LAX

DECEMBER 2021

PROJECT ID: 7570-05-64

WITH: N/A

COUNTY: LA CROSSE

ORDER OF SHEETS

TOTAL SHEETS = 128

23

N

DESIGN DESIGNATION

A.A.D.T.	2022	=	5,000
A.A.D.T.	2042	=	6,900
D.H.V.		=	28.1
D.D.		=	60 / 40
T.		=	18.8%
DESIGN SPEED		=	60 MPH
ESALS		=	2,100,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LA CROSSE - SPARTA

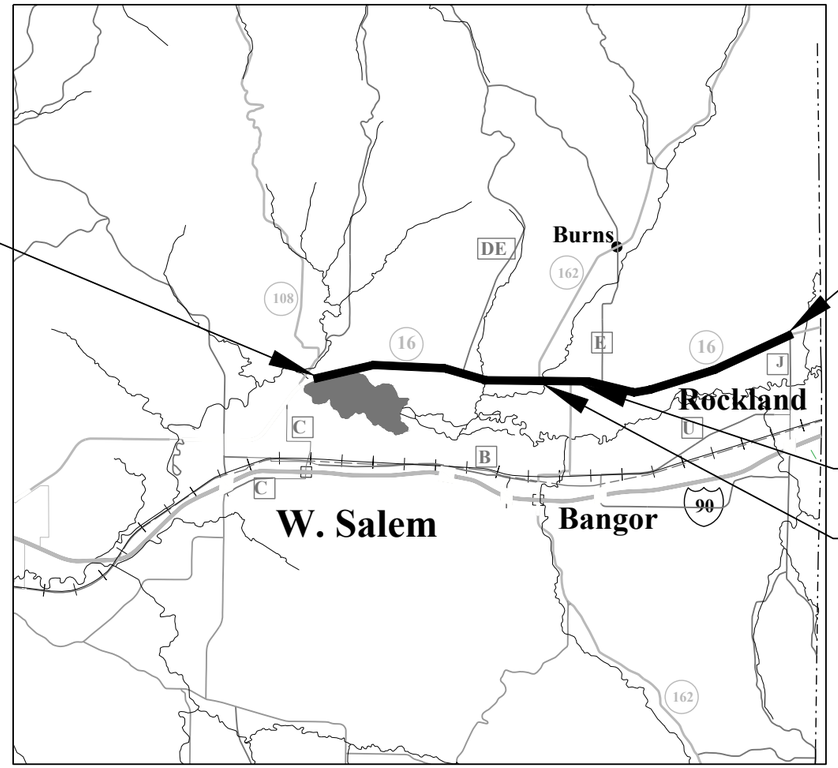
.27 MI E OF LA CROSSE R TO BIG CK

STH 16

LA CROSSE COUNTY

STATE PROJECT NUMBER
7570-05-64

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7570-05-64	WISC 2022083	1



BEGIN PROJECT
STA 596+76
X= 492079
Y= 168623

END PROJECT
STA 1027+50

NET EXCEPTION TO C/L LENGTH -- CONCRETE PAVEMENT
STA 827+06 - STA 830+25

NET EXCEPTION TO C/L LENGTH -- BRIDGE B-32-176
STA 793+79 - STA 795+18

LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 8.071 MILES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	JONATHAN DAVIDSON
Project Manager	NATHANIEL SCHUMAKER
Regional Examiner	SW REGION
Regional Supervisor	REINY YAHNKE

APPROVED FOR THE DEPARTMENT

DATE: 7/30/21 (Signature)

E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\010101-TI.DWG PLOT DATE : 7/29/2021 11:01 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME :

2

DESIGN CONTACTS

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LA CROSSE, WI 54601
608/785-9036

DNR LIAISON

KAREN KALVELAGE
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DEPT. OF NATURAL RESOURCES
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ORDER OF SECTION 2 SHEETS

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(715) 577-1132 - Cell
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Northern Natural Gas Company - Gas/Petroleum

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Johnston, IA 50131
(402) 530-2026
Sergio.Gonzalez@nngco.com

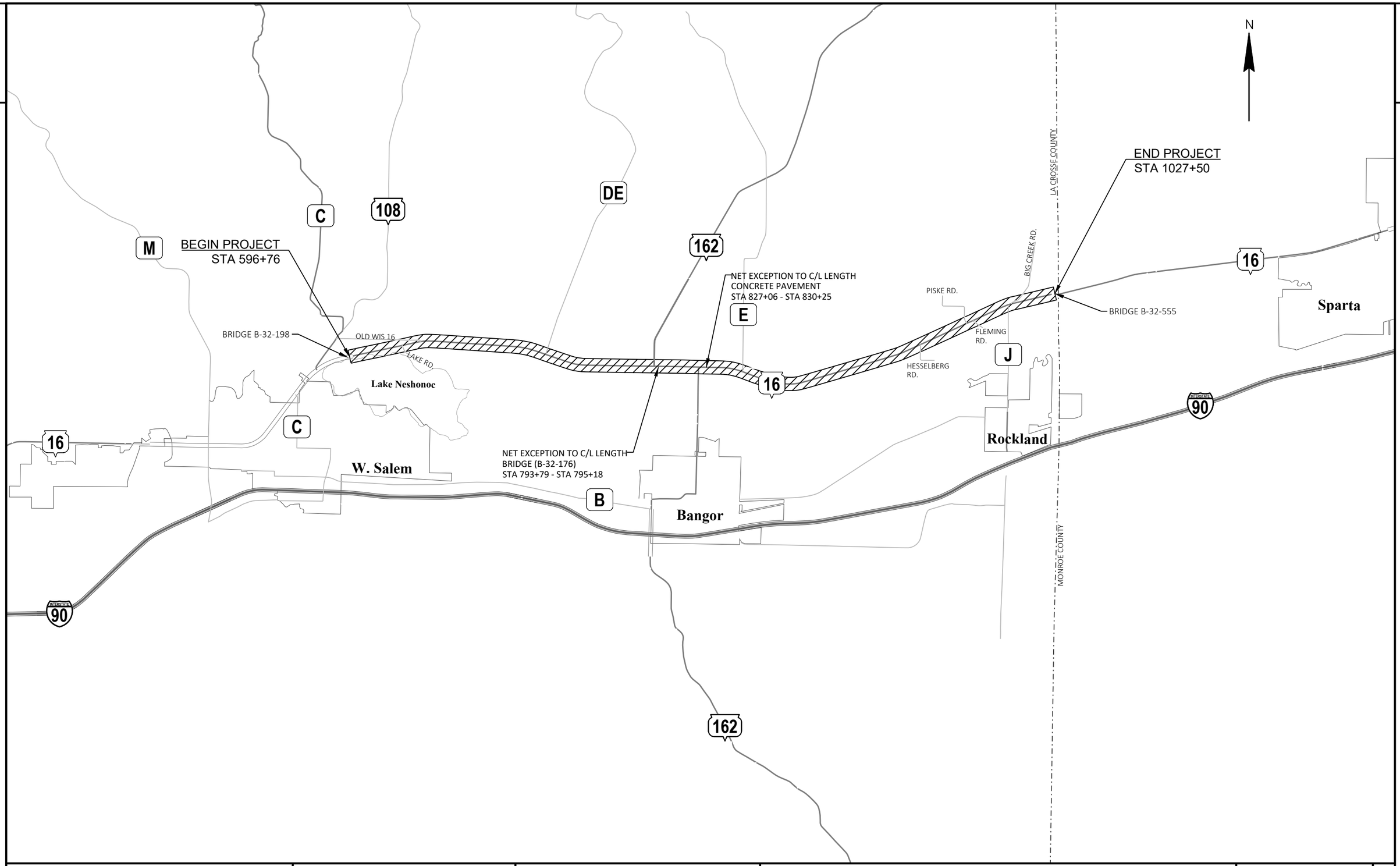
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

GENERAL NOTES

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR 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.
- THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES.
- RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.
- STH 16 IS A HIGH CLEARANCE ROUTE. VERTICAL CLEARANCE SHALL HAVE 20-FT MINIMUM CLEARANCE FROM THE HIGHEST POINT ON PAVEMENT TO OVERHEAD OBSTACLE.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES . ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.
- PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.
- 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, PASSING OR PARKING LANE.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- 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 MULCHED AS DIRECTED BY THE ENGINEER.
- (SALVAGED) TOPSOIL AND MULCH HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 5 FT BEYOND THE TOE OF SLOPE. SEEDING AND FERTILIZER HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 10 FT.
- APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO A MILLED SURFACE.
  APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

STANDARD ABBREVIATIONS

AC	ACRE	LC.	LONG CHORD
AGG	AGGREGATE	LS	LUMP SUM
<	ANGLE	M.P.	MARKER POST
AE, AEW	APRON ENDWALL	MGAL	1000 GALLONS
ASPH.	ASPHALTIC	N.C.	NORMAL CROWN
A.D.T.	AVERAGE DAILY TRAFFIC	N	NORTH
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
B.F.	BACK FACE	NOR	NORMAL
BM	BENCHMARK	NO.	NUMBER
BTWN	BETWEEN	PAV'T	PAVEMENT
CTR.	CENTER	P.L.E.	PERMANENT LIMITED EASEMENT
C/L	CENTER LINE	P.C.	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	P.I.	POINT OF INTERSECTION
C.E.	COMMERCIAL ENTRANCE	P.T.	POINT OF TANGENCY
CONST.	CONSTRUCTION	PCC	PORTLAND CEMENT CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE	P.E.	PRIVATE ENTRANCE
CMP	CORRUGATED METAL PIPE	PGL	PROFILE GRADE LINE
CO.	COUNTY	P.L.	PROPERTY LINE
CTH	COUNTY TRUNK HIGHWAY	R	RADIUS OR RANGE
CR.	CREEK	R/L	REFERENCE LINE
CABC	CRUSHED AGGREGATE BASE COURSE	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQ'D	REQUIRED
CP	CONTROL POINT OR CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	R.H.F.	RIGHT HAND FORWARD
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
DIA.	DIAMETER	SHLD.	SHOULDER(S)
D.D.	DIRECTIONAL DISTRIBUTION	SHR.	SHRINKAGE
DISCH.	DISCHARGE	S	SOUTH
DMS	DYNAMIC MESSAGE SIGN	SB	SOUTHBOUND
EA	EACH	S.F.	SQUARE FOOT (FEET)
E	EAST	SDD	STANDARD DETAIL DRAWING(S)
EB	EASTBOUND	STH	STATE TRUNK HIGHWAY
ELEC.	ELECTRIC(AL), ELEC. CABLE	STA.	STATION
EL., ELEV.	ELEVATION	S.E.	SUPERELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	S/L	SURVEY LINE
EXC.	EXCAVATION	SYM	SYMMETRICAL
EXIST	EXISTING	T.	PERCENT TRUCKS
F.F.	FACE TO FACE	TEL.	TELEPHONE
FERT.	FERTILIZER	TEMP.	TEMPORARY
F.E.	FIELD ENTRANCE	T.L.E.	TEMPORARY LIMITED EASEMENT
F/L, F.L.	FLOW LINE	T.O.C.	TOP OF CURB
GALV.	GALVANIZE	TYP	TYPICAL
H.S.	HIGH STRENGTH	UNCL.	UNCLASSIFIED
CWT	HUNDRED WEIGHT	U.G.	UNDERGROUND (CABLE)
INL	INLET	VAR	VARIABLE
INTER.	INTERSECTION	V.C.	VERTICAL CURVE
IH	INTERSTATE HIGHWAY	V.P.C.	VERTICAL POINT OF CURVATURE
JT.	JOINT	V.P.I.	VERTICAL POINT OF INTERSECTION
LT	LEFT	V.P.T.	VERTICAL POINT OF TANGENCY
L.H.F.	LEFT HAND FORWARD	Wt.	WEIGHT
L.	LENGTH OF CURVE	W	WEST
L.F.	LINEAR FOOT(FEET)	WB	WESTBOUND



PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PROJECT OVERVIEW	SHEET 4	E

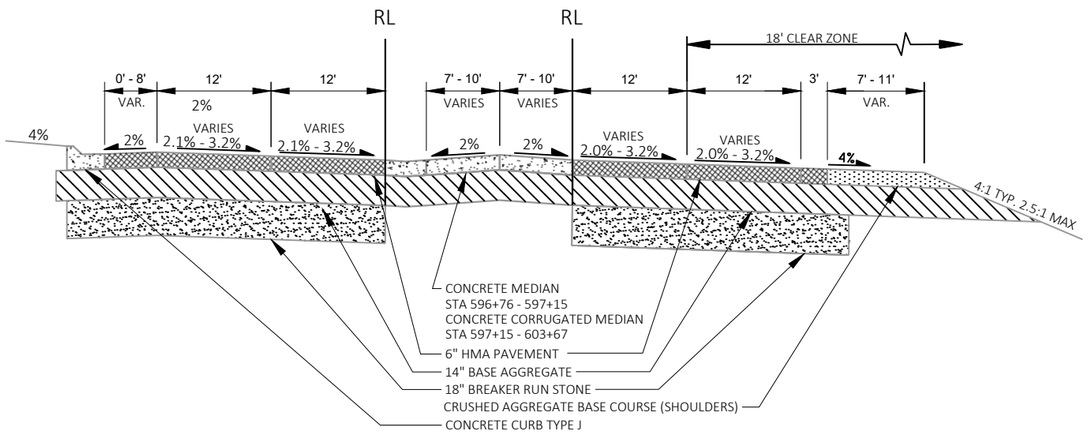
FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po_josh

PLOT DATE : 7/29/2021 11:05 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:1 MI

WISDOT/CADDS SHEET 42

2

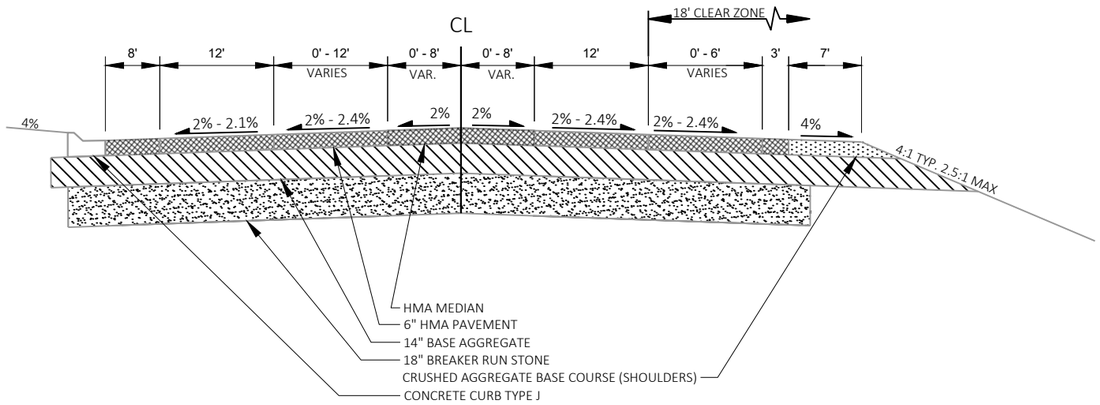
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



EXISTING TYPICAL SECTION STH 16

STA 596+76 LT - 603+67

* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION

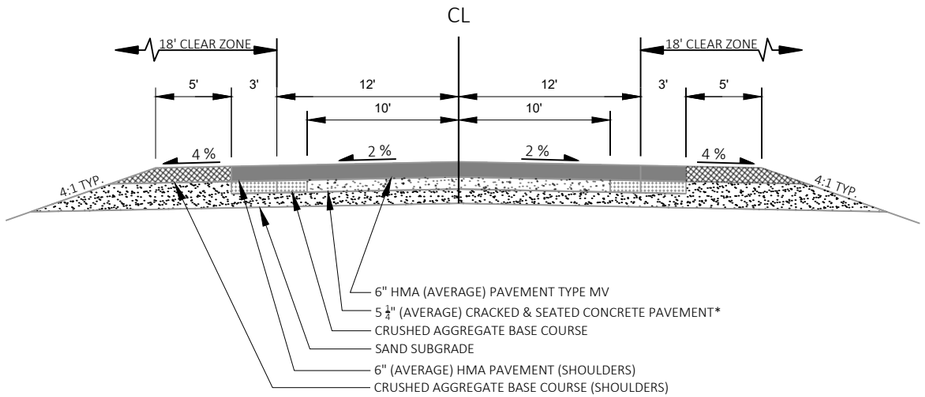


EXISTING TYPICAL SECTION STH 16

STH 603+67 - 609+67

2

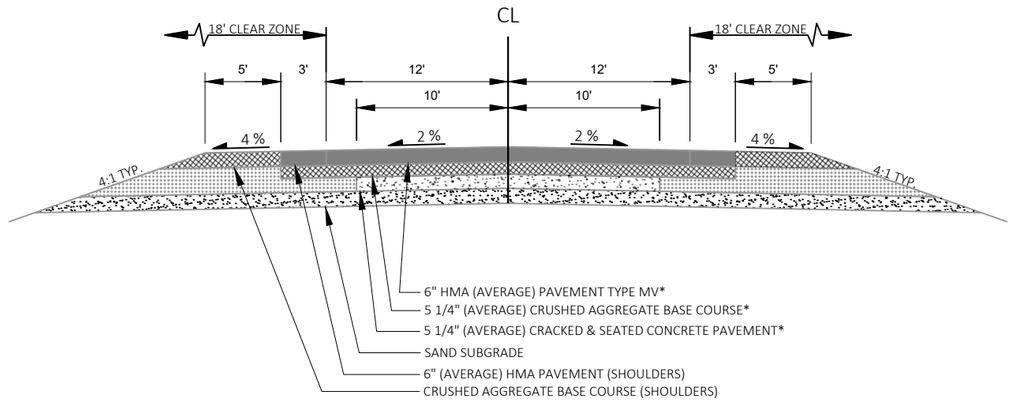
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



EXISTING TYPICAL SECTION STH 16

STA 609+67 - 664+60

* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



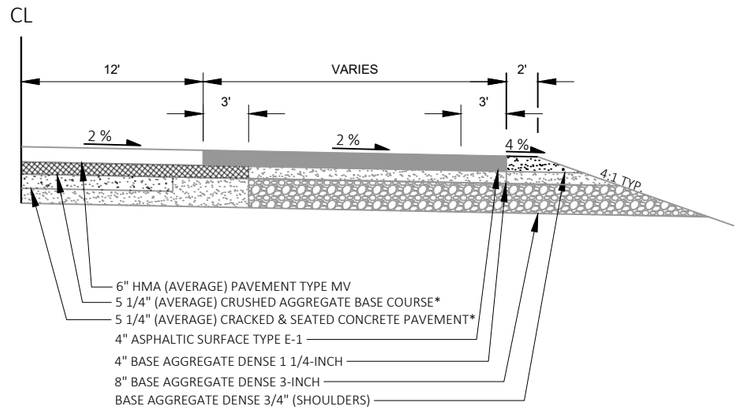
EXISTING TYPICAL SECTION STH 16

STA 664+60 - 1027+20

NET EXCEPTION TO CL LENGTH
STA: 793+79 - 795+18
STA: 827+06 - 830+25

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 5	E

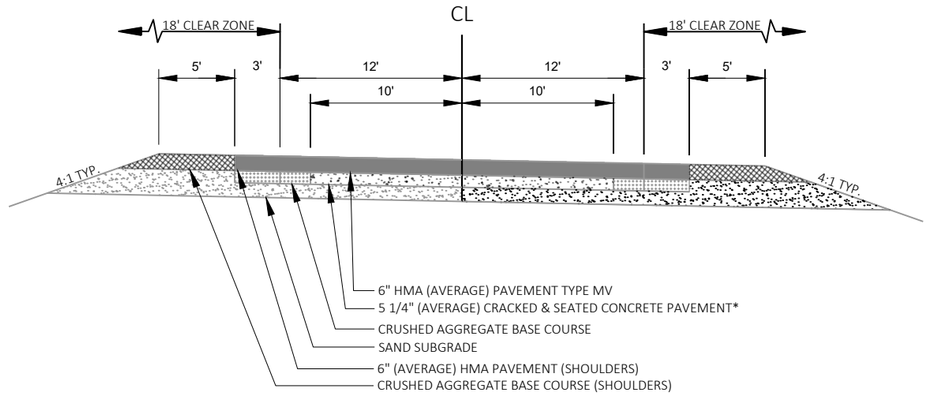
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



EXISTING TYPICAL SECTION (BYPASS LANE) STH 16

STA 723+00 - 728+29
STA 730+46 - 731+04
STA 842+15 - 849+10

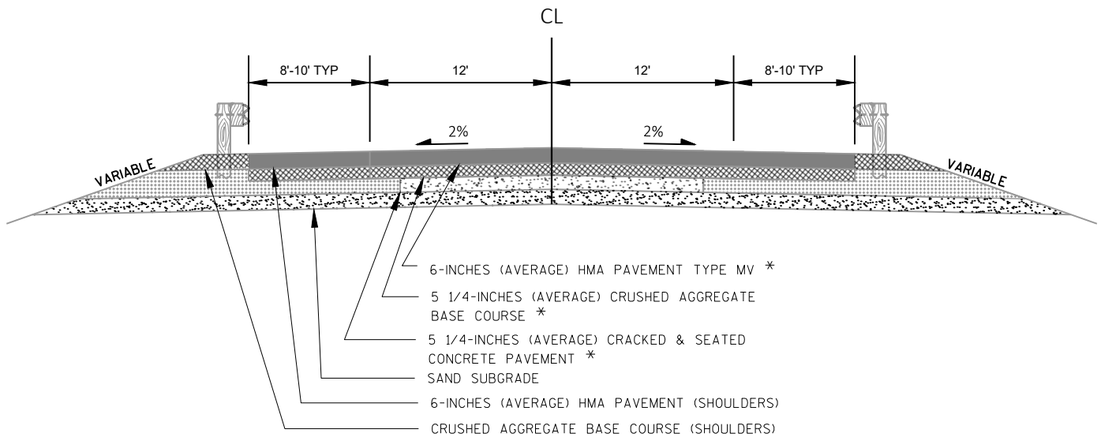
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



EXISTING TYPICAL SUPERELEVATED SECTION STH 16

STA VARIES

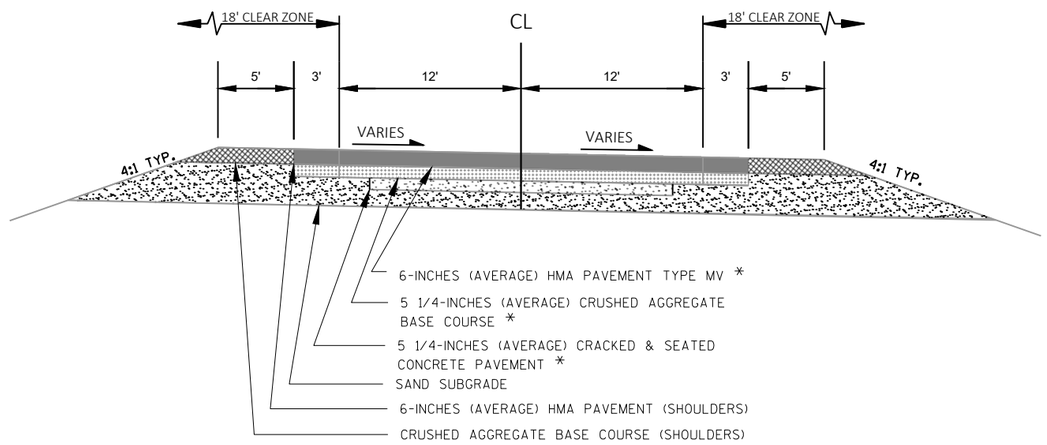
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



EXISTING TYPICAL SECTION STH 16

STA VARIES (BEAM GUARD SECTIONS)

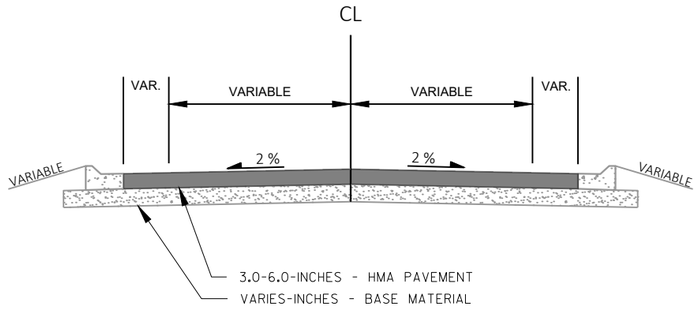
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



EXISTING TYPICAL SUPERELEVATED SECTION STH 16

STA VARIES

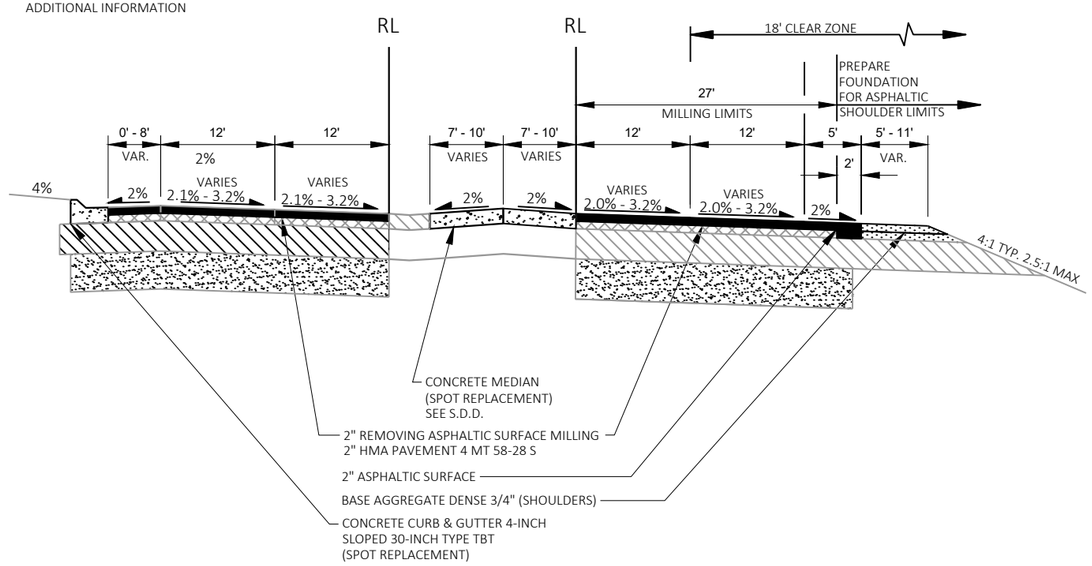
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 6	E



PROPOSED TYPICAL SECTION SIDE ROADS WITH CURB & GUTTER

OLD WIS 16
CTH DE
STH 162 (LT)
STH 162 (RT)
CTH E
CTH J
BIG CREEEK ROAD

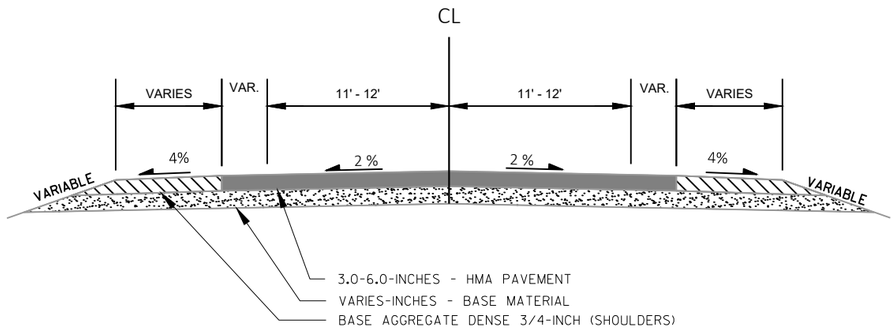
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



PROPOSED TYPICAL SECTION STH 16

STA 596+76 LT - 603+67

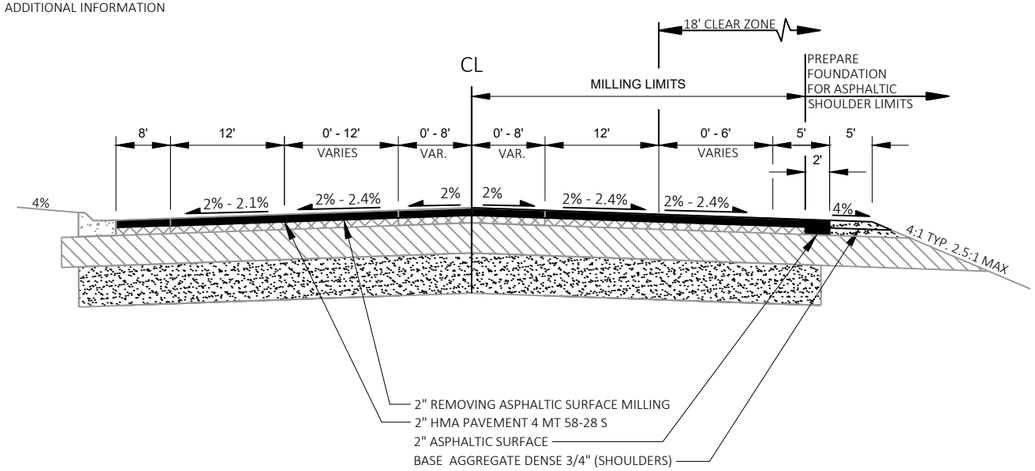
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



EXISTING TYPICAL SECTION SIDE ROADS

LAKE ROAD
HESSELBERG ROAD
PISKE ROAD
FLEMING ROAD

* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



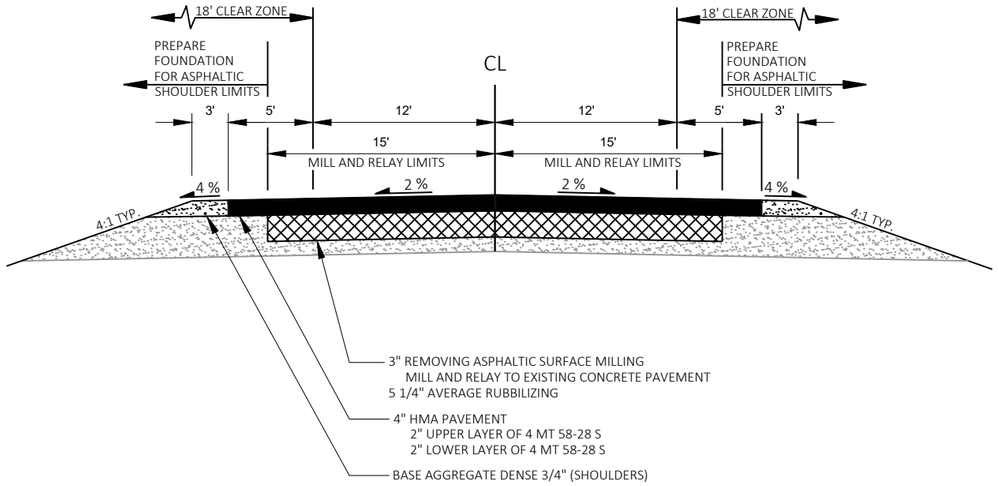
PROPOSED TYPICAL SECTION STH 16

STH 603+67 - 609+67

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 7	E

2

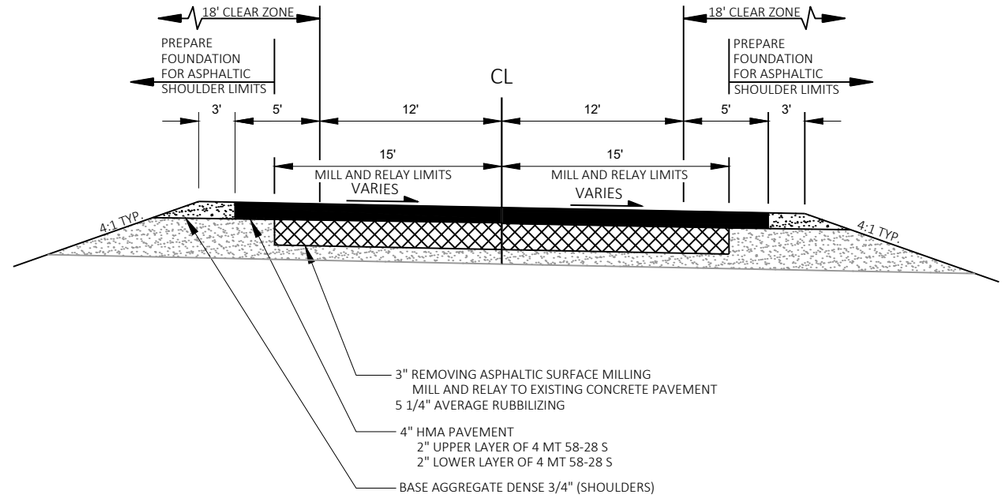
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



PROPOSED TYPICAL SECTION STH 16

STA 609+67 - 664+60

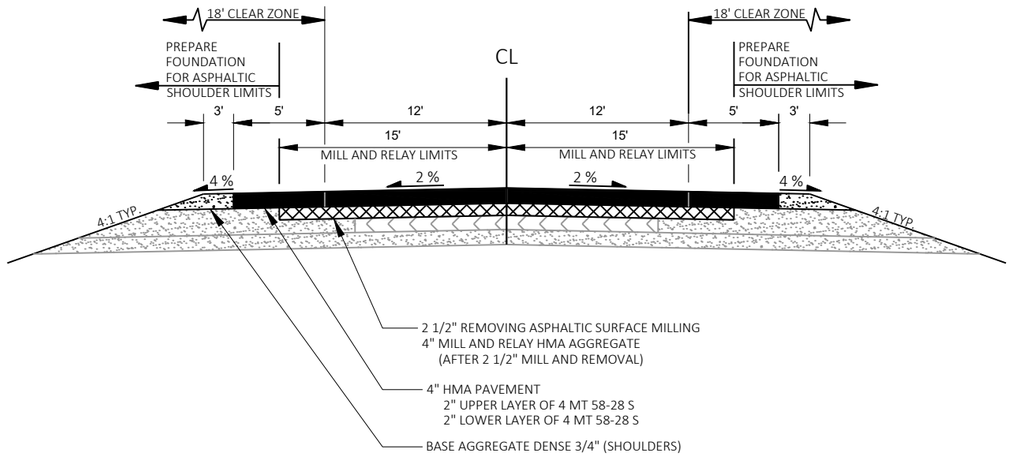
* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



PROPOSED TYPICAL SECTION STH 16

STA VARIES

* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION

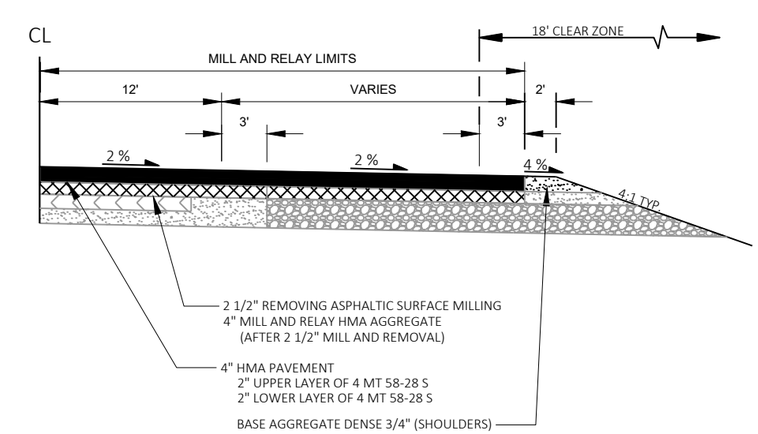


PROPOSED TYPICAL SECTION STH 16

STA 664+60 - 1027+20

NET EXCEPTION TO CL LENGTH
STA: 793+79 - 795+18
STA: 827+06 - 830+25

* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



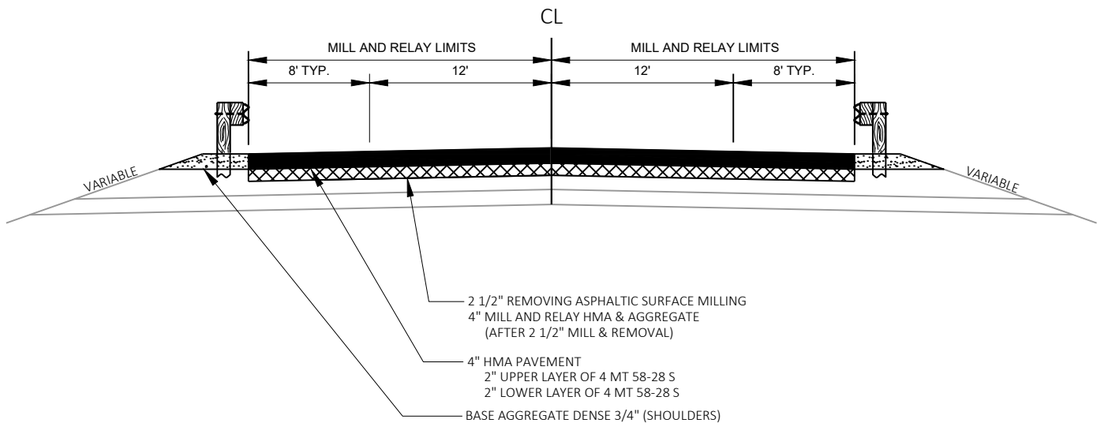
PROPOSED TYPICAL SECTION (BYPASS LANE) STH 16

STA 723+00 - 728+29
STA 730+46 - 731+04
STA 842+15 - 849+10

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 8	E

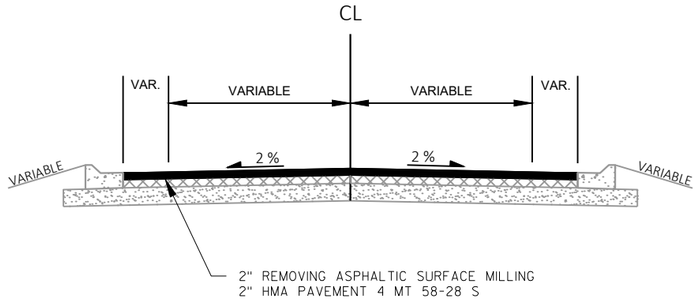
FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 04
PLOT DATE : 7/29/2021 11:06 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



PROPOSED TYPICAL SECTION STH 16

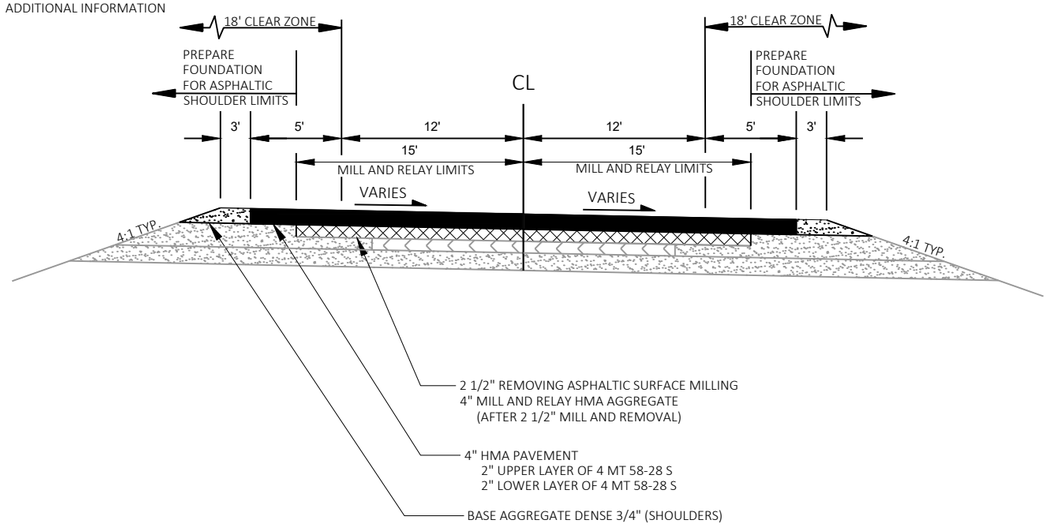
STA VARIES (BEAM GUARD SECTIONS EAST OF STA 664+00)



PROPOSED TYPICAL SECTION SIDE ROADS WITH CURB & GUTTER

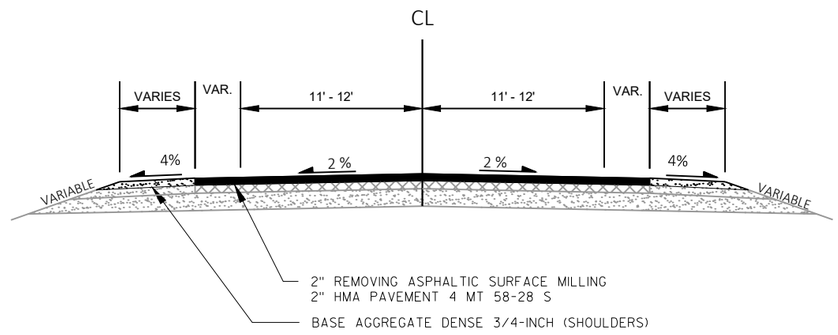
OLD WIS 16
CTH DE
STH 162 (LT)
STH 162 (RT)
CTH E
CTH J
BIG CREEEK ROAD

* SEE PAVEMENT BORINGS FOR ADDITIONAL INFORMATION



PROPOSED TYPICAL SECTION STH 16

STA VARIES



PROPOSED TYPICAL SECTION SIDE ROADS

LAKE ROAD
HESSELBERG ROAD
PISKE ROAD
FLEMING ROAD

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 9	E

ROADWAY PAVEMENT BORING - SUMMARY TABLE

* FOR INFORMATIONAL PURPOSES ONLY.
BORINGS TAKEN DECEMBER 2018.

BORING #	LOG MILE	STATION	OFFSET	ASPHALT	BASE AGGREGATE	PORTLAND CEMENT CONCRETE	SUBGRADE TYPE	COMMENT
---	0.00	585+20	---	---	---	---	---	STH 108/STH 16
B-1	0.40	606+32	9' RT	8"	---	10.5"	Sand	---
B-2	0.49	611+07	6' RT	5"	---	5"	Sand	Additional 5" PCC 15" down
B-3	0.77	625+86	4' RT	4"	---	6"	Sand	---
B-4	1.06	641+17	9' LT	5"	---	4"	Sand	---
B-5	1.28	652+78	5' LT	6"	---	5"	Sand	---
B-6	1.50	664+40	5' LT	4"	---	5.5"	Sand	---
B-7	1.76	678+13	12' LT	6"	6"	-	Sand	---
B-8	1.99	690+27	5' RT	6"	5"	6"	Sand	---
B-9	2.22	702+42	9' RT	5"	3.5"	9"	Sand	---
B-10	2.45	714+56	6' RT	6"	---	10"	Sand	---
B-11	2.65	725+12	18' RT	4"	13.5"	---	Sand	---
---	2.66	725+65	---	---	---	---	---	CTH DE
B-12	2.88	737+26	4' LT	5"	4"	5"	Sand	---
B-13	3.14	750+99	9' LT	6"	9"	-	Sand	---
B-14	3.36	762+61	6' LT	7"	-	7"	Sand	---
B-15	3.59	774+75	12' LT	6"	2"	-	Sand	---
B-16	3.82	786+90	3' RT	7"	3"	8"	Sand	---
---	3.91	791+65	---	---	---	---	---	STH 16/STH 162 North
B-17	4.08	800+62	6' RT	6"	2"	8"	Sand	---
B-18	4.29	811+71	6' RT	7"	3"	7"	Sand	---
---	4.40	817+52	---	---	---	---	---	STH 16/STH 162 South
B-19	4.55	825+44	12' RT	5"	2" RAP/2" BAD	---	Sand	---
B-20	4.79	838+11	6' LT	5"	2" RAP/6" BAD	6"	Sand	---
---	4.91	844+45	---	---	---	---	---	CTH E
B-21	5.02	850+26	10' LT	6"	1" RAP/4" BAD	7"	Sand	---
B-22	5.23	861+34	6' LT	6"	4"	8"	Sand	---
B-23	5.48	874+54	12' LT	7"	2" RAP/4" BAD	---	Sand	---
B-24	5.71	886+69	5' RT	7"	4"	7"	Sand	---
B-25	5.94	898+83	9' RT	8"	3"	7"	Sand	---
B-26	6.11	907+81	6' RT	6"	6"	8"	Sand	---
B-27	6.36	921+01	12' RT	6"	1" RAP/8" BAD	---	Sand	---
B-28	6.54	930+51	6' LT	6"	4"	10"	Sand	---
B-29	6.76	942+13	12' LT	6"	1" RAP/9" BAD	-	Sand	---
B-30	7.00	954+80	6' LT	7"	5"	8"	Sand	---
B-31	7.26	968+53	9' LT	6"	4" BAD/3" RAP	7"	Sand	---
B-32	7.52	982+26	6' RT	7"	6"	7"	Sand	---
---	7.59	985+95	---	---	---	---	---	Piske Road
B-33	7.77	995+46	12' RT	6"	10"	---	Sand	---
B-34	8.01	1008+13	6' RT	6"	5"	6"	Sand	---
---	8.10	1012+88	---	---	---	---	---	CTH J
B-35	8.29	1022+91	9' RT	6"	5"	6"	Sand	---
---	8.35	1026+08	---	---	---	---	---	Big Creek Bridge

TYPICAL SECTION 1

STA 596+79 TO 609+67

TYPICAL SECTION 2

STA 609+67 TO 664+60

AVG HMA DEPTH - 4.8 INCHES

AVG PCC DEPTH - 5.1 INCHES

TYPICAL SECTION 3

STA 664+60 TO 1027+20

AVG HMA DEPTH - 6.1 INCHES

SUPERELEVATION DATA

STH 16

Curve #1
PI_{STA}=varies (Mill-2-IN, PAVE 2-IN HERE)

Station	Type	Left	Right
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---

Curve #2
PI_{STA}=652+78.37

Station	Type	Left	Right
646+32.72	End NC	-0.02	-0.02
646+86.24	Level Crown	0.00	-0.02
647+39.75	Rev. Crown	0.02	-0.02
647+85.24	Begin FS	0.037	-0.037
657+64.93	End FS	0.037	-0.037
658+10.41	Rev. Crown	0.02	-0.02
658+63.93	Level Crown	0.00	-0.02
659+17.44	Begin NC	-0.02	-0.02

Curve #3
PI_{STA}=713+06.07

Station	Type	Left	Right
704+30.00	End NC	-0.02	-0.02
704+83.33	Level Crown	0.00	-0.02
705+36.67	Rev. Crown	0.02	-0.02
705+55.33	Begin FS	0.027	-0.027
720+47.47	End FS	0.027	-0.027
720+66.13	Rev. Crown	0.02	-0.02
721+19.47	Level Crown	0.00	-0.02
721+72.80	Begin NC	-0.02	-0.02

Curve #4
PI_{STA}=745+62.06

Station	Type	Left	Right
738+31.10	End NC	-0.02	-0.02
738+84.61	Level Crown	-0.02	0.00
739+38.12	Rev. Crown	-0.02	0.02
739+83.61	Begin FS	-0.037	0.037
751+30.22	End FS	-0.037	0.037
751+75.71	Rev. Crown	-0.02	0.02
752+29.22	Level Crown	-0.02	0.00
752+82.73	Begin NC	-0.02	-0.02

Curve #5
PI_{STA}=838+58.76

Station	Type	Left	Right
830+74.22	End NC	-0.02	-0.02
831+27.74	Level Crown	0.00	-0.02
831+81.25	Rev. Crown	0.02	-0.02
832+26.74	Begin FS	0.037	-0.037
844+77.59	End FS	0.037	-0.037
845+23.07	Rev. Crown	0.02	-0.02
845+76.59	Level Crown	0.00	-0.02
846+30.10	Begin NC	-0.02	-0.02

Curve #6
PI_{STA}=856+41.09

Station	Type	Left	Right
851+52.79	End NC	-0.02	-0.02
852+06.12	Level Crown	-0.02	0.00
852+59.46	Rev. Crown	-0.02	0.02
852+78.12	Begin FS	-0.027	0.027
860+02.88	End FS	-0.027	0.027
860+21.55	Rev. Crown	-0.02	0.02
860+74.88	Level Crown	-0.02	0.00
861+28.21	Begin NC	-0.02	-0.02

Curve #7
PI_{STA}=875+93.69

Station	Type	Left	Right
867+12.99	End NC	-0.02	-0.02
867+66.33	Level Crown	-0.02	0.00
868+19.66	Rev. Crown	-0.02	0.02
868+86.33	Begin FS	-0.045	0.045
882+68.47	End FS	-0.045	0.045
883+35.13	Rev. Crown	-0.02	0.02
883+88.47	Level Crown	-0.02	0.00
884+41.80	Begin NC	-0.02	-0.02

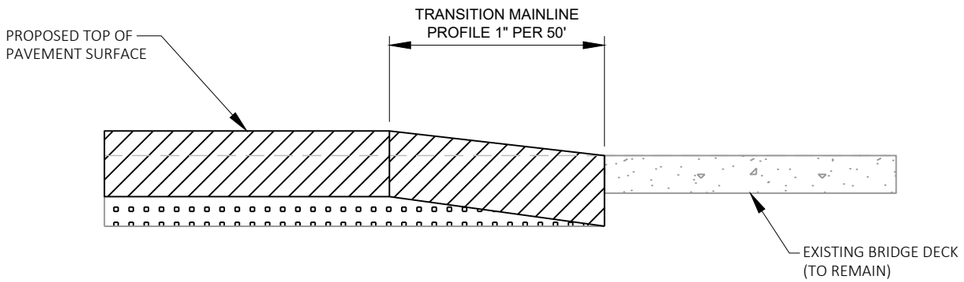
Curve #8
PI_{STA}=942+65.20

Station	Type	Left	Right
937+56.34	End NC	-0.02	-0.02
938+09.67	Level Crown	-0.02	0.00
938+63.01	Rev. Crown	-0.02	0.02
938+81.67	Begin FS	-0.027	0.027
946+47.36	End FS	-0.027	0.027
946+66.03	Rev. Crown	-0.02	0.02
947+19.36	Level Crown	-0.02	0.00
947+72.70	Begin NC	-0.02	-0.02

Curve #9
PI_{STA}=1013+77.92

Station	Type	Left	Right
1007+22.04	End NC	-0.02	-0.02
1007+75.37	Level Crown	0.00	-0.02
1008+28.70	Rev. Crown	0.02	-0.02
1008+47.37	Begin FS	0.027	-0.027
1019+05.02	End FS	0.027	-0.027
1019+23.69	Rev. Crown	0.02	-0.02
1019+77.02	Level Crown	0.00	-0.02
1020+30.35	Begin NC	-0.02	-0.02

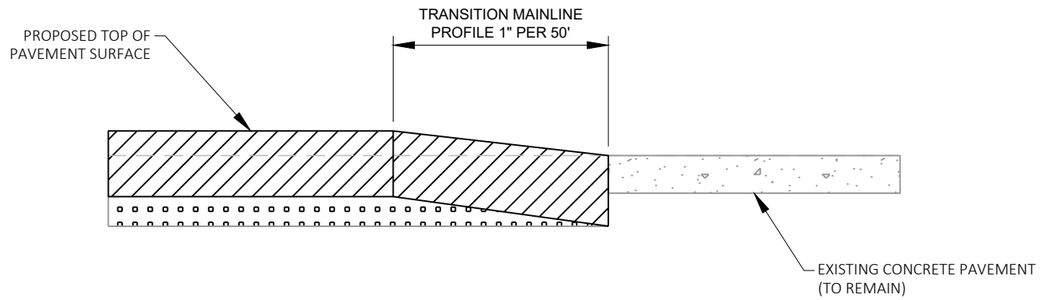
NOT TO SCALE



MILL / REMOVE AND PAVE TRANSITION DETAIL TO BRIDGE

STA 793+79 (B-32-176), 1027+20 (B-32-555)

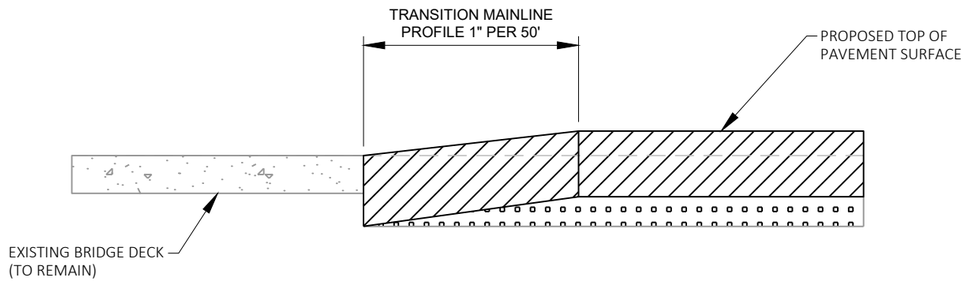
NOT TO SCALE



MILL / REMOVE AND PAVE TO CONCRETE MAINLINE PAVEMENT TRANSITION DETAIL

STA 827+06 (REMOTE SCALE SITE)

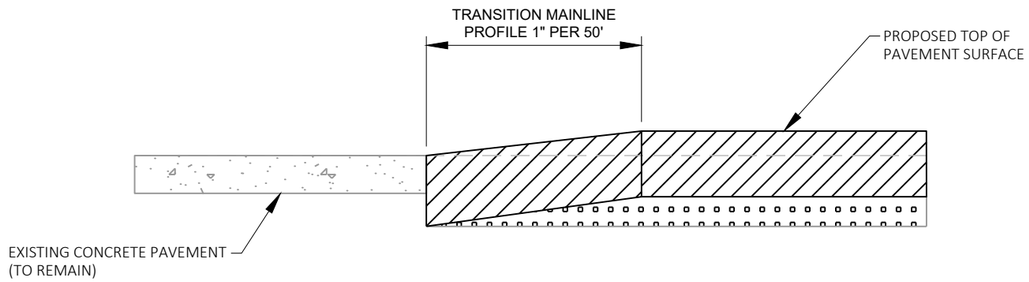
NOT TO SCALE



BRIDGE TO MILL / REMOVE AND PAVE TRANSITION DETAIL

STA 795+19 (B-32-176)

NOT TO SCALE



CONCRETE MAIN LINE PAVEMENT TO MILL / REMOVE AND PAVE TRANSITIONAL DETAIL

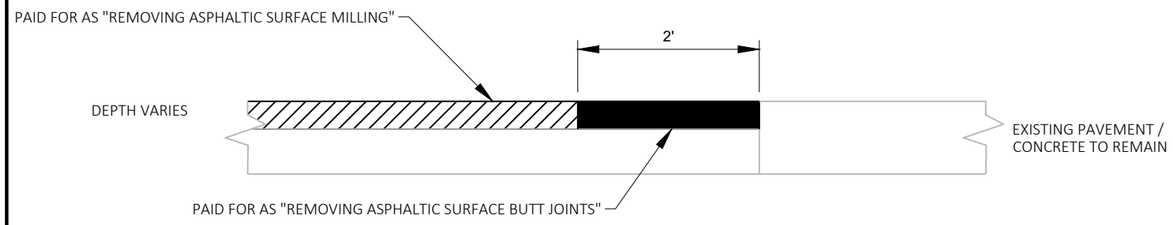
STA 830+25 (REMOTE SCALE SITE)

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CONSTRUCTION DETAIL	SHEET 12	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 01
PLOT DATE : 7/29/2021 11:13 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

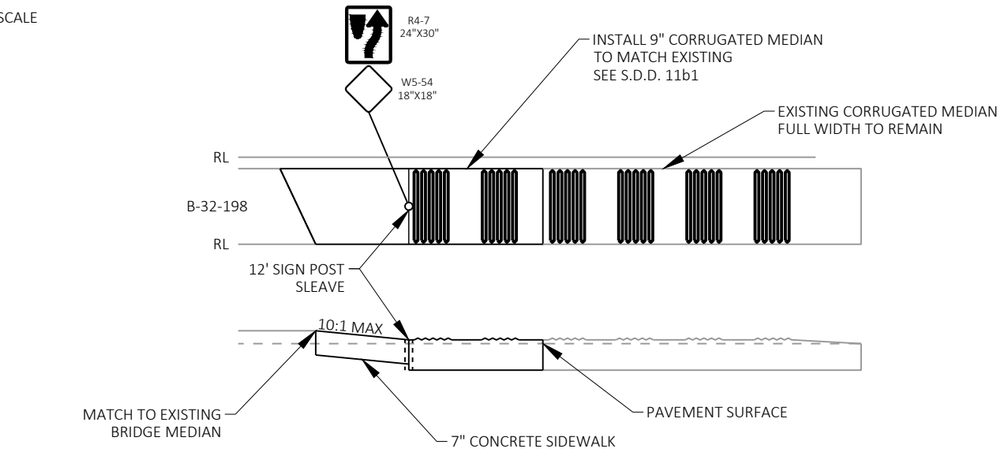
NOT TO SCALE



REMOVING ASPHALTIC SURFACE BUTT JOINTS

STA VARIES

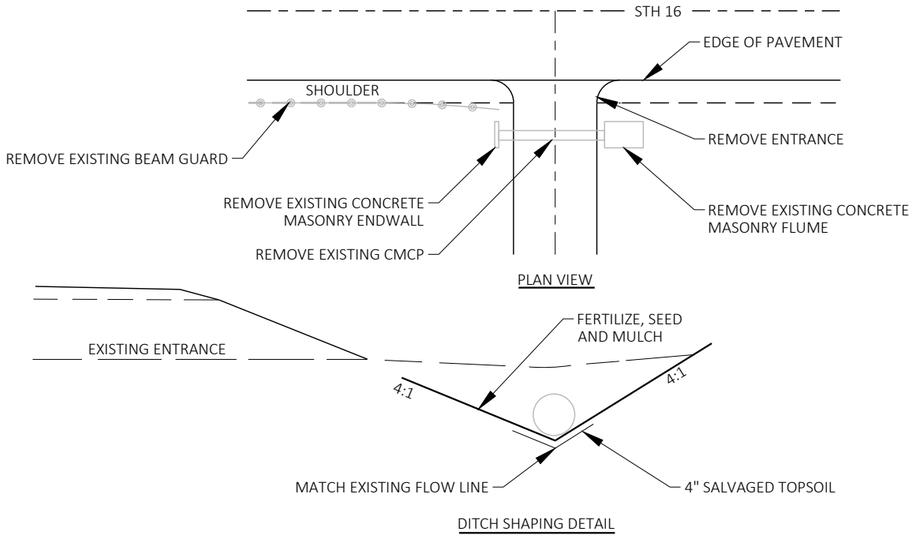
NOT TO SCALE



PROPOSED CORRUGATED MEDIAN

2

NOT TO SCALE

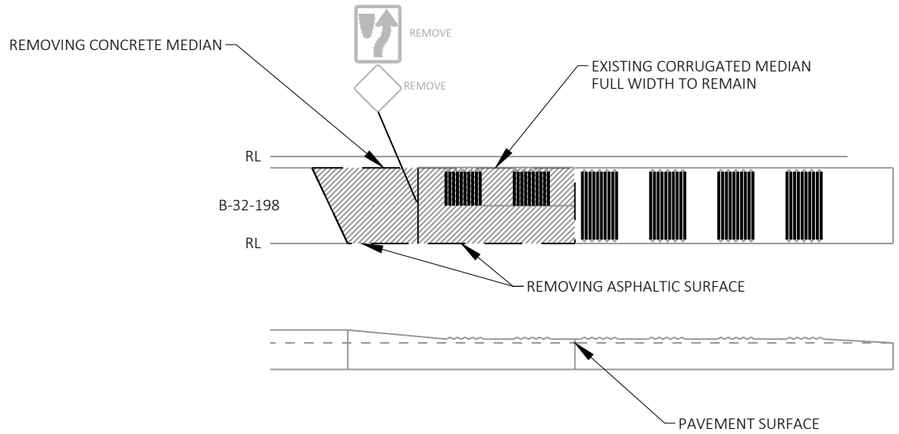


PLAN VIEW

DITCH SHAPING DETAIL

REMOVING ENTRANCE

STA 744+75 - 745+50 (RT)



CORRUGATED MEDIAN REMOVAL

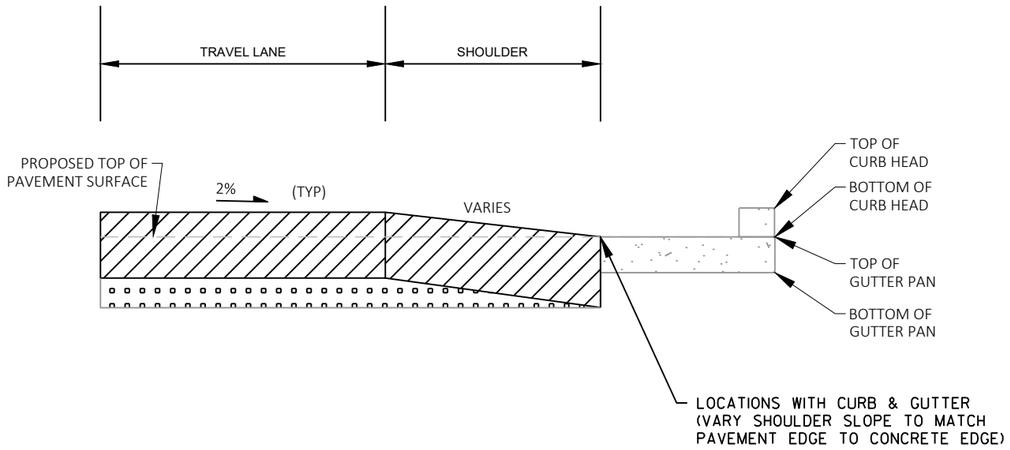
STA 596+76 TO 597+38

NOTES:
COMMON EXCAVATION: 3 CY
CONCRETE PAVEMENT REMOVAL: 78 SY
ASPHALTIC SURFACE REMOVAL: 26 SY
CONCRETE SIDEWALK 7" INSTALLATION: 468 SF
CORRUGATED MEDIAN INSTALLATION: 468 SF

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CONSTRUCTION DETAIL	SHEET 13	E

2

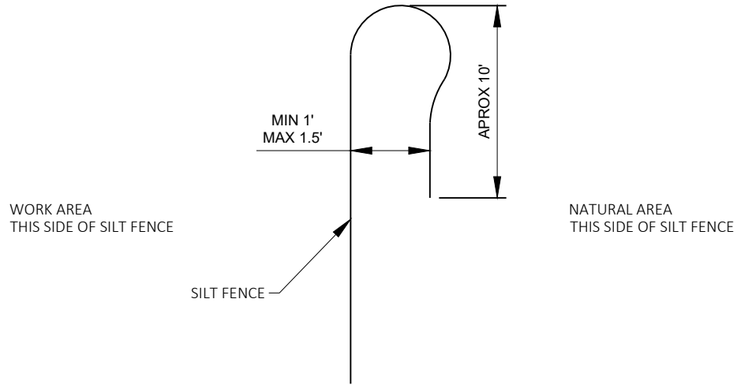
NOT TO SCALE



CURB & GUTTER LOCATIONS DETAIL (WARP PAVED SHOULDER)

STA VARIES

NOT TO SCALE

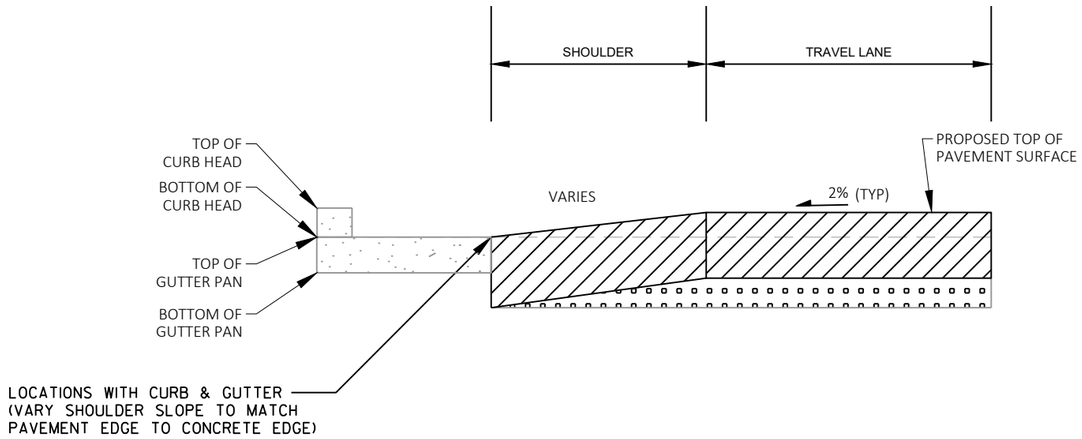


SILT FENCE "J-HOOKS" TURN AROUND - PLAN VIEW

INSTALL AT THE ENDS OF ALL SILT FENCE

2

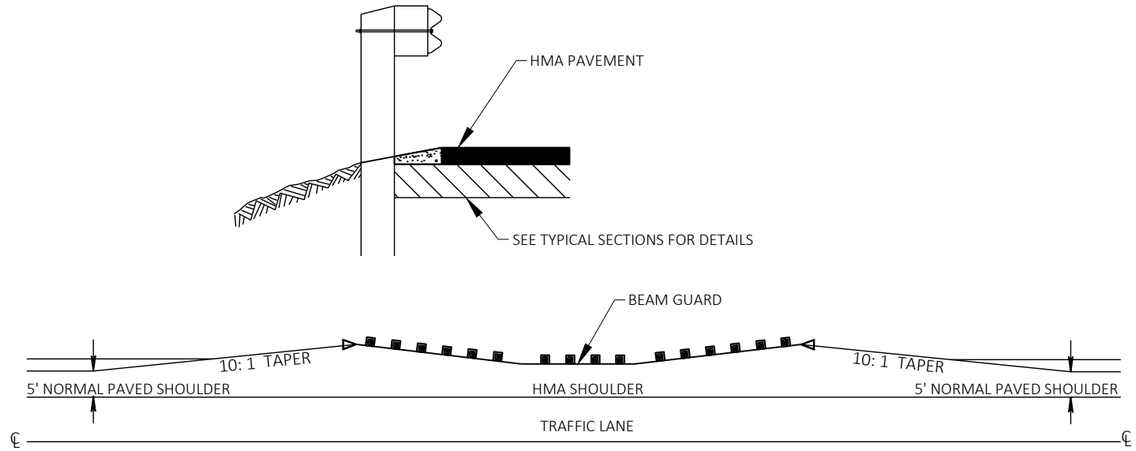
NOT TO SCALE



CURB & GUTTER LOCATIONS DETAIL (WARP PAVED SHOULDER)

STA VARIES

NOT TO SCALE



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

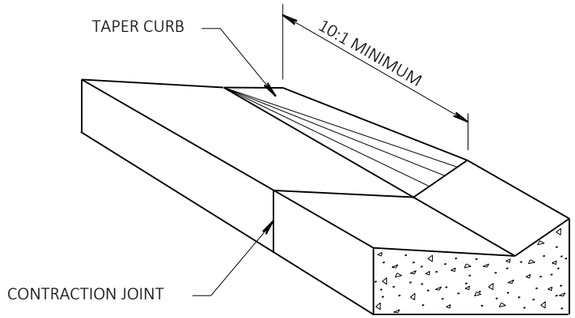
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CONSTRUCTION DETAIL	SHEET 14	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 03

PLOT DATE : 7/29/2021 11:13 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

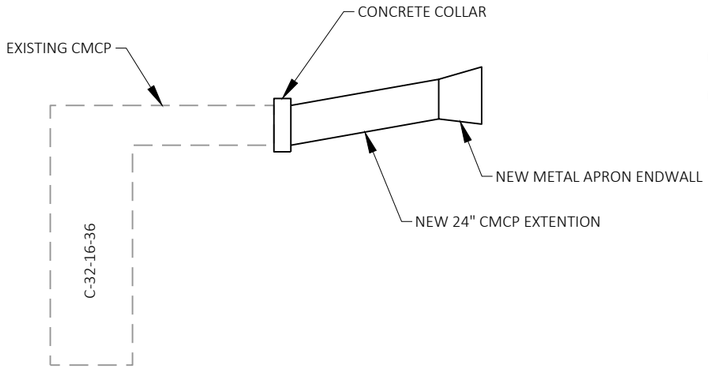
NOT TO SCALE



CURB HEAD TRANSITION DETAIL

TO BE USED FOR THE FOLLOWING AREAS:
- THE TERMINATION OF CURB
- NEAR BEAM GUARD TERMINALS WHERE CURB HEAD IS NOT ALLOWED
- AT DRIVEWAY OPENINGS / CURB CUTS FOR ACCESS

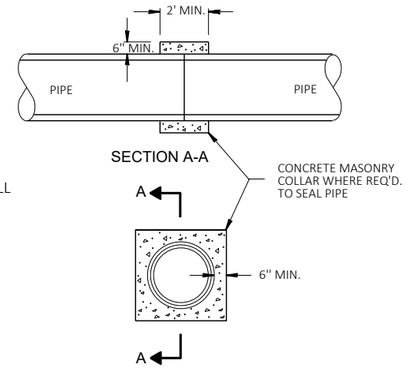
NOT TO SCALE



CULVERT PIPE MODIFICATION DETAIL C-32-16-36

STA 613+95 TO 614+18.5 LT

NOTES:
REMOVE MASONRY (ENDWALL) (2 CY)
INSTALL (EXTEND) 24" CMCP EASTERLY (20')
INSTALL 24" METAL APRON ENDWALL (3.5')
INSTALL CULVERT PIPE MARKER POST
PLACE 9 CY EMBANKMENT



CONCRETE COLLAR DETAIL

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PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLAN: CONSTRUCTION DETAILS	SHEET 15	E

2

2

N

GRADING, SHAPING, AND
FINISHING FOR CULVERT PIPE
SPV 0060.04

608+00 609+00 610+00 611+00 612+00 613+00 614+00 615+00 616+00 617+00 618+00 619+00 620+00 621+00 622+00 623+

EROSION CONTROL LEGEND

- 4-INCH SALVAGED TOPSOIL, MULCHING, SEEDING MIX NO. 20, FERTILIZER TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK

N

BARRIER SYSTEM GRADING
SHAPING FINISHING
614.0010

PT: 657+97.92

PC: 64

648+00 649+00 650+00 651+00 652+00 653+00 654+00 655+00 656+00 657+00 658+00 659+00 660+00 661+00 662+00 663+00

EROSION CONTROL LEGEND

- 4-INCH SALVAGED TOPSOIL, MULCHING, SEEDING MIX NO. 20, FERTILIZER TYPE B
- SILT FENCE
- SURFACE WATER FLOW

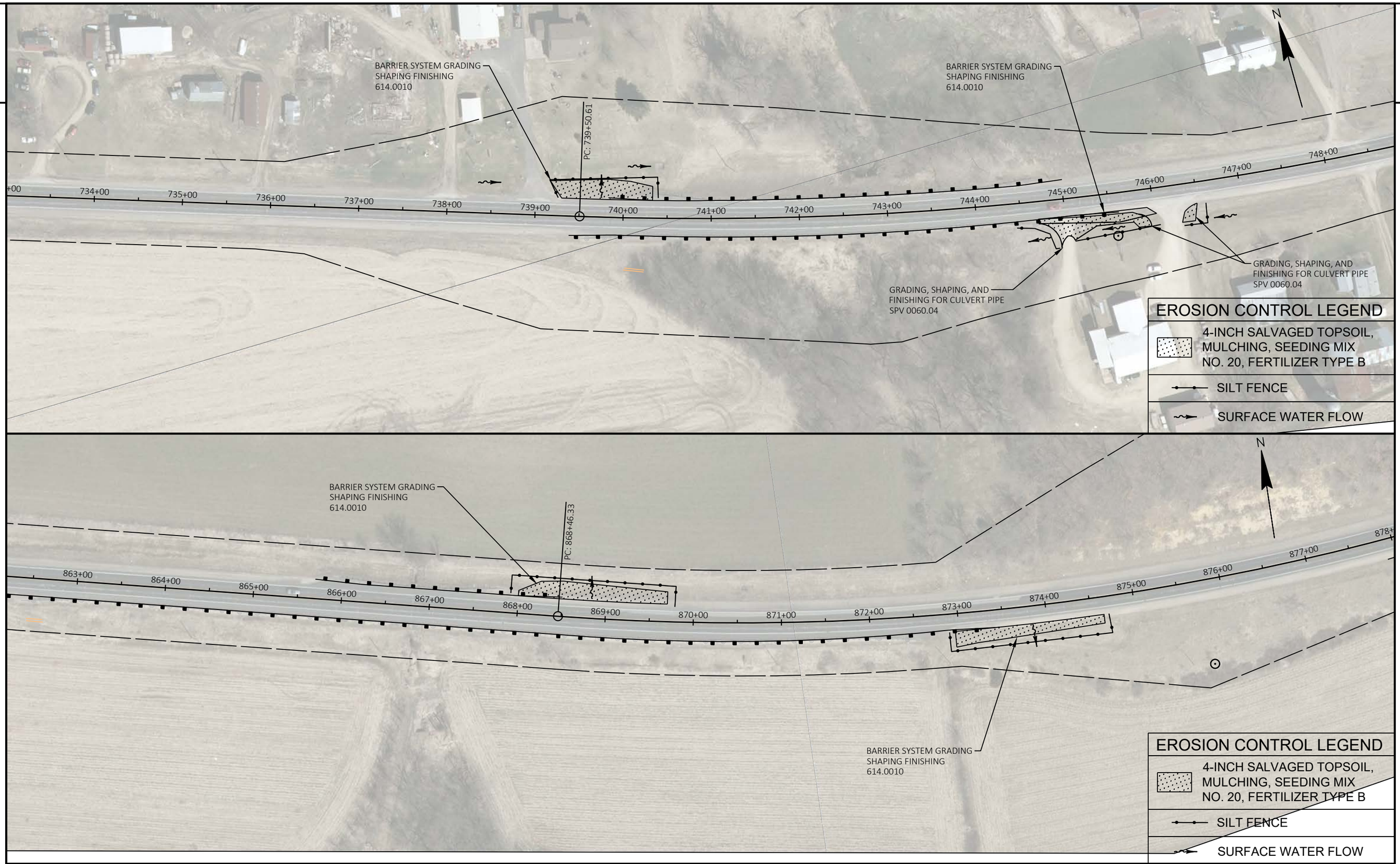
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 16	E

FILE NAME : C:\CIVIL 3D PROJECTS\75700534\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - Sheet - (21)

PLOT DATE : 9/20/2021 4:53 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



2

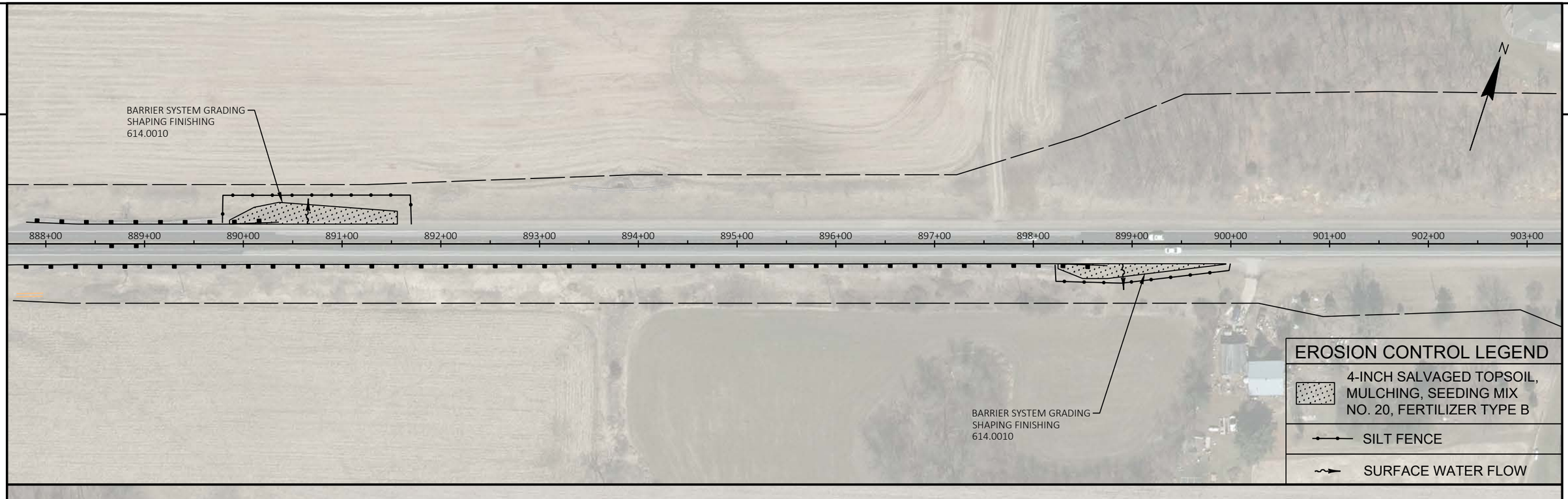
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 17	E

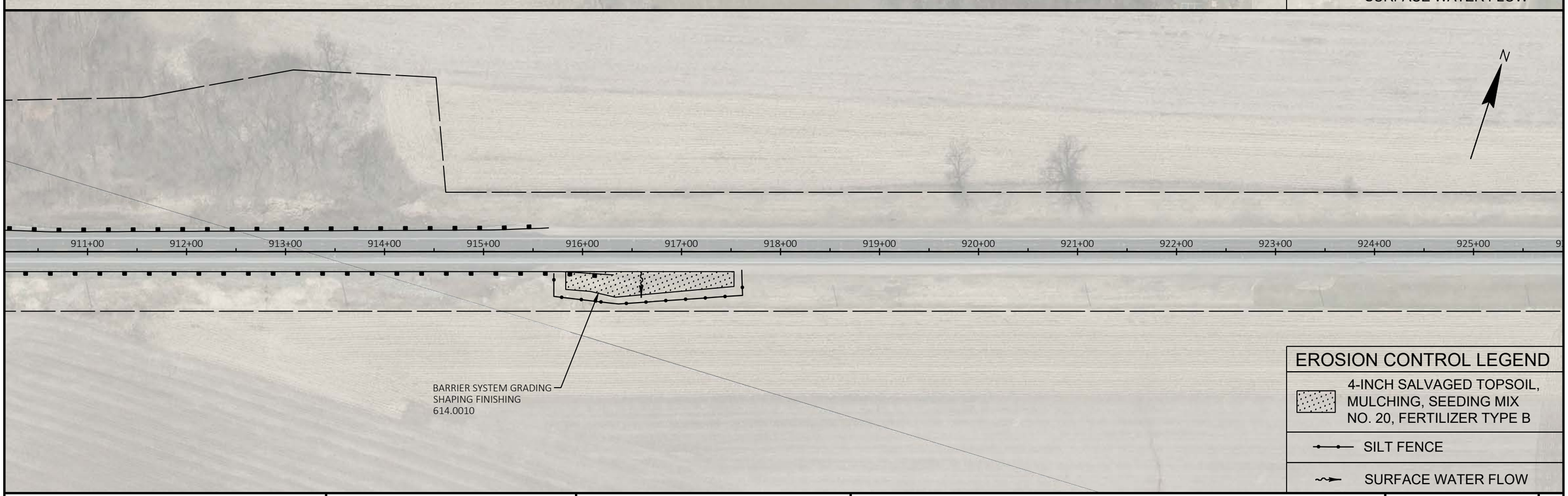
FILE NAME : C:\CIVIL 3D PROJECTS\75700534\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - Sheet - (22)

PLOT DATE : 9/20/2021 4:53 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2





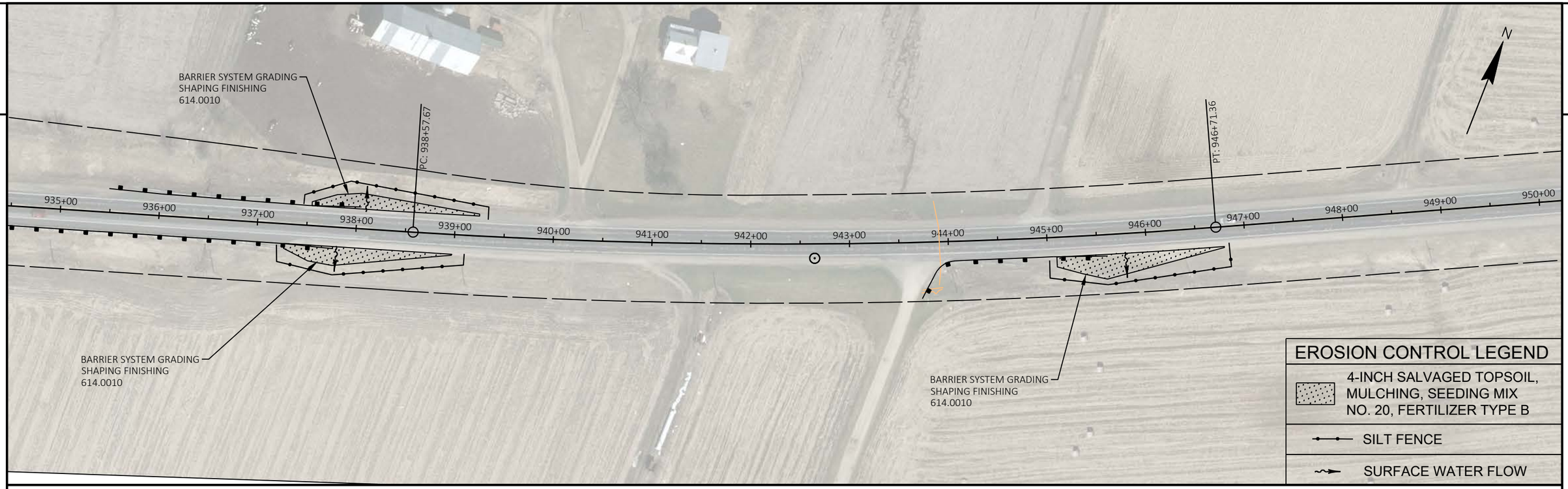
2

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 18	E

FILE NAME : C:\CIVIL 3D PROJECTS\75700534\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - Sheet - (23)

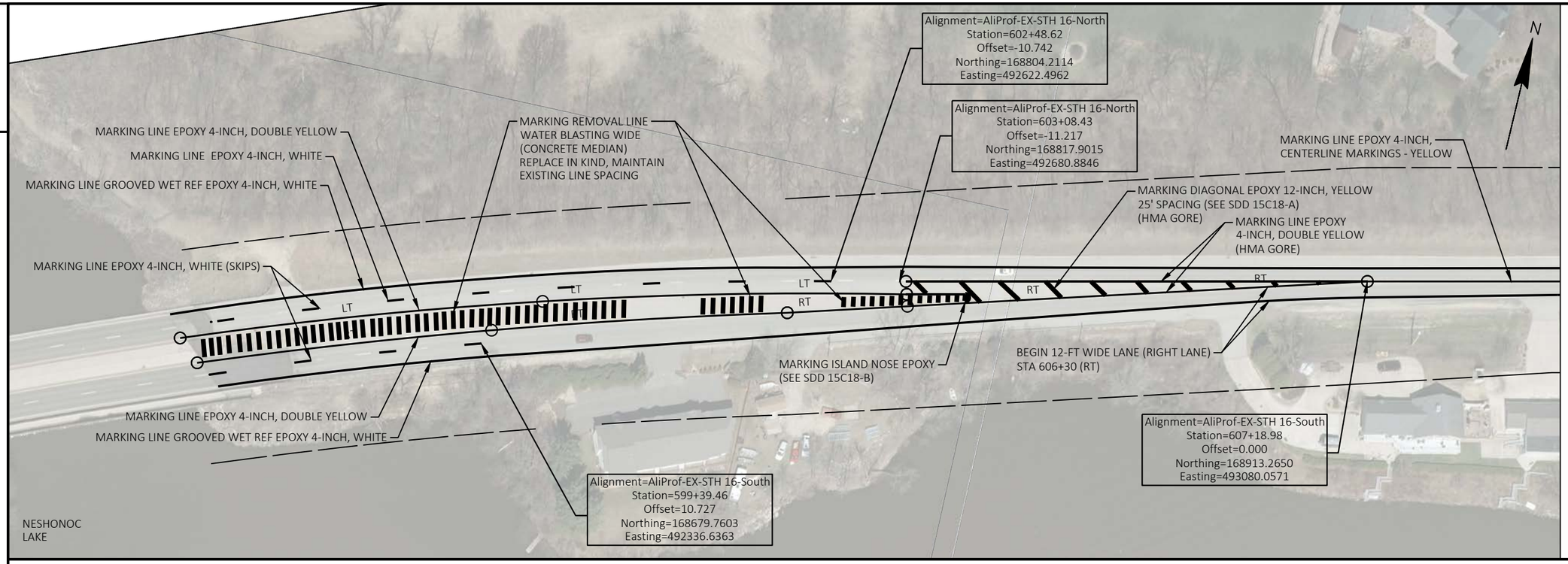
PLOT DATE : 9/20/2021 4:53 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 19	E

FILE NAME : C:\CIVIL 3D PROJECTS\75700534\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - Sheet - (24)
PLOT DATE : 9/20/2021 4:53 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



THIS VIEW WAS INTENTIONALLY LEFT BLANK

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PAVEMENT MARKINGS	SHEET 20	E

2

2

108

162

27

53

16

90

157

END DETOUR
STH 16

PROJECT LOCATION

Sparta

W. Salem

Bangor

La Crosse

BEGIN DETOUR
IH 90 EXIT 5

SEE DETOUR ROUTE DETAIL A

SEE DETOUR ROUTE DETAIL B

SEE DETOUR ROUTE DETAIL C

SEE DETOUR ROUTE DETAIL D

FORT McCOY MILITARY

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	DETOUR ROUTE - OVERVIEW	SHEET 21	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027001-DT-OVERVIEW.DWG
LAYOUT NAME - 027001-dt-overview

PLOT DATE : 7/26/2021 10:08 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:2 MI

WISDOT/CADDS SHEET 42

2

53

16

INTERSTATE 90

157

INTERSTATE 90

16

M4-8A
24"X18"
END
DETOUR

R11-3
60" X 30"
ROAD CLOSED
6 MILES AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

DETOUR ROUTE

M3-2
24"X12"
EAST
M1-6
24"X24"
16
DETOUR
AHEAD
W20-2A

M4-8
24"X12"
DETOUR
M3-2
24"X12"
EAST
M1-6
24"X24"
16
MO5-2R
21"X21"

M4-8
24"X12"
DETOUR
M3-2
24"X12"
EAST
M1-6
24"X24"
16
MO6-2
21"X21"

R11-3
60" X 30"
ROAD CLOSED
NO ACCESS BANGOR
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

EAST
M3-2
24"X12"
16
M1-6
24"X24"

R11-3
60" X 30"
ROAD CLOSED
7 MILES AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

La Crosse

16

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- WORK AREA

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	DETOUR ROUTE DETAIL A	SHEET 22	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027003-DT-DETAIL-A.DWG
LAYOUT NAME - 027003-dt-detail

PLOT DATE : 7/26/2021 10:08 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- MB — PORTABLE CHANGABLE MESSAGE BOARD
- SIGN ON TEMPORARY SUPPORT
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- WORK AREA

PCMS MESSAGE BOARD	
PRE CONSTRUCTION WARNING	
STH 16 ROAD WORK	STARTING XX/XX/XX

C

108

ROAD CLOSED AHEAD W20-3A

OLD 16 RD.

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC

TYPE III BARRICADE

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED 500 FT W20-3D

DE

162

2

M

MB

ROAD CLOSED 500 FT W20-3D

R11-3 60" X 30" ROAD CLOSED 1 1/2 MILES AHEAD LOCAL TRAFFIC ONLY

TYPE III BARRICADE

ROAD CLOSED AHEAD W20-3A

C

R11-3 60" X 30" ROAD CLOSED 1/2 MILES AHEAD LOCAL TRAFFIC ONLY

TYPE III BARRICADE

16

GARLAND ST.

TYPE III BARRICADE

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC

TYPE III BARRICADE

16

W. Salem

M

INTERSTATE 90

B

162

DETOUR ROUTE

162

B

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	DETOUR ROUTE DETAIL B	SHEET 23	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027005-DT-DETAIL-B.DWG
LAYOUT NAME - 027005-dt-detail

PLOT DATE : 7/26/2021 10:08 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

2

ROAD CLOSED AHEAD W20-3A

COVERING SIGN TYPE II

COVERING SIGN TYPE II (PARTIAL COVERAGE)

BANGOR
SPARTA
WEST SALEM

JCT 16

162

R11-4 60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

DE

ROAD CLOSED 500 FT W20-3D

E

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED 500 FT W20-3D

COVERING SIGN TYPE II (PARTIAL COVERAGE)

16

SEE FLAGGING DETAIL

WEST 16 | SOUTH 162 | EAST 16

COVERING SIGN TYPE II

COVERING SIGN TYPE II (PARTIAL COVERAGE)

M4-8 24"X12" DETOUR
M1-6 24"X24" 16
MO5-1R 21"X21"

M4-8 24"X12" DETOUR
M1-6 24"X24" 16
MO6 21"X21"

M4-8 24"X12" DETOUR
M1-6 24"X24" 16

TYPE III BARRICADE

WEST 16 | NORTH 162 | EAST 16

COVERING SIGN TYPE II

WEST SALEM
MELROSE
SPARTA

COVERING SIGN TYPE II (PARTIAL COVERAGE)

WEST 16 | NORTH 162 | EAST 16 | 90

COVERING SIGN TYPE II

162

M4-8 24"X12" DETOUR WEST
M3-4 24"X12"
M1-6 24"X24" 16
MO6 21"X21"

M4-8 24"X12" DETOUR WEST
M3-4 24"X12"
M1-6 24"X24" 16
MO5-1R 21"X21"

B

Bangor

M4-8 24"X12" DETOUR EAST
M3-2 24"X12"
M1-6 24"X24" 16
MO5-1R 21"X21"

M4-8 24"X12" DETOUR EAST
M3-2 24"X12"
M1-6 24"X24" 16
MO6 21"X21"

162

R11-4 60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED AHEAD W20-3A

TYPE III BARRICADE

U

R11-2 48" X 30"
ROAD CLOSED
TYPE III BARRICADE

BC

R11-3 60" X 30"
ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

16

ROAD CLOSED AHEAD W20-3A

MB

ROAD CLOSED 500 FT W20-3D

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED AHEAD W20-3A

J

ROAD CLOSED 500 FT W20-3D

ROAD CLOSED AHEAD W20-3A

TYPE III BARRICADE

DETOUR ROUTE

INTERSTATE 90

B

PCMS MESSAGE BOARD	
PRE CONSTRUCTION WARNING	
STH 16 ROAD WORK	STARTING XX/XX/XX

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- MB — PORTABLE CHANGABLE MESSAGE BOARD
- SIGN ON TEMPORARY SUPPORT
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- WORK AREA

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	DETOUR ROUTE DETAIL C	SHEET 24	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027007-DT-DETAIL-C.DWG
LAYOUT NAME - 027007-dt-detail
PLOT DATE : 7/26/2021 10:08 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:0.5 MI
WISDOT/CADDS SHEET 42

2

2

27

21

16

Sparta

M3-4 24"X12" WEST
M1-6 24"X24" 16
DETOUR AHEAD W20-2A

R11-3 60" X 30" ROAD CLOSED 5 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

16 M1-6 24"X24"
END DETOUR M4-8A 24"X18"

R11-3 60" X 30" ROAD CLOSED 5 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

16

R11-3 60" X 30" ROAD CLOSED 3 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

HAMMER RD.

M4-8 24"X12" DETOUR
M3-4 24"X12" WEST
M1-6 24"X24" 16
MO5-2R 21"X21"

M4-8 24"X12" DETOUR
M3-4 24"X12" WEST
M1-6 24"X24" 16
MO5-2R 21"X21"

M4-8 24"X12" DETOUR
M3-4 24"X12" WEST
M1-6 24"X24" 16
MO6-2 21"X21"

27

M4-8 24"X12" DETOUR
M3-4 24"X12" WEST
M1-6 24"X24" 16
MO6 21"X21"

M4-8 24"X12" DETOUR
M3-4 24"X12" WEST
M1-6 24"X24" 16
MO5-1L 21"X21"

DETOUR AHEAD W20-2A

INTERSTATE 90

M4-8 24"X12" DETOUR
M3-2 24"X12" EAST
M1-6 24"X24" 16
MO5-2R 21"X21"

M4-8 24"X12" DETOUR
M3-2 24"X12" EAST
M1-6 24"X24" 16
MO6-2 21"X21"

M4-8 24"X12" DETOUR
M3-2 24"X12" EAST
M1-6 24"X24" 16
MO5-1L 21"X21"

DETOUR ROUTE

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	DETOUR ROUTE DETAIL D	SHEET 25	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027009-DT-DETAIL-D.DWG
LAYOUT NAME - 027009-dt-detail-d

PLOT DATE : 7/26/2021 10:09 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

2

2

162

ROAD WORK AHEAD W20-1A

RUMBLE STRIPS AHEAD W21-6S

ONE LANE ROAD AHEAD W20-4A

W20-7A

END ROAD WORK G20-2A 48"X24"

R11-4 60" X 30"

ROAD CLOSED TO THRU TRAFFIC

TYPE III BARRICADE

TYPE III BARRICADE

E

16

STH 162 TO REMAIN OPEN WITH FLAGGERS
SEE SDD 15C12

W20-7A

ONE LANE ROAD AHEAD W20-4A

RUMBLE STRIPS AHEAD W21-6S

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48"X24"

162

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WTH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

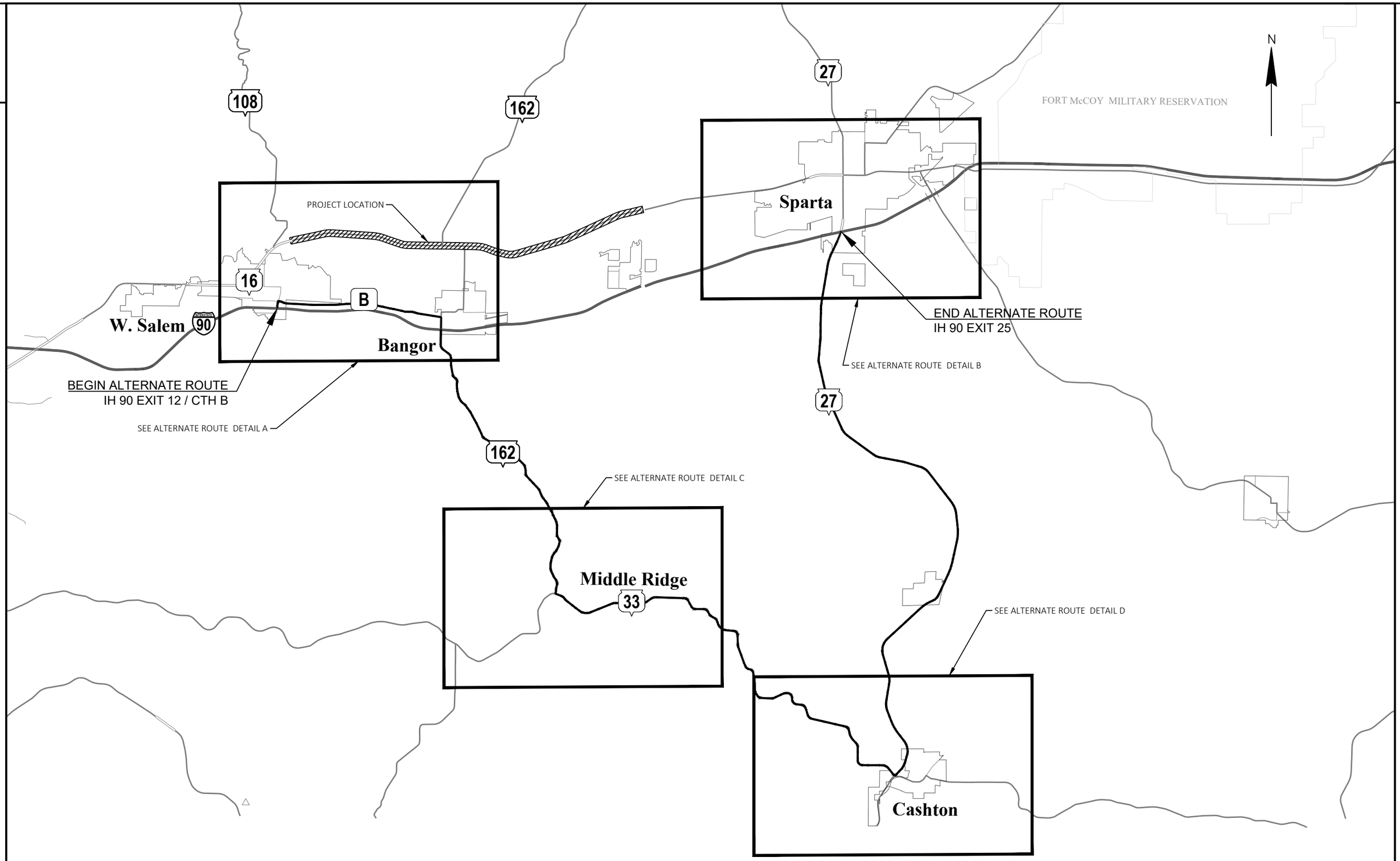
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

WORK AREA

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	DETOUR ROUTE FLAGGING DETAIL	SHEET 26	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027011-DT-FLAGGING-DETAIL.DWG
LAYOUT NAME - 027007-dt-detail

PLOT DATE : 7/26/2021 10:09 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:1000 FT



PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	ALTERNATIVE ROUTE - OVERVIEW	SHEET 27	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027013-DT-ALT DETOUR ROUTE.DWG
LAYOUT NAME - 027001-dt-overview

PLOT DATE : 7/29/2021 11:10 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:2 MI

WISDOT/CADDS SHEET 42

2

2

N

C

108

DE

162

E

M

16

C

W. Salem

16

F E H

G

BEGIN ALTERNATE ROUTE
IH 90 EXIT 12 / CTH B

J

M

90

B

162

Bangor

A B C I D I E F J

E F H G

MO4-1A 36"X18" / ALT EAST / M3-2 36"X18" / M1-51 36"X36" / MO5-2R 30"X30" — A

MO4-1A 36"X18" / ALT EAST / M3-2 36"X18" / M1-51 36"X36" / M06-2 30"X30" — B

MO4-1A 36"X18" / ALT EAST / M3-2 36"X18" / M1-51 24"X12" / MO5-1L 21"X21" — C

MO4-1A 24"X12" / ALT EAST / M3-2 24"X12" / M1-51 24"X24" / MO6 21"X21" — D

MO4-1A 24"X12" / ALT EAST / M3-2 24"X12" / M1-51 24"X24" / MO5-1R 21"X21" — E

MO4-1A 24"X12" / ALT EAST / M3-2 24"X12" / M1-51 24"X24" / MO6 21"X21" — F

MO4-1A 24"X12" / ALT WEST / M3-4 24"X12" / M1-51 24"X24" / MO6 21"X21" — G

MO4-1A 24"X12" / ALT WEST / M3-4 24"X12" / M1-51 24"X24" / MO5-1L 21"X21" — H

MO4-1A 24"X12" / ALT WEST / M3-4 24"X12" / M1-51 24"X24" / MO6 21"X21" — I

MO4-1A 24"X12" / ALT WEST / M3-4 24"X12" / M1-51 24"X24" / MO5-1R 21"X21" — J

162

ALTERNATE ROUTE

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	ALTERNATE ROUTE DETAIL A	SHEET 28	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027015-DT-ALT DETOUR ROUTE.DWG
LAYOUT NAME - 027007-dt-detail

PLOT DATE : 7/29/2021 11:11 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

2

2

N

27

21

Sparta

16

16

END ALTERNATE ROUTE
IH90 EXIT 25

MO4-1A
24"X12"
ALT
M3-4
24"X12"
WEST
M1-51
24"X24"
90
MO6
21"X21"

90

27

ALTERNATE ROUTE

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	ALTERNATE ROUTE DETAIL B	SHEET 29	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027017-DT-ALT DETOUR ROUTE.DWG
LAYOUT NAME - 027001-dt-overview

PLOT DATE : 7/29/2021 11:11 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

2

N

MO4-1A 24"X12"
ALT
M3-2 24"X12"
EAST
INTERSTATE
M1-51 24"X24"
90
MO6 21"X21"

MO4-1A 24"X12"
ALT
M3-2 24"X12"
EAST
INTERSTATE
M1-51 24"X24"
90
MO5-1L 21"X21"

162

MO4-1A 24"X12"
ALT
M3-4 24"X12"
WEST
INTERSTATE
M1-51 24"X24"
90
MO6 21"X21"

MO4-1A 24"X12"
ALT
M3-4 24"X12"
WEST
INTERSTATE
M1-51 24"X24"
90
MO5-1R 21"X21"

33

Middle Ridge

ALTERNATE ROUTE

33

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	ALTERNATE ROUTE DETAIL C	SHEET 30	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027019-DT-ALT DETOUR ROUTE.DWG
LAYOUT NAME - 027001-dt-overview

PLOT DATE : 7/29/2021 11:12 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

2

2

N

ALTERNATE ROUTE

MO4-1A 24"X12" ALT
M3-4 24"X12" WEST
M1-51 24"X24" INTERSTATE 90
MO6 21"X21"

MO4-1A 24"X12" ALT
M3-4 24"X12" WEST
M1-51 24"X24" INTERSTATE 90
MO5-1R 21"X21"

MO4-1A 24"X12" ALT
M3-2 24"X12" EAST
M1-51 24"X24" INTERSTATE 90
MO5-1L 21"X21"

MO4-1A 24"X12" ALT
M3-2 24"X12" EAST
M1-51 24"X24" INTERSTATE 90
MO6 21"X21"

Cashton

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	ALTERNATE ROUTE DETAIL D	SHEET 31	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\027021-DT-ALT DETOUR ROUTE.DWG
LAYOUT NAME - 027001-dt-overview

PLOT DATE : 7/29/2021 11:12 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

HMA PAVEMENT - PERCENT WITHIN LIMITS

Location	Station	Mixture Use:	Underlying Surface	Bid Item	Tons	Thickness	Quality Management Program to be used for:	
							Mixture Acceptance	Density Acceptance
12-ft Driving Lane	596+76 to 609+67	Upper Layer	Milled Surface	4 MT 58-28 S	628	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavement SPV.0055.01
12-ft Driving Lane	609+67 to 664+60	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	1641	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavement SPV.0055.01
12-ft Driving Lane	609+67 to 664+60	Lower Layer	Base Aggregate	4 MT 58-28 S	1641	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavement SPV.0055.01
12-ft Driving Lane	664+60 to 1027+20	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	10693	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavement SPV.0055.01
12-ft Driving Lane	664+60 to 1027+20	Lower Layer	Milled & Relayed HMA Surface	4 MT 58-28 S	10693	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavement SPV.0055.01
12-ft Bypass Lane	723+00 to 729+50 792+50 to 799+00 815+00 to 821+80 843+75 to 848+95	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	135	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
12-ft Bypass Lane	723+00 to 729+50 792+50 to 799+00 815+00 to 821+80 843+75 to 848+95	Lower Layer	Milled & Relayed HMA Surface	4 MT 58-28 S	135	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
12-ft Turn Lane	650+87 to 655+00 789+00 to 795+75 812+25 to 817+85 1008+50 to 1019+30 1010+20 to 1017+00	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	208	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
12-ft Turn Lane	650+87 to 655+00 789+00 to 795+75 812+25 to 817+85 1008+50 to 1019+30 1010+20 to 1017+00	Lower Layer	Milled & Relayed HMA Surface	4 MT 58-28 S	208	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
Paved Shoulder	596+76 to 609+67	Upper Layer	Milled Surface	4 MT 58-28 S	197	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
Paved Shoulder	596+76 to 609+67	Lower Layer	Base Aggregate	Asphaltic Surface	13	2	QMP as per SS 465	Acceptance by ordinary compaction
Paved Shoulder	609+67 to 1027+20	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	5736	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
Paved Shoulder	609+67 to 1027+20	Lower Layer	Varies	4 MT 58-28 S	5736	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
Side Roads	596+76 to 1027+20	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	536	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive
Side Roads	596+76 to 1027+20	Lower Layer	Varies	4 MT 58-28 S	536	2	PWL Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance testing by the department; Not eligible for incentive

7570-05-64

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0004	204.0100	Removing Concrete Pavement	SY	78.000	78.000
0006	204.0105	Removing Pavement Butt Joints	SY	183.000	183.000
0008	204.0110	Removing Asphaltic Surface	SY	599.000	599.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	160,822.000	160,822.000
0012	204.0130	Removing Curb	LF	339.000	339.000
0014	204.0150	Removing Curb & Gutter	LF	72.000	72.000
0016	204.0165	Removing Guardrail	LF	10,947.000	10,947.000
0018	204.0185	Removing Masonry	CY	5.000	5.000
0020	205.0100	Excavation Common	CY	3.000	3.000
0022	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7570-05-64	LS	1.000	1.000
0024	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	740.000	740.000
0026	213.0100	Finishing Roadway (project) 01. 7570-05-64	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,353.000	6,353.000
0030	330.0100	Mill and Relay	SY	149,312.000	149,312.000
0032	335.0100	Rubblizing	SY	12,207.000	12,207.000
0034	374.1010.S	QMP Mill and Relay Compaction	SY	149,312.000	149,312.000
0036	455.0605	Tack Coat	GAL	8,884.000	8,884.000
0038	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0040	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0042	460.6224	HMA Pavement 4 MT 58-28 S	TON	38,720.000	38,720.000
0044	465.0105	Asphaltic Surface	TON	13.000	13.000
0046	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	167.000	167.000
0048	465.0315	Asphaltic Flumes	SY	8.000	8.000
0050	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	71,866.000	71,866.000
0052	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	37,078.000	37,078.000
0054	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	2.000	2.000
0056	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	1.000	1.000
0058	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0060	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	58.000	58.000
0062	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	20.000	20.000
0064	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	457.000	457.000
0066	602.0420	Concrete Sidewalk 7-Inch	SF	468.000	468.000
0068	614.0010	Barrier System Grading Shaping Finishing	EACH	11.000	11.000
0070	614.2300	MGS Guardrail 3	LF	3,776.000	3,776.000
0072	614.2330	MGS Guardrail 3 K	LF	5,828.000	5,828.000
0074	614.2350	MGS Guardrail Short Radius	LF	38.000	38.000
0076	614.2500	MGS Thrie Beam Transition	LF	320.000	320.000
0078	614.2610	MGS Guardrail Terminal EAT	EACH	40.000	40.000
0080	614.2630	MGS Guardrail Short Radius Terminal	EACH	2.000	2.000
0082	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7570-05-64	EACH	1.000	1.000
0084	619.1000	Mobilization	EACH	1.000	1.000
0086	620.0100	Concrete Corrugated Median	SF	468.000	468.000
0088	624.0100	Water	MGAL	644.000	644.000
0090	628.1504	Silt Fence	LF	2,387.000	2,387.000
0092	628.1520	Silt Fence Maintenance	LF	2,387.000	2,387.000
0094	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0098	628.7504	Temporary Ditch Checks	LF	22.000	22.000

7570-05-64

Line	Item	Item Description	Unit	Total	Qty
0100	633.5200	Markers Culvert End	EACH	1.000	1.000
0102	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	1.000	1.000
0104	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	17.000	17.000
0106	638.2102	Moving Signs Type II	EACH	17.000	17.000
0108	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0110	642.5001	Field Office Type B	EACH	1.000	1.000
0112	643.0300	Traffic Control Drums	DAY	966.000	966.000
0114	643.0420	Traffic Control Barricades Type III	DAY	2,912.000	2,912.000
0116	643.0705	Traffic Control Warning Lights Type A	DAY	5,824.000	5,824.000
0118	643.0900	Traffic Control Signs	DAY	22,932.000	22,932.000
0120	643.0920	Traffic Control Covering Signs Type II	EACH	12.000	12.000
0122	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0124	643.5000	Traffic Control	EACH	1.000	1.000
0126	646.1020	Marking Line Epoxy 4-Inch	LF	48,901.000	48,901.000
0128	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	84,654.000	84,654.000
0130	646.3020	Marking Line Epoxy 8-Inch	LF	1,065.000	1,065.000
0132	646.6120	Marking Stop Line Epoxy 18-Inch	LF	51.000	51.000
0134	646.7120	Marking Diagonal Epoxy 12-Inch	LF	120.000	120.000
0136	646.8020	Marking Corrugated Median Epoxy	SF	3,728.000	3,728.000
0138	646.8220	Marking Island Nose Epoxy	EACH	1.000	1.000
0140	646.9210	Marking Removal Line Water Blasting Wide	LF	932.000	932.000
0142	648.0100	Locating No-Passing Zones	MI	8.152	8.152
0144	649.0105	Temporary Marking Line Paint 4-Inch	LF	6,892.000	6,892.000
0146	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	48,474.000	48,474.000
0148	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	385.000	385.000
0150	650.8000	Construction Staking Resurfacing Reference	LF	43,150.000	43,150.000
0152	650.9910	Construction Staking Supplemental Control (project) 01. 7570-05-64	LS	1.000	1.000
0154	690.0150	Sawing Asphalt	LF	636.000	636.000
0156	690.0250	Sawing Concrete	LF	63.000	63.000
0158	740.0440	Incentive IRI Ride	DOL	38,720.000	38,720.000
0160	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	700.000	700.000
0162	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	800.000	800.000
0164	SPV.0055	Special 01. Incentive Density PWL HMA Pavement	DOL	25,294.000	25,294.000
0166	SPV.0055	Special 02. Incentive Air Voids HMA Pavement	DOL	38,720.000	38,720.000
0168	SPV.0055	Special 03. Incentive Density HMA Pavement Longitudinal Joints	DOL	17,046.000	17,046.000
0170	SPV.0060	Special 01. Verify and Replace Existing Land Parcel Monuments	EACH	4.000	4.000
0172	SPV.0060	Special 02. Verify Landmark Reference Monuments	EACH	4.000	4.000
0174	SPV.0060	Special 03. Cast Iron Monument Covers	EACH	1.000	1.000
0176	SPV.0060	Special 04. Grading, Shaping, and Finishing For Culvert Pipe	EACH	3.000	3.000

STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	REMARKS
597+34	-	599+31	RT	197	BRIDGE
602+39	-	605+30	RT	291	GUARDRAIL
613+34	-	614+44	LT	110	GUARDRAIL
613+42	-	620+88	RT	746	GUARDRAIL
632+83	-	637+35	RT	452	GUARDRAIL
656+32	-	661+27	RT	495	GUARDRAIL
739+48	-	744+82	RT	534	GUARDRAIL
792+82	-	794+02	RT	120	BRIDGE
794+95	-	799+41	RT	446	BRIDGE
862+38	-	872+56	RT	1,018	GUARDRAIL
879+25	-	884+33	RT	508	GUARDRAIL
887+85	-	898+35	RT	1,050	GUARDRAIL
908+27	-	915+35	RT	708	GUARDRAIL
931+10	-	937+24	RT	614	GUARDRAIL
943+75	-	944+77	RT	102	GUARDRAIL
1024+70	-	1027+20	RT	250	BRIDGE
596+82	-	597+56	LT	74	BRIDGE
613+34	-	614+44	LT	110	GUARDRAIL
654+89	-	663+71	LT	882	GUARDRAIL
740+26	-	744+79	LT	453	GUARDRAIL
792+82	-	793+79	LT	97	BRIDGE
795+10	-	799+03	LT	393	BRIDGE
865+84	-	867+83	LT	199	GUARDRAIL
887+82	-	889+81	LT	199	GUARDRAIL
910+11	-	915+40	LT	529	GUARDRAIL
935+69	-	937+30	LT	161	GUARDRAIL
1025+48	-	1027+57	LT	209	BRIDGE
			TOTAL 0010	10,947	

STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	REMARKS
596+76	-	597+41	MEDIAN	3	MEDIAN
			TOTAL 0010	3	

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	REMARKS
596+76	-	1027+20	RT	2,522	RT SHOULDER
596+76	-	1027+20	LT	2,522	LT SHOULDER
-	-	-	VARIES	1,009	20 % OF SHOULDER TOTAL
-	-	-	VARIES	300	20 EAT @ 15 TONS EACH
			TOTAL 0010	6,353	

211.0100.01

CATEGORY	STATION	TO	STATION	LOCATION	211.0100.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 7570-05-64) LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 7570-05-64) EACH	REMARKS
0010	596+76	-	1027+50		1	-	1	PROJECT
				TOTAL 0010	1	0	1	
0020	596+76	-	609+67	LT & RT	-	21		ADDITIONAL 2-FT PAVED SHOULDER (AT LOCATIONS W/O GUARDRAIL)
	609+67	-	793+79	LT & RT	-	335	-	ADDITIONAL 2-FT PAVED SHOULDER (AT LOCATIONS W/O GUARDRAIL)
	795+18	-	827+06	LT & RT	-	55	-	ADDITIONAL 2-FT PAVED SHOULDER (AT LOCATIONS W/O GUARDRAIL)
	830+25	-	1027+50	LT & RT	-	329	-	ADDITIONAL 2-FT PAVED SHOULDER (AT LOCATIONS W/O GUARDRAIL)
				TOTAL 0020	0	740	0	
				PROJECT TOTAL	1	740	1	

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REMOVALS

STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF	204.0185 REMOVING MASONRY CY	330.0100 MILL AND RELAY SY	374.1010.S QMP MILL AND RELAY COMPACTION SY	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
596+76	-	597+12	MEDIAN	52	-	-	-	-	-	-	-	-	44	60	EXISTING CONCRETE SIDEWALK
597+12	-	597+38	MEDIAN	26	-	26	-	-	-	-	-	-	-	-	EXISTING HMA AND CONCRETE CORRUGATED MEDAIN
596+90	-	597+62	LT	-	-	-	-	-	72	-	-	-	-	3	EXISTING CURB & GUTTER (NORTH)
614+00	-	-	LT	-	-	-	-	-	-	2	-	-	-	-	----
740+86	-	744+25	LT	-	-	-	-	339	-	-	-	-	-	-	HMA CURB
744+90	-	745+15	RT	-	-	-	-	-	-	3	-	-	-	-	----
596+76	-	-	BEGIN PROJECT	-	35	-	-	-	-	-	-	-	-	-	52-ft x 6-ft
794+00	-	-	BRIDGE APPROACH	-	36	-	-	-	-	-	-	-	-	-	54-ft x 6-ft
795+18	-	-	BRIDGE APPROACH	-	36	-	-	-	-	-	-	-	-	-	54-ft x 6-ft
827+06	-	-	CONCRETE PAVEMENT APPROACH	-	27	-	-	-	-	-	-	-	-	-	41-ft x 6-ft
830+25	-	-	CONCRETE PAVEMENT APPROACH	-	21	-	-	-	-	-	-	-	-	-	32-ft x 6-ft
1027+20	-	-	END PROJECT	-	27	-	-	-	-	-	-	-	-	-	41-ft x 6-ft
596+76	-	605+00	THRU	-	-	-	4,200	-	-	-	-	-	-	-	3 THRU LANES (INCLUDES GORE)
605+00	-	609+67	THRU	-	-	-	1,414	-	-	-	-	-	-	-	2 THRU LANES (INCLUDES GORE)
609+67	-	664+60	THRU	-	-	-	14,648	-	-	-	14,648	14,648	-	-	2 THRU LANES
664+60	-	793+79	THRU	-	-	-	34,451	-	-	-	34,451	34,451	-	-	2 THRU LANES
795+18	-	827+06	THRU	-	-	-	8,501	-	-	-	8,501	8,501	-	-	2 THRU LANES
830+25	-	1027+20	THRU	-	-	-	52,520	-	-	-	52,520	52,520	-	-	2 THRU LANES
596+76	-	609+67	RT	-	-	-	914	-	-	-	-	-	-	-	RIGHT SHOULDER (WIDTH VARIES)
609+67	-	1027+20	RT	-	-	-	10,285	-	-	-	10,285	10,285	-	-	RIGHT SHOULDER (3-FT WIDE) (NO GUARDRAIL, TURN LANE, BYPASS LANE LOCATIONS)
613+42	-	1027+20	RT	-	-	-	7,414	-	-	-	7,414	7,414	-	-	RIGHT GUARDRAIL LOCATIONS (10-FT AND 8-FT TO FACE OF RAIL)
PROJECT LIMITS	-	-	RT	-	-	-	3,313	-	-	-	3,313	3,313	-	-	RIGHT TURN LANES & BYPASS LANES (LANES)
PROJECT LIMITS	-	-	RT	-	-	-	510	-	-	-	510	510	-	-	RIGHT TURN LANES & BYPASS LANE (SHOULDERS)
596+76	-	609+67	LT	-	-	-	728	-	-	-	-	-	-	-	LEFT SHOULDER (WIDTH VARIES)
609+67	-	1027+20	LT	-	-	-	12,053	-	-	-	12,053	12,053	-	-	LEFT SHOULDER (3-FT WIDE) (NO GUARDRAIL, TURN LANE, BYPASS LANE LOCATIONS)
613+42	-	1027+20	LT	-	-	-	3,355	-	-	-	3,355	3,355	-	-	LEFT GUARDRAIL LOCATIONS (10-FT AND 8-FT TO FACE OF RAIL)
PROJECT LIMITS	-	-	LT	-	-	-	2,111	-	-	-	2,111	2,111	-	-	LEFT TURN LANES & BYPASS LANES (LANES)
PROJECT LIMITS	-	-	LT	-	-	-	151	-	-	-	151	151	-	-	LEFT TURN LANES & BYPASS LANE (SHOULDERS)
639+20	-	-	RT	-	-	-	233	-	-	-	-	-	30	-	NESHONIC RD
650+50	-	-	LT	-	-	-	419	-	-	-	-	-	25	-	OLD WIS 16
661+60	-	-	RT	-	-	-	151	-	-	-	-	-	21	-	LAKE RD
726+10	-	-	LT	-	-	-	300	-	-	-	-	-	30	-	CTH DE
792+00	-	-	LT	-	-	-	467	-	-	-	-	-	62	-	STH 162
818+50	-	-	RT	-	-	-	456	-	-	-	-	-	43	-	RT
845+10	-	-	LT	-	-	-	278	-	-	-	-	-	33	-	CTH E
956+50	-	-	RT	-	-	-	422	-	-	-	-	-	21	-	HESSELBERG RD
986+90	-	-	LT	-	-	-	336	-	-	-	-	-	20	-	PISKE RD
991+20	-	-	RT	-	-	-	321	-	-	-	-	-	20	-	LEMING RD
1014+30	-	-	LT	-	-	-	260	-	-	-	-	-	34	-	CTH J
1016+50	-	-	LT	-	-	-	611	-	-	-	-	-	28	-	BIG CREEK RD
VARIES	-	-	VARIES	-	-	572	-	-	-	-	-	-	225	-	DRIVEWAY & PE
			TOTAL 0010	78	183	599	160,822	339	72	5	149,312	149,312	636	63	

STATION	TO	STATION	LOCATION	335.0100 RUBBLIZING SY	REMARKS
609+67	-	664+60	THRU LANES	12,207	TWO 10 FT LANES (20-FT WIDE TOTAL)
			TOTAL 0010	12,207	

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HMA PAVEMENT

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0315 ASPHALTIC FLUMES SY	REMARKS
596+76	-	605+00	THRU	294	470	-	-	-	3 THRU LANES (INCLUDES GORE)
605+00	-	609+67	THRU	99	158	-	-	-	2 THRU LANES (INCLUDES GORE)
609+67	-	664+60	THRU	732	3,281	-	-	-	2 THRU LANES
664+60	-	793+79	THRU	1,723	7,717	-	-	-	2 THRU LANES
795+18	-	827+06	THRU	425	1,904	-	-	-	2 THRU LANES
830+25	-	1027+20	THRU	2,626	11,764	-	-	-	2 THRU LANES
596+76	-	609+67	RT	64	102	-	-	-	RIGHT SHOULDER (WIDTH VARIES)
609+67	-	1027+20	RT	514	2,303	-	-	-	RIGHT SHOULDER (3-FT WIDE) (NO GUARDRAIL, TURN LANE, BYPASS LANE LOCATIONS
613+42	-	1027+20	RT	371	3,075	-	-	-	RIGHT GUARDRAIL LOCATIONS (10-FT AND 8-FT TO FACE OF RAIL)
PROJECT LIMITS	-	-	RT	166	742	-	-	-	RIGHT TURN LANES & BYPASS LANES (LANES)
PROJECT LIMITS	-	-	RT	25	114	-	-	-	RIGHT TURN LANES & BYPASS LANE (SHOULDERS)
596+76	-	609+67	LT	51	82	-	-	-	LEFT SHOULDER (WIDTH VARIES)
609+67	-	1027+20	LT	449	1,859	-	-	-	LEFT SHOULDER (3-FT WIDE) (NO GUARDRAIL, TURN LANE, BYPASS LANE LOCATIONS
613+42	-	1027+20	LT	168	751	-	-	-	LEFT GUARDRAIL LOCATIONS (10-FT AND 8-FT TO FACE OF RAIL)
PROJECT LIMITS	-	-	LT	106	473	-	-	-	LEFT TURN LANES & BYPASS LANES (LANES)
PROJECT LIMITS	-	-	LT	8	34	-	-	-	LEFT TURN LANES & BYPASS LANE (SHOULDERS)
639+20	-	-	RT	17	29	-	-	-	NESHONIC RD
650+50	-	-	LT	30	52	-	-	-	OLD WIS 16
661+60	-	-	RT	11	19	-	-	-	LAKE RD
726+10	-	-	LT	21	37	-	-	-	CTH DE
792+00	-	-	LT	32	56	-	-	-	STH 162
818+50	-	-	RT	32	56	-	-	-	RT
845+10	-	-	LT	20	34	-	-	-	CTH E
956+50	-	-	RT	30	52	-	-	-	HESSELBERG RD
986+90	-	-	LT	24	41	-	-	-	PISKE RD
991+20	-	-	RT	23	40	-	-	-	LEMING RD
1014+30	-	-	LT	29	51	-	-	-	CTH J
1016+50	-	-	LT	43	75	-	-	-	BIG CREEK RD
VARIES	-	-	VARIES	-	-	-	167	-	DRIVEWAY
742+75	-	-	LT	-	-	-	-	4	FLUME
743+55	-	-	LT	-	-	-	-	4	FLUME
			TOTAL 0010	8,133	35,371	0	167	8	
596+76	-	609+67	RT	-	-	13	-	-	2-FT SHLDR WIDENING, LOWER LIFT (NO GUARDRAIL LOCATIONS)
596+76	-	609+67	RT	6	13	-	-	-	2-FT SHLDR WIDENING, UPPER LIFT (NO GUARDRAIL LOCATIONS)
609+67	-	1027+20	RT	343	1,536	-	-	-	2-FT SHLDR WIDENING (NO GUARDRAIL, TURN LANE, BYPASS LANE LOCATIONS)
609+67	-	1027+20	LT	402	1,800	-	-	-	2-FT SHLDR WIDENING (NO GUARDRAIL, TURN LANE, BYPASS LANE LOCATIONS)
			TOTAL 0020	751	3,349	13	0	0	
			PROJECT TOTAL	8,884	38,720	13	167	8	

RUMBLE STRIPS

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
607+19	-	637+20	LT & RT	6,002	3,001	----
637+20	-	638+20	LT	100	-	NESHONIC RD
638+20	-	641+03	LT	283	-	NESHONIC RD
641+03	-	641+20	LT & RT	34	-	NESHONIC RD
641+20	-	648+32	LT &RT	1,424	712	----
648+32	-	648+50	RT	18	18	OLD 16
648+50	-	652+50	RT	400	-	OLD 16
652+50	-	655+33	RT	283	283	OLD 16
655+33	-	659+60	LT & RT	854	427	----
659+60	-	660+60	LT & RT	200	-	LAKE RD
660+60	-	663+00	LT	240	-	LAKE RD
663+00	-	663+60	LT & RT	120	-	LAKE RD
663+60	-	724+00	LT & RT	12,080	6,040	----
724+00	-	724+10	RT	10	10	CTH DE
724+10	-	728+10	RT	400	-	CTH DE
728+10	-	729+00	RT	90	90	CTH DE
729+00	-	790+40	LT & RT	12,280	6,140	----
790+40	-	790+87	RT	47	47	NORTH STH 162
790+87	-	793+54	RT	267	-	NORTH STH 162
795+45	-	799+00	RT	355	355	BRIDGE
799+00	-	812+50	LT & RT	2,700	1,350	----
812+50	-	816+50	LT	400	400	SOUTH STH 162
816+50	-	820+50	LT	400	-	SOUTH STH 162
820+50	-	820+64	LT	14	14	SOUTH STH 162
820+64	-	827+06	LT & RT	1,284	642	----
830+25	-	843+10	LT & RT	2,570	1,285	----
843+10	-	843+75	LT & RT	130	-	CTH E
843+75	-	847+10	RT	335	-	CTH E
847+10	-	847+50	RT	40	40	CTH E
847+50	-	954+50	LT & RT	21,400	10,700	----
954+50	-	955+00	LT & RT	100	-	HESSELBERG RD
955+00	-	958+36	LT	336	-	HESSELBERG RD
958+36	-	958+50	LT & RT	28	-	HESSELBERG RD
958+50	-	984+90	LT & RT	5,280	2,640	----
984+90	-	985+50	LT & RT	120	-	PISKE RD
985+50	-	988+33	RT	283	-	PISKE RD
988+33	-	988+90	LT & RT	114	-	PISKE RD
988+90	-	989+20	LT & RT	160	80	----
989+20	-	989+70	LT & RT	100	-	FLEMING RD
989+70	-	992+85	LT	315	-	FLEMING RD
992+85	-	993+20	LT & RT	35	-	FLEMING RD
993+20	-	1008+71	LT & RT	3,102	1,551	FLEMING RD
1008+71	-	1009+67	LT	96	96	----
1009+67	-	1012+30	CL	-	263	CTH J
1018+50	-	1019+83	CL	-	133	BIG CREEK RD
1019+83	-	1027+00	LT & RT	1,434	717	----
1029+55	-	1029+99	LT & RT	88	44	BRIDGE
VARIES	-	VARIES	VARIES	-4,485	-	DRIVEWAY AND PE
			TOTAL 0010	71,866	37,078	

PIPE CULVERT

CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.3124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	633.5200 MARKERS CULVERT END EACH	SPV.0060.04 SPECIAL (04. GRADING, SHAPING, AND FINISHING FOR CULVERT PIPE) EACH	REMARKS
0010	614+00	LT	-	-	1	1	-	20	1	1	
	745+15	RT	1	-	-	-	-	-	-	1	18-IN X 30-FT CMCP
	745+84	RT	-	1	-	-	-	-	-	-	
	746+14	RT	-	-	-	-	58	-	-	1	
	746+20	RT	1	-	-	-	-	-	-	-	18-IN X 44-FT CMCP
	746+42	RT	-	1	-	-	-	-	-	-	
		TOTAL 0010	2	2	1	1	58	20	1	3	

STATION	TO	STATION	LOCATION	601.0584 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBT LF	REMARKS
596+90	-	597+62	LT	72	
740+63	-	744+48	LT	385	
			TOTAL 0010	457	

CONCRETE PAVEMENT

STATION	TO	STATION	LOCATION	602.0420 CONCRETE SIDEWALK 7-INCH SF	620.0100 CONCRETE CORRUGATED MEDIAN SF	REMARKS
596+76	-	597+40	MEDIAN	468	468	
			TOTAL 0010	468	468	

STATION	TO	STATION	LOCATION	624.0100 WATER MGAL	REMARKS
596+76	-	1027+20	-	429	MILL AND RELAY COMPACTION
596+76	-	1027+20	-	215	DUST CONTROL
			TOTAL 0010	644	

GUARDRAIL

STATION	TO	STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH	REMARKS	FOR INFORMATION ONLY: SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 20 LB	SEEDING TEMPORARY LB	SEED WATER MGAL
596+82	-	597+55	LT	-	25	-	13	40	-	1		-	-	-	-	-	-
597+34	-	599+40	RT	-	113	-	-	40	1	-		-	-	-	-	-	-
602+39	-	605+32	RT	-	187	-	-	-	2	-		-	-	-	-	-	-
613+42	-	621+23	RT	-	675	-	-	-	2	-		-	-	-	-	-	-
632+81	-	637+37	RT	-	-	350	-	-	2	-		-	-	-	-	-	-
654+84	-	663+77	LT	1	-	788	-	-	2	-		115	115	0.07	3.1	3.1	2
655+59	-	661+15	RT	-	450	-	-	-	2	-		-	-	-	-	-	-
739+42	-	745+61	RT	1	-	513	-	-	2	-		253	253	0.16	6.8	6.8	2
739+83	-	745+01	LT	1	-	413	-	-	2	-		137	137	0.09	3.7	3.7	2
792+72	-	794+02	RT	-	38	-	-	40	1	-		-	-	-	-	-	-
792+87	-	793+79	LT	-	-	-	-	40	1	-		-	-	-	-	-	-
794+95	-	799+38	RT	-	350	-	-	40	1	-		-	-	-	-	-	-
794+94	-	799+00	LT	-	313	-	-	40	1	-		-	-	-	-	-	-
861+03	-	873+46	RT	1	-	1,138	-	-	2	-		329	329	0.21	8.9	8.9	3
865+69	-	868+50	LT	1	-	175	-	-	2	-		249	249	0.16	6.7	6.7	3
877+90	-	884+33	RT	-	-	538	-	-	2	-		-	-	-	-	-	-
887+19	-	898+75	RT	1	-	1,050	-	-	2	-		317	317	0.20	8.6	8.6	3
887+80	-	890+36	LT	1	-	150	-	-	2	-		169	169	0.11	4.6	4.6	2
908+27	-	916+33	RT	1	700	-	-	-	2	-		386	386	0.24	10.4	10.4	3
910+10	-	915+66	LT	-	450	-	-	-	2	-		-	-	-	-	-	-
931+10	-	937+78	RT	1	-	563	-	-	2	-		204	204	0.13	5.5	5.5	3
935+48	-	938+04	LT	1	-	150	-	-	2	-		178	178	0.11	4.8	4.8	2
943+72	-	945+60	RT	1	100	-	25	-	1	1		278	278	0.17	7.5	7.5	2
1024+72	-	1027+40	RT	-	175	-	-	40	1	-		-	-	-	-	-	-
1024+64	-	1027+57	LT	-	200	-	-	40	1	-		-	-	-	-	-	-
			TOTAL 0010	11	3,776	5,828	38	320	40	2		2615	2615	1.6	70.5	70.5	27

EROSION CONTROL

STATION	TO	STATION	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	628.7504 TEMPORARY DITCH CHECKS LF	REMARKS
-	-	-	-	-	-	2	2	-	PROJECT
613+85	-	614+60	LT	124	124	-	-	22	
654+63	-	655+41	LT	130	130	-	-	-	
739+15	-	740+34	LT	168	168	-	-	-	
744+46	-	744+87	RT	56	56	-	-	-	
744+70	-	746+07	RT	103	103	-	-	-	
867+89	-	869+79	LT	230	230	-	-	-	
872+88	-	874+66	RT	228	228	-	-	-	
889+78	-	891+70	LT	248	248	-	-	-	
898+21	-	900+00	RT	200	200	-	-	-	
915+70	-	917+61	RT	240	240	-	-	-	
937+20	-	939+12	RT	219	219	-	-	-	
937+45	-	939+34	LT	213	213	-	-	-	
945+00	-	946+83	RT	228	228	-	-	-	
			TOTAL 0010	2,387	2,387	2	2	22	

TRAFFIC CONTROL

PURPOSE	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH	REMARKS
PROJECT	-	-	-	-	-	12	-	1	COVERING SIGNS - ONE CYCLE
PCMS BOARDS BOP & EOP	-	42	-	-	-	-	28	-	
GUARDRAIL REMOVAL	-	770	-	-	-	-	-	-	
UNDISTRBUTED	-	154	-	-	-	-	-	-	
FLAGGING CREW 162	-	-	-	-	728	-	-	-	
MOVING FLAGGING CREW	-	-	-	-	728	-	-	-	
STH 16 SIDE RD CLOSURES	-	-	910	1,820	1,547	-	-	-	
DETOUR	-	-	2,002	4,004	9,737	-	-	-	
ALTERNATE ROUTE	-	-	-	-	10,192	-	-	-	
	TOTAL 0010	966	2,912	5,824	22,932	12	28	1	

SIGNING

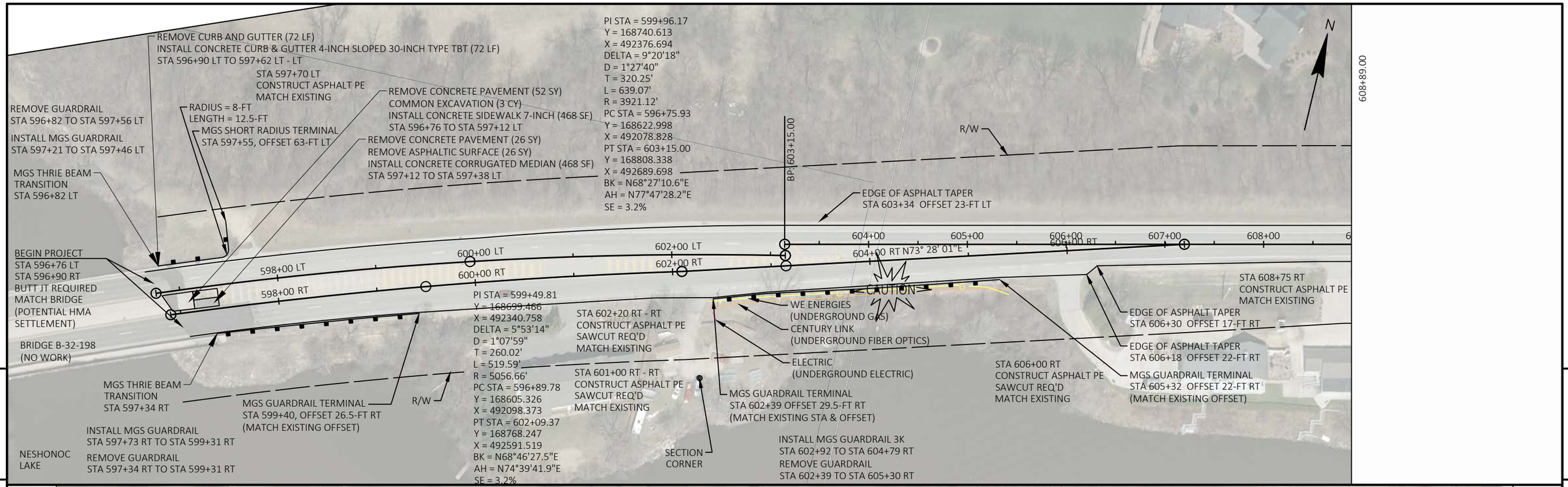
STATION	LOCATION	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	648.0100 LOCATING NO-PASSING ZONES MI	REMARKS
-	-	-	-	-	-	8.152	-
597+16	CT	1	-	-	1	-	CORRUGATED MEDIAN
613+04	RT	-	1	1	-	-	NO PASSING
630+30	LT	-	1	1	-	-	NO PASSING
661+84	LT	-	1	1	-	-	NO PASSING
666+15	RT	-	1	1	-	-	NO PASSING
685+81	RT	-	1	1	-	-	NO PASSING
696+38	LT	-	1	1	-	-	NO PASSING
762+50	RT	-	1	1	-	-	NO PASSING
783+27	LT	-	1	1	-	-	NO PASSING
797+35	RT	-	1	1	-	-	NO PASSING
812+50	LT	-	1	1	-	-	NO PASSING
827+20	LT	-	1	1	-	-	NO PASSING
893+90	RT	-	1	1	-	-	NO PASSING
955+50	RT	-	1	1	-	-	NO PASSING
958+50	LT	-	1	1	-	-	NO PASSING
983+00	RT	-	1	1	-	-	NO PASSING
988+60	LT	-	1	1	-	-	NO PASSING
1026+50	RT	-	1	1	-	-	NO PASSING
	TOTAL 0010	1	17	17	1.000	8.152	

PAVEMENT MARKING

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	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	646.8020 MARKING CORRUGATED MEDIAN EPOXY SF	646.8220 MARKING ISLAND NOSE EPOXY EACH	646.9210 MARKING REMOVAL LINE WATER BLASTING WIDE LF	REMARKS
59776	-	60315	CL LT	138	-	-	-	-	-	-	-	-	-	WHITE CL SKIPS
59776	-	59850	CL RT	50	-	-	-	-	-	-	-	-	-	WHITE CL SKIPS
597+14	-	603+71	CL	-	-	-	-	-	-	-	3,728	1	932	YELLOW CORRUGATED CONCRETE MEDIAN AT BOP
603+15	-	607+11	CL	-	-	-	-	-	-	120	-	-	-	YELLOW ISLAND HMA MEDIAN 12" DIAGONAL
650+90	-	652+95	LT	-	-	210	-	-	-	-	-	-	-	OLD WIS 16 WHITE CHANNELIZING TURN LANE
792+20	-	795+19	LT	-	-	299	-	-	-	-	-	-	-	STH 162 NORTH WHITE CHANNELIZING TURN LANE
814+84	-	818+23	RT	-	-	339	-	-	-	-	-	-	-	STH 162 SOUTH WHITE CHANNELIZING TURN LANE
1011+64	-	1013+86	RT	-	-	217	-	-	-	-	-	-	-	CTH J WHITE CHANNELIZING TURN LANE
792+00	-	818+50	CL	-	-	-	3,446	-	-	-	-	-	-	TEMPORARY CENTERLINE SKIPS YELLOW MILLINGS LAYER
596+76	-	1027+50	CL	-	-	-	3,446	-	-	-	-	-	-	TEMPORARY CENTERLINE SKIPS YELLOW BINDER LAYER
596+76	-	1027+50	CL	-	-	-	-	48,474	-	-	-	-	-	PERMANENT YELLOW CENTERLINE (BEFORE RUMBLE STRIPS)
596+76	-	1027+50	CL	48,474	-	-	-	-	-	-	-	-	-	PERMANENT YELLOW CENTERLINE (AFTER RUMBLE STRIPS)
596+76	-	638+66	LT & RT	-	8,380	-	-	-	-	-	-	-	-	BOP
638+66	-	639+85	LT	-	119	-	-	-	-	-	-	-	-	NESHONOC RD INTERSECTION
639+85	-	649+75	LT & RT	-	1,980	-	-	-	-	-	-	-	-	-
649+75	-	650+91	RT	-	116	-	-	-	-	-	-	-	-	OLD WIS 16 INTERSECTION
650+91	-	661+21	LT & RT	-	2,060	-	-	-	-	-	-	-	-	-
661+21	-	662+00	LT	-	79	-	-	-	-	-	-	-	-	LAKE RD INTERSECTION
662+00	-	725+08	LT & RT	-	12,616	-	-	-	-	-	-	-	-	-
724+42	-	727+21	CT RT	75	-	-	-	-	-	-	-	-	-	CTH DE BYPASS SKIPS
725+08	-	726+85	RT	-	177	-	-	-	-	-	-	-	-	CTH DE INTERSECTION
726+85	-	791+31	LT & RT	-	12,892	-	-	-	-	-	-	-	-	-
790+44	-	792+57	CL RT	63	-	-	-	-	-	-	-	-	-	STH 162 NORTH BYPASS SKIPS
791+31	-	792+65	RT	-	134	-	-	-	28	-	-	-	-	STH 162 NORTH INTERSECTION
792+65	-	817+87	LT & RT	-	5,044	-	-	-	-	-	-	-	-	-
817+58	-	820+20	CL LT	75	-	-	-	-	-	-	-	-	-	STH 162 SOUTH BYPASS SKIPS
817+87	-	819+19	LT	-	132	-	-	-	23	-	-	-	-	STH 162 SOUTH INTERSECTION
819+19	-	844+60	LT & RT	-	5,082	-	-	-	-	-	-	-	-	-
844+23	-	846+34	CT RT	63	-	-	-	-	-	-	-	-	-	CTH E BYPASS SKIPS
844+60	-	845+86	LT	-	126	-	-	-	-	-	-	-	-	CTH E INTERECTION
845+86	-	956+19	LT & RT	-	22,066	-	-	-	-	-	-	-	-	-
956+19	-	957+00	LT	-	81	-	-	-	-	-	-	-	-	HESSELBERG RD INTERSECTION
957+00	-	986+43	LT & RT	-	5,886	-	-	-	-	-	-	-	-	-
986+43	-	987+38	RT	-	95	-	-	-	-	-	-	-	-	PISKE RD INTERSECTION
987+38	-	990+76	LT & RT	-	676	-	-	-	-	-	-	-	-	-
990+76	-	992+07	LT	-	131	-	-	-	-	-	-	-	-	FLEMING RD INTERSECTION
992+07	-	1013+40	LT & RT	-	4,266	-	-	-	-	-	-	-	-	-
1013+40	-	1014+80	LT	-	140	-	-	-	-	-	-	-	-	CTH J INTERSECTION
1013+08	-	1016+60	CL LT	113	-	-	-	-	-	-	-	-	-	CTH J BYPASS SKIPS
1015+40	-	1016+15	CL RT	38	-	-	-	-	-	-	-	-	-	BIG CREEK RD BYPASS SKIPS
1014+80	-	1015+50	LT & RT	-	140	-	-	-	-	-	-	-	-	-
1015+50	-	1017+14	RT	-	164	-	-	-	-	-	-	-	-	BIG CREEK RD INTERSECTION
1017+14	-	1027+50	LT & RT	-	2,072	-	-	-	-	-	-	-	-	EOP
			TOTAL 0010	48,901	84,654	1,065	6,892	48,474	51	120	3,728	1	932	

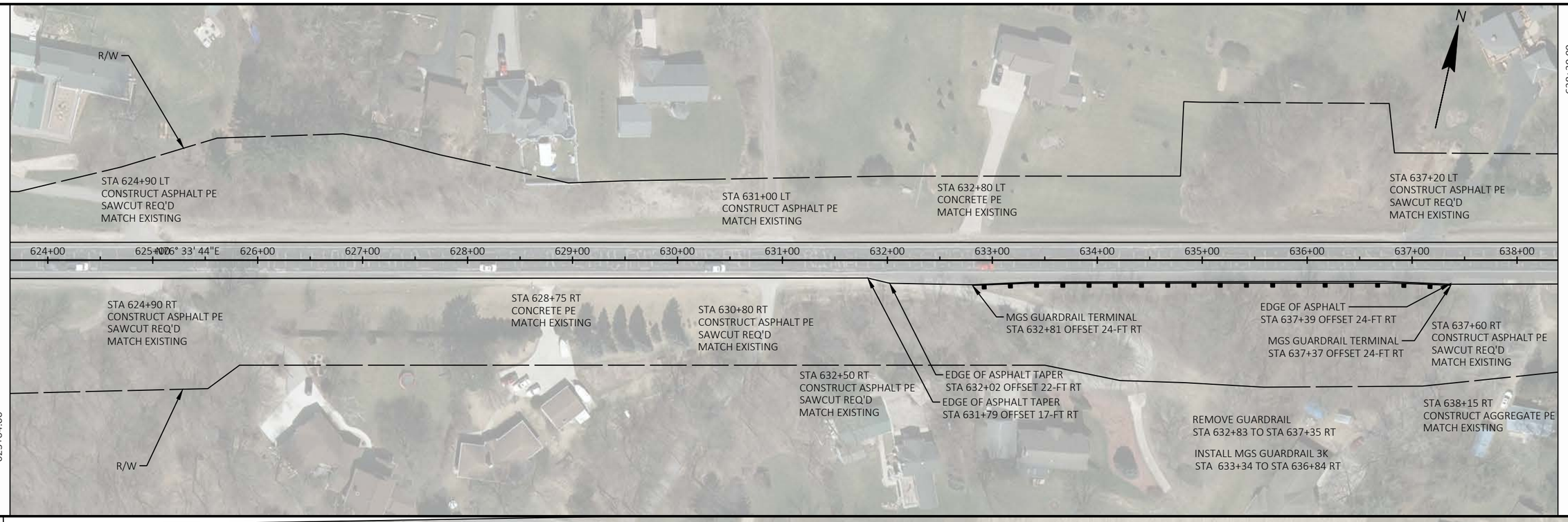
STAKING

STATION	TO	STATION	LOCATION	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7570-05-64) LS	REMARKS
596+00	-	1027+50	-	-	43,150	1	PROJECT
740+63	-	744+48	-	385	-	-	-
			TOTAL 0010	385	43,150	1	



PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 44	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (1)
PLOT DATE : 7/29/2021 10:57 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

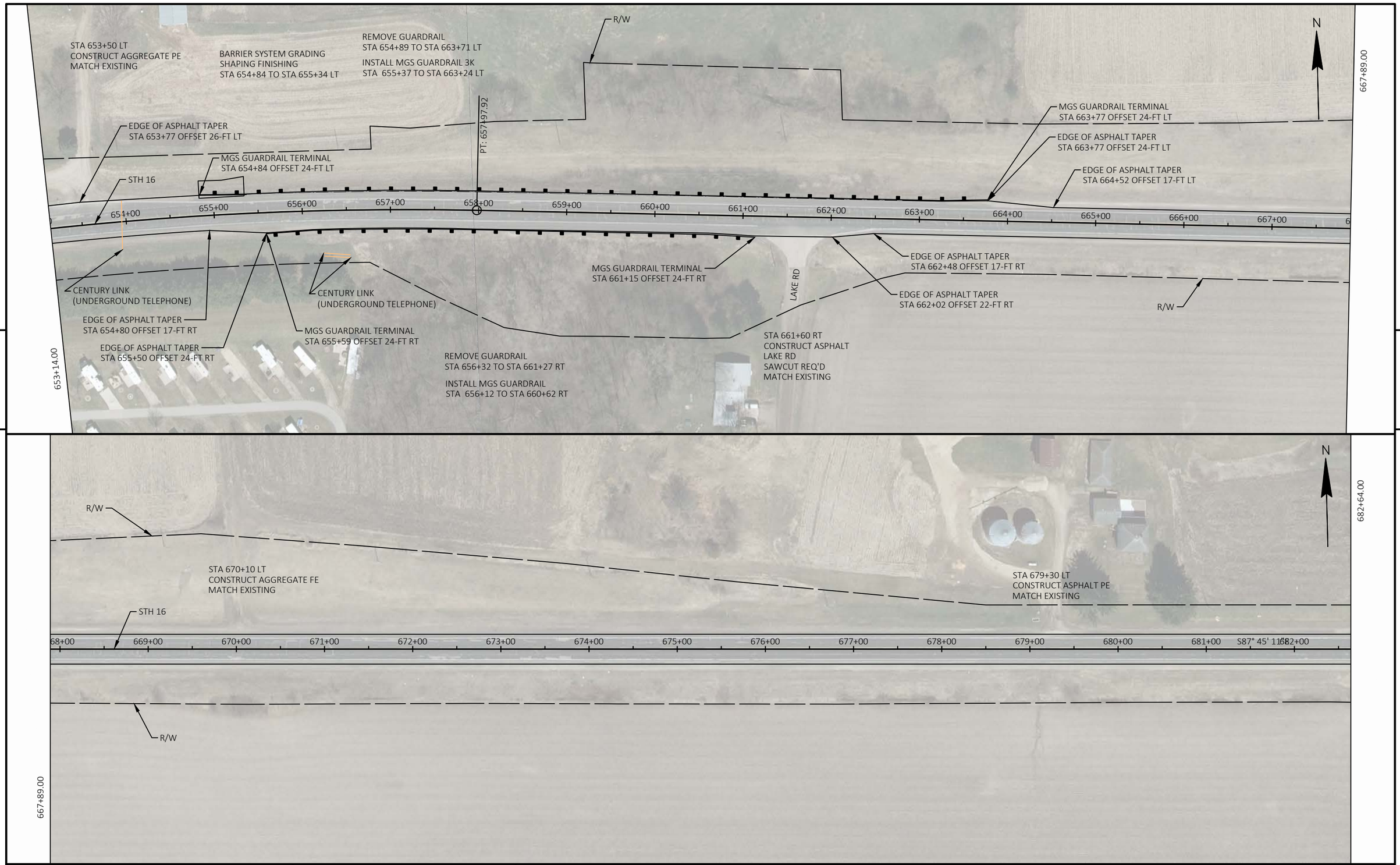


PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 45	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (2)

PLOT DATE : 7/29/2021 10:57 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



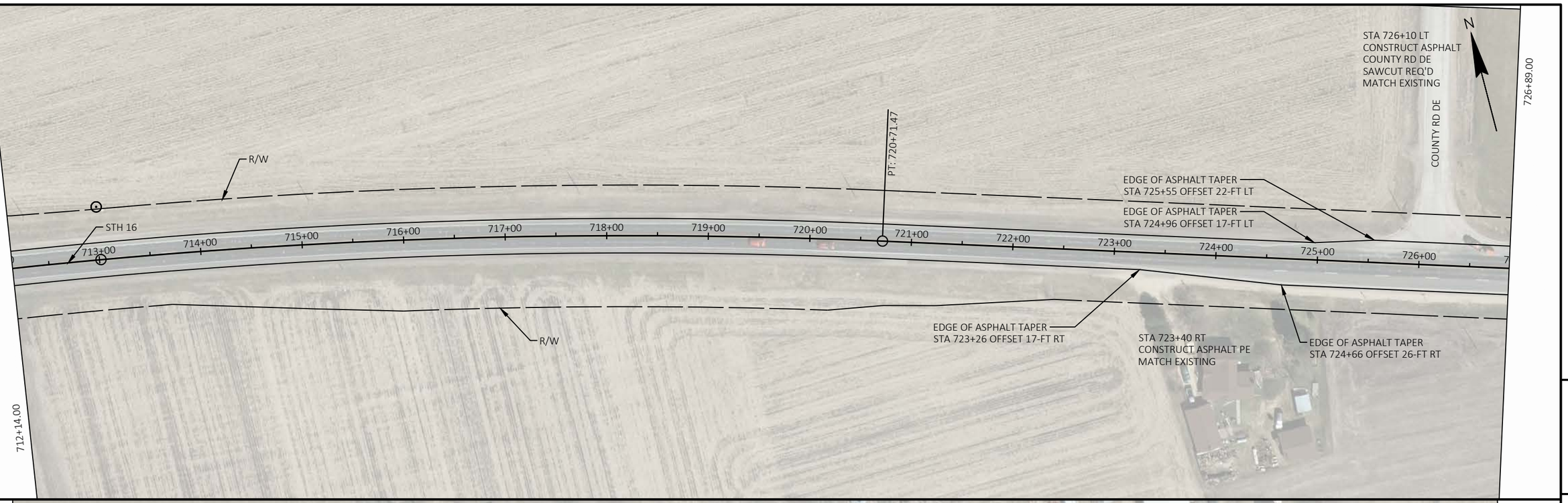
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 46 E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (3)

PLOT DATE : 7/29/2021 10:57 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 47	E



PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 48	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (5)
PLOT DATE : 7/29/2021 10:57 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

REMOVE CURB (HMA) (AT FACE OF RAIL)
STA 740+86 TO STA 744+25 LT
INSTALL CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBT
STA 740+36 TO STA 744+48 LT

CONSTRUCT ASPHALTIC FLUMES
STA 742+75 LT, 743+55 LT
8 SY (4 SY EA)
FINAL LOCATION TO BE DETERMINED
IN THE FIELD BY THE ENGINEER

MGS GUARDRAIL TERMINAL
STA 745+01 OFFSET 22-FT LT

EDGE OF ASPHALT TAPER
STA 745+02 OFFSET 22-FT LT

PI STA = 745+62.06
Y = 168746.084
X = 506655.154
DELTA = 18°11'19"
D = 1°30'00"
T = 611.44'
L = 1212.60'
R = 3819.83'
PC STA = 739+50.61
Y = 168931.456
X = 506072.486
PT STA = 751+63.22
Y = 168751.850
X = 507266.572
BK = S72°21'06.6"E
AH = N89°27'34.8"E
SE = 3.7%

N

756+39.00

R/W

PT: 751+63.22

STA 748+30 LT
CONSTRUCT ASPHALT PE
MATCH EXISTING

742+00 743+00 744+00 745+00 746+00 747+00 748+00 749+00 750+00 751+00 752+00 753+00 754+00 755+00 756+00

EDGE OF ASPHALT TAPER
STA 745+52 OFFSET 17-FT RT

STH 16

REMOVE MASONRY (ENDWALLS)
1 CY, STA 744+90 RT
2 CY, STA 745+15 RT

PROPOSED WATER FLOWLINE

REMOVE SMALL PIPE CULVERT
STA 745+15 RT (APPROX. LOCATION)

GRADING, SHAPING, AND FINISHING
FOR CULVERT PIPE, STA 745+15 RT

PE RADII
20-FT

EDGE OF ASPHALT TAPER
STA 646+11 OFFSET 17-FT RT

GRADING, SHAPING, AND FINISHING
FOR CULVERT PIPE, STA 746+14 RT

STA 748+45 RT
CONSTRUCT ASPHALT PE
MATCH EXISTING

STA 751+00 RT
CONSTRUCT AGGREGATE FE
MATCH EXISTING

741+64.00

R/W

MGS GUARDRAIL TERMINAL
STA 745+61 OFFSET 22-FT RT

BARRIER SYSTEM GRADING
SHAPING FINISHING
STA 744+70 TO STA 746+03 RT

CENTER OF CULVERT PIPE
STA 746+42 RT, OFFSET 32-FT

REMOVE SMALL PIPE CULVERT
STA 746+20 RT (APPROX. LOCATION)

INSTALL CULVERT PIPE CORRUGATED STEEL 18-IN, 58 LF
INSTALL APRON ENDWALLS FOR CULVERT PIPE, 2 EA

CENTER OF CULVERT PIPE
STA 745+85 RT, OFFSET 35-FT

STA 746+20 RT
CONSTRUCT ASPHALT PE
MATCH EXISTING

EDGE OF ASPHALT TAPER
STA 745+61 OFFSET 22-FT RT

5

5

N

771+14.00

R/W

STH 16

757+00 758+00 759+00 760+00 761+00 762+00 763+00 764+00 765+00 766+00 767+00 768+00 769+00 770+00 771+00

R/W

STA 766+60 RT
CONSTRUCT ASPHALT PE
MATCH EXISTING

STA 766+90 RT
CONSTRUCT AGGREGATE FE
MATCH EXISTING

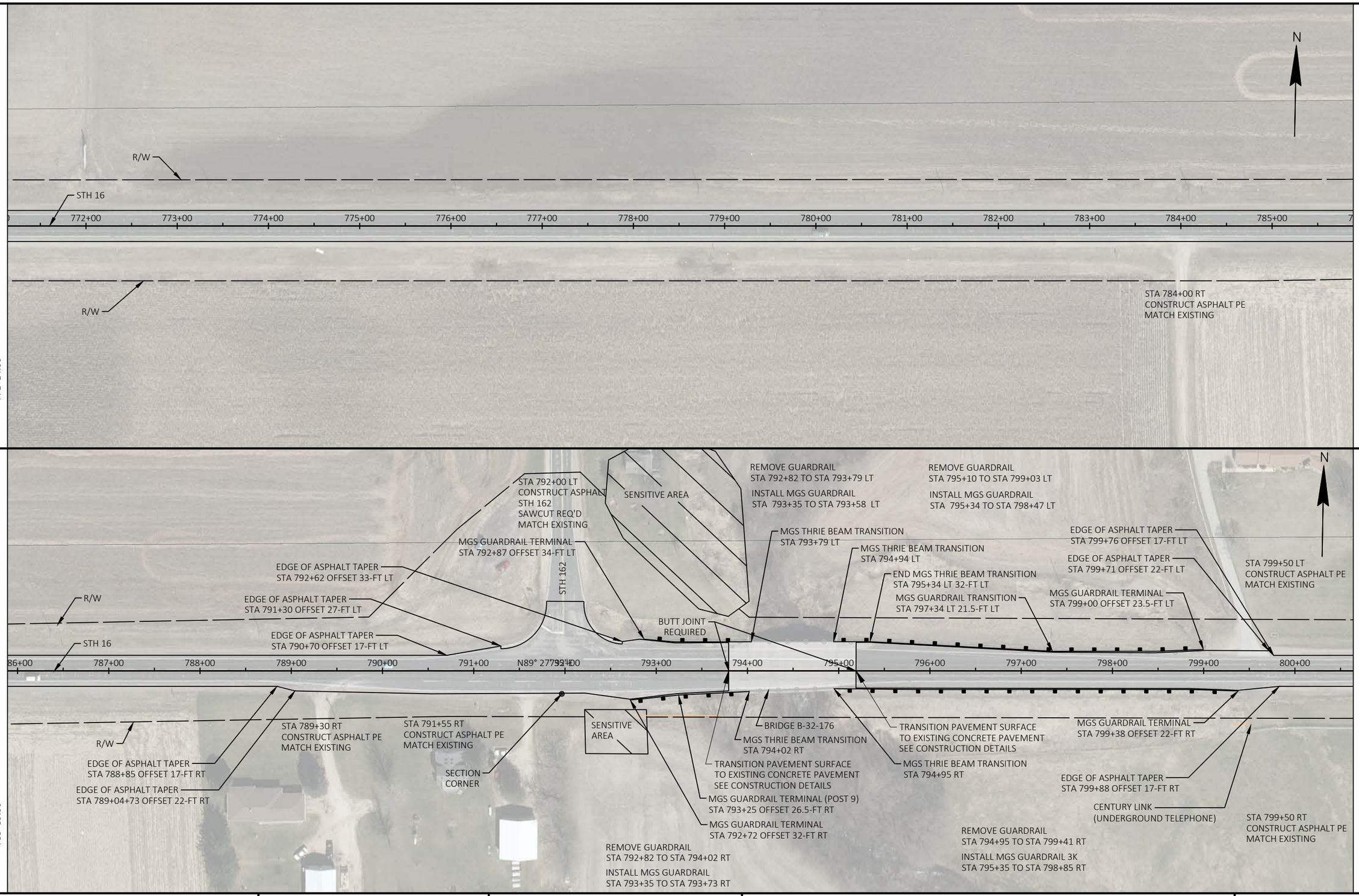
SECTION
CORNER

756+39.00

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 49 E

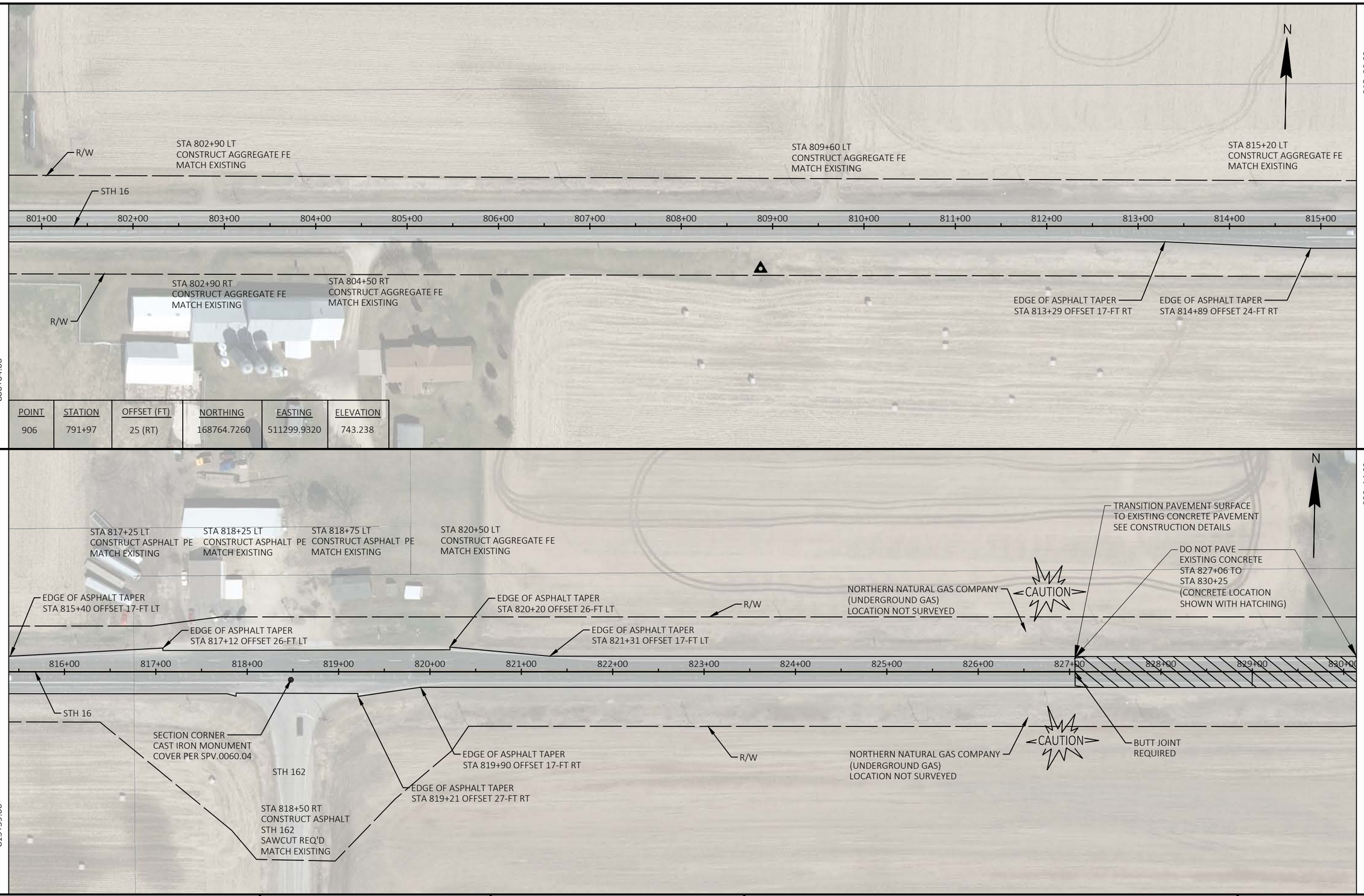
FILE NAME : C:\CIVIL 3D PROJECTS\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (6)

PLOT DATE : 9/17/2021 4:00 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 50 E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (7)
PLOT DATE : 7/29/2021 10:58 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



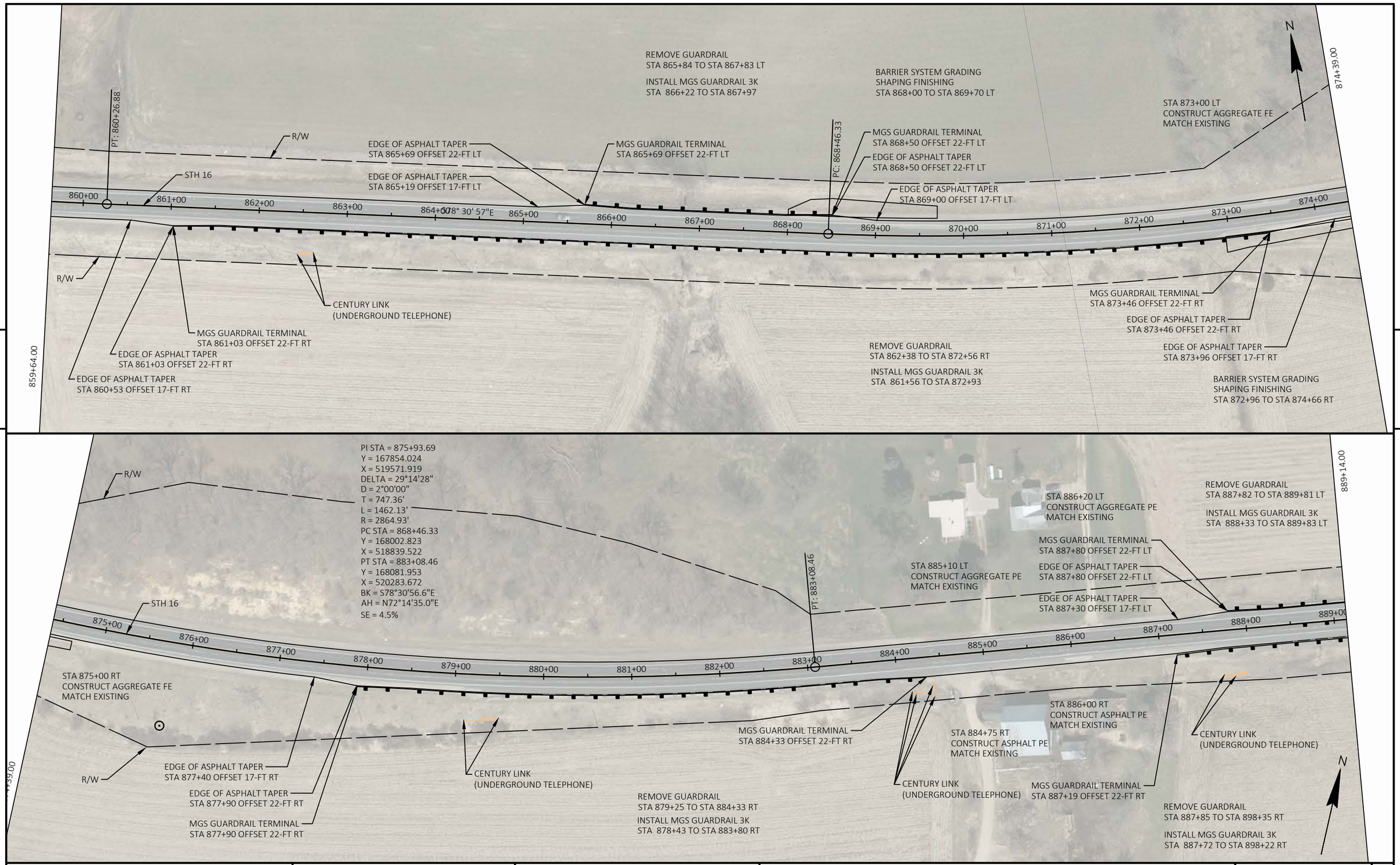
5

5

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 51	E

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 52	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (9)
PLOT DATE : 7/29/2021 10:58 AM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

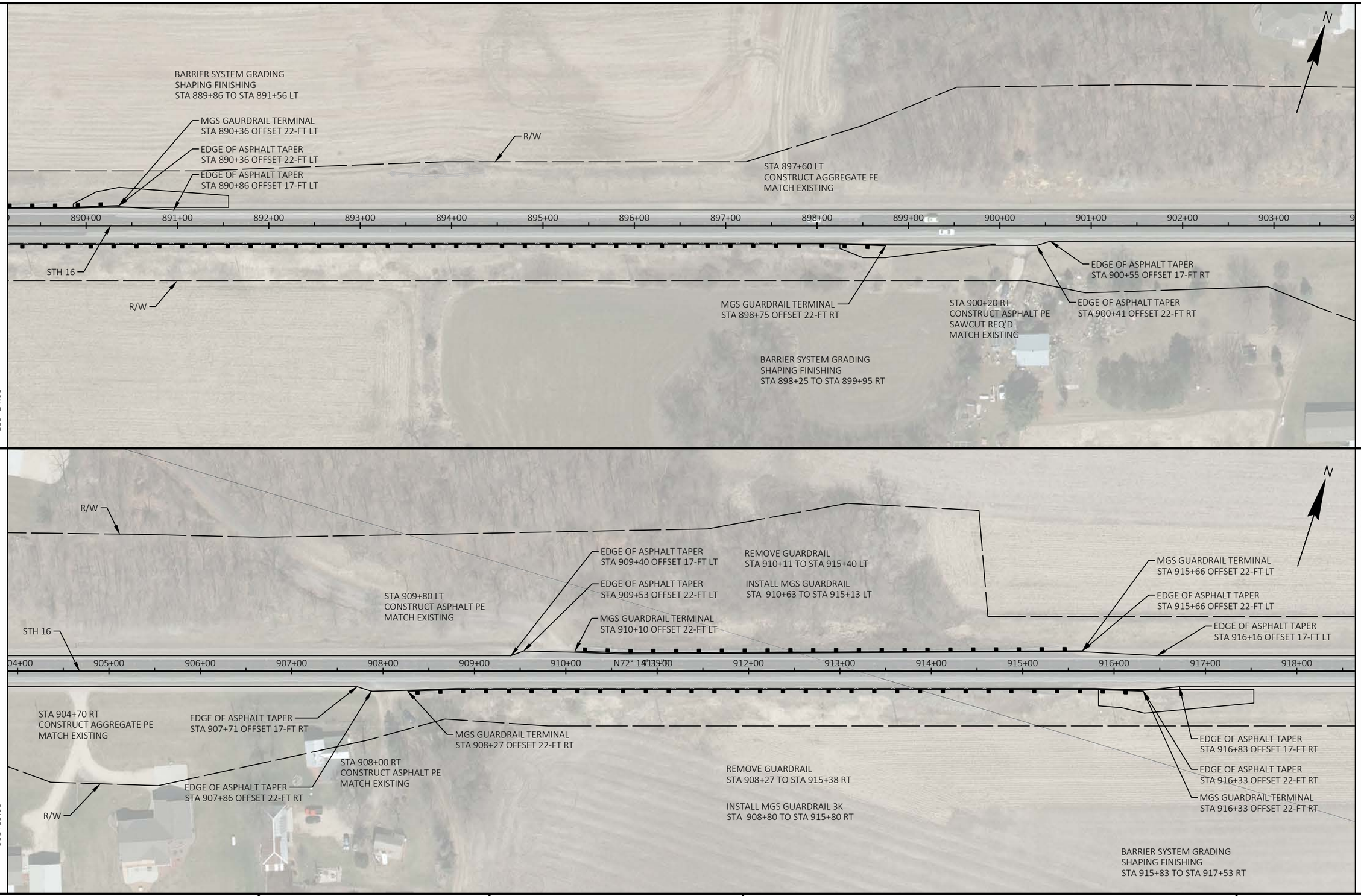


PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 53	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (10)

PLOT DATE : 7/29/2021 10:58 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



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5

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 54	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (11)

PLOT DATE : 7/29/2021 10:58 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

POINT	STATION	OFFSET (FT)	NORTHING	EASTING	ELEVATION
905	9252+06	50 (LT)	169317.8330	523979.5650	751.400

N

933+39.00

R/W

STH 16

919+00 920+00 921+00 922+00 923+00 924+00 925+00 926+00 927+00 928+00 929+00 930+00 931+00 932+00 933+00

R/W

EDGE OF ASPHALT TAPER
STA 930+51 OFFSET 17-FT RT

EDGE OF ASPHALT TAPER
STA 930+58 OFFSET 22-FT RT

STA 928+00 RT
CONSTRUCT ASPHALT PE
MATCH EXISTING

MGS GUARDRAIL TERMINAL
STA 931+10 OFFSET 22-FT RT

CENTURY LINK
(UNDERGROUND TELEPHONE)

STA 930+80 RT
CONSTRUCT AGGREGATE FE
MATCH EXISTING

INSTALL MGS GUARDRAIL 3K
STA 931+63 TO STA 937+25 RT

REMOVE GUARDRAIL
STA 931+10 TO STA 937+24 RT

918+64.00

5

5

PI STA = 942+65.20
Y = 169898.637
X = 525956.627
DELTA = 8°08'12"
D = 1°00'00"
T = 407.53'
L = 813.69'
R = 5729.65'
PC STA = 938+57.67
Y = 169774.350
X = 525568.514
PT STA = 946+71.36
Y = 170076.606
X = 526323.242
BK = N72°14'35.0"E
AH = N64°06'22.7"E
SE = 2.7%

N

948+14.00

REMOVE GUARDRAIL
STA 935+69 TO STA 937+30 LT

INSTALL MGS GUARDRAIL 3K
STA 936+01 TO STA 937+51 LT

BARRIER SYSTEM GRADING
SHAPING FINISHING
STA 937+54 TO STA 939+24 LT

EDGE OF ASPHALT TAPER
STA 938+04 OFFSET 22-FT LT

EDGE OF ASPHALT TAPER
STA 935+48 OFFSET 22-FT RT

MGS GUARDRAIL TERMINAL
STA 938+04 OFFSET 22-FT LT

PC: 938+57.67

EDGE OF ASPHALT TAPER
STA 938+54 OFFSET 17-FT LT

EDGE OF ASPHALT TAPER
STA 934+98 OFFSET 17-FT LT

MGS GUARDRAIL TERMINAL
STA 935+48 OFFSET 22-FT LT

STA 940+20 LT
CONSTRUCT AGGREGATE PE
MATCH EXISTING

R/W

STA 945+00 LT
CONSTRUCT ASPHALT PE
MATCH EXISTING

PT: 946+71.36

STH 16

934+00 935+00 936+00 937+00 938+00 939+00 940+00 941+00 942+00 943+00 944+00 945+00 946+00 947+00 948+00

EDGE OF ASPHALT TAPER
STA 946+10 OFFSET 17-FT RT

EDGE OF ASPHALT TAPER
STA 938+28 OFFSET 17-FT RT

EDGE OF ASPHALT TAPER
STA 943+06 OFFSET 17-FT RT

EDGE OF ASPHALT TAPER
STA 945+60 OFFSET 22-FT RT

R/W

MGS GUARDRAIL TERMINAL
STA 937+78 OFFSET 22-FT RT

EDGE OF ASPHALT TAPER
STA 937+78 OFFSET 22-FT RT

EDGE OF ASPHALT TAPER
STA 943+30 OFFSET 22-FT RT

RADIUS = 24-FT
LENGTH = 25-FT

MGS GUARDRAIL TERMINAL
STA 945+60 OFFSET 22-FT RT

CENTURY LINK
(UNDERGROUND TELEPHONE)

STA 941+00 RT
CONSTRUCT AGGREGATE FE
MATCH EXISTING

STA 943+60 RT
CONSTRUCT ASPHALT PE
MATCH EXISTING

BARRIER SYSTEM GRADING
SHAPING FINISHING
STA 945+10 TO STA 946+80 RT

MGS SHORT RADIUS TERMINAL
STA 943+72 OFFSET 59-FT RT

REMOVE GUARDRAIL
STA 943+75 TO STA 944+77 RT

INSTALL MGS GUARDRAIL
STA 944+07 TO STA 945+07 RT

CENTURY LINK
(UNDERGROUND TELEPHONE)
NOT SURVEYED, ASSUMED LOCATION

BARRIER SYSTEM GRADING
SHAPING FINISHING
STA 937+28 TO STA 938+98 RT

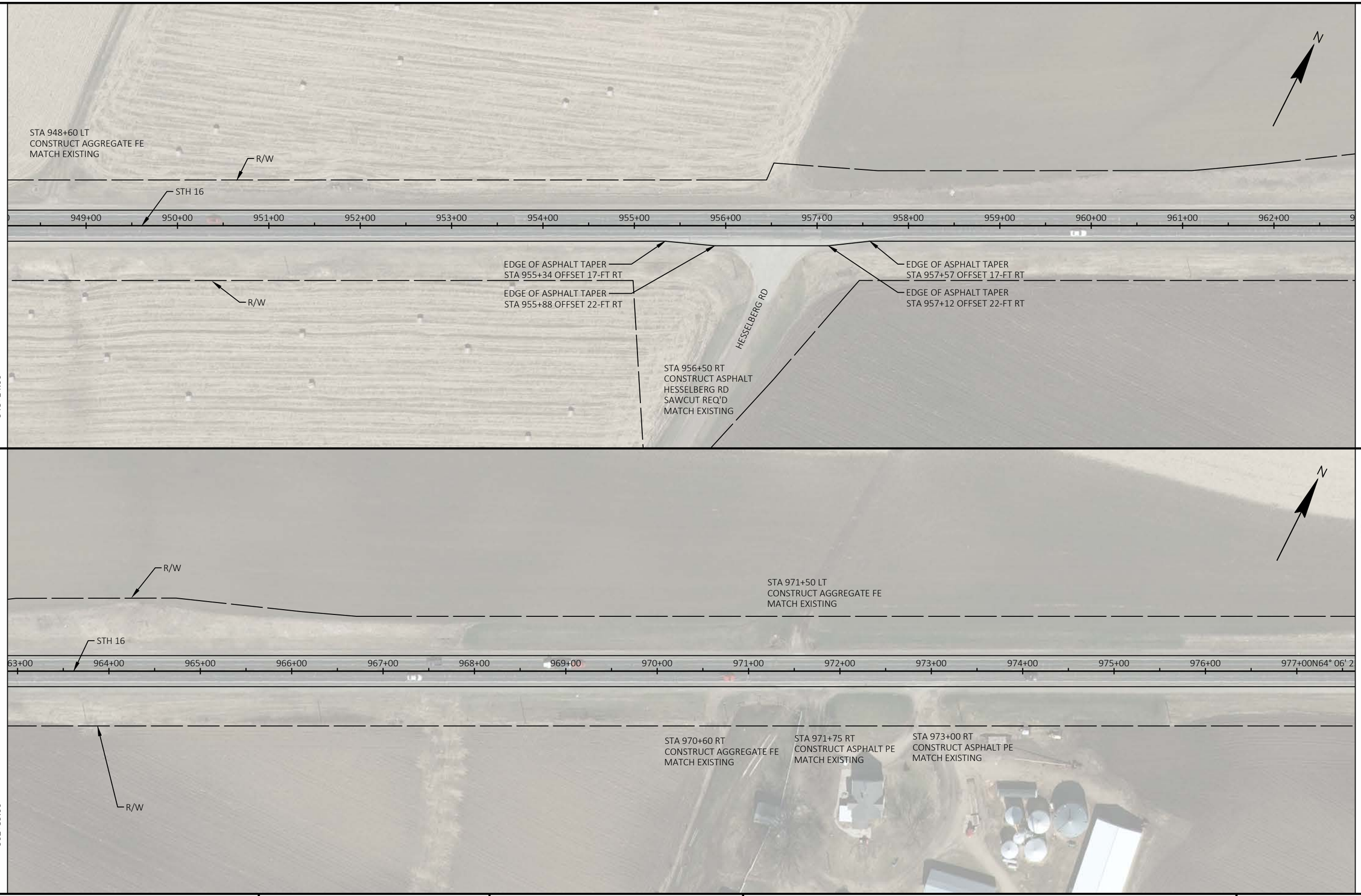
933+39.00

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 55	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (12)

PLOT DATE : 7/29/2021 10:58 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 56	E

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LAYOUT NAME - Sheet - (13)

PLOT DATE : 7/29/2021 10:58 AM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:100 FT

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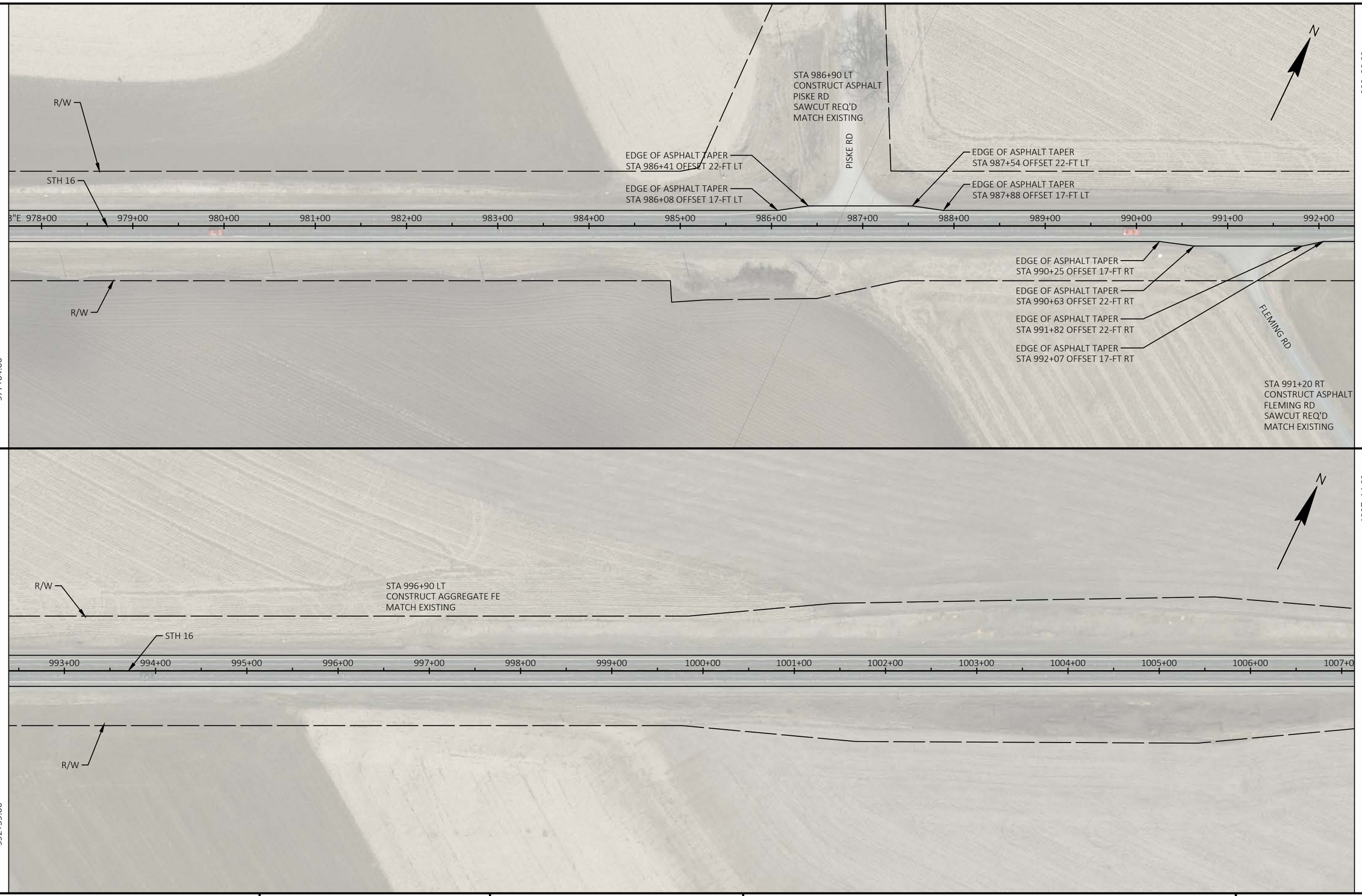

5 5

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 57 E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - Sheet - (14)

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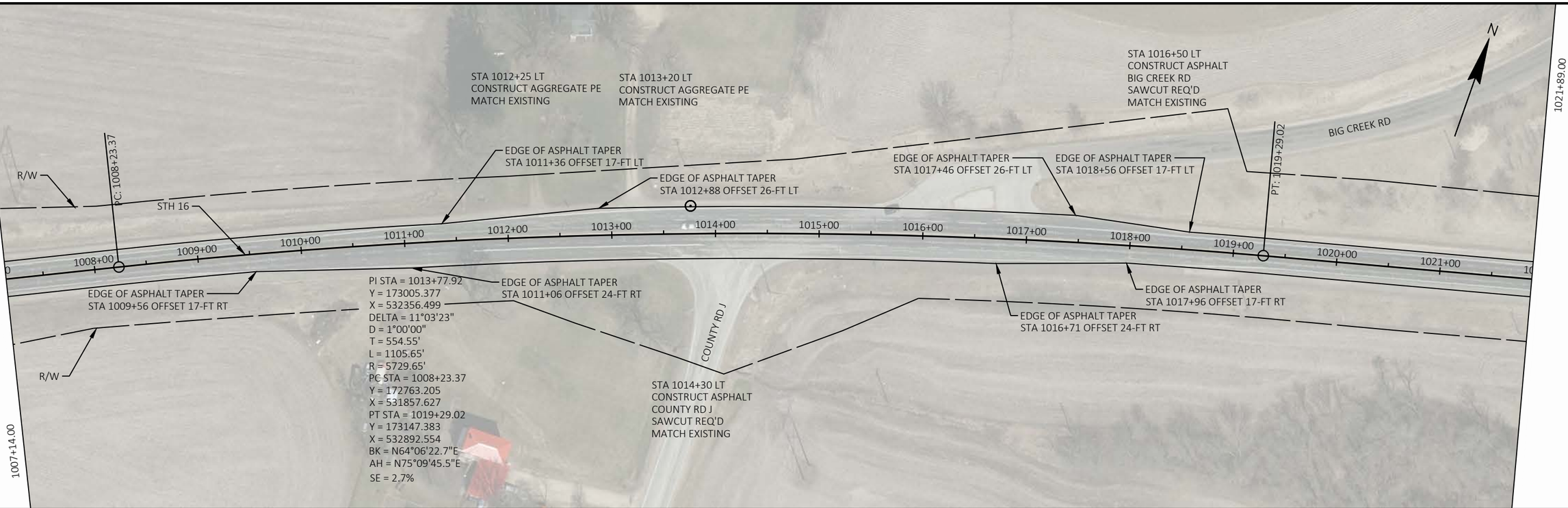
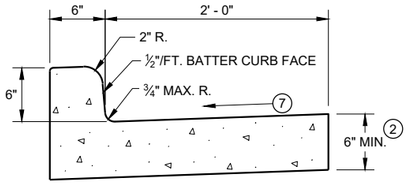


PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	PLANS	SHEET 58	E

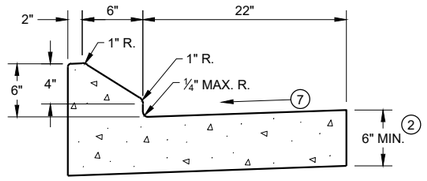
Standard Detail Drawing List

08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
11B01-05	CONCRETE CORRUGATED MEDIAN
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B53-01A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-05	MEDIAN ISLAND MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

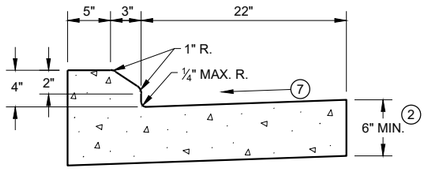
6



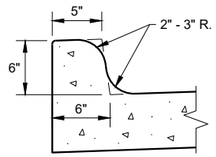
TYPES A (1) & D



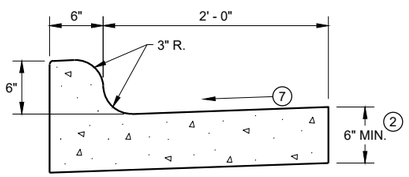
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

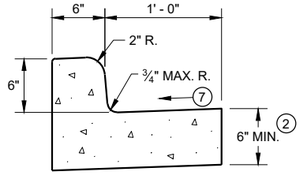


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



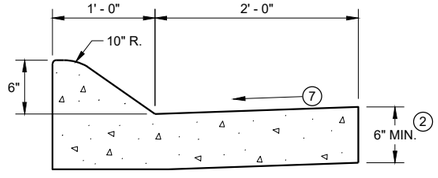
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

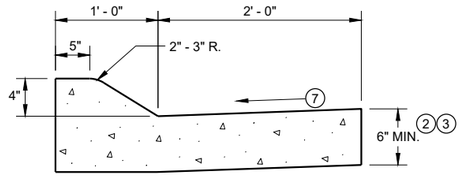


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

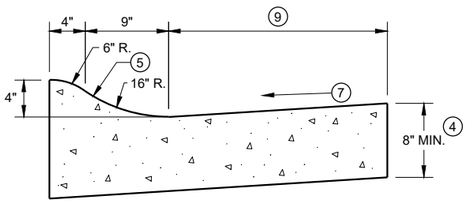


6" SLOPED CURB TYPES A (1) & D



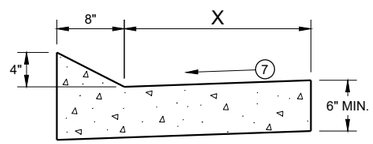
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

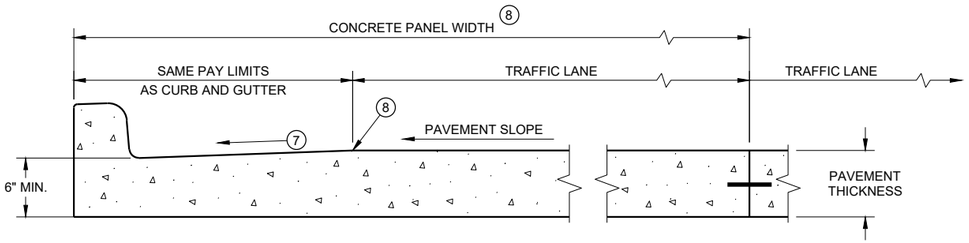


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

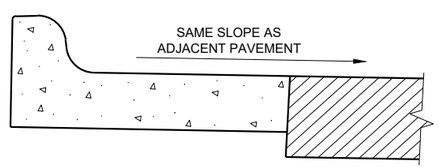
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

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

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

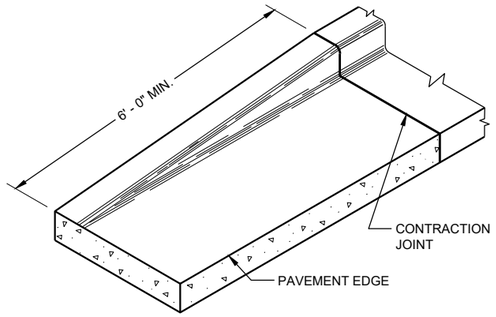
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

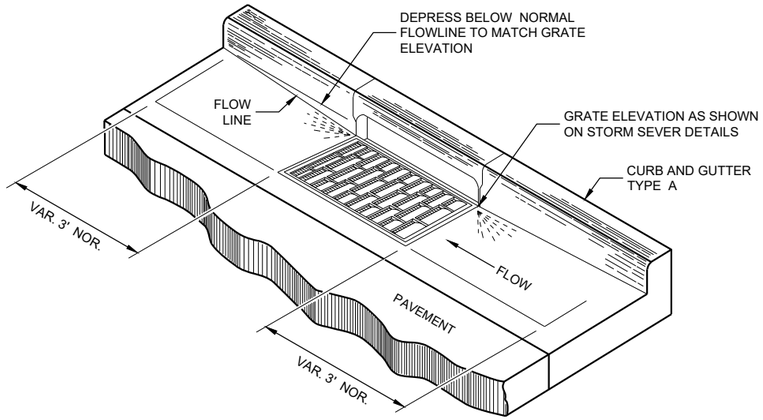
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



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

GENERAL NOTES

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

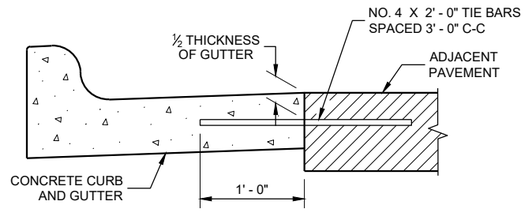
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

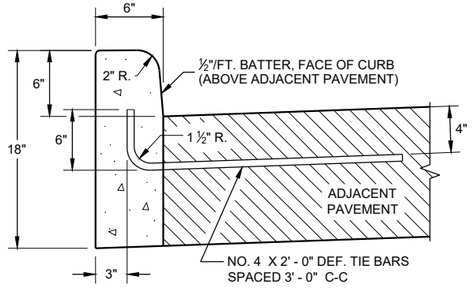
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

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

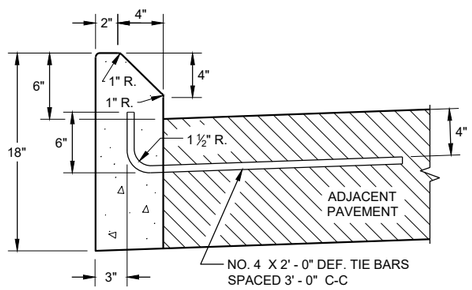
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

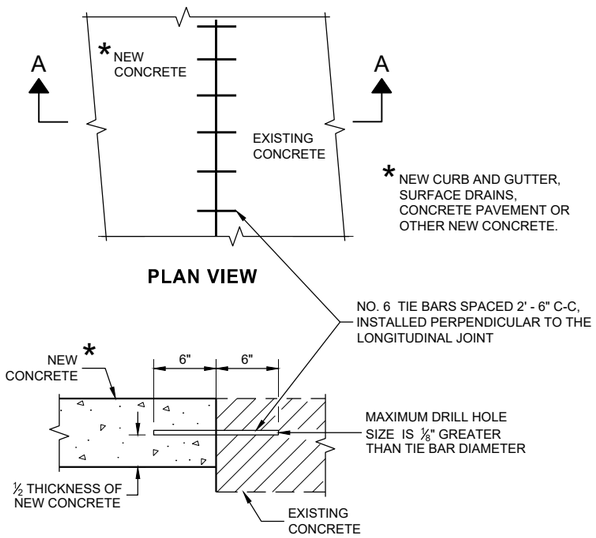


TYPES A (1) & D



TYPES G (1) & J

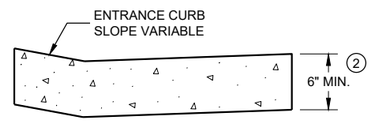
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



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

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

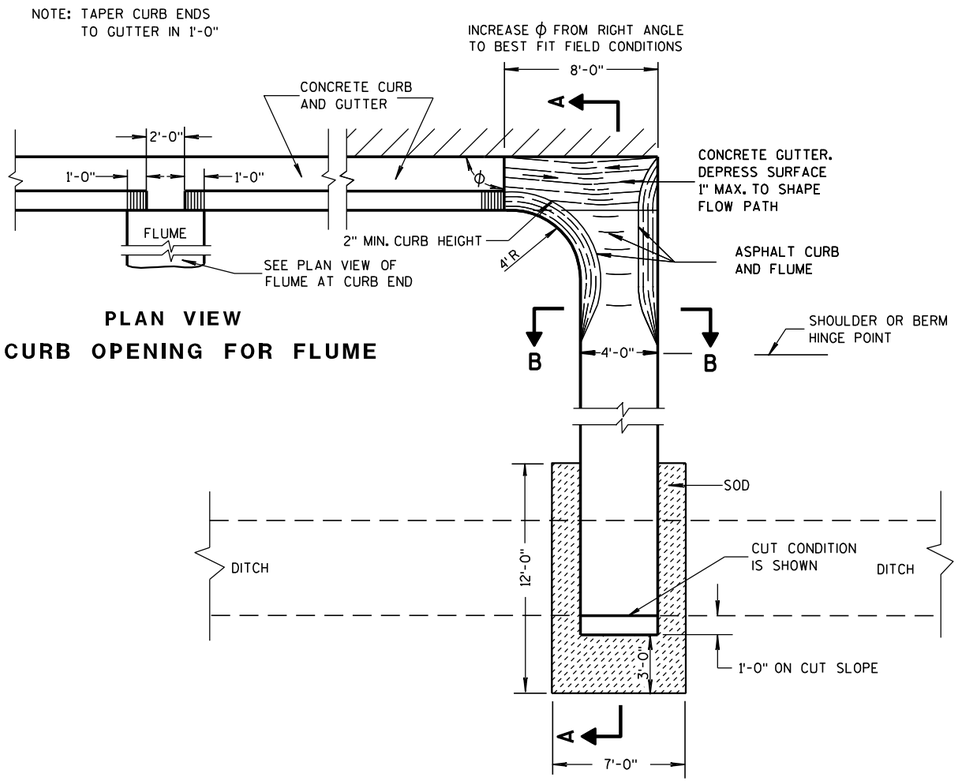
APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

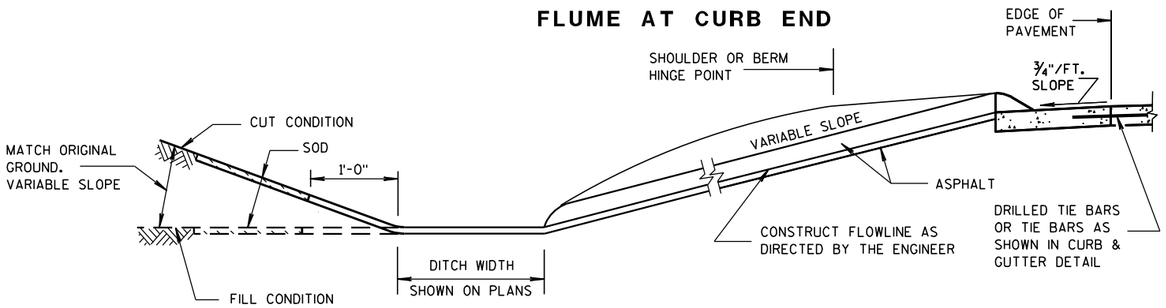
SDD08D01 - 22b

ASPHALTIC FLUME

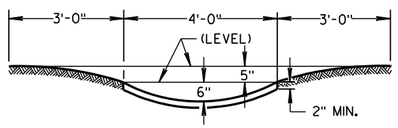


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

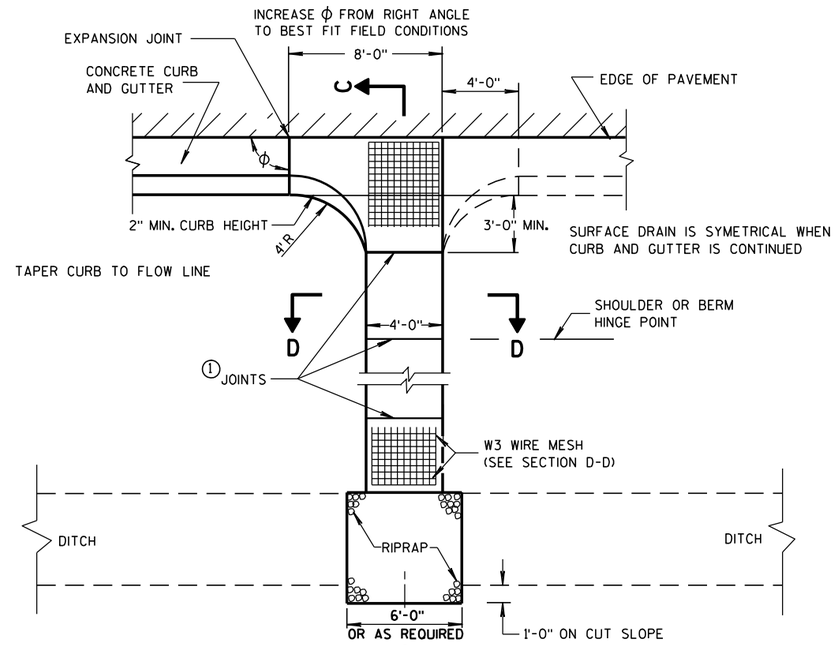
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

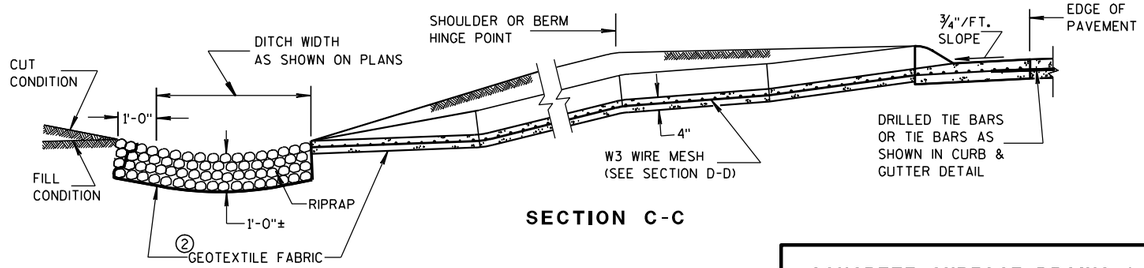
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

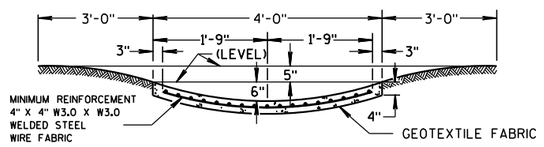
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



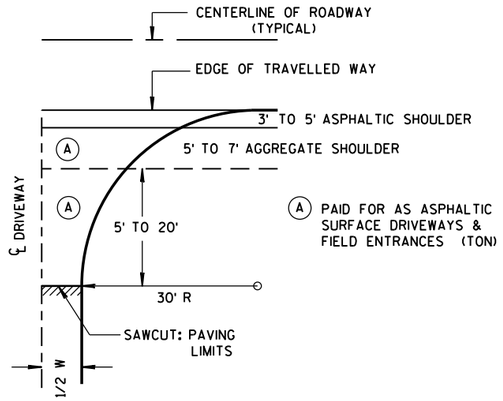
SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

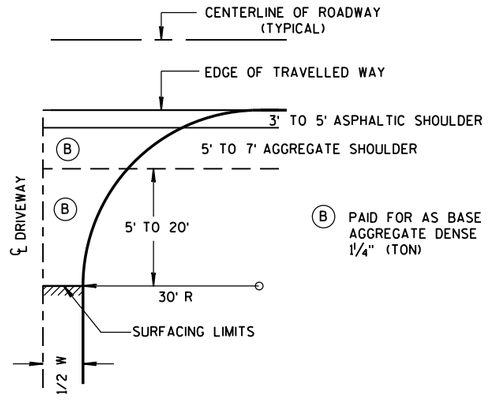
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
62
MENT

FHWA



PLAN VIEW
HALF SECTION

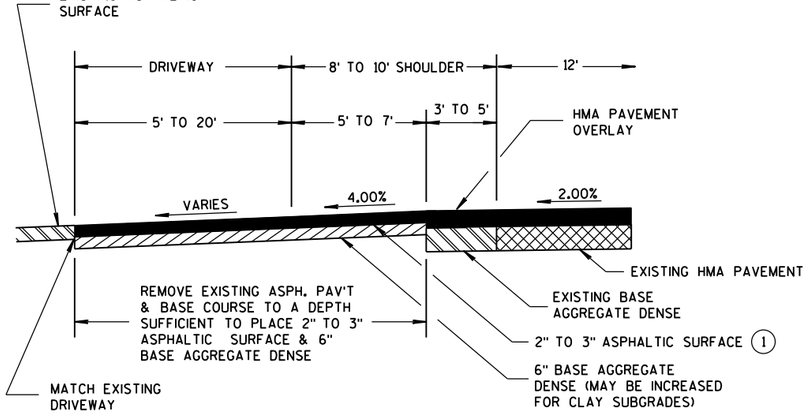
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

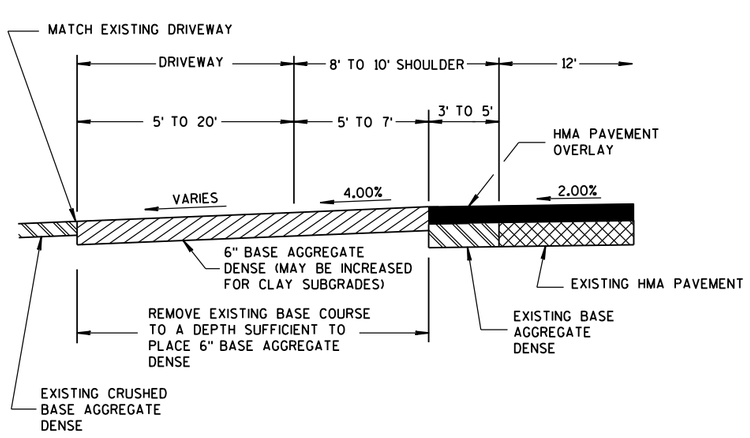
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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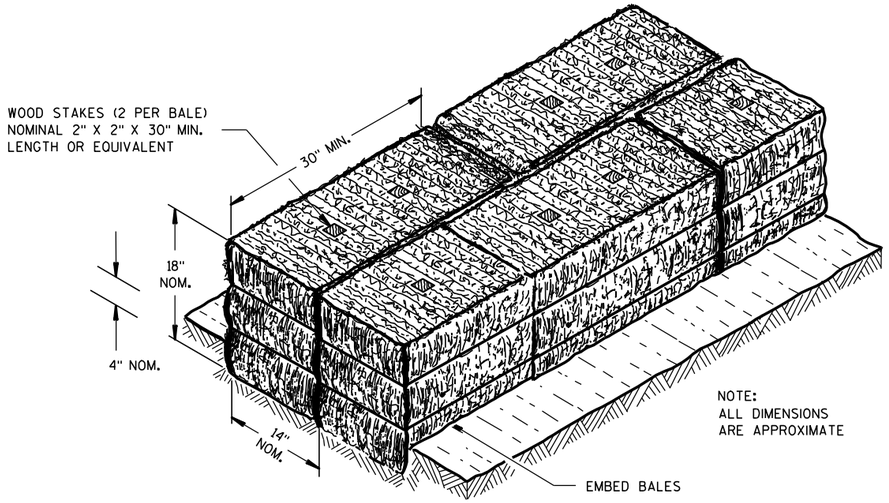
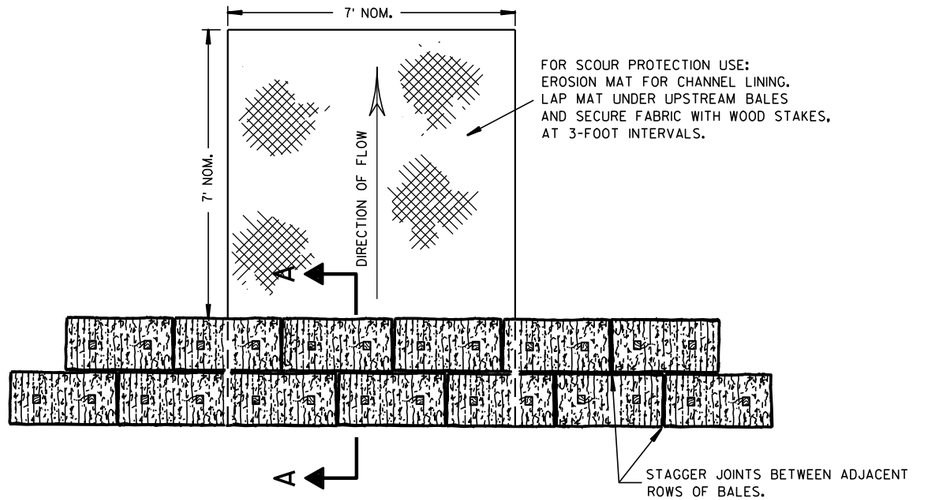
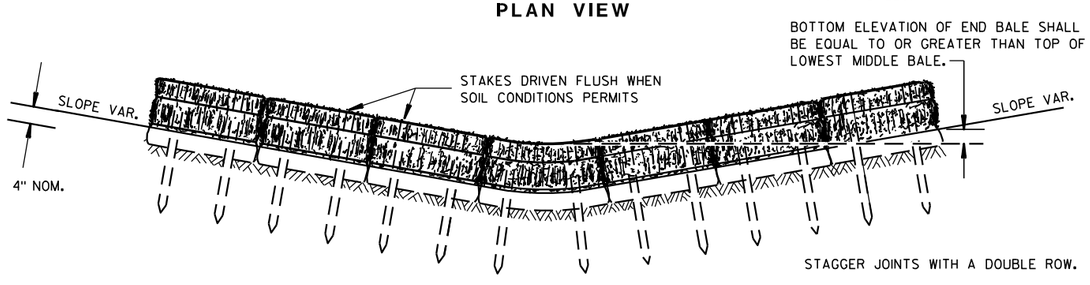
S.D.D. 8 D 22-1



SECTION A-A



PLAN VIEW



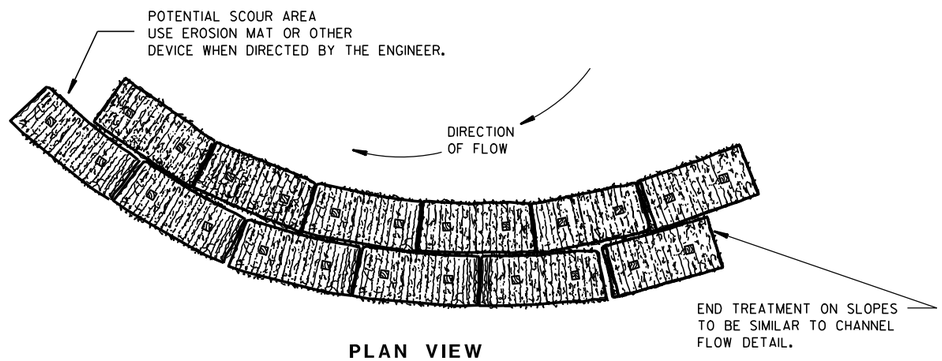
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

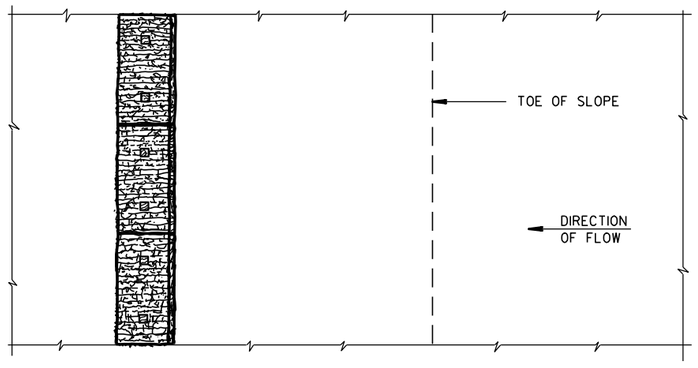
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

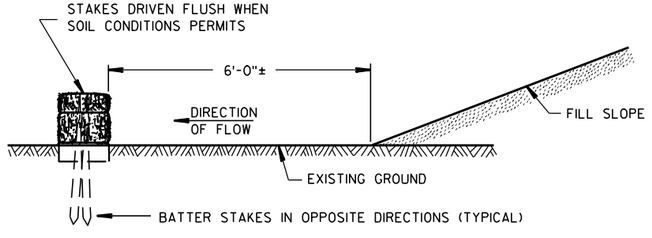


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

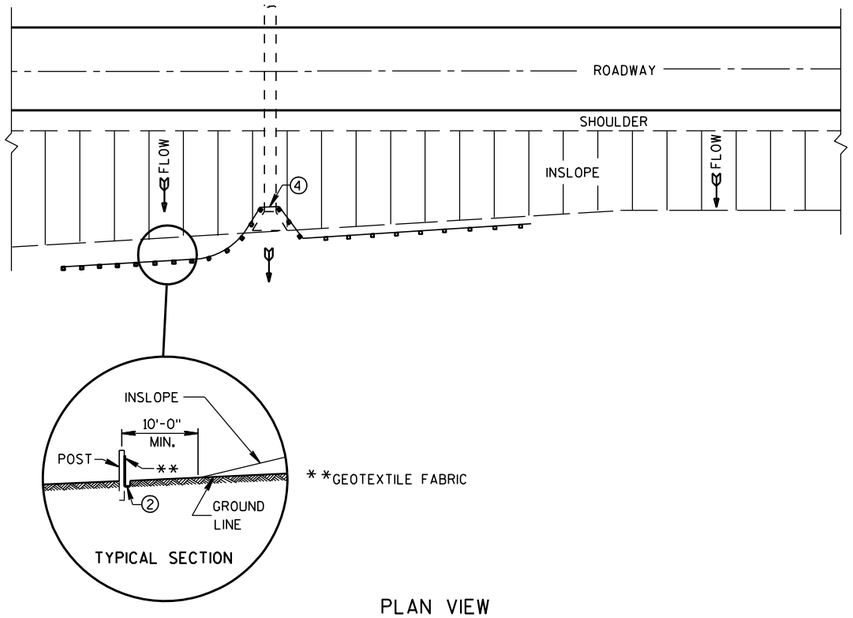
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

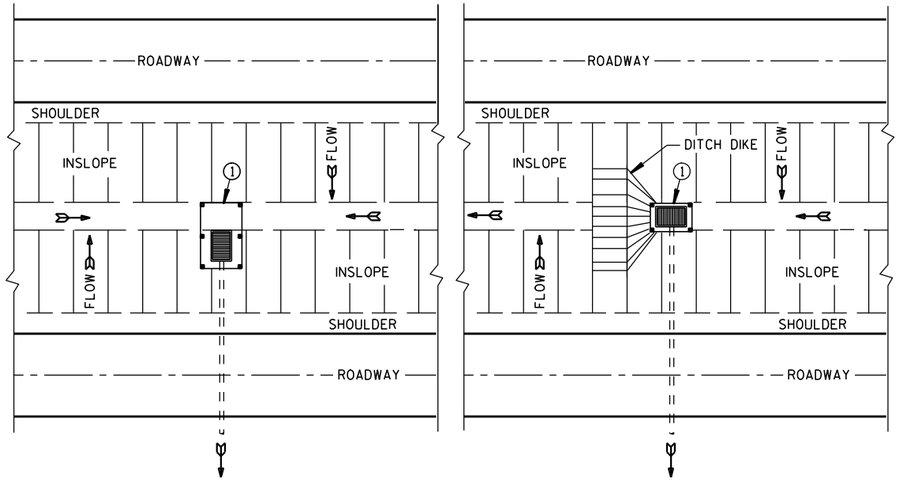
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

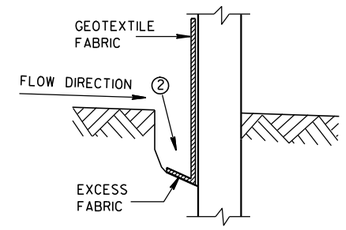
(1) HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

(2) FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

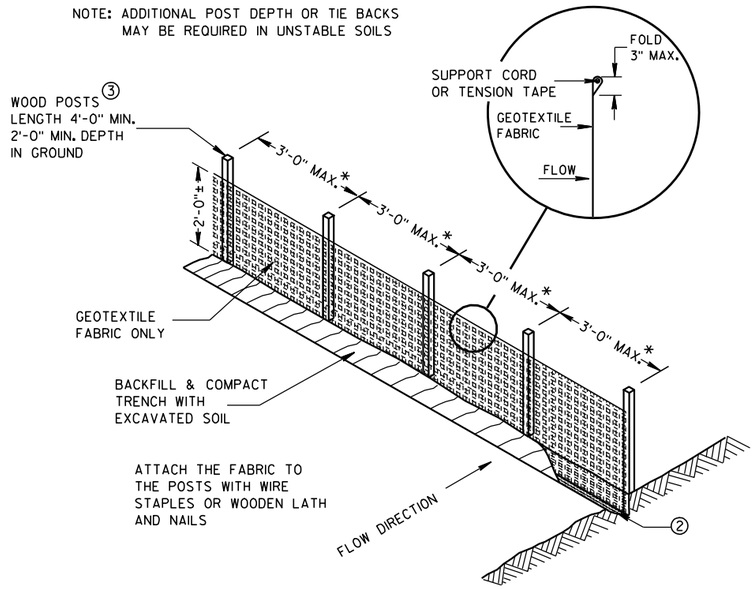
(3) WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

(4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

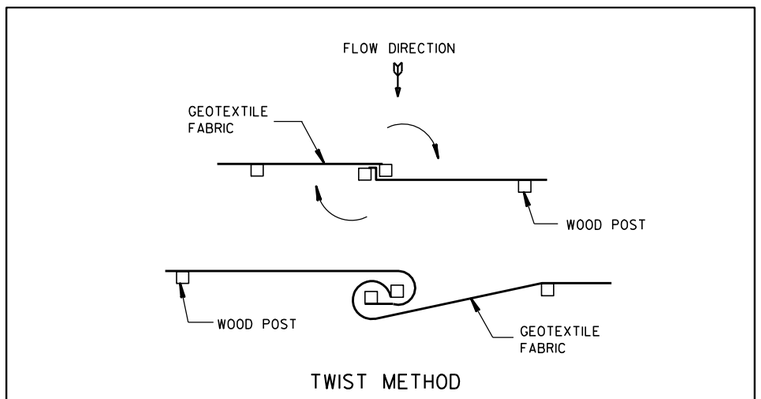
(5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



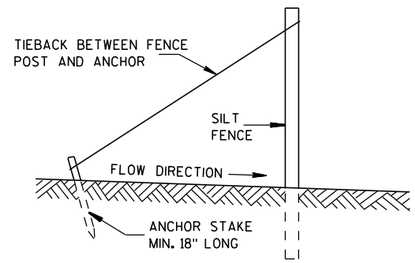
TRENCH DETAIL



SILT FENCE



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

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S.D.D. 8 E 9-6

METAL APRON ENDWALLS

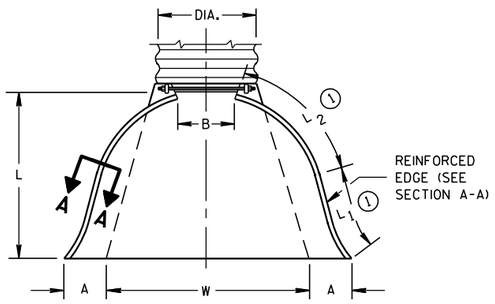
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

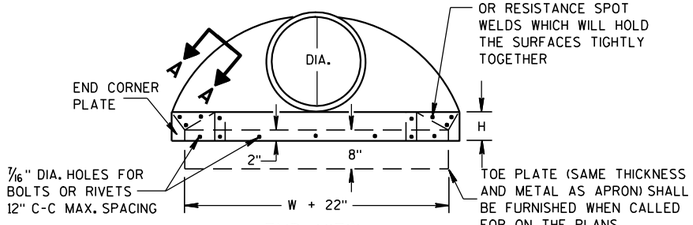
REINFORCED CONCRETE APRON ENDWALLS

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

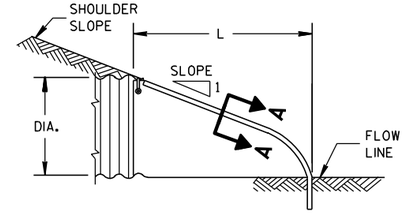
*MINIMUM
**MAXIMUM



PLAN VIEW

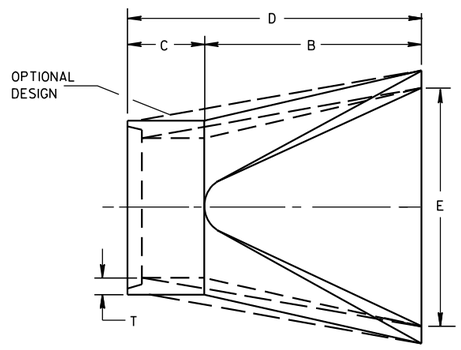


END VIEW

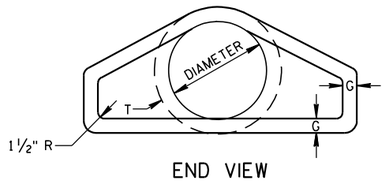


SIDE ELEVATION

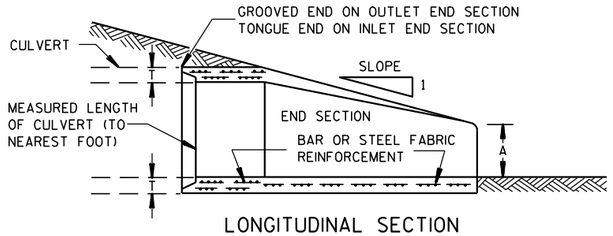
METAL ENDWALLS



PLAN

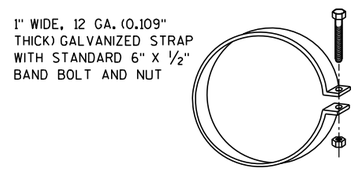


END VIEW



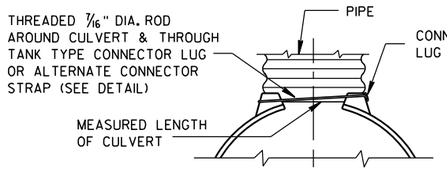
LONGITUDINAL SECTION

CONCRETE ENDWALLS

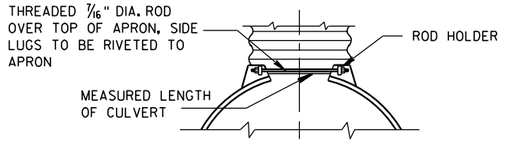


ALTERNATE FOR TYPE 1 CONNECTION

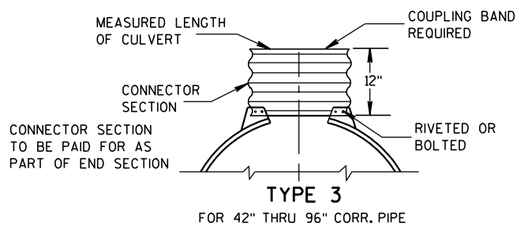
END SECTION CONNECTOR STRAP



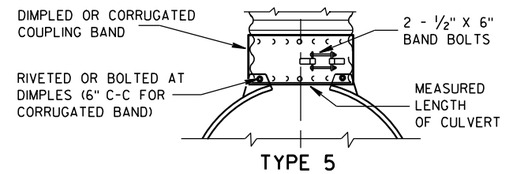
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

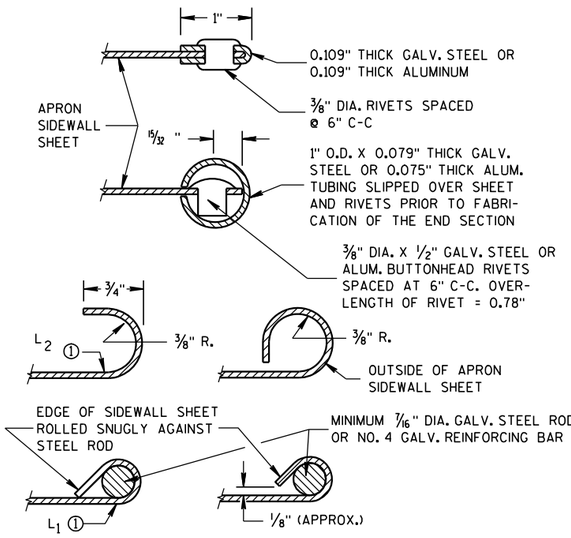
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

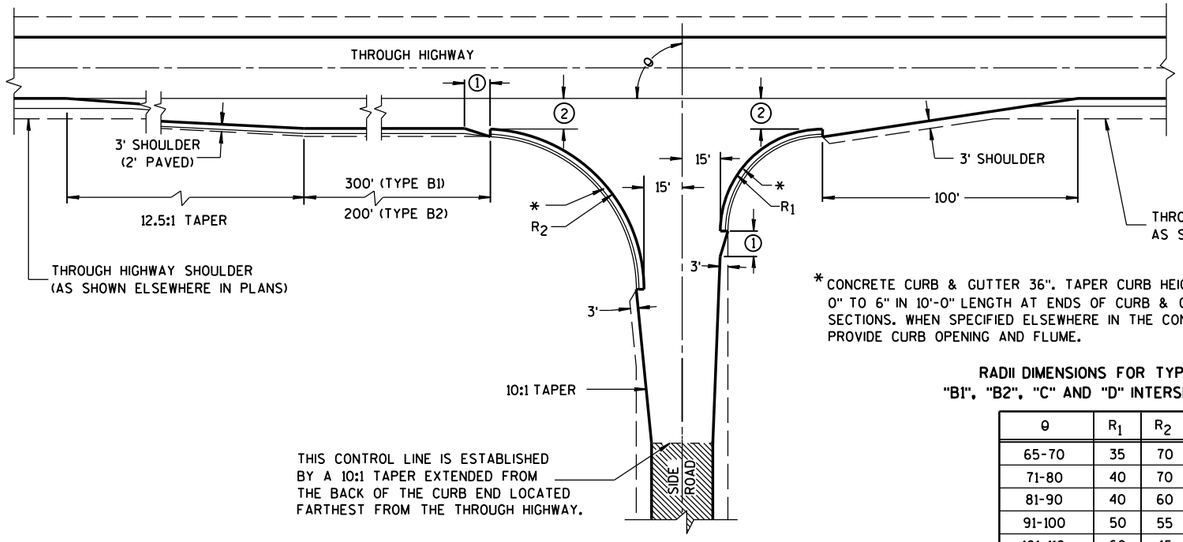
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

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

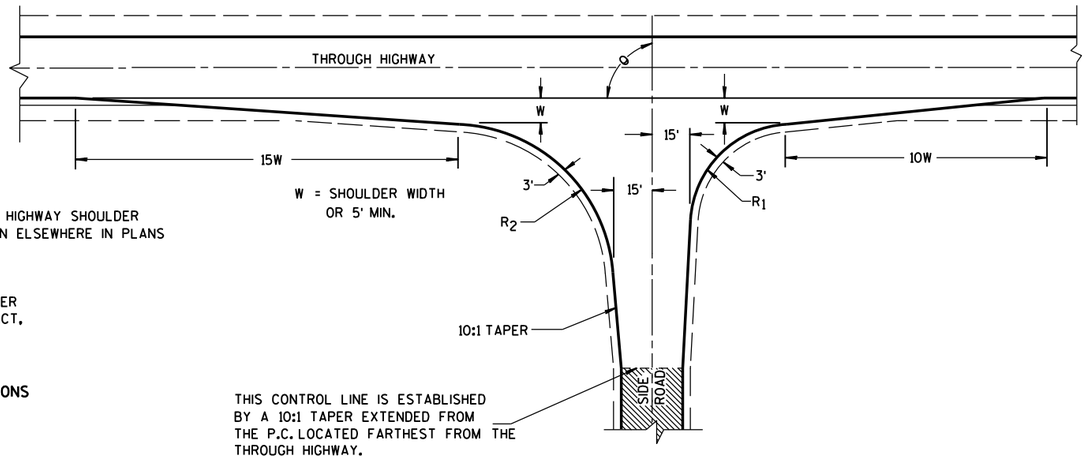


TYPE "B1" AND "B2"

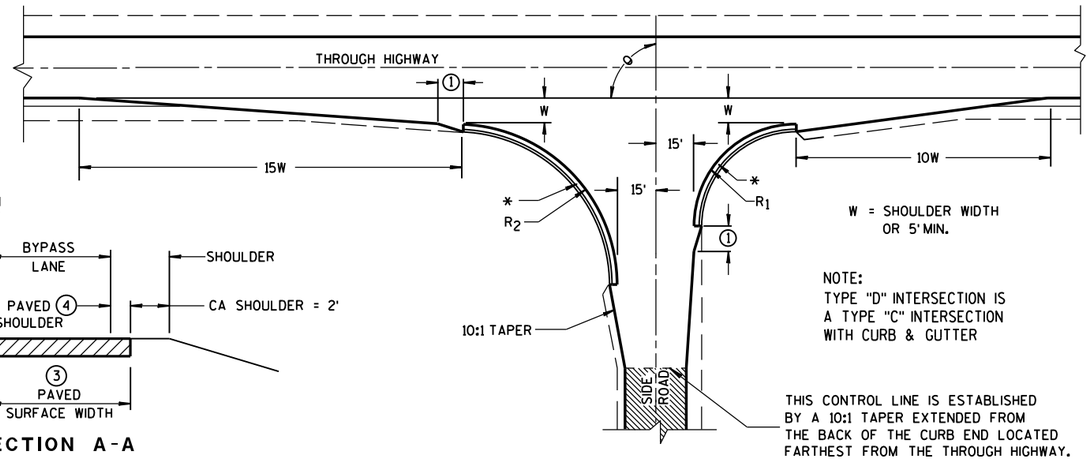
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

(1) 10-FT TYPICAL.

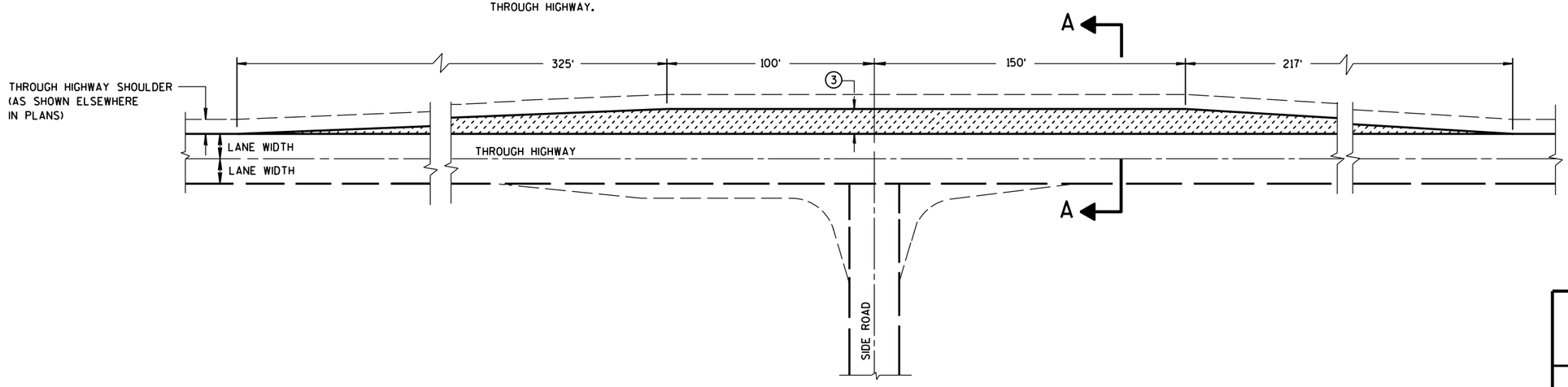
(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

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

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

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

SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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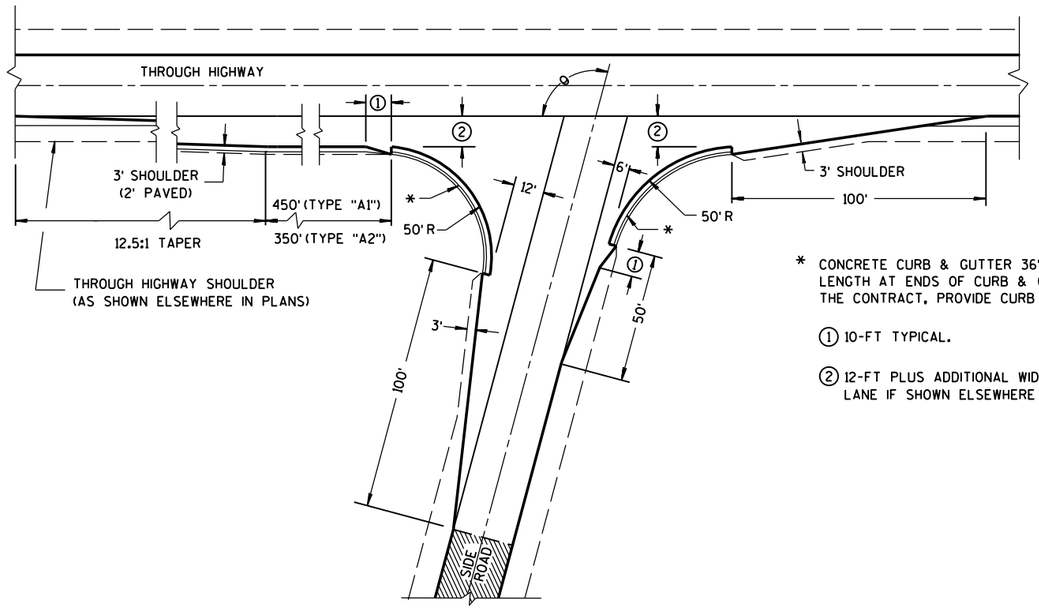
S.D.D. 9 A 1-13a



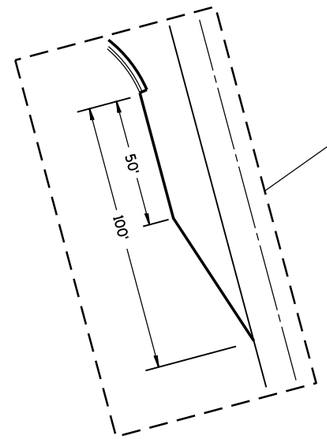
θ = MORE THAN 80°

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

① 10-FT TYPICAL.

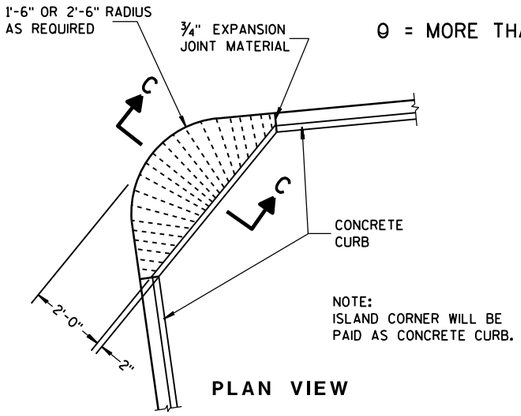
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE



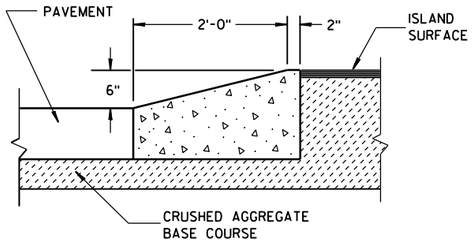
θ = ACUTE ANGLES 80° OR LESS

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



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

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

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

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

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

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

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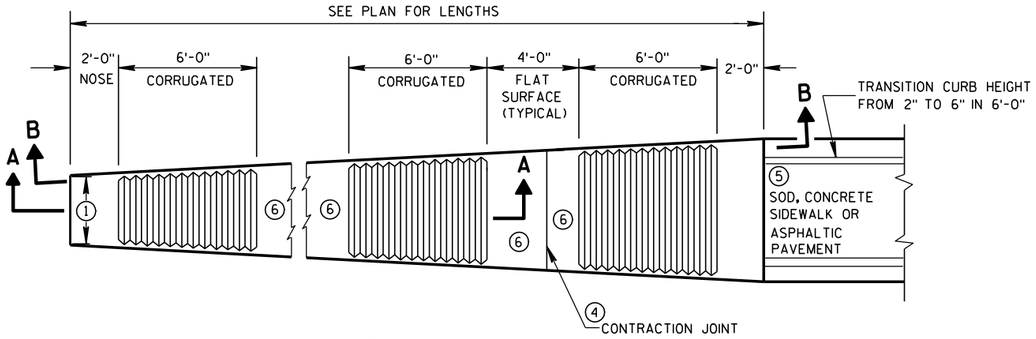
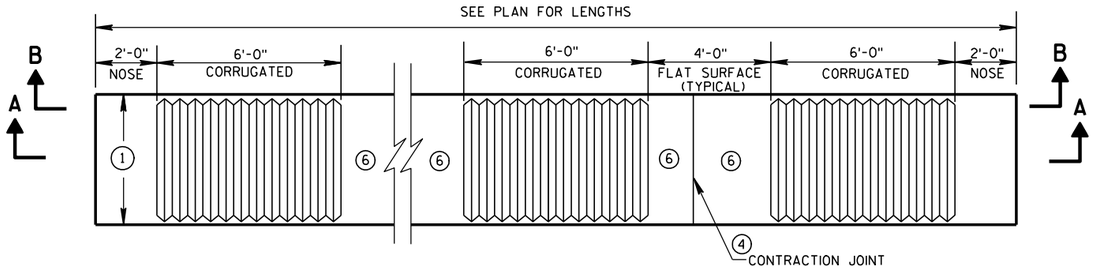
S.D.D. 9 A 1-13b



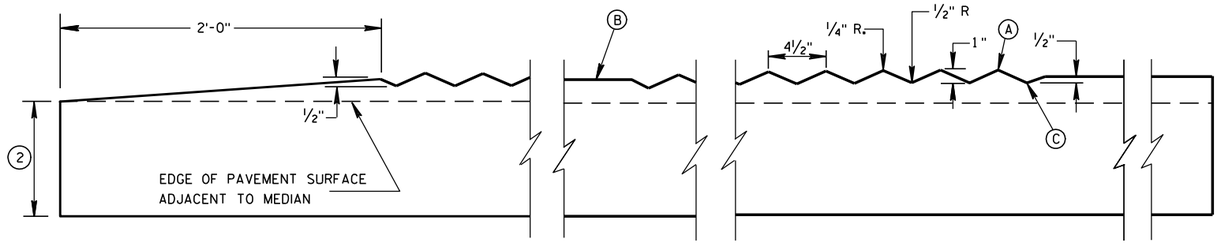
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

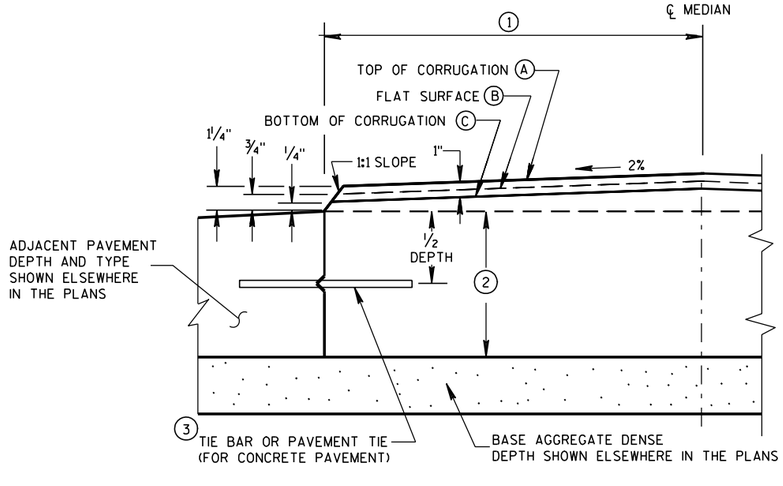
(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.
ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
(1) NEW OR EXISTING CONCRETE PAVEMENT.
(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.
(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

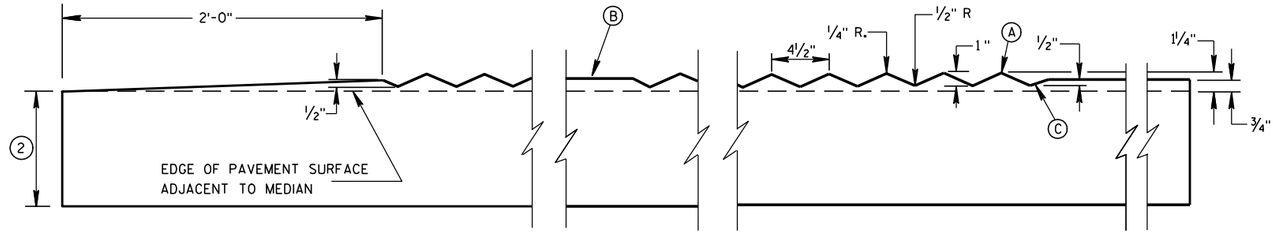
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B

LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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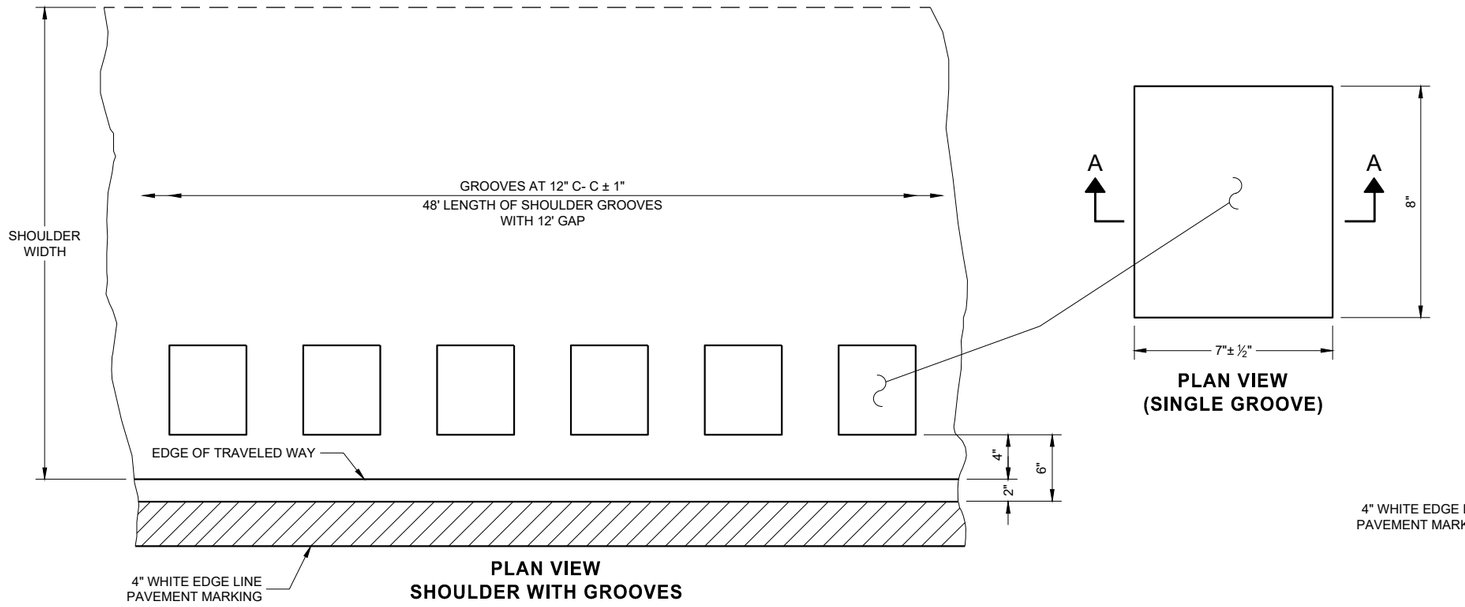
S.D.D. 11 B 1-5



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

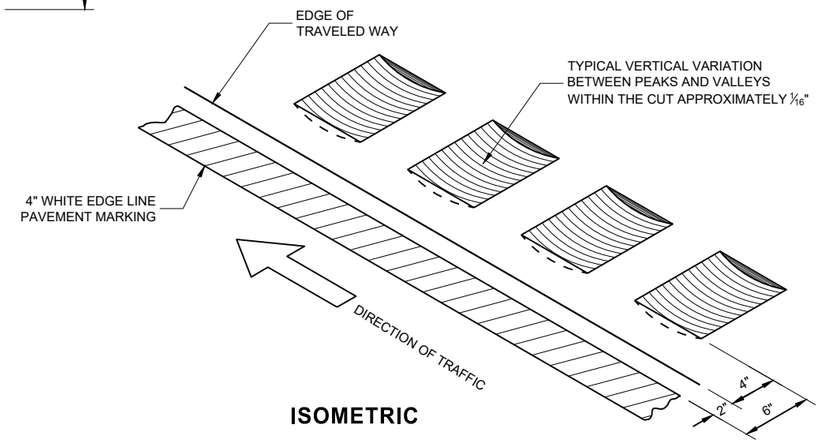
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

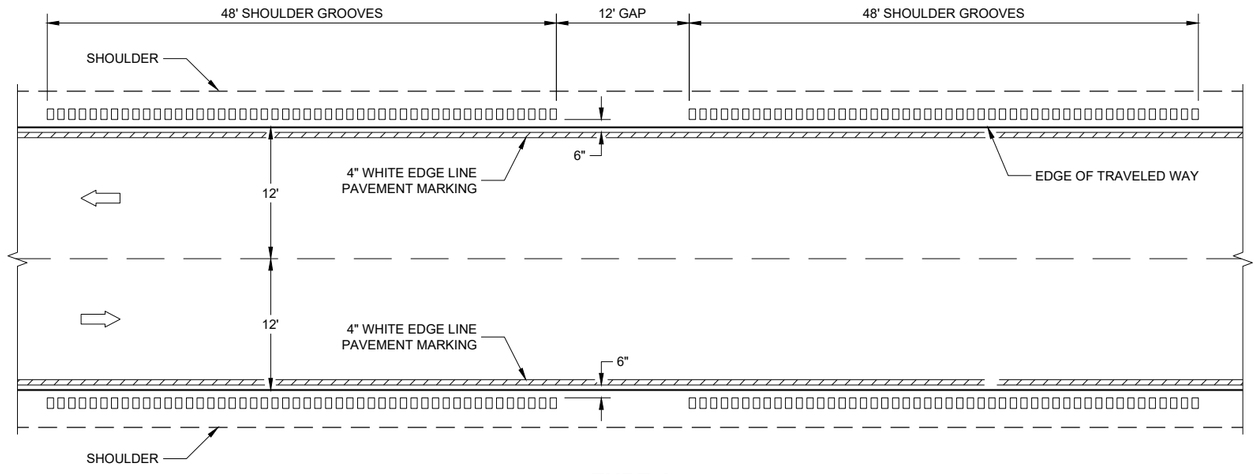
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

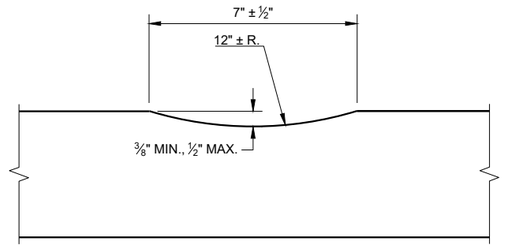
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02a

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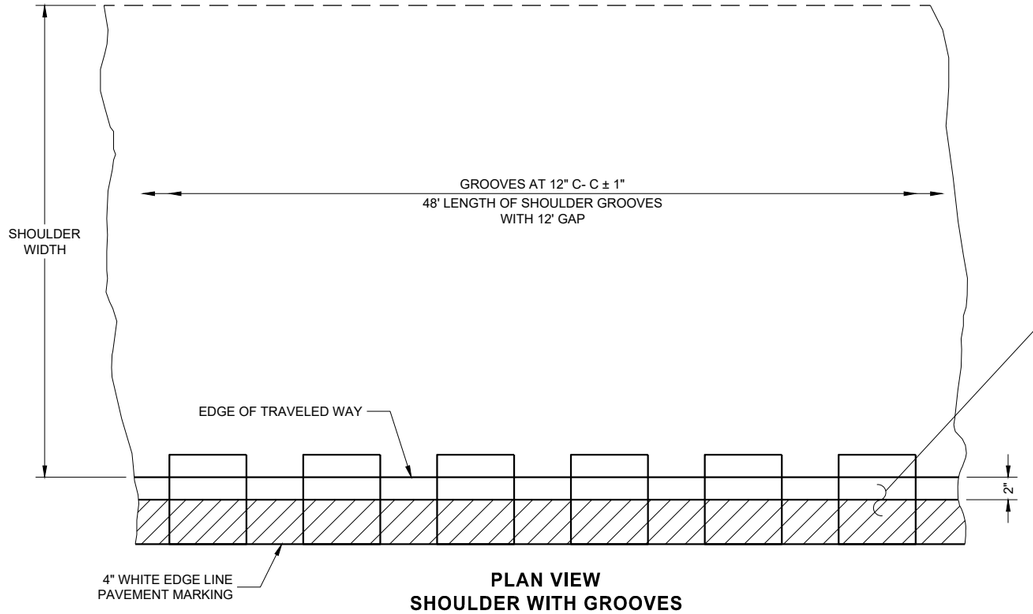
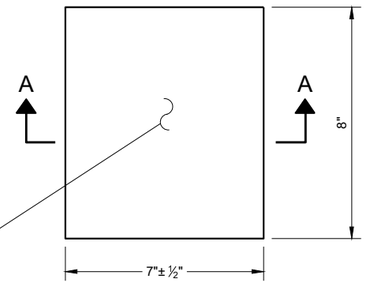
SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



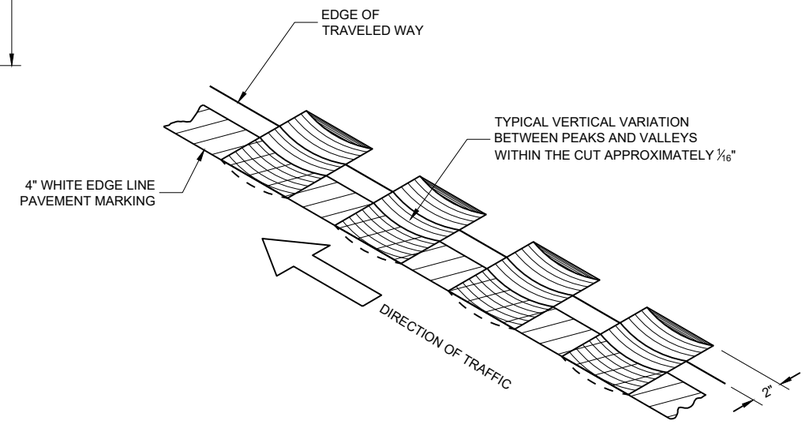
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

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

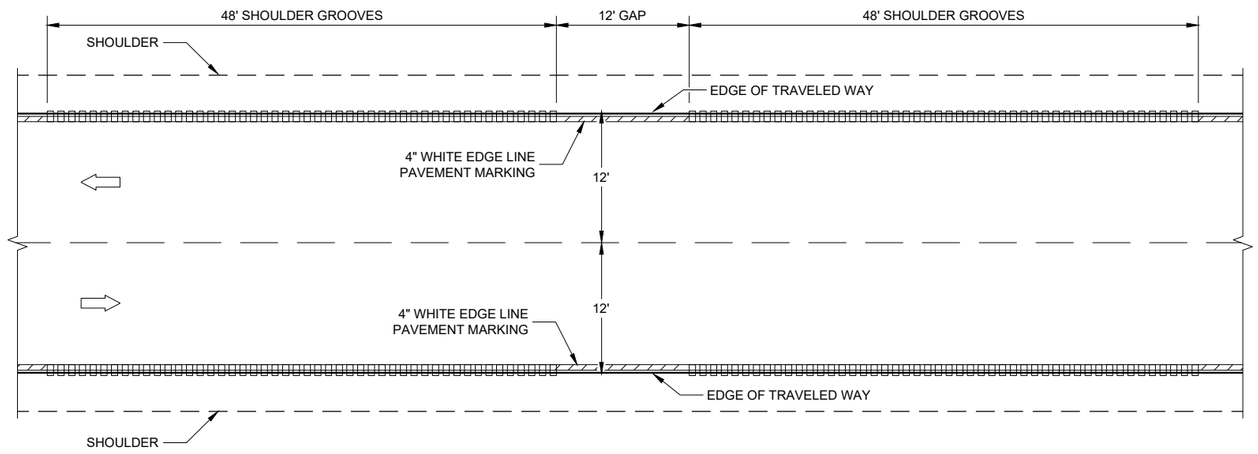
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

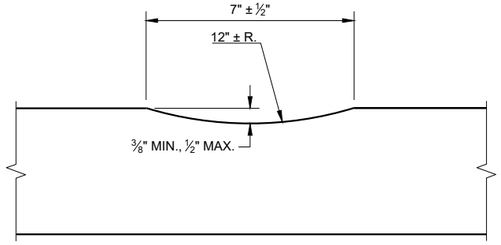


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



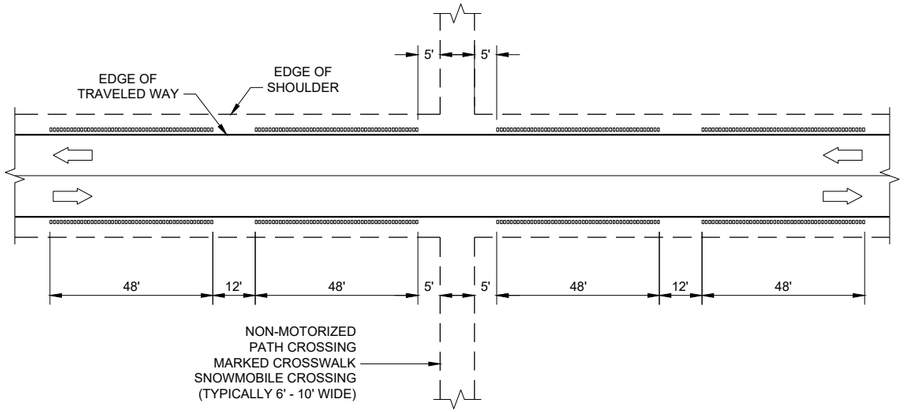
SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

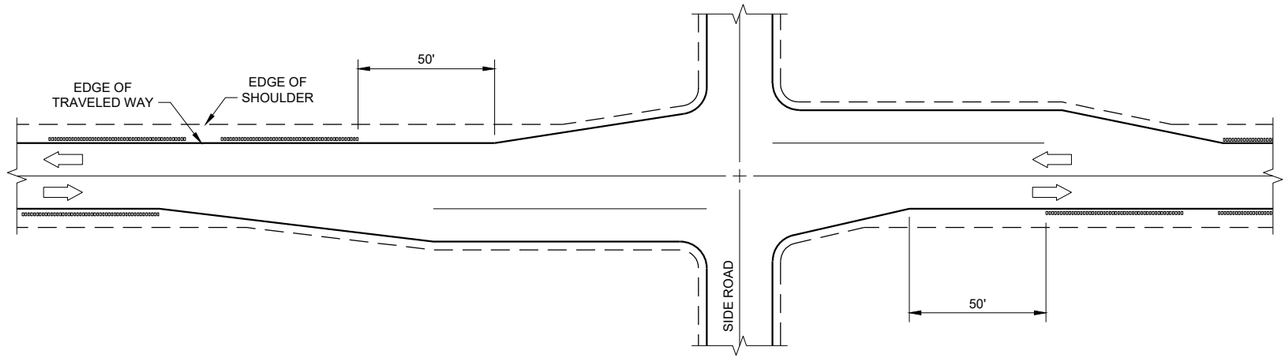
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02b

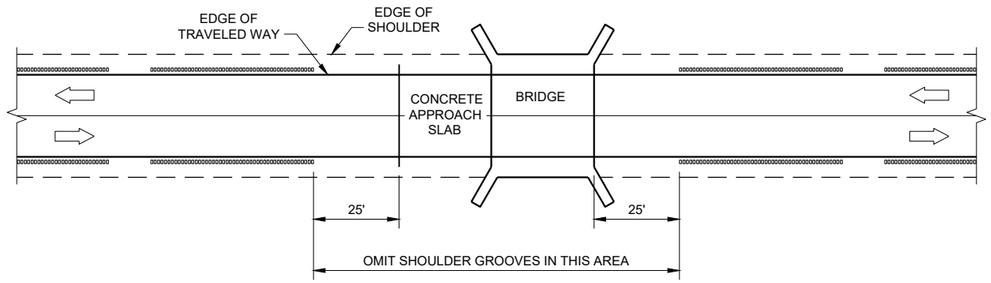
SDD 13A10 - 02b



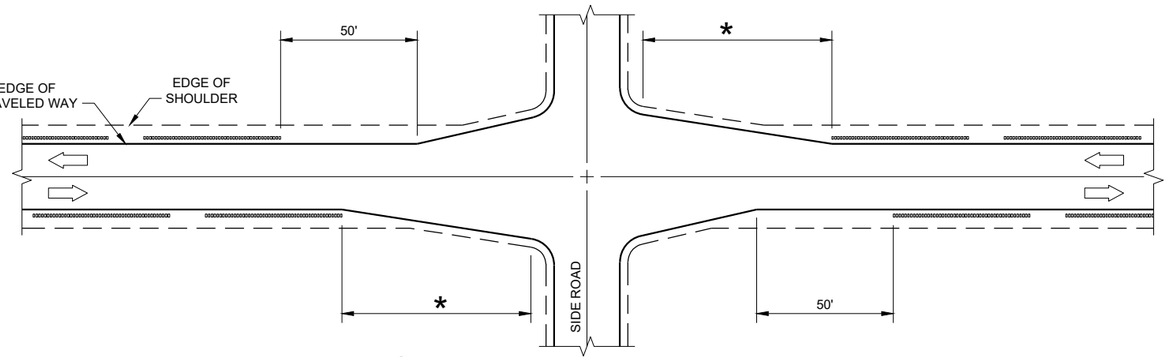
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

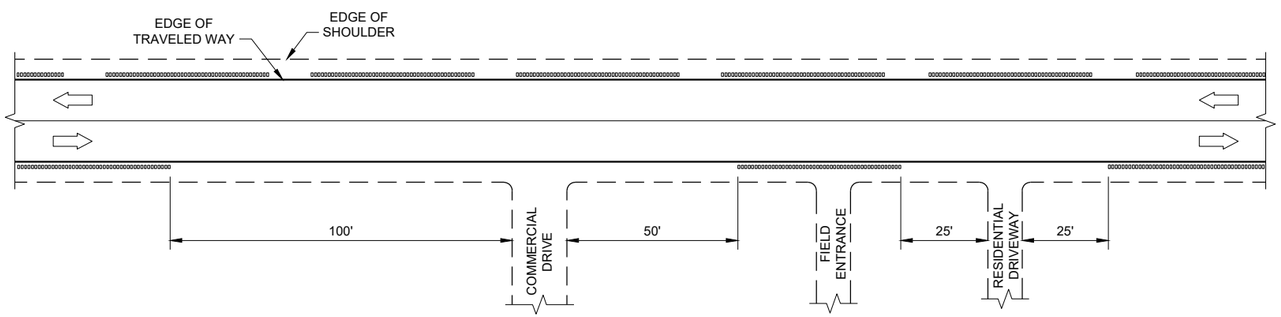


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

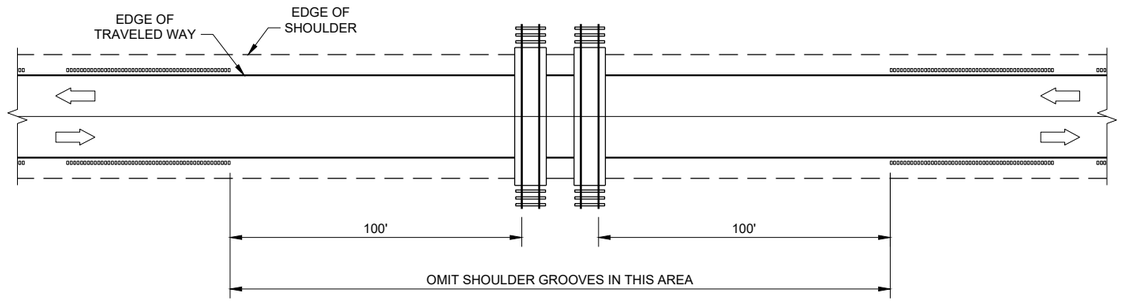
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

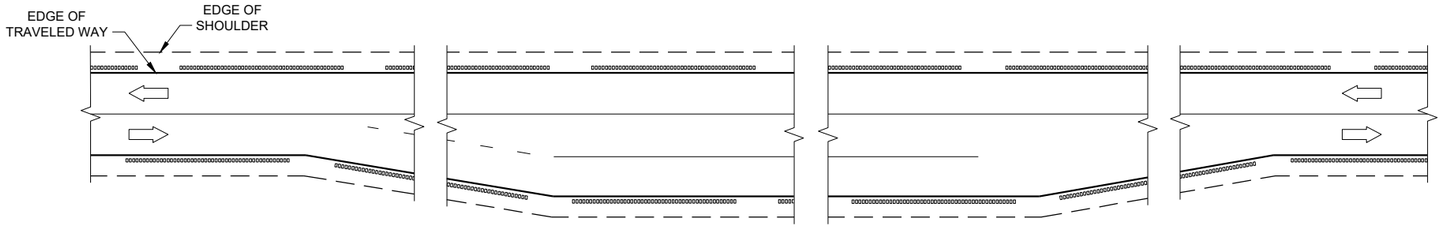
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

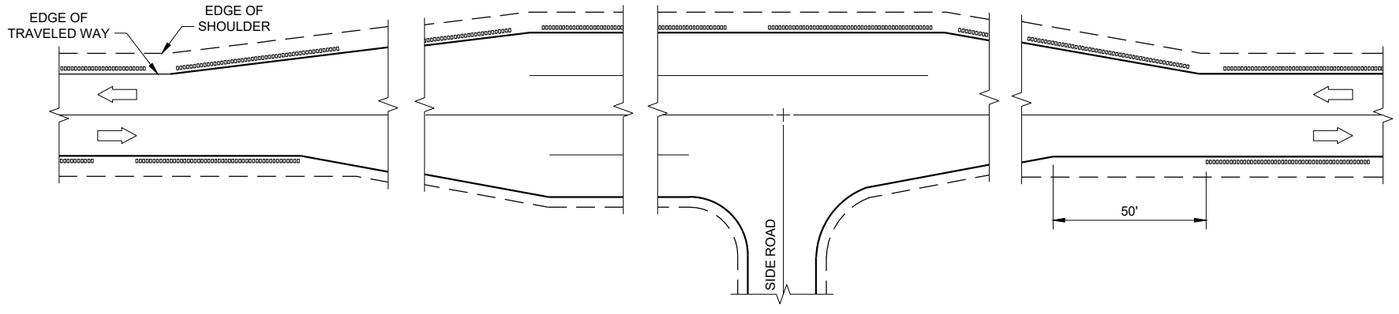
SDD 13A10 - 02c



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

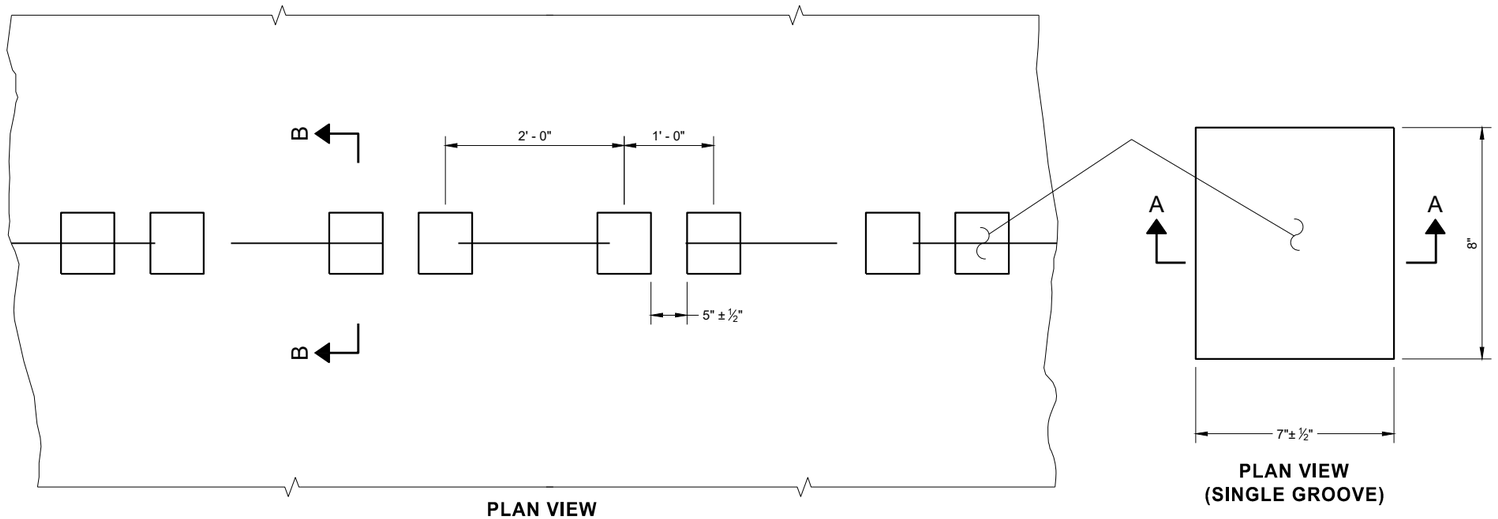
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

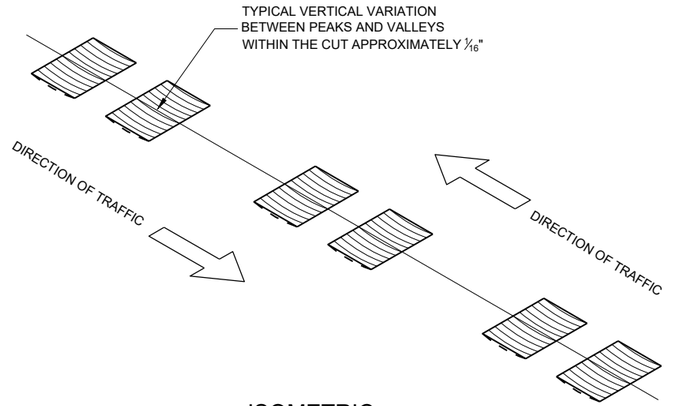
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

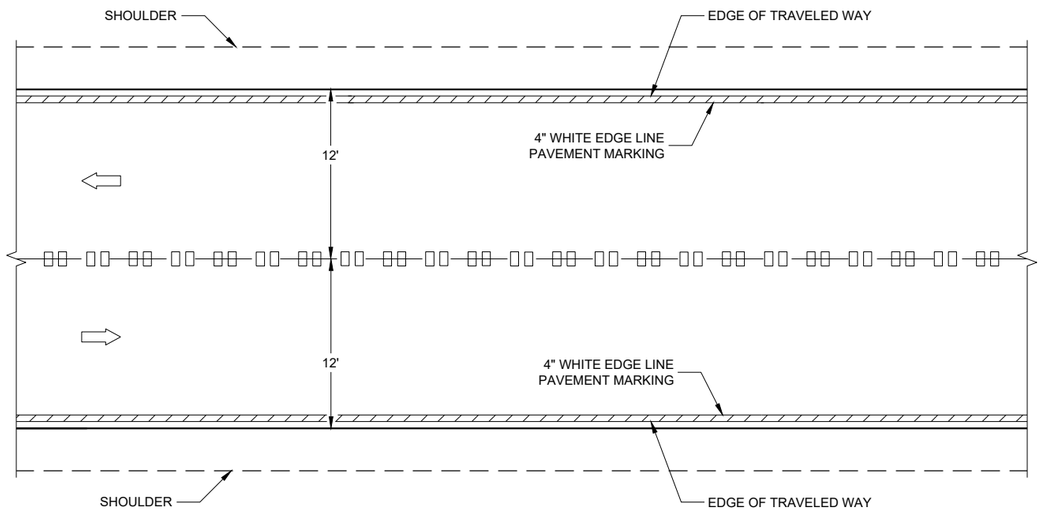
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

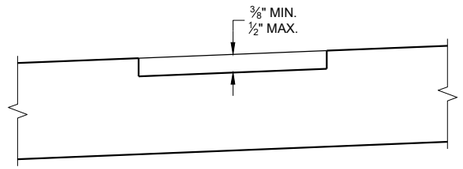
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



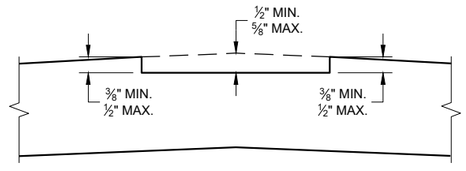
ISOMETRIC



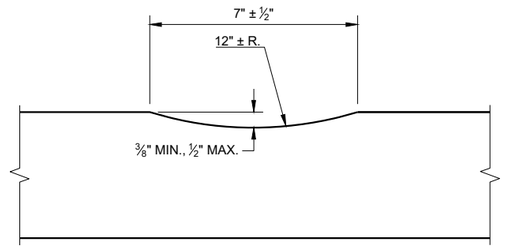
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



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

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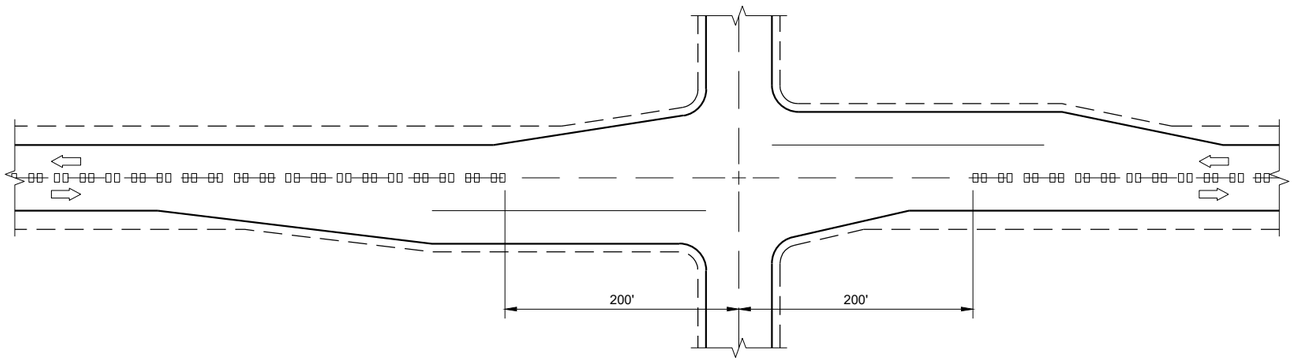
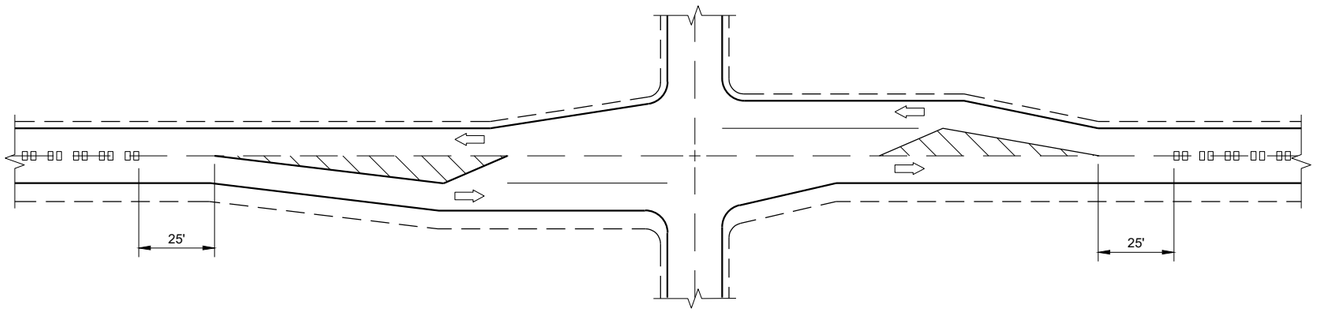
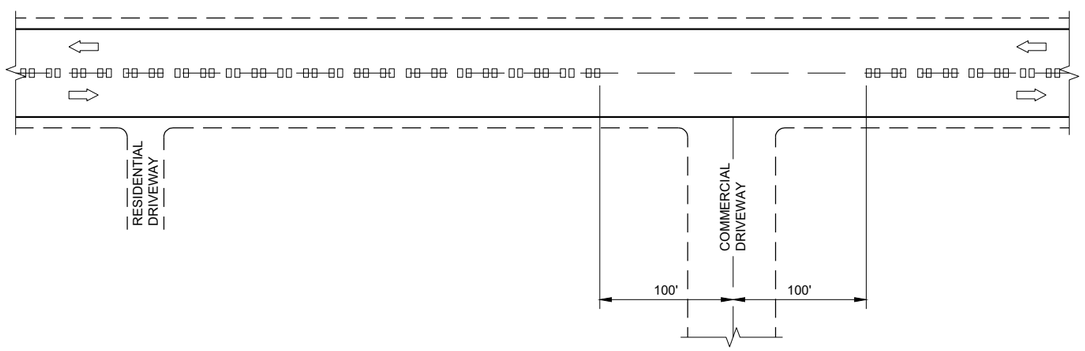
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



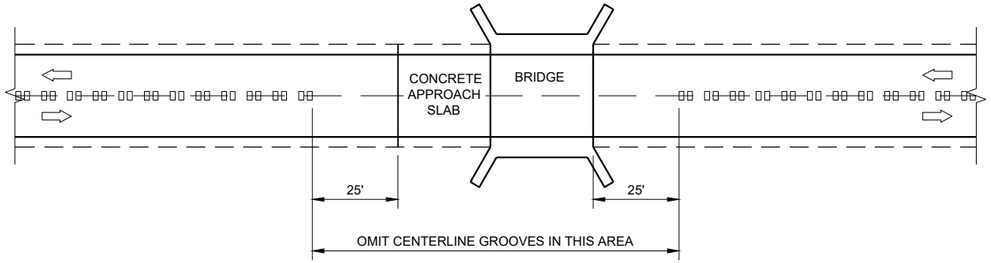
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



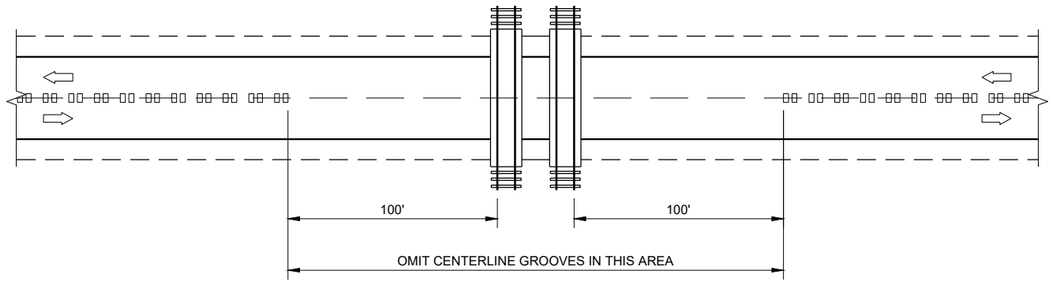
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

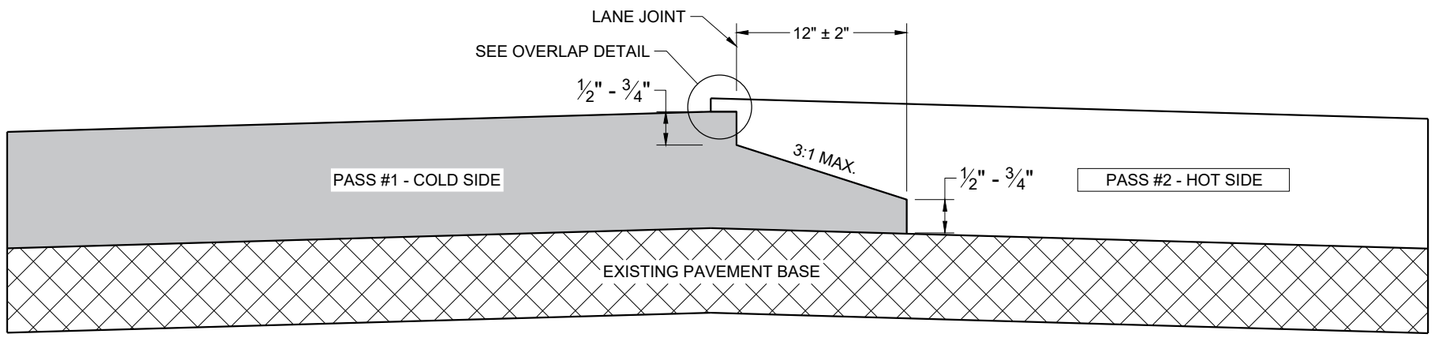
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE

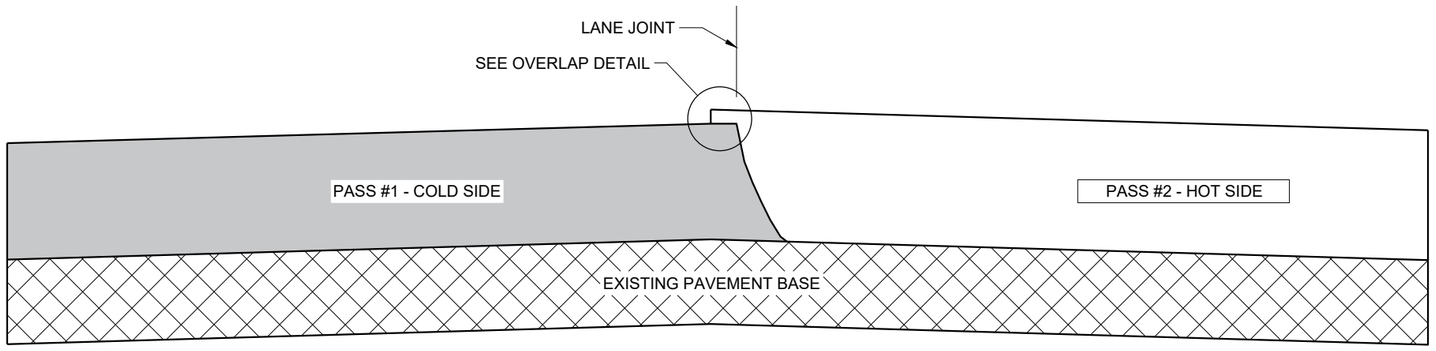
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

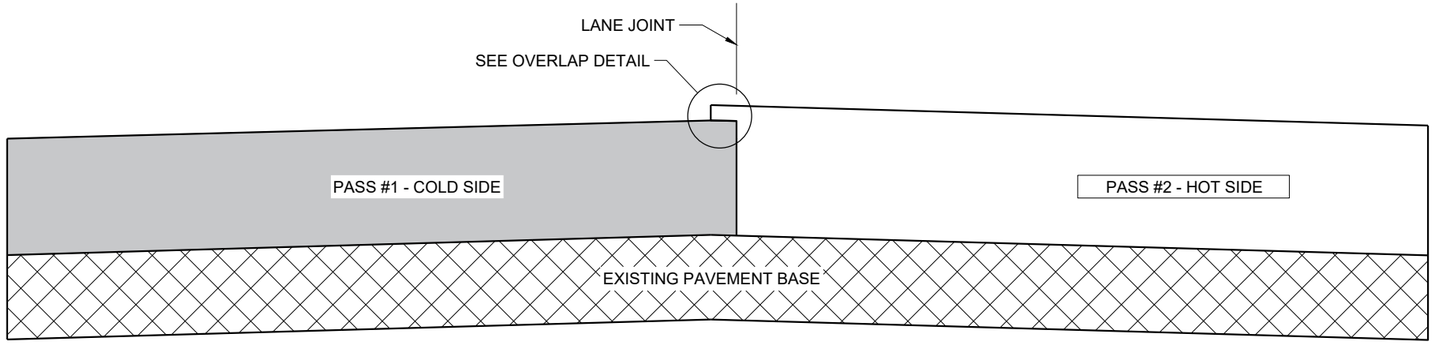
6
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

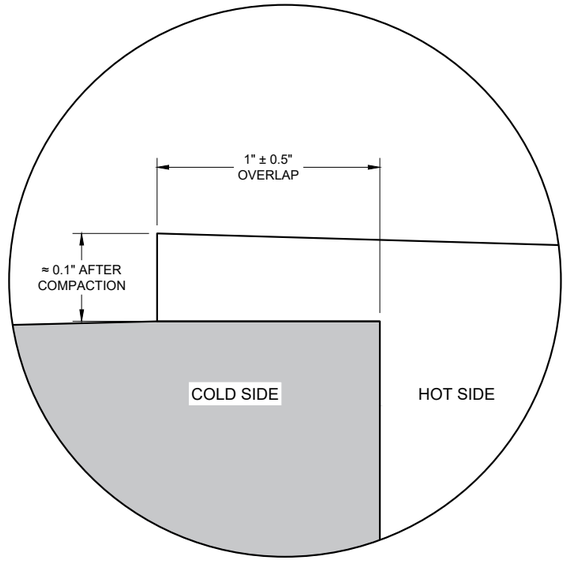
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

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SDD 13C19 - 03

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

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

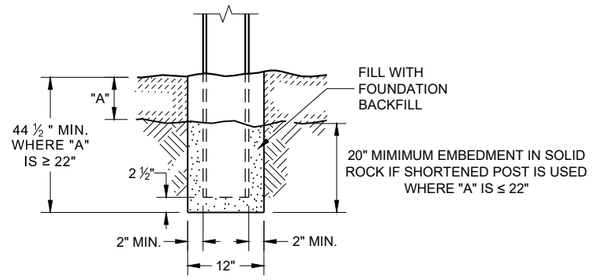
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

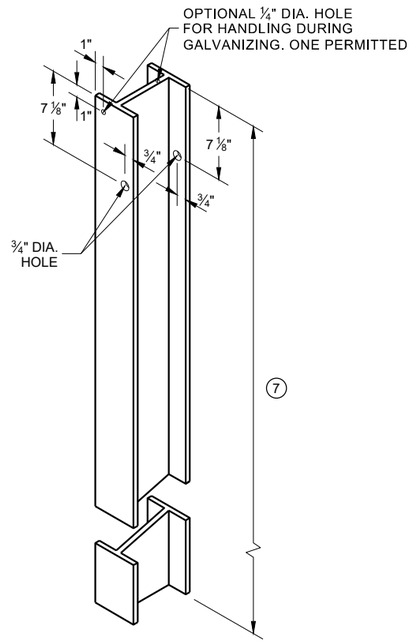
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

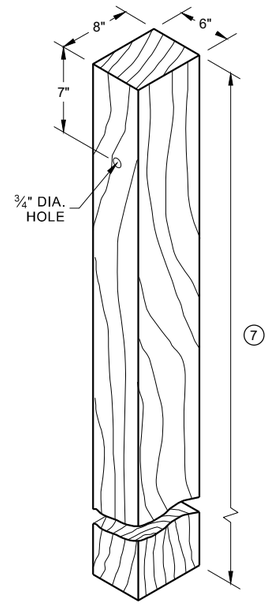
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



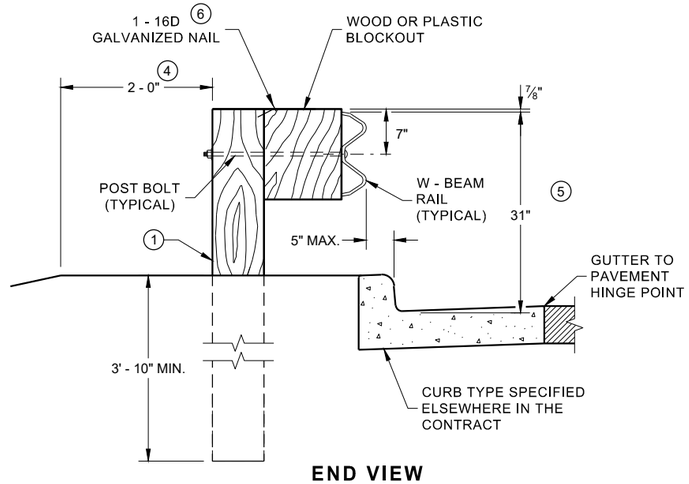
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



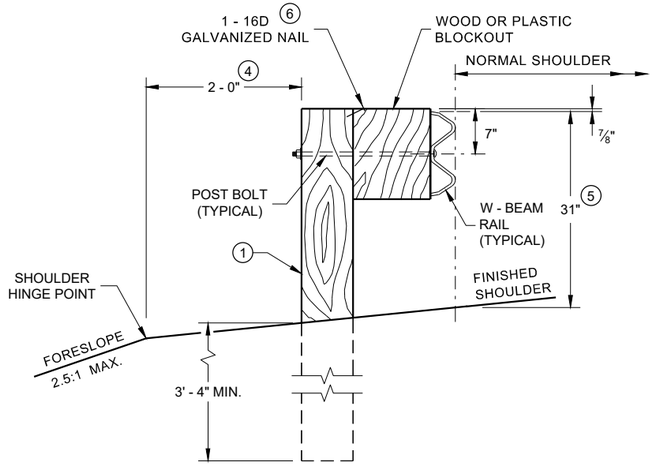
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



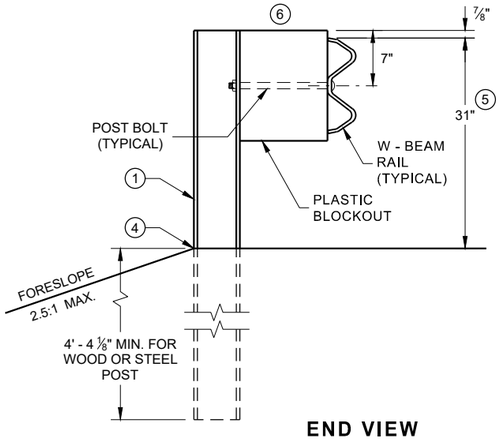
WOOD POST (6" X 8") NOMINAL (1)



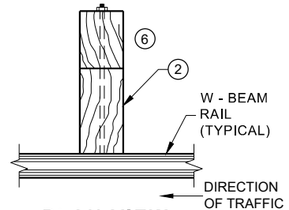
END VIEW
LOCATED ALONG A CURBED ROADWAY



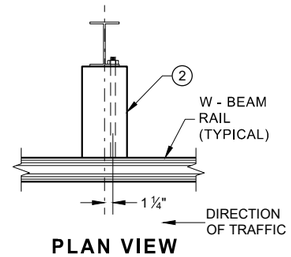
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



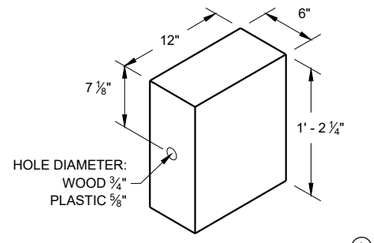
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



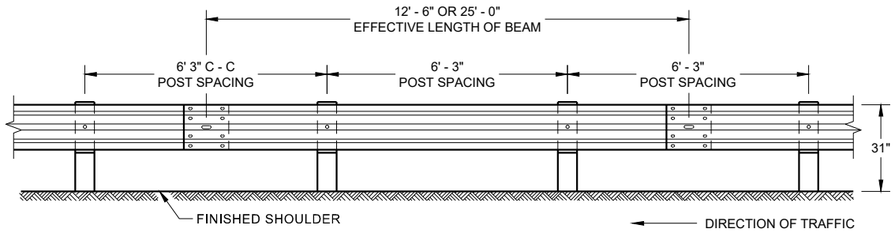
PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



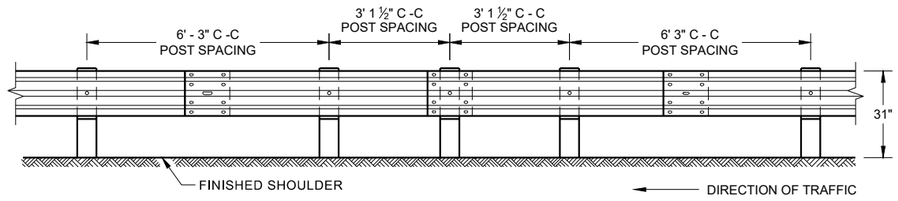
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

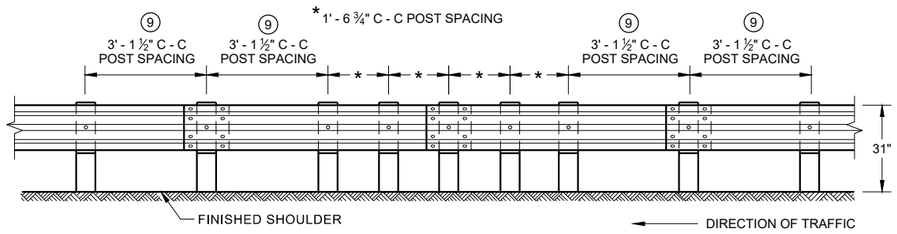
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



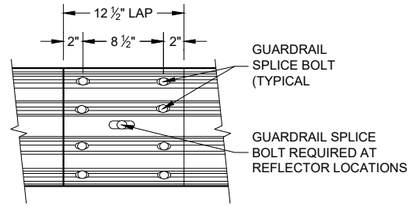
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

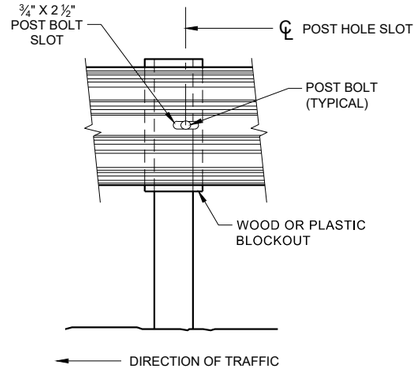
GENERAL NOTES

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

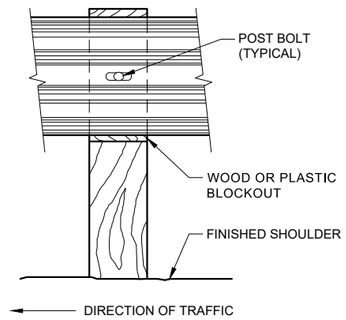
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

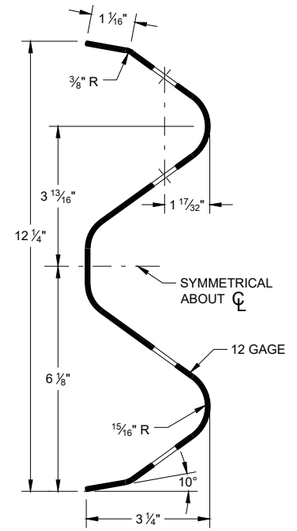
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



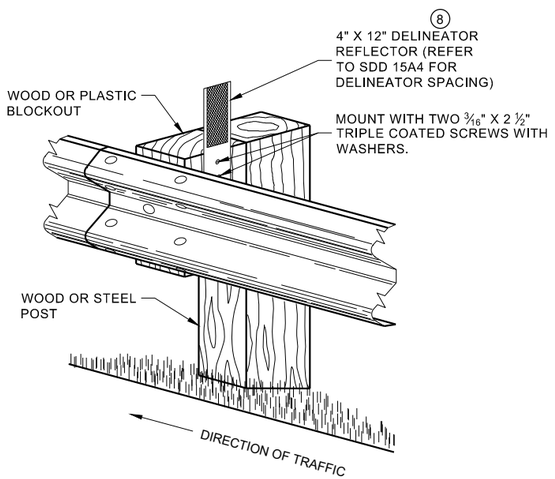
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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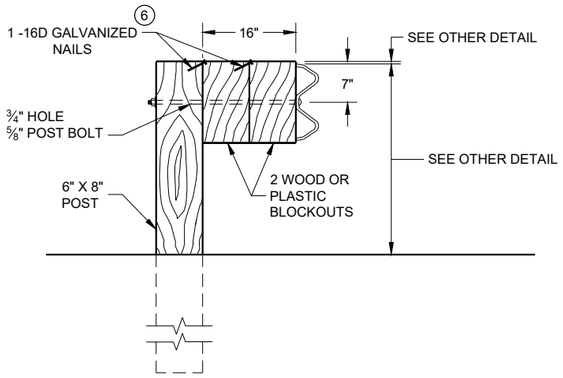
SDD 14B42 - 07b

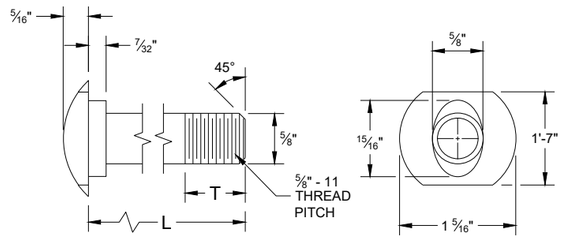


DETAIL FOR 16" BLOCKOUT DEPTH

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

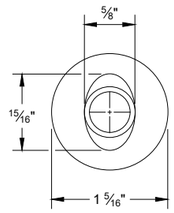
NOTE:

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

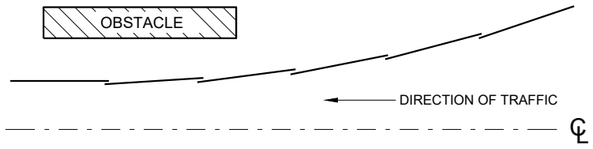


POST BOLT TABLE

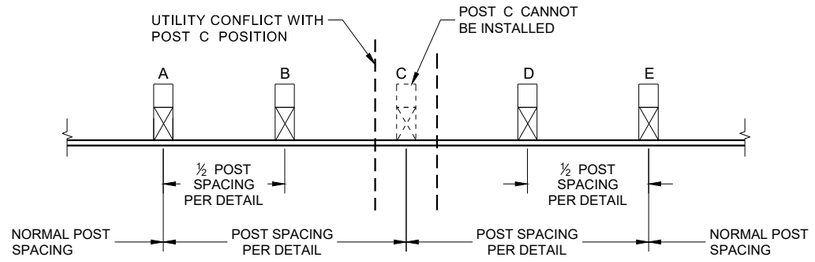
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



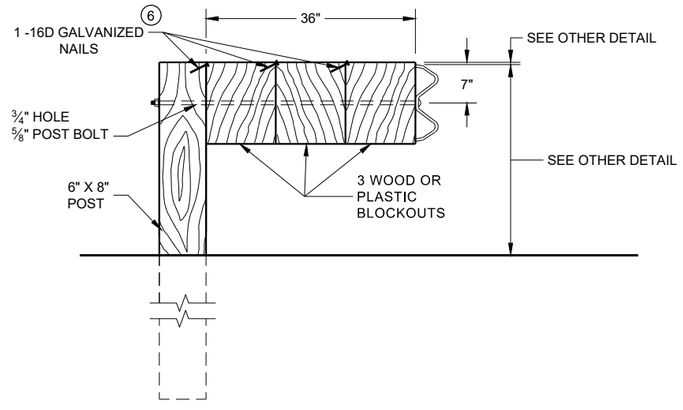
ALTERNATE BOLT HEAD



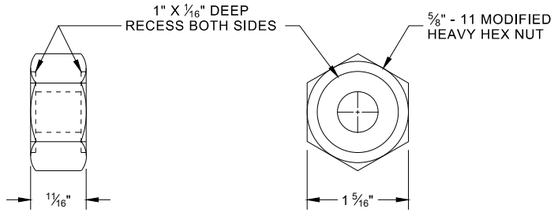
PLAN VIEW
BEAM LAPPING DETAIL



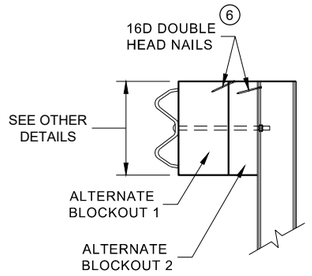
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



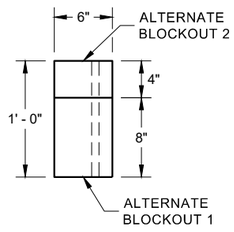
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

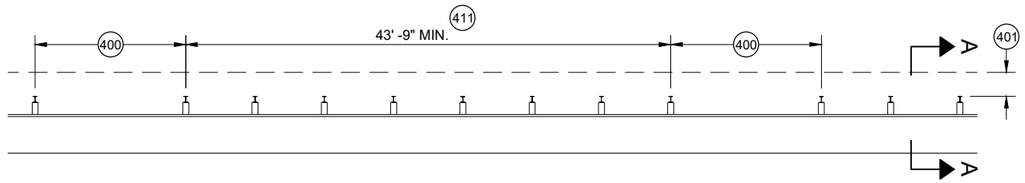
ALTERNATE WOOD BLOCKOUT DETAIL

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

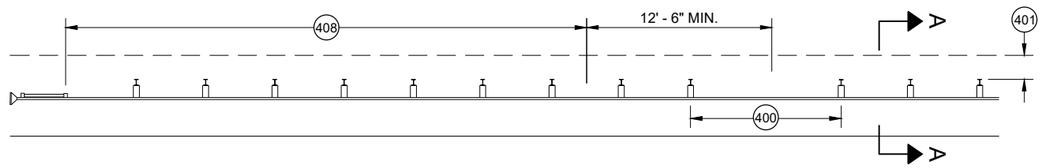
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

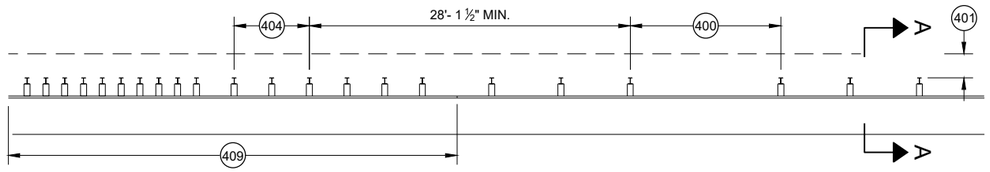
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



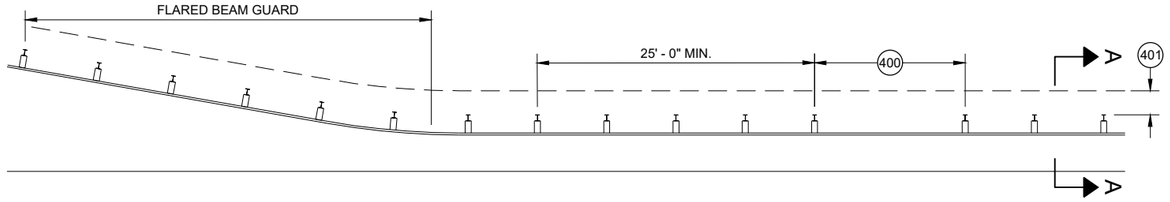
MISSING POST IN MGS GUARDRAIL



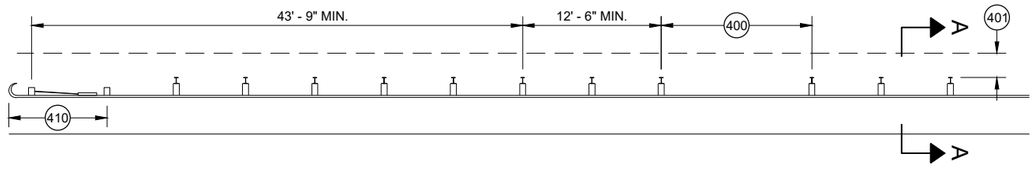
MISSING POST IN MGS GUARDRAIL NEAR EAT



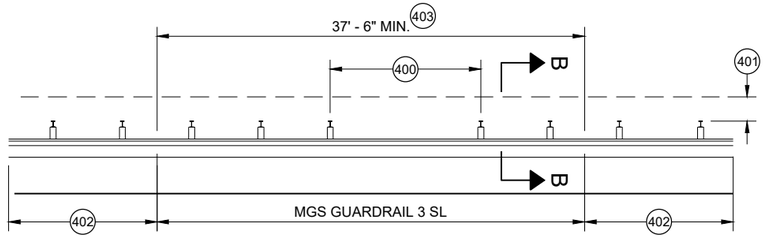
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

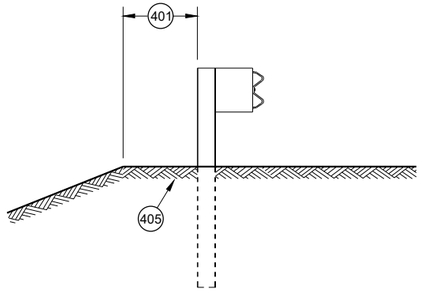


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

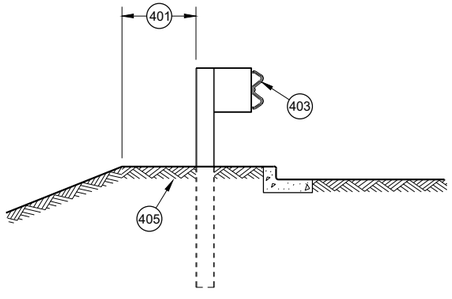


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

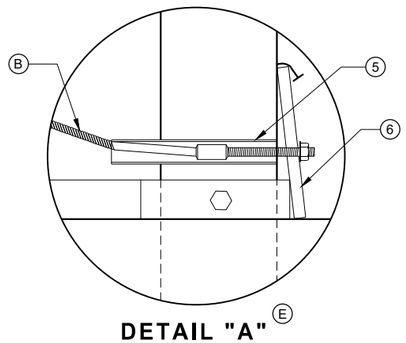
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

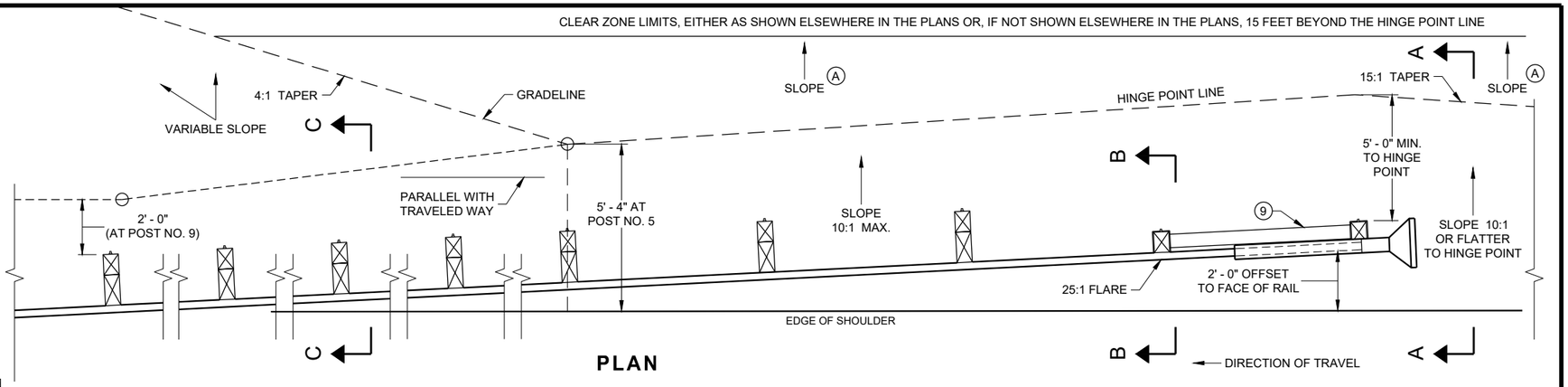
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

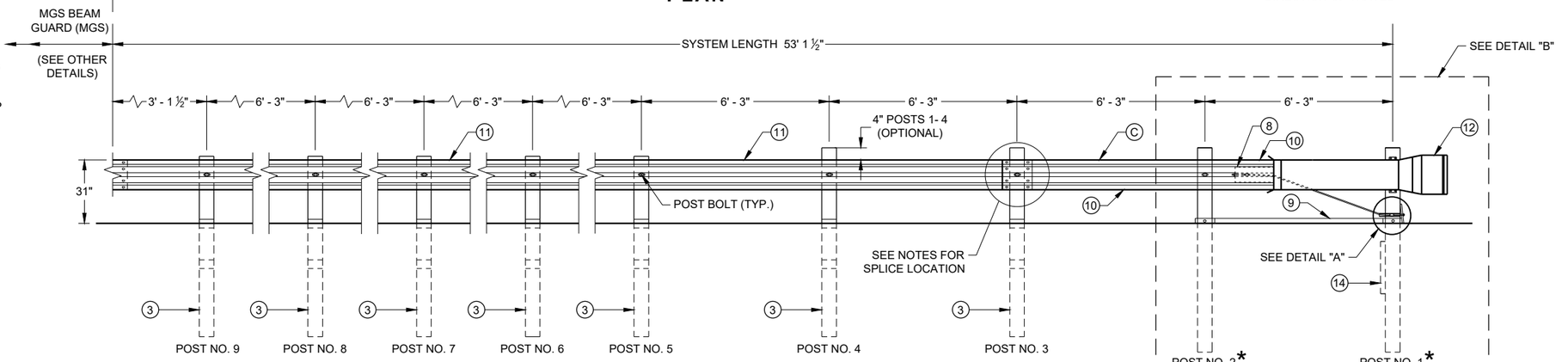
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

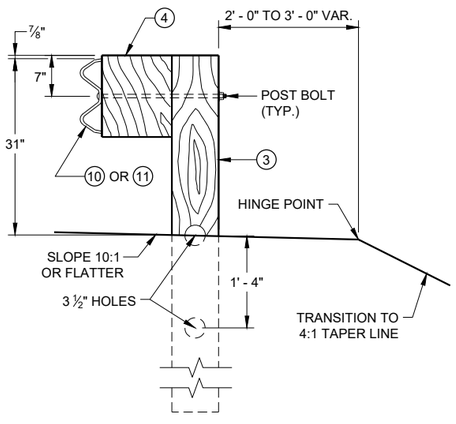
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



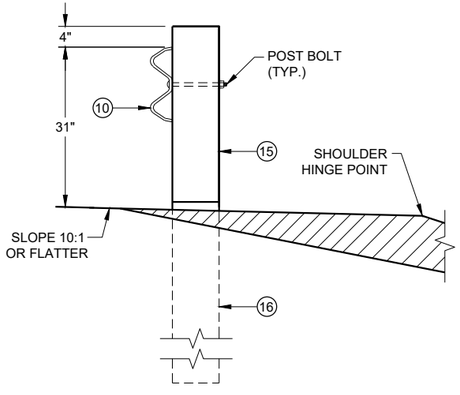
DETAIL "A" (E)



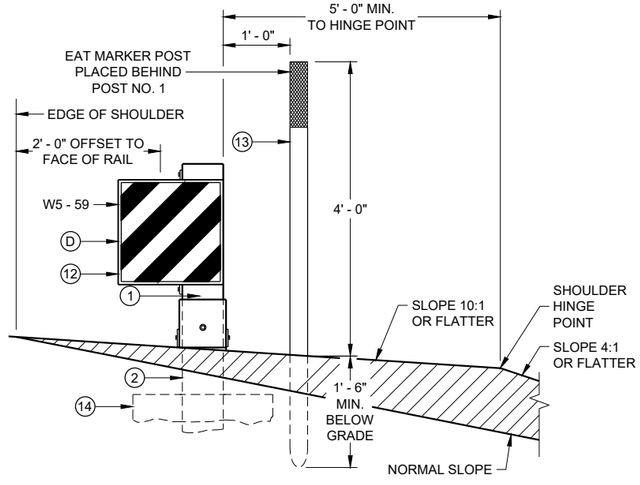




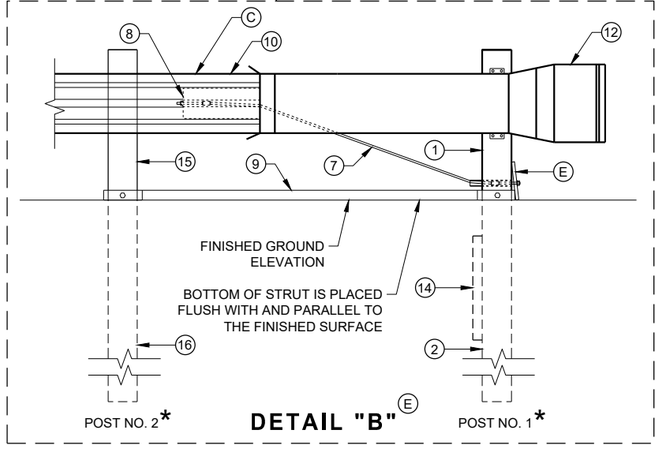
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

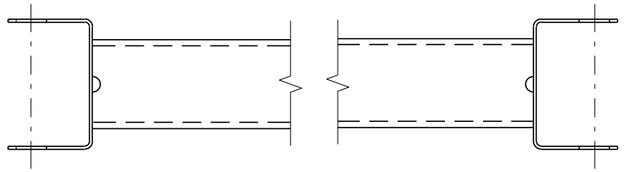


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

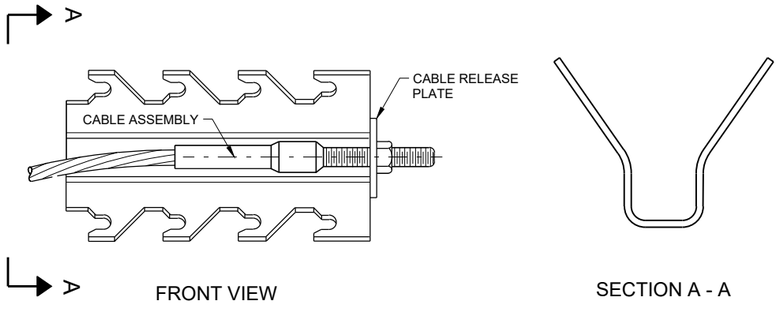
SDD 14B44 - 04a



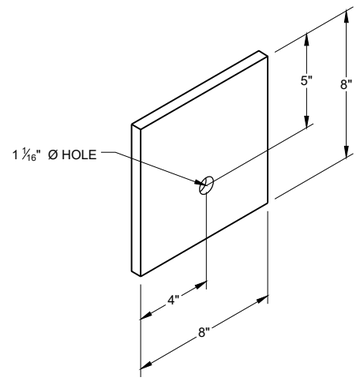
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

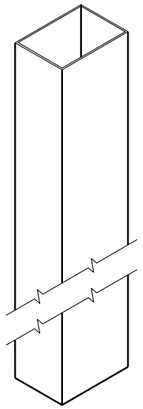
6

SDD 14B44 - 04b

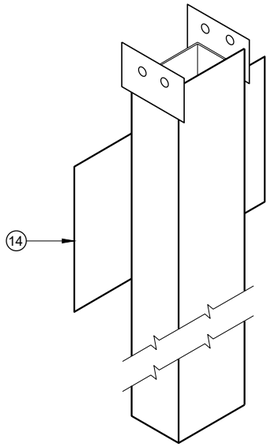
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

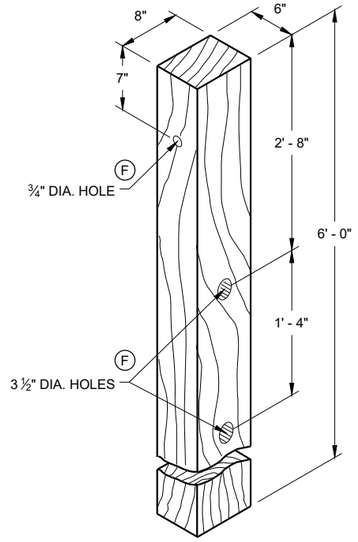
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



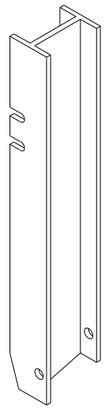
UPPER POST NO. 1 (1) (E)



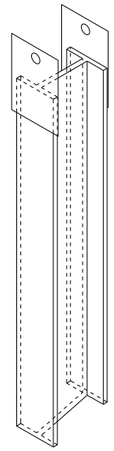
LOWER POST NO. 1 (2) (E)



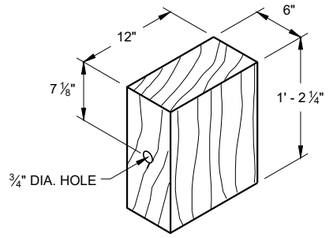
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



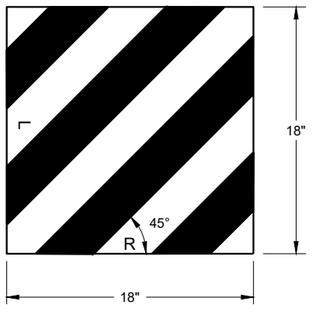
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

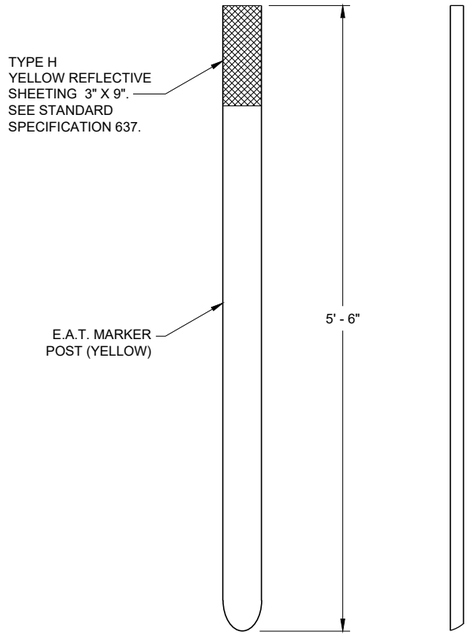


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



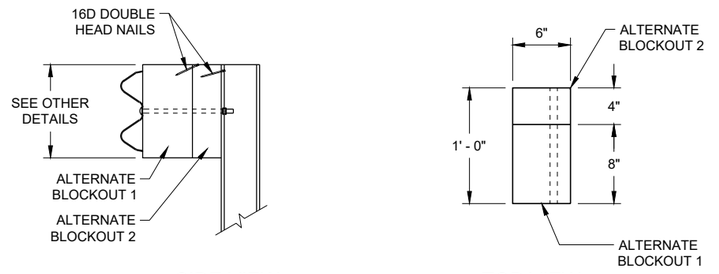
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

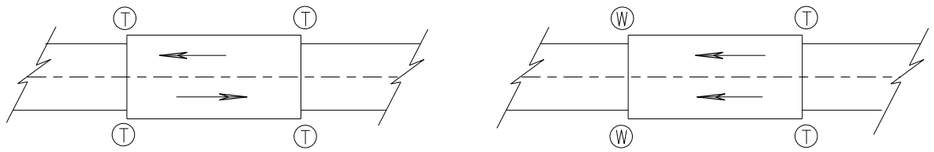
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

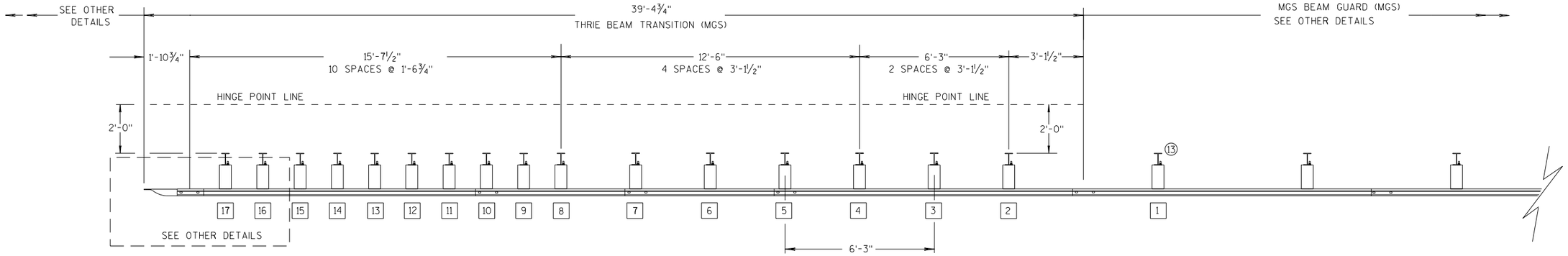
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

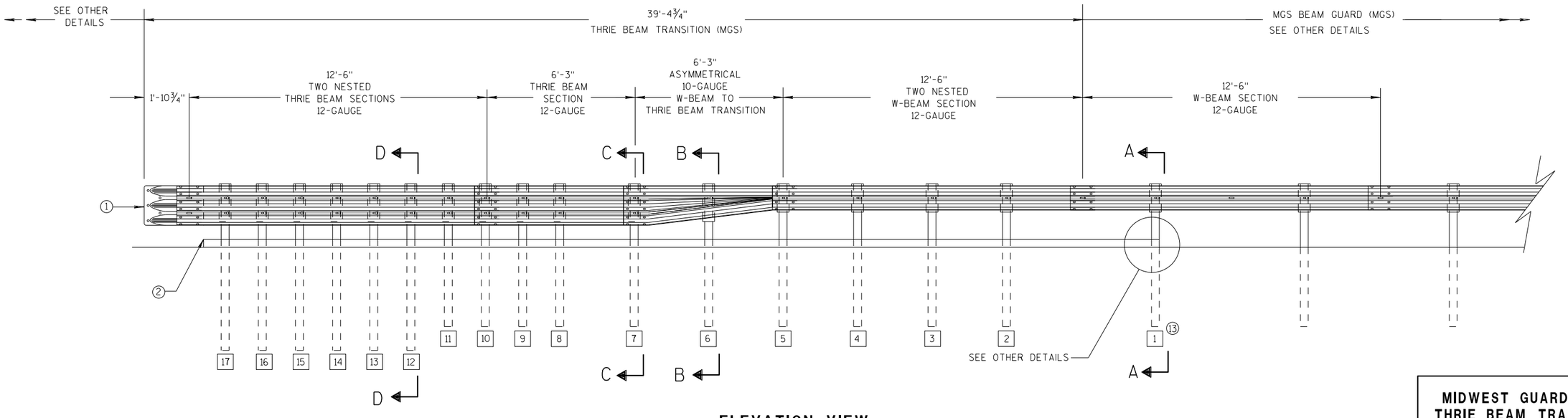
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

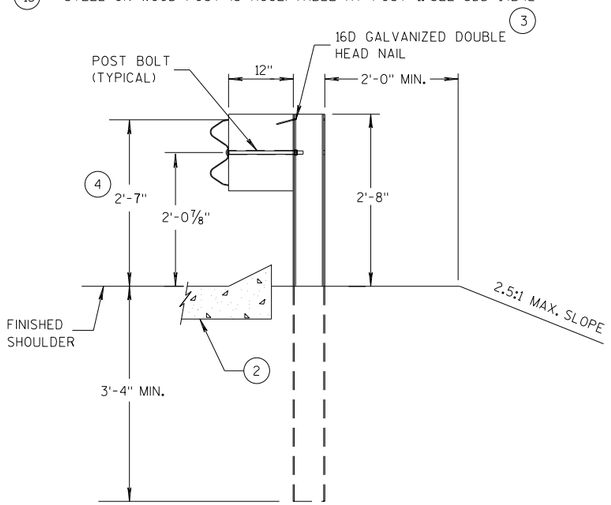
GENERAL NOTES

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

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

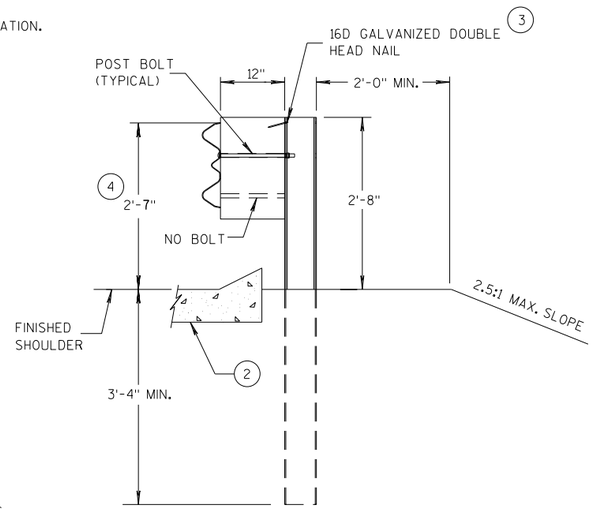
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



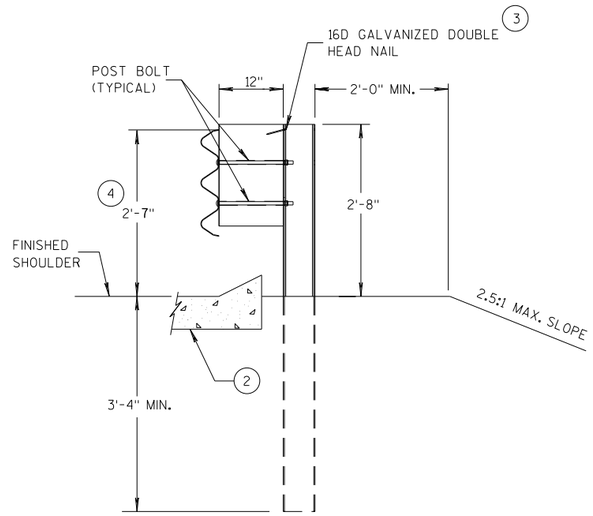
SECTION A-A (13)

POSTS 1-5



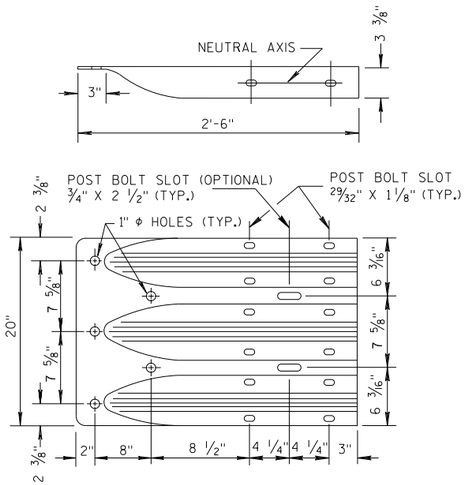
SECTION B-B

POST 6

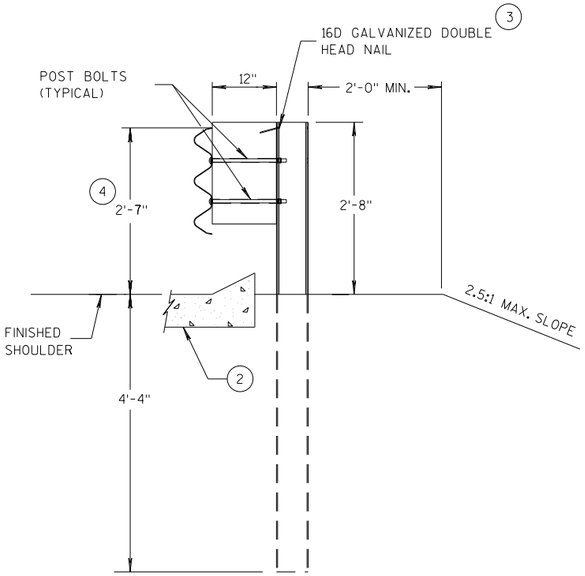


SECTION C-C

POSTS 7-11

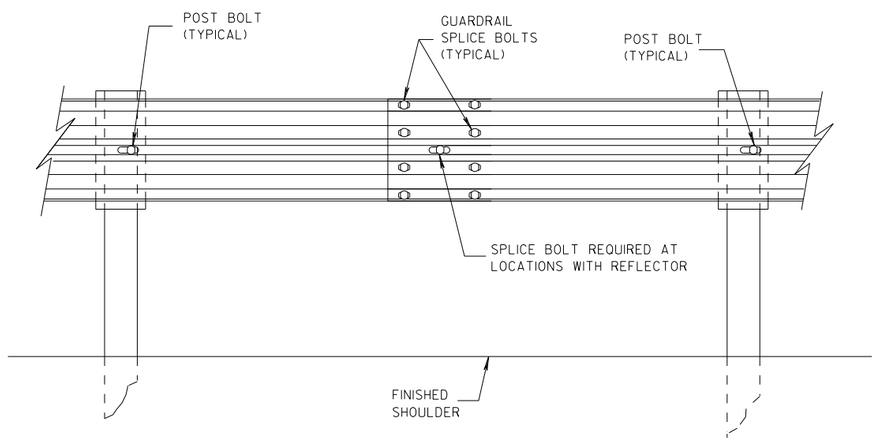


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

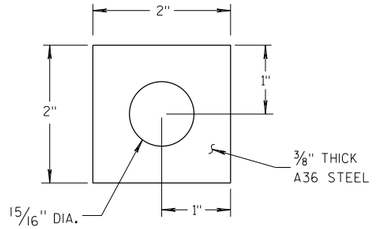
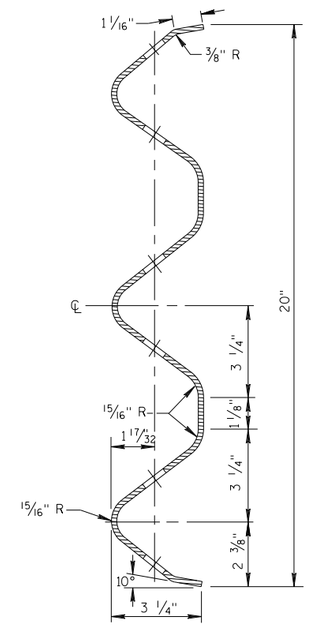


PLATE WASHER DETAIL



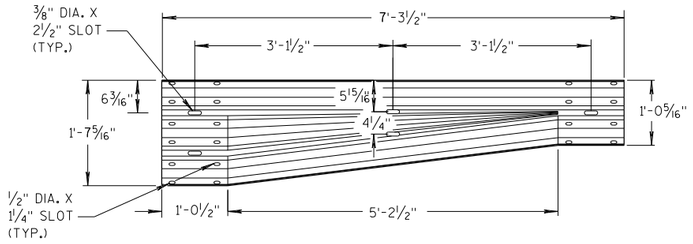
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

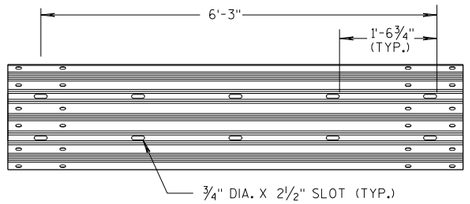
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

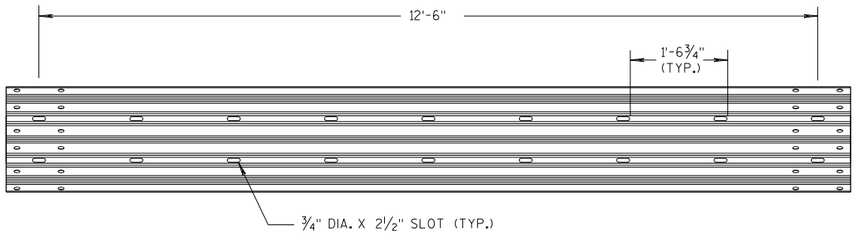
S.D.D. 14 B 45-5b



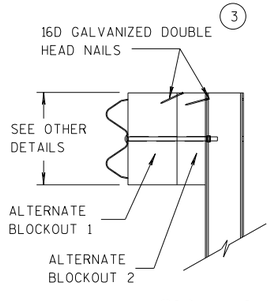
W-BEAM TO THRIE BEAM TRANSITION SECTION



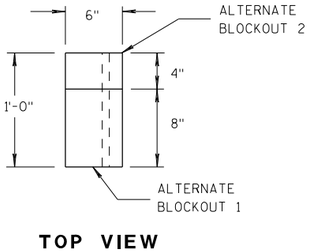
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

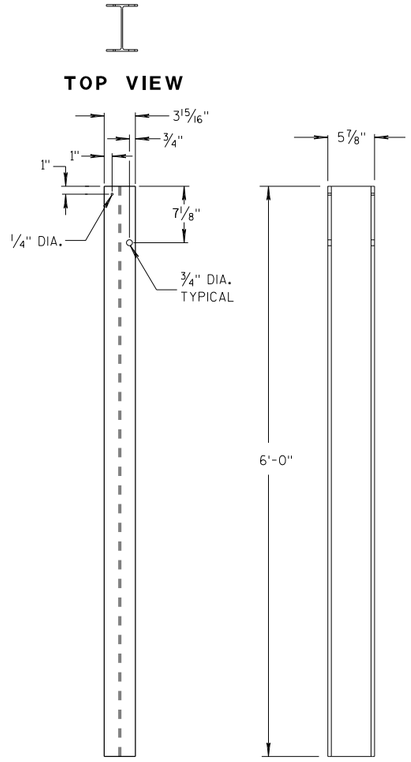


SIDE VIEW



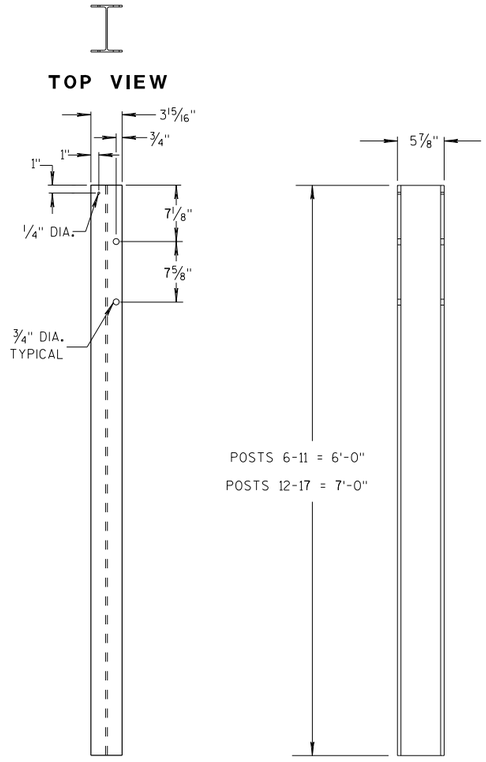
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



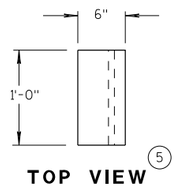
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

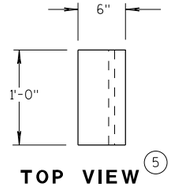


FRONT VIEW SIDE VIEW

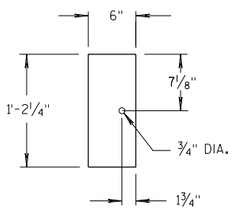
STEEL POSTS 6-17



TOP VIEW (5)

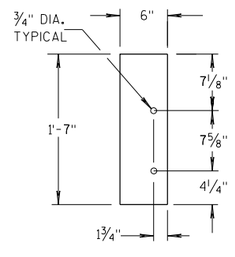


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

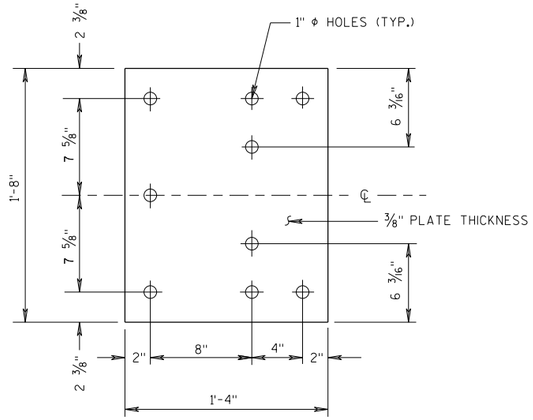
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

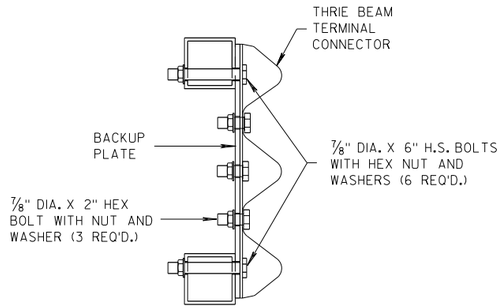
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

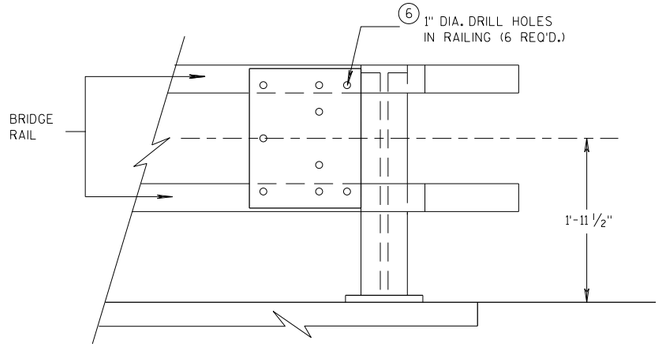
S.D.D. 14 B 45-5c



BACK-UP PLATE DETAIL



SECTION J-J

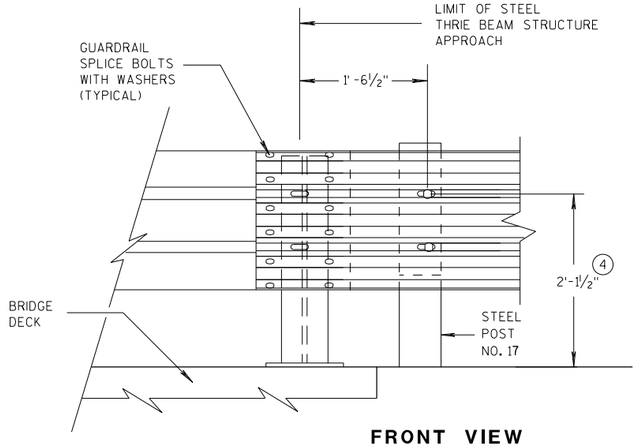


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

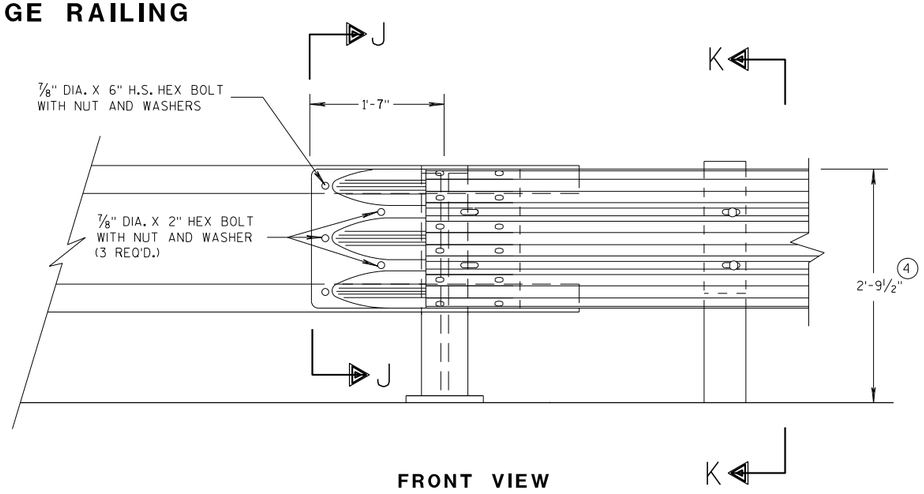
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

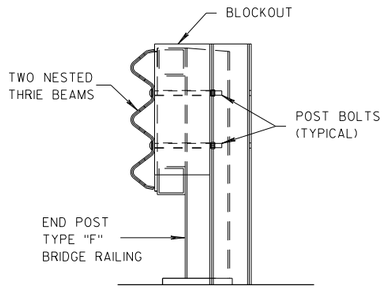


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE — FHWA

/S/ Rodney Taylor 87 — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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

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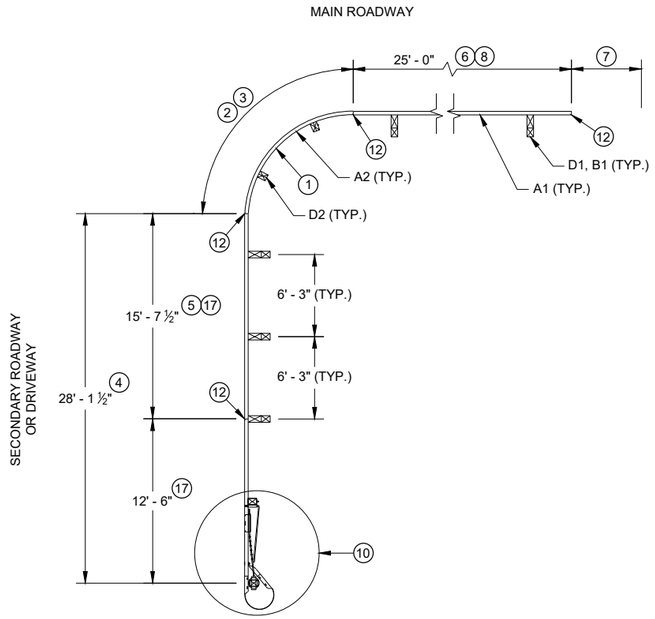
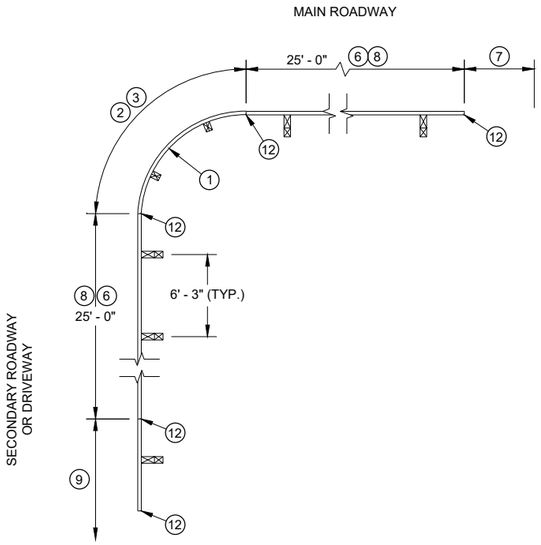
S.D.D. 14 B 45-5g



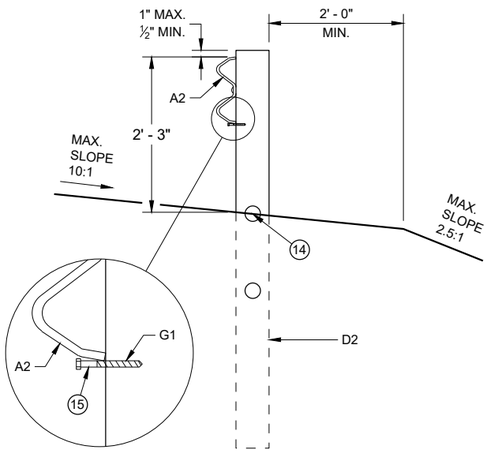
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

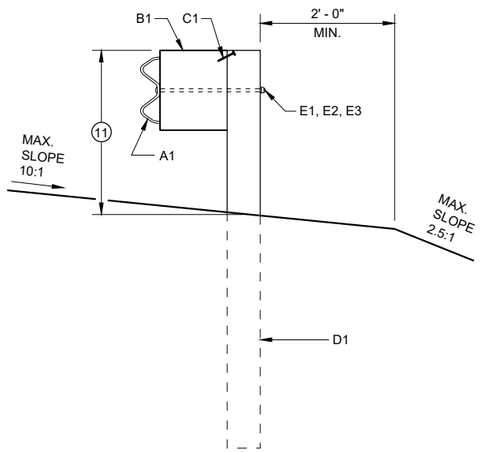


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



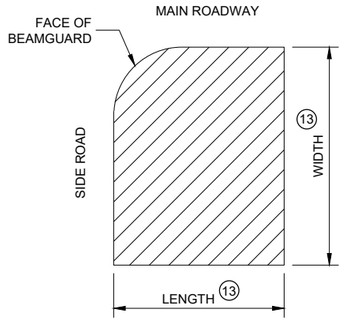
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



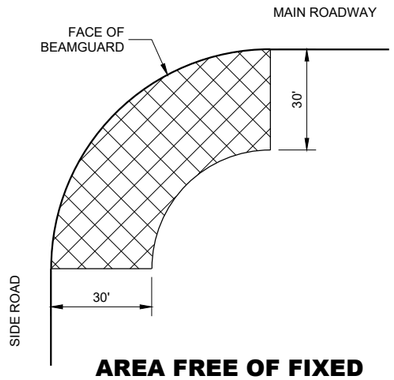
BEAM GUARD POSTS IN HEIGHT TRANSITION

TABLE FOR RADIUS OF 32' AND LESS

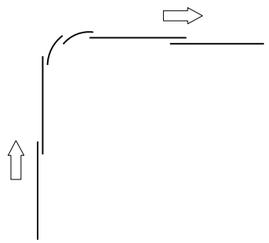
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS 16



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

1. RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
2. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.
3. WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.
4. MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.
5. ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.
6. MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.
7. BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.
8. TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.
9. ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.
10. SHORT RADIUS TERMINAL (SEE OTHER DETAILS).
11. HEIGHT VARIES. SEE NOTE 8 AND 8 .
12. BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.
13. SEE TABLE FOR VALUES.
14. MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".
15. DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.
16. SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.
17. TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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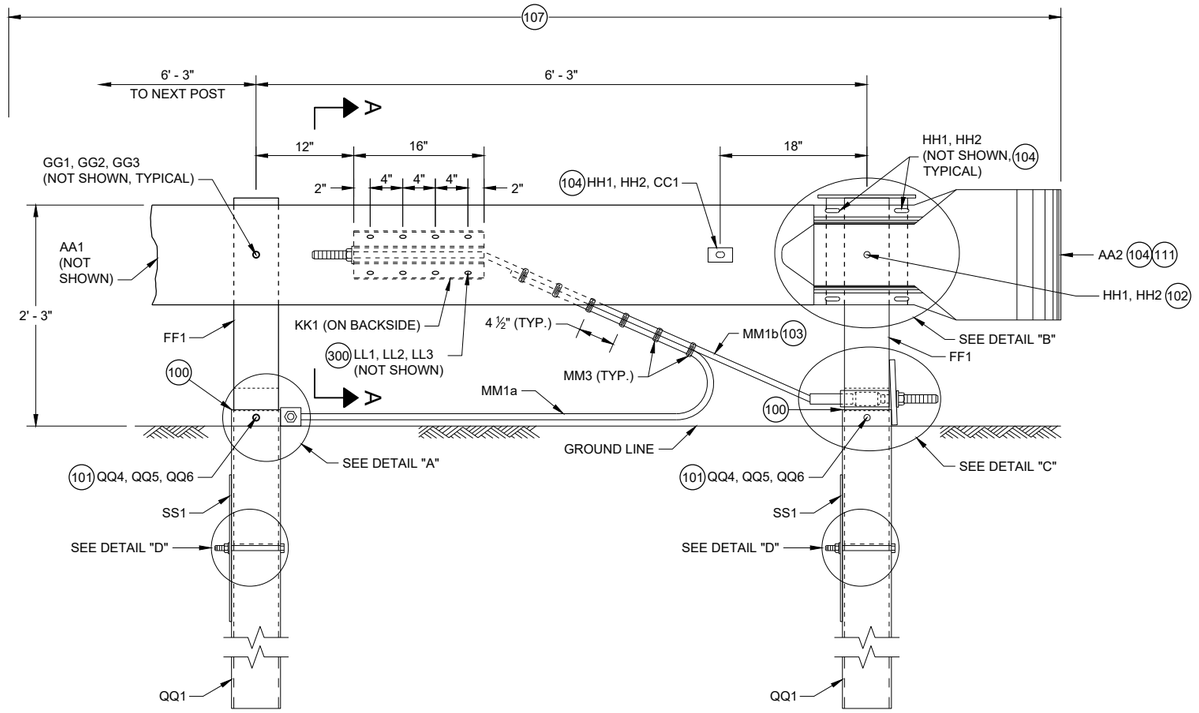
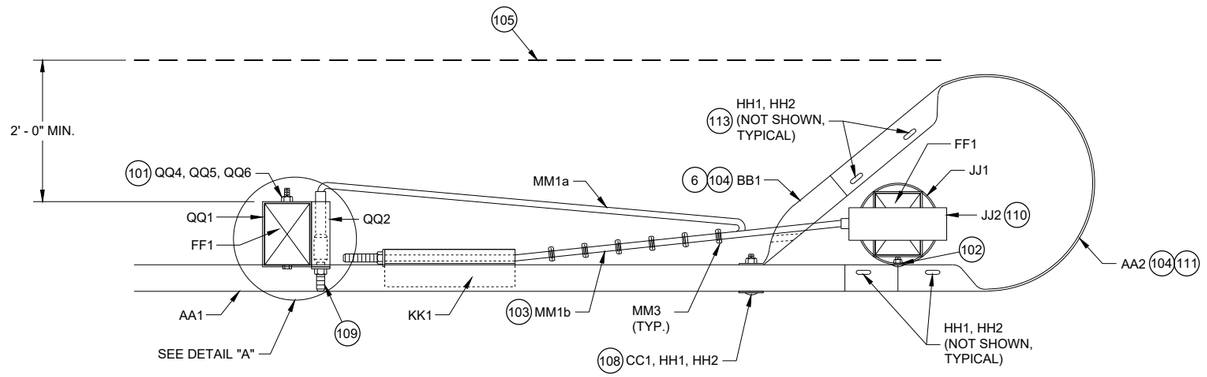
SDD 14B53 - 01a

SDD 14B53 - 01a



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

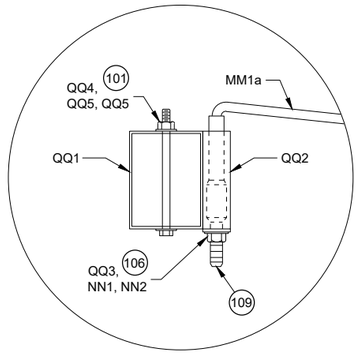
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

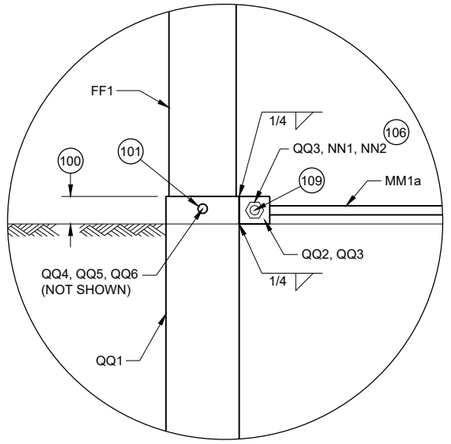
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

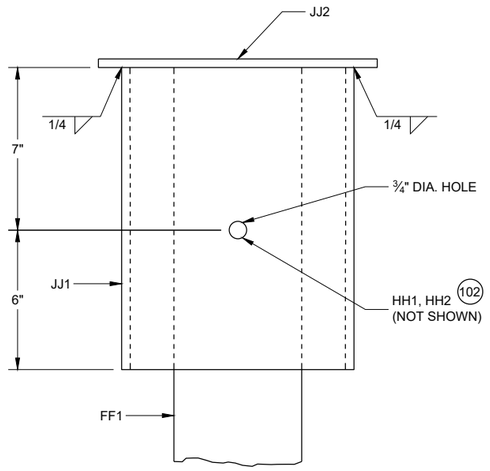
SDD 14B53 - 01b

6

SDD 14B53 - 01b

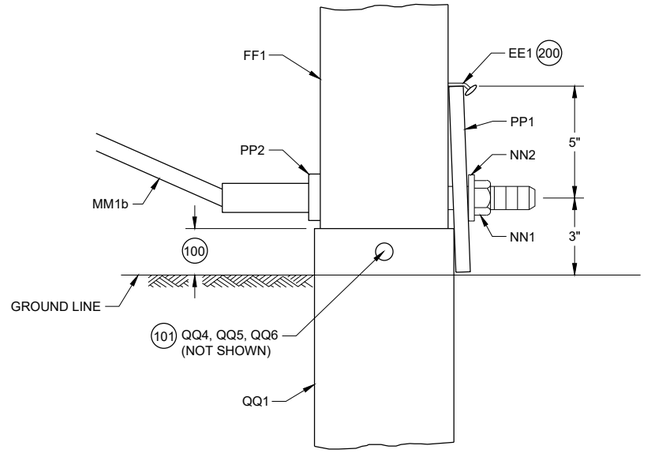
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



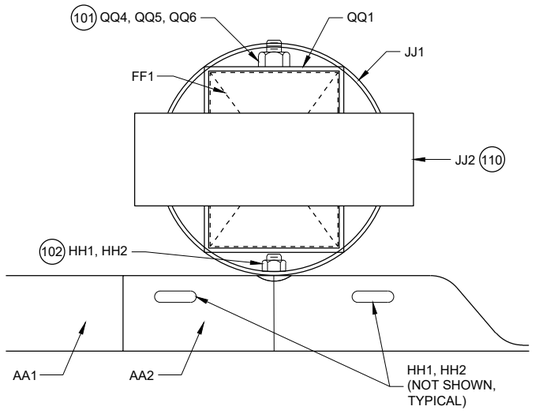
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



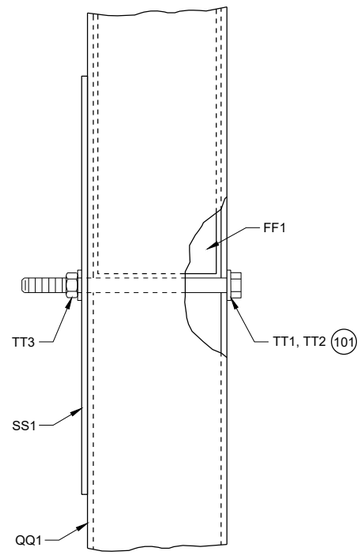
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

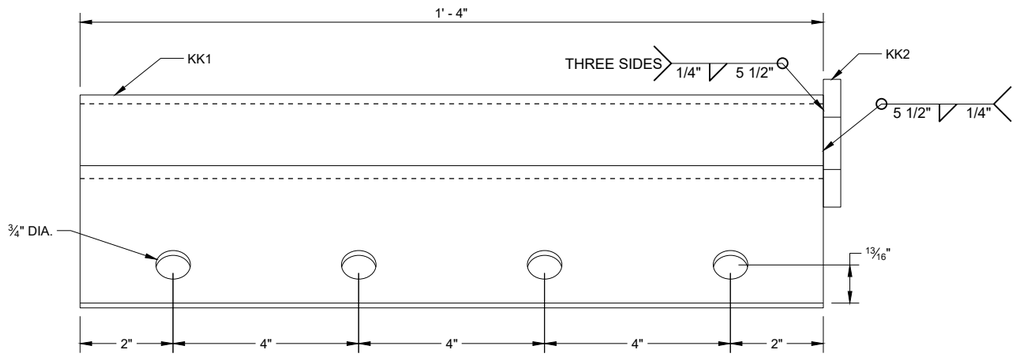
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

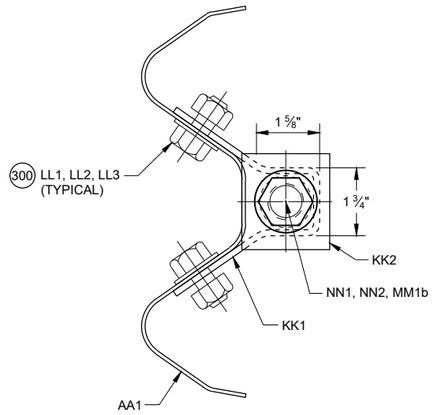
6

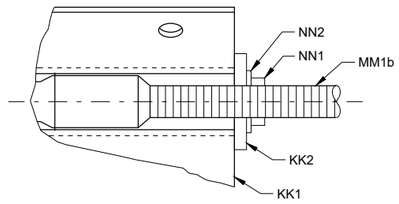
SDD 14B53 - 01c

GENERAL NOTES

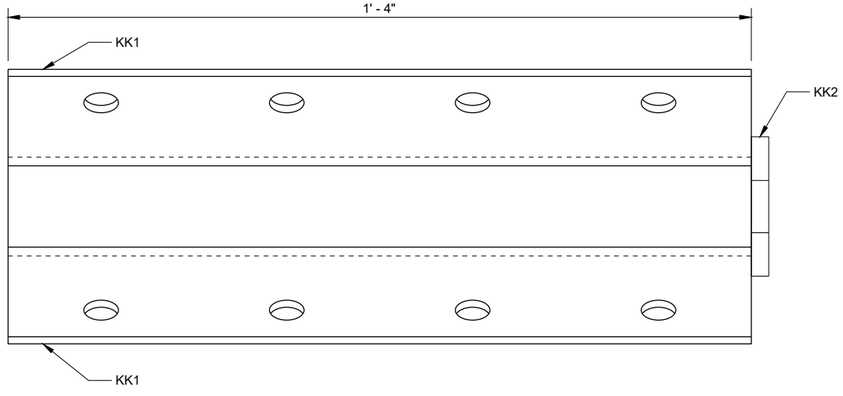
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

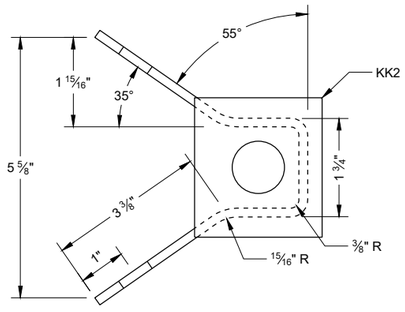




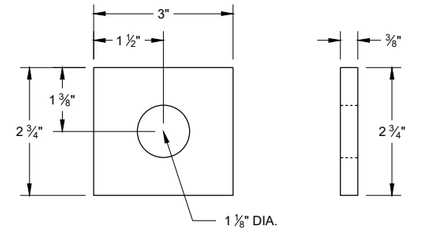


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

SDD 14B53 - 01d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

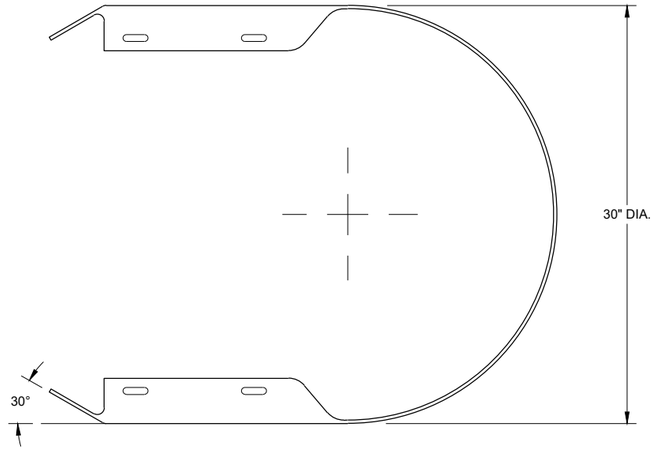
6

SDD 14B53 - 01d

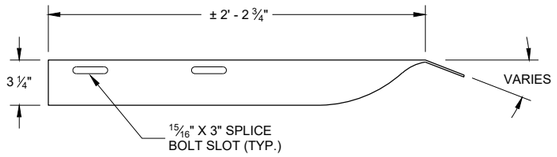
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

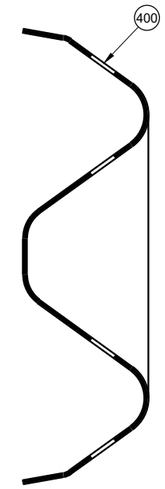
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



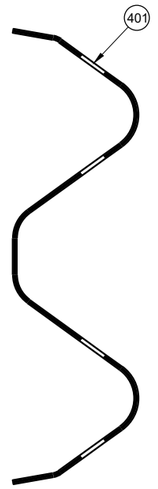
TOP VIEW



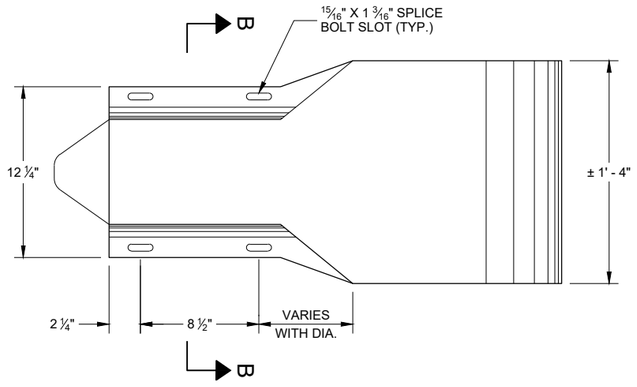
TOP VIEW



SECTION B -B

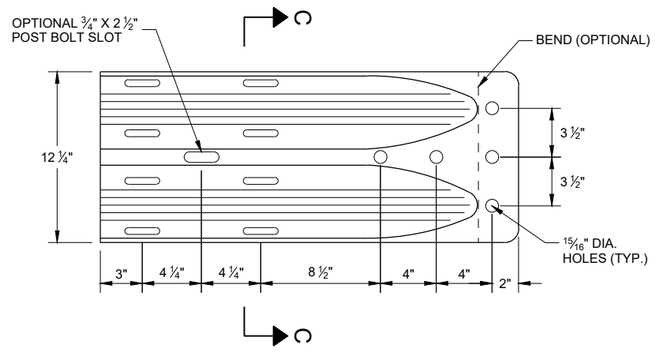


SECTION C -C



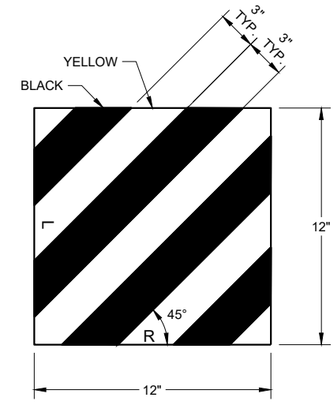
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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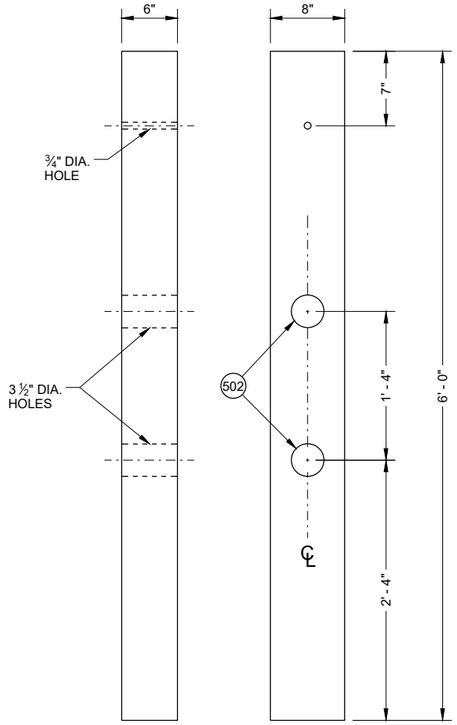
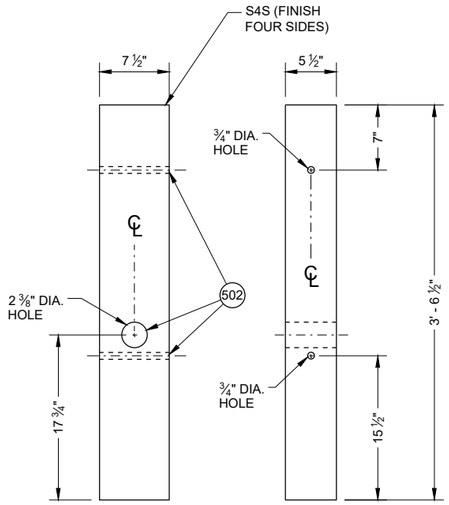
SDD 14B53 - 01e



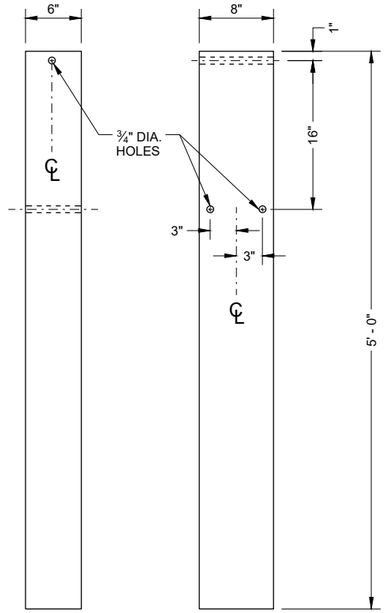
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

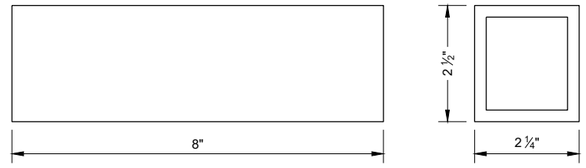
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

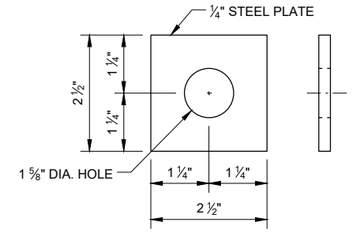
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

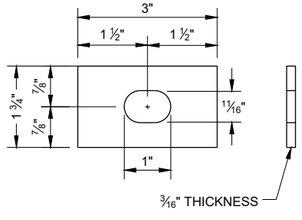
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



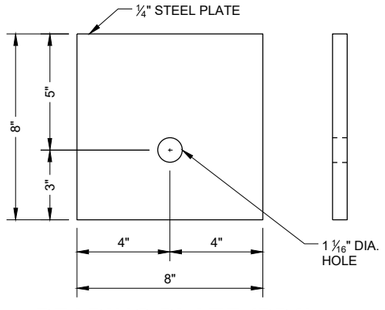
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



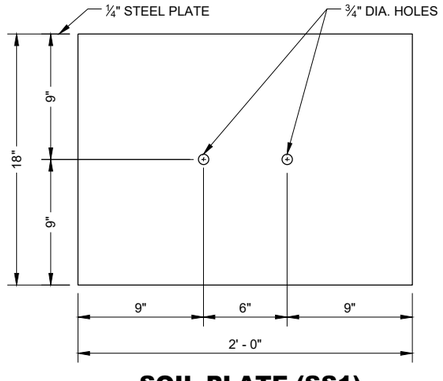
ANCHOR CABLE TUBE END PLATE (QQ3)



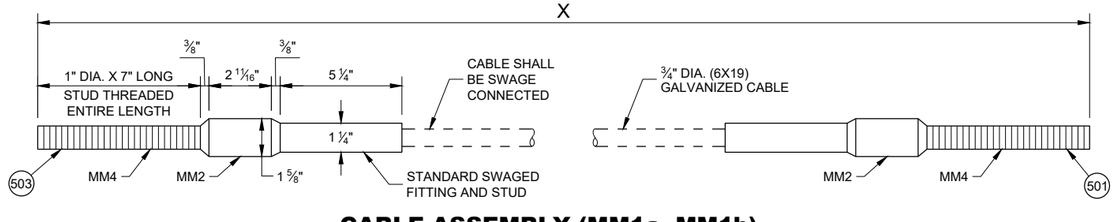
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53 - 01f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2 APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION. AASHTO M180, CLASS A, TYPE 2 APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2 AASHTO M180 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 UNC	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD) GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	5/8" DIA.
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 UNC OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563 ASTM A563 GRADE A HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 ASTM A307 GRADE A OR SAE J429 GRADE 2 UNC AASHTO M180	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1 OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563 UNC	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE WISDOT SPEC 637 TYPE SH APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2 APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2 APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2 APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180 GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2 AASHTO M180 GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1 UNC	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD) GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	3/8" DIA.

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53 - 01g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	¾" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

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SDD 14B53 - 01i

SDD 14B53 - 01i

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

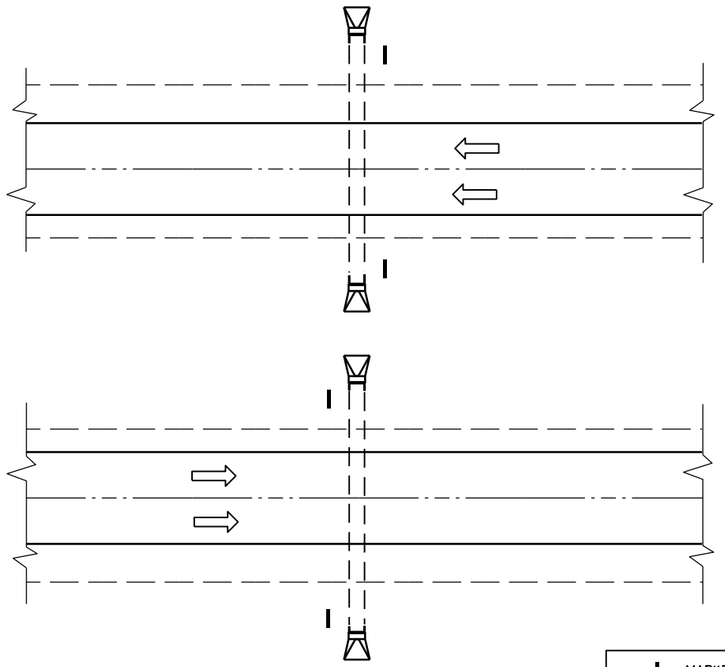
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

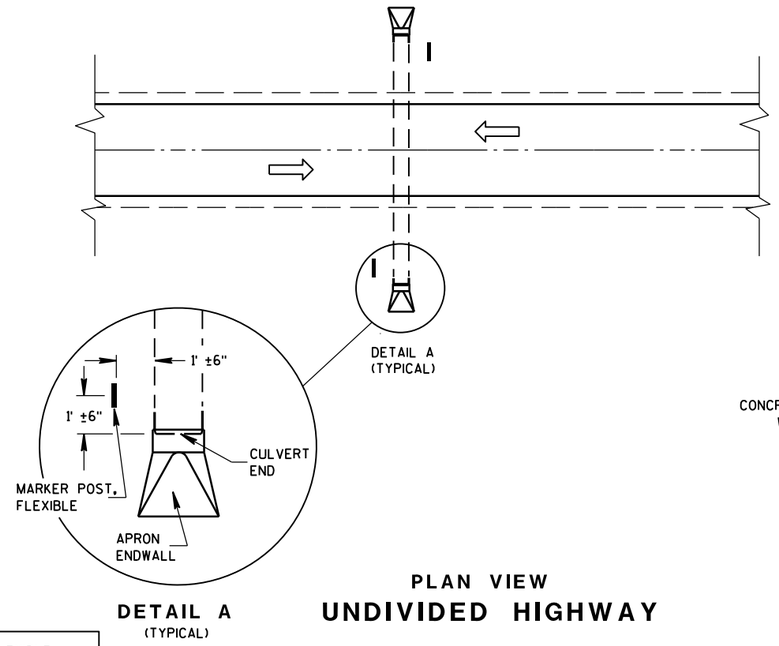
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

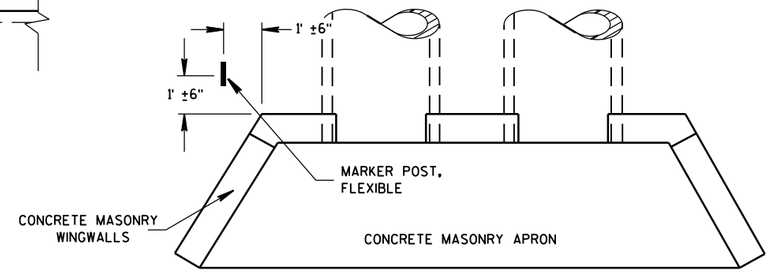
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

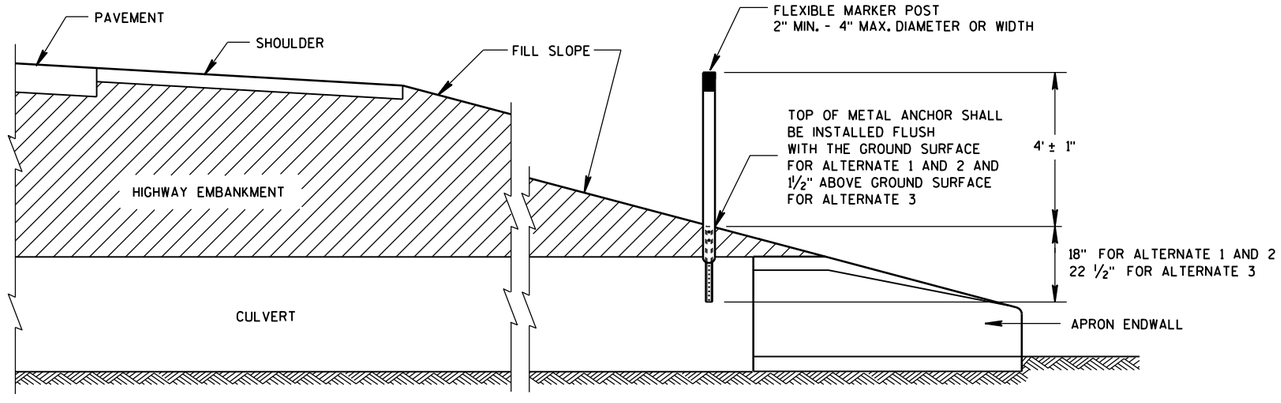
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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 TRANSPOI

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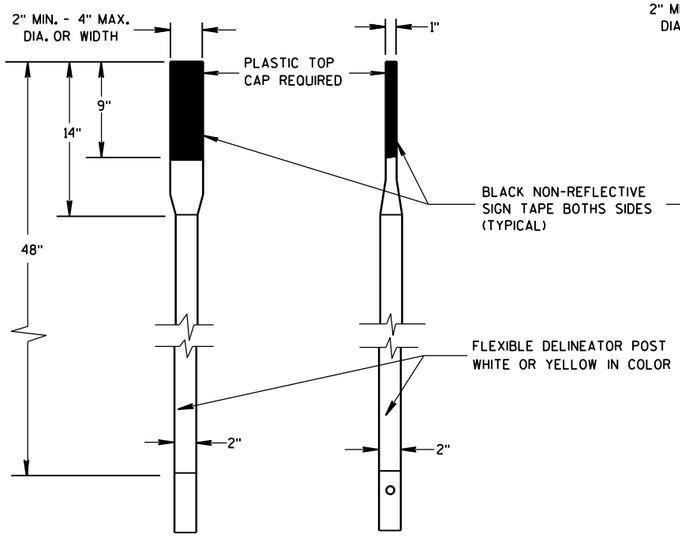
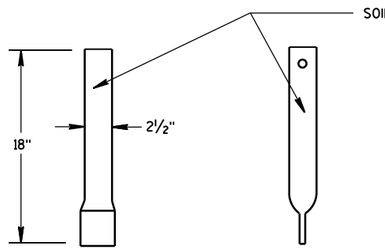
S.D.D. 15 A 3-2a

6

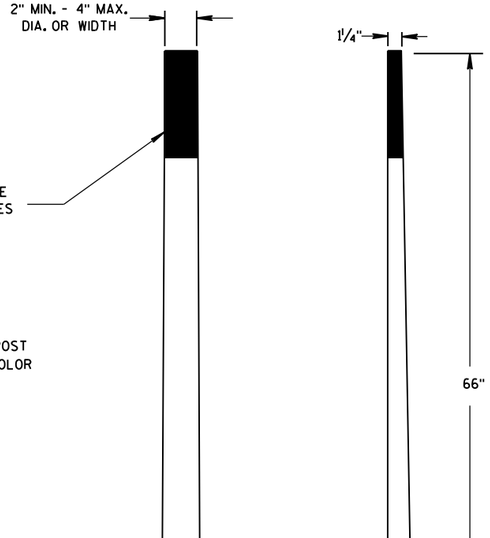
S.D.D. 15 A 3-2a





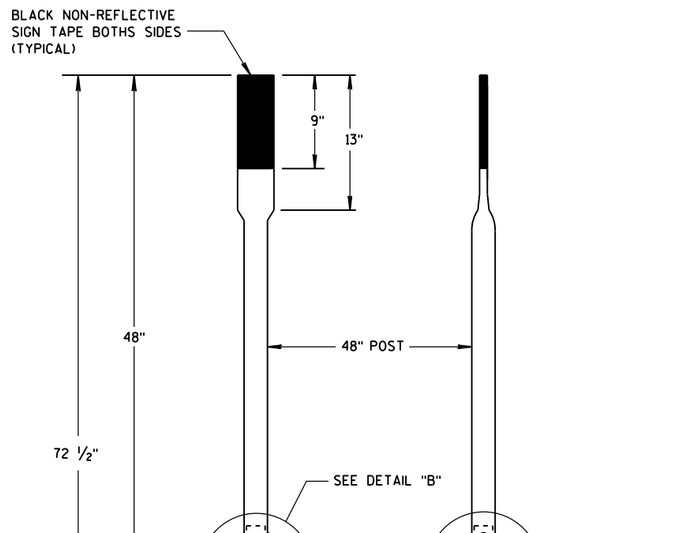
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

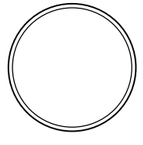
ALTERNATE 2



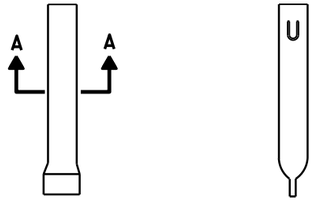
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

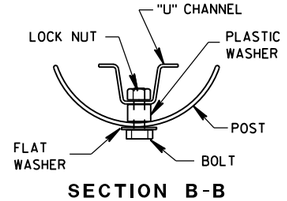


SECTION A-A

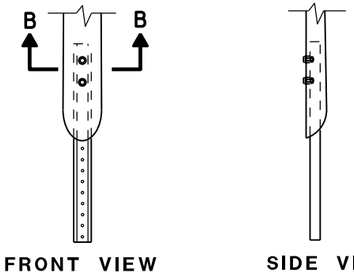


FRONT VIEW SIDE VIEW

ALTERNATE 1

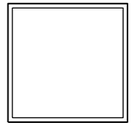


SECTION B-B

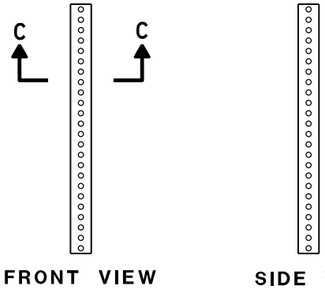


FRONT VIEW SIDE VIEW

ALTERNATE 2



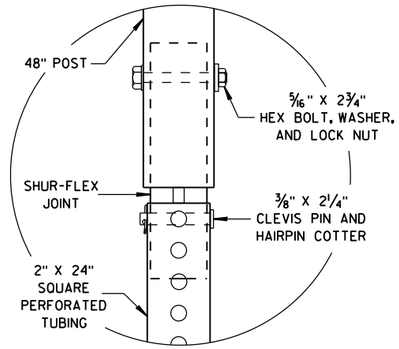
SECTION C-C



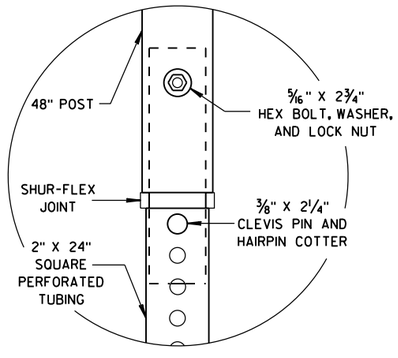
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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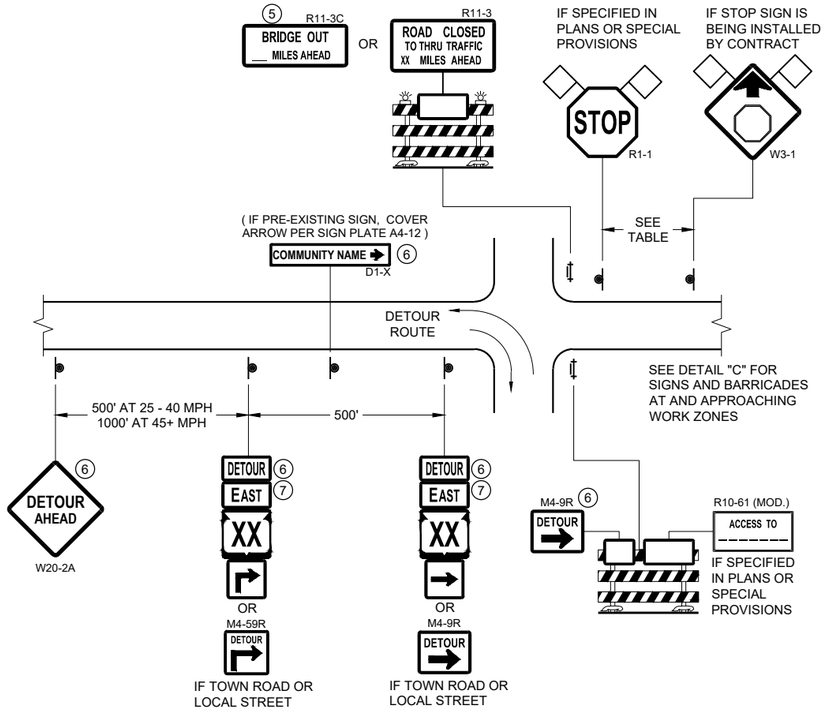
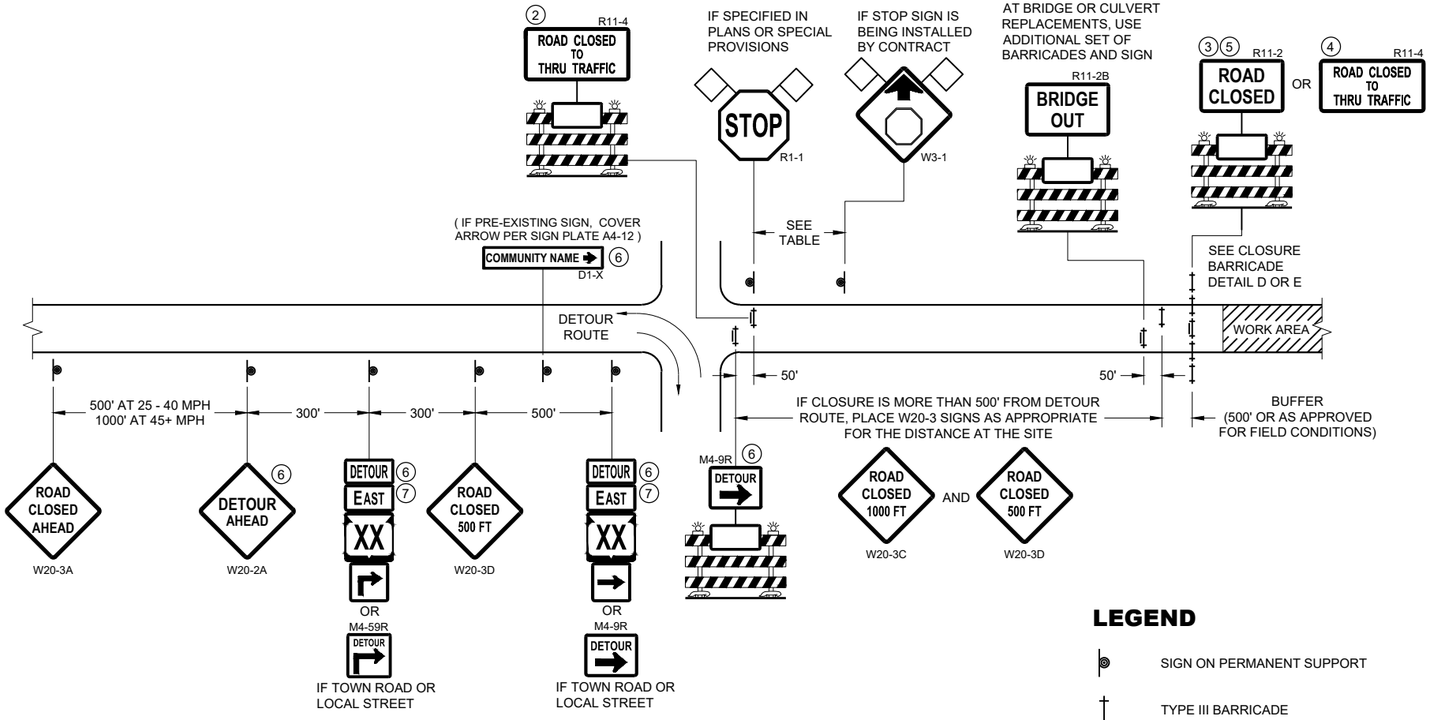
S.D.D. 15 A 3-2b



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



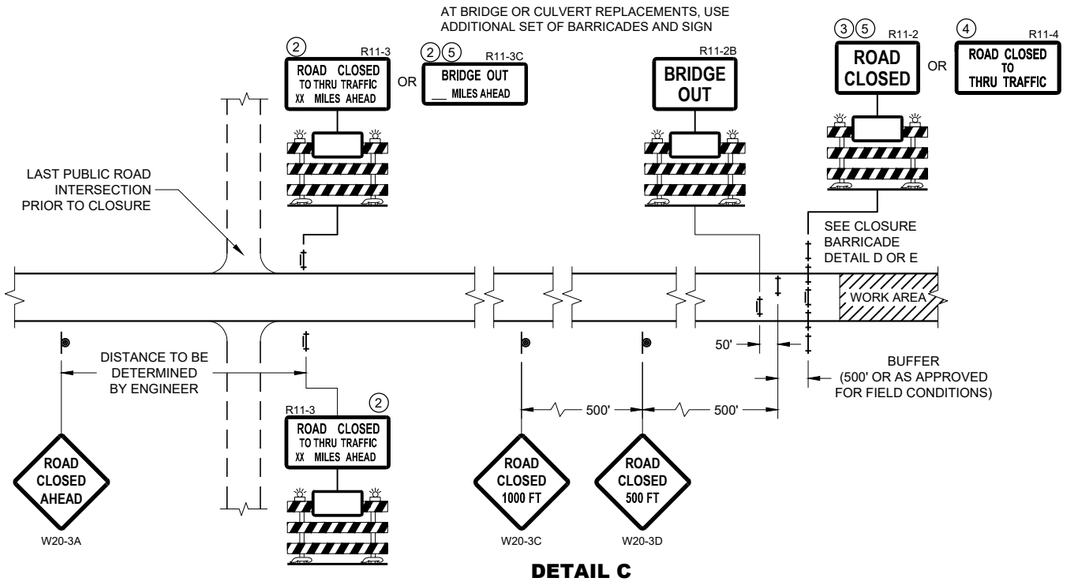
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

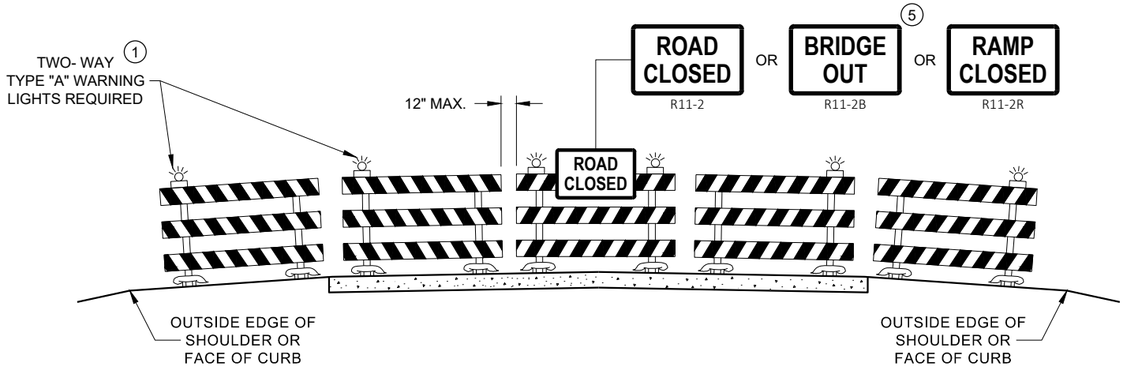
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

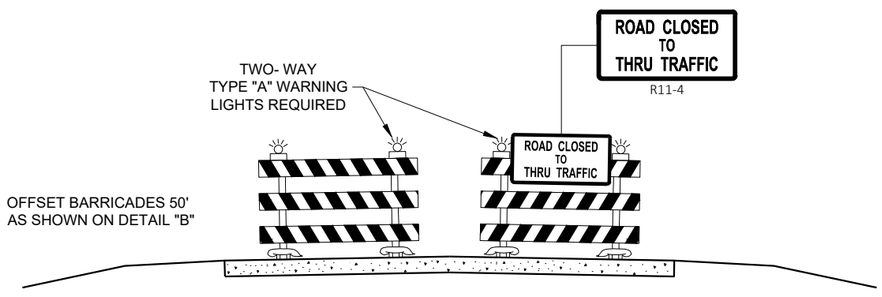
6

SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 08b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST XX *

DETOUR EAST XX WEST XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES * G20-51

DETOUR WEST XX * OR M4-59L DETOUR ** IF TOWN ROAD OR LOCAL STREET

MATCH POINT

* M4-59L ** DETOUR OR DETOUR EAST XX * IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

500'

M4-9L ** DETOUR OR DETOUR EAST XX IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX

DETOUR WEST XX OR M4-9R DETOUR ** IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX * OR M4-59R * DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

500'

DETOUR EAST XX

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX *

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

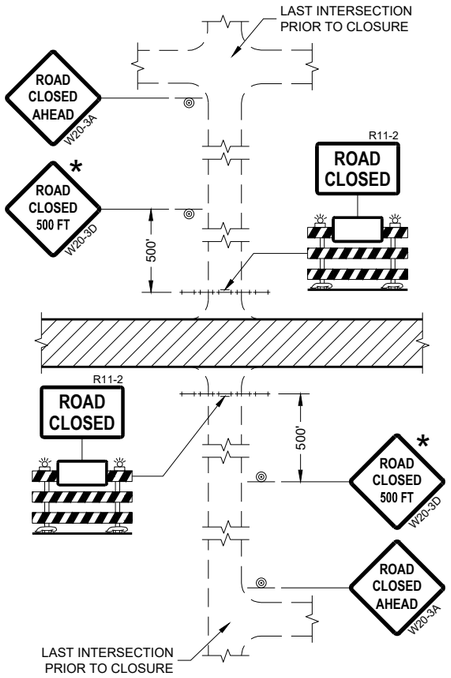
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

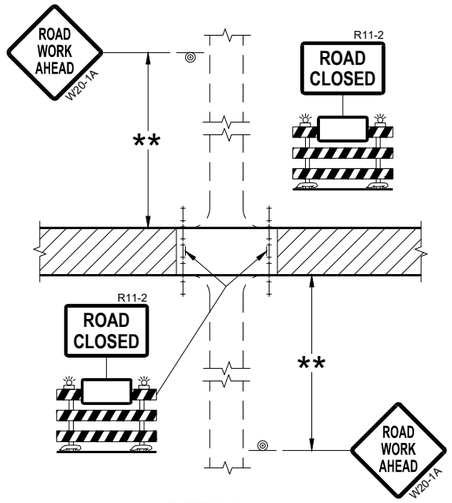
SDD 15C02 - 08c

6

SDD 15C02 - 08c



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

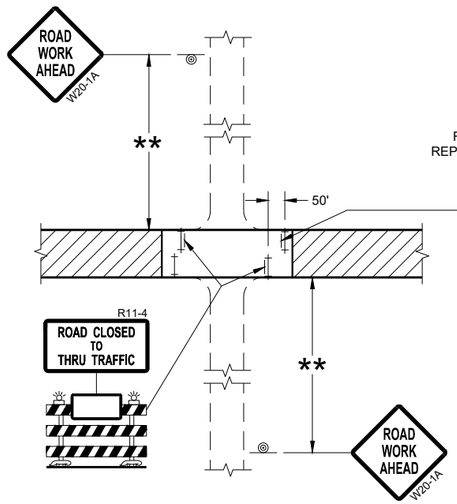
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

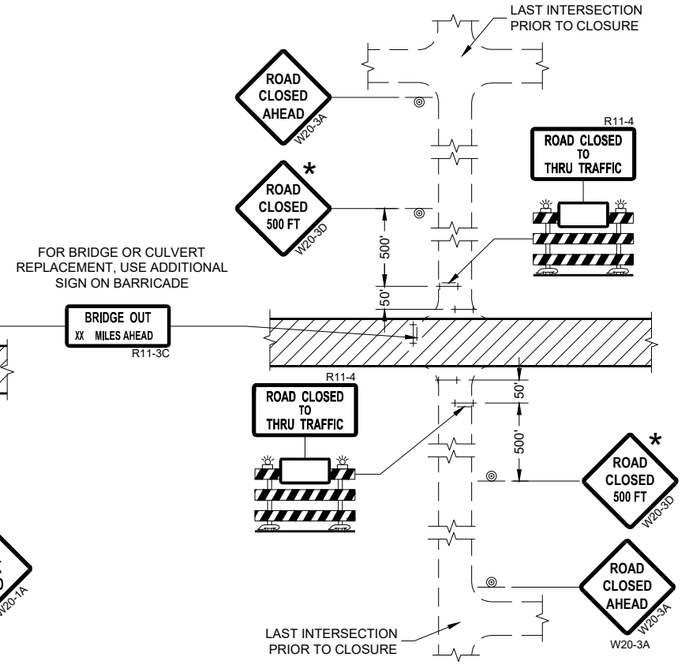
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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



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



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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

GENERAL NOTES

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

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

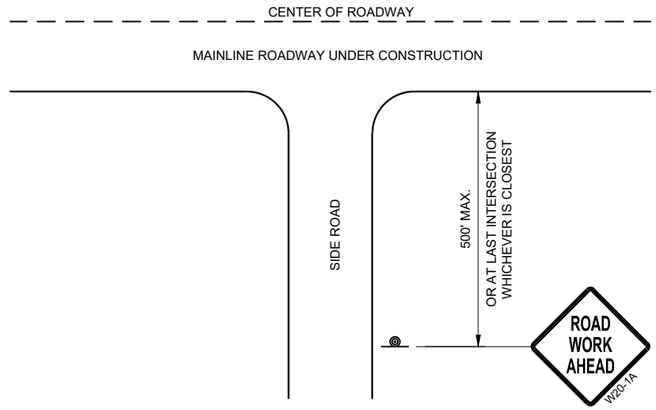
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



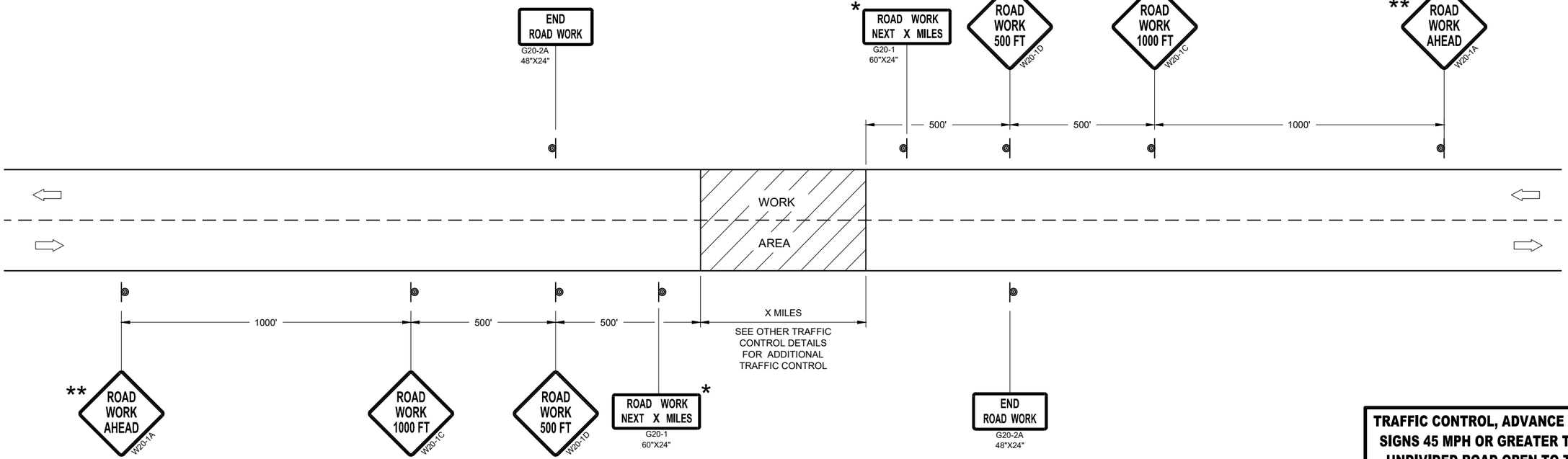
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

GENERAL NOTES

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

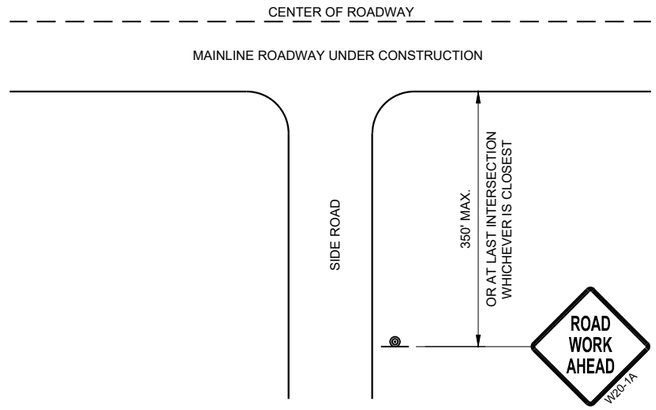
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

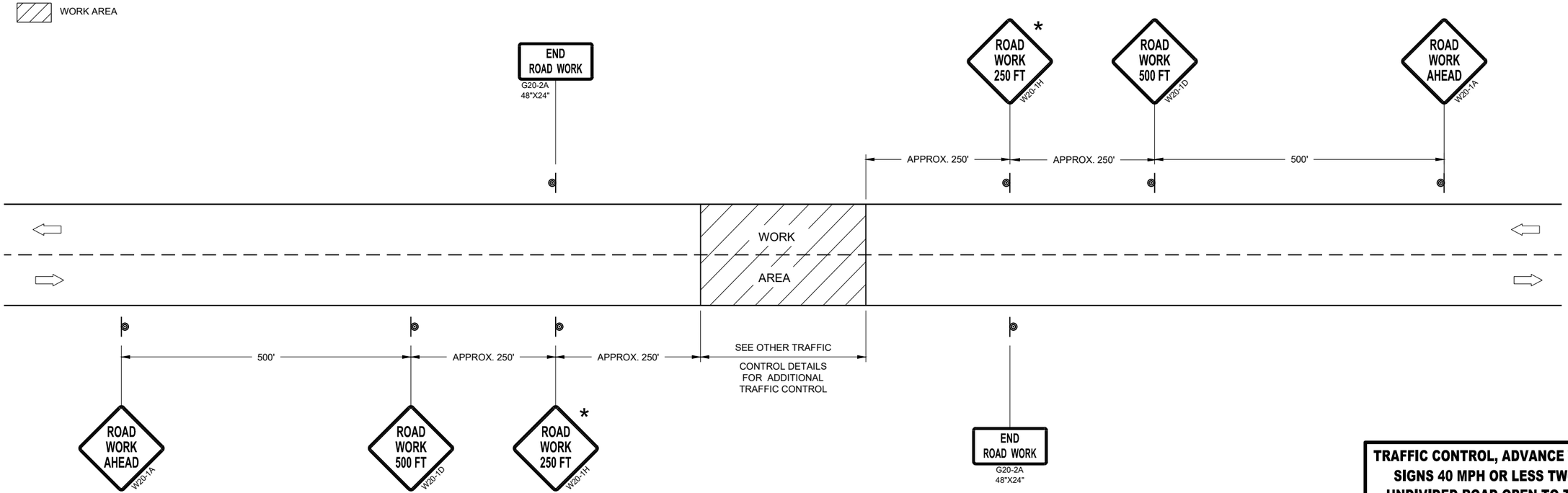
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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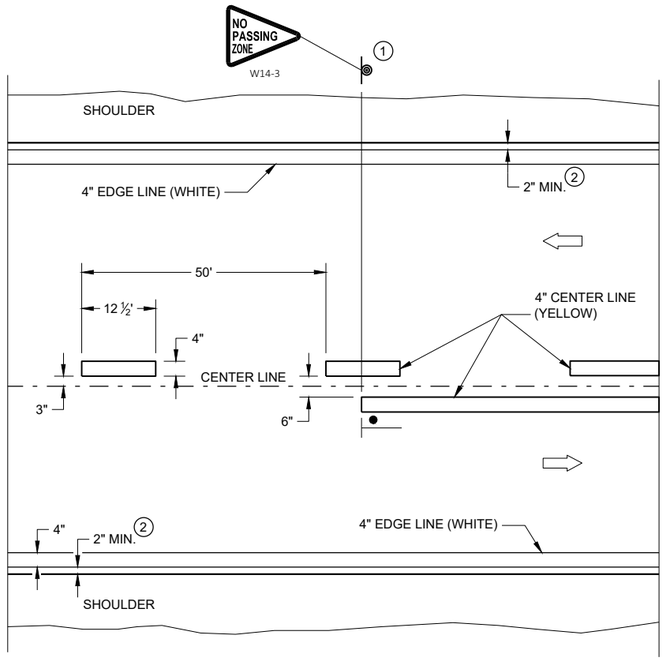
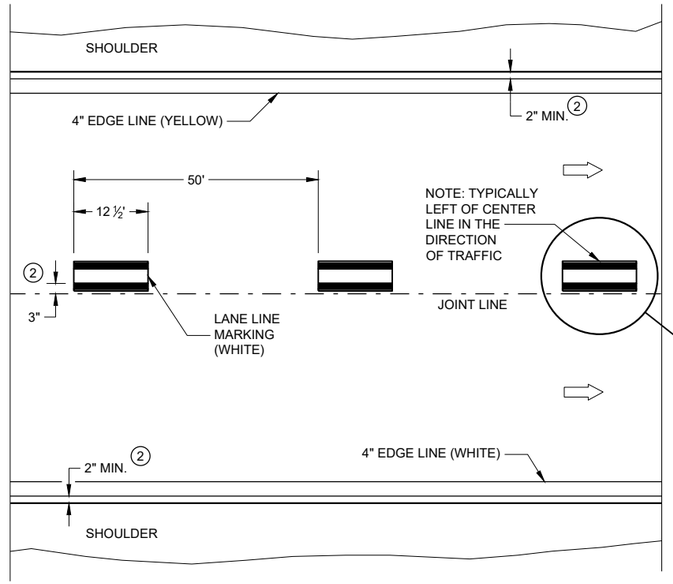
SDD 15C05 - 05

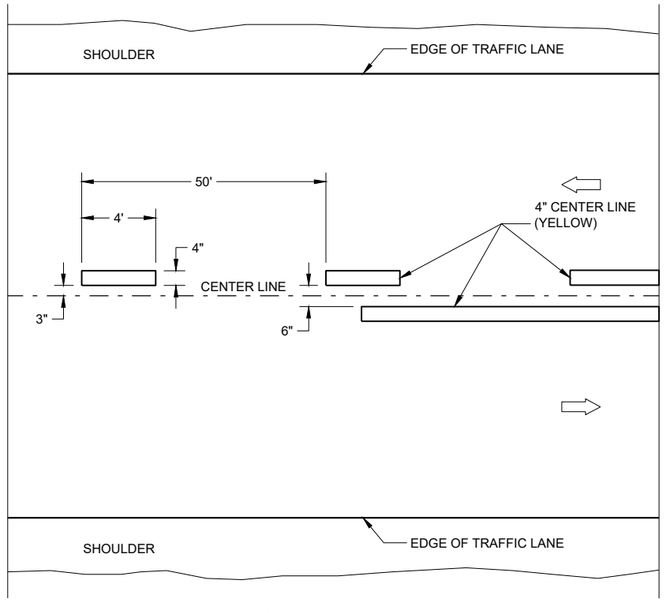


TWO WAY TRAFFIC

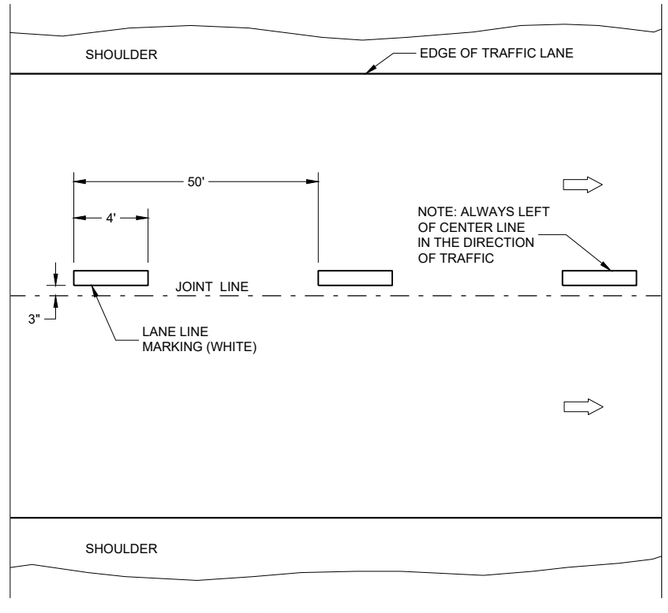


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

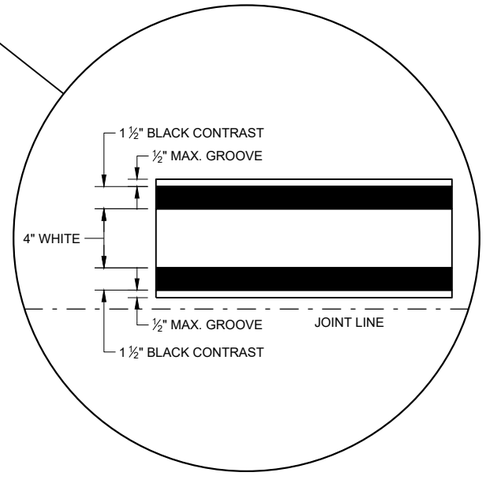
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

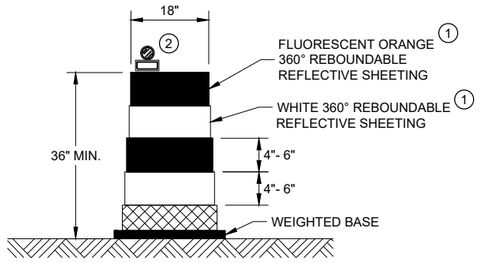
FHWA

SDD 15C08 - 20a

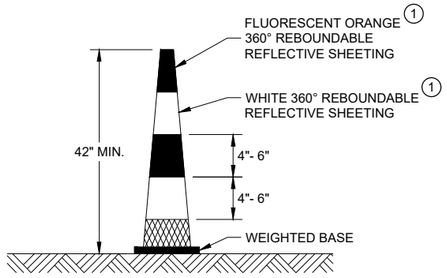
SDD 15C08 - 20a

GENERAL NOTES

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

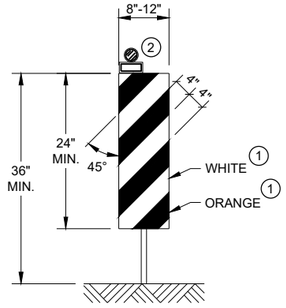


DRUM



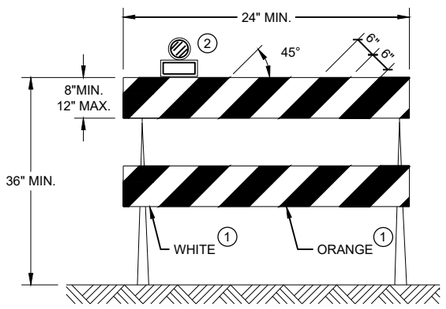
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



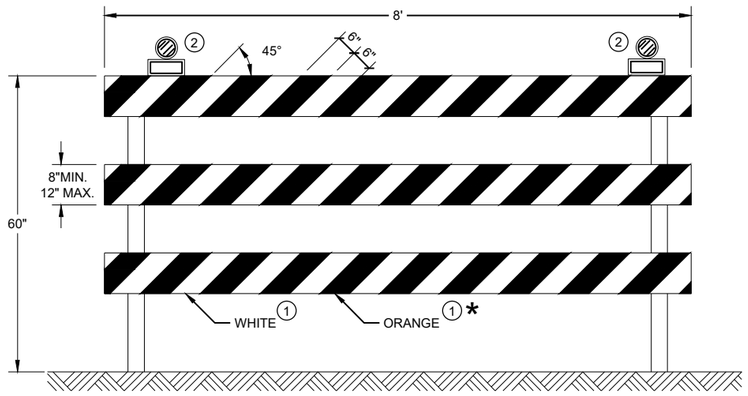
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD15C11 - 09b

6

SDD15C11 - 09b

LEGEND

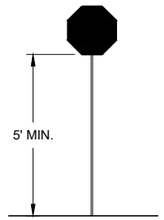
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

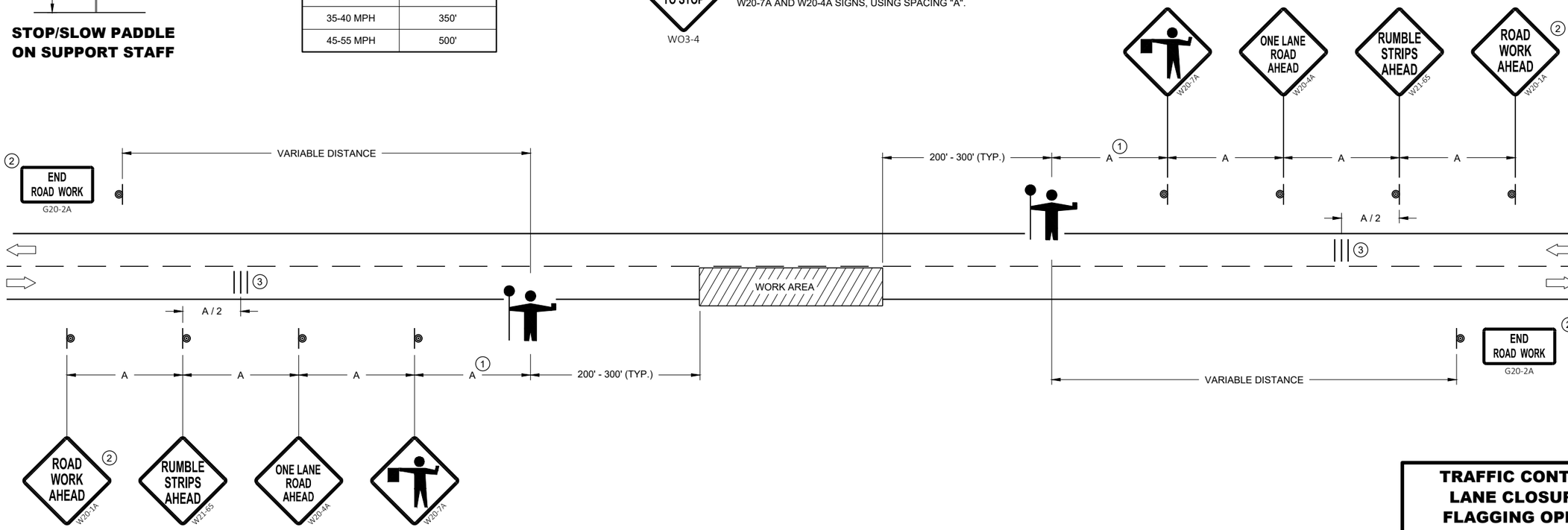
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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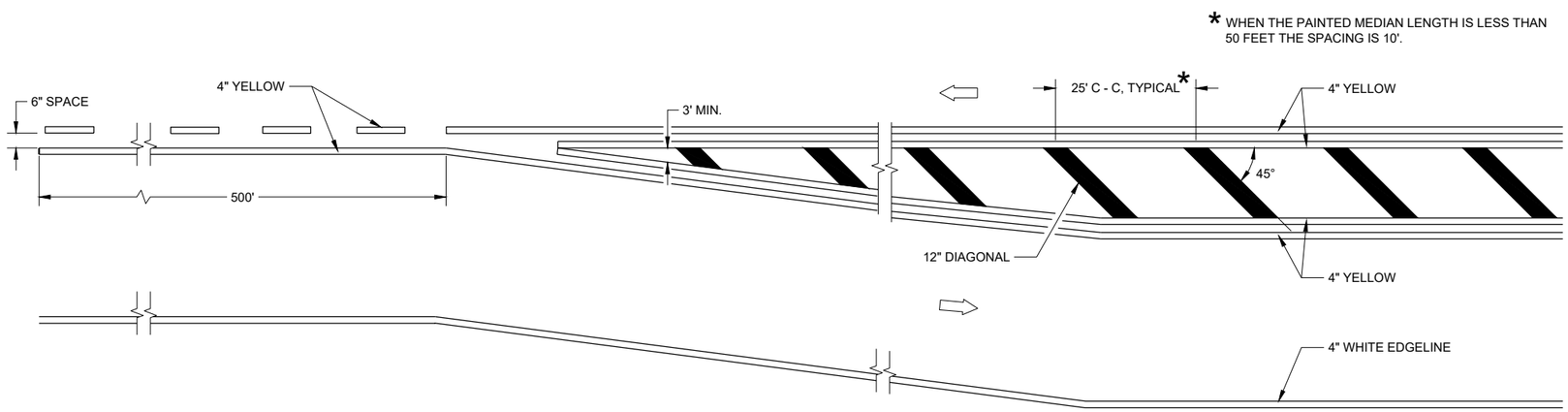
SDD 15C12 - 07

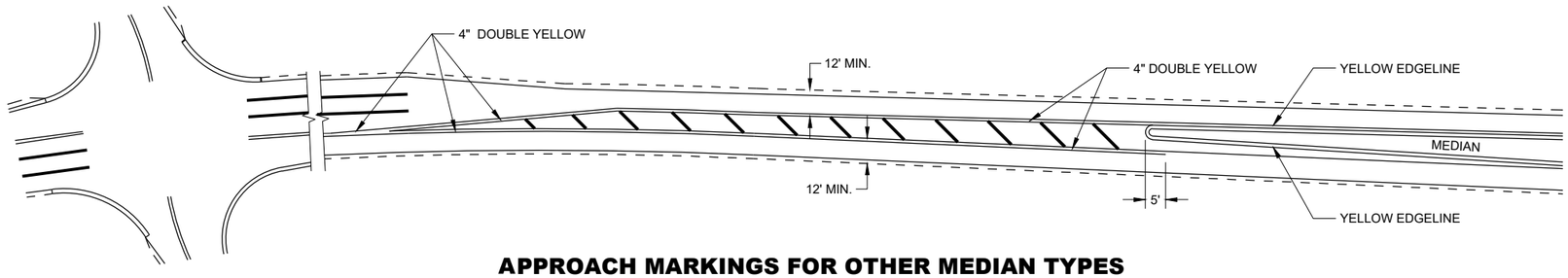


MEDIAN ISLAND DETAIL

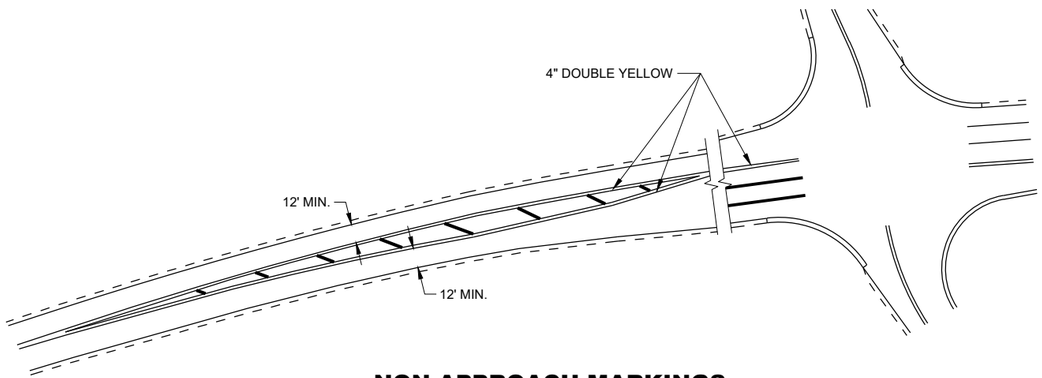
GENERAL NOTES

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

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

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

FHWA

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SDD 15C18 - 05a

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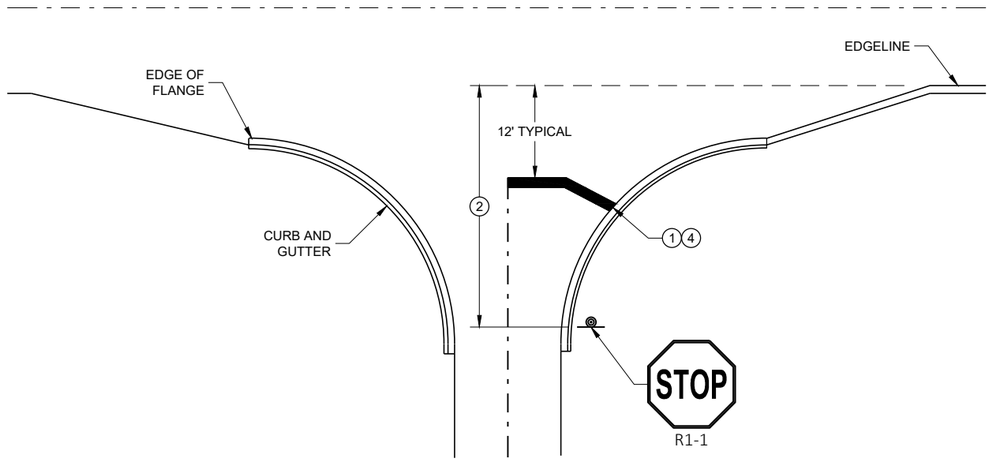
SDD 15C18 - 05a

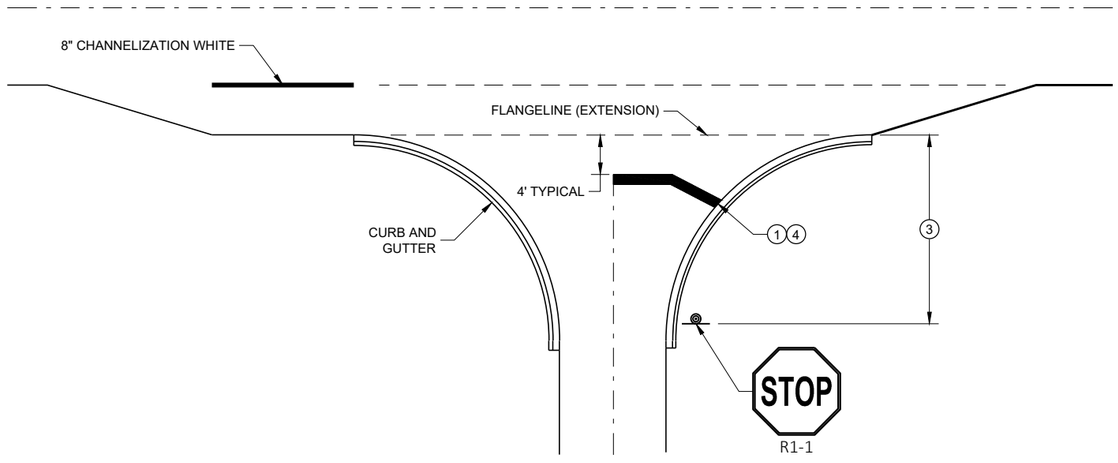
GENERAL NOTES

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

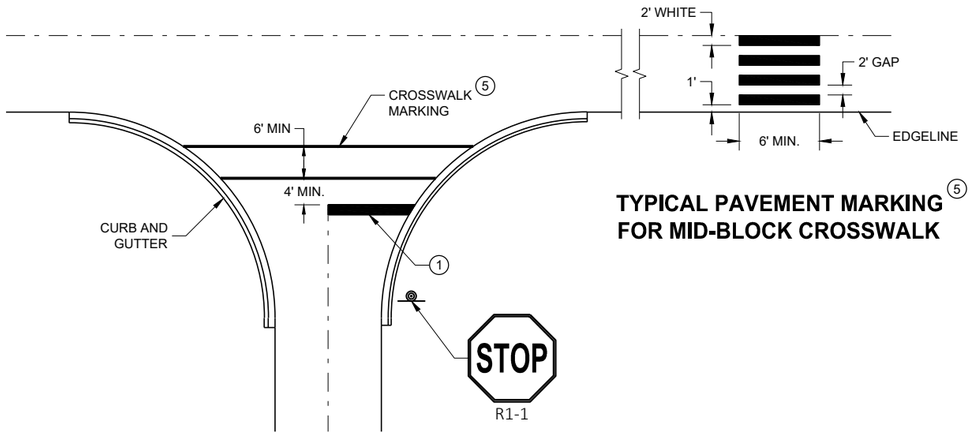
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

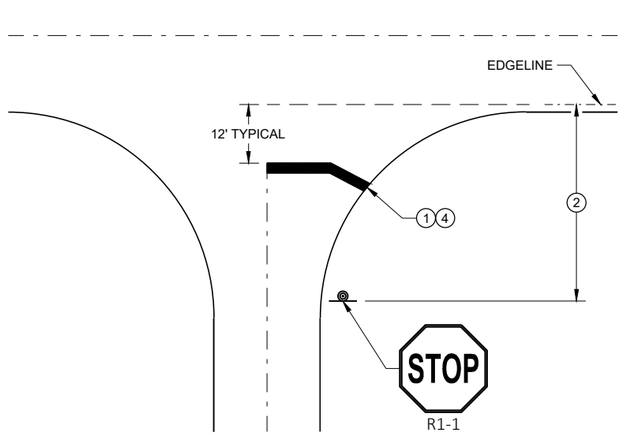


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING 5 FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15C33 - 04

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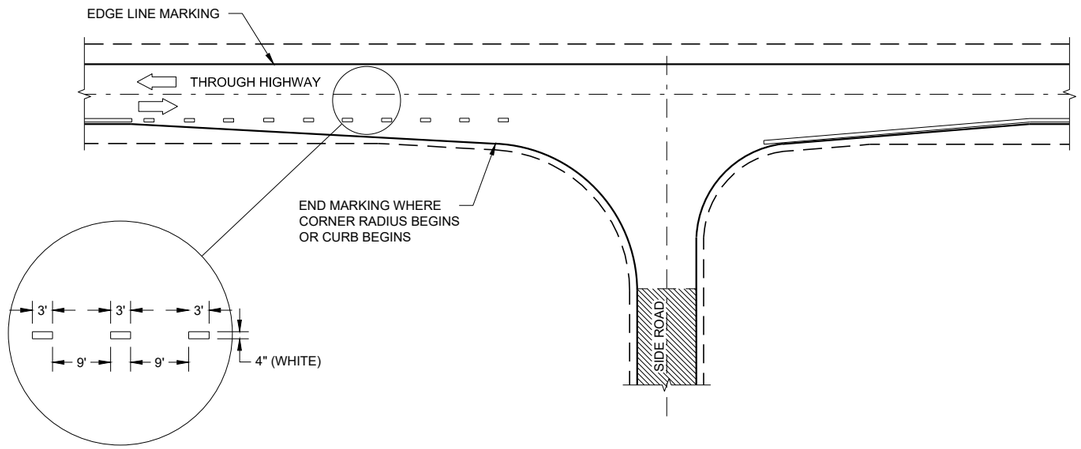
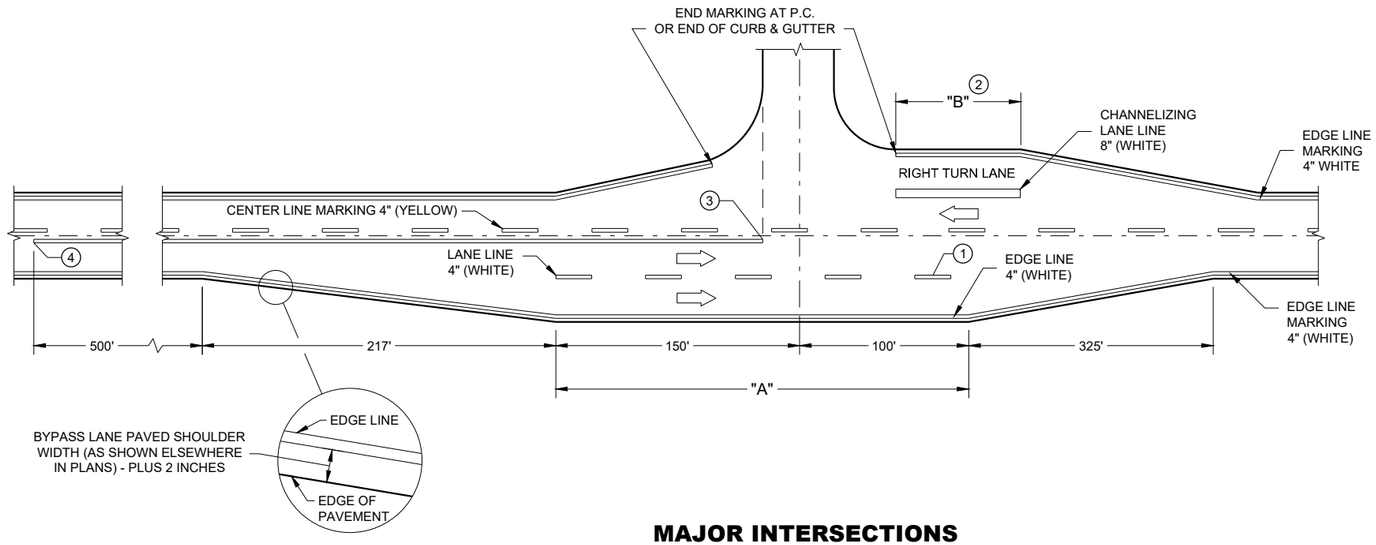
SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

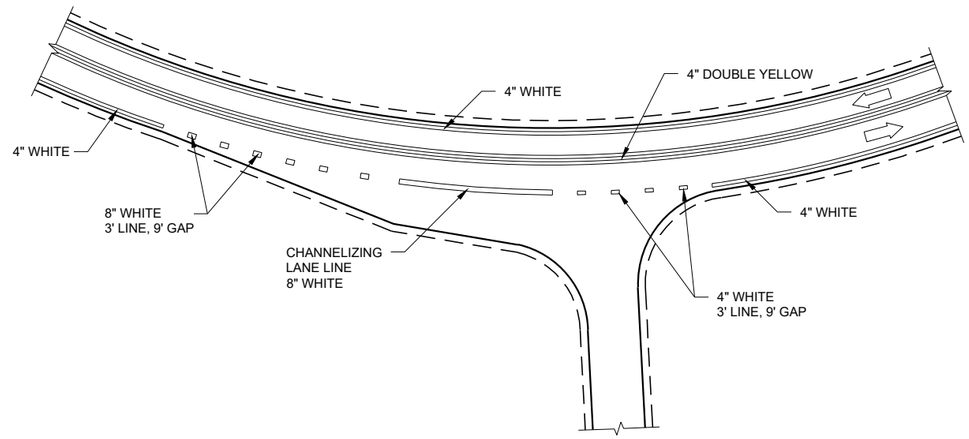
GENERAL NOTES

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

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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15C35 - 04a

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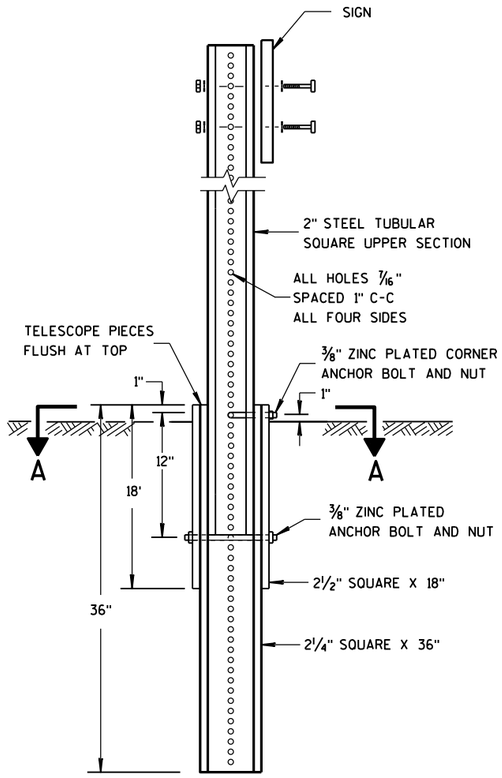
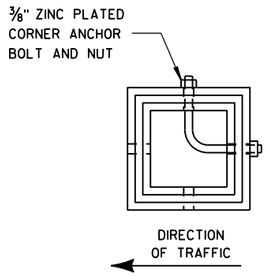
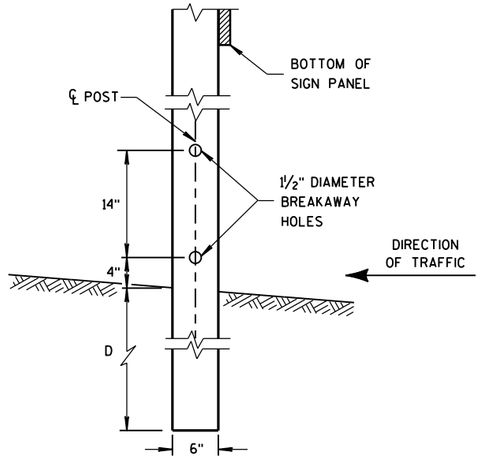
SDD 15C35 - 04a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



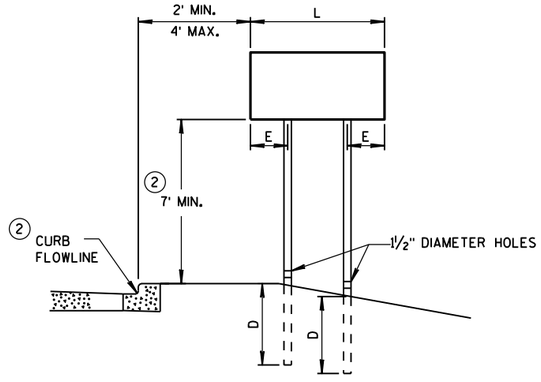
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

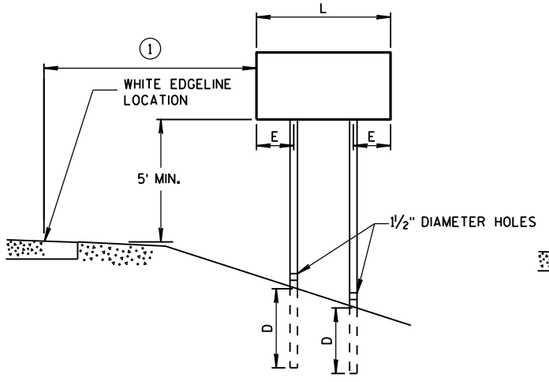
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

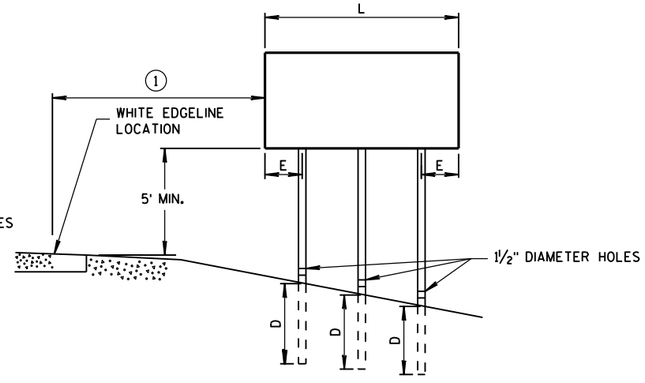
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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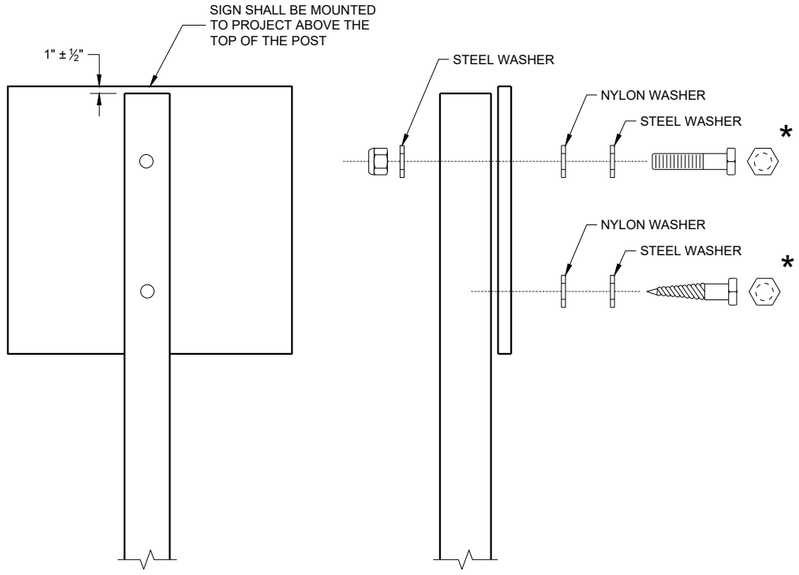
S.D.D. 15 D 38-2a



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

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

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

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

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

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

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

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SDD 15D38 - 02b

SDD15D38 - 02b

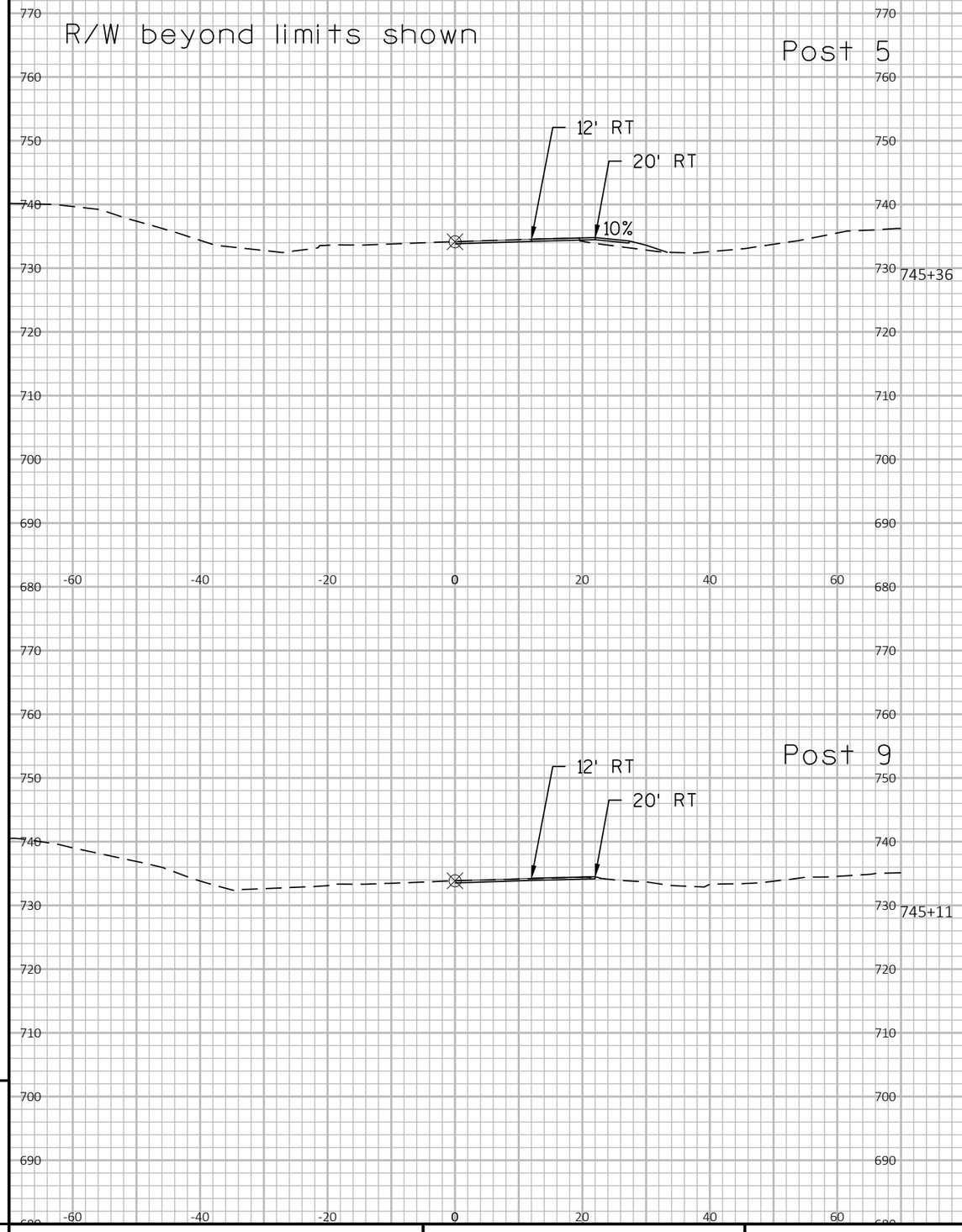
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

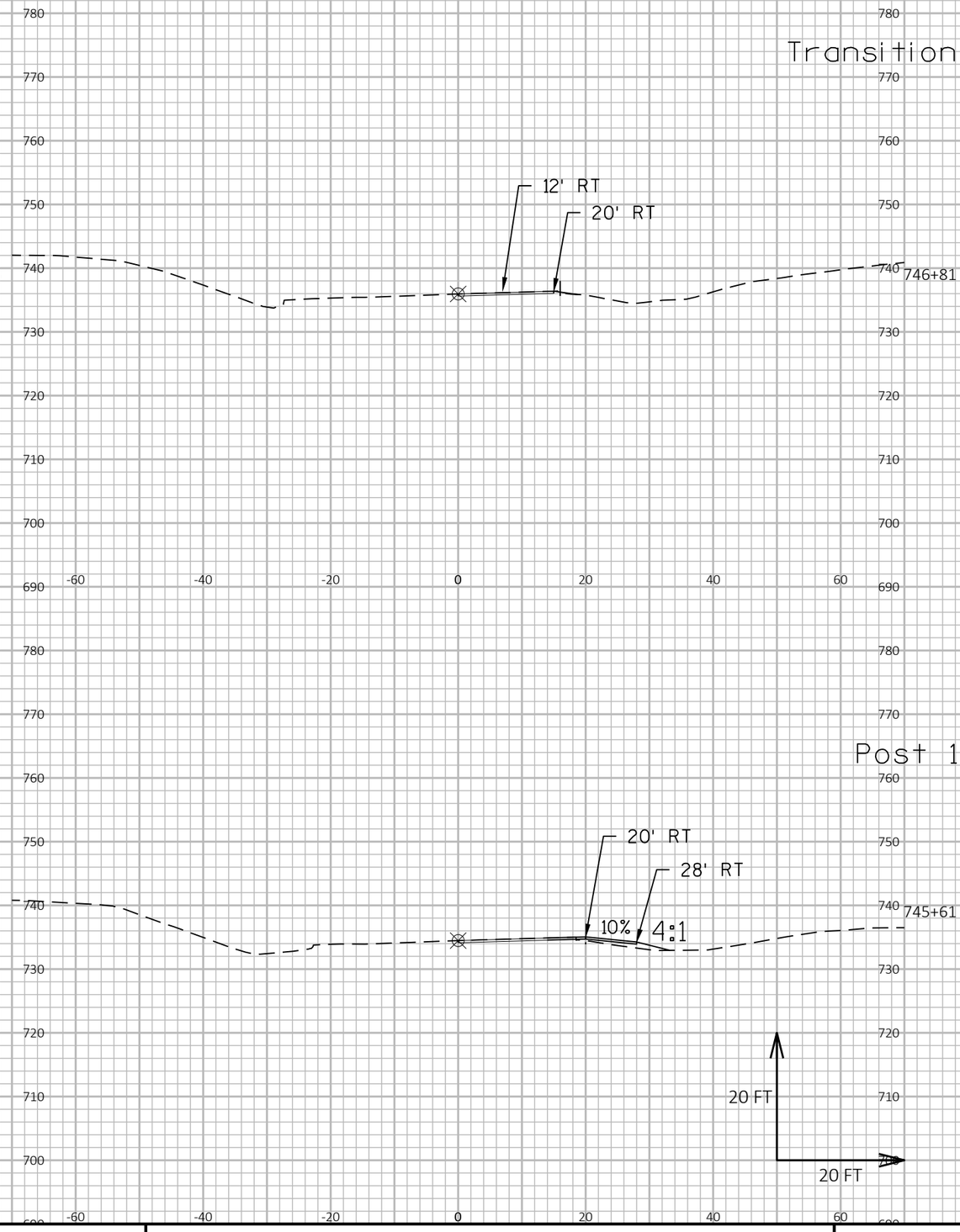
APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

R/W beyond limits shown



Post 5



Transition

Post 9

Post 1

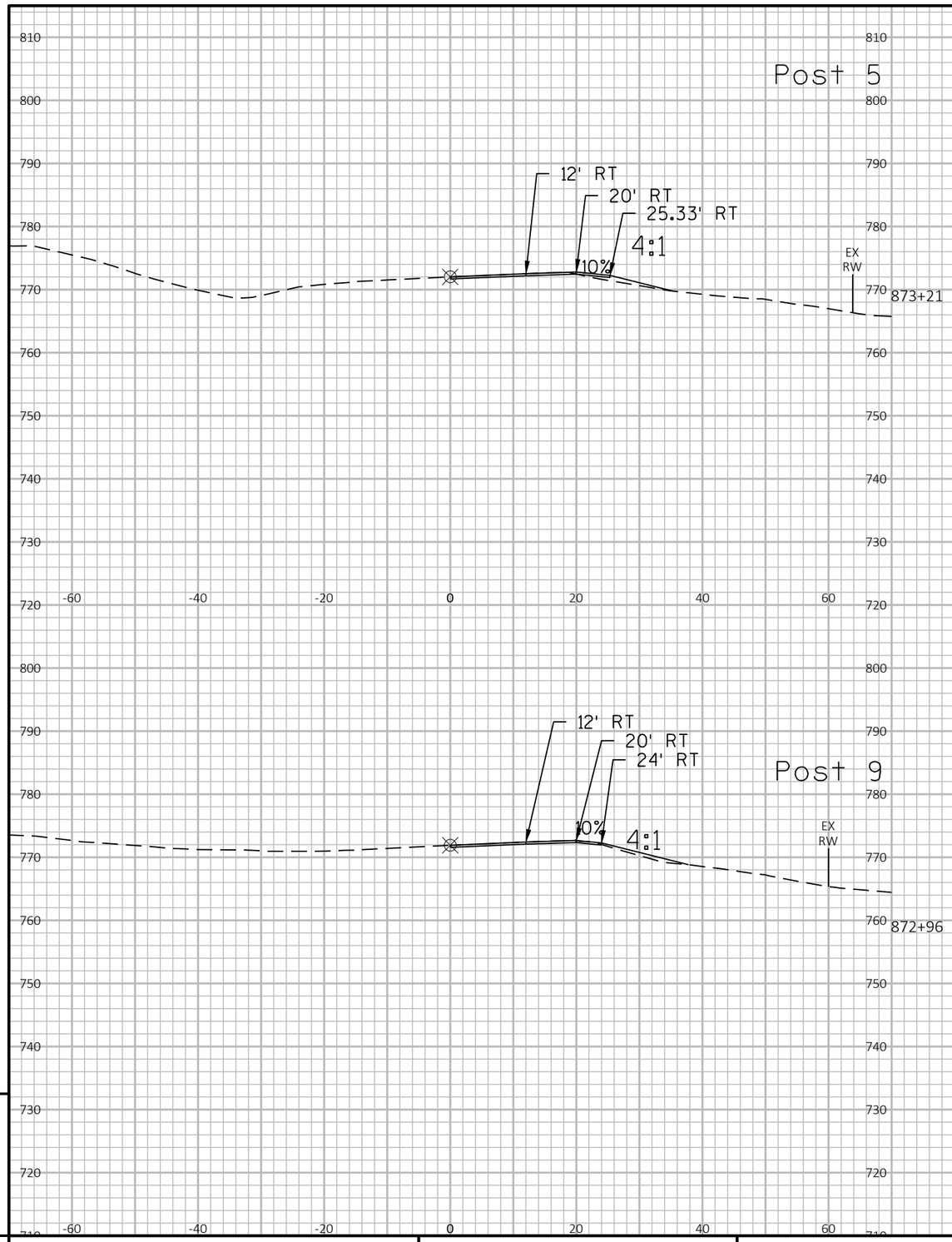
9

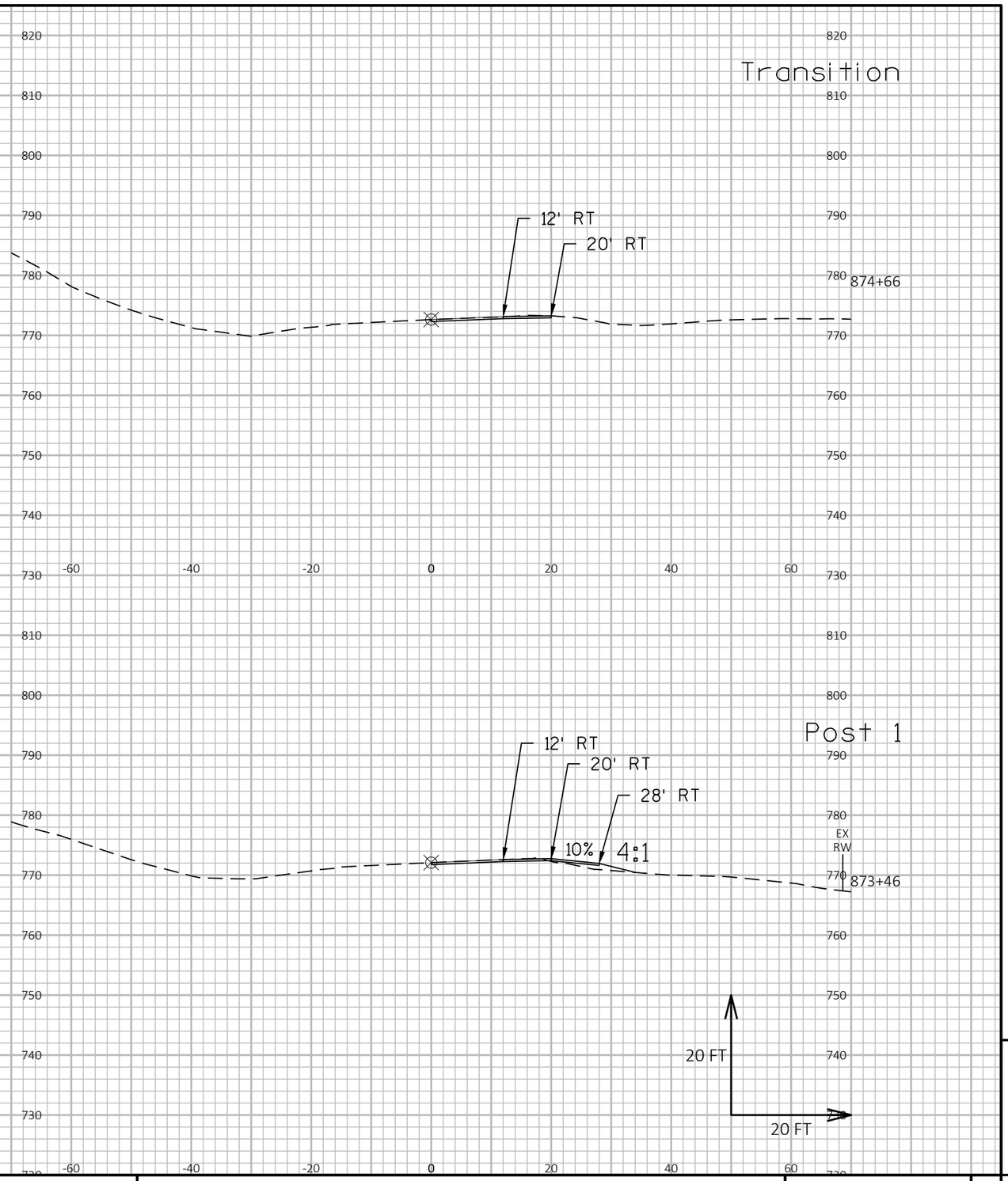
9

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - RIGHT	SHEET 113	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-RIGHT.DWG
LAYOUT NAME - 11

PLOT DATE : 7/23/2021 4:46 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





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PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - RIGHT	SHEET 114	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-RIGHT.DWG
LAYOUT NAME - 15

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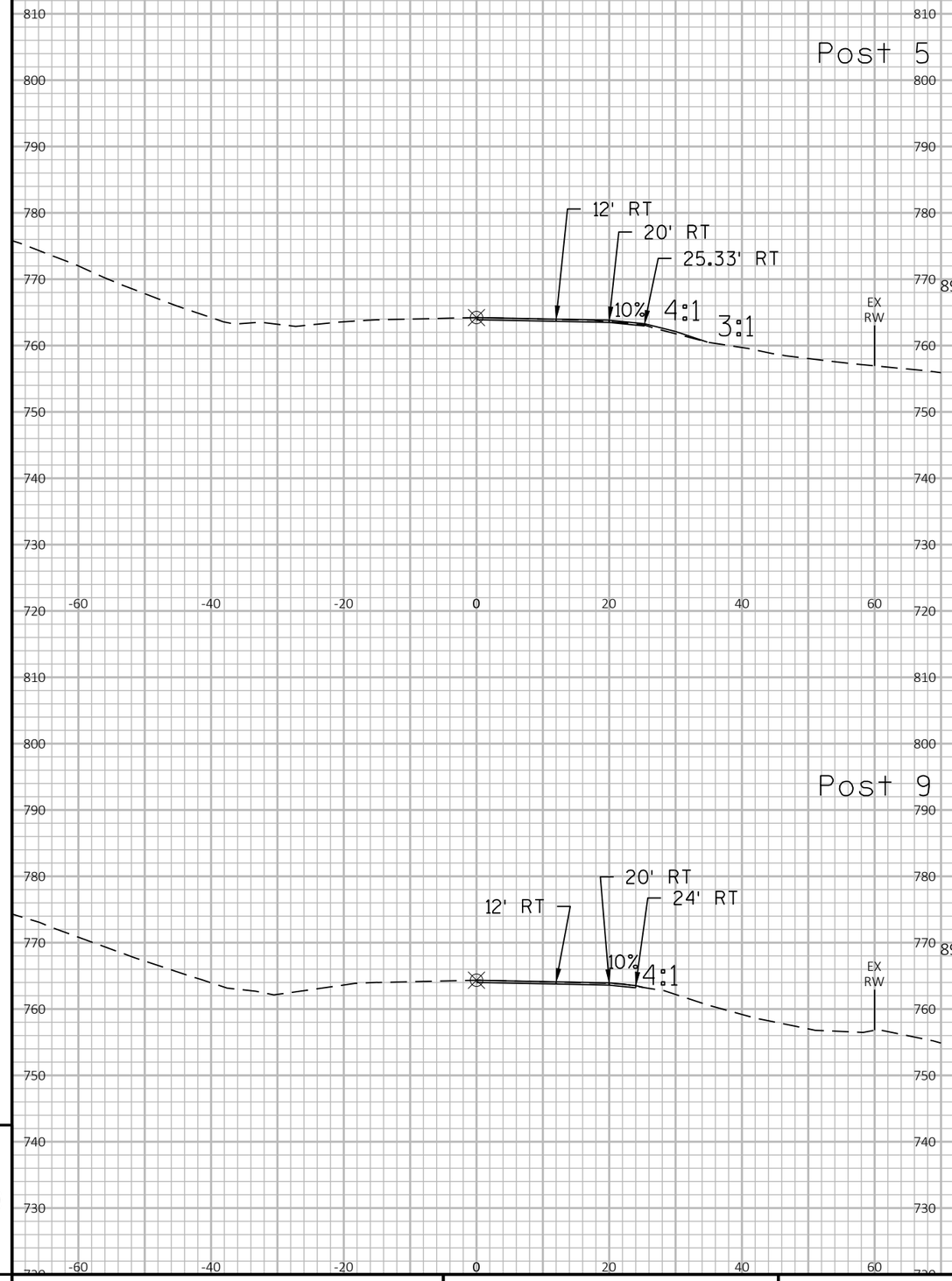

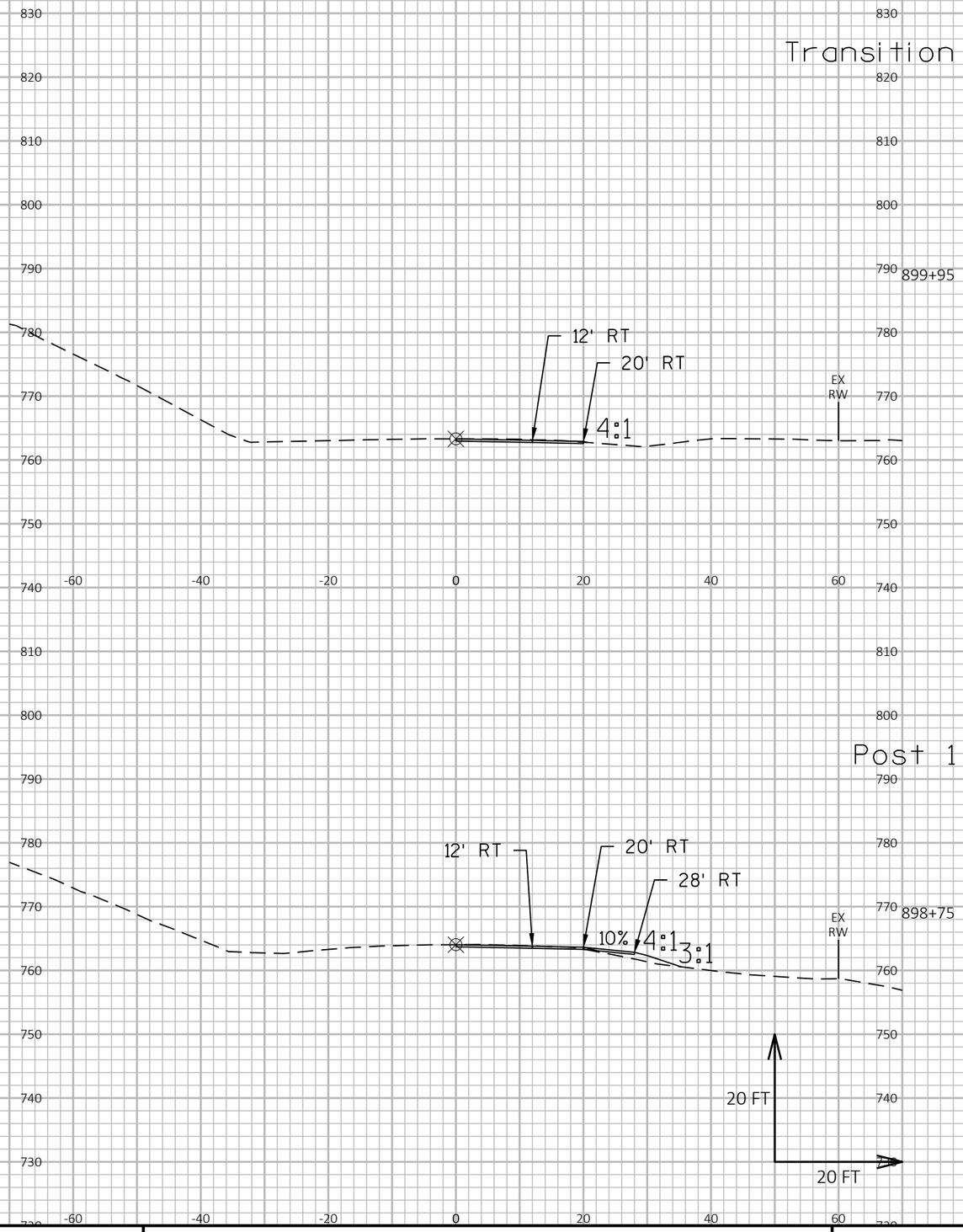

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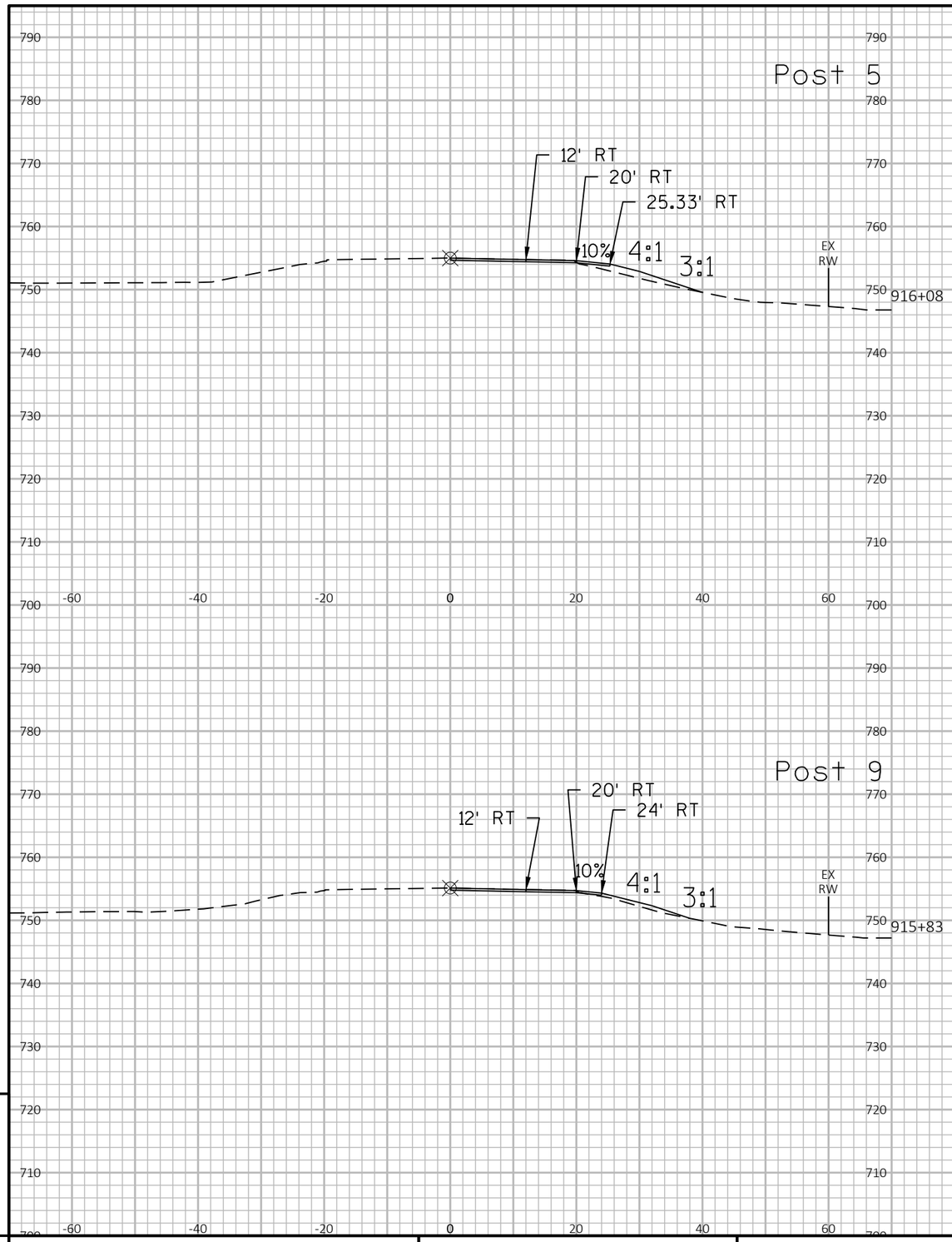
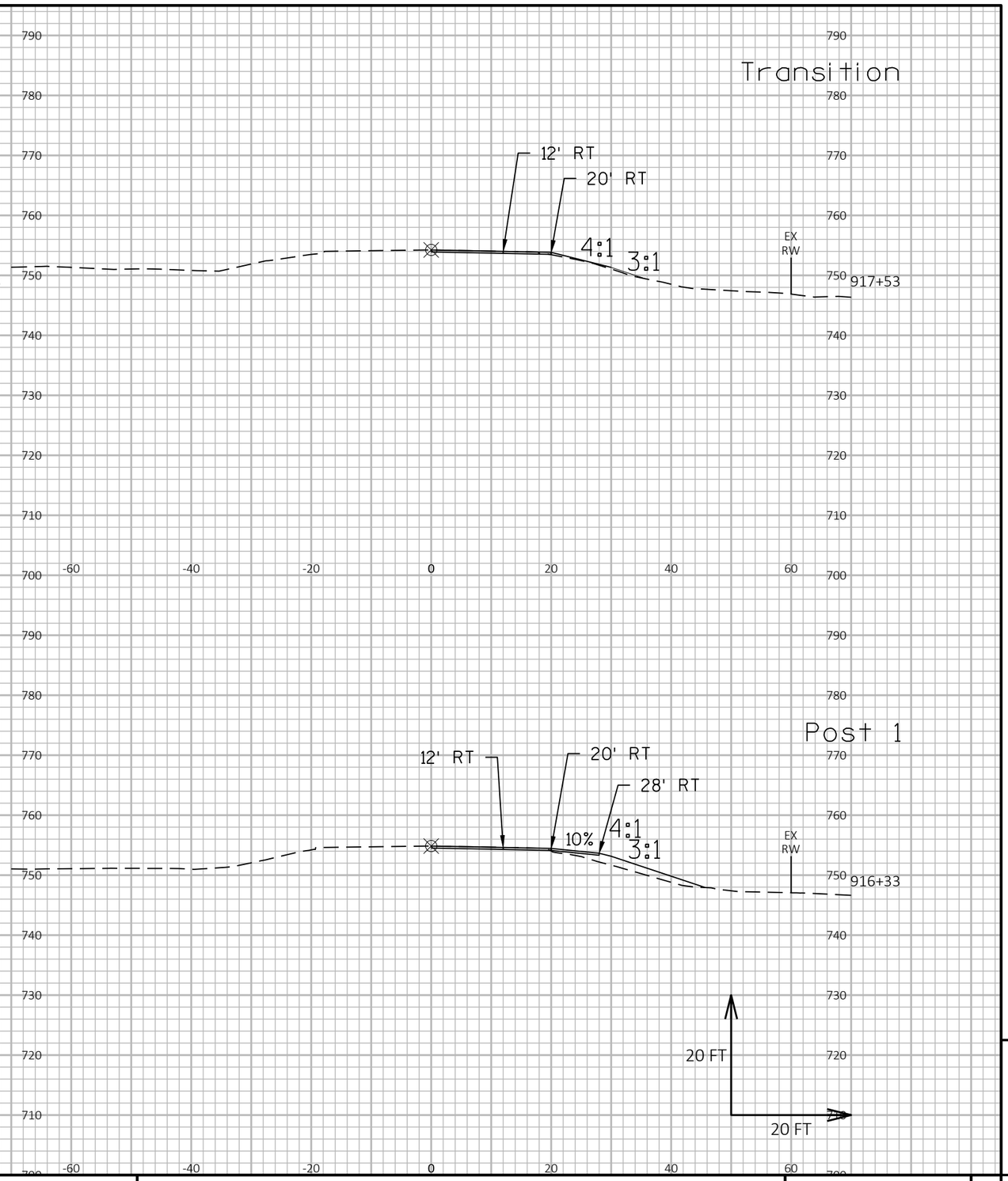
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - RIGHT	SHEET 115	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-RIGHT.DWG
LAYOUT NAME - 19

PLOT DATE : 7/23/2021 4:46 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





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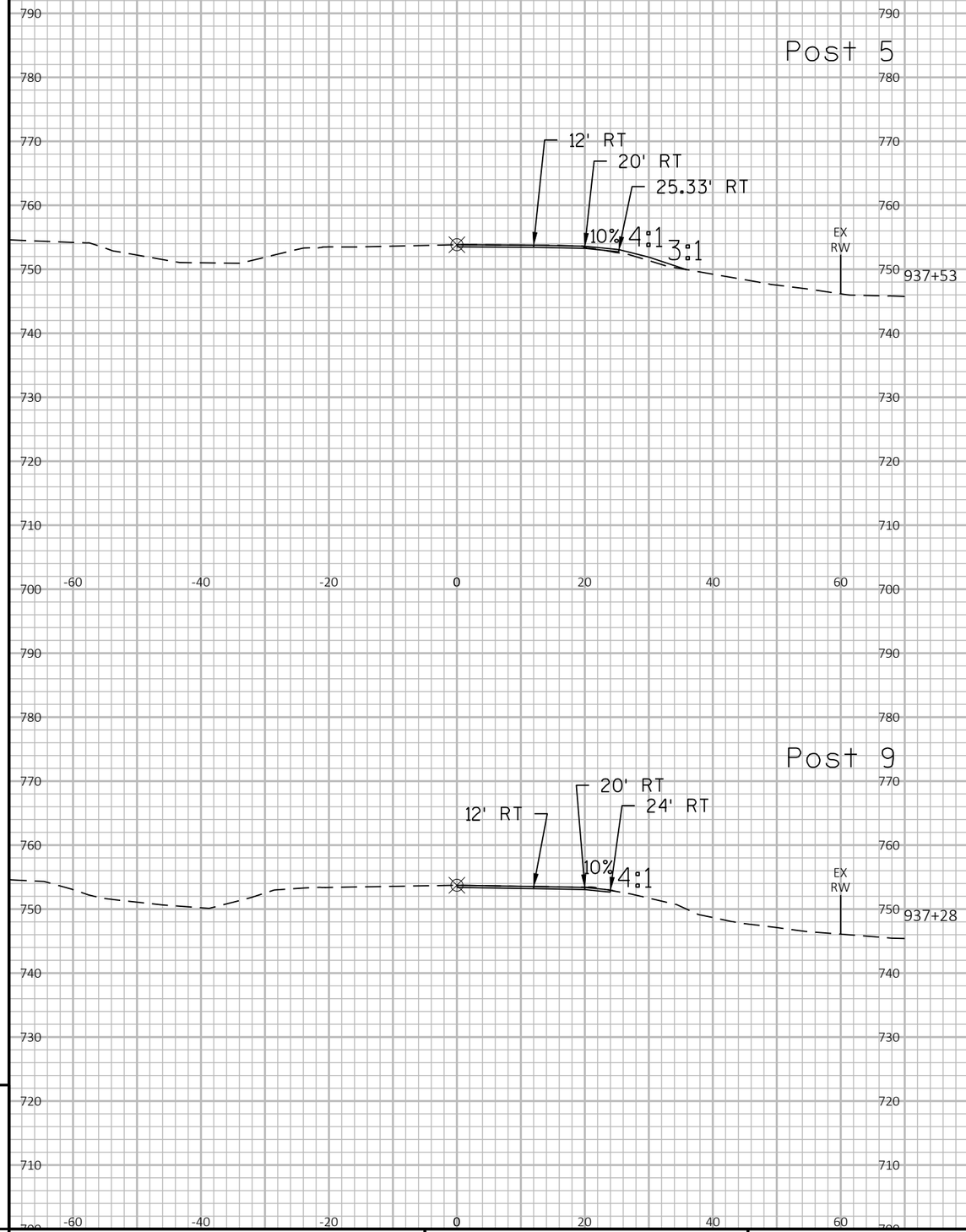
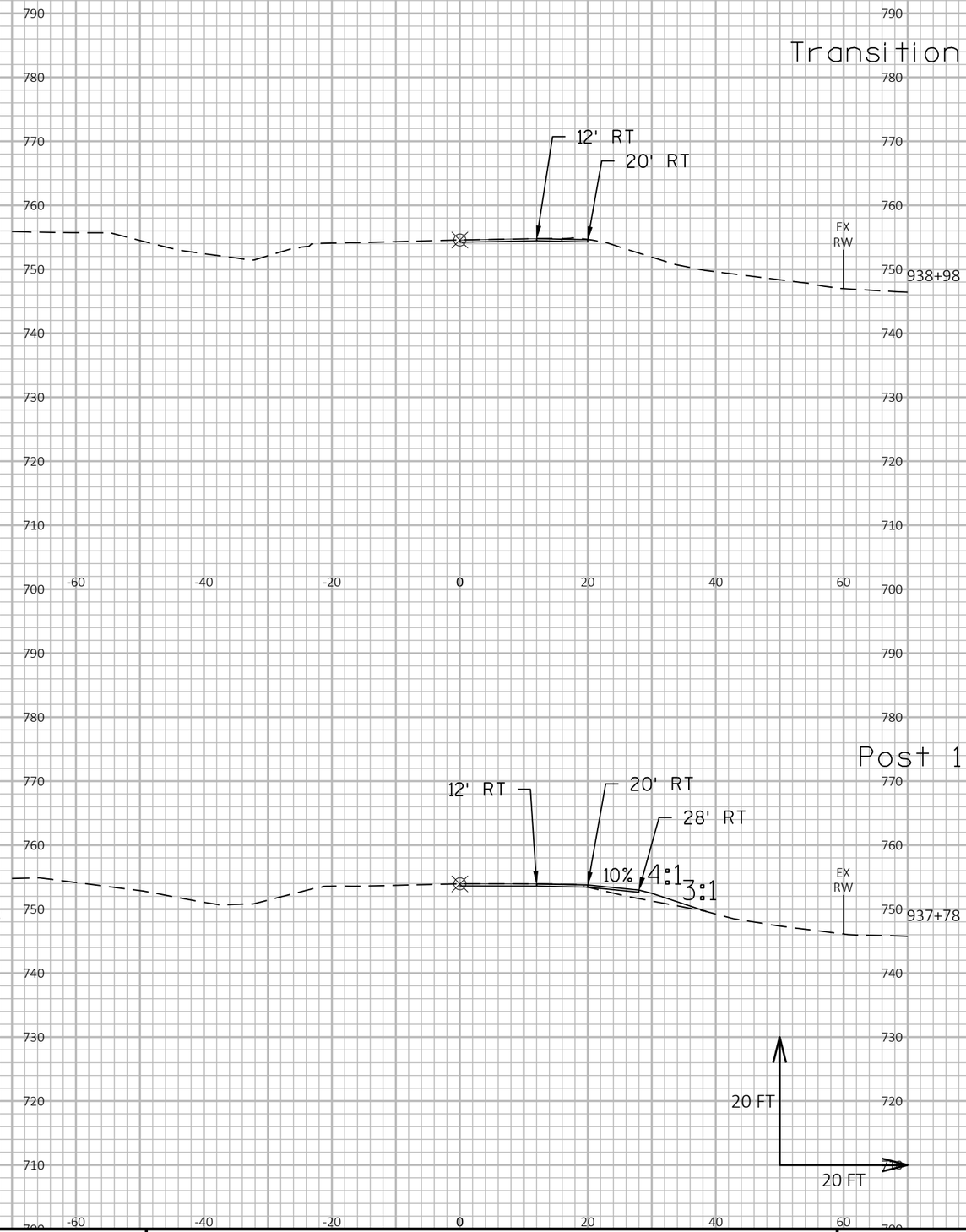
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - RIGHT	SHEET 116	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-RIGHT.DWG
LAYOUT NAME - 21

PLOT DATE : 7/23/2021 4:46 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





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PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - RIGHT	SHEET 117	E

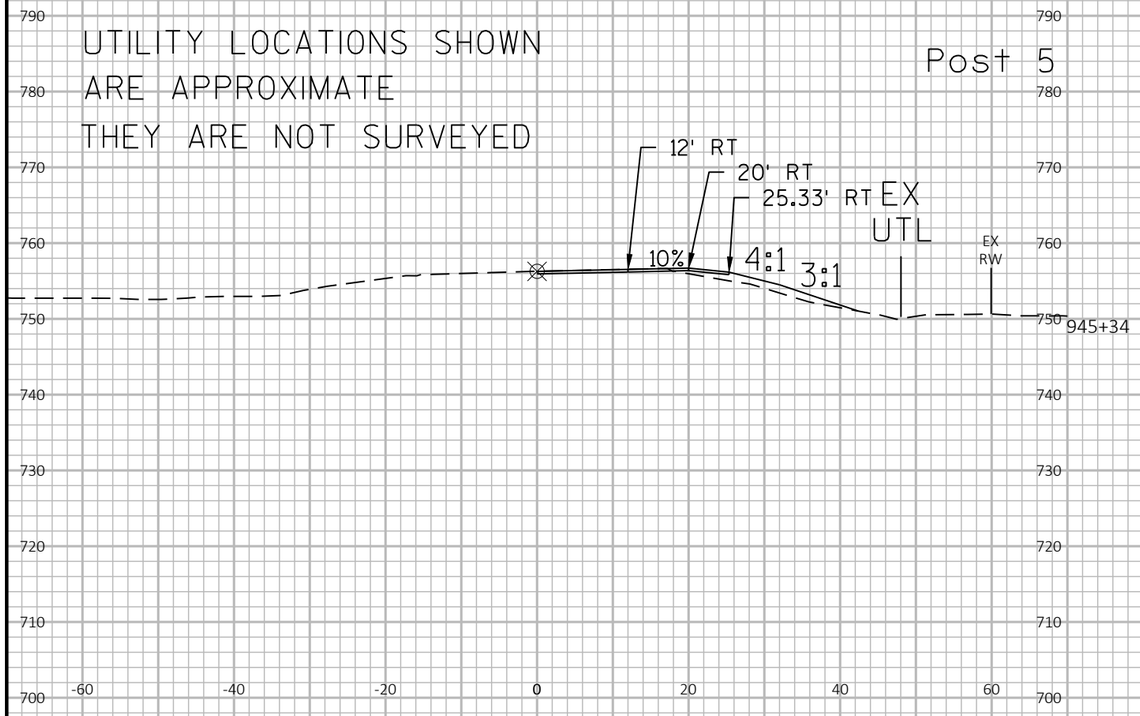
FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-RIGHT.DWG
LAYOUT NAME - 23

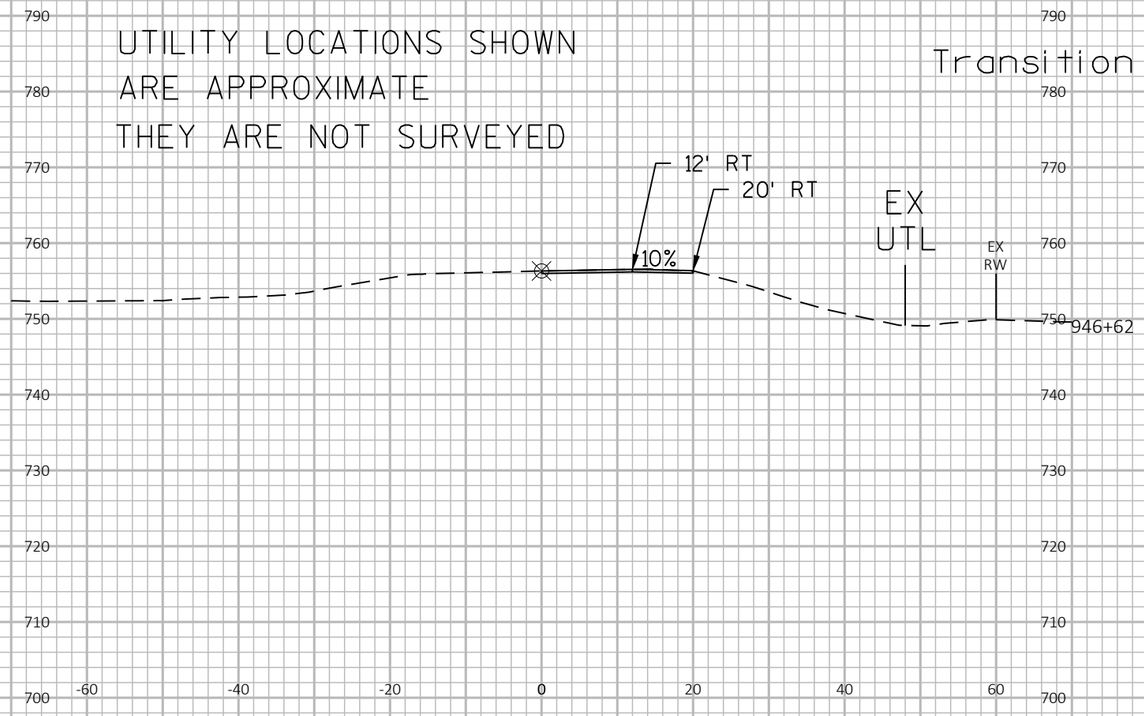
PLOT DATE : 7/23/2021 4:46 PM

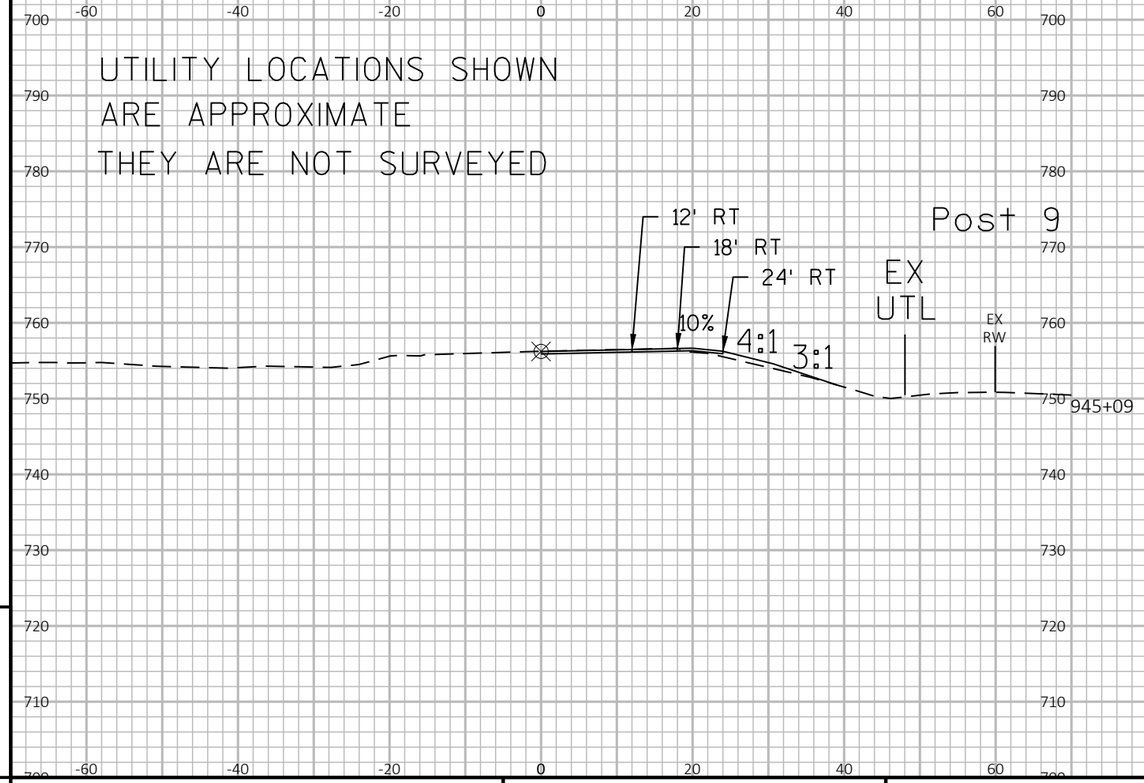
PLOT BY : DAVIDSON, JONATHAN B

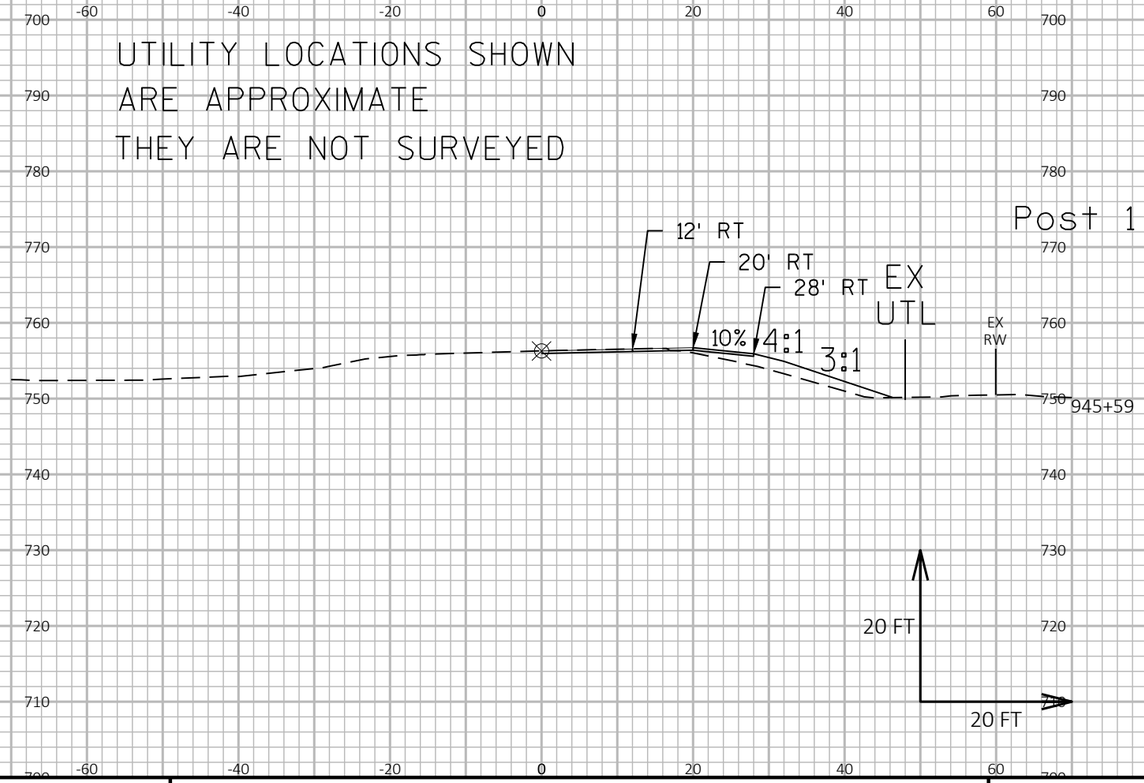
PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.









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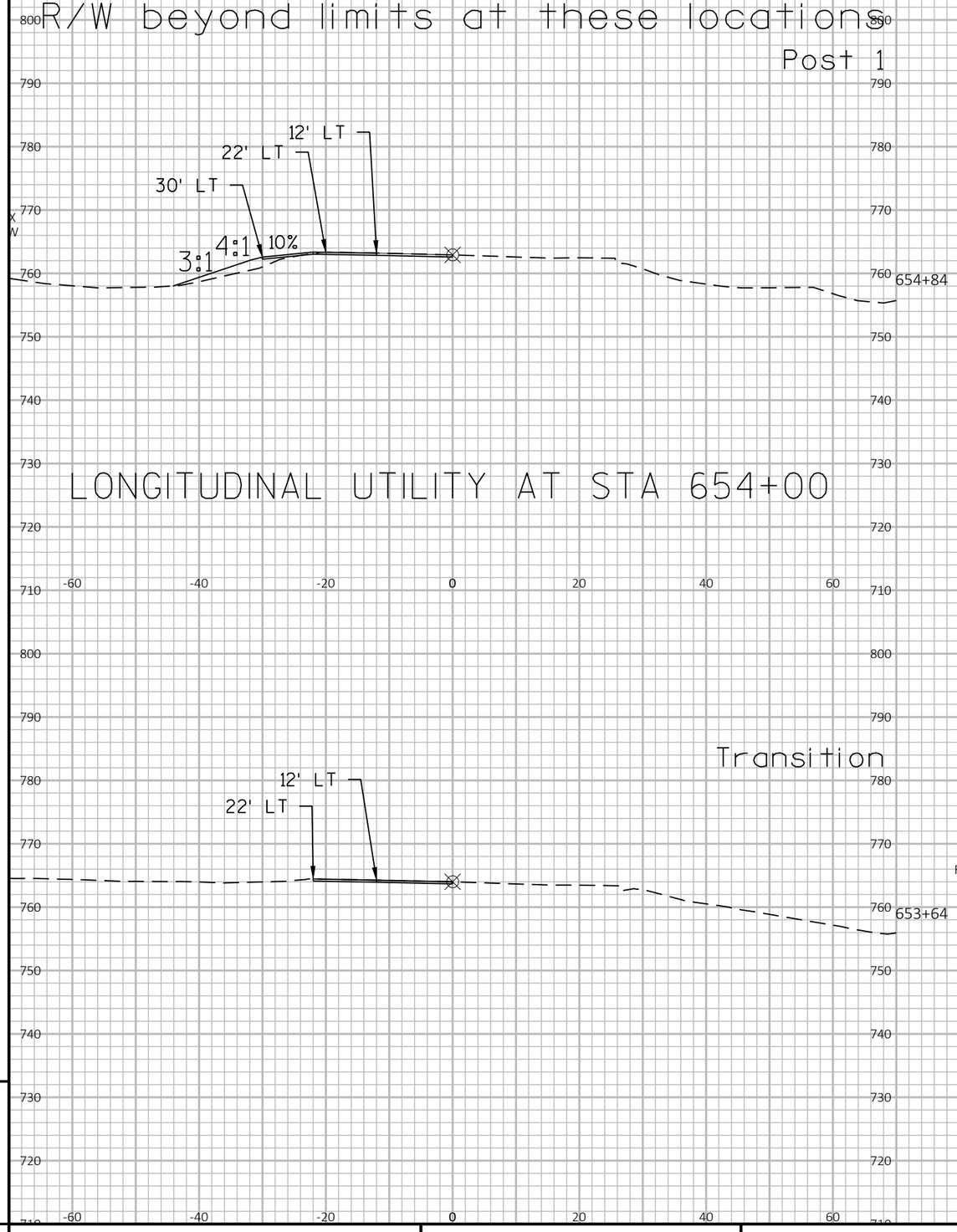
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - RIGHT	SHEET 118	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-RIGHT.DWG
LAYOUT NAME - 25

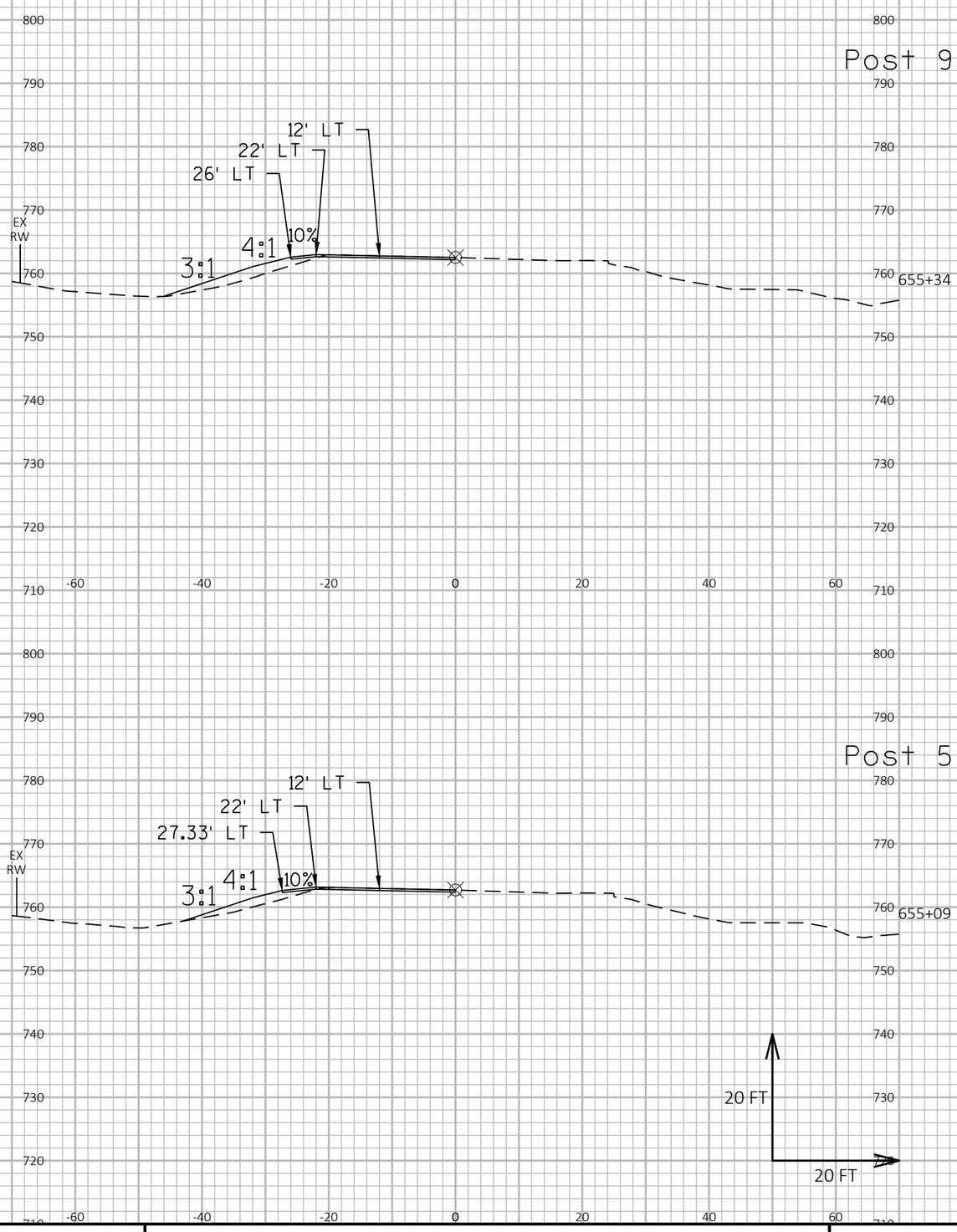
PLOT DATE : 7/23/2021 4:46 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

R/W beyond limits at these locations



LONGITUDINAL UTILITY AT STA 654+00



9 9

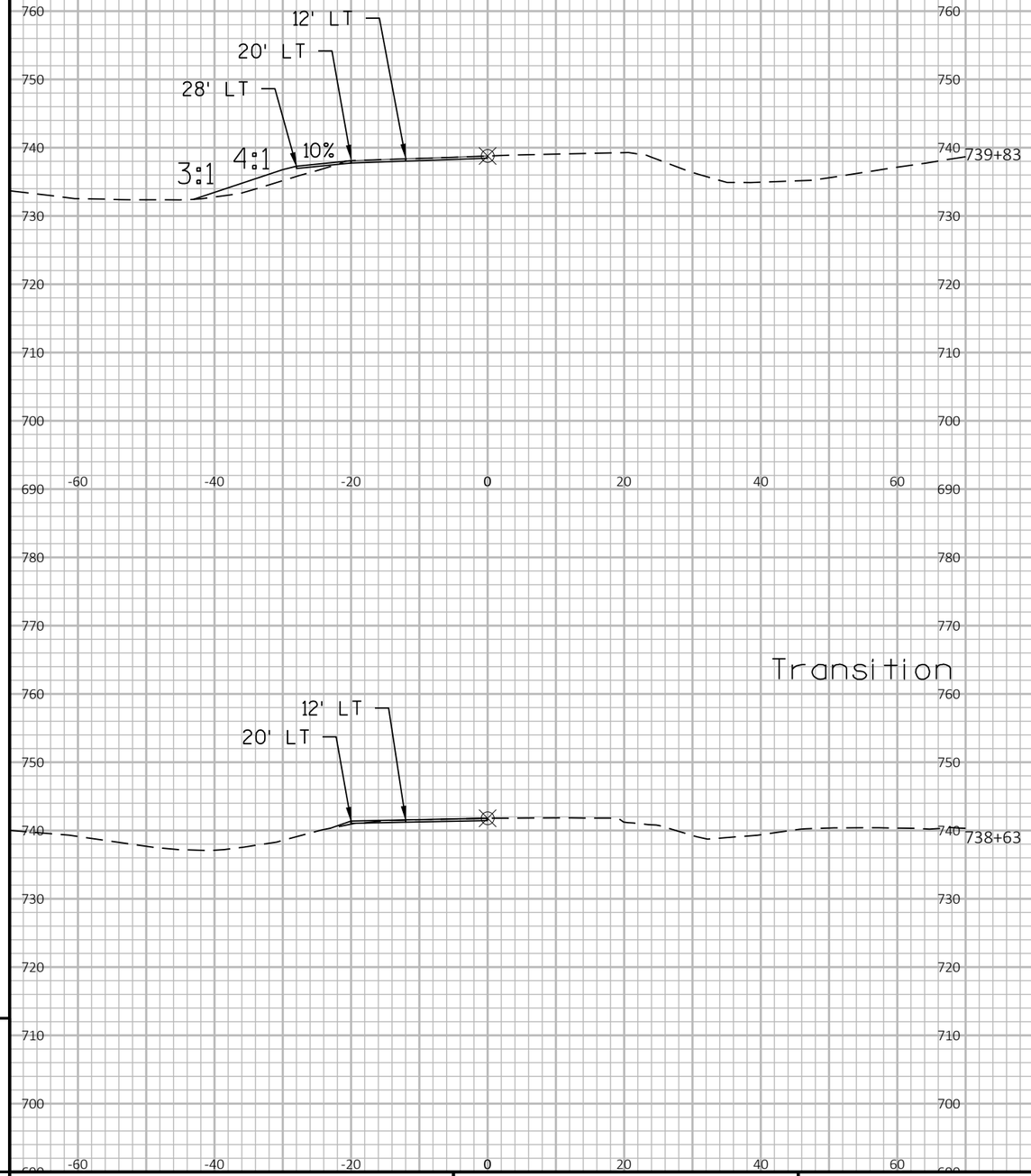
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - LEFT	SHEET 119	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-LEFT.DWG
LAYOUT NAME - 4

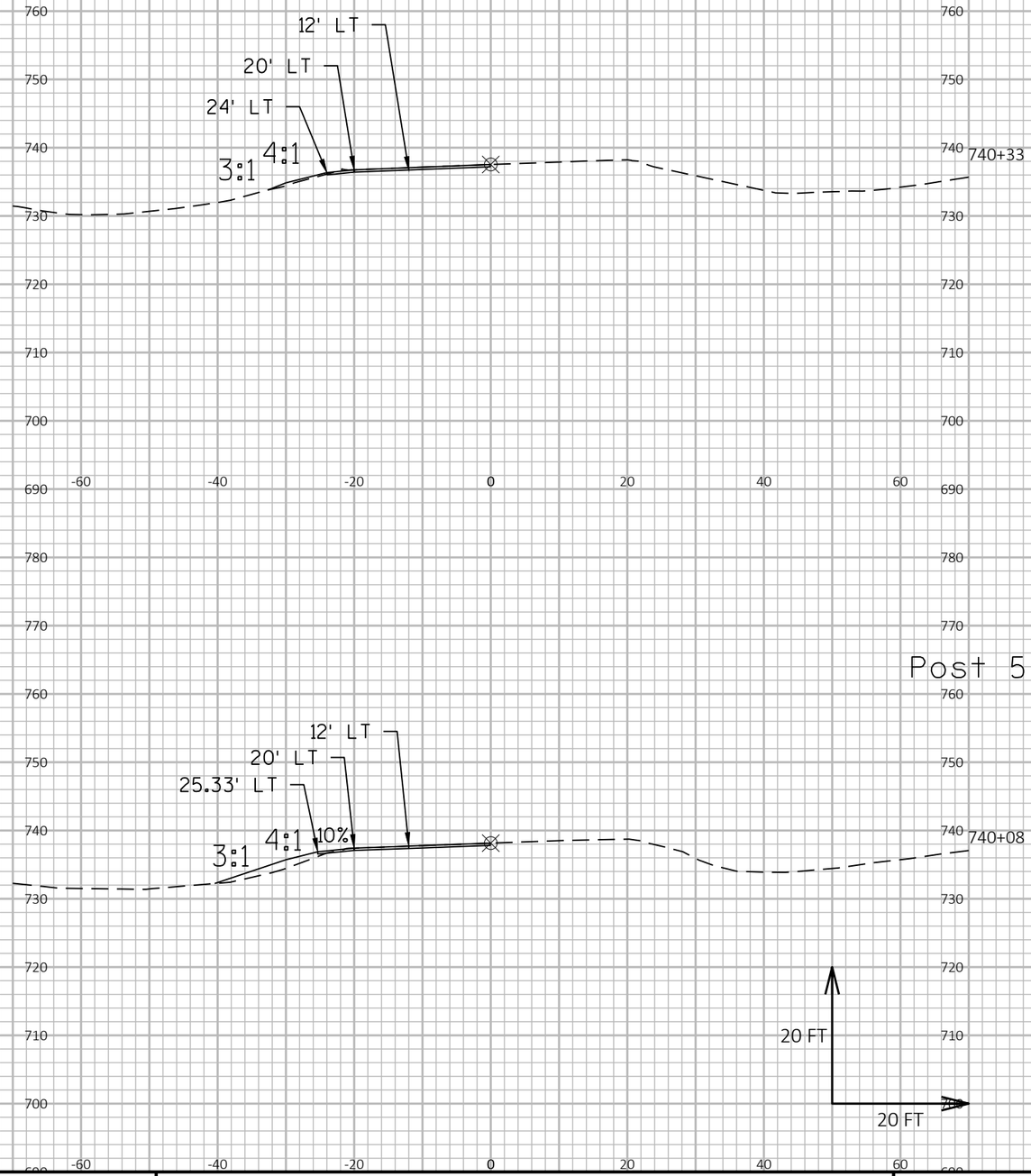
PLOT DATE : 7/23/2021 3:59 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

R/W beyond limits at these locations

Post 1



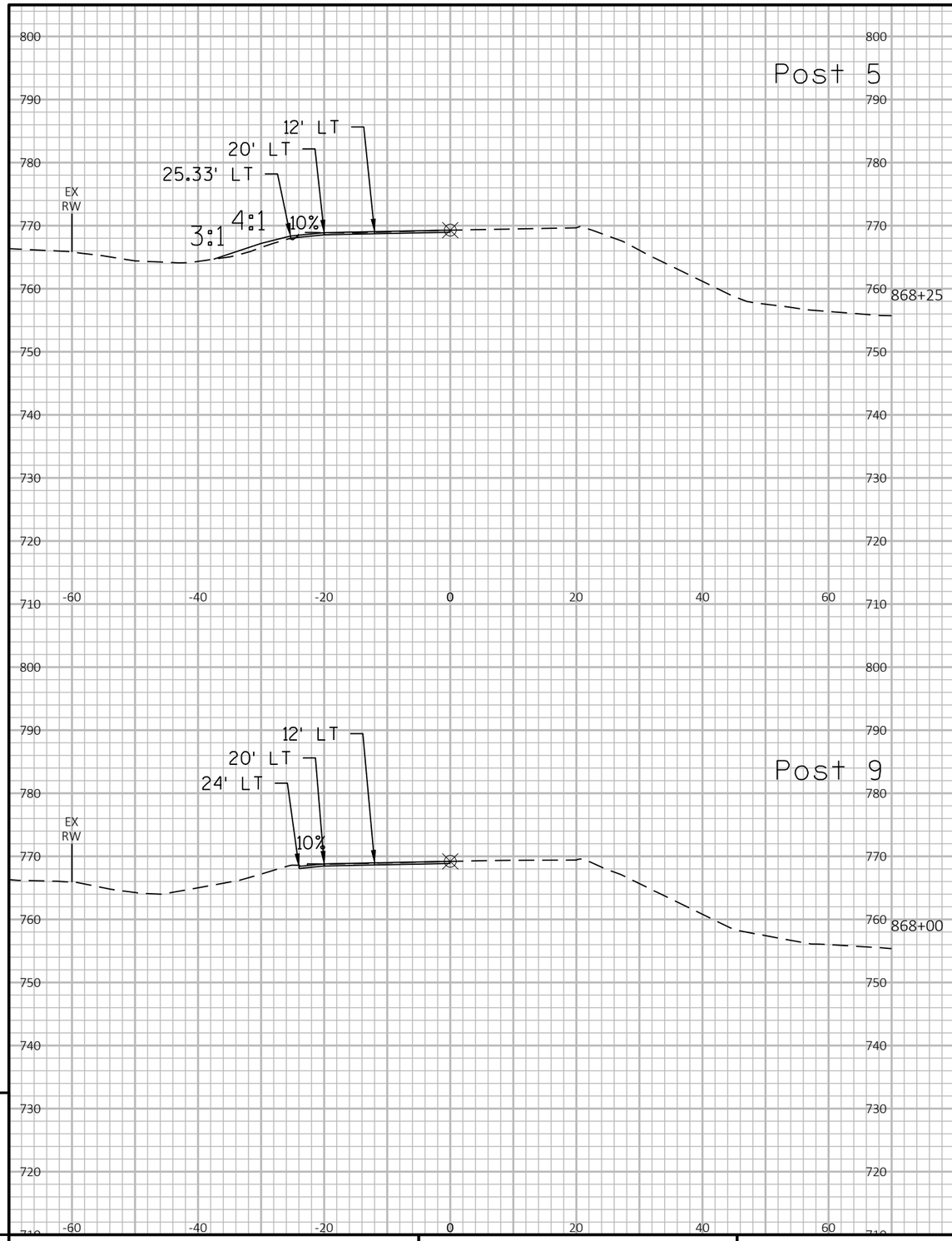
Post 9



9 9

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - LEFT	SHEET 120	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-LEFT.DWG
LAYOUT NAME - 6
PLOT DATE : 7/23/2021 3:59 PM
PLOT BY : DAVIDSON, JONATHAN B
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49



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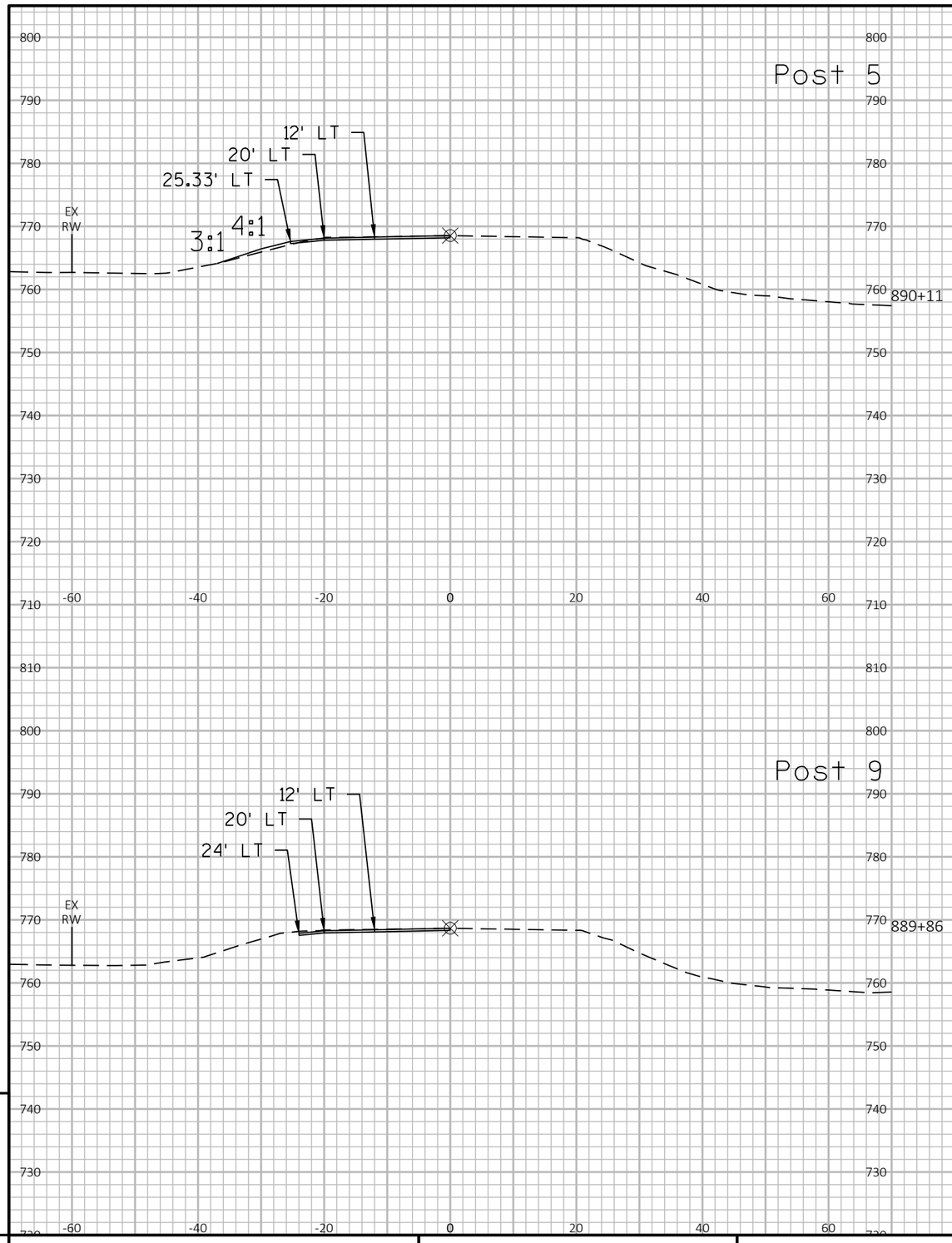
9

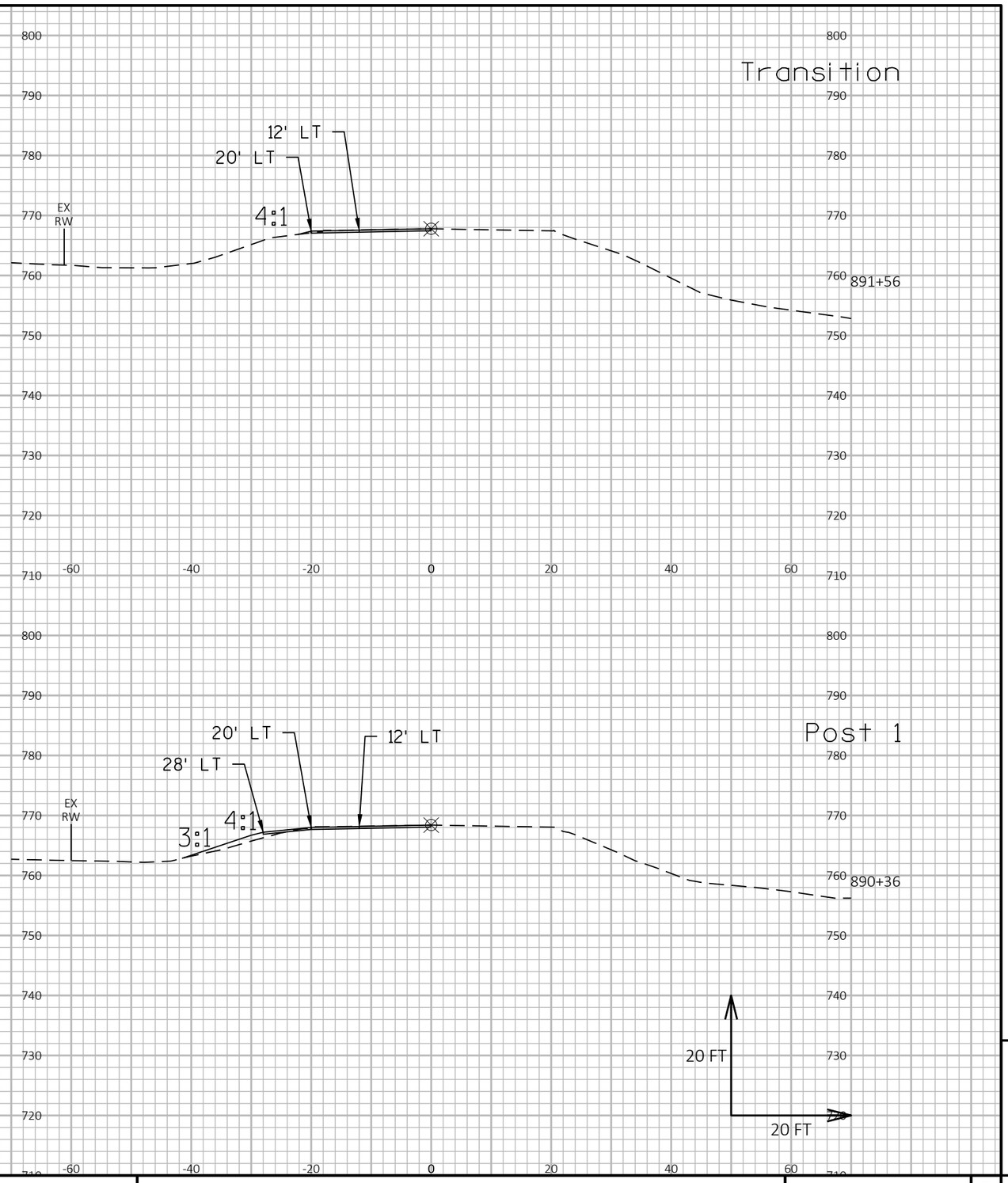
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - LEFT	SHEET 121	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-LEFT.DWG
LAYOUT NAME - 11

PLOT DATE : 7/23/2021 3:59 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





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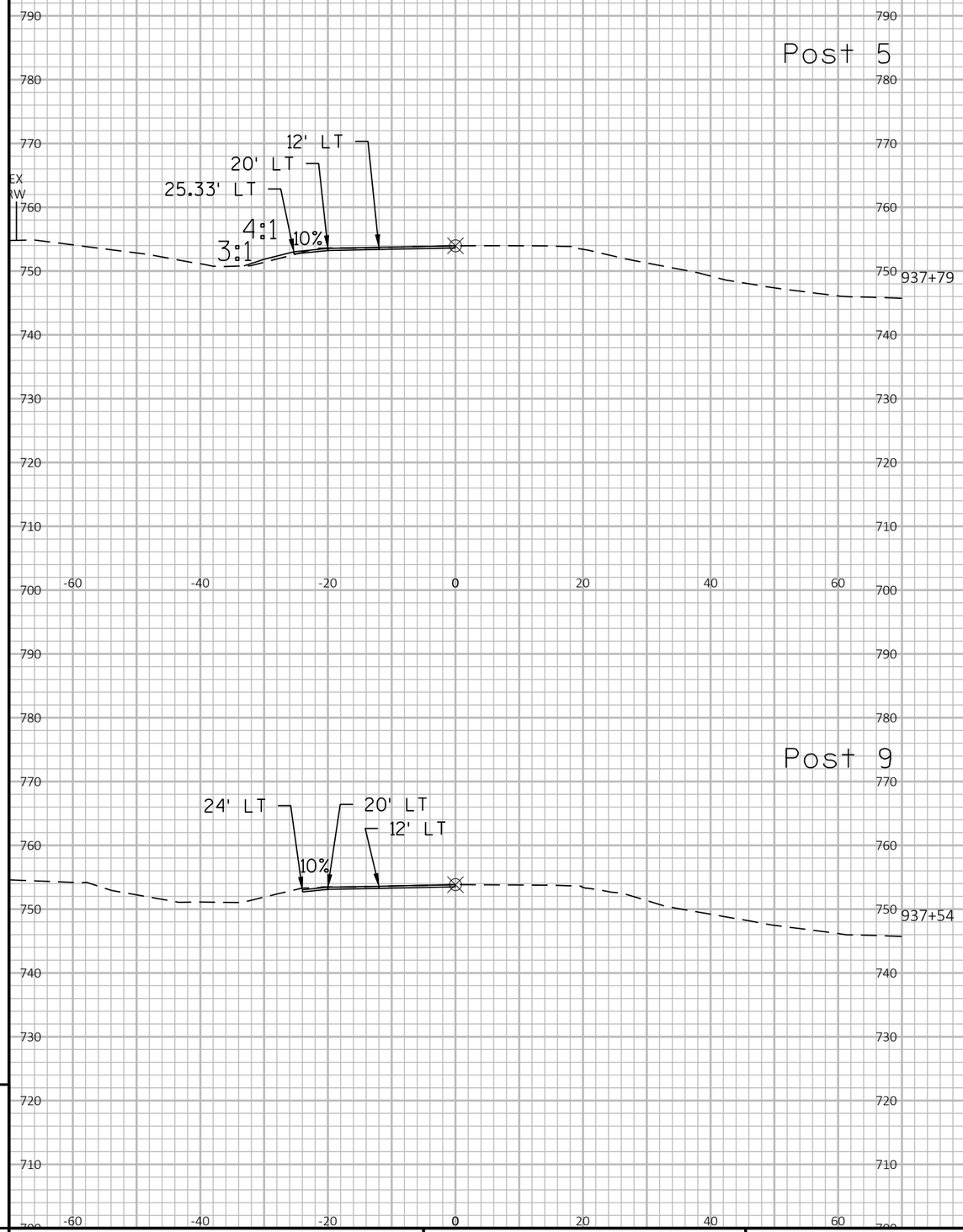
9

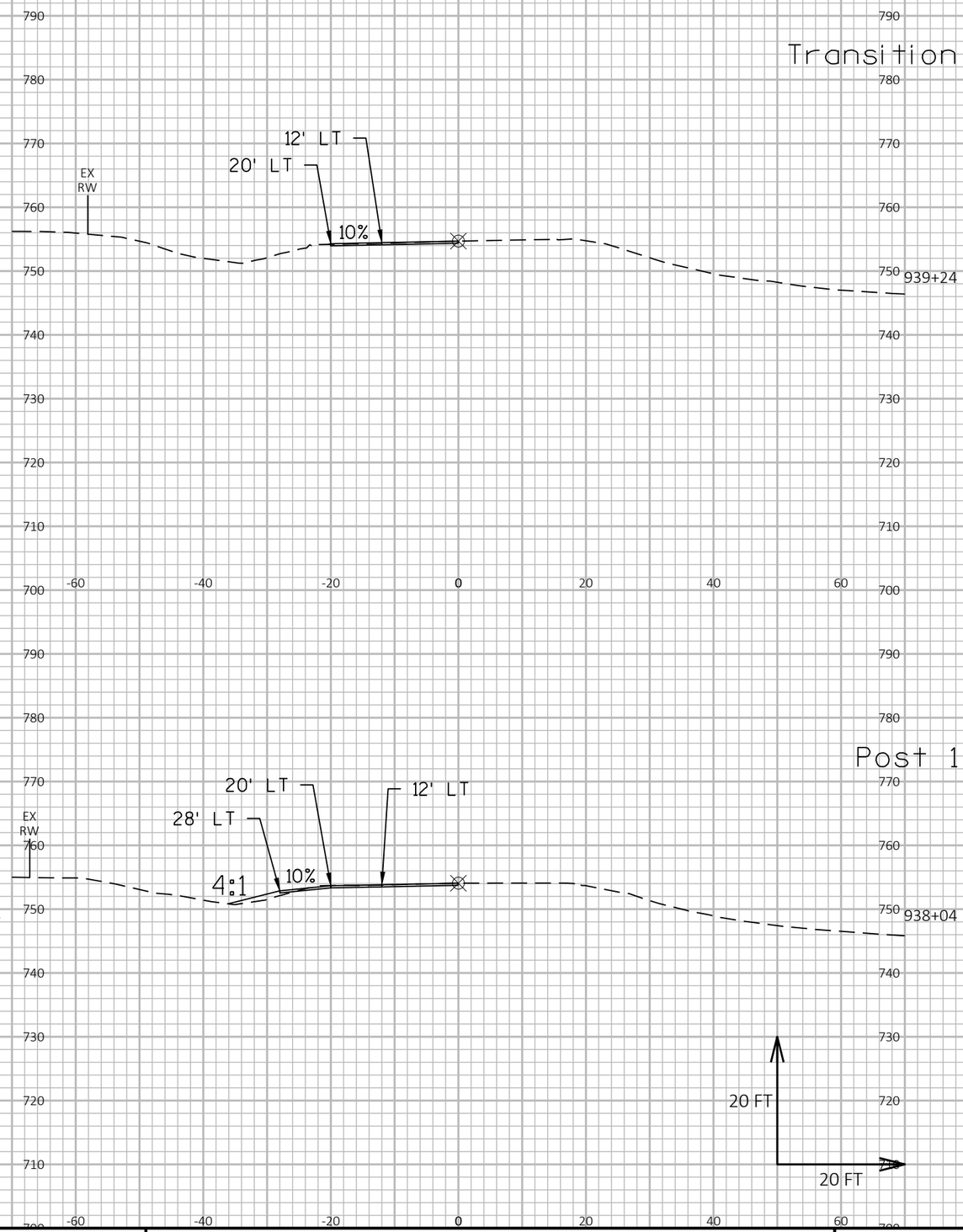
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - LEFT	SHEET 122	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-LEFT.DWG
LAYOUT NAME - 13

PLOT DATE : 7/23/2021 4:00 PM PLOT BY : DAVIDSON, JONATHAN B PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





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9

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: BEAM GUARD - LEFT	SHEET 123	E

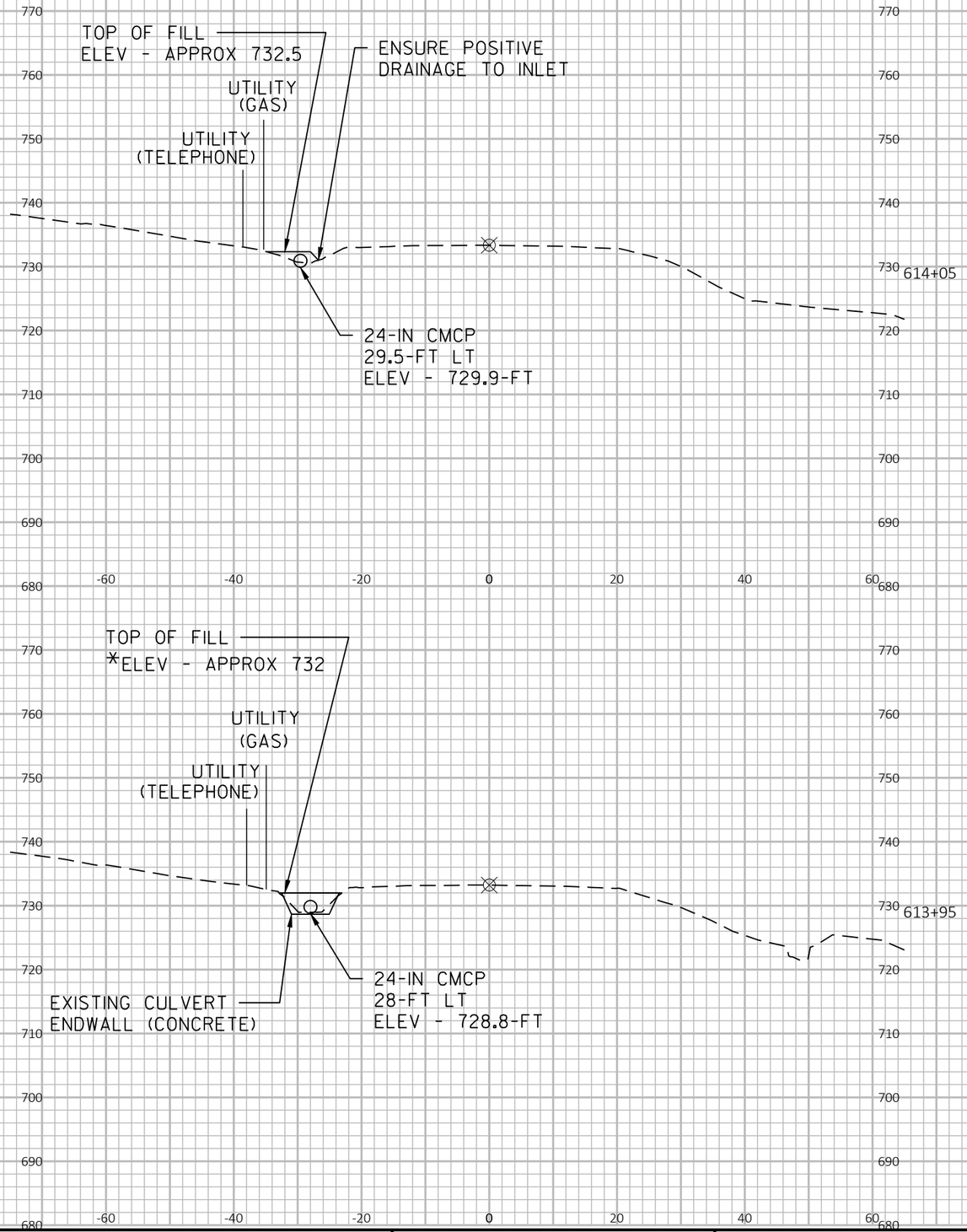
FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-LEFT.DWG
LAYOUT NAME - 17

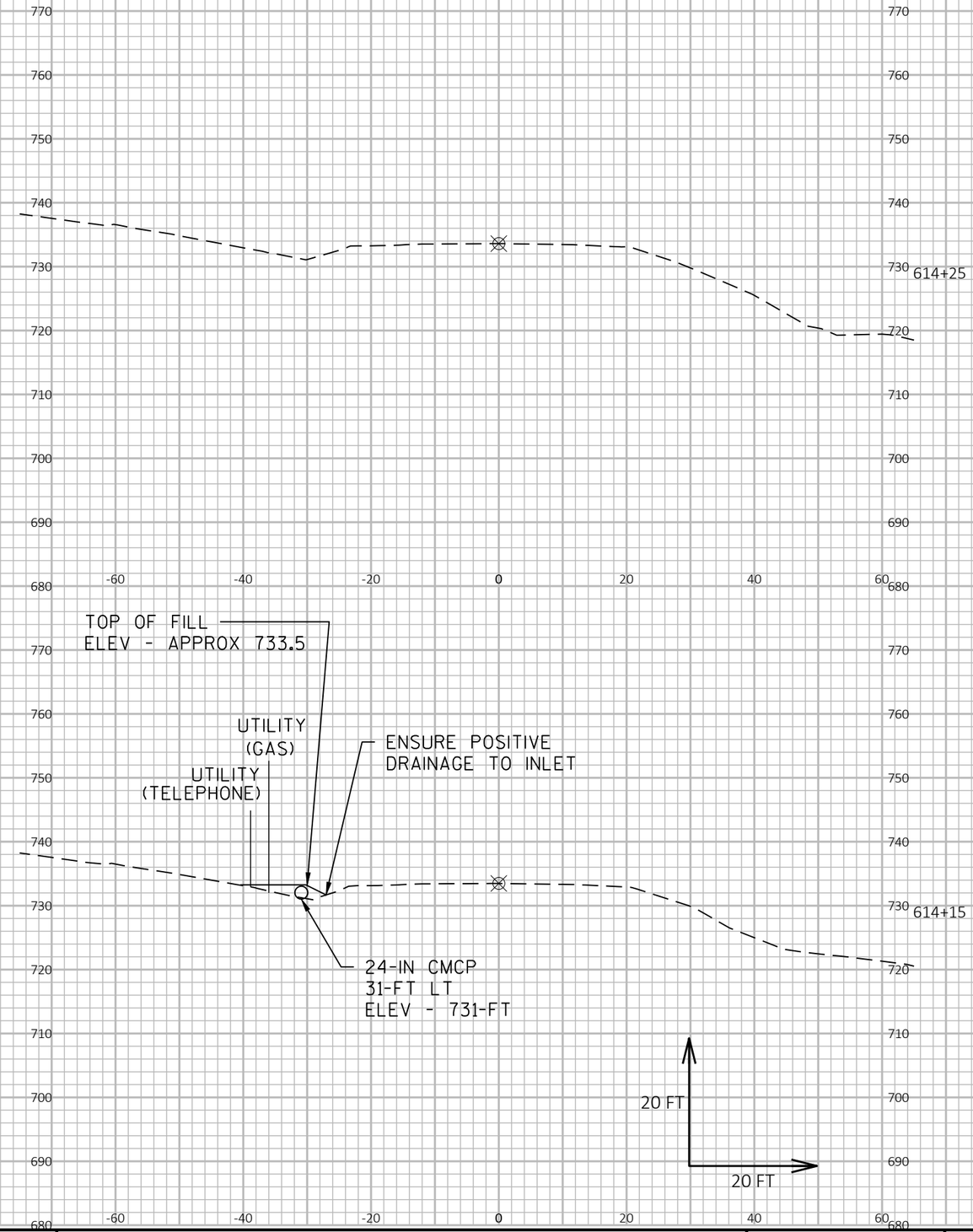
PLOT DATE : 7/23/2021 4:00 PM

PLOT BY : DAVIDSON, JONATHAN B

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





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PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS: CULVERT EXTENSION	SHEET 124	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\090201-XS-BEAM GUARD-LEFT-CULVERT.DWG
LAYOUT NAME - Culvert Pipe - LT

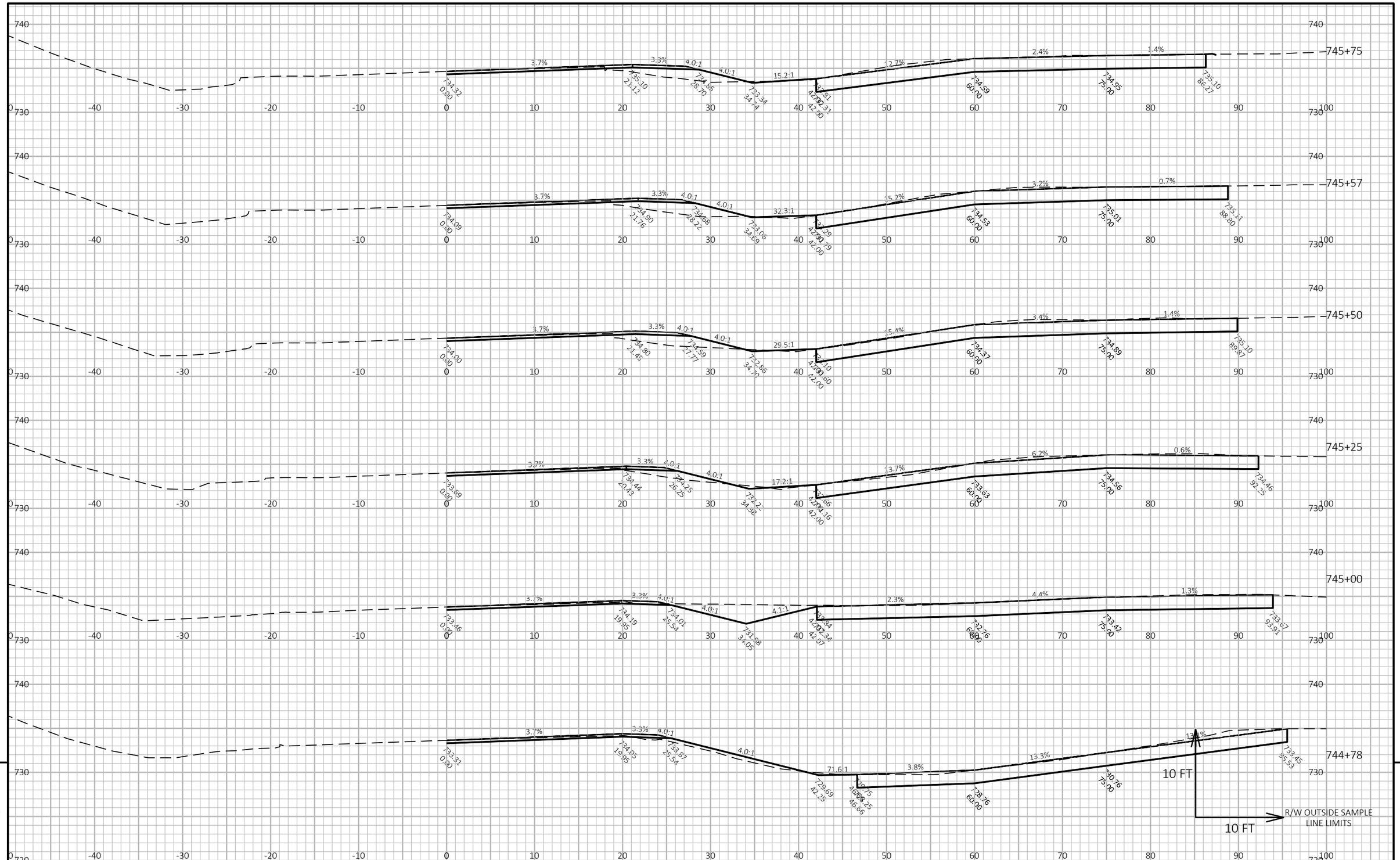
PLOT DATE : 7/23/2021 3:40 PM

PLOT BY : DAVIDSON, JONATHAN B

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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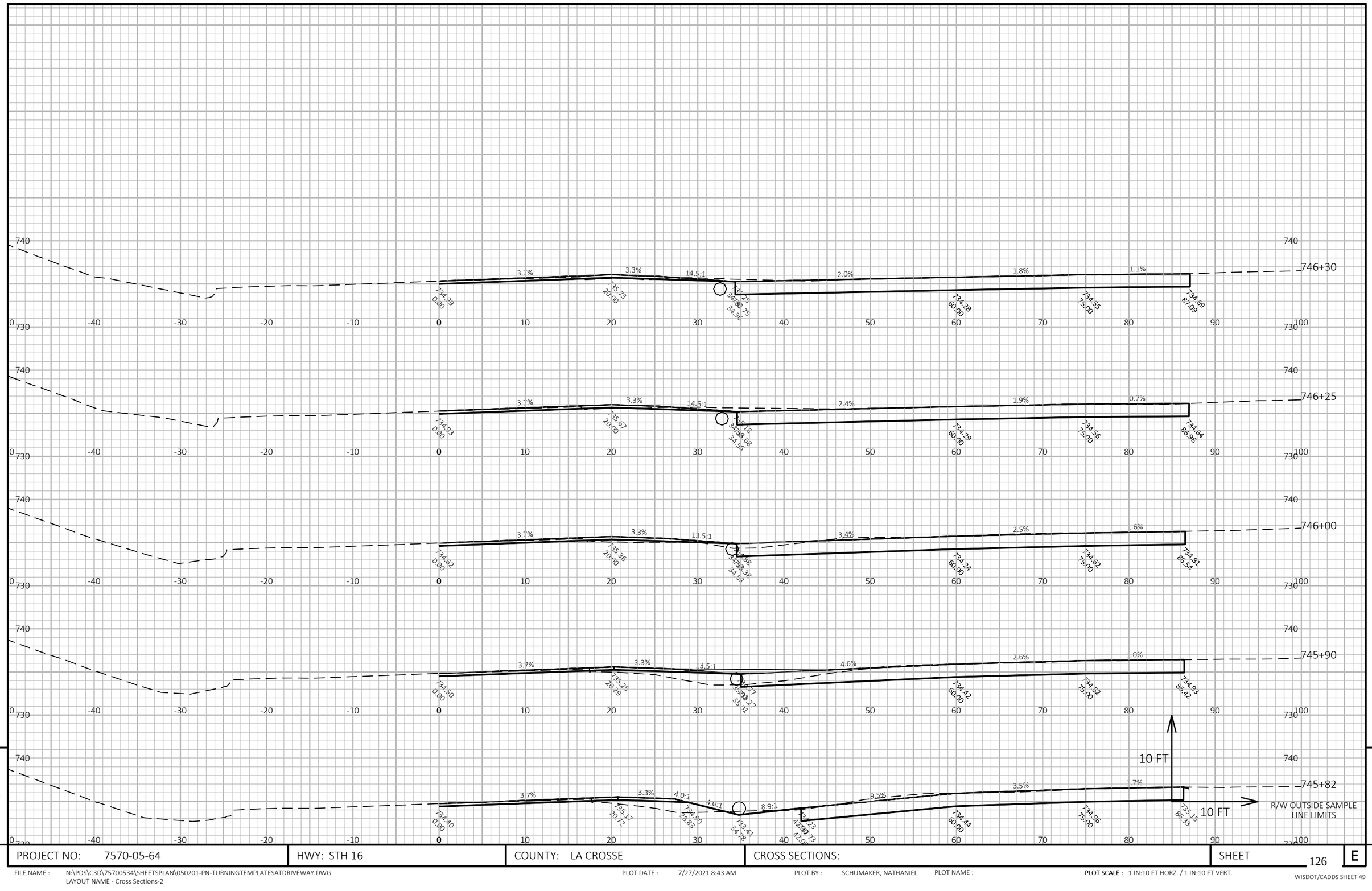
PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS:	SHEET 125	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN-TURNINGTEMPLATESATDRIVEWAY.DWG
LAYOUT NAME - Cross Sections-1

PLOT DATE : 7/27/2021 8:43 AM PLOT BY : SCHUMAKER, NATHANIEL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7570-05-64	HWY: STH 16	COUNTY: LA CROSSE	CROSS SECTIONS:	SHEET 126	E

FILE NAME : N:\PDS\C3D\75700534\SHEETSPLAN\050201-PN-TURNINGTEMPLATESATDRIVEWAY.DWG
LAYOUT NAME - Cross Sections-2

PLOT DATE : 7/27/2021 8:43 AM PLOT BY : SCHUMAKER, NATHANIEL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

http://www.dot.wisconsin.gov