SUP SEPTEMBER 2021

PROJECT ID: 1550-04-72

WITH: 1550-04-82

21

COUNTY: POLK

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 (Includes Erosion Control Plan)
Section No.	6	Standard Detail Drawings
~~Section No.~~	~~7~~	~~Sign Plates~~
~~Section No.~~	~~8~~	~~Structure Plans~~
~~Section No.~~	~~9~~	~~Computer Earthwork Data~~
Section No.	9	Cross Sections

TOTAL SHEETS = 48

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT

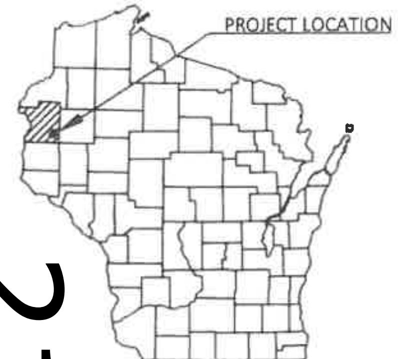
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1550-04-72	WISC 2021497	1
1550-04-82	WISC 2021498	1

CLEAR LAKE - CUMBERLAND
CTH J - USH 8
USH 63
POLK

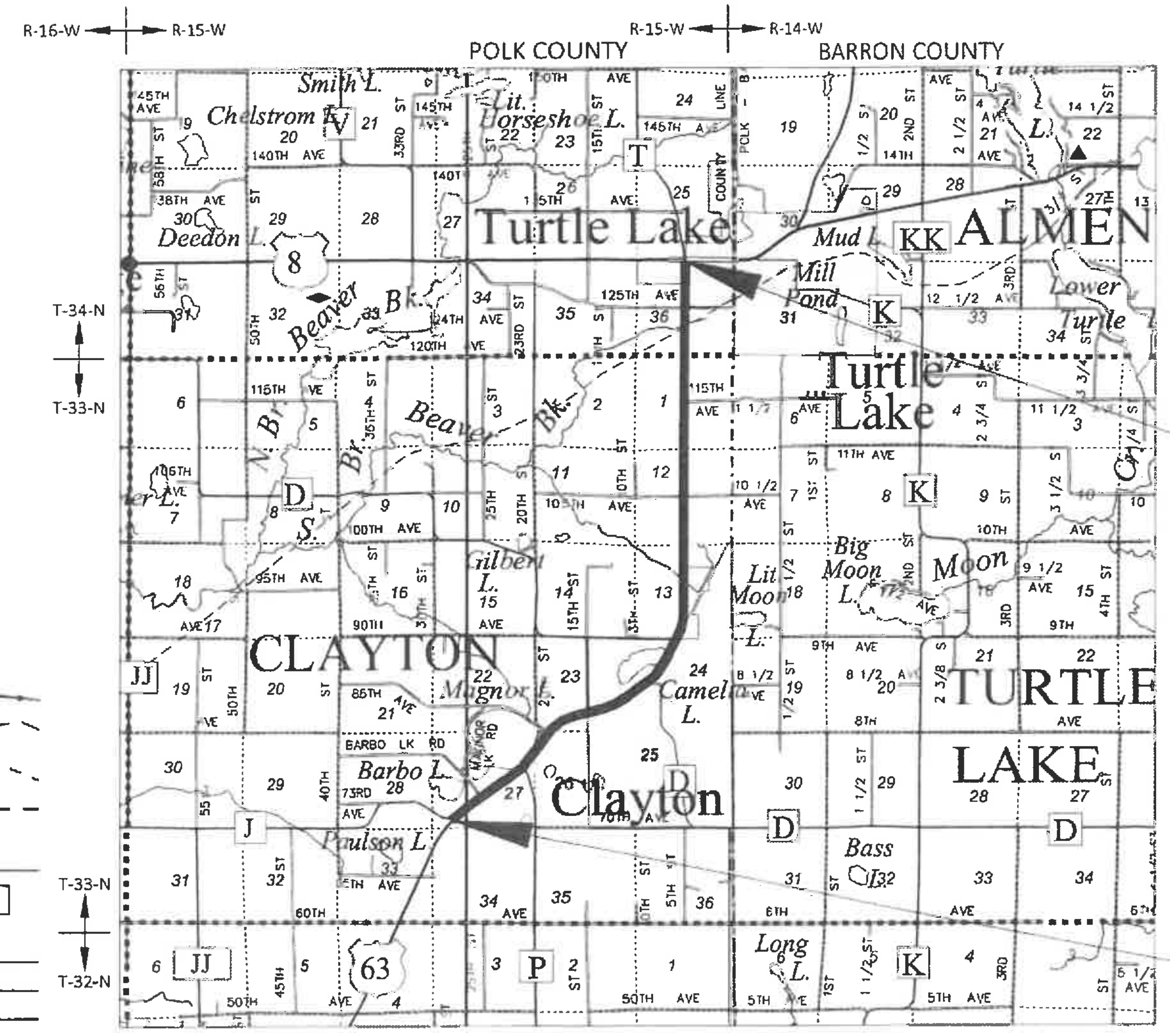
STATE PROJECT NUMBER
1550-04-72

CLEAR LAKE - CUMBERLAND
CTH J - USH 8
USH 63
POLK

STATE PROJECT NUMBER
1550-04-82



N



END PROJECT
1550-04-72, 1550-04-82
STA 813+50.00

BEGIN PROJECT
1550-04-72, 1550-04-82
STA 443+78.00
Y = 237,174.549
X = 572,596.125

LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 1550-04-72 / 82 = 7.002 MI

DESIGN DESIGNATION

A.A.D.T.	2022	=	6200
A.A.D.T.	2042	=	6800
D.H.V.		=	998
D.D.		=	61/39
T.		=	9.5%
DESIGN SPEED		=	55 MPH
ESALS		=	1,540,300

CONVENTIONAL SYMBOLS

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

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

ORIGINAL PLANS PREPARED BY
CORRE ENGINEERING
MADISON | OCONOMOWOC | EAU CLAIRE | GREEN BAY | WITTENBERG

WISCONSIN PROFESSIONAL ENGINEER
KEVIN L. MEYER
E-38309-006
ELK MOUND
WI
3/23/21

DATE: ______ (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	WISDOT/CORRE, INC.
Project Manager	NICHOLAS FITSCH
Regional Examiner	TOU YANG
Regional Supervisor	DAVID KOEPP

APPROVED FOR THE DEPARTMENT
DATE: Dave Koepp (Signature)

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, POLK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012)

E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\1550-04-02_POLK CO_USH 63\500_CADD\501_C3D_2018\15500402\SHEETSPLAN\010101-TI.DWG PLOT DATE : 3/22/2021 11:46 AM PLOT BY ANDREW PETERSON, PE PLOT NAME :

2

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 THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

2.75 INCH HMA PAVEMENT SHALL BE TYPE 5 MT 58-34 V, SHALL BE CONSTRUCTED WITH 1.5 INCH UPPER LAYER AND 1.25 INCH LOWER LAYER.

APPLY TACK COAT AT A RATE OF 0.06 GAL/SY TO COLD IN PLACE RECYCLING BEFORE HMA PAVEMENT.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND COVERED WITH EROSION MAT AS DIRECTED BY THE ENGINEER.

IN ORDER TO AVOID IMPACTS TO THE HABITAT ADJACENT TO THE ROADWAY, THERE SHALL BE NO PARKING, STAGING, OR STORAGE OF EQUIPMENT IN UNDISTURBED, NATIVE AREAS. UTILIZE EXISTING PARKING LOTS, DRIVEWAYS AND SHOULDERS, PROVIDED ADEQUATE PROTECTION IS PROVIDED TO THE HABITAT BEYOND THE TOE OF SLOPE.

THE CONTRACTOR SHALL NOT TRAP WATER ON THE ROADWAY OR BASE AGGREGATE SURFACE.

ALL DEBRIS AND MATERIALS FROM CONSTRUCTION SHALL BE CONTAINED AND NOT DEPOSITED INTO ADJACENT WETLANDS AND WATERWAYS. IF CULVERTS HAVE STANDING OR FLOWING WATER IN THEM, THE WATER SHOULD BE MANAGED SO THAT THE CULVERT MAINTENANCE WORK CAN OCCUR UNDER DRY CONDITIONS.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) ARE TO BE PLACED AT THE BEGINNING AND END OF PROJECT ONE WEEK PRIOR TO THE START OF CONSTRUCTION TO NOTIFY MOTORISTS OF UPCOMING CONSTRUCTION.

ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 1.5 INCH UPPER LAYER AND 1.25 INCH LOWER LAYER.

TRAFFIC CONTROL SIGNS PCMS ARE TO BE PLACED AT THE BEGINNING OF THE PROJECT AND END OF THE PROJECT ONE WEEK PRIOR TO THE START OF CONSTRUCTION. MESSAGE SHALL BE "ROAD WORK TO START 'DATE'".

THE CONTRACTOR SHALL WEDGE ASPHALTIC SURFACE TO MATCH SUPERELEVATION RATES AS LISTED IN THE SUPERELEVATION TABLES.

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 AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.39 ACRES

UTILITY CONTACTS

COMMUNICATIONS

CENTURYLINK - COMMUNICATION LINE
MICHAEL VANDEN BOS
24262 75TH AVE
OSCEOLA, WI 54020
PHONE: (715) 294-2478
PHONE (MOBILE): (715) 292-4278
EMAIL: MIKE.VANDENBOS@LUMEN.COM

COMMUNICATIONS

NORTHWEST COMM - COMMUNICATION LINE
GREG CARDINAL
116 HARRIMAN AVE N
AMERY, WI 54001
PHONE: (715)268-4690
EMAIL:

ELECTRICITY

BARRON ELECTRIC COOPERATIVE - ELECTRICITY
JEFF NELSON
1434 HWY 25 N
BARRON, WI 54812
PHONE: (715) 537-3171
PHONE (MOBILE): (715) 418-1167
EMAIL: JNELSON@BARRONELECTRIC.COM

ELECTRICITY

XCEL ENERGY - ELECTRICITY TRANSMISSION
MITCHELL DIENGER
414 NICOLLET MALL 5TH FLOOR
MINNEAPOLIS, MN 55401
PHONE: (612) 321-3109
PHONE (MOBILE): (608) 386-2233
EMAIL: MITCHELL.A.DIENGER@XCELENERGY.COM

GAS / PETROLEUM

WE ENERGIES - GAS/PETROLEUM
STEVEN CHAVERS
104 W SOUTH ST
RICE LAKE, WI 54868
PHONE: (715) 234-9605
PHONE (MOBILE): (715) 213-4327
EMAIL: STEVEN.CHAVERS@WE-ENERGIES.COM

SANITARY AND WATER

VILLAGE OF CLAYTON - SANITARY AND WATER
SHELDON DONATH
PO BOX 274
CLAYTON, WI 54004
PHONE: (715) 948-2310
PHONE (MOBILE): (715) 205-9393
EMAIL: VCLAYTONDPW@AMERYTEL.NET

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

STREET LIGHTING

VILLAGE OF CLAYTON
SHELDON DONATH
PO BOX 274
CLAYTON, WI 54004
PHONE: (715) 948-2310
PHONE (MOBILE): (715) 205-9393
EMAIL: VCLAYTONDPW@AMERYTEL.NET

POLK COUNTY CONTACT

POLK COUNTY
EMIL NORBY - HIGHWAY COMMISSIONER
900 PHEASANT LANE
PO BOX 248
BALSAM LAKE, WI 54810

PHONE: (715) 485-8723
EMIL.NORBY@CO.POLK.WI.US

DNR CONTACT

DEPARTMENT OF NATURAL RESOURCES
NORTHERN REGION HQ
810 W. MAPLE STREET
SPOONER, WI 54801

AMY CRONK
PHONE: (715) 635-4229
AMY.CRONK@WISCONSIN.GOV

CONSULTANT CONTACT

CORRE INC.
1802 WARDEN ST
EAU CLAIRE, WI 54703

KEVIN MEYER
PHONE: (608) 828-1011
KMEYER@CORREINC.COM

2

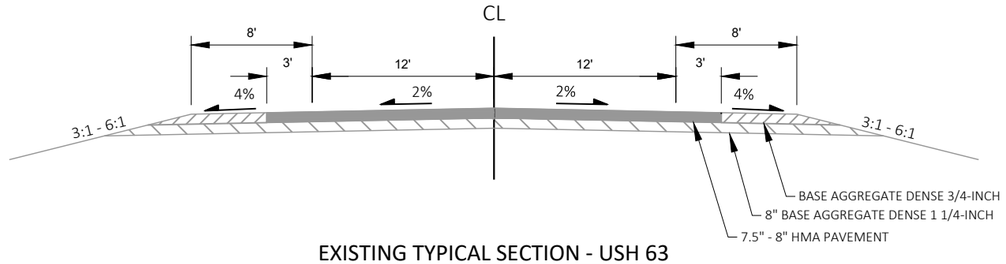
STANDARD ABBREVIATIONS

ABUT	ABUTMENT	FTG	FOOTING
AEW	APRON END WALL	HT	HEIGHT
AGG	AGGREGATE	HES	HIGH EARLY STRENGTH
ASPH	ASPHALTIC	CWT	HUNDREDWEIGHT
AVG	AVERAGE	IP	IRON PIPE OR PIN
AADT	ANNUAL AVERAGE DAILY TRAFFIC	LT	LEFT
BK	BACK	LIN FT or LF	LINEAR FOOT
BAD	BASE AGGREGATE DENSE	LS	LUMP SUM
BL or B/L	BASE LINE	MH	MANHOLE
BM	BENCH MARK	ML or M/L	MATCH LINE
BR	BRIDGE	MB	MESSAGE BOARD
CL or C/L	CENTER LINE	N	NORTH
CC	CENTER TO CENTER	NB	NORTHBOUND
CE	COMMERCIAL ENTRANCE	PC	POINT OF CURVATURE
CONC	CONCRETE	PI	POINT OF INTERSECTION
CO	COUNTY	PT	POINT OF TANGENCY
CTH	COUNTY TRUNK HIGHWAY	PCC	PORTLAND CEMENT CONCRETE
CPCS	CULVERT PIPE CORRUGATED STEEL	PE	PRIVATE ENTRANCE
CABC	CRUSHED AGGREGATE BASE COURSE	R	RADIUS
CY or CUYD	CUBIC YARD	RL or R/L	REFERENCE LINE
CP	CULVERT PIPE	RT	RIGHT
CPRC	CULVERT PIPE REINFORCED CONCRETE	R/W	RIGHT-OF-WAY
C&G	CURB AND GUTTER	RD	ROAD
DHV	DESIGN HOUR VOLUME	SHLDR	SHOULDER
DIA	DIAMETER	SW	SIDEWALK
DWY	DRIVEWAY	S	SOUTH
E	EAST	SB	SOUTHBOUND
EB	EASTBOUND	SF or SQ FT	SQUARE FEET
ELEC	ELECTRIC	SY of SQ YD	SQUARE YARD
EL or ELEV	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
ESALS	EQUIVALENT SINGLE AXLE LOADS	STH	STATE TRUNK HIGHWAYS
EXC	EXCAVATION	STA	STATION
EBS	EXCAVATION BELOW SUBGRADE	SE	SUPERELEVATION
EXP	EXPANSION	TEL	TELEPHONE
FF	FACE TO FACE OR FRONT FACE	UG	UNDERGROUND
FE	FIELD ENTRANCE	VC	VERTICAL CURVE
FAB	FLASHING ARROW BOARD	VPI	VERTICAL POINT OF INTERSECTION
FL or F/L Flow	FLOW LINE	W	WEST
FT	FOOT	WB	WESTBOUND

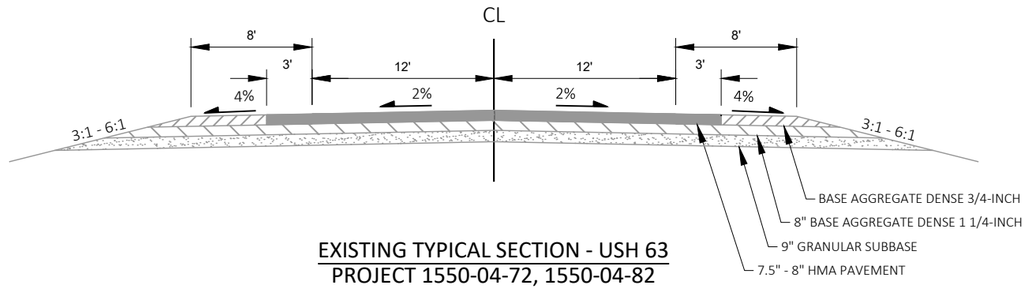
PAVEMENT CORE LOG

CORE NO.	STATION	OFFSET	RECOVERED CORE THICKNESS (IN)	THICKNESS MEASURED DOWNHOLE (IN)	CORE DIA. (IN)	MATERIAL BELOW CORE	PAVEMENT TYPE	DATE	Y	X
C-1	451+80	9.0' LT	10.00	10.25	4.00	BASE	HMA	9/10/2018	237,685.90	573,166.00
C-2	465+00	8.5' RT	7.75	7.75	4.00	BASE	HMA	9/10/2018	238,468.50	574,264.90
C-3	478+20	2.0' LT	7.75	8.00	4.00	BASE	HMA	9/10/2018	239,258.70	575,326.70
C-4	491+40	4.0' RT	8.25	8.25	4.00	BASE	HMA	9/10/2018	240,075.10	576,373.80
C-5	504+60	9.0' LT	9.75	9.75	4.00	BASE	HMA	9/10/2018	241,149.50	577,146.30
C-6	517+80	9.5' RT	9.50	9.50	4.00	BASE	HMA	9/10/2018	242,189.70	577,915.30
C-7	531+00	4.0' LT	9.50	9.75	4.00	BASE	HMA	9/10/2018	242,964.30	578,986.40
C-8	544+20	4.5' RT	9.00	9.75	4.00	BASE	HMA	9/10/2018	243,305.80	580,241.70
C-9	577+40	8.0' LT	11.25	11.50	4.00	BASE	HMA	9/10/2018	243,772.10	581,471.50
C-10	570+60	9.0' RT	10.50	10.50	4.00	BASE	HMA	9/10/2018	244,534.30	582,549.20
C-11	583+80	3.0' LT	12.00	12.00	4.00	BASE	HMA	9/10/2018	245,436.60	583,554.60
C-12	597+00	5.0' RT	10.00	10.25	4.00	BASE	HMA	9/10/2018	246,560.70	584,183.20
C-13	610+20	9.0' LT	11.50	11.75	4.00	BASE	HMA	9/10/2018	247,734.40	584,757.90
C-14	623+40	10.5' RT	9.75	10.00	4.00	BASE	HMA	9/10/2018	249,034.00	584,946.40
C-15	636+50	3.5' LT	10.50	10.50	4.00	BASE	HMA	9/10/2018	250,360.20	584,929.40
C-16	649+80	3.5' RT	10.00	10.00	4.00	BASE	HMA	9/10/2018	251,686.20	584,932.10
C-17	663+00	10.0' LT	10.50	10.50	4.00	BASE	HMA	9/10/2018	253,006.60	584,914.70
C-18	676+20	8.5' RT	12.00	12.00	4.00	BASE	HMA	9/10/2018	254,333.30	584,929.00
C-19	689+40	2.5' LT	10.25	10.25	4.00	BASE	HMA	9/10/2018	255,635.30	584,914.00
C-20	702+60	5.0' RT	9.75	9.75	4.00	BASE	HMA	9/10/2018	256,760.90	584,917.10
C-21	715+80	9.0' LT	8.50	8.75	4.00	BASE	HMA	9/10/2018	258,297.50	584,899.90
C-22	729+00	10.0' RT	9.75	9.75	4.00	BASE	HMA	9/10/2018	259,618.30	584,916.60
C-23	742+20	3.5' LT	9.50	9.50	4.00	BASE	HMA	9/10/2018	260,914.00	584,904.40
C-24	755+40	4.0' RT	10.00	10.00	4.00	BASE	HMA	9/10/2018	262,231.70	584,917.30
C-25	768+60	10.0' LT	10.50	10.50	4.00	BASE	HMA	9/10/2018	263,569.80	584,908.10
C-26	781+80	8.0' RT	10.75	10.75	4.00	BASE	HMA	9/10/2018	264,893.90	584,931.40
C-27	795+00	4.5' LT	9.75	9.75	4.00	BASE	HMA	9/10/2018	266,198.50	584,924.10
C-28	808+20	5.0' RT	6.75	7.00	4.00	BASE	HMA	9/10/2018	267,523.20	584,939.60

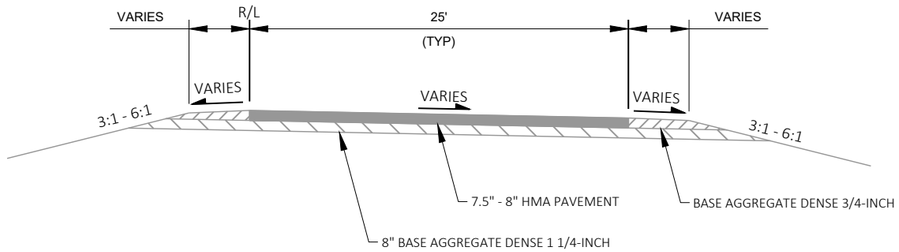
2



EXISTING TYPICAL SECTION - USH 63
PROJECT 1550-04-72, 1550-04-82
STA 443+78 - 705+00
STA 713+00 - 813+50

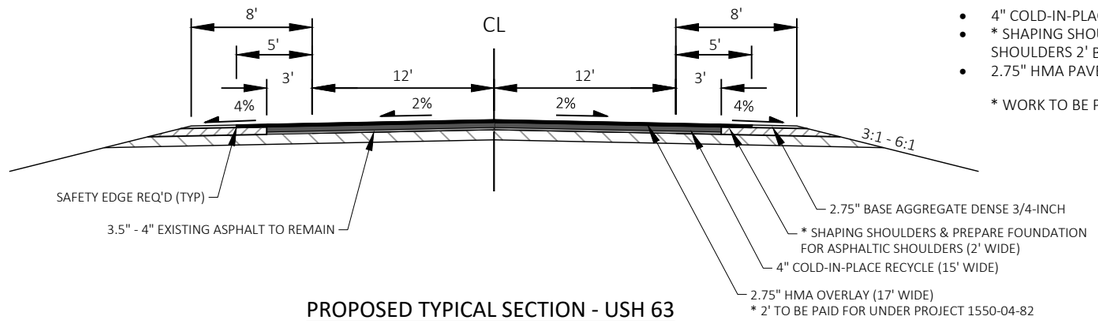


EXISTING TYPICAL SECTION - USH 63
PROJECT 1550-04-72, 1550-04-82
STA 705+00 - 713+00



EXISTING TYPICAL SECTION - USH 63 TO USH 8 RAMP
PROJECT 1550-04-72
STA 5+00 - 12+50

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN: TYPICAL SECTIONS	SHEET 4	E

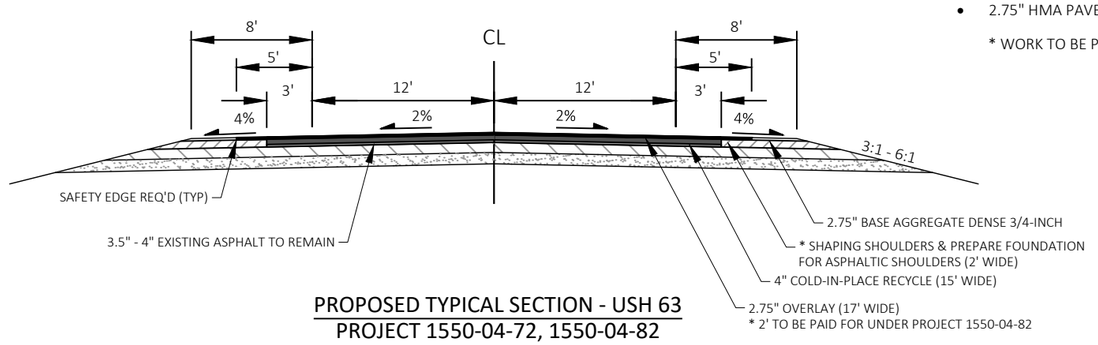


NOTES:

- 4" COLD-IN-PLACE RECYCLE (15' WIDE = EXISTING HMA WIDTH)
- * SHAPING SHOULDER AND PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS 2' BEYOND EXISTING SHOULDER (FROM 15-17' FROM CL)
- 2.75" HMA PAVEMENT OVERLAY FOR TOP MAT (0' - 17')

  * WORK TO BE PAID FOR UNDER PROJECT 1550-04-82

PROPOSED TYPICAL SECTION - USH 63
PROJECT 1550-04-72, 1550-04-82
STA 443+78 - 705+00
STA 713+00 - 813+50

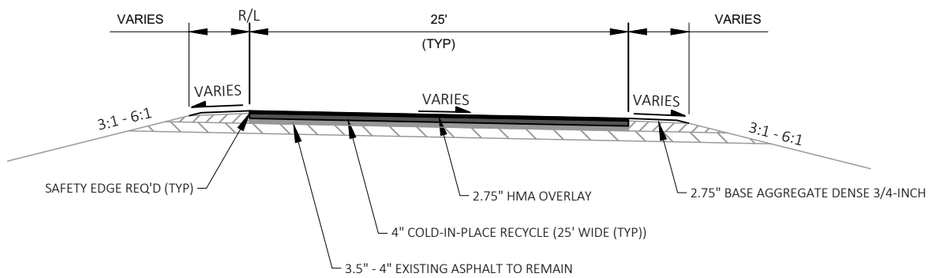


NOTES:

- 4" COLD-IN-PLACE RECYCLE (15' WIDE = EXISTING HMA WIDTH)
- * SHAPING SHOULDER AND PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS 2' BEYOND EXISTING SHOULDER (FROM 15-17' FROM CL)
- 2.75" HMA PAVEMENT OVERLAY FOR TOP MAT (0' - 17')

  * WORK TO BE PAID FOR UNDER PROJECT 1550-04-82

PROPOSED TYPICAL SECTION - USH 63
PROJECT 1550-04-72, 1550-04-82
STA 705+00 - 713+00

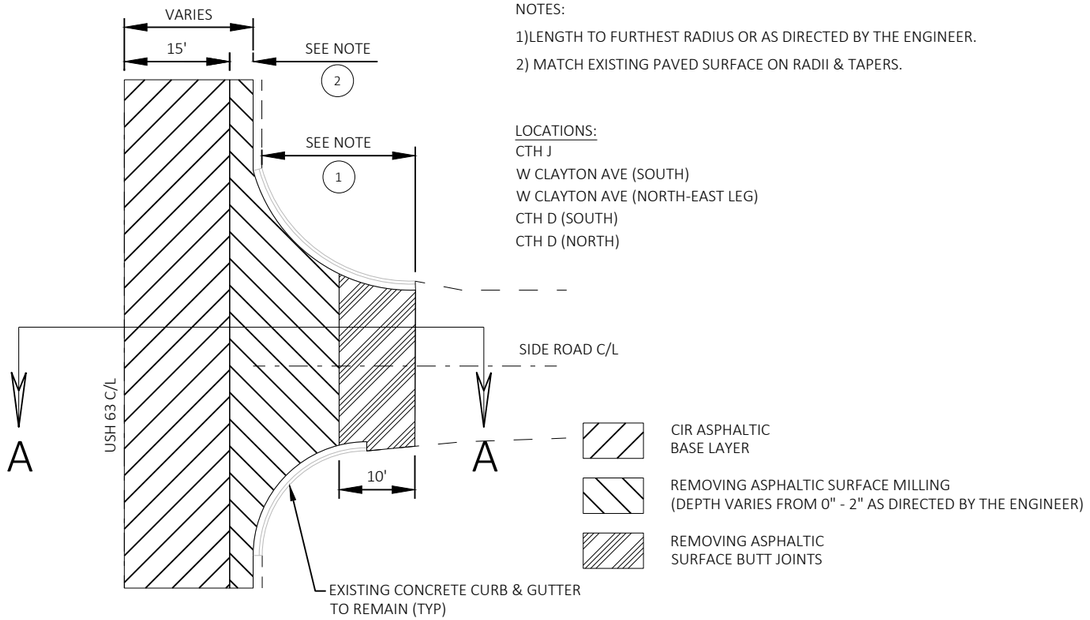


NOTES:

- 4" COLD-IN-PLACE RECYCLE (25' WIDE = EXISTING HMA WIDTH)
- 2.75" HMA PAVEMENT OVERLAY FOR TOP MAT

PROPOSED TYPICAL SECTION - USH 63 TO USH 8 RAMP
PROJECT 1550-04-72
STA 5+00 - 12+50

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN: TYPICAL SECTIONS	SHEET 5	E



NOTES:

1)LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.

2) MATCH EXISTING PAVED SURFACE ON RADII & TAPERS.

LOCATIONS:

CTH J

W CLAYTON AVE (SOUTH)

W CLAYTON AVE (NORTH-EAST LEG)

CTH D (SOUTH)

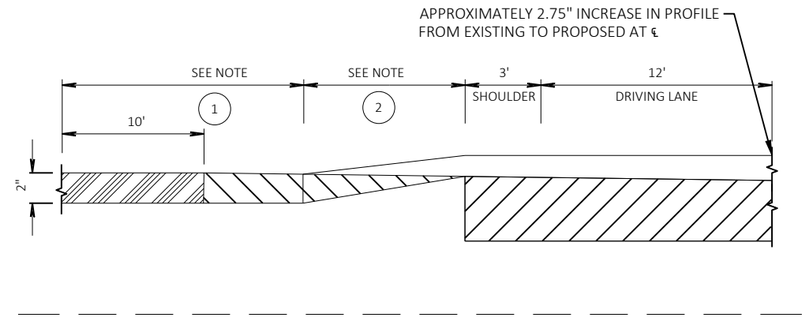
CTH D (NORTH)

DETAIL OF PAVED SIDE ROAD WITH CURB & GUTTER

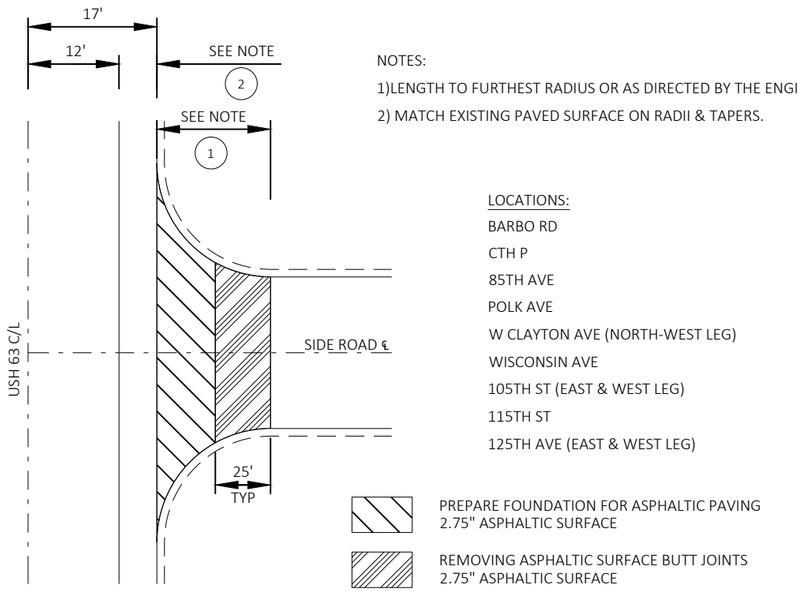
NOTES:

1) LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.

2) MATCH EXISTING PAVED SURFACE ON RADII & TAPERS.



BUTT JOINT DETAIL A-A
PAVED SIDE ROAD WITH CURB & GUTTER



NOTES:

1)LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.

2) MATCH EXISTING PAVED SURFACE ON RADII & TAPERS.

LOCATIONS:

BARBO RD

CTH P

85TH AVE

POLK AVE

W CLAYTON AVE (NORTH-WEST LEG)

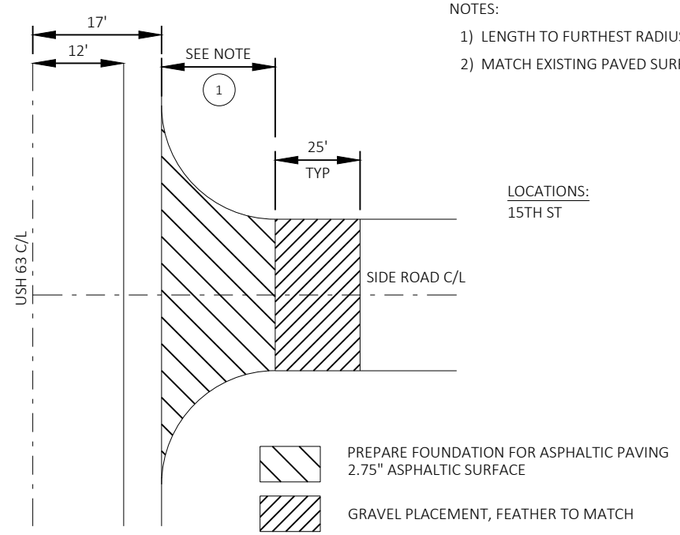
WISCONSIN AVE

105TH ST (EAST & WEST LEG)

115TH ST

125TH AVE (EAST & WEST LEG)

DETAIL OF PAVED SIDE ROAD WITH NO CURB & GUTTER



NOTES:

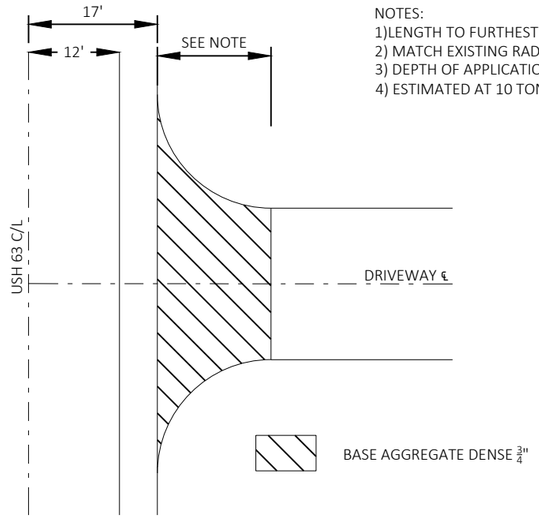
1) LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.

2) MATCH EXISTING PAVED SURFACE ON RADII & TAPERS.

LOCATIONS:

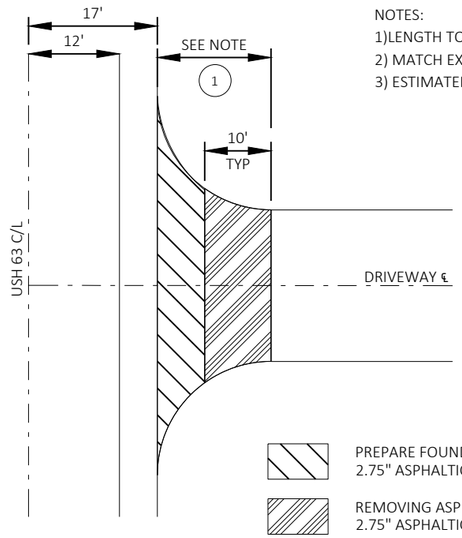
15TH ST

DETAIL OF UNPAVED SIDE ROAD WITH PAVED / UNPAVED APPROACH



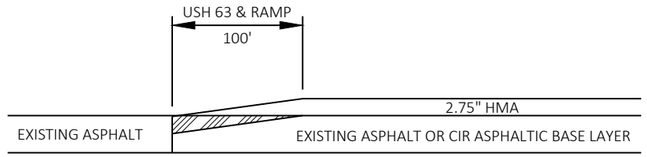
NOTES:
1)LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.
2) MATCH EXISTING RADII & TAPERS.
3) DEPTH OF APPLICATION ESTIMATED AT <=1".
4) ESTIMATED AT 10 TONS / DRIVEWAY.

DETAIL OF GRAVEL DRIVEWAY



NOTES:
1)LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.
2) MATCH EXISTING RADII & TAPERS.
3) ESTIMATED AT 10 TONS/DWY

DETAIL OF PAVED DRIVEWAY



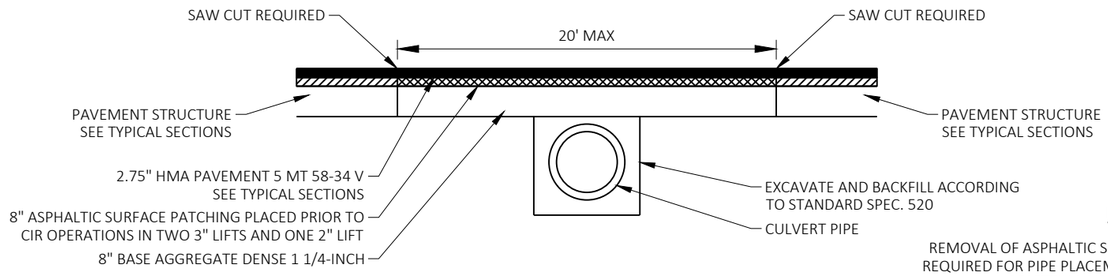
REQUIRED AT BEGIN AND END OF PAVING LOCATIONS. SEE PLAN.

PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS

MAINLINE BUTT JOINT

REMOVE MATERIAL UNDER ITEM "REMOVING ASPHALT SURFACE BUTT JOINTS." MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE SIDE ROAD PAVING.

PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT BEFORE SIDEROAD PAVING. EDGE TO BE TAPERED TO 2" MINIMUM AT JOINT

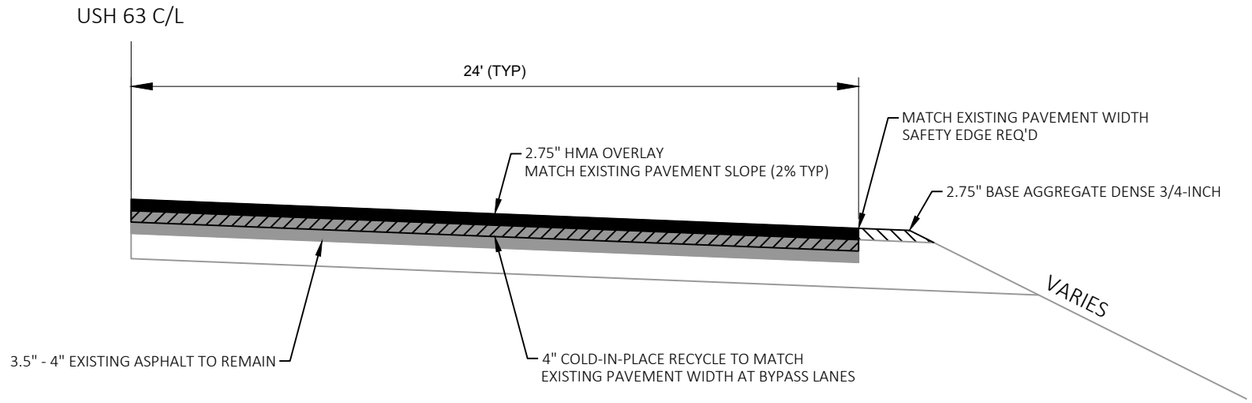


NOTES:

REMOVAL OF ASPHALTIC SURFACE AND OTHER EXCAVATION REQUIRED FOR PIPE PLACEMENT CONSIDERED INCIDENTAL TO RESETTING PIPE CULVERTS BID ITEM.

DETAILS OF RESETTING PIPE SECTIONS

2



BYPASS LANE CIR DETAIL

					1550-04-72	1550-04-82
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0002	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,931.000	2,931.000	
0004	204.0120	Removing Asphaltic Surface Milling	SY	2,540.000	2,540.000	
0006	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1550-04-72	LS	1.000	1.000	
0008	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	703.000	703.000	
0010	211.0700.S	Prepare Foundation for CIR Base Layer (project) 01. 1550-04-72	EACH	1.000	1.000	
0012	211.0800.S	Base Repair for CIR Layer	CY	1,000.000	1,000.000	
0014	213.0100	Finishing Roadway (project) 01. 1550-04-72	EACH	1.000	1.000	
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	5,211.000	5,211.000	
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	178.000	178.000	
0020	305.0500	Shaping Shoulders	STA	752.000		752.000
0022	327.1000.S	CIR Asphaltic Base Layer	SY	126,104.000	126,104.000	
0024	455.0605	Tack Coat	GAL	18,206.000	16,361.000	1,845.000
0026	455.0770.S	Asphalt Stabilizing Agent	TON	569.000	569.000	
0028	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000	
0030	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000	
0032	460.2005	Incentive Density PWL HMA Pavement	DOL	15,190.000	15,190.000	
0034	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	29,578.000	29,578.000	
0036	460.2010	Incentive Air Voids HMA Pavement	DOL	24,160.000	24,160.000	
0038	460.6645	HMA Pavement 5 MT 58-34 V	TON	24,157.000	19,423.000	4,734.000
0040	465.0105	Asphaltic Surface	TON	1,503.000	1,503.000	
0042	465.0110	Asphaltic Surface Patching	TON	184.000	184.000	
0044	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	130.000	130.000	
0046	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	57,460.000		57,460.000
0048	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	27,250.000		27,250.000
0050	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000	
0052	520.8700	Cleaning Culvert Pipes	EACH	8.000	8.000	
0054	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000	
0056	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1550-04-72	EACH	1.000	1.000	
0058	619.1000	Mobilization	EACH	1.000	0.800	0.200
0060	624.0100	Water	MGAL	50.000	50.000	
0062	625.0500	Salvaged Topsoil	SY	475.000	475.000	
0064	628.1504	Silt Fence	LF	375.000	375.000	
0066	628.1520	Silt Fence Maintenance	LF	375.000	375.000	
0068	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000	
0070	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000	
0072	628.2008	Erosion Mat Urban Class I Type B	SY	475.000	475.000	
0074	629.0210	Fertilizer Type B	CWT	1.300	1.300	
0076	630.0130	Seeding Mixture No. 30	LB	9.000	9.000	
0078	633.5200	Markers Culvert End	EACH	25.000	25.000	
0080	638.2102	Moving Signs Type II	EACH	5.000	5.000	
0082	638.4000	Moving Small Sign Supports	EACH	5.000	5.000	
0084	642.5001	Field Office Type B	EACH	1.000	1.000	
0086	643.0300	Traffic Control Drums	DAY	1,600.000	1,600.000	
0088	643.0900	Traffic Control Signs	DAY	2,480.000	2,480.000	
0090	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000	
0092	643.5000	Traffic Control	EACH	1.000	1.000	
0094	646.1020	Marking Line Epoxy 4-Inch	LF	35,760.000	35,760.000	
0096	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	71,973.000	71,973.000	
0098	646.3020	Marking Line Epoxy 8-Inch	LF	939.000	939.000	
0100	646.6120	Marking Stop Line Epoxy 18-Inch	LF	20.000	20.000	
0102	648.0100	Locating No-Passing Zones	MI	7.010	7.010	
0104	649.0105	Temporary Marking Line Paint 4-Inch	LF	60,400.000	60,400.000	

					1550-04-72	1550-04-82
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0106	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	35,700.000	35,700.000	
0108	650.8000	Construction Staking Resurfacing Reference	LF	37,722.000	37,722.000	
0110	650.9910	Construction Staking Supplemental Control (project) 01. 1550-04-72	LS	1.000	1.000	
0112	740.0440	Incentive IRI Ride	DOL	28,010.000	28,010.000	
0114	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	600.000	600.000	
0116	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000	
0118	SPV.0060	Special 01. Resetting Pipe Ends	EACH	23.000	23.000	

CATEGORY	STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
0010	443+78		444+78	USH 63	334	
0010	443+78	-	446+05	CTH J	26	320
0010	463+34	-	464+20	BARBO RD	78	-
0010	490+31	-	491+87	CTH P/20TH ST	73	-
0010	490+34		490+80	DRIVEWAY, LT	25	
0010	492+75	-	497+29	DRIVEWAYS, RT	200	-
0010	498+77	-	499+13	DRIVEWAY, LT	35	-
0010	500+06	-	500+23	DRIVEWAY, LT	16	-
0010	501+01	-	501+89	DRIVEWAY, LT	79	-
0010	505+31	-	505+68	DRIVEWAY, LT	34	-
0010	508+09	-	508+64	DRIVEWAY, LT	48	-
0010	510+34	-	510+93	DRIVEWAY, LT	27	-
0010	513+26	-	514+49	85TH AVE	94	-
0010	547+74		552+82	W CLAYTON AVE	89	700
0010	561+14	-	562+53	POLK AVE	110	-
0010	570+36	-	574+82	W CLAYTON AVE, RT	130	680
0010	571+91	-	575+62	W CLAYTON AVE, LT	68	-
0010	579+18	-	583+69	CTH D	120	440
0010	583+60		583+97	DRIVEWAY, LT	30	-
0010	594+68	-	595+74	WISCONSIN AVE	99	-
0010	601+88	-	606+37	CTH D	140	400
0010	682+86	-	684+02	105TH ST, WEST	66	-
0010	682+90	-	683+80	105TH ST, EAST	72	-
0010	735+25	-	736+45	115TH ST	63	-
0010	786+09	-	788+25	125TH AVE, EAST	100	-
0010	787+11	-	788+52	125TH AVE, WEST	85	-
0010	812+50		813+50	USH 63	420	
0010	11+50	-	12+50	USH 63 TO USH 8 RAMP	270	-
				TOTAL 0010	2,931	2,540

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	STATION	TO	STATION	LOCATION	305.0500 SHAPING SHOULDERS STA
0010	443+78	-	813+50	USH 63	740
0010	5+00	-	12+50	USH 63 TO USH 8 RAMP	12
				TOTAL 0010	752

NOTE: ALL ITEMS ARE PROJECT 1550-04-82.

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	REMARKS
0010	443+78	-	813+50	USH 63	4,250	-	
0010	443+79	-	445+93	CTH J	9	-	
0010	463+34	-	464+20	BARBO RD	6	-	
0010	490+31	-	491+87	CTH P / 20TH ST	10	-	
0010	513+26		514+49	85TH AVE	7		
0010	537+45	-	538+63	15TH ST	8	-	
0010	546+16	-	551+94	PASSING LANE	40	-	
0010	547+84	-	552+55	W CLAYTON AVE	24	-	
0010	561+18	-	562+49	POLK AVE	10	-	
0010	570+83		574+41	W CLAYTON AVE	16		EAST
0010	571+94	-	575+14	W CLAYTON AVE	24	-	WEST
0010	577+94	-	585+20	PASSING LANE	45	-	
0010	579+52	-	583+43	CTH D	17	-	
0010	594+74	-	595+66	WISCONSIN AVE	7	-	
0010	599+98		606+97	PASSING LANE	44		
0010	602+09	-	605+91	CTH D	18	-	
0010	682+86	-	683+86	105TH ST	8	-	WEST
0010	682+99	-	683+63	105TH ST	8	-	EAST
0010	735+30	-	736+29	115TH ST	11	-	
0010	786+64	-	788+17	125TH AVE	13	-	EAST
0010	787+21	-	788+40	125TH AVE	9	-	WEST
0010	5+00	-	9+30	USH 63 TO USH 8 RAMP	27	-	
0010	9+30	-	12+50	USH 63 TO USH 8 RAMP	20	-	
0010	443+78	-	813+50	USH 63	580	-	DRIVEWAYS
0010	443+78	-	813+50	USH 63	-	178	RESETTING CULVERTS
				TOTAL 0010	5,211	178	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	STATION	TO	STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
0010	443+78	-	444+00	LT	1
0010	445+00	-	548+00	LT	103
0010	552+00	-	572+00	LT	20
0010	575+00	-	578+00	LT	3
0010	585+00	-	602+00	LT	17
0010	606+00	-	813+00	LT	207
0010	443+78	-	493+00	RT	50
0010	495+00	-	547+00	RT	52
0010	552+00	-	573+00	RT	21
0010	574+00	-	580+00	RT	6
0010	583+00	-	600+00	RT	17
0010	607+00	-	787+00	RT	180
0010	788+00	-	813+50	RT	26
				TOTAL 0010	703

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

3

CATEGORY	STATION	LOCATION	465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
0010	444+08	ML	16	RESETTING CULVERTS
0010	483+46	ML	40	RESETTING CULVERTS
0010	529+34	ML	48	RESETTING CULVERTS
0010	584+05	ML	24	RESETTING CULVERTS
0010	596+47	ML	40	RESETTING CULVERTS
0010	605+66	ML	16	RESETTING CULVERTS
		TOTAL 0010	184	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	STATION	TO	STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
0010	443+78	-	813+50	USH 63	130	DRIVEWAYS
				TOTAL 0010	130	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	STATION	TO	STATION	LOCATION	211.0800.S BASE REPAIR FOR CIR PAVEMENT CY	327.1000.S CIR ASPHALTIC BASE LAYER SY	455.0605 TACK COAT GAL	455.0770.S ASPHALT STABILIZING AGENT TON	460.6645 HMA PAVEMENT 5 MT 58-34 V TON	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	443+78	-	813+50	USH 63	1,000	98,592	11,840	442	15,184	-	
0010	443+78	-	813+50	USH 63	-	24,648	2,960	111	3,796	-	SHOULDERS, PROJECT 1550-04-72
0010	443+78	-	813+50	USH 63	-	-	1,845	-	4,734	-	SHOULDERS, PROJECT 1550-04-82
0010	5+00	-	12+50	USH 63 TO USH 8 RAMP	-	1,398	168	7	216	-	
0010				CTH J	-	-	41	-	-	53	
0010				BARBO RD	-	-	19	-	-	24	
0010				CTH P / 20TH ST	-	-	28	-	-	35	
0010				85TH AVE	-	-	25	-	-	32	
0010				15TH ST	-	-	14	-	-	18	
0010				W CLAYTON AVE	-	-	94	-	-	121	
0010				W CLAYTON AVE BYPASS LANE	-	451	55	3	70	-	
0010				POLK AVE	-	-	84	-	-	108	
0010				W CLAYTON AVE, WEST	-	-	65	-	-	83	
0010				W CLAYTON AVE, EAST	-	-	97	-	-	125	
0010				CTH D	-	-	67	-	-	85	
0010				CTH D BYPASS LANE	-	543	66	3	84	-	
0010				WISCONSIN AVE	-	-	24	-	-	31	
0010				CTH D	-	-	64	-	-	82	
0010				CTH D BYPASS LANE	-	472	57	3	73	-	
0010				105TH ST, WEST	-	-	22	-	-	28	
0010				105TH ST, EAST	-	-	25	-	-	32	
0010				115TH ST	-	-	33	-	-	42	
0010				125TH AVE, WEST	-	-	29	-	-	37	
0010				125TH AVE, EAST	-	-	52	-	-	67	
0010				PROJECT	-	-	432	-	-	500	SUPERELEVATION CORRECTION
				TOTAL 0010	1,000	126,104	18,206	569	24,157	1,503	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72 UNLESS OTHERWISE NOTED.

CATEGORY	STATION	TO	STATION	LOCATION	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	465.0475 ASPHALT CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	REMARKS
0010	446+72	-	483+00	C/L	-	3,230	
0010	504+50	-	559+87	C/L	-	4,340	
0010	597+22	-	810+00	C/L	-	19,680	
0010	443+78	-	489+80	LT/RT	8,100	-	TYPE 1
0010	504+50	-	561+00	LT/RT	9,840	-	TYPE 1
0010	596+25	-	810+00	LT/RT	39,520	-	TYPE 1
				TOTAL 0010	57,460	27,250	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-82.

CATEGORY	STATION	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	520.8700 CLEANING CULVERT PIPES EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	SPV.0060.01 SPECIAL (01. RESETTING PIPE ENDS) EACH	REMARKS
0010	444+08	ML	-	1	-	2	2 SECTIONS LT
0010	483+46	ML	-	1	-	5	3 SECTIONS LT, 2 SECTIONS RT
0010	529+34	ML	-	-	-	6	3 SECTIONS LT, 3 SECTIONS RT
0010	555+85	ML	-	1	-	-	
0010	565+24	ML	-	1	-	-	
0010	584+05	ML	-	1	-	3	3 SECTIONS RT
0010	596+47	ML	-	1	-	5	3 SECTIONS LT, 2 SECTIONS RT
0010	605+66	ML	1	1	1	2	2 SECTIONS LT
0010	635+53	ML	-	-	-	-	
0010	675+85	ML	-	1	-	-	
		TOTAL 0010	1	8	1	23	

NOTE: ALLL ITEMS SHALL BE PROJECT 1550-04-72.

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	MISCELLANEOUS QUANTITIES	SHEET 12	E

CATEGORY	LOCATION	624.0100 WATER MGAL	REMARKS
0010	PROJECT	50	BASE COMPACTION
	TOTAL 0010	50	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	REMARKS
0010	PROJECT	380	380	0.3	7	
0010	PROJECT	95	95	1.0	2	UNDISTRIBUTED
	TOTAL 0010	475	475	1.3	9	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	REMARKS
0010	PROJECT	275	275	5	3	
0010	PROJECT	100	100	-	-	UNDISTRIBUTED
	TOTAL 0010	375	375	5	3	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	STATION	TO	STATION	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	443+78	-	813+50	USH 63	5	5	UNDISTRIBUTED FOR NO PASSING ZONE SIGNS
				TOTAL 0010	5	5	

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	STATION	LOCATION	633.5200 MARKERS CULVERT END EACH
0010	444+08	ML	2
0010	458+65	ML	2
0010	483+46	ML	2
0010	515+16	ML	2
0010	529+34	ML	2
0010	555+85	ML	1
0010	584+05	ML	2
0010	605+66	ML	1
0010	635+53	ML	1
0010	663+94	ML	2
0010	721+20	ML	2
0010	752+65	ML	2
0010	805+85	ML	2
0010	10+56	USH 63 TO USH 8 RAMP	2
		TOTAL 0010	25

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH
0010	PROJECT	1,600	2,480	14	1
	TOTAL 0010	1,600	2,480	14	1

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	MISCELLANEOUS QUANTITIES	SHEET 13	E

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	646.3020 MARKING LINE EPOXY 8-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH LF	REMARKS
0010	443+78	-	813+50	CL	-	-	-	-	30,200	-	CIR LAYER
0010	443+78	-	813+50	CL	-	-	-	-	30,200	-	LOWER LAYER
0010	443+78	-	813+50	CL	-	-	-	-	-	35,700	USH 63 YELLOW CENTERLINE
0010	443+78	-	813+50	LT	-	35300	-	-	-	-	USH 63 WHITE EDGELINE
0010	443+78	-	813+50	RT	-	35400	-	-	-	-	USH 63 WHITE EDGELINE
0010	443+78	-	813+50	CL	35,700	-	-	-	-	-	USH 63 CENTERLINE AFTER RUMBLES
0010	5+00	-	12+50	RT	-	1,015	410	-	-	-	USH 63 TO USH 8 RAMP
0010	813+50			RT	-	-	-	20	-	-	
0010	444+00	-	445+13	LT	60	-	-	-	-	-	CTH J
0010	547+46	-	551+52	LT/RT	-	73	144	-	-	-	W CLAYTON AVE TURN LANE/BYPASS LANE
0010	571+56	-	574+01	LT/RT	-	-	160	-	-	-	W CLAYTON AVE TURN LANES
0010	579+77	-	584+11	LT/RT	-	130	110	-	-	-	CTH D TURN LANE/BYPASS LANE
0010	601+72	-	605+07	LT/RT	-	55	115	-	-	-	CTH D TURN LANE/BYPASS LANE
				TOTAL 0010	35,760	71,973	939	20	60,400	35,700	

NOTE: ALL ITEMS ARE PROJECT 1550-04-72.

CATEGORY	STATION	TO	STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 1550-04-72) LS
0010	443+78	-	813+50	USH 63	36,972	1
0010	5+00	-	12+50	USH 63 TO USH 8 RAMP	750	-
				TOTAL 0010	37,722	1

NOTE: ALL ITEMS SHALL BE PROJECT 1550-04-72.

CATEGORY	STATION	TO	STATION	LOCATION	648.0100 LOCATING NO-PASSING ZONES MI
0010	443+78	-	813+50	C/L	7.01
				TOTAL 0010	7.01

NOTE: ITEM SHALL BE PROJECT 1550-04-72.

USH 63					
SUPERELEVATION TRANSITION EVENT POINTS		RATE			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
Curve 1					
EndNormalShoulder	436+77.39	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	436+77.39	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	437+25.39	-4.00%	.00%	-2.00%	-4.00%
BeginFullSuper	437+73.39	-4.00%	2.00%	-2.00%	-4.00%
ReverseCrown	437+73.39	-4.00%	2.00%	-2.00%	-4.00%
EndFullSuper	452+38.34	-4.00%	2.00%	-2.00%	-4.00%
ReverseCrown	452+38.34	-4.00%	2.00%	-2.00%	-4.00%
LevelCrown	452+86.34	-4.00%	.00%	-2.00%	-4.00%
BeginNormalCrown	453+34.34	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	453+34.34	-4.00%	-2.00%	-2.00%	-4.00%
Curve 2					
EndNormalShoulder	485+17.63	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	485+17.63	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	485+65.63	-4.00%	-2.00%	.00%	-4.00%
ReverseCrown	486+13.63	-4.00%	-2.00%	2.00%	-4.00%
BeginFullSuper	486+49.63	-4.00%	-3.50%	3.50%	-4.00%
EndFullSuper	495+30.61	-4.00%	-3.50%	3.50%	-4.00%
ReverseCrown	495+66.61	-4.00%	-2.00%	2.00%	-4.00%
LevelCrown	496+14.61	-4.00%	-2.00%	.00%	-4.00%
BeginNormalCrown	496+62.61	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	496+62.61	-4.00%	-2.00%	-2.00%	-4.00%
Curve 3					
EndNormalShoulder	513+16.02	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	513+16.02	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	513+69.35	-4.00%	.00%	-2.00%	-4.00%
ReverseCrown	514+22.68	-4.00%	2.00%	-2.00%	-4.00%
LowShoulderMatch	514+76.02	-4.00%	4.00%	-4.00%	-4.00%
BeginShoulderRollover	514+76.02	-4.00%	4.00%	-2.00%	-4.00%
BeginFullSuper	514+89.35	-3.50%	4.50%	-4.50%	-4.50%
EndFullSuper	534+30.08	-3.50%	4.50%	-4.50%	-4.50%
LowShoulderMatch	534+43.41	-4.00%	4.00%	-4.00%	-4.00%
EndShoulderRollover	534+43.41	-4.00%	4.00%	-2.00%	-4.00%
ReverseCrown	534+96.74	-4.00%	2.00%	-2.00%	-4.00%
LevelCrown	535+50.08	-4.00%	.00%	-2.00%	-4.00%
BeginNormalCrown	536+03.41	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	536+03.41	-4.00%	-2.00%	-2.00%	-4.00%
Curve 4					
EndNormalShoulder	547+07.56	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	547+07.56	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	547+60.89	-4.00%	-2.00%	.00%	-4.00%
ReverseCrown	548+14.23	-4.00%	-2.00%	2.00%	-4.00%
LowShoulderMatch	548+67.56	-4.00%	-4.00%	4.00%	-4.00%
BeginShoulderRollover	548+67.56	-4.00%	-2.00%	4.00%	-4.00%
BeginFullSuper	548+80.89	-4.50%	-4.50%	4.50%	-3.50%
EndFullSuper	559+11.60	-4.50%	-4.50%	4.50%	-3.50%
LowShoulderMatch	559+24.93	-4.00%	-4.00%	4.00%	-4.00%
EndShoulderRollover	559+24.93	-4.00%	-2.00%	4.00%	-4.00%
ReverseCrown	559+78.27	-4.00%	-2.00%	2.00%	-4.00%
LevelCrown	560+31.60	-4.00%	-2.00%	.00%	-4.00%
BeginNormalCrown	560+84.93	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	560+84.93	-4.00%	-2.00%	-2.00%	-4.00%

USH 63					
SUPERELEVATION TRANSITION EVENT POINTS		RATE			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
Curve 5					
EndNormalShoulder	574+72.78	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	574+72.78	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	575+20.78	-4.00%	-2.00%	.00%	-4.00%
ReverseCrown	575+68.78	-4.00%	-2.00%	2.00%	-4.00%
BeginFullSuper	576+04.78	-4.00%	-3.50%	3.50%	-4.00%
EndFullSuper	588+92.13	-4.00%	-3.50%	3.50%	-4.00%
ReverseCrown	589+28.13	-4.00%	-2.00%	2.00%	-4.00%
LevelCrown	589+76.13	-4.00%	-2.00%	.00%	-4.00%
BeginNormalCrown	590+24.13	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	590+24.13	-4.00%	-2.00%	-2.00%	-4.00%
Curve 6					
EndNormalShoulder	607+70.14	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	607+70.14	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	608+23.59	-4.00%	-2.00%	.00%	-4.00%
ReverseCrown	608+77.05	-4.00%	-2.00%	2.00%	-4.00%
LowShoulderMatch	609+30.50	-4.00%	-4.00%	4.00%	-4.00%
BeginShoulderRollover	609+30.50	-4.00%	-2.00%	4.00%	-4.00%
BeginFullSuper	609+70.59	-5.50%	-5.50%	5.50%	-2.50%
EndFullSuper	617+64.50	-5.50%	-5.50%	5.50%	-2.50%
LowShoulderMatch	618+04.59	-4.00%	-4.00%	4.00%	-4.00%
EndShoulderRollover	618+04.59	-4.00%	-2.00%	4.00%	-4.00%
ReverseCrown	618+58.05	-4.00%	-2.00%	2.00%	-4.00%
LevelCrown	619+11.50	-4.00%	-2.00%	.00%	-4.00%
BeginNormalCrown	619+64.96	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	619+64.96	-4.00%	-2.00%	-2.00%	-4.00%

63 TO 8 RAMP					
SUPERELEVATION TRANSITION EVENT POINTS		RATE			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
Curve 1					
EndNormalShoulder	7+33.17	-4.00%	-2.00%	-2.00%	-4.00%
EndNormalCrown	7+33.17	-4.00%	-2.00%	-2.00%	-4.00%
LevelCrown	7+69.66	-4.00%	.00%	-2.00%	-4.00%
ReverseCrown	8+06.15	-4.00%	2.00%	-2.00%	-4.00%
LowShoulderMatch	8+42.64	-4.00%	4.00%	-4.00%	-4.00%
BeginFullSuper	8+73.66	-4.00%	5.70%	-5.70%	-5.70%
EndFullSuper	13+03.88	-4.00%	5.70%	-5.70%	-5.70%
LowShoulderMatch	13+34.90	-4.00%	4.00%	-4.00%	-4.00%
ReverseCrown	13+71.39	-4.00%	2.00%	-2.00%	-4.00%
LevelCrown	14+07.88	-4.00%	.00%	-2.00%	-4.00%
BeginNormalCrown	14+44.37	-4.00%	-2.00%	-2.00%	-4.00%
BeginNormalShoulder	14+44.37	-4.00%	-2.00%	-2.00%	-4.00%

2

N

MARKING STOP LINE
EPOXY 18-INCH (WHITE)

MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

MARKING LINE EPOXY 8-INCH (WHITE)

USH 8

STH 63

809+00 810+00 811+00 812+00 813+00 814+00

6+00 7+00 8+00 9+00 10+00 11+00 12+00

STA 812+00, 8-INCH TO 4-INCH TRANSITION

STA 6+33

STA 8+41

MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

STA 4+85, WHITE TO YELLOW EDGELINE TRANSITION

MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

MARKING LINE GROOVED WET REF EPOXY 4-INCH (YELLOW)

USH 8

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PAVEMENT MARKING	SHEET 16	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\1550-04-02_POLK CO_USH 63\500_CADD\501_C3D_2018\15500402\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01
PLOT DATE : 3/22/2021 1:30 PM
PLOT BY : ANDREW PETERSON, PE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

CP 114
X = 572555.148
Y = 237215.038
Z = 1194.230

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 444+23.7, 73.1' LT

NORTHWEST COMMUNICATION

SILT FENCE

CTH J

PI STA = 445+10.15
Y = 237299.488
X = 572653.602
DELTA = 14°58'06"
D = 1°00'00"
T = 752.76'
L = 1496.95'
R = 5730.00'
PC STA = 437+57.39
PT STA = 452+54.34
S.E. = R.C.

STA 446+15
BEGIN ASPHALTIC SHOULDER
RUMBLE STRIPS 2-LANE RURAL - LT

STA 446+72 BEGIN
ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL

PT: 452+54.34

AGG FE
STA 458+28

STA 458+65
36"X59' RCCP TO REMAIN
MARKERS CULVERT END - LT & RT

BARBO RD

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 463+68.2, 51.2' LT

445 450 455 460 465 470

BORE 1

N53° 48' 15"E
USH 63'

BORE 2

STA 474+00

MATCH LINE

CTH J
ML STA: 444+72

WETLAND LIMITS

STA 444+08
24"X64' RCCP
2 - RESETTING PIPE ENDS (LT)
CLEANING CULVERT PIPES
MARKERS CULVERT END - LT & RT

BARBO RD
ML STA: 463+67

CP 113
X = 574187.972
Y = 238391.114
Z = 1195.740

BEGIN PROJECT
1550-04-72, 1550-04-82
STA 443+78
BUTT JOINT REQ'D
Y = 237174.549
X = 572596.125

STA 443+78 BEGIN
ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL - RT

AGG FE
STA 463+73

5

5

AGG PE
STA 475+78

APPROXIMATE LOCATION OF P.
OLSON HISTORIC SITE.
SEE SPECIAL PROVISIONS.

AGG PE
STA 483+28

ASPH PE
STA 484+92

ASPH PE
STA 490+54

PI STA = 490+94.39
Y = 240011.757
X = 576360.012
DELTA = 18°50'12"
D = 2°00'37"
T = 472.75'
L = 936.98'
R = 2850.00'
PC STA = 486+21.63
PT STA = 495+58.61
S.E. = 3.5%

DRIVEWAY - LT
STA 491+50 - STA 498+50
GRAVEL DRIVEWAYS

ASPH PE
STA 498+95

ASPH PE
STA 500+16

ASPH PE
STA 501+54

STA 474+00

STA 505+00

MATCH LINE

XCEL ENERGY

STA 483+00 END
ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL
ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL - LT

NORTHWEST COMMUNICATION

WETLAND LIMITS

PC: 486+21.63

MAGNOR LAKE

PT: 495+58.61

XCEL ENERGY - ELECTRICITY TRANSMISSION

475 480 485 490 495 500

N53° 48' 15"E
USH 63'

BORE 3

MAGNOR LAKE
BOAT LAUNCH

CTH P / 20TH ST
ML STA: 491+18

N34° 58' 03"E
USH 63'

BORE 4

BORE 5

CP 20
X = 575722.986
Y = 239523.284
Z = 1197.737

SILT FENCE (TYP)

STA 489+80 END
ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL - RT

CP 112
X = 576340.963
Y = 239979.958
Z = 1196.260

VILLAGE OF CLAYTON

VILLAGE OF CLAYTON

LAKE MAGNOR STORE

STA 504+50 BEGIN
ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL
ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL - LT & RT

STA 483+46
30"X70' RCCP
3 - RESETTING PIPE ENDS (LT)
2 - RESETTING PIPE ENDS (RT)
CLEANING CULVERT PIPES
MARKERS CULVERT ENDS - LT & RT

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 491+04.3, 61.1' RT

CTH P / 20TH ST

STA 492+71
RC BOX CULVERT (C-48-1452)
TO REMAIN
DRAINAGE WAY

AGG PE
STA 500+19

DRIVEWAY - RT
STA 492+90 - STA 495+40
PAVED PARKING LOT

ASPH PE
STA 496+01

ASPH PE
STA 497+00

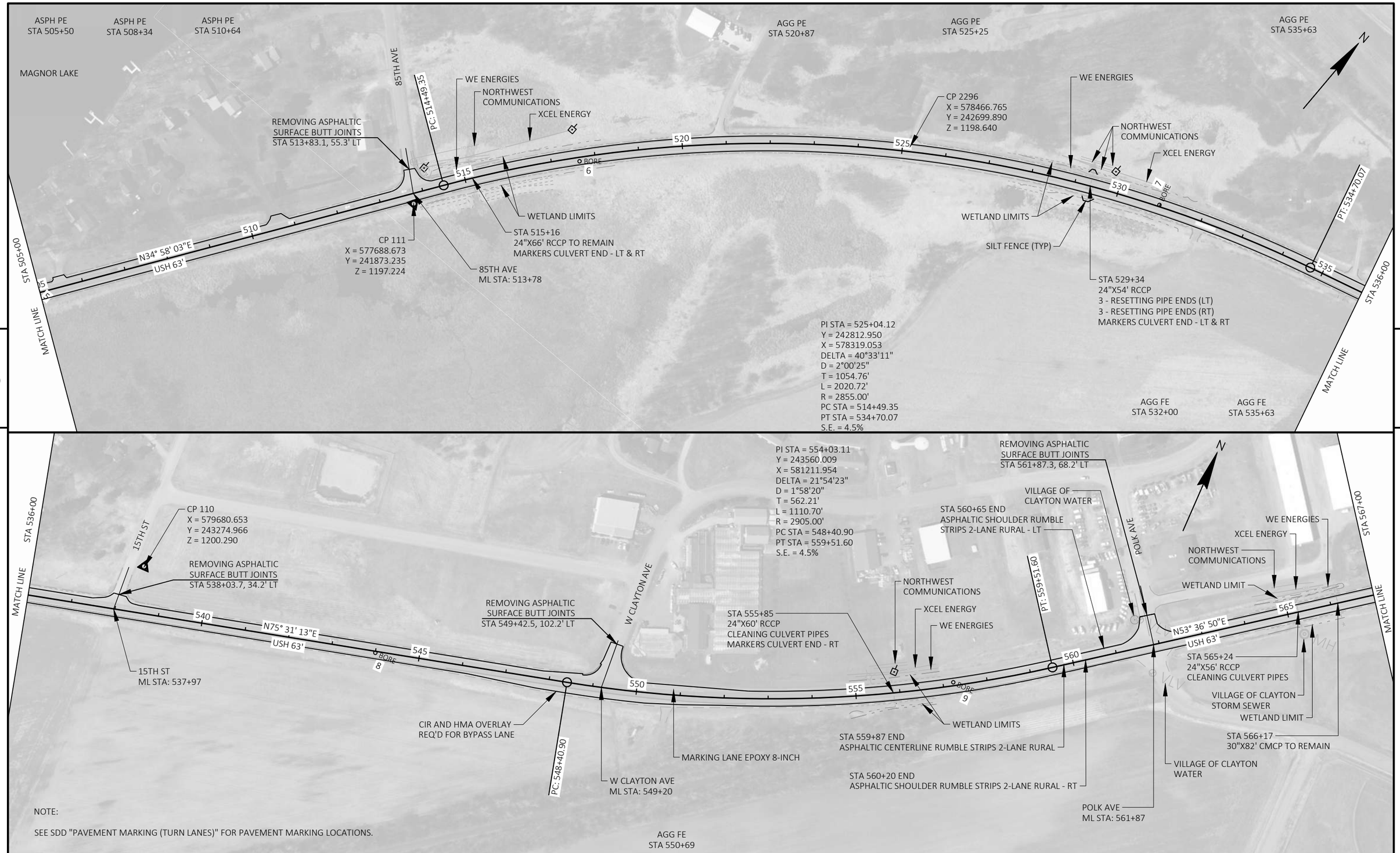
AGG PE
STA 497+43

AGG PE
STA 498+65

AGG PE
STA 498+99

AGG PE
STA 499+78

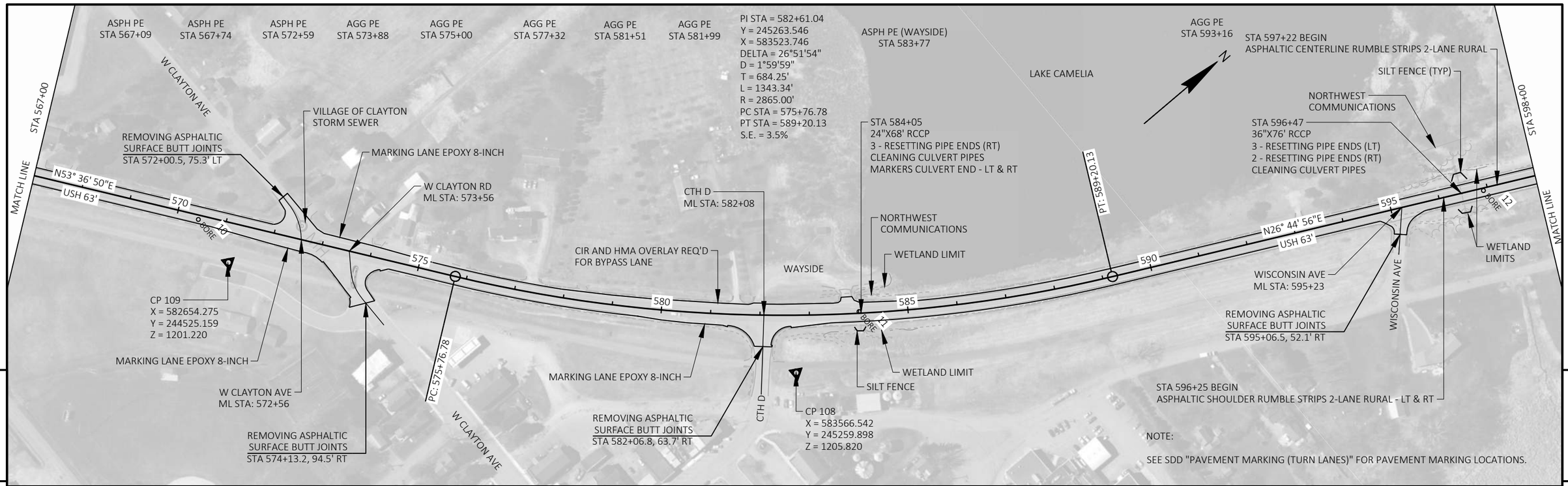
PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN SHEETS	SHEET 17	E



NOTE:

SEE SDD "PAVEMENT MARKING (TURN LANES)" FOR PAVEMENT MARKING LOCATIONS.

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN SHEETS	SHEET 18	E



PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN SHEETS	SHEET 19	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\1550-04-02_POLK CO_USH 63\500_CADD\501_C3D_2018\15500402\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03
PLOT DATE : 3/22/2021 1:31 PM
PLOT BY : ANDREW PETERSON, PE
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

AGG FE
STA 639+01

AGG PE
STA 647+72

AGG FE
STA 649+75

AGG FE
STA 656+91

N

NORTHWEST
COMMUNICATIONS

WETLAND LIMITS

CP 106
X = 584899.823
Y = 251438.832
Z = 1203.040

STA 629+00

630 635 640 N0° 08' 48"W 645 650 655 66

USH 63'

MATCH LINE

STA 660+00

MATCH LINE

BORE 15

BORE 16

STA 635+53
48"X68' RCCP WITH 39" CULV
LINER TO REMAIN
MARKERS CULVERT END - RT ONLY

AGG FE
STA 637+70

AGG FE
STA 647+70

ASPH PE
STA 657+22

5

5

AGG PE
STA 660+27

AGG FE
STA 670+51

N

105TH ST

CP 104
X = 584850.097
Y = 254912.972
Z = 1225.640

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 683+32.0, 57.6' LT

XCEL ENERGY

WETLAND LIMIT

STA 675+85
24"X56' RCCP
CLEANING CULVERT PIPES

STA 660+00

60 665 670 N0° 08' 48"W 675 680 685 690

USH 63'

STA 691+00

BORE 17

BORE 18

BORE 19

MATCH LINE

MATCH LINE

STA 663+94
24"X60' RCCP TO REMAIN
MARKERS CULVERT END - LT & RT

WETLAND LIMIT

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 683+33.3, 68.8' RT

105TH ST
ML STA: 683+33

105TH ST

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN SHEETS	SHEET 20	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\1550-04-02_POLK CO_USH 63\500_CADD\501_C3D_2018\15500402\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 04
PLOT DATE : 3/22/2021 1:31 PM
PLOT BY : ANDREW PETERSON, PE
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

AGG PE
STA 692+65

AGG PE
STA 700+37

AGG PE
STA 711+34

N

CP 105
X = 584886.078
Y = 257482.757
Z = 1238.960

STA 691+00

MATCH LINE

695 700 N0° 08' 48"W 705 710 715 720

BORE 20

BORE 21

USH 63'

STA 706+46
24"X52' RCCP
TO REMAIN

STA 721+20
24"X76' RCCP TO REMAIN
MARKS CULVERT END - LT & RT

STA 722+00

MATCH LINE

5

AGG PE
STA 707+88

AGG FE
STA 711+15

AGG PE
STA 719+77

AGG FE
STA 723+70

AGG PE
STA 733+46

AGG FE
STA 743+44

AGG PE
STA 748+80

N

CP 103
X = 584872.355
Y = 259676.867
Z = 1269.400

PI: 735+00.59

115TH ST
ML STA 735+79

AGG PE
STA 751+33

STA 722+00

MATCH LINE

WETLAND LIMIT

MARSH

725 730 735 N0° 13' 35"E 740 745 750

BORE 22

BORE 23

USH 63'

XCEL ENERGY

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 735+82.1, 81.0' RT

115TH ST

STA 752+65
24"X64' RCCP TO REMAIN
MARKERS CULVERT END - LT & RT

STA 753+00

MATCH LINE

5

AGG FE
STA 724+73

AGG PE
STA 730+58

AGG FE
STA 735+50

AGG FE
STA 746+39

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN SHEETS	SHEET 21	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\1550-04-02_POLK CO_USH 63\500_CADD\501_C3D_2018\15500402\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 05

PLOT DATE : 3/22/2021 1:32 PM PLOT BY : ANDREW PETERSON, PE PLOT NAME : PLOT SCALE : 1 IN:200 FT

AGG PE
STA 756+83

AGG FE
STA 768+88

N

CP 102
X = 584846.354
Y = 262844.927
Z = 1239.980

STA 777+17
B-48-0414 TO REMAIN

STA 753+00

MATCH LINE

755

760

765

25 BORE

770

N0° 13' 35"E

775

780

USH 63'

24 BORE

26 BORE

STA 784+00

MATCH LINE

XCEL ENERGY

XCEL ENERGY

CATTAIL TRAIL

5

5

AGG PE
STA 754+94

AGG PE
STA 758+29

AGG PE
STA 761+42

AGG PE
STA 769+74

AGG PE
STA 786+15

AGG PE
STA 797+91

AGG PE
STA 799+34

N

END PROJECT
1550-04-72, 1550-04-82
STA 813+50
BUTT JOINT REQ'D

STA 805+85
24"X66' RCCP
CLEANING CULVERT PIPES
MARKERS CULVERT END - LT & RT

STA 810+00 END
ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL
ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL - LT

BEGIN CONSTRUCTION
STA 5+00
Y = 267432.495
X = 584946.004

PC: 8+38.99

XCEL ENERGY

USH 8

125TH AVE

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 787+67.7, 59.1' LT

XCEL ENERGY

CP 101
X = 584895.868
Y = 265157.239
Z = 1239.380

CENTURY LINK

MOUNT HOPE CEMETERY
SEE SPECIAL PROVISIONS

CENTURY LINK
WE ENERGIES

PT: 6+54.23

STA 784+00

785

790

795

800

N0° 13' 35"E

805

810

USH 63'

27 BORE

28 BORE

10+00

MATCH LINE

CENTURY LINK

125TH AVE
ML STA 787+67

STA 795+32
24"X60' RCCP
TO REMAIN

WETLAND LIMITS

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 787+67.3, 81.2' RT

HWY

VILLAGE OF CLAYTON

STA 807+30 END
ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL - RT

N0° 18' 50"E
338.99'

STA 10+56
24"X61' RCCP
CLEANING CULVERT PIPES
MARKERS CULVERT END - LT & RT

PI STA = 11+54.23
Y = 268086.677
X = 584949.587
DELTA = 88°35'33"
D = 17°44'04"
T = 315.24'
L = 499.55'
R = 323.08'
PC STA = 8+38.99
PT STA = 13+38.54
S.E. = 5.7%

END CONSTRUCTION
STA 12+50
MATCH EXISTING
BUTT JOINT REQ'D

PT: 13+38.54

125TH AVE

AGG FE
STA 786+14

AGG FE
STA 797+35

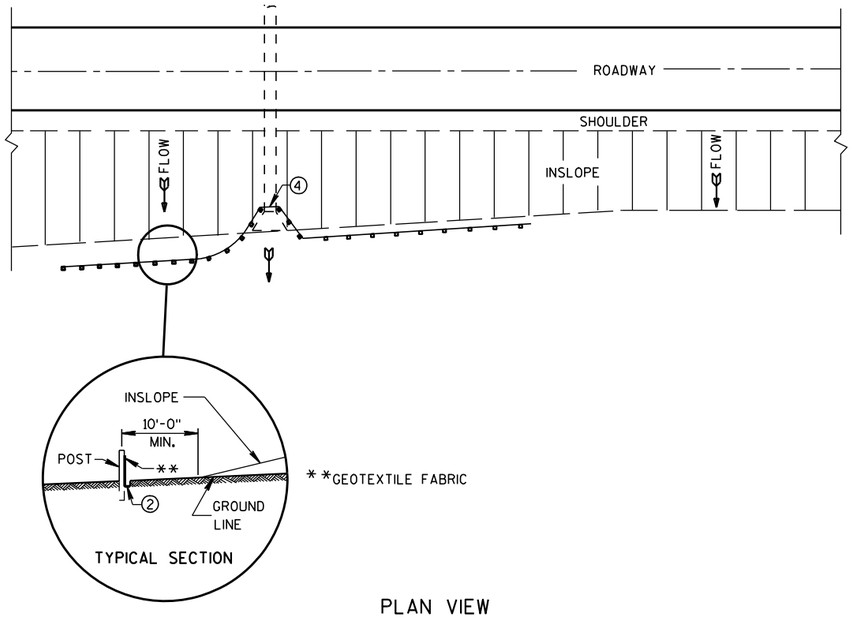
PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	PLAN SHEETS	SHEET 22	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\1550-04-02_POLK CO_USH 63\500_CADD\501_C3D_2018\15500402\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 06
PLOT DATE : 3/22/2021 1:32 PM
PLOT BY : ANDREW PETERSON, PE
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

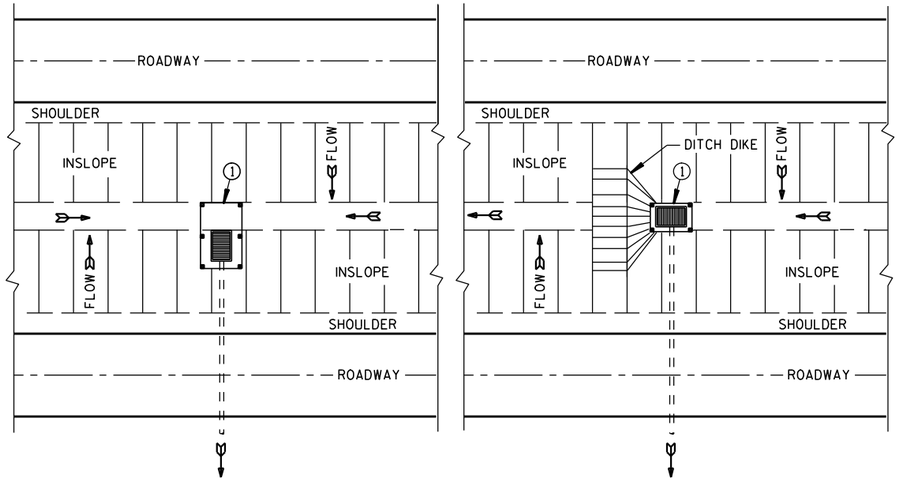
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
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
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

6



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.

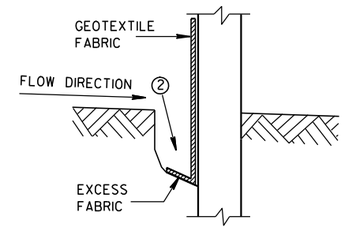
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

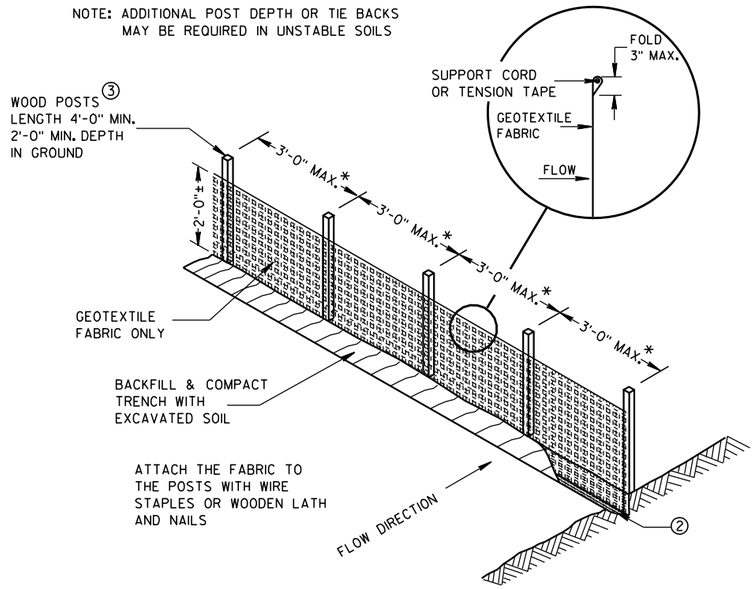
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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.

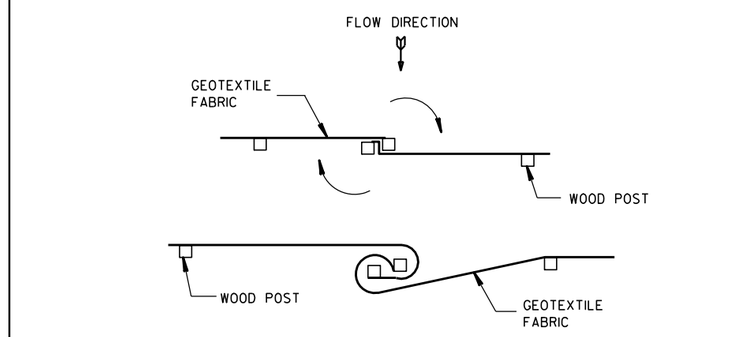


TRENCH DETAIL

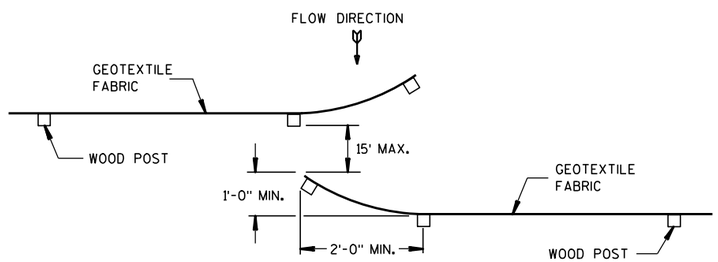


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

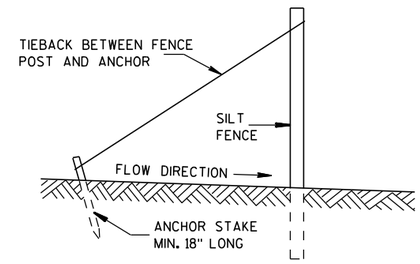


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

METAL APRON ENDWALLS

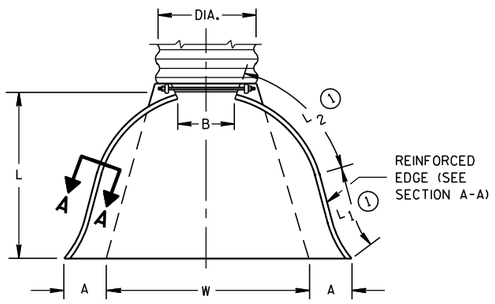
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

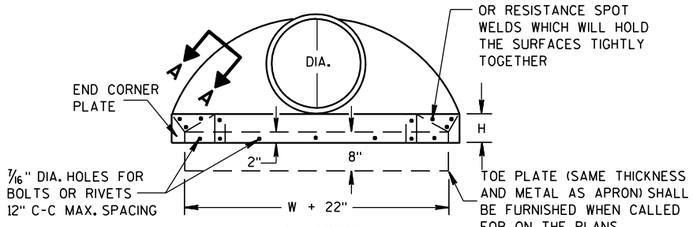
REINFORCED CONCRETE APRON ENDWALLS

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

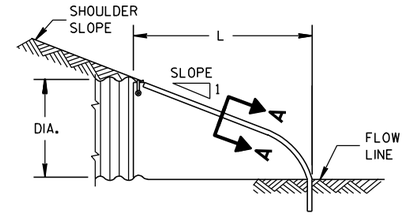
*MINIMUM
**MAXIMUM



PLAN VIEW

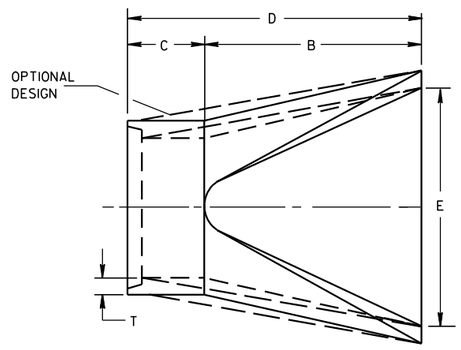


END VIEW

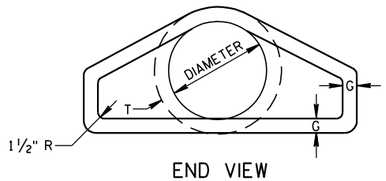


SIDE ELEVATION

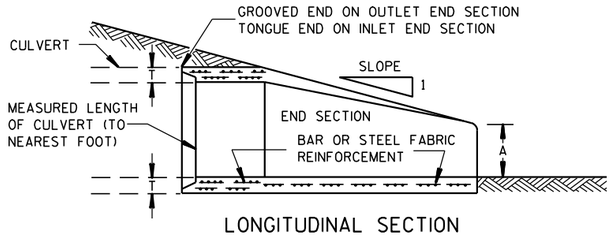
METAL ENDWALLS



PLAN

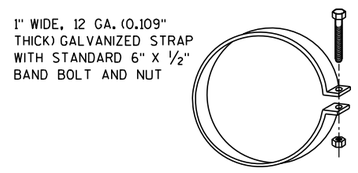


END VIEW



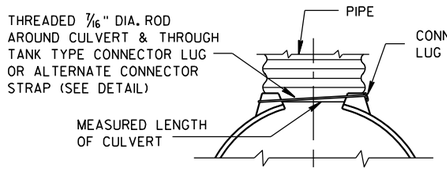
LONGITUDINAL SECTION

CONCRETE ENDWALLS

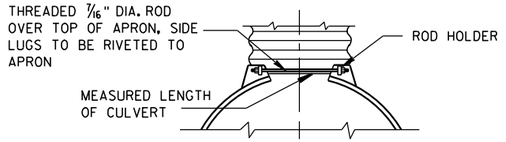


ALTERNATE FOR TYPE 1 CONNECTION

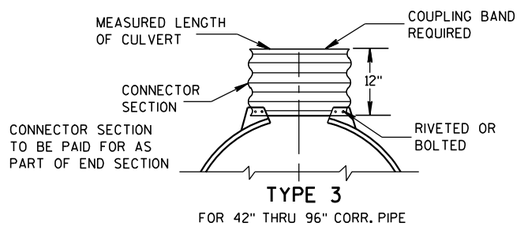
END SECTION CONNECTOR STRAP



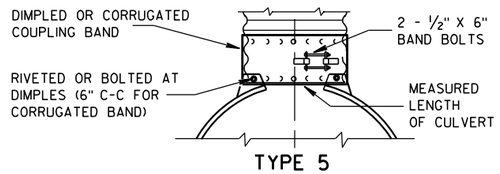
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

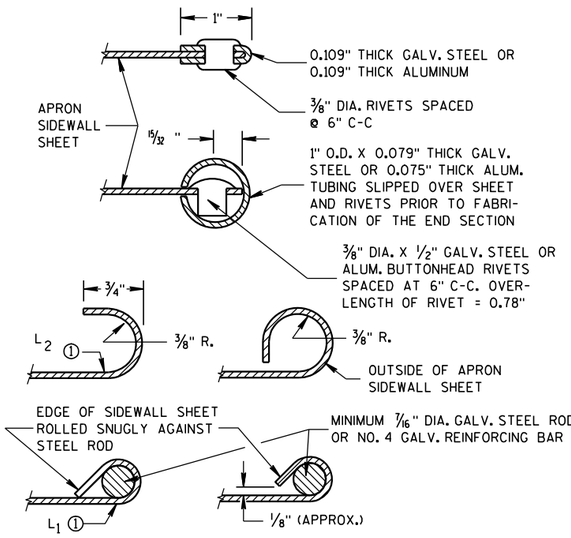
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

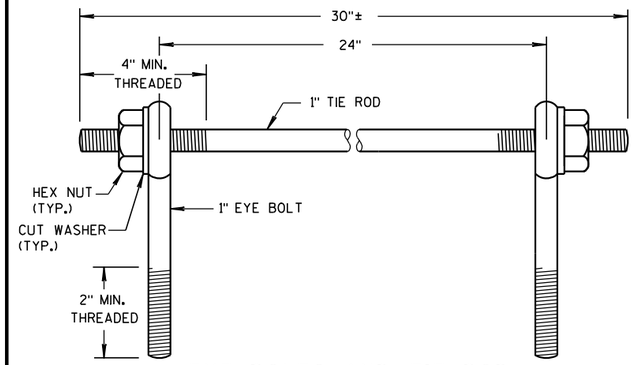
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

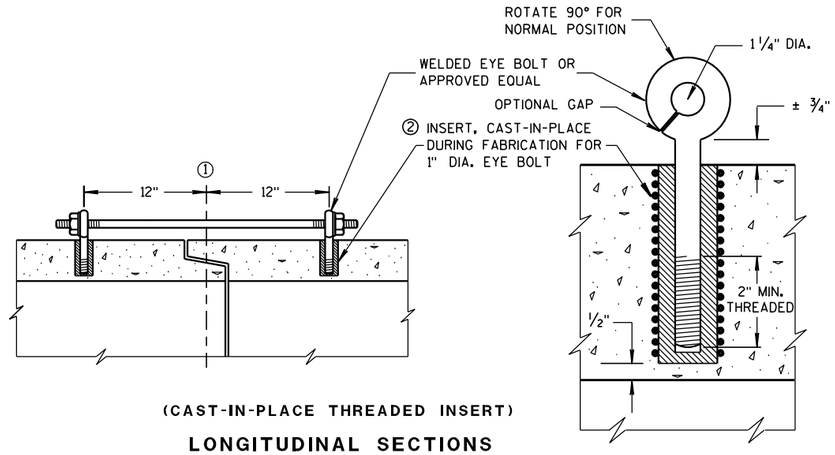
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

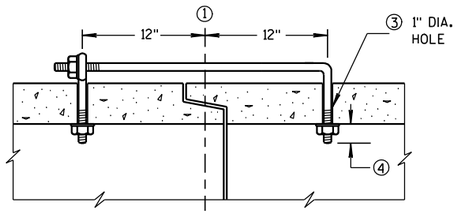
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

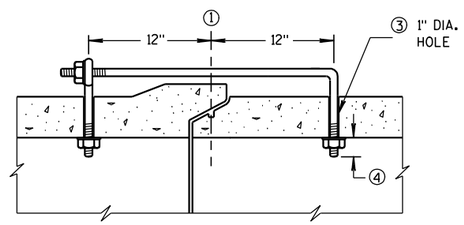
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

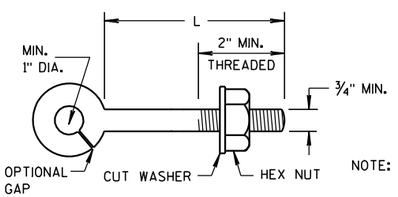


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

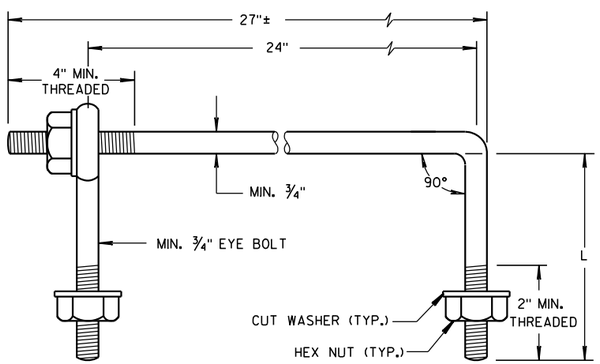
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

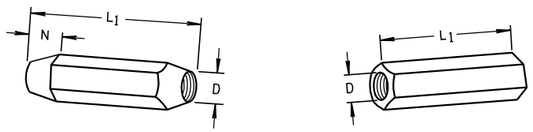
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

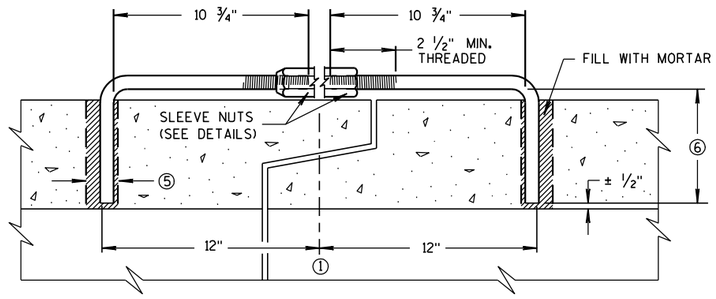
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

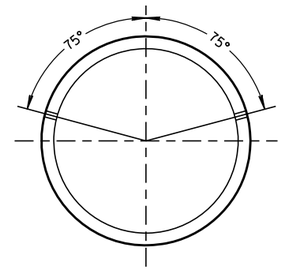
SLEEVE NUTS



LONGITUDINAL SECTION

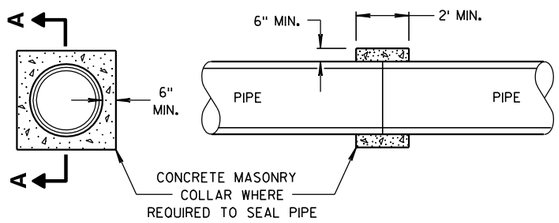
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

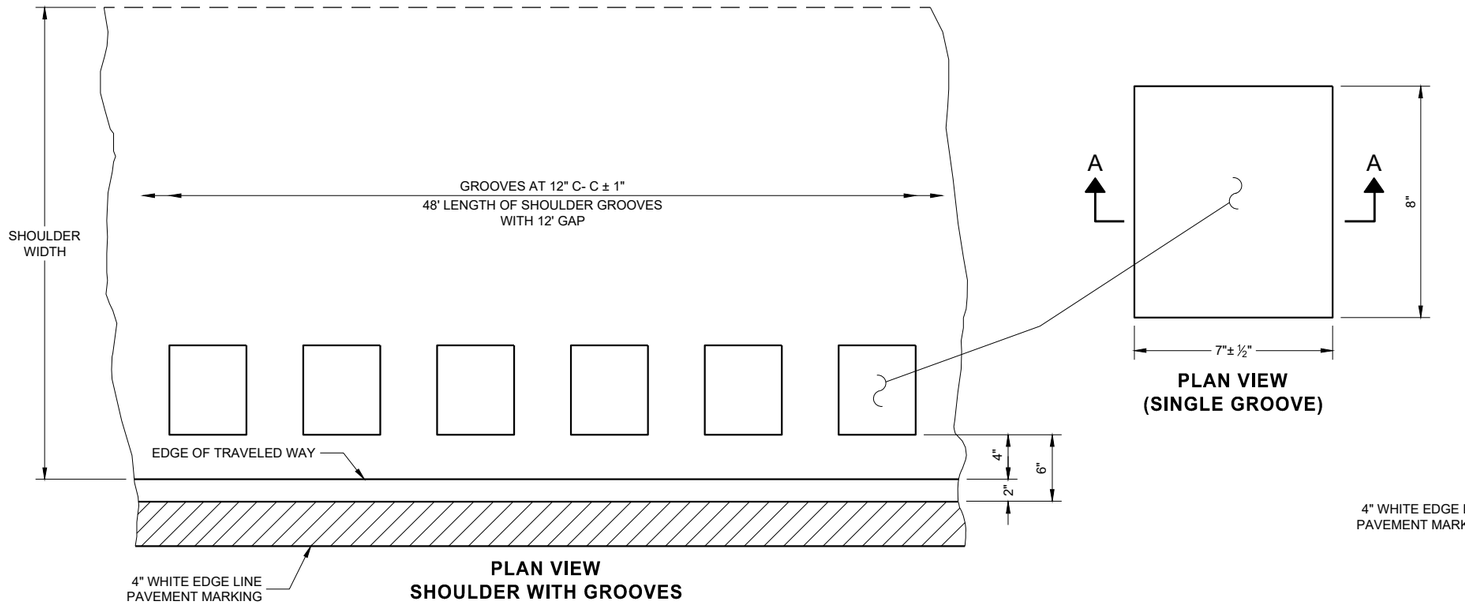
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7



PLAN VIEW
SHOULDER WITH GROOVES

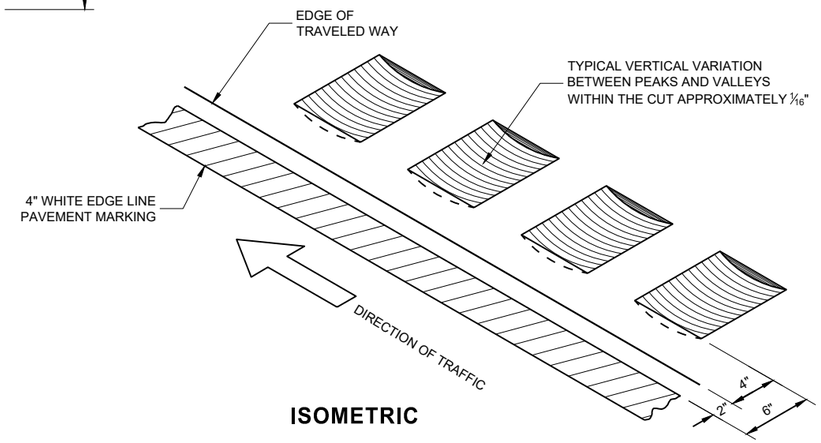
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

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

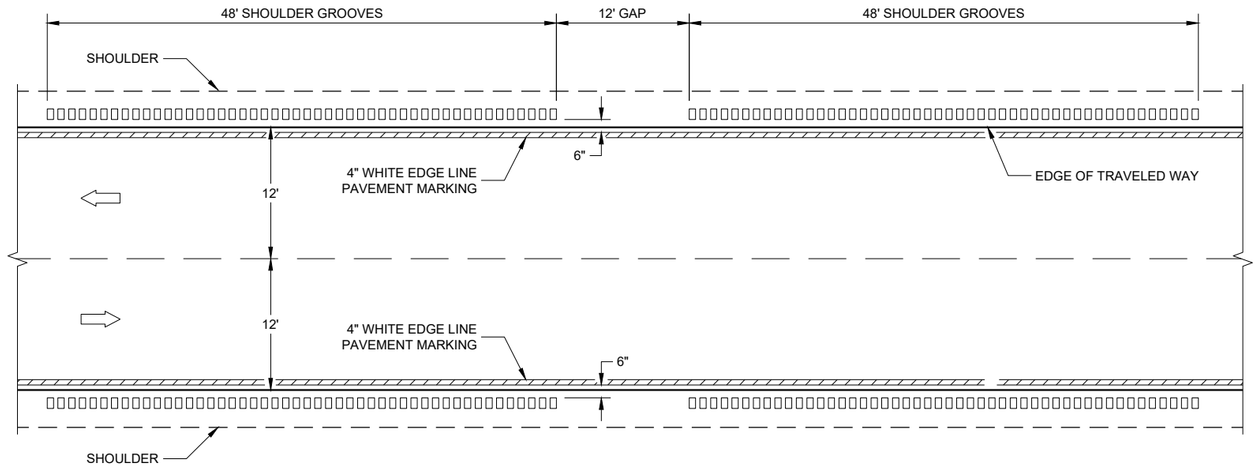
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

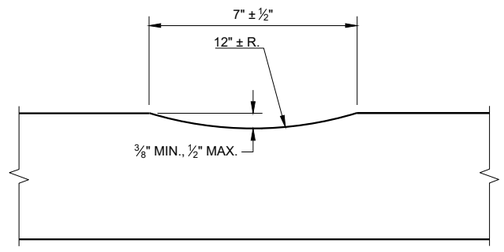


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

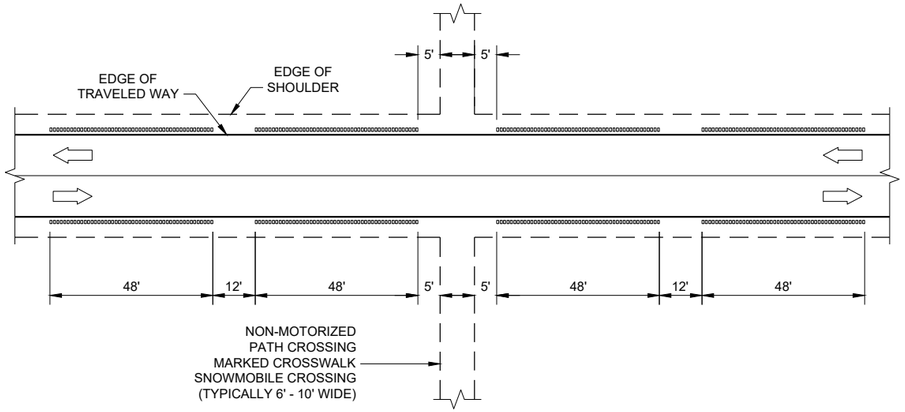
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

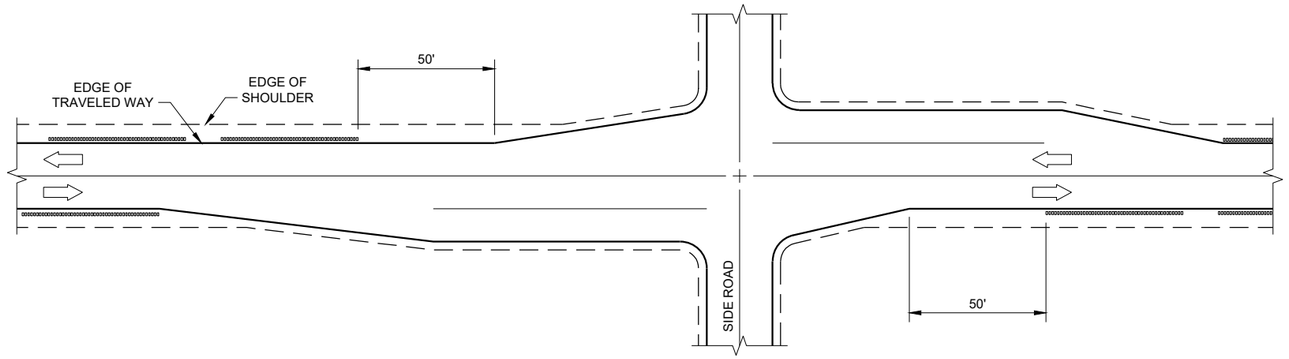
SDD 13A10 - 02a

6

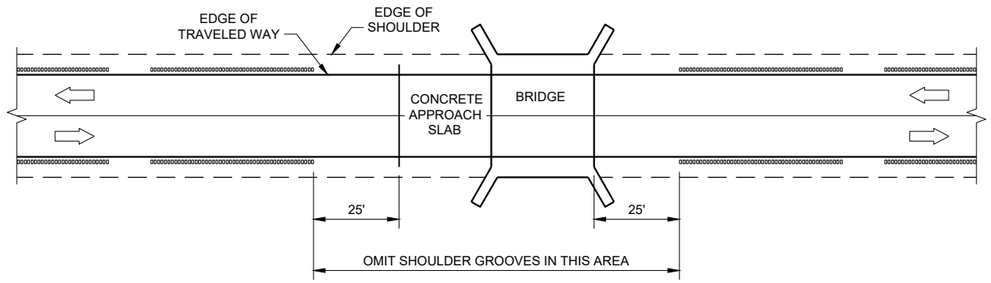
SDD 13A10 - 02a



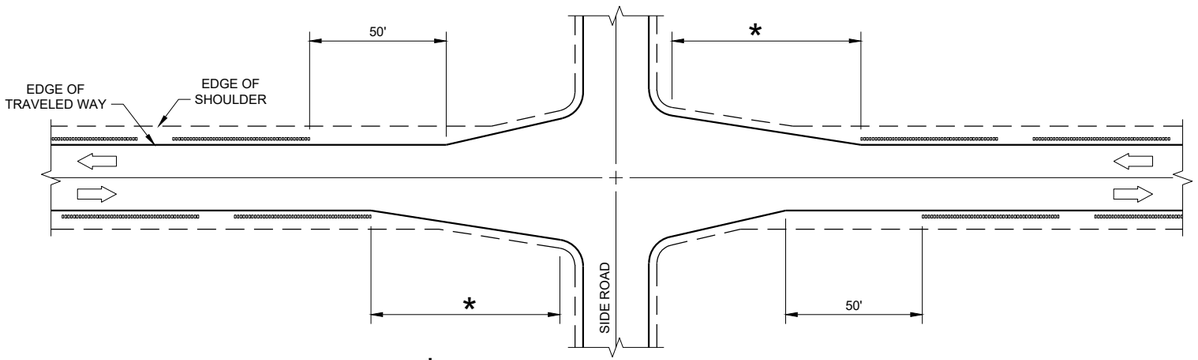
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

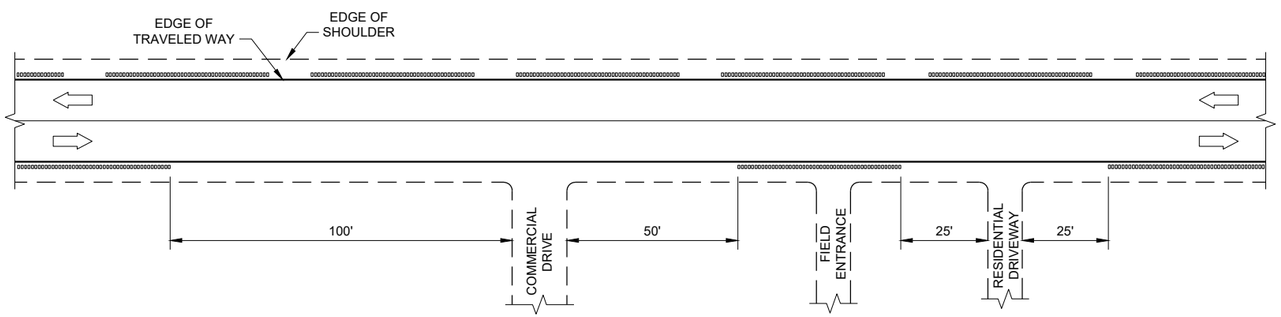


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

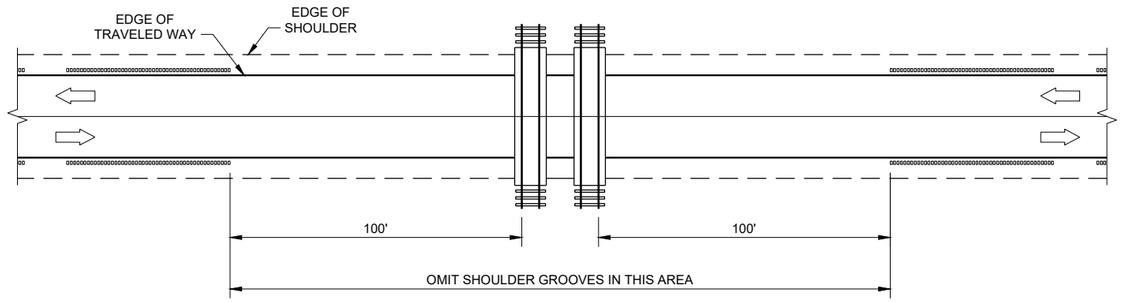
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

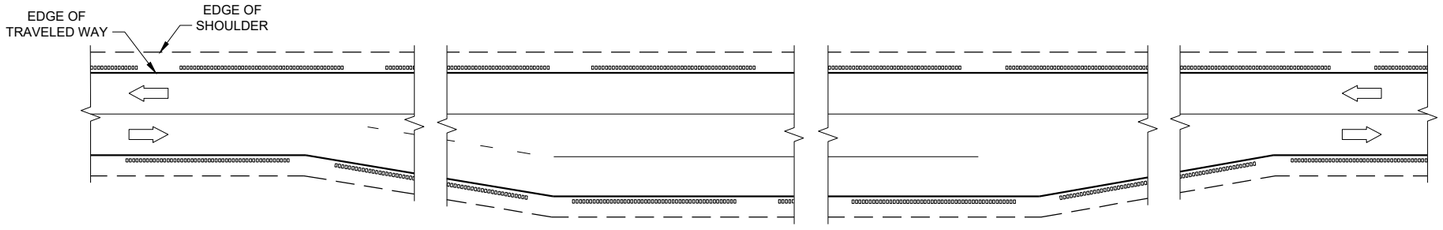
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

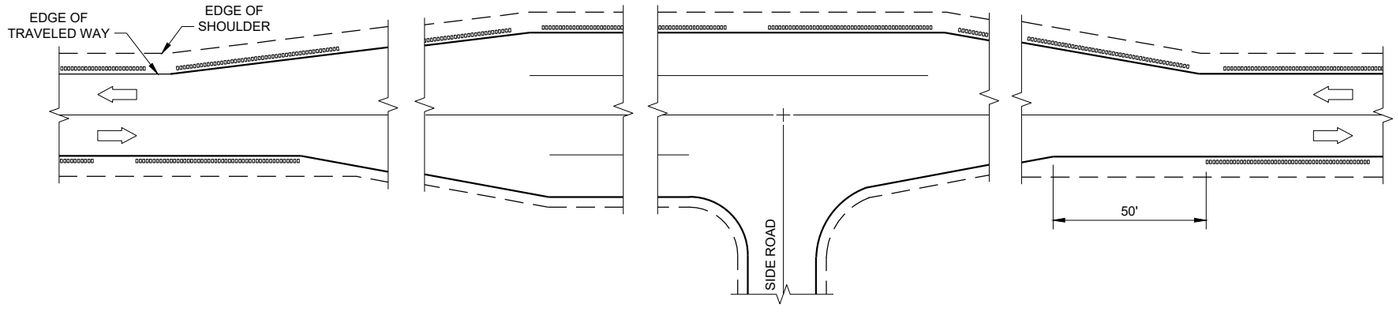
SDD 13A10 - 02c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

SDD 13A10 - 02d

SDD13A10 - 02d

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

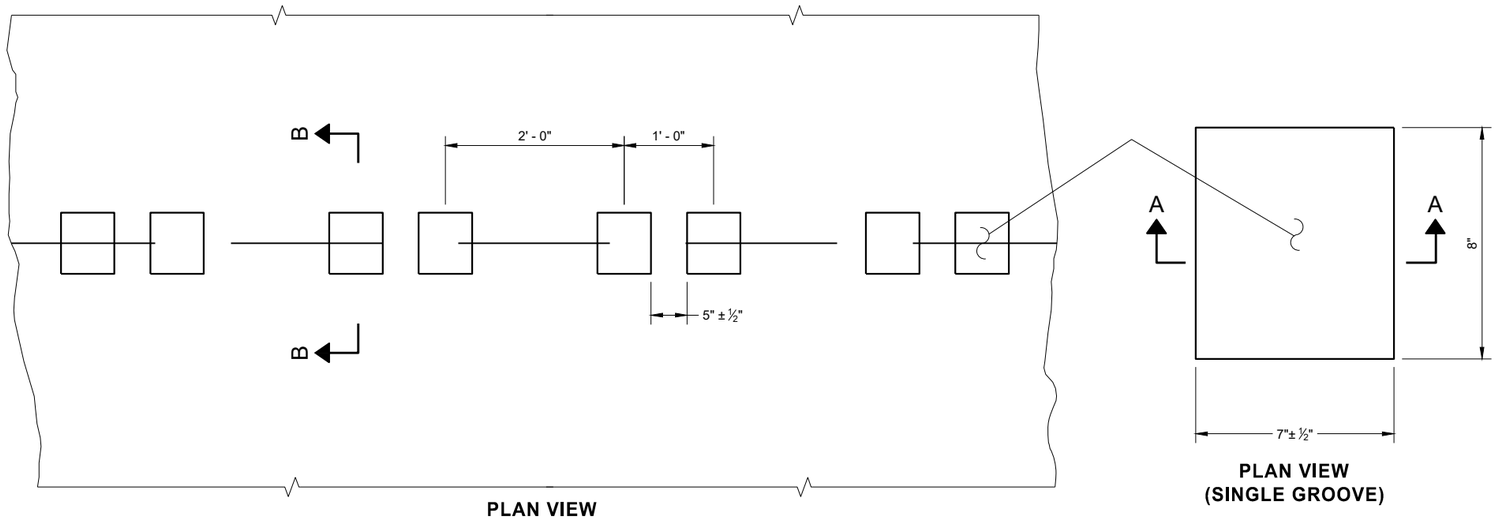
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

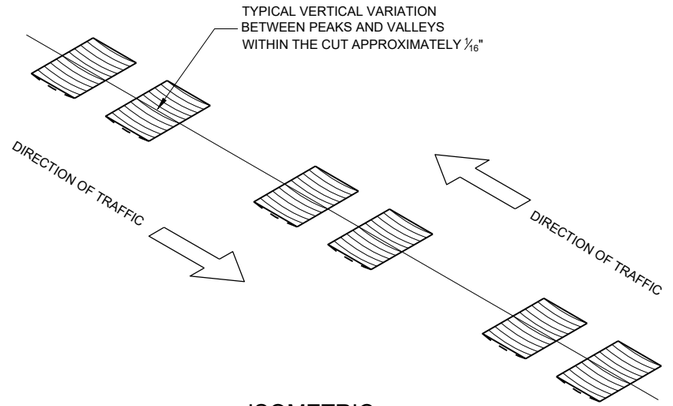
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

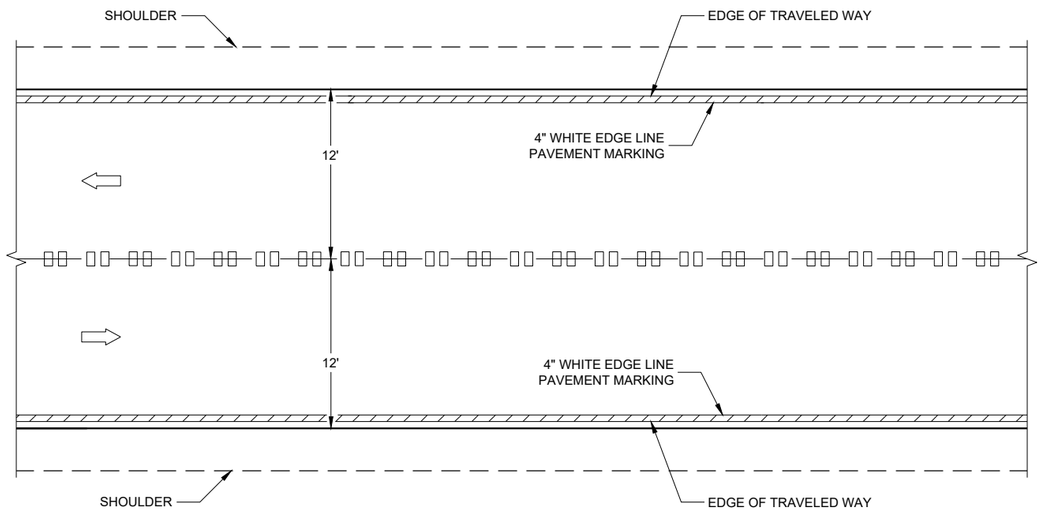
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

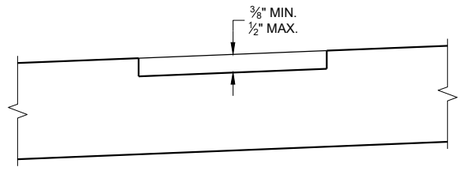
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



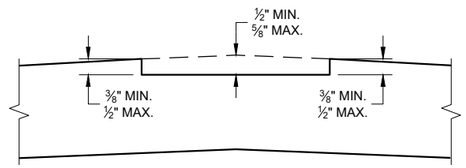
ISOMETRIC



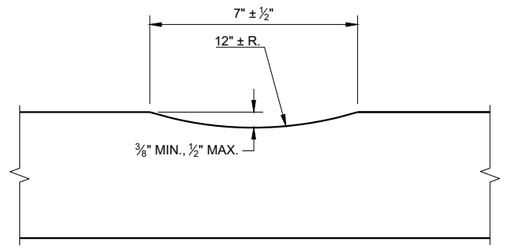
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

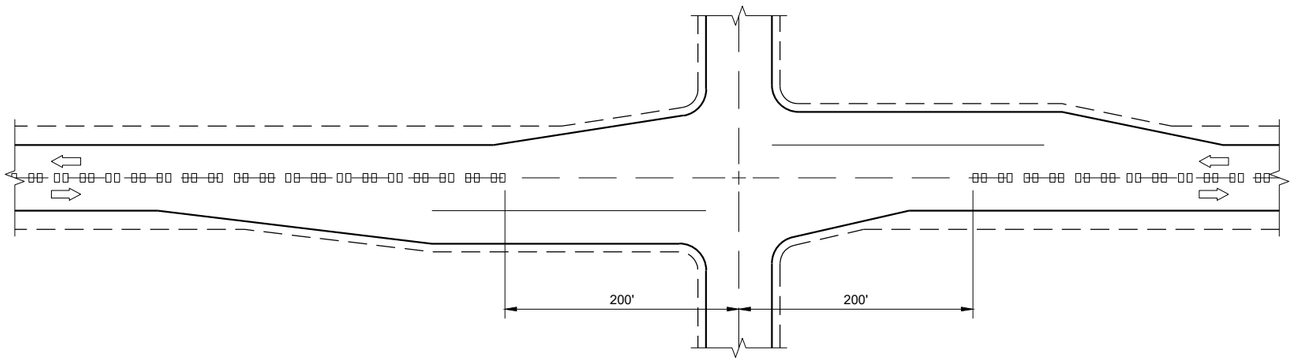
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

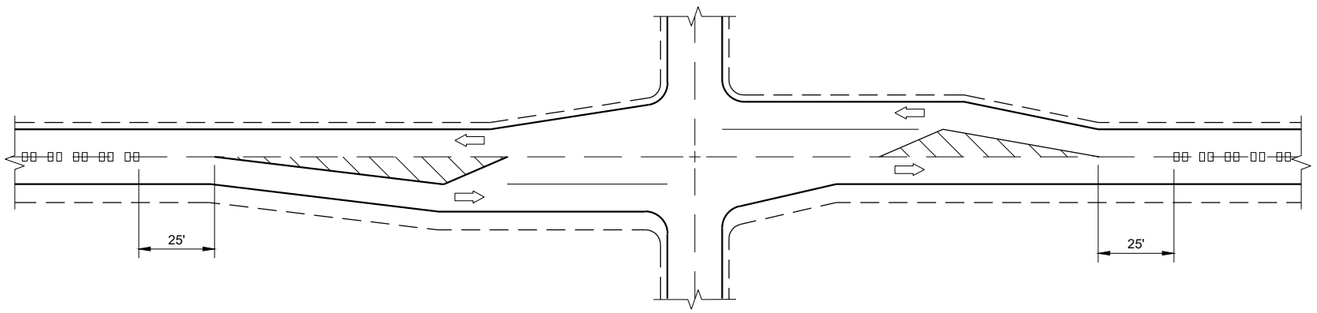
SDD 13A11 - 03a

6

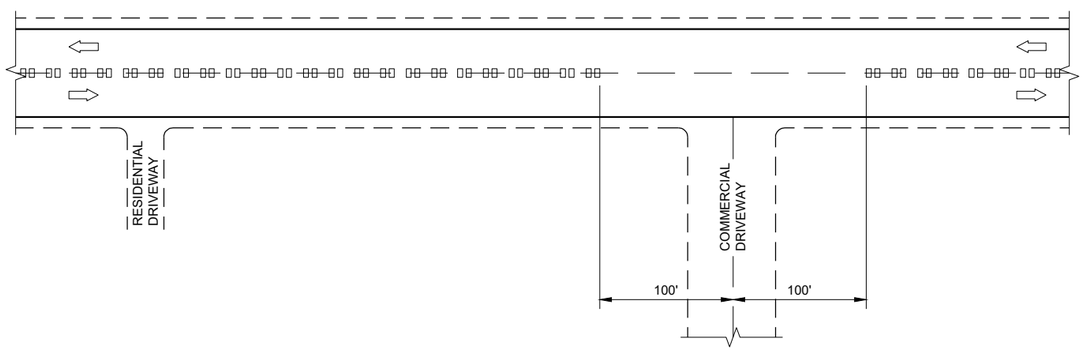
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



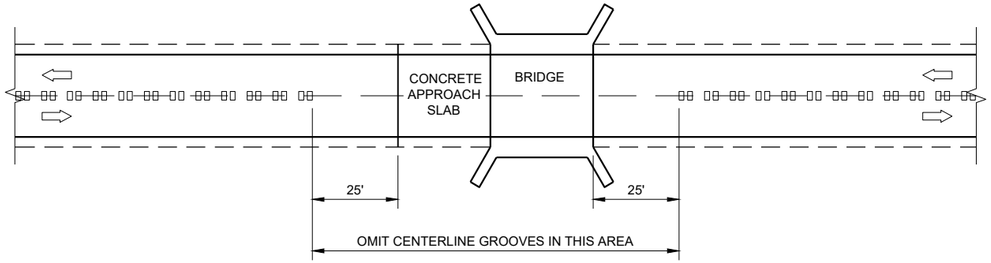
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



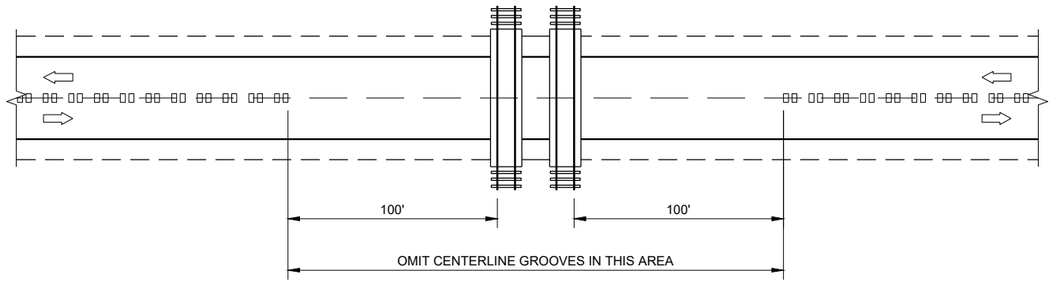
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

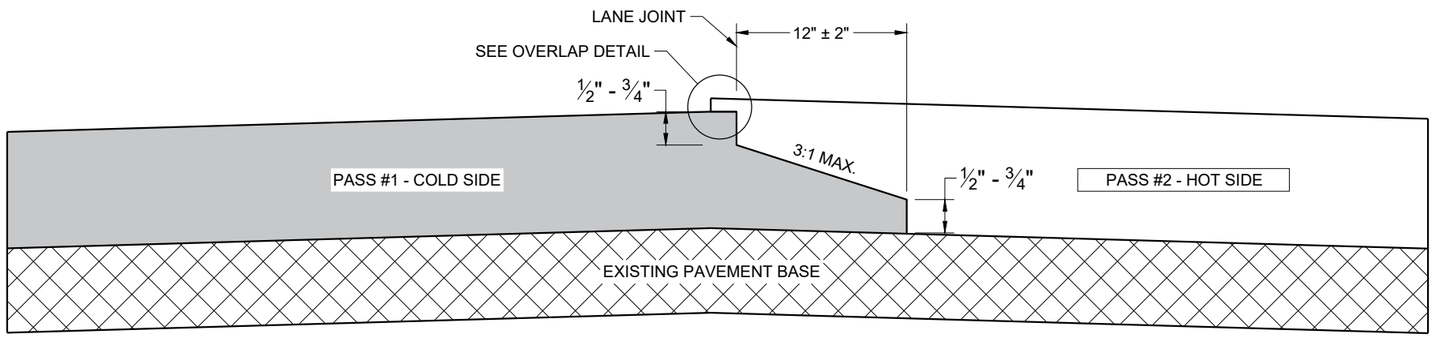
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

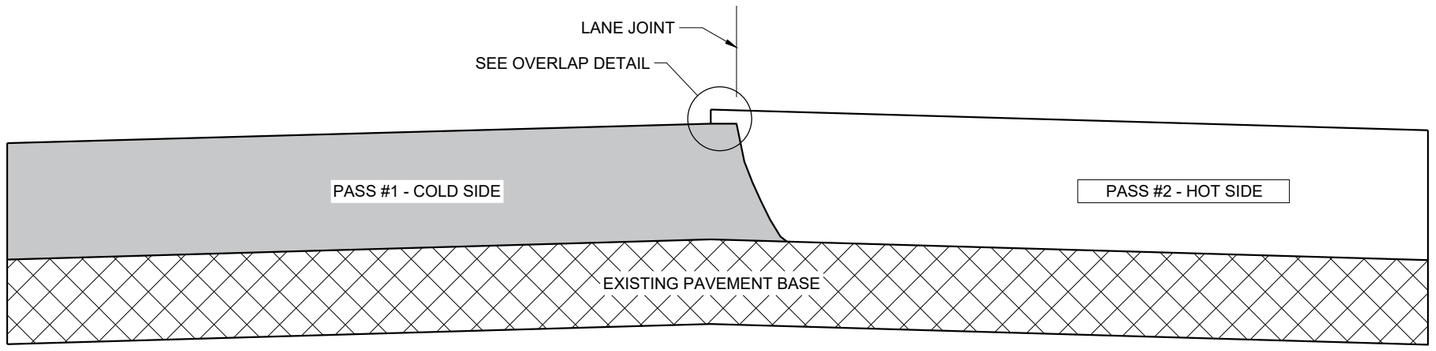
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

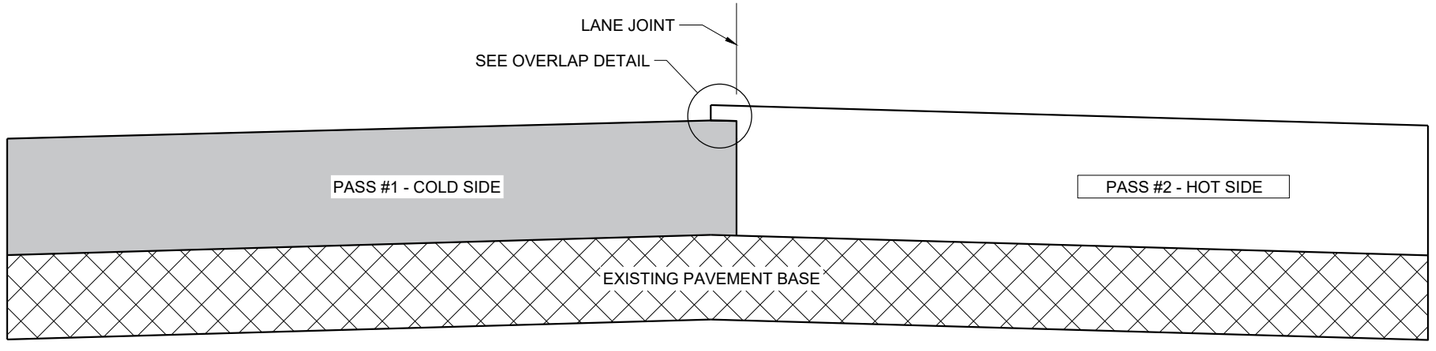
6
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

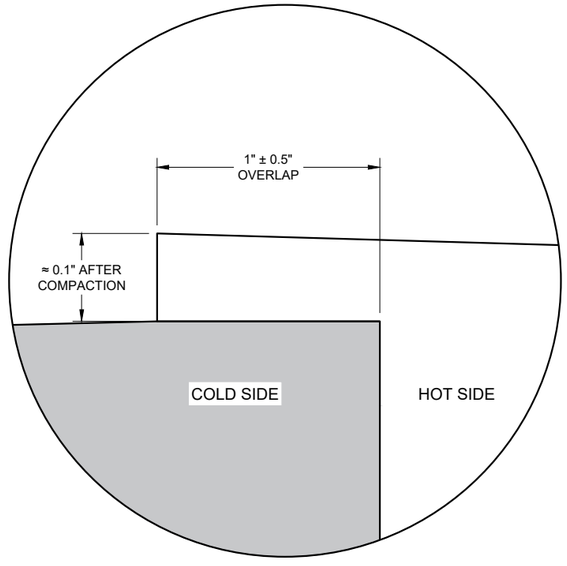
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

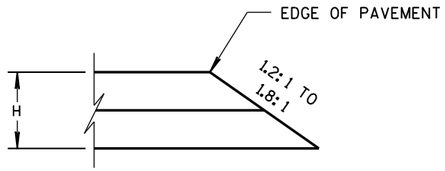
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

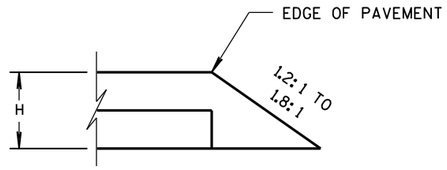
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



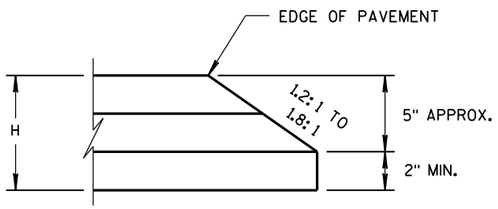
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



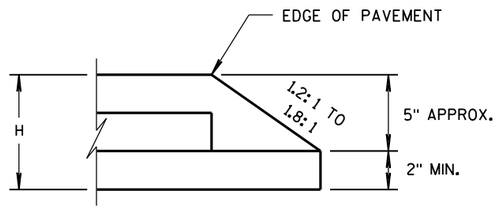
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

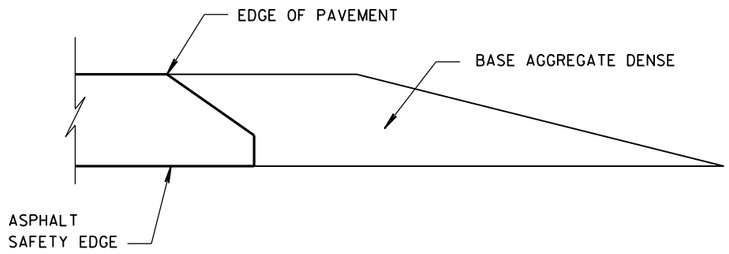
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

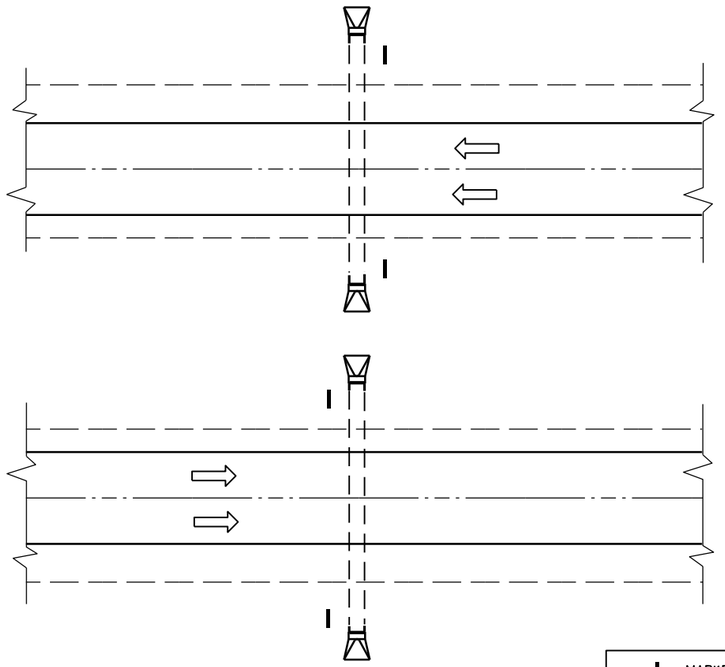
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

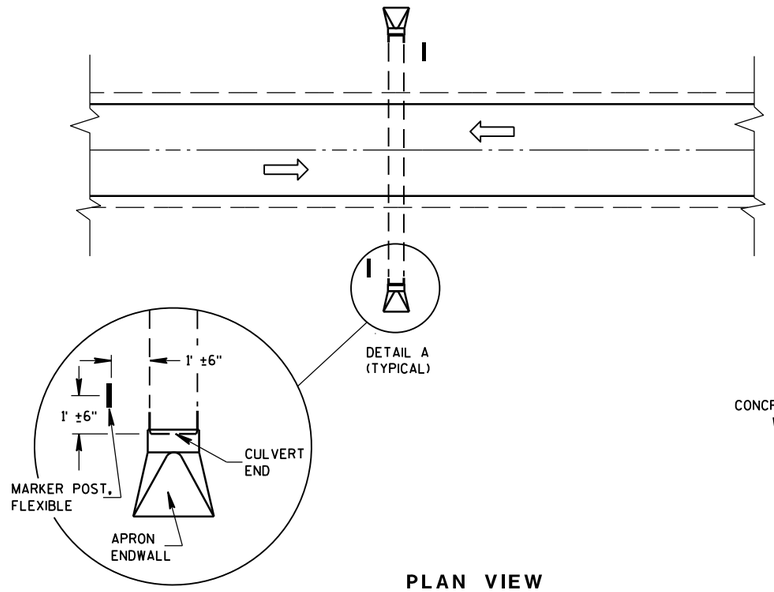
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

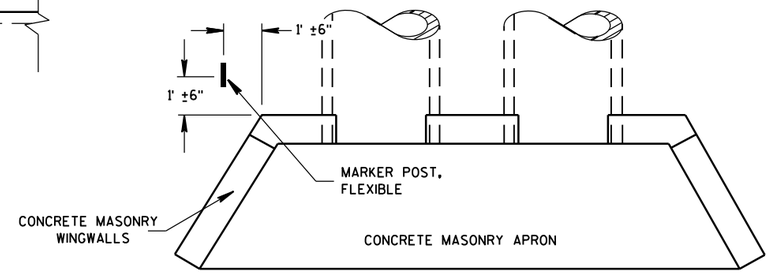
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

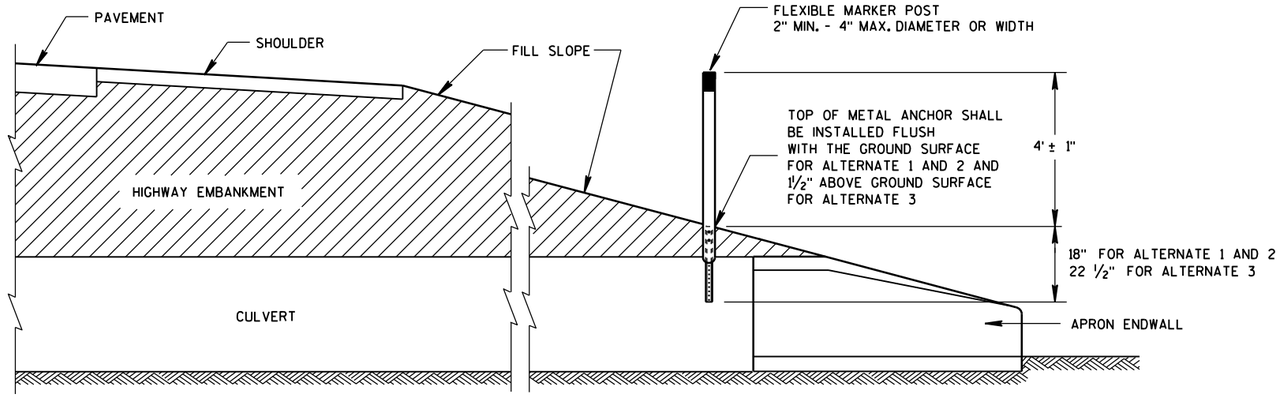
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

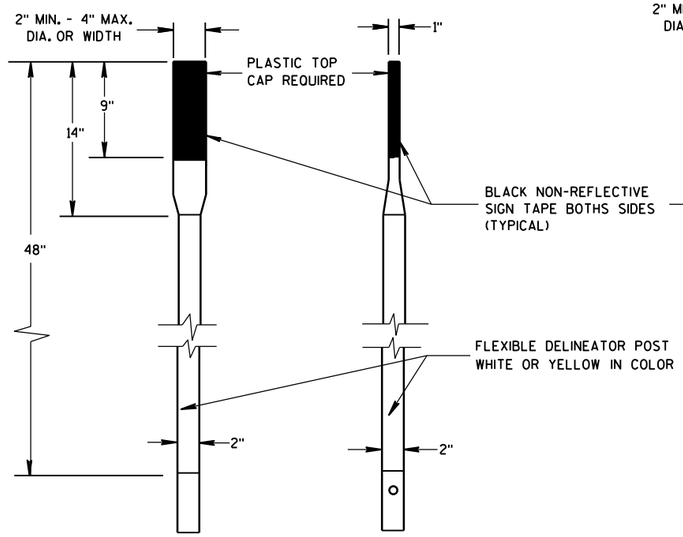
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

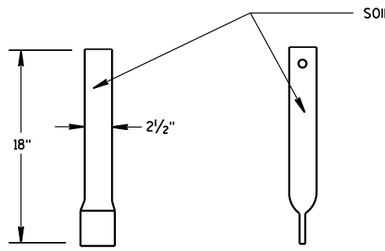
6

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

6

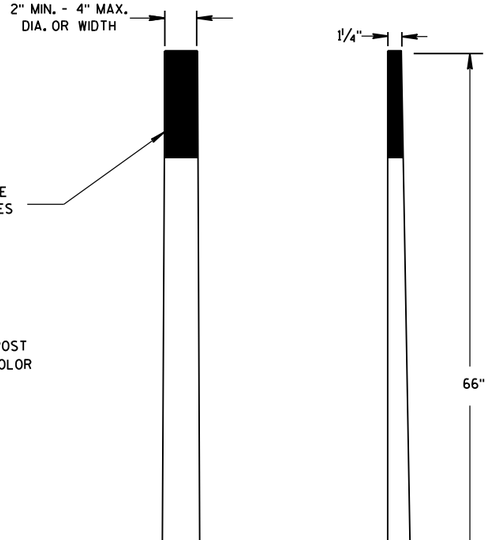
S.D.D. 15 A 3-2a





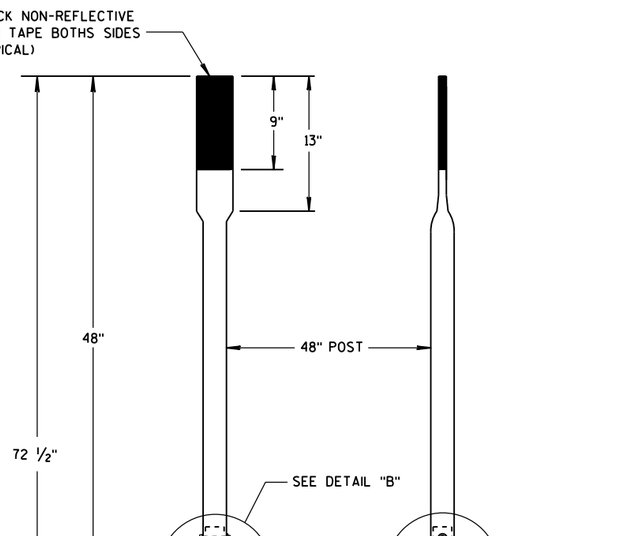
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

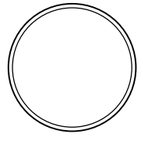
ALTERNATE 2



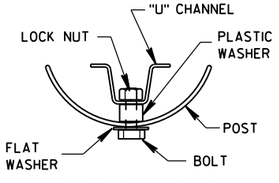
FRONT VIEW SIDE VIEW

ALTERNATE 3

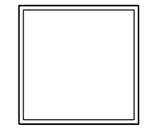
FLEXIBLE MARKER POSTS



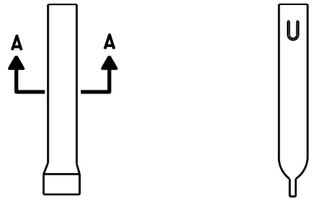
SECTION A-A



SECTION B-B

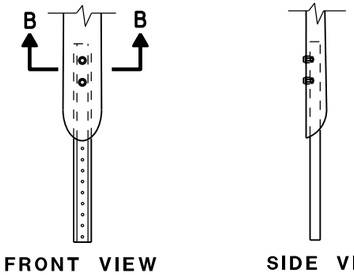


SECTION C-C



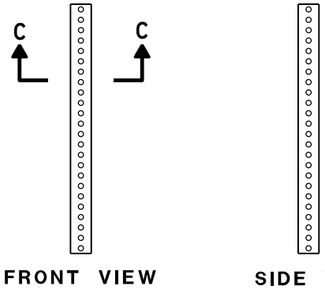
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

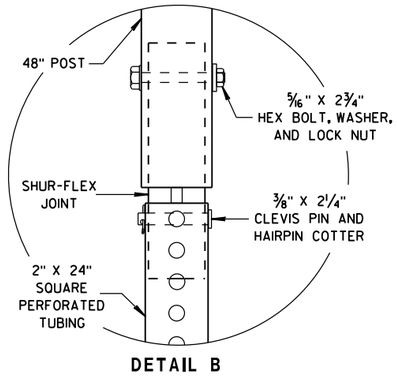
ALTERNATE 2



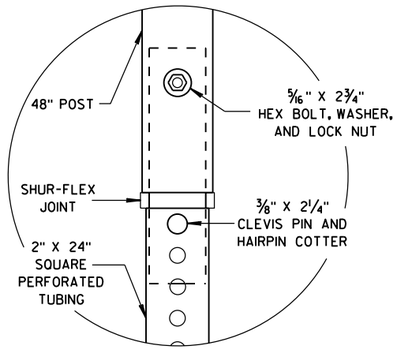
FRONT VIEW SIDE VIEW

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
FHWA

6

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

6

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

GENERAL NOTES

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

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

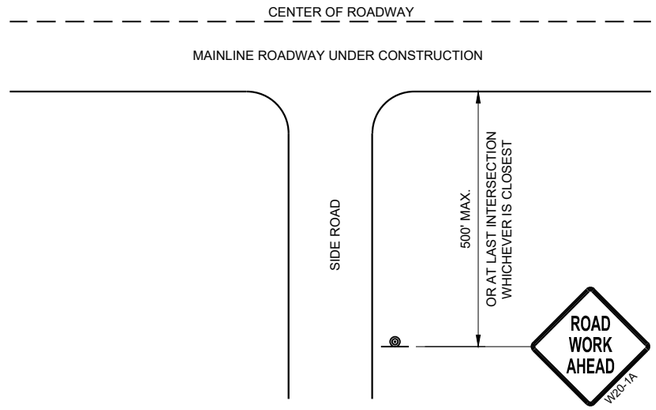
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



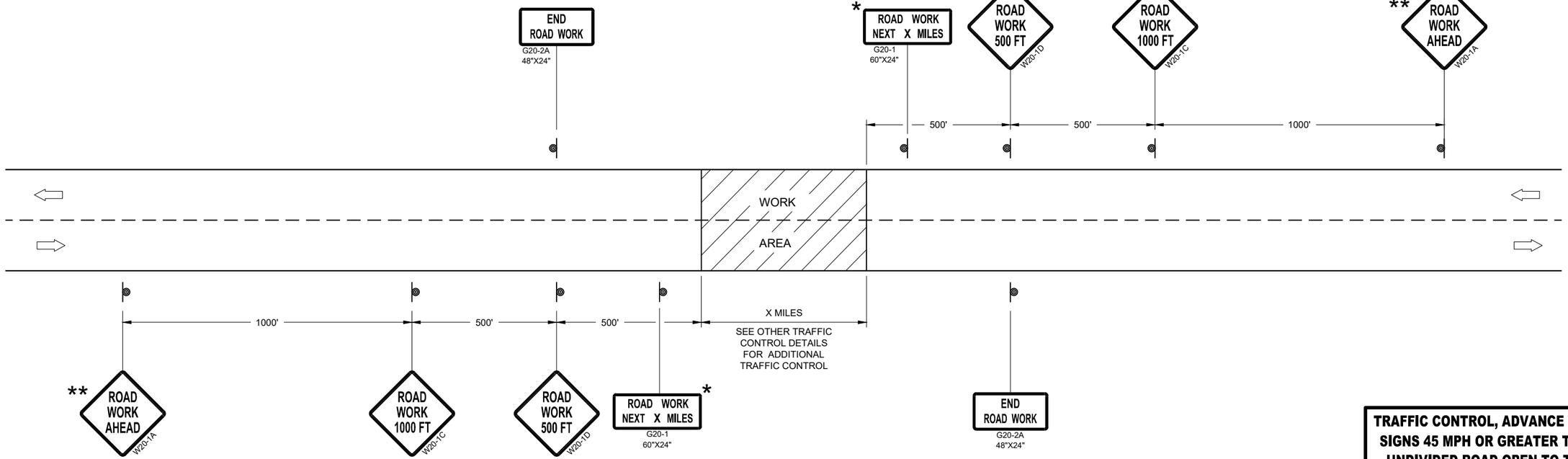
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

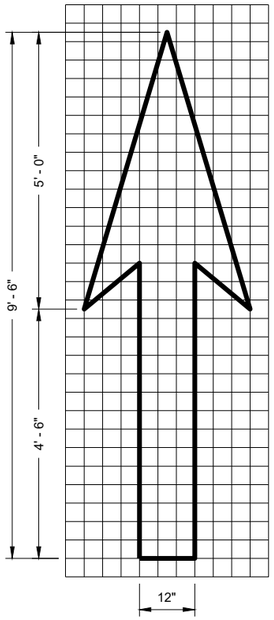
FHWA

6

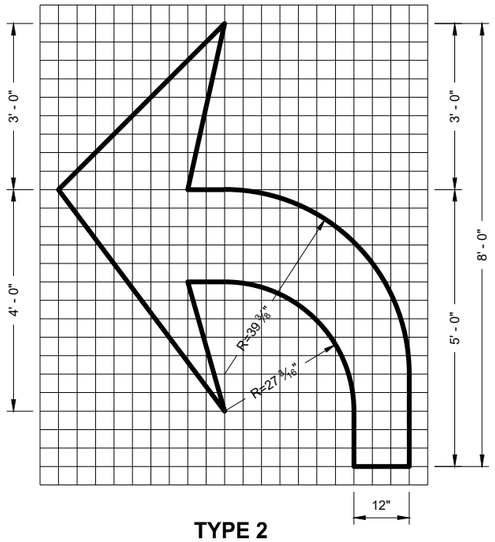
SDD 15C04 - 05

GENERAL NOTES

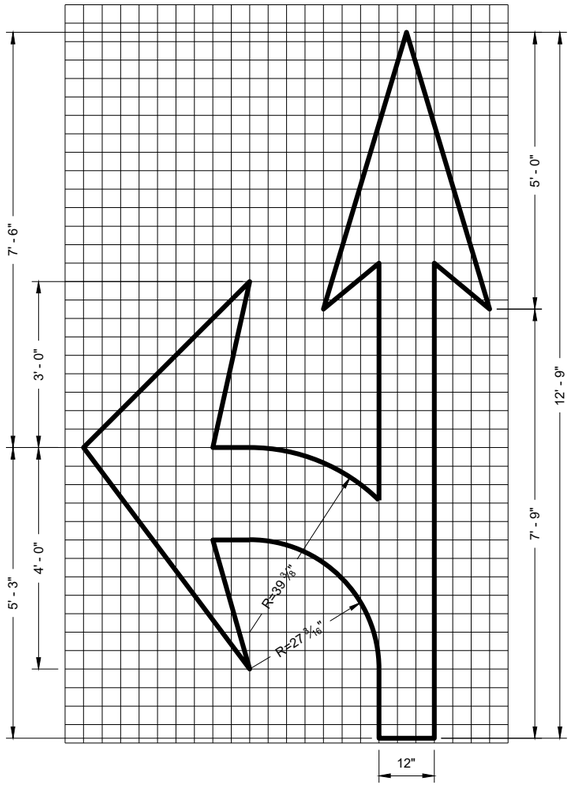
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



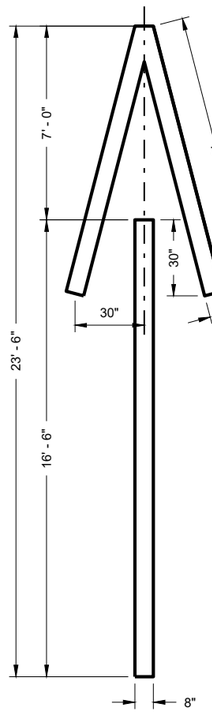
TYPE 1



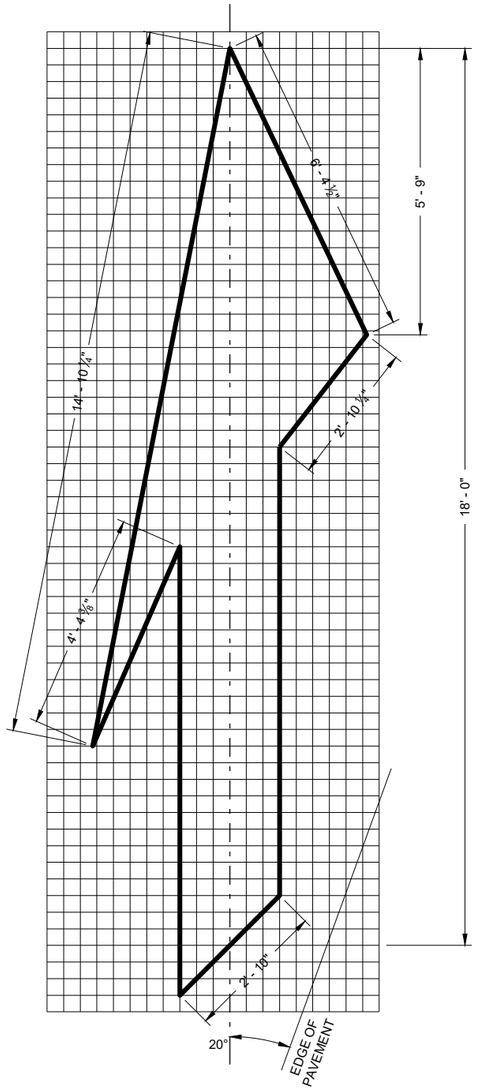
TYPE 2



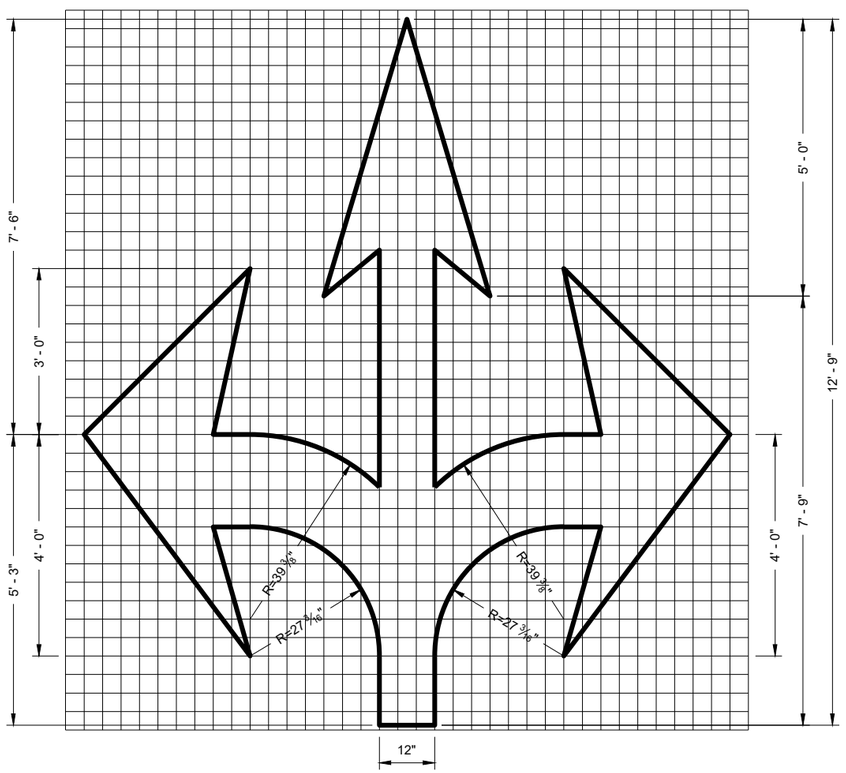
TYPE 3



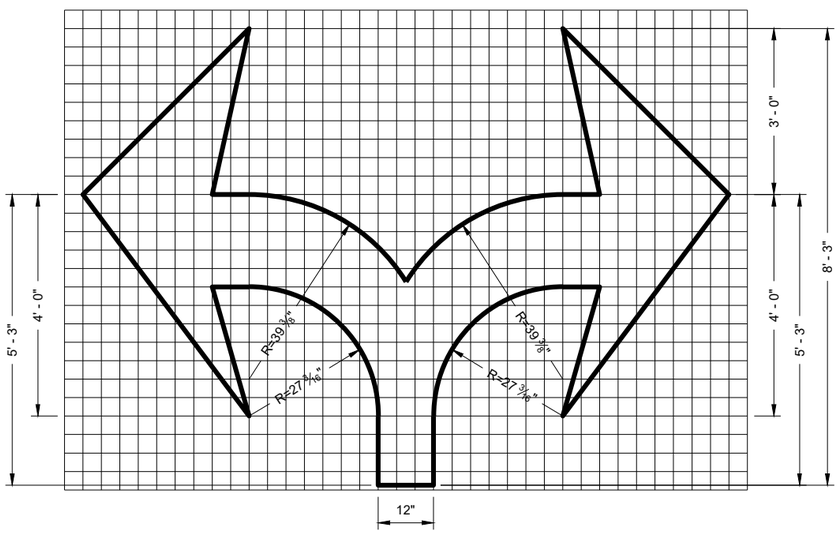
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

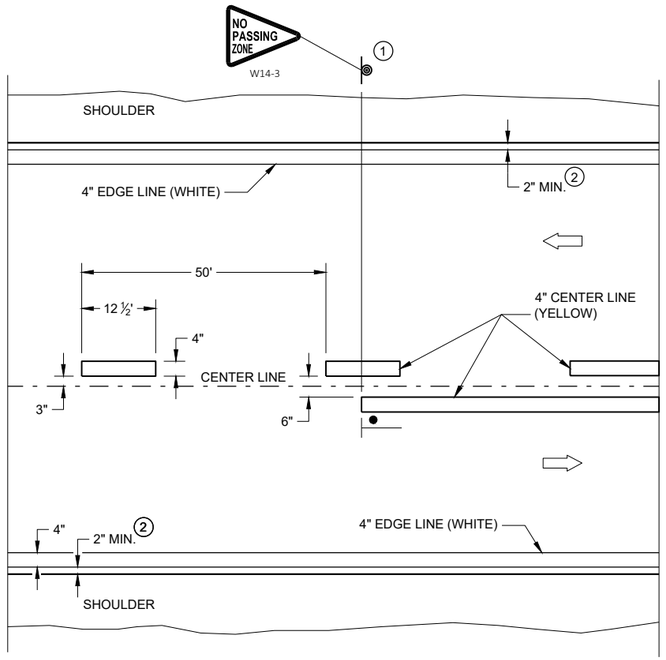
FHWA

6

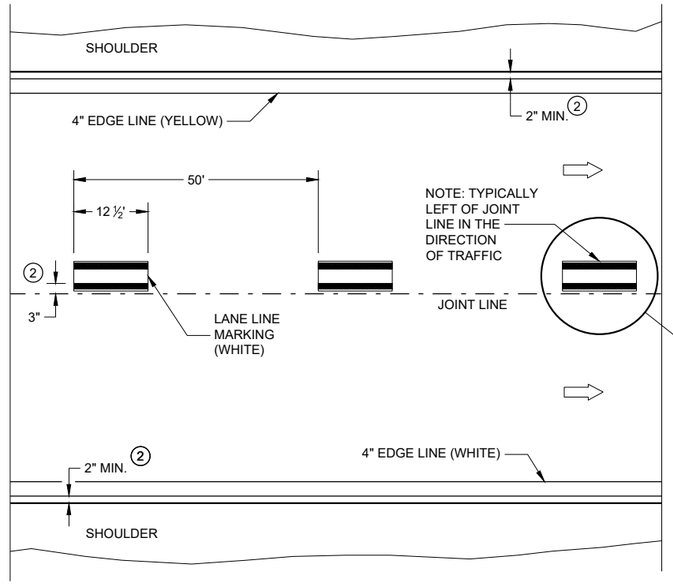
SDD 15C07 - 15c

6

SDD 15C07 - 15c

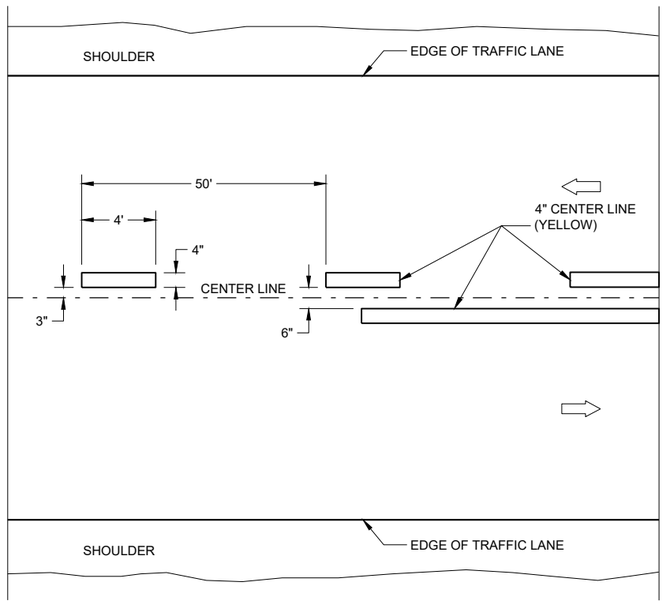


TWO WAY TRAFFIC

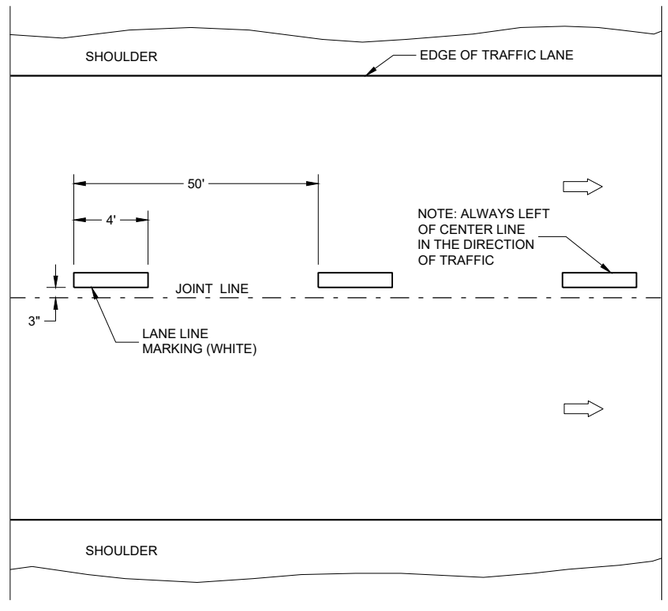


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

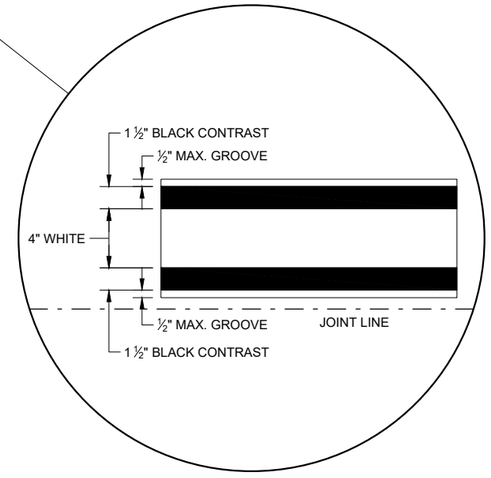
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

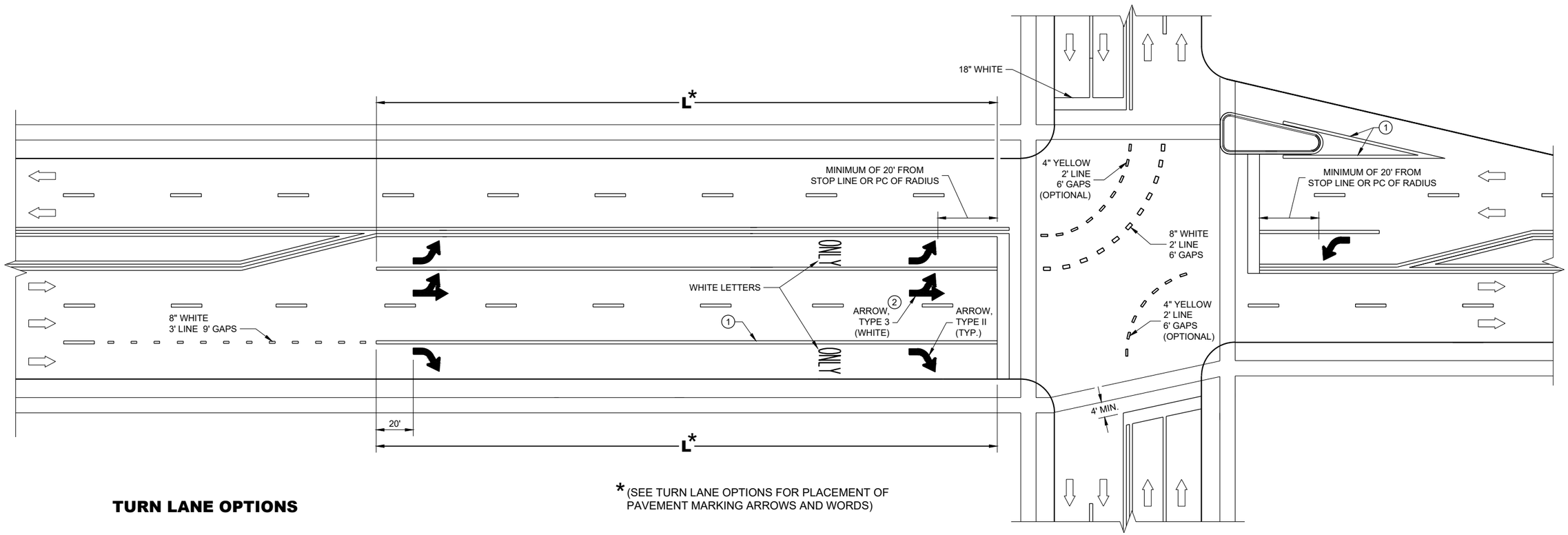
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15C08 - 20a

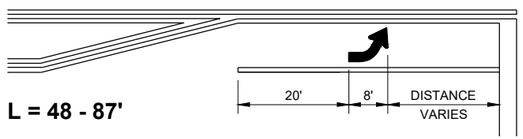
SDD 15C08 - 20a



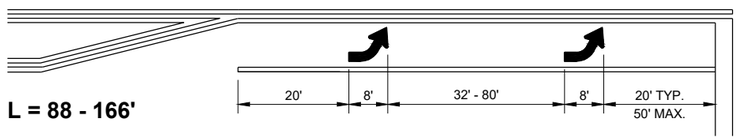
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

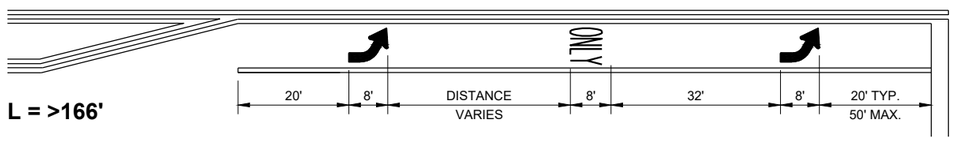
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 20c

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

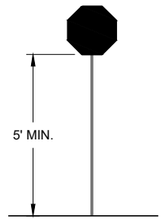
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



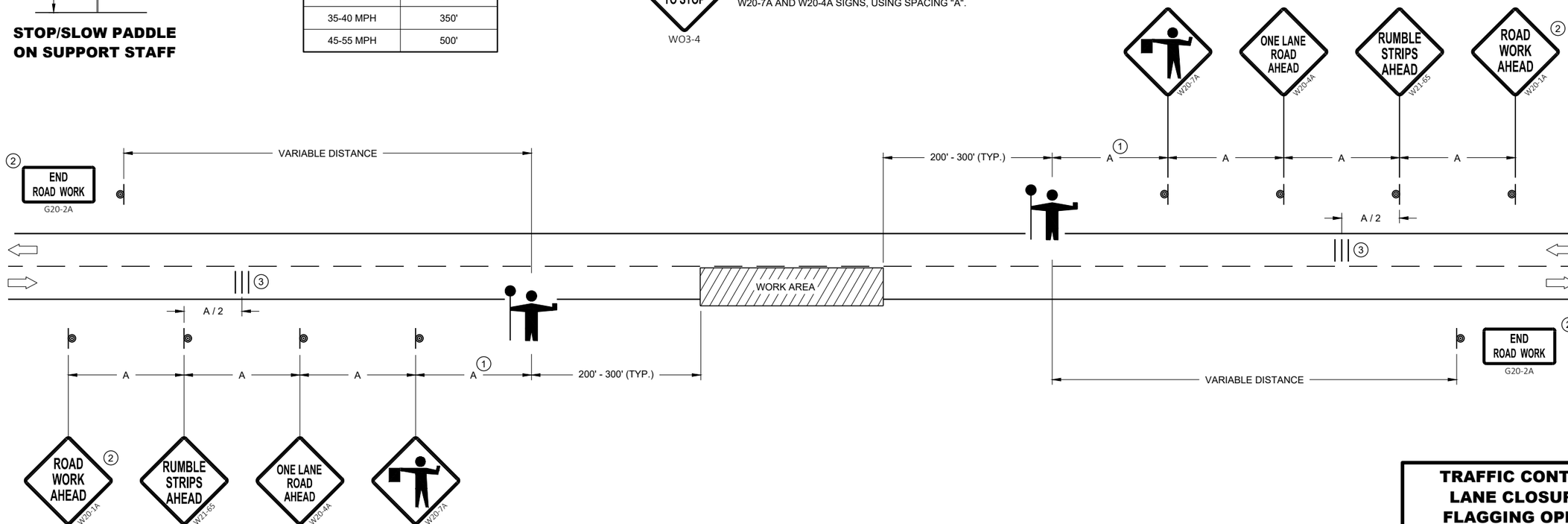
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 07

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

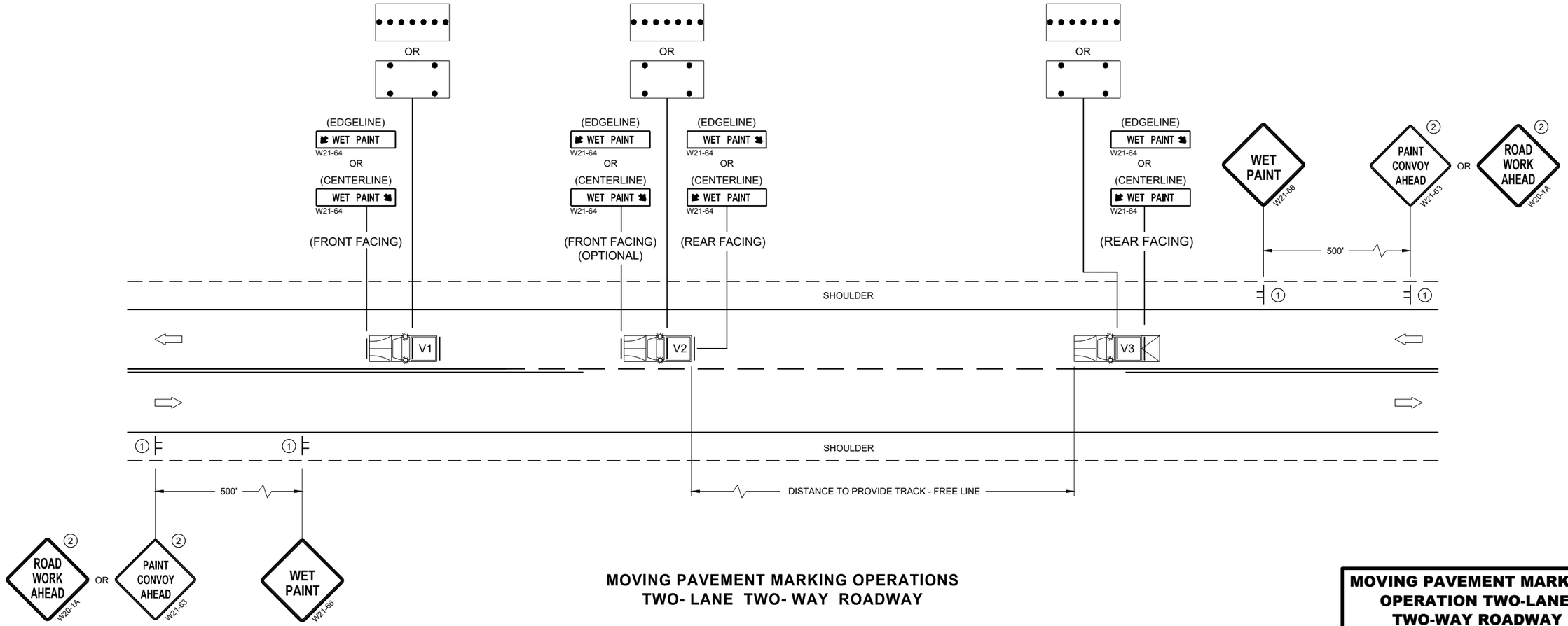
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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

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

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



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

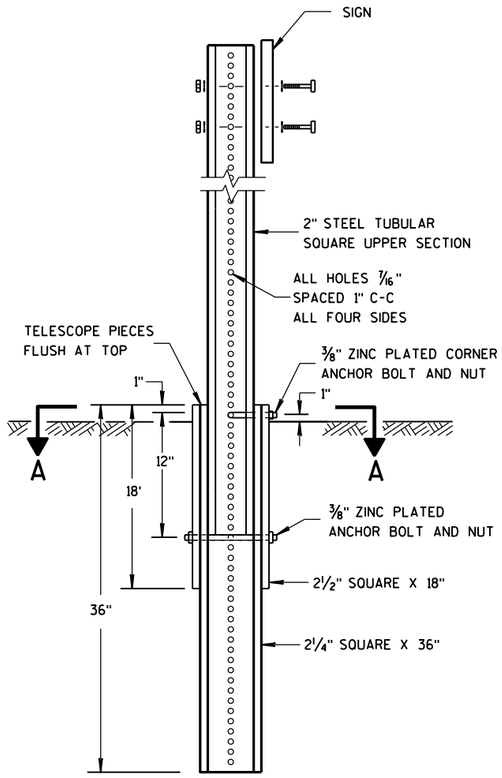
APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

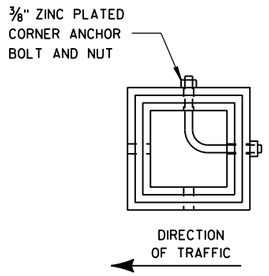
FHWA

SDD 15C19 - 06a

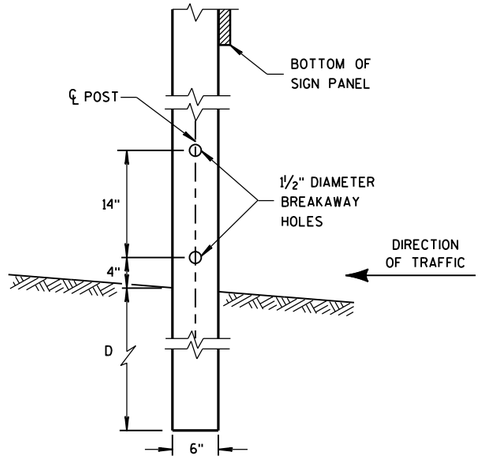
SDD 15C19 - 06a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



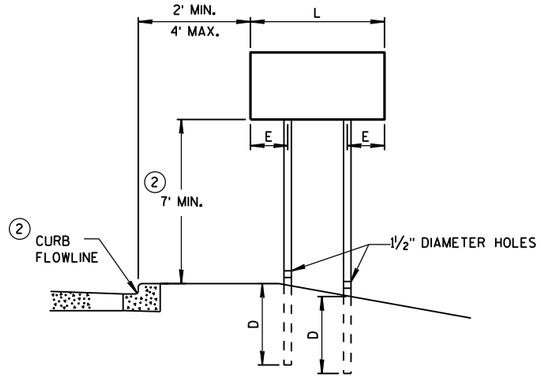
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

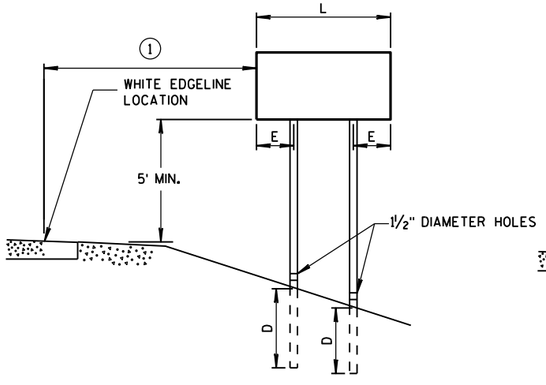
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

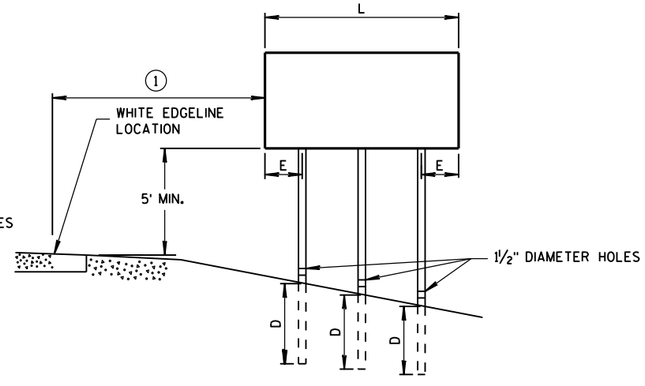
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

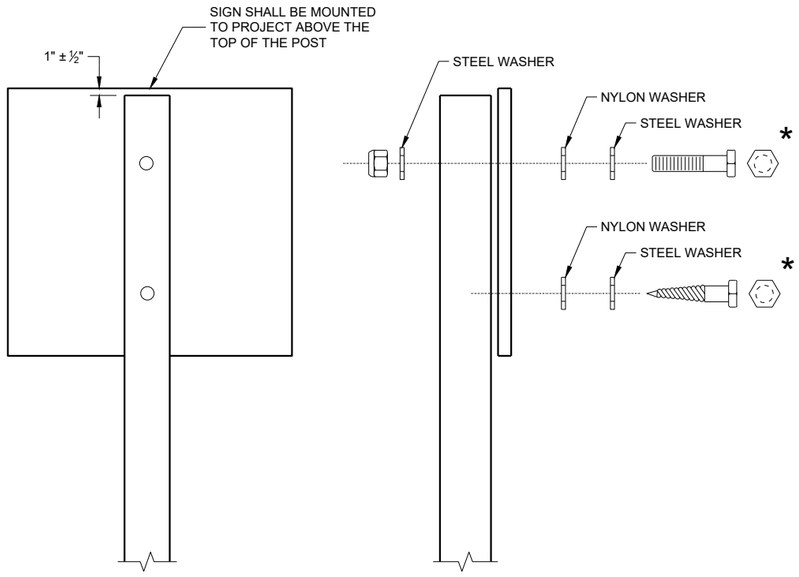
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 15 D 38-2a



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

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

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

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

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

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

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

6

6

SDD 15D38 - 02b

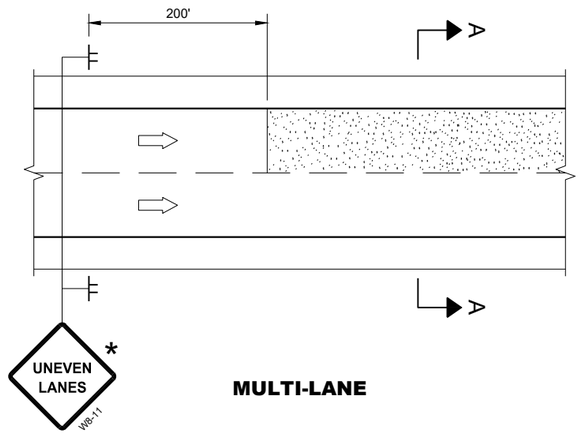
SDD15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

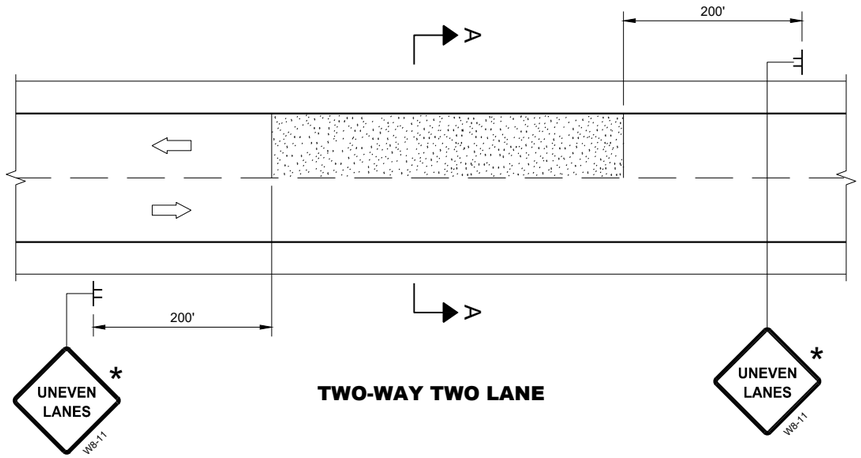
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

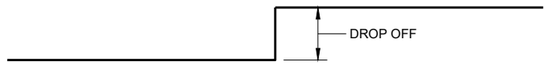
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

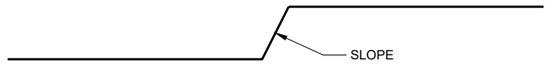
LEGEND

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

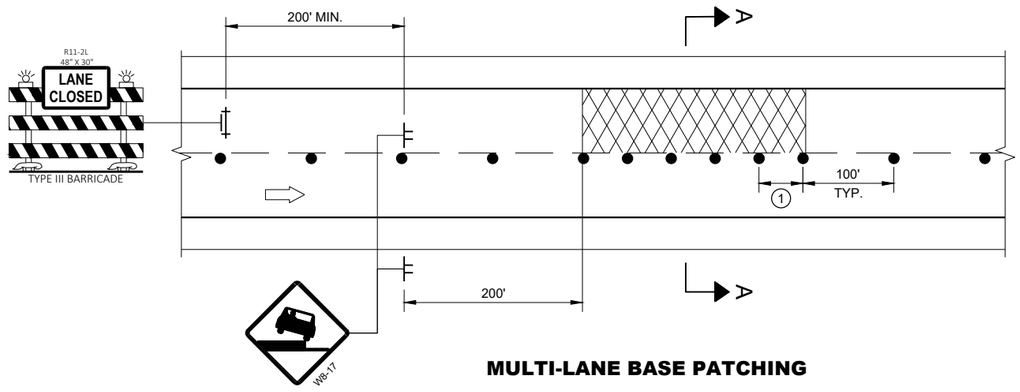


SECTION A - A

OR

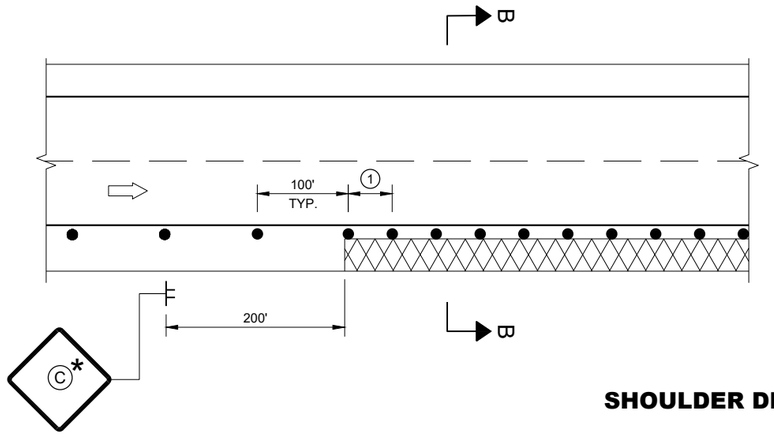


SECTION A - A

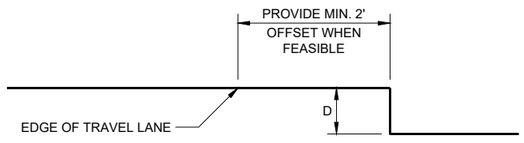


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D39 - 02

GENERAL NOTES

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

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

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

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

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

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

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

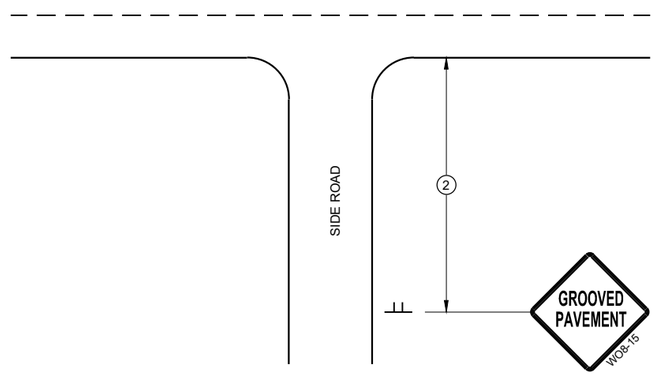
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

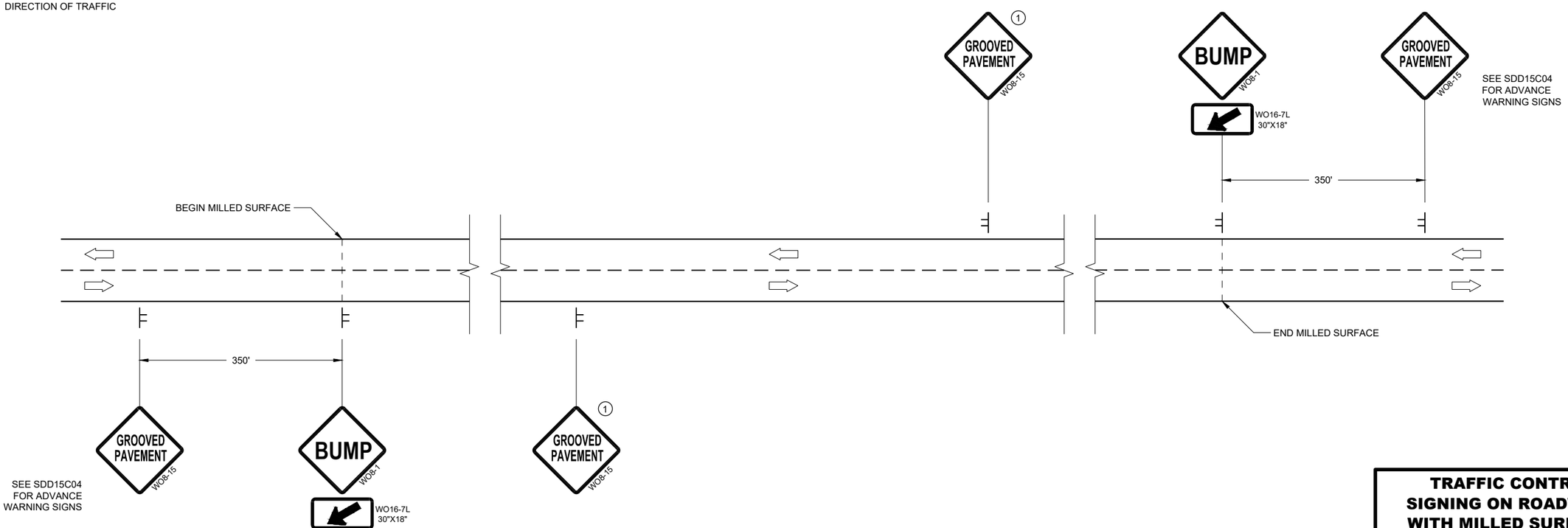
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

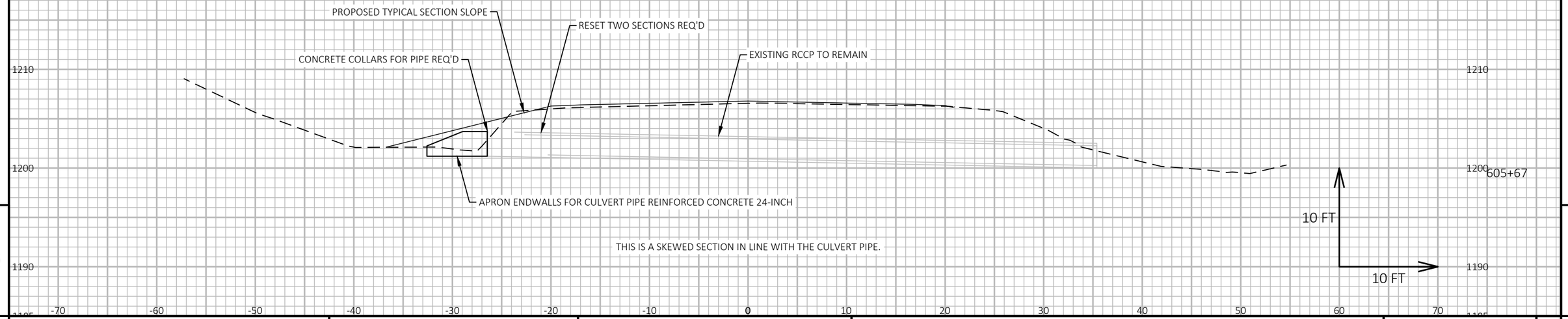
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15D44 - 02

NOTE:

ANY BORROW/COMMON EXCAVATION REQUIRED TO ACCOMODATE THE PIPE/APRON ENDWALL EXTENSION SHALL BE CONSIDERED INCIDENTAL TO THE APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH BID ITEM.



THIS IS A SKEWED SECTION IN LINE WITH THE CULVERT PIPE.

9

9

PROJECT NO: 1550-04-72, 1550-04-82	HWY: USH 63	COUNTY: POLK	CROSS SECTIONS: USH 63 CULVERT	SHEET 46	E

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov