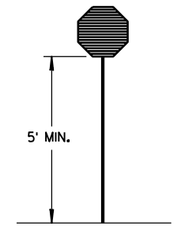
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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





STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

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

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

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

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

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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 RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

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

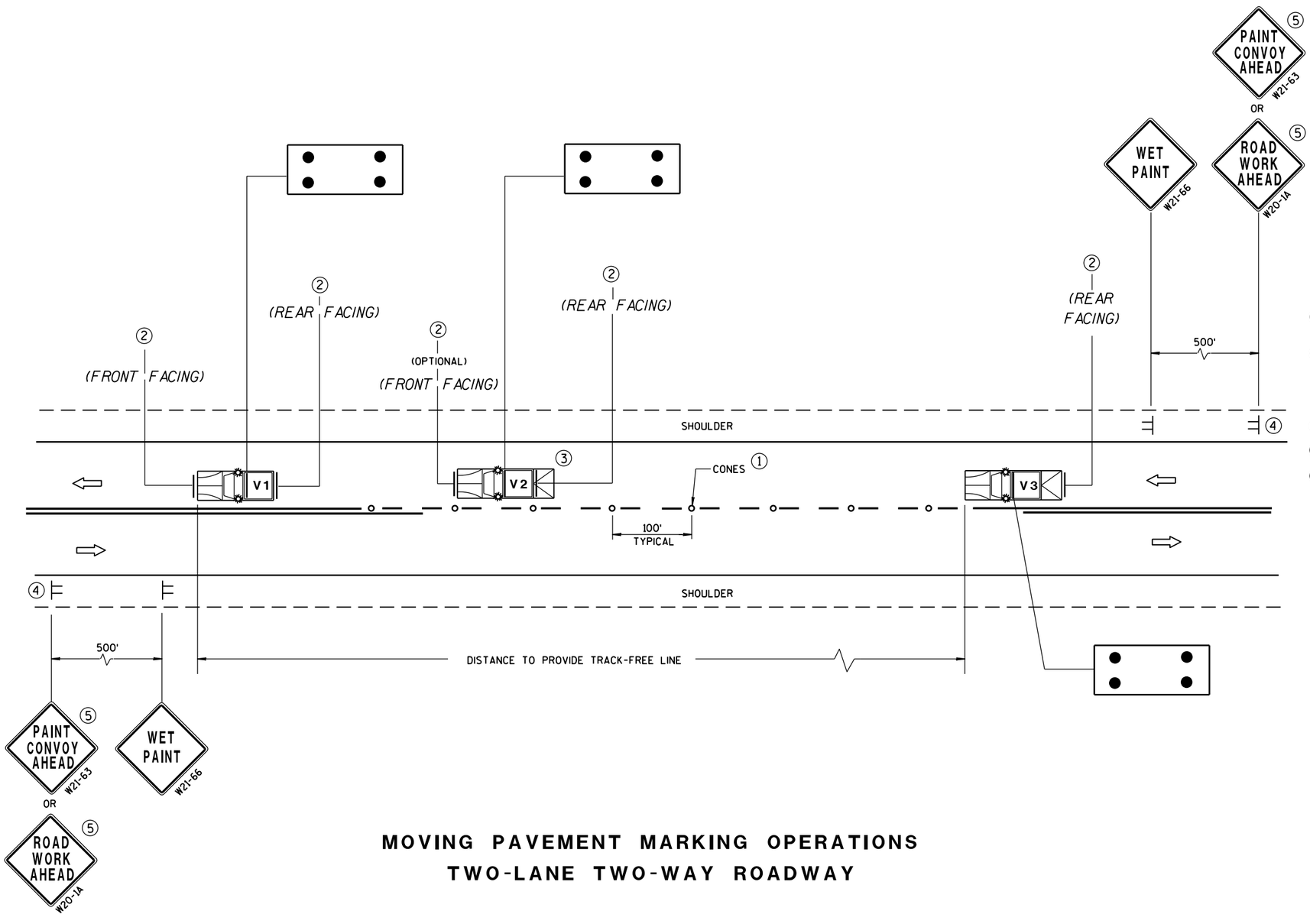
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

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S.D.D. 15 C 12-6



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

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.

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.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

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

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

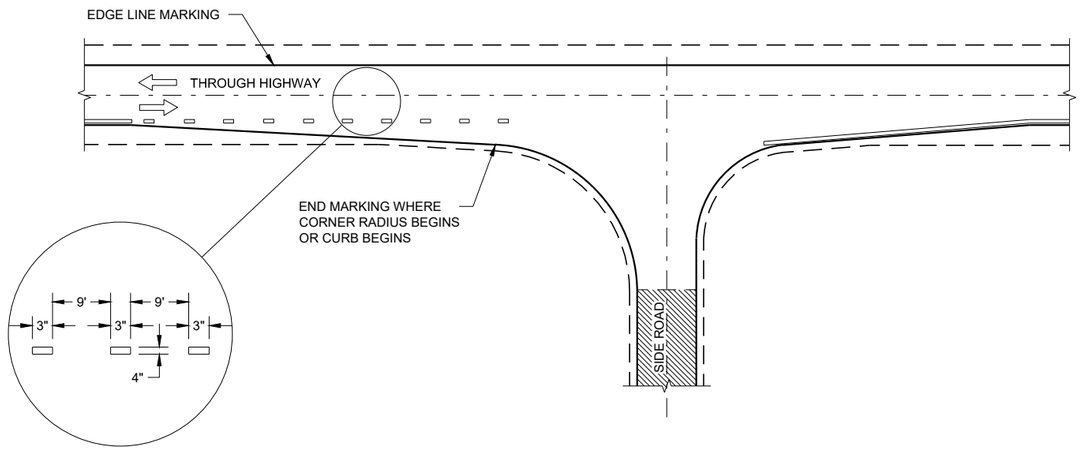
LEGEND

- **V1** LEAD VEHICLE
- **V2** SHADOW VEHICLE
- **V3** TRAIL VEHICLE WITH TMA
- **TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

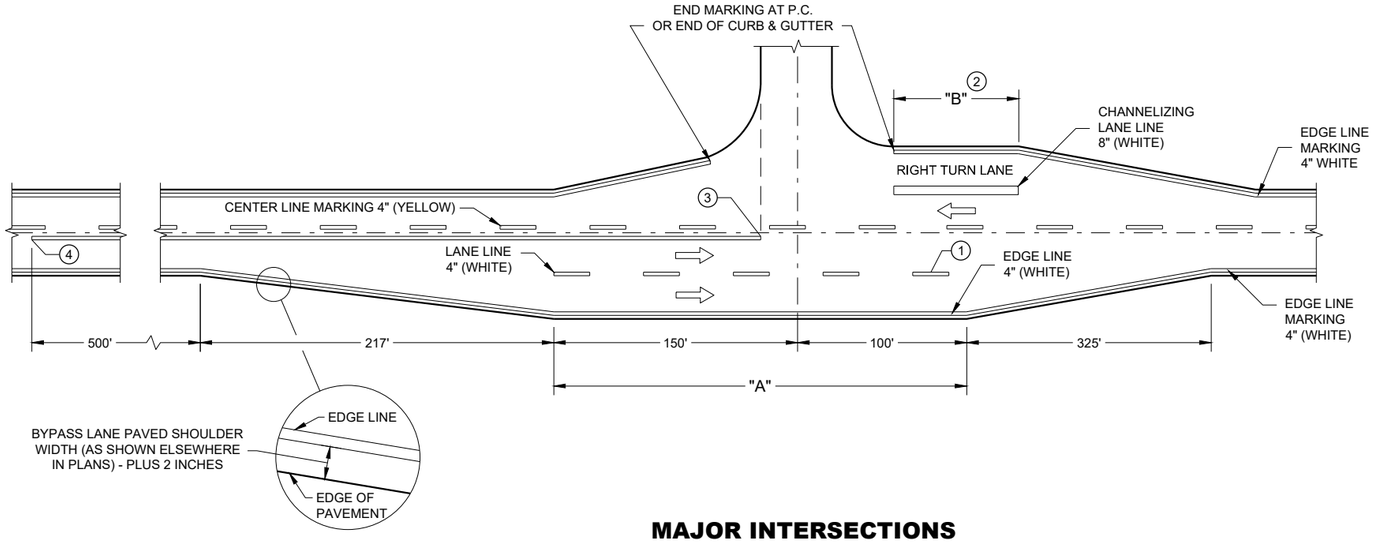
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	

6

S.D.D. 15 C 19-5a



MINOR INTERSECTION



MAJOR INTERSECTIONS

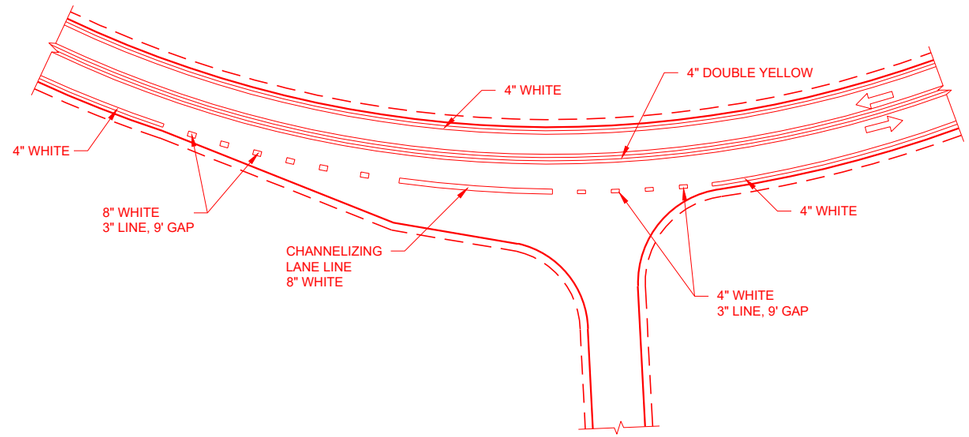
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 03a

6

SDD 15C35 - 03a

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

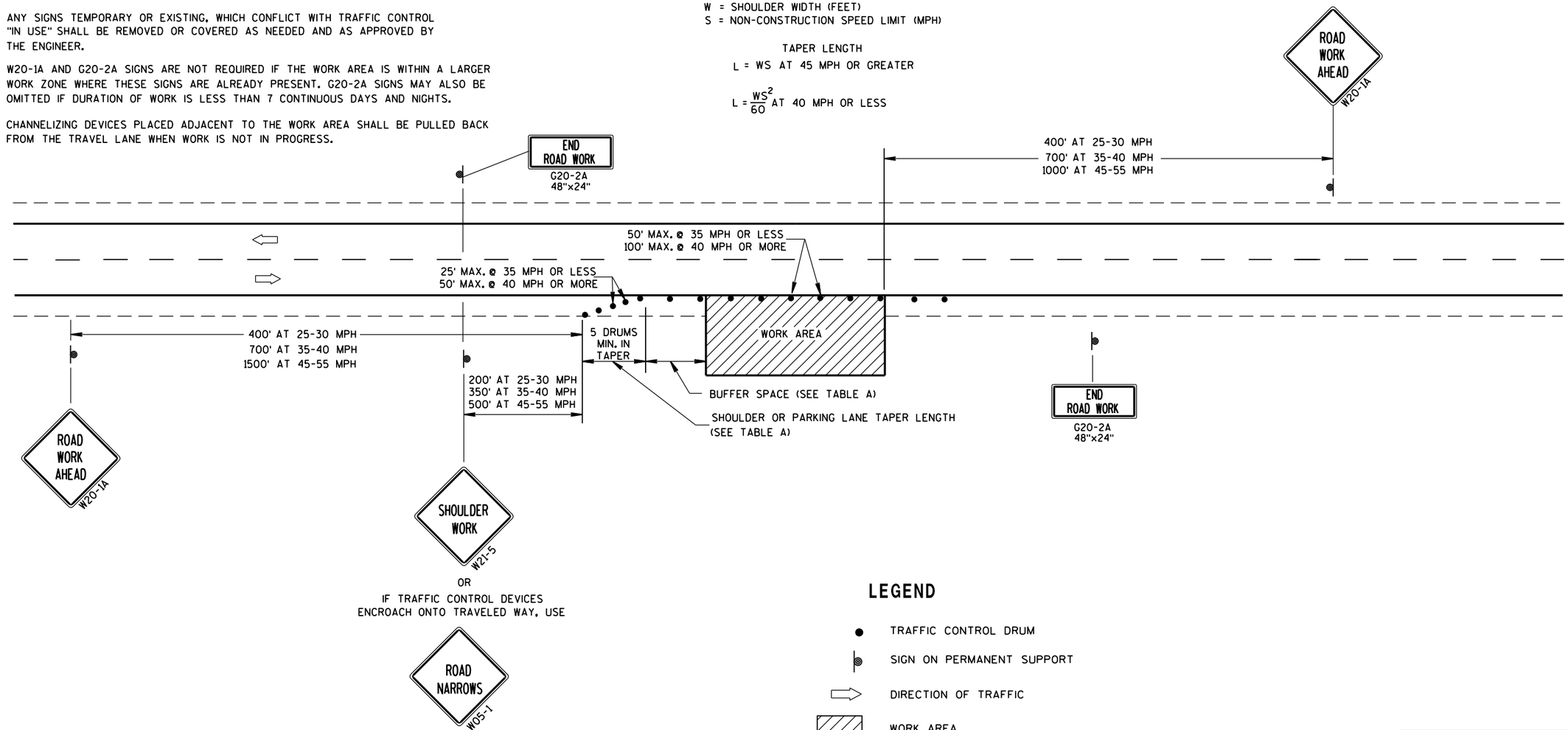
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

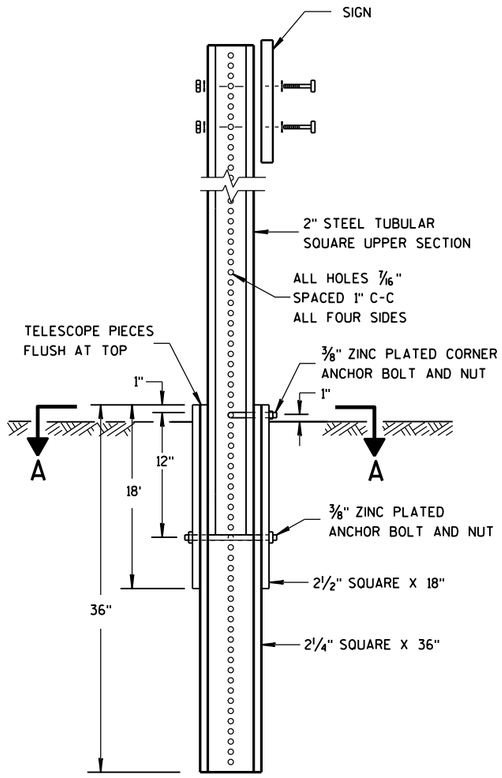
July 14, 2015 — DATE

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

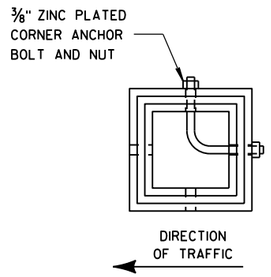
FHWA

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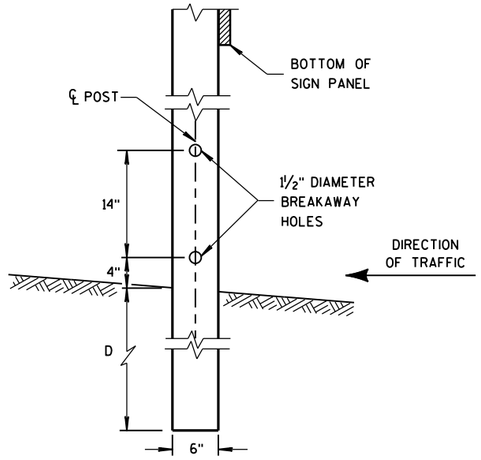
S.D.D. 15 D 28-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



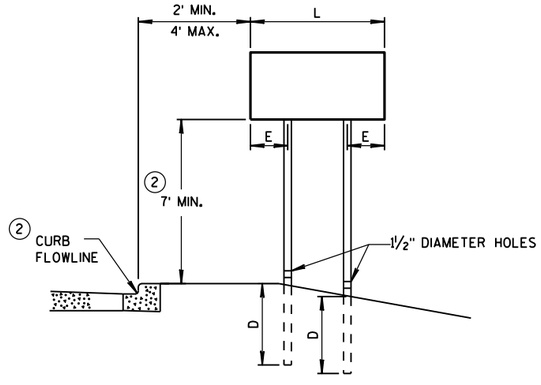
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

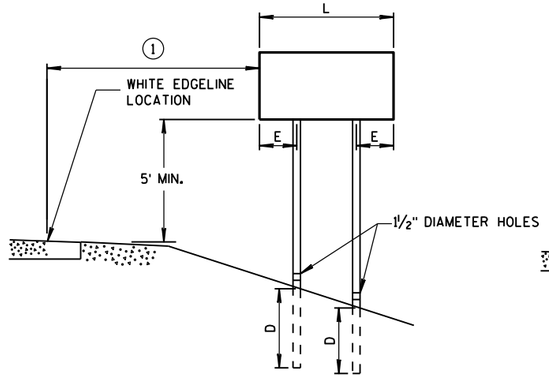
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

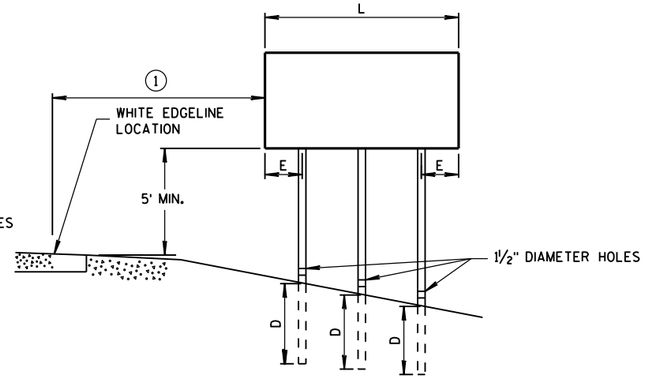
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

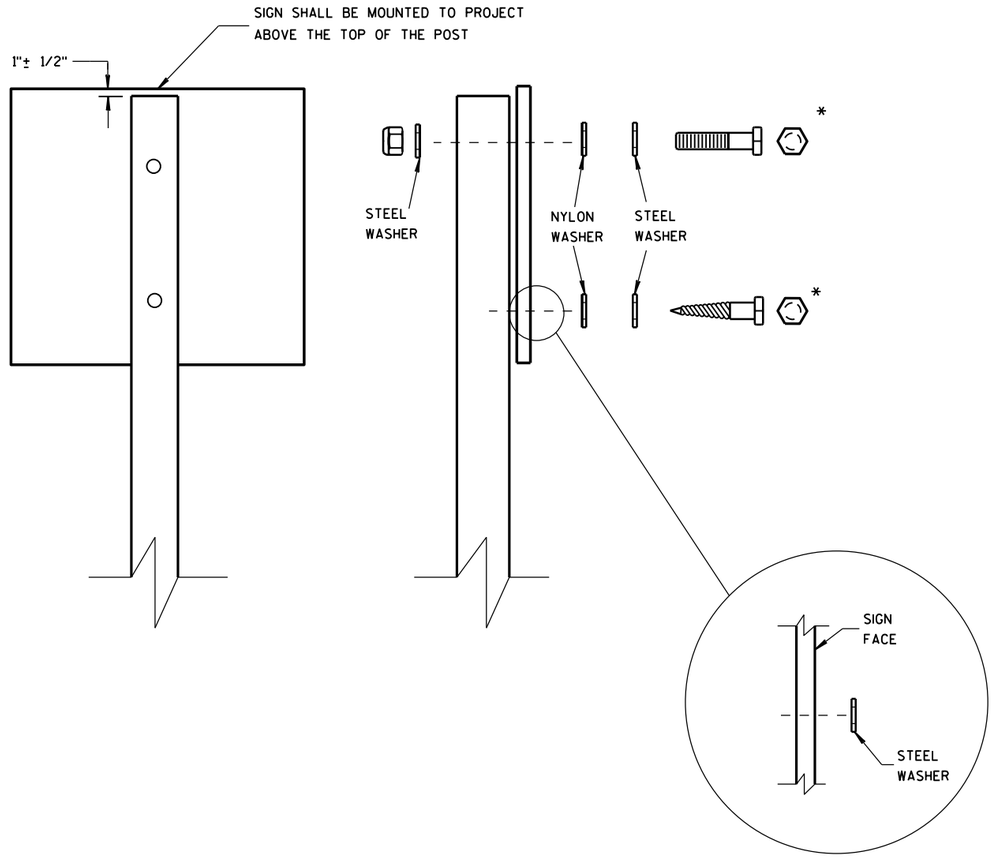
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

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

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

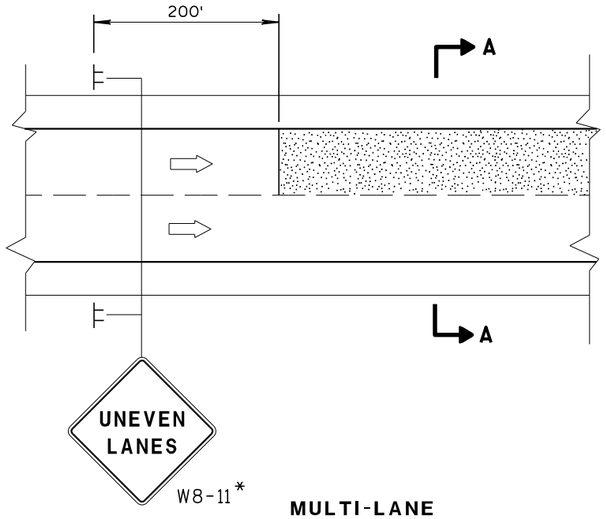
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

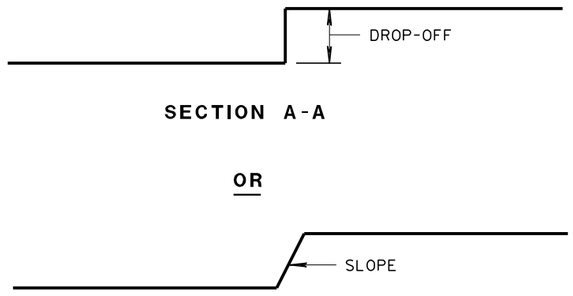
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA



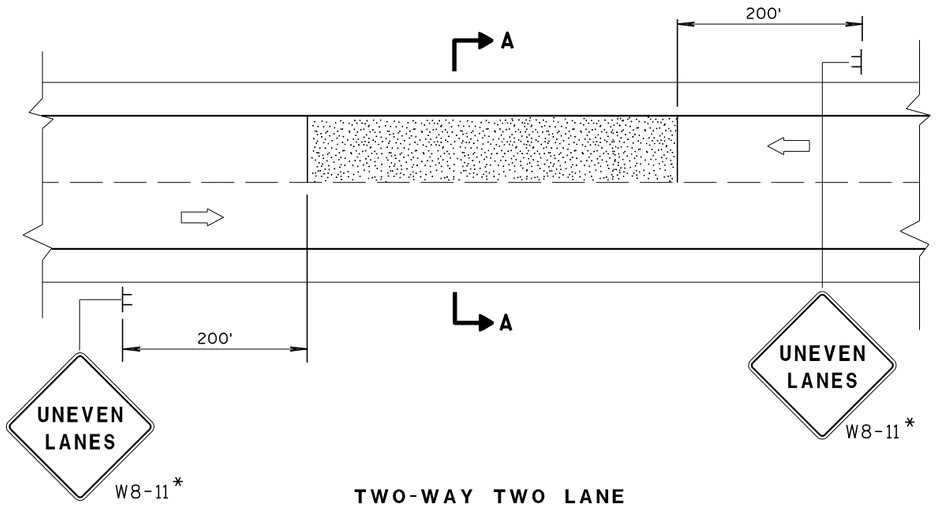
MULTI-LANE



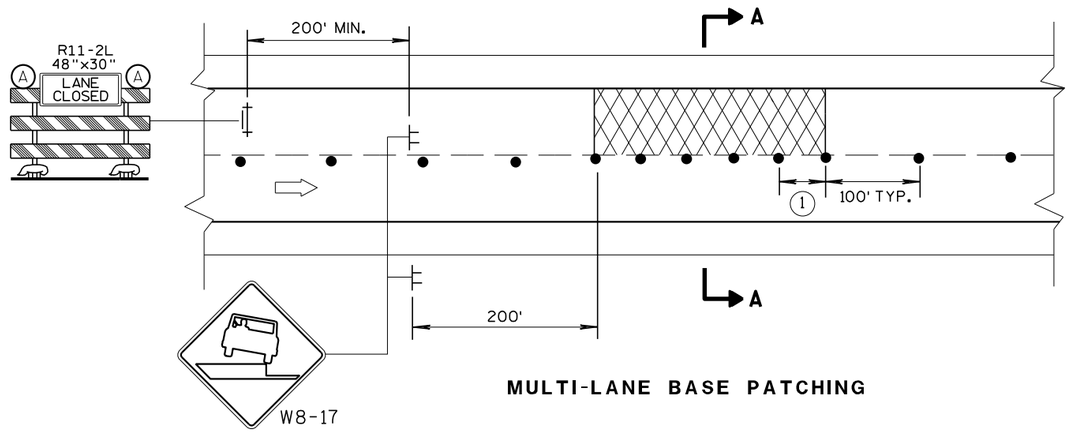
SECTION A-A

OR

SECTION A-A

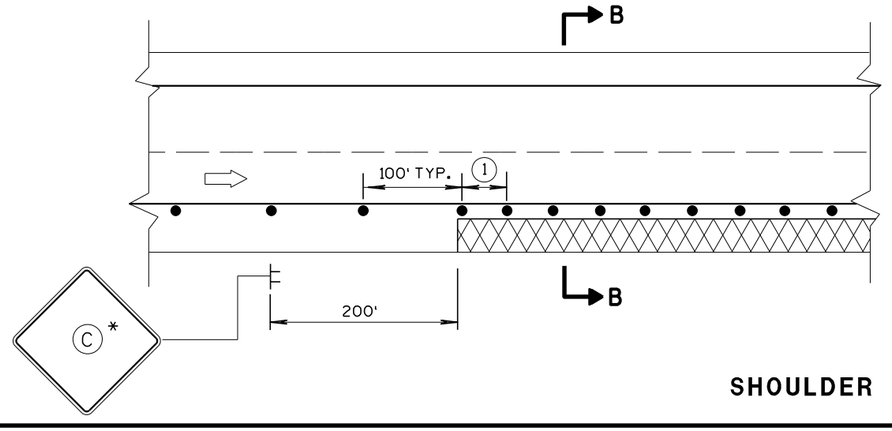


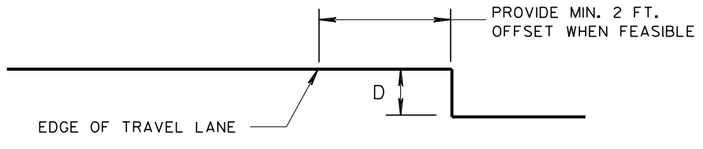
TWO-WAY TWO LANE



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS





SECTION B-B

SHOULDER DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

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

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

LEGEND

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

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 H — WORK ZONE EN
FHWA

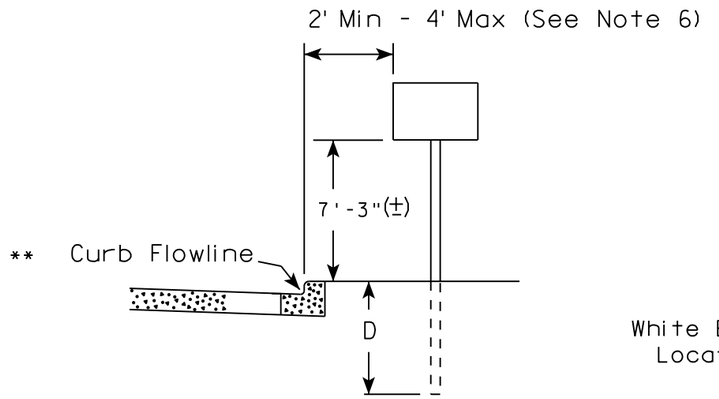
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S.D.D. 15 D 39-2

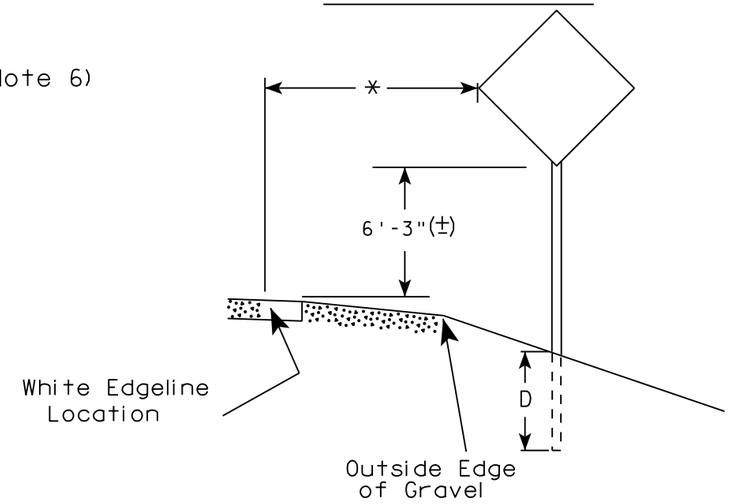
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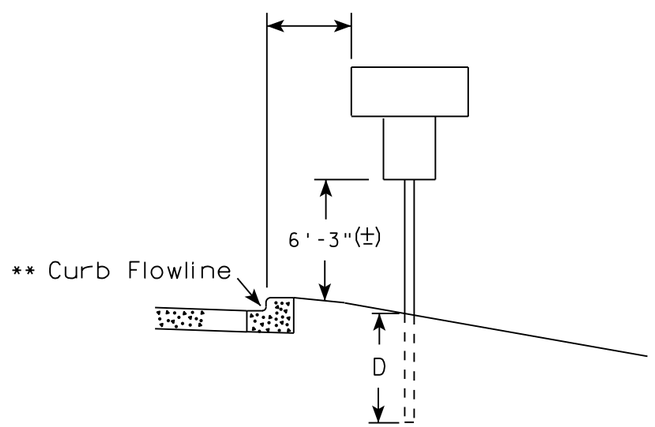
S.D.D. 15 D 39-2

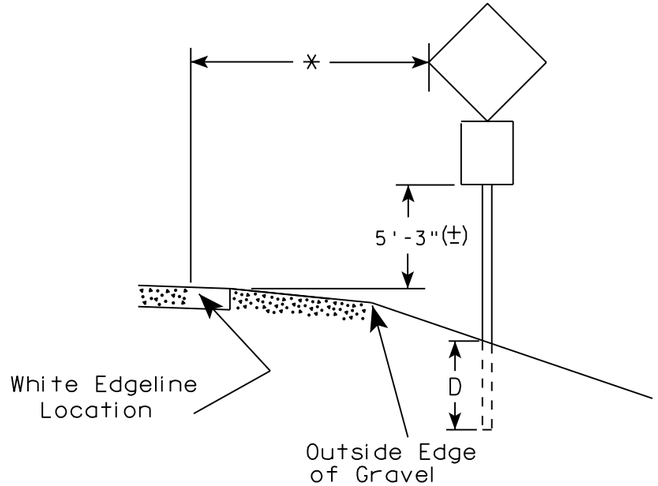
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

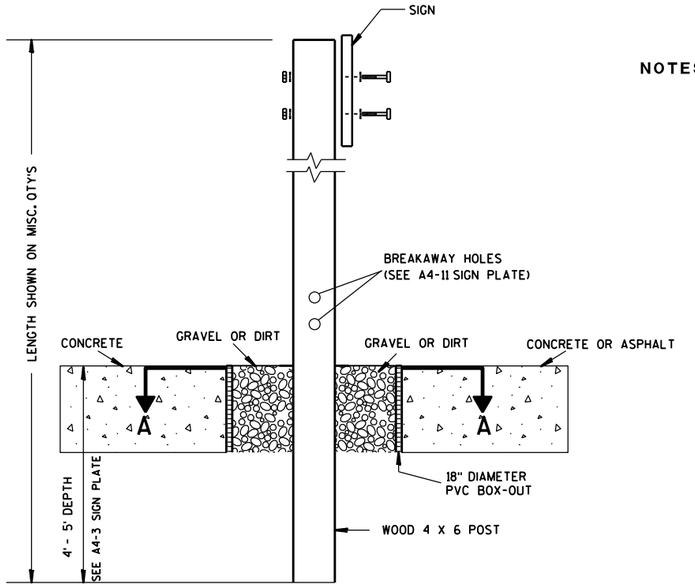
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7

7

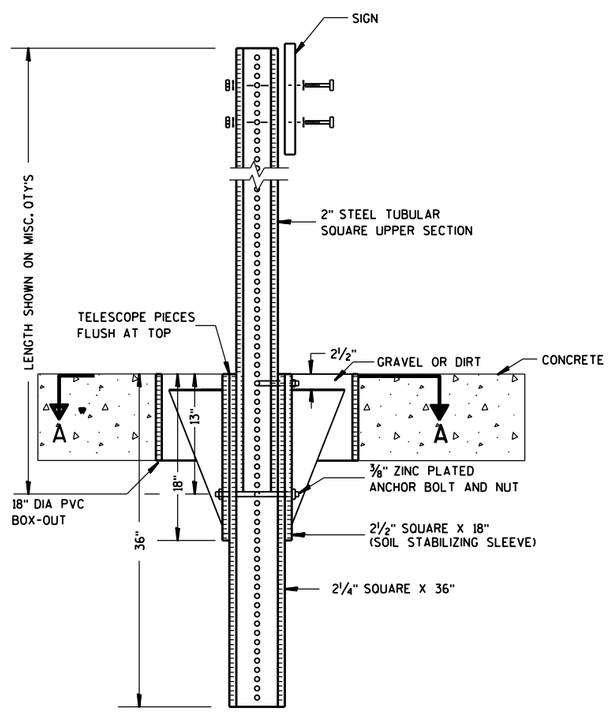
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 36	E



ELEVATION VIEW

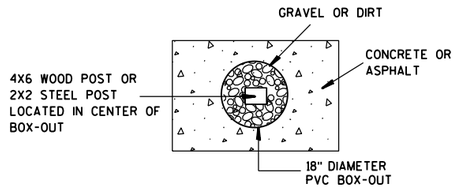
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

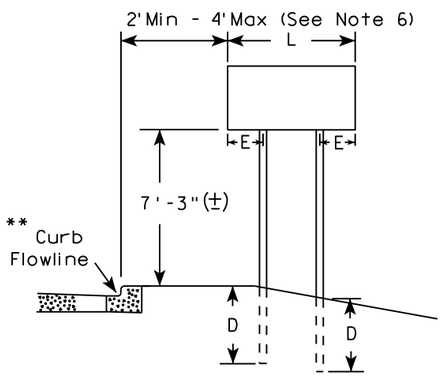
APPROVED Matthew R Rauch
for State Traffic Engineer

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

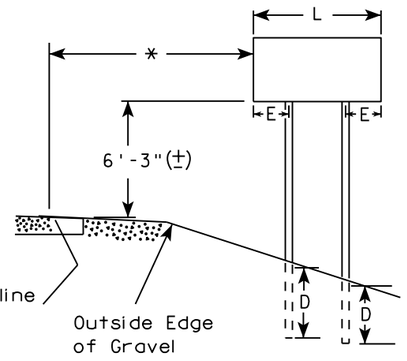
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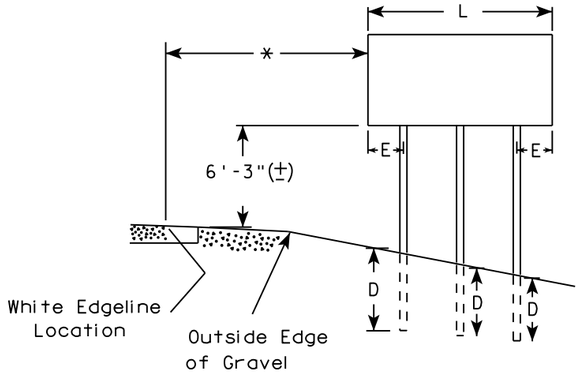
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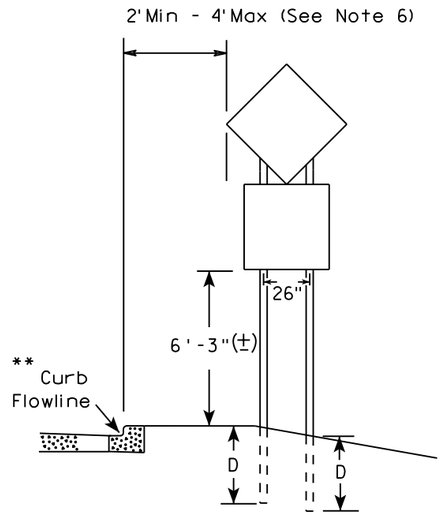
URBAN AREA



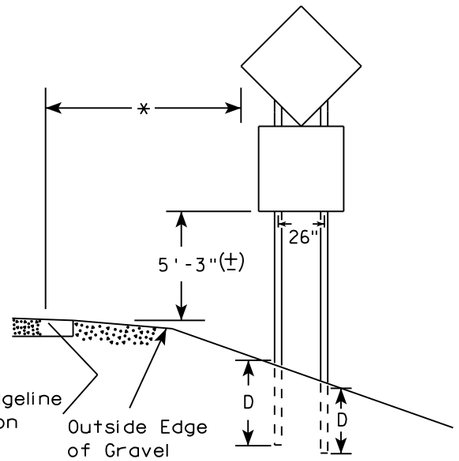
RURAL AREA (See Note 3)







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'

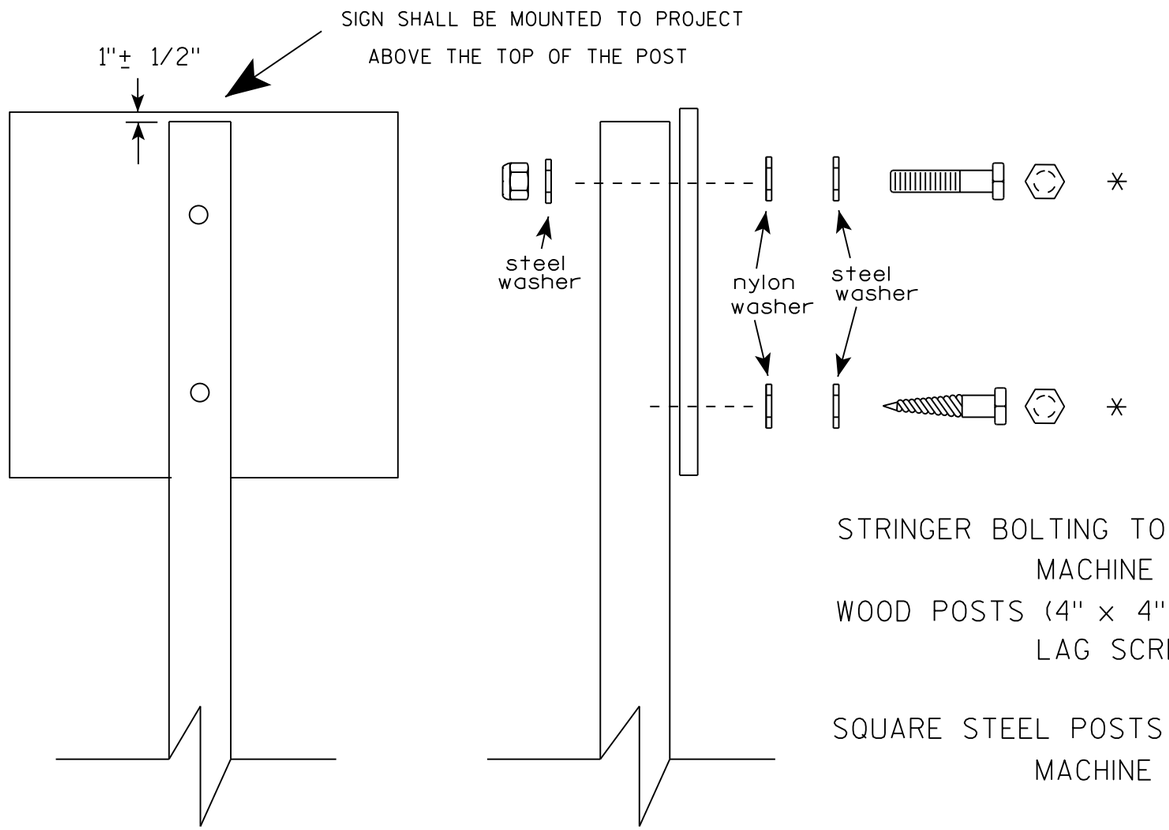
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 38	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 4" or 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

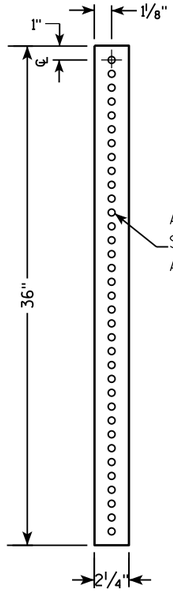
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

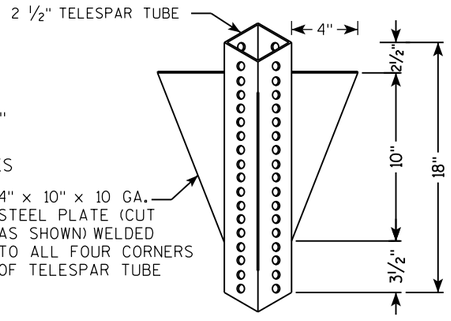
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

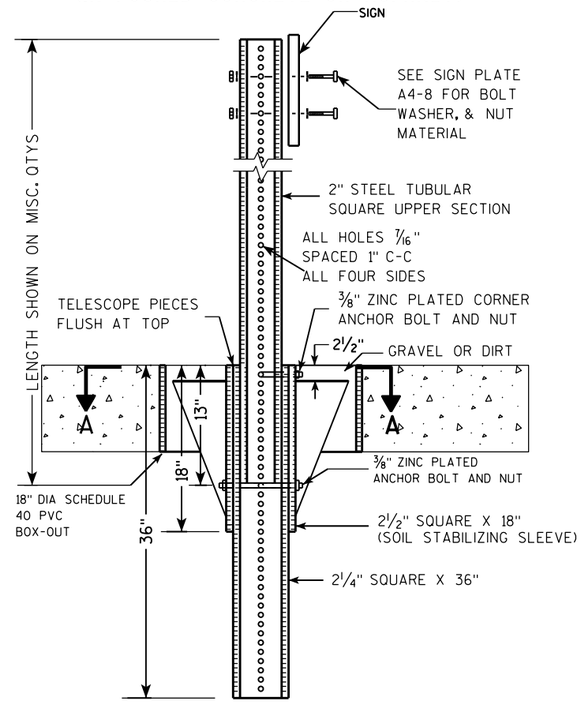
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



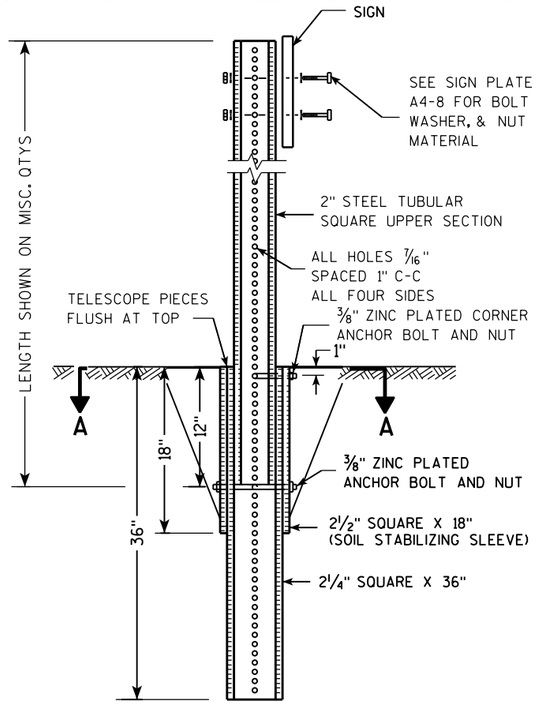
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

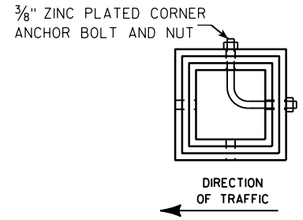


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

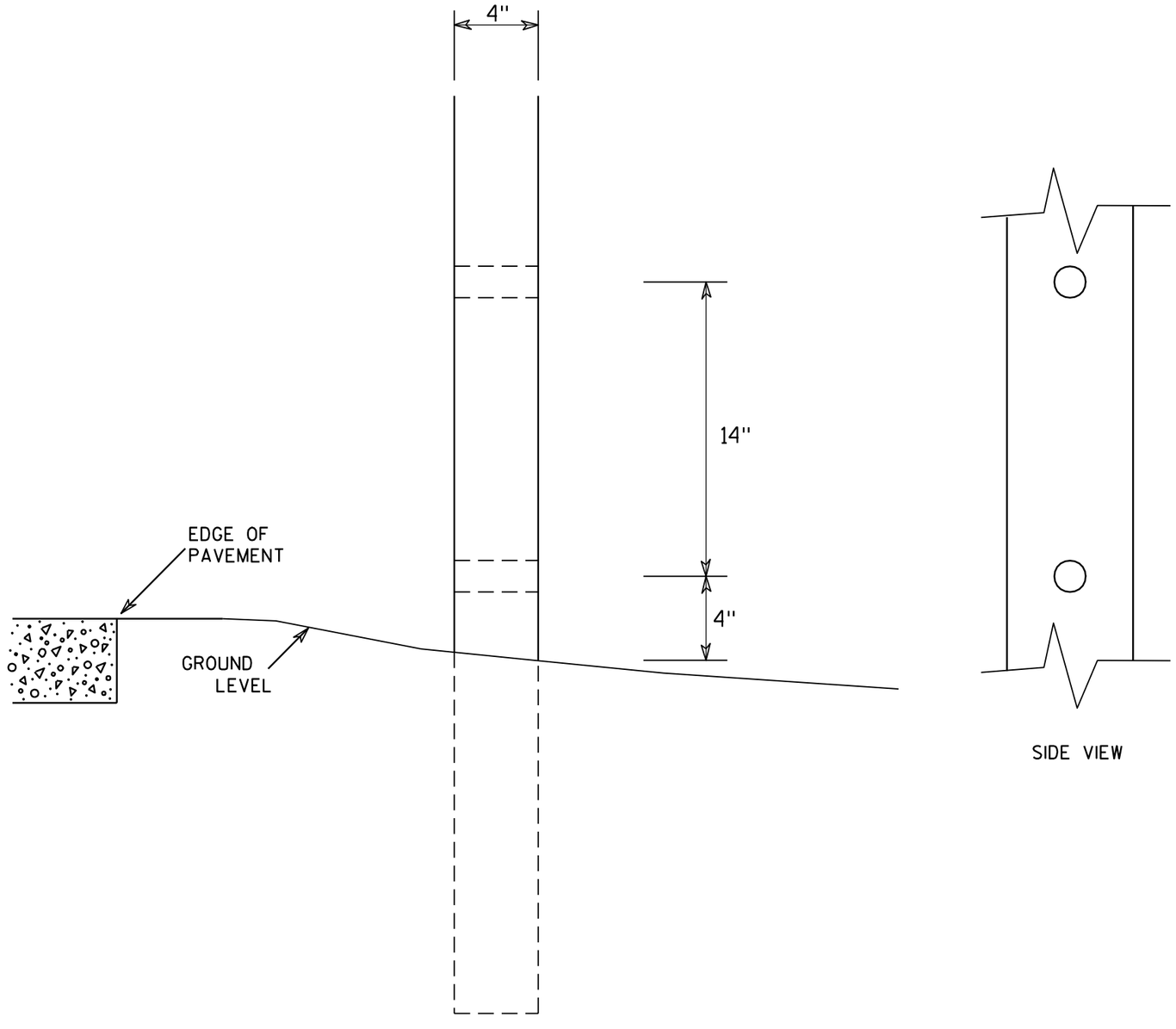
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 40 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

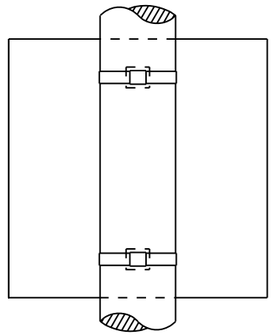
APPROVED Chester J Spang for State Traffic Engineer

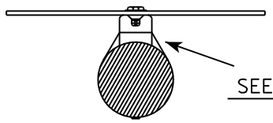
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 41	E

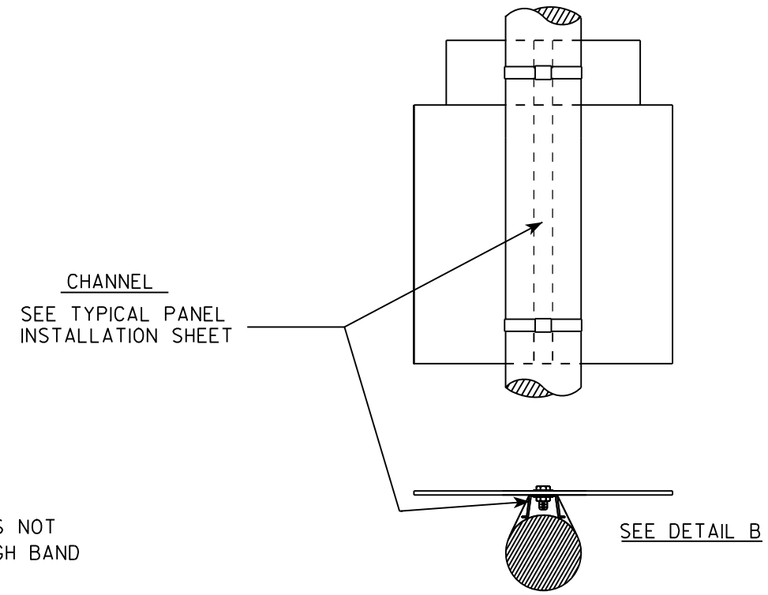
BANDING

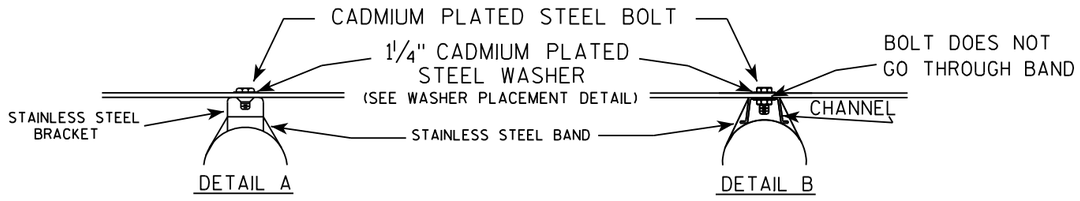
SINGLE SIGN



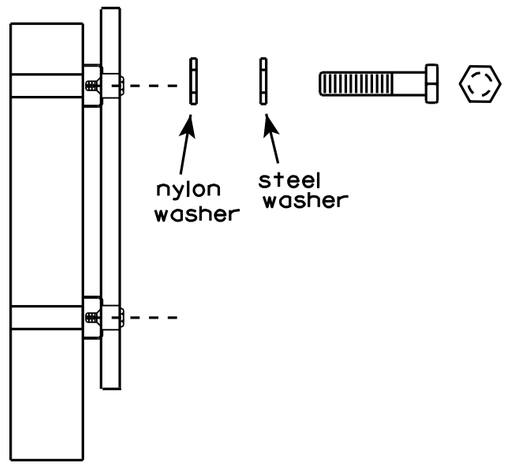


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

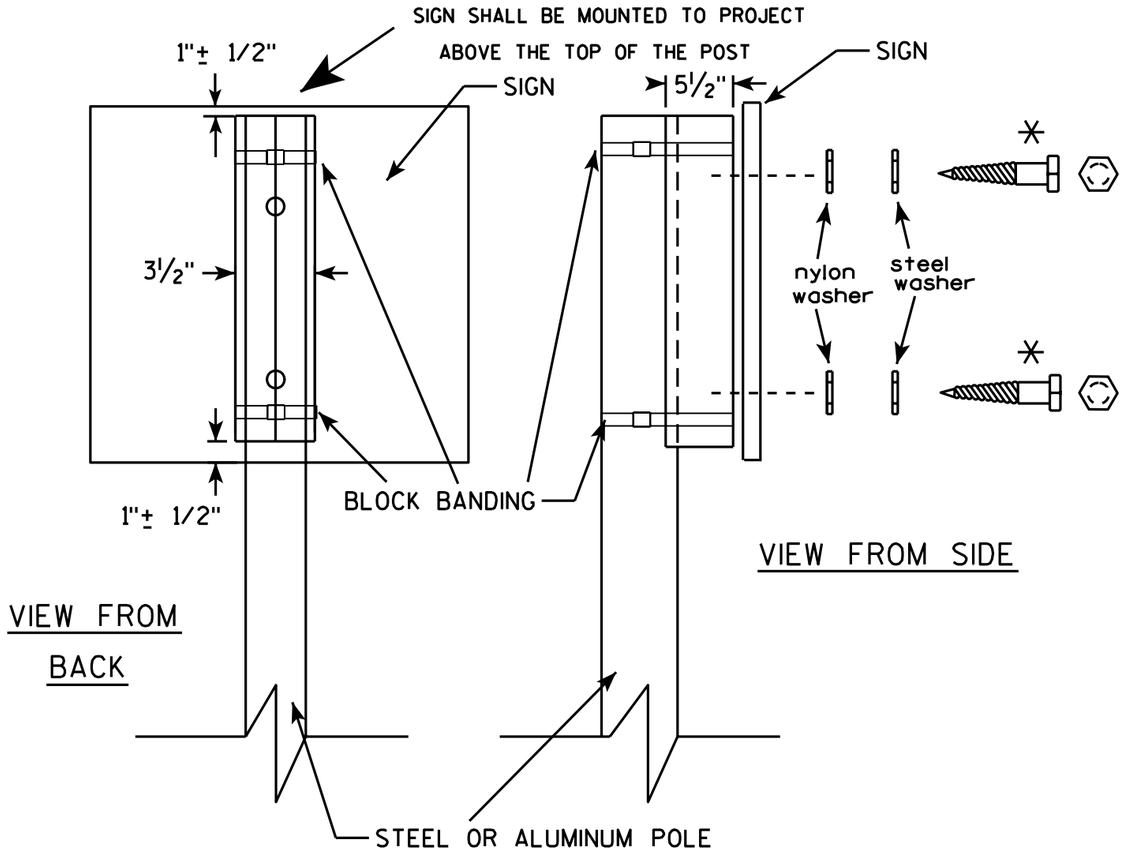
STANDARD SIGN
SIGN BANDING DETAILS

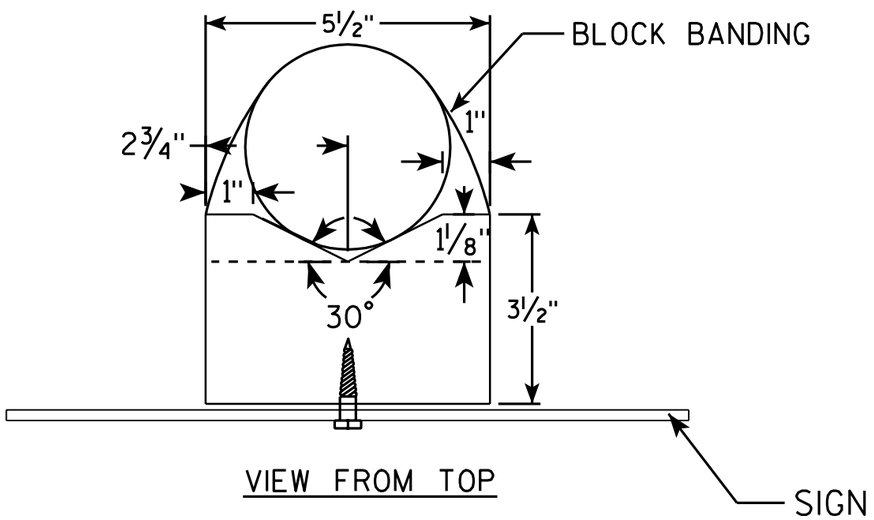
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

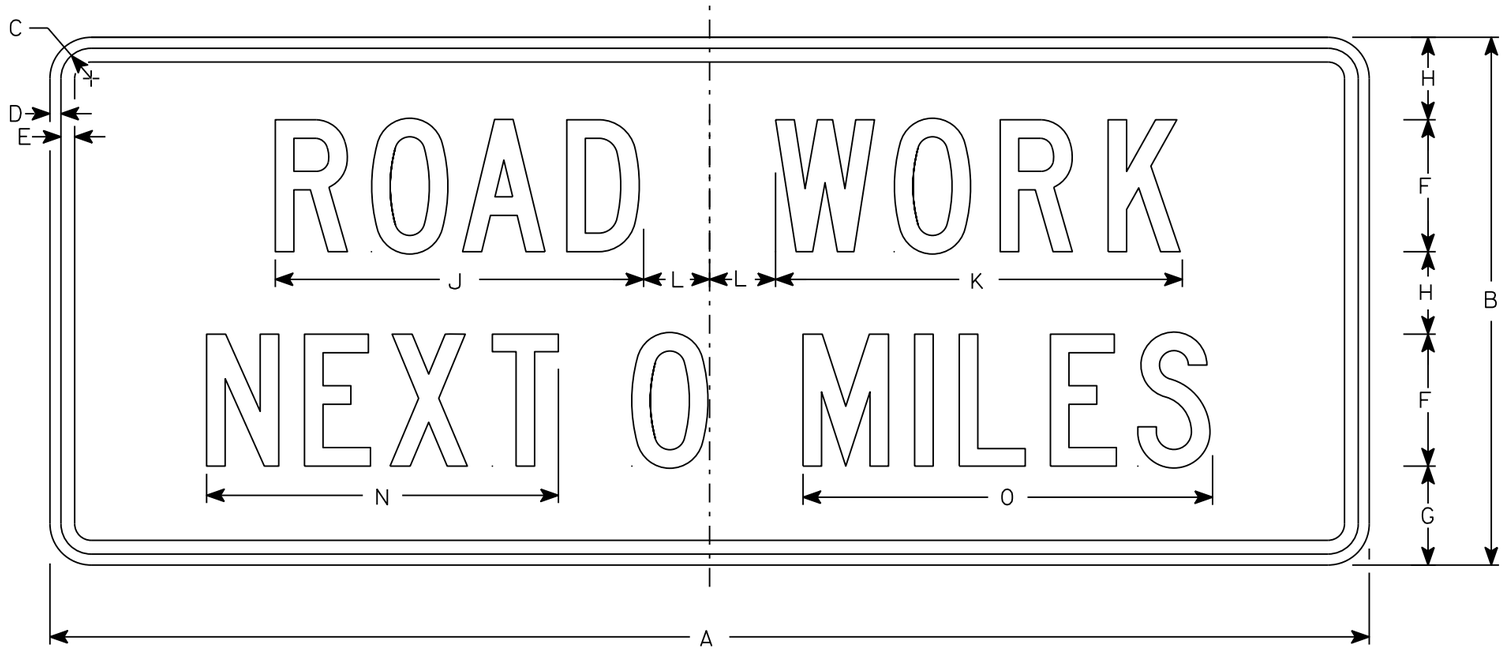
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 43 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



G20-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
5																											

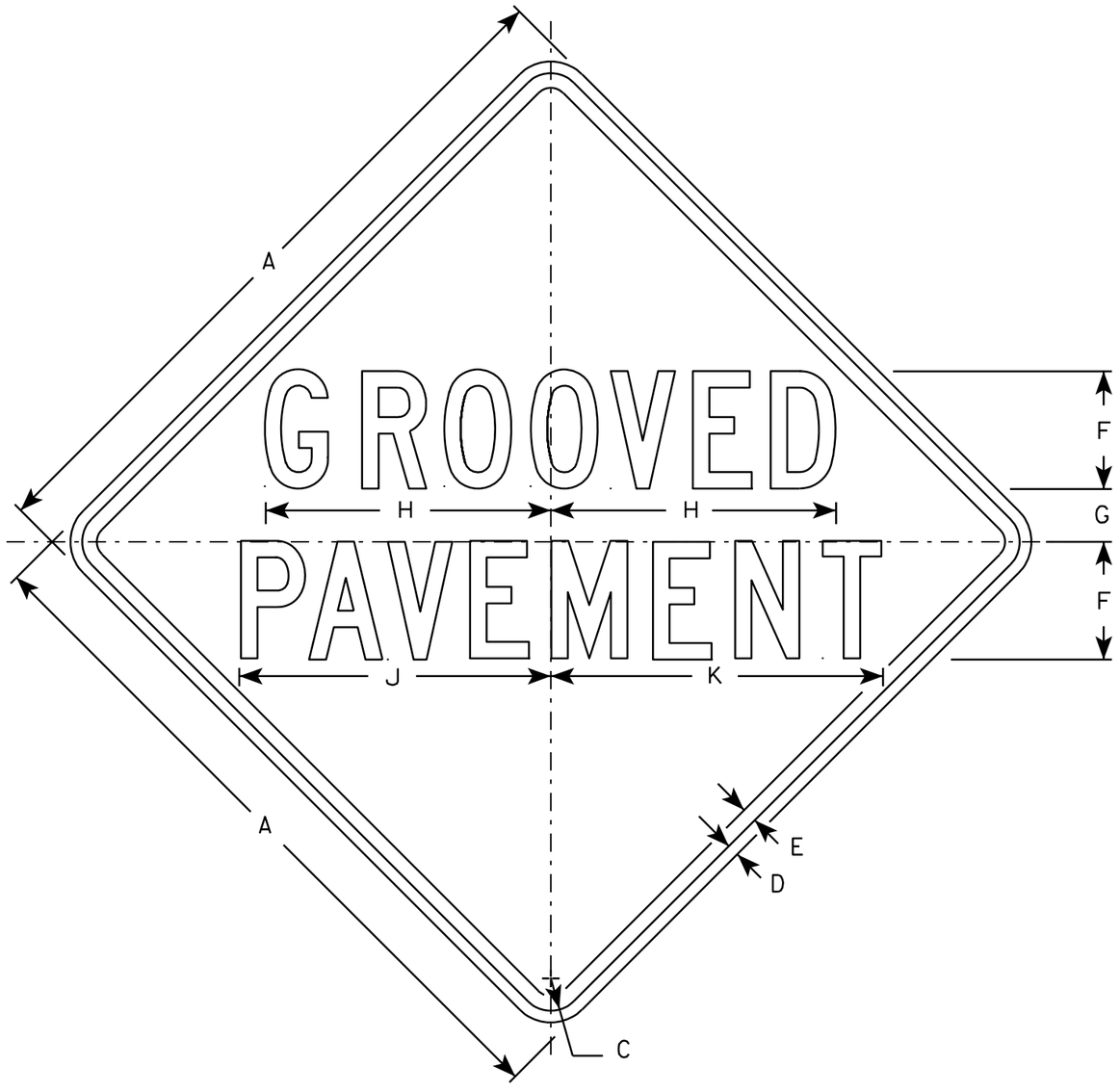
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 44 | E



W8-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	5	2 1/4	12 1/8		13 1/4	14 1/8																6.25
2M	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
3	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
4	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
5	48		2 1/4	3/4	1	8	3 1/2	19 3/8		21 1/4	22 5/8																16.0

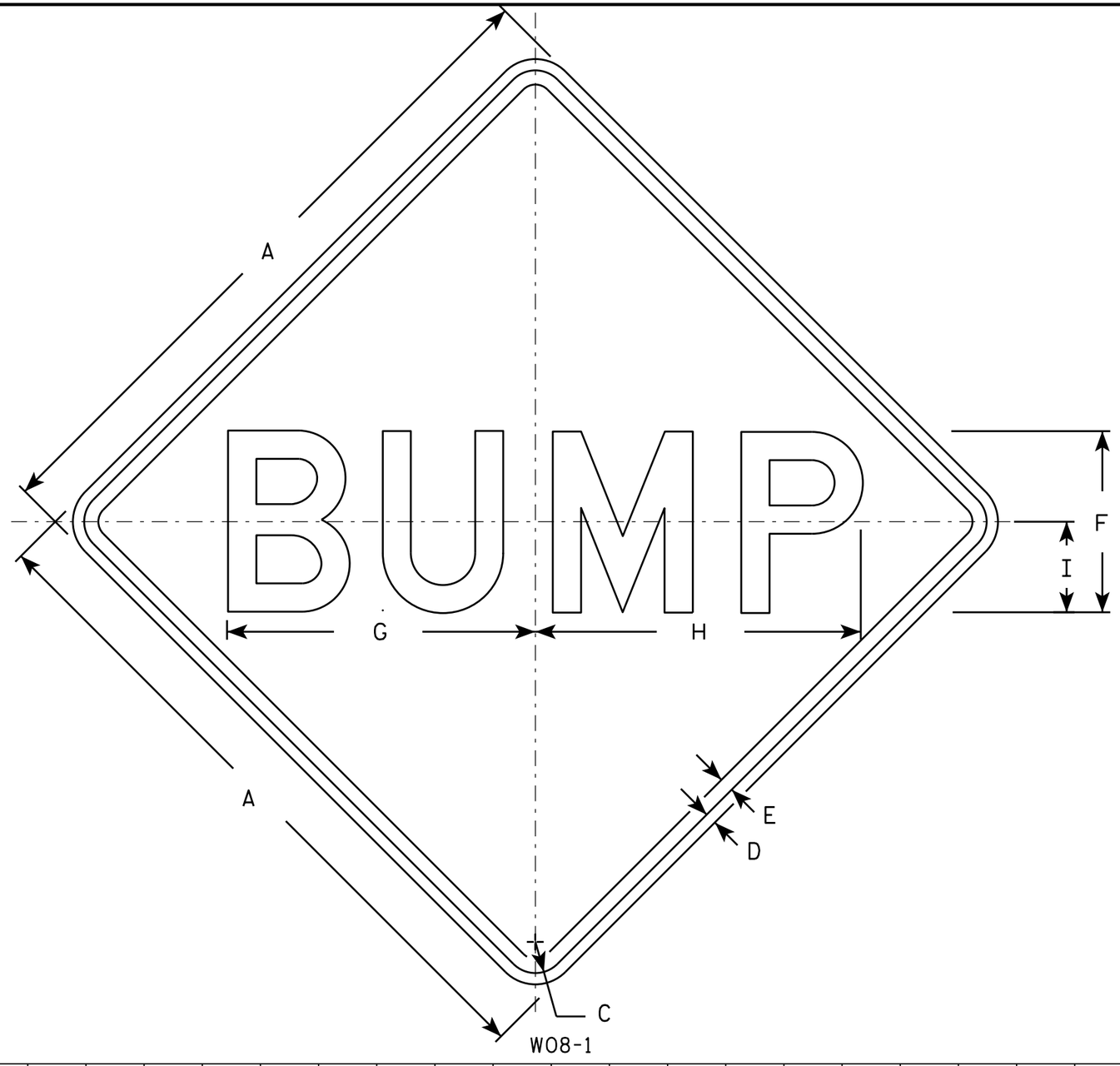
STANDARD SIGN
W8-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-52.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 45	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	10	16 7/8	17 7/8	5																		9.0
2S	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
2M	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
3	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
4	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
5	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0

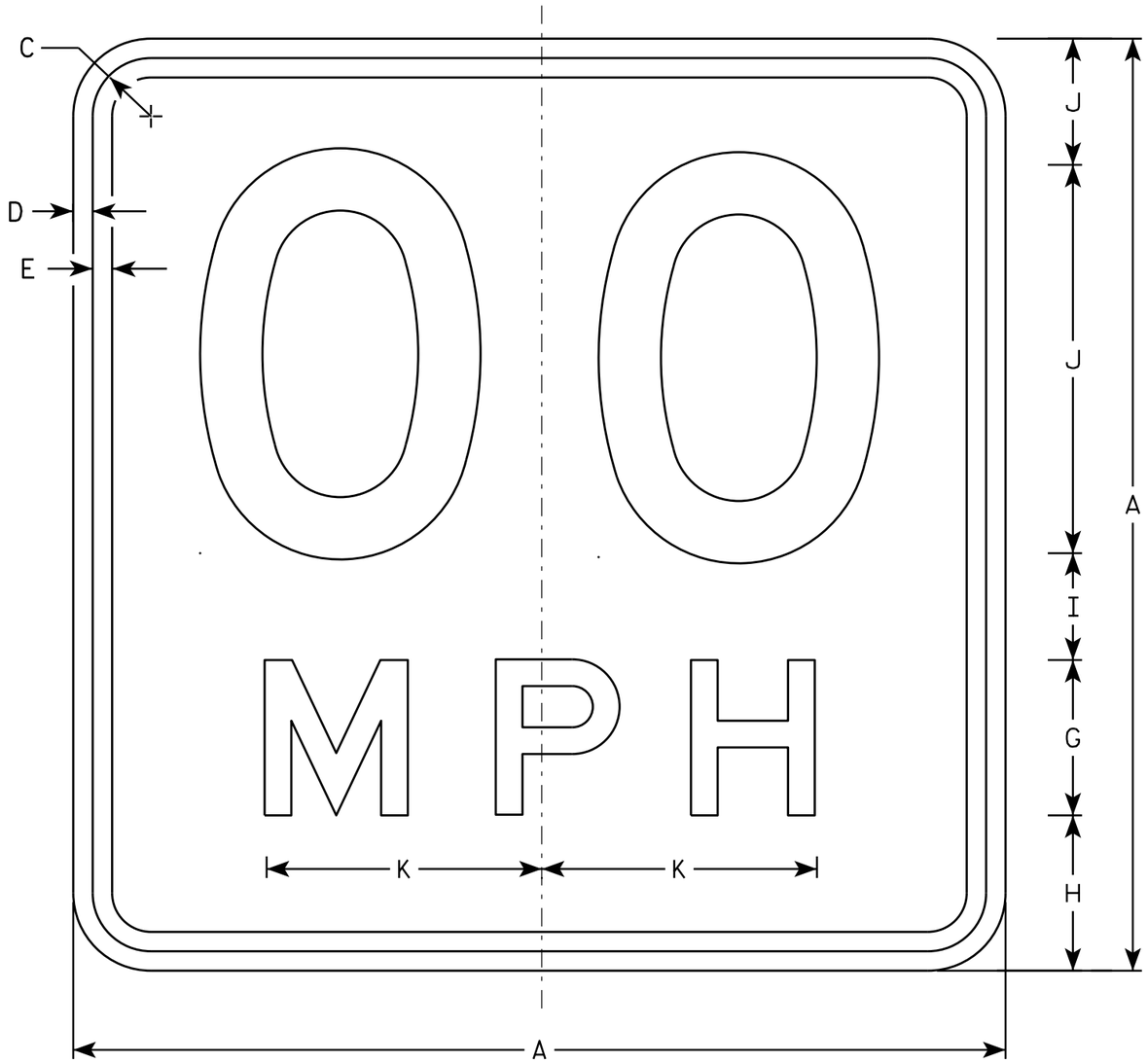
STANDARD SIGN
W08-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 146 W08-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W013-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 47 W013-1.1

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

SUP

MAY 2019

PROJECT ID: 1550-06-74

WITH: 1550-04-73, 1550-04-75, 1550-22-71

COUNTY: WASHBURN

ORDER OF SHEETS

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

TOTAL SHEETS = 152



46

N

DESIGN DESIGNATION

A.A.D.T.	2019	=	10,250
A.A.D.T.	2039	=	11,250
D.H.V.	2039	=	1,500
D.D.		=	59/41
T.		=	10.2%
DESIGN SPEED		=	35 - 45 MPH
ESALS		=	1,700,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE (P/L)
- LOT LINE
- LIMITED HIGHWAY EASEMENT (TLE)
- EXISTING RIGHT OF WAY (R/W)
- PROPOSED OR NEW R/W LINE (FEE)
- 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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C SPOONER, RIVER STREET

GREEN VALLEY ROAD TO GREENWOOD AVE

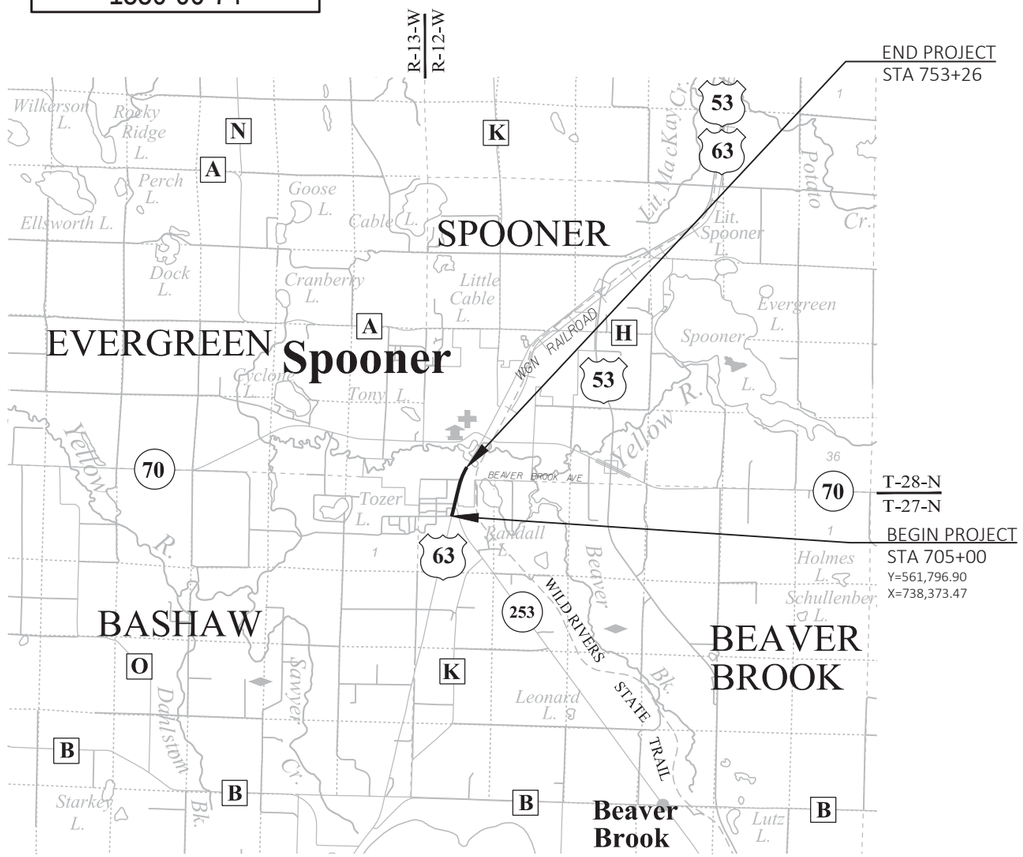
USH 63

WASHBURN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1550-06-74	WISC 2019324	1

STATE PROJECT NUMBER

1550-06-74



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.914 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WASHBURN COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), 1991 ADJUSTMENT.

emcs inc

500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E-35808
WAUSAU, WI
PROFESSIONAL ENGINEER

12/31/18 (Date) Stephanie G. Christensen (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	BETH CUNNINGHAM, PE
Regional Examiner	BETH CUNNINGHAM, PE
Regional Supervisor	ANDREW STENSLAND, PE

APPROVED FOR THE DEPARTMENT

DATE: 1/2/19 Andrew Stensland (Signature)

E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 12/31/2018 9:04 AM

PLOT BY : DREW NELSON

PLOT NAME :

GENERAL NOTES

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

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 433B, CONSTRUCTION YEAR: 1931
PROJECT NO: 377A, CONSTRUCTION YEAR: 1936
PROJECT NO: 1197-03-70, CONSTRUCTION YEAR: 1969
PROJECT NO: 1198-03-71, CONSTRUCTION YEAR: 1983
PROJECT NO: 0088-05-03, CONSTRUCTION YEAR: 1986
PROJECT NO: 1190-03-71, CONSTRUCTION YEAR: 1989
PROJECT NO: 1550-12-60, CONSTRUCTION YEAR: 1995
PROJECT NO: 1550-18-71, CONSTRUCTION YEAR: 2004

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
EROSION CONTROL
PERMANENT SIGNING
MARKING
TRAFFIC CONTROL

UTILITIES

COMMUNICATIONS

CENTURYLINK
RUSSELL VANCE
135 N 21ST STREET
SUPERIOR, WI 54880
(715) 392-0045 (OFFICE)
(715) 919-8003 (MOBILE)
RUSSELL.VANCE@CENTURYLINK.COM

CHARTER COMMUNICATIONS
TOM HAASE
2304 S. MAIN ST.
RICE LAKE, WI. 54868
(715) 719-0564
(715) 418-9317
TOM.HAASE@CHARTER.COM

CINC
DAREN BAUER
105 GARIFIELD AVE.
EAU CLAIRE, WI 54701
(715) 836-5286 OFFICE
BAUERDP@UWEC.EDU

MOSIAC TELECOM
DENNIS RUSSETT
401 S. 1ST ST.
CAMERON, WI 54822
(715) 458-5378 OFFICE
(715) 458-5518 MOBILE
CTCDENNIS@MOSAICTELECOM.COM

ELECTRIC - DISTRIBUTION

BARRON ELECTRIC COOPERATIVE
SCOTT DEVOE
1550 PAULSON DRIVE
SPOONER, WI 54801
(715) 637-6131
SDEVOE@BARRONELECTRIC.COM

CITY OF SPOONER
GARY JOHNSON
P.O. BOX 548
SPOONER, WI 54801
(715) 635-8769 OFFICE
(715) 520-0203 MOBILE
JOHNSONG@CITYOFSPOONER.ORG

ELECTRIC - TRANSMISSION

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

GAS/PETROLEUM

WE ENERGIES
RYAN MIENTKE
1921 S. 8TH ST.
WISCONSIN RAPIDS, WI 54494
(715) 421-7249 OFFICE
(715) 421- 9293 MOBILE
RYAN.MIENTKE@WE-ENERGIES.COM
EMERGENCY 24-HOUR DISPATCH 1-800-261-5325

SEWER

CITY OF SPOONER
GARY JOHNSON
P.O. BOX 548
SPOONER, WI 54801
(715) 635-8769 OFFICE
(715) 520-0203 MOBILE
JOHNSONG@CITYOFSPOONER.ORG

WATER

CITY OF SPOONER
GARY JOHNSON
P.O. BOX 548
SPOONER, WI 54801
(715) 635-8769 OFFICE
(715) 520-0203 MOBILE
JOHNSONG@CITYOFSPOONER.ORG

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

DNR LIAISON

SHAWN HASELEU
810 W MAPLE ST
SPOONER, WI 54801
(715) 635-4228
SHAWN.HASELEU@WISCONSIN.GOV

2

N

TOWN OF BEAVER BROOK

CITY OF SPOONER

GOVERNOR
TOMMY G THOMPSON
STATE FISH HATCHERY

ASPHALTIC SHOULDER PREPARATION
STA 707+54 - STA 717+10, LT

ROADSIDE DRAINAGE RESTORATION
STA 727+86 - STA 740+98, LT

CURB & GUTTER EXTENSION
STA 727+53 - STA 727+86

GREEN VALLEY RD

DVM RD

LUTHER RD

W BEAVERBROOK AVE

VETERANS MEMORIAL
WATERFRONT PARK

YELLOW RIVER FLOWAGE

690 USH 63 700 710 720 730 740 750 760

END PROJECT
STA 753+26
END MILL & OVERLAY

N SUMMIT ST

E LINN ST

YELLOW RIVER

STH 70

BEGIN PROJECT
STA 705+00
BEGIN MILL & OVERLAY

STH 253

DURAND RD

DUR-A-BILT RD

W BEAVERBROOK AVE

ROADSIDE DRAINAGE RESTORATION
STA 722+66 - STA 740+30, RT

REPLACE GUARDRAIL
STA 745+84 - STA 752+03, LT & RT

BAY AVE

GREENWOOD AVE

USH 63

STH 70

GREEN VALLEY RD

CITY OF SPOONER

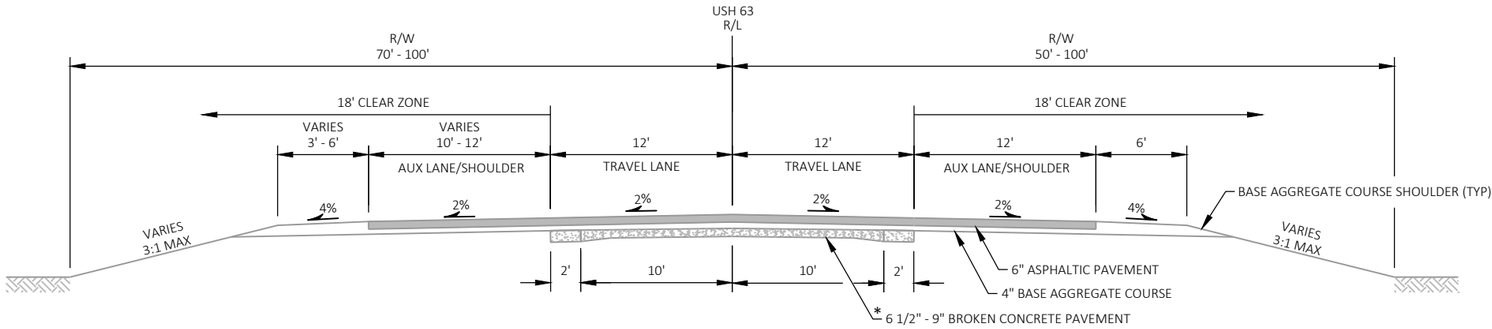
TOWN OF BEAVER BROOK

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PROJECT OVERVIEW	SHEET 3	E

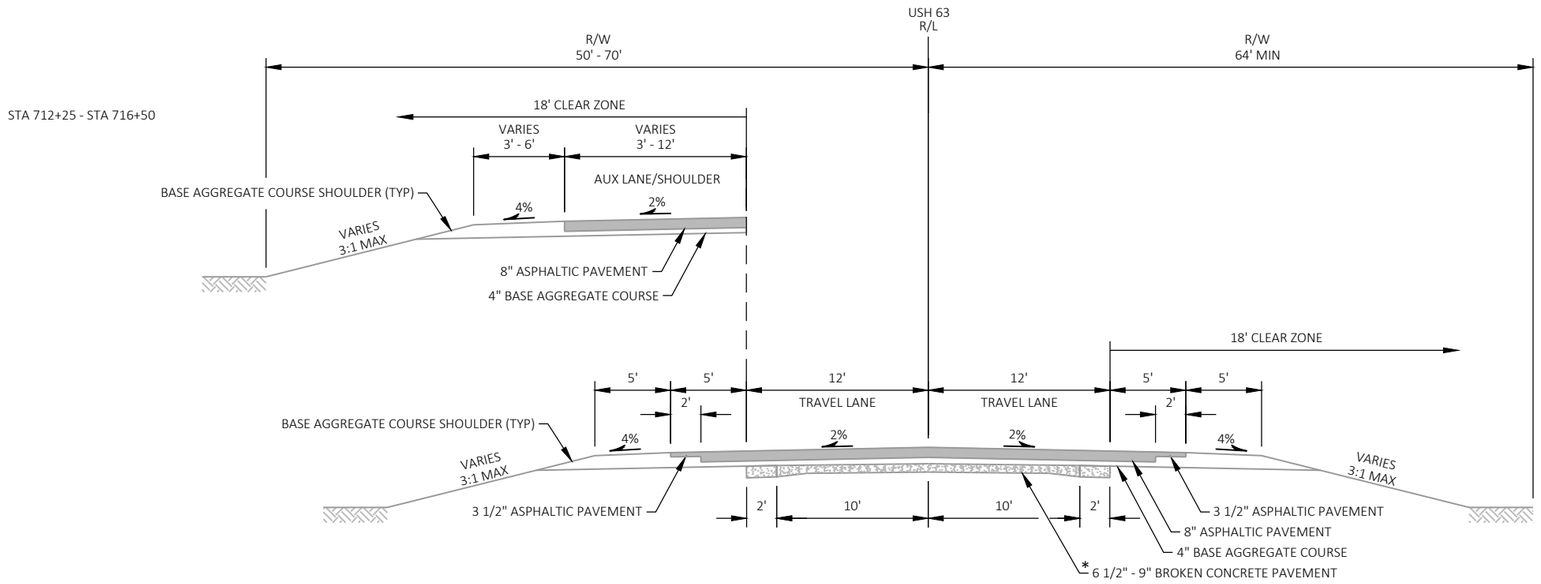
FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 1/8/2019 9:02 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:500 FT

2



TYPICAL EXISTING SECTION
USH 63
STA 705+00 - STA 712+25

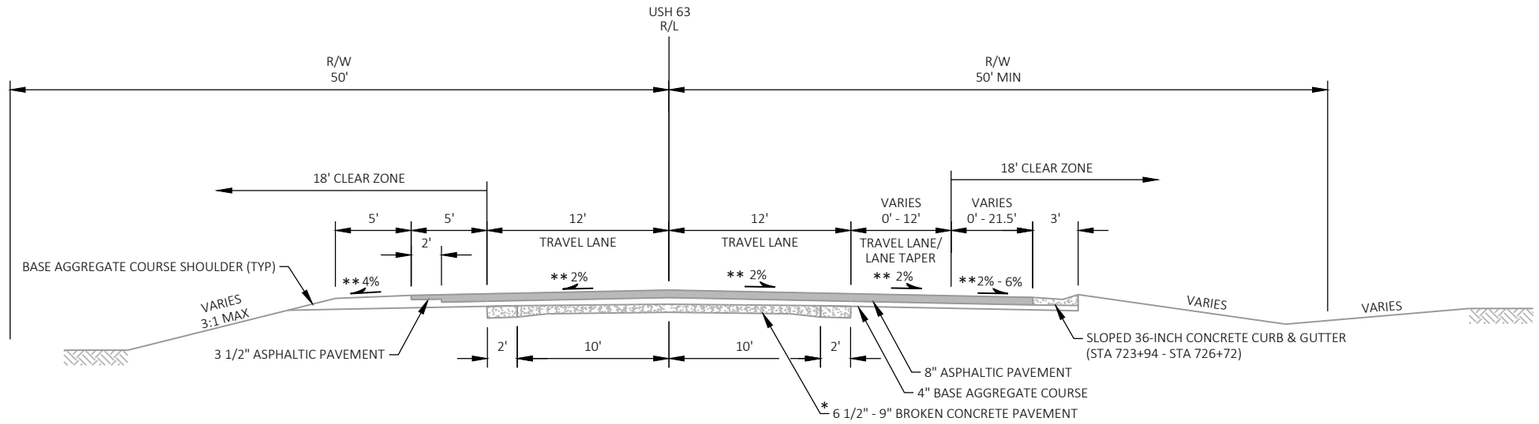


TYPICAL EXISTING SECTION
USH 63
STA 712+25 - STA 723+94

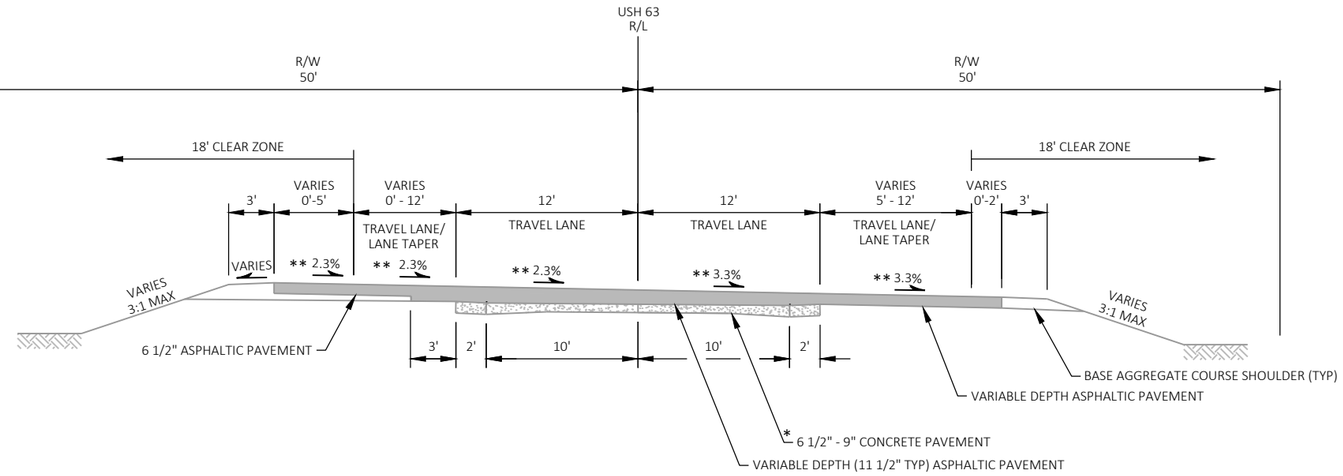
NOTES
EXISTING ASPHALTIC PAVEMENT DEPTHS ARE BASED ON AVAILABLE AS-BUILT DATA.

* EXISTING CONCRETE PAVEMENT VARIES IN THICKNESS FROM 6.5-INCHES AT THE CENTERLINE TO 9-INCHES AT THE OUTSIDE EDGE.

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 4	E



TYPICAL EXISTING SECTION
USH 63
STA 723+94 - STA 727+53



TYPICAL EXISTING SECTION
USH 63
STA 727+53 - STA 740+73

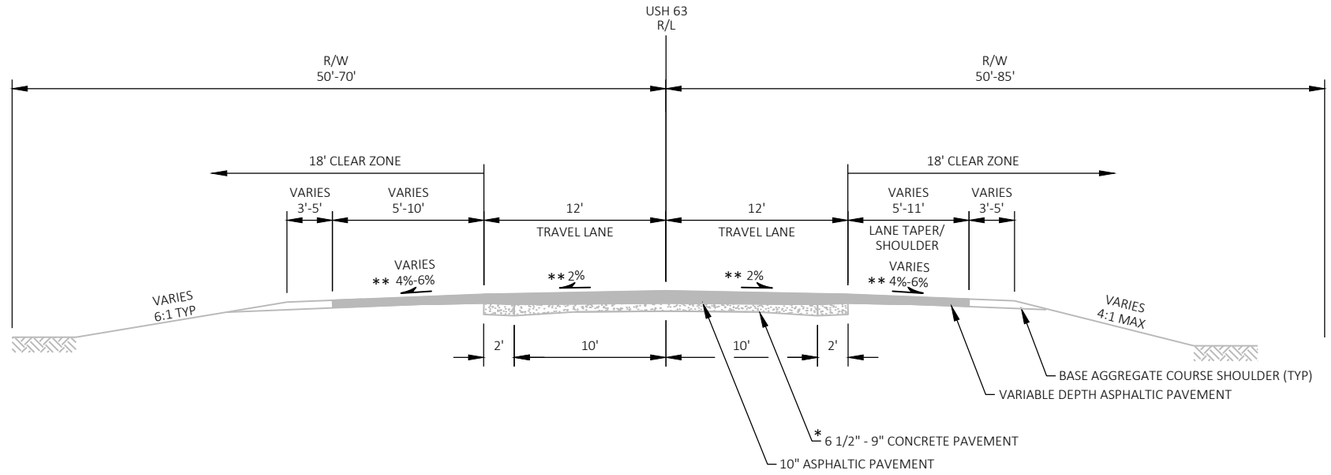
NOTES
EXISTING ASPHALTIC PAVEMENT DEPTHS ARE BASED ON AVAILABLE AS-BUILT DATA.

* EXISTING CONCRETE PAVEMENT VARIES IN THICKNESS FROM 6 1/2-INCHES AT THE CENTERLINE TO 9-INCHES AT THE OUTSIDE EDGE.

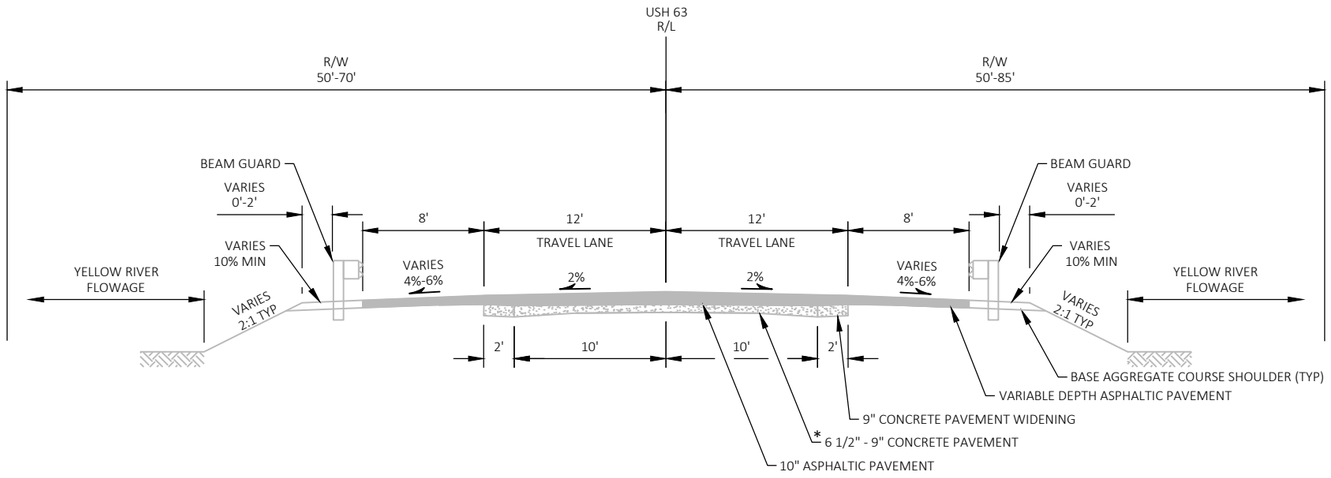
** CROSS SLOPE VARIES DUE TO SUPER ELEVATION AND TRANSITIONS.

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 5	E

2



TYPICAL EXISTING SECTION
USH 63
STA 740+73 - STA 746+52
STA 751+45 - STA 753+26, LT
STA 751+18 - STA 753+26, RT



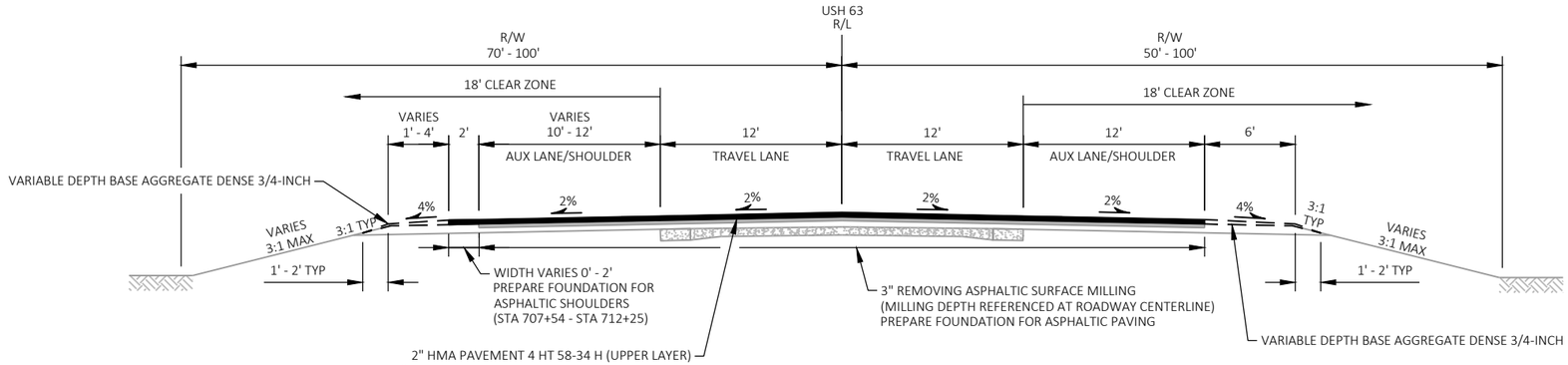
NOTES
EXISTING ASPHALTIC PAVEMENT DEPTHS ARE BASED ON AVAILABLE AS-BUILT DATA.

* EXISTING CONCRETE PAVEMENT VARIES IN THICKNESS FROM 6 1/2-INCHES AT THE CENTERLINE TO 9-INCHES AT THE OUTSIDE EDGE.

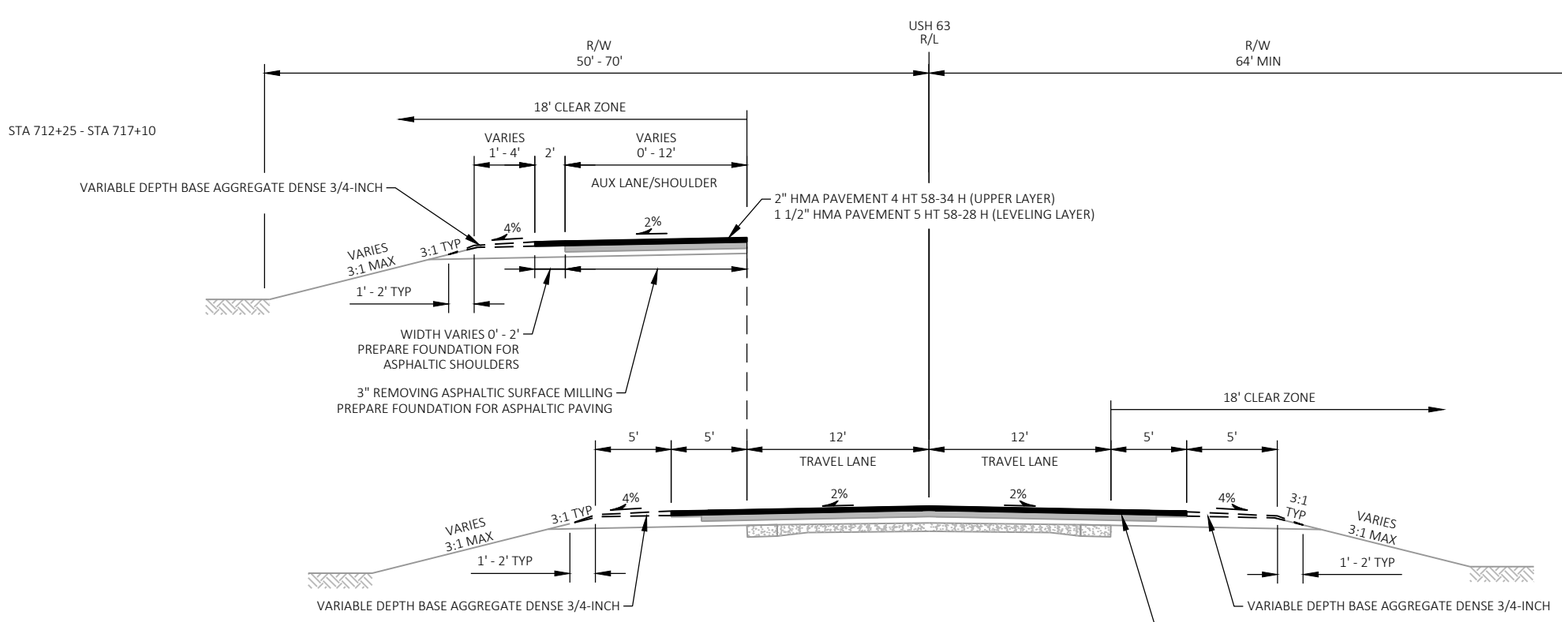
** CROSS SLOPE VARIES DUE TO SUPER ELEVATION AND TRANSITIONS.

TYPICAL EXISTING SECTION
USH 63
STA 746+52 - STA 751+45, LT
STA 746+52 - STA 751+18, RT

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 6	E



TYPICAL FINISHED SECTION
USH 63
STA 705+00 - STA 712+25



TYPICAL FINISHED ECTION
USH 63
STA 712+25 - STA 722+66

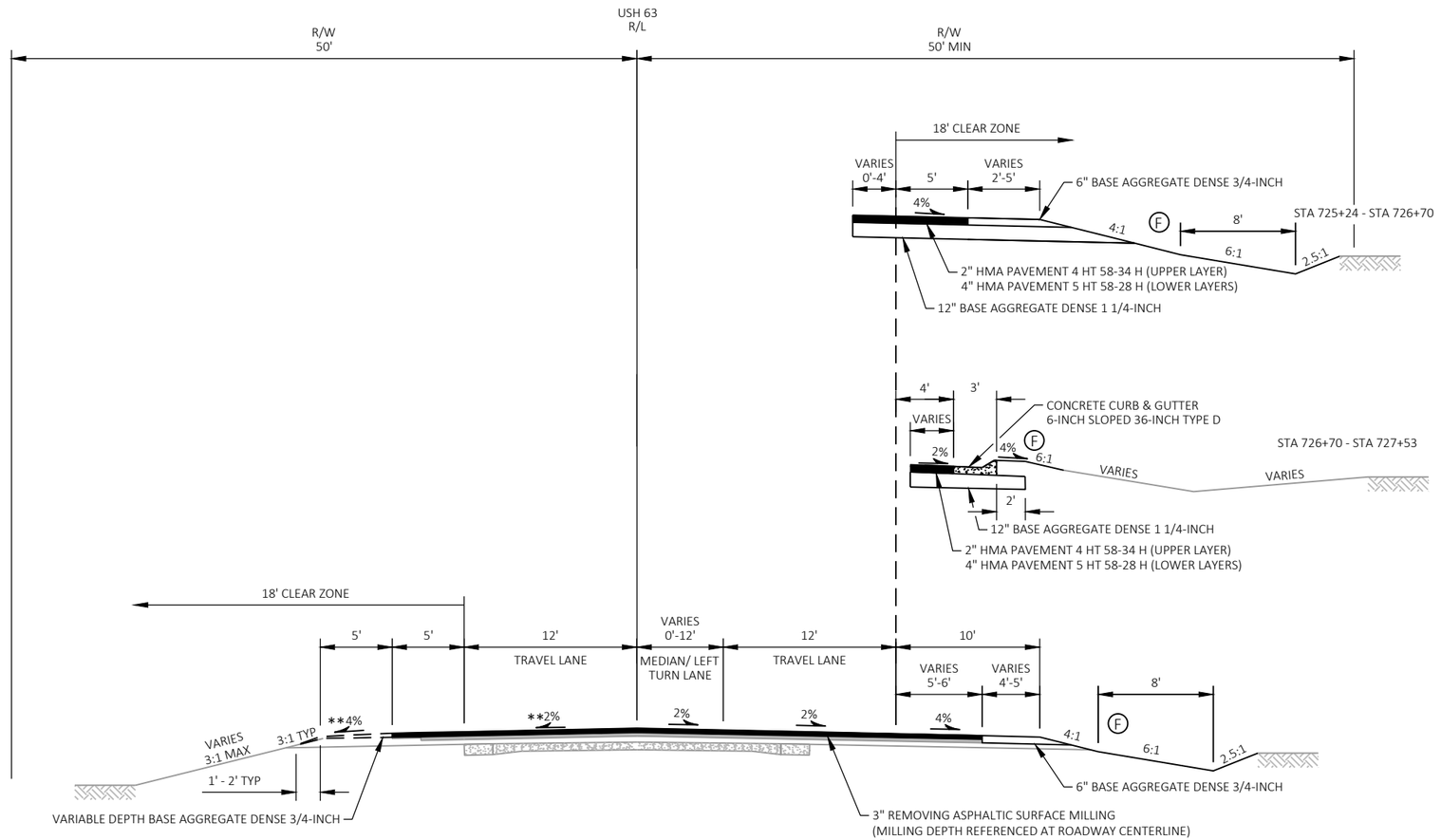
NOTES

SEE MARKING SHEETS FOR ADDITIONAL LANE CONFIGURATION INFORMATION. PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING.

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS REQUIRED FOR CENTERLINE UPPER LAYER LONGITUDINAL JOINTS AND OTHER UPPER LAYER LONGITUDINAL JOINTS WITHIN THE MULTI-LANE AREAS.

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 7	E

2



TYPICAL FINISHED SECTION
USH 63

STA 722+66 - STA 727+53

NOTES

** CROSS SLOPE VARIES DUE TO SUPER ELEVATION AND TRANSITIONS.

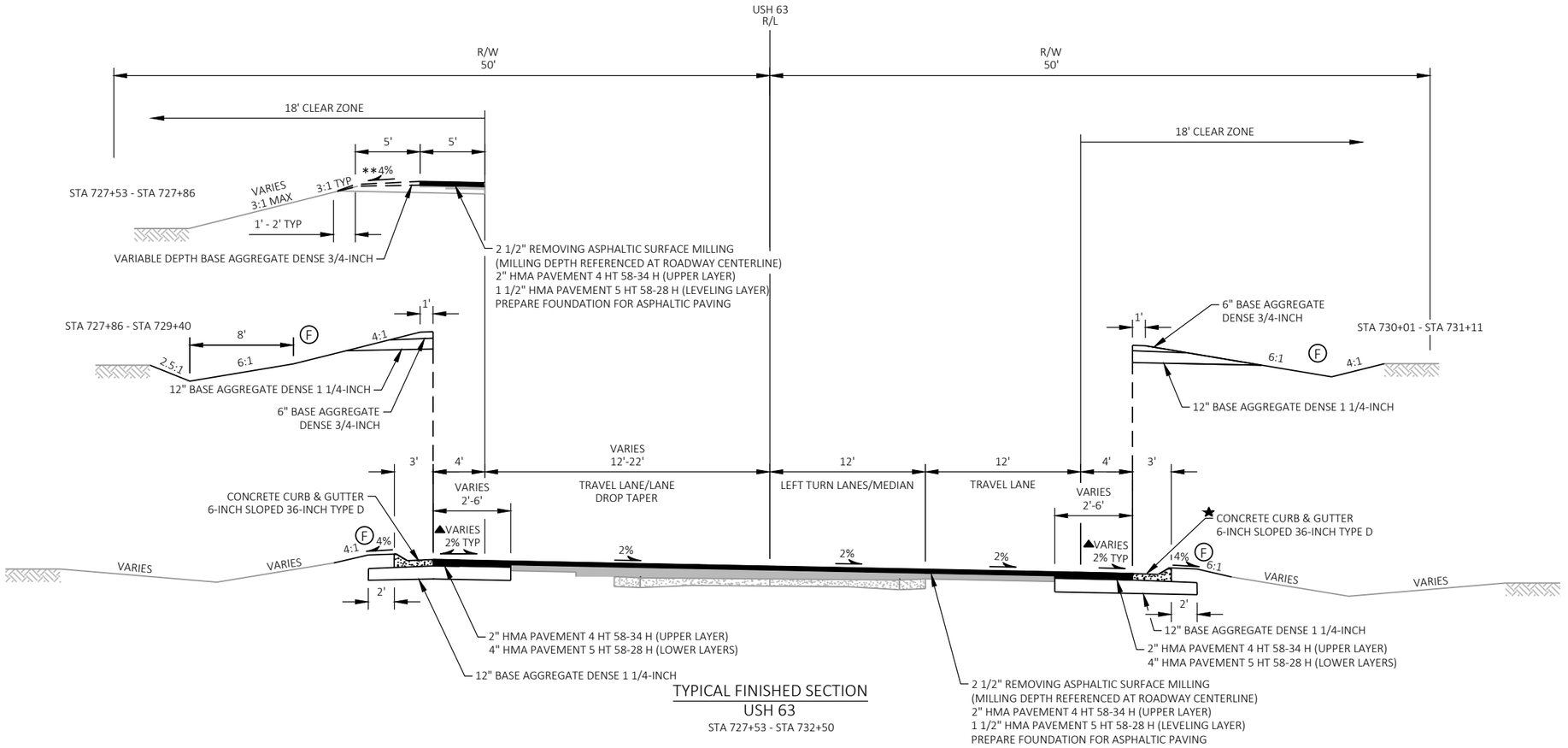
▲ SHOULDER SLOPES VARY AT BEAVERBROOK AVENUE, SEE CROSS SECTIONS FOR SHOULDER SLOPES.

SEE MARKING SHEETS FOR ADDITIONAL LANE CONFIGURATION INFORMATION. PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING.

(F) PLACE TOPSOIL, SEED, FERTILIZER, AND EROSION MAT ON DISTURBED AREAS. SEE EROSION CONTROL PLANS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS REQUIRED FOR CENTERLINE UPPER LAYER LONGITUDINAL JOINTS AND OTHER UPPER LAYER LONGITUDINAL JOINTS WITHIN THE MULTI-LANE AREAS.

2



TYPICAL FINISHED SECTION
USH 63
STA 727+53 - STA 732+50

NOTES

▲ SHOULDER SLOPES VARY AT BEAVERBROOK AVENUE, SEE CROSS SECTIONS FOR SHOULDER SLOPES.

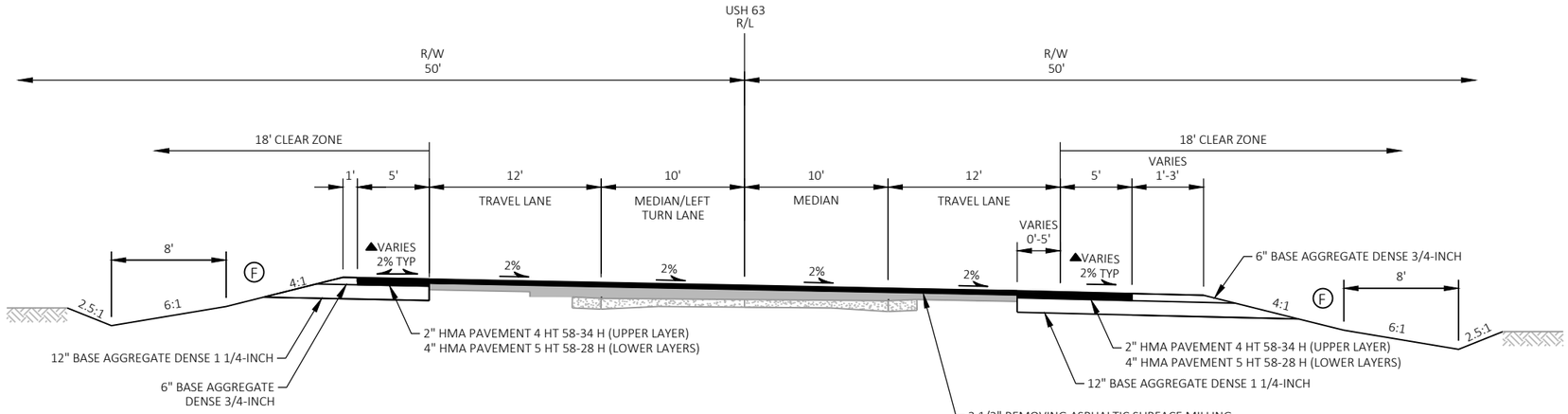
SEE MARKING SHEETS FOR ADDITIONAL LANE CONFIGURATION INFORMATION. PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING.

(F) PLACE TOPSOIL, SEED, FERTILIZER, AND EROSION MAT ON DISTURBED AREAS. SEE EROSION CONTROL PLANS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

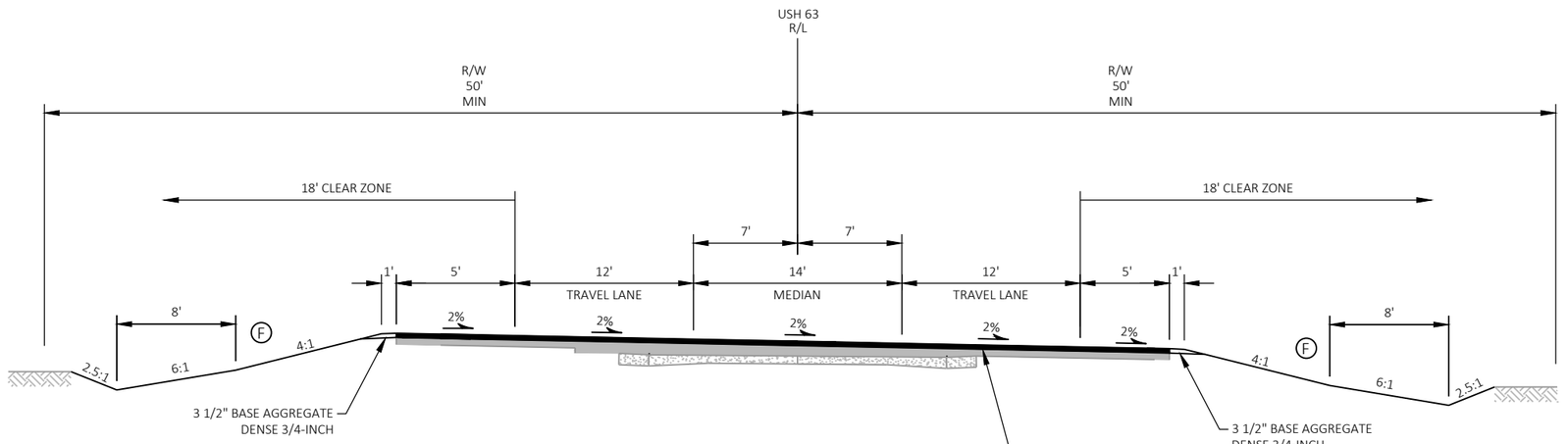
REHEATING HMA PAVEMENT LONGITUDINAL JOINTS REQUIRED FOR CENTERLINE UPPER LAYER LONGITUDINAL JOINTS AND OTHER UPPER LAYER LONGITUDINAL JOINTS WITHIN THE MULTI-LANE AREAS.

★ CURB & GUTTER TYPE VARIES. SEE PAVING DETAILS FOR ADDITIONAL CURB & GUTTER TYPES AND LOCATIONS.

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 9	E



TYPICAL FINISHED SECTION
USH 63
STA 732+50 - STA 736+37



TYPICAL FINISHED SECTION
USH 63
STA 736+37 - STA 740+73

NOTES

▲ SHOULDER SLOPES VARY AT BEAVERBROOK AVENUE, SEE CROSS SECTIONS FOR SHOULDER SLOPES.

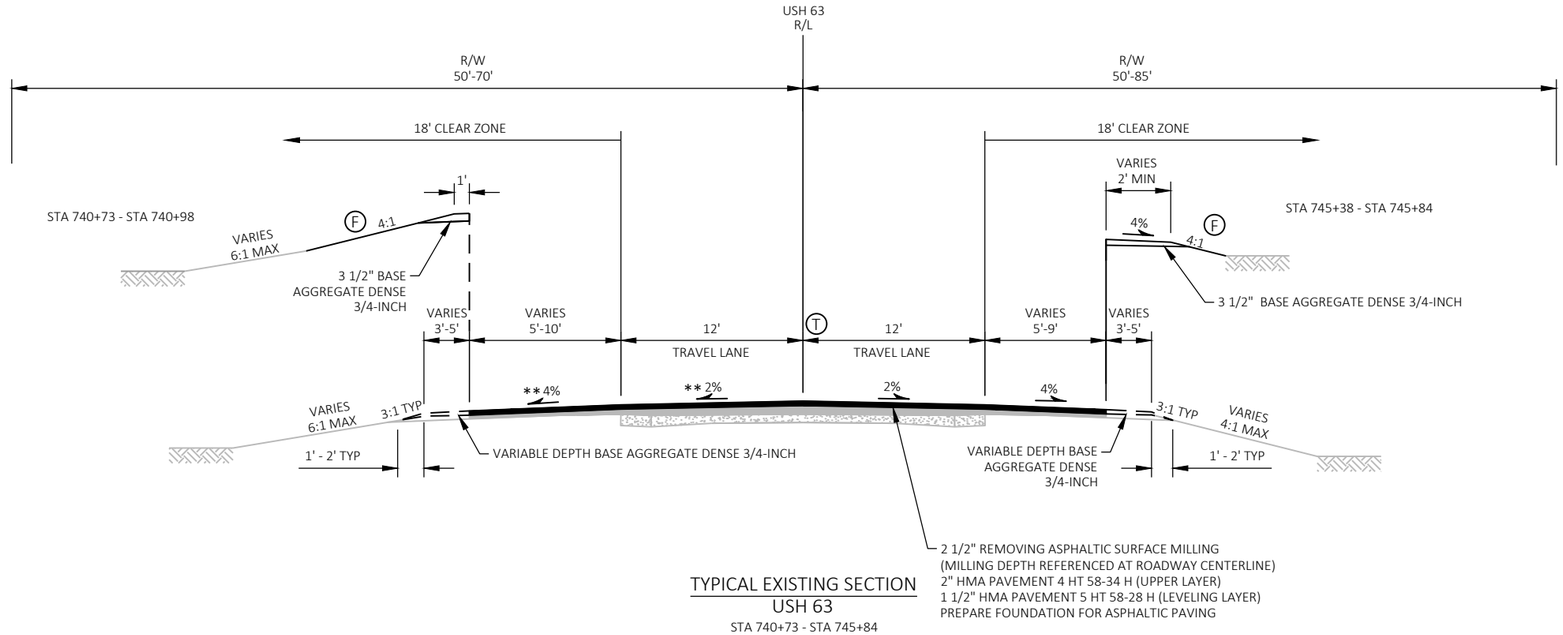
SEE MARKING SHEETS FOR ADDITIONAL LANE CONFIGURATION INFORMATION. PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING.

(F) PLACE TOPSOIL, SEED, FERTILIZER, AND EROSION MAT ON DISTURBED AREAS. SEE EROSION CONTROL PLANS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

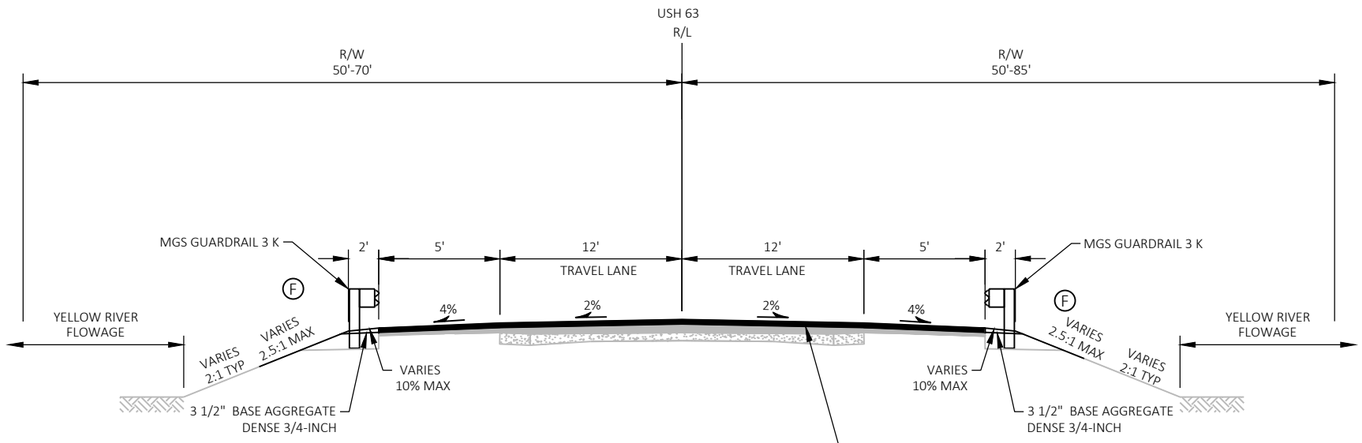
REHEATING HMA PAVEMENT LONGITUDINAL JOINTS REQUIRED FOR CENTERLINE UPPER LAYER LONGITUDINAL JOINTS AND OTHER UPPER LAYER LONGITUDINAL JOINTS WITHIN THE MULTI-LANE AREAS.

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 10	E

2



TYPICAL EXISTING SECTION
USH 63
STA 740+73 - STA 745+84
STA 752+03 - STA 753+26



TYPICAL EXISTING SECTION
USH 63
STA 745+84 - STA 752+03

NOTES

** CROSS SLOPE VARIES DUE TO SUPER ELEVATION AND TRANSITIONS.

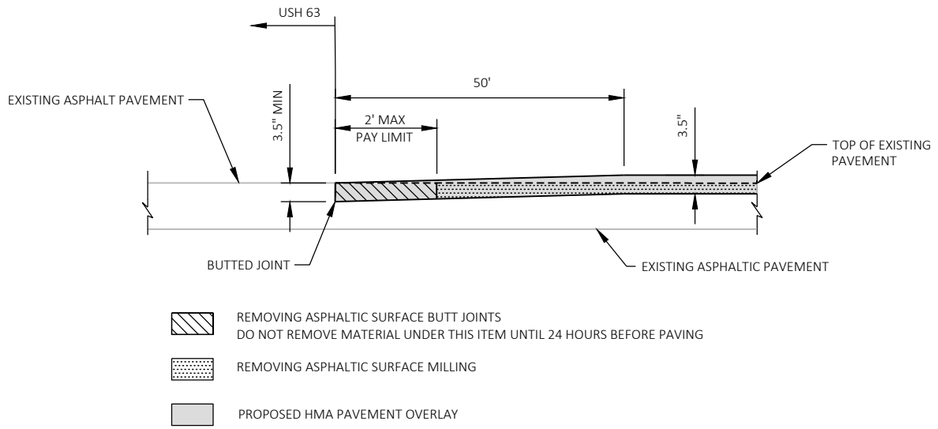
SEE MARKING SHEETS FOR ADDITIONAL LANE CONFIGURATION INFORMATION. PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING.

(F) PLACE TOPSOIL, SEED, FERTILIZER, AND EROSION MAT ON DISTURBED AREAS. SEE EROSION CONTROL PLANS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS REQUIRED FOR CENTERLINE UPPER LAYER LONGITUDINAL JOINTS AND OTHER UPPER LAYER LONGITUDINAL JOINTS WITHIN THE TRAVEL LANE AND MEDIAN AREA.

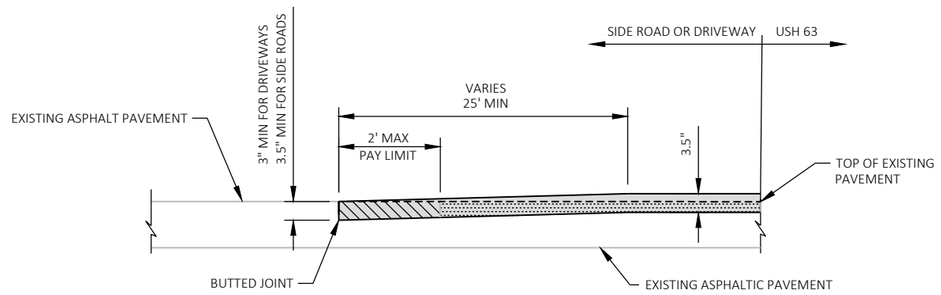
(T) THE MEDIAN TAPERS FROM 14' TO 0' WITHIN THIS SECTION FROM STA 740+73 TO STA 742+63.

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 11	E



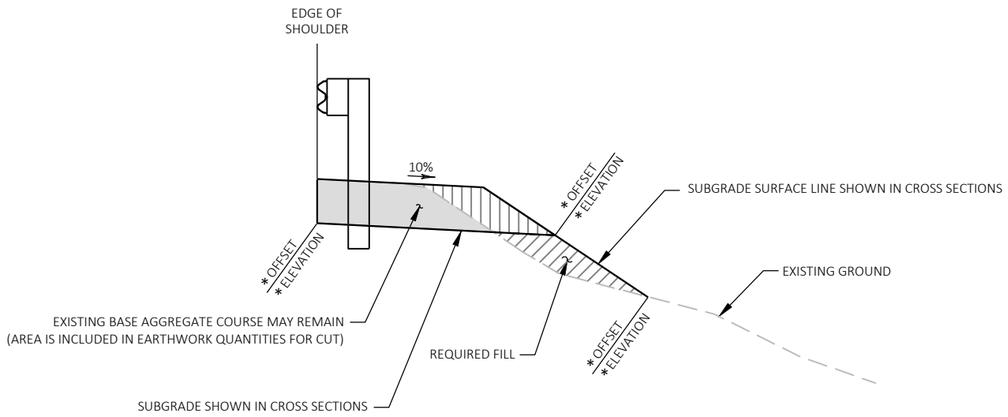
USH 63 BUTT JOINT DETAIL

STA 753+26



SIDE ROAD AND DRIVEWAY BUTT JOINT DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS IN
MILL AND OVERLAY AREAS



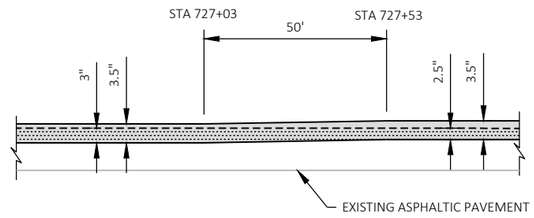
SHOULDER WIDENING EARTHWORK & BASE AGGREGATE FOR GUARDRAIL DETAIL

YELLOW RIVER FLOWAGE CAUSEWAY

NOTES

BENCH FILL AS REQUIRED PER STANDARD SPECIFICATION 205.3.2(4).

*OFFSET AND ELEVATION PROVIDED TO THESE POINTS ON THE CROSS SECTIONS.

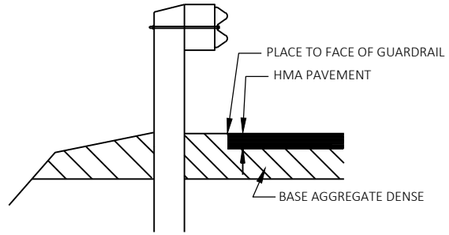


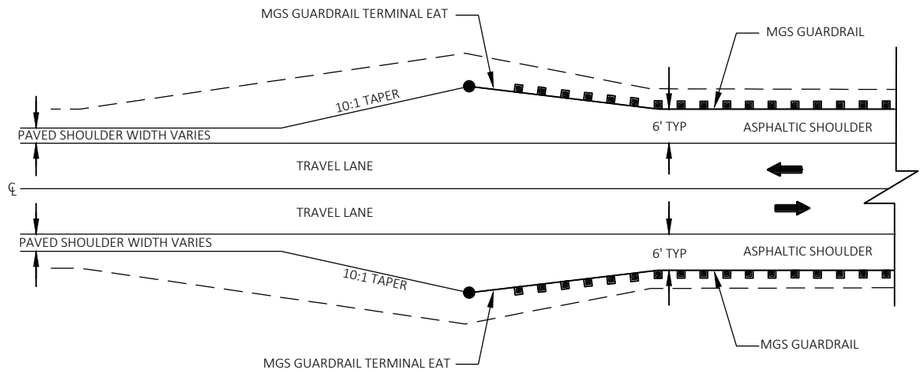
MILL DEPTH TRANSITION DETAIL

USH 63

NOTE

MILL DEPTH TRANSITION BETWEEN PROJECTS 1550-04-73/75 AND PROJECT 1550-06-74 OCCURS WITHIN PROJECTS 1550-04-73/75. SEE PROJECTS 1550-04-73/75 FOR ADDITIONAL INFORMATION.

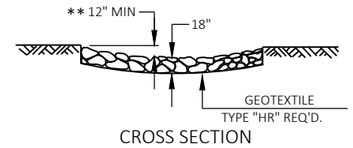




NOTE

SEE PLAN SHEETS AND SDD "MIDWEST GUARDRAIL SYSTEM (MGS) EAT" FOR ADDITIONAL INFORMATION.

PAVED SHOULDER AT GUARDRAIL DETAIL



CROSS SECTION

RIPRAP MEDIUM LINING FOR DITCH DETAIL

STA 740+50, RT

NOTES

** DEPTH OF RIPRAP CHANNEL VARIES, MATCH PROPOSED DITCH SLOPES.

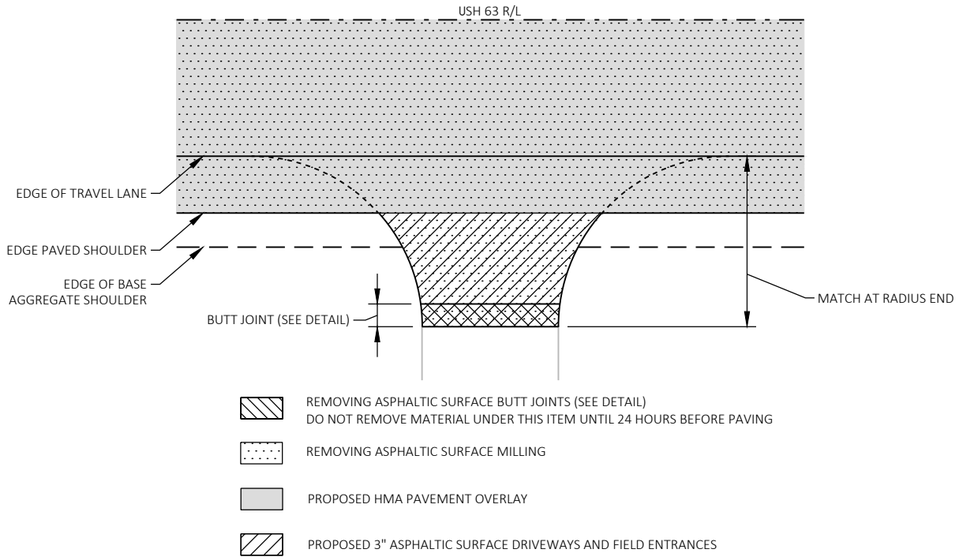
SEE EROSION CONTROL SHEETS FOR RIPRAP DIMENSIONS.

2

RUNOFF COEFFICIENT TABLE

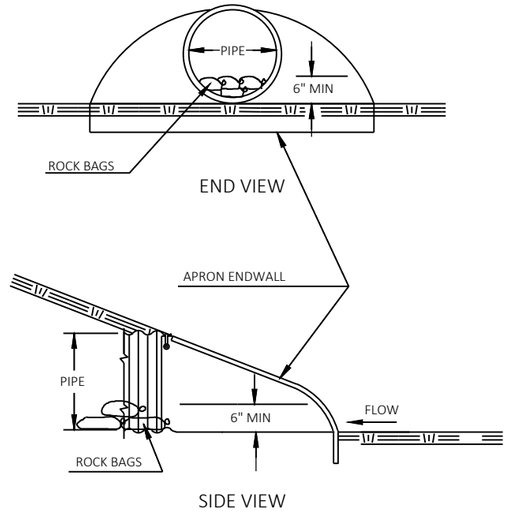
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 16.1 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.8 ACRES



PAVED DRIVEWAY DETAIL

STA 708+92, LT
STA 717+42, LT
STA 745+20, LT

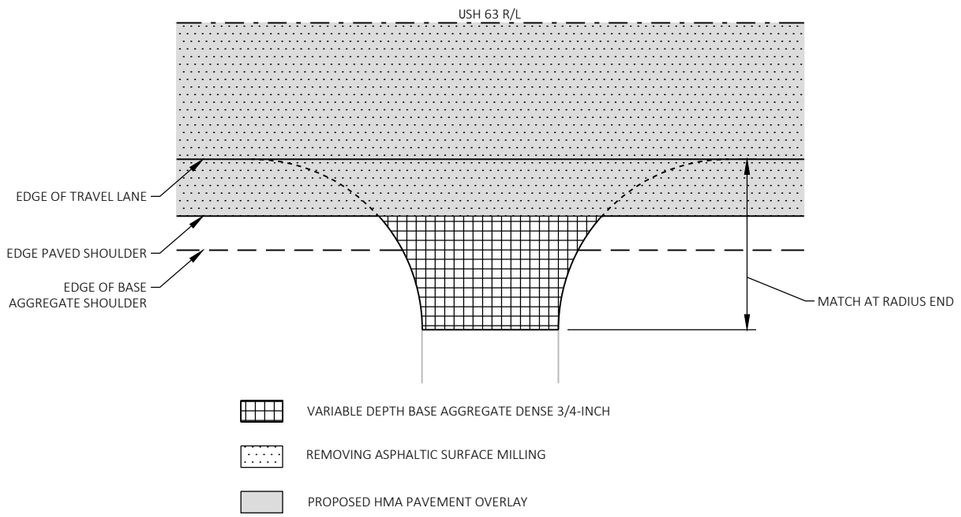


CULVERT PIPE CHECKS DETAIL

INSTALL ON INLET END
EACH ROCK BAG PAID AS CULVERT PIPE CHECKS

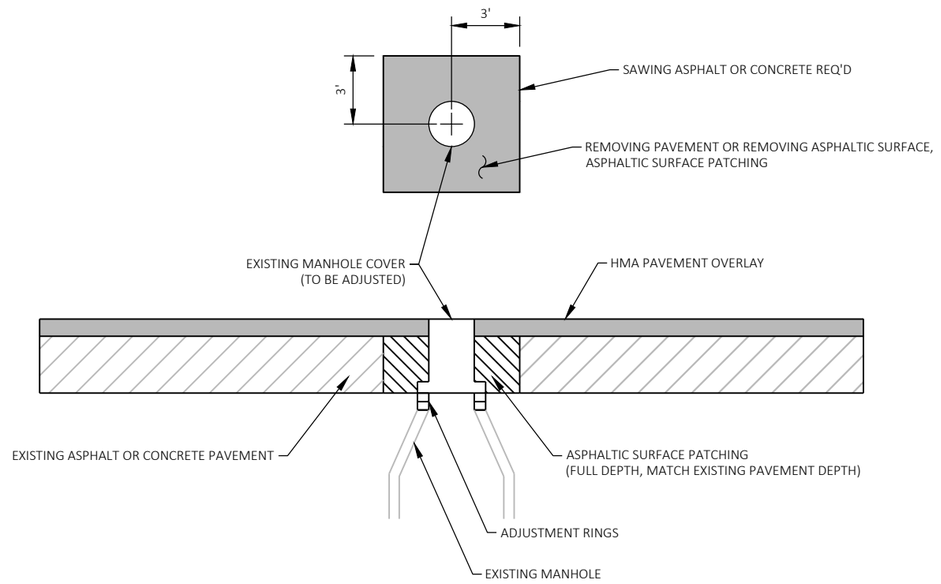
NOTE

SEE EROSION CONTROL PLANS FOR LOCATIONS.



UNPAVED DRIVEWAY DETAIL

STA 752+35, LT



NOTES

THE EXISTING CHIMNEY SEAL MAY REQUIRE ADJUSTMENT OR RE-INSTALLATION ON SANITARY MANHOLES.

THE PATCHING FOR WATER VALVES SHOULD FOLLOW A SIMILAR DETAIL, EXCEPT THAT THE ANTICIPATED PAVEMENT REMOVAL AREA IS ESTIMATED AT 3' X 3'.

ADJUSTING SANITARY MANHOLE COVERS

SEE MISCELLANEOUS QUANTITIES AND
SECTION 5 PLAN SHEETS FOR LOCATIONS

2

LEGEND

XXXX XXXX	SAWCUT
B1	BASE AGGREGATE DENSE 3/4-INCH, 3.5-INCH
B2	BASE AGGREGATE DENSE 3/4-INCH, 6-INCH
C1	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
C2	CONCRETE CURB & GUTTER 30-INCH TYPE D
C4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
D1	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
D2	CONCRETE DRIVEWAY HES, 6-INCH
H1	REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)
F1	ASPHALTIC FLUMES
S1	SAWING ASPHALT
S2	SAWING CONCRETE
	FULL DEPTH HMA PAVEMENT WIDENING (SEE TYPICAL SECTIONS)

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE.

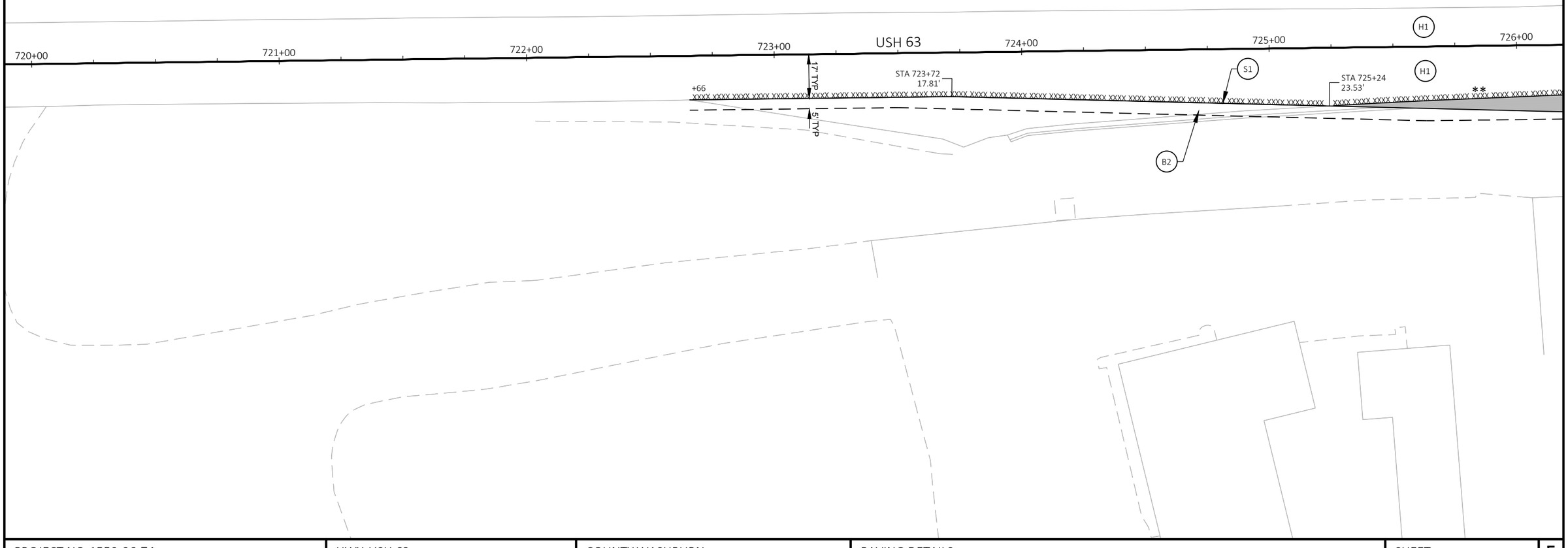
PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

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

** SAW NEAR EDGE OF EXISTING ASPHALTIC PAVEMENT TO PROVIDE VERTICAL JOINT FOR PROPOSED HMA PAVEMENT WIDENING.

ALL CURB & GUTTER ADJACENT TO CONCRETE DRIVEWAYS IS HIGH EARLY STRENGTH.

PLACE PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING. SEE TYPICAL SECTIONS AND PAVEMENT MARKING PLANS FOR ADDITIONAL INFORMATION.



2

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PAVING DETAILS	SHEET 15	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021201-pd

PLOT DATE : 1/8/2019 9:06 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

XXXX XXXX	SAWCUT
B1	BASE AGGREGATE DENSE 3/4-INCH, 3.5-INCH
B2	BASE AGGREGATE DENSE 3/4-INCH, 6-INCH
C1	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
C2	CONCRETE CURB & GUTTER 30-INCH TYPE D
C4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
D1	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
D2	CONCRETE DRIVEWAY HES, 6-INCH
H1	REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)
F1	ASPHALTIC FLUMES
S1	SAWING ASPHALT
S2	SAWING CONCRETE
	FULL DEPTH HMA PAVEMENT WIDENING (SEE TYPICAL SECTIONS)

DATA TABLE			
POINT	STATION	OFFSET	RADIUS
100	728+95	98.00' RT	70'
101	731+78	64.00' LT	38'
102	726+55	40.35' RT	20'
103	727+45	48.62' RT	35'
104	728+68	36.58' LT	15'
105	729+28	40.17' LT	10'

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE.

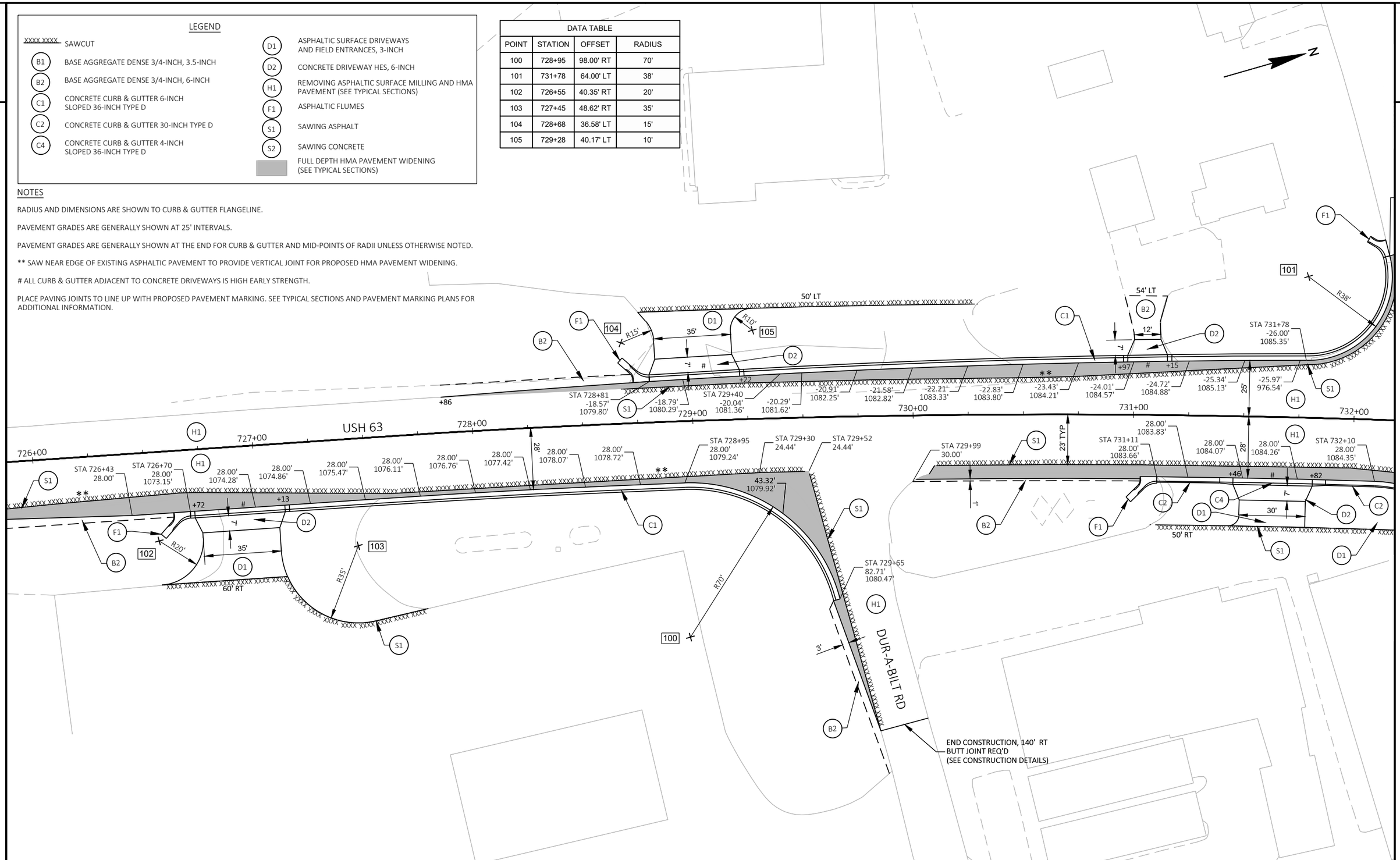
PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

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

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ALL CURB & GUTTER ADJACENT TO CONCRETE DRIVEWAYS IS HIGH EARLY STRENGTH.

PLACE PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING. SEE TYPICAL SECTIONS AND PAVEMENT MARKING PLANS FOR ADDITIONAL INFORMATION.



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PAVING DETAILS	SHEET 16	E

2

DATA TABLE			
POINT	STATION	OFFSET	RADIUS
106	732+10	88.00' RT	60'
107	733+42	62.00' RT	32'
108	733+04	76.74' LT	60'
109	737+67	49.00' LT	25'
113	737+58	64.00' RT	40'
121	737+88	77.06' RT	10'
122	735+07	40.00' LT	13'
123	735+84	55.34' LT	30'

LEGEND

- XXXX XXXX SAWCUT
- B1 BASE AGGREGATE DENSE 3/4-INCH, 3.5-INCH
- B2 BASE AGGREGATE DENSE 3/4-INCH, 6-INCH
- C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- C2 CONCRETE CURB & GUTTER 30-INCH TYPE D
- C4 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
- D1 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
- D2 CONCRETE DRIVEWAY HES, 6-INCH
- H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)
- F1 ASPHALTIC FLUMES
- S1 SAWING ASPHALT
- S2 SAWING CONCRETE
- FULL DEPTH HMA PAVEMENT WIDENING (SEE TYPICAL SECTIONS)

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE.

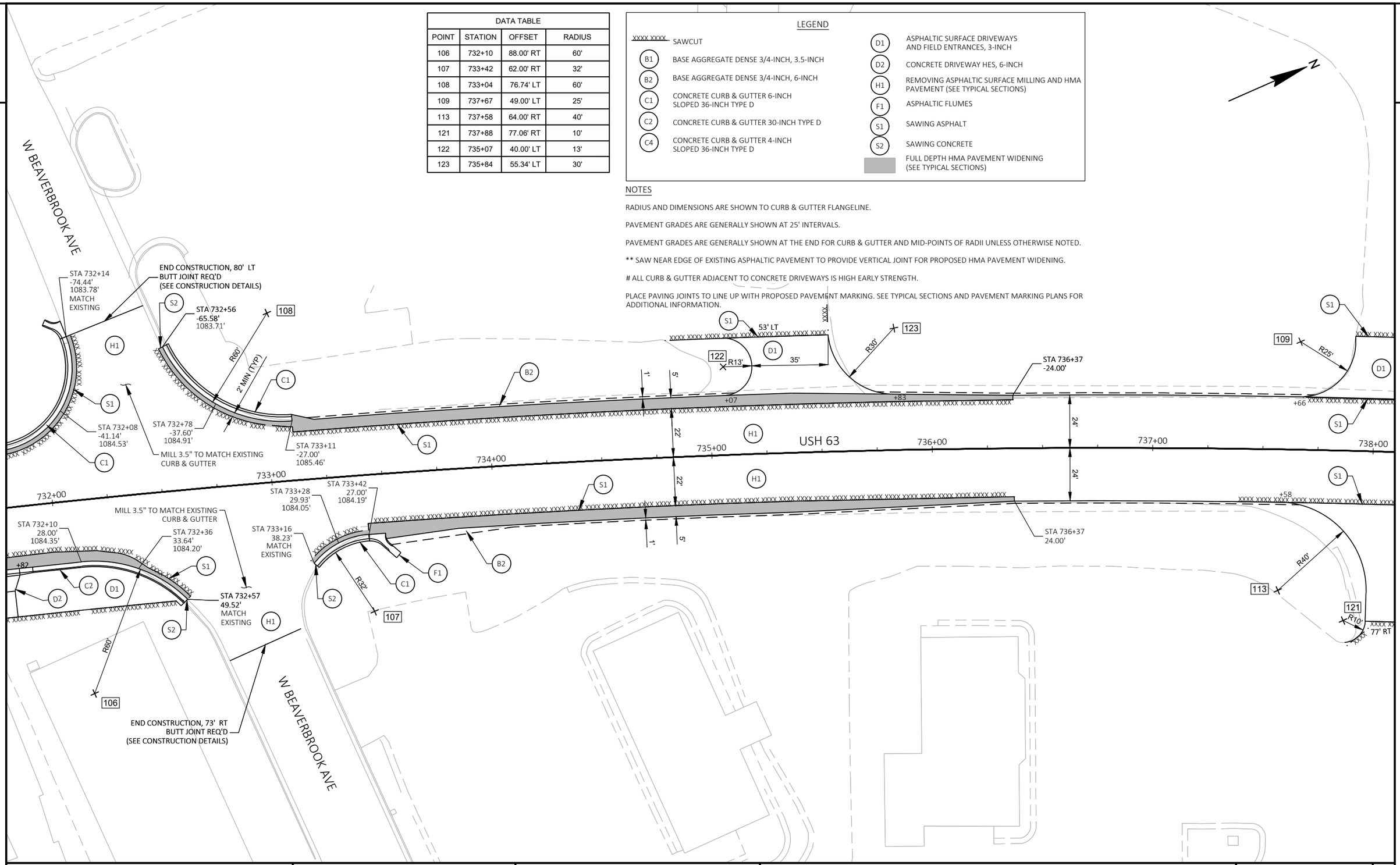
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ALL CURB & GUTTER ADJACENT TO CONCRETE DRIVEWAYS IS HIGH EARLY STRENGTH.

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PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	PAVING DETAILS	SHEET 17	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021203-pd
PLOT DATE : 1/8/2019 9:06 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

DATA TABLE			
POINT	STATION	OFFSET	RADIUS
112	738+47	49.00' LT	25'
114	738+74	64.00' RT	40'
115	739+32	41.00' LT	15'
116	739+32	39.00' LT	15'
117	739+91	39.00' LT	15'
118	739+91	41.00' LT	15'
119	742+40	41.02' RT	20'
120	743+15	40.83' RT	20'

LEGEND

- XXXX XXXX SAWCUT
- B1 BASE AGGREGATE DENSE 3/4-INCH, 3.5-INCH
- B2 BASE AGGREGATE DENSE 3/4-INCH, 6-INCH
- C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- C2 CONCRETE CURB & GUTTER 30-INCH TYPE D
- C4 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
- D1 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
- D2 CONCRETE DRIVEWAY HES, 6-INCH
- H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)
- F1 ASPHALTIC FLUMES
- S1 SAWING ASPHALT
- S2 SAWING CONCRETE
- FULL DEPTH HMA PAVEMENT WIDENING (SEE TYPICAL SECTIONS)

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

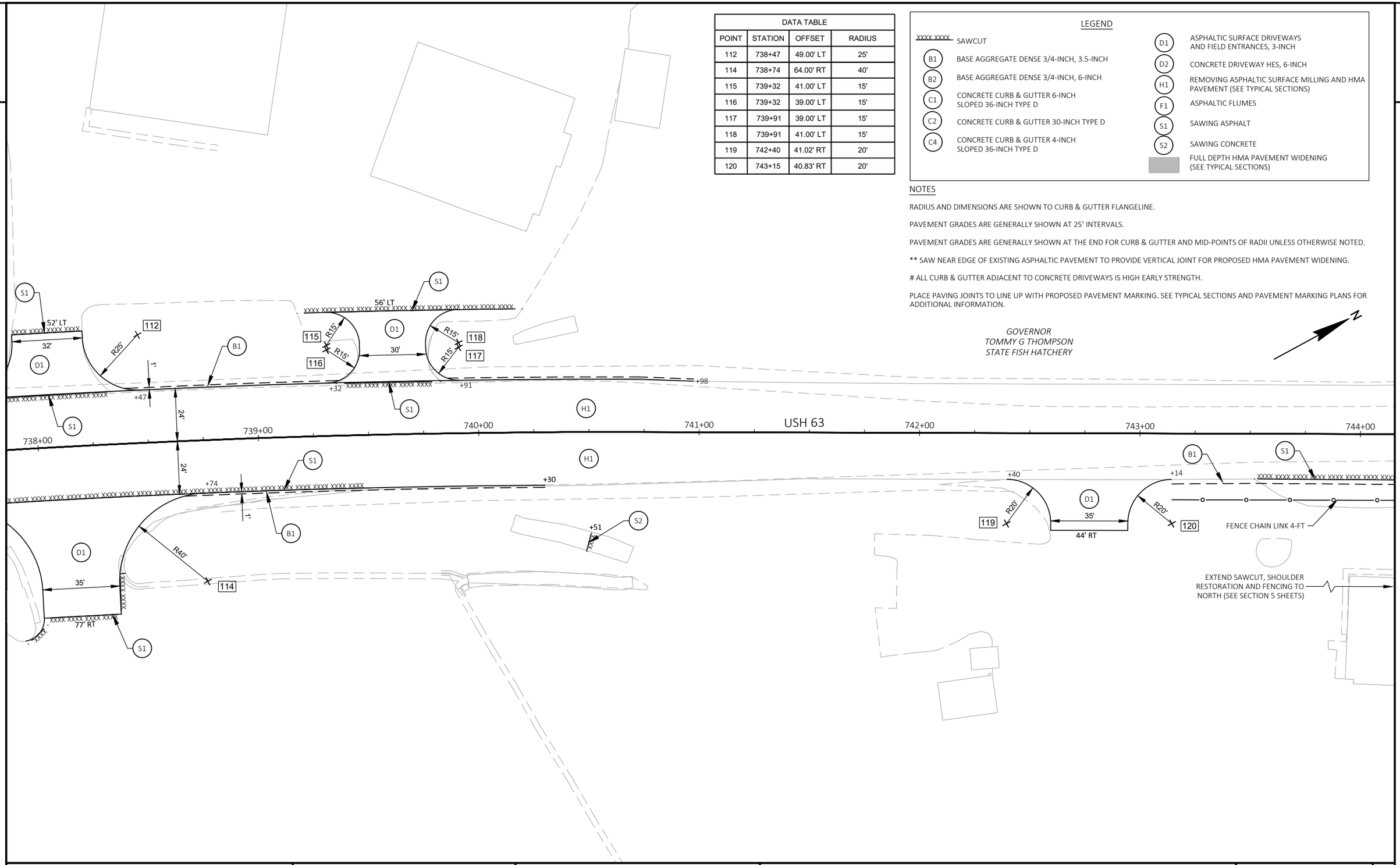
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PLACE PAVING JOINTS TO LINE UP WITH PROPOSED PAVEMENT MARKING. SEE TYPICAL SECTIONS AND PAVEMENT MARKING PLANS FOR ADDITIONAL INFORMATION.

GOVERNOR
TOMMY G THOMPSON
STATE FISH HATCHERY



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PAVING DETAILS	SHEET 18	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021204-pd
PLOT DATE : 1/8/2019 9:06 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- TURBIDITY BARRIER

R/W

R/W

720+00

721+00

722+00

723+00

USH 63

724+00

725+00

726+00

R/W

R/W

R/W

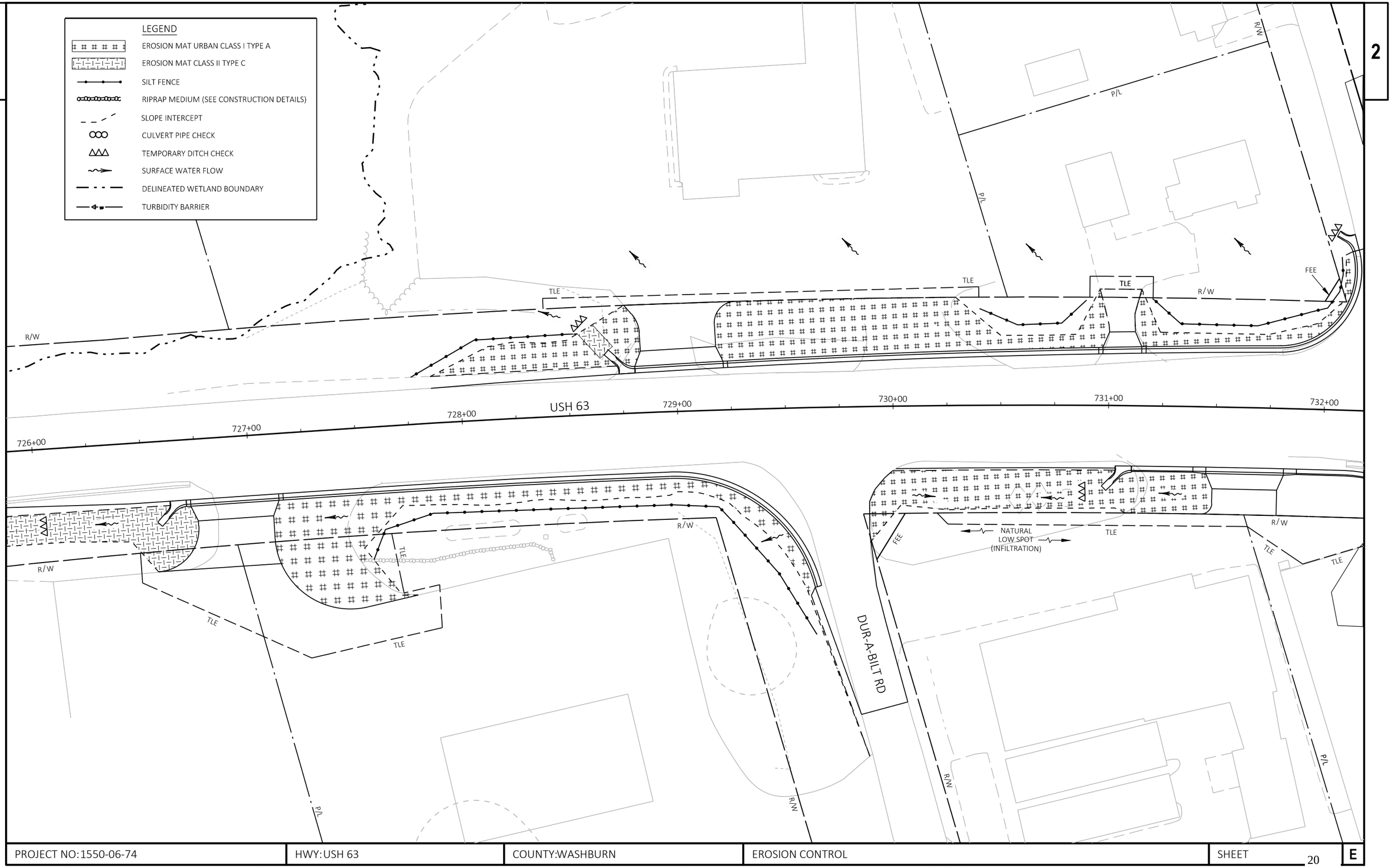
P/L

P/L

GROUNDWATER FLOW

PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	EROSION CONTROL	SHEET 19	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\022001-EC.DWG PLOT DATE : 1/8/2019 9:09 AM PLOT BY : DREW NELSON PLOT NAME :



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	EROSION CONTROL	SHEET 20	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\022001-EC.DWG PLOT DATE : 1/8/2019 9:10 AM PLOT BY : DREW NELSON PLOT NAME :

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- TURBIDITY BARRIER

GROUNDWATER FLOW

W BEAVERBROOK AVE

USH 63

732+00 733+00 734+00 735+00 736+00 737+00 738+00

R/W P/L TLE FEE

PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	EROSION CONTROL	SHEET 21	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\022001-EC.DWG PLOT DATE : 1/8/2019 9:10 AM PLOT BY : DREW NELSON PLOT NAME :

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- TURBIDITY BARRIER

P/L

P/L

P/L

P/L

TLE

TLE

FEE

R/W

738+00

739+00

740+00

741+00

USH 63

742+00

743+00

744+00

MATCH EXISTING FLUME

R/W

R/W

TLE

TLE

RIPRAP MEDIUM AND GEOTEXTILE TYPE HR 10'X35'X1.5'

PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	EROSION CONTROL	SHEET 22	E

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- TURBIDITY BARRIER

P/L

R/W

R/W

R/W

R/W

YELLOW RIVER FLOWAGE

744+00 USH 63 745+00 746+00 747+00 USH 63 748+00 749+00 750+00

R/W

R/W

R/W

R/W

YELLOW RIVER FLOWAGE

PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	EROSION CONTROL	SHEET 23	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\022001-EC.DWG PLOT DATE : 1/8/2019 9:10 AM PLOT BY : DREW NELSON PLOT NAME :

2

2

LEGEND

EROSION MAT URBAN CLASS I TYPE A

EROSION MAT CLASS II TYPE C

SILT FENCE

RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)

SLOPE INTERCEPT

CULVERT PIPE CHECK

TEMPORARY DITCH CHECK

SURFACE WATER FLOW

DELINEATED WETLAND BOUNDARY

TURBIDITY BARRIER

YELLOW RIVER FLOWAGE

P/L

P/L

R/W

R/W

750+00

751+00

752+00

753+00

USH 63

754+00

755+00

756+00

R/W

YELLOW RIVER FLOWAGE

R/W

R/W

R/W

GREENWOOD AVE

PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	EROSION CONTROL	SHEET 24	E

2

2

LEGEND

EXISTING SIGN MOUNTED ON SINGLE POST

PROPOSED SIGN MOUNTED ON SINGLE POST

EXISTING SIGN MOUNTED ON MULTIPLE POSTS

PROPOSED SIGN MOUNTED ON MULTIPLE POSTS

X SIGN - MOVE

X SIGN - PLACE NEW

X SIGN - REMOVE

NOTES

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

ALL EXISTING TYPE II SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

N

GREEN VALLEY RD

STOP
TO REMAIN

NO PASSING ZONE
TO REMAIN

INDIANHEAD EYE CLINIC
GREEN VALLEY DENTAL CARE INC.
TO REMAIN

SIGN

705+00 706+00 707+00 708+00 USH 63 709+00 710+00 711+00

JCT 253 SIGN
TO REMAIN

STOP
TO REMAIN

GREEN VALLEY RD

NORTH SOUTH 63 253
TO REMAIN

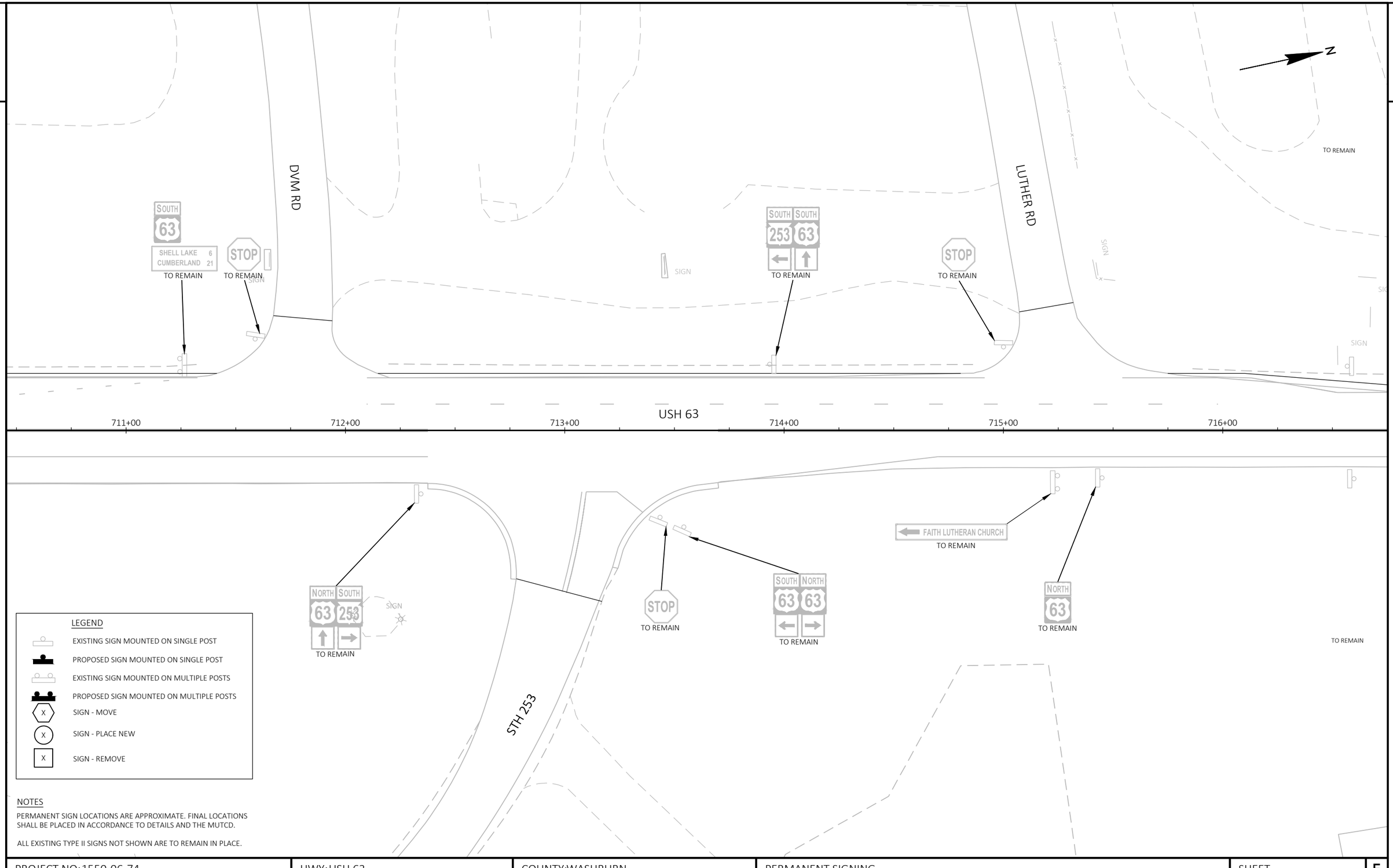
State Patrol Hdqrs
TO REMAIN

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 25	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023201-ps

PLOT DATE : 1/8/2019 9:12 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - MOVE
- X — SIGN - PLACE NEW
- X — SIGN - REMOVE

NOTES

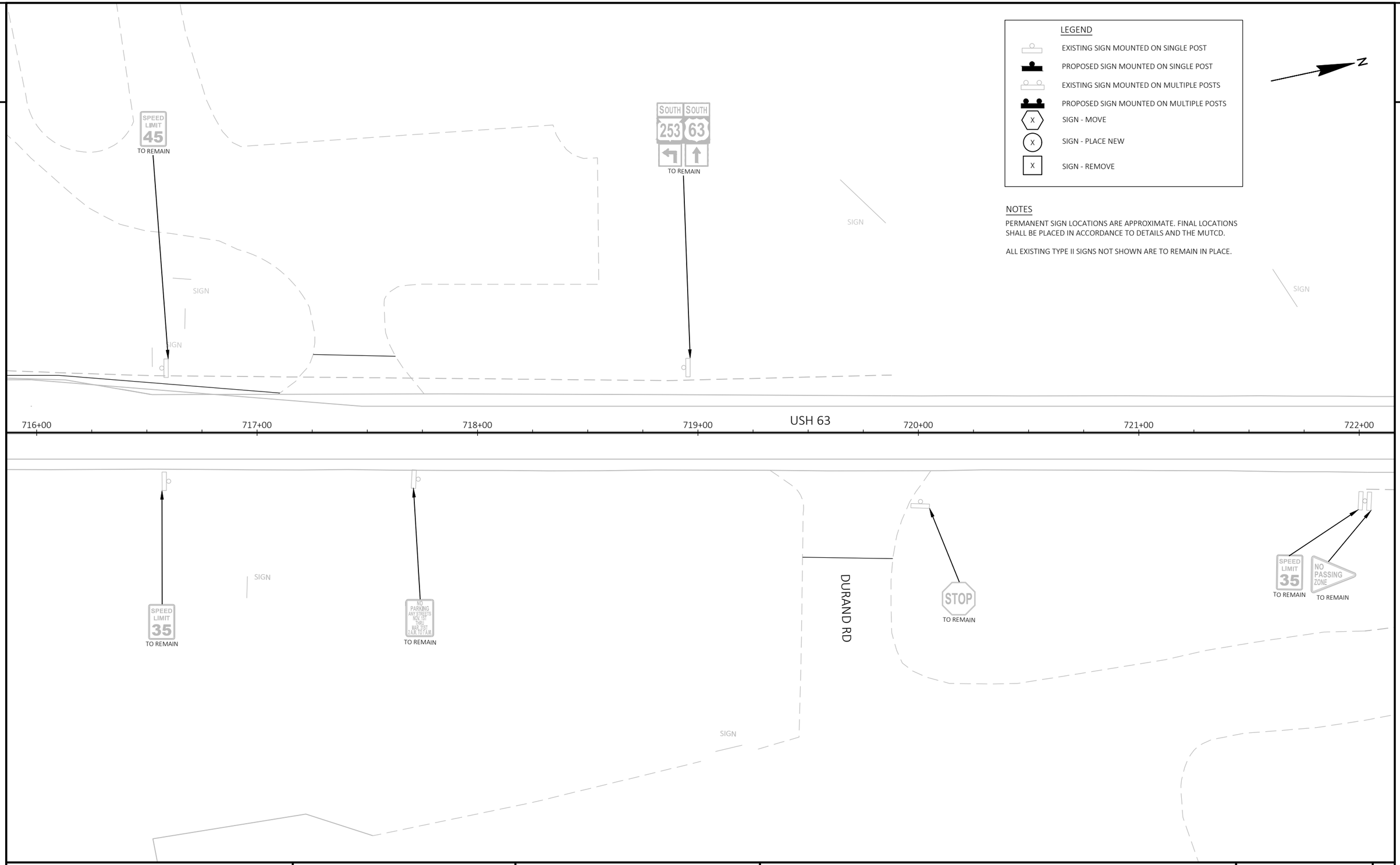
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

ALL EXISTING TYPE II SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 26	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023202-ps
PLOT DATE : 1/8/2019 9:12 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



2

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 27	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023203-ps

PLOT DATE : 1/8/2019 9:13 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

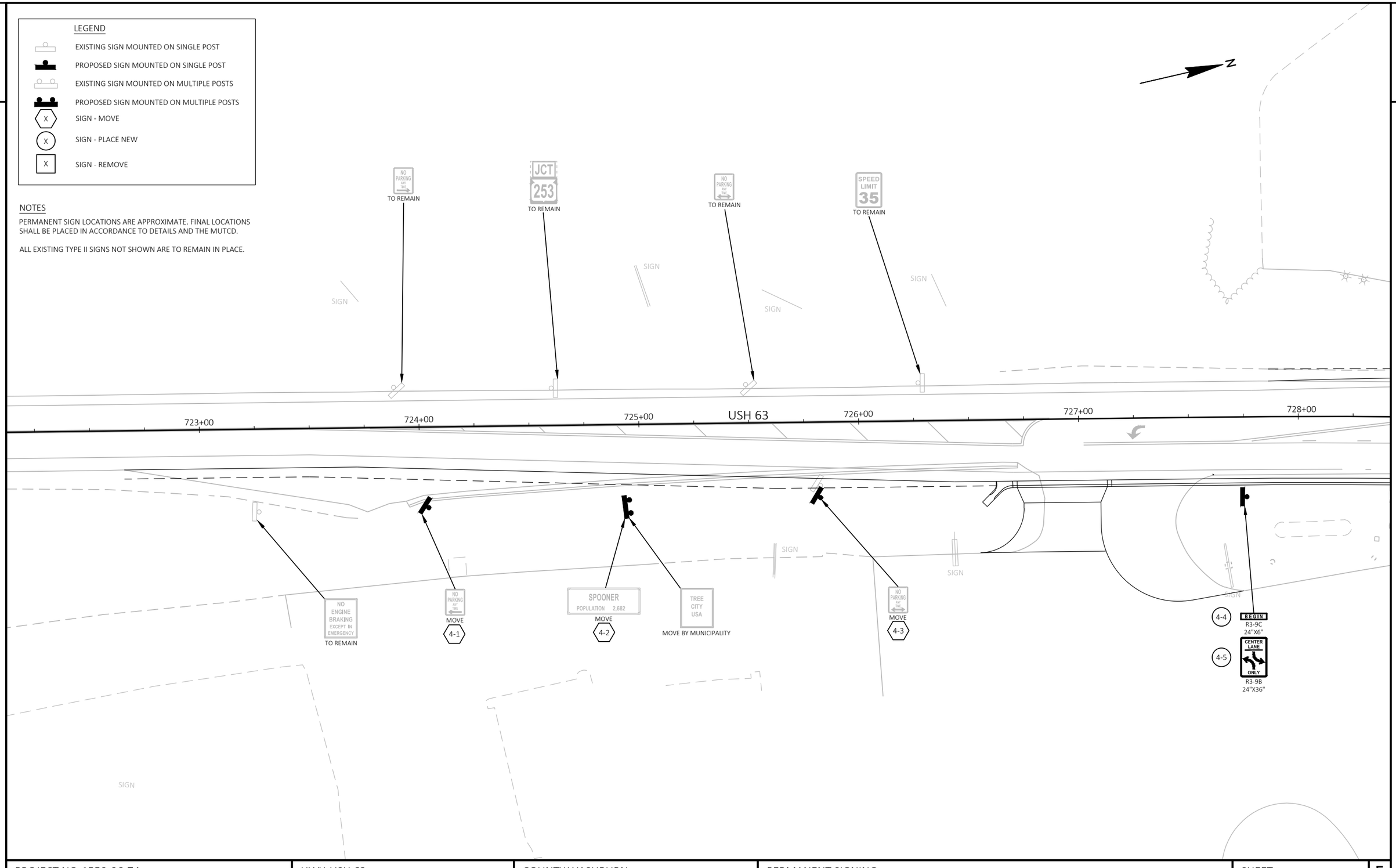
LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - MOVE
- X — SIGN - PLACE NEW
- X — SIGN - REMOVE

NOTES

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

ALL EXISTING TYPE II SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 28	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023204-ps

PLOT DATE : 1/8/2019 9:13 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

W BEAVERBROOK AVE

5-2 NO PARKING ANY TIME MOVE

5-3 END R3-9D 24"X6"

5-4 CENTER LANE ONLY R3-9B 24"X36"

5-7 CENTER LANE ONLY R3-9B 24"X36"

5-8 NO PARKING ANY TIME MOVE

5-9 STOP MOVE

5-10 STOP MOVE

5-12 SPEED LIMIT 35 MOVE

SIGN

728+00 729+00 730+00 731+00 USH 63 732+00 733+00 734+00

5-1 NO PARKING ANY TIME MOVE

DUR-A-BILT RD

5-5 STOP MOVE

FAIRGROUNDS
RODEO ARENA
INDUSTRIAL PARK
MOVE BY MUNICIPALITY

5-6 NO PARKING ANY TIME MOVE

5-11 STOP MOVE

W BEAVERBROOK AVE

LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - MOVE
- X — SIGN - PLACE NEW
- X — SIGN - REMOVE

NOTES

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

ALL EXISTING TYPE II SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 29	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023205-ps
PLOT DATE : 1/8/2019 9:13 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

6-8
REMOVE

6-9
MOVE

6-2
MOVE

FAIRGROUNDS
RODEO ARENA
INDUSTRIAL PARK
MOVE BY MUNICIPALITY

SIGN
SIGN
SIGN
SIGN

USH 63

734+00
735+00
736+00
737+00
738+00
739+00
740+00

6-1 MOVE

6-3 MOVE

6-4 R3-9B 24"X36"

6-5 REMOVE

6-6 REMOVE

6-7 MOVE

SIGN

LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - MOVE
- X — SIGN - PLACE NEW
- X — SIGN - REMOVE

NOTES

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

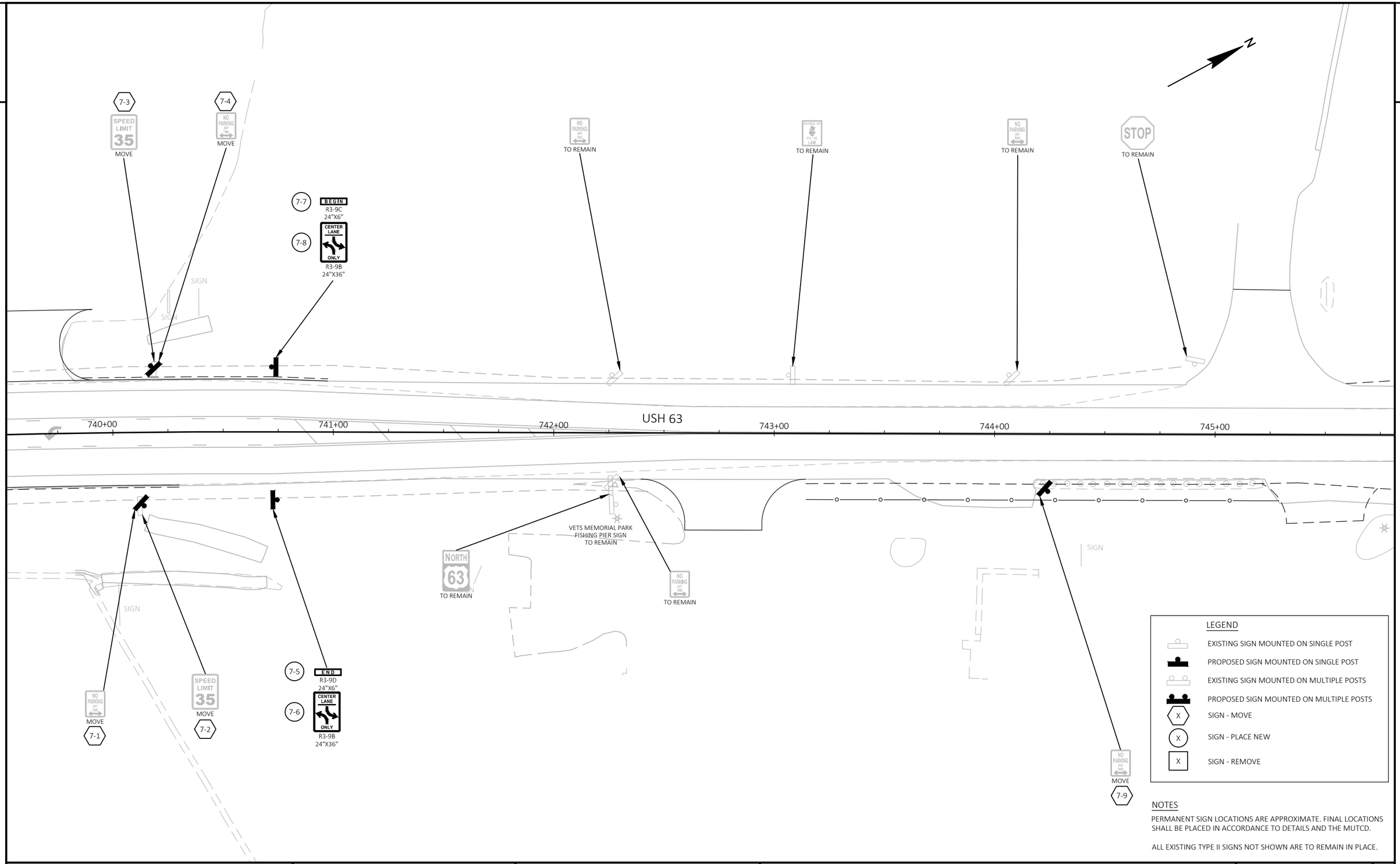
ALL EXISTING TYPE II SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 30	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023206-ps

PLOT DATE : 1/8/2019 9:13 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



NOTES

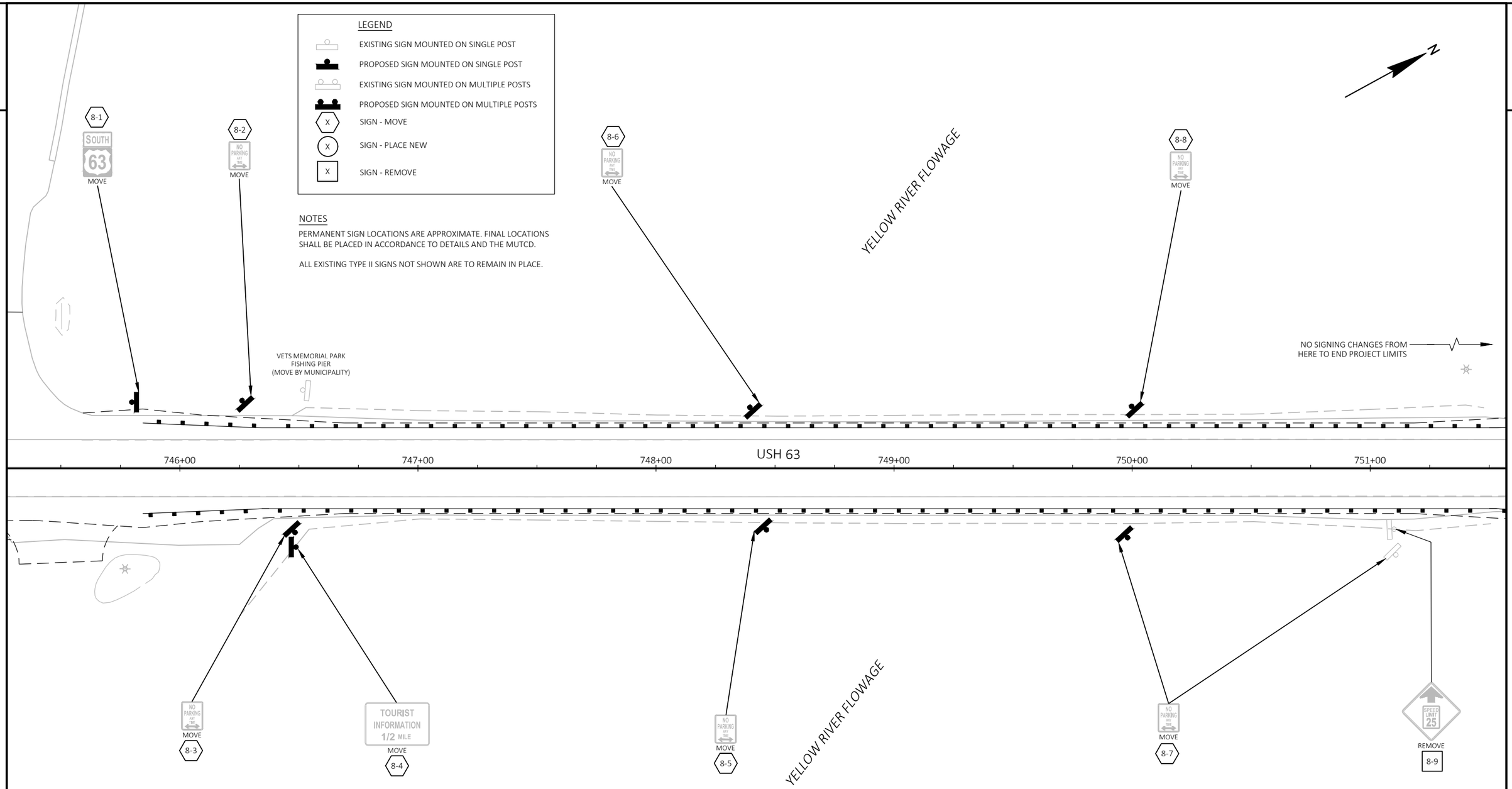
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

ALL EXISTING TYPE II SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 31	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023207-ps
PLOT DATE : 1/8/2019 9:13 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



2

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PERMANENT SIGNING	SHEET 32	E

2

LEGEND

	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION

N

GREEN VALLEY RD

SIGN

MWE4 GWRE

+00

MYC4 EPOXY

USH 63

703+00 704+00 705+00 706+00 707+00 708+00 709+00

+06

MYCS4 EPOXY

MWES4 GWRE

MATCH PROJECT 1550-04-73/75

SIGN

GREEN VALLEY RD

+90

12'

12'

MWCH8 GWRCE

+72

MWE4 EPOXY

+87

12'

+87

+00

MDY4 EPOXY

MWE4 EPOXY

2

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 33	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm

PLOT DATE : 1/8/2019 9:15 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

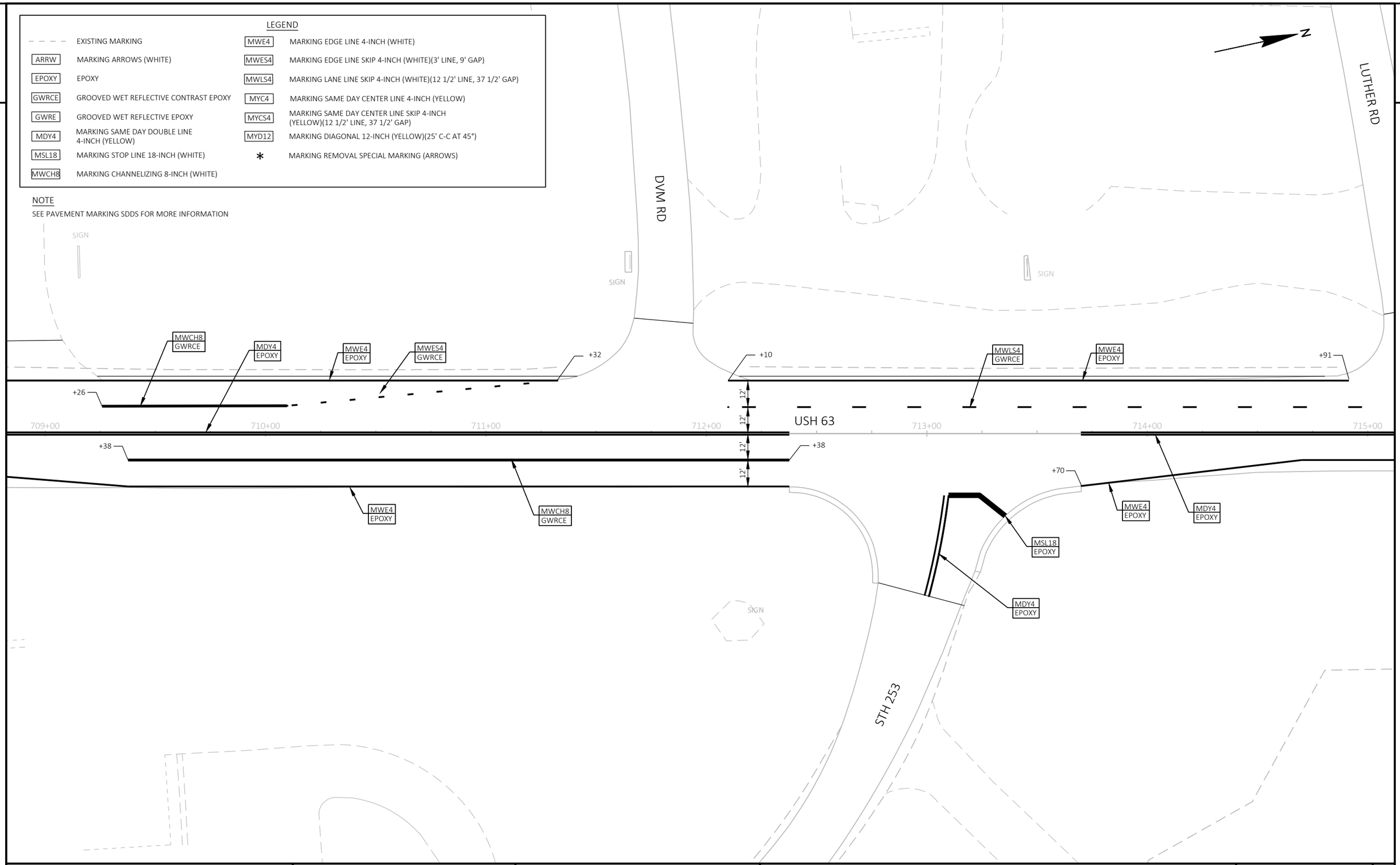
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LEGEND

- - - -	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 34	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024502-pm

PLOT DATE : 1/8/2019 9:15 AM PLOT BY : DREW NELSON PLOT NAME :

PLOT SCALE : 1 IN:40 FT

2

2

LUTHER RD

LEGEND

	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION

N

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

MWE4
EPOXY

+54

+97

MWLS4
GWRCE

MDY4
EPOXY

+48

12'

12'

12'

12'

715+00

716+00

717+00

718+00

719+00

720+00

721+00

USH 63

MWE4
EPOXY

DURAND RD

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 35	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024503-pm

PLOT DATE : 1/8/2019 9:15 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

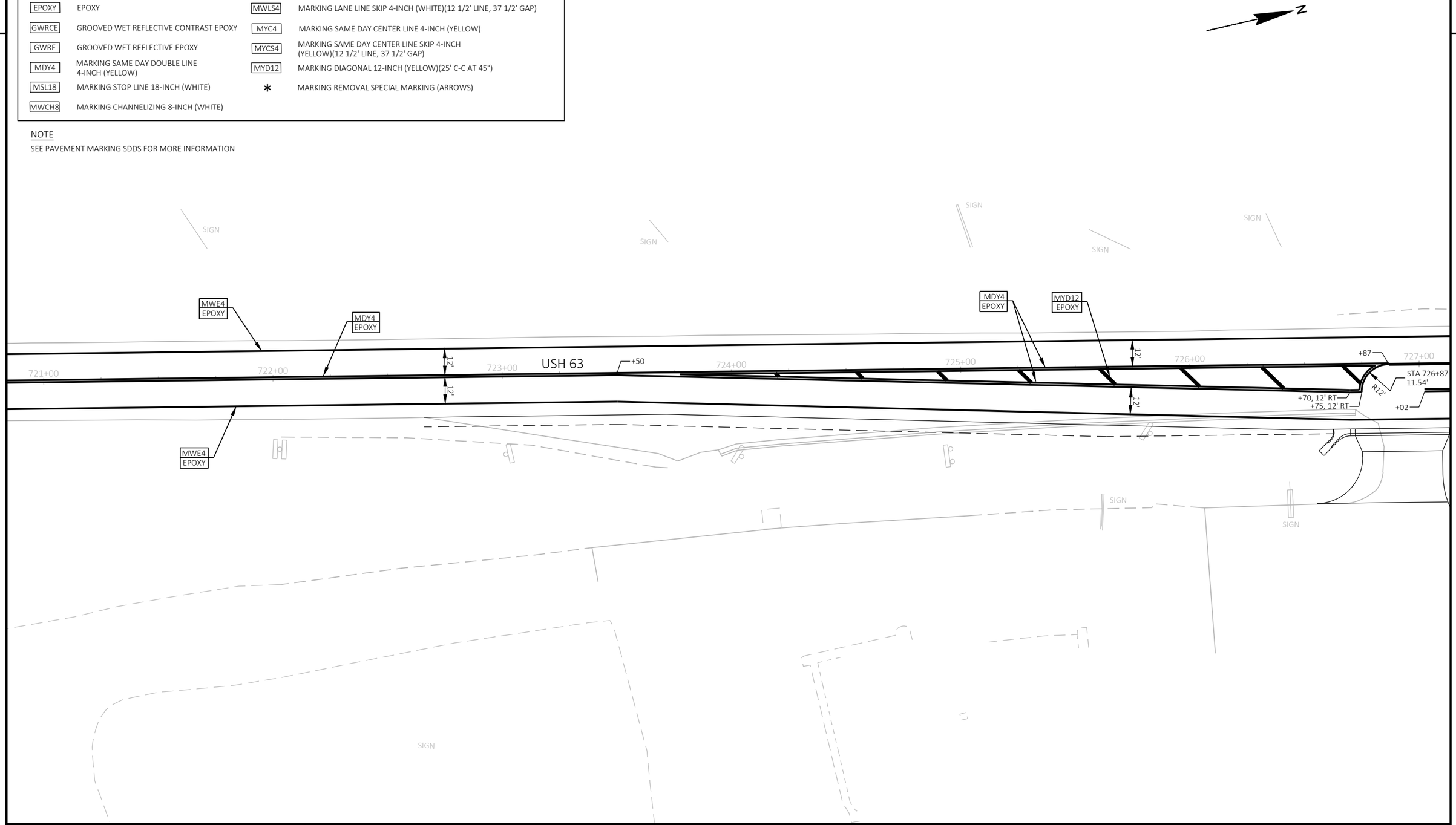
2

LEGEND

– – – –	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 36	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024504-pm

PLOT DATE : 1/8/2019 9:15 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

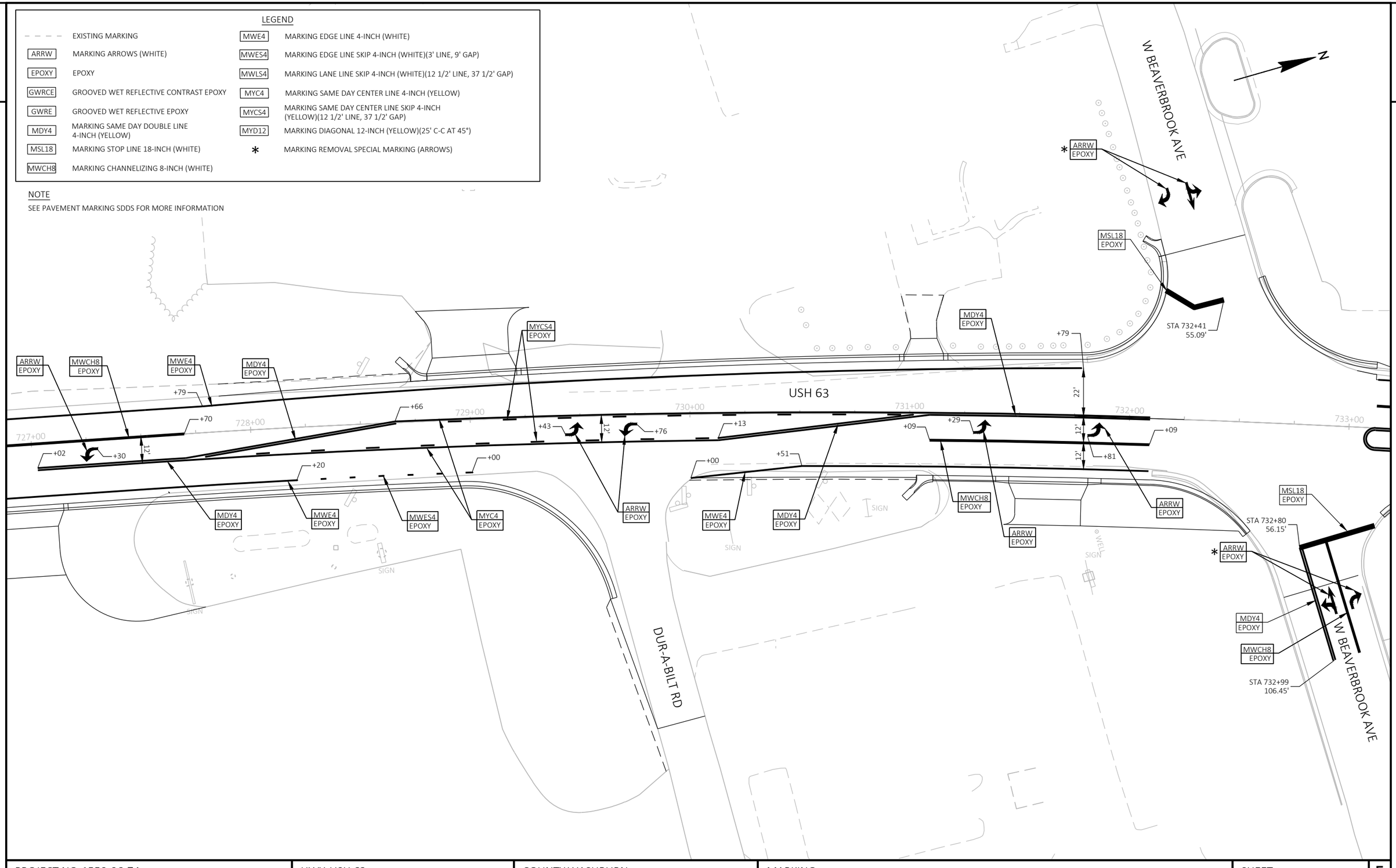
2

LEGEND

- - - -	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 37	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024505-pm

PLOT DATE : 1/8/2019 9:15 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

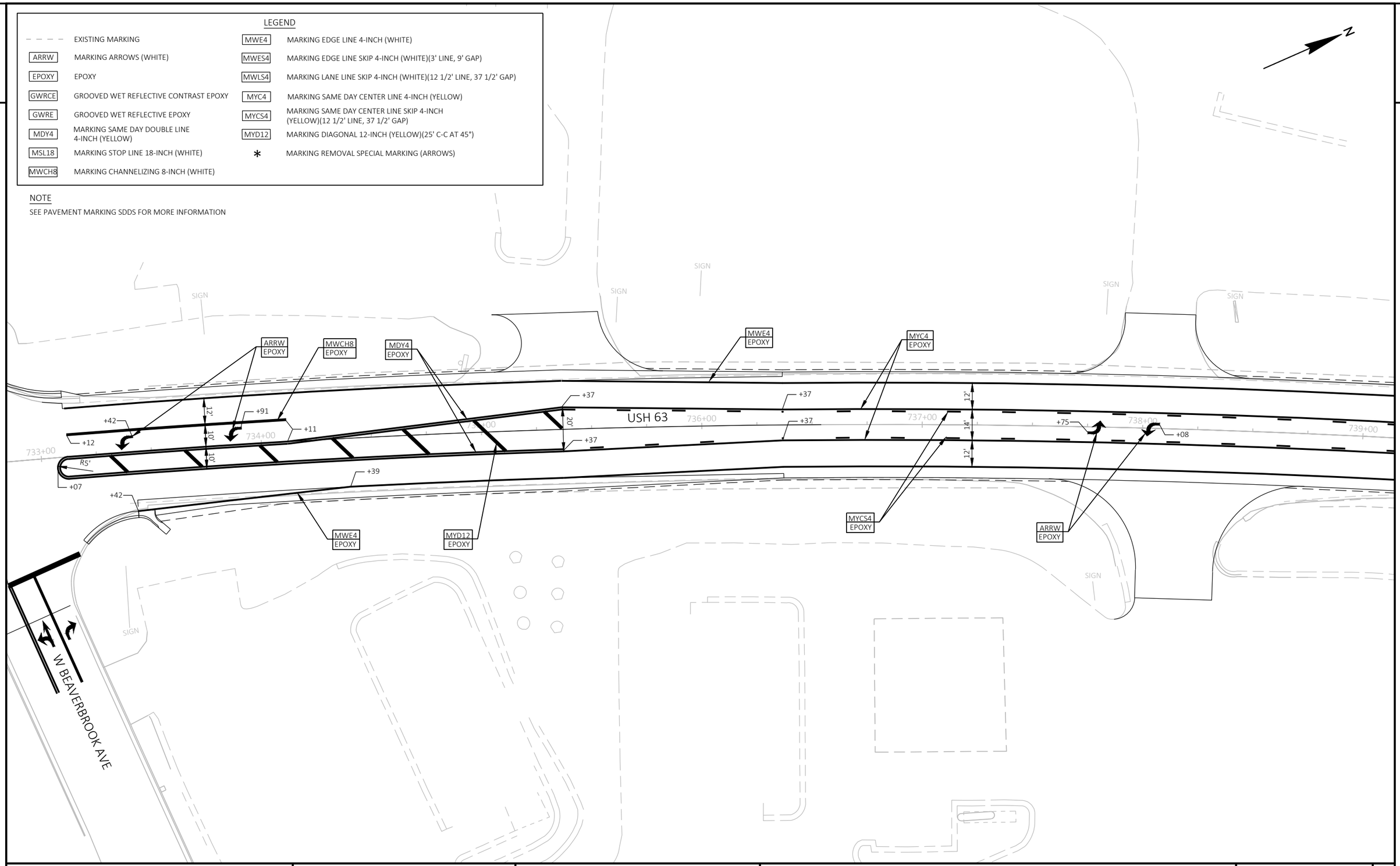
2

LEGEND

- - - -	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 38	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024506-pm

PLOT DATE : 1/8/2019 9:15 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

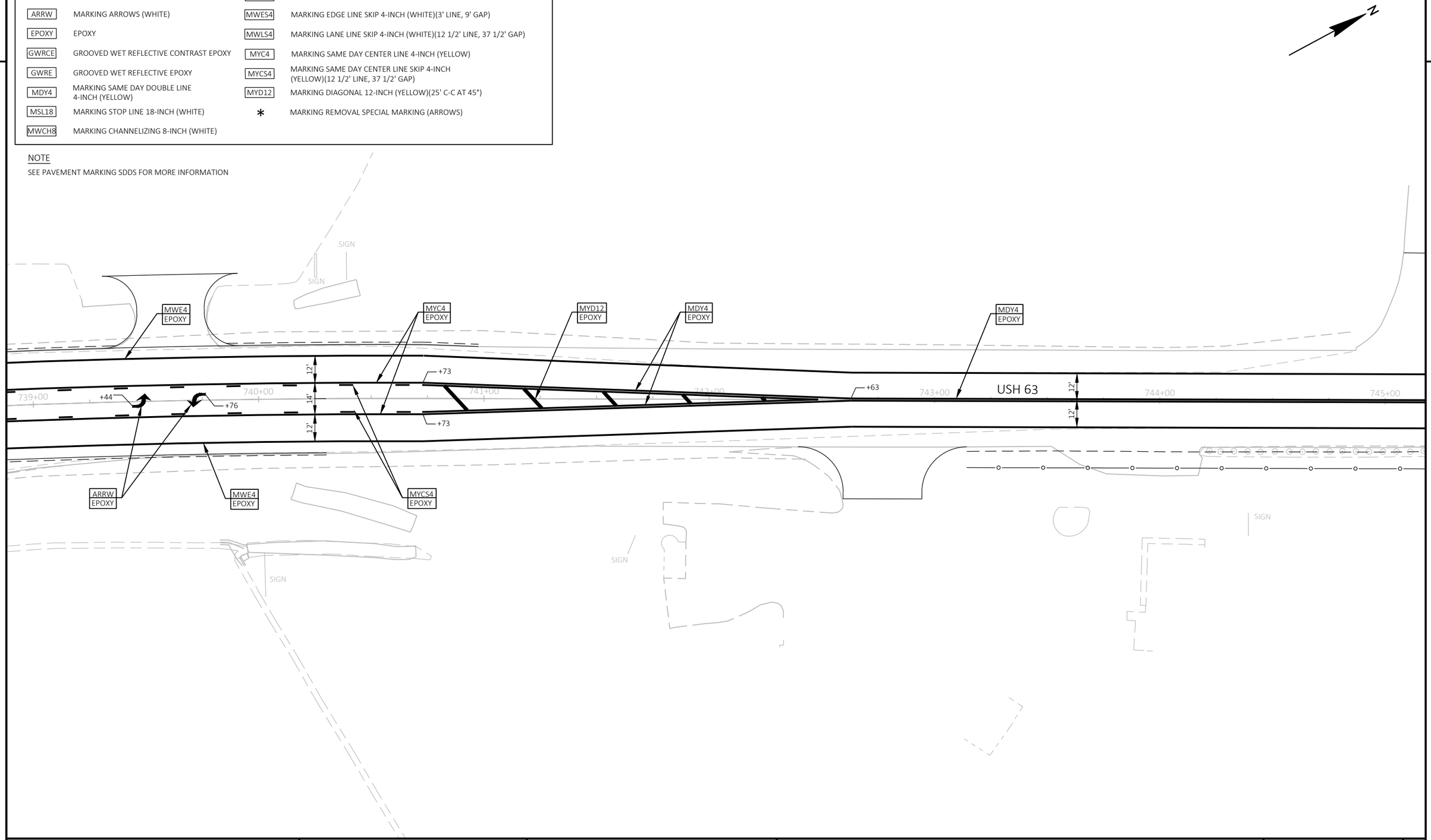
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LEGEND

– – –	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 39	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024507-pm

PLOT DATE : 1/8/2019 9:15 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

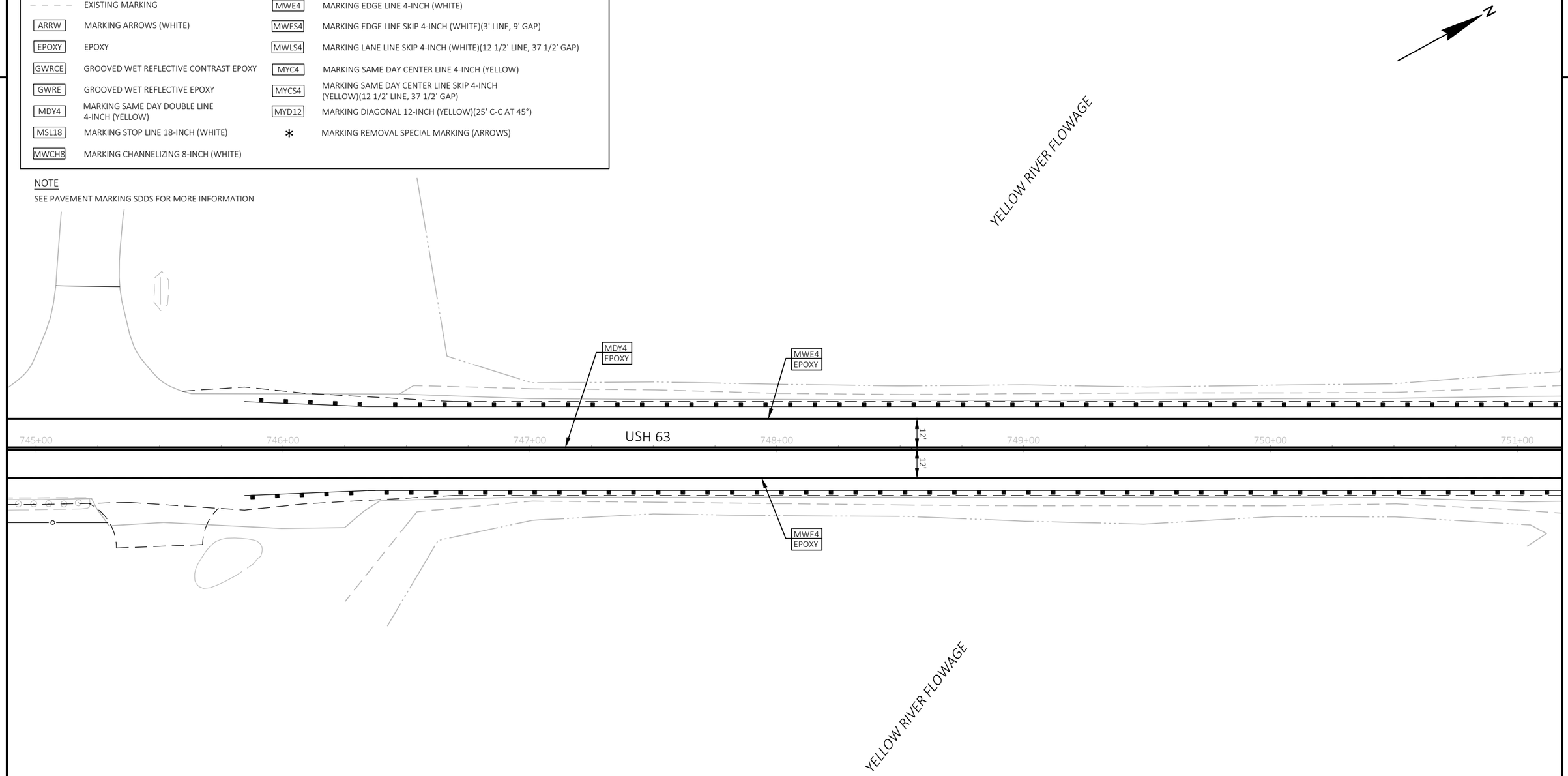
2

LEGEND

– – – –	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION



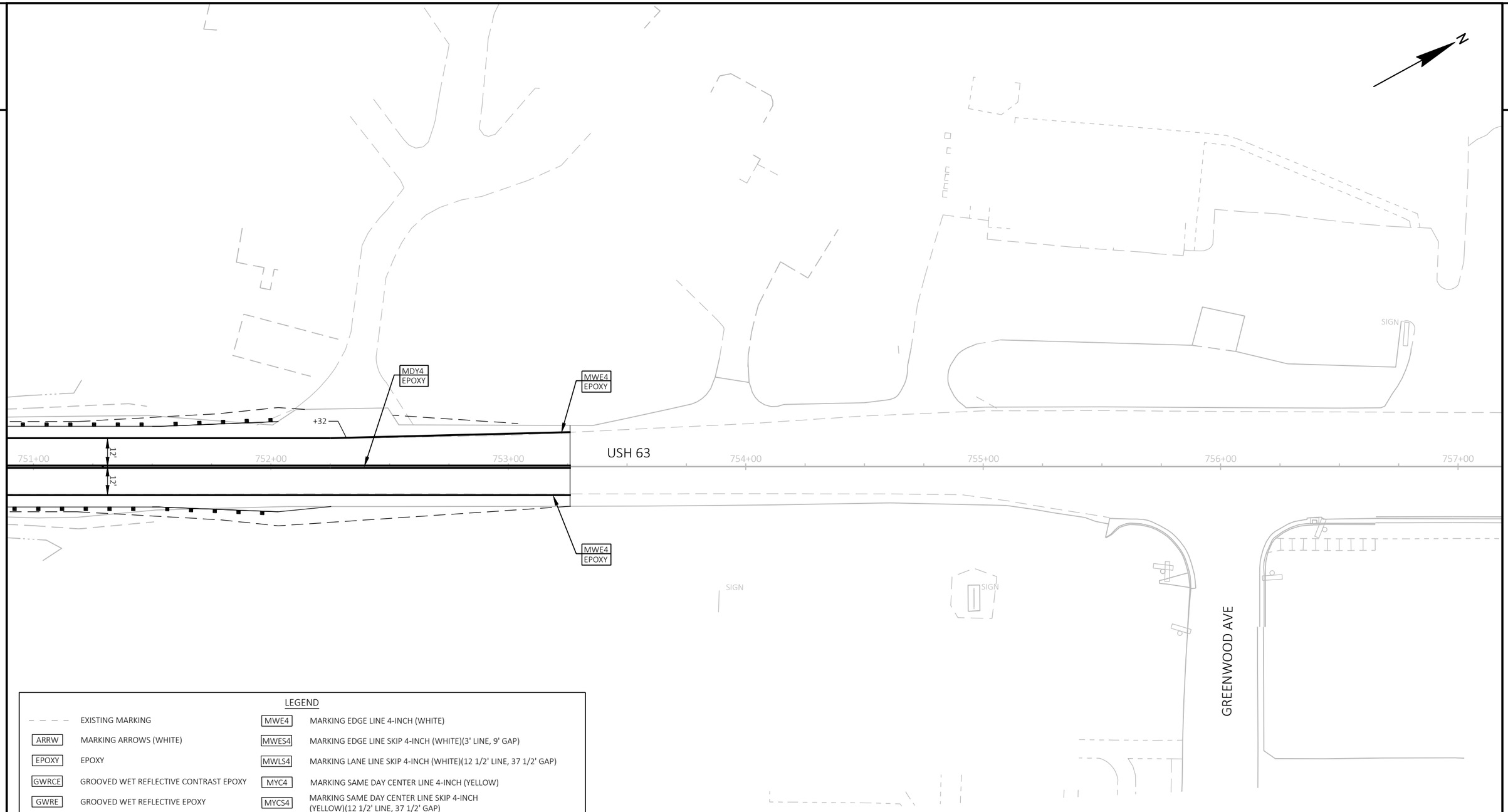
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 40	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024508-pm

PLOT DATE : 1/8/2019 9:16 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

- - - -	EXISTING MARKING	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
ARRW	MARKING ARROWS (WHITE)	MWES4	MARKING EDGE LINE SKIP 4-INCH (WHITE)(3' LINE, 9' GAP)
EPOXY	EPOXY	MWLS4	MARKING LANE LINE SKIP 4-INCH (WHITE)(12 1/2' LINE, 37 1/2' GAP)
GWRCE	GROOVED WET REFLECTIVE CONTRAST EPOXY	MYC4	MARKING SAME DAY CENTER LINE 4-INCH (YELLOW)
GWRE	GROOVED WET REFLECTIVE EPOXY	MYCS4	MARKING SAME DAY CENTER LINE SKIP 4-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MDY4	MARKING SAME DAY DOUBLE LINE 4-INCH (YELLOW)	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	*	MARKING REMOVAL SPECIAL MARKING (ARROWS)
MWCH8	MARKING CHANNELIZING 8-INCH (WHITE)		

NOTE

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION

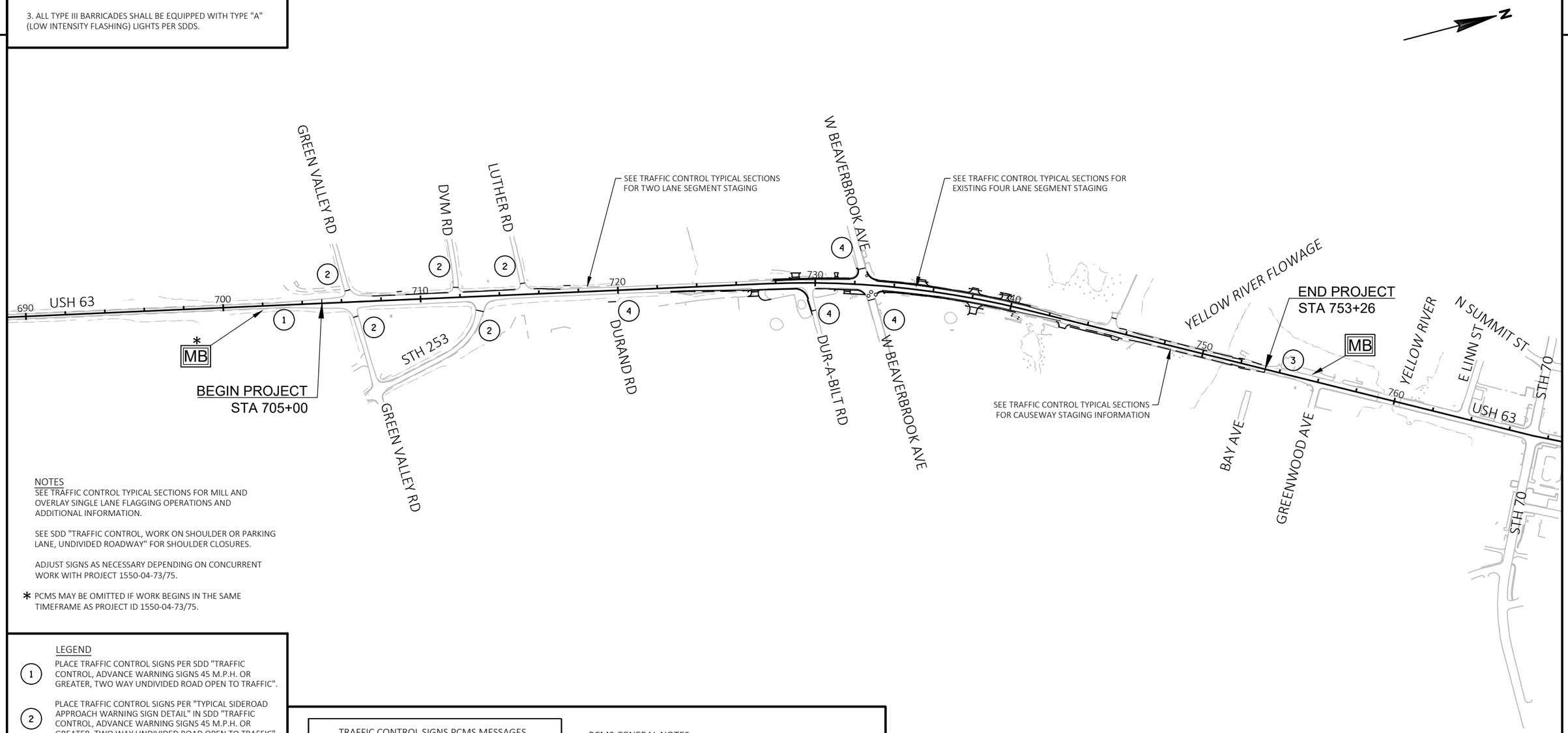
PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	MARKING	SHEET 41	E

TRAFFIC CONTROL GENERAL NOTES

1. ALL SIGNS ARE 48" X 48" 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.



NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR MILL AND OVERLAY SINGLE LANE FLAGGING OPERATIONS AND ADDITIONAL INFORMATION.

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR SHOULDER CLOSURES.

ADJUST SIGNS AS NECESSARY DEPENDING ON CONCURRENT WORK WITH PROJECT 1550-04-73/75.

* PCMS MAY BE OMITTED IF WORK BEGINS IN THE SAME TIMEFRAME AS PROJECT ID 1550-04-73/75.

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".

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".

MB TRAFFIC CONTROL SIGN PCMS

TRAFFIC CONTROL SIGNS PCMS MESSAGES

	PRIOR TO CONSTRUCTION	
PCMS SIGN LOCATION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
USH 63 NB 0.1 MILES SOUTH OF GREEN VALLEY ROAD	USH 63 WORK STARTS	WEEK DAY STARTING DATE
USH 63 SB ACROSS FROM GREENWOOD AVENUE	USH 63 WORK STARTS	WEEK DAY STARTING DATE

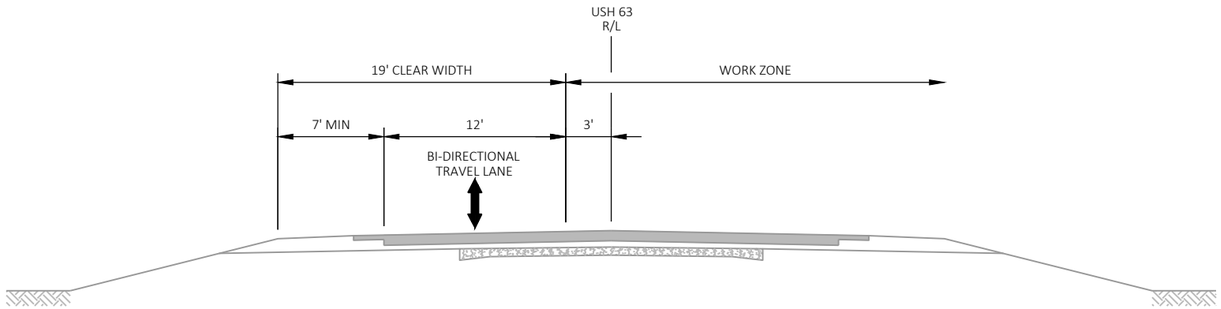
PCMS GENERAL NOTES

ADJUST TRAFFIC CONTROL PCMS MESSAGES AS NEEDED BASED ON CONSTRUCTION SCHEDULE.

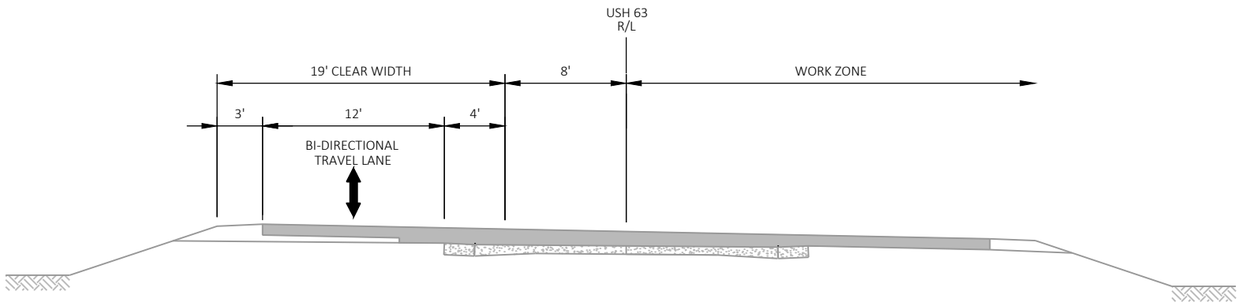
CONSIDER GEOMETRICS WHEN LOCATING MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1,000 FEET IN FRONT OF THE MESSAGE BOARD. PLACE MESSAGE BOARDS AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.

PLACE TRAFFIC CONTROL SIGNS PCMS AND DISPLAY THE MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK. ADJUST THE MESSAGE DATE ACCORDINGLY.

2



TRAFFIC CONTROL TYPICAL SECTION
** USH 63 - TWO LANE SECTION
WORK ZONE FOR USH 63 NB SHOWN, MIRROR TYPICAL SECTION FOR USH 63 SB WORK ZONE



TRAFFIC CONTROL TYPICAL SECTION
USH 63 - EXISTING FOUR LANE SECTION
WORK ON TRAVEL LANES

WORK ZONE FOR USH 63 NB SHOWN, MIRROR TYPICAL SECTION FOR USH 63 SB WORK ZONE

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" SINGLE LANE BI-DIRECTIONAL OPERATIONS.

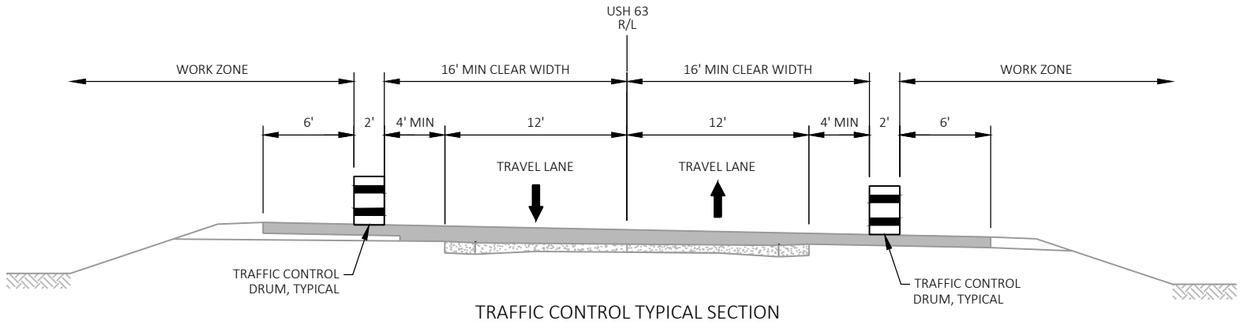
SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR SHOULDER CLOSURES.

SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR REQUIRED SIGNING DURING PERIODS OF UNEVEN LANES.

** STANDARD TWO-LANE SECTION IS SHOWN. THIS DETAIL ALSO APPLIES IN THE AREAS WITH TURN LANES AND BYPASS LANES.

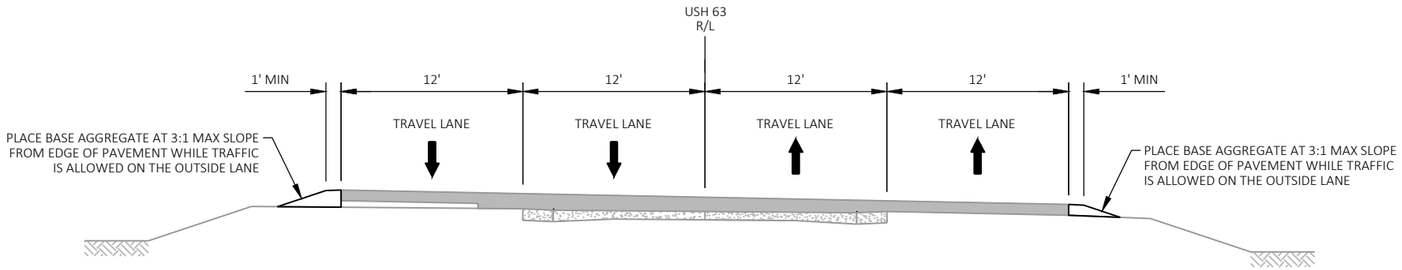
PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 43	E

2



TRAFFIC CONTROL TYPICAL SECTION
USH 63 - EXISTING FOUR LANE SECTION
WORK BEYOND THE OUTSIDE TRAVEL LANES

WORK ZONE SHOWN WITH WORK ON BOTH SIDES OF USH 63,
KEEP AN ADDITIONAL THROUGH LANE OPEN IF WORK IS NOT
OCCURRING ON THE ADJACENT SIDE OF USH 63



TRAFFIC CONTROL TYPICAL SECTION
USH 63 - EXISTING FOUR LANE SECTION
ALL LANES OPEN TO TRAFFIC

TRAFFIC SHOWN DURING PERIODS OF
LANE CLOSURE RESTRICTIONS

NOTES

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR SHOULDER CLOSURES.

SEE DETAIL B OF SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR DEVICES AT INTERSECTIONS DURING OUTSIDE LANE CLOSURES

SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR REQUIRED SIGNING DURING PERIODS OF UNEVEN LANES

CLOSE OUTSIDE LANES WITH TRAFFIC CONTROL DRUMS PRIOR TO THE LANE ADDITION TAPERS WITHIN THE FOUR LANE SECTION OF USH 63.

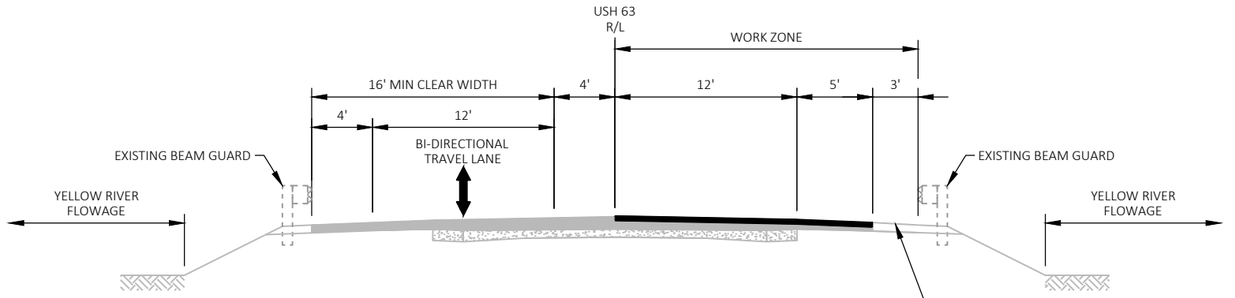
PROJECT NO: 1550-06-74	HWY: USH 63	COUNTY: WASHBURN	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 44	E

CAUSEWAY STAGING SUMMARY

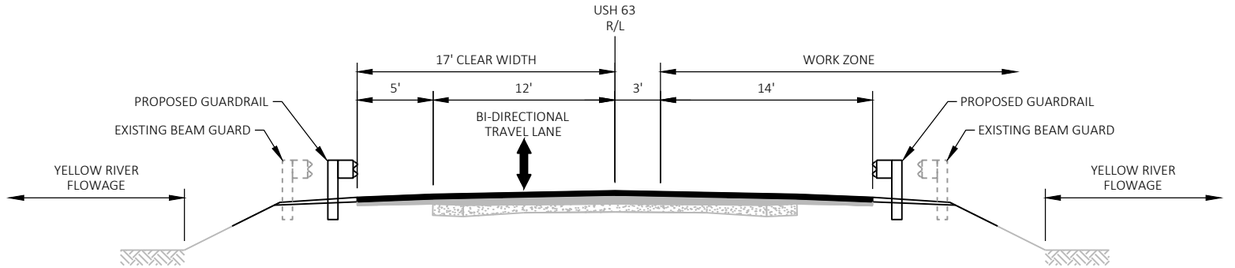
STAGE C1 AND C2
REDUCE USH 63 TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC WITH THE USE OF FLAGGING OPERATIONS AND COMPLETE MILL AND OVERLAY OPERATIONS ON BOTH SIDES OF USH 63.

STAGE C3-A AND C4-A
REDUCE USH 63 TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC WITH THE USE OF FLAGGING OPERATIONS DURING WORKING HOURS. COMPLETE GRADING, REMOVING AND REPLACING GUARDRAIL, FINISHING, AND EROSION CONTROL.

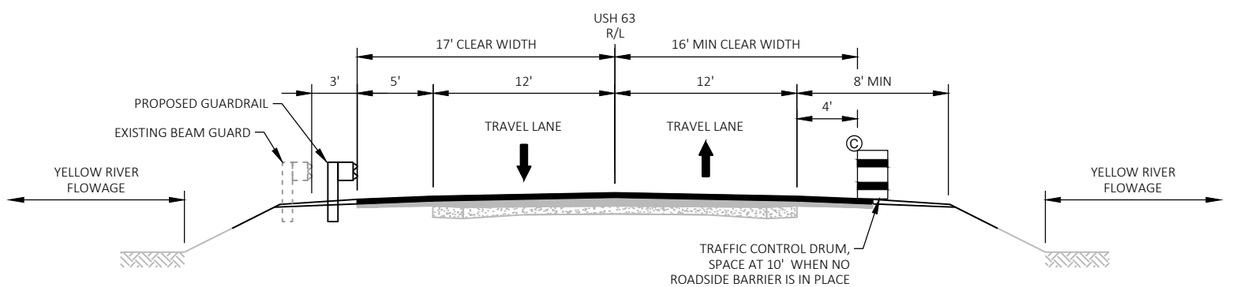
STAGE C3-B AND C4-B
STAGE C3-B AND C4-B ARE REQUIRED DURING NON-WORKING HOURS WHILE THE EXISTING BEAM GUARD IS REMOVED AND THE PROPOSED GUARDRAIL IS NOT YET INSTALLED. PARTIALLY CLOSE THE SHOULDER ADJACENT TO THE REMOVED BEAM GUARD WITH TIGHTLY SPACED TRAFFIC CONTROL DRUMS.



TRAFFIC CONTROL TYPICAL SECTION - STAGE C1
USH 63 - CAUSEWAY WITH EXISTING BEAM GUARD
WORK ZONE FOR USH 63 NB SHOWN, MIRROR TYPICAL SECTION FOR USH 63 SB WORK ZONE (STAGE C2)



TRAFFIC CONTROL TYPICAL SECTION - STAGE C3-A
USH 63 - CAUSEWAY WITH PROPOSED GUARDRAIL
WORK ZONE FOR USH 63 NB SHOWN, MIRROR TYPICAL SECTION FOR USH 63 SB WORK ZONE (STAGE C4-A)



TRAFFIC CONTROL TYPICAL SECTION - STAGE C3-B
USH 63 - CAUSEWAY WITHOUT GUARDRAIL IN PLACE
STAGE C3-B AND C4-B ARE DURING NON-WORKING HOURS
USH 63 NB GUARDRAIL REMOVAL SHOWN, MIRROR
TYPICAL SECTION FOR USH 63 SB WORK (STAGE C4-B)

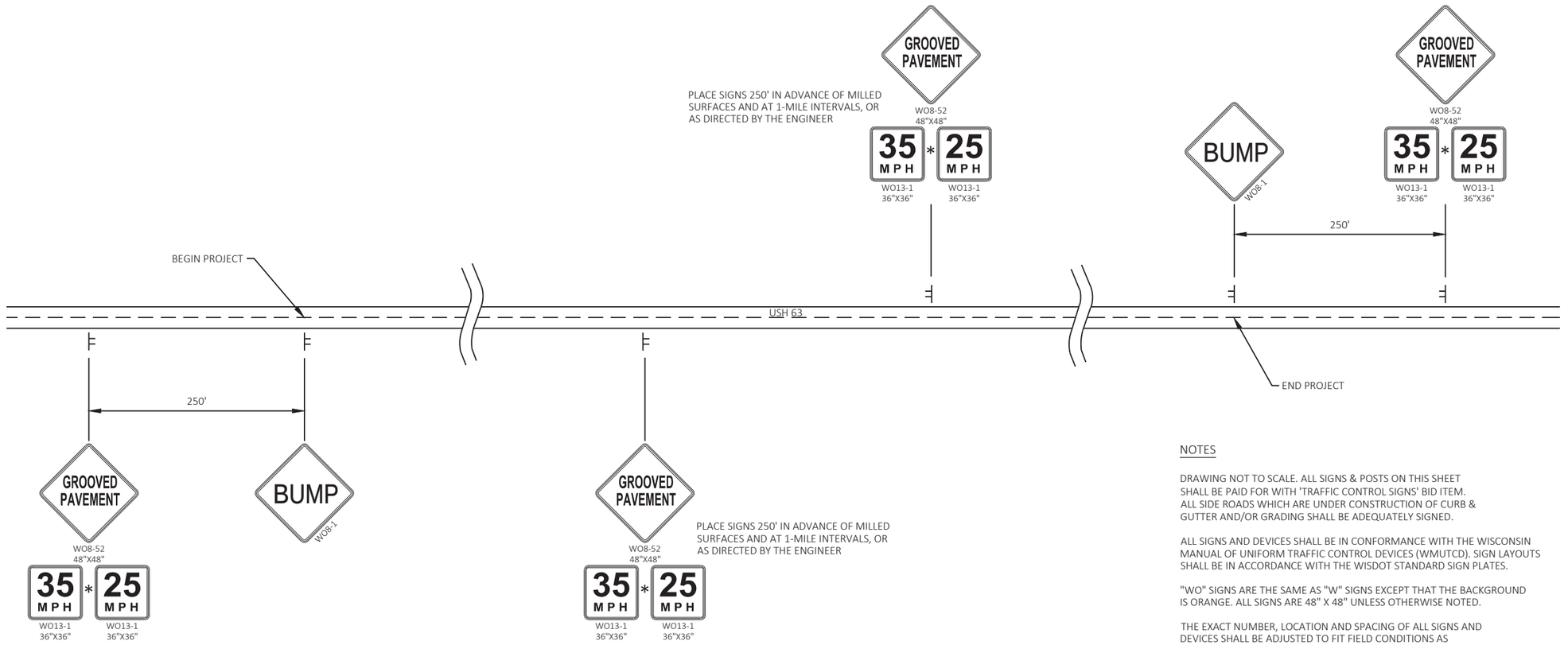
NOTES
SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" SINGLE LANE BI-DIRECTIONAL OPERATIONS.

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR SHOULDER CLOSURES DURING NON-WORKING HOURS.

SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR REQUIRED SIGNING DURING PERIODS OF UNEVEN LANES

Ⓒ TYPE "C" LIGHT.

2



NOTES

DRAWING NOT TO SCALE. ALL SIGNS & POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB & 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.

* POST WO13-1 ADVISORY SPEED SIGNS AT 10 MPH BELOW POSTED SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.

DETAIL FOR SIGNING ON MAINLINE MILLED SURFACES

1550-06-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0100	Removing Small Pipe Culverts	EACH	5.000	5.000
0008	204.0100	Removing Pavement	SY	11.000	11.000
0010	204.0110	Removing Asphaltic Surface	SY	235.000	235.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	100.000	100.000
0014	204.0125	Removing Asphaltic Surface Milling	TON	3,775.000	3,775.000
0016	204.0150	Removing Curb & Gutter	LF	560.000	560.000
0018	204.0165	Removing Guardrail	LF	960.000	960.000
0020	204.0180	Removing Delineators and Markers	EACH	70.000	70.000
0022	204.0185	Removing Masonry	CY	30.000	30.000
0024	205.0100	Excavation Common	CY	2,261.000	2,261.000
0028	211.0100	Prepare Foundation for Asphaltic Paving (project) 02. 1550-06-74	LS	1.000	1.000
0032	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	10.000	10.000
0036	213.0100	Finishing Roadway (project) 01. 1550-06-74	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	700.000	700.000
0042	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,880.000	1,880.000
0044	416.0260	Concrete Driveway HES 6-Inch	SY	100.000	100.000
0046	450.4000	HMA Cold Weather Paving	TON	2,000.000	2,000.000
0048	455.0605	Tack Coat	GAL	3,310.000	3,310.000
0054	460.2000	Incentive Density HMA Pavement	DOL	1,840.000	1,840.000
0062	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	8,550.000	8,550.000
0070	460.7425	HMA Pavement 5 HT 58-28 H	TON	2,700.000	2,700.000
0072	460.7444	HMA Pavement 4 HT 58-34 H	TON	2,860.000	2,860.000
0074	465.0110	Asphaltic Surface Patching	TON	263.000	263.000
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	250.000	250.000
0080	465.0315	Asphaltic Flumes	SY	35.000	35.000
0092	521.1515	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 15-Inch 6 to 1	EACH	2.000	2.000
0094	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	6.000	6.000
0102	522.0415	Culvert Pipe Reinforced Concrete Class IV 15-Inch	LF	50.000	50.000
0104	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	194.000	194.000
0110	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	100.000	100.000
0112	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	672.000	672.000
0114	606.0200	Riprap Medium	CY	20.000	20.000
0116	611.8120.S	Cover Plates Temporary	EACH	2.000	2.000
0118	614.2330	MGS Guardrail 3 K	LF	1,025.000	1,025.000
0120	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000

1550-06-74

Line	Item	Item Description	Unit	Total	Qty
0122	616.0204	Fence Chain Link 4-FT	LF	215.000	215.000
0126	618.0100	Maintenance And Repair of Haul Roads (project) 02. 1550-06-74	EACH	1.000	1.000
0130	619.1000	Mobilization	EACH	0.400	0.400
0132	624.0100	Water	MGAL	20.000	20.000
0134	625.0100	Topsoil	SY	8,360.000	8,360.000
0136	627.0200	Mulching	SY	300.000	300.000
0138	628.1504	Silt Fence	LF	1,315.000	1,315.000
0140	628.1520	Silt Fence Maintenance	LF	1,315.000	1,315.000
0142	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0144	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0148	628.2006	Erosion Mat Urban Class I Type A	SY	6,240.000	6,240.000
0152	628.2027	Erosion Mat Class II Type C	SY	2,120.000	2,120.000
0154	628.6005	Turbidity Barriers	SY	1,300.000	1,300.000
0156	628.7504	Temporary Ditch Checks	LF	350.000	350.000
0158	628.7555	Culvert Pipe Checks	EACH	50.000	50.000
0160	628.7570	Rock Bags	EACH	50.000	50.000
0162	629.0210	Fertilizer Type B	CWT	6.000	6.000
0164	630.0130	Seeding Mixture No. 30	LB	150.000	150.000
0166	631.0300	Sod Water	MGAL	100.000	100.000
0168	633.5200	Markers Culvert End	EACH	4.000	4.000
0170	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	2.000	2.000
0172	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	14.000	14.000
0174	637.2210	Signs Type II Reflective H	SF	40.000	40.000
0176	638.2102	Moving Signs Type II	EACH	35.000	35.000
0178	638.2602	Removing Signs Type II	EACH	4.000	4.000
0180	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0182	638.4000	Moving Small Sign Supports	EACH	34.000	34.000
0184	642.5201	Field Office Type C	EACH	0.400	0.400
0186	643.0300	Traffic Control Drums	DAY	25,111.000	25,111.000
0190	643.0310.S	Temporary Portable Rumble Strips 02. 1550-06-74	LS	1.000	1.000
0194	643.0420	Traffic Control Barricades Type III	DAY	850.000	850.000
0196	643.0705	Traffic Control Warning Lights Type A	DAY	1,700.000	1,700.000
0198	643.0715	Traffic Control Warning Lights Type C	DAY	1,000.000	1,000.000
0200	643.0900	Traffic Control Signs	DAY	3,080.000	3,080.000
0202	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0204	643.5000	Traffic Control	EACH	0.400	0.400
0206	645.0120	Geotextile Type HR	SY	55.000	55.000
0208	646.1020	Marking Line Epoxy 4-Inch	LF	8,585.000	8,585.000
0210	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	125.000	125.000

1550-06-74

Line	Item	Item Description	Unit	Total	Qty
0212	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	130.000	130.000
0214	646.3020	Marking Line Epoxy 8-Inch	LF	340.000	340.000
0216	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	570.000	570.000
0218	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	11,230.000	11,230.000
0220	646.5020	Marking Arrow Epoxy	EACH	15.000	15.000
0224	646.6120	Marking Stop Line Epoxy 18-Inch	LF	95.000	95.000
0226	646.7120	Marking Diagonal Epoxy 12-Inch	LF	205.000	205.000
0228	646.9300	Marking Removal Special Marking	EACH	4.000	4.000
0232	649.0105	Temporary Marking Line Paint 4-Inch	LF	19,070.000	19,070.000
0236	650.4500	Construction Staking Subgrade	LF	2,571.000	2,571.000
0238	650.5000	Construction Staking Base	LF	2,571.000	2,571.000
0240	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,706.000	1,706.000
0244	650.8000	Construction Staking Resurfacing Reference	LF	4,826.000	4,826.000
0248	650.9910	Construction Staking Supplemental Control (project) 01. 1550-06-74	LS	1.000	1.000
0252	650.9920	Construction Staking Slope Stakes	LF	2,571.000	2,571.000
0254	690.0150	Sawing Asphalt	LF	4,623.000	4,623.000
0256	690.0250	Sawing Concrete	LF	130.000	130.000
0258	740.0440	Incentive IRI Ride	DOL	3,600.000	3,600.000
0270	SPV.0060	Special 04. Adjusting Sanitary Manhole Covers	EACH	6.000	6.000
0272	SPV.0060	Special 05. Adjusting Water Valve Boxes	EACH	10.000	10.000
0274	SPV.0060	Special 06. Adjusting Hydrants	EACH	1.000	1.000
0276	SPV.0090	Special 01. Concrete Curb & Gutter 4-Inch Sloped HES 36-Inch Type D	LF	48.000	48.000
0278	SPV.0090	Special 02. Concrete Curb & Gutter 6-Inch Sloped HES 36-Inch Type D	LF	108.000	108.000
0280	SPV.0090	Special 03. Concrete Curb & Gutter Cure and Seal Treatment	LF	928.000	928.000
0282	SPV.0180	Special 01. Concrete Driveway Cure and Seal Treatment	SY	100.000	100.000

3

CLEARING AND GRUBBING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
1550-06-74						
	741+00	-	743+00	LT	2	2
PROJECT 1550-06-74 TOTALS					2	2

REMOVING SMALL PIPE CULVERTS

PROJECT	STATION	OFFSET	203.0100 EACH	COMMENTS
1550-06-74				
	734+50	RT	1	18 INCH X 42 FEET CPCS
	735+37	LT	1	18 INCH X 80 FEET CPCS
	738+07	LT	1	18 INCH X 58 FEET CPCS
	738+25	RT	1	18 INCH X 100 FEET CPCS
	739+62	LT	1	18 INCH X 44 FEET CPCS
PROJECT 1550-06-74 TOTAL			5	

REMOVAL ITEMS

PROJECT	STATION	TO	STATION	OFFSET	204.0100 REMOVING PAVEMENT SY	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	204.0185 REMOVING MASONRY CY	COMMENTS
1550-06-74, CAT 0010											
	705+00	-	722+66	LT&RT	--	--	52	1,610	--	--	
	722+66	-	740+73	LT&RT	--	--	21	1,375	535	30	
	740+73	-	753+26	LT&RT	--	--	13	760	--	--	
	705+00	-	753+26	LT&RT	--	225	14	30	25	--	DRIVEWAYS
PROJECT 1550-06-74 CAT 0010 TOTALS					--	225	100	3,775	560	30	
1550-06-74, CAT 0020											
	729+66			41' RT	1	--	--	--	--	--	WATER VALVE
	729+76			47' RT	1	--	--	--	--	--	WATER VALVE
	732+58			45' LT	3	5	--	--	--	--	SANITARY MH
	732+71			57' RT	1	--	--	--	--	--	WATER VALVE
	732+76			53' RT	1	--	--	--	--	--	WATER VALVE
	732+85			35' RT	3	5	--	--	--	--	SANITARY MH
	733+10			47' RT	1	--	--	--	--	--	WATER VALVE
PROJECT 1550-06-74 CAT 0020 TOTALS					11	10	--	--	--	--	
TOTALS					11	235	100	3,775	560	30	

3

REMOVING DELINEATORS AND MARKERS

PROJECT	STATION	TO	STATION	OFFSET	204.0180 EACH	COMMENTS
1550-06-74						
	730+50	-	732+10	LT	39	WOOD
	738+45	-	739+80	LT	9	PLASTIC
	744+20	-	745+20	RT	20	WOOD
	746+52	-	751+45	LT&RT	2	METAL
PROJECT 1550-06-74 TOTAL					70	

EARTHWORK SUMMARY

DIVISION	LOCATION	EXCAVATION COMMON (NOTE 1) (ITEM #205.0100)	SALVAGED / UNUSEABLE PAVEMENT MATERIAL (NOTE 2)	AVAILABLE MATERIAL (NOTE 3)	UNEXPANDED FILL	EXPANDED FILL (NOTE 4)	MASS ORDINATE +/- (NOTE 5)	WASTE
						FACTOR 1.20		
USH 63								
1	STA 727+86 TO STA 740+98, LT (ROADSIDE DRAINAGE RESTORATION)	729	107	622	122	147	475	475
2	STA 722+66 TO STA 740+30, RT (ROADSIDE DRAINAGE RESTORATION)	1,174	200	974	100	120	854	854
3	STA 745+59 TO STA 753+04, LT (CAUSEWAY GUARDRAIL)	153	41	112	0	0	112	112
4	STA 745+38 TO STA 753+26, RT (CAUSEWAY GUARDRAIL)	205	44	161	7	9	152	152
TOTALS		2,261	393	1,868	229	276	1,592	1,592

NOTES:
1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL = (AREA OF PROJECT PAVEMENT & CURB AND GUTTER) * (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

BASE AGGREGATE ITEMS

PROJECT	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	COMMENTS
1550-06-74							
	705+00	-	722+66	LT & RT	195	--	
	722+66	-	740+73	LT & RT	250	1,355	
	722+66	-	740+73	LT & RT	15	365	DRIVEWAYS
	740+73	-	753+26	LT & RT	200	120	
	740+73	-	753+26	LT & RT	40	40	DRIVEWAYS
PROJECT 1550-06-74 TOTALS					700	1,880	

NOTE
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CONCRETE DRIVEWAY ITEMS

PROJECT	STATION	TO	STATION	OFFSET	416.0260 CONCRETE DRIVEWAY HES 6-INCH SY	SPV.0180.01 CONCRETE DRIVEWAY CURE AND SEAL TREATMENT SY
1550-06-74						
	726+72	-	727+13	RT	30	30
	728+81	-	729+22	LT	30	30
	730+97	-	731+15	LT	12	12
	731+45	-	731+82	RT	28	28
PROJECT 1550-06-74 TOTALS					100	100

ASPHALTIC ITEMS

PROJECT	STATION	TO	STATION	OFFSET	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	460.7425 HMA PAVEMENT 5 HT 58-28 H TON	460.7444 HMA PAVEMENT 4 HT 58-34 H TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0315 ASPHALTIC FLUMES SY	COMMENTS
1550-06-74, CAT 0010															
	705+00	-	722+66	LT&RT	10	--	1,150	--	2,740	815	1,090	--	--	--	
	722+66	-	740+73	LT&RT	--	--	1,265	--	4,235	1,000	1,160	--	--	35	
	722+66	-	740+73	RT	--	--	230	--	--	330	--	--	--	--	LEVELING
	740+73	-	753+26	LT&RT	--	--	665	--	1,575	455	610	--	--	--	
	705+00	-	753+26	LT&RT	--	--	--	--	--	--	--	--	250	--	DRIVEWAYS
	PROJECT				--	2,000	--	1,840	--	100	--	250.0	--	--	
PROJECT 1550-06-74 CAT 0010 TOTALS					10	2,000	3,310	1,840	8,550	2,700	2,860	250.0	250	35	
1550-06-74, CAT 0020															
	729+66			41' RT	--	--	--	--	--	--	--	1.2	--	--	WATER VALVE
	729+76			47' RT	--	--	--	--	--	--	--	1.2	--	--	WATER VALVE
	732+58			45' LT	--	--	--	--	--	--	--	3.5	--	--	SANITARY MH
	732+71			57' RT	--	--	--	--	--	--	--	1.2	--	--	WATER VALVE
	732+76			53' RT	--	--	--	--	--	--	--	1.2	--	--	WATER VALVE
	732+85			35' RT	--	--	--	--	--	--	--	3.5	--	--	SANITARY MH
	733+10			47' RT	--	--	--	--	--	--	--	1.2	--	--	WATER VALVE
PROJECT 1550-06-74 CAT 0020 TOTALS					--	--	--	--	--	--	--	13.0	--	--	
TOTALS					10	2,000	3,310	1,840	8,550	2,700	2,860	263.0	250	35	

REHEAT SURFACE LAYER CENTERLINE AND LANE LINE JOINTS
ASPHALTIC SURFACE PATCHING ITEM USED FOR REPAIRS REQUIRING ASPHALTIC MATERIAL DURING PREPARING FOUNDATION FOR ASPHALTIC PAVING
LEVELING LAYER DENSITY WILL BE ACCEPTED BASED ON ORDINARY COMPACTION PRACTICES, NO DENSITY INCENTIVE IS TO BE PAID

RIPRAP ITEMS

PROJECT	STATION	TO	STATION	OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
1550-06-74						
	740+16	-	740+51	RT	20	55
PROJECT 1550-06-74 TOTALS					20	55

CULVERT ITEMS

PROJECT	STATION	OFFSET	521.1515 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 15-INCH 6 TO 1 EACH	521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1 EACH	522.0415 CULVERT PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	522.0418 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	633.5200 MARKERS CULVERT END EACH
1550-06-74							
	723+83	LT&RT	--	--	--	--	2
	735+37	LT	2	--	50	--	--
	738+07	LT	--	2	--	56	--
	738+25	RT	--	2	--	82	--
	739+62	LT	--	2	--	56	--
	740+94	LT&RT	--	--	--	--	2
PROJECT 1550-06-74 TOTALS			2	6	50	194	4

NOTE
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CONCRETE CURB & GUTTER ITEMS

PROJECT	STATION	TO	STATION	OFFSET	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER 4-INCH SLOPED HES 36-INCH TYPE D LF	SPV.0090.02 CONCRETE CURB & GUTTER 6-INCH SLOPED HES 36-INCH TYPE D LF	SPV.0090.03 CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT LF
1550-06-74									
	726+70	-	729+63	RT	--	275	--	43	318
	728+81	-	732+14	LT	--	300	--	65	365
	731+11	-	732+57	RT	100	--	48	--	148
	732+56	-	733+11	LT	--	70	--	--	70
	733+16	-	733+42	RT	--	27	--	--	27
PROJECT 1550-06-74 TOTALS					100	672	48	108	928

3

EROSION CONTROL ITEMS

PROJECT	STATION	TO	STATION	OFFSET	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.6005 TURBIDITY BARRIERS SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH
1550-06-74													
	706+91	-	707+42	RT	--	--	--	140	--	--	--	--	--
	722+66	-	731+47	RT	--	410	410	845	495	--	50	3	--
	727+76	-	732+16	LT	--	250	250	645	15	--	25	--	--
	732+56	-	741+00	LT	--	80	80	1,200	635	--	75	34	--
	733+16	-	740+51	RT	--	50	50	1,055	545	--	75	3	--
	742+95	-	753+26	RT	--	--	--	775	--	525	40	--	--
	745+59	-	753+26	LT	--	260	260	325	--	510	15	--	--
UNDISTRIBUTED					300	265	265	1,255	430	265	70	10	50
PROJECT 1550-06-74 TOTALS					300	1,315	1,315	6,240	2,120	1,300	350	50	50

RESTORATION ITEMS

PROJECT	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB
1550-06-74							
	706+91	-	707+42	RT	140	0.1	2
	722+66	-	731+47	RT	1,340	1.0	24
	727+76	-	732+16	LT	660	0.4	12
	732+56	-	741+00	LT	1,835	1.2	33
	733+16	-	740+51	RT	1,600	1.0	29
	742+95	-	753+26	RT	775	0.5	14
	745+59	-	753+26	LT	325	0.2	6
UNDISTRIBUTED					1,685	1.6	30
PROJECT 1550-06-74 TOTALS					8,360	6.0	150

3

EROSION CONTROL MOBILIZATION ITEMS

PROJECT	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1550-06-74			
	PROJECT	6	3
PROJECT 1550-06-74 TOTALS		6	3

WATER ITEMS

PROJECT	STATION	TO	STATION	OFFSET	624.0100 WATER MGAL	631.0300 SOD WATER MGAL	COMMENTS
1550-06-74							
	706+91	-	707+42	RT	--	3	
	722+66	-	731+47	RT	--	20	
	722+66	-	740+73	LT & RT	14	--	FOR COMPACTION OF BASE AGGREGATE DENSE
	727+76	-	732+16	LT	--	14	
	732+56	-	741+00	LT	--	28	
	733+16	-	740+51	RT	--	25	
	740+73	-	753+26	LT & RT	1	--	FOR COMPACTION OF BASE AGGREGATE DENSE
UNDISTRIBUTED					5	10	
PROJECT 1550-06-74 TOTALS					20	100	

NOTE
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

TYPE II SIGN AND SUPPORT ITEMS

PROJECT	SIGN NUMBER	SIGN CODE	SIGN DIMENSION W X H IN	X	IN	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H 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	SIGN MOUNTED ON SAME POST AS SIGN NO.
1550-06-74													
	4-1	--	--	--	--	--	--	--	1	--	--	1	
	4-2	--	--	--	--	--	--	--	1	--	--	2	
	4-3	--	--	--	--	--	--	--	1	--	--	1	
	4-4	R3-9C	24	X	6	1	--	1.00	--	--	--	--	
	4-5	R3-9B	24	X	36	--	--	6.00	--	--	--	--	4-5
	5-1	--	--	--	--	--	--	--	1	--	--	1	
	5-2	--	--	--	--	--	--	--	1	--	--	1	
	5-3	R3-9D	24	X	6	1	--	1.00	--	--	--	--	
	5-4	R3-9B	24	X	36	--	--	6.00	--	--	--	--	5-3
	5-5	--	--	--	--	--	--	--	1	--	--	1	
	5-6	--	--	--	--	--	--	--	1	--	--	1	
	5-7	R3-9B	24	X	36	--	1	6.00	--	--	--	--	
	5-8	--	--	--	--	--	--	--	1	--	--	1	
	5-9	--	--	--	--	--	--	--	1	--	--	1	
	5-10	--	--	--	--	--	--	--	1	--	--	1	
	5-11	--	--	--	--	--	--	--	1	--	--	1	
	5-12	--	--	--	--	--	--	--	1	--	--	1	
	6-1	--	--	--	--	--	--	--	1	--	--	1	
	6-2	--	--	--	--	--	--	--	1	--	--	1	
	6-3	--	--	--	--	--	--	--	1	--	--	1	
	6-4	R3-9B	24	X	36	--	1	6.00	--	--	--	--	
	6-5	--	--	--	--	--	--	--	--	1	--	--	
	6-6	--	--	--	--	--	--	--	--	1	--	--	
	6-7	--	--	--	--	--	--	--	1	--	--	1	
	6-8	--	--	--	--	--	--	--	--	1	--	--	
	6-9	--	--	--	--	--	--	--	1	--	--	1	
	7-1	--	--	--	--	--	--	--	1	--	--	1	
	7-2	--	--	--	--	--	--	--	1	--	--	--	7-1
	7-3	--	--	--	--	--	--	--	1	--	--	1	
	7-4	--	--	--	--	--	--	--	1	--	--	--	7-3
	7-5	R3-9D	24	X	6	--	1	1.00	--	--	--	--	
	7-6	R3-9B	24	X	36	--	--	6.00	--	--	--	--	7-5
	7-7	R3-9C	24	X	6	--	1	1.00	--	--	--	--	
	7-8	R3-9B	24	X	36	--	--	6.00	--	--	--	--	7-7
	7-9	--	--	--	--	--	--	--	1	--	--	1	
	8-1	--	--	--	--	--	--	--	1	--	--	1	
	8-2	--	--	--	--	--	--	--	1	--	--	1	
	8-3	--	--	--	--	--	--	--	1	--	--	1	
	8-4	--	--	--	--	--	--	--	1	--	--	1	
	8-5	--	--	--	--	--	--	--	1	--	--	1	
	8-6	--	--	--	--	--	--	--	1	--	--	1	
	8-7	--	--	--	--	--	--	--	1	--	--	1	
	8-8	--	--	--	--	--	--	--	1	--	--	1	
	8-9	--	--	--	--	--	--	--	--	1	1	--	
	UNDISTRIBUTED	--	--	--	--	--	10	--	5	--	5	5	
PROJECT 1550-06-74 TOTALS						2	14	40.00	35	4	6	34	

NOTES:
UNDISTRIBUTED SIGNING ITEMS ARE FOR ANY ADJUSTMENTS TO EXISTING SIGNS AS DIRECTED BY THE ENGINEER.
ADDITIONAL UNDISTRIBUTED NEW SIGN POSTS ARE INCLUDED FOR SIGNS MOVED WITHIN THE GRADING AREAS IF NEEDED.

NOTE
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TRAFFIC CONTROL ITEMS

PROJECT	LOCATION	DURATION	643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0900 TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS		643.5000 TRAFFIC CONTROL
		DAYS	LS	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	EACH
1550-06-74																
	PRIOR TO CONSTRUCTION	7	--	8	56	--	--	--	--	--	--	--	--	2	14	--
	PROJECT	85	1	283	24,055	10	850	20	1,700	--	--	36	3,060	--	--	0.4
	CAUSEWAY	10	--	100	1,000	--	--	--	--	100	1,000	2	20	--	--	--
PROJECT 1550-06-74 TOTALS			1		25,111		850		1,700		1,000		3,080		14	0.4

LONG LINE PAVEMENT MARKING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.1545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.3545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH YELLOW LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH SOLID YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH WHITE LANE LINE LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW CENTERLINE LF
1550-06-74													
	705+00	-	722+66	LT & RT	2,885	125	130	--	570	3,215	--	--	6,500
	722+66	-	740+73	LT & RT	3,190	--	--	340	--	5,155	160	820	6,740
	740+73	-	753+26	LT & RT	2,510	--	--	--	--	2,860	45	--	5,010
PROJECT 1550-06-74 TOTALS					8,585	125	130	340	570	11,230	205	820	18,250
												19,070	

MISCELLANEOUS PAVEMENT MARKING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	646.5020 MARKING ARROW EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
1550-06-74							
	705+00	-	722+66	LT & RT	--	30	--
	722+66	-	740+73	LT & RT	15	65	4
	740+73	-	753+26	LT & RT	--	--	--
PROJECT 1550-06-74 TOTALS					15	95	4

FENCE CHAIN LINK4-FT

PROJECT	STATION	TO	STATION	OFFSET	616.0204 LF
1550-06-74					
	743+14	-	745+29	RT	215
PROJECT 1550-06-74 TOTAL					215

NOTE
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

GUARDRAIL ITEMS

PROJECT	STATION	TO	STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF	614.2330 MGS GUARDRAIL 3 K LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
1550-06-74							
	745+84	-	752+03	LT & RT	960	1,025	4
PROJECT 1550-06-74 TOTALS					960	1,025	4

CONSTRUCTION STAKING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1550-06-74) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
1550-06-74										
	705+00	-	722+66	LT & RT	--	--	--	1,766	--	--
	722+66	-	740+73	LT & RT	1,783	1,783	1,706	1,807	--	1,783
	740+73	-	753+26	LT & RT	788	788	--	1,253	--	788
	PROJECT			--	--	--	--	--	1	--
PROJECT 1550-06-74 TOTALS					2,571	2,571	1,706	4,826	1	2,571

3

SAWING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
1550-06-74, CAT 0010							
	722+66	-	729+82	RT	938	--	
	728+68	-	732+15	LT	538	--	
	730+06	-	732+59	RT	405	3	
	732+54	-	736+37	LT	500	3	
	733+14	-	736+37	RT	325	3	
	737+37	-	739+50	RT	282	3	
	737+68	-	738+47	LT	97	--	
	739+23	-	740+17	LT	148	--	
	740+49	-	740+51	RT	--	10	
	743+52	-	744+18	RT	67	--	
	745+23	-	751+89	LT&RT	1,275	--	
PROJECT 1550-06-74 CAT 0010 TOTALS					4,575	22	
1550-06-74, CAT 0020							
	729+66			41' RT	--	12	WATER VALVE
	729+76			47' RT	--	12	WATER VALVE
	732+58			45' LT	24	24	SANITARY MH
	732+71			57' RT	--	12	WATER VALVE
	732+76			53' RT	--	12	WATER VALVE
	732+85			35' RT	24	24	SANITARY MH
	733+10			47' RT	--	12	WATER VALVE
PROJECT 1550-06-74 CAT 0020 TOTALS					48	108	
TOTALS					4,623	130	

NOTE
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

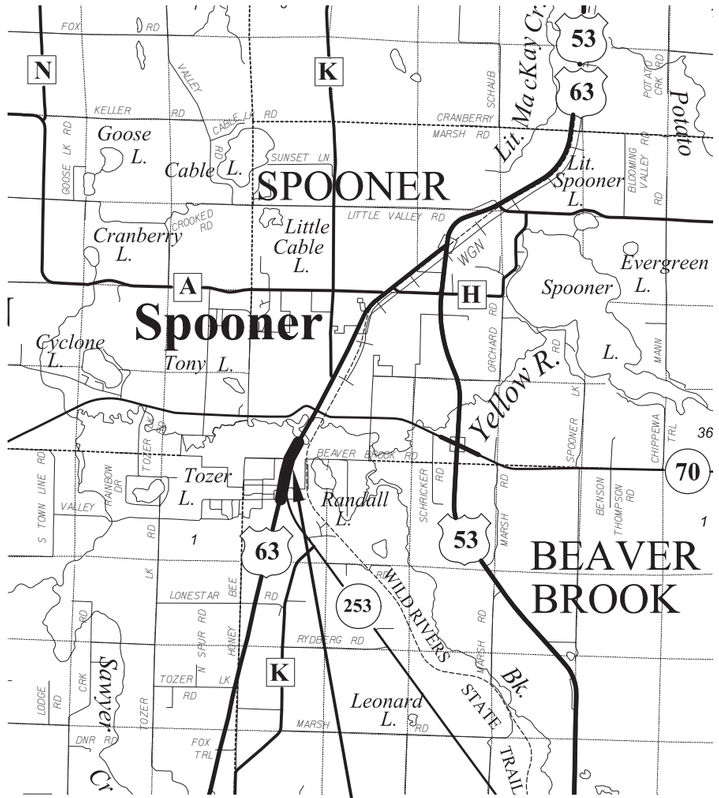
ADJUSTING SANITARY MANHOLE COVERS, WATER VALVE BOXES, AND HYDRANT ITEMS

PROJECT	STATION	OFFSET	611.8120.S COVER PLATES TEMPORARY EACH	SPV.0060.04 ADJUSTING SANITARY MANHOLE COVERS EACH	SPV.0060.05 ADJUSTING WATER VALVE BOXES EACH	SPV.0060.06 ADJUSTING HYDRANTS EACH
1550-06-74 CAT 0020						
	726+71	51' RT	--	--	1	--
	729+66	41' RT	--	--	1	--
	729+76	47' RT	--	--	1	--
	732+58	45' LT	1	1	--	--
	732+71	57' RT	--	--	1	--
	732+76	53' RT	--	--	1	--
	732+85	35' RT	1	1	--	--
	733+10	47' RT	--	--	1	--
	733+60	31' RT	--	1	--	--
	734+47	50' RT	--	--	1	--
	736+35	34' RT	--	1	--	--
	738+21	50' LT	--	--	1	--
	738+26	41' RT	--	--	1	--
	738+29	38' LT	--	--	--	1
	738+37	38' LT	--	--	1	--
	738+37	34' RT	--	1	--	--
	739+37	34' RT	--	1	--	--
PROJECT 1550-06-74 CAT 0020 TOTALS			2	6	10	1

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
1550-06-24
C SPOONER, RIVER STREET
GREEN VALLEY ROAD TO GREENWOOD AVE
USH 63
WASHBURN COUNTY



LAYOUT
SCALE 0 1 MI.

CONVENTIONAL SYMBOLS

- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- NEW REFERENCE LINE
- NEW R/W LINE
- EXISTING R/W OR HE LINE
- PROPERTY LINE
- LOT, TIE & OTHER MINOR LINES
- SLOPE INTERCEPT
- CORPORATE LIMITS
- UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
- NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
- TEMPORARY LIMITED EASEMENT AREA
- EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
- TRANSMISSION STRUCTURES
- BUILDING — TO BE REMOVED
- BRIDGE
- SECTION CORNER SYMBOL
- SECTION CORNER MONUMENT
- R/W MONUMENT (TO BE SET)
- NON-MONUMENTED R/W POINT
- FOUND IRON PIN (1-INCH UNLESS NOTED) IP
- GEODETIC SURVEY MONUMENT
- SIXTEENTH CORNER MONUMENT
- SIGN
- OFF-PREMISE SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		
WATERMAIN HYDRANT		

- ACCESS RESTRICTED BY ACQUISITION
- NO ACCESS (BY STATUTORY AUTHORITY)
- ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
- NO ACCESS (NEW HIGHWAY)
- PARCEL NUMBER 25
- UTILITY NUMBER 40
- PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

- W — WATER
- G — GAS
- T — TELEPHONE
- OH — OVERHEAD TRANSMISSION LINES
- E — ELECTRIC
- TV — CABLE TELEVISION
- FO — FIBER OPTIC
- SAN — SANITARY SEWER
- SS — STORM SEWER

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1550-06-24.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WASHBURN COUNTY, NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

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

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

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

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

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

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

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

EXISTING ACCESS CONTROL ALONG USH 63 HAS BEEN ESTABLISHED FROM ACCESS COVENANT DOC. 196263 & DOC. 191601.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: RW PROJECT NO. 385B, RW PROJECT NO. 385C. THE PINES SUBDIVISION, CSM 2320, CSM 1658, CSM 1032, CSM 1921, CSM 1374, CSM 1375, VARIOUS PLAT OF SURVEYS AND BEST FITTING SURVEYED IMPROVEMENTS.

PROJECT NUMBER 1550-06-24-4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\TPP\040100-RP_TITLE.DWG
LAYOUT NAME: TPP Title
PLOT DATE : 9/16/2015 3:04 PM PLOT BY : DREW NELSON PLOT NAME : _____ APPRAISAL PLAT DATE : _____
1550-06-24-4.01

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

TRANSPORTATION PROJECT PLAT NO: 1550-06-24-4.01

THAT PART OF LOTS 1,2 & 3 OF CSM 2320, RECORDED IN VOLUME 10, PAGE 42 AS DOCUMENT 251807, LOT 1 OF CSM 1658 RECORDED IN VOLUME 7, PAGE 79 AS DOCUMENT 213855, LOCATED IN GOVERNMENT LOT 7 OF SECTION 6, TOWNSHIP 38 NORTH, RANGE 12 WEST, CITY OF SPOONER; ALSO PART OF GOVERNMENT LOT 7 OF SECTION 6, TOWNSHIP 38 NORTH, RANGE 12 WEST, TOWN OF BEAVER BROOK, ALL LOCATED IN WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER USH 63 WASHBURN COUNTY

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

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

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ FT REQUIRED NEW	EXISTING	TOTAL	TLE SQ FT
1	JOHN M DABROWSKI	TLE	---	---	---	828
2	AKEMI W FISCHER	FEE/TLE	53	---	53	286
3	VENTURES UNLIMITED, INC	TLE	---	---	---	1362
4	R & C RENTALS OF SPOONER, LLC (LANDLORD) SUBWAY REAL ESTATE, LLC (TENANT)	TLE	---	---	---	3842
6	MICHAEL T & JODY L LAWSON	FEE/TLE	204	---	204	794
7	FAKE BIRD REAL ESTATE HOLDINGS, LLC	TLE	---	---	---	1316

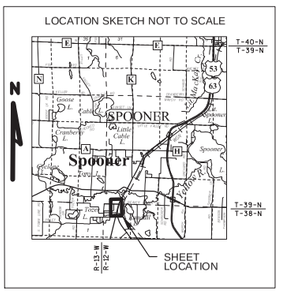
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	CENTURYTEL OF THE MIDWEST-WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)	RELEASE OF RIGHTS
201	CHARTER COMMUNICATIONS (COMMUNICATION)	RELEASE OF RIGHTS
203	CITY OF SPOONER (ELECTRIC)	RELEASE OF RIGHTS
204	CITY OF SPOONER (WATER)	RELEASE OF RIGHTS
205	WISCONSIN GAS LLC D/B/A WE ENERGIES (GAS)	RELEASE OF RIGHTS
206	BARRON ELECTRIC COOPERATIVE (ELECTRIC)	RELEASE OF RIGHTS
207	DAIRYLAND POWER COOPERATIVE (ELECTRIC)	RELEASE OF RIGHTS
208	CITY OF SPOONER (SANITARY SEWER)	RELEASE OF RIGHTS

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

ALL TLES ARE FOR SLOPE & DRIVEWAY GRADING PURPOSES. ANY BUILDINGS WHICH OCCUPY THE TLE WILL NOT BE AFFECTED.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2

LOCATION SKETCH NOT TO SCALE



DOCUMENT# 382172
Recorded on 07-26-2018 at 09:22 AM Pages: 2
Fee Amount: $25.00 County: WASHBURN State: WI
RENEE M. BELL REGISTER OF DEEDS
The above recording information verifies this document has been electronically recorded and returned to WiDotNwRegionEau

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1550-06-24-4.01
SHEET 1 OF 2
AMENDMENT NO:___

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP730	564381.639	738999.505	MAG NAIL
IP731	564464.250	739026.028	MAG NAIL
IP732	563800.854	738861.475	1.25" O.D. IRON PIPE
IP733	563756.769	738853.402	1.25" O.D. IRON PIPE
IP734	563493.210	738818.859	1.25" O.D. IRON PIPE
IP751	564221.078	739210.087	1.00" O.D. IRON PIPE
IP752	564147.840	739211.124	2.375" O.D. IRON PIPE
IP753	564146.002	738934.178	1.00" O.D. IRON PIPE
IP754	564217.738	738952.610	1.00" O.D. IRON PIPE
IP755	563599.290	738830.788	0.625" IRON ROD
IP756	564523.184	738931.860	0.50" O.D. IRON PIPE
IP763	564522.362	739046.696	2.375" O.D. IRON PIPE
IP827	564148.880	739374.664	1.50" O.D. IRON PIPE
IP828	564149.206	739440.671	2.375" O.D. IRON PIPE
IP830	564215.813	739450.634	2.375" O.D. IRON PIPE

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE150	732+56.73	64.00'
TLE151	732+40.00	69.50'
TLE152	732+36.00	57.50'
TLE153	731+92.00	71.94'
TLE154	731+65.51	55.20'
TLE155	730+25.00	55.00'
TLE156	727+64.00	49.87'
TLE157	727+85.00	95.00'
TLE158	727+23.00	105.00'
TLE159	726+47.00	65.00'
TLE160	726+47.00	51.14'
TLE161	728+40.00	-50.15'
TLE162	728+40.00	-55.00'
TLE163	730+40.00	-55.00'
TLE164	730+40.00	-50.19'
TLE165	730+91.00	-50.20'
TLE166	730+91.00	-59.91'
TLE167	731+20.00	-60.00'
TLE168	731+20.00	-50.21'
TLE169	730+20.00	49.81'
TLE170	727+68.00	77.80'
TLE171	727+85.00	75.00'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
100	732+36.03	-71.61'
101	732+60.64	0.00'
102	732+75.31	41.60'
103	732+51.72	49.78'
104	729+16.37	49.83'
105	726+47.00	0.00'
106	726+47.00	-48.89'
PRW120	730+05.00	49.81'
PRW121	729+91.37	71.00'
PRW122	731+99.00	-50.22'
PRW123	732+05.23	-61.00'

SCALE, FEET 0 50 100

THE RIGHT OF WAY FOR DUR-A-BILT ROAD HAS BEEN ESTABLISHED AT 66' AND AGREES WITH ALL EXISTING RIGHT OF WAY MONUMENTATION AND PREVIOUS RECORDED PLATS OTHER THAN A PLAT OF SURVEY DATED MARCH 16, 2016 WHICH MONUMENTED IP754 & IP751 ALONG THE NORTH RIGHT OF WAY AND WERE NOT ACCEPTED.

COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N89° 14' 26"E	75.78'
101-102	N89° 14' 26"E	44.09'
102-103	S00° 45' 34"E	24.75'
103-PRW120	SEE CURVE DATA ON SHEET	
PRW120-PRW121	S42° 22' 19"E	25.10'
PRW121-104	S30° 37' 41"W	76.98'
104-TLE160	SEE CURVE DATA ON SHEET	
TLE160-105	N77° 50' 37"W	51.74'
105-106	N77° 50' 37"W	48.89'
106-PRW122	SEE CURVE DATA ON SHEET	
PRW122-PRW123	N41° 54' 53"W	12.49'
PRW123-100	N00° 45' 34"W	33.00'

(200) CENTURYTEL OF THE MIDWEST-WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)
DOC.56635 - PAR. 1,2,3,4,6,7

(201) CHARTER COMMUNICATIONS (COMMUNICATION)
NO RECORD OF EASEMENT - PAR. 1, 2

(203) CITY OF SPOONER (ELECTRIC)
DOC.190655 - PAR. 7

(204) CITY OF SPOONER (WATER)
DOC.190655 - PAR. 7
DOC.191715 - PAR. 3
NO RECORD OF EASEMENT - PAR. 6

(205) WISCONSIN GAS LLC D/B/A WE ENERGIES (GAS)
NO RECORD OF EASEMENT - PAR. 2,7

(206) BARRON ELECTRIC COOPERATIVE (ELECTRIC)
DOC.90265 - PAR. 1,2,3,4,6,7
DOC.90266 - PAR. 1,2
DOC.224113 - PAR. 7
DOC.156733 - PAR. 3
DOC.365735 - PAR. 4

(207) DAIRYLAND POWER COOPERATIVE (ELECTRIC)
DOC.111109 - PAR. 2
DOC.103502 - PAR. 7
DOC.103503 - PAR. 7

(208) CITY OF SPOONER (SANITARY SEWER)
DOC.190655 - PAR. 7

emcs inc

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

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

SIGNATURE: _____ DATE: 7-25-2018
PRINT NAME: TIMOTHY G. RUTZEN
REGISTRATION NUMBER: S-2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST - SUPERIOR
SIGNATURE: _____ DATE: 7-25-2018
PRINT NAME: MICHAEL PILLER

1550-06-24-4.01
PLOT SCALE : Custom
PLOT NAME : Drew Nelson
PLOT BY : 8/2/2018 9:19 AM
PLOT DATE :
PLOT DATE :
FILE NAME : P:\SOX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\TPP\040101_RP.DWG
APPRAISAL PLAT DATE :

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

TRANSPORTATION PROJECT PLAT NO: 1550-06-24-4.02

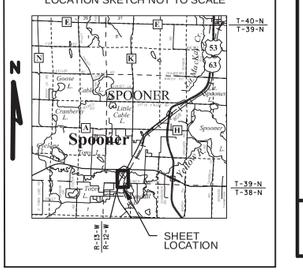
THAT PART OF LOTS 1 & 3 OF CSM 1032, RECORDED IN VOLUME 5, PAGE 17 AS DOCUMENT 183248, LOT 4 OF CSM 1921, RECORDED IN VOLUME 8, PAGE 82 AS DOCUMENT 228659, LOTS 1 & 5 OF CSM 1374, RECORDED IN VOLUME 6, PAGE 91 AS DOCUMENT 200449, AND LOT 4 OF CSM 1375, RECORDED IN VOLUME 6, PAGE 92 AS DOCUMENT 200450, ALL BEING LOCATED IN THE SW 1/4 OF THE SE 1/4 OF SECTION 31, TOWNSHIP 39 NORTH, RANGE 12 WEST, CITY OF SPOONER, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER USH 63 WASHBURN COUNTY

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

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

LOCATION SKETCH NOT TO SCALE



DOCUMENT# 382236
Recorded on 07-30-2018 at 03:16 PM Pages: 1
Fee Amount: $25.00 County: WASHBURN State:

RENEE M. BELL REGISTER OF DEEDS
The above recording information verifies this document has been electronically recorded and returned to WIDotNwRegionEau

58

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1550-06-24-4.02
AMENDMENT NO:___

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ FT REQUIRED NEW	EXISTING	TOTAL	TLE SQ FT
8	REINHART REAL ESTATE GROUP, INC	TLE	---	---	---	2259
9	PETRIE ENTERPRISES, LLC	FEE/TLE	79	---	79	2548
11	REALTY INCOME CORP. (LANDLORD) FAMILY DOLLAR STORES OF WISCONSIN, INC (TENANT)	FEE/TLE	501	---	501	2249
12	BYRO CORPORATION	FEE/TLE	879	---	879	1822
13	VRANGALLA ENTERPRISES, LLC	TLE	---	---	---	1042
14	CAP OPERATIONS, INC.	TLE	---	---	---	1936
16	SCHMITZ PROPERTIES, LLC	TLE	---	---	---	6891

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	CENTURYTEL OF THE MIDWEST-WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)	RELEASE OF RIGHTS
205	WISCONSIN GAS LLC D/B/A WE ENERGIES (GAS)	RELEASE OF RIGHTS
207	DAIRYLAND POWER COOPERATIVE (ELECTRIC)	RELEASE OF RIGHTS

(200) CENTURYTEL OF THE MIDWEST-WISCONSIN, LLC
D/B/A CENTURYLINK (COMMUNICATION)
DOC.56634 - PAR. 8,9,11,12,13,14,16

(205) WISCONSIN GAS LLC
D/B/A WE ENERGIES (GAS)
NO RECORD OF EASEMENT - PAR. 9

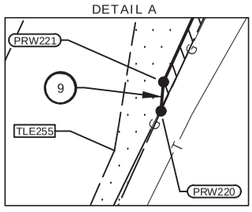
(207) DAIRYLAND POWER COOPERATIVE (ELECTRIC)
DOC.103504 - PAR. 8

COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	N00° 41' 45"W	33.00'
201-PRW220	SEE CURVE DATA ON SHEET	
PRW220-PRW221	N05° 14' 35"E	5.36'
PRW221-PRW222	N24° 26' 03"E	202.42'
PRW222-PRW223	N28° 18' 46"E	119.45'
PRW223-PRW224	N78° 04' 21"E	7.66'
PRW224-202	S61° 22' 09"E	50.18'
202-203	S60° 12' 36"E	49.83'
203-204	SEE CURVE DATA ON SHEET	
204-205	S00° 45' 34"E	33.00'
205-206	S89° 14' 26"W	64.57'
206-200	S89° 14' 26"W	41.68'

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP731	564464.250	739026.028	MAG NAIL
IP756	564523.184	738931.860	0.50" O.D. IRON PIPE
IP757	564745.970	739023.881	IRON *(UNDER ASPHALT)*
IP758	565000.314	739132.500	1.0" O.D. IRON PIPE
IP759	565335.829	739308.893	6"X6" CONCRETE MONUMENT
IP760	565337.796	739274.436	1.0" O.D. IRON PIPE
IP761	565283.831	739390.598	1.0" O.D. IRON PIPE
IP762	564918.167	739204.837	0.625" IRON ROD
IP763	564522.362	739046.696	2.375" O.D. IRON PIPE

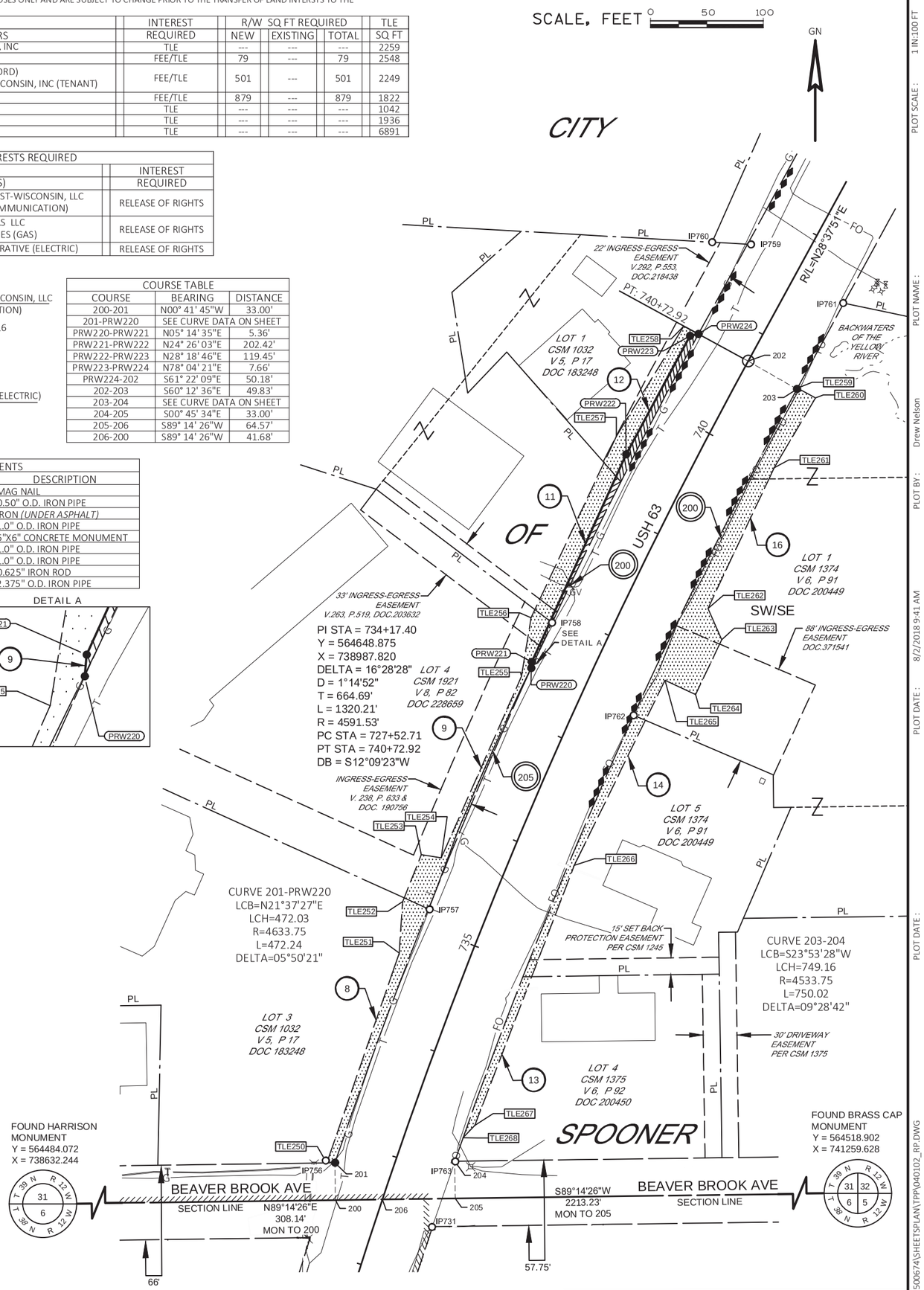
STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
200	732+47.01	-39.37'
201	732+77.87	-50.23'
202	740+72.92	0.00'
203	740+71.90	49.82'
204	733+13.66	49.77'
205	732+82.22	60.91'
206	732+60.64	0.00'
PRW220	737+45.00	-50.23'
PRW221	737+50.00	-52.00'
PRW222	739+50.00	-57.00'
PRW223	740+68.00	-56.00'
PRW224	740+72.92	-50.18'

DETAIL A



TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE250	732+75.51	-57.00'
TLE251	734+70.00	-60.00'
TLE252	735+13.00	-73.79'
TLE253	735+57.00	-74.00'
TLE254	735+61.00	-56.54'
TLE255	737+35.00	-55.00'
TLE256	737+85.00	-69.00'
TLE257	739+60.00	-72.00'
TLE258	740+72.92	-65.00'
TLE259	740+72.92	49.82'
TLE260	740+72.92	68.00'
TLE261	740+00.00	65.00'
TLE262	738+60.00	69.00'
TLE263	738+40.00	92.00'
TLE264	737+85.00	92.00'
TLE265	737+85.00	62.00'
TLE266	736+00.00	55.00'
TLE267	733+50.00	56.00'
TLE268	733+36.00	49.77'

SCALE, FEET 0 50 100



ALL TLES ARE FOR SLOPE & DRIVEWAY GRADING PURPOSES

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 382172 FOR ADDITIONAL INFORMATION.

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

emcs.inc

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

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

SIGNATURE: _____ DATE: 7-27-2018
PRINT NAME: TIMOTHY G. RUTZEN
REGISTRATION NUMBER: S-2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST - SUPERIOR
SIGNATURE: _____ DATE: 7-27-2018
PRINT NAME: MICHAEL PILLER

1550-06-24-4.02
PLOT SCALE : 1 IN:100 FT
PLOT NAME : Drew Nelson
PLOT BY : 8/2/2018 9:41 AM
PLOT DATE :
PLOT DATE :
FILE NAME : P:\SOXX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\[TPP\040102_RP.DWG
APPRAISAL PLAT DATE :

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- RIPRAP MEDIUM
- PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (2' TYP, SEE TYPICAL SECTIONS)
- (SS) ADJUSTING SANITARY MANHOLE COVERS
- (W) ADJUSTING WATER VALVE BOXES
- (H) ADJUSTING HYDRANTS

N

STA 703+00
Y = 561,601.38
X = 738,331.35

BEGIN PROJECT
STA 705+00
(SEE CONSTRUCTION DETAILS)

CITY OF SPOONER
(WATER)

END CONSTRUCTION
STA 706+33, 61' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

WE ENERGIES
(GAS)

CENTURYLINK
(COMMUNICATIONS)

BARRON ELECTRIC COOPERATIVE
(ELECTRIC)

CINC
(COMMUNICATIONS)

CHARTER COMMUNICATIONS
(COMMUNICATIONS)

END CONSTRUCTION
STA 706+68, 75' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

GREEN VALLEY RD

USH 63

N12° 09' 23"E

CAUTION

SIGN

R/W

5

702+00 703+00 704+00 705+00 706+00 707+00 708+00

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PLAN	SHEET 59	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050201-pn

PLOT DATE : 1/8/2019 9:22 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- RIPRAP MEDIUM
- PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (2' TYP, SEE TYPICAL SECTIONS)
- (SS) ADJUSTING SANITARY MANHOLE COVERS
- (W) ADJUSTING WATER VALVE BOXES
- (H) ADJUSTING HYDRANTS

N

END CONSTRUCTION
STA 708+94, 42' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

CHARTER COMMUNICATIONS
(COMMUNICATIONS)

CINC
(COMMUNICATIONS)

WE ENERGIES
(GAS)

END CONSTRUCTION
STA 711+81, 51' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

DVM RD

BARRON ELECTRIC
COOPERATIVE
(ELECTRIC)

CENTURYLINK
(COMMUNICATIONS)

R/W

SIGN

CAUTION

ASPH
CE

RIPRAP

5

708+00 | 709+00 | 710+00 | N12° 09' 23"E | 711+00 | USH 63 | 712+00 | 713+00 | 714+00

CENTURYLINK
(COMMUNICATIONS)

PAVE RIGHT TURN LANE AT 4% CROSS SLOPE
TO MATCH EXISTING CURB & GUTTER
AT THE STH 253 INTERSECTION

CONTROL POINT 507
Y = 562475.86
X = 738657.03
Z = 1084.45
NGS BRASS CAP 7C10
6350 PROJECT CONTROL
(DO NOT DISTURB)

STH 253

END CONSTRUCTION
STA 712+97, 73' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

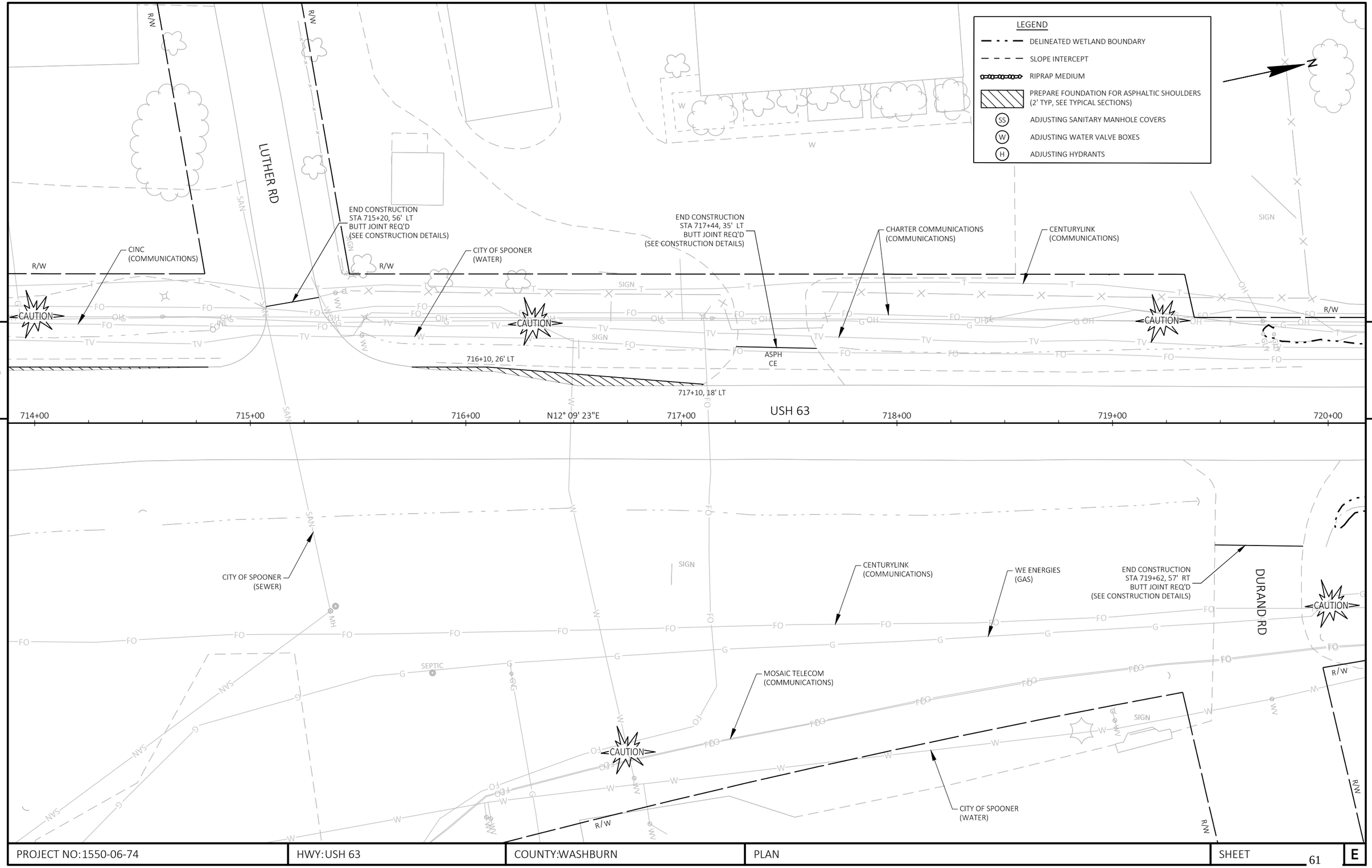
A/C

MH

PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	PLAN	SHEET 60	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050202-pn

PLOT DATE : 1/8/2019 9:22 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PLAN	SHEET 61	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050203-pn

PLOT DATE : 1/8/2019 9:22 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- RIPRAP MEDIUM
- PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (2' TYP, SEE TYPICAL SECTIONS)
- (SS) ADJUSTING SANITARY MANHOLE COVERS
- (W) ADJUSTING WATER VALVE BOXES
- (H) ADJUSTING HYDRANTS

N

BARRON ELECTRIC COOPERATIVE (ELECTRIC)

WE ENERGIES (GAS)

CHARTER COMMUNICATIONS (COMMUNICATIONS)

CINC (COMMUNICATIONS)

CENTURYLINK (COMMUNICATIONS)

BARRON ELECTRIC COOPERATIVE (ELECTRIC)

GROUNDWATER FLOW

SIGN

R/W

5

720+00 721+00 722+00 N12° 09' 23"E 723+00 USH 63 724+00 725+00 726+00

BEGIN GRADING STA 722+66, RT

REMOVING CURB & GUTTER

CENTURYLINK (COMMUNICATIONS)

CAUTION

MOSAIC TELECOM (COMMUNICATIONS)

CITY OF SPOONER (WATER)

RESIDUAL GROUNDWATER CONTAMINATION APPROXIMATELY 10' TO 20' BELOW THE EXISTING SURFACE (STA 725 - STA 732)

GROUNDWATER FLOW

P/L

A/C

R/W

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PLAN	SHEET 62	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050204-pn

PLOT DATE : 1/8/2019 9:22 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- RIPRAP MEDIUM
- PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (2' TYP, SEE TYPICAL SECTIONS)
- (SS) ADJUSTING SANITARY MANHOLE COVERS
- (W) ADJUSTING WATER VALVE BOXES
- (H) ADJUSTING HYDRANTS

BENCHMARK TABLE				
NUMBER	STATION	OFFSET	DESCRIPTION	ELEVATION
601	731+99	59' LT	BENCHTIE IN POWER POLE	1085.63

5

5

GROUNDWATER FLOW

GROUNDWATER FLOW

P/L

P/L

P/L

CONTROL POINT 511
Y = 564422.741
X = 738921.166
Z = 1084.86

BM 601

REMOVING DELINEATORS AND MARKERS

BASE AGG PE

TLE

FEE

WE ENERGIES (GAS)

CHARTER COMMUNICATIONS (COMMUNICATIONS)

BARRON ELECTRIC COOPERATIVE (ELECTRIC)

CINC (COMMUNICATIONS)

R/W

CAUTION

PC: 727+52.71

ASPH CE

CLOSE ASPH CE

BEGIN GRADING STA 727+86, LT

726+00 727+00 728+00 729+00 730+00 731+00 732+00

USH 63

CURVE 1

MOSAIC TELECOM (COMMUNICATIONS)

REMOVING CURB & GUTTER

ASPH CE

CAUTION

R/W

SIGN

SIGN (DO NOT DISTURB)

CHARTER COMMUNICATIONS (COMMUNICATIONS)

RESIDUAL SOIL CONTAMINATION APPROXIMATELY 18' BELOW THE EXISTING SURFACE

RESIDUAL SOIL CONTAMINATION APPROXIMATELY 5' TO 10' BELOW THE EXISTING SURFACE

GROUNDWATER FLOW

GROUNDWATER FLOW

DUR-A-BILT RD

RESIDUAL GROUNDWATER CONTAMINATION APPROXIMATELY 10' TO 20' BELOW THE EXISTING SURFACE (STA 725 - STA 732)

END CONSTRUCTION
STA 729+95, 140' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

CLOSE ASPH CE

R/W

FEE

SIGN

TLE

R/W

WELL

TLE

BARRON ELE

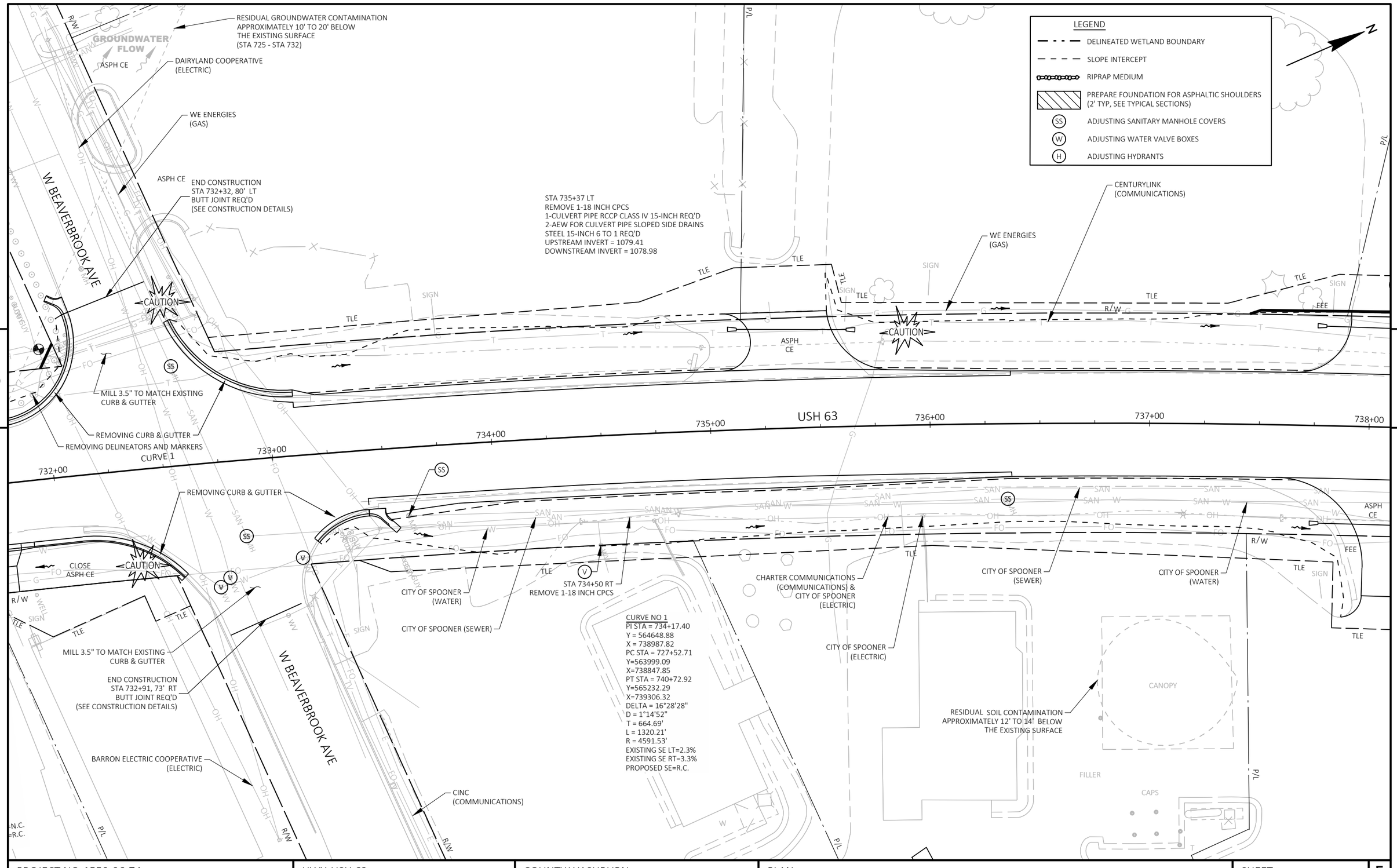
P/L

GREENHOUSE

CANOPY

CURVE NO 1
PI STA = 734+17.40
Y = 564648.88
X = 738987.82
PC STA = 727+52.71
Y=563999.09
X=738847.85
PT STA = 740+72.92
Y=565232.29
X=739306.32
DELTA = 16°28'28"
D = 1°14'52"
T = 664.69'
L = 1320.21'
R = 4591.53'
EXISTING SE LT=2.3%
EXISTING SE RT=3.3%
SE TRANSITION INTO CURVE:
PROPOSED SE: STA 724+25,LT=N.C.
PROPOSED SE: STA 725+49,LT=R.C.
PROPOSED SE: RT LANE=N.C.

PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	PLAN	SHEET 63	E



PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PLAN	SHEET 64	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050206-pn

PLOT DATE : 1/8/2019 9:23 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- RIPRAP MEDIUM
- PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (2' TYP, SEE TYPICAL SECTIONS)
- (SS) ADJUSTING SANITARY MANHOLE COVERS
- (W) ADJUSTING WATER VALVE BOXES
- (H) ADJUSTING HYDRANTS

BENCHMARK TABLE				
NUMBER	STATION	OFFSET	DESCRIPTION	ELEVATION
600	741+73	31' LT	BENCHTIE IN POWER POLE	1074.12

STA 738+07 LT
REMOVE 1-18 INCH CPCS
1-CULVERT PIPE RCCP CLASS IV 18-INCH REQ'D
2-AEW FOR CULVERT PIPE SLOPED SIDE DRAINS
STEEL 18-INCH 6 TO 1 REQ'D
UPSTREAM INVERT = 1075.21
DOWNSTREAM INVERT = 1074.64

STA 739+62 LT
REMOVE 1-18 INCH CPCS
1-CULVERT PIPE RCCP CLASS IV 18-INCH REQ'D
2-AEW FOR CULVERT PIPE SLOPED SIDE DRAINS
STEEL 18-INCH 6 TO 1 REQ'D
UPSTREAM INVERT = 1072.82
DOWNSTREAM INVERT = 1071.49

STA 738+25 RT
REMOVE 1-18 INCH CPCS
1-CULVERT PIPE RCCP CLASS IV 18-INCH REQ'D
2-AEW FOR CULVERT PIPE SLOPED SIDE DRAINS
STEEL 18-INCH 6 TO 1 REQ'D
UPSTREAM INVERT = 1074.52
DOWNSTREAM INVERT = 1073.48

CURVE NO 1
PI STA = 734+17.40
Y = 564648.88
X = 738987.82
PC STA = 727+52.71
Y=563999.09
X=738847.85
PT STA = 740+72.92
Y=565232.29
X=739306.32
DELTA = 16°28'28"
D = 1°14'52"
T = 664.69'
L = 1320.21'
R = 4591.53'
EXISTING SE LT=2.3%
EXISTING SE RT=3.3%
SE TRANSITION OUT OF CURVE
PROPOSED SE TRANSITION (T)=124'
PROPOSED RO (RUNOFF)=62'
PROPOSED SE=R.C.

GOVERNOR TOMMY G THOMPSON STATE FISH HATCHERY

REMOVING MASONRY
REMOVING DELINEATORS AND MARKERS
REMOVING CURB & GUTTER
REMOVING MASONRY
SEE EROSION CONTROL PLANS FOR NEW RIPRAP
END GRADING STA 740+98, LT
END GRADING STA 740+30, RT
CLEARING & GRUBBING
REMOVE ASPHALTIC SURFACE
WE ENERGIES (GAS)
CHARTER COMMUNICATIONS (COMMUNICATIONS) & CITY OF SPOONER (ELECTRIC)
CENTURYLINK (COMMUNICATIONS)
CITY OF SPOONER (ELECTRIC)
CENTURYLINK (COMMUNICATIONS)
CITY OF SPOONER (SEWER)
CITY OF SPOONER (ELECTRIC)
FENCE CHAIN LINK 4-FT
BM 600
STA 743+14, 30' RT
PT: 740+72.92
CURVE 1
USH 63
N28° 37' 51"E
ASPH CE
TLE
FEE
R/W
P/L
CAUTION

738+00 739+00 740+00 741+00 742+00 743+00 744+00

PROJECT NO:1550-06-74	HWY: USH 63	COUNTY:WASHBURN	PLAN	SHEET 65	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050207-pn
PLOT DATE : 1/8/2019 9:23 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- RIPRAP MEDIUM
- PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (2' TYP, SEE TYPICAL SECTIONS)
- (SS) ADJUSTING SANITARY MANHOLE COVERS
- (W) ADJUSTING WATER VALVE BOXES
- (H) ADJUSTING HYDRANTS

NOTE

SEE PAVING DETAILS FOR SAWING IN OTHER LOCATIONS

N

VETERANS MEMORIAL WATERFRONT PARK

YELLOW RIVER FLOWAGE

END CONSTRUCTION
STA 745+21, 66' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

CONTROL POINT 510
Y = 565733.295
X = 739505.729
Z = 1070.21

STA 745+84 - STA 752+03, LT
REMOVING GUARDRAIL
MGS GUARDRAIL 3K
MGS GUARDRAIL TERMINAL EAT

CHARTER COMMUNICATIONS
(COMMUNICATIONS) &
CITY OF SPOONER
(ELECTRIC)

WE ENERGIES
(GAS)

CITY OF SPOONER
(ELECTRIC)

P/L

R/W

CAUTION

ASPH
CE

BEGIN GRADING
STA 745+59, LT

+84

+34

5

744+00 | USH 63 | 745+00 | 746+00 | N28° 37' 51"E | 747+00 | USH 63 | 748+00 | 749+00 | 750+00

17'

REMOVE ASPHALTIC SURFACE

BEGIN GRADING
STA 745+38, RT

+23

REMOVE ASPHALTIC SURFACE

+84

+34

BASE AGG CE
40' RT
35'

STA 745+29, 30' RT

FENCE CHAIN LINK 4-FT

SIGN

R/W

REMOVING DELINEATOR AND MARKERS

CITY OF SPOONER
(WATER)

STA 745+84 - STA 752+03,RT
REMOVING GUARDRAIL
MGS GUARDRAIL 3K
MGS GUARDRAIL TERMINAL EAT

YELLOW RIVER FLOWAGE

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PLAN	SHEET 66	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050208-pn

PLOT DATE : 1/8/2019 9:23 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- RIPRAP MEDIUM
- PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (2' TYP, SEE TYPICAL SECTIONS)
- (SS) ADJUSTING SANITARY MANHOLE COVERS
- (W) ADJUSTING WATER VALVE BOXES
- (H) ADJUSTING HYDRANTS

N

YELLOW RIVER FLOWAGE

CHARTER COMMUNICATIONS (COMMUNICATIONS) & CITY OF SPOONER (ELECTRIC)

CENTURYLINK (COMMUNICATIONS)

STA 745+84 - STA 752+03, LT
REMOVING GUARDRAIL
MGS GUARDRAIL 3K
MGS GUARDRAIL TERMINAL EAT

CAUTION

BASE AGG PE

END GRADING STA 753+04, LT

CITY OF SPOONER (ELECTRIC)

SPOONER MUNICIPAL UTILITIES (SEWER)

ASPH PE

ASPH CE

WE ENERGIES (GAS)

CENTURYLINK (COMMUNICATIONS)

P/L

R/W

5

750+00 751+00 752+00 N28° 37' 51"E 753+00 USH 63 754+00 755+00 756+00

+53 +03 +25

17'

STA 755+00
Y = 566,484.88
X = 739,990.12

END PROJECT
STA 753+26
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 745+84 - STA 752+03,RT
REMOVING GUARDRAIL
MGS GUARDRAIL 3K
MGS GUARDRAIL TERMINAL EAT

CITY OF SPOONER (WATER)

CITY OF SPOONER (SEWER)

BAY AVE

GREENWOOD AVE

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	PLAN	SHEET 67	E

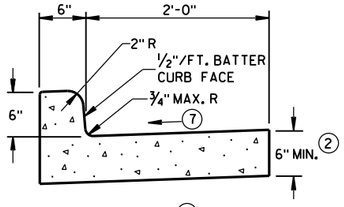
FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050209-pn

PLOT DATE : 1/8/2019 9:23 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

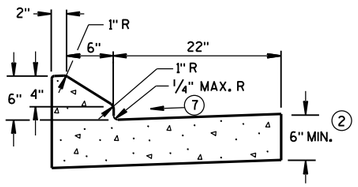
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

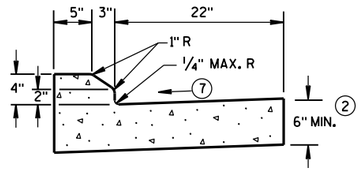
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
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)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
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
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-05B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	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



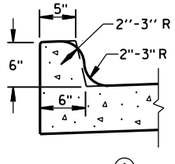
TYPES A (1) & D



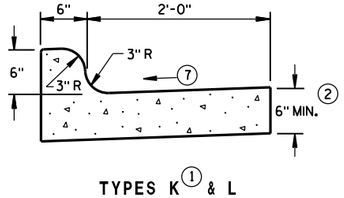
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

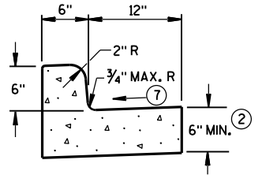


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



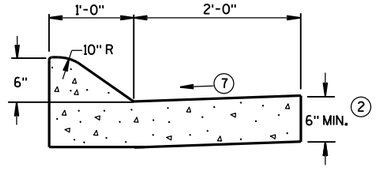
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

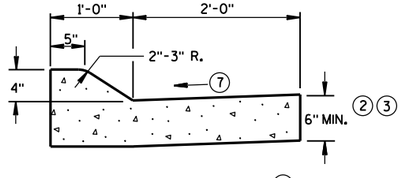


TYPES A (1) & D

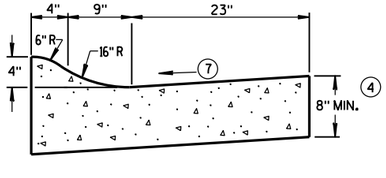
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

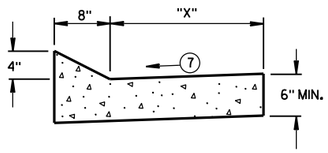


4" SLOPED CURB TYPES A (1) & D



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

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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

GENERAL NOTES

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

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

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

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

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

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

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

(3) 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.

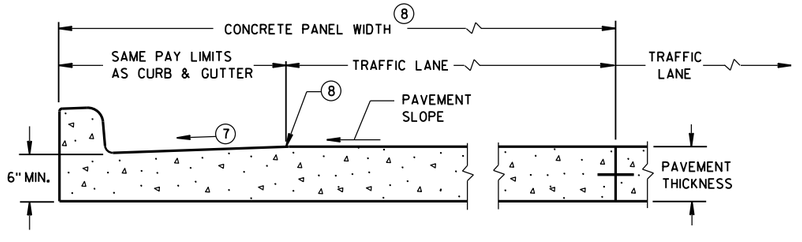
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(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.

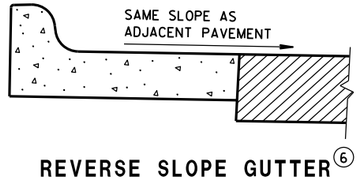
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.



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

CONCRETE CURB & GUTTER

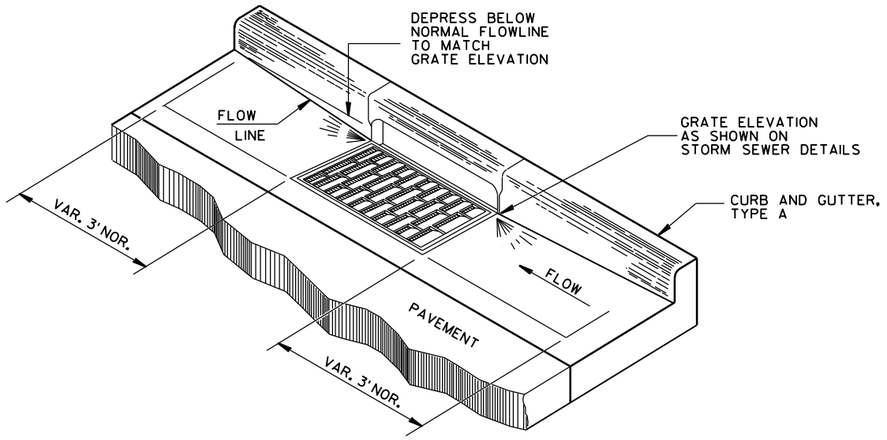
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

S.D.D. 8 D 1-20a

6

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

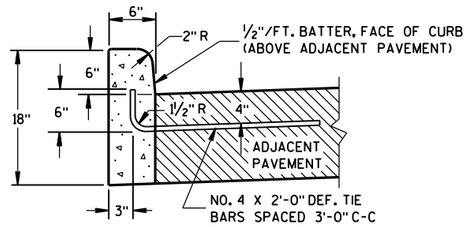
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

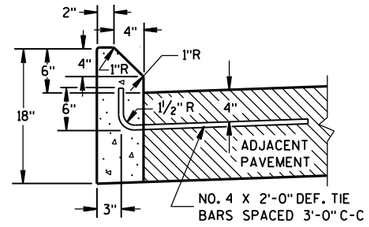
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

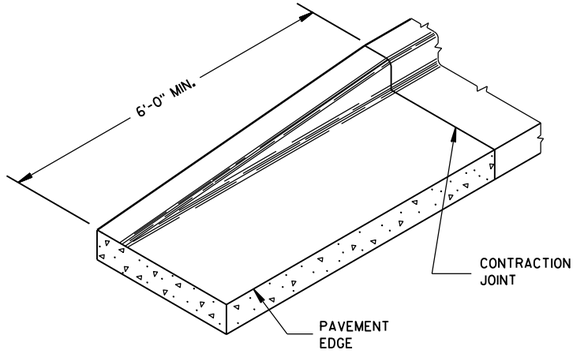


TYPES A(1) & D

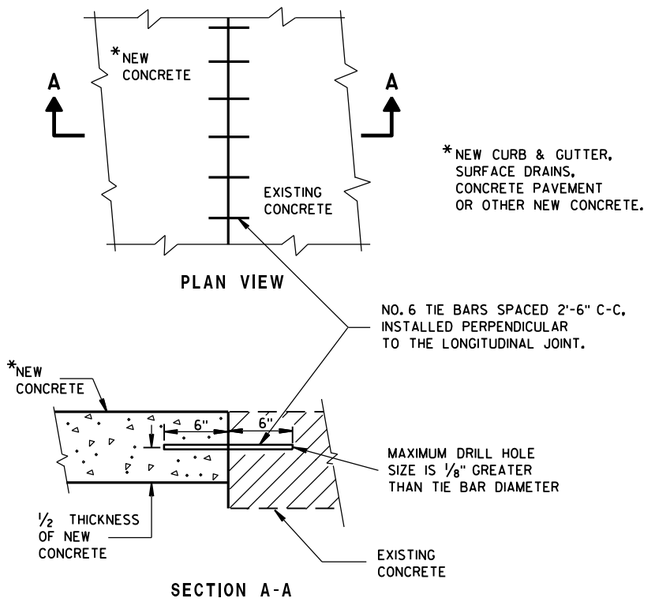


TYPES G(1) & J

CONCRETE CURB



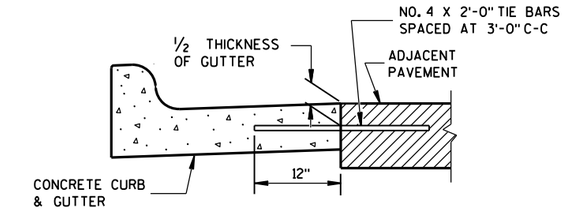
END SECTION CURB & GUTTER



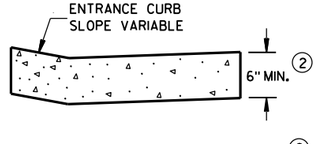
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

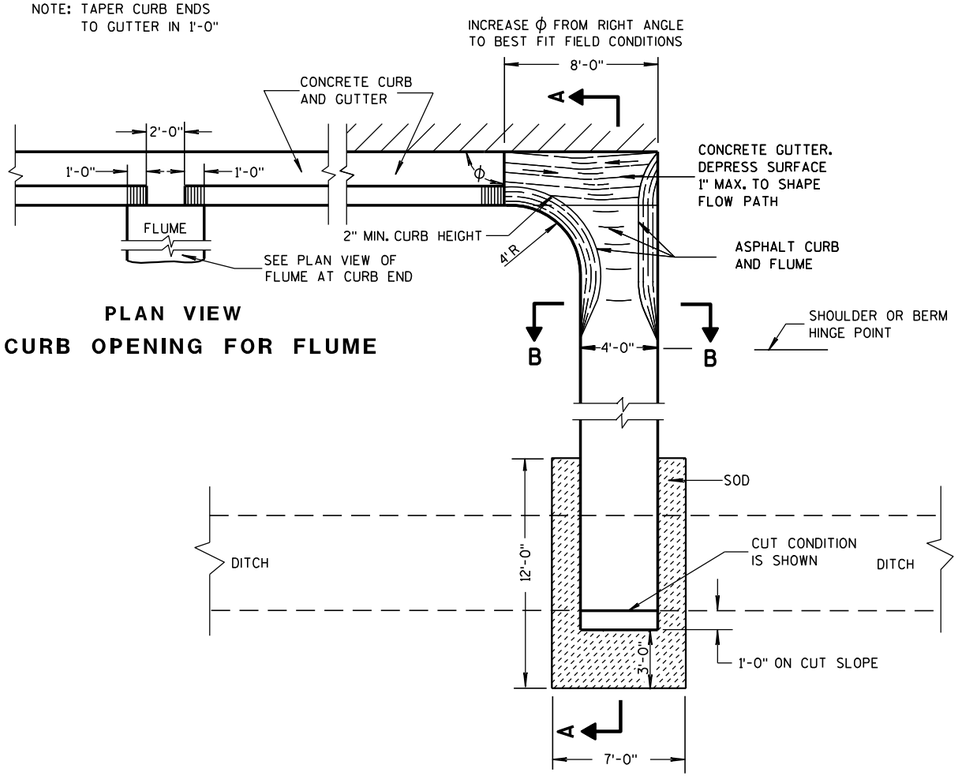
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS 70 ENT
UNIT SUPERVISOR
FHWA

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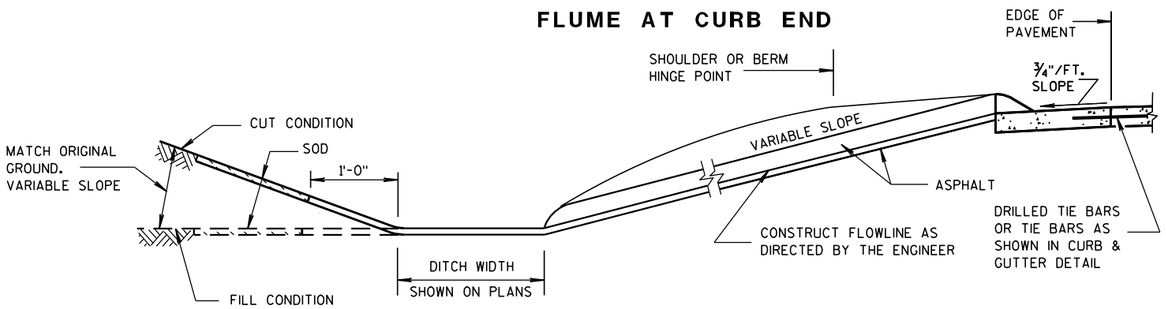
S.D.D. 8 D 1-20b

ASPHALTIC FLUME

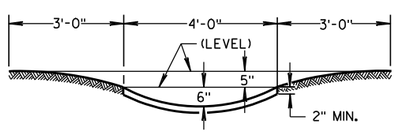


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

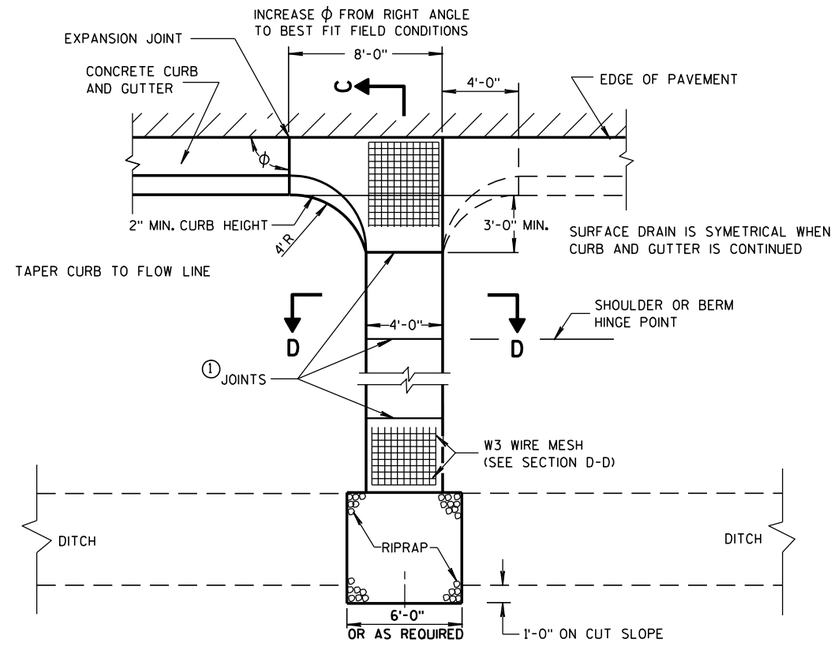
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

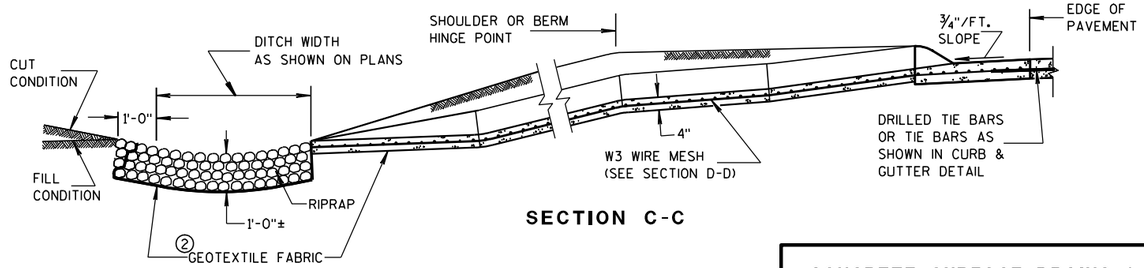
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

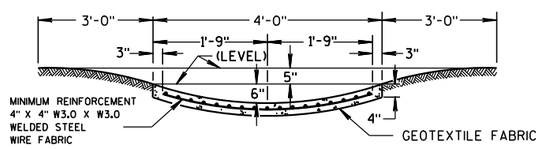
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

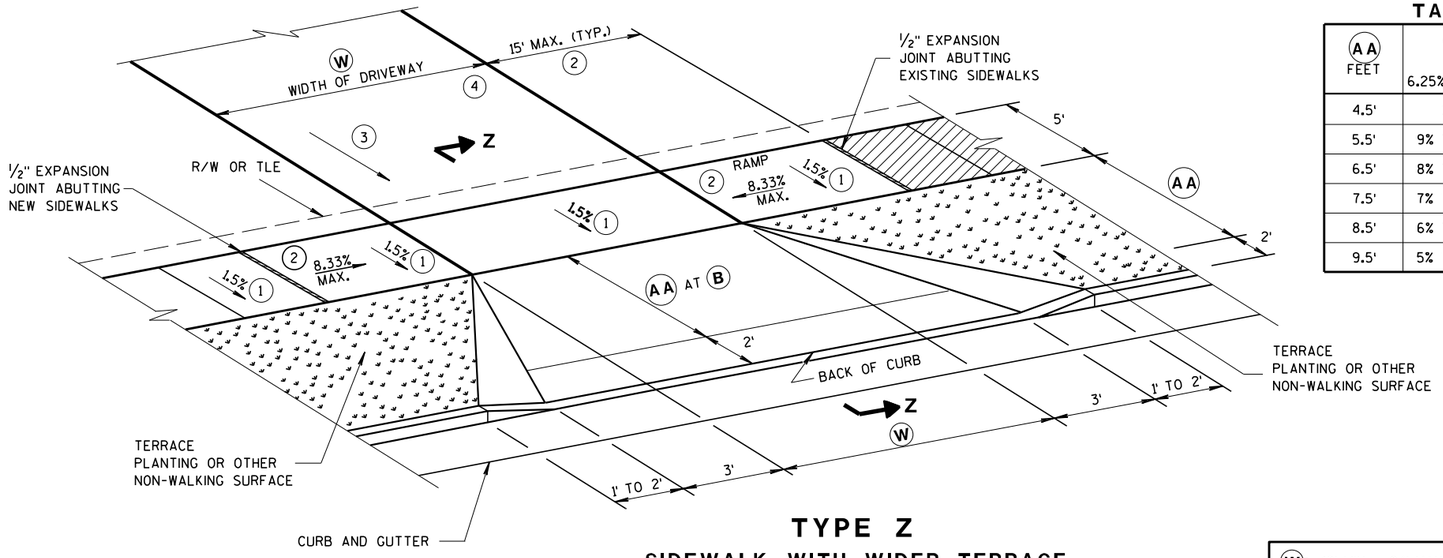
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
MENT
FHWA

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S.D.D. 8 D 4-5

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S.D.D. 8 D 4-5



TYPE Z

SIDEWALK WITH WIDER TERRACE

TERRACE VARIES 7 TO 12 FEET

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

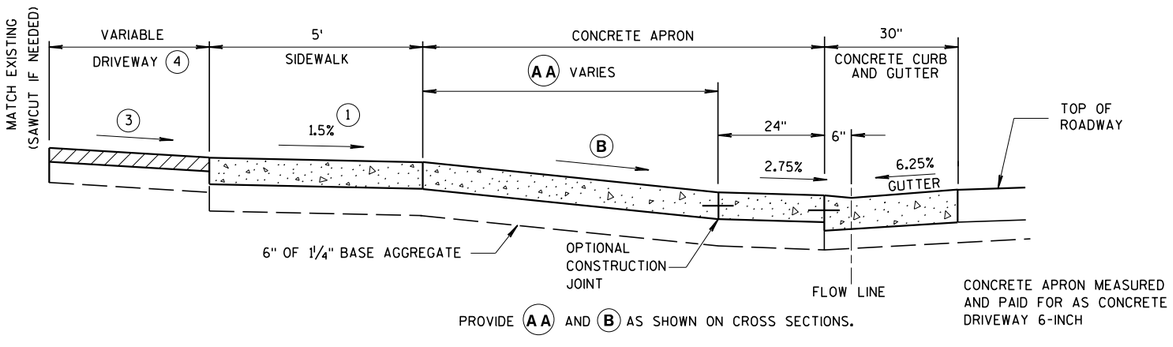
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

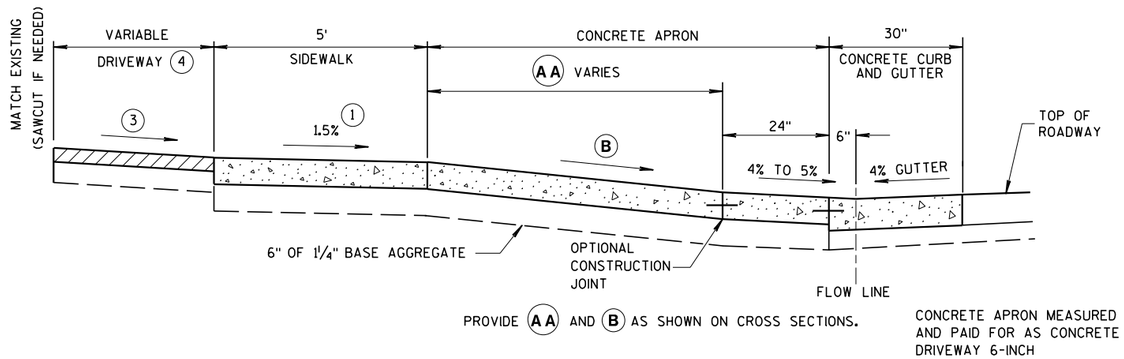
(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



6.25% GUTTER SLOPE



4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

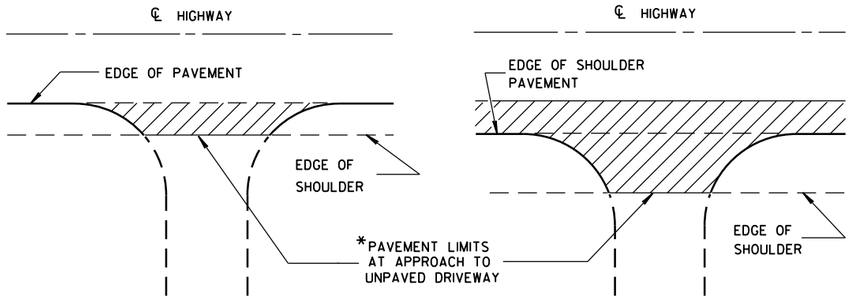
APPROVED
March 2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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S.D.D. 8 D 19-2

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S.D.D. 8 D 19-2

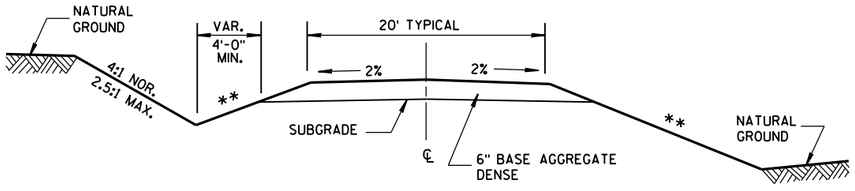


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

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

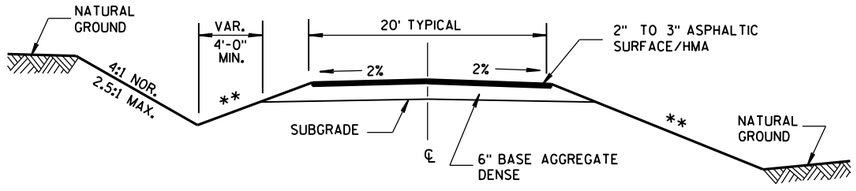


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

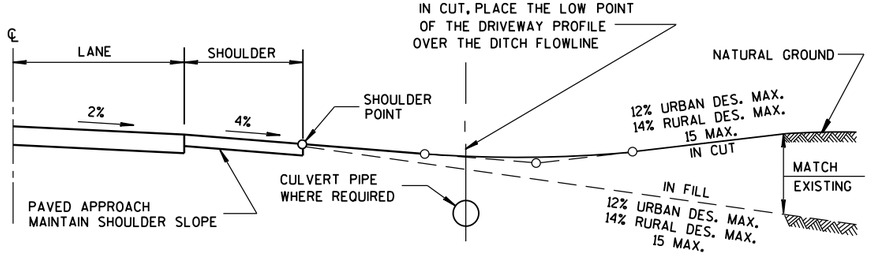
** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

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



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE



TYPICAL DRIVEWAY PROFILES

DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

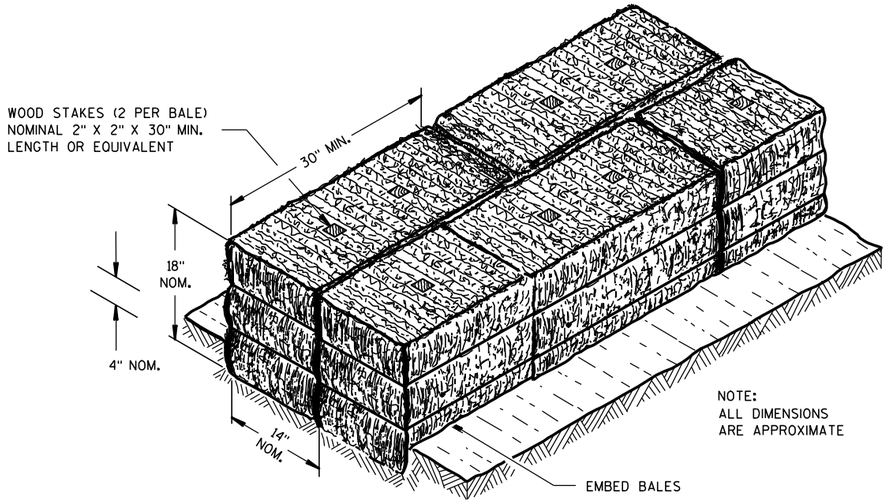
APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

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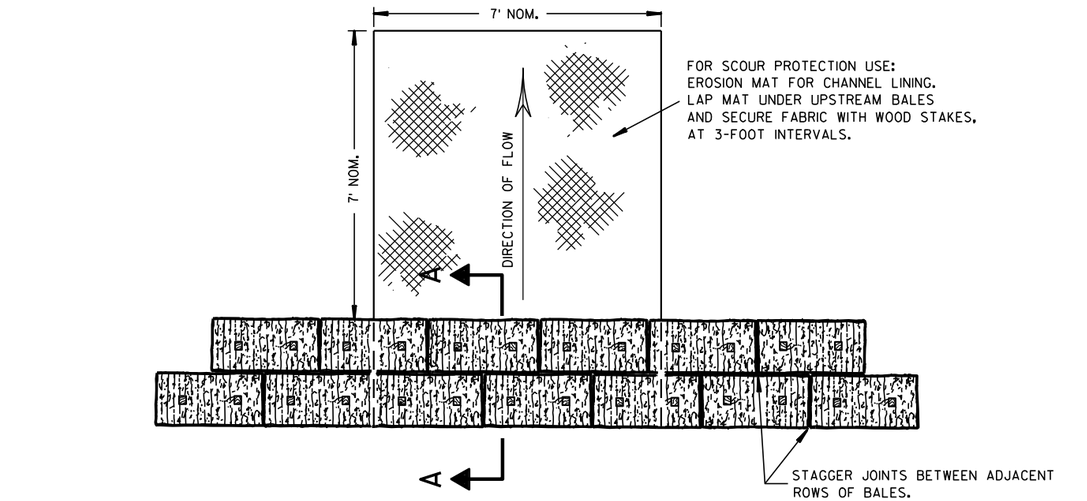
S.D.D. 8 D 21-1

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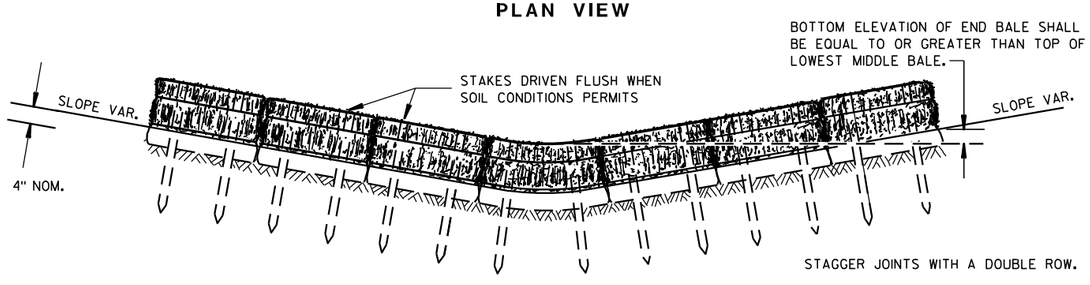
S.D.D. 8 D 21-1



SECTION A-A



PLAN VIEW



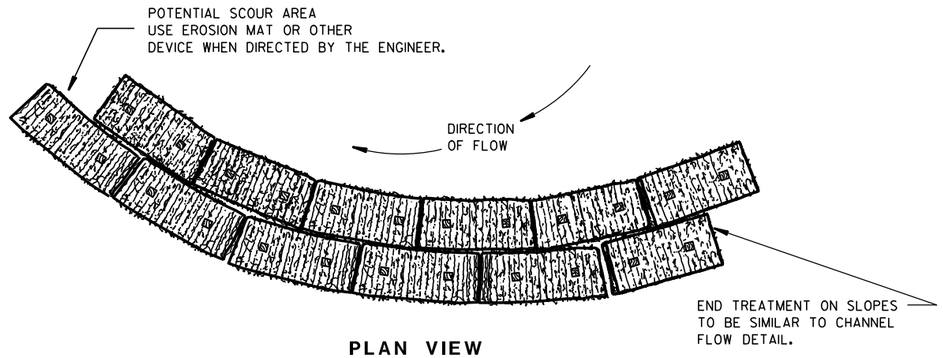
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

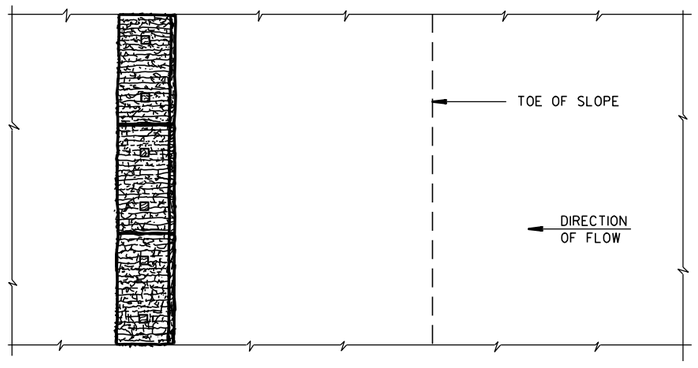
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

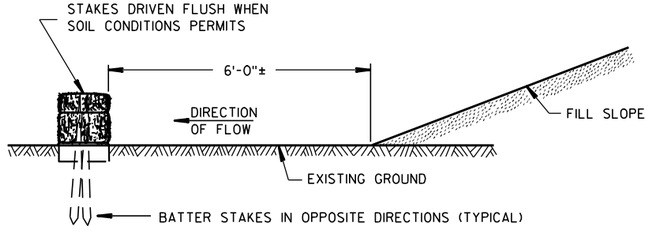


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

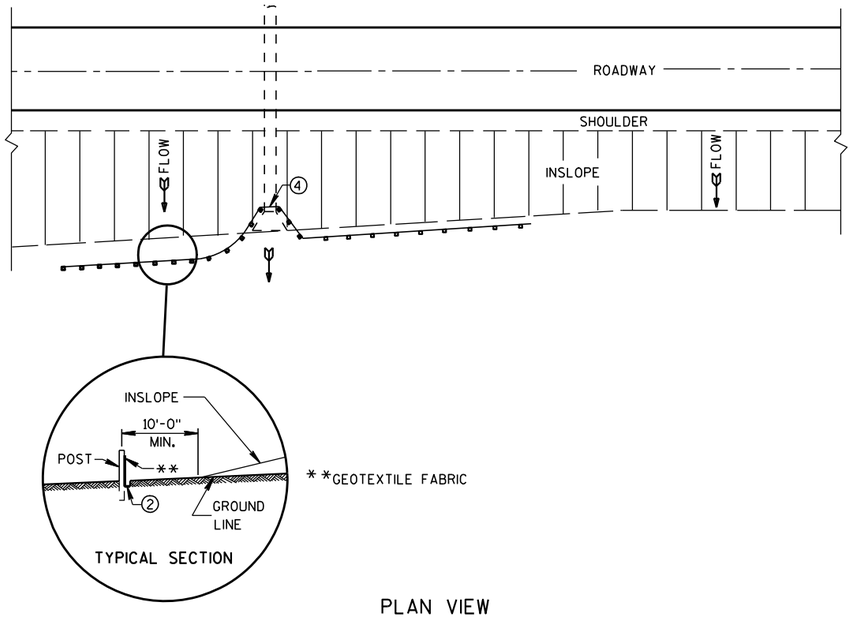
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 8-3

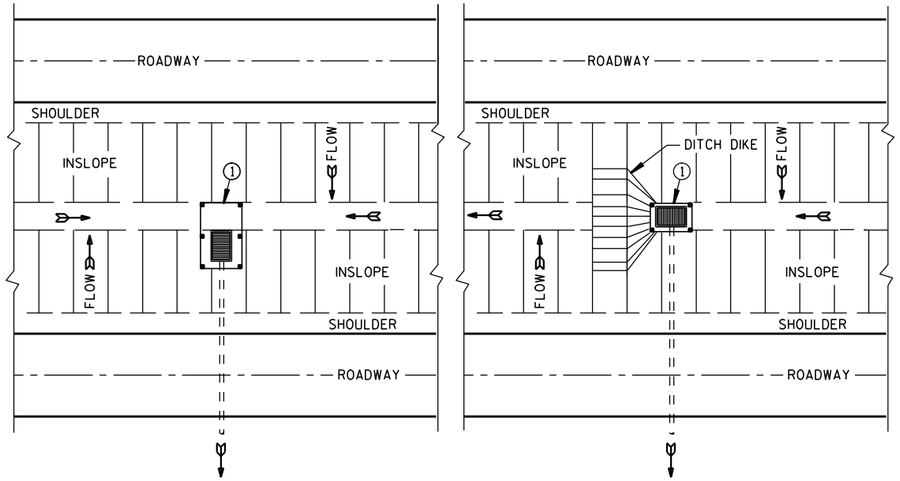
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



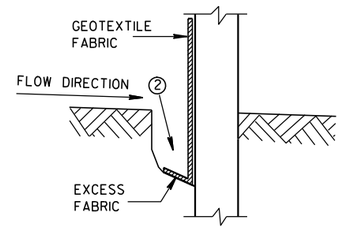
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

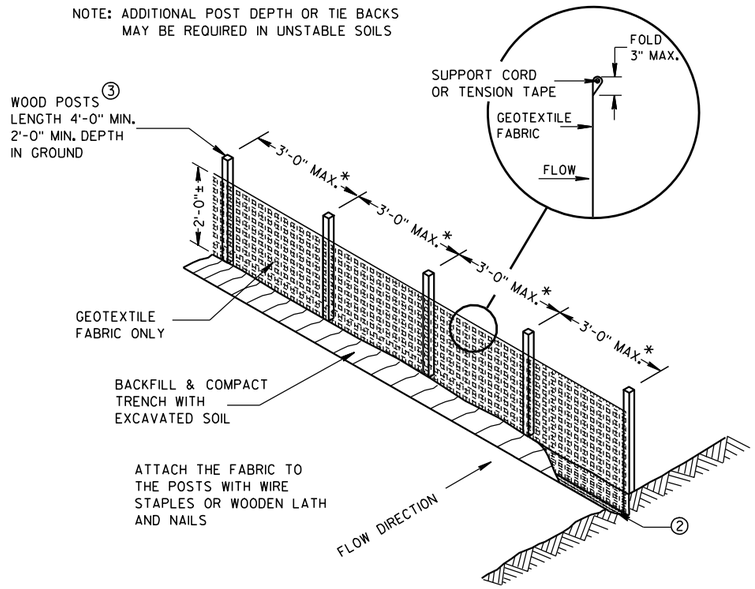
GENERAL NOTES

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

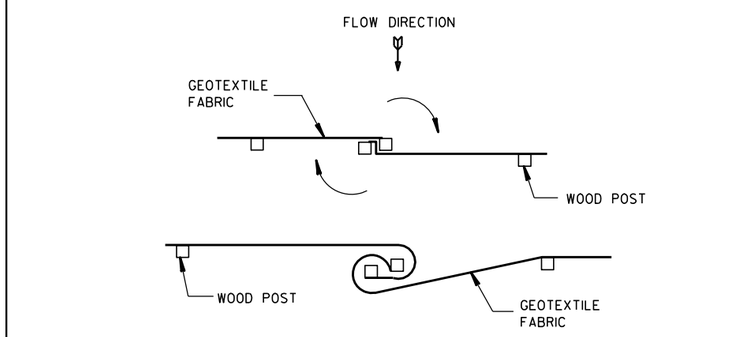
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



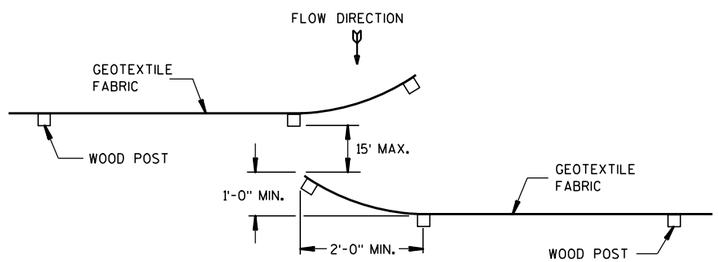
TRENCH DETAIL



SILT FENCE

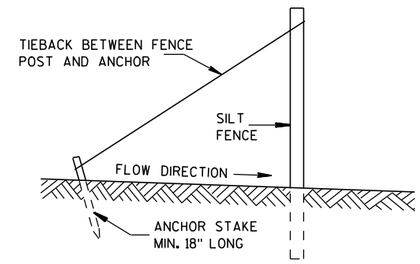


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

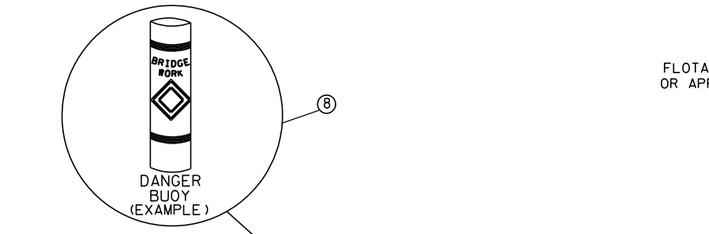
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

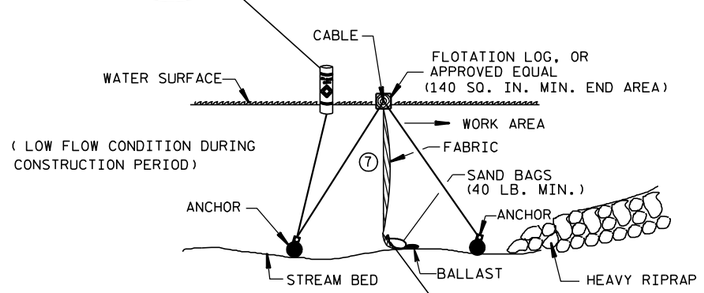
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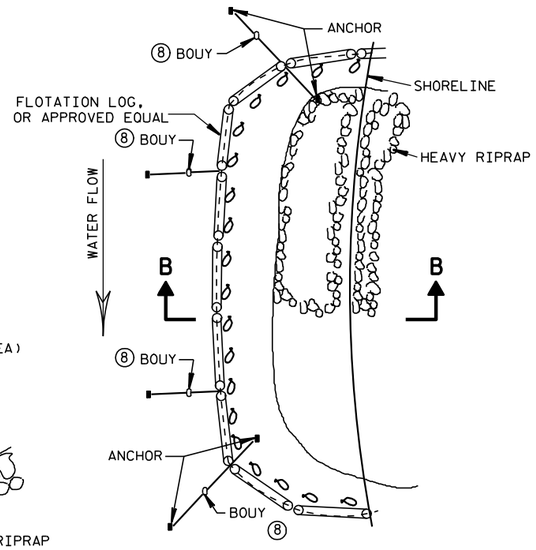
S.D.D. 8 E 9-6

6

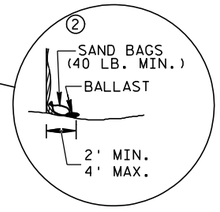
S.D.D. 8 E 9-6



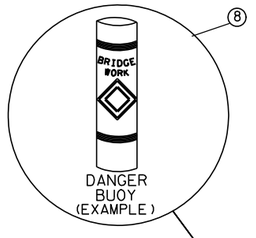


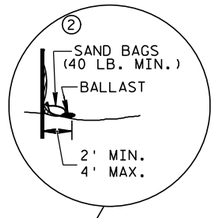


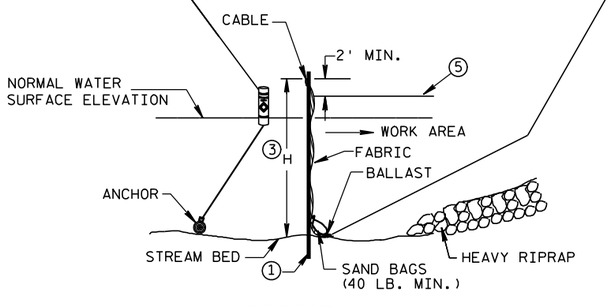
SECTION B-B



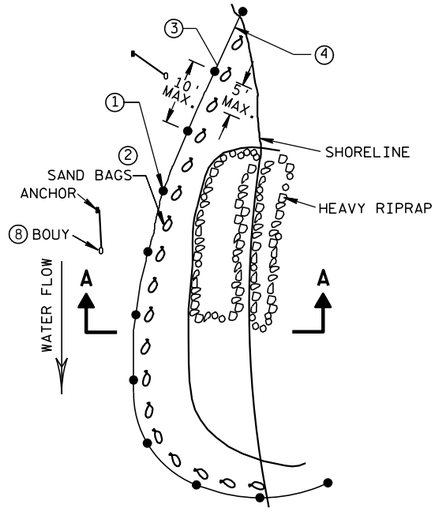
TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6







SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

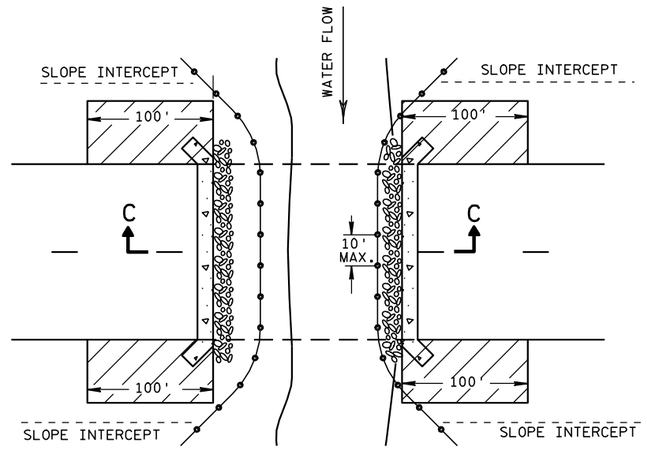
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

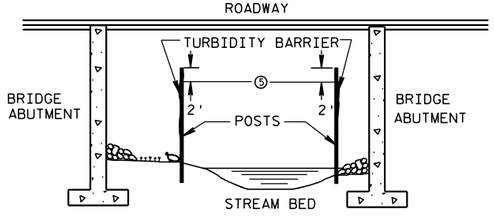
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



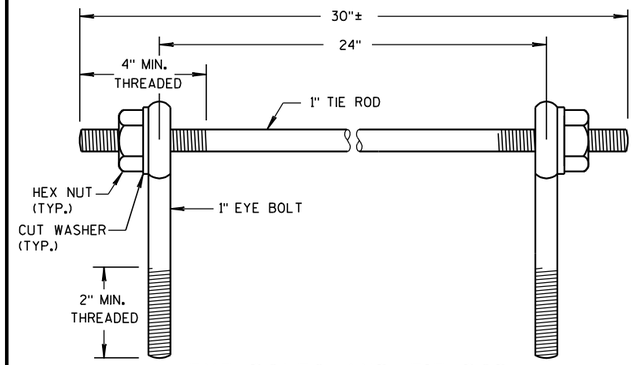
SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

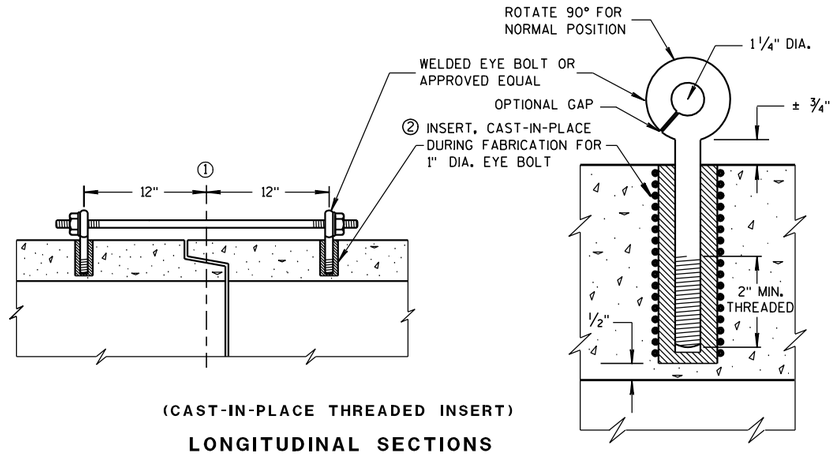
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

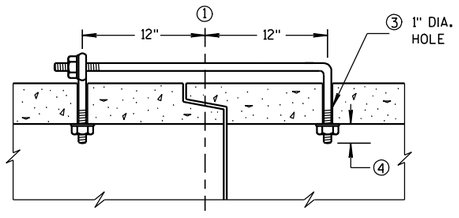
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

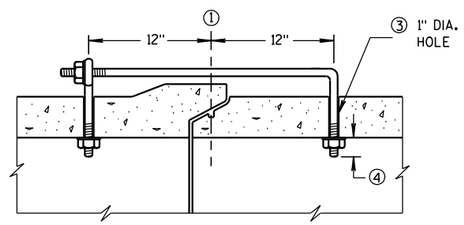
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

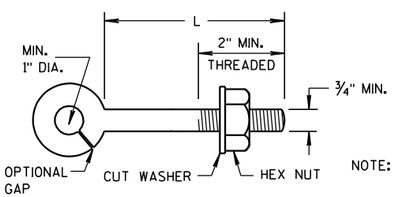


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

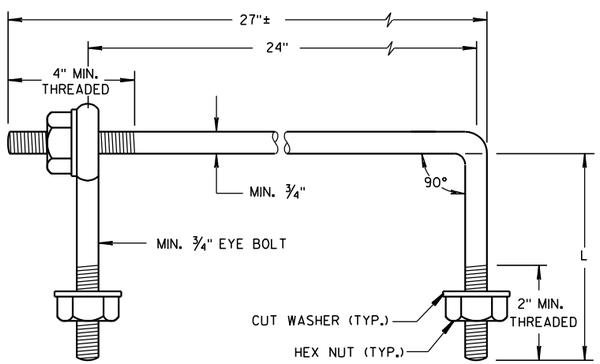
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

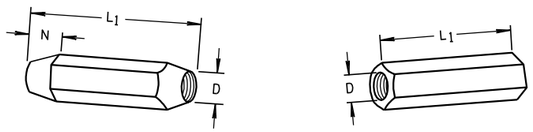
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

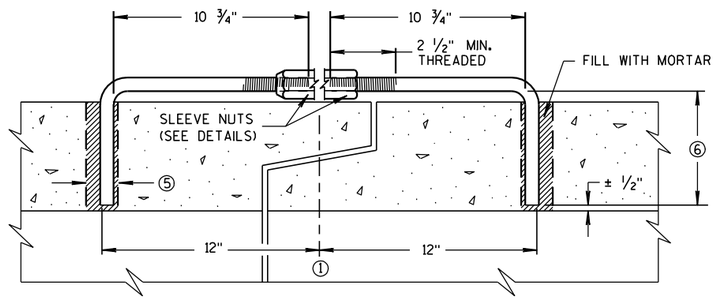
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

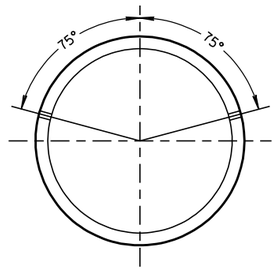
SLEEVE NUTS



LONGITUDINAL SECTION

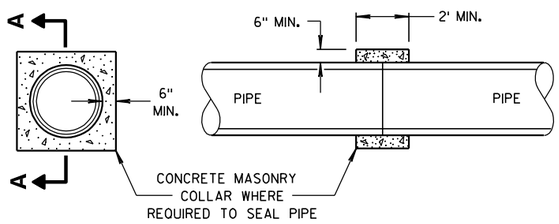
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

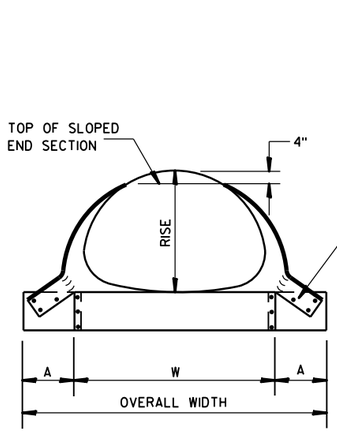
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
77
FHWA

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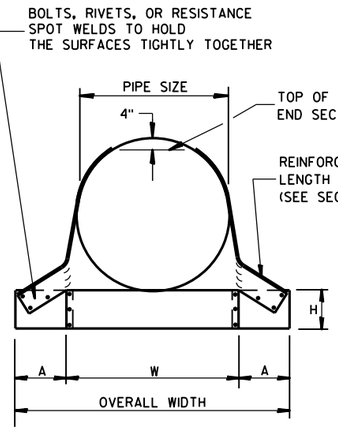
S.D.D. 8 F 4-7

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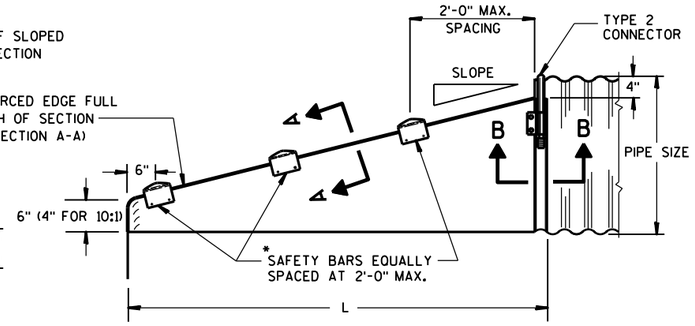
S.D.D. 8 F 4-7



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

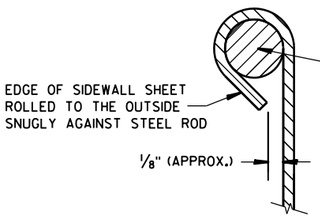
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

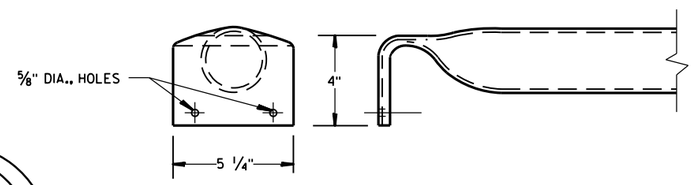
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1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



SECTION A-A

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

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

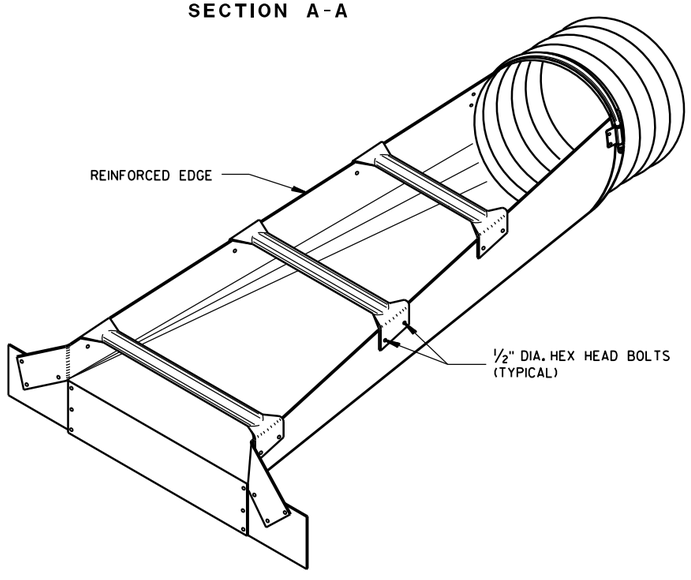


DETAIL OF SAFETY BAR

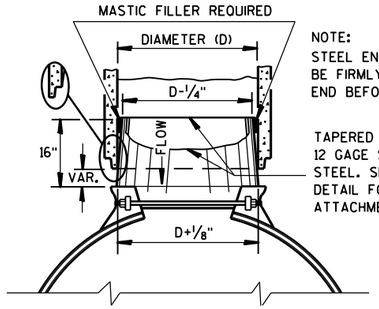
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

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

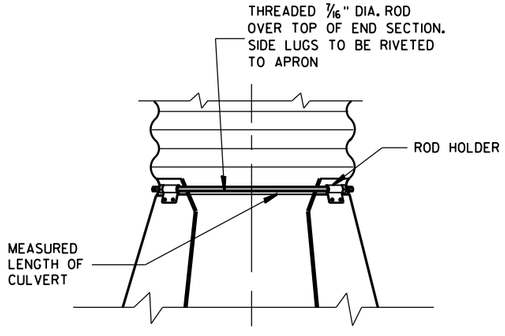
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



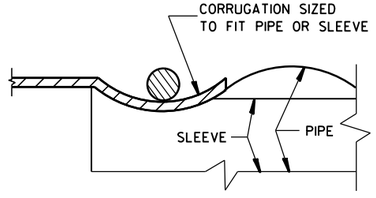
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 7-5

6

S.D.D. 8 F 7-5

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

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

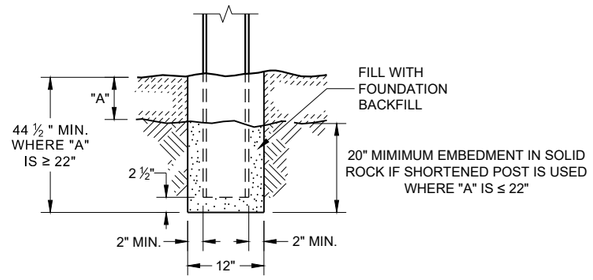
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS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

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

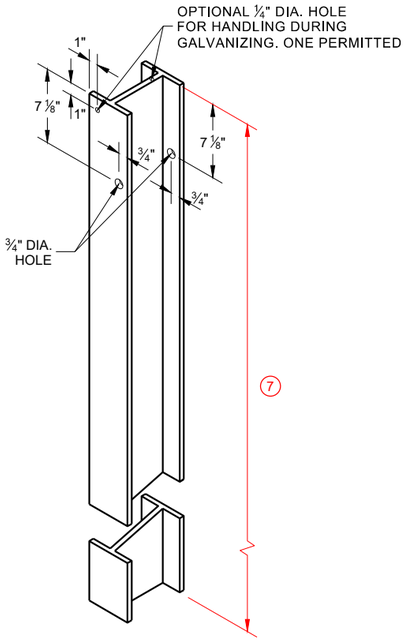
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

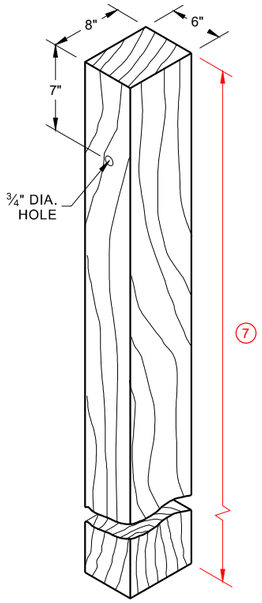
7. TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



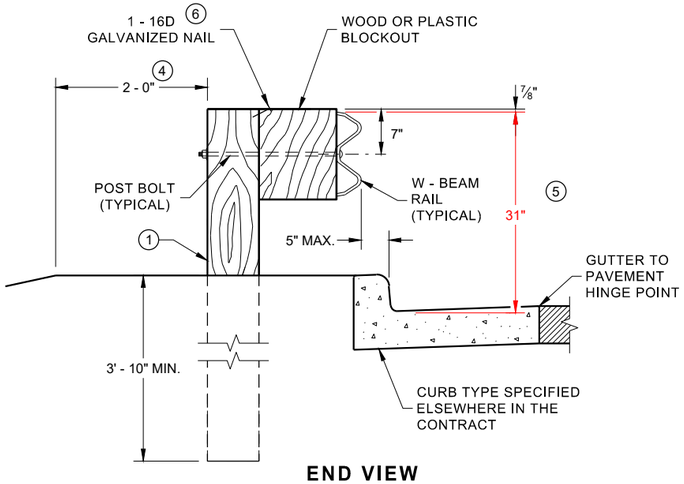
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



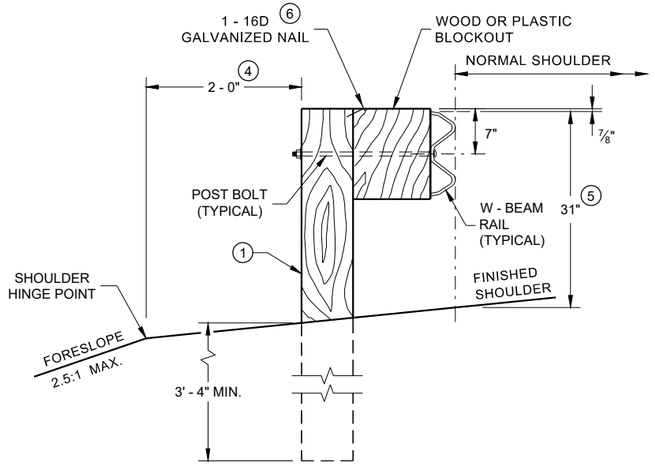
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



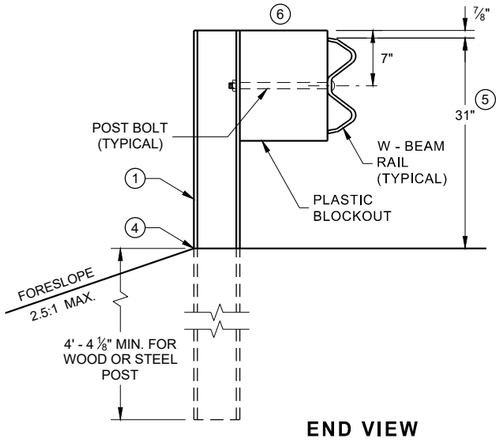
WOOD POST (6" X 8") NOMINAL (1)



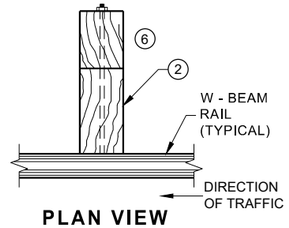
END VIEW
LOCATED ALONG A CURBED ROADWAY



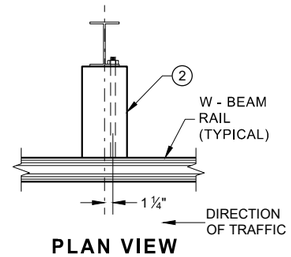
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



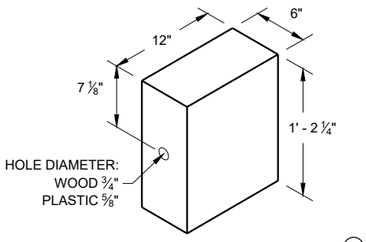
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

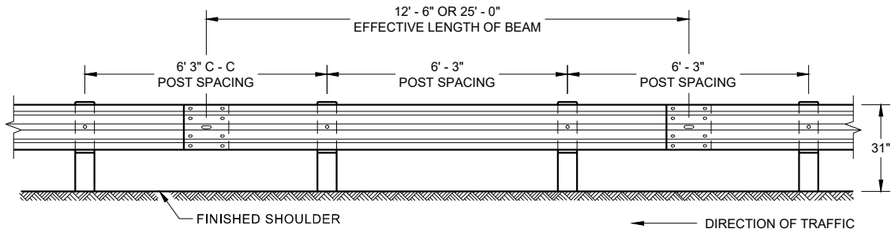
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

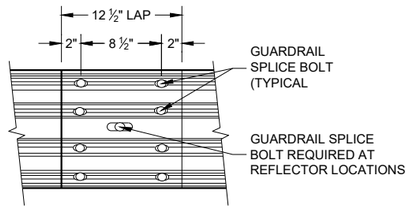
SDD 14B42 - 06a

6

SDD 14B42 - 06a



FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
MID-SPAN BEAM SPLICE

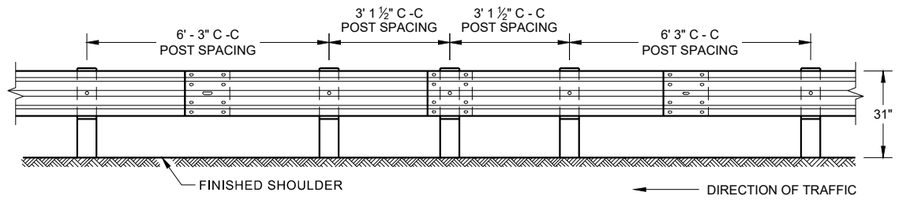
GENERAL NOTES

(8) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

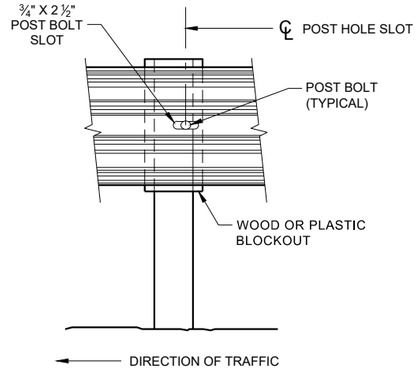
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" 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.

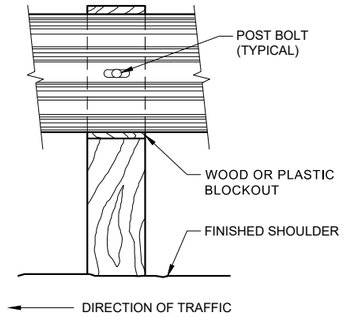
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



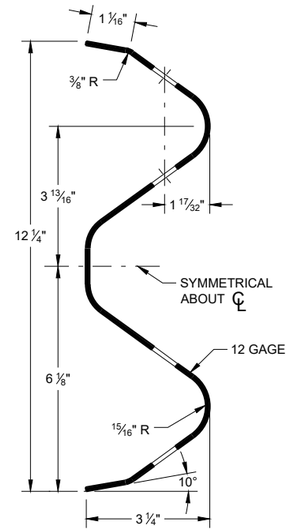
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



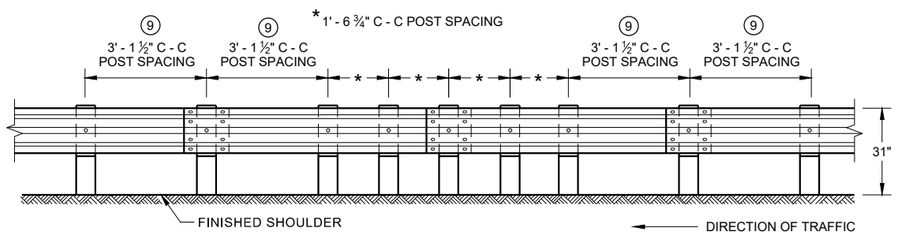
FRONT VIEW AT STEEL POST



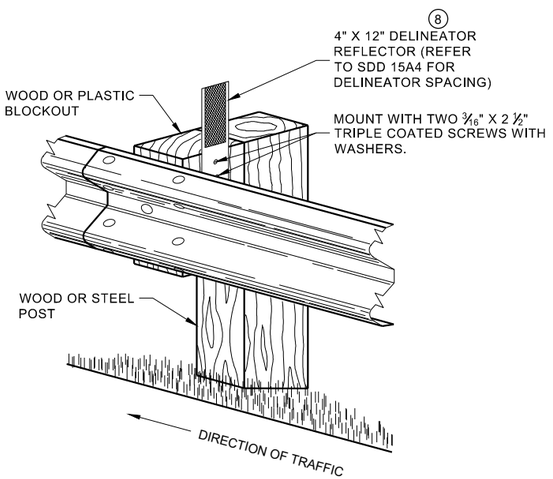
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



FRONT VIEW
QUARTER POST SPACING (QS)



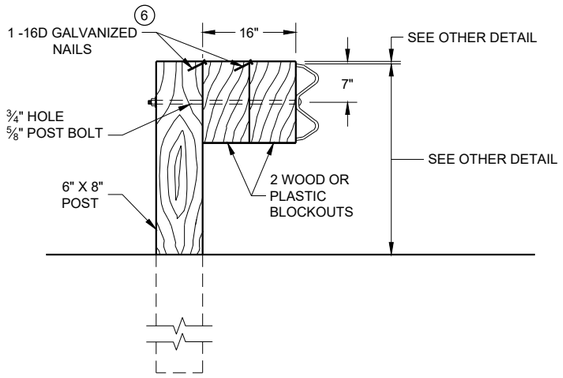
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

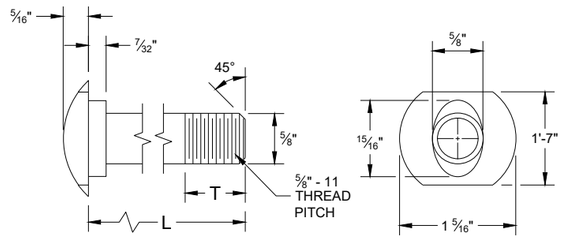


DETAIL FOR 16" BLOCKOUT DEPTH

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.

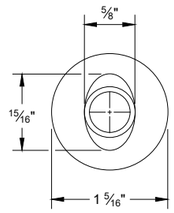
NOTE:

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.

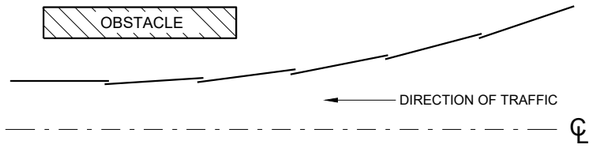


POST BOLT TABLE

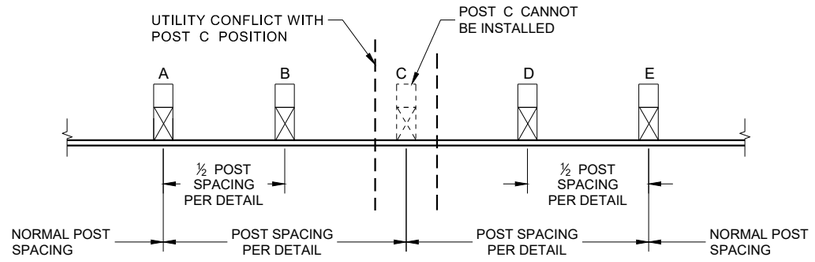
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



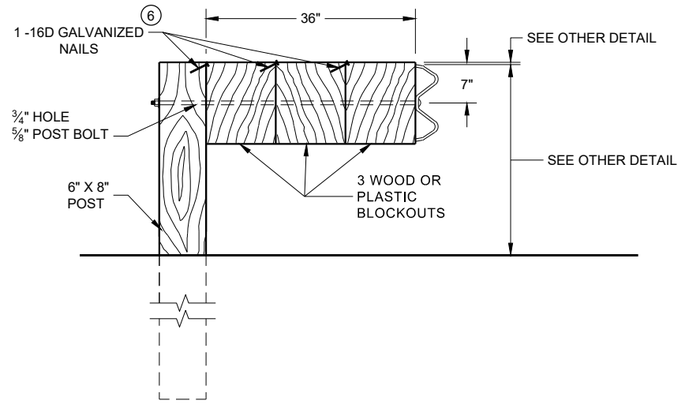
ALTERNATE BOLT HEAD



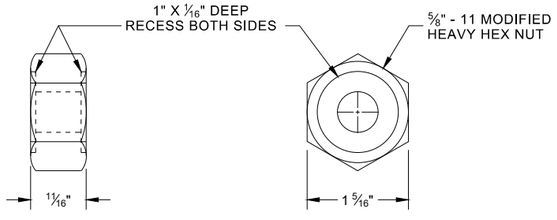
PLAN VIEW
BEAM LAPPING DETAIL



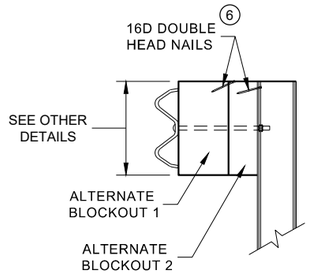
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



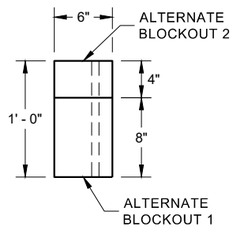
DETAIL FOR 36" BLOCKOUT DEPTH



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.

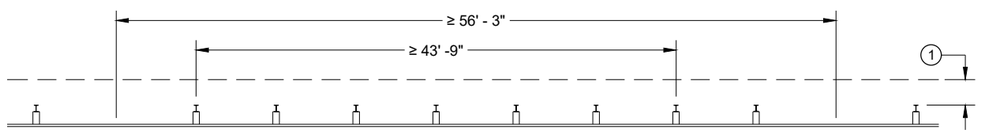
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

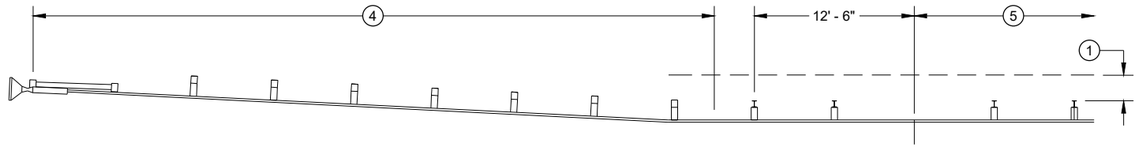
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

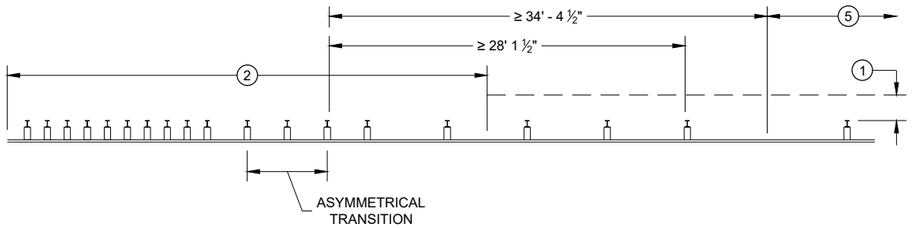
SDD 14B42 - 06c



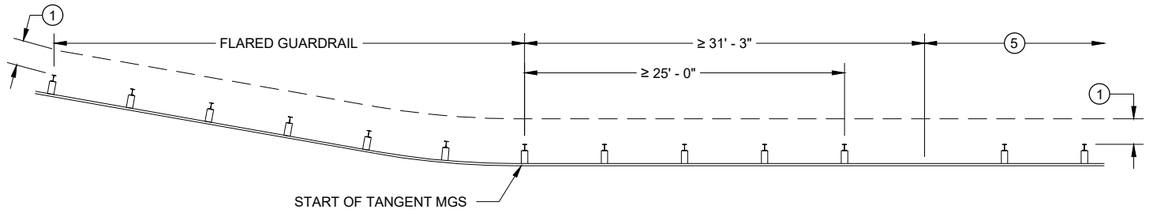
MISSING POST IN NORMAL BEAM GUARD RUN



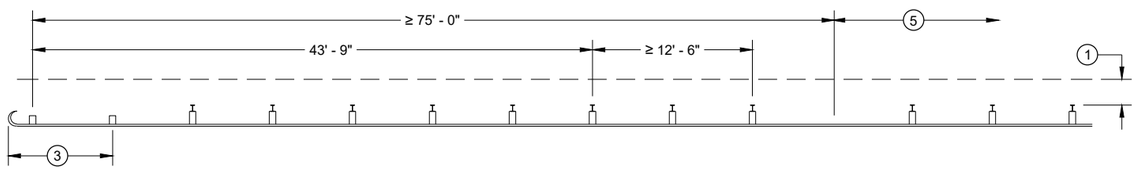
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



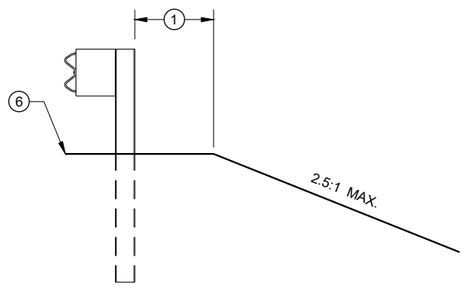
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B42 - 06d

6

SDD 14B42 - 06d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

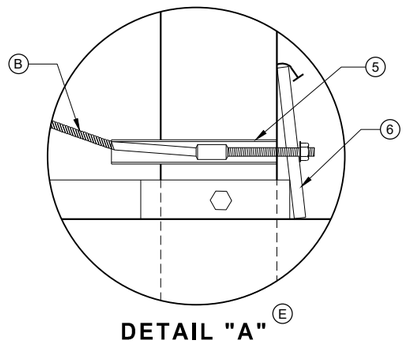
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

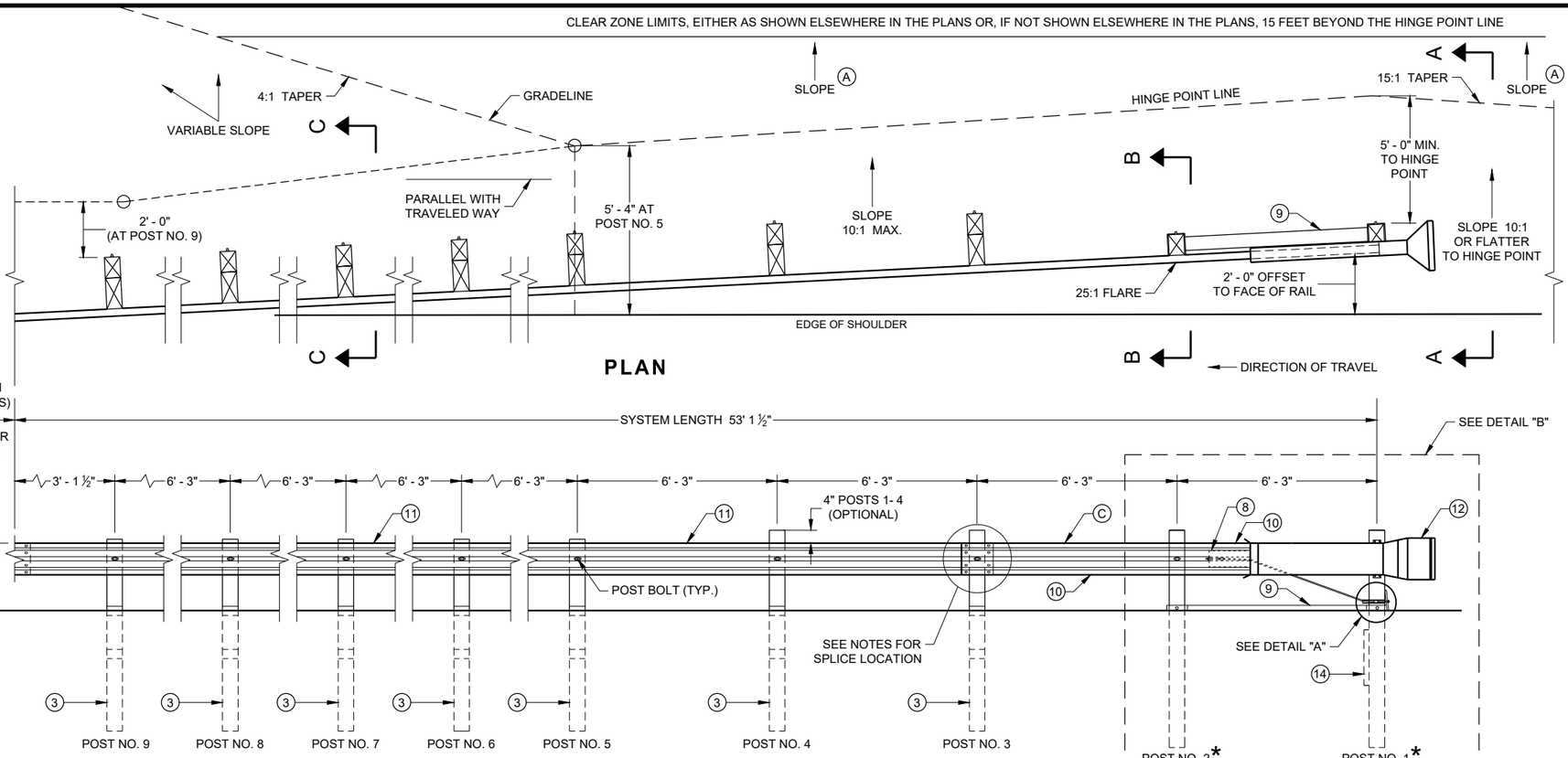
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

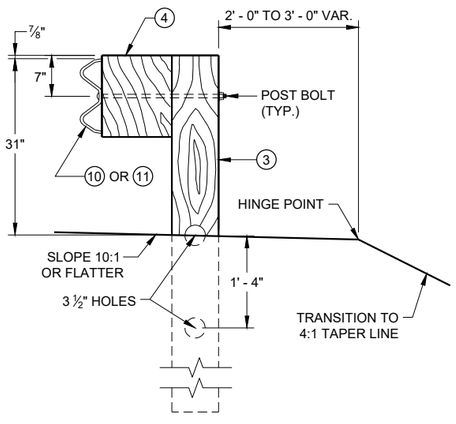
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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

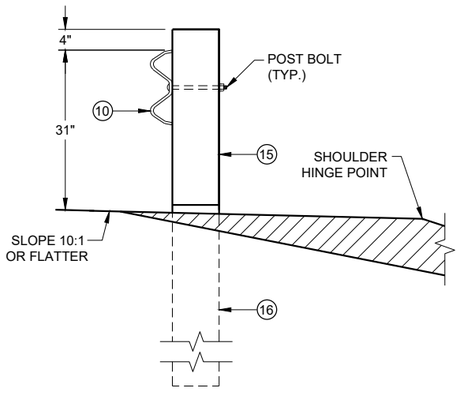


DETAIL "A" (E)

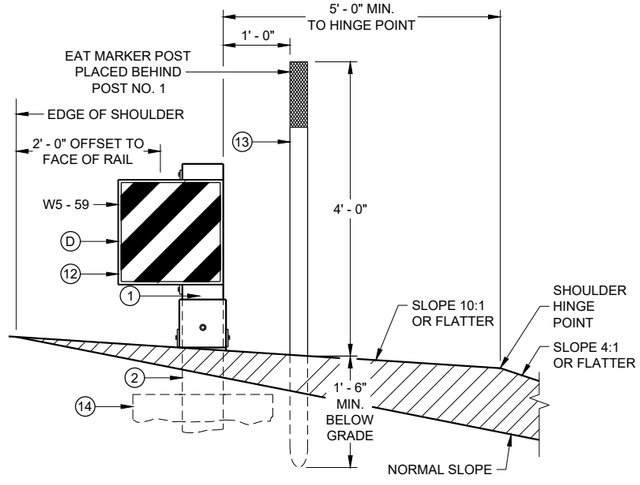




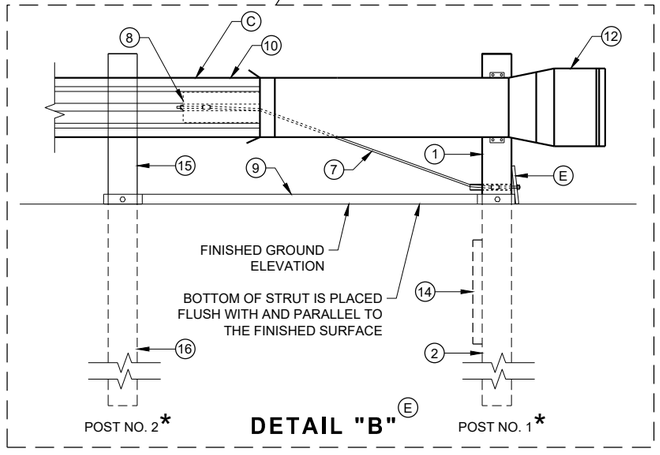
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

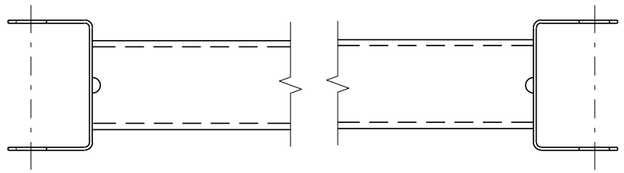
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

SDD 14B44 - 04a

6

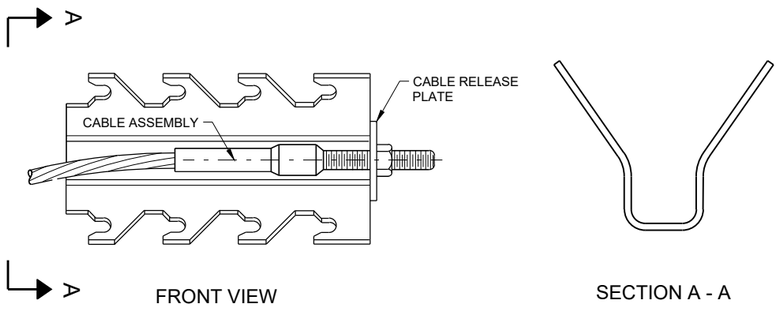
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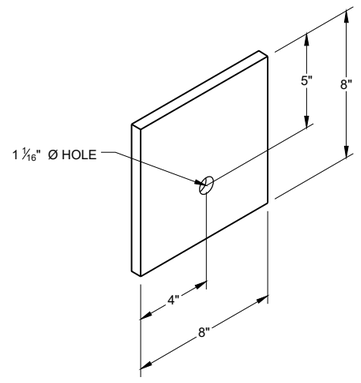
GENERIC GROUND STRUT (9) (E)

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 (9) (E)



BEARING PLATE (6) (E)

6

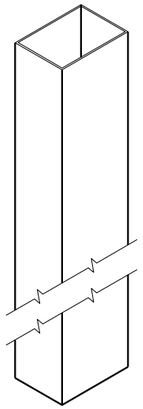
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SDD 14B45 - 04b

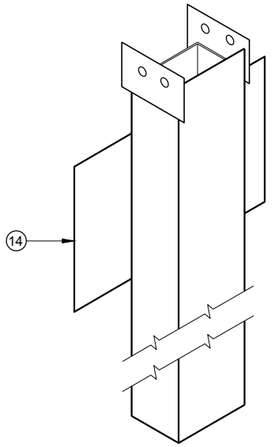
SDD 14B45 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

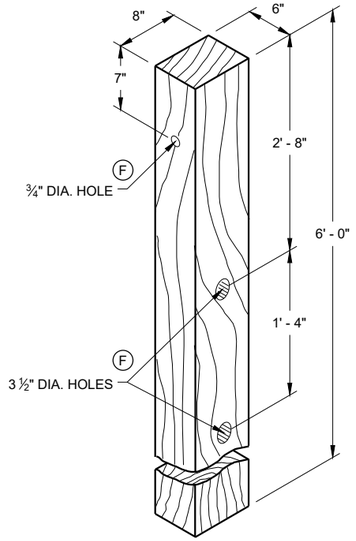
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



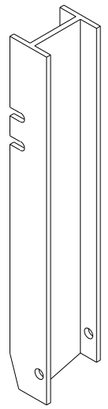
UPPER POST NO. 1 (1) (E)



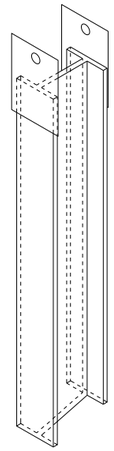
LOWER POST NO. 1 (2) (E)



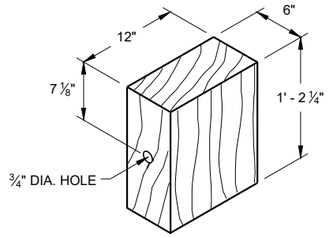
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



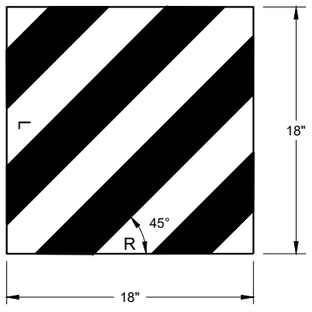
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

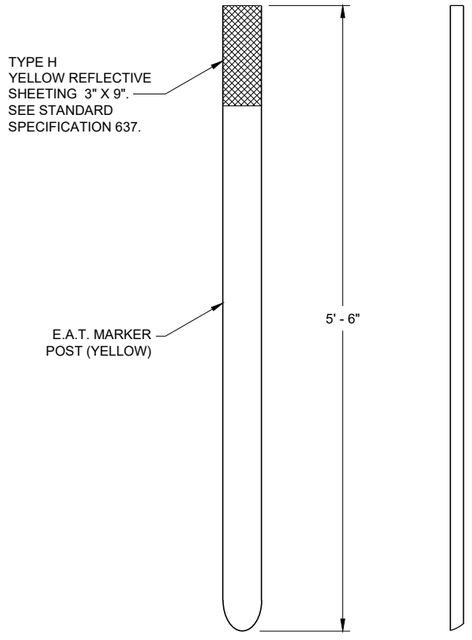


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



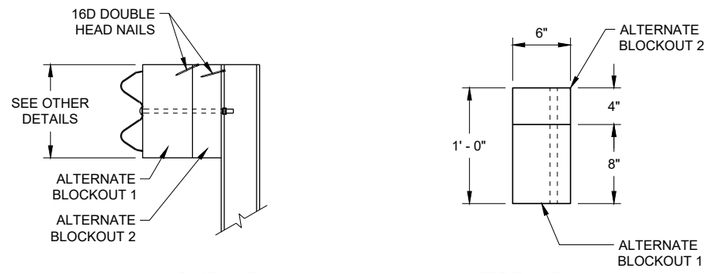
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

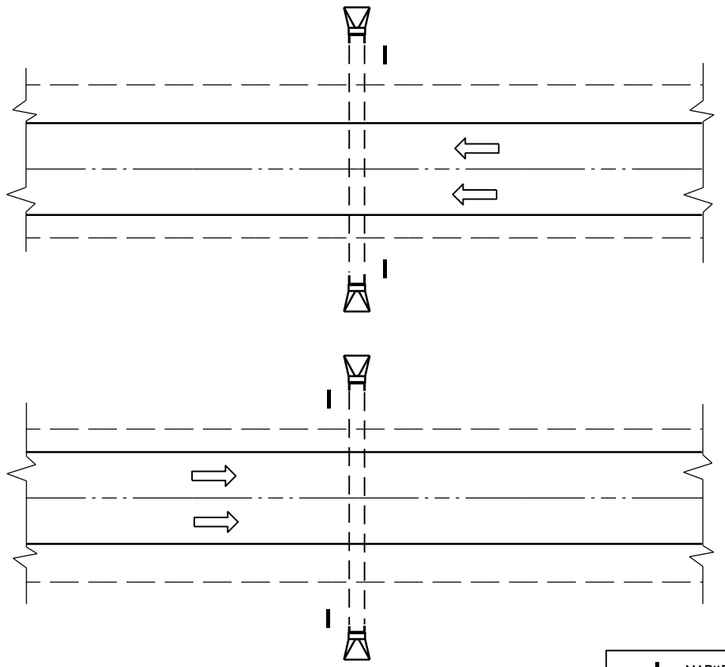
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

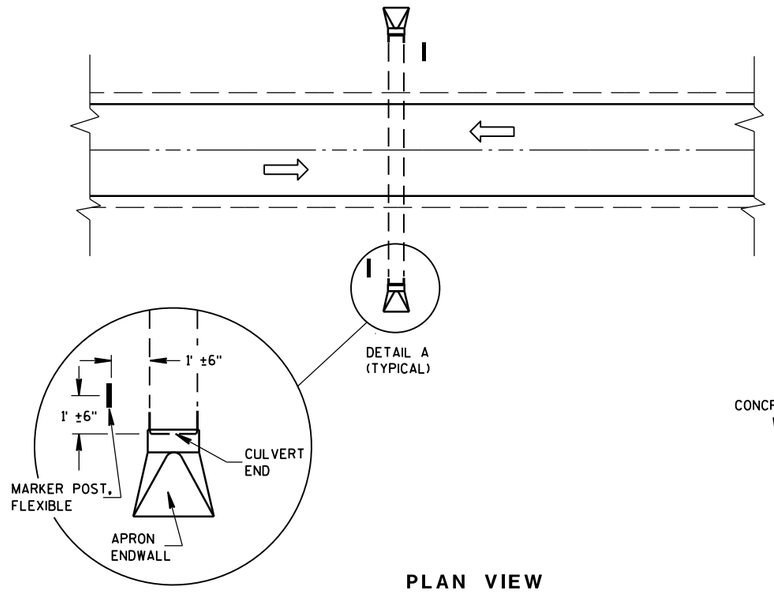
6

SDD 14B44 - 04c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

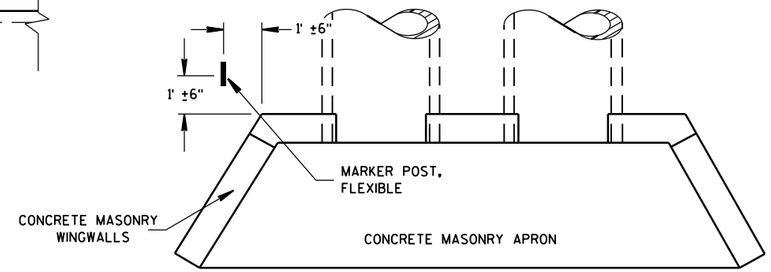
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

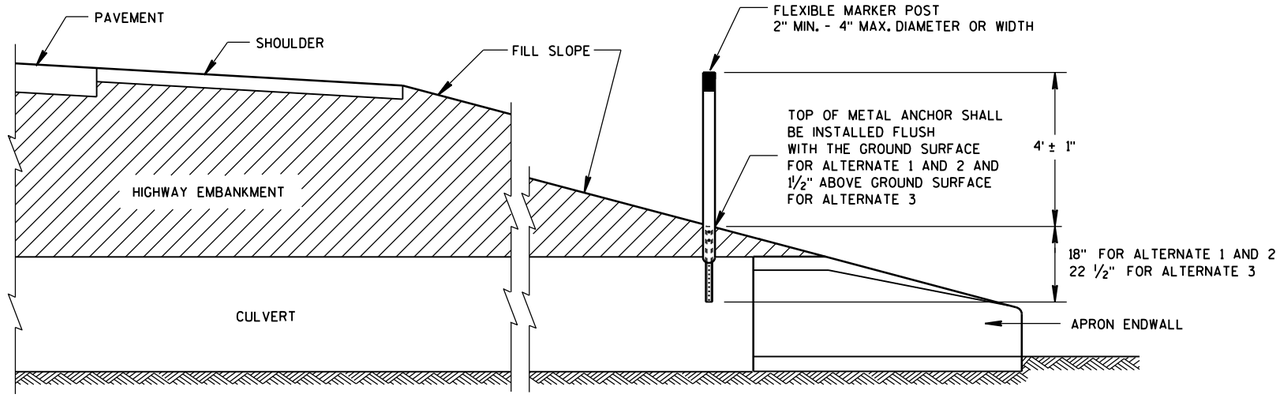
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

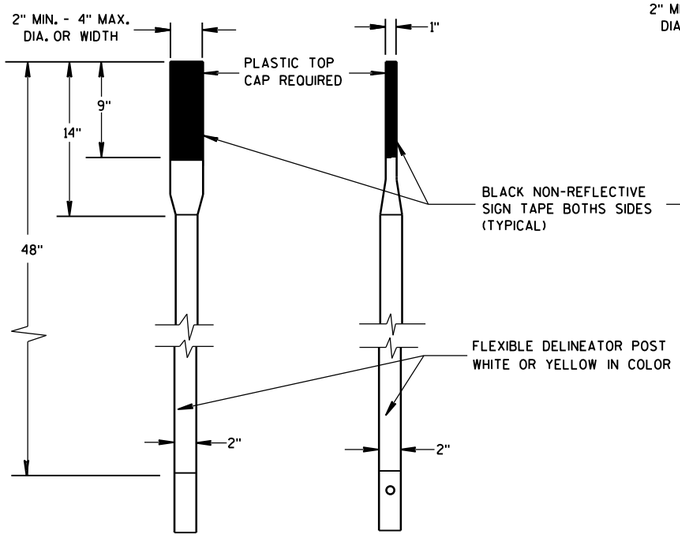
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

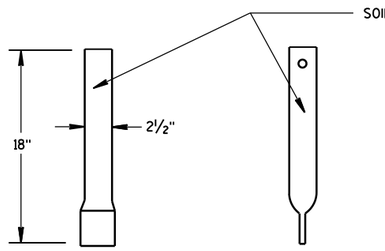
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S.D.D. 15 A 3-2a

6

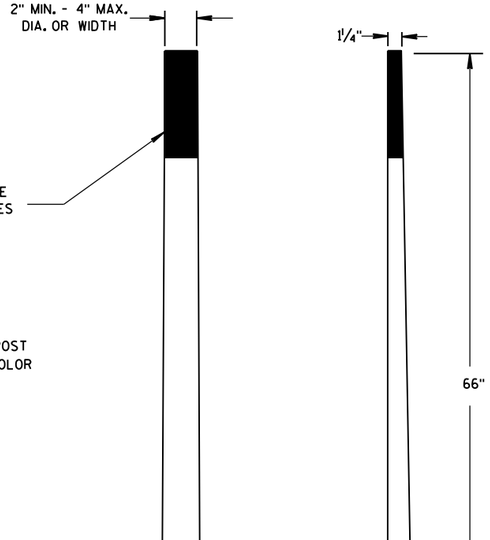
S.D.D. 15 A 3-2a





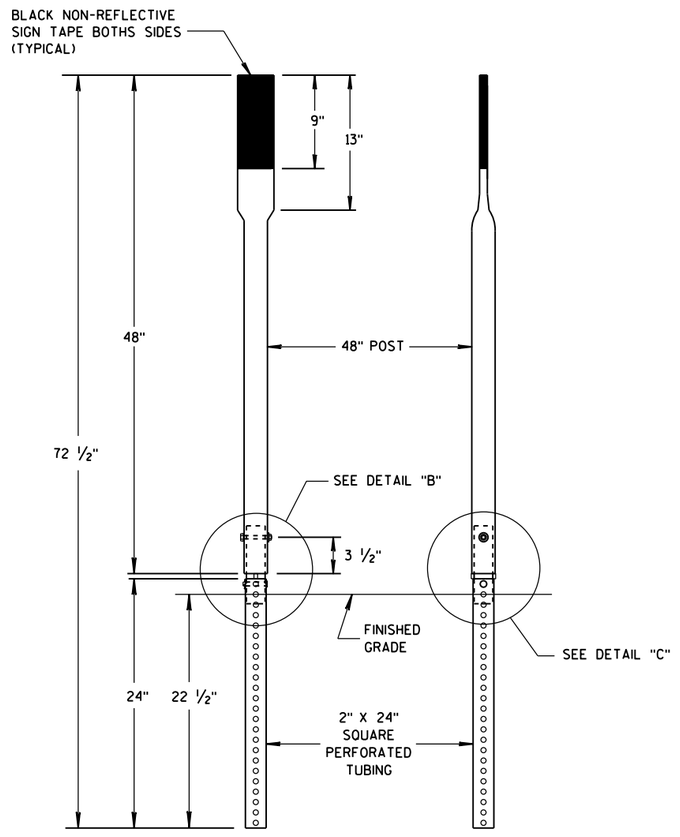
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

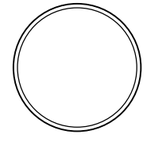
ALTERNATE 2



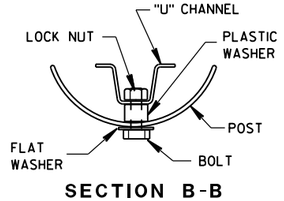
FRONT VIEW SIDE VIEW

ALTERNATE 3

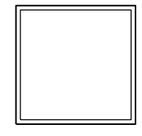
FLEXIBLE MARKER POSTS



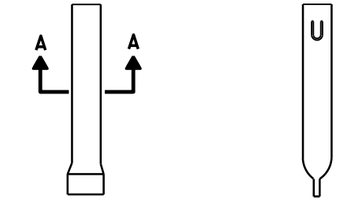
SECTION A-A



SECTION B-B

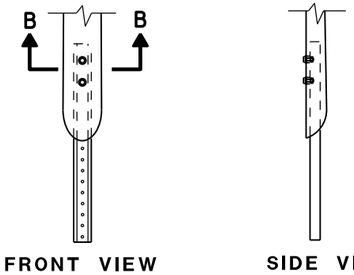


SECTION C-C



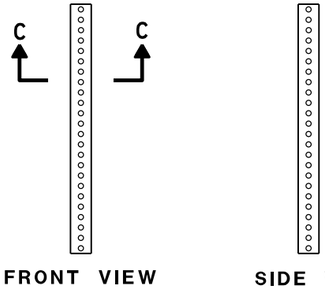
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

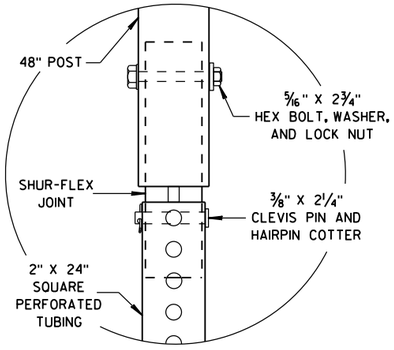
ALTERNATE 2



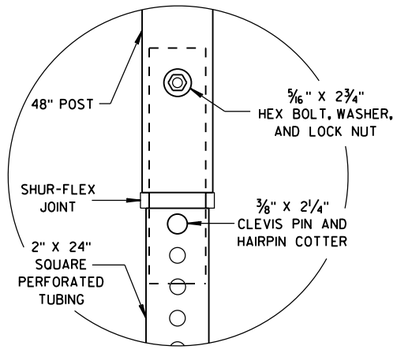
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



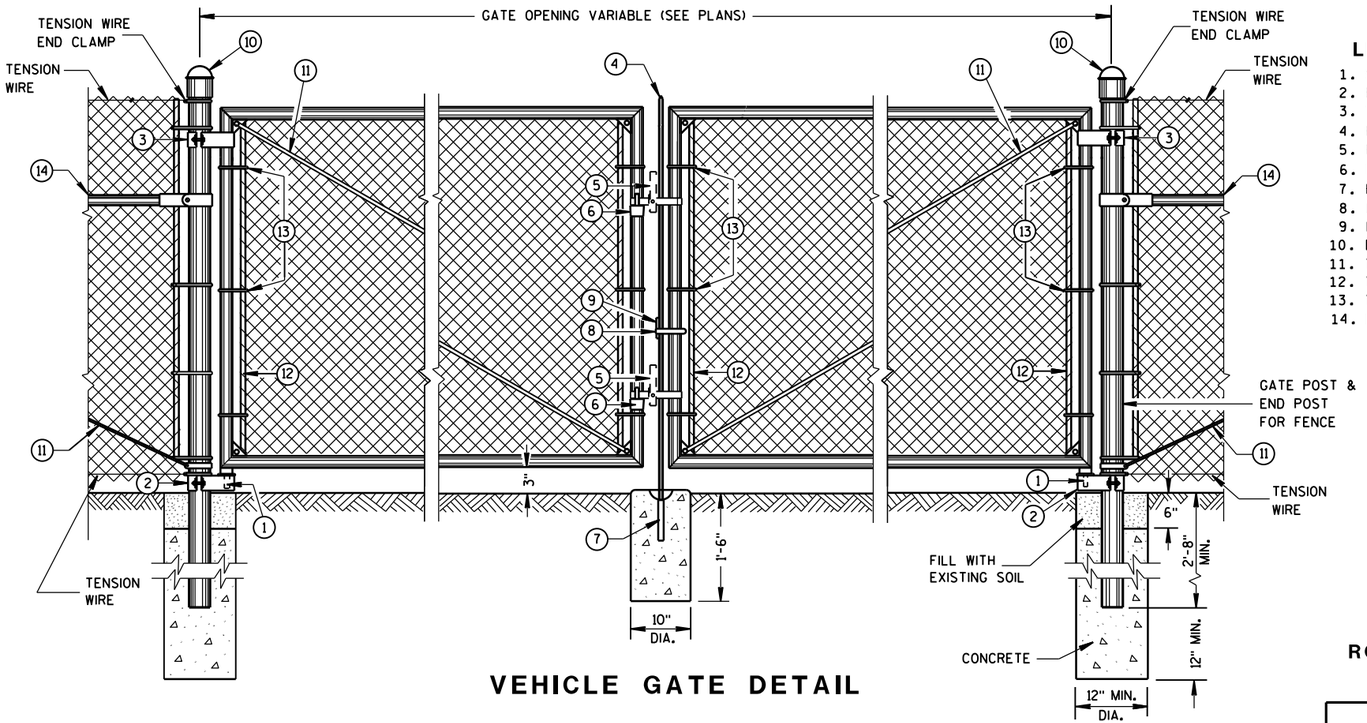
DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

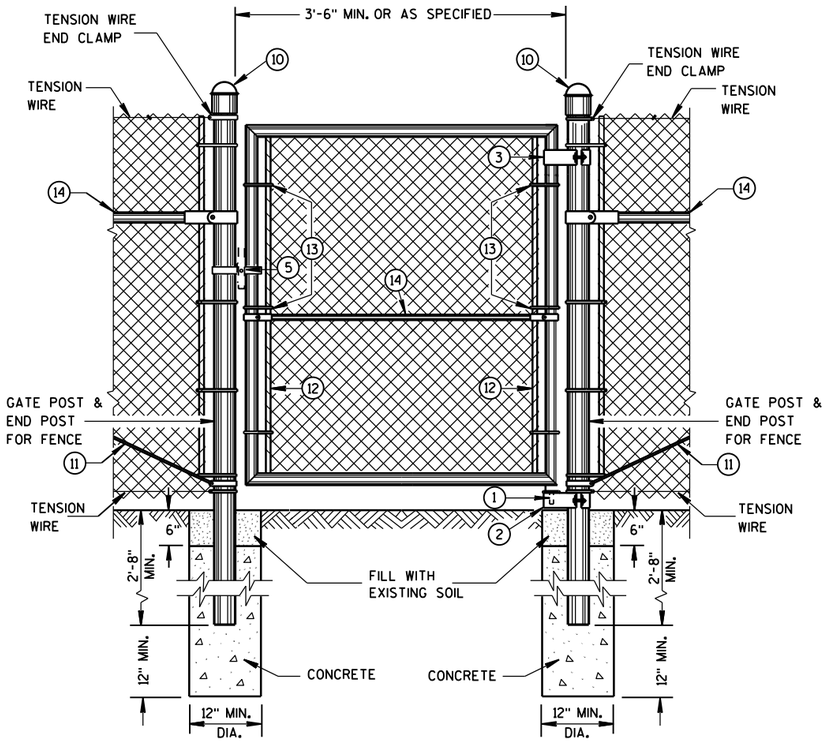
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

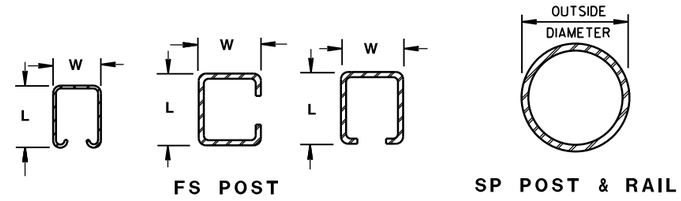
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

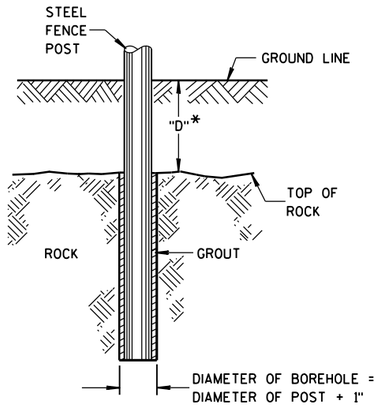
ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

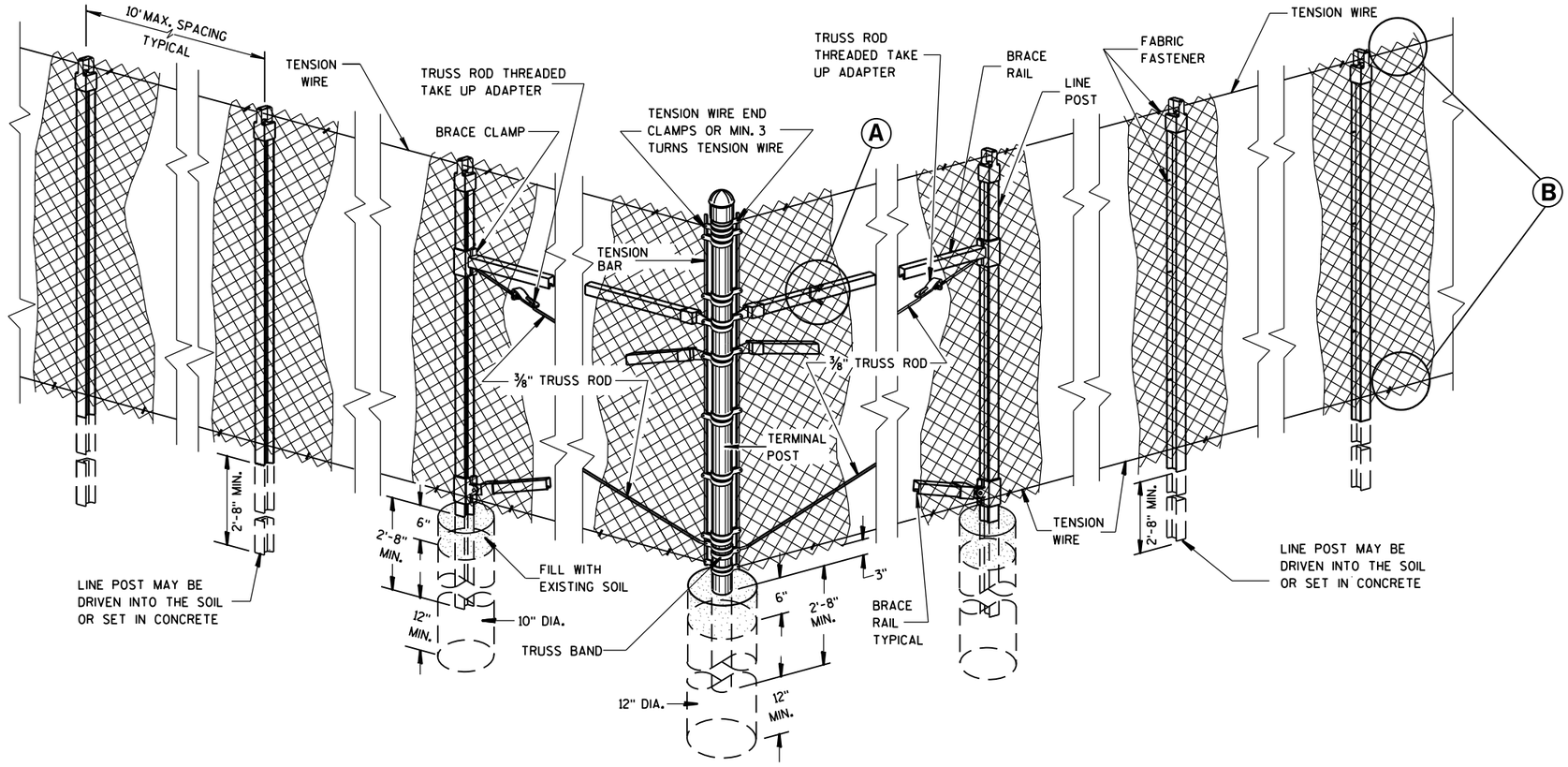
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 15 B 3-15a

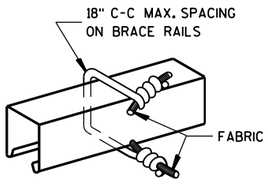


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



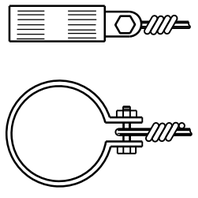
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



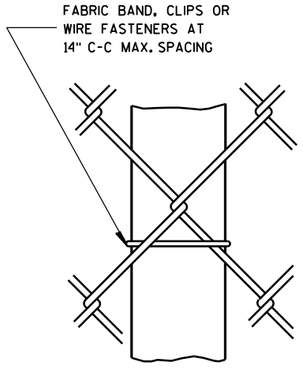
BRACE RAIL

FABRIC FASTENER

Ⓐ



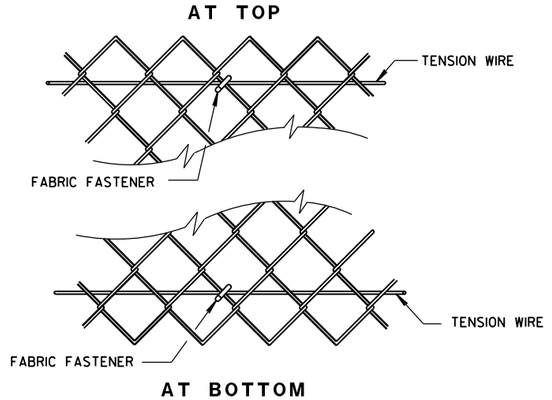
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

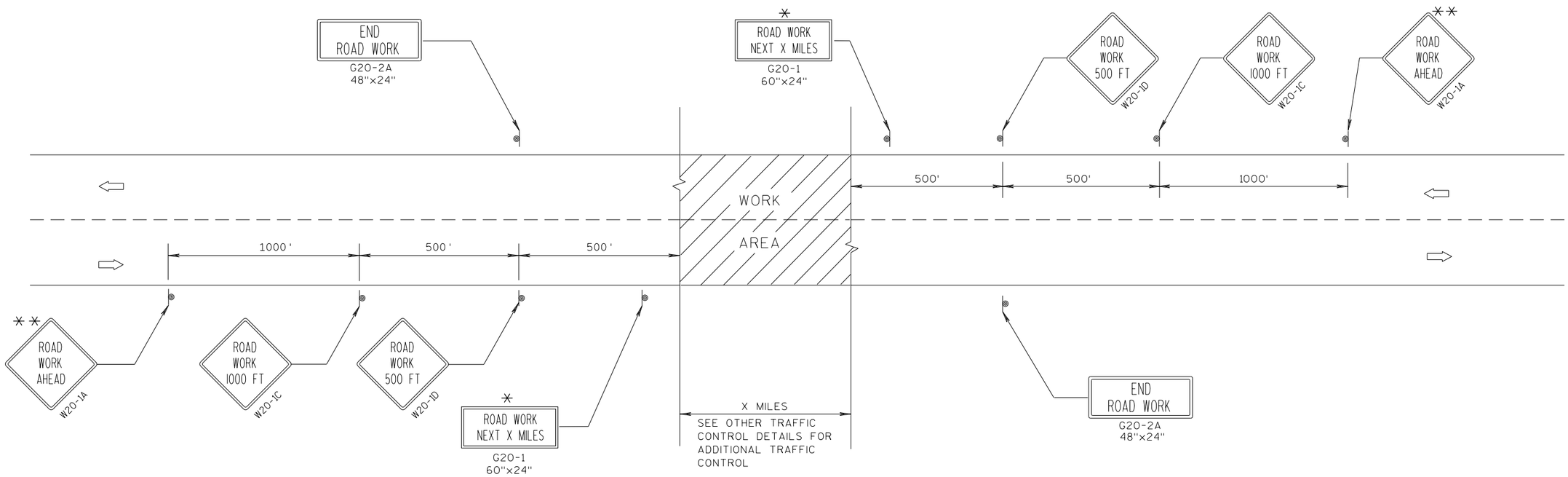
6

S.D.D. 15 B 3-15b

6

S.D.D. 15 B 3-15b

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

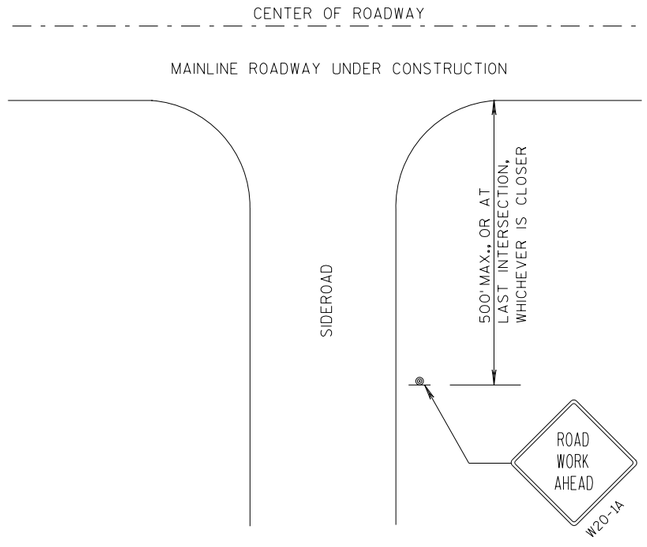
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

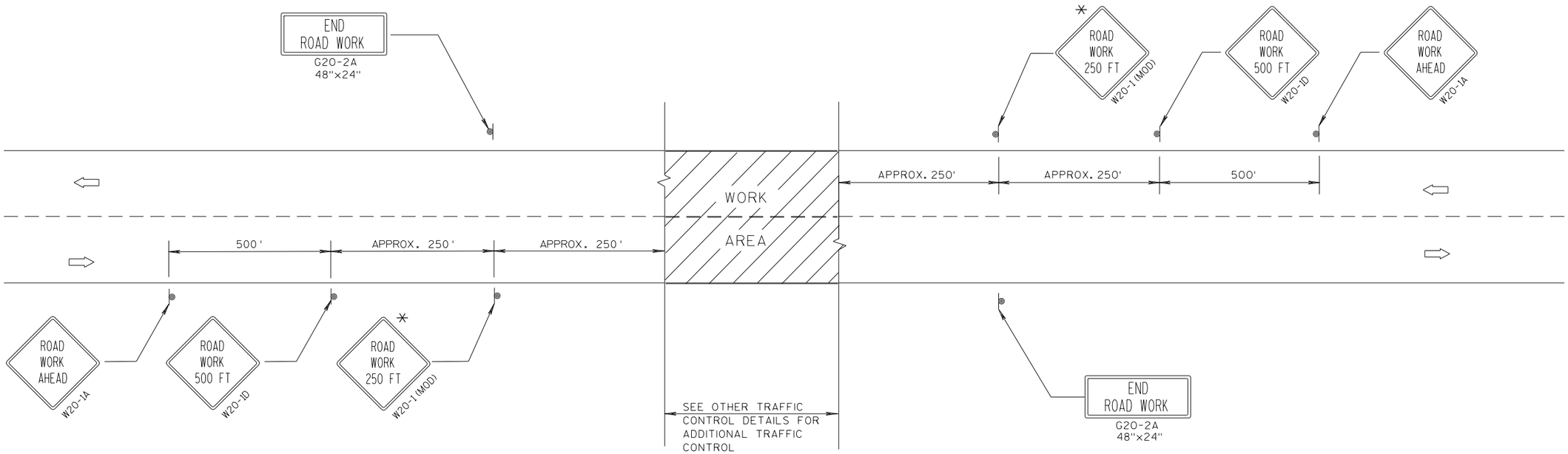
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

S.D.D. 15 C 4-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

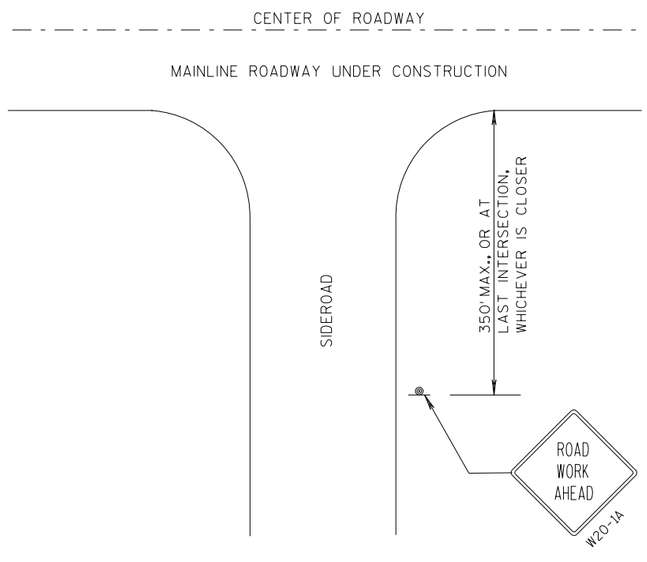
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

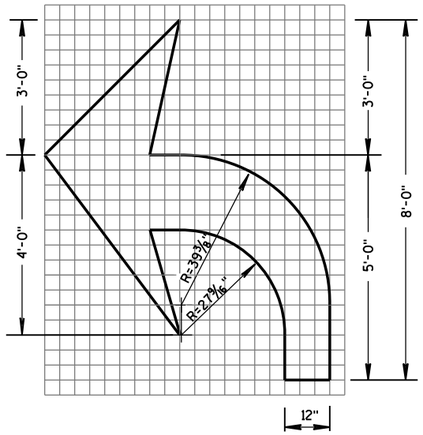
FHWA

6

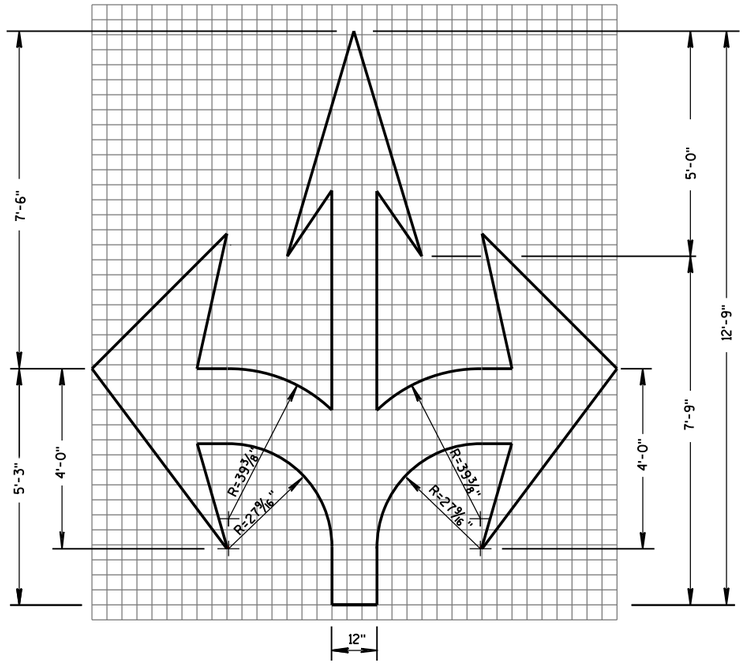
S.D.D. 15 C 5-5

GENERAL NOTES

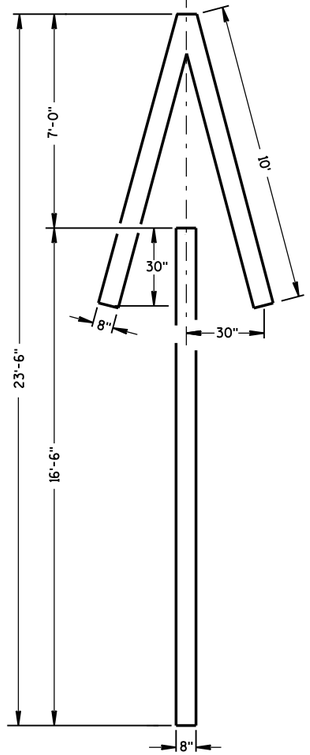
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



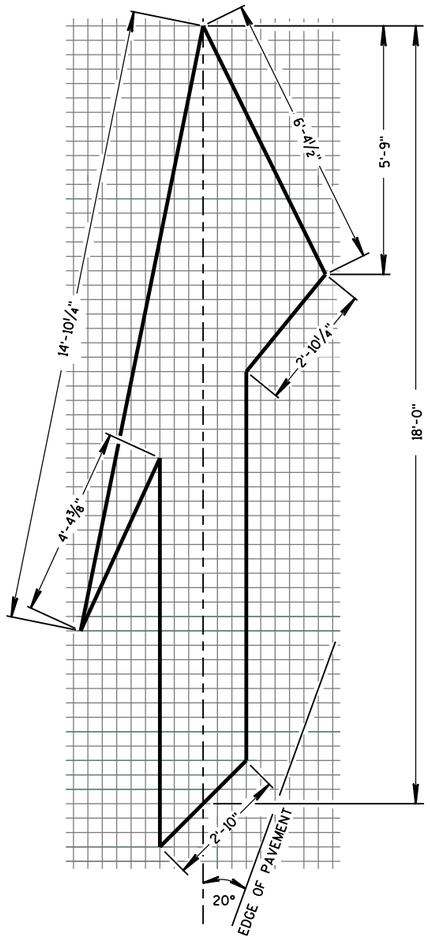
TYPE 2



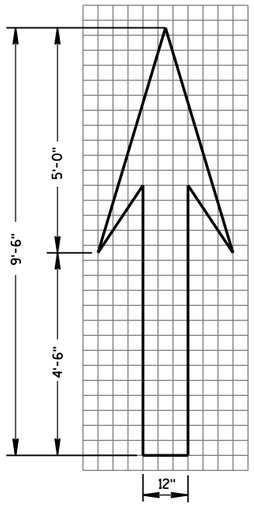
TYPE 6



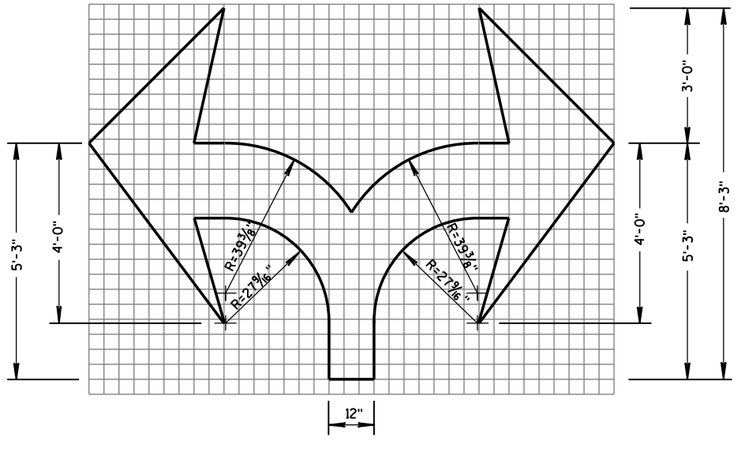
TYPE 4



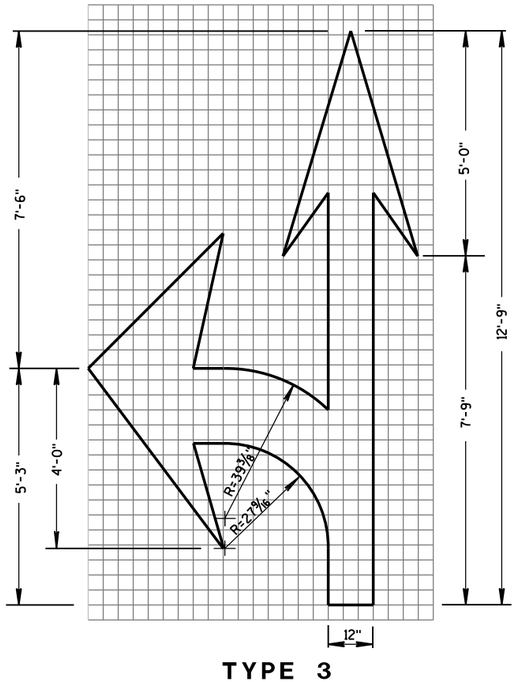
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

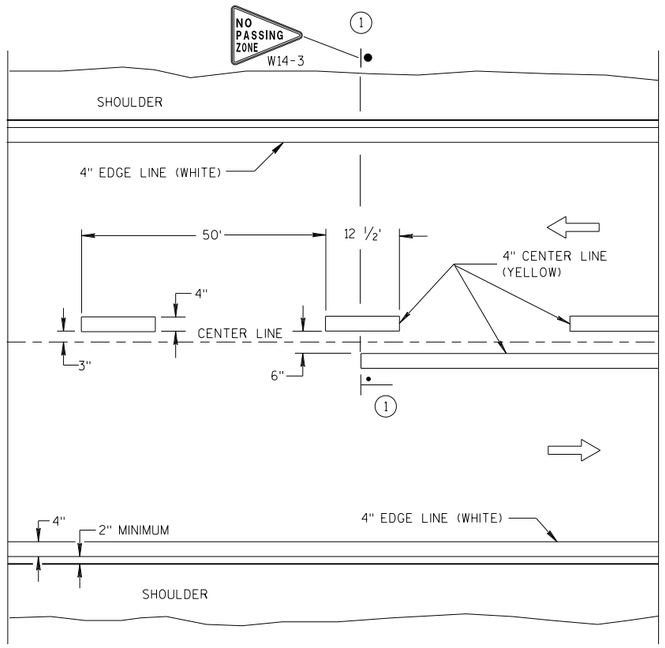
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

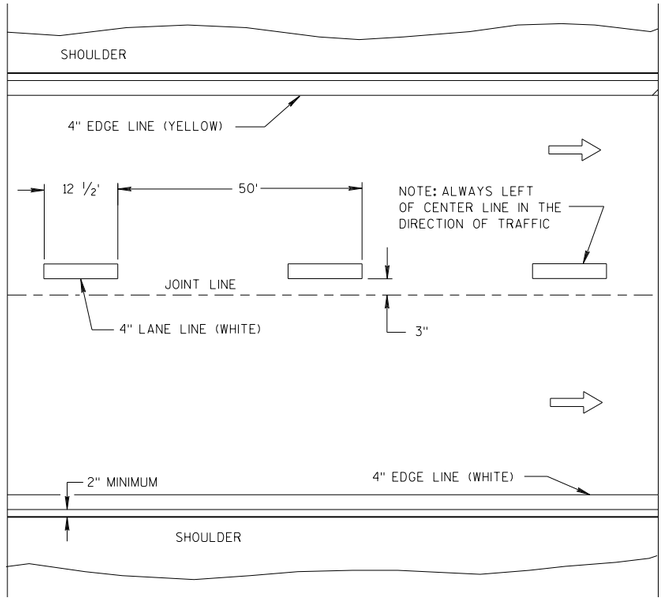
6

S.D.D. 15 C 7-14c

S.D.D. 15 C 7-14c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

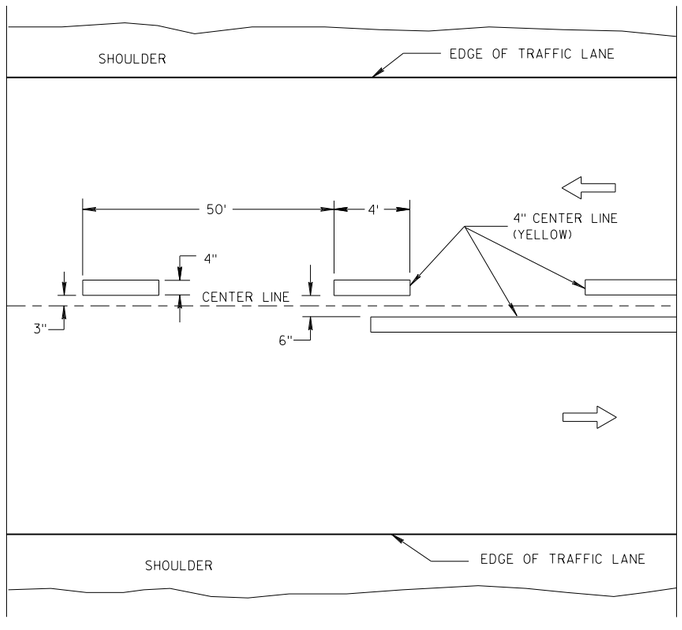
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

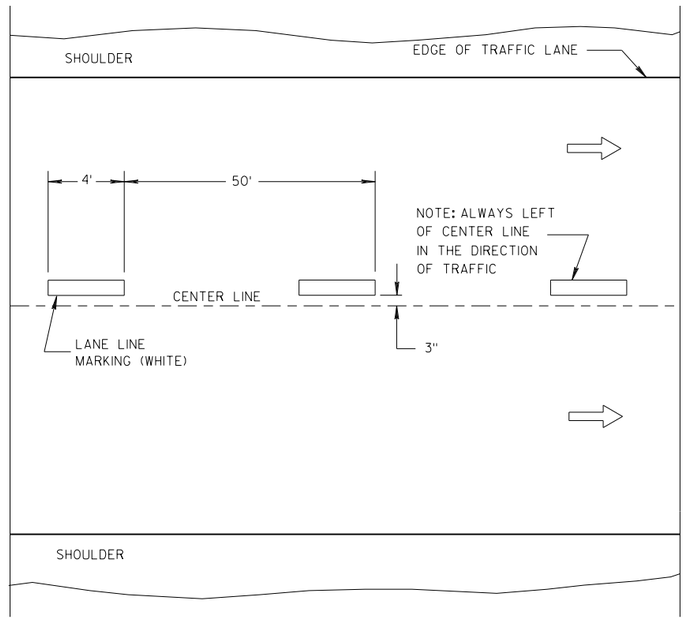
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

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6

S.D.D. 15 C 8-19a

6

S.D.D. 15 C 8-19a

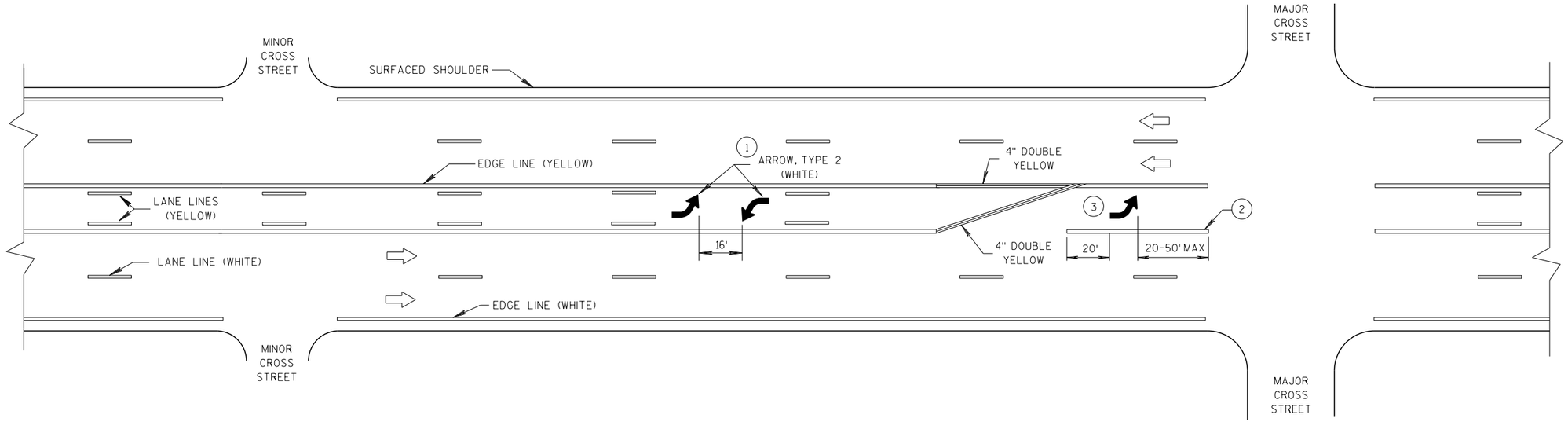
GENERAL NOTES

(1) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(2) 8" WHITE

(3) TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

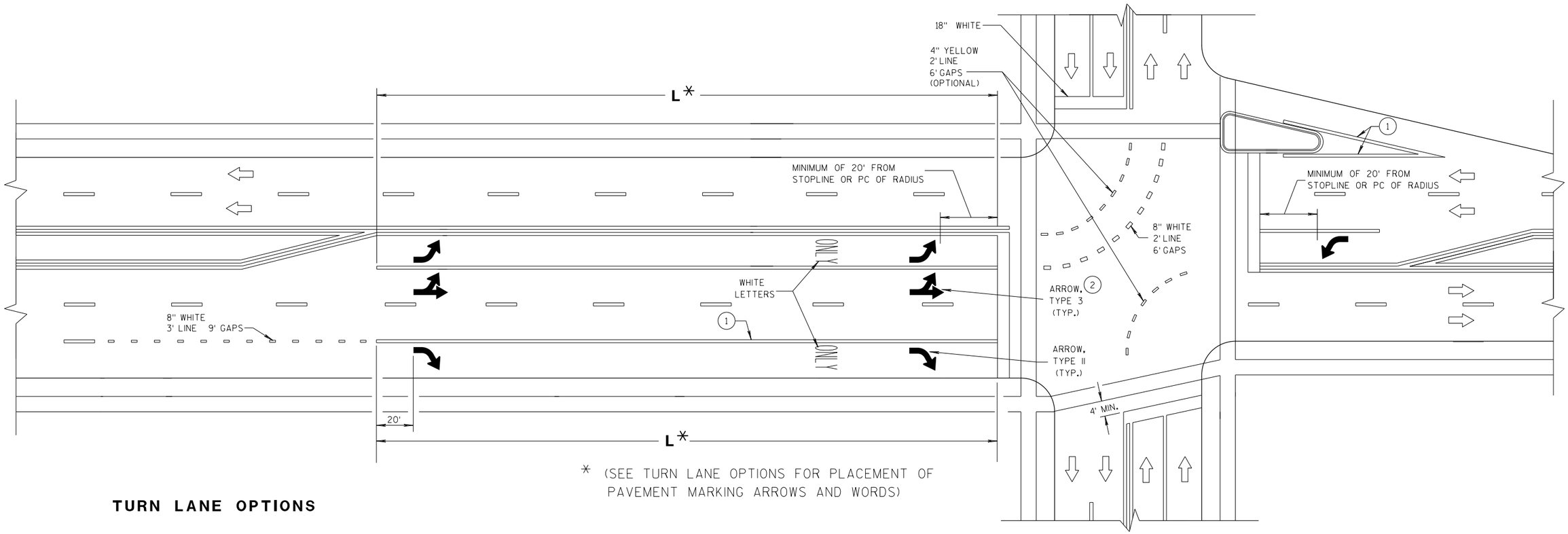
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-19b

6

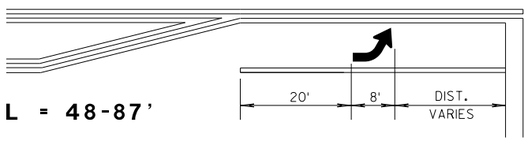
S.D.D. 15 C 8-19b



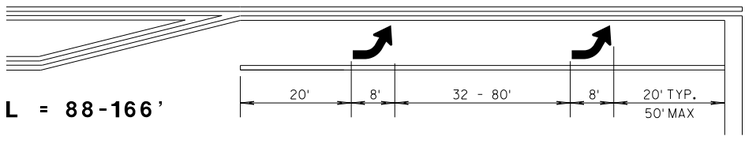
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

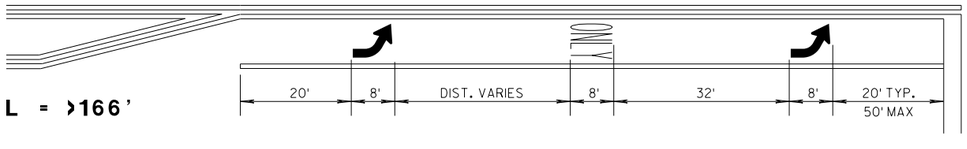
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

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

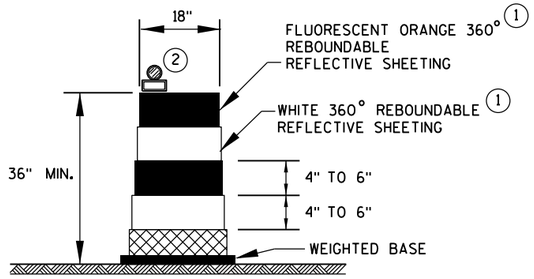
⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

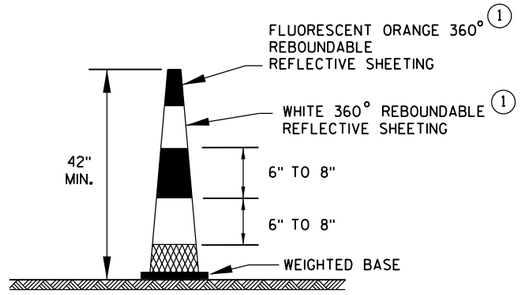
PAVEMENT MARKING (TURN LANES)

6

S.D.D. 15 C 8-19c



DRUM

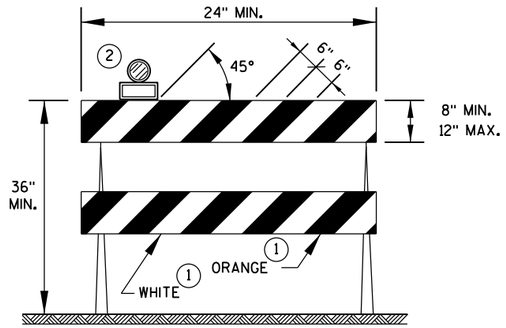


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

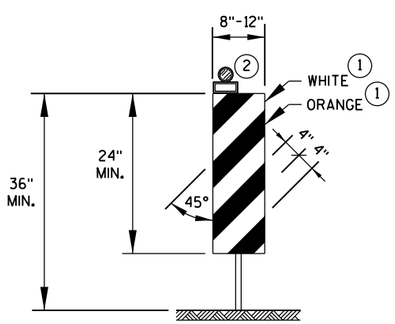
GENERAL NOTES

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.



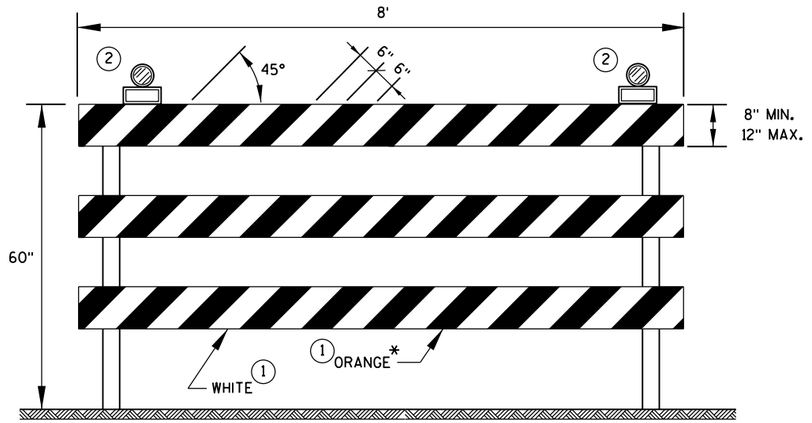
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 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

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June 2017 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

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S.D.D. 15 C 11-7b

6

S.D.D. 15 C 11-7b

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

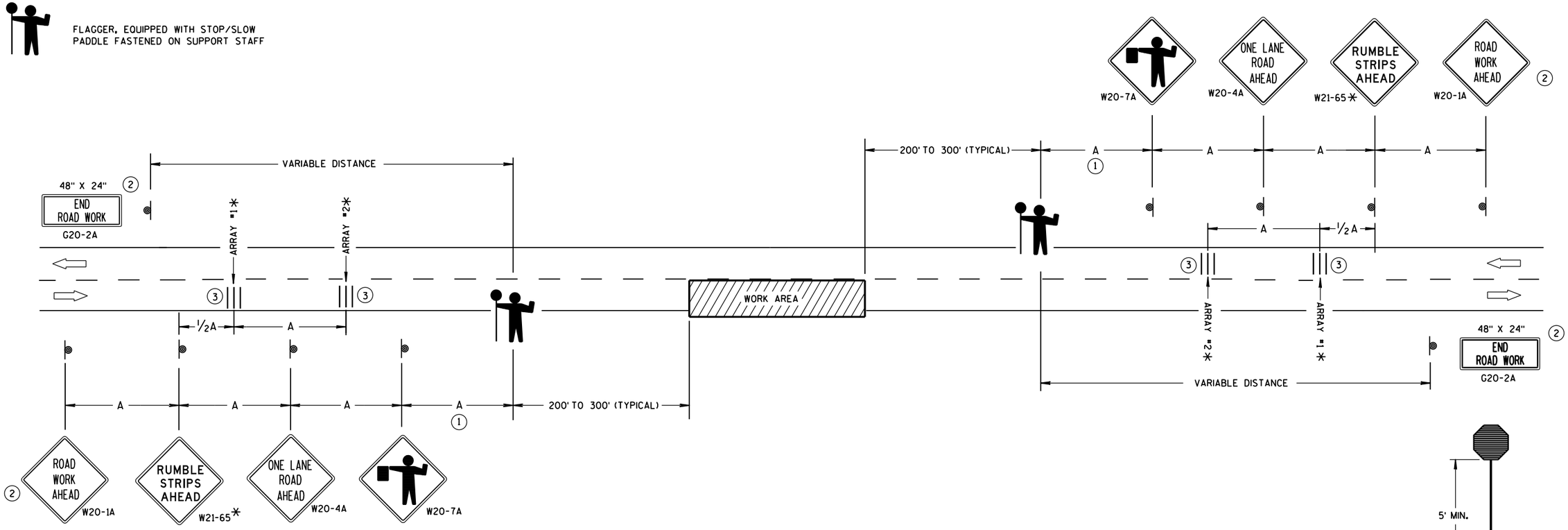
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

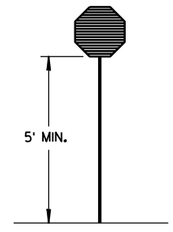


W03-4

USE OF THE "BE PREPARED TO STOP" 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



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.

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

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

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

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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 RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

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

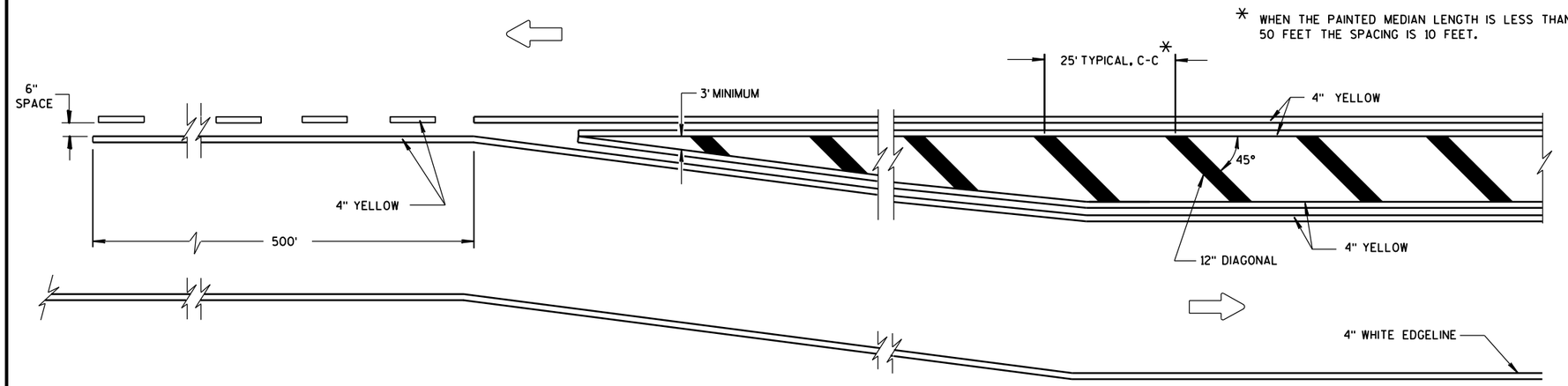
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heldtke
WORK ZONE ENG
FHWA

6

S.D.D. 15 C 12-6

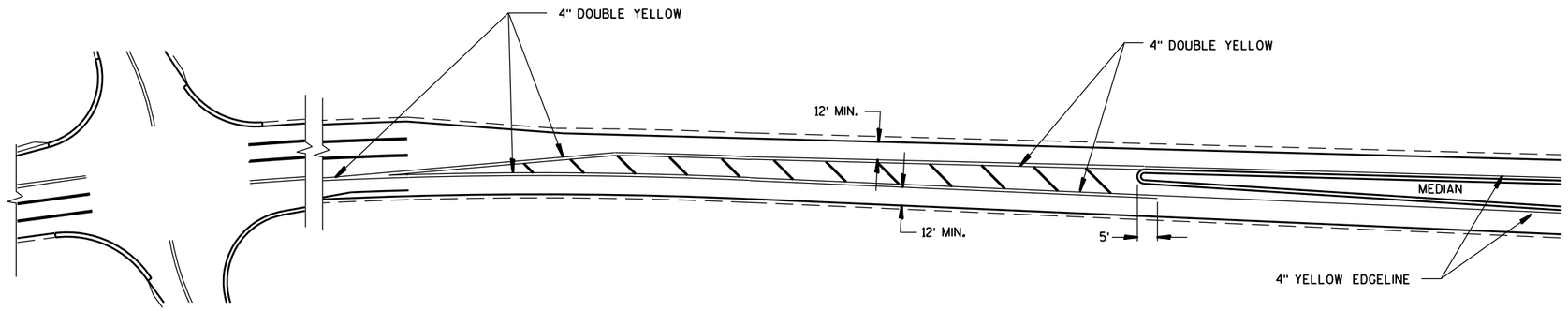


MEDIAN ISLAND DETAIL

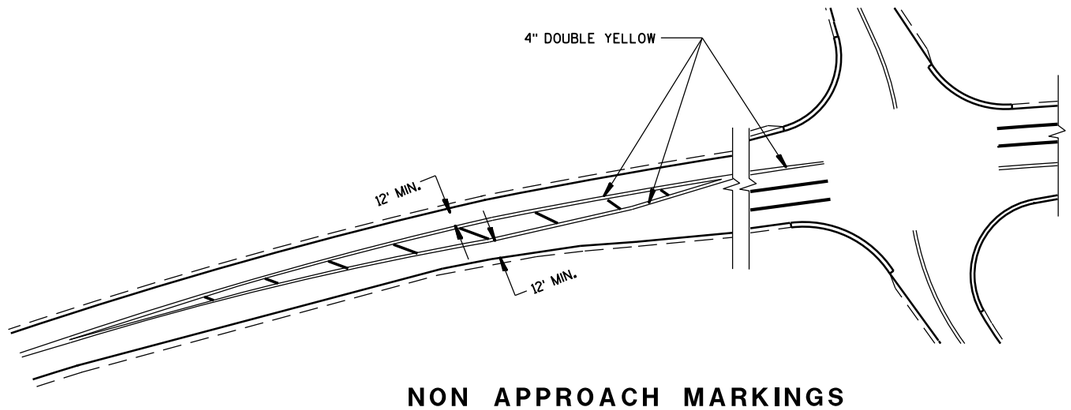
GENERAL NOTE

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

DIRECTION OF TRAVEL



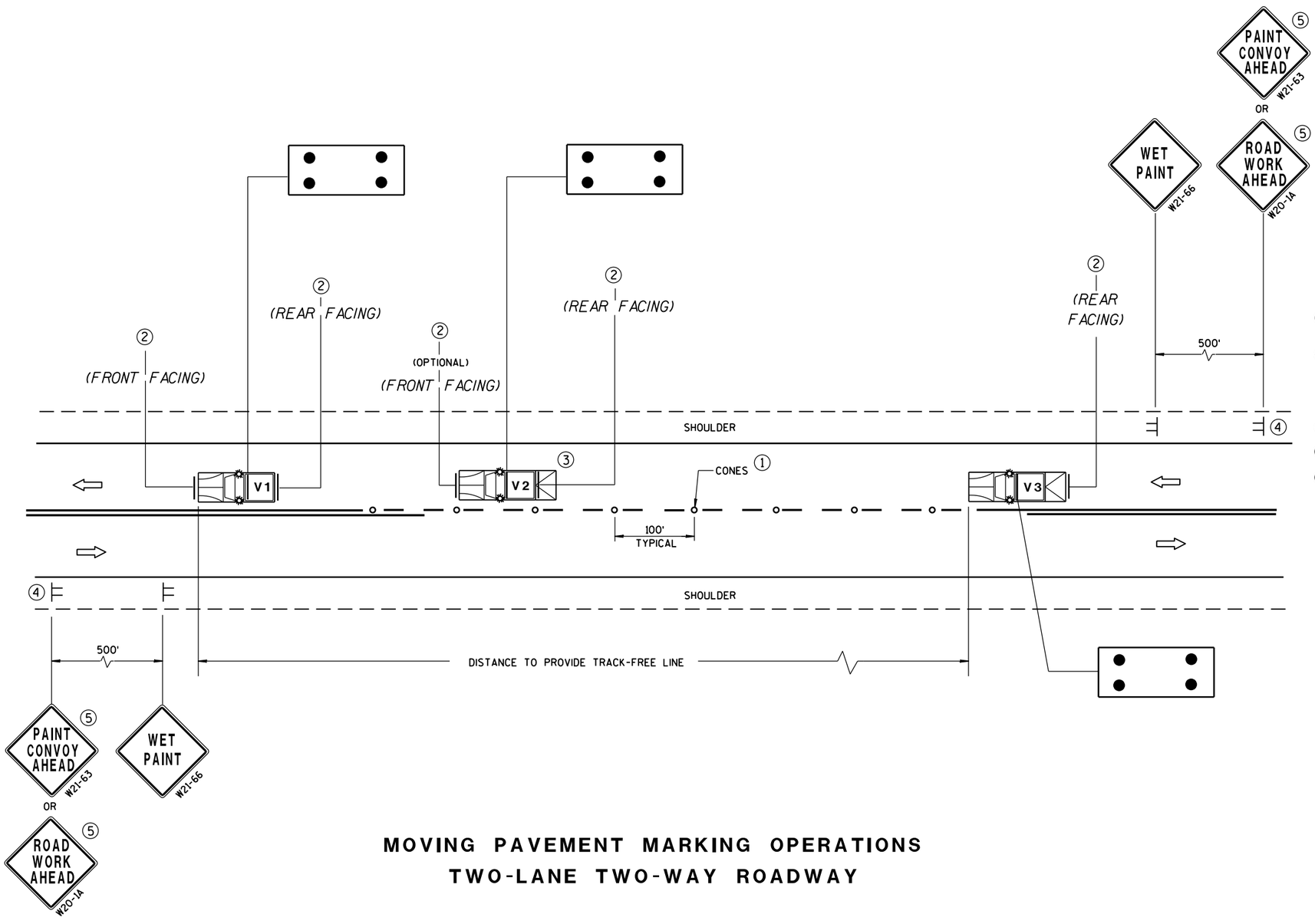
APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

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

6
S.D.D. 15 C 18-4



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

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.

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.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

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

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

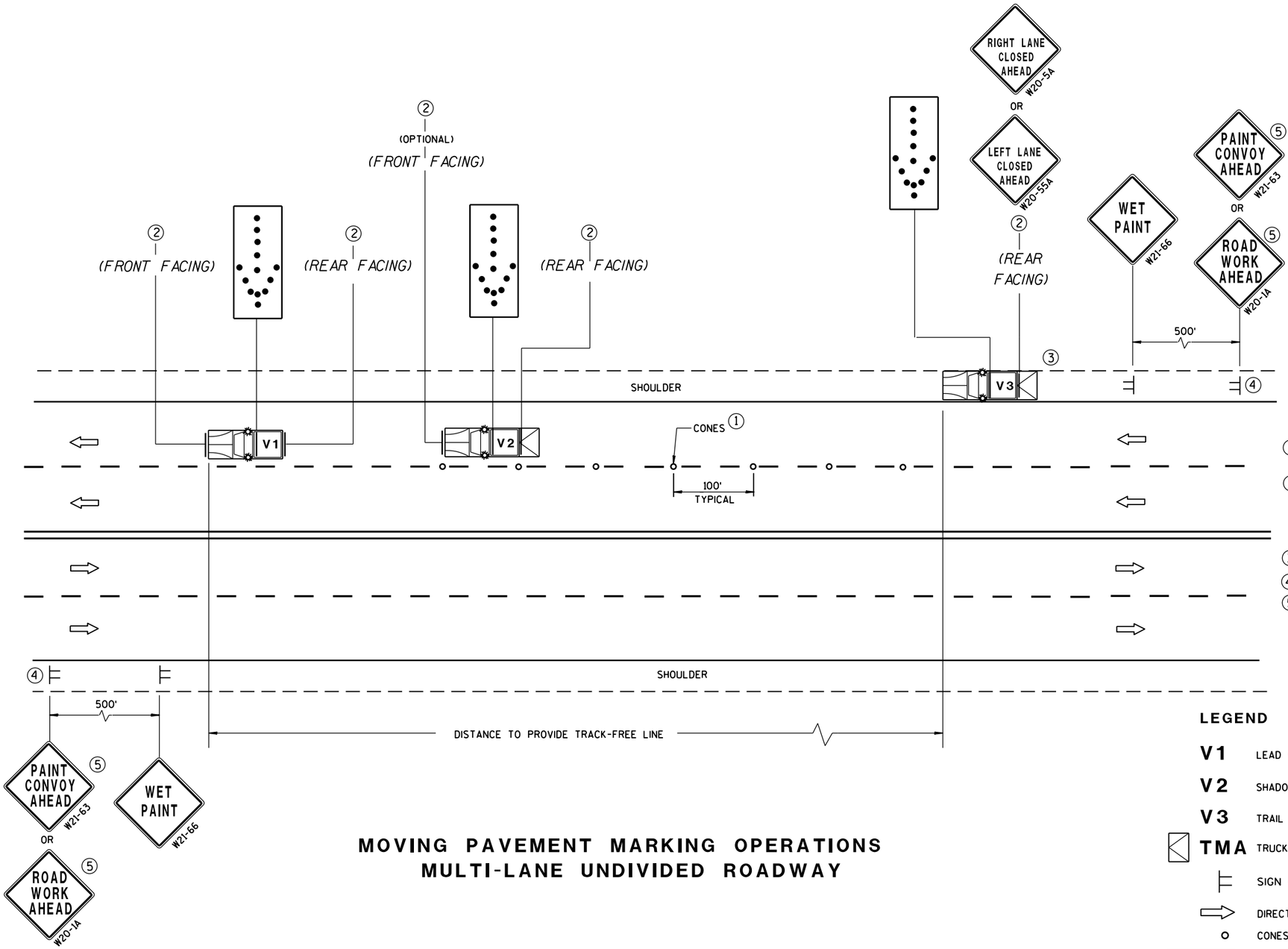
LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
⊨	SIGN ON TEMPORARY SUPPORT
⇨	DIRECTION OF TRAFFIC
o	CONES
⁘	FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	

6

S.D.D. 15 C 19-5a



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

GENERAL NOTES

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

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

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

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

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

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

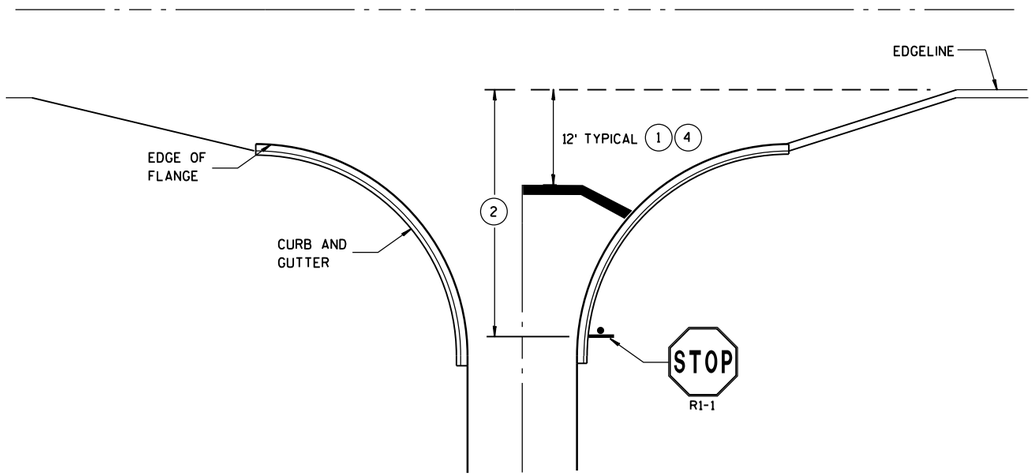
STATE OF WISCONSIN
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APPROVED
Sept., 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGIN

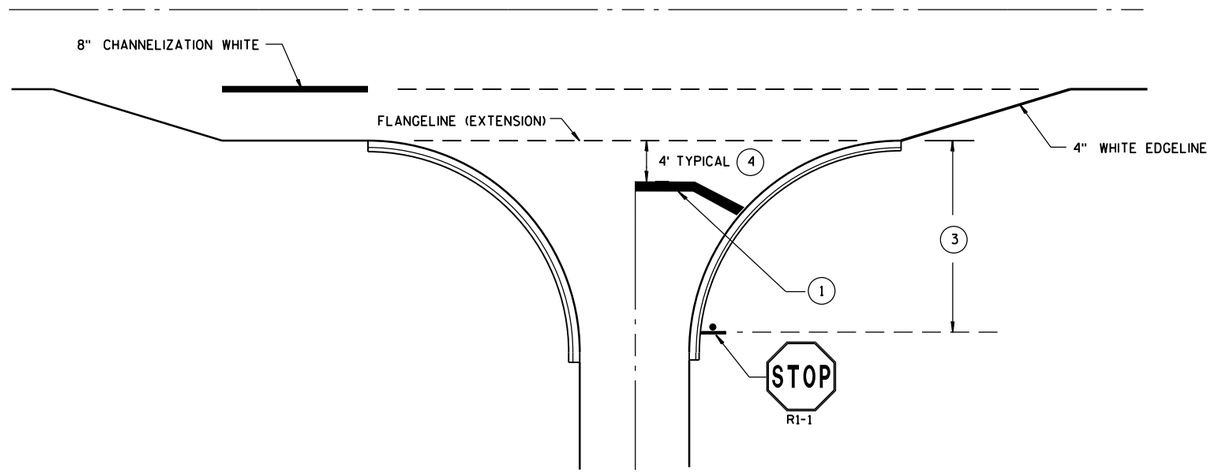
FHWA

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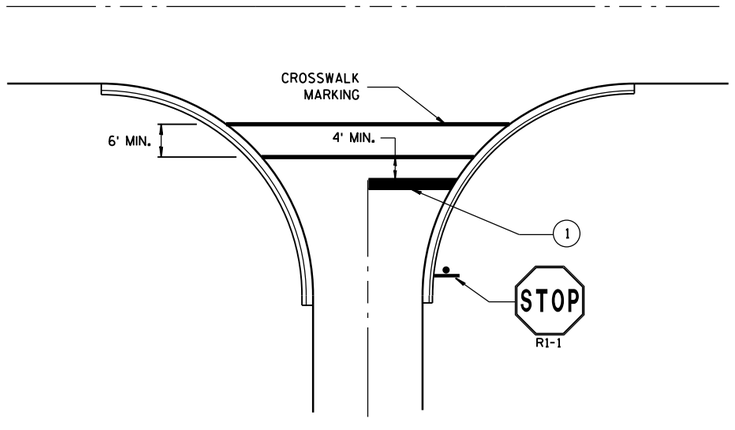
S.D.D. 15 C 19-5b



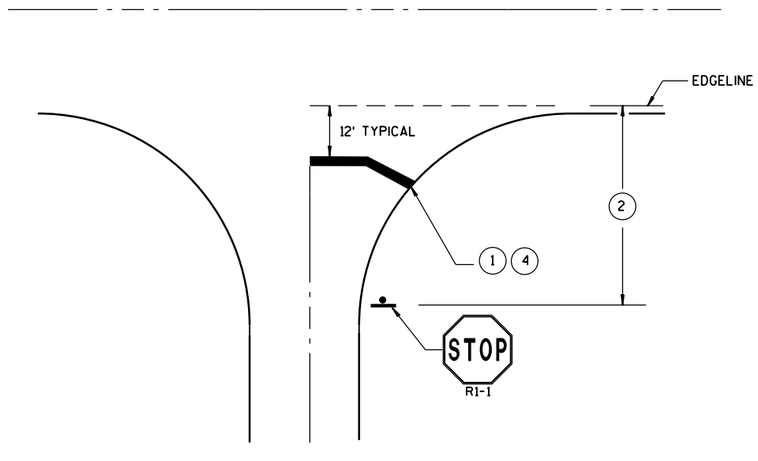
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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 PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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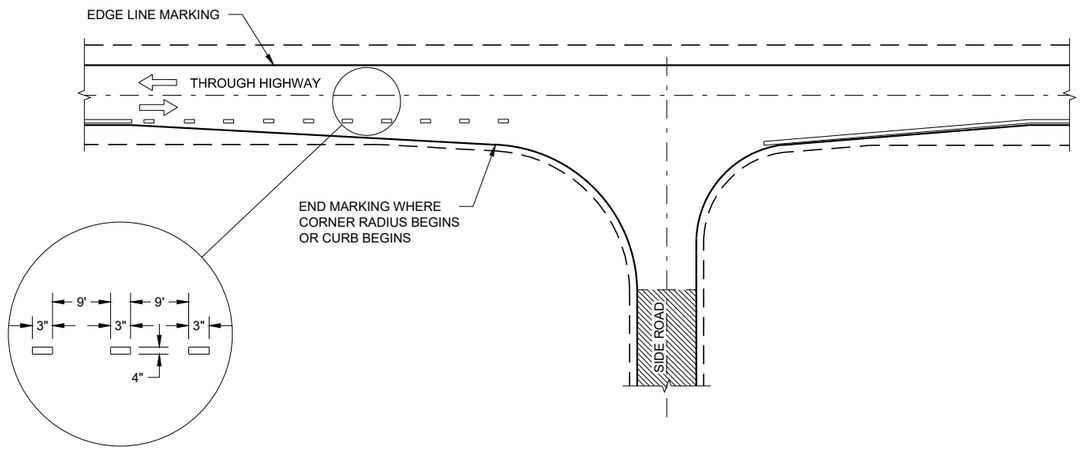
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

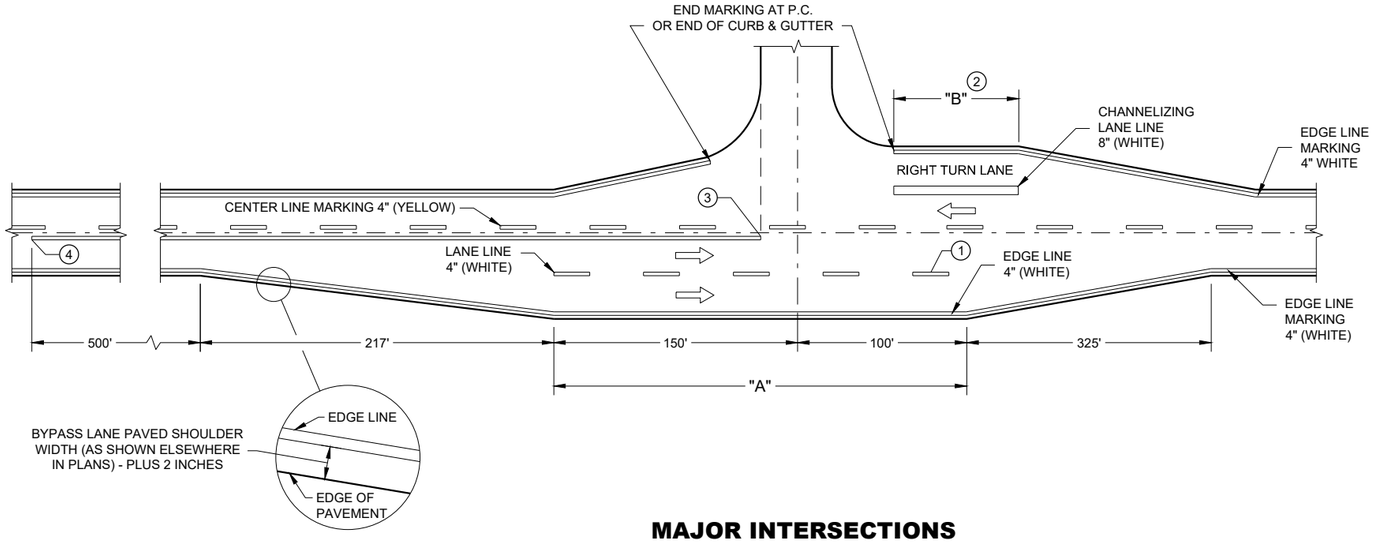
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S.D.D. 15 C 33-3



MINOR INTERSECTION



MAJOR INTERSECTIONS

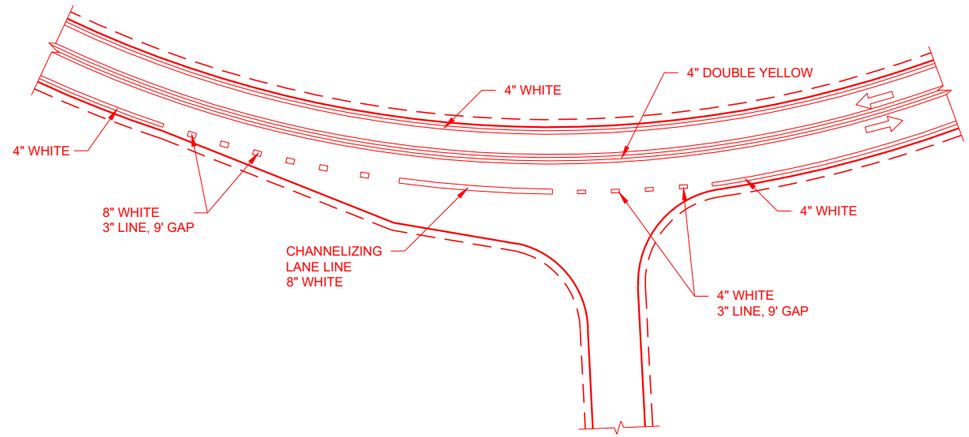
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

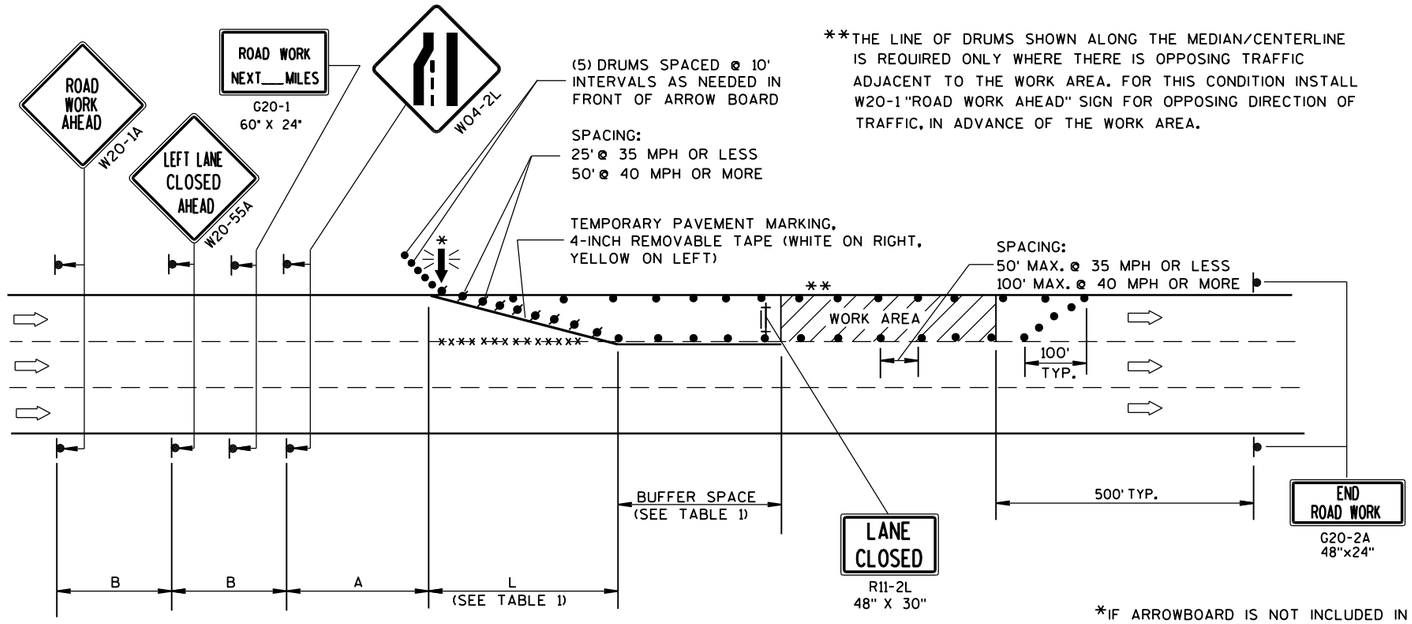
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15C35 - 03a

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SDD 15C35 - 03a



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

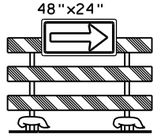


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

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

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

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

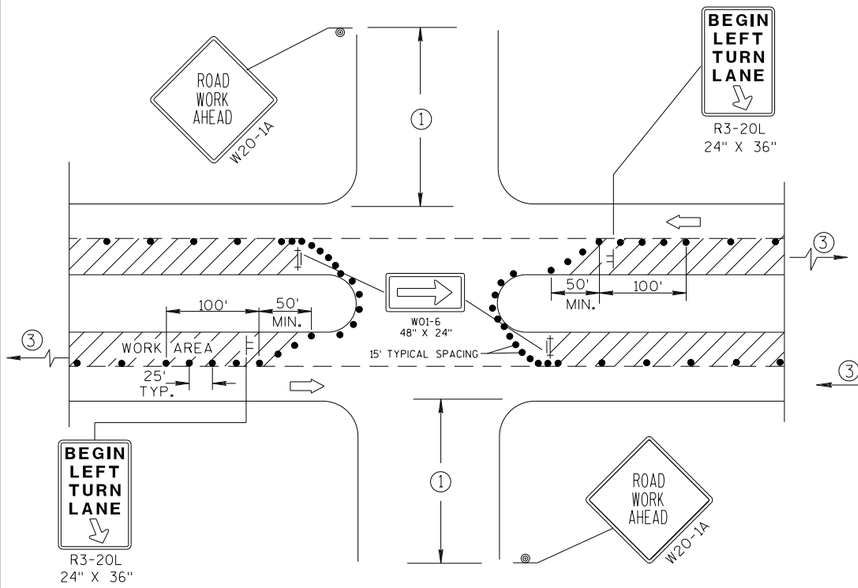
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

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S.D.D. 15 D 20-4

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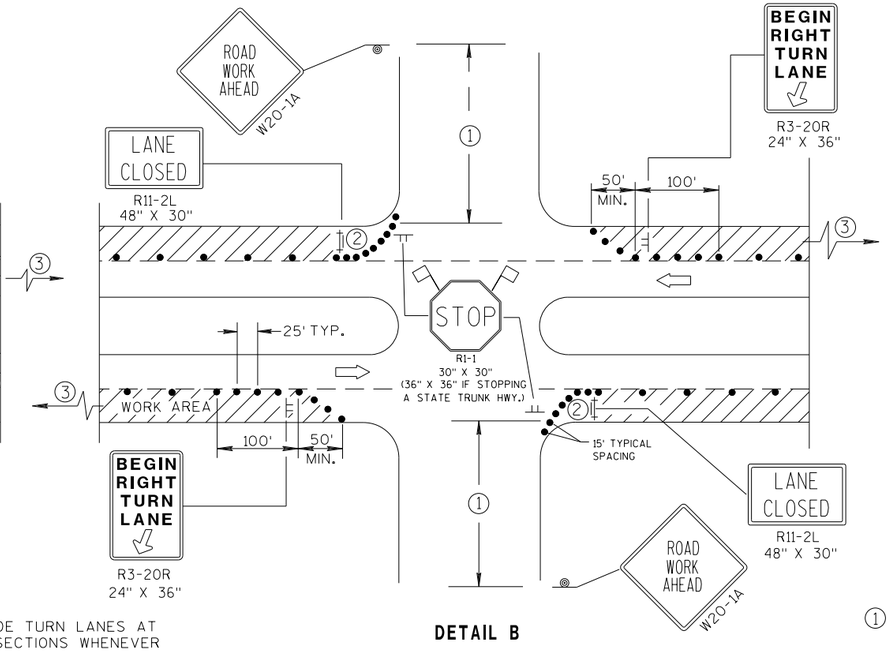
S.D.D. 15 D 20-4



DETAIL A

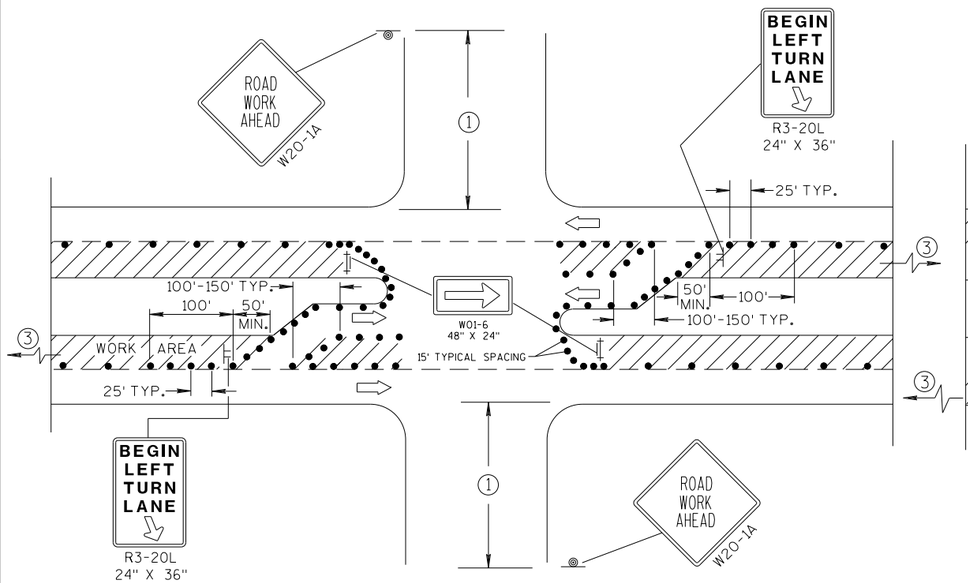
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



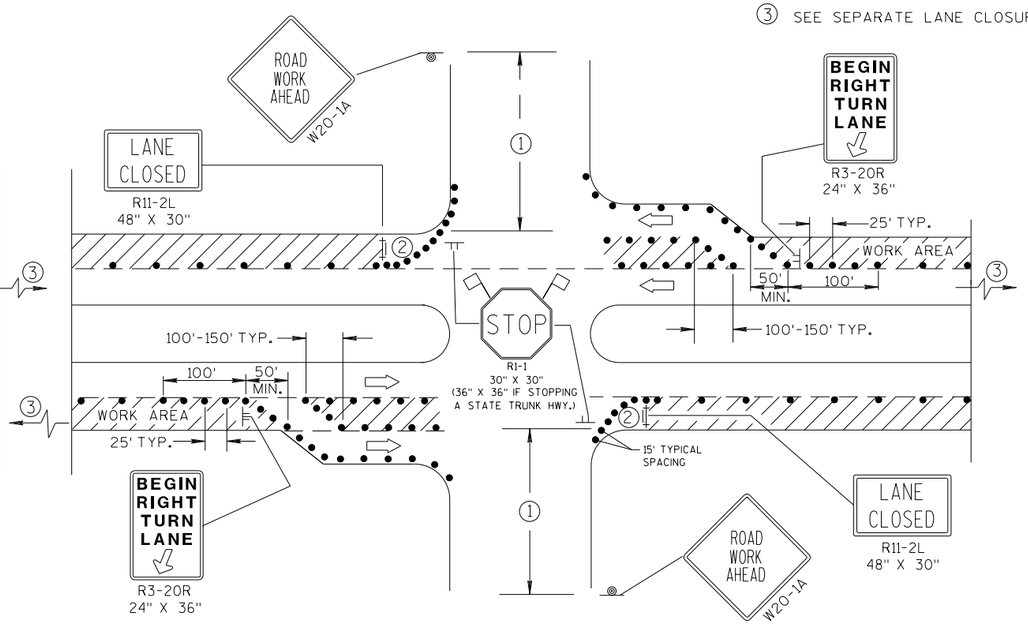
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

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



DETAIL D

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

6

S.D.D. 15 D 21-6

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

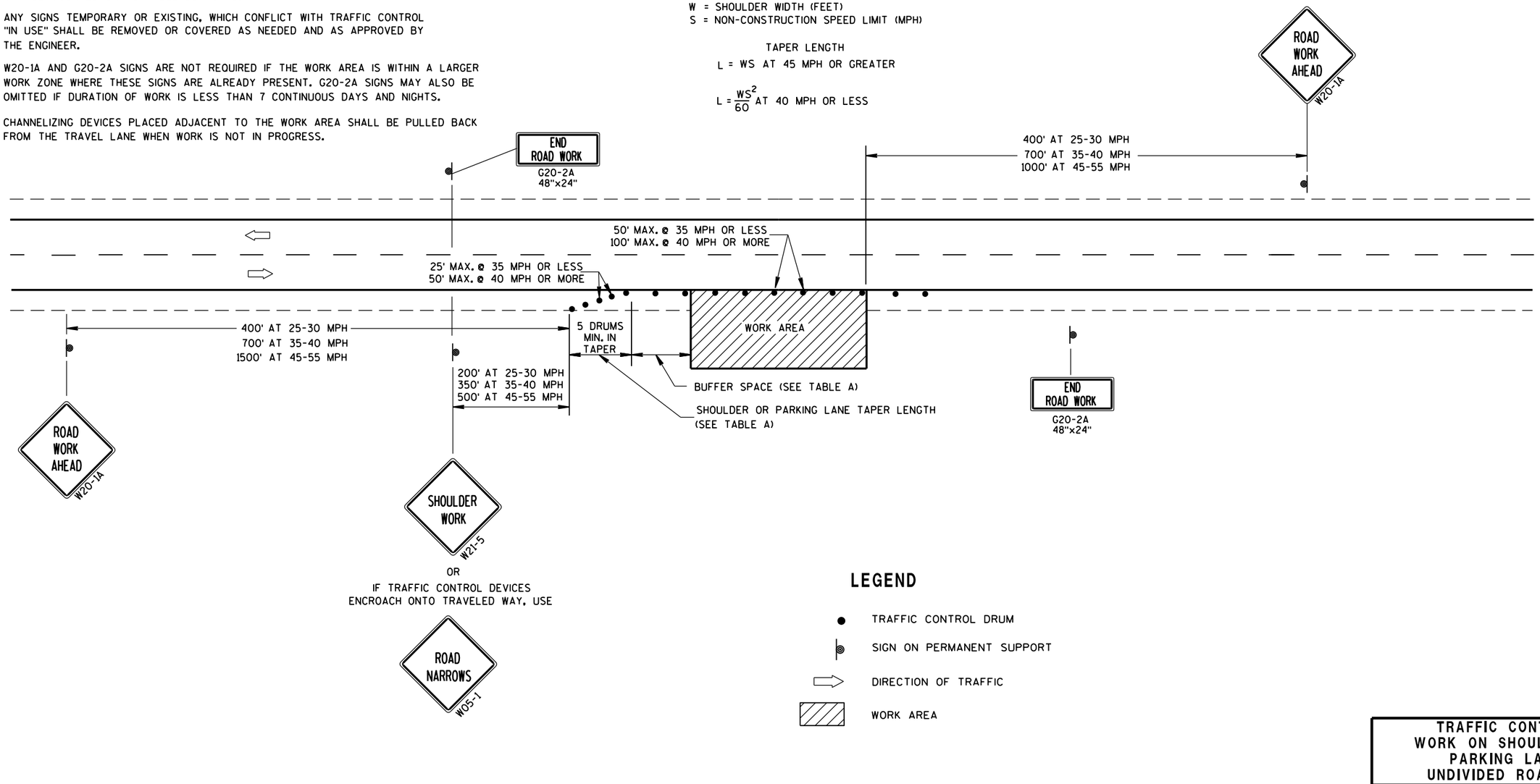
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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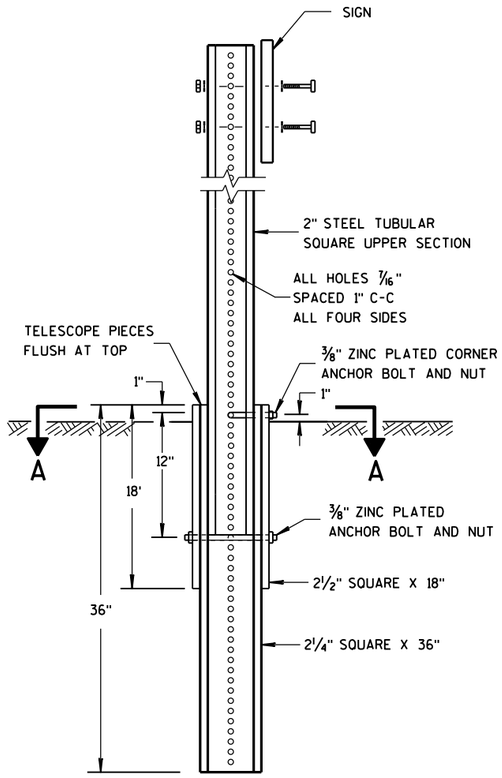
July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI FIC

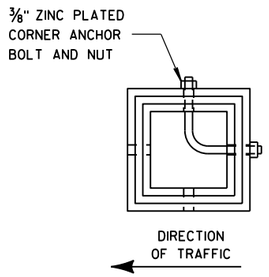
FHWA

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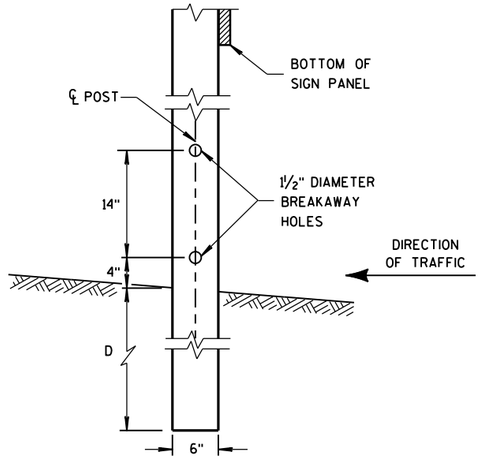
S.D.D. 15 D 28-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



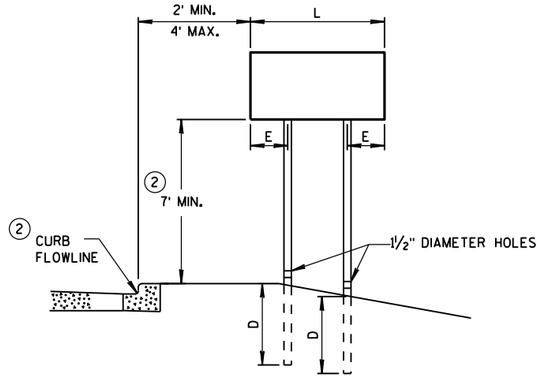
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

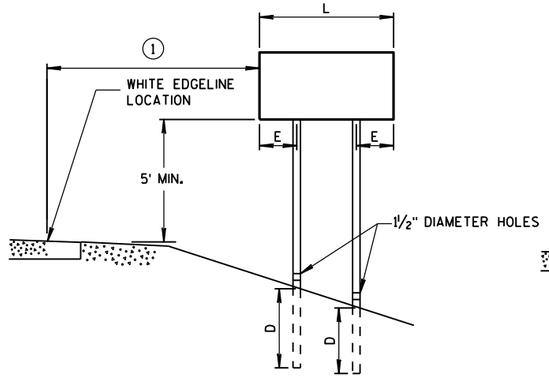
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

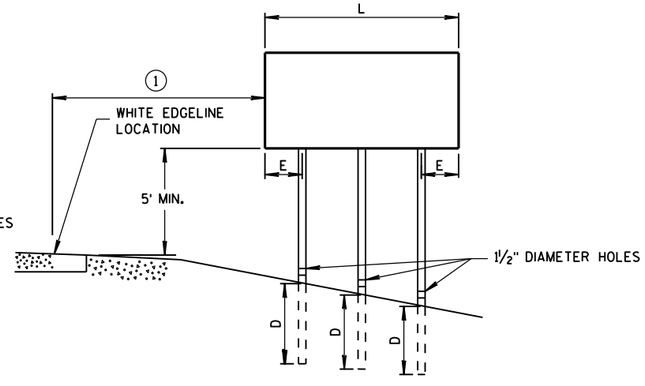
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

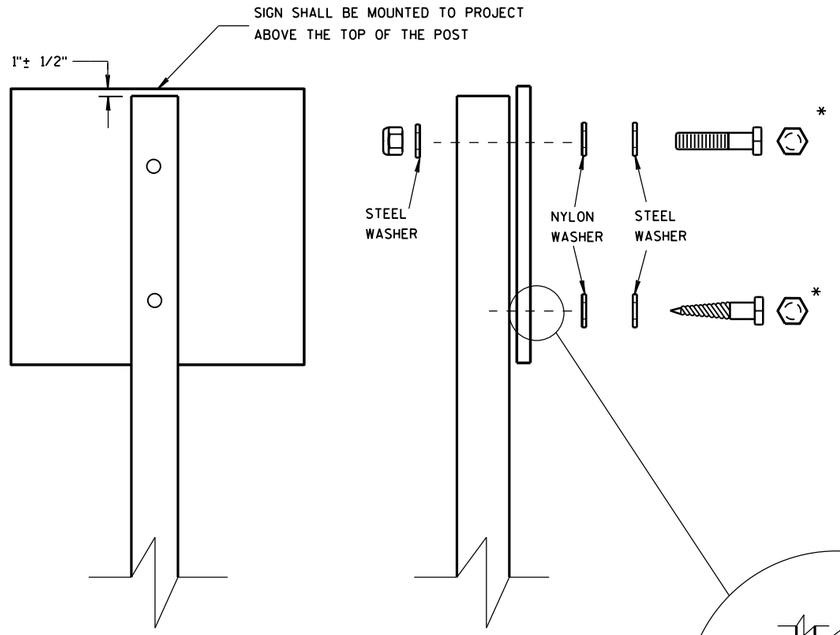
SEE NOTE (3)

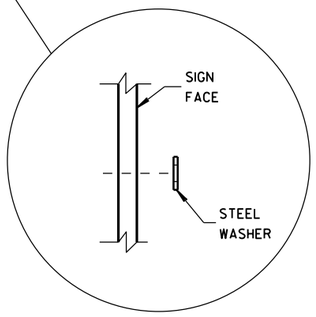
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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





WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* 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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S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

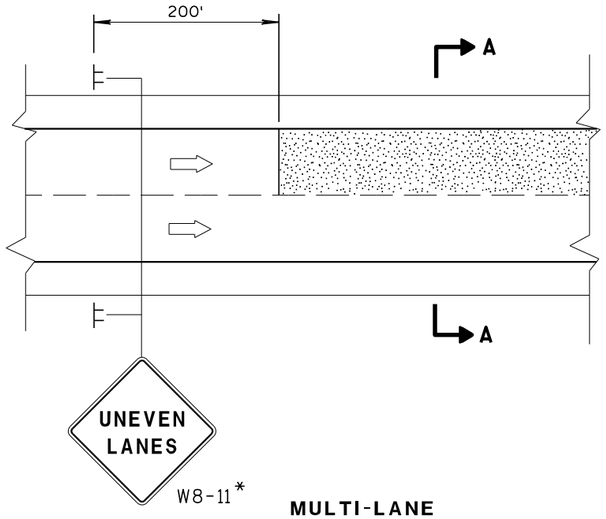
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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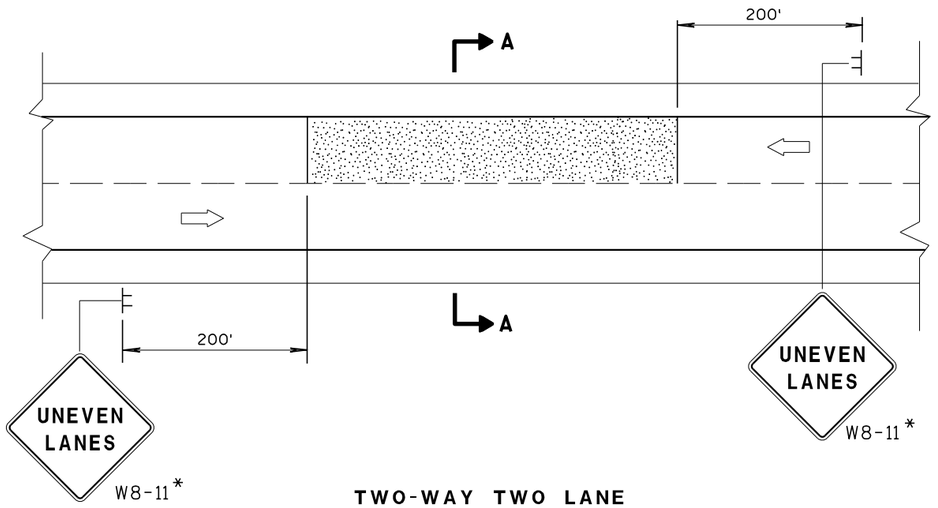
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

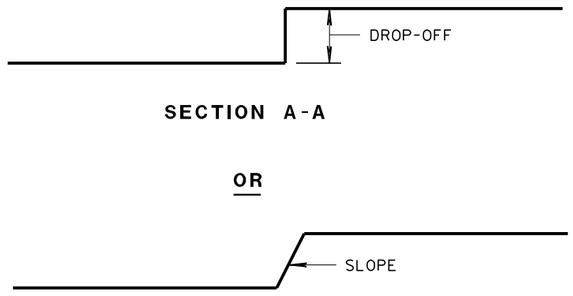
FHWA



MULTI-LANE



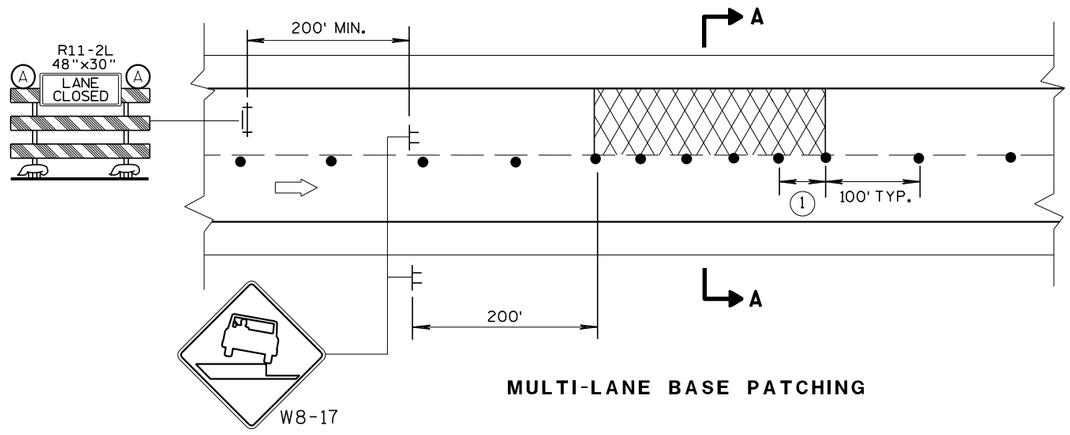
TWO-WAY TWO LANE



SECTION A-A

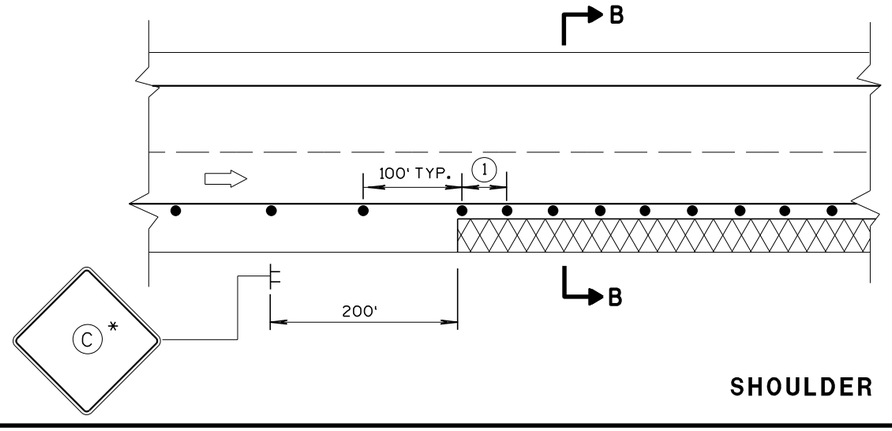
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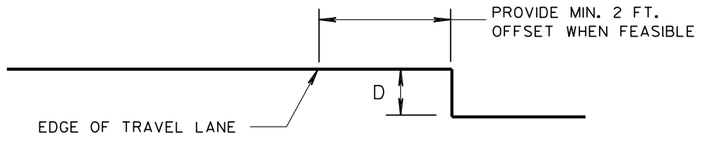
SECTION A-A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS





SECTION B-B

SHOULDER DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

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

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

LEGEND

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

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 H — WORK ZONE EN
FHWA

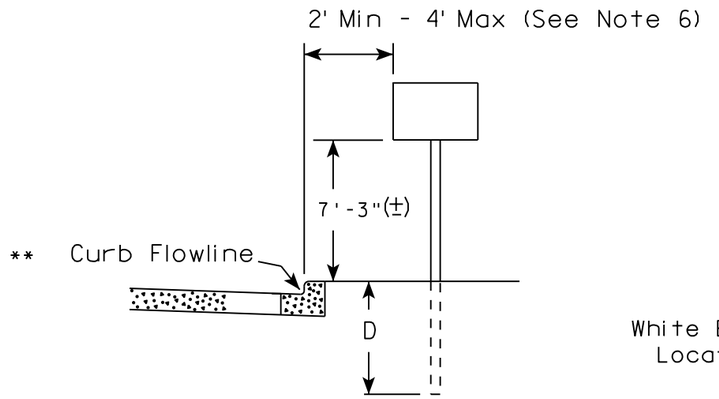
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S.D.D. 15 D 39-2

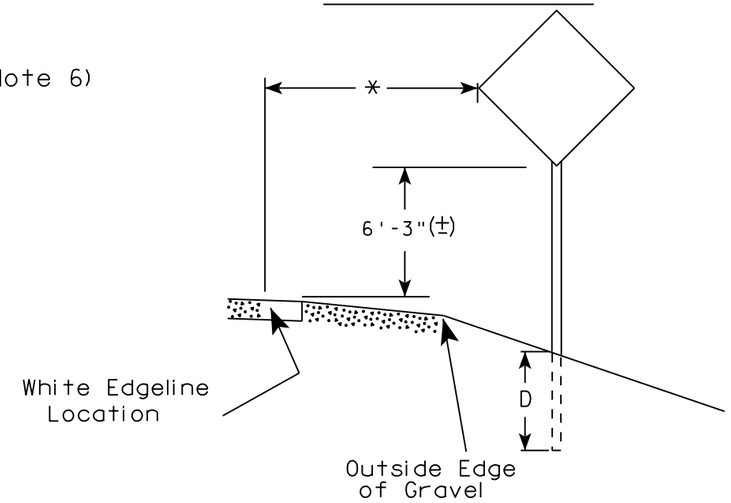
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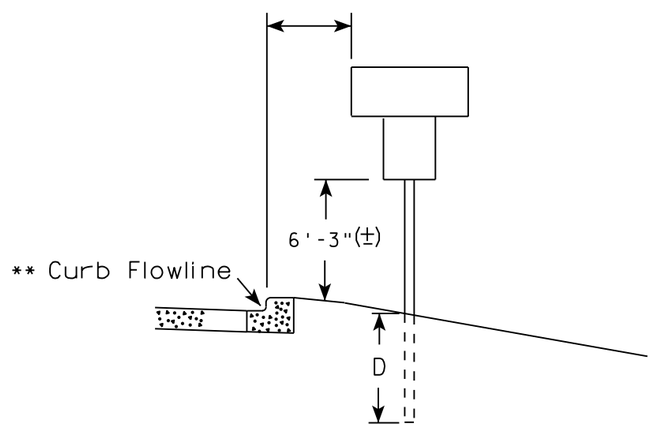
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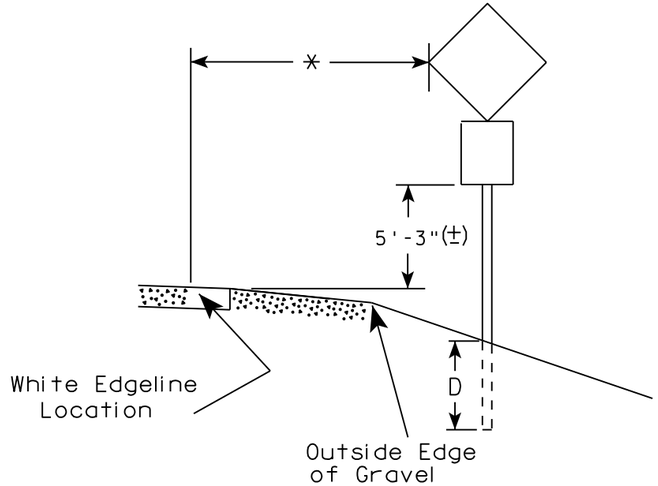
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

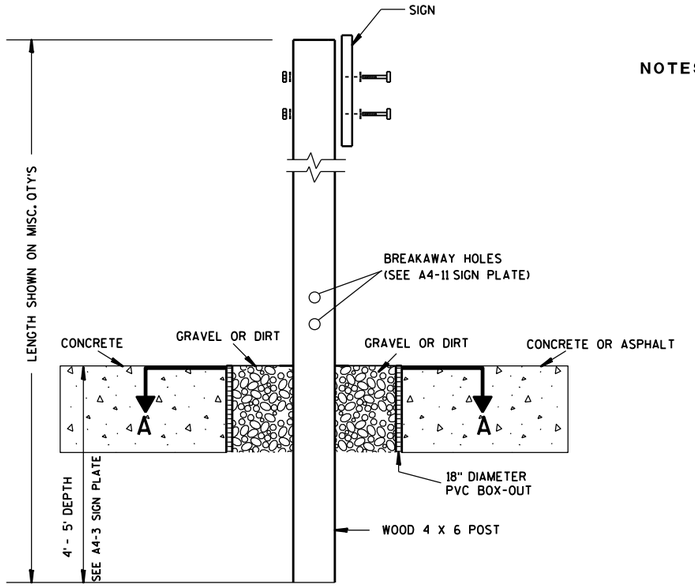
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

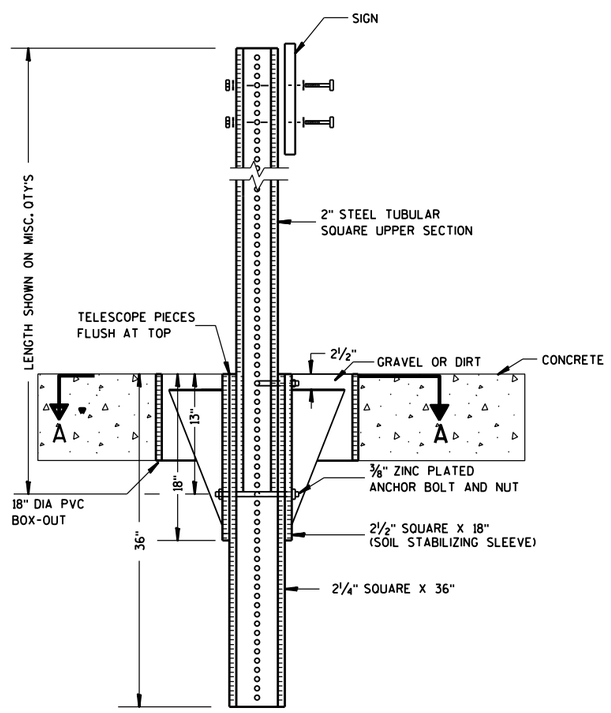
DATE 8/21/17 PLATE NO. A4-3.21



ELEVATION VIEW

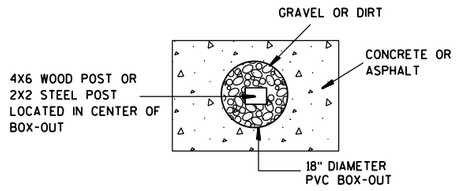
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

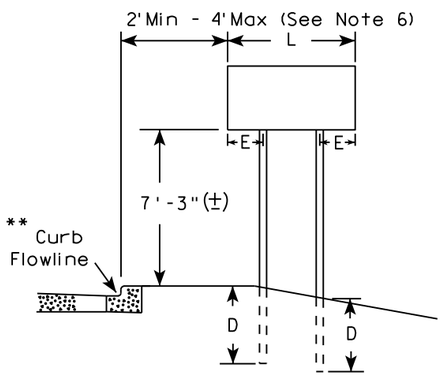
APPROVED Matthew R Rauch
for State Traffic Engineer

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

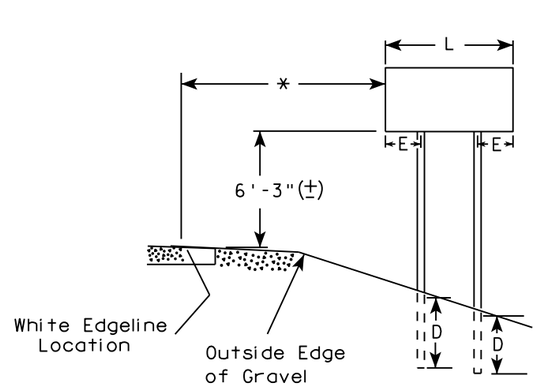
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

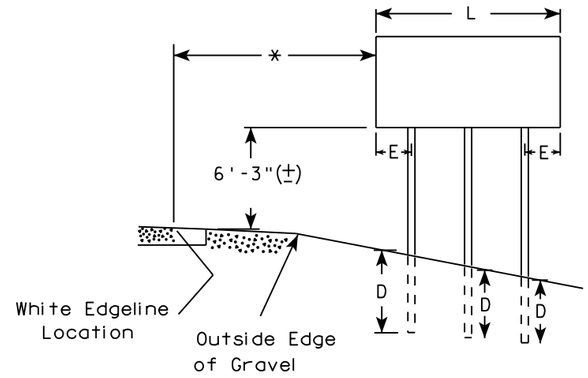
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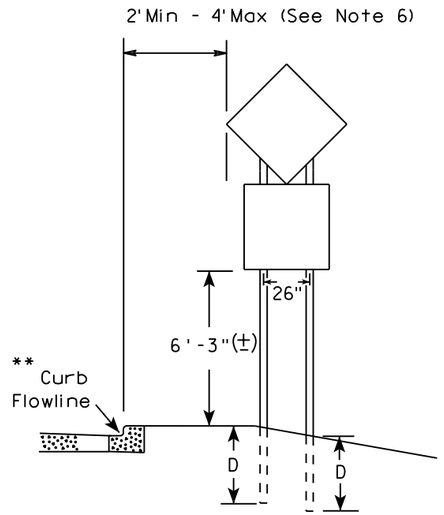
URBAN AREA



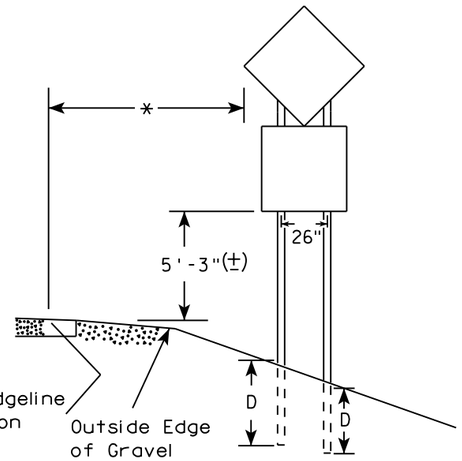
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

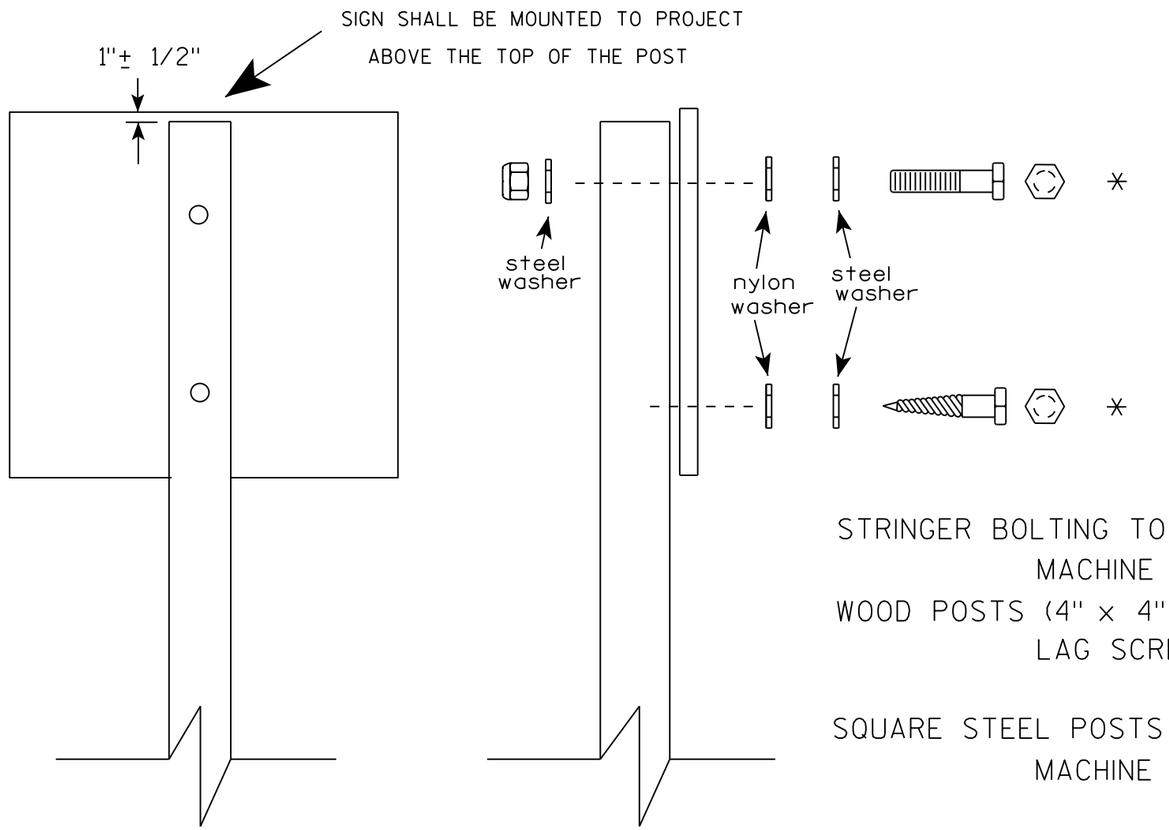
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 111	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 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

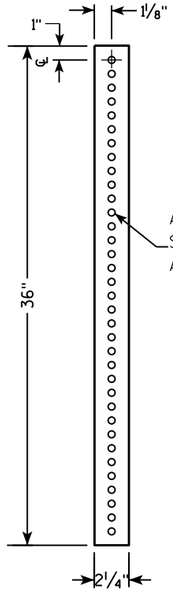
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

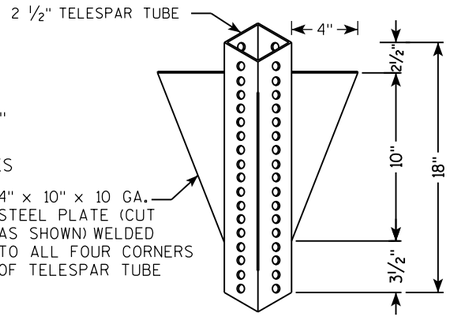
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

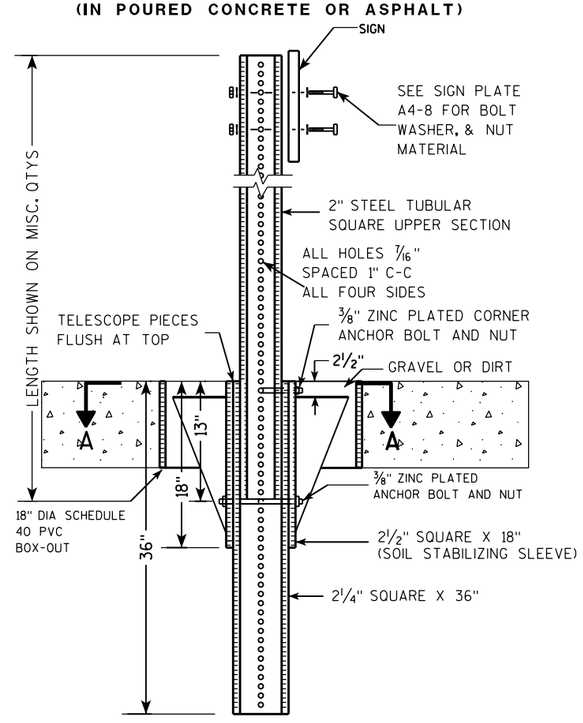
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



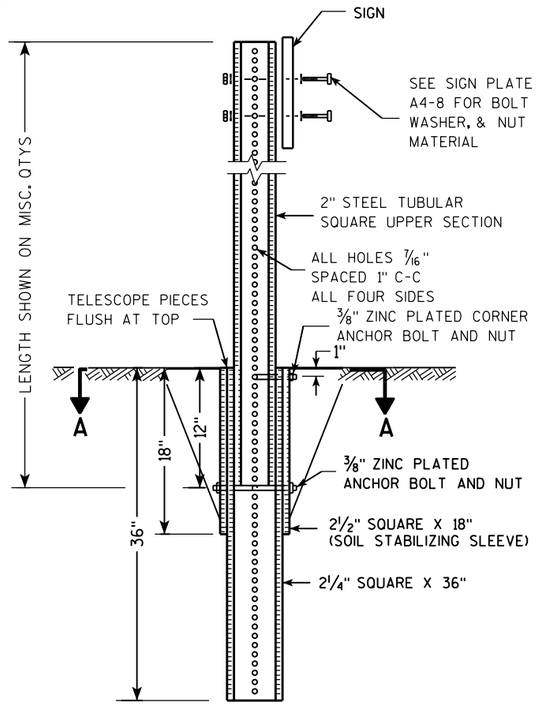
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

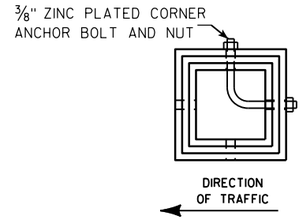


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

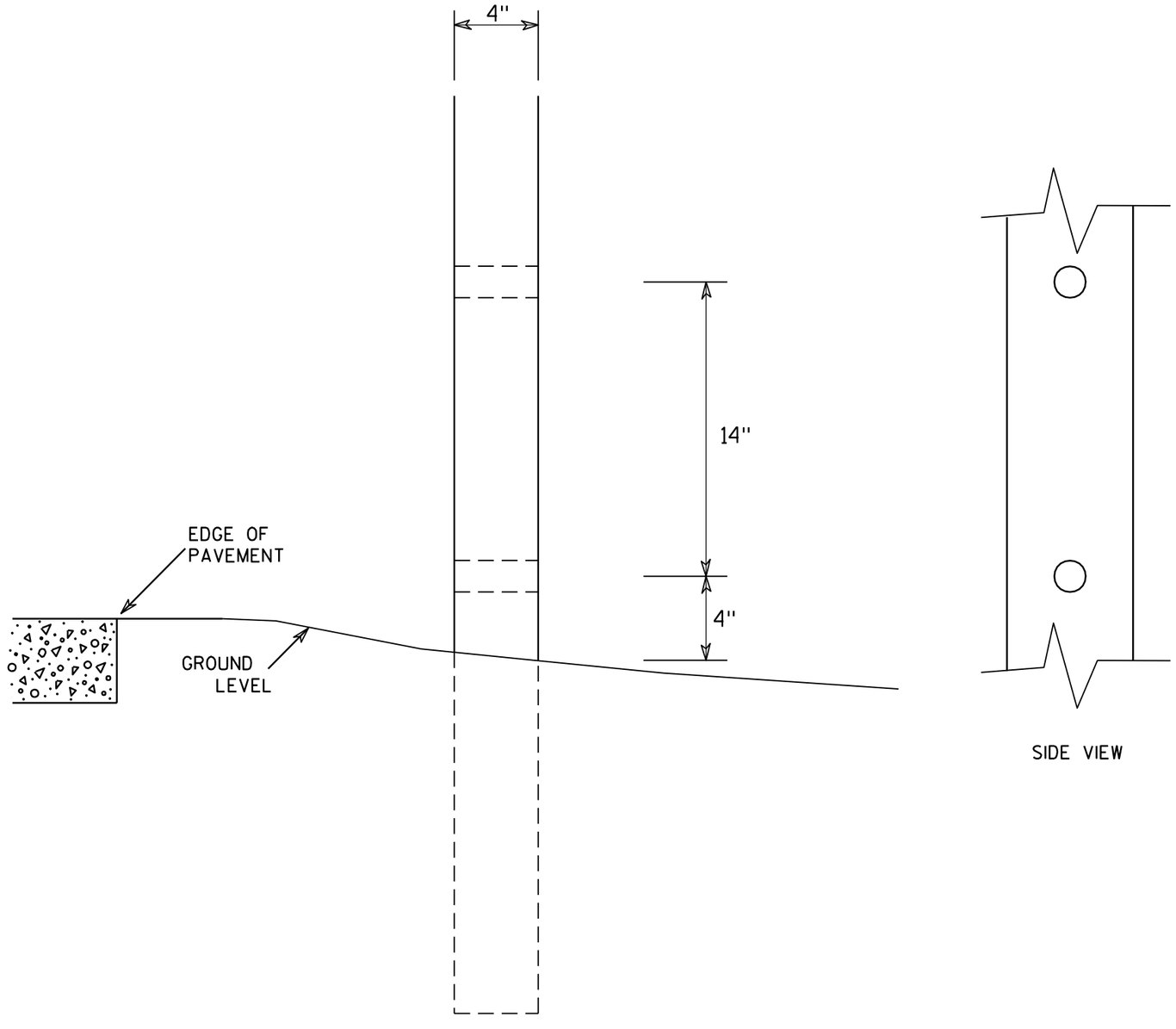
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

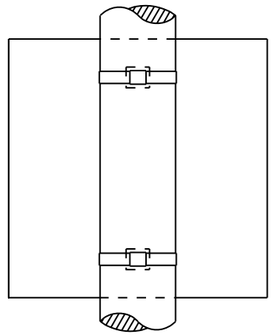
APPROVED Chester J Spang for State Traffic Engineer

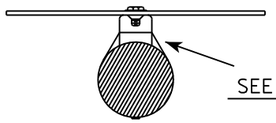
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E

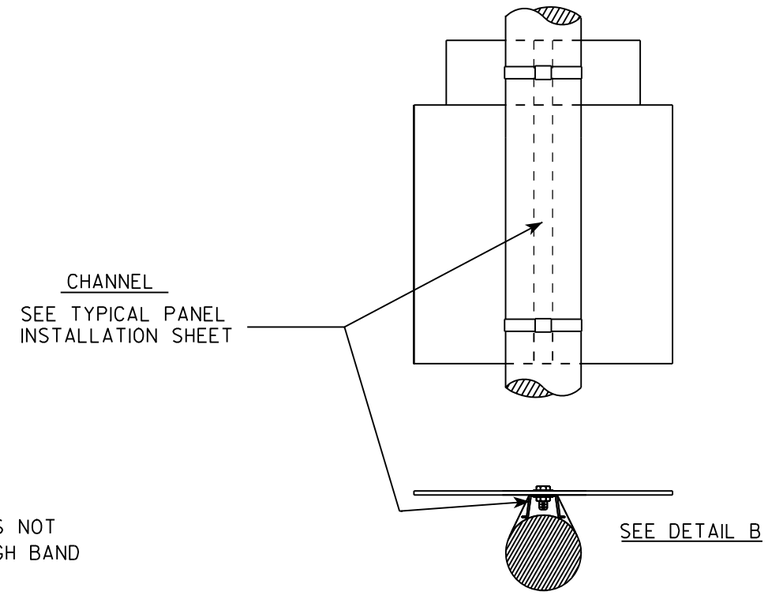
BANDING

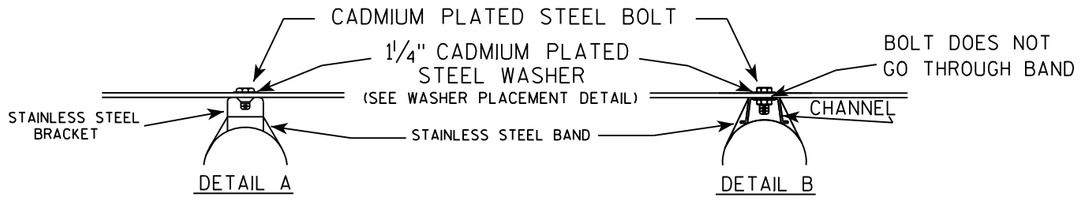
SINGLE SIGN



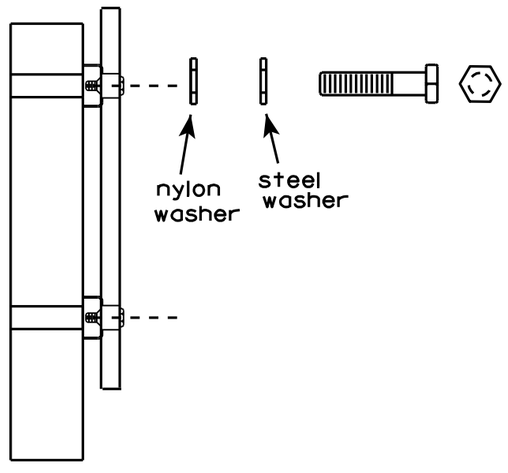


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

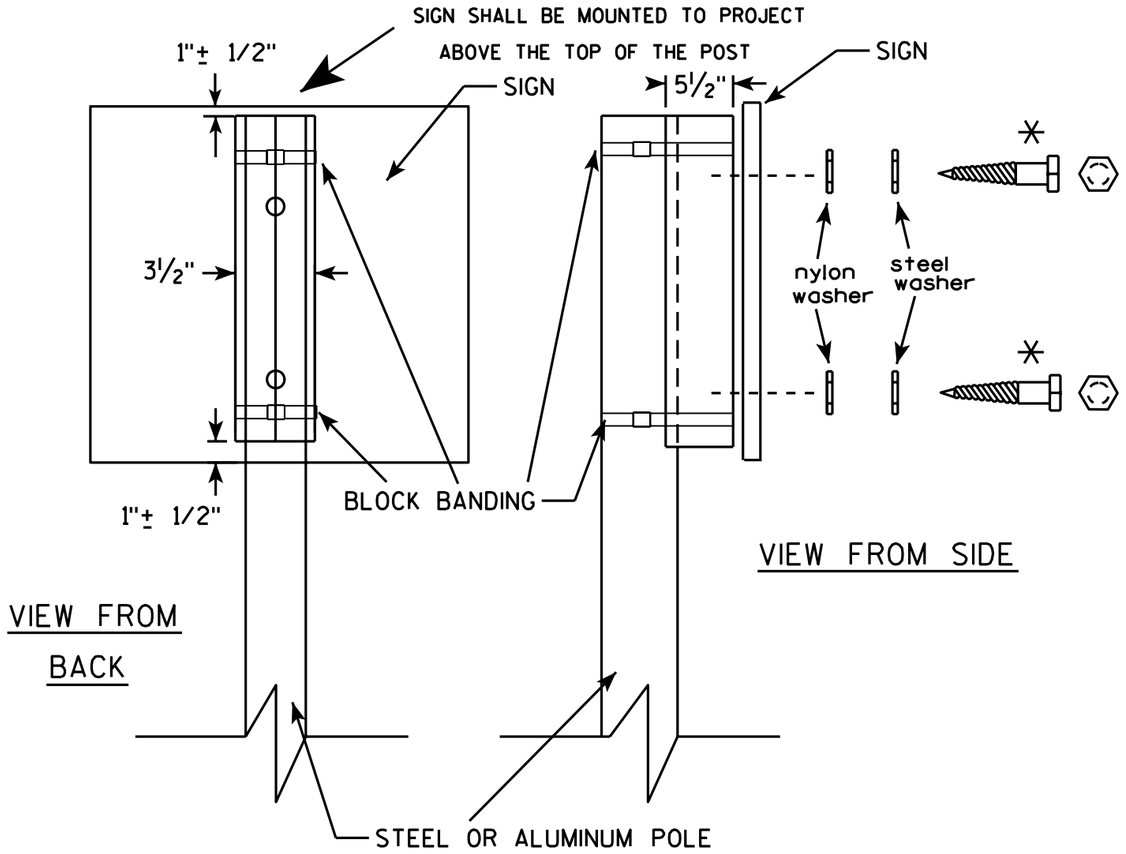
STANDARD SIGN
SIGN BANDING DETAILS

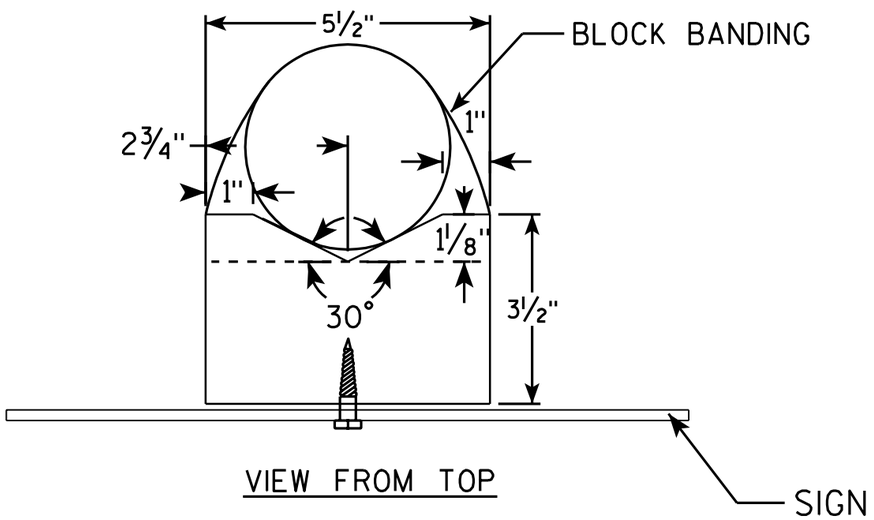
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 115	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

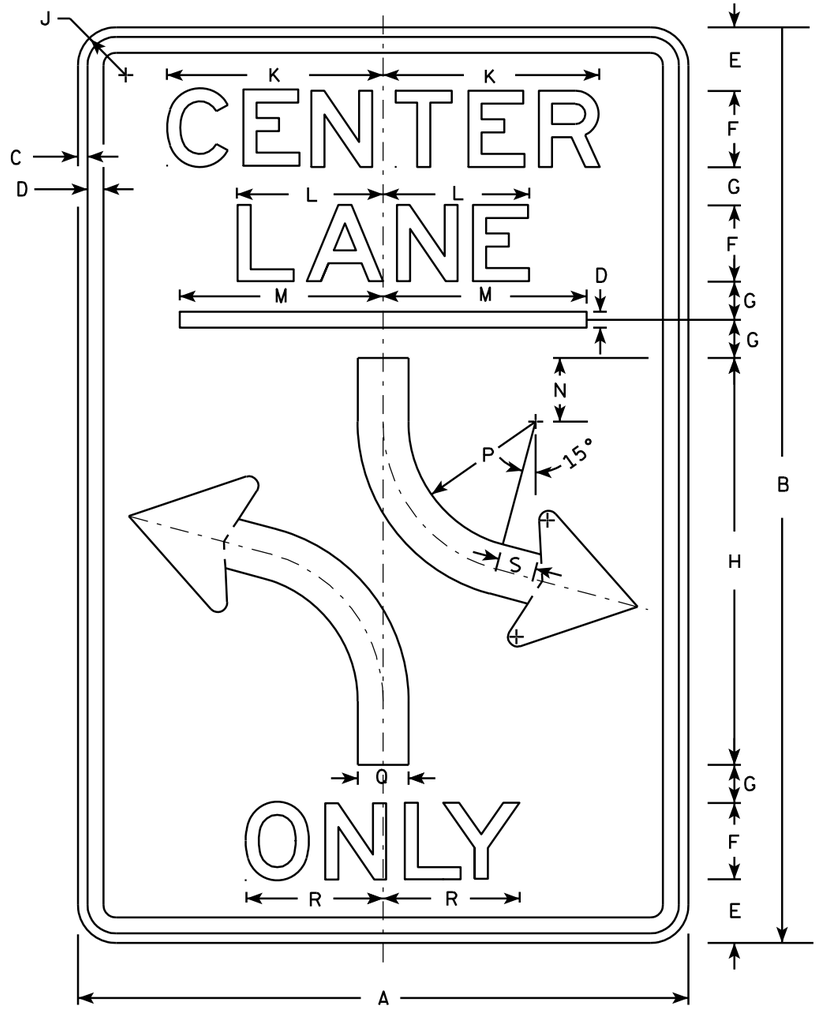
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 116 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

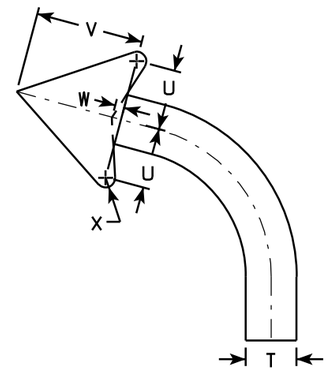
WISDOT/CADDS SHEET 42



R3-9B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	5/8	7/8	3 1/2	5	1 1/2	20		2 1/4	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

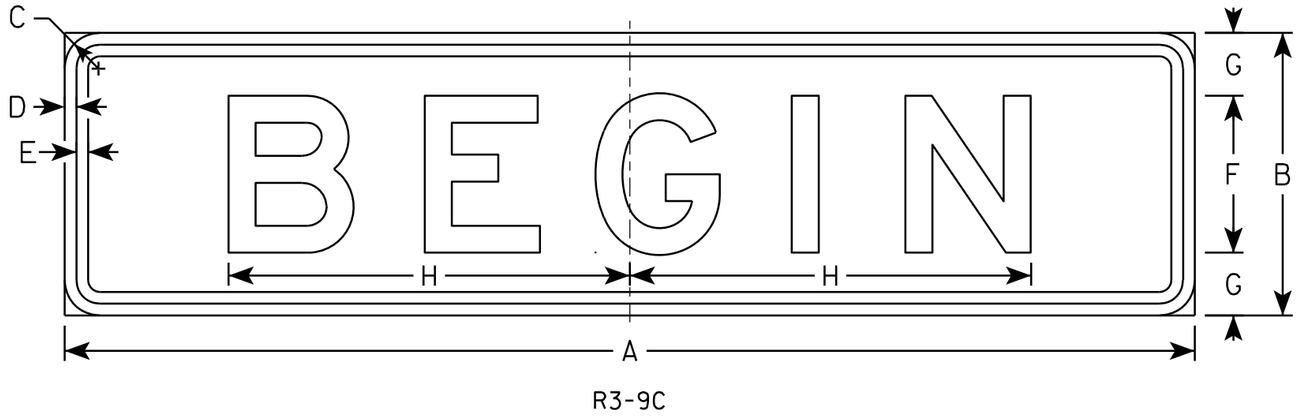
STANDARD SIGN
R3-9B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9B.5

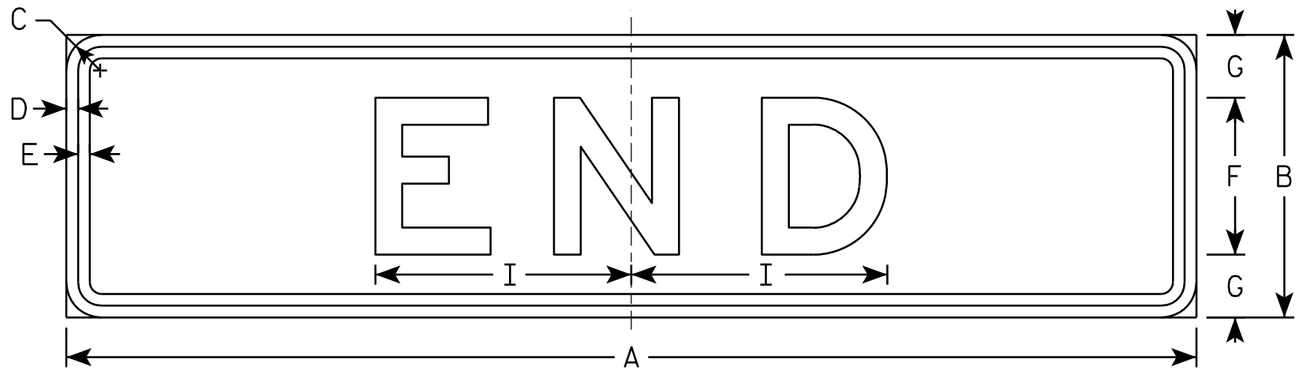
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 117	E



R3-9C

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-9D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
2M	24	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
3	36	9	1 1/8	3/8	3/8	5	2	12 3/4	8 1/8																		1.86
4																											
5																											

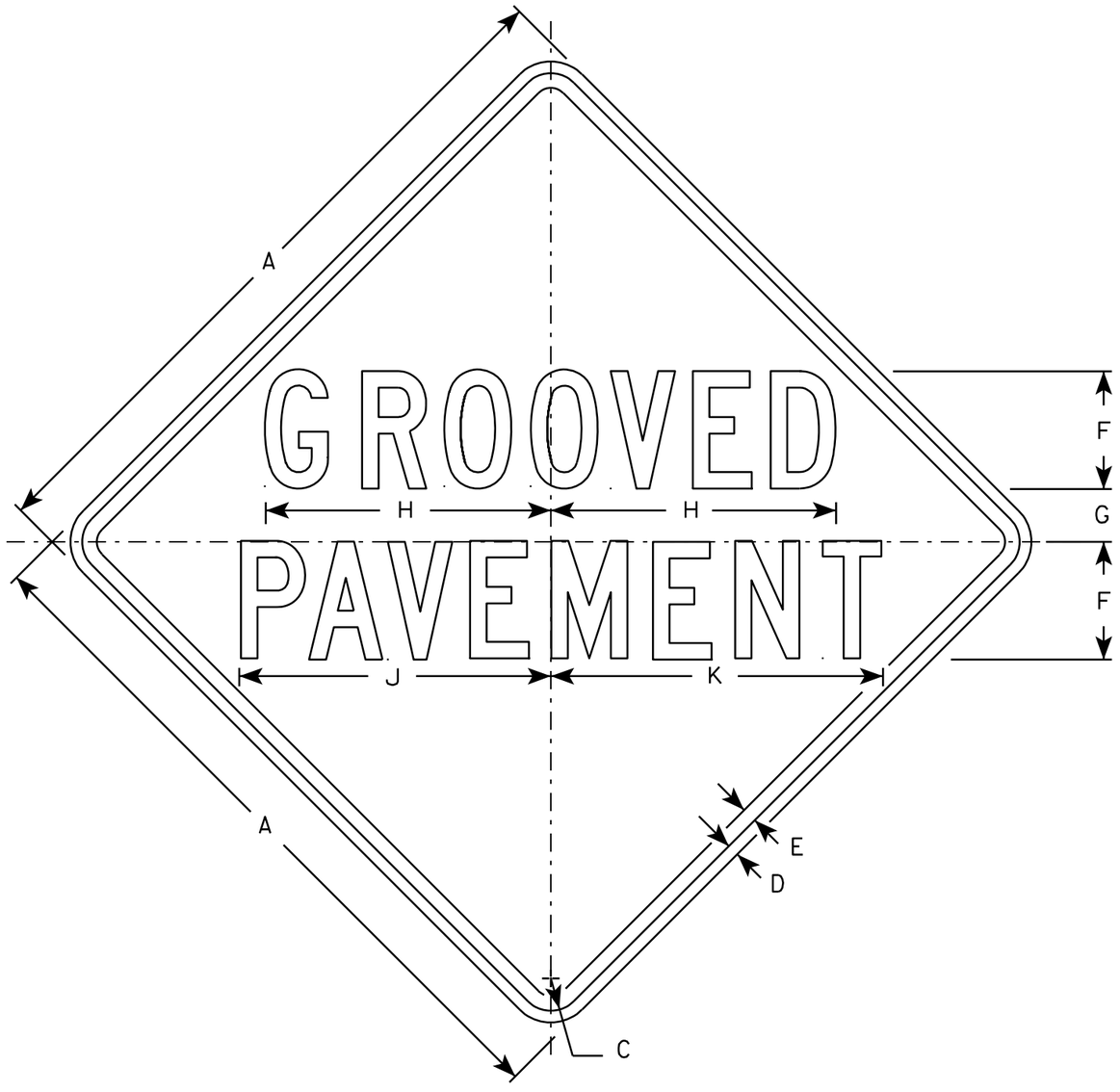
STANDARD SIGN
R3-9C & R3-9D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9C.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 118	E



W8-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	5	2 1/4	12 1/8		13 1/4	14 1/8																6.25
2M	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
3	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
4	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
5	48		2 1/4	3/4	1	8	3 1/2	19 3/8		21 1/4	22 5/8																16.0

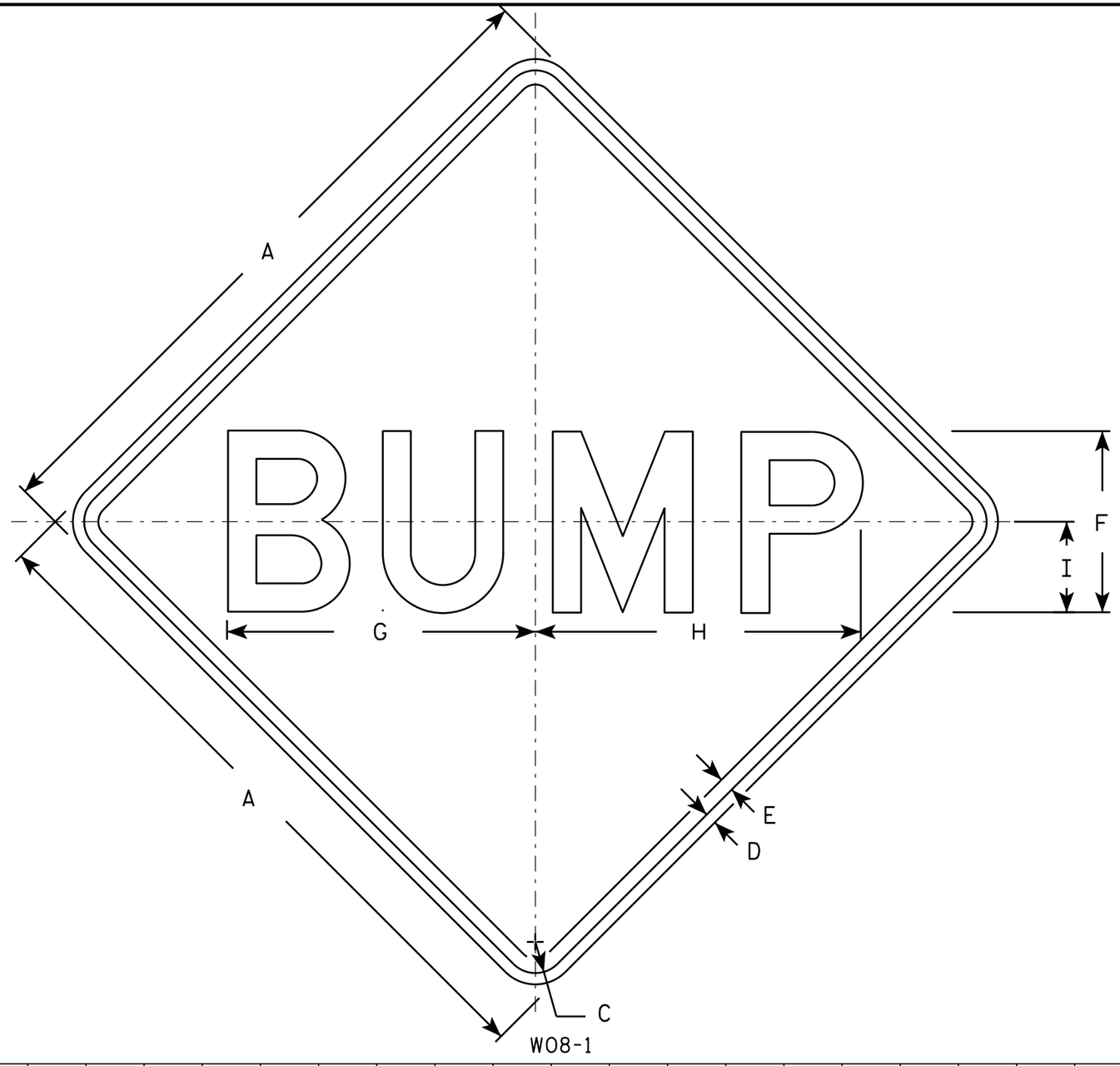
STANDARD SIGN
W8-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-52.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 119	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	10	16 7/8	17 7/8	5																		9.0
2S	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
2M	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
3	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
4	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
5	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0

STANDARD SIGN
W08-1

WISCONSIN DEPT OF TRANSPORTATION

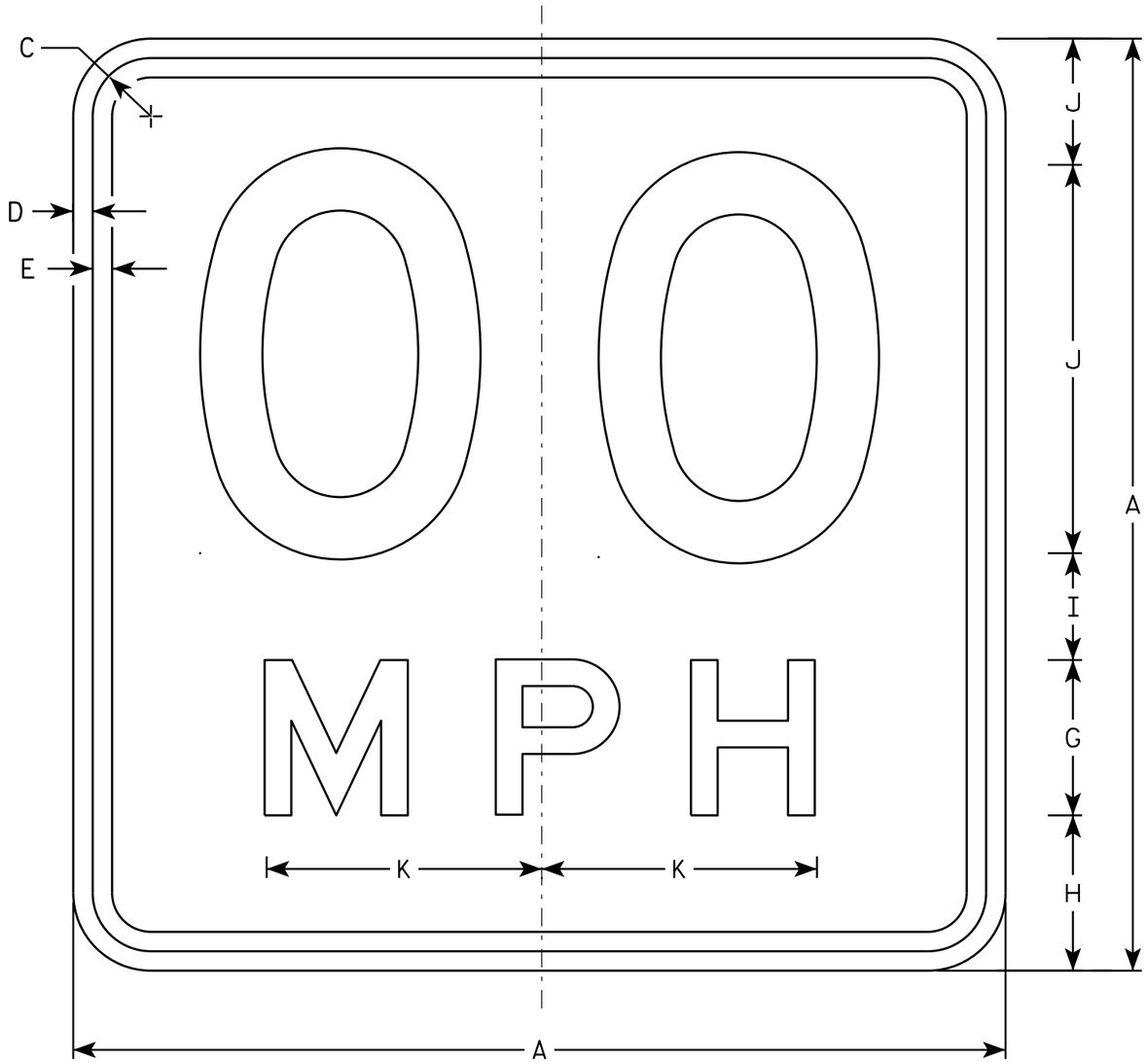
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 120 W08-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W081.DGN PLOT DATE : 20-NOV-2013 12:24 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.688833:1.000000 WISDOT/CADDS SHEET 42



W013-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 121 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

USH 63, LT (ROADSIDE DRAINAGE RESTORATION)

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY)(UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
		CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 3	NOTE 4
727+86	0	0	0	0	0	0	0	0
728+00	14	9	8	3	3	3	4	-1
728+50	50	8	7	15	14	18	21	-3
728+95	45	17	0	20	6	38	28	10
729+00	5	17	0	4	0	42	28	14
729+41	41	7	6	18	5	60	34	26
729+50	9	7	6	3	2	63	36	27
729+75	25	7	6	6	6	69	44	25
730+00	25	33	8	18	7	87	52	35
730+25	25	10	8	20	8	107	62	45
730+50	25	11	5	10	7	117	70	47
731+00	50	12	3	21	8	138	80	58
731+11	11	25	0	8	1	146	81	65
731+50	39	12	0	27	0	173	81	92
731+75	25	9	1	10	1	183	82	101
732+00	25	9	0	8	1	191	83	108
732+09	9	15	1	4	1	195	84	111
732+35	26	0	0	7	1	202	86	116
732+54	19	0	0	0	0	202	86	116
732+56	2	0	0	0	0	202	86	116
732+80	24	7	2	3	1	205	87	118
733+00	20	6	3	5	2	210	89	121
733+13	13	17	0	6	1	216	90	126
733+16	3	17	0	2	0	218	90	128
733+27	11	17	0	7	0	225	90	135
733+42	15	19	0	10	0	235	90	145
733+50	8	20	0	6	0	241	90	151
734+00	50	22	1	38	1	279	92	187
734+50	50	16	3	35	4	314	96	218
735+00	50	17	0	31	3	345	100	245
735+25	25	18	0	17	0	362	100	262
735+50	25	21	0	18	0	380	100	280
736+00	50	17	0	35	0	415	100	315
736+50	50	15	0	29	0	444	100	344
737+00	50	12	0	24	0	468	100	368
737+50	50	15	3	24	3	492	104	388
737+75	25	21	5	17	4	509	108	401
738+00	25	19	0	19	3	528	112	416
738+31	31	29	1	27	1	555	113	442
738+50	19	20	8	17	4	572	118	454
739+50	100	24	0	81	15	653	136	517
739+74	24	26	0	22	0	675	136	539
740+00	26	20	1	22	1	697	137	560
740+30	30	15	0	19	1	716	138	578
740+50	20	5	5	8	2	724	141	583
740+98	48	0	0	5	5	729	147	582
			TOTALS	729	122			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SUMMARY SHEET.
3 - EXPANDED FILL	(UNEXPANDED FILL)*(FILL FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL

9

9

USH 63, RT (ROADSIDE DRAINAGE RESTORATION)

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY)(UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
		CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 3	NOTE 4
722+66	0	0	0	0	0	0	0	0
723+00	34	0	0	0	0	0	0	0
723+50	50	1	1	1	1	1	2	-1
723+72	22	0	2	1	2	2	4	-2
724+00	28	4	4	2	4	4	9	-5
724+50	50	9	2	12	6	16	16	0
725+00	50	11	0	18	2	34	18	16
725+50	50	25	0	32	0	66	18	48
726+00	50	26	0	47	0	113	18	95
726+50	50	31	0	52	0	165	18	147
726+84	34	42	0	46	0	211	18	193
727+00	16	45	0	26	0	237	18	219
727+25	25	56	0	47	0	284	18	266
727+50	25	27	3	38	2	322	21	301
727+86	36	8	5	23	6	345	28	317
728+00	14	7	6	4	3	349	32	317
728+50	50	7	7	13	13	362	47	315
728+95	45	7	6	12	11	374	60	314
729+00	5	5	6	2	2	376	63	313
729+41	41	6	10	8	13	384	78	306
729+50	9	8	9	3	4	387	83	304
729+75	25	0	0	4	5	391	89	302
730+00	25	0	4	0	2	391	92	299
730+25	25	33	0	15	2	406	94	312
730+50	25	29	0	29	0	435	94	341
731+00	50	30	0	54	0	489	94	395
731+11	11	11	3	9	1	498	95	403
731+50	39	19	0	22	3	520	99	421
731+75	25	22	0	19	0	539	99	440
732+00	25	21	0	20	0	559	99	460
732+09	9	21	0	7	0	566	99	467
732+35	26	18	0	19	0	585	99	486
732+54	19	11	0	10	0	595	99	496
732+56	2	0	0	1	0	596	99	497
732+80	24	0	0	0	0	596	99	497
733+00	20	0	0	0	0	596	99	497
733+13	13	0	0	0	0	596	99	497
733+16	3	0	0	0	0	596	99	497
733+27	11	7	0	2	0	598	99	499
733+42	15	20	0	8	0	606	99	507
733+50	8	20	0	6	0	612	99	513
734+00	50	24	0	40	0	652	99	553
734+50	50	18	2	38	2	690	101	589
735+00	50	12	3	27	5	717	107	610
735+25	25	10	3	10	3	727	111	616
735+50	25	11	0	10	2	737	113	624
736+00	50	16	0	25	0	762	113	649
736+50	50	12	1	26	1	788	114	674
737+00	50	12	1	22	2	810	117	693
737+50	50	17	1	27	2	837	119	718
737+75	25	48	0	30	1	867	120	747
738+00	25	45	0	43	0	910	120	790
738+31	31	44	0	51	0	961	120	841
738+50	19	48	0	33	0	994	120	874
739+50	100	24	0	134	0	1,128	120	1,008
739+74	24	20	0	20	0	1,148	120	1,028
740+00	26	15	0	17	0	1,165	120	1,045
740+30	30	0	0	9	0	1,174	120	1,054
			TOTALS	1,174	100			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SUMMARY SHEET.
3 - EXPANDED FILL	(UNEXPANDED FILL)*(FILL FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL

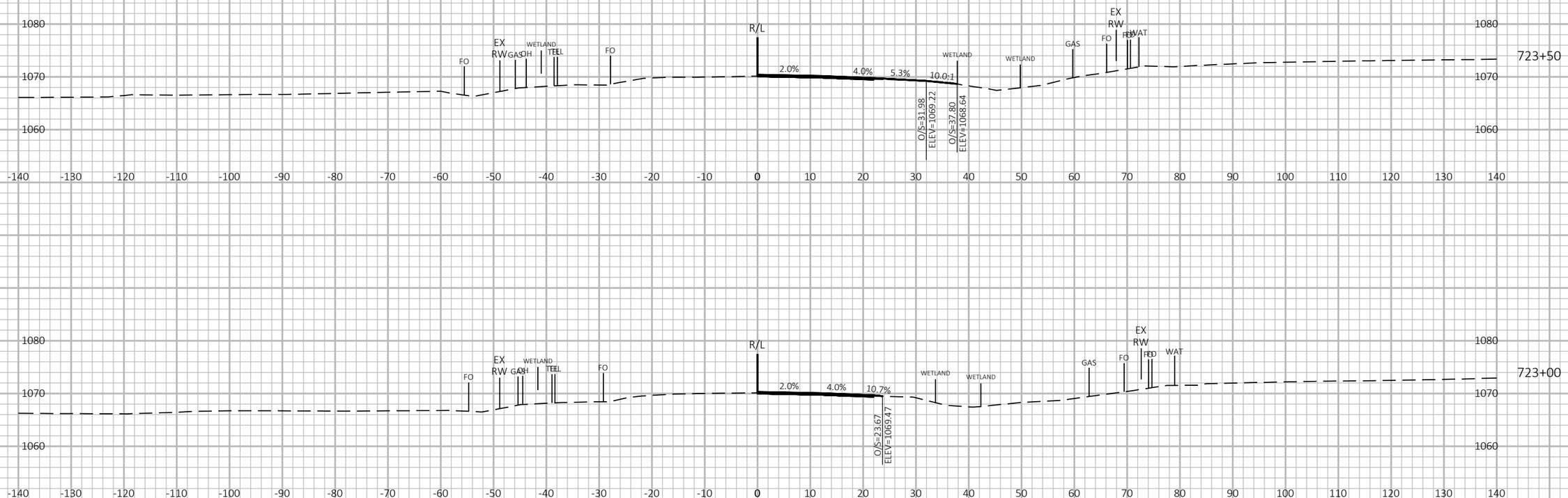
USH 63, LT (CAUSEWAY GUARDRAIL)

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY)(UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
		CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25 NOTE 3	NOTE 4
745+59	0	0	0	0	0	0	0	0
745+84	25	4	0	2	0	2	0	2
746+00	16	4	0	2	0	4	0	4
746+09	9	4	0	2	0	6	0	6
746+34	25	4	0	4	0	10	0	10
746+50	16	4	0	2	0	12	0	12
747+00	50	4	0	6	0	18	0	18
747+50	50	6	0	9	0	27	0	27
748+00	50	6	0	11	0	38	0	38
748+50	50	6	0	11	0	49	0	49
749+00	50	5	0	9	0	58	0	58
749+50	50	4	0	8	0	66	0	66
750+00	50	5	0	8	0	74	0	74
750+50	50	6	0	9	0	83	0	83
751+00	50	13	0	17	0	100	0	100
751+50	50	11	0	22	0	122	0	122
751+53	3	10	0	2	0	124	0	124
751+78	25	9	0	9	0	133	0	133
752+00	22	9	0	7	0	140	0	140
752+03	3	10	0	2	0	142	0	142
752+50	47	1	0	9	0	151	0	151
753+00	50	1	0	1	0	152	0	152
753+04	4	0	0	1	0	153	0	153
			TOTALS	153	0			

USH 63, RT (CAUSEWAY GUARDRAIL)

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY)(UNADJUSTED)		CUMULATIVE VOL (CY)		MASS ORDINATE
		CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25 NOTE 3	NOTE 4
745+38	0	0	0	0	0	0	0	0
745+50	12	4	0	1	0	1	0	1
745+59	9	4	0	2	0	3	0	3
745+84	25	4	0	3	0	6	0	6
746+00	16	3	0	2	0	8	0	8
746+09	9	3	0	1	0	9	0	9
746+34	25	3	0	3	0	12	0	12
746+50	16	4	0	2	0	14	0	14
747+00	50	4	0	6	0	20	0	20
747+50	50	7	0	9	0	29	0	29
748+00	50	7	0	12	0	41	0	41
748+50	50	7	0	12	0	53	0	53
749+00	50	7	0	13	0	66	0	66
749+50	50	7	0	13	0	79	0	79
750+00	50	6	0	11	0	90	0	90
750+50	50	5	0	10	0	100	0	100
751+00	50	12	0	15	0	115	0	115
751+50	50	10	0	20	0	135	0	135
751+53	3	10	0	2	0	137	0	137
751+78	25	9	0	9	0	146	0	146
752+00	22	6	3	6	2	152	3	149
752+03	3	6	4	1	1	153	4	149
752+50	47	12	0	15	4	168	9	159
753+00	50	18	0	27	0	195	9	186
753+04	4	18	0	3	0	198	9	189
753+26	22	0	0	7	0	205	9	196
			TOTALS	205	7			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SUMMARY SHEET.
3 - EXPANDED FILL	(UNEXPANDED FILL)*(FILL FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL



9

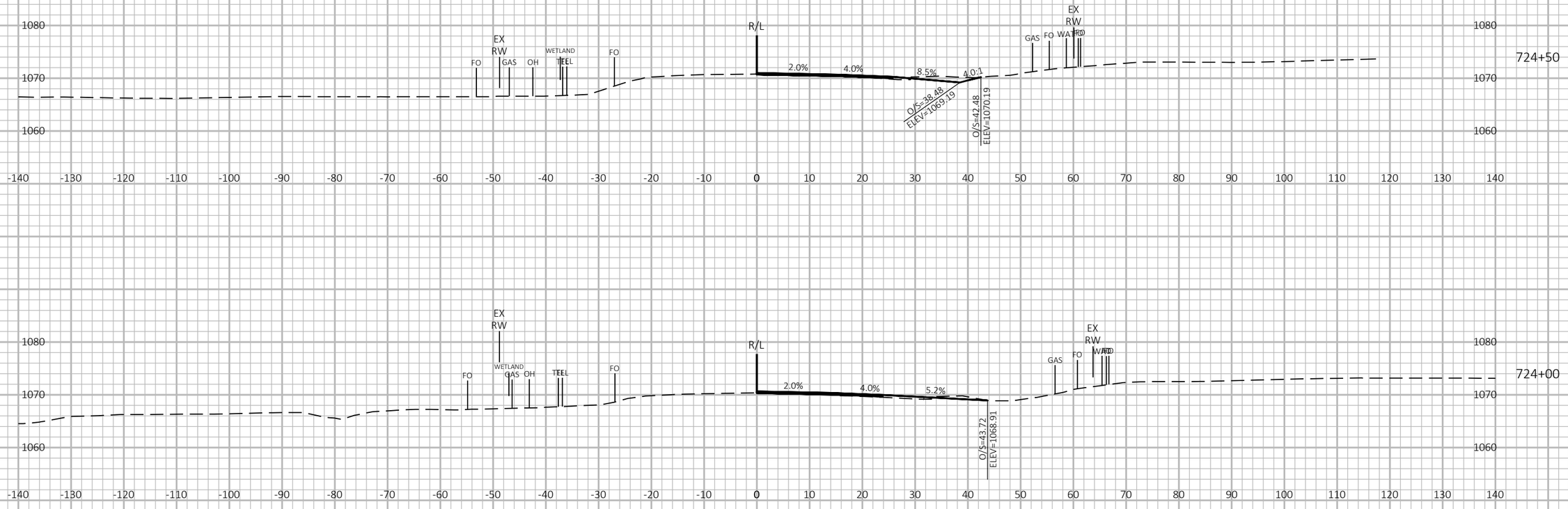
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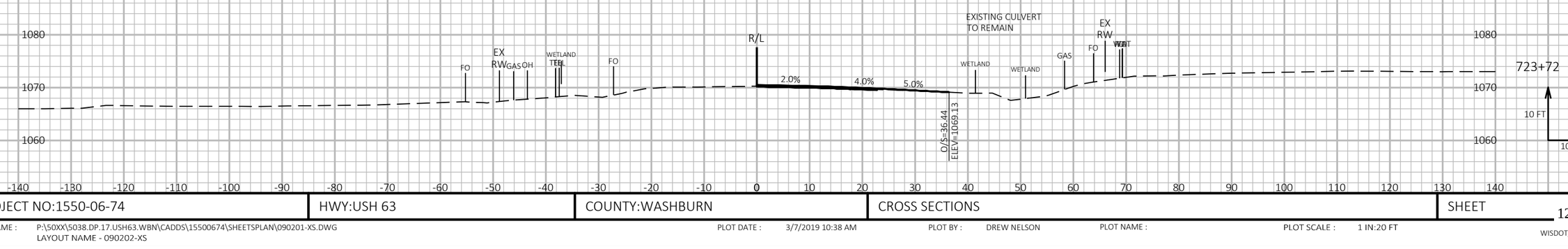
PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 125	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS

PLOT DATE : 3/7/2019 10:38 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





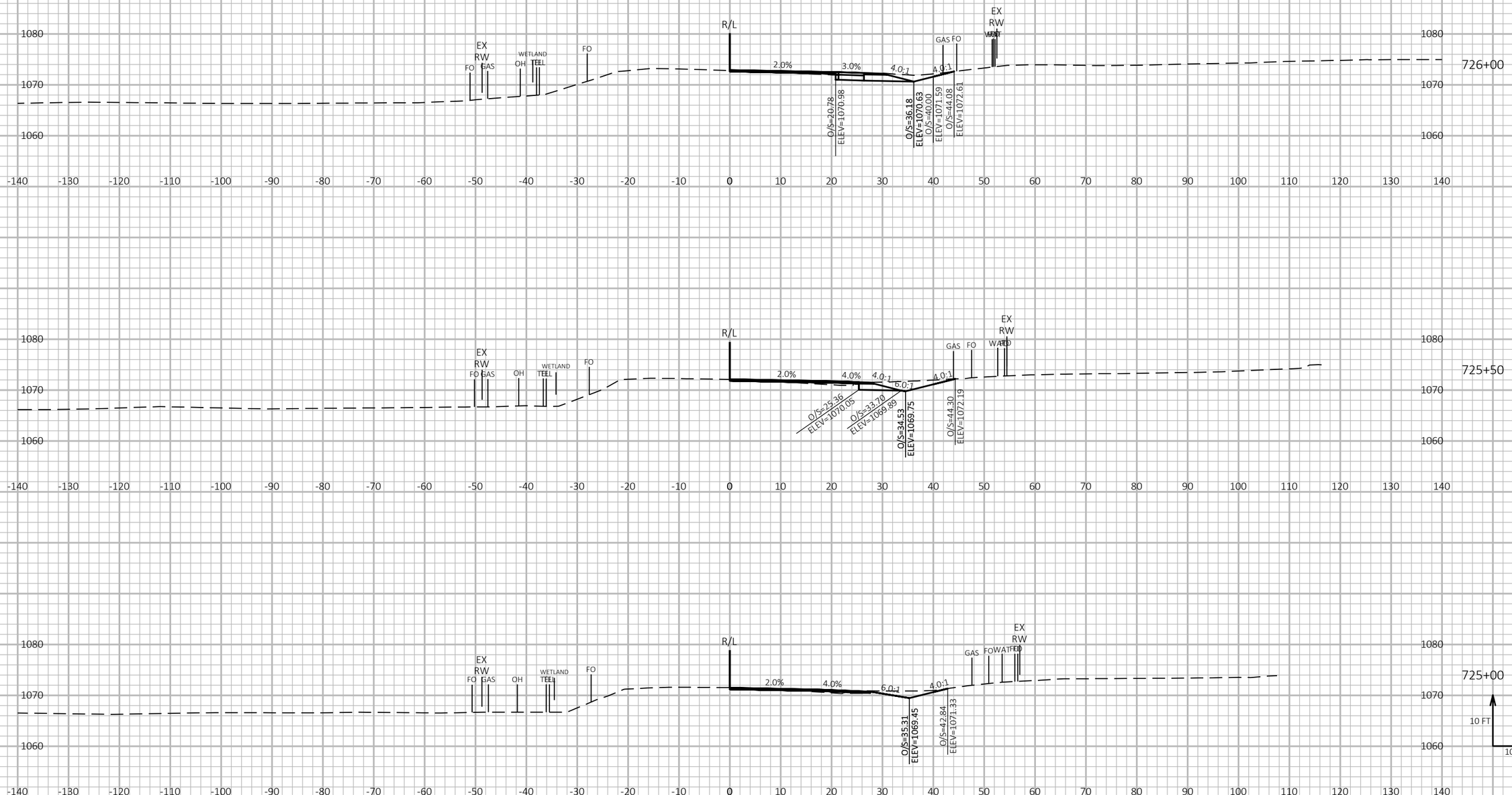
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 126	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090202-XS

PLOT DATE : 3/7/2019 10:38 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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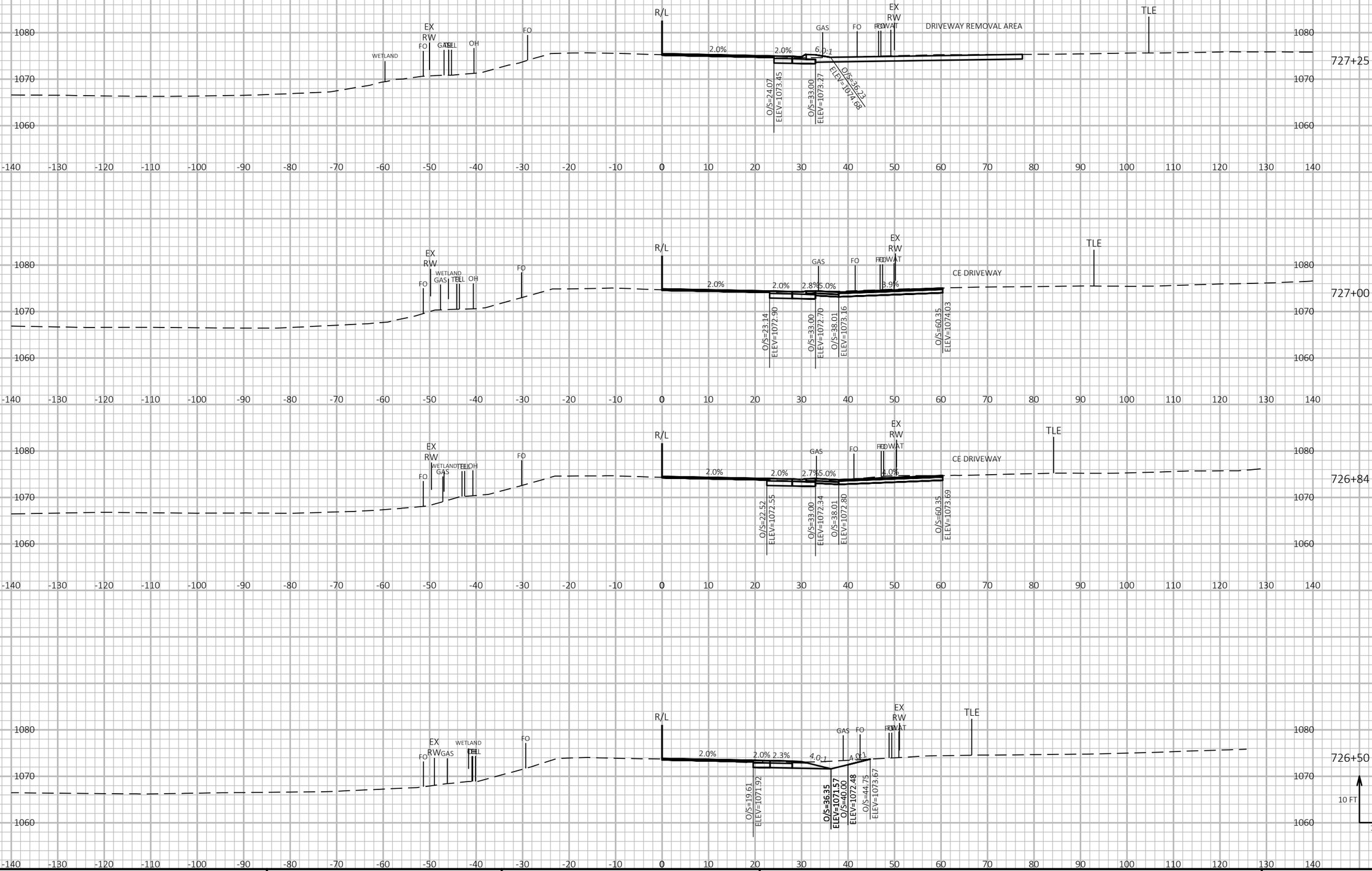
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 127	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090203-XS

PLOT DATE : 3/7/2019 10:38 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

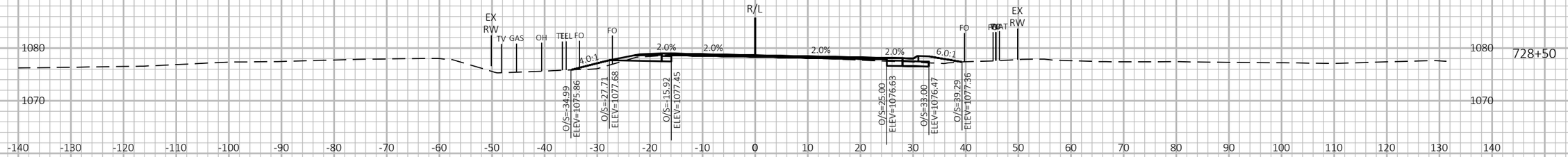
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 128	E

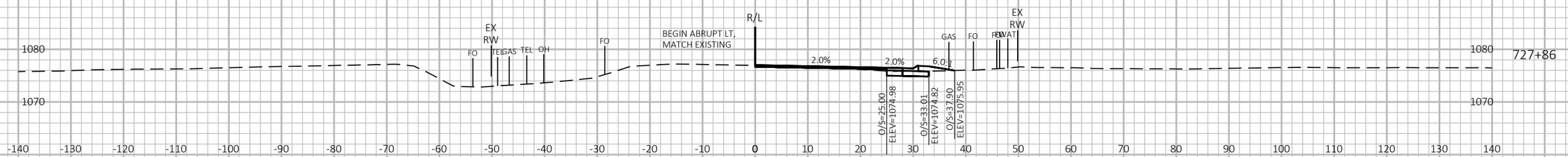
FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090204-XS

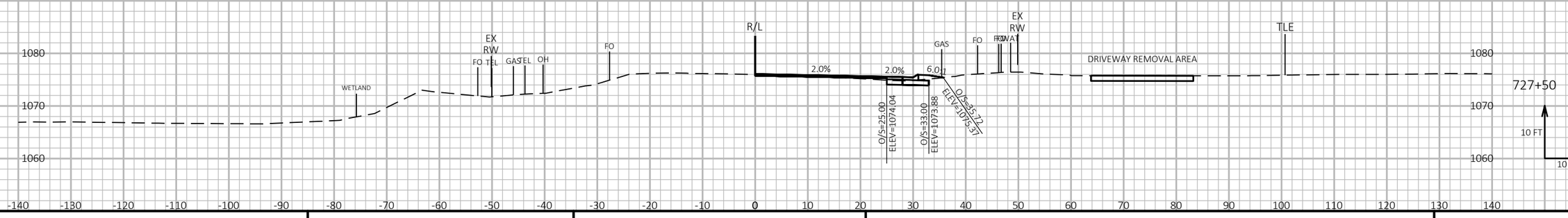
PLOT DATE : 3/7/2019 10:38 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49









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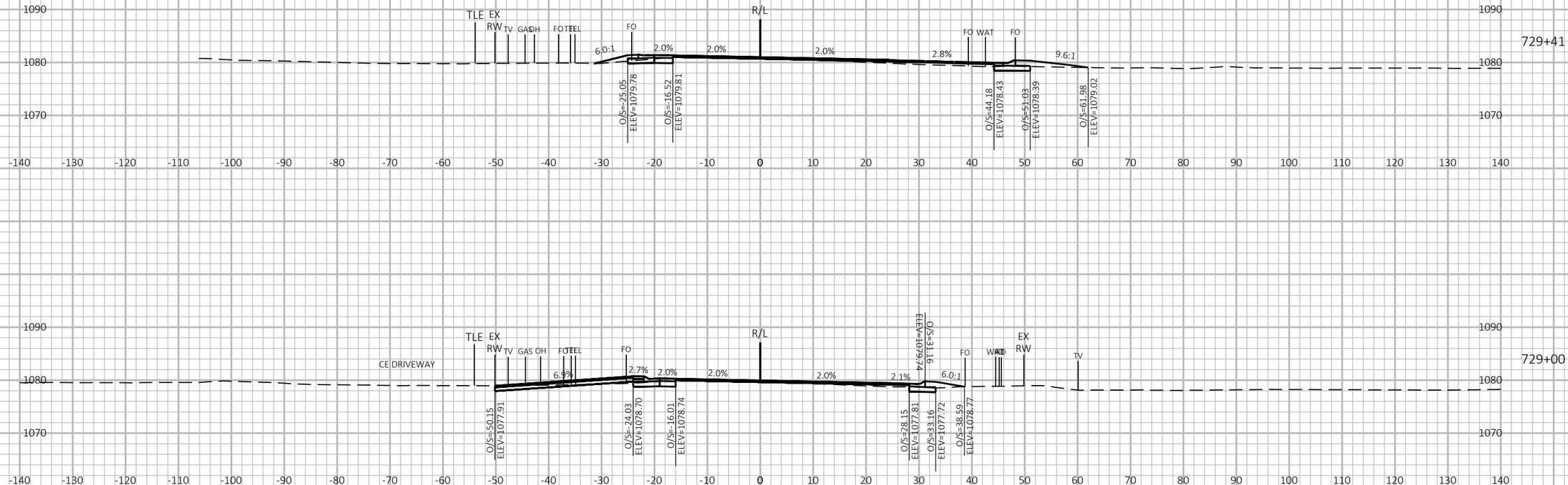
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 129	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090205-XS

PLOT DATE : 3/7/2019 10:39 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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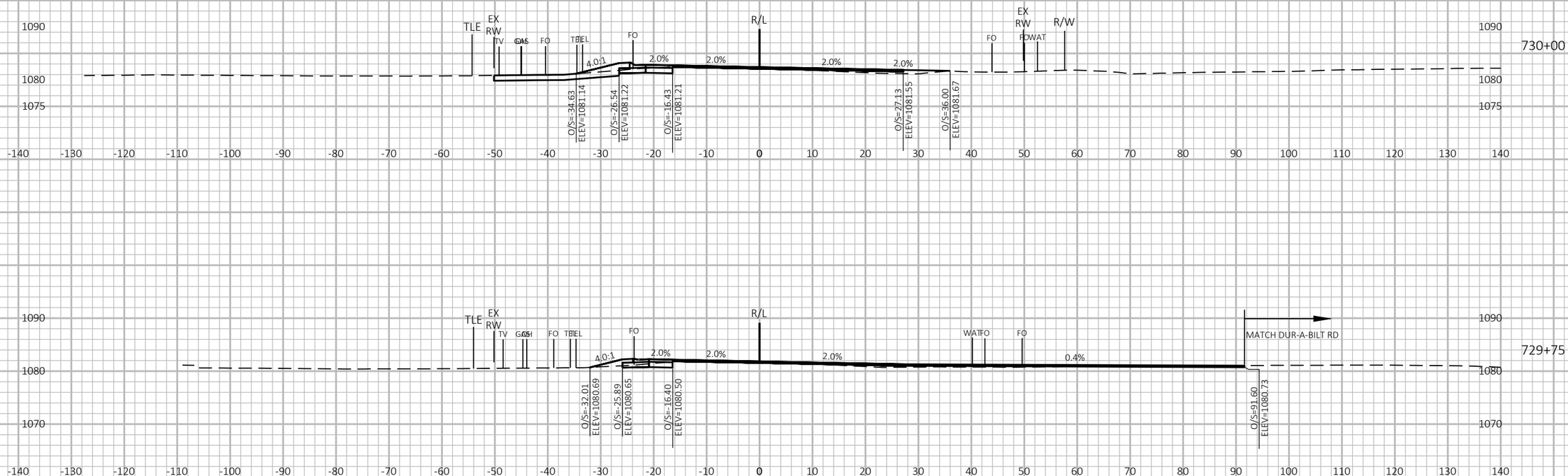
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 130	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090206-XS

PLOT DATE : 3/7/2019 10:39 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

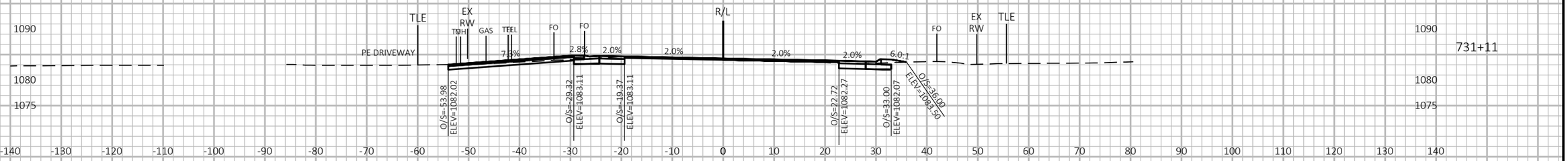
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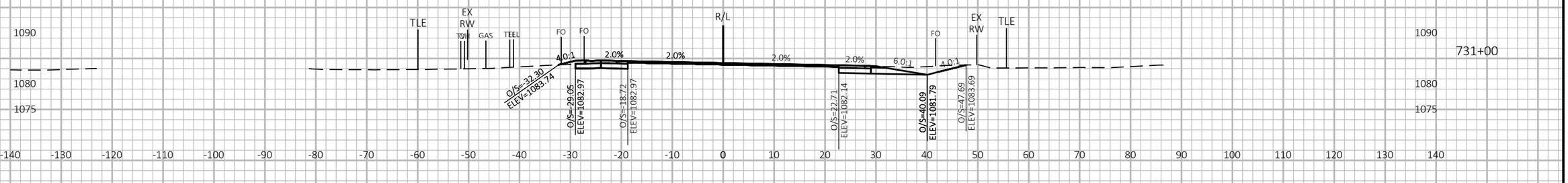
PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 131	E

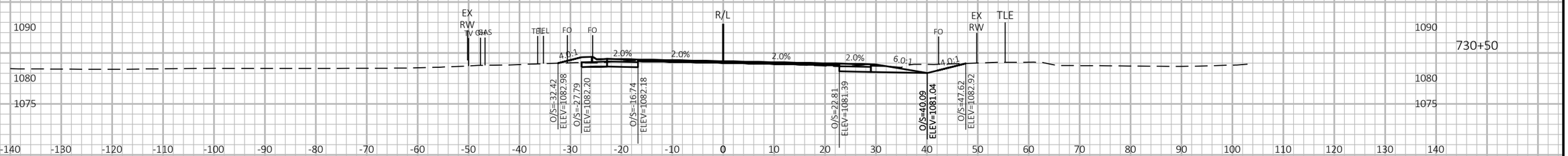
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LAYOUT NAME - 090207-XS

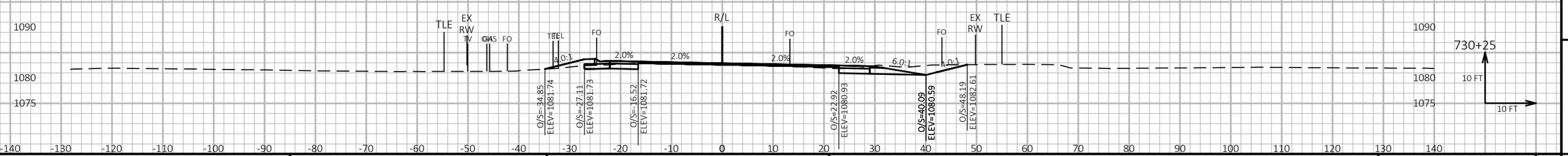
PLOT DATE : 3/7/2019 10:39 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49









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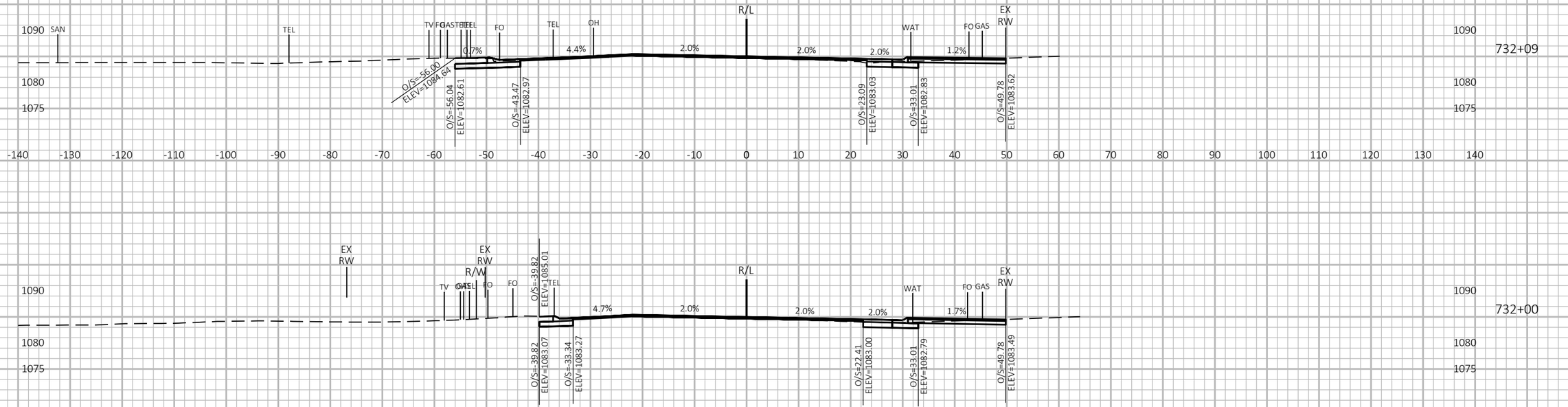
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 132	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090208-XS

PLOT DATE : 3/7/2019 10:39 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

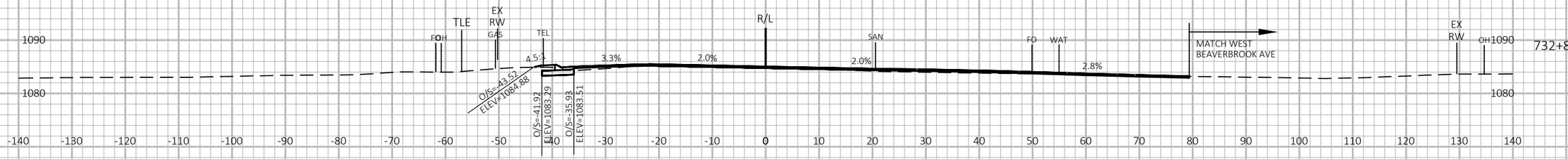
PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 133	E

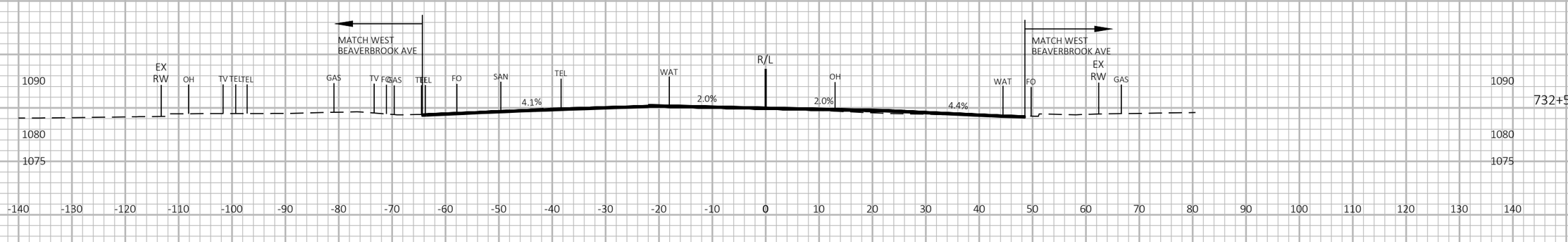
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LAYOUT NAME - 090209-XS

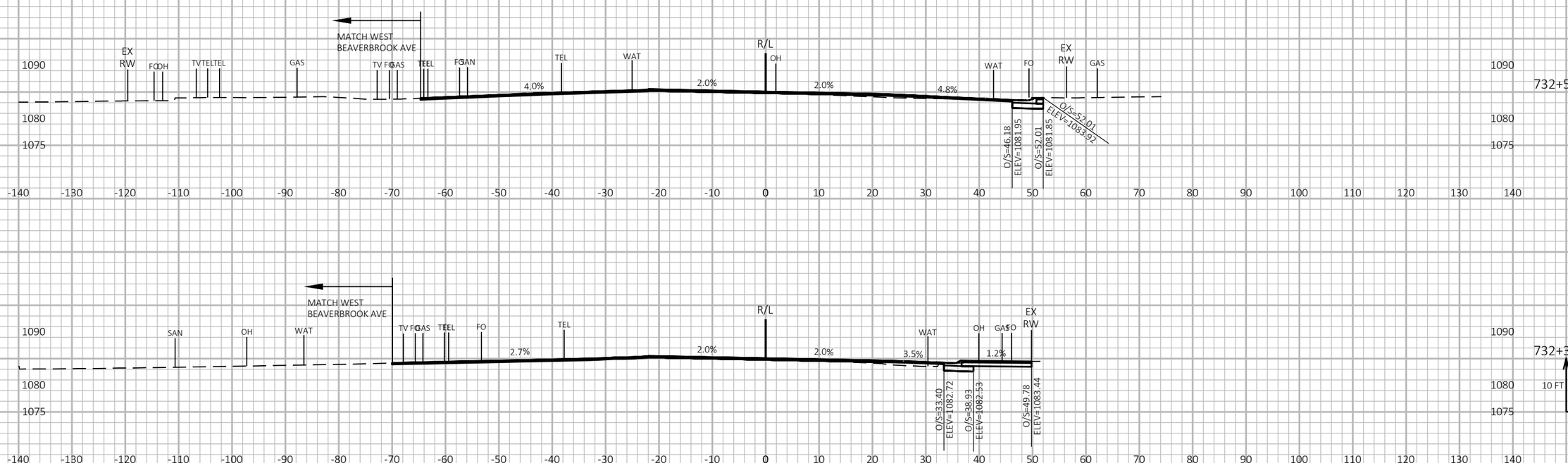
PLOT DATE : 3/7/2019 10:39 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

9







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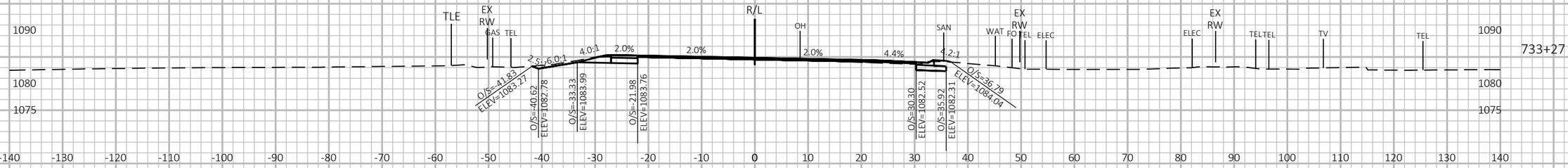
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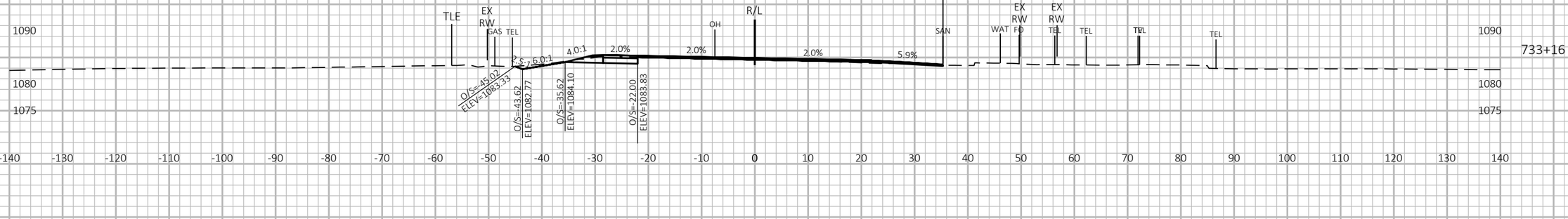
PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 134	E

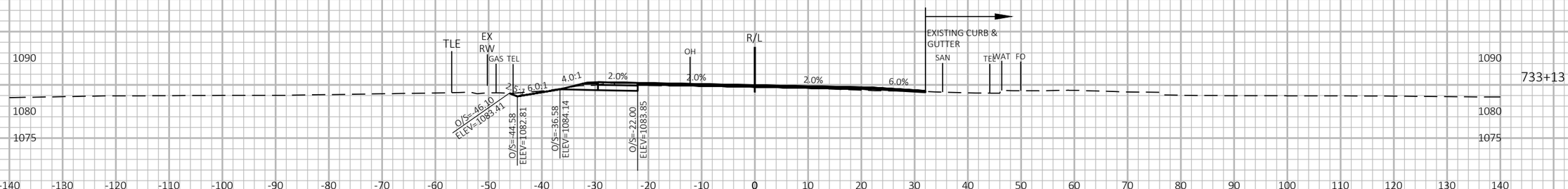
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LAYOUT NAME - 090210-XS

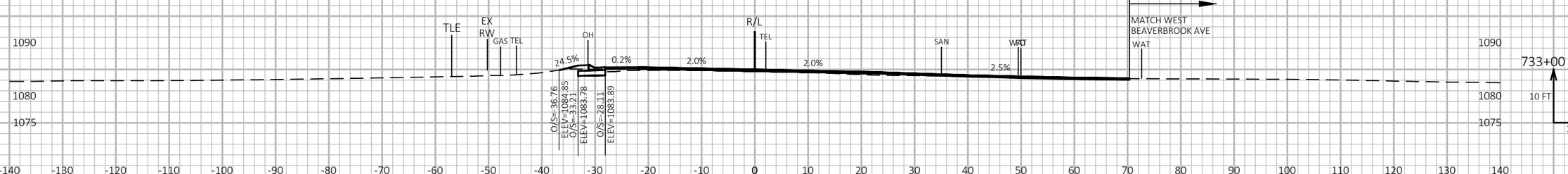
PLOT DATE : 3/7/2019 10:39 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49









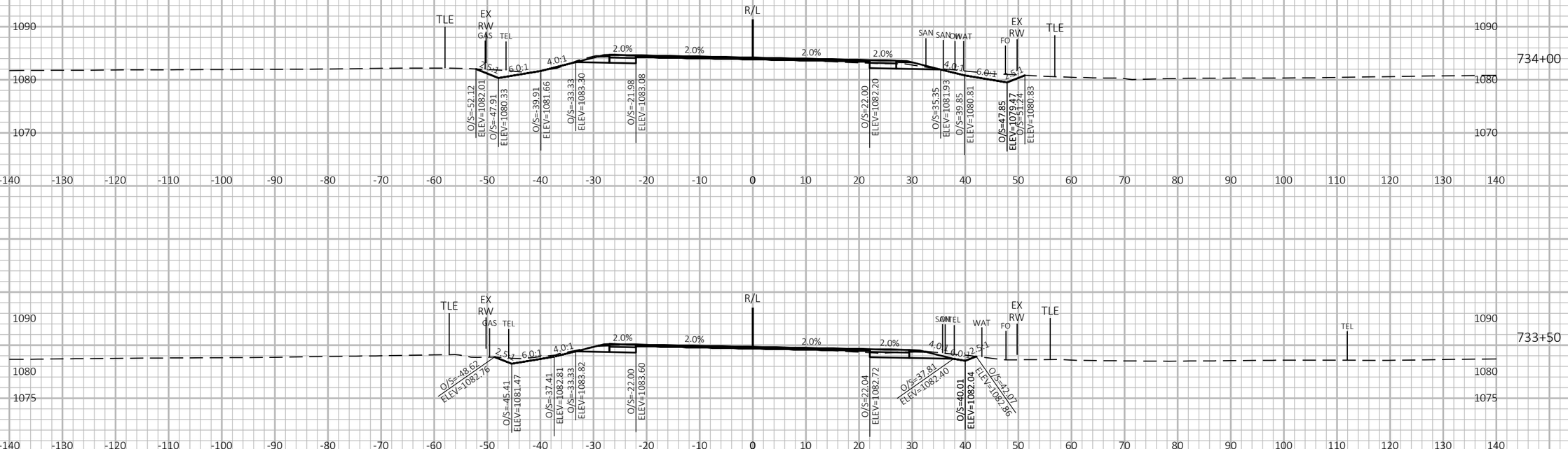
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 135	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090211-XS

PLOT DATE : 3/7/2019 10:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT



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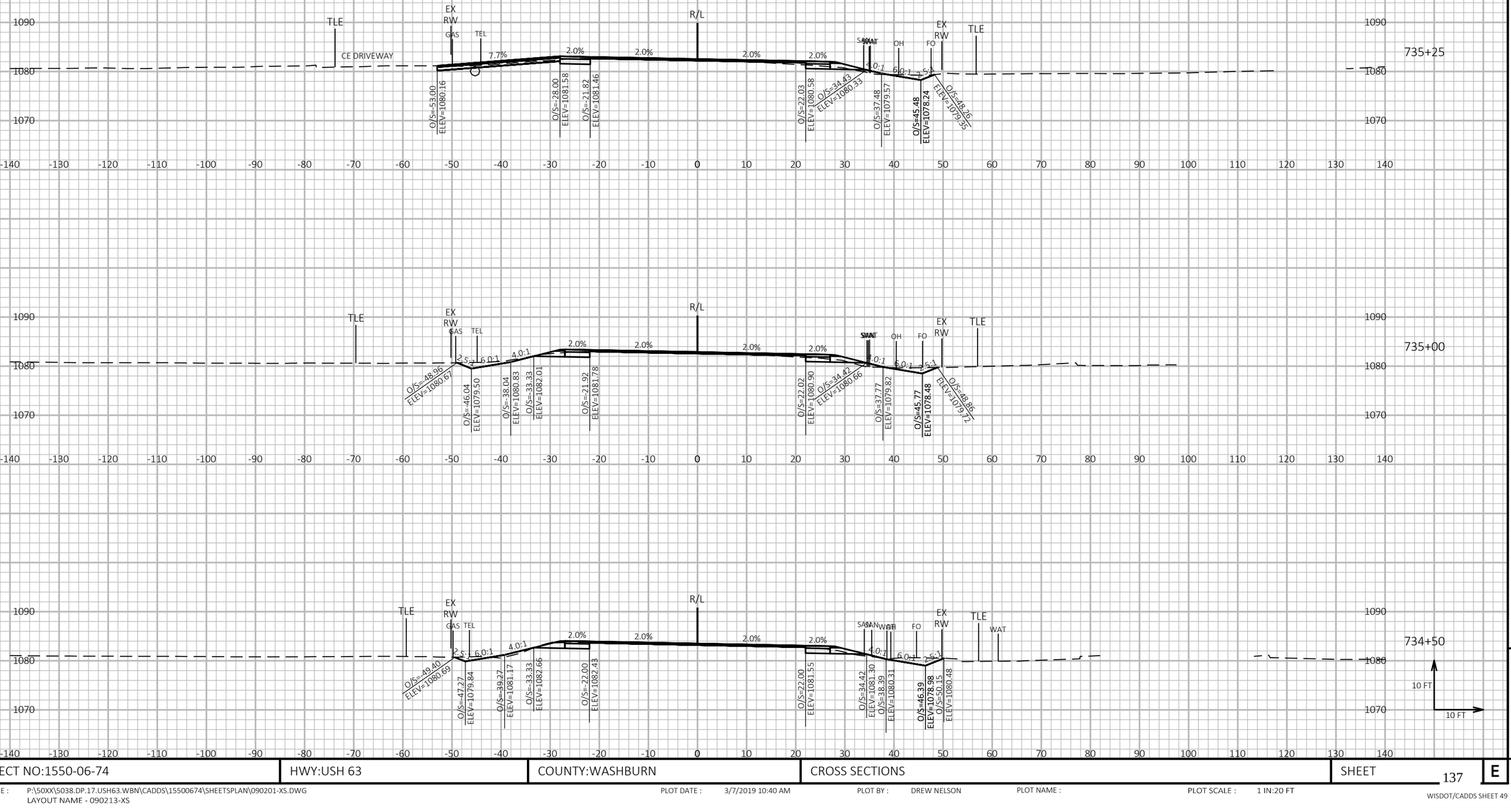
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 136	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090212-XS

PLOT DATE : 3/7/2019 10:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

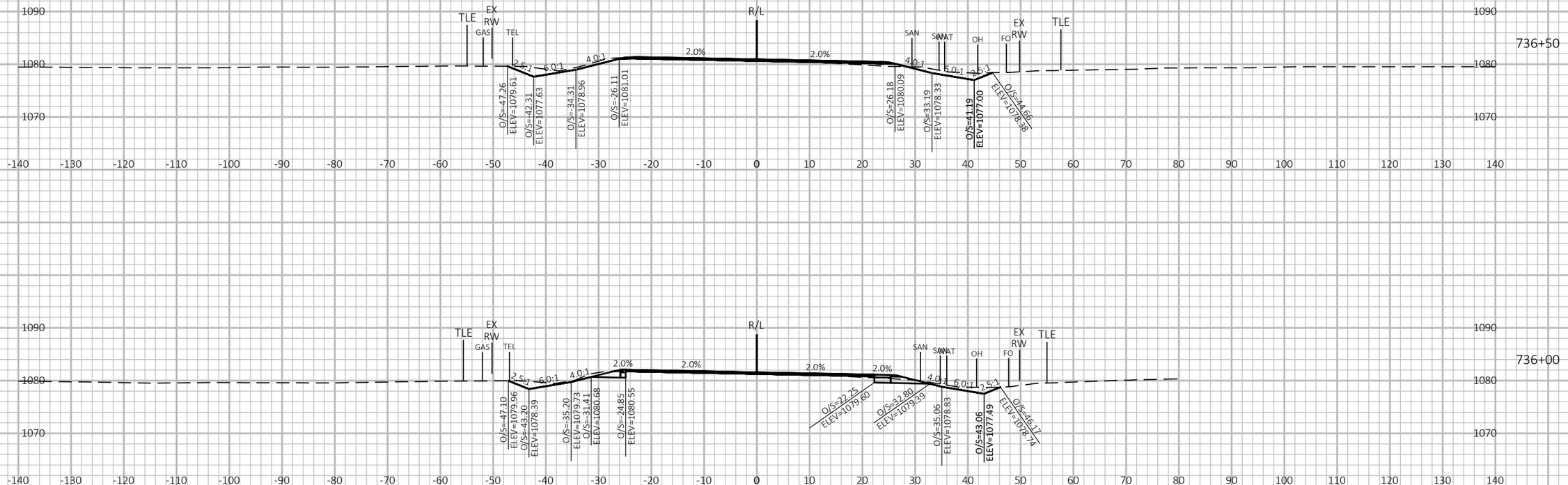


PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 137	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090213-XS

PLOT DATE : 3/7/2019 10:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

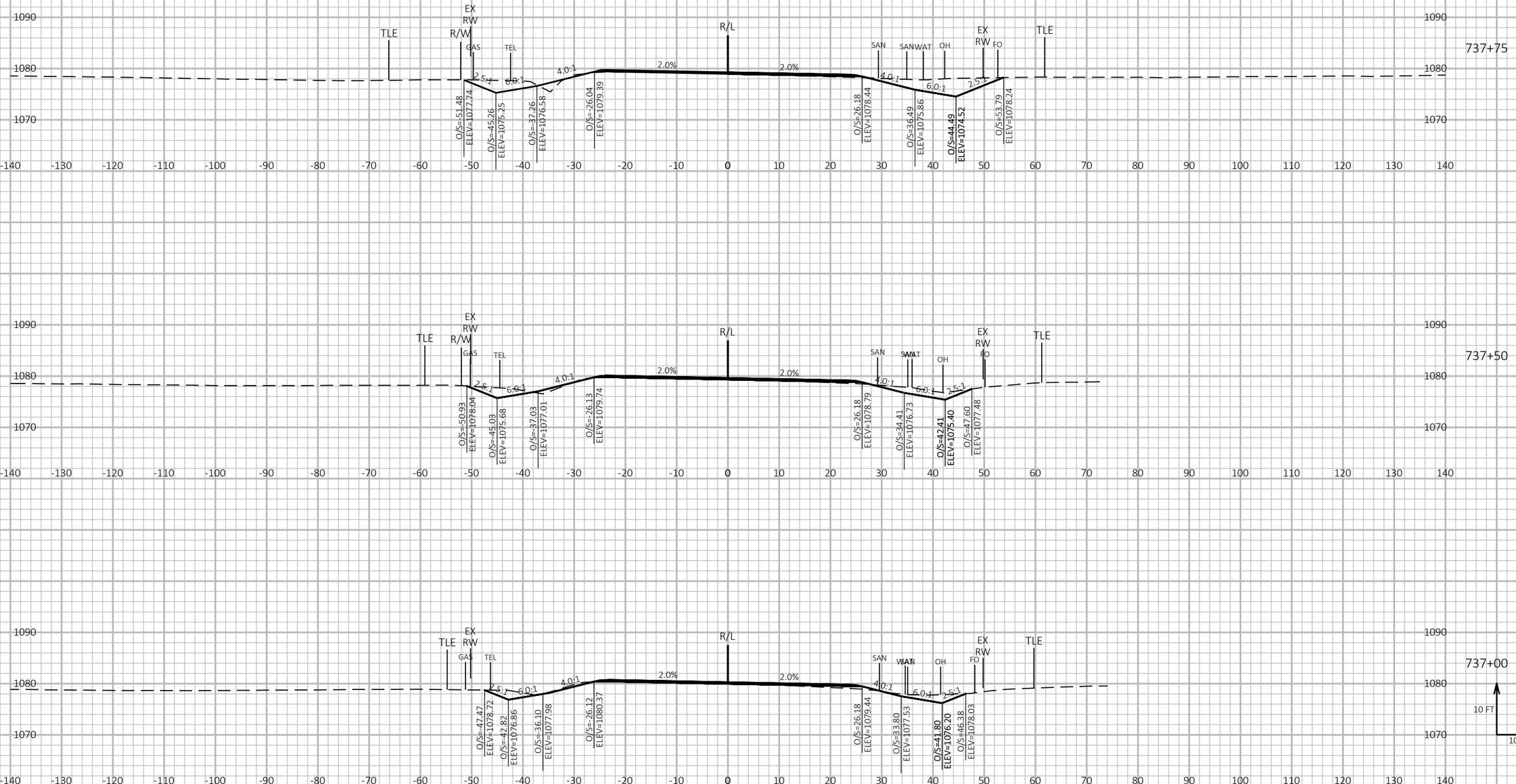


PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 138	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090214-XS

PLOT DATE : 3/7/2019 10:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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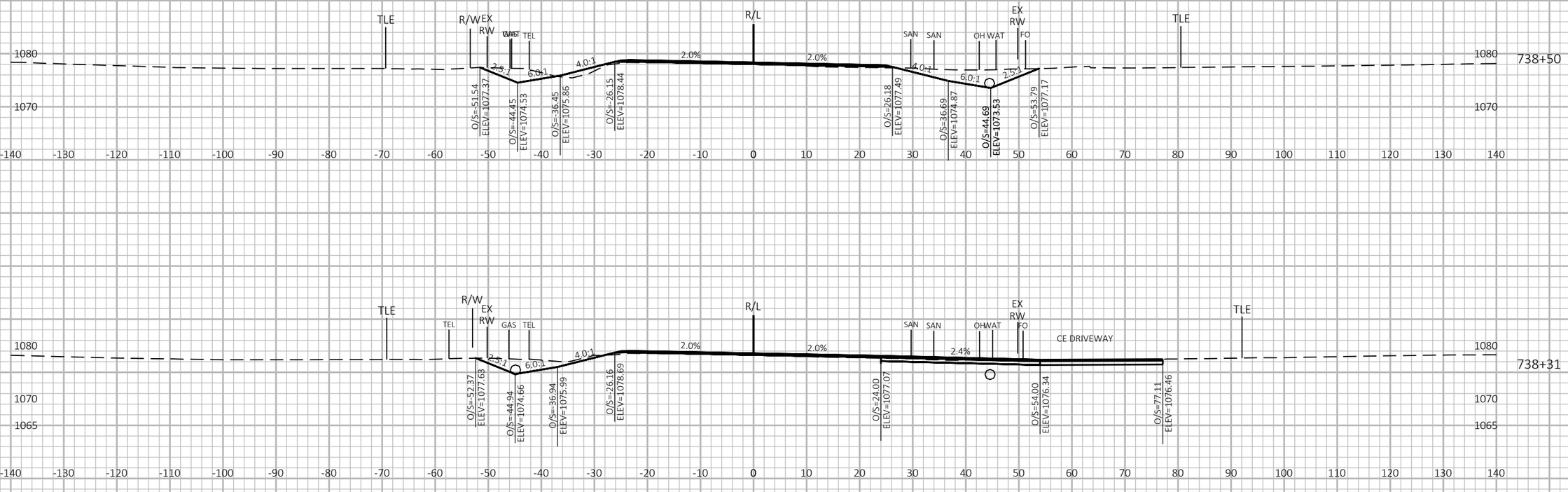
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 139	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090215-XS

PLOT DATE : 3/7/2019 10:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



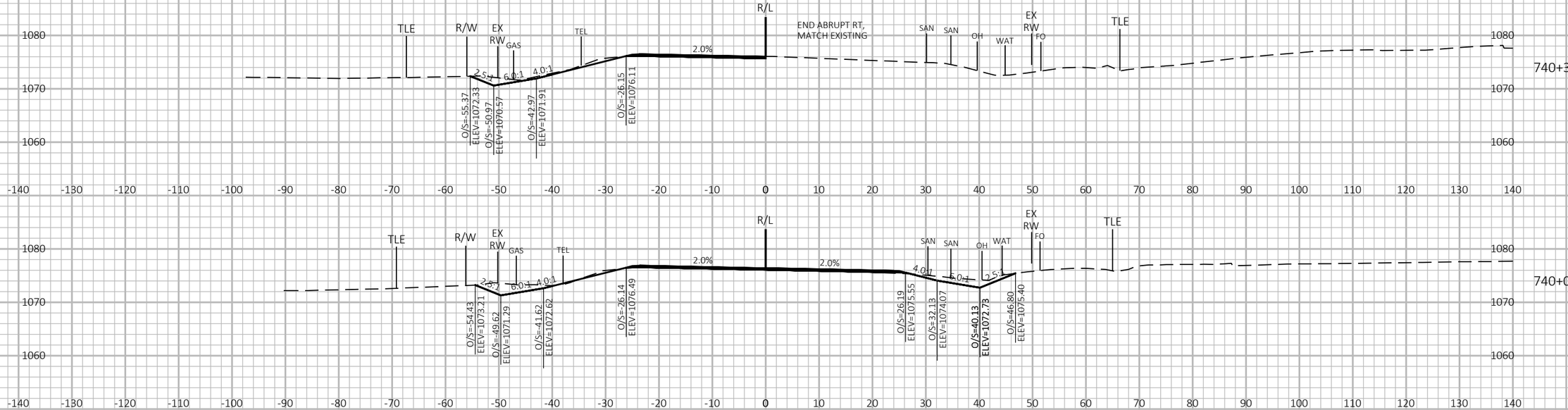
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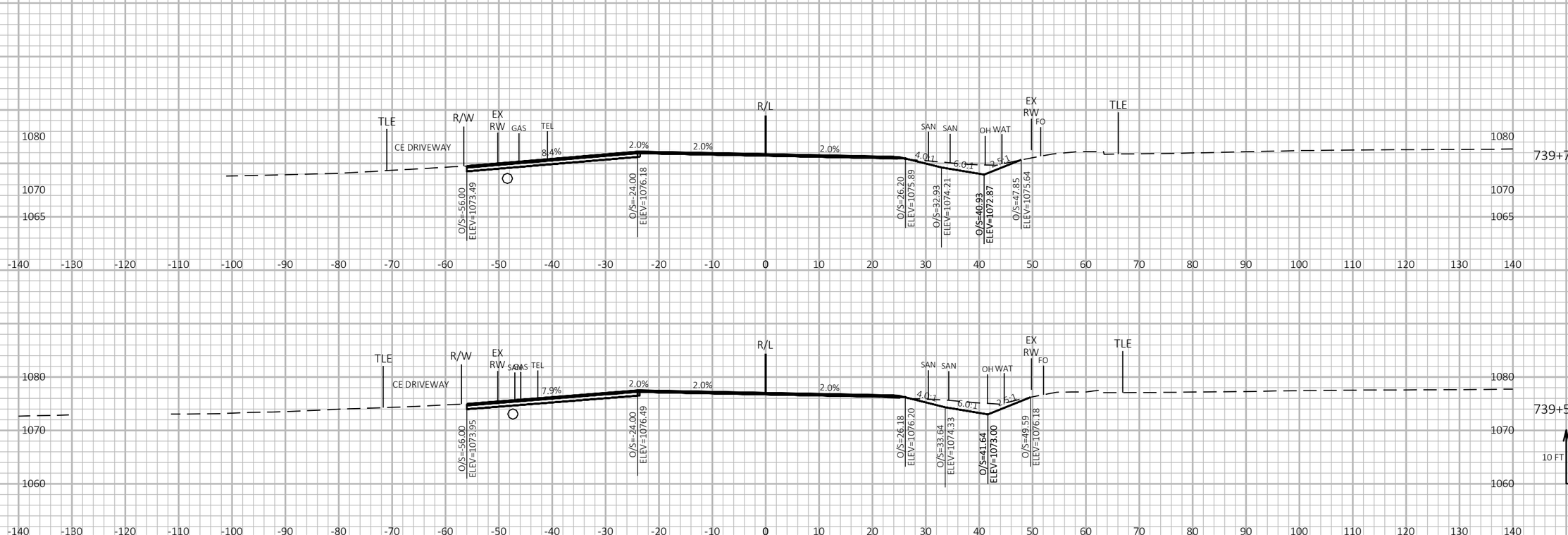
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 140	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090215-XS

PLOT DATE : 3/7/2019 10:40 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT





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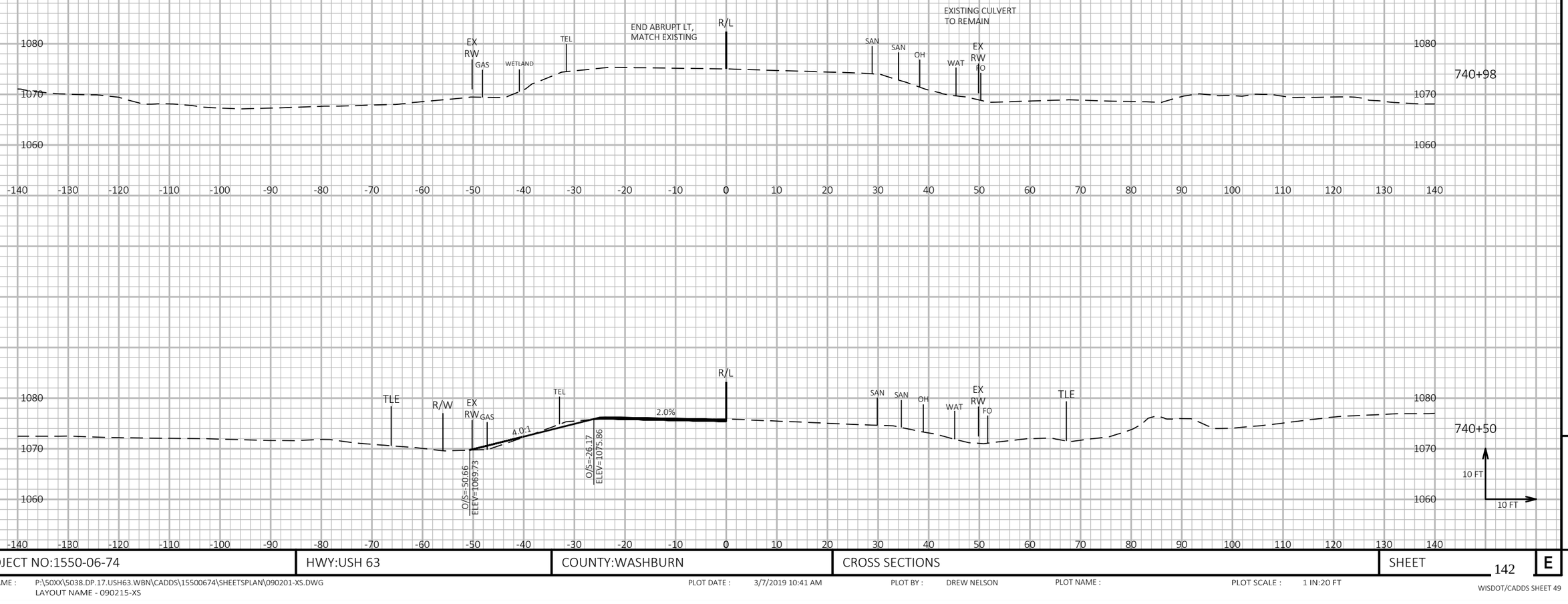
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 141	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090215-XS

PLOT DATE : 3/7/2019 10:41 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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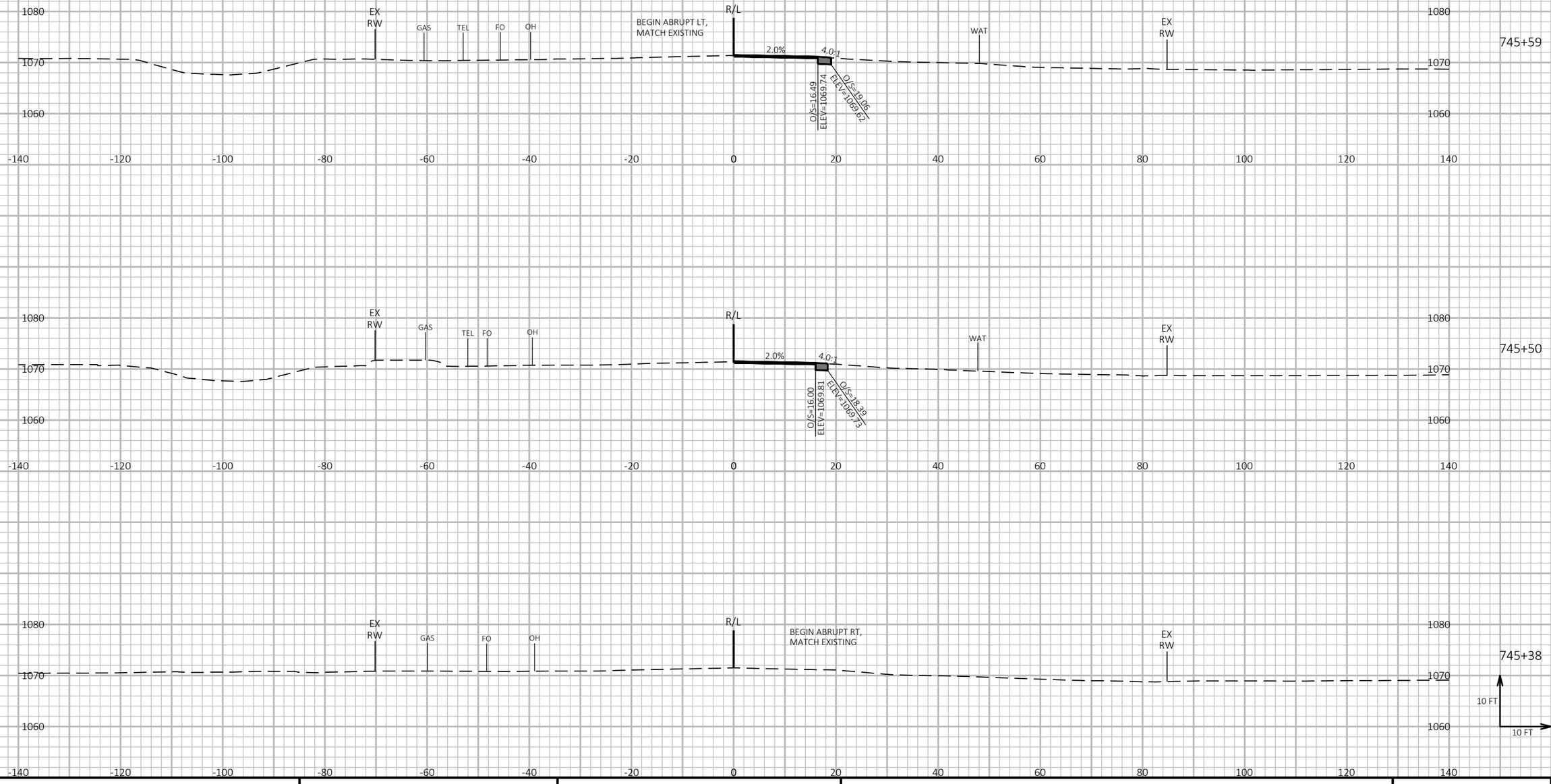
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS	SHEET 142	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090215-XS

PLOT DATE : 3/7/2019 10:41 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.



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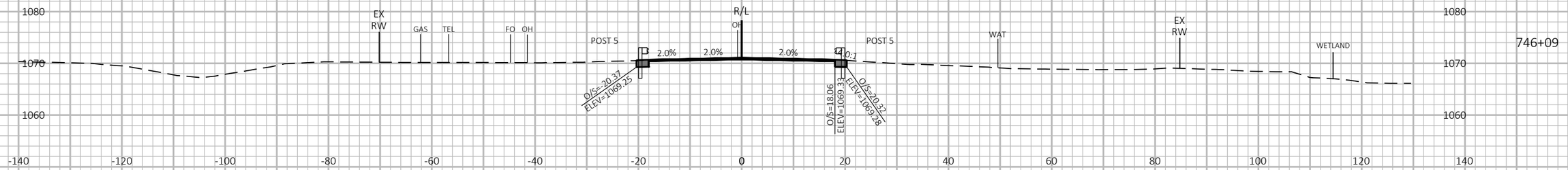
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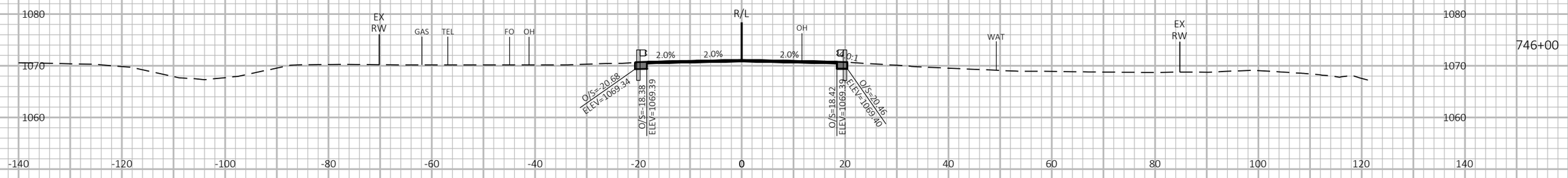
FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090203-xs

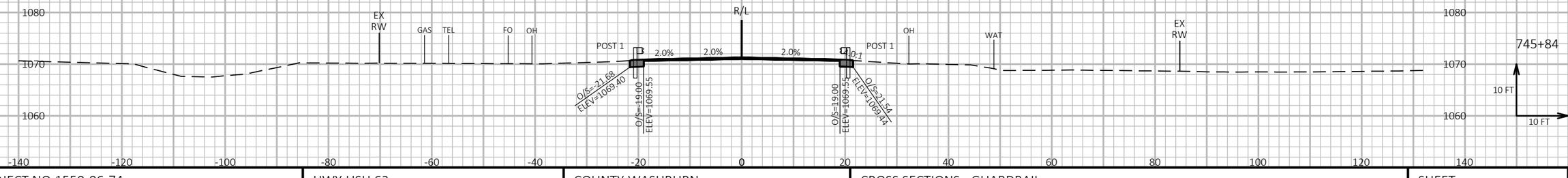
PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.







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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 144	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090204-xs

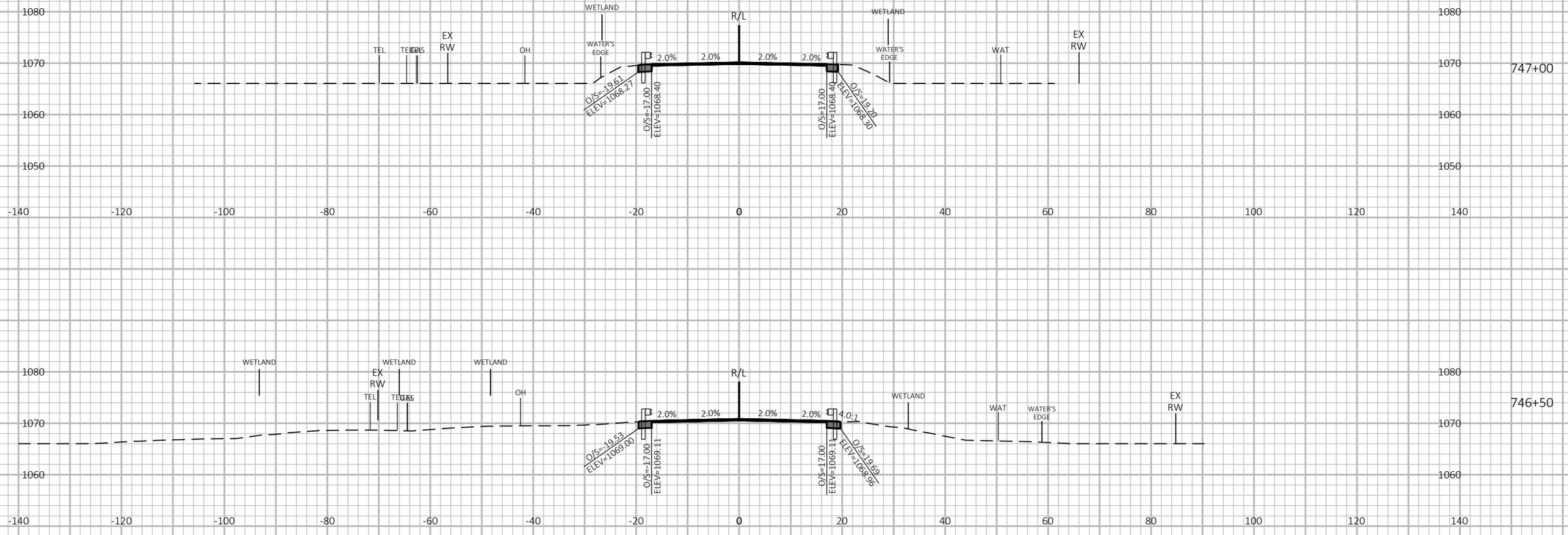
PLOT DATE : 1/8/2019 9:29 AM

PLOT BY : DREW NELSON

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.



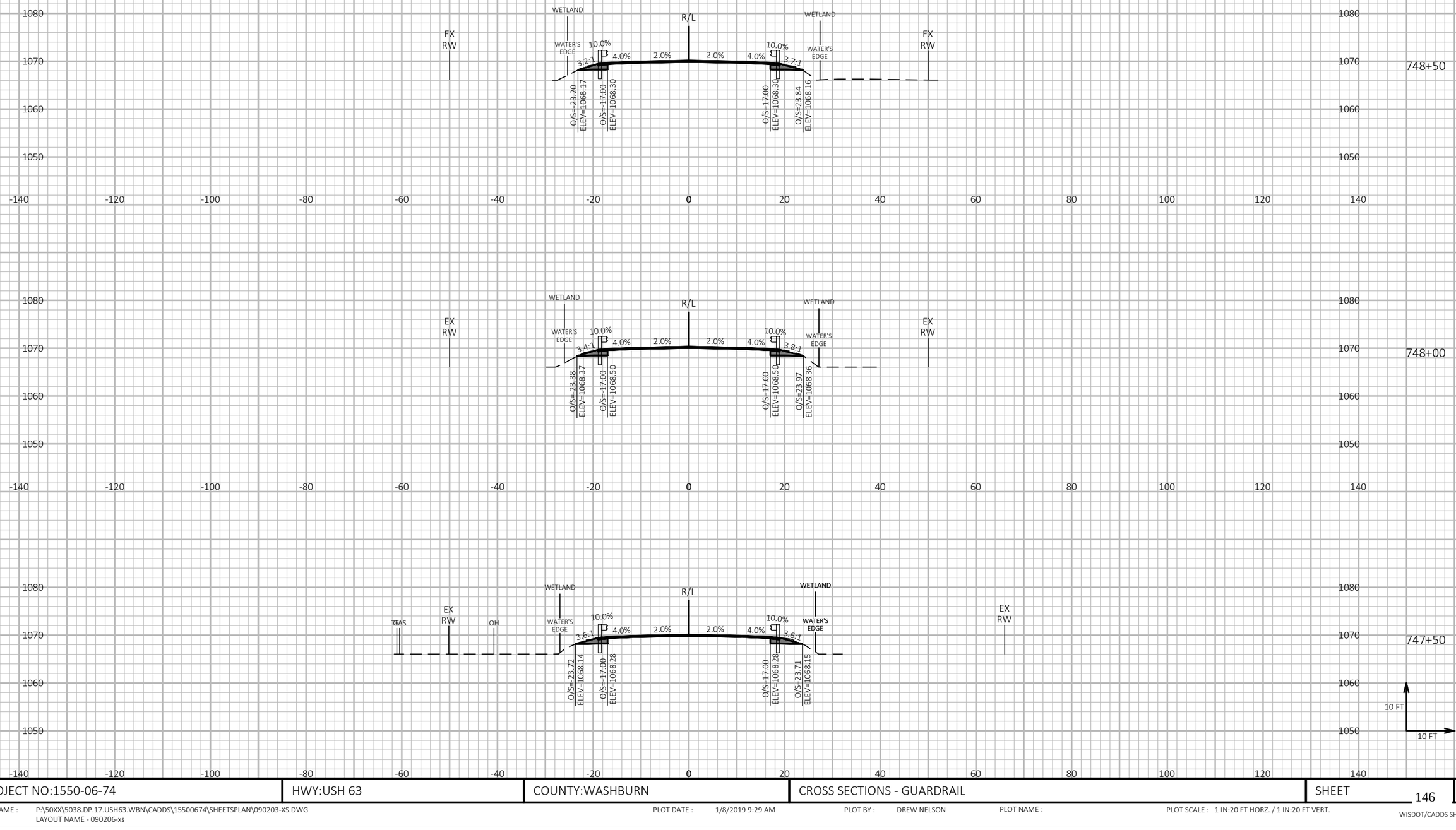
PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 145	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090205-xs

PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.



9

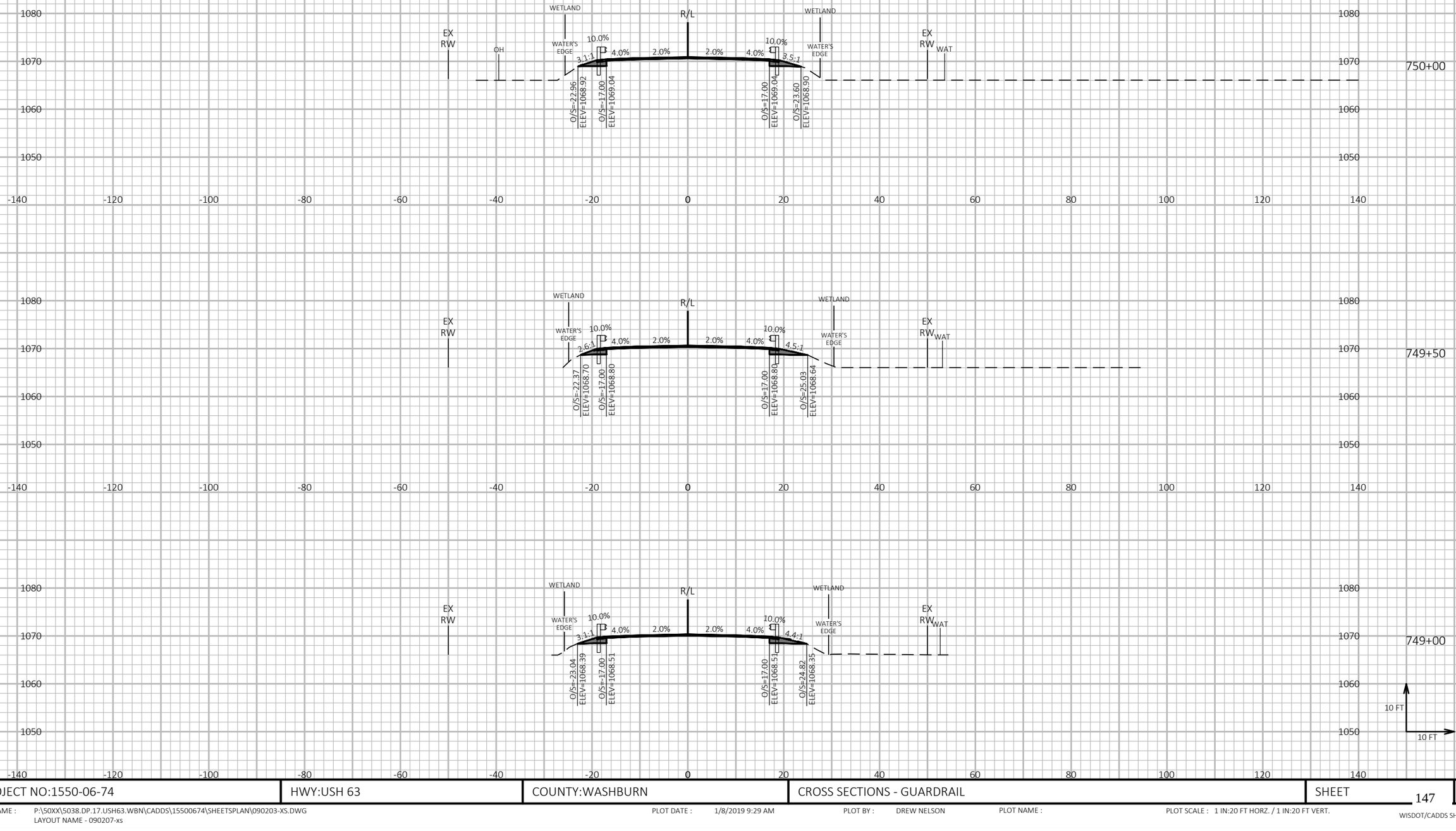
9

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 146	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090206-xs

PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.



9

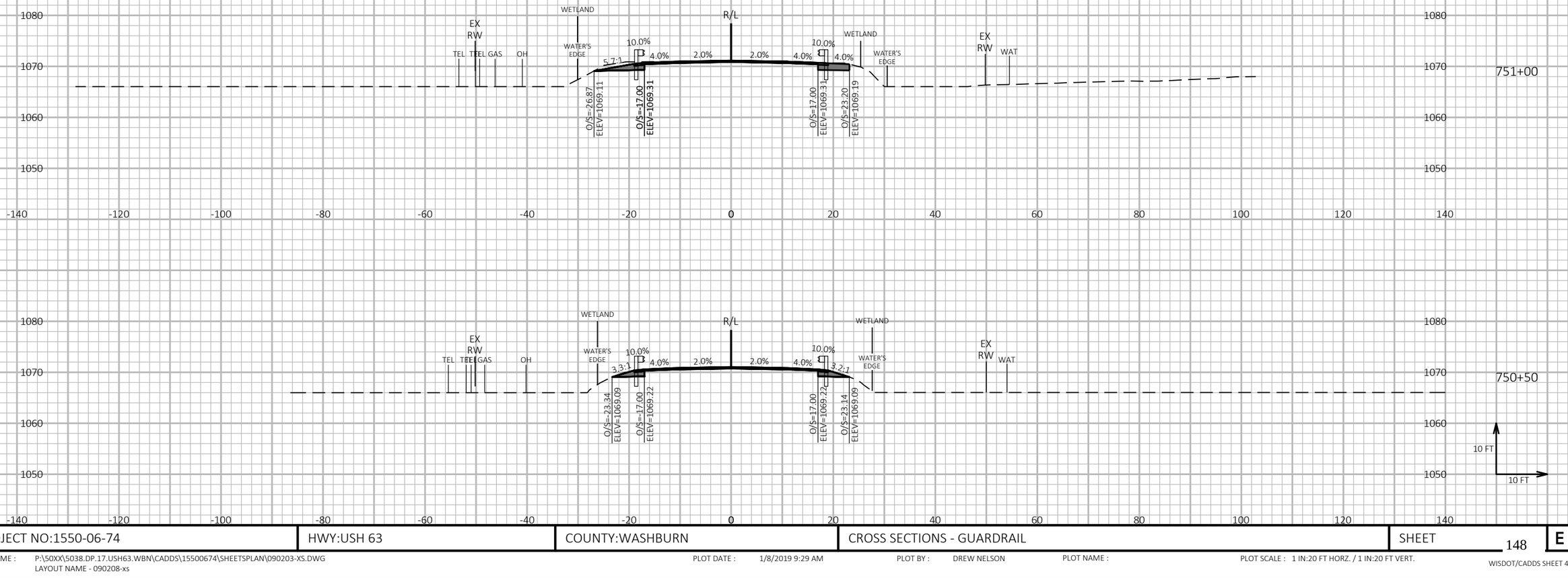
9

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 147	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090207-xs

PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.



9

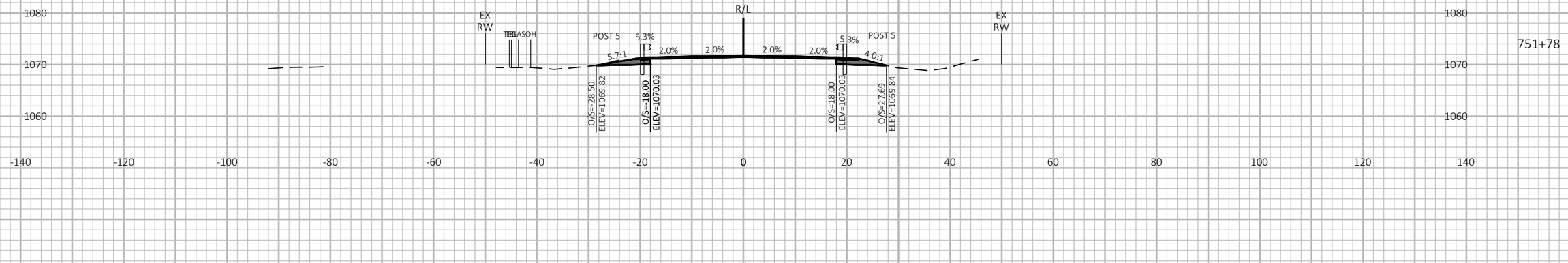
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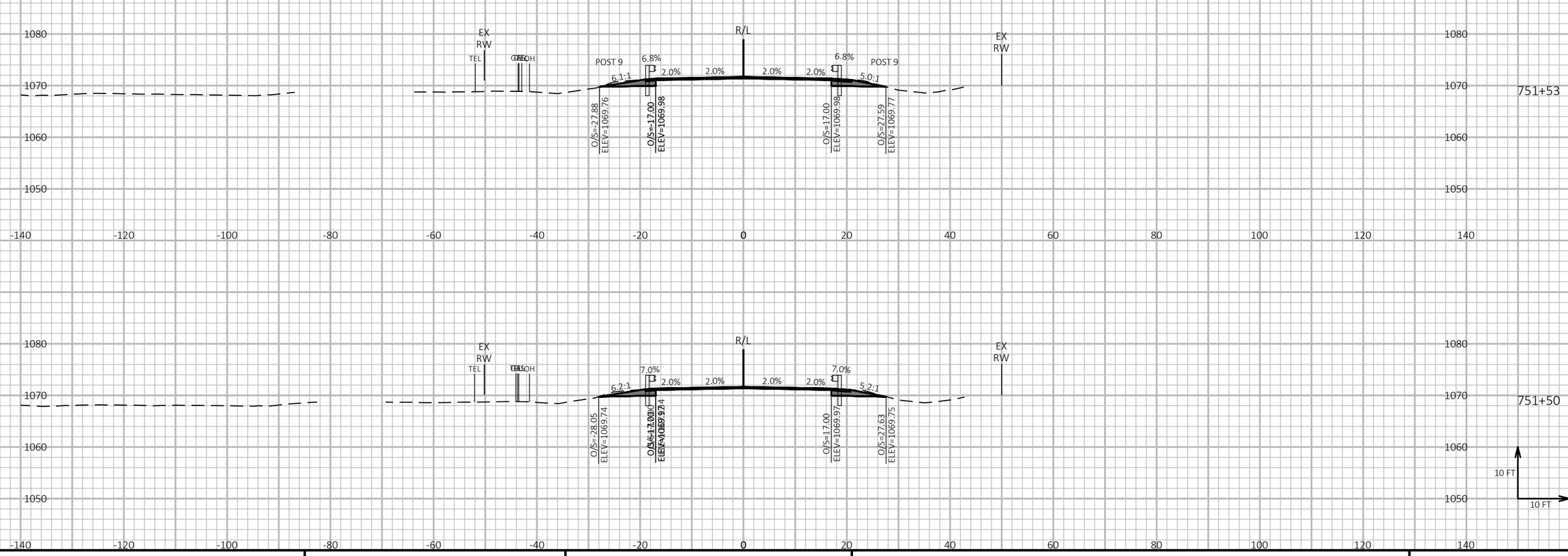
PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 148	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090208-xs

PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.





9

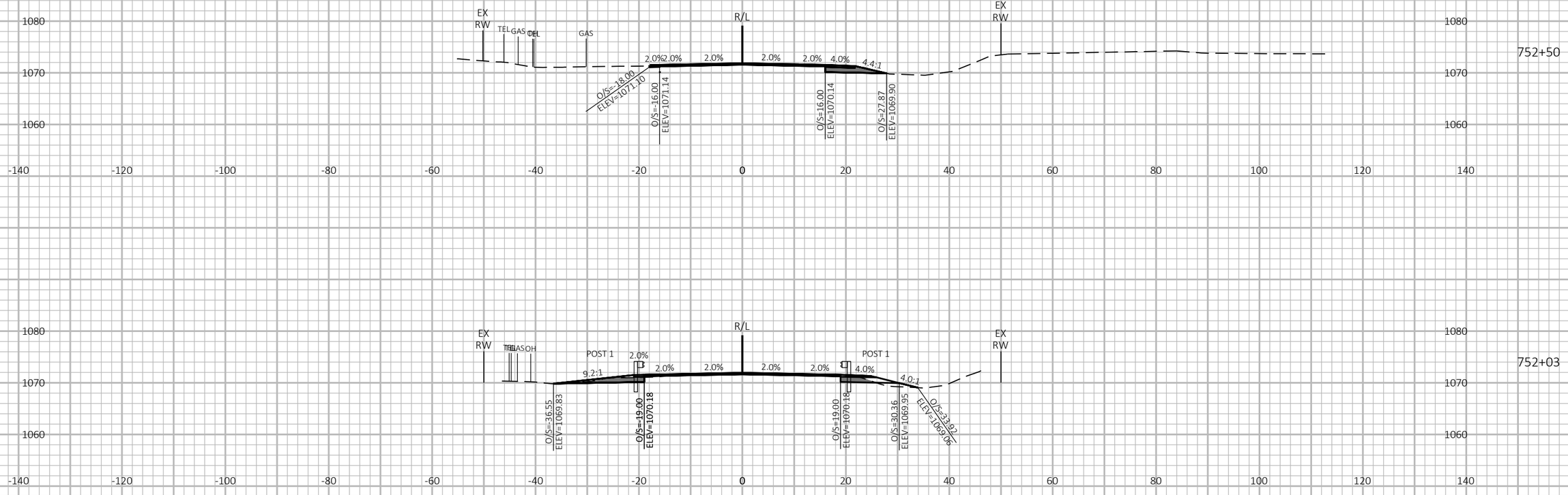
9

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 149	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090209-xs

PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.



9

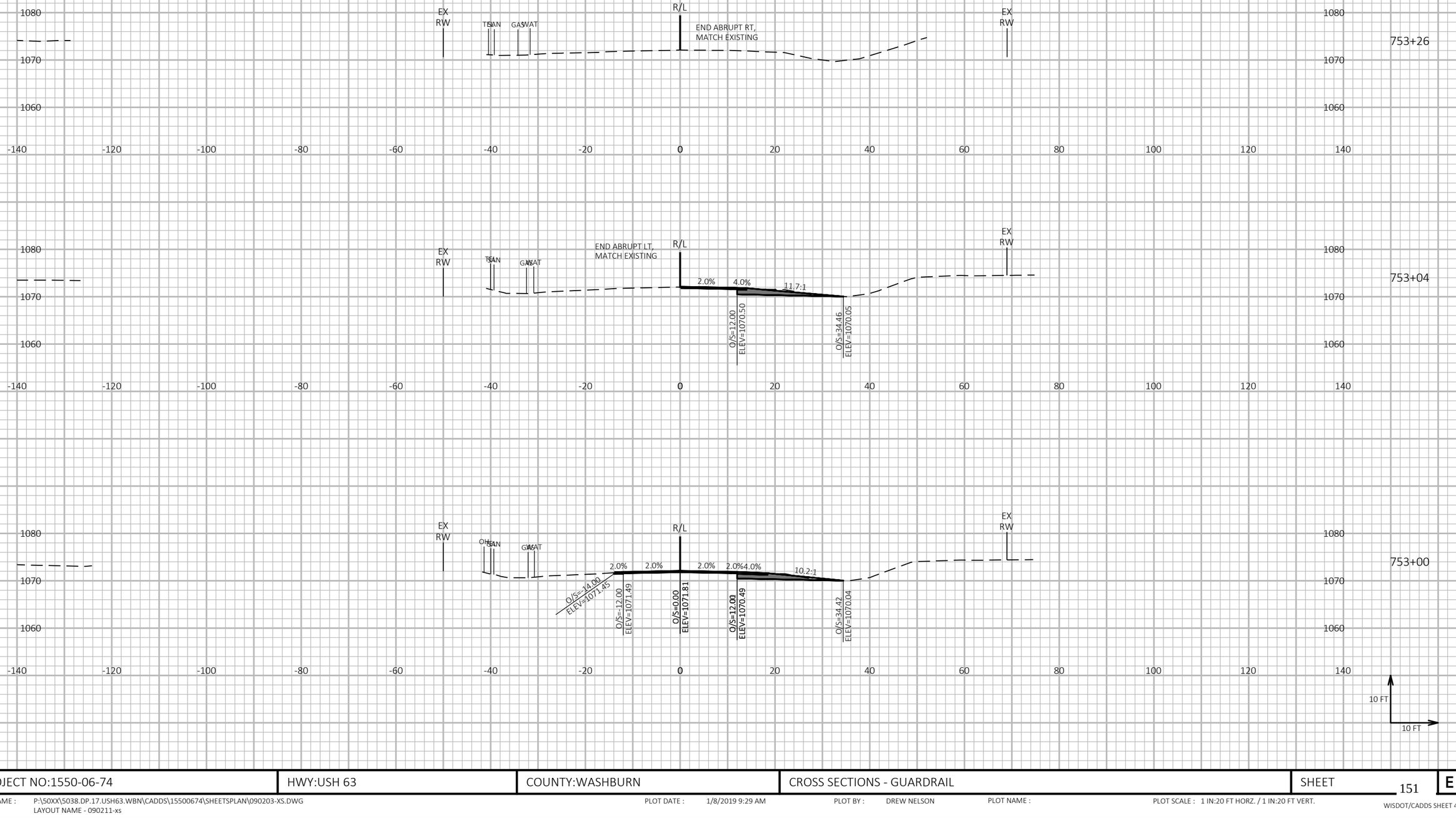
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PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 150	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090210-xs

PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EXISTING BASE AGGREGATE DENSE IN GOOD CONDITION MAY REMAIN. AREAS ARE INCLUDED IN THE EARTH WORK CUT.



9

9

PROJECT NO:1550-06-74	HWY:USH 63	COUNTY:WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 151	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15500674\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 090211-xs

PLOT DATE : 1/8/2019 9:29 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

SUP

MAY 2019

PROJECT ID: 1550-22-71

WITH: 1550-04-73, 1550-04-75, 1550-06-74

COUNTY: WASHBURN

ORDER OF SHEETS

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

TOTAL SHEETS = 56



46

N

DESIGN DESIGNATION

A.A.D.T.	2019	=	5,070
A.A.D.T.	2039	=	5,560
D.H.V.	2039	=	750
D.D.		=	61/39
T.		=	9.6%
DESIGN SPEED		=	25-55
ESALS		=	1,400,000

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SPOONER - HAYWARD

POPLAR STREET TO USH 53

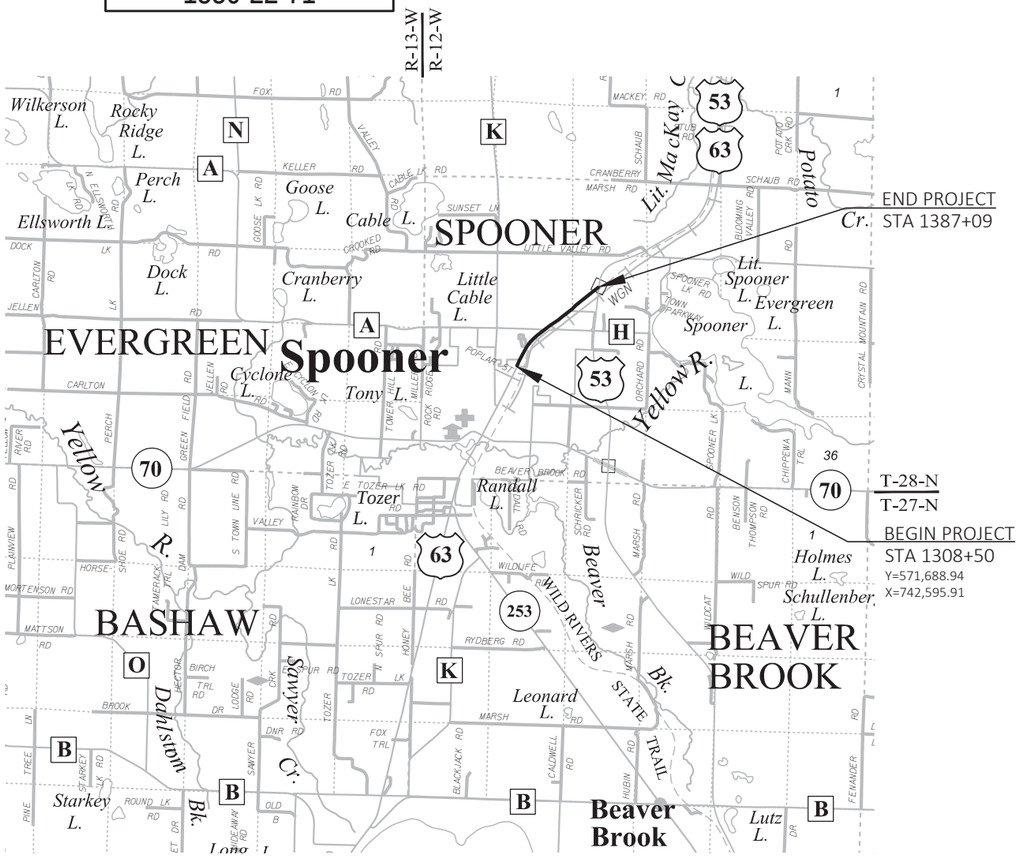
USH 63

WASHBURN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1550-22-71	WISC 2019325	1

STATE PROJECT NUMBER

1550-22-71



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 1.488 Miles

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WASHBURN COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), 1991 ADJUSTMENT.

emcs inc

500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E-35808
WAUSAU, WI
PROFESSIONAL ENGINEER

12/31/18 (Date) Stephanie G. Christensen (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	BETH CUNNINGHAM, PE
Regional Examiner	BETH CUNNINGHAM, PE
Regional Supervisor	ANDREW STENSLAND, PE

APPROVED FOR THE DEPARTMENT

DATE: 1/2/19 (Signature)

E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15502271\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 12/31/2018 8:44 AM

PLOT BY : DREW NELSON

PLOT NAME :

GENERAL NOTES

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

EROSION CONTROL FOR SPOT GRADING IS SHOWN ON SECTION 5 SHEETS.

PAVEMENT CORE LOG

CORE NO.	OLD STATION	NEW STATION	OFFSET	ASPHALTIC PAVEMENT THICKNESS (IN)
1	1308+00	1308+00	9' LT	5
2	1326+00	1326+00	5' RT	5.5
3	85+00	1343+85	9' LT	6.25
4	103+00	1361+85	9' RT	6.5
5	121+00	1379+85	5.5' LT	5.75

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 377A, CONSTRUCTION YEAR: 1936
PROJECT NO: 1190-03-71, CONSTRUCTION YEAR: 1989
PROJECT NO: 1550-19-71, CONSTRUCTION YEAR: 2004

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
TRAFFIC CONTROL

UTILITIES

COMMUNICATIONS

CENTURYLINK
RUSSELL VANCE
135 N 21ST STREET
SUPERIOR, WI 54880
(715) 392-0045 (OFFICE)
(715) 919-8003 (MOBILE)
RUSSELL.VANCE@CENTURYLINK.COM

CHARTER COMMUNICATIONS
TOM HAASE
2304 S. MAIN ST.
RICE LAKE, WI. 54868
(715) 719-0564
(715) 418-9317
TOM.HAASE@CHARTER.COM

CINC
DAREN BAUER
105 GARIFIELD AVE.
EAU CLAIRE, WI 54701
(715) 836-5286 OFFICE
BAUERDP@UWEC.EDU

PACKERLAND BROADBAND
ANDY HEIGL
165 KENT ST.
IRON MOUNTAIN, MI 49801
(906) 221-7536 OFFICE
ANDY.HEIGL@PLBB.NET

ELECTRIC - DISTRIBUTION

BARRON ELECTRIC COOPERATIVE
SCOTT DEVOE
1550 PAULSON DRIVE
SPOONER, WI 54801
(715) 637-6131
SDEVOE@BARRONELECTRIC.COM

CITY OF SPOONER
GARY JOHNSON
P.O. BOX 548
SPOONER, WI 54801
(715) 635-8769 OFFICE
(715) 520-0203 MOBILE
JOHNSONG@CITYOFSPOONER.ORG

GAS/PETROLEUM

WE ENERGIES
RYAN MIENTKE
1921 S. 8TH ST.
WISCONSIN RAPIDS, WI 54494
(715) 421-7249 OFFICE
(715) 421- 9293 MOBILE
RYAN.MIENTKE@WE-ENERGIES.COM
EMERGENCY 24-HOUR DISPATCH 1-800-261-5325

SEWER

CITY OF SPOONER
GARY JOHNSON
P.O. BOX 548
SPOONER, WI 54801
(715) 635-8769 OFFICE
(715) 520-0203 MOBILE
JOHNSONG@CITYOFSPOONER.ORG

WATER

CITY OF SPOONER
GARY JOHNSON
P.O. BOX 548
SPOONER, WI 54801
(715) 635-8769 OFFICE
(715) 520-0203 MOBILE
JOHNSONG@CITYOFSPOONER.ORG

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

OTHER CONTACTS

DNR LIAISON

SHAWN HASELEU
810 W MAPLE ST
SPOONER, WI 54801
(715) 635-4228
SHAWN.HASELEU@WISCONSIN.GOV

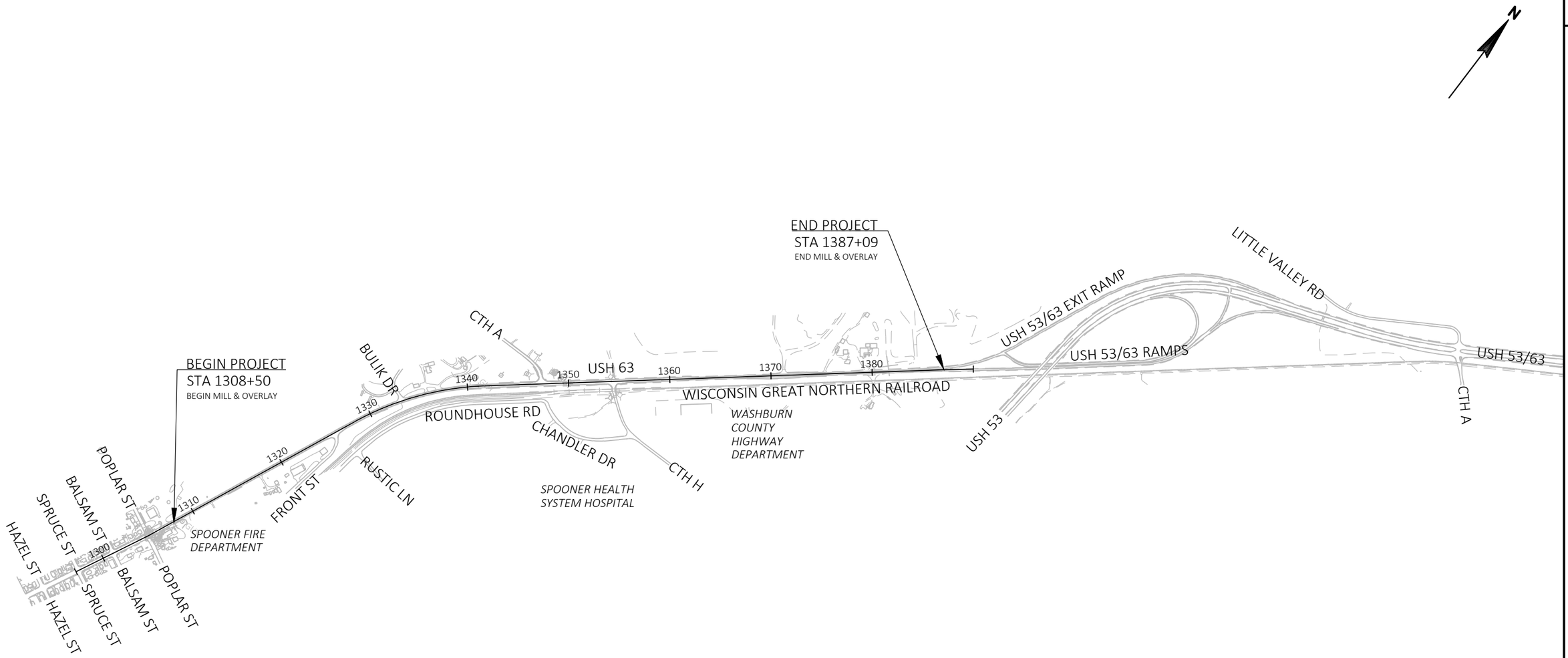
WISCONSIN GREAT NORTHERN

GREG VREELAND
PO BOX 46
SPOONER, WI 54801
(715) 635-3200
GREG@SPOONERTRAINRIDE.COM

US ARMY CORPS OF ENGINEERS

WILLIAM SANDE
15945 RIVERS EDGE DRIVE
SUITE 240
HAYWARD, WI 54843
(715) 934-2170
WILLIAM.M.SANDE@USACE.ARMY.MIL

2

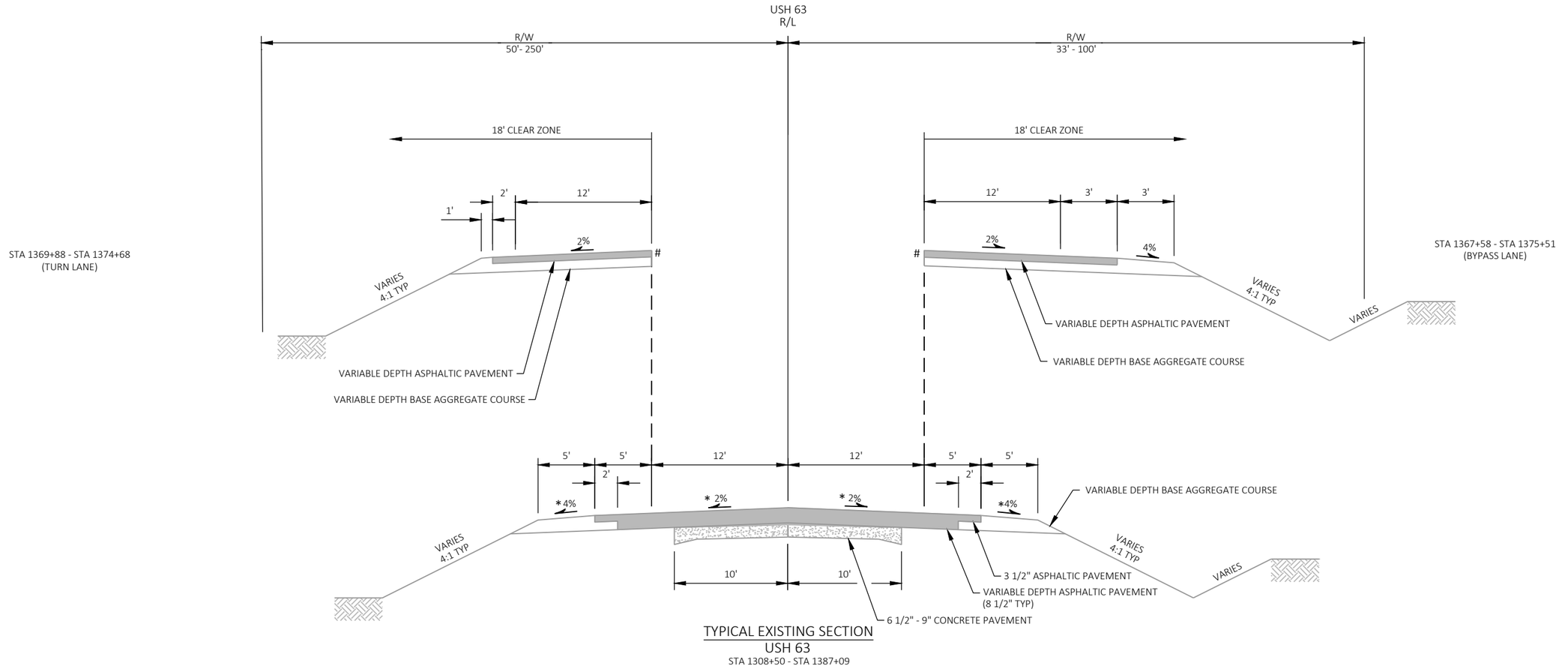


PROJECT NO:1550-22-71	HWY:USH 63	COUNTY:WASHBURN	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15502271\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 1/8/2019 9:39 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2



TYPICAL EXISTING SECTION
USH 63
STA 1308+50 - STA 1387+09

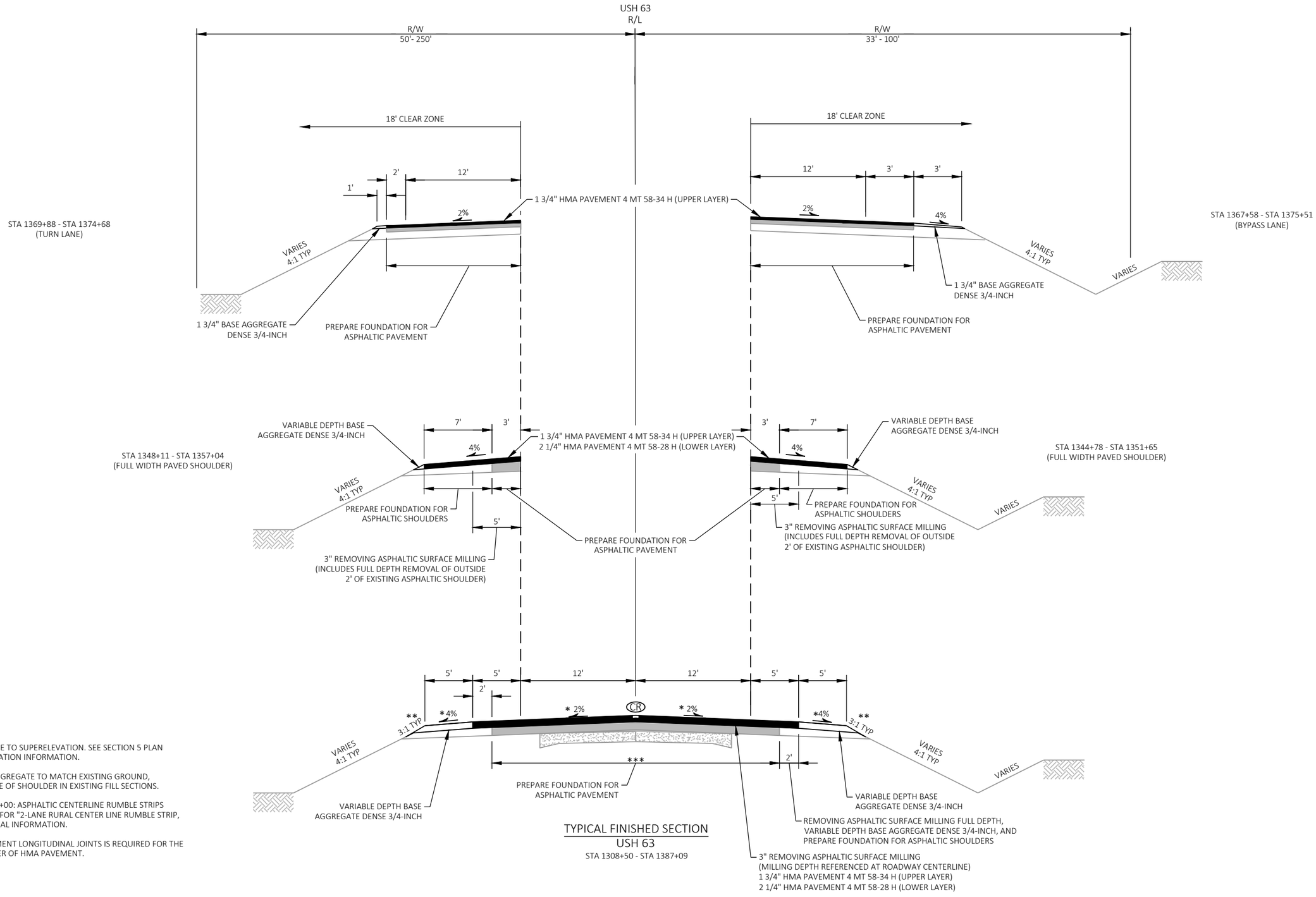
NOTES

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

TURN LANE AND BYPASS LANE EXISTING SURFACE ELEVATION IS APPROXIMATELY 3/4" LOWER THAN THE ADJACENT TRAVEL LANE SURFACE.

PROJECT NO: 1550-22-71	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 4	E

2



TYPICAL FINISHED SECTION
USH 63
STA 1308+50 - STA 1387+09

NOTES

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

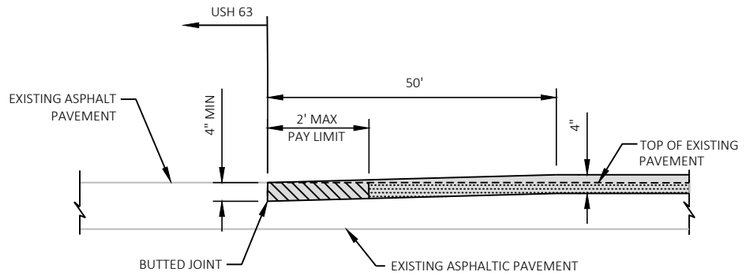
** VARY SLOPE OF BASE AGGREGATE TO MATCH EXISTING GROUND, TYPICALLY 2' FROM EDGE OF SHOULDER IN EXISTING FILL SECTIONS.

(CR) STA 1309+75 - STA 1383+00: ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE SDD FOR "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION.

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS IS REQUIRED FOR THE CENTERLINE UPPER LAYER OF HMA PAVEMENT.

PROJECT NO: 1550-22-71	HWY: USH 63	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15502271\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02
PLOT DATE : 1/8/2019 9:39 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE :
WISDOT/CADDS SHEET 42



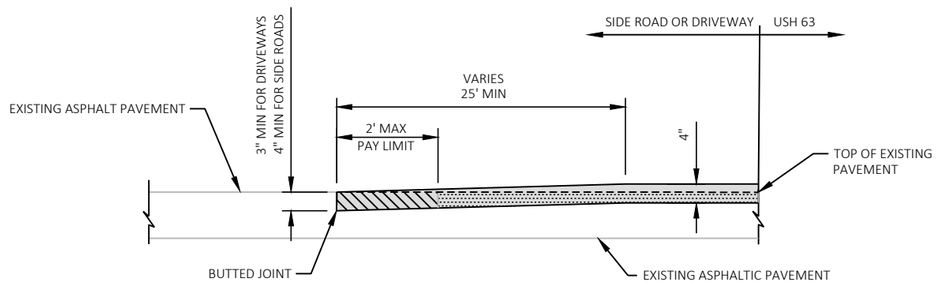
REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

USH 63 BUTT JOINT DETAIL

STA 1308+50
STA 1387+09, RT
STA 1387+83, LT



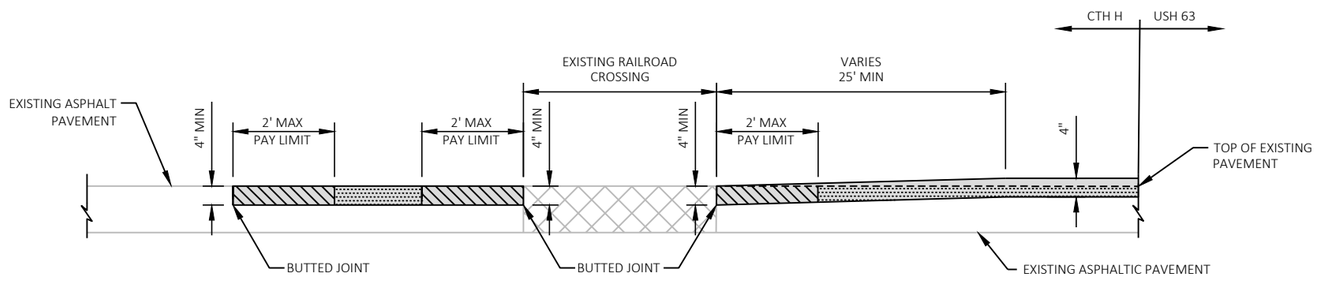
REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OR ASPHALTIC PAVEMENT OVERLAY

SIDE ROAD AND DRIVEWAY BUTT JOINT DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS



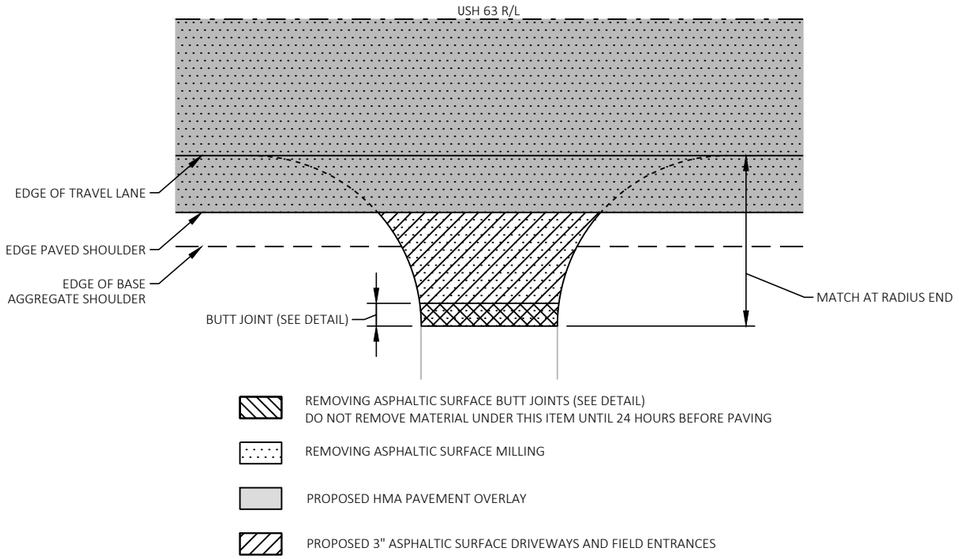
REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

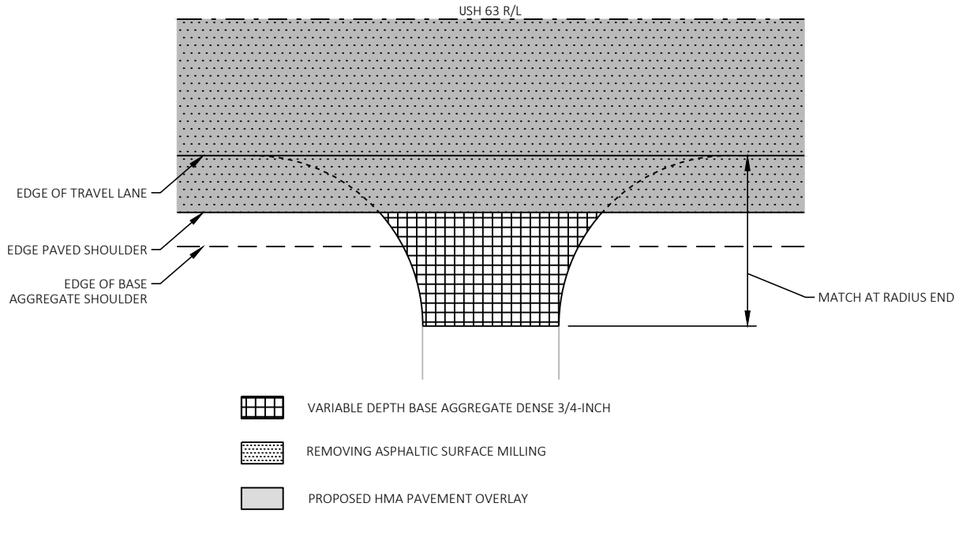
CTH H AND RAILROAD CROSSING BUTT JOINT DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATION



PAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS



UNPAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

2

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 = 16.04 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.1 ACRES

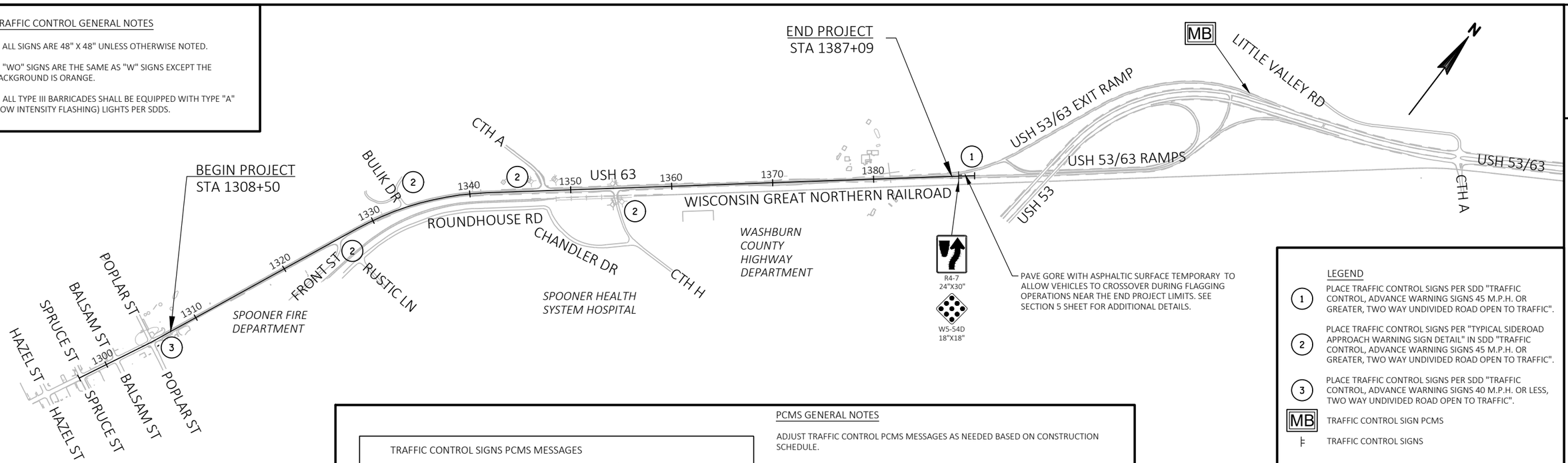
2

TRAFFIC CONTROL GENERAL NOTES

1. ALL SIGNS ARE 48" X 48" 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.



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".

MB — TRAFFIC CONTROL SIGN PCMS

TRAFFIC CONTROL SIGNS

TRAFFIC CONTROL SIGNS PCMS MESSAGES

	PRIOR TO CONSTRUCTION		DURING WORK NEAR RAMP GORE*	
PCMS SIGN LOCATION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
USH 63 SB RAMP NEAR USH 53/63 RAMP GORE	USH 63 WORK STARTS	WEEK DAY STARTING DATE	FLAGGER AHEAD	BE PREPARED TO STOP

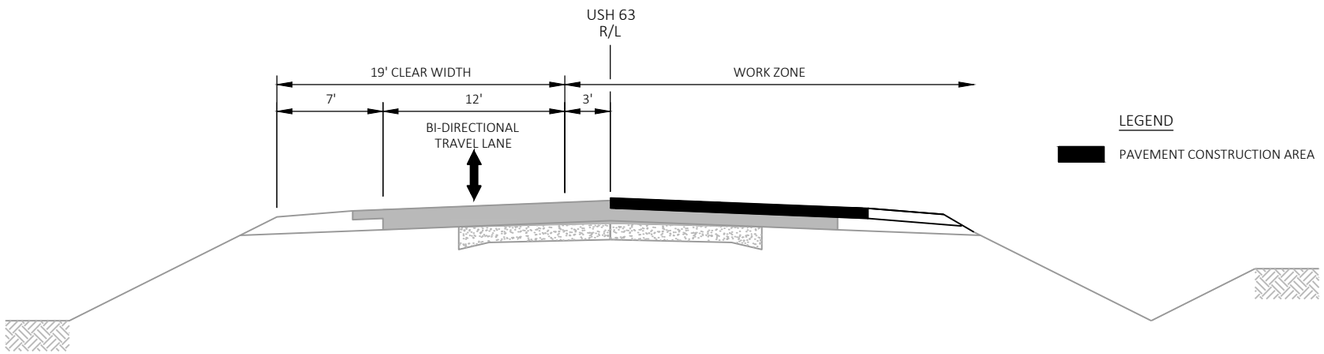
PCMS GENERAL NOTES

ADJUST TRAFFIC CONTROL PCMS MESSAGES AS NEEDED BASED ON CONSTRUCTION SCHEDULE.

CONSIDER GEOMETRICS WHEN LOCATING MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1,000 FEET IN FRONT OF THE MESSAGE BOARD. PLACE MESSAGE BOARDS AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.

PLACE TRAFFIC CONTROL SIGNS PCMS AND DISPLAY THE MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK. ADJUST THE MESSAGE DATE ACCORDINGLY.

*DISPLAY PCMS WHEN FLAGGERS ARE PRESENT NEAR RAMP GORE; USE OF PCMS AT THIS LOCATION ARE NOT A SUBSTITUTE FOR CONVENTIONAL FLAGGING ADVANCE WARNINGS SIGNS.



TRAFFIC CONTROL TYPICAL SECTION
USH 63

TYPICAL STAGING FOR MILL AND OVERLAY OPERATIONS
(WORK ZONE FOR USH 63 NB SHOWN, MIRROR TYPICAL SECTION FOR USH 63 SB WORK ZONE)

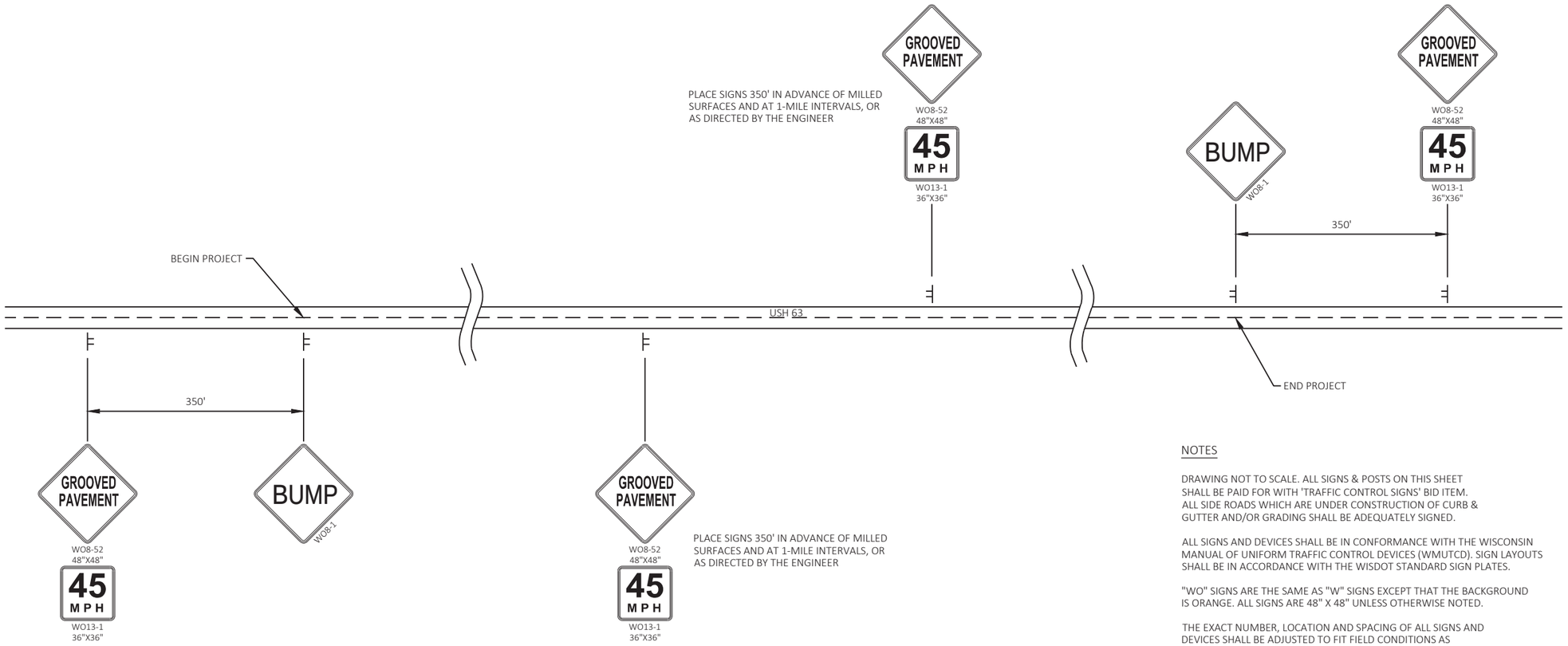
NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR REQUIRED SIGNING DURING PERIODS OF UNEVEN LANES.

THE WORK ZONE AS SHOWN INCLUDES WORKING ROOM AND BUFFER TO LIVE TRAFFIC.

2



NOTES

DRAWING NOT TO SCALE. ALL SIGNS & POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB & 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.

DETAIL FOR SIGNING ON MAINLINE MILLED SURFACES

PROJECT NO:1550-22-71	HWY:USH 63	COUNTY:WASHBURN	TRAFFIC CONTROL DETAILS	SHEET 9	E

1550-22-71

Line	Item	Item Description	Unit	Total	Qty
0006	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0010	204.0110	Removing Asphaltic Surface	SY	240.000	240.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	75.000	75.000
0014	204.0125	Removing Asphaltic Surface Milling	TON	5,515.000	5,515.000
0030	211.0100	Prepare Foundation for Asphaltic Paving (project) 03. 1550-22-71	LS	1.000	1.000
0032	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	155.000	155.000
0038	213.0100	Finishing Roadway (project) 01. 1550-22-71	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	985.000	985.000
0042	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	135.000	135.000
0048	455.0605	Tack Coat	GAL	4,565.000	4,565.000
0054	460.2000	Incentive Density HMA Pavement	DOL	4,740.000	4,740.000
0062	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	8,880.000	8,880.000
0064	460.6424	HMA Pavement 4 MT 58-28 H	TON	4,115.000	4,115.000
0066	460.6444	HMA Pavement 4 MT 58-34 H	TON	3,290.000	3,290.000
0074	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	55.000	55.000
0078	465.0125	Asphaltic Surface Temporary	TON	60.000	60.000
0084	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	5,225.000	5,225.000
0086	520.8000	Concrete Collars for Pipe	EACH	3.000	3.000
0088	520.8700	Cleaning Culvert Pipes	EACH	5.000	5.000
0090	521.1036	Apron Endwalls for Culvert Pipe Steel 36-Inch	EACH	1.000	1.000
0096	521.3136	Culvert Pipe Corrugated Steel 36-Inch	LF	6.000	6.000
0098	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	3.000	3.000
0100	522.0130	Culvert Pipe Reinforced Concrete Class III 30-Inch	LF	4.000	4.000
0106	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0108	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	1.000	1.000
0128	618.0100	Maintenance And Repair of Haul Roads (project) 03. 1550-22-71	EACH	1.000	1.000
0130	619.1000	Mobilization	EACH	0.200	0.200
0132	624.0100	Water	MGAL	2.000	2.000
0138	628.1504	Silt Fence	LF	190.000	190.000
0140	628.1520	Silt Fence Maintenance	LF	190.000	190.000
0142	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0144	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0146	628.2004	Erosion Mat Class I Type B	SY	795.000	795.000
0150	628.2008	Erosion Mat Urban Class I Type B	SY	75.000	75.000
0154	628.6005	Turbidity Barriers	SY	20.000	20.000
0156	628.7504	Temporary Ditch Checks	LF	65.000	65.000

1550-22-71

Line	Item	Item Description	Unit	Total	Qty
0158	628.7555	Culvert Pipe Checks	EACH	25.000	25.000
0166	631.0300	Sod Water	MGAL	5.000	5.000
0168	633.5200	Markers Culvert End	EACH	6.000	6.000
0172	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0176	638.2102	Moving Signs Type II	EACH	5.000	5.000
0180	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0182	638.4000	Moving Small Sign Supports	EACH	5.000	5.000
0184	642.5201	Field Office Type C	EACH	0.200	0.200
0186	643.0300	Traffic Control Drums	DAY	4,015.000	4,015.000
0192	643.0310.S	Temporary Portable Rumble Strips 03.1550-22-71	LS	1.000	1.000
0200	643.0900	Traffic Control Signs	DAY	1,000.000	1,000.000
0202	643.1050	Traffic Control Signs PCMS	DAY	7.000	7.000
0204	643.5000	Traffic Control	EACH	0.200	0.200
0208	646.1020	Marking Line Epoxy 4-Inch	LF	11,615.000	11,615.000
0210	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	15,500.000	15,500.000
0214	646.3020	Marking Line Epoxy 8-Inch	LF	365.000	365.000
0222	646.5320	Marking Railroad Crossings Epoxy	EACH	2.000	2.000
0230	648.0100	Locating No-Passing Zones	MI	1.490	1.490
0232	649.0105	Temporary Marking Line Paint 4-Inch	LF	23,100.000	23,100.000
0234	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	11,550.000	11,550.000
0242	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0244	650.8000	Construction Staking Resurfacing Reference	LF	7,933.000	7,933.000
0250	650.9910	Construction Staking Supplemental Control (project) 01. 1550-22-71	LS	1.000	1.000
0254	690.0150	Sawing Asphalt	LF	265.000	265.000
0258	740.0440	Incentive IRI Ride	DOL	6,400.000	6,400.000
0264	SPV.0060	Special 01. Driveway Removal Grading Shaping Finishing	EACH	1.000	1.000
0266	SPV.0060	Special 02. Gore Staging Grading Shaping Finishing	EACH	1.000	1.000
0268	SPV.0060	Special 03. Culvert Grading Shaping Finishing	EACH	3.000	3.000

3

REMOVING SMALL PIPE CULVERTS

PROJECT	STATION	OFFSET	203.0100 EACH	COMMENTS
1550-22-71				
	1314+70	RT	1	36-INCH CPCS (REMOVE 3.5' & AEW)
	1331+08	RT	1	24-INCH CPRC (AEW ONLY)
	1341+09	RT	1	30-INCH CPRC (AEW ONLY)
PROJECT 1550-22-71 TOTAL			3	

REMOVING ASPHALTIC ITEMS

PROJECT	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	COMMENTS
1550-22-71								
	1308+50	-	1348+00	LT&RT	--	30	2,640	
	1348+00	-	1387+83	LT&RT	--	32	2,820	
	1387+73	-	1389+00	LT	240	--	--	
	1308+50	-	1387+83	LT&RT	--	13	55	DRIVEWAYS
PROJECT 1550-22-71 TOTALS					240	75	5,515	

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BASE AGGREGATE ITEMS

PROJECT	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	COMMENTS
1550-22-71							
	1308+50	-	1348+00	LT&RT	468	--	
	1348+00	-	1387+83	LT&RT	422	--	
	1387+73	-	1389+00	LT	20	135	GORE
	1308+50	-	1387+83	LT&RT	75	--	DRIVEWAYS
PROJECT 1550-22-71 TOTALS					985	135	

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ASPHALTIC ITEMS

PROJECT	STATION	TO	STATION	OFFSET	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	455.0605 TACK COAT GAL	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	460.6424 HMA PAVEMENT 4 MT 58-28 H TON	460.6444 HMA PAVEMENT 4 MT 58-34 H TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	COMMENTS
1550-22-71															
	1308+50	-	1348+00	LT&RT	75	1,902	--	3,950	1,962	1,525	--	--	--	2,775	
	1348+00	-	1387+83	LT&RT	80	2,663	--	4,930	2,153	1,765	--	--	--	2,450	
	1387+73	-	1389+00	LT	--	--	--	--	--		--	--	60	--	
	1308+50	-	1389+00	LT&RT	--	--	--	--	--	--	--	55	--	--	DRIVEWAYS
	PROJECT				--	--	4,740	--	--	--	100	--	--	--	
PROJECT 1550-22-71 TOTALS					155	4,565	4,740	8,880	4,115	3,290	100	55	60	5,225	

REHEAT SURFACE LAYER CENTERLINE, TURN LANE, AND BYPASS LANE JOINTS
CENTERLINE RUMBLE STRIPS BEGIN AT STATION 1309+75 AND END STATION 1383+00
ASPHALTIC SURFACE PATCHING ITEM USED FOR REPAIRS REQUIRING ASPHALTIC MATERIAL DURING PREPARING FOUNDATION FOR ASPHALTIC PAVING

CULVERT PIPE ITEMS

PROJECT	STATION	OFFSET	MINIMUM THICKNESS INCHES	INLET ELEVATION	SLOPE	520.8000 CONCRETE COLLARS FOR PIPE EACH	520.8700 CLEANING CULVERT PIPES EACH	521.1036 APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH EACH	521.3136 CULVERT PIPE CORRUGATED STEEL 36-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	**PIPE JOINT TIES EACH	COMMENTS
1550-22-71																	
	1314+70	LT&RT	0.079	1076.50	0.24%	1	1	1	6	--	--	--	--	2	1	--	
	1331+08	LT&RT	--	1095.64	4.15%	1	1	--	--	3	--	1	--	2	1	2	
	1341+09	LT&RT	--	1106.59	0.39%	1	1	--	--	--	4	--	1	2	1	2	
	1347+71	LT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	CTH A
	1354+38	RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	CTH H
PROJECT 1550-22-71 TOTALS						3	5	1	6	3	4	1	1	6	3	4	

INLET ELEVATIONS ARE AT THE END OF PIPE AT APRON ENDWALLS.
** PIPE JOINT TIES ARE INCIDENTAL TO THE PROPOSED CULVERT BID ITEMS

EROSION CONTROL ITEMS

PROJECT	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.6005 TURBIDITY BARRIERS SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	COMMENTS
1550-22-71												
	1314+54	-	1314+84	RT	50	50	--	60	20	--	6	CULVERT EXTENSION
	1330+84	-	1331+47	RT	--	--	113	--	--	25	6	CULVERT EXTENSION
	1335+50	-	1336+25	LT	100	100	210	--	--	--	--	DRIVEWAY REMOVAL
	1340+91	-	1341+28	RT	--	--	75	--	--	25	6	CULVERT EXTENSION
	1387+73	-	1389+00	LT	--	--	237	--	--	--	--	GORE STAGING
UNDISTRIBUTED					40	40	160	15	--	15	7	
PROJECT 1550-22-71 TOTALS					190	190	795	75	20	65	25	

EROSION CONTROL MOBILIZATION ITEMS

PROJECT	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1550-22-71			
	PROJECT	2	3
PROJECT 1550-22-71 TOTALS		2	3

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REMOVING AND MOVING SIGN ITEMS

PROJECT	LOCATION	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
1550-22-71					
	UNDISTRIBUTED	5	5	5	5
PROJECT 1550-22-71 TOTALS		5	5	5	5

TRAFFIC CONTROL ITEMS

PROJECT	LOCATION	DURATION DAYS	643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS LS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH
1550-22-71										
	PRIOR TO CONSTRUCTION	7	--	5	35	--	--	1	7	--
	PROJECT	50	1	80	3,980	20	1,000	--	--	0.2
PROJECT 1550-22-71 TOTALS			1		4,015		1,000		7	0.2

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PAVEMENT MARKING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	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	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH 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
1550-22-71												
	1308+50	-	1348+00	LT&RT	615	4,075	--	7,500	--	9,380	615	4,075
	1348+00	-	1387+59	LT&RT	535	6,325	65	8,000	365	13,720	535	6,325
PROJECT 1550-22-71 TOTALS					1,150	10,400	65	15,500	365	23,100	1,150	10,400
						11,615						11,550

IN AREAS OF CENTERLINE RUMBLE STRIPS, ONE APPLICATION OF TEMPORARY MARKING LINE EPOXY IS INCLUDED FOR USE PRIOR TO INSTALLING RUMBLE STRIPS AND ONE APPLICATION OF MARKING LINE EPOXY IS INCLUDED FOR USE AFTER INSTALLING RUMBLE STRIPS.
TWO APPLICATIONS OF TEMPORARY MARKING LINE PAINT ON THE CENTERLINE ARE INCLUDED FOR USE DURING MILLING AND OVERLAY OPERATIONS.

MISCELLANEOUS PAVEMENT MARKING ITEMS

PROJECT	STATION	OFFSET	646.5320 MARKING RAILROAD CROSSING EPOXY EACH	COMMENTS
1550-22-71				
	1354+45	RT	2	1 24-INCH STOP BAR AT EACH LOCATION
PROJECT 1550-22-71 TOTAL			2	

LOCATING NO-PASSING ZONES

PROJECT	LOCATION	648.0100 MI
1550-22-71		
	PROJECT	1.49
PROJECT 1550-22-71 TOTAL		1.49

WATER ITEMS

PROJECT	LOCATION	OFFSET	624.0100 WATER MGAL	631.0300 SOD WATER MGAL
1550-22-71				
	PROJECT	LT & RT	2	5
PROJECT 1550-22-71 TOTALS			2	5

DRIVEWAY REMOVAL GRADING SHAPING FINISHING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	SPV.0060.01 DRIVEWAY REMOVAL GRADING SHAPING FINISHING EACH	** EXCAVATION COMMON CY	** TOPSOIL SY	** FERTILIZER TYPE B CWT	** SEEDING MIXTURE NO. 30 LB
1550-22-71									
	1335+50	-	1336+25	LT	1	25	210	0.1	4
PROJECT 1550-22-71 TOTALS					1	25	210	0.1	4

**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO DRIVEWAY REMOVAL GRADING SHAPING FINISHING.

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GORE STAGING GRADING SHAPING FINISHING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	SPV.0060.02 GORE STAGING GRADING SHAPING FINISHING EACH	** EXCAVATION COMMON CY	** TOPSOIL SY	** FERTILIZER TYPE B CWT	** SEEDING MIXTURE NO. 30 LB
1550-22-71									
	1387+73	-	1389+00	LT	1	95	240	0.2	4
PROJECT 1550-22-71 TOTALS					1	95	240	0.2	4

**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO GORE STAGING GRADING SHAPING FINISHING.

CULVERT GRADING SHAPING FINISHING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	SPV.0060.03 CULVERT GRADING SHAPING FINISHING EACH	** EXCAVATION COMMON CY	** FILL CY	** BORROW CY	** TOPSOIL SY	** FERTILIZER TYPE B CWT	** SEEDING MIXTURE NO. 30 LB
1550-22-71											
	1314+54	-	1314+84	RT	1	5	12	7	58	0.1	1
	1330+84	-	1331+47	RT	1	20	10	--	113	0.1	2
	1340+91	-	1341+28	RT	1	10	18	8	74	0.1	2
PROJECT 1550-22-71 TOTALS					3	35	40	15	245	0.3	5

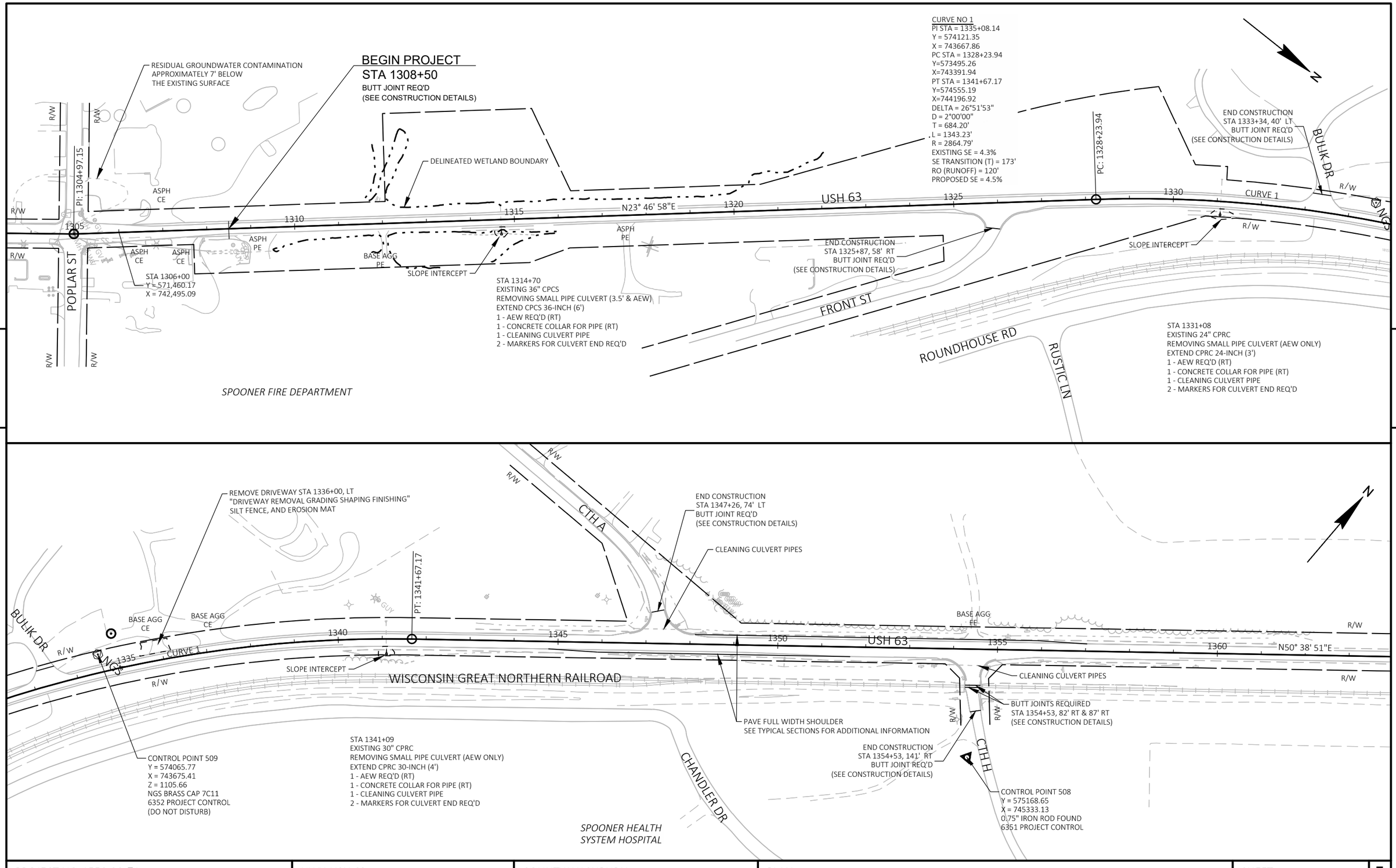
**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO CULVERT GRADING SHAPING FINISHING.

CONSTRUCTION STAKING ITEMS

PROJECT	STATION	TO	STATION	OFFSET	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1550-22-71) LS
1550-22-71						
	1308+50	-	1387+83	LT&RT	7,933	1
PROJECT 1550-22-71 TOTALS					7,933	1

SAWING ASPHALT

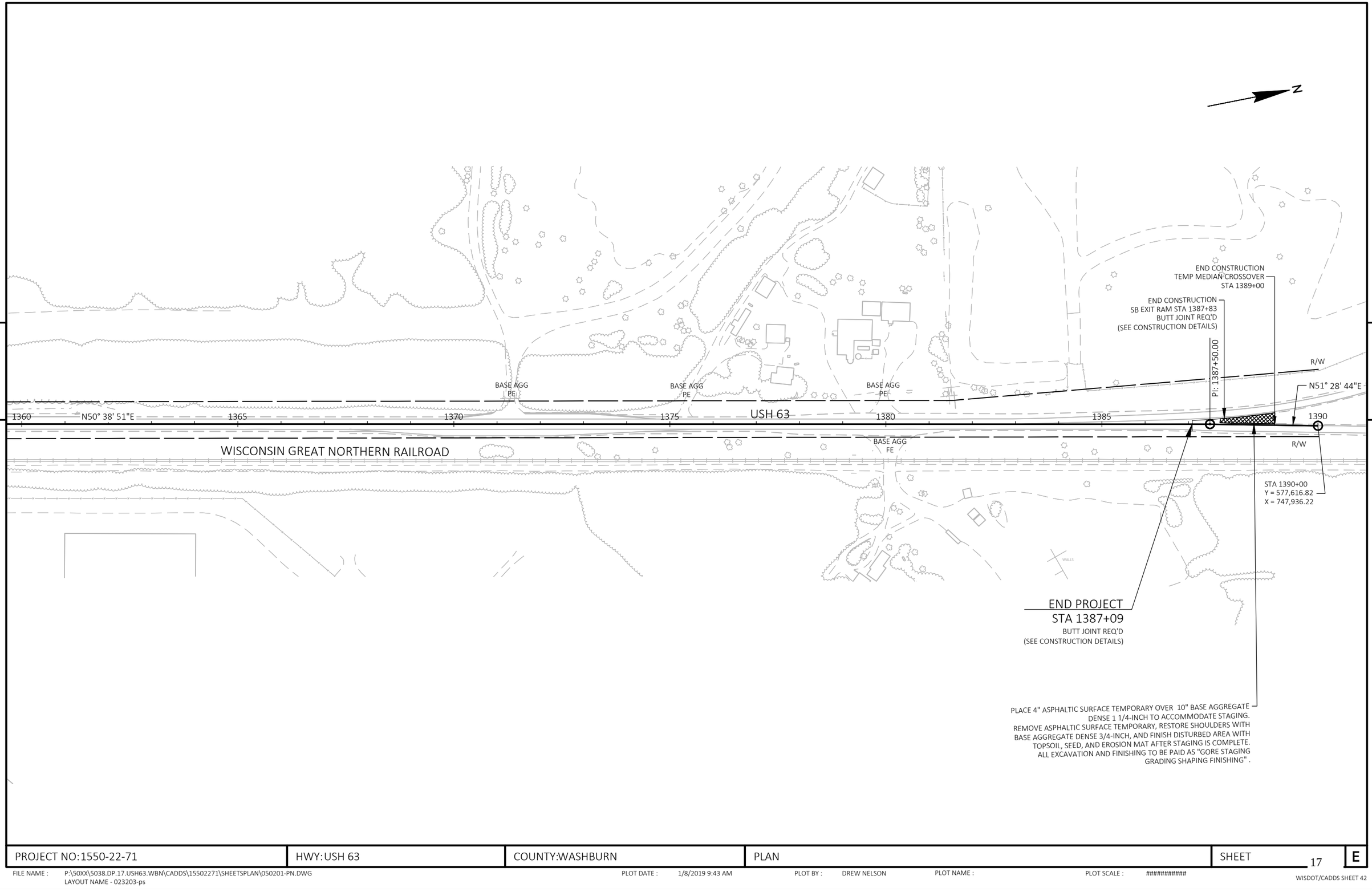
PROJECT	STATION	TO	STATION	OFFSET	690.0150 LF	COMMENTS
1550-22-71						
	1387+73	-	1389+00	LT	265	GORE TEMPORARY PAVEMENT REMOVAL
PROJECT 1550-22-71 TOTAL					265	



PROJECT NO:1550-22-71	HWY:USH 63	COUNTY:WASHBURN	PLAN	SHEET 16	E

FILE NAME : P:\50XX\5038.DP.17.USH63.WBN\CADDS\15502271\SHEETSPLAN\050201-PN.DWG PLOT DATE : 1/8/2019 9:43 AM PLOT BY : DREW NELSON PLOT NAME :

WISDOT/CADDS SHEET 42



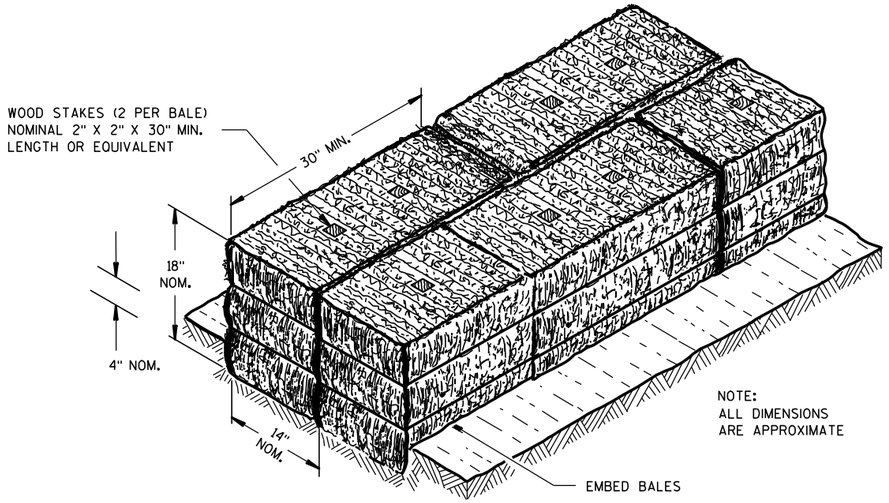
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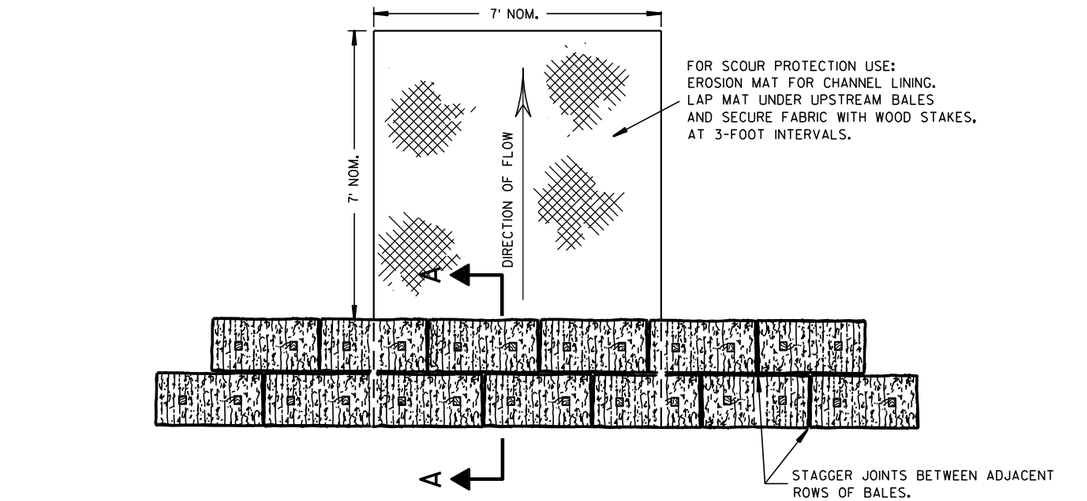
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Standard Detail Drawing List

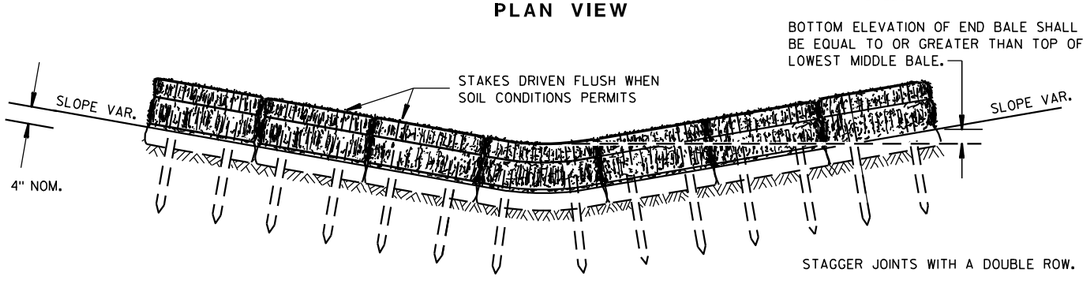
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
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
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-03	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



SECTION A-A



PLAN VIEW



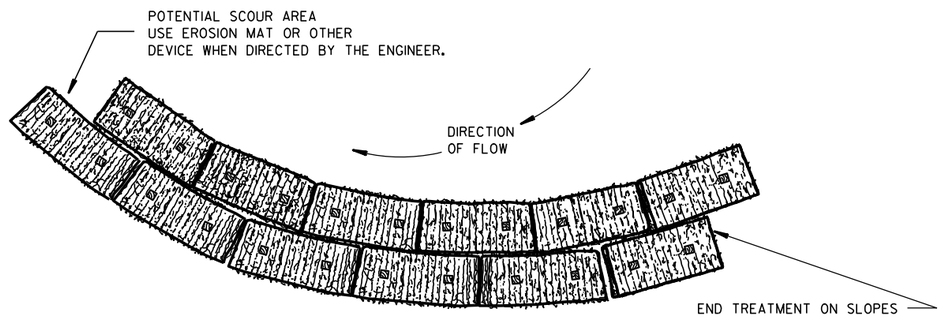
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

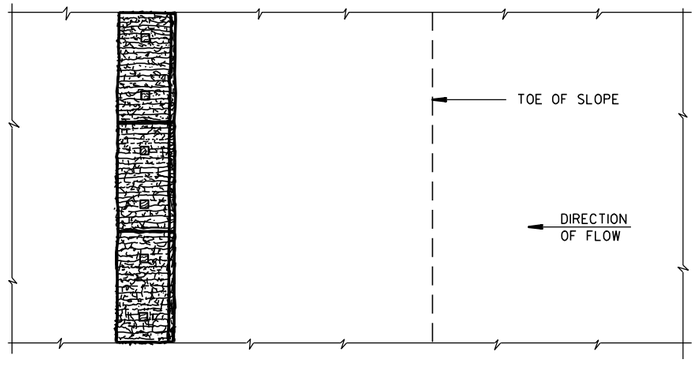
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

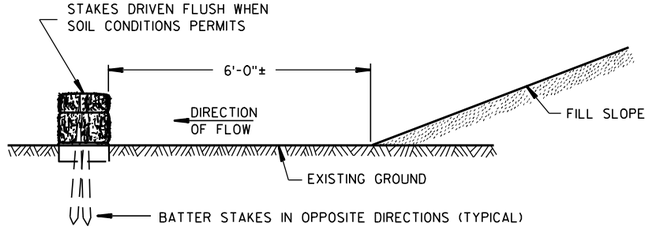


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

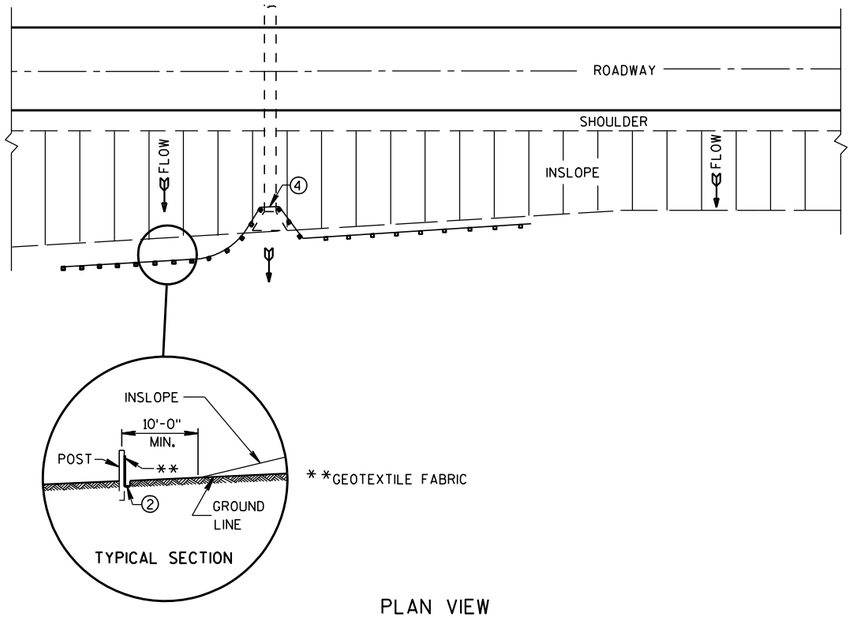
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

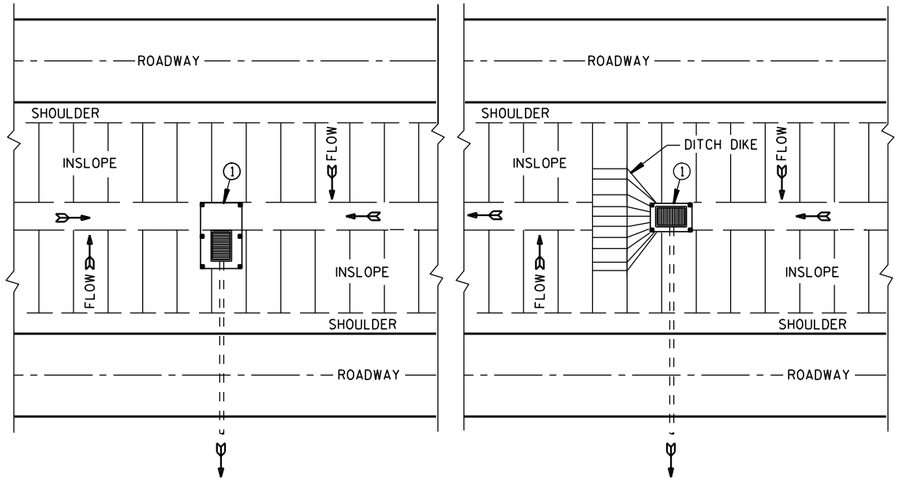
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



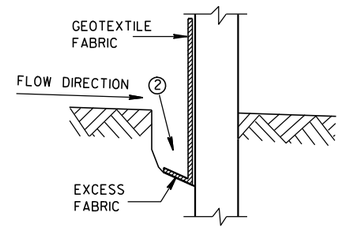
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

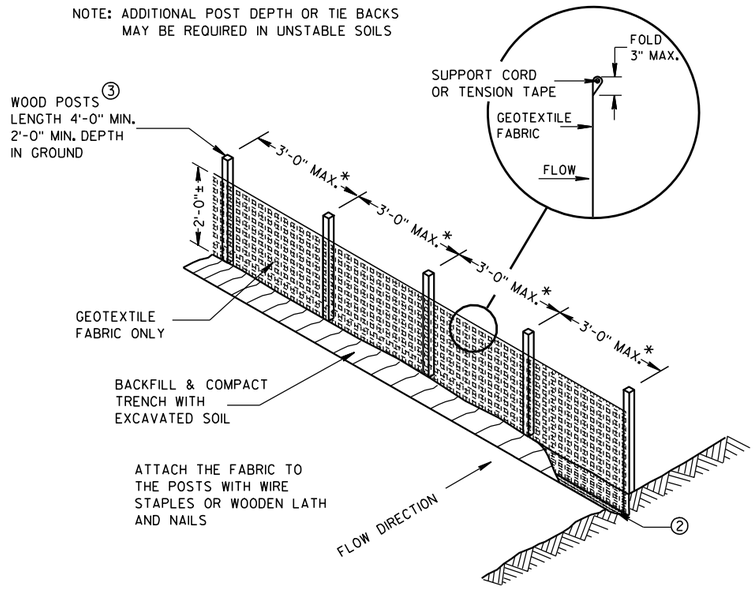
GENERAL NOTES

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

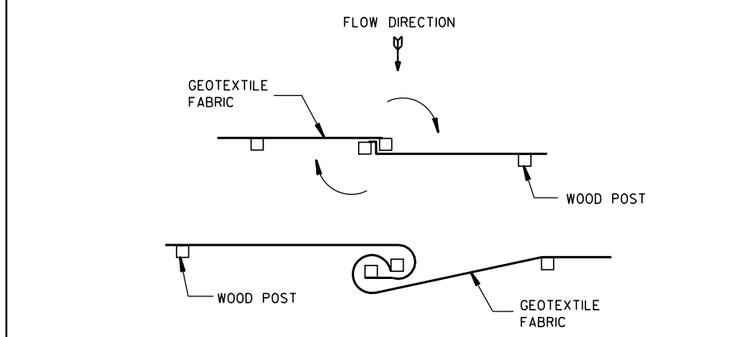
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



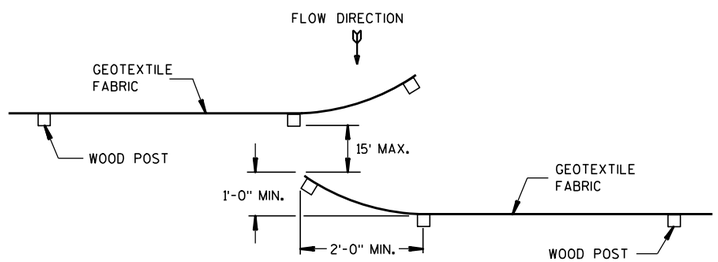
TRENCH DETAIL



SILT FENCE

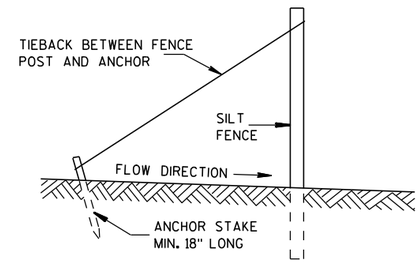


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

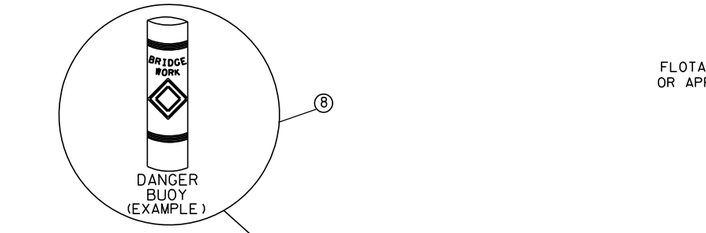
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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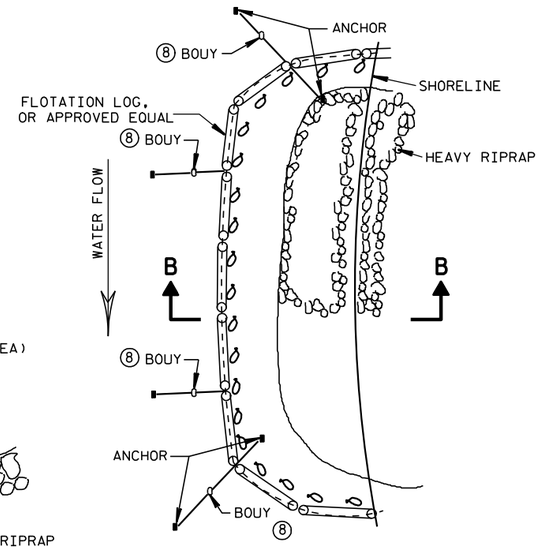
S.D.D. 8 E 9-6

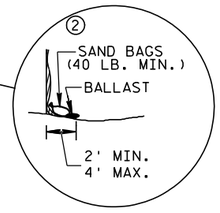
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S.D.D. 8 E 9-6

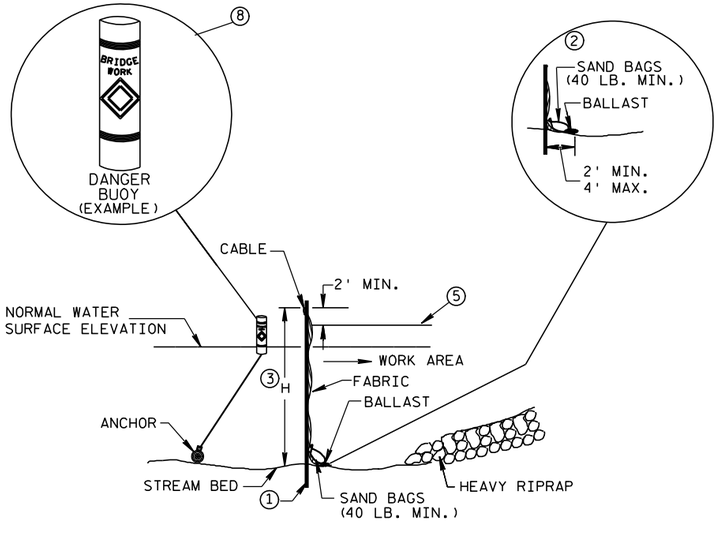


SECTION B-B

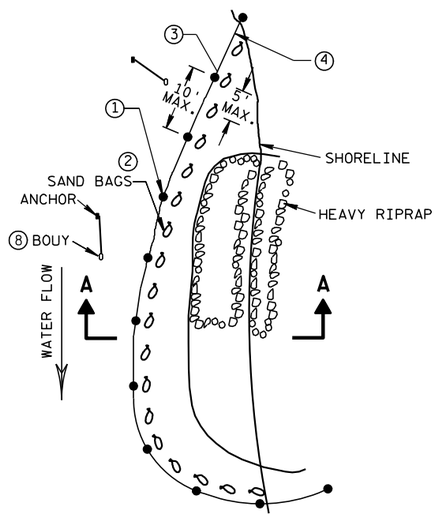




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

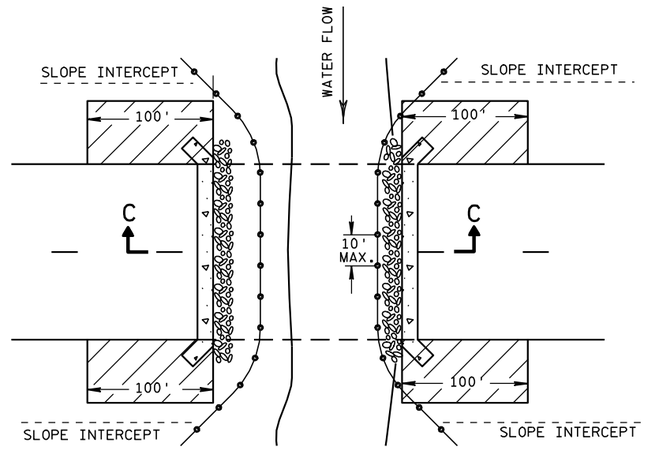
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

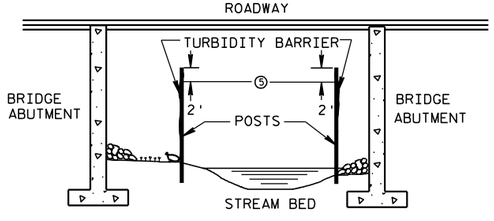
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 11-2

6

S.D.D. 8 E 11-2

METAL APRON ENDWALLS

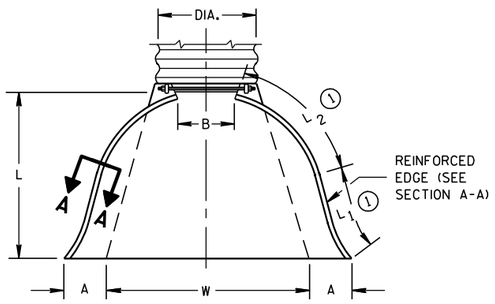
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

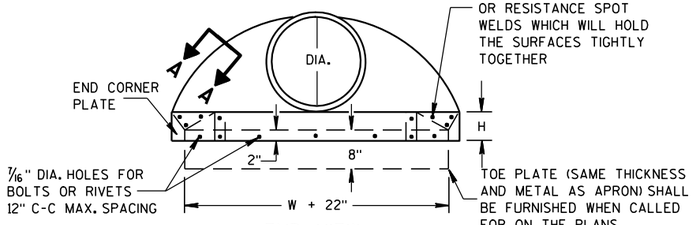
REINFORCED CONCRETE APRON ENDWALLS

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

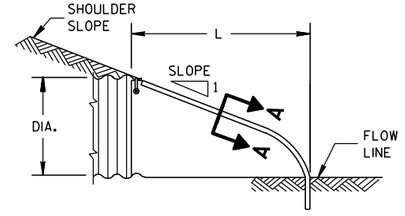
* MINIMUM
** MAXIMUM



PLAN VIEW

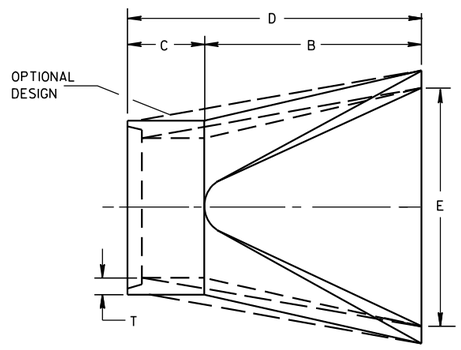


END VIEW

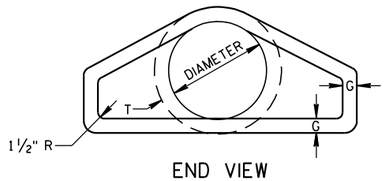


SIDE ELEVATION

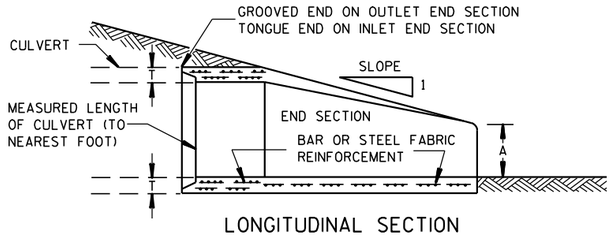
METAL ENDWALLS



PLAN

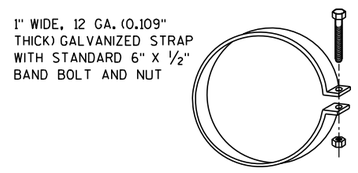


END VIEW



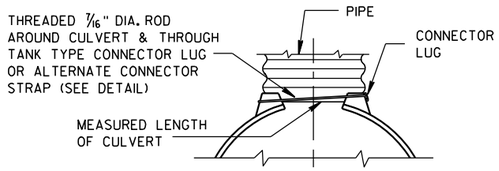
LONGITUDINAL SECTION

CONCRETE ENDWALLS

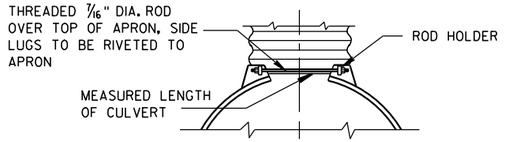


ALTERNATE FOR TYPE 1 CONNECTION

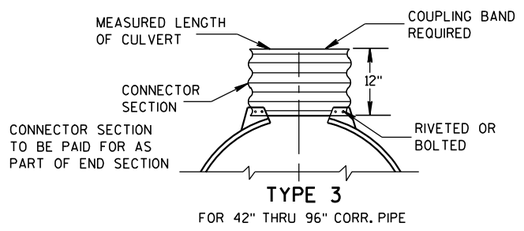
END SECTION CONNECTOR STRAP



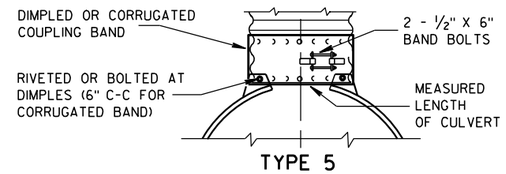
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

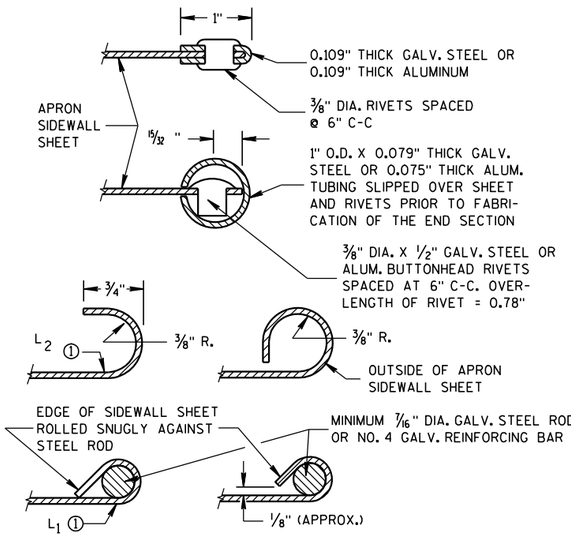
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

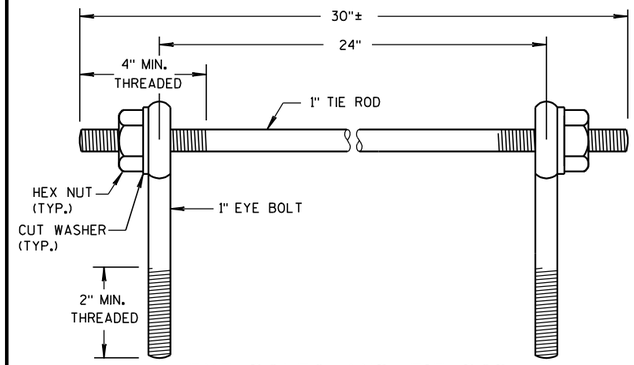
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

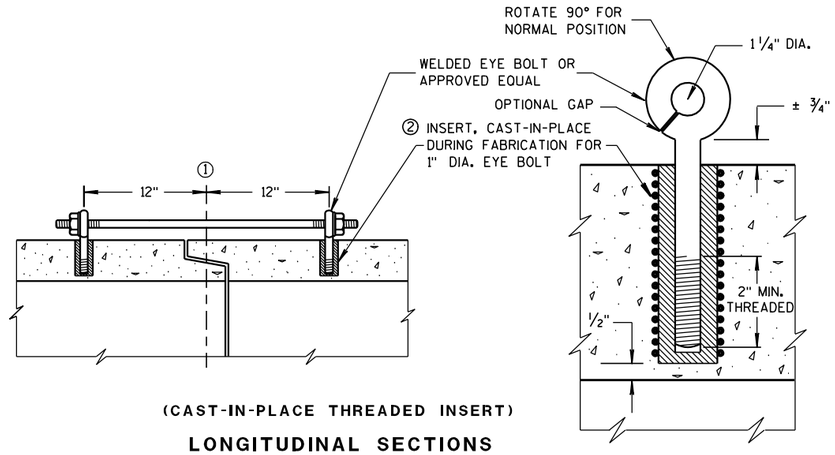
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

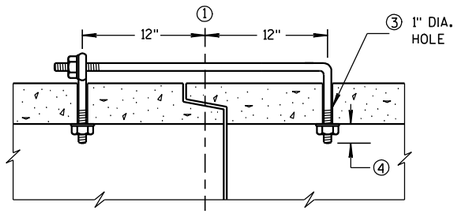
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

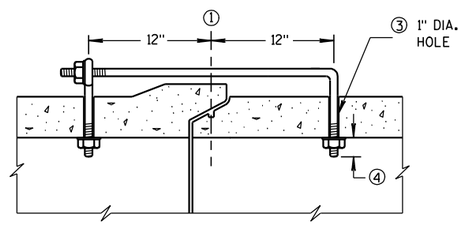
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

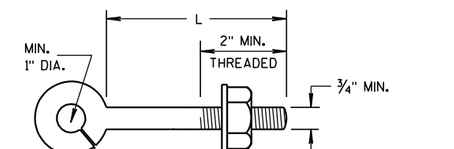


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

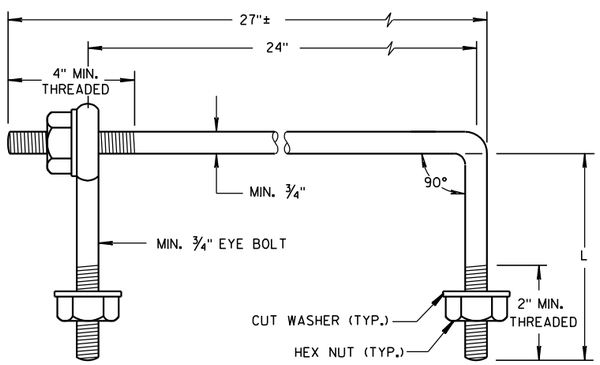
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

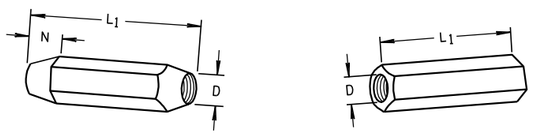
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

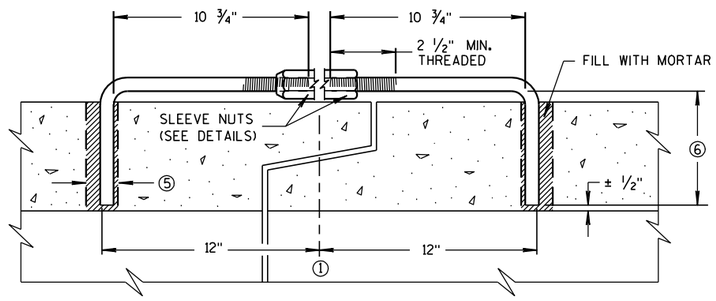
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

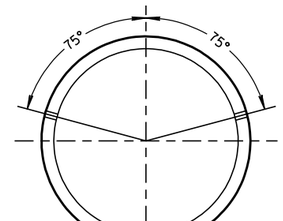
SLEEVE NUTS



LONGITUDINAL SECTION

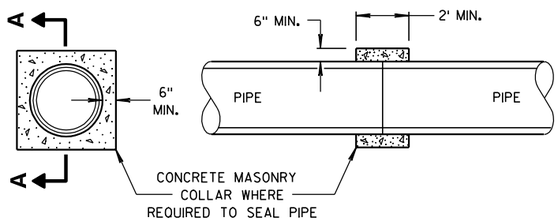
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

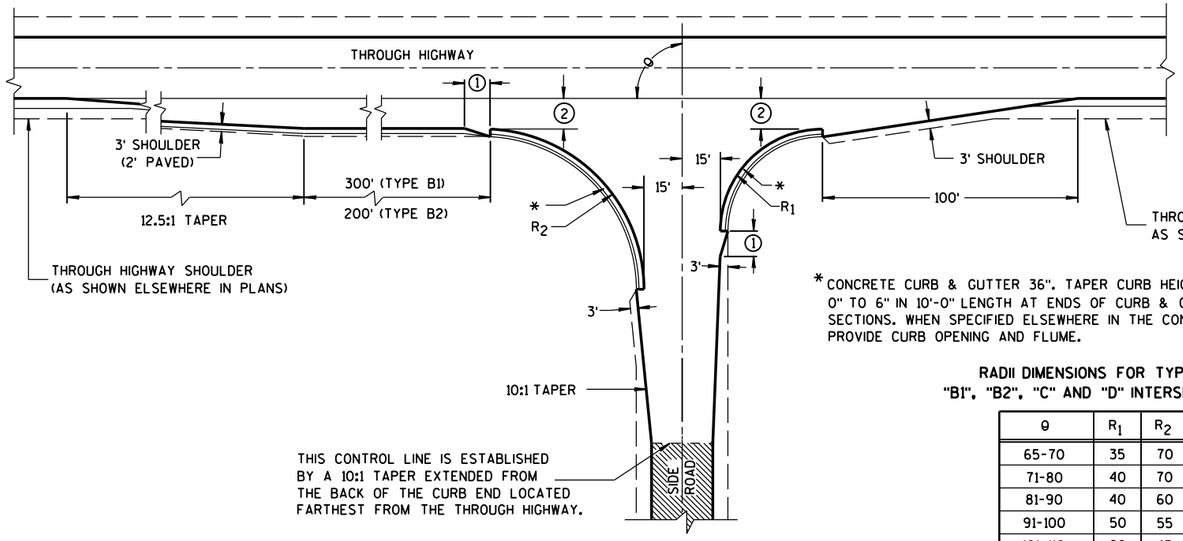
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 F 4-7

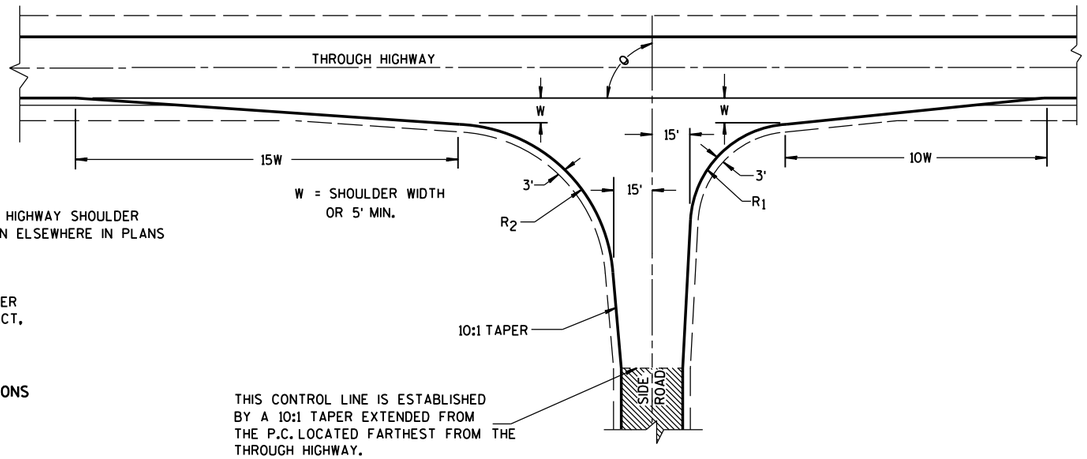


TYPE "B1" AND "B2"

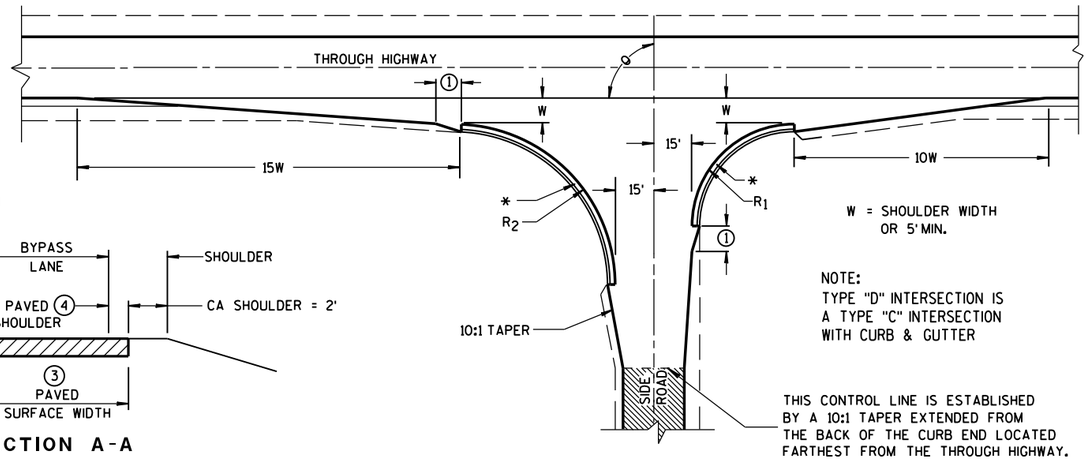
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

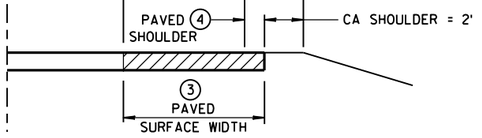
(1) 10-FT TYPICAL.

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

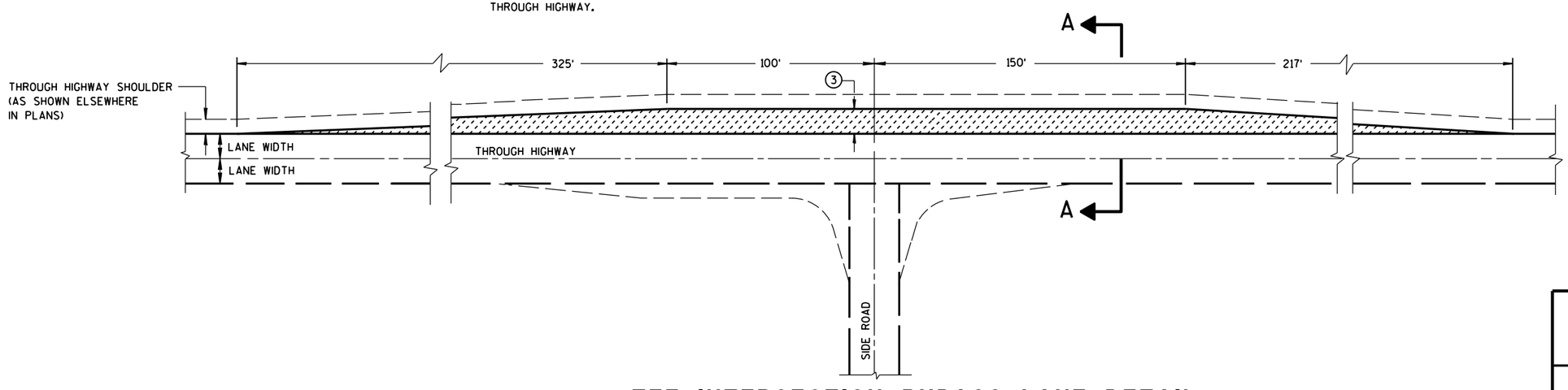
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

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

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



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)

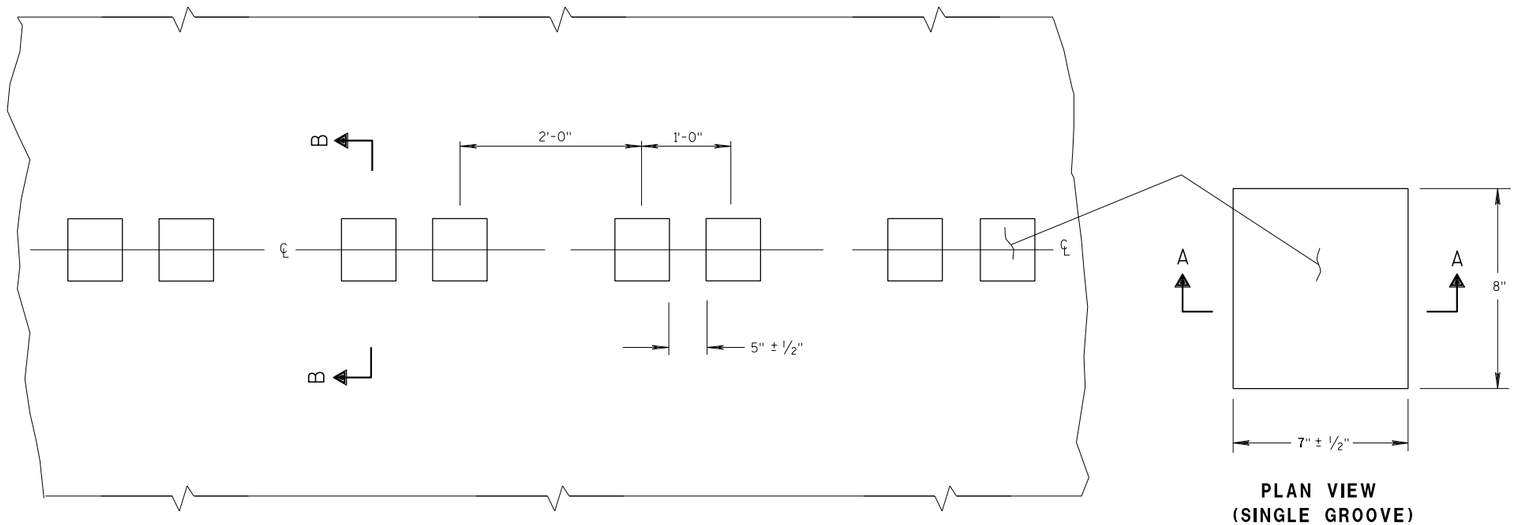


TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

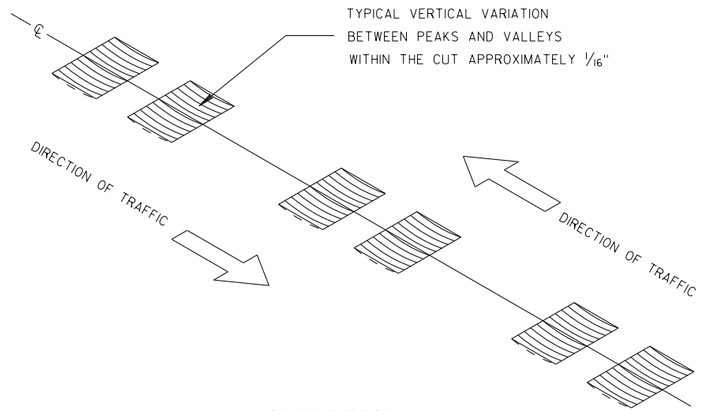
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

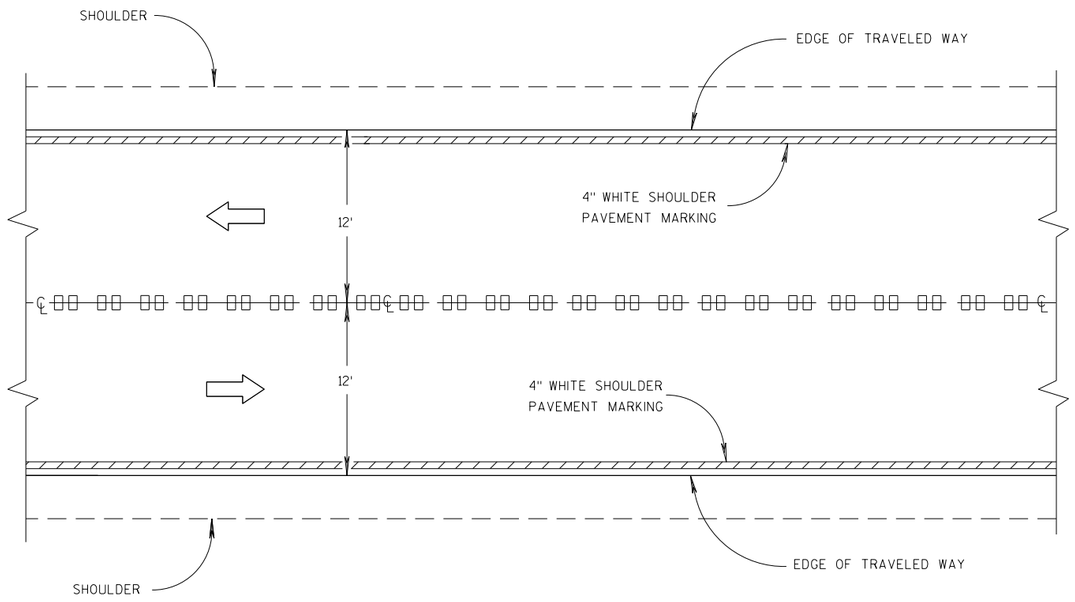
INSTALL PERMANENT MARKING EPOXY 4-INCH AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

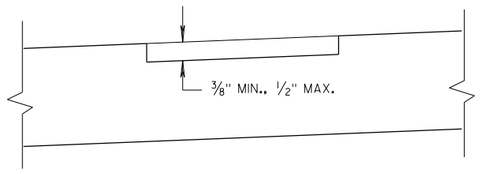
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



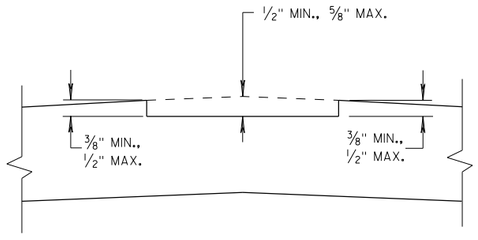
ISOMETRIC



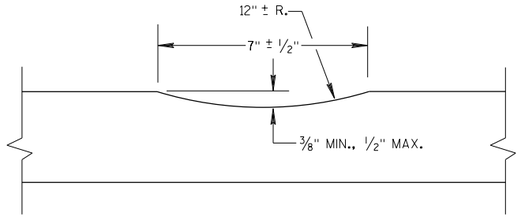
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

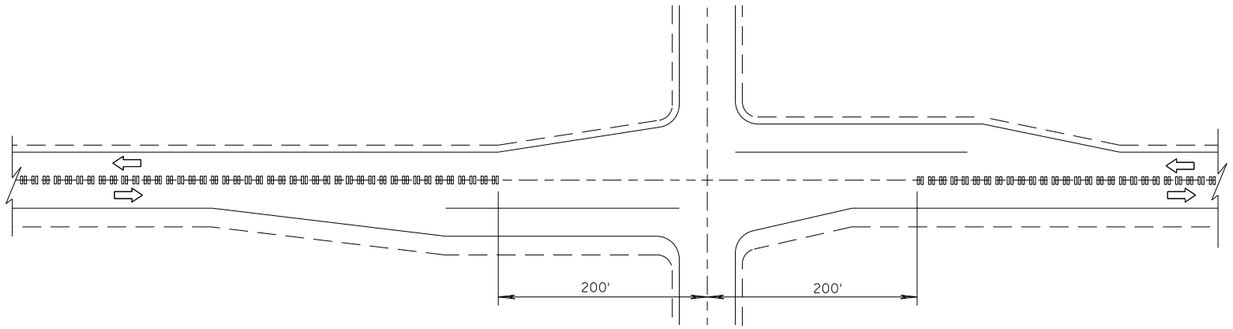
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

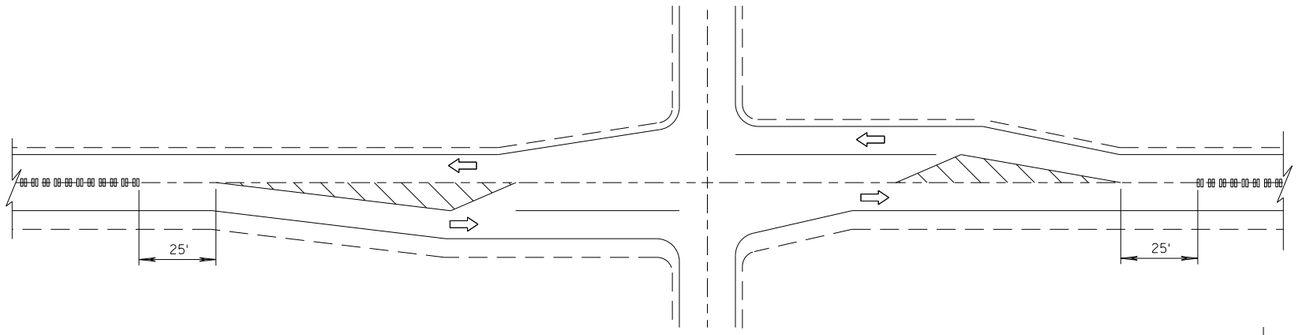
S.D.D. 13 A 11-3a

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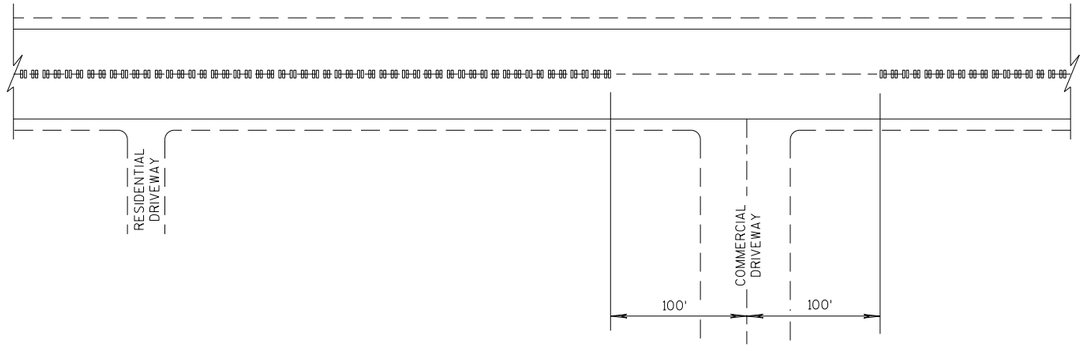
S.D.D. 13 A 11-3a



CENTER LINE GROOVES AT INTERSECTIONS

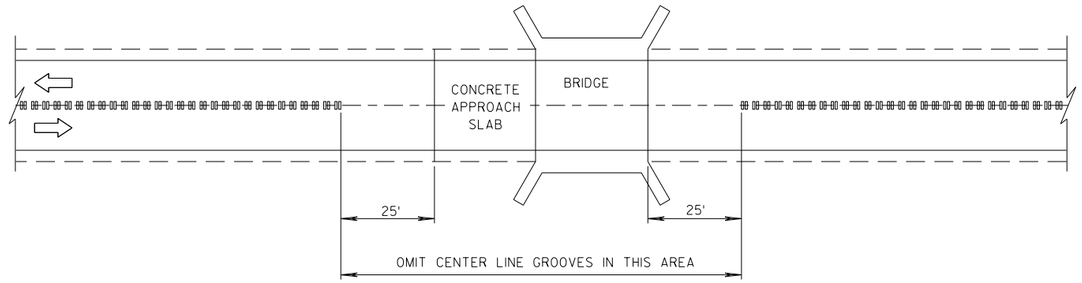


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

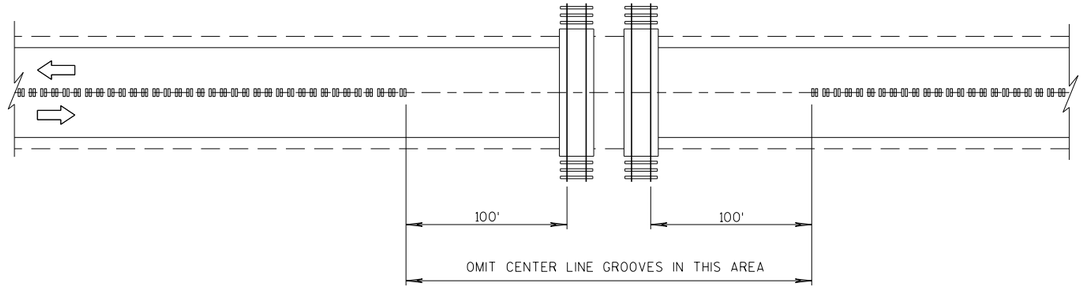


CENTER LINE GROOVES AT DRIVEWAYS (1)

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney T
ROADWAY STANDARDS DE
UNIT SUPERVISOR

IT

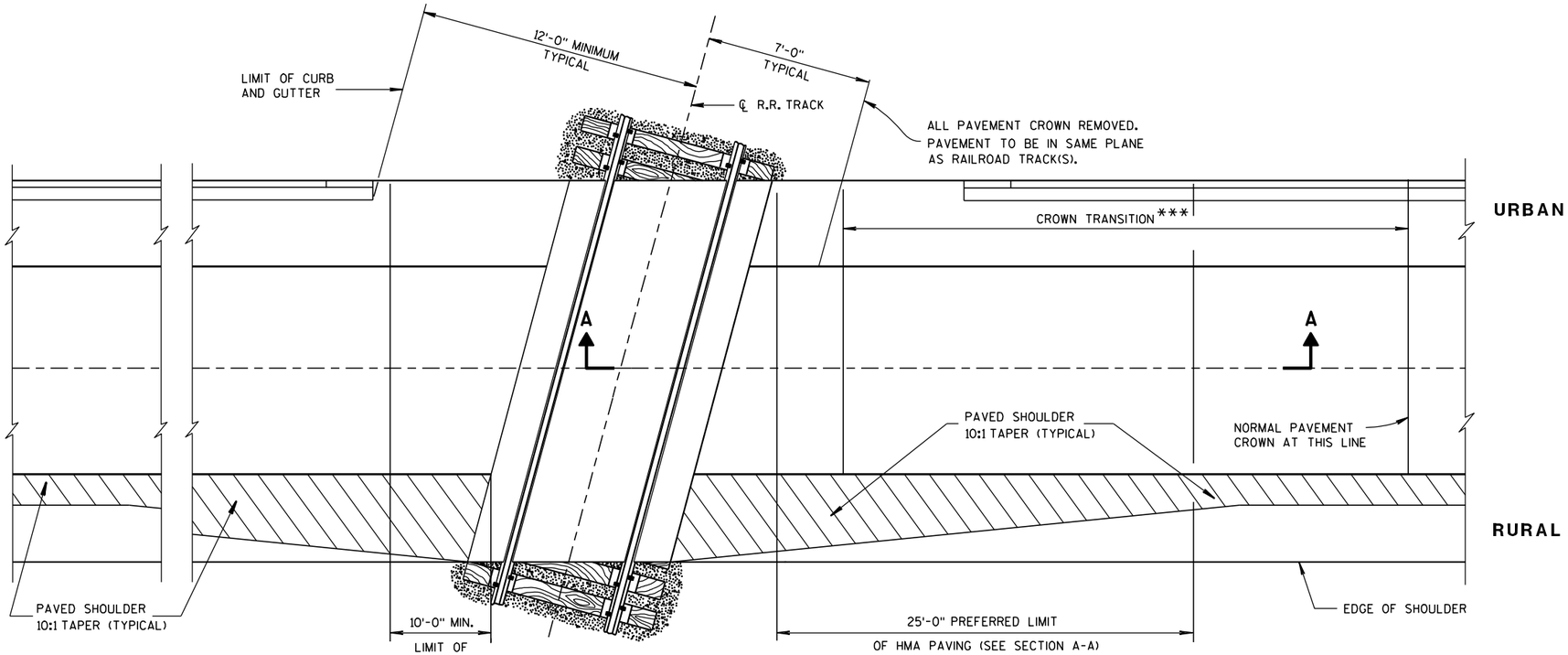
FHWA

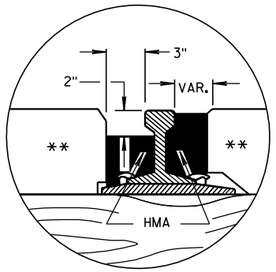
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S.D.D. 13 A 11-3b

6

S.D.D. 13 A 11-3b





DETAIL B

HMA FLANGEWAY AND FIELD FILLERS

GENERAL NOTES

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

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

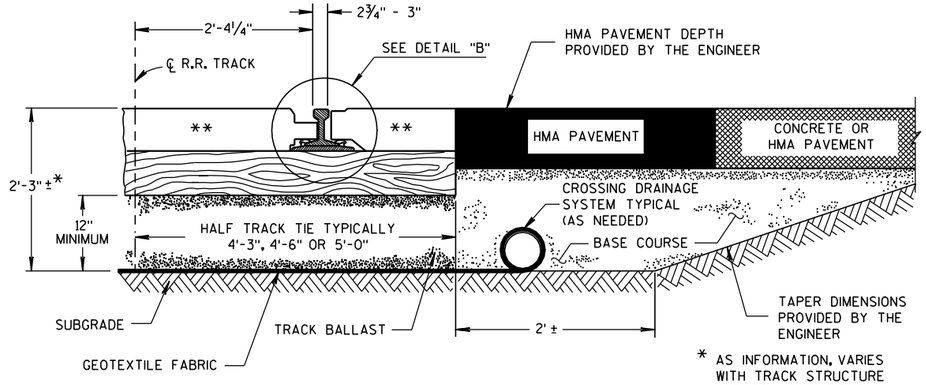
HMA PAVEMENT APPROACHES AND HMA PAVEMET CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

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

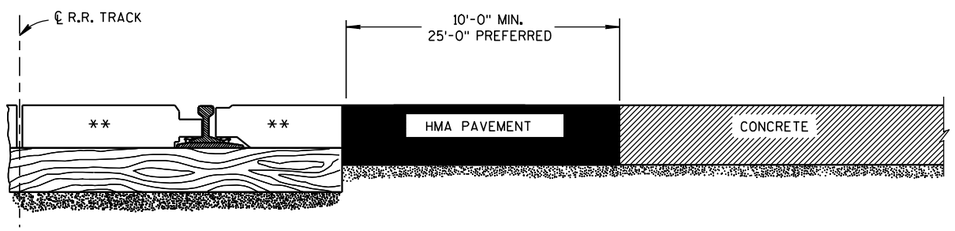
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

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

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



TYPICAL HALF SECTION



SECTION A-A

CONCRETE PAVEMENT APPROACH



SECTION A-A

HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

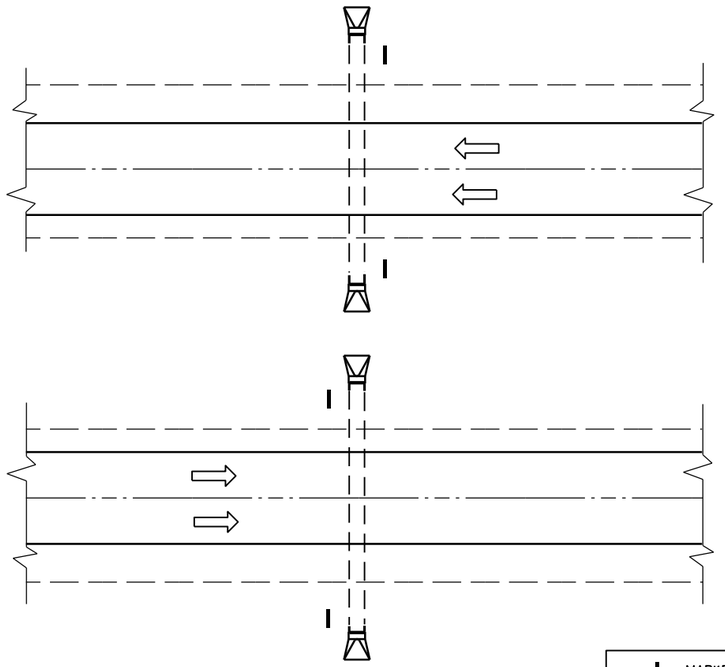
PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

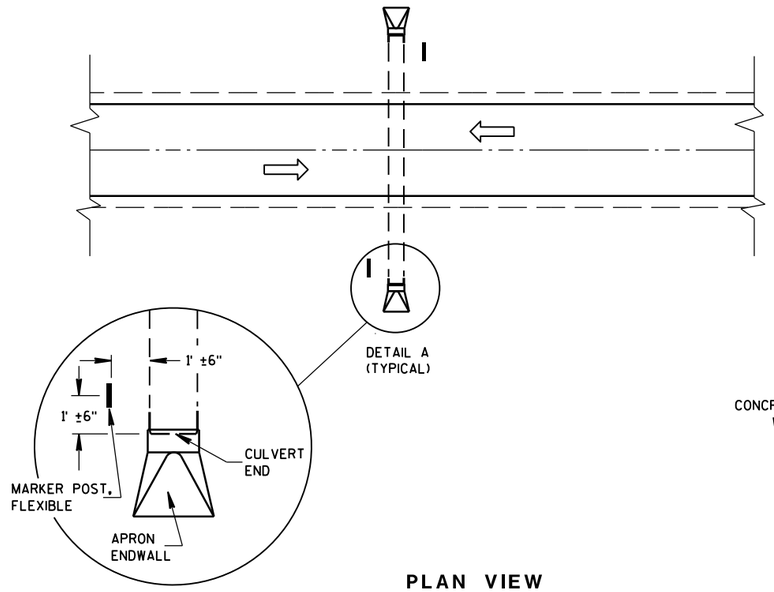
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S.D.D. 13 B 1-10



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

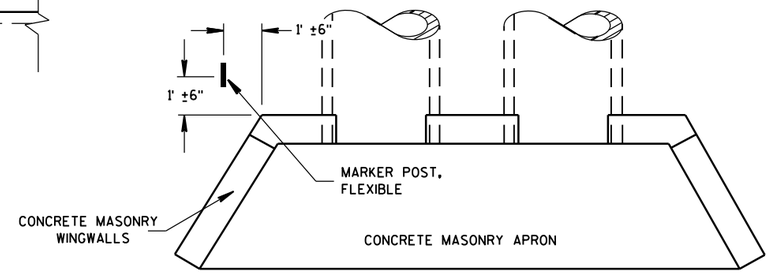
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

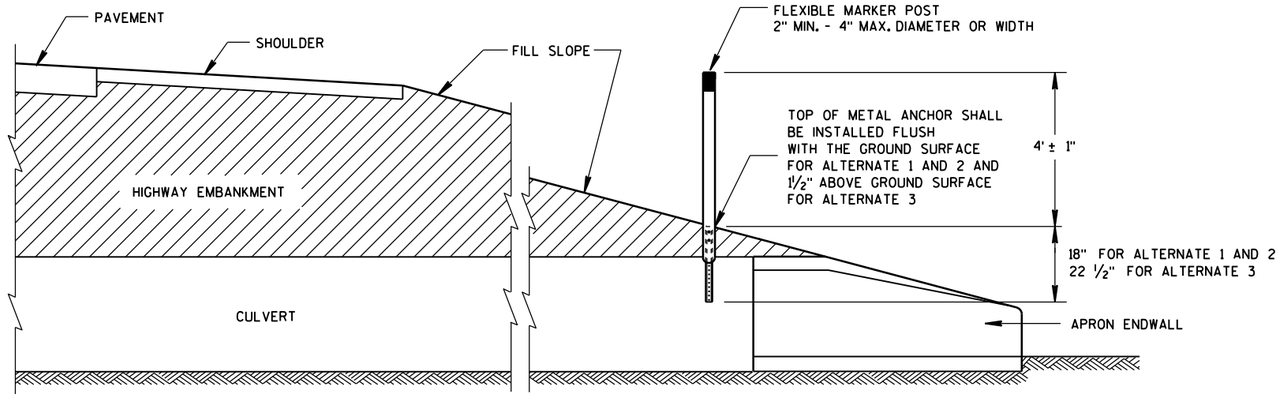
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

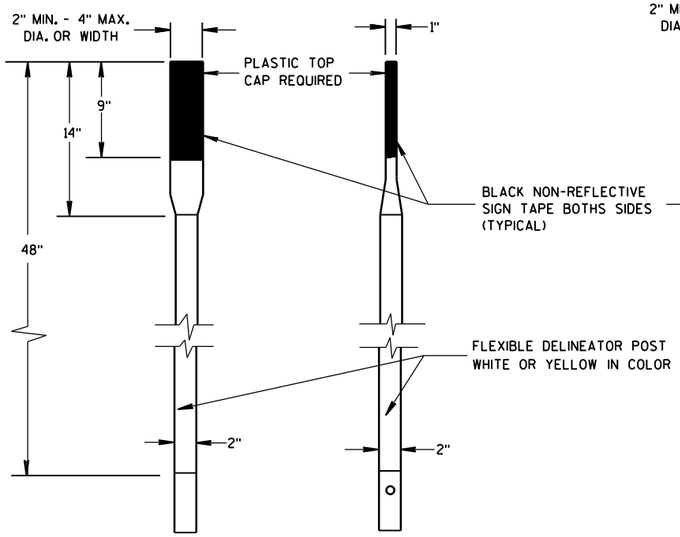
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

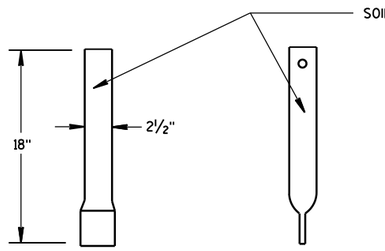
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S.D.D. 15 A 3-2a

6

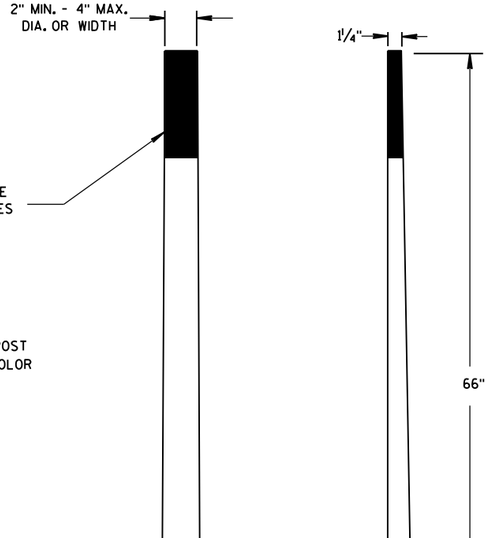
S.D.D. 15 A 3-2a





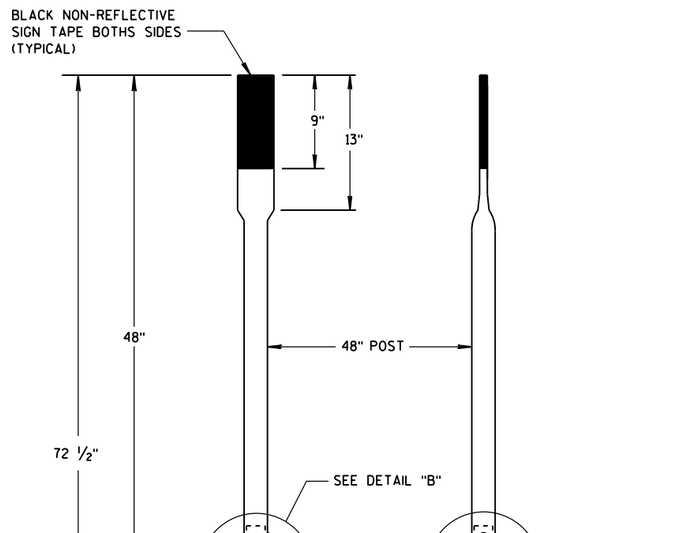
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

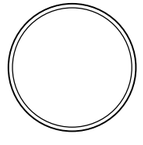
ALTERNATE 2



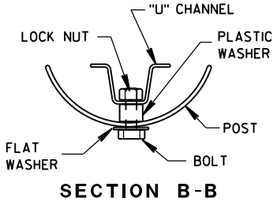
FRONT VIEW SIDE VIEW

ALTERNATE 3

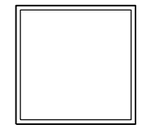
FLEXIBLE MARKER POSTS



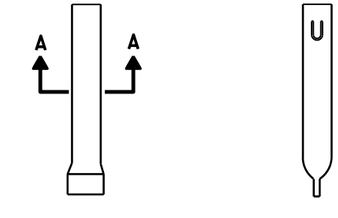
SECTION A-A



SECTION B-B

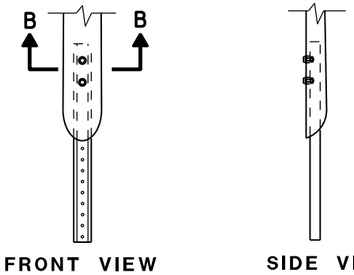


SECTION C-C



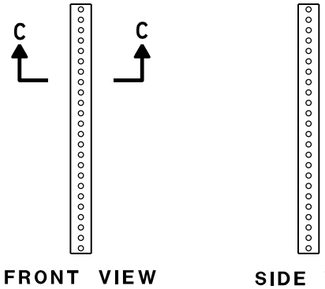
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

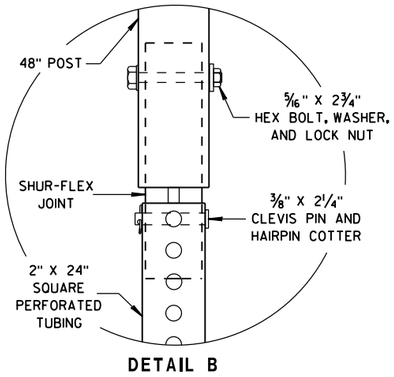
ALTERNATE 2



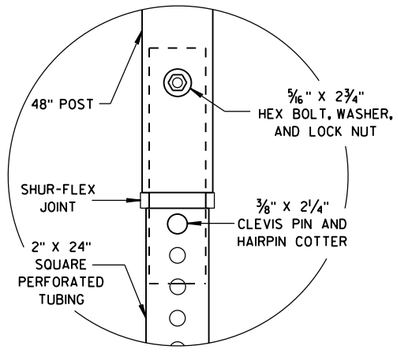
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

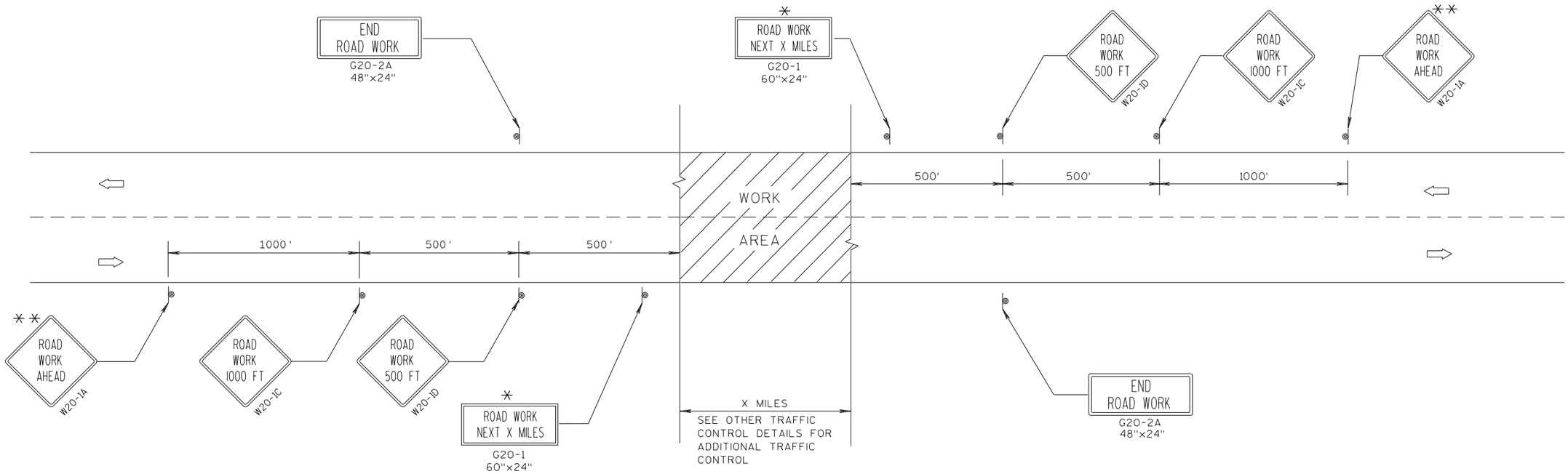
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

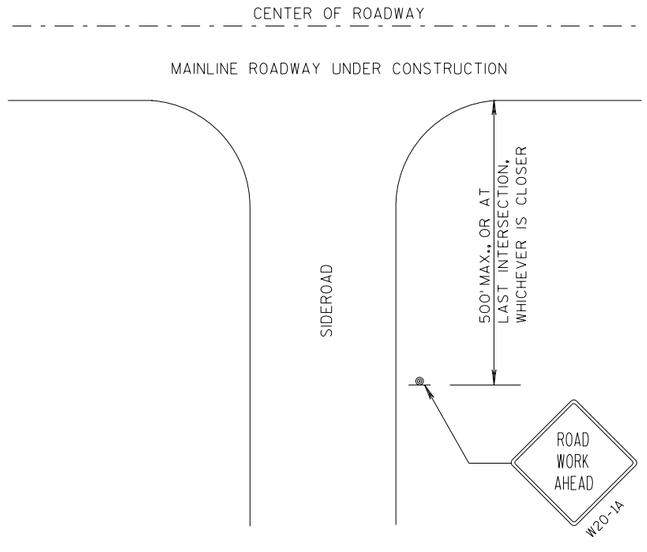
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

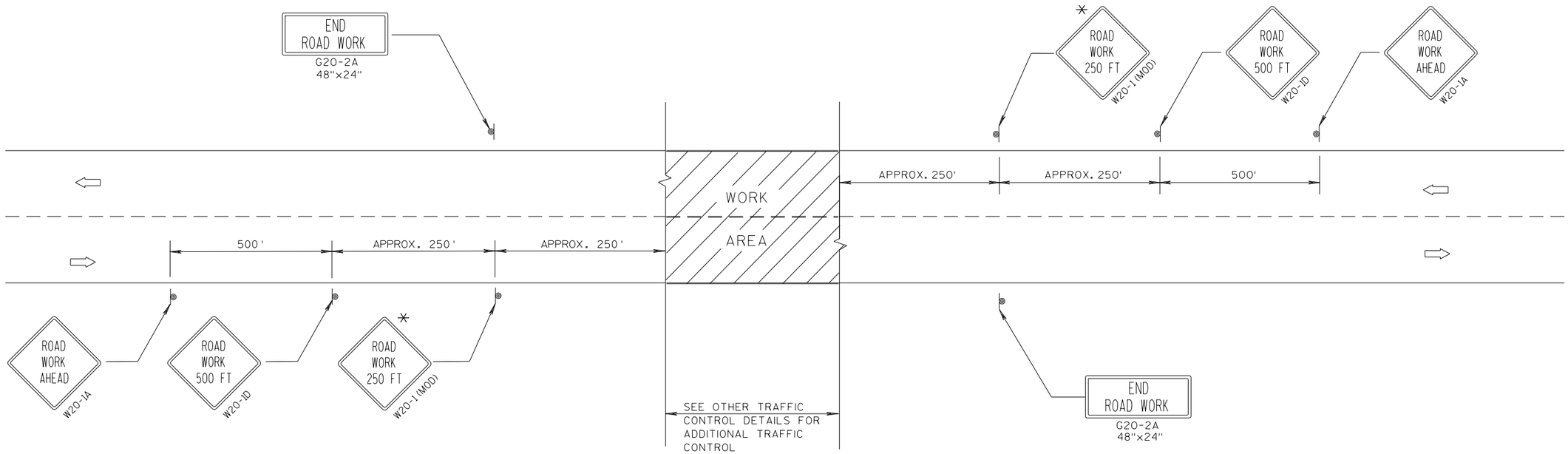
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

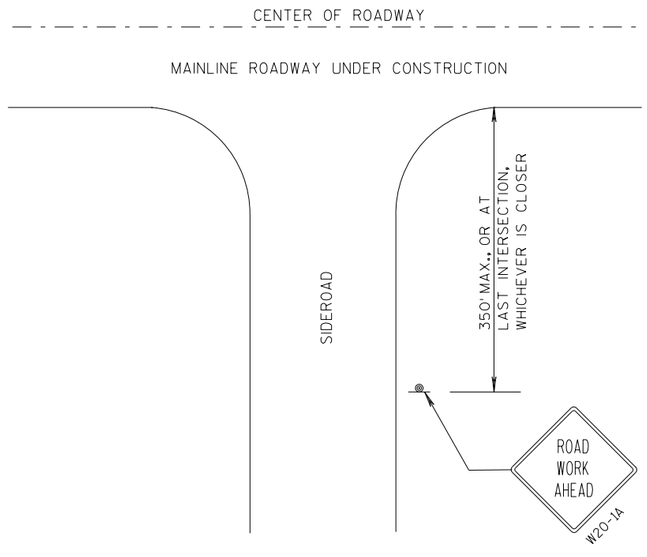
APPROVED
7/2018 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

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S.D.D. 15 C 4-5



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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

LEGEND

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

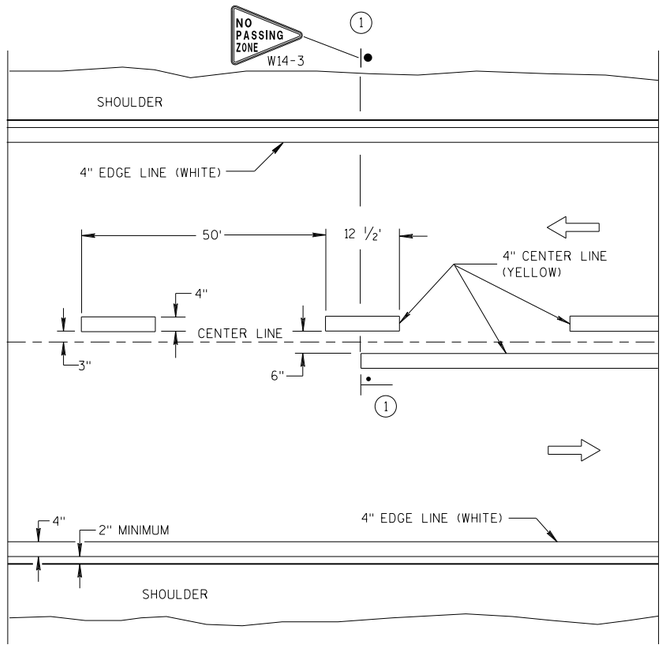
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

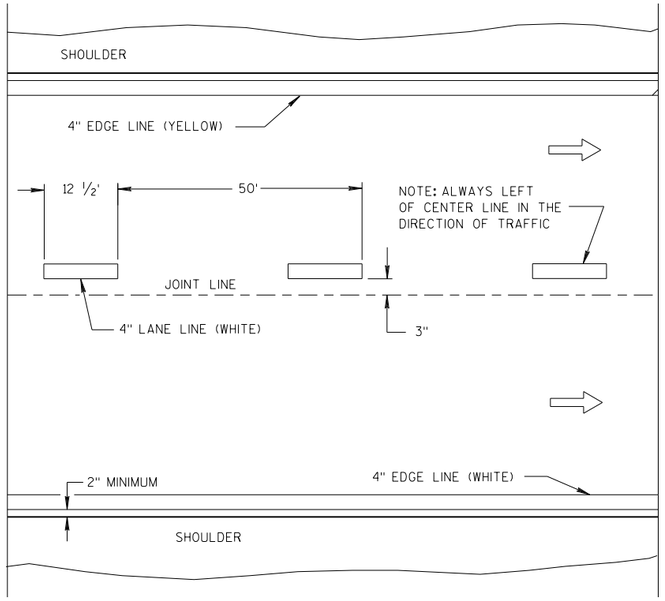
APPROVED
7/2018 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
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S.D.D. 15 C 5-5



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

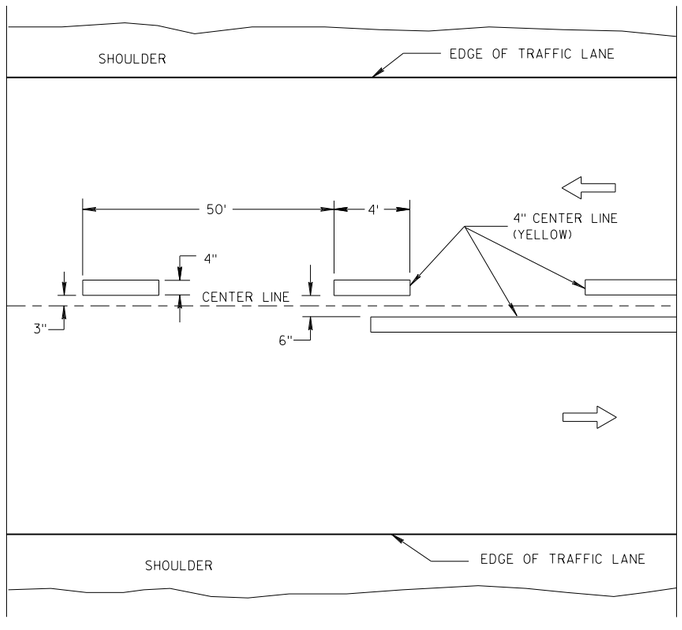
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

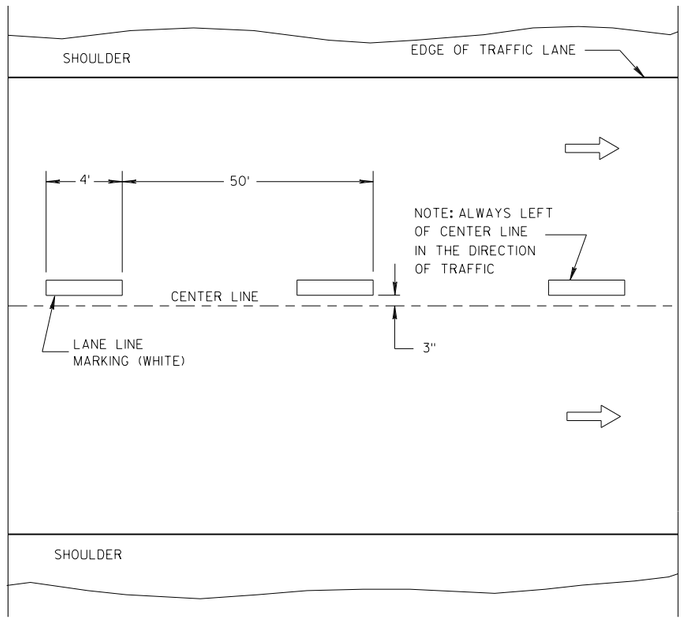
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

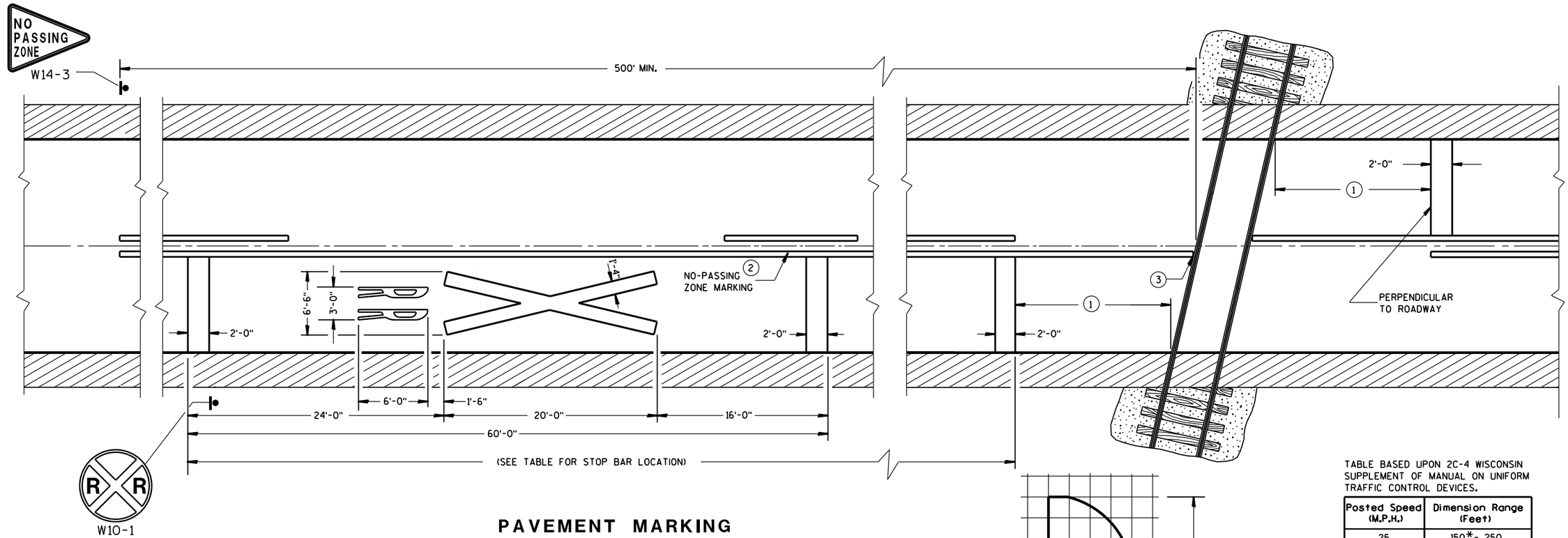
7/2018 DATE

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

FHWA

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S.D.D. 15 C 8-19a



PAVEMENT MARKING

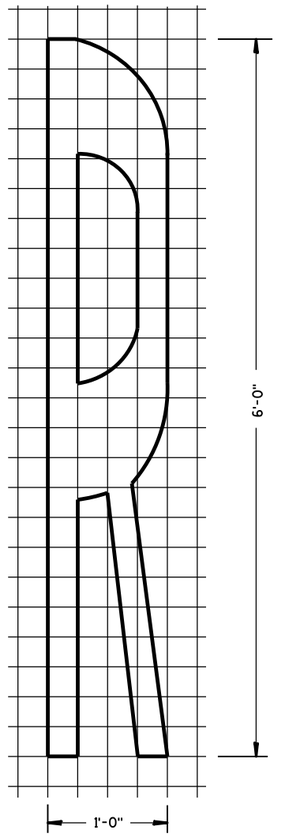


TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS

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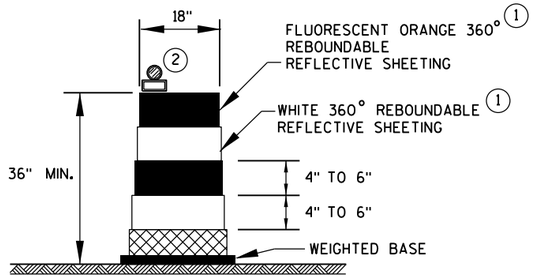
Sept., 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAI[illegible]GINEER
FHWA

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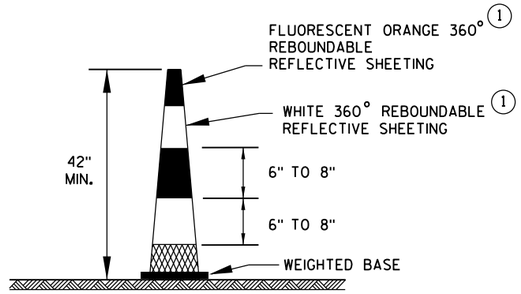
S.D.D. 15 C 9-11a

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S.D.D. 15 C 9-11a



DRUM

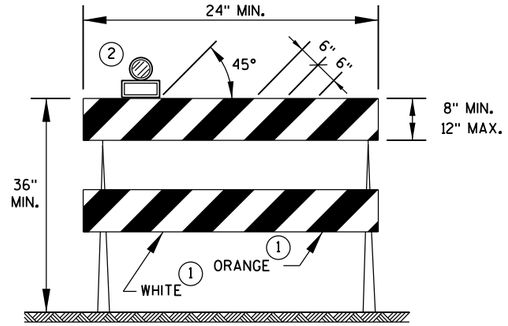


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

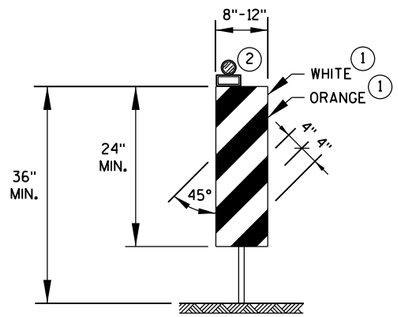
GENERAL NOTES

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.



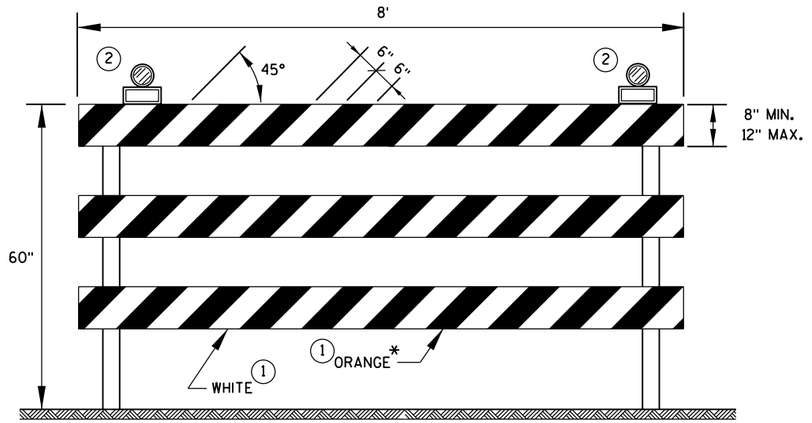
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENG
FHWA	

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S.D.D. 15 C 11-7b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

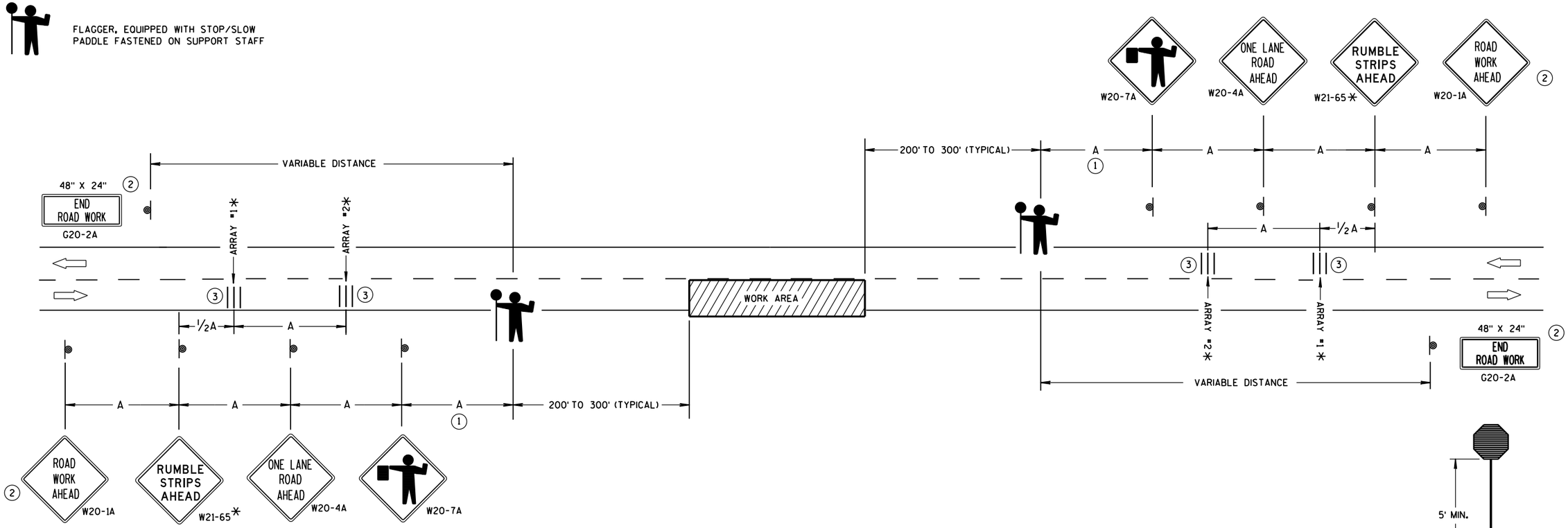
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



USE OF THE "BE PREPARED TO STOP" 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

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.

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

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

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

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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 RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

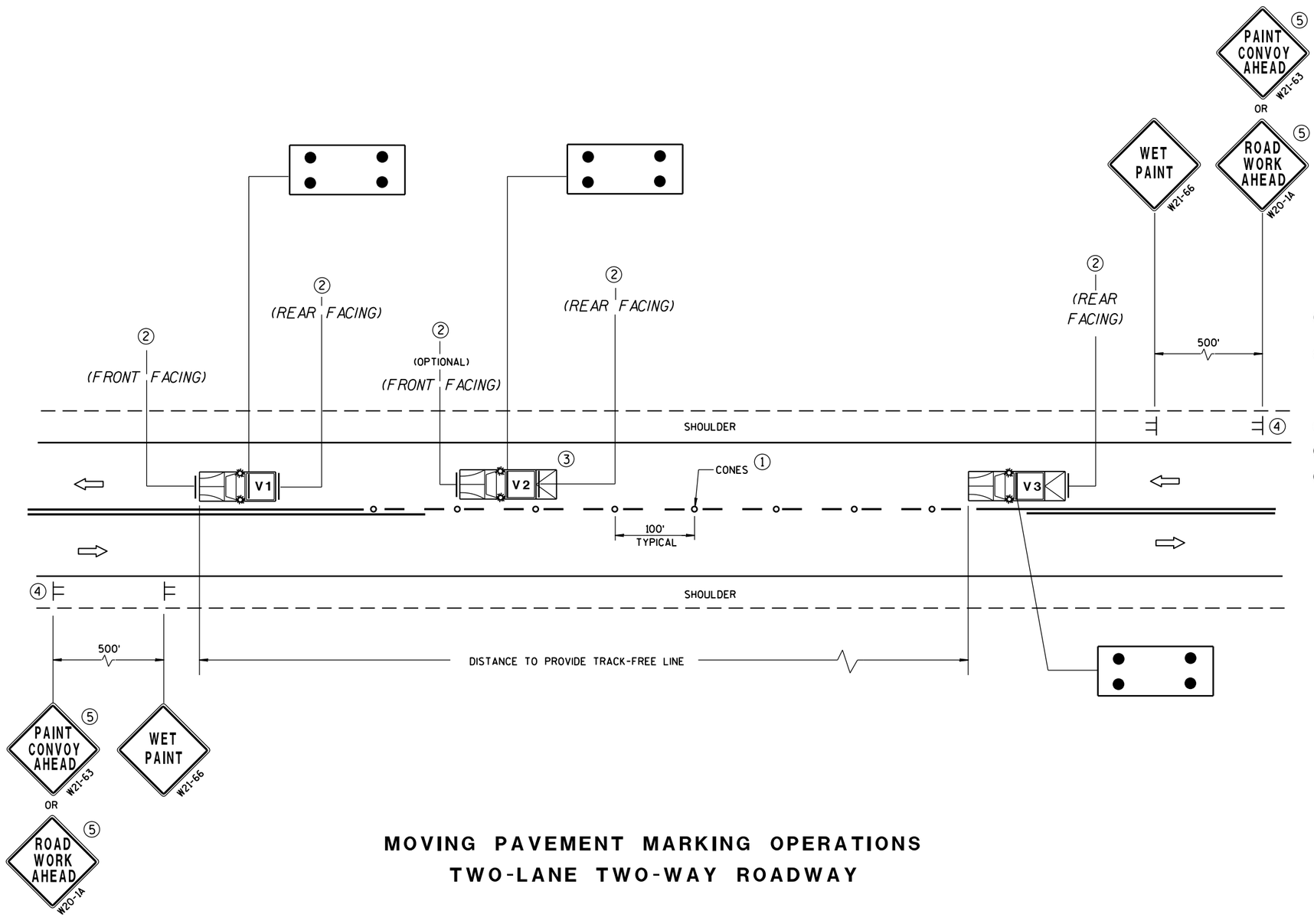
(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

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S.D.D. 15 C 12-6



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

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.

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.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

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

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

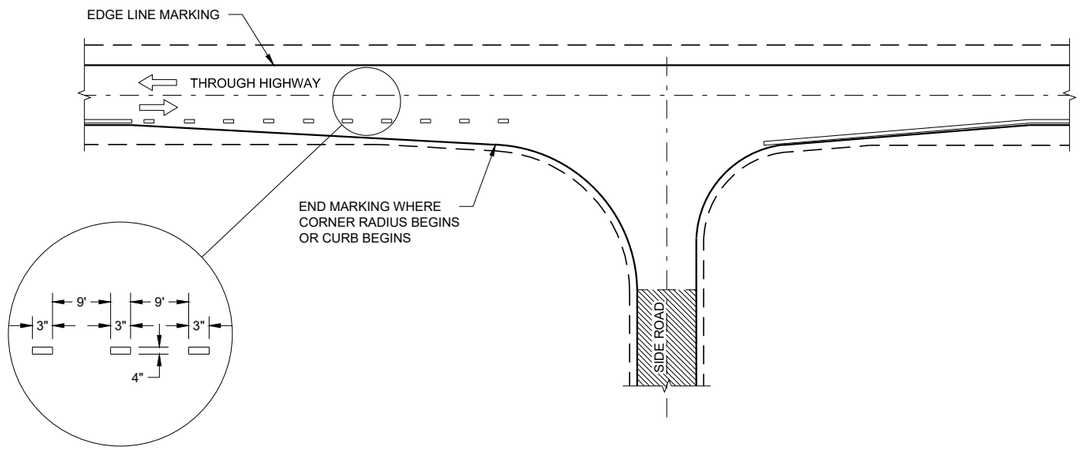
LEGEND

- **V1** LEAD VEHICLE
- **V2** SHADOW VEHICLE
- **V3** TRAIL VEHICLE WITH TMA
- **TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

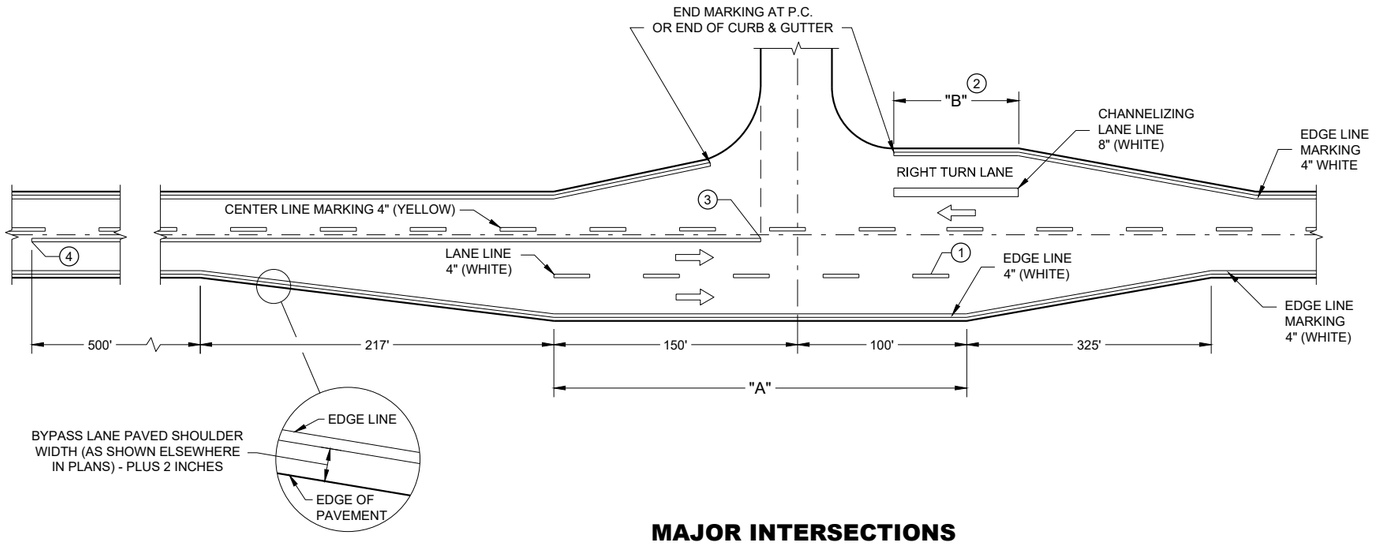
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	

6

S.D.D. 15 C 19-5a



MINOR INTERSECTION



MAJOR INTERSECTIONS

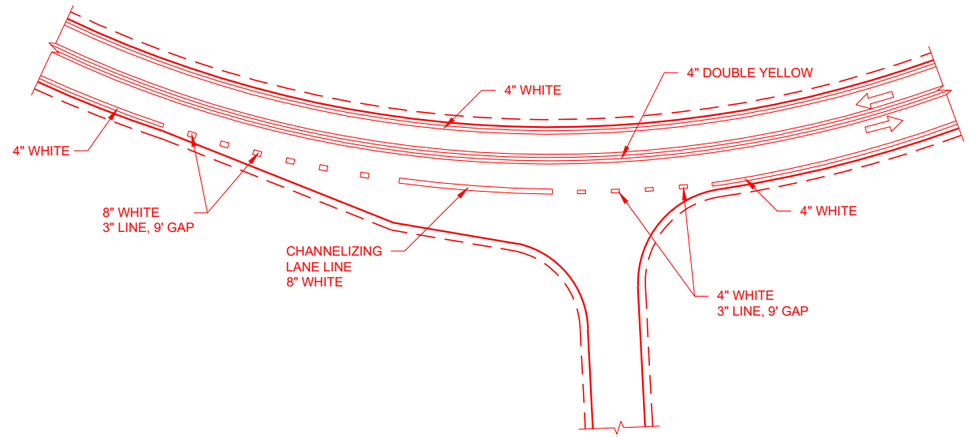
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 03a

SDD 15C35 - 03a

LEGEND

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

GENERAL NOTES

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

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

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

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

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

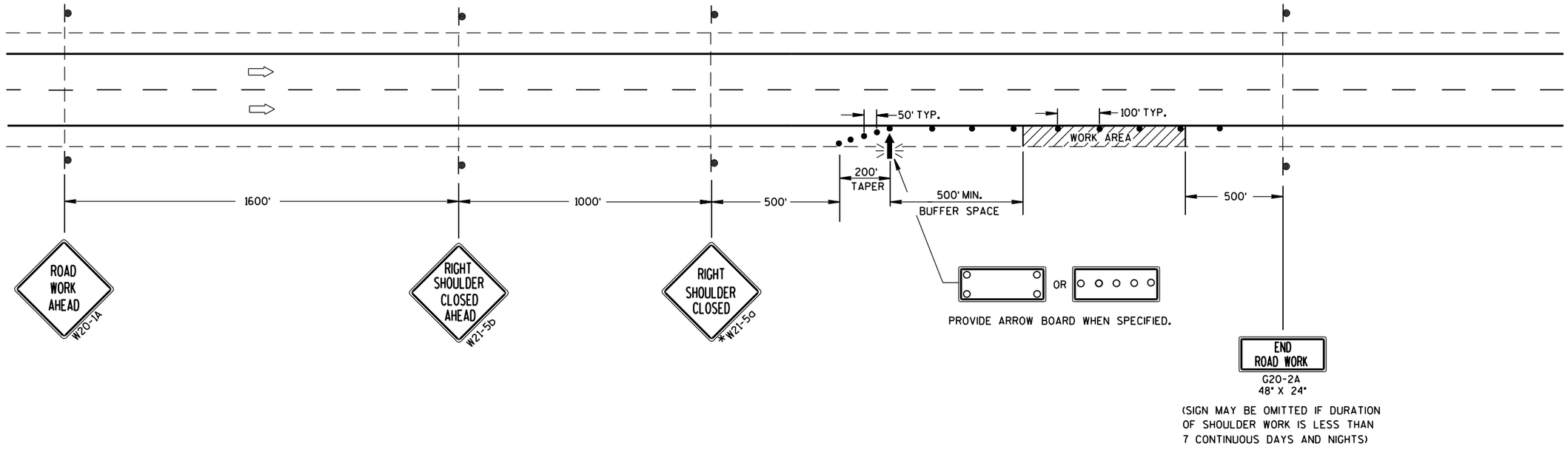
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

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

FHWA

6

S.D.D. 15 D 27-3

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

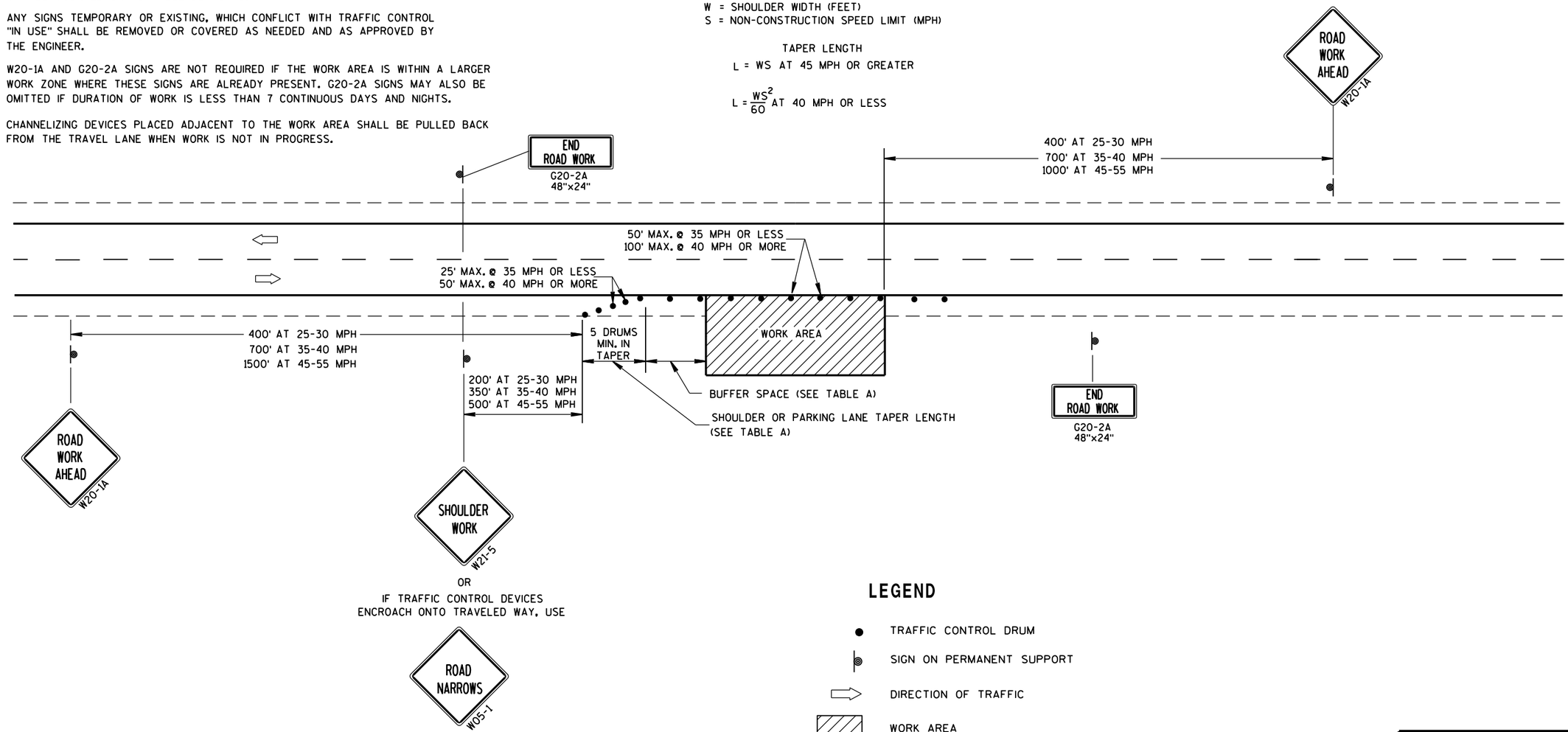
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

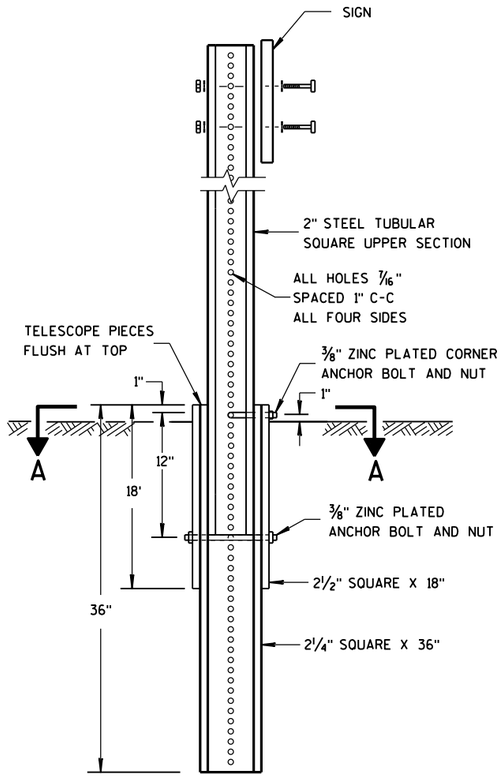
July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI FIC

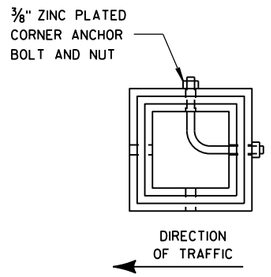
FHWA

6

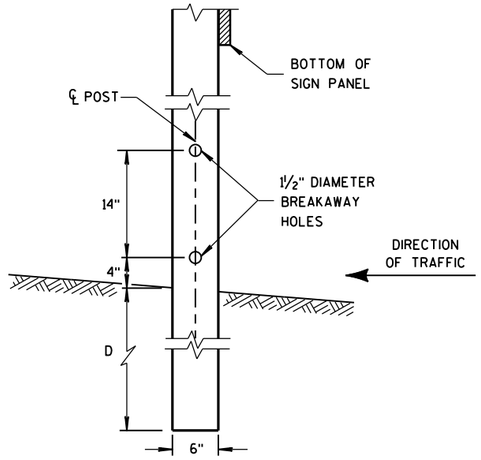
S.D.D. 15 D 28-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



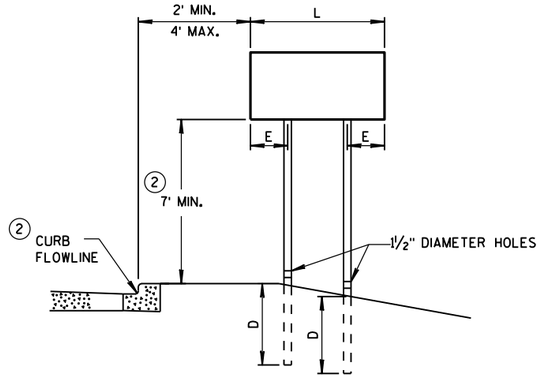
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

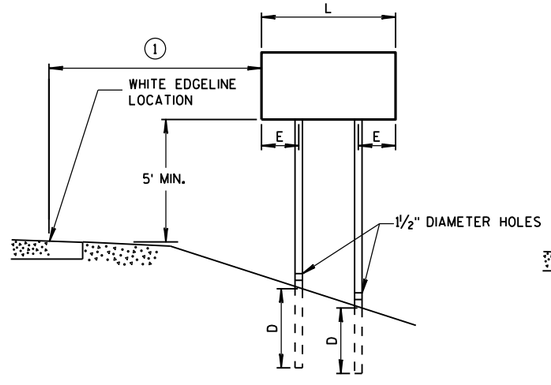
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

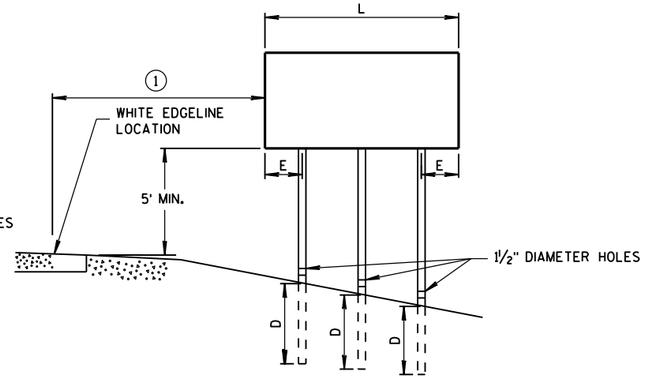
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

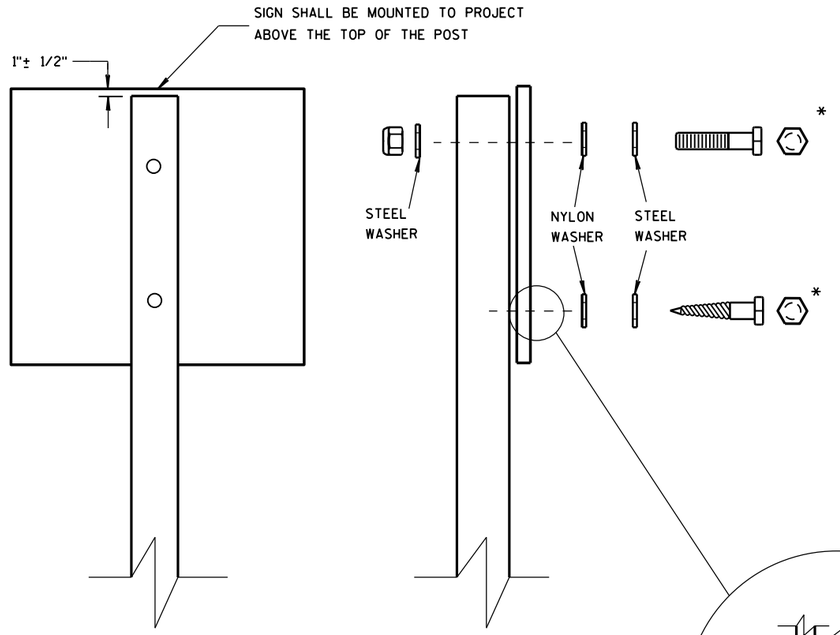
SEE NOTE (3)

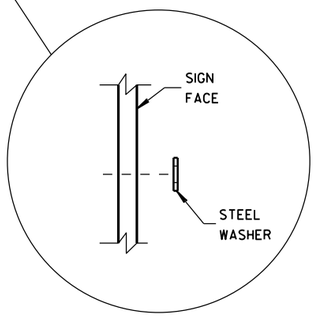
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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





WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* 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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6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

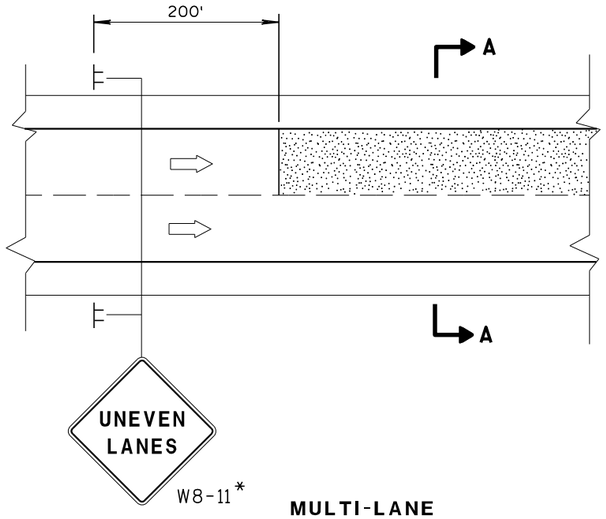
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

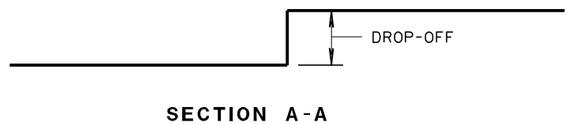
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA



MULTI-LANE

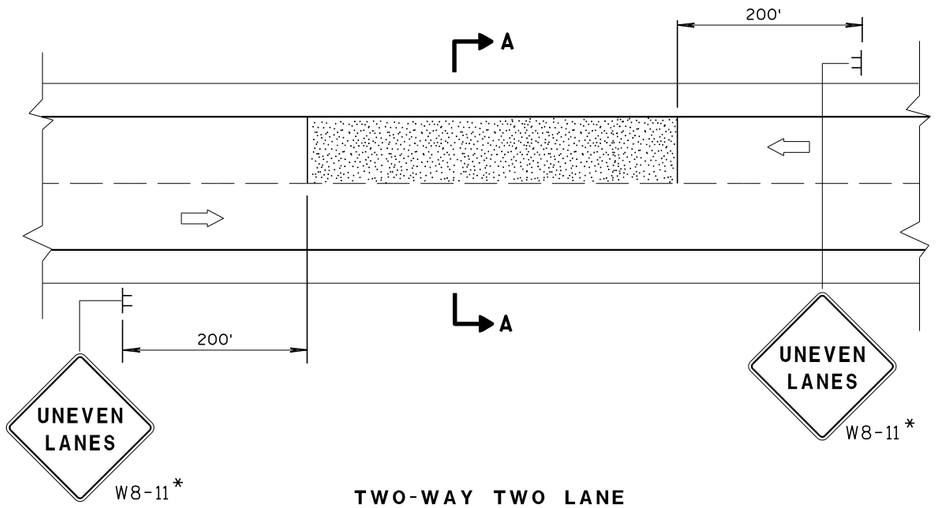


SECTION A-A

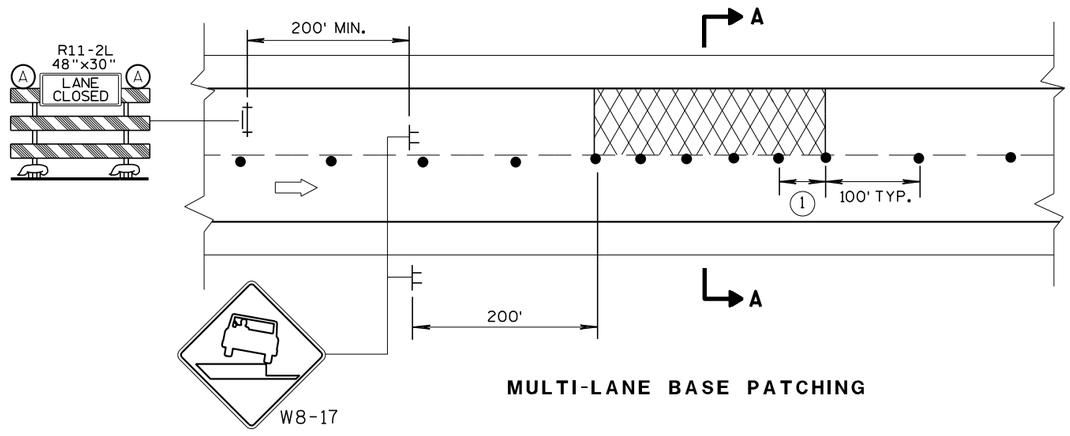
OR



SECTION A-A

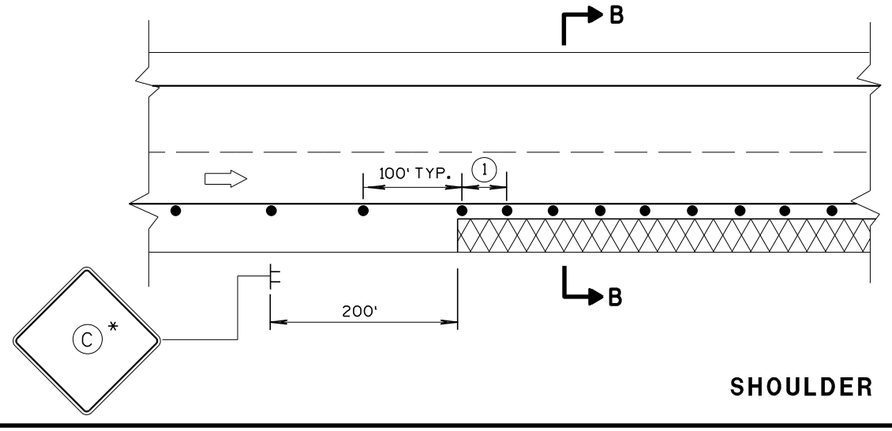


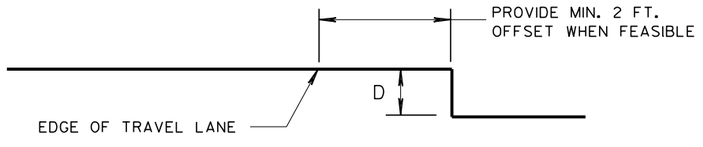
TWO-WAY TWO LANE



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS





SECTION B-B

SHOULDER DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

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

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

LEGEND

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

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 H — WORK ZONE EN
FHWA

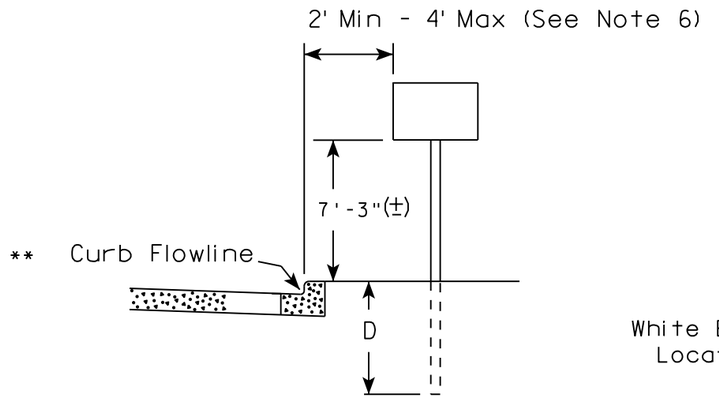
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S.D.D. 15 D 39-2

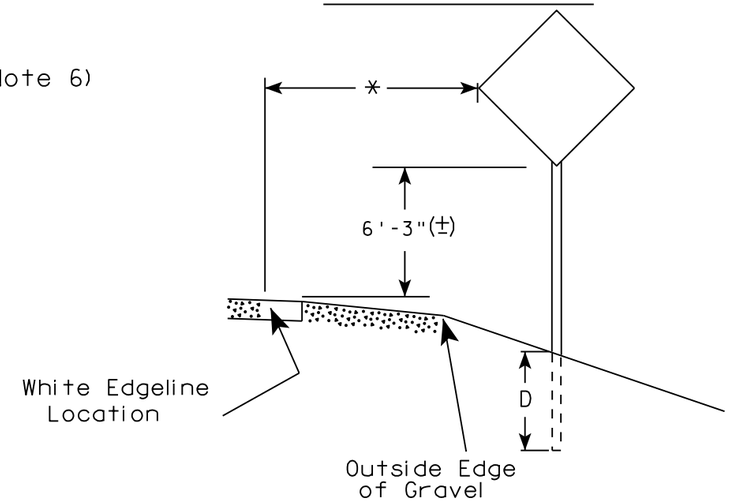
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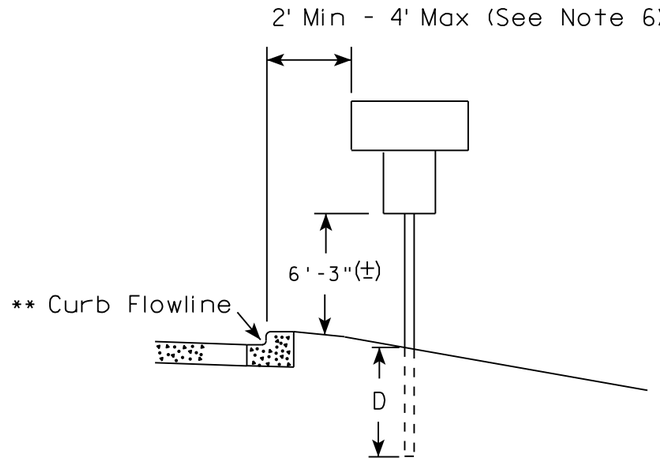
S.D.D. 15 D 39-2

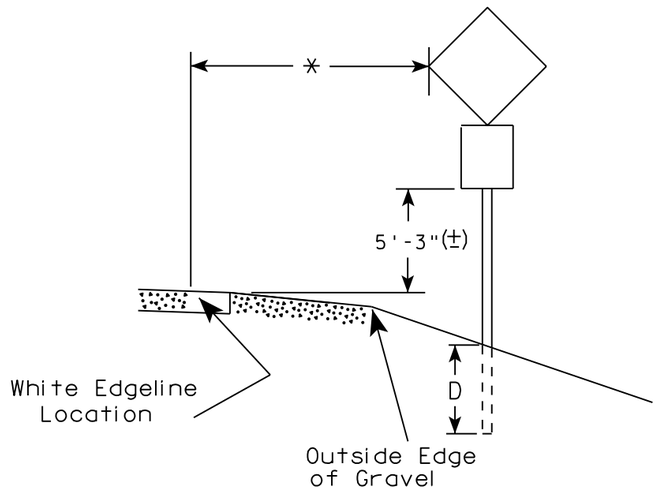
URBAN AREA



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.

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

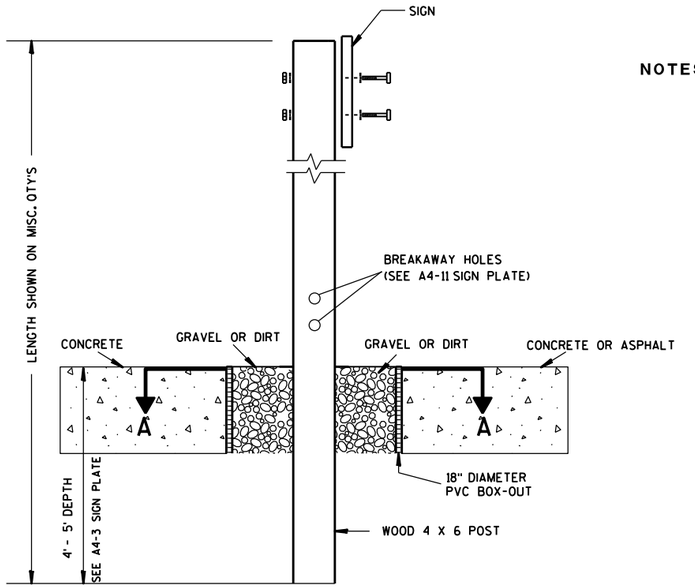
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

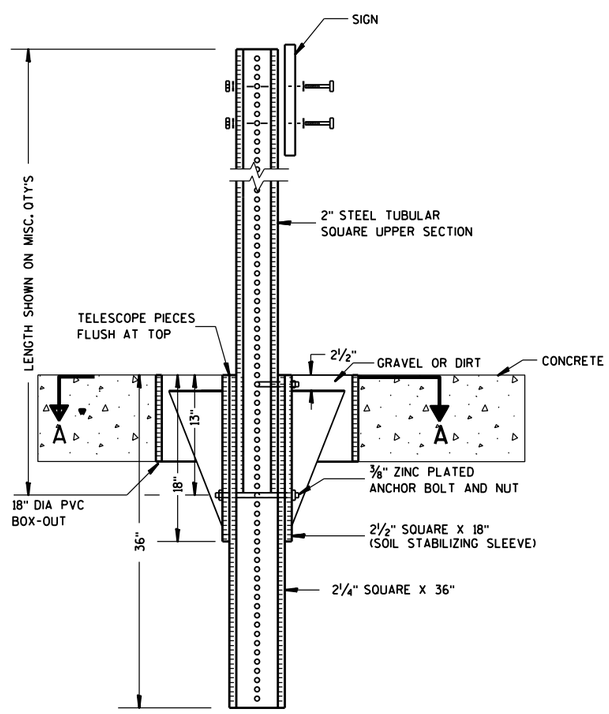
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 43	E



ELEVATION VIEW

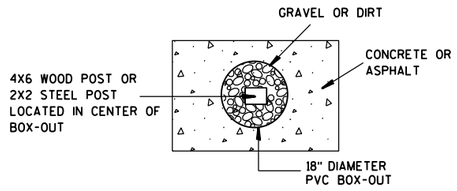
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

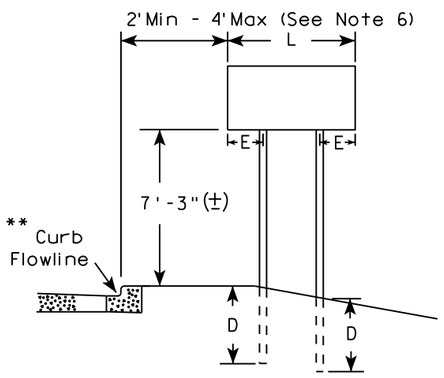
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

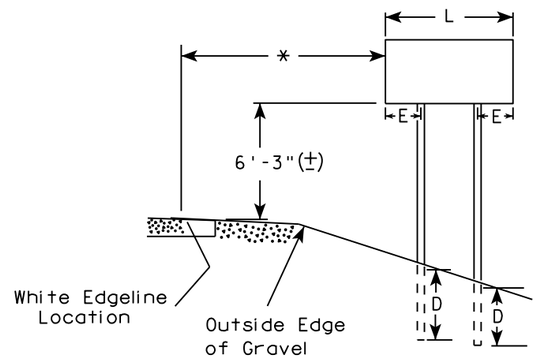
DATE 1/27/14 PLATE NO. A4-3B.1

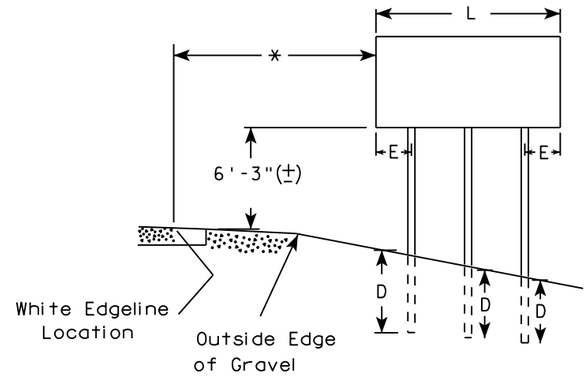
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

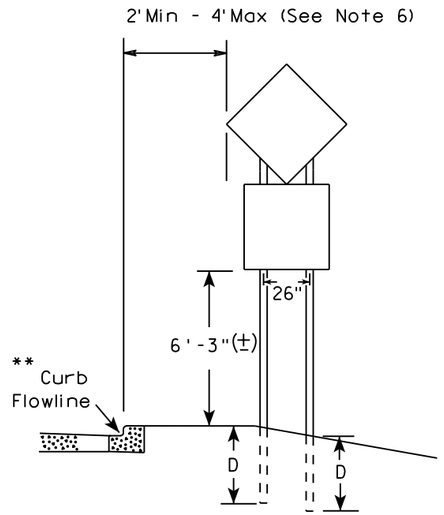
URBAN AREA



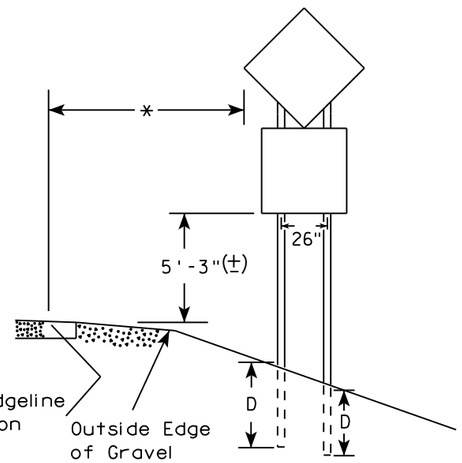
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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'

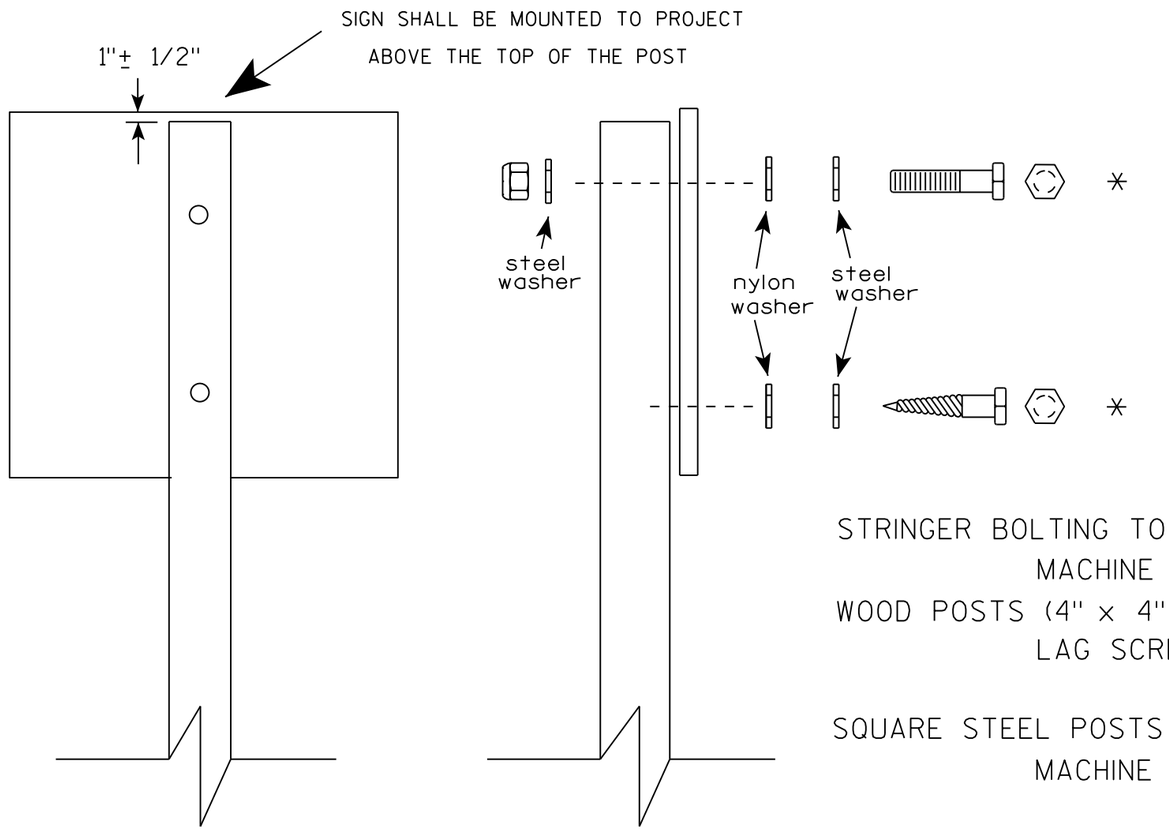
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 45	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 4" or 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 8/11/16 PLATE NO. A4-8.8

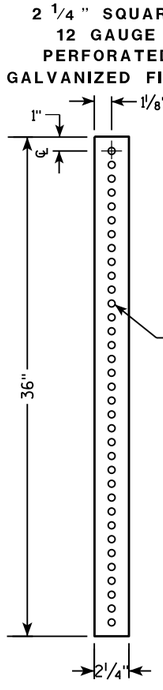
PROJECT NO:

SHEET NO: E

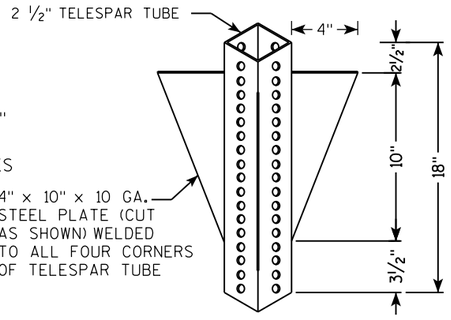
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

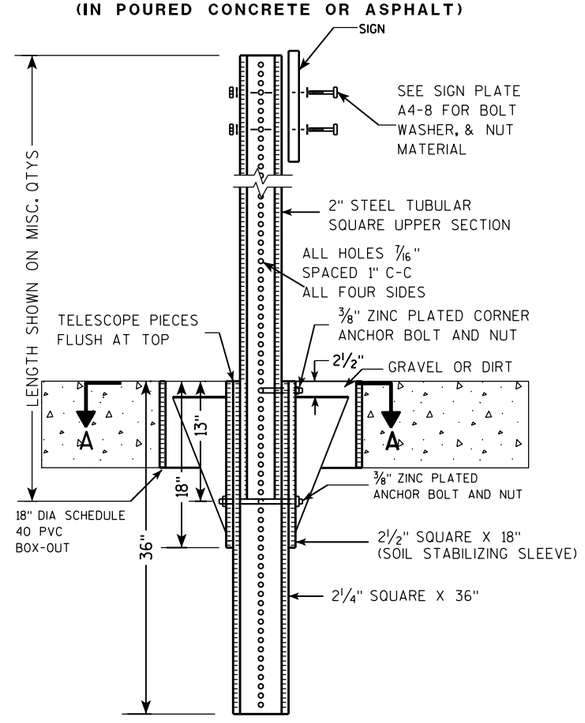
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



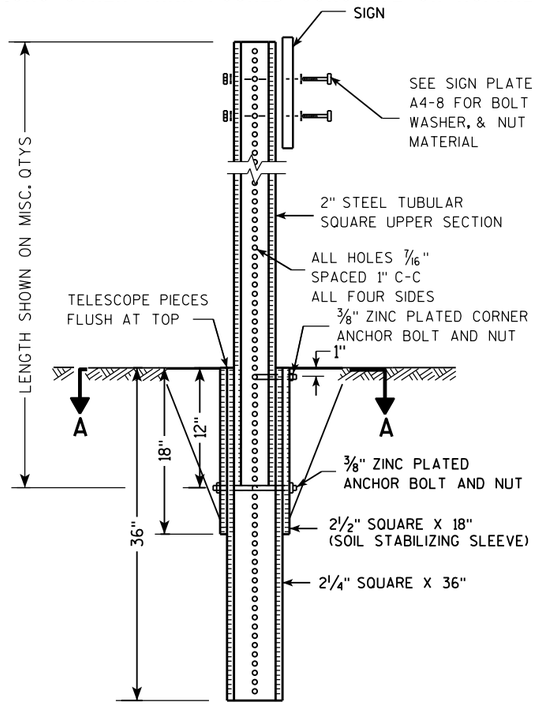
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

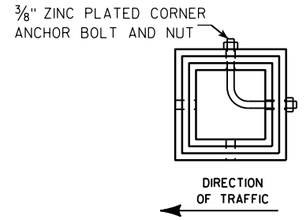


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

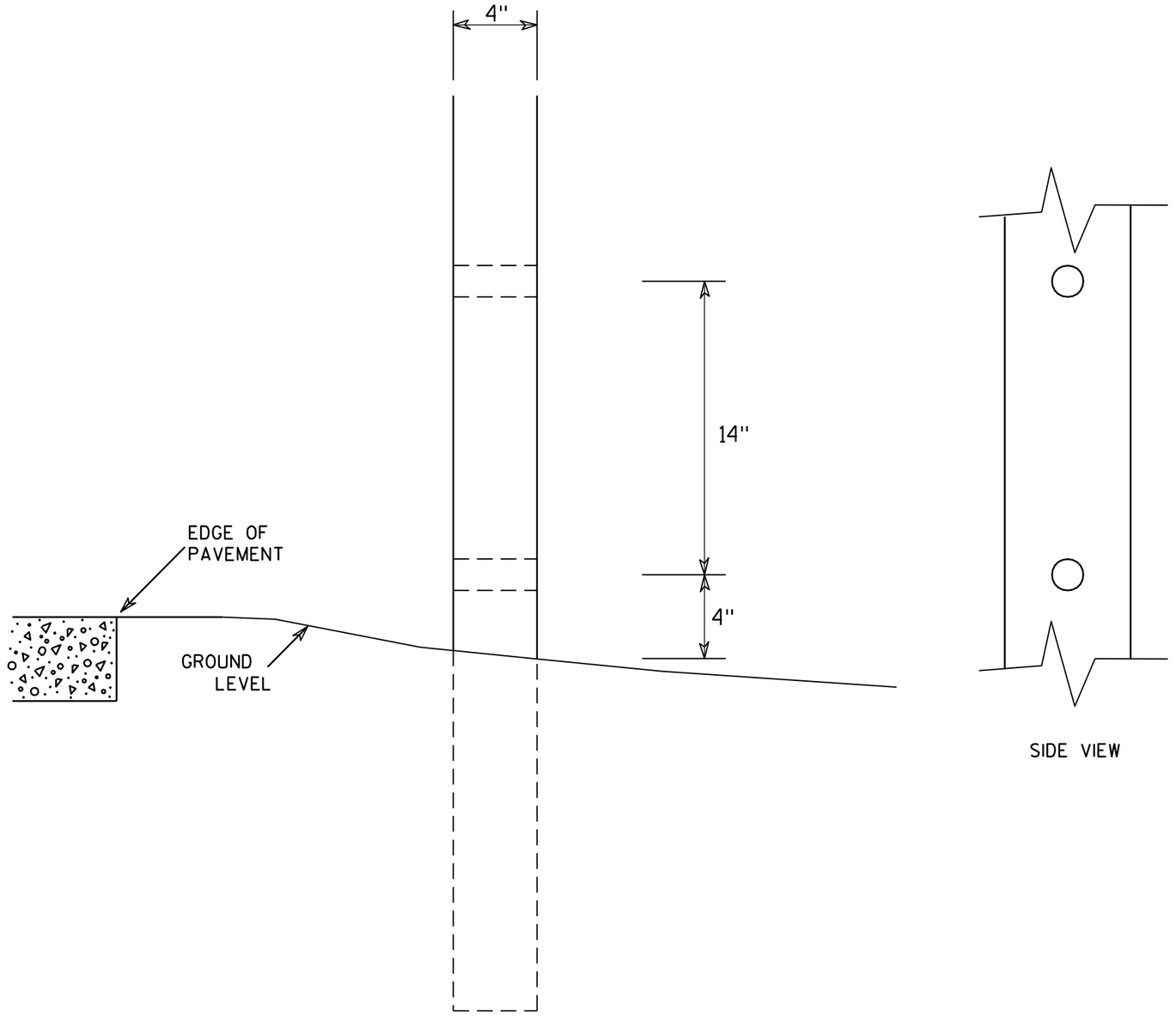
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 47 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

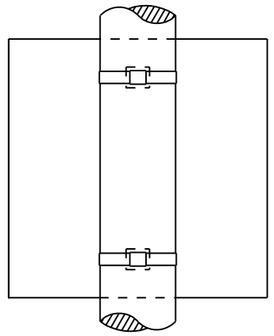
APPROVED Chester J Spang for State Traffic Engineer

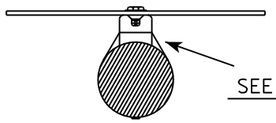
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 48	E

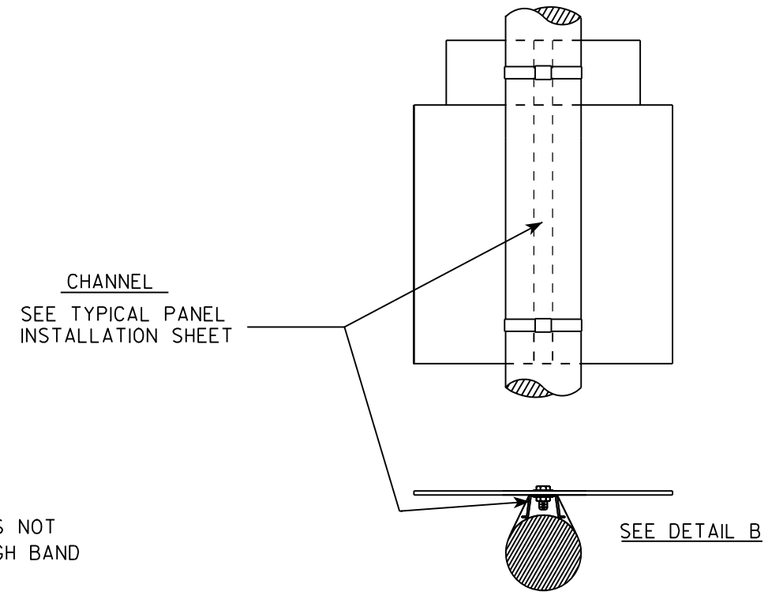
BANDING

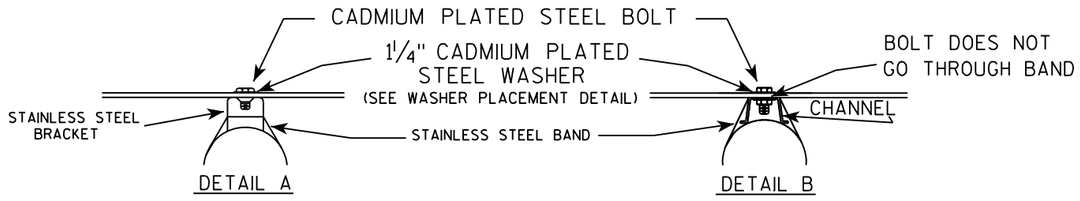
SINGLE SIGN



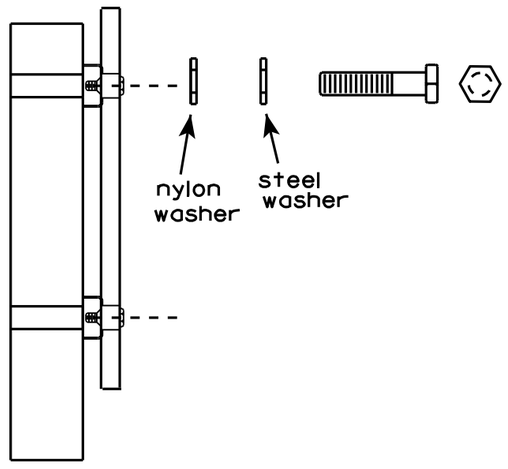


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

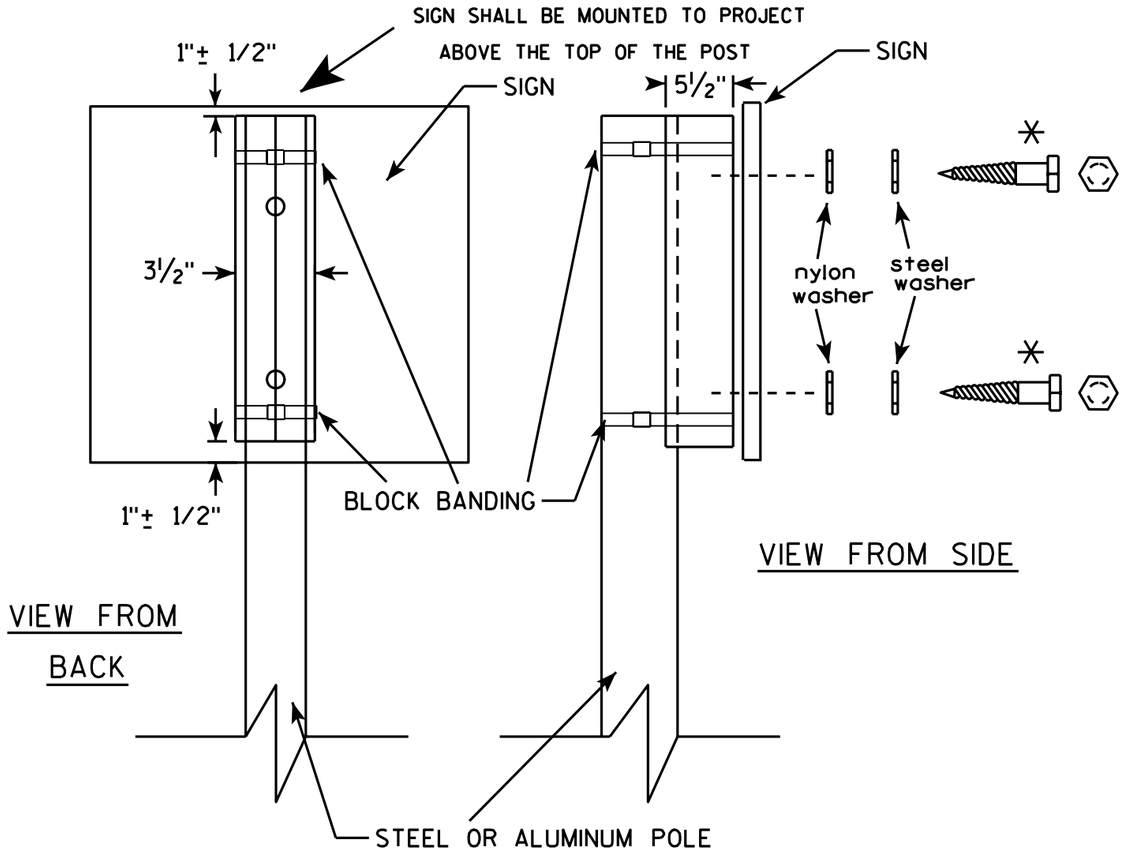
STANDARD SIGN
SIGN BANDING DETAILS

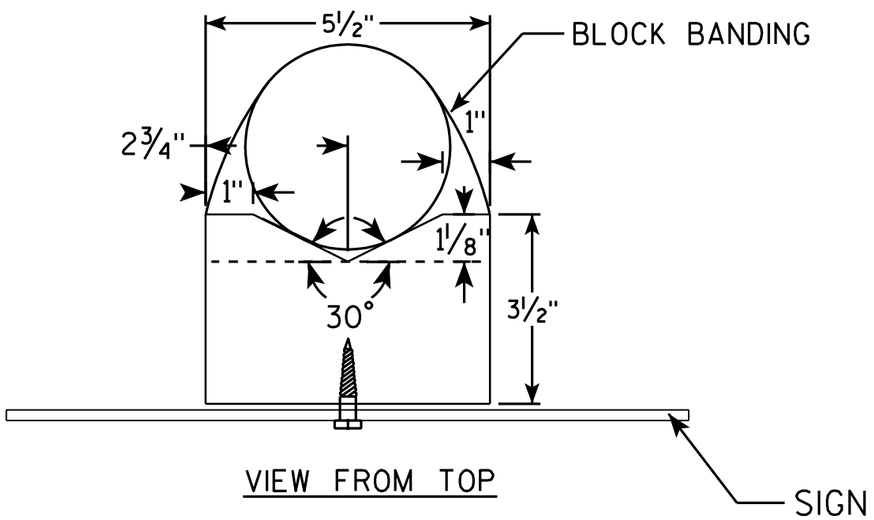
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 49	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

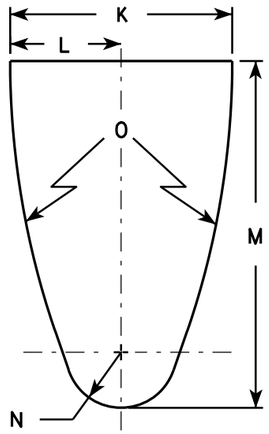
DATE 7/12/07 PLATE NO. A5-10.1

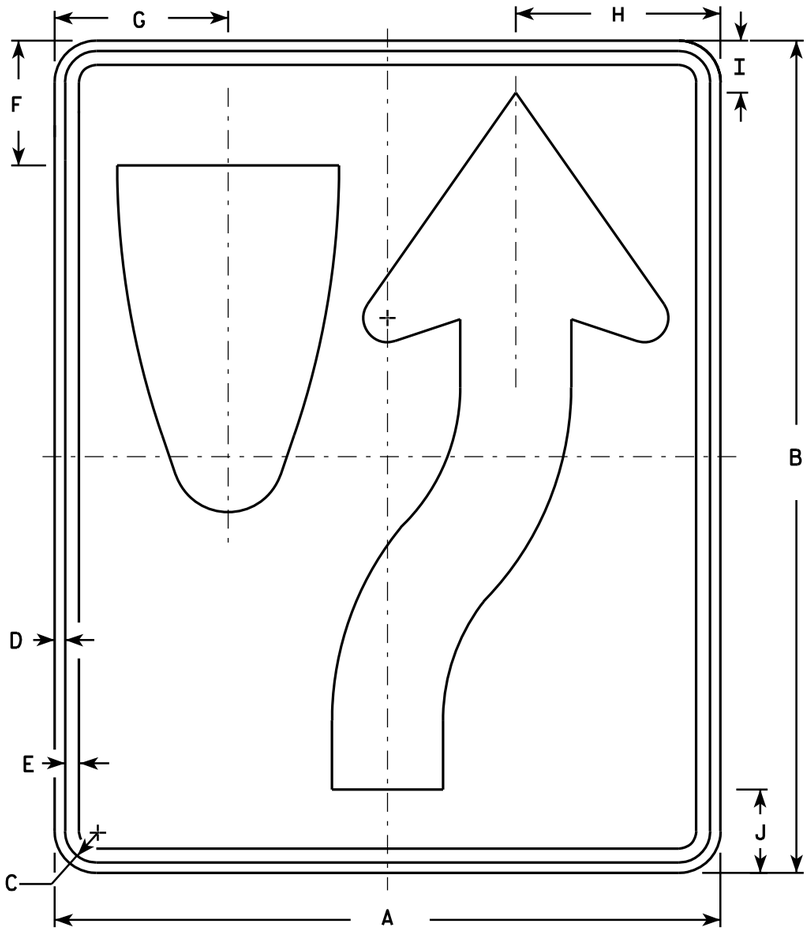
PROJECT NO:

SHEET NO: 50 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

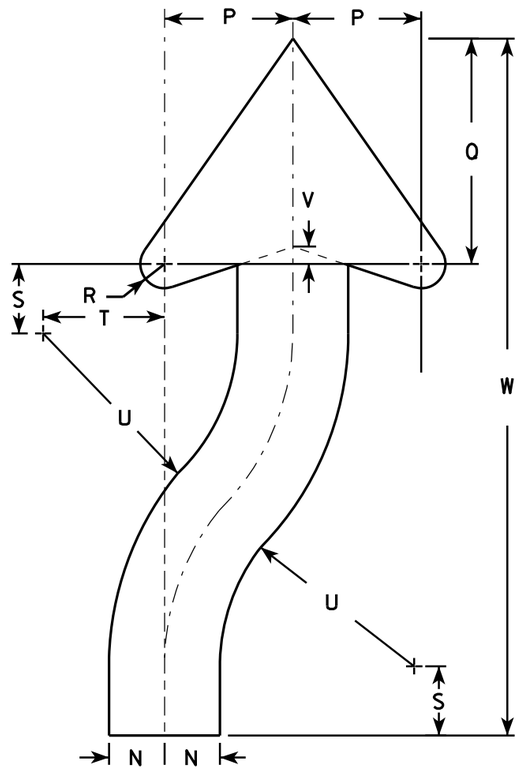




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

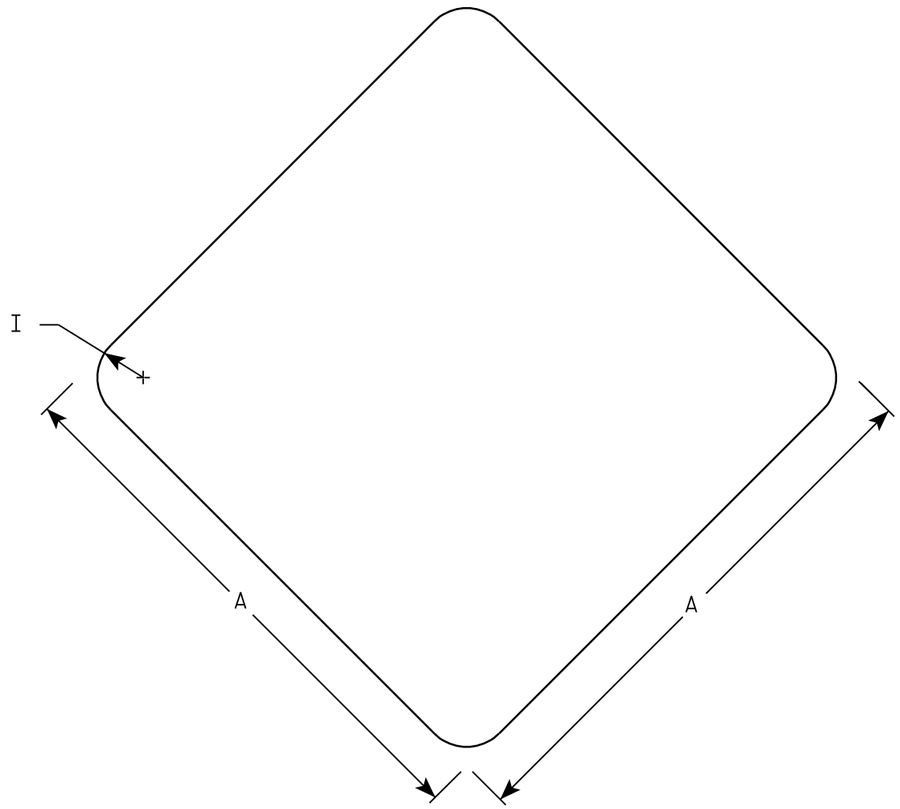
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 51	E



W5-54

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
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

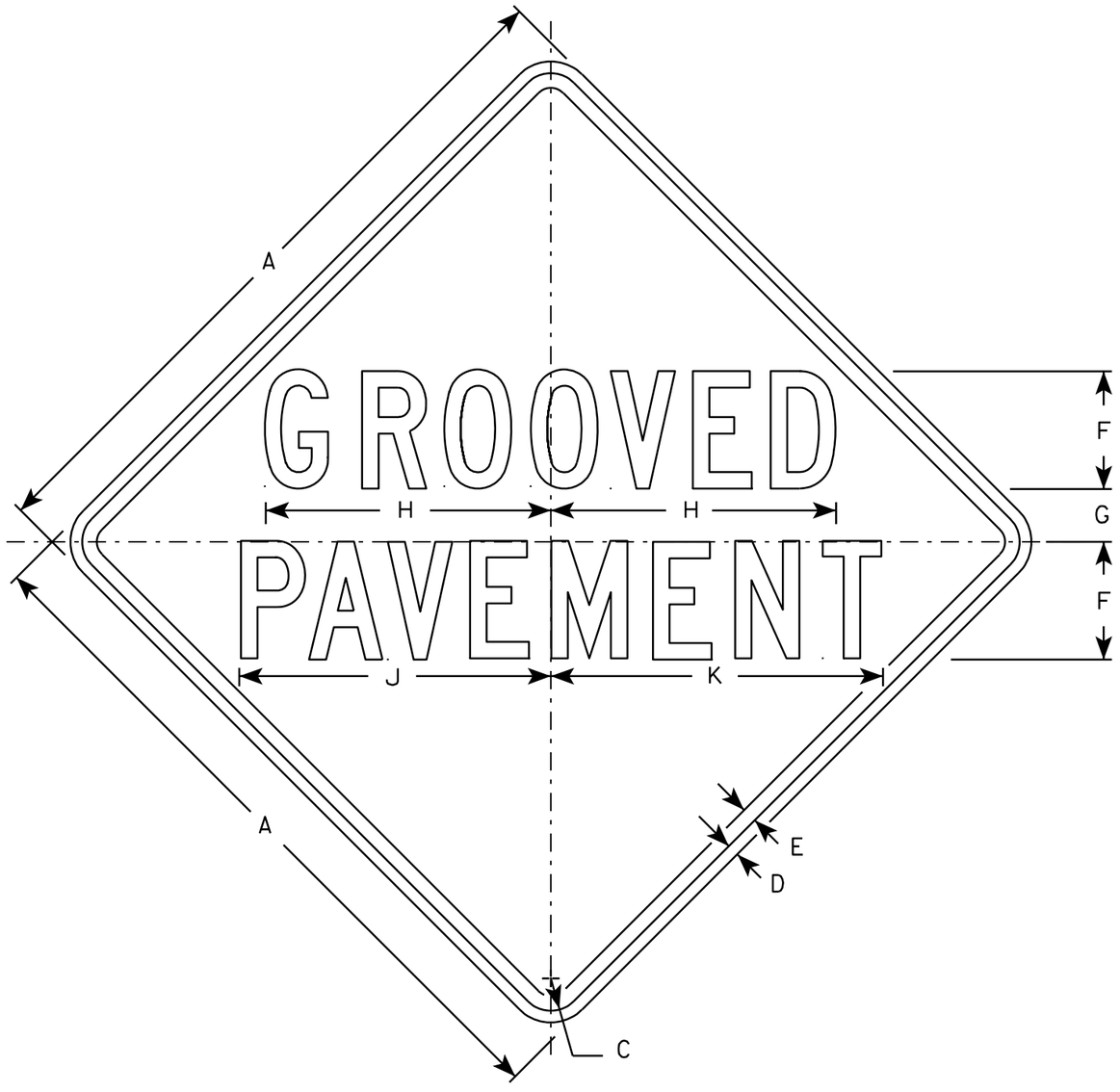
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 52 | E



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 - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	5	2 1/4	12 1/8		13 1/4	14 1/8																6.25
2M	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
3	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
4	36		1 5/8	5/8	3/4	6	2 5/8	14 1/2		15 7/8	17																9.0
5	48		2 1/4	3/4	1	8	3 1/2	19 3/8		21 1/4	22 5/8																16.0

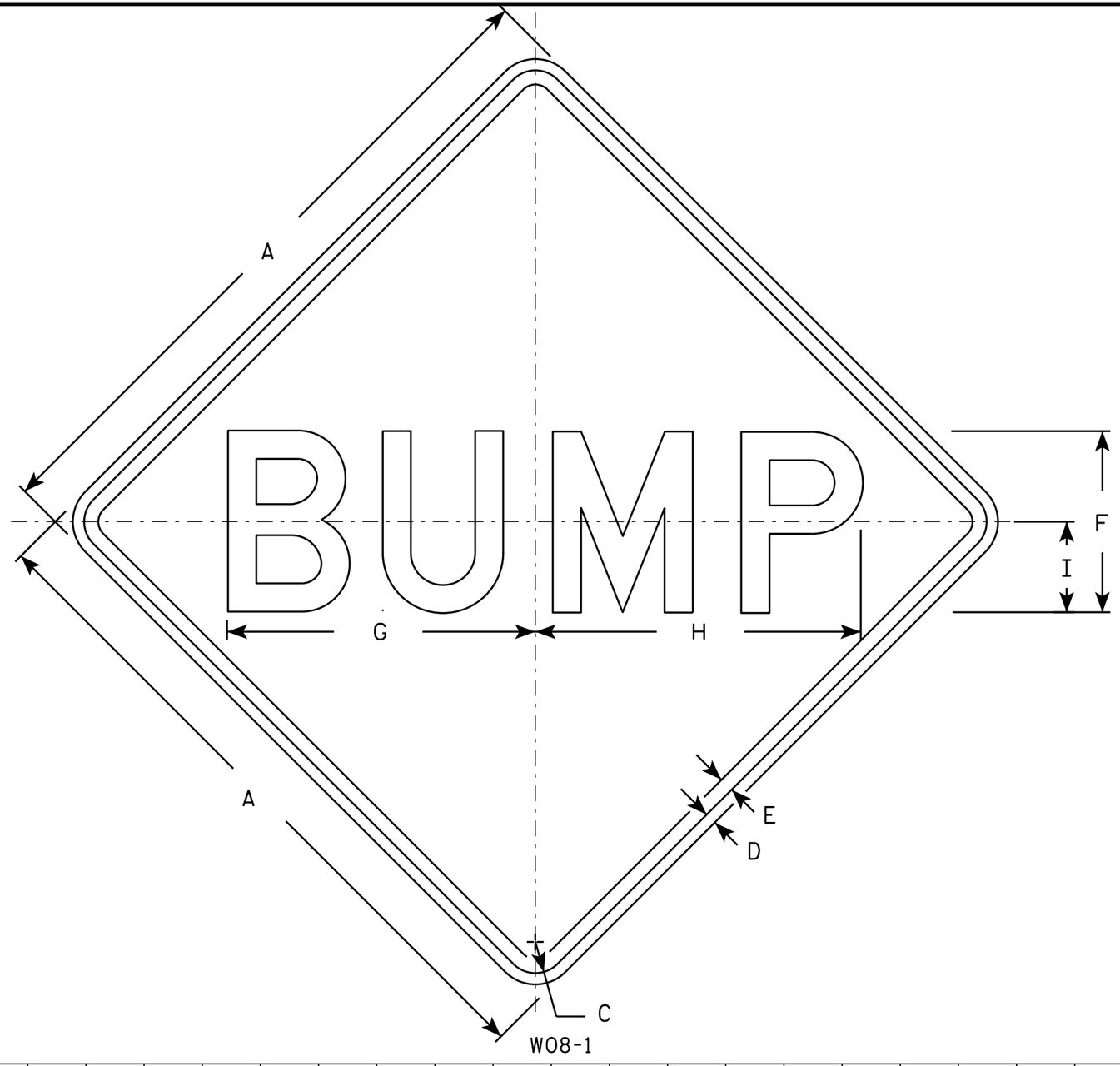
STANDARD SIGN
W8-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-52.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 53	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	10	16 7/8	17 7/8	5																		9.0
2S	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
2M	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
3	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
4	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
5	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0

STANDARD SIGN
W08-1

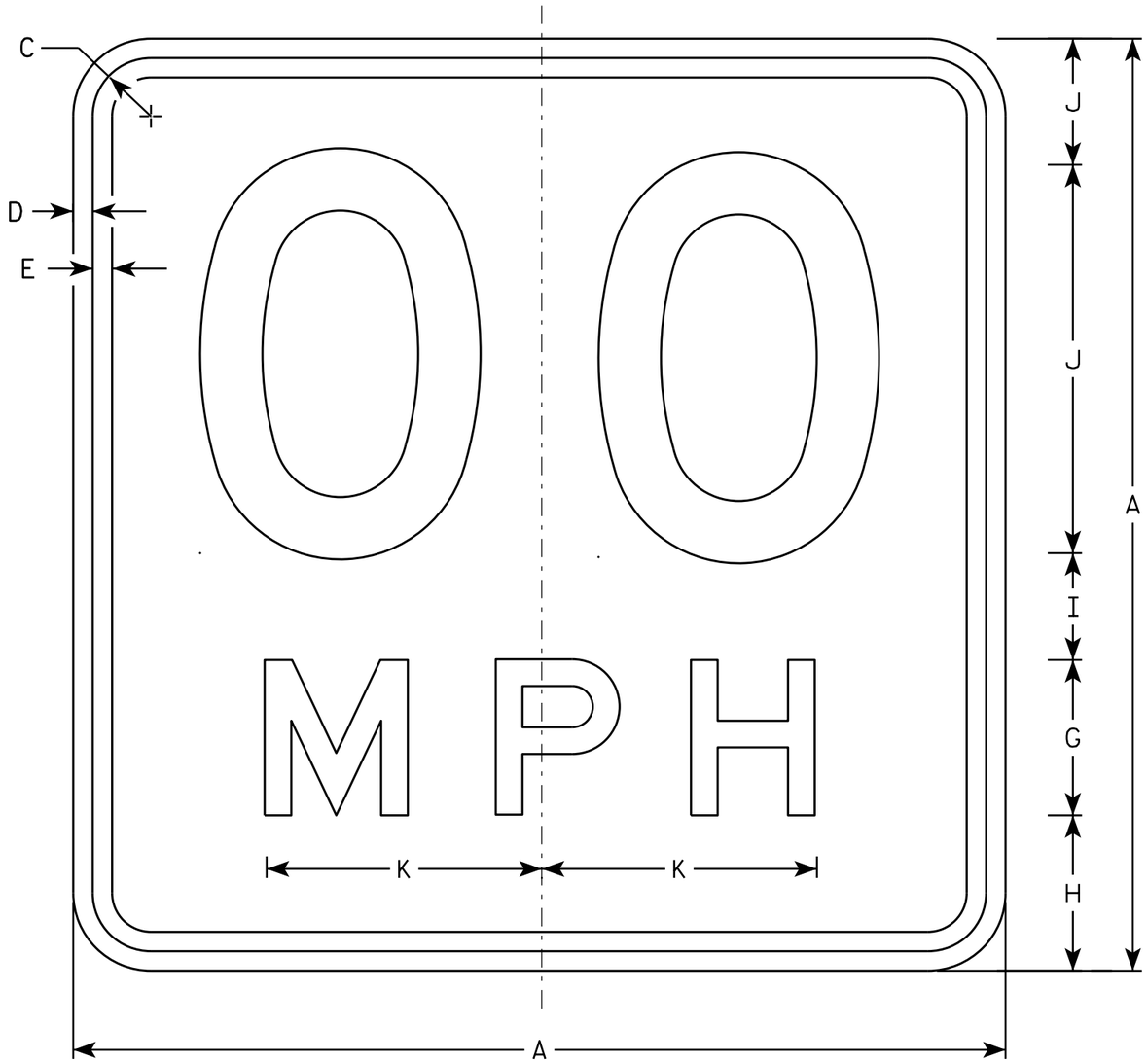
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 1 W08-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W081.DGN PLOT DATE : 20-NOV-2013 12:24 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.688833:1.000000 WISDOT/CADDS SHEET 42



W013-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 55 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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