

LAX MAR 2017

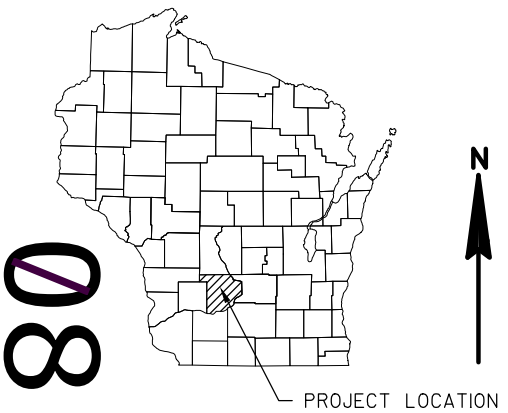
PROJECT ID: 5098-00-72

WITH: N/A

COUNTY: SAUK

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

TOTAL SHEETS = 204



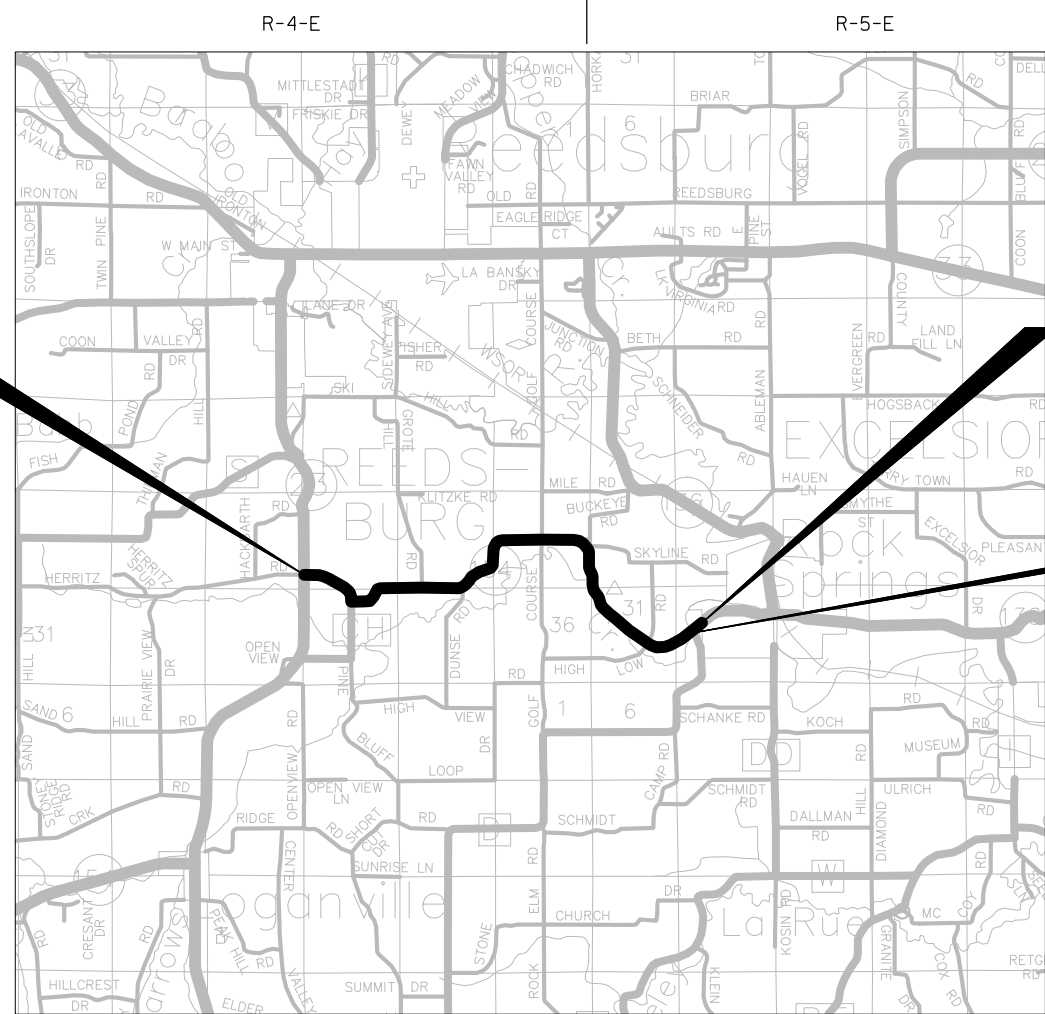
DESIGN DESIGNATION			
A.A.D.T.	2017	=	1200
A.A.D.T.	2037	=	1500
D.H.V.		=	198
D.D.		=	60/40
T.		=	20.2
DESIGN SPEED		=	55 MPH
ESALS		=	490,000

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	---
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)	---
SPECIAL DITCH	---
GRADE ELEVATION	---
CULVERT (Profile View)	---
UTILITIES	
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

BEGIN PROJECT
STA 10+85.00
X = 578,856.60
Y = 242,180.34



LAYOUT
SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 5.399 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SAUK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE U.S.G.S. DATUM NAVD 88 (2007).

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 23 - ROCK SPRINGS

STH 23 TO VILLAGE LIMITS

STH 154

SAUK COUNTY

STATE PROJECT NUMBER
5098-00-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5098-00-72	---	---

ORIGINAL PLANS PREPARED BY

MSA

1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2770

WISCONSIN
BOBBIL L. MAXWELL
39012-006
BARABOO
WI
PROFESSIONAL ENGINEER
Bobbil L. Maxwell
10/26/2016

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	MSA PROFESSIONAL SERVICES
Designer	MSA PROFESSIONAL SERVICES
Project Manager	CRAIG FISHER
Regional Examiner	
Regional Supervisor	OSCAR L. WINGER

APPROVED FOR THE DEPARTMENT

DATE: 10-26-2016 *Oscar L. Winger*
(Signature)

GENERAL NOTES

MISCELLANEOUS

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.

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

REMOVALS

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

MAINTAIN NORMAL MILLING & PAVING WIDTH THROUGH DRIVEWAYS AND INTERSECTIONS.

GRADING AND EROSION CONTROL

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

DO NOT STORE EQUIPMENT OR MATERIALS IN, NOR IMPACT ANY WETLANDS OR WATERWAYS OUTSIDE THE SLOPE INTERCEPTS SHOWN.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY ARE TO BE FERTILIZED, PERMANENT SEEDED, TEMPORARILY SEEDED AND MULCH OR EMAT PLACED AS DIRECTED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS) WHICH IS NOT INDICATED ON THE CROSS SECTIONS AND WHICH IS REQUIRED BY THE ENGINEER SHALL BE MEASURED AND PAID FOR AS COMMON EXCAVATION. EBS IS NOT USED TO BALANCE YARDAGE.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER SHALL DETERMINE THE EXACT LOCATION OF EROSION CONTROL ITEMS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. REMOVE ITEMS AT ENGINEER'S DIRECTION.

FILL EXPANSION IS ESTIMATED AT 1.25.

PAVING

MATCH EXISTING SUPERELEVATIONS.

HMA WEIGHT CALCULATIONS BASED ON 113 LBS/SY/IN.

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.

UTILITIES

COMMUNICATION:
CENTURYLINK
ATTN: STEVE BISHOP
130 4TH STREET
BARABOO, WI 53913
OFFICE: 608-355-7501
MOBILE: 608-963-8594
STEVEN.BISHOP@CENTURYLINK.COM

FIBER OPTIC:
REEDSBURG UTILITY COMMISSION
ATTN: KEN LAS
501 UTILITY COURT
REEDSBURG, WI 53959
OFFICE: 608-768-1000
MOBILE: 608-415-9924
KLAS@RUCLS.NET

FIBER OPTIC:
SAUK COUNTY
ATTN: ELLIS MCFADZEN
4405 COUNTY HWY PP
DE PERE, WI 54115
MOBILE: 920-819-4791
ELLISMCF@GMAIL.COM

COMMUNICATION:
FRONTIER COMMUNICATIONS
ATTN: JERRY MOORE
2222 WEST WISCONSIN ST.
PORTAGE, WI 53901
OFFICE: 608-742-9507
MOBILE: 608-346-0353
JERALD.R.MOORE@FTR.COM

TRANSMISSION:
AMERICAN TRANSMISSION COMPANY, LLC
DOUG VOSBERG
5303 FEN OAK DRIVE
MADISON, WI 53718
OFFICE: 608-877-7650
DVOSBERG@ATCLLC.COM

GAS & ELECTRIC:
ALLIANT ENERGY
ATTN: CHRISTOPHER HAMM
520 COMMERCE AVE.
BARABOO, WI 53913
OFFICE: 608-356-0607
MOBILE: 608-575-8858
CHRISHAMM@ALLIANTENERGY.COM



Dial 811 or (800) 242-8511

www.DiggersHotline.com

ORDER OF TYPICAL SECTION & DETAIL SHEETS

- 1. GENERAL NOTES
- 2. PROJECT OVERVIEW
- 3. EXISTING TYPICAL SECTIONS
- 4. FINISHED TYPICAL SECTIONS
- 5. CONSTRUCTION DETAILS
- 6. CONTROL POINTS
- 7. PLAN DETAILS
- 8. PERMANENT SIGNING
- 9. TRAFFIC CONTROL - DETOUR

ABBREVIATIONS

AC	ACRES	G.V.	GAS VALVE
AC	ASPHALT CEMENT	INV	INVERT
AEW	APRON ENDWALL	IP	IRON PIPE
ASPH	ASPHALT	JCT	JUNCTION
AVG	AVERAGE	LHF	LEFT HAND FORWARD
ADT	AVERAGE DAILY TRAFFIC	L	LENGTH
BAD	BASE AGGREGATE DENSE	LS	LUMP SUM
BM	BENCHMARK	NC	NORMAL CROWN
CL	CENTERLINE	N	NORTH
CC	CENTER TO CENTER	Y	NORTH GRID COORDINATE
CONC	CONCRETE	PACS	PIPE ARCH CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE	PT	POINT
CSCP	CORRUGATED STEEL CULVERT PIPE	PC	POINT OF CURVATURE
CSM	CERTIFIED SURVEY MAP	PI	POINT OF INTERSECTION
CTH	COUNTY TRUNK HIGHWAY	PT	POINT OF TANGENCY
CULV	CULVERT	PL	PROPERTY LINE
CP	CULVERT PIPE	PE	PRIVATE ENTRANCE
C&G	CURB & GUTTER	R	RADIUS
D	DEGREE OF CURVE	REQ'D	REQUIRED
DHV	DESIGN HOURLY VOLUME	R/W	RIGHT-OF-WAY
DIA	DIAMETER	RHF	RIGHT HAND FORWARD
DWY	DRIVEWAY	SALV	SALVAGED
E	EAST	SHLDR	SHOULDER
X	EAST GRID COORDINATE	SDD	STANDARD DETAIL DRAWING
ELEV	ELEVATION	STA	STATION
EW	ENDWALL	SE	SUPERELEVATION
ENT	ENTRANCE	TAN	TANGENT
ESALS	EQUIVALENT SINGLE AXLE LOADS	TLE	TEMPORARY LIMITED EASEMENT
EXC	EXCAVATION	T	TRUCKS
EBS	EXCAVATION BELOW SUBGRADE	TYP	TYPICAL
EXIST	EXISTING	VERT	VERTICAL
FF	FACE TO FACE	VC	VERTICAL CURVE
FERT	FERTILIZER	VOL	VOLUME
FE	FIELD ENTRANCE	WV	WATER VALVE
FG	FINISHED GRADE	W	WELL
FT	FOOT		

DNR LIAISON

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
ATTN: ANDY BARTA
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
608-275-3308
ANDY.BARTA@WISCONSIN.GOV

DOT DESIGN CONTACT

WISDOT SW REGION
ATTN: MR. CRAIG FISHER, PE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
608-785-9946
CRAIG.FISHER@DOT.WI.GOV

MSA DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN: MS. BOBBI L MAXWELL, PE
1230 SOUTH BOULEVARD
BARABOO, WI 53919
608-355-8861
BMAXWELL@MSA-PS.COM

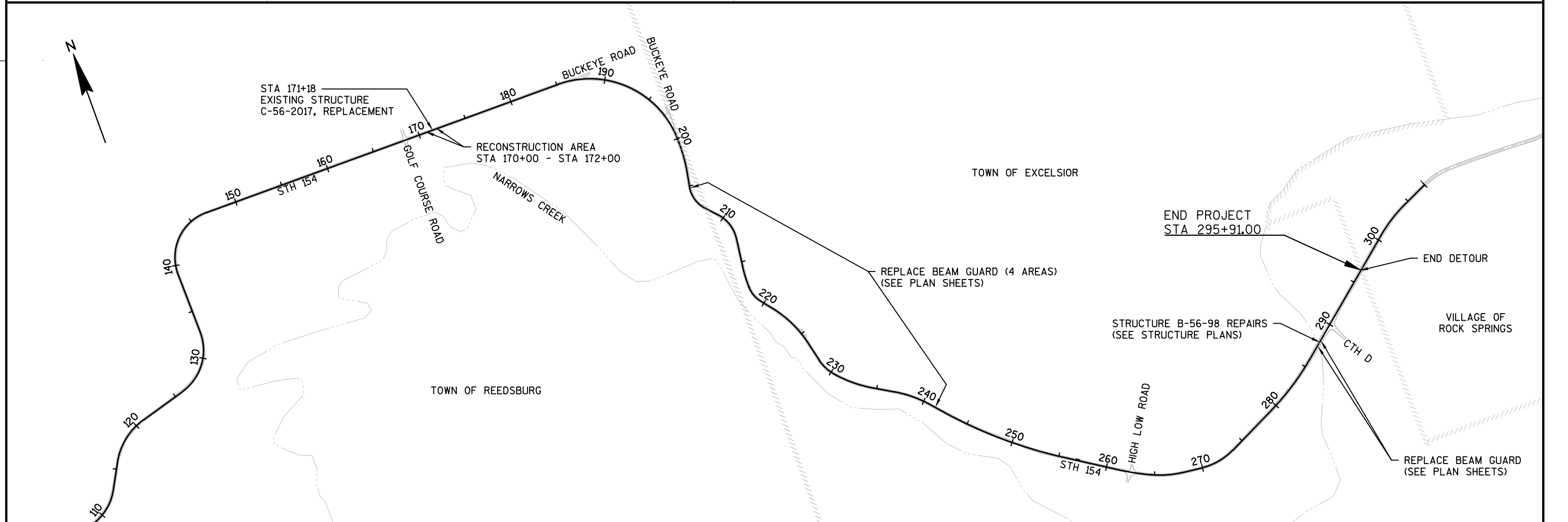
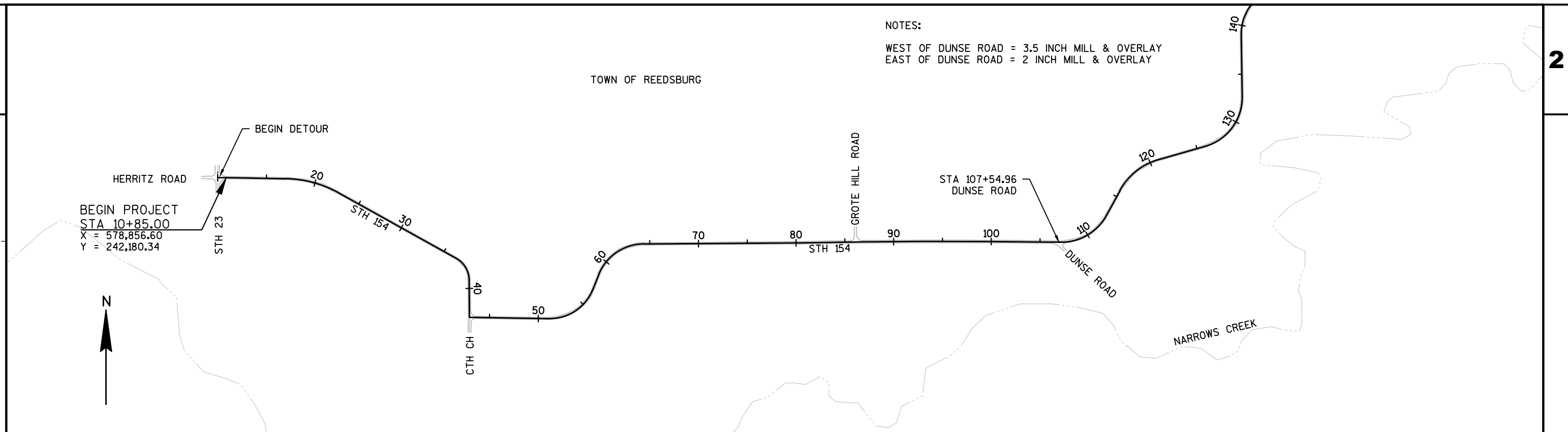
SAUK COUNTY HIGHWAY CONTACT

SAUK COUNTY HIGHWAY
COMMISSIONER
ATTN: MR. STEVE MUCHOW
P.O. BOX 26
BARABOO, WI 53913
608-355-4855
SMUCHOW@CO.SAUK.WI.US

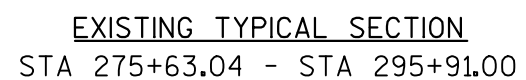
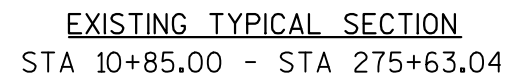
BORING LOGS

BORING	STA	ASPHALT DEPTH	BASE THICKNESS	MOISTURE DEPTH BELOW TOP OF BORING
B1	12+80.71	7.5"	12.5"	DAMP/MOIST 0-5'
B2	19+09.03	2" *	11.5"	DAMP/MOIST 0-5'
B3	19+30.15	1.5" *	16"	DAMP/MOIST 0-5'
B4	33+72.54	3" *	15"	DAMP/MOIST 0-5'
B5	41+47.75	5.5"	17"	DAMP/MOIST 0-5'
B6	53+95.04	6.5"	10.5"	DAMP/MOIST 0-5'
B7	63+11.74	2.75" *	18"	DAMP/MOIST 0-5'
B8	74+73.74	6"	8.75"	DAMP/MOIST 0-5'
B9	84+56.23	3" *	15"	DAMP/MOIST 0-5'
B10	94+27.75	3.5"	14.5"	DAMP/MOIST 0-5'
B11	107+63.10	3.5"	16"	MOIST 0-4', WET 4'-5'
B12	117+50.95	5"	13"	DAMP/MOIST 0-5'
B13	126+38.10	3.75"	12"	DAMP/MOIST 0-5'
B14	139+65.75	5"	12"	DAMP/MOIST 0-5'
B15	145+65.27	4"	15.5"	DAMP/MOIST 0-5'
B16	154+99.75	5"	11"	DAMP/MOIST 0-5'
B17	165+58.21	4.25"	11.75"	DAMP/MOIST 0-5'
B18	176+22.31	4.75"	11"	DAMP/MOIST 0-5'
B19	186+14.95	6"	7"	DAMP/MOIST 0-5'
B20	196+81.07	8.5"	9.5"	DAMP/MOIST 0-5'
B21	205+79.11	5"	10"	DAMP/MOIST 0-5'
B22	211+01.83	9.25"	3.25"	DAMP/MOIST 0-5'
B23	221+26.15	4.75"	12"	DAMP/MOIST 0-5'
B24	228+91.75	6.5"	10"	DAMP/MOIST 0-5'
B25	238+42.15	6"	8"	DAMP/MOIST 0-5'
B26	244+75.75	4.5"	7"	DAMP/MOIST 0-5'
B27	255+31.75	9.5"	6.5"	DAMP/MOIST 0-5'
B28	264+65.02	5.5"	9"	DAMP/MOIST 0-5'
B29	272+22.99	5"	12"	DAMP/MOIST 0-5'
B30	281+82.18	4.5"	12"	DAMP/MOIST 0-5'
B31	289+04.38	4"	19"	DAMP 0-5'
B32	293+44.10	4"	32"	DAMP/MOIST 0-5'

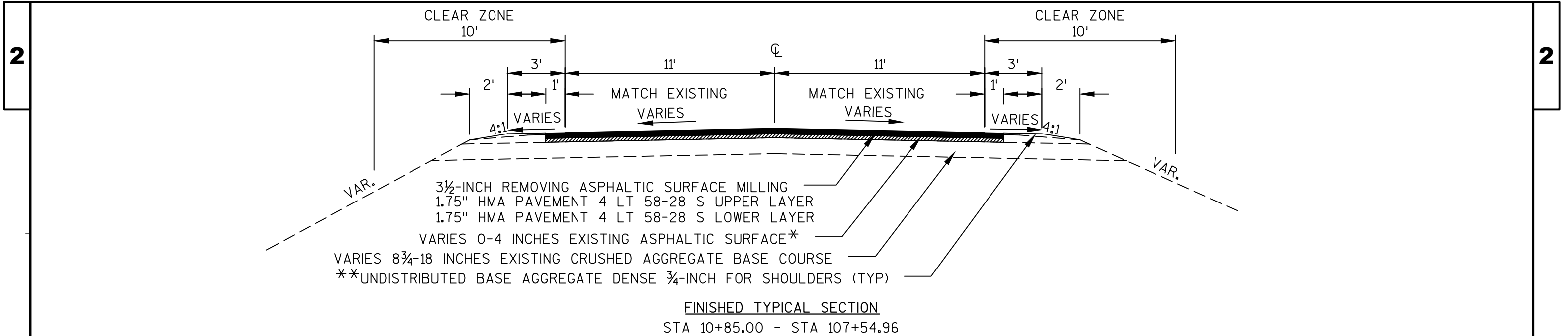
*FROM STA 10+84.53 - STA 107+54.96, THE BORINGS INDICATED AREAS OF THIN PAVEMENT. THE SALVAGING ASPHALTIC PAVEMENT MILLING BID ITEM IS SHOWN TO MILL 3.5 INCHES. THIS ITEM WILL HAVE BASE AGGREGATE DENSE INCORPORATED INTO THE ASPHALT TO ACHIEVE THE 3.5 INCHES OF MILLINGS.



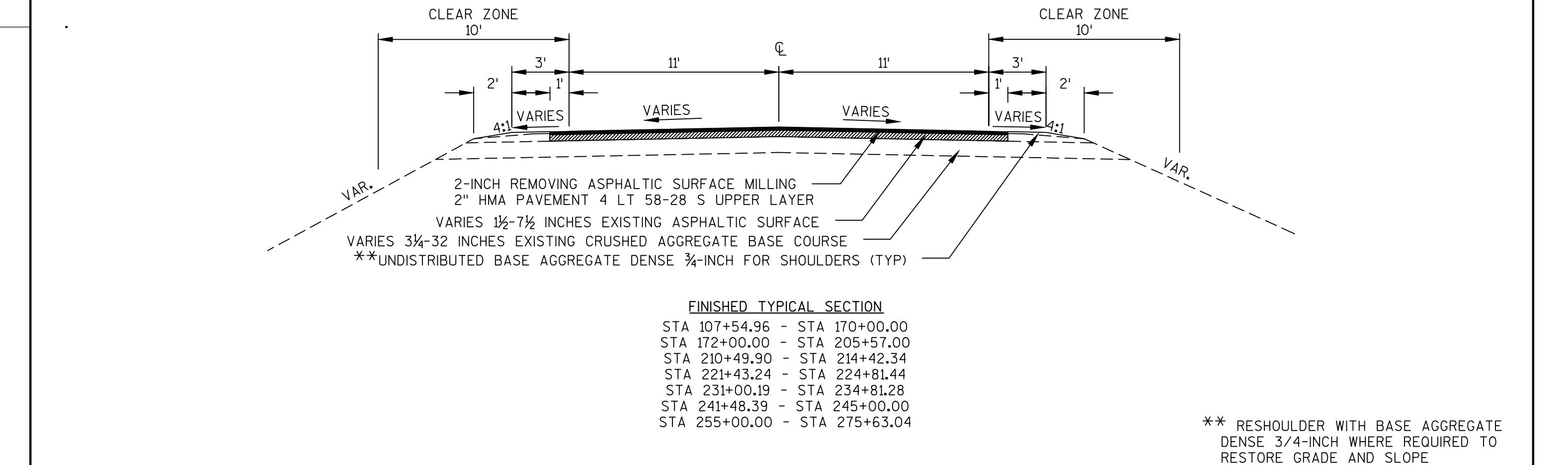
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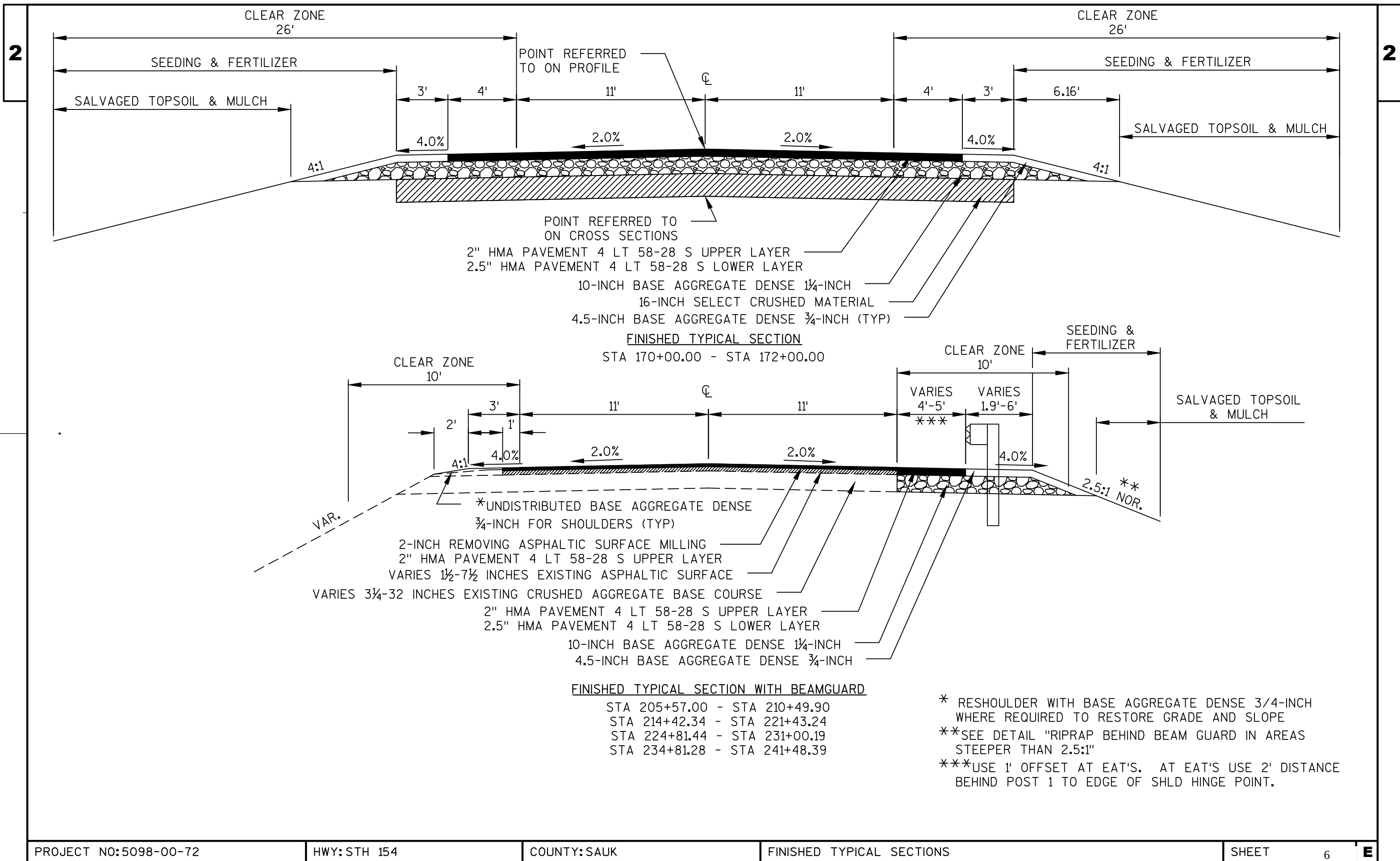


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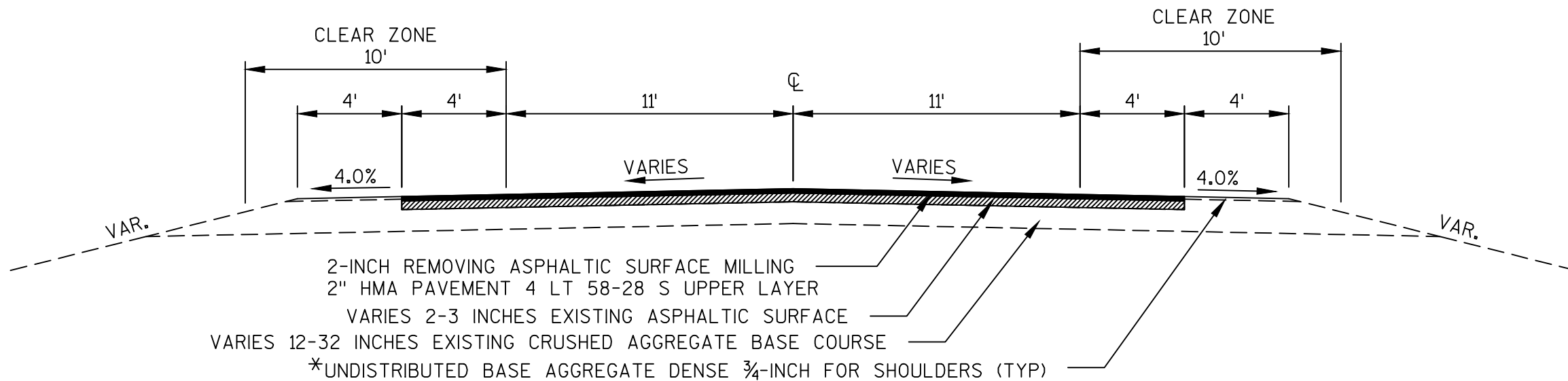


*FROM STA 10+84.53 - STA 107+54.96, THE BORINGS INDICATED AREAS OF THIN PAVEMENT.
 THE REMOVING ASPHALTIC SURFACE MILLING BID ITEM IS SHOWN TO MILL 3.5 INCHES
 REGARDLESS OF THE PAVEMENT THICKNESS, WHICH MAY REQUIRE REMOVAL OF EXISTING GRAVEL.
 **MATCH EXISTING SUPERELEVATIONS THROUGHOUT THE PROJECT.

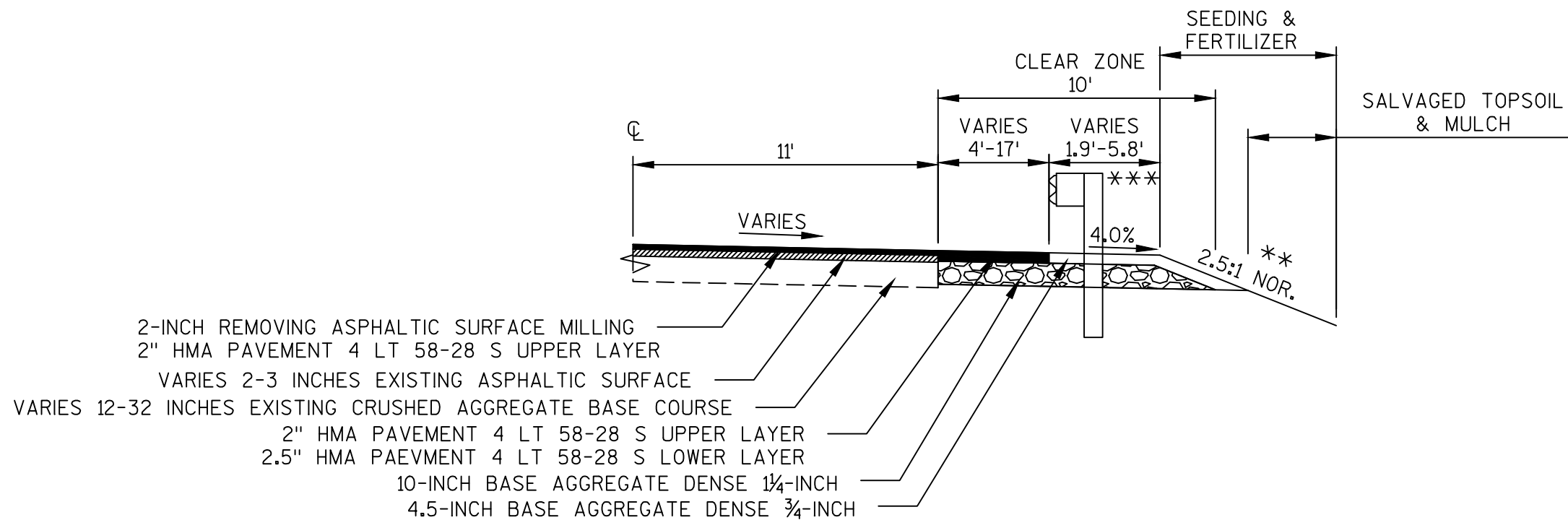




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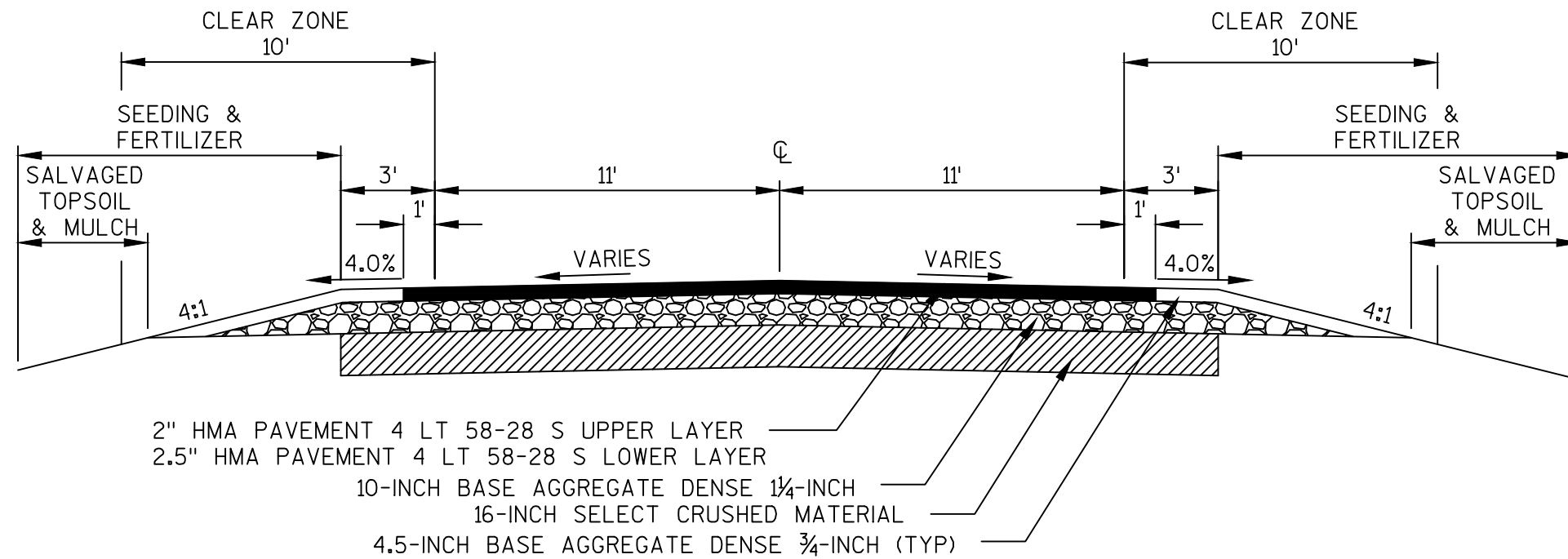
FINISHED TYPICAL SECTION
 STA 275+63.04 - STA 295+91.00
 EXCEPT IN BEAM GUARD AREAS AS NOTED BELOW



FINISHED TYPICAL SECTION WITH BEAM GUARD
 STA 285+28.34 - STA 286+84.20 RT STA 286+92.36 - STA 287+27.82 LT (REVERSED)
 STA 288+15.89 - STA 289+21.47 RT STA 288+59.32 - STA 290+53.07 LT (REVERSED)

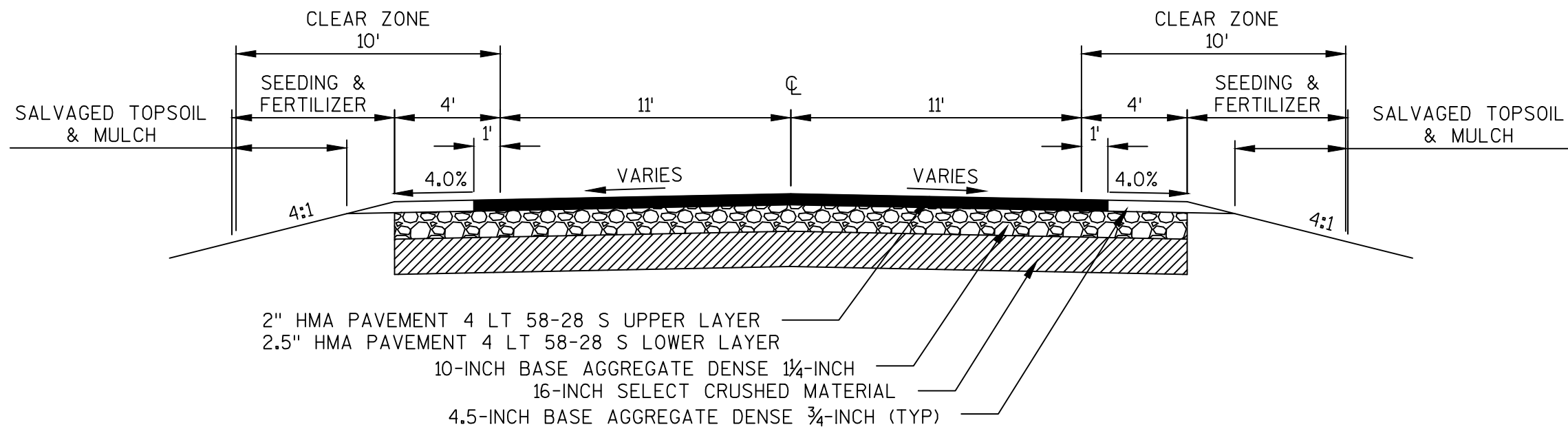
- * RESHOULDER WITH BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH
 WHERE REQUIRED TO RESTORE GRADE AND SLOPE
- **SEE DETAIL "RIPRAP BEHIND BEAM GUARD IN AREAS
 STEEPER THAN 2.5:1"
- ***USE 1' OFFSET AT EAT'S. AT EAT'S USE 2' DISTANCE
 BEHIND POST 1 TO EDGE OF SHLD HINGE POINT.

2



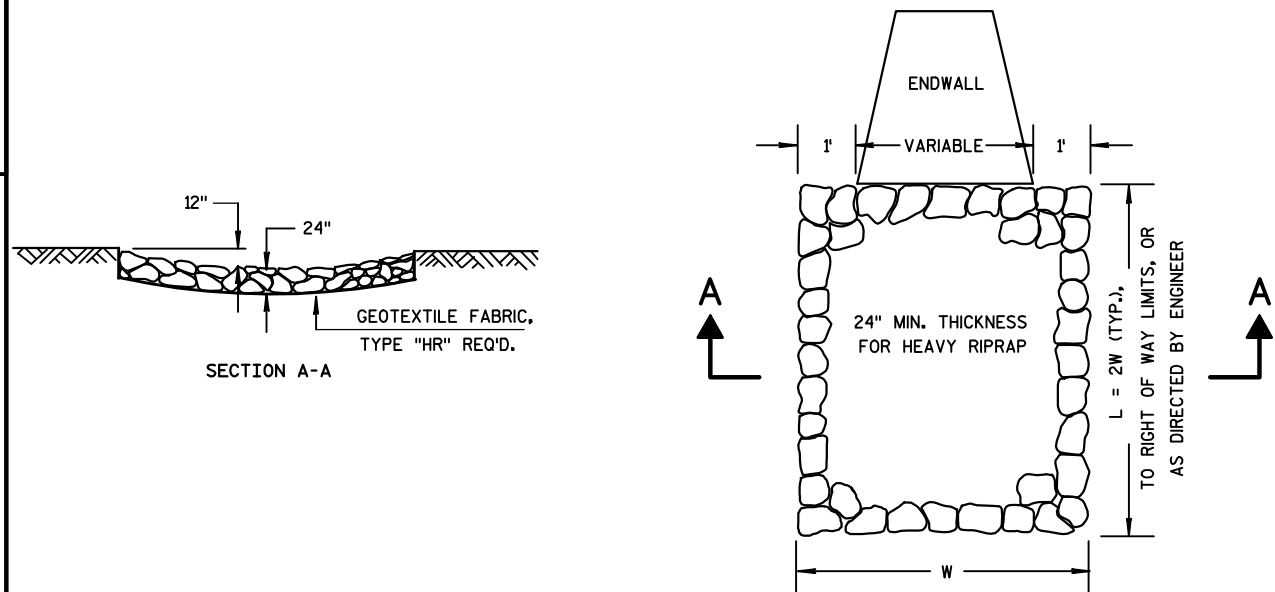
FINISHED TYPICAL SECTION AT CROSS-DRAIN REPLACEMENT AREAS

AVG. LENGTH OF 100' AT EACH PIPE LOCATION
(SEE CROSS DRAIN INSTALLATION DETAIL)



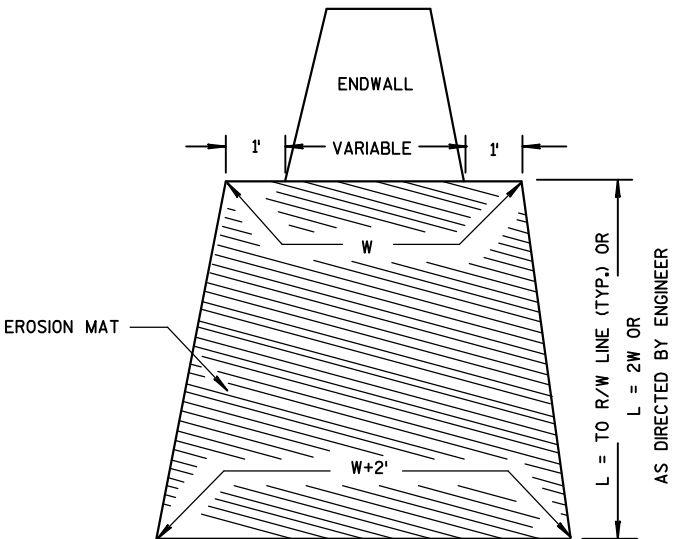
FINISHED TYPICAL SECTION

STA 245+00.00 - STA 255+00.00



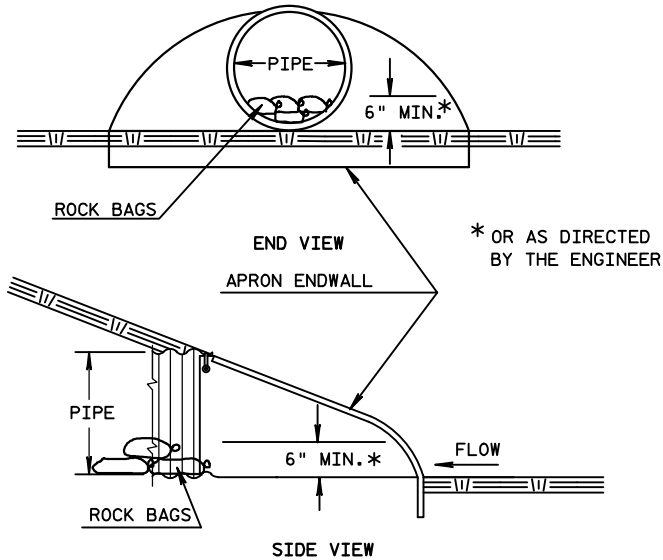
HEAVY RIPRAP TREATMENT AT CULVERTS

STA 200+58 RT
STA 206+28 RT



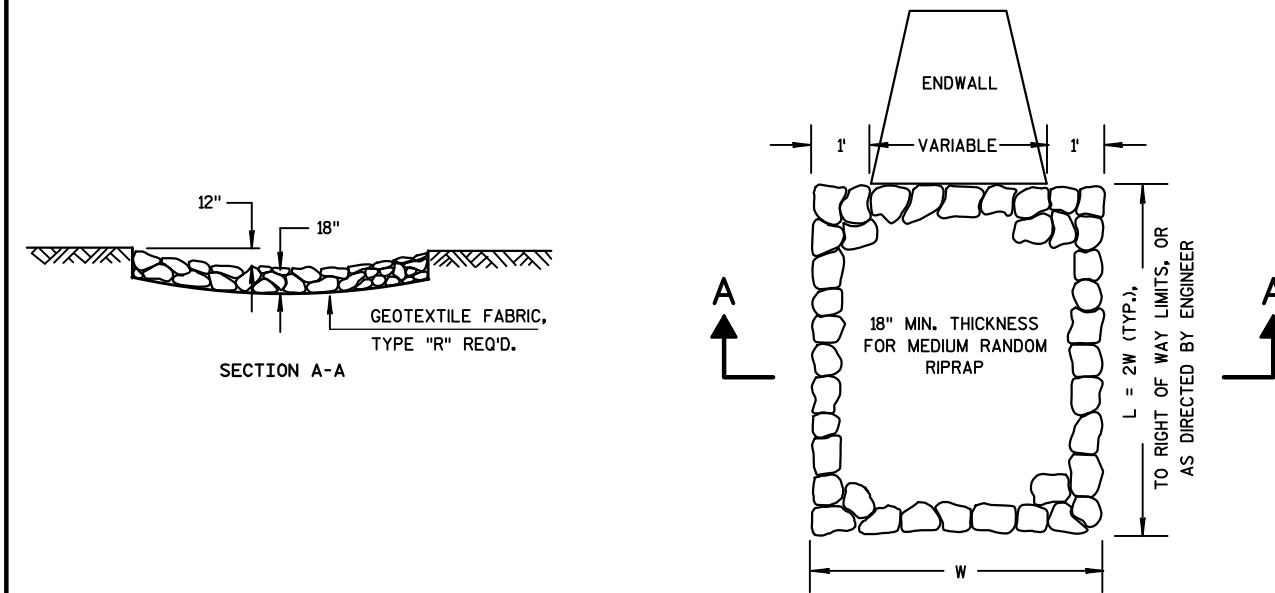
EROSION MAT TREATMENT AT CULVERTS

STA 26+62 LT	STA 211+12 LT
STA 43+34 LT & RT	STA 224+38 LT & RT
STA 141+02 LT & RT	STA 233+43 LT
STA 143+98 LT	STA 248+38 LT
STA 186+50 LT	STA 260+89 LT & RT
STA 197+27 LT & RT	STA 262+20 LT & RT
STA 200+58 LT	STA 267+05 LT & RT
STA 206+28 LT	



EST. BAG SIZE 18"X12"X6"	
PIPE SIZE	EST. AVG. BAGS
12"	1
15"	2
18"	2
24"	3
30"	5
36"	7
42"	8
48"	10
60"	13
66"	15

CULVERT PIPE CHECK		
STA 26+62 LT	STA 211+12 LT	
STA 43+34 LT	STA 224+38 LT	
STA 141+02 LT	STA 233+43 LT	
STA 143+98 LT	STA 248+38 LT	
STA 186+50 LT	STA 260+89 LT	
STA 197+27 LT	STA 262+20 LT	
STA 200+58 LT	STA 267+05 LT	
STA 206+28 LT		



MEDIUM RANDOM RIPRAP TREATMENT AT CULVERTS

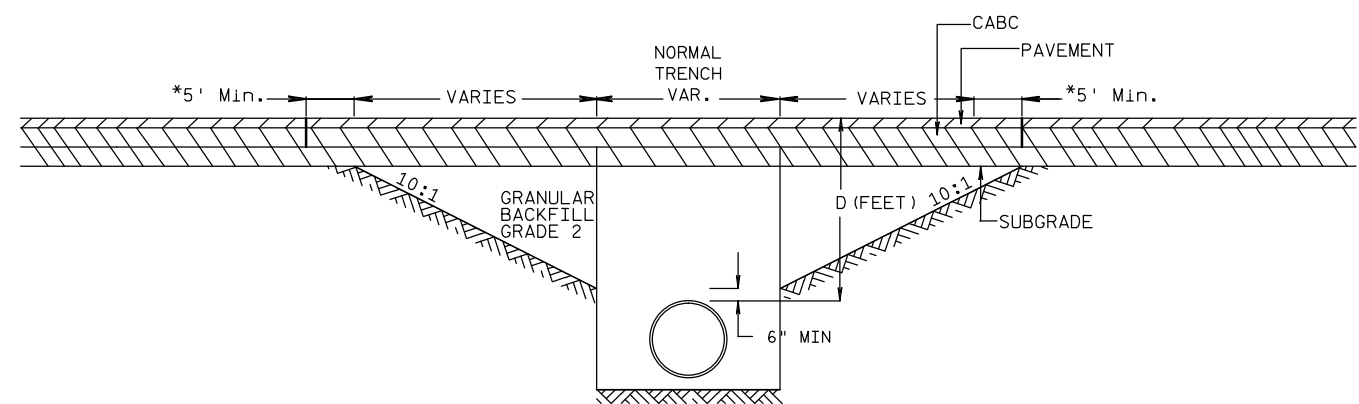
STA 26+62 RT
STA 186+50 RT
STA 211+12 RT
STA 216+32 RT
STA 226+62 RT

STA 232+00 RT
STA 233+43 RT
STA 239+25 RT
STA 248+38 RT

RUNOFF COEFFICIENT TABLE

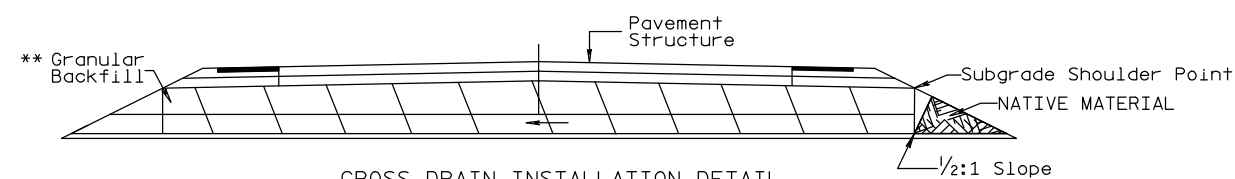
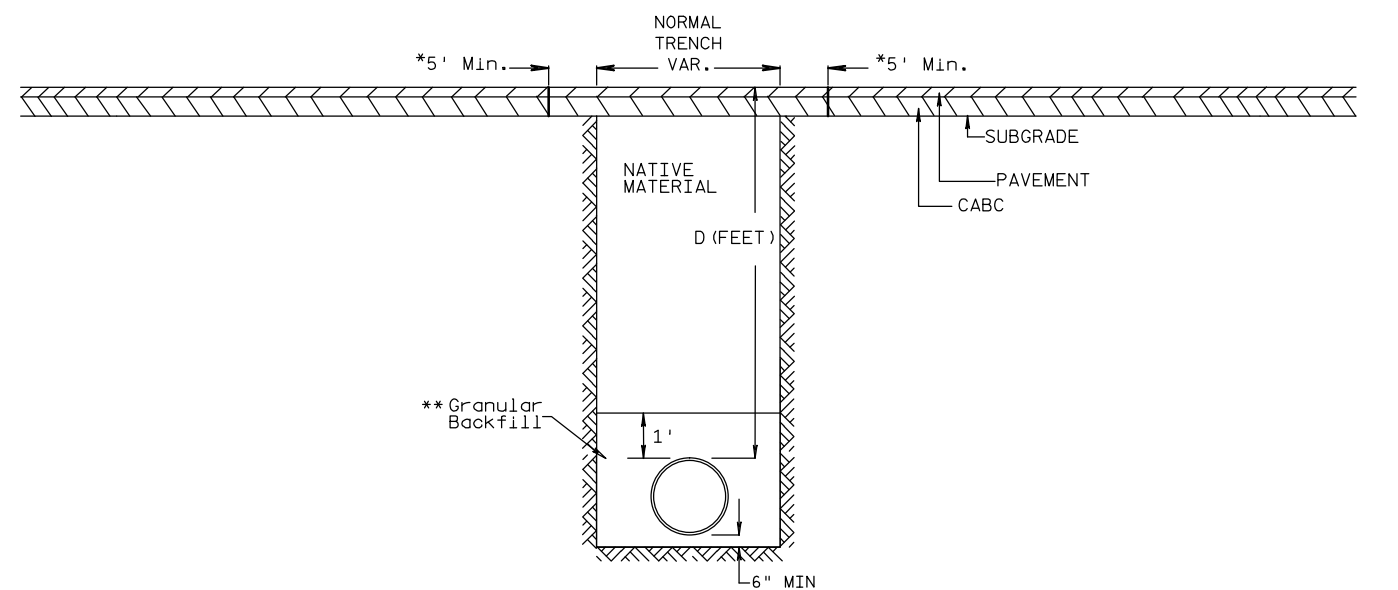
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 17.3 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 17.3 ACRES

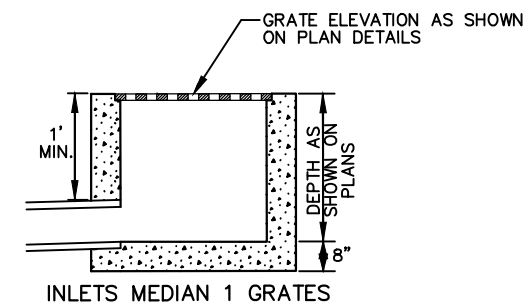


CROSS DRAIN INSTALLATION DETAIL
FOR $D \leq 5'$

* Pavement Removal Limits (Typical)
** GRANULAR BACKFILL IS PAID SEPARATELY TO PIPE INSTALLATION

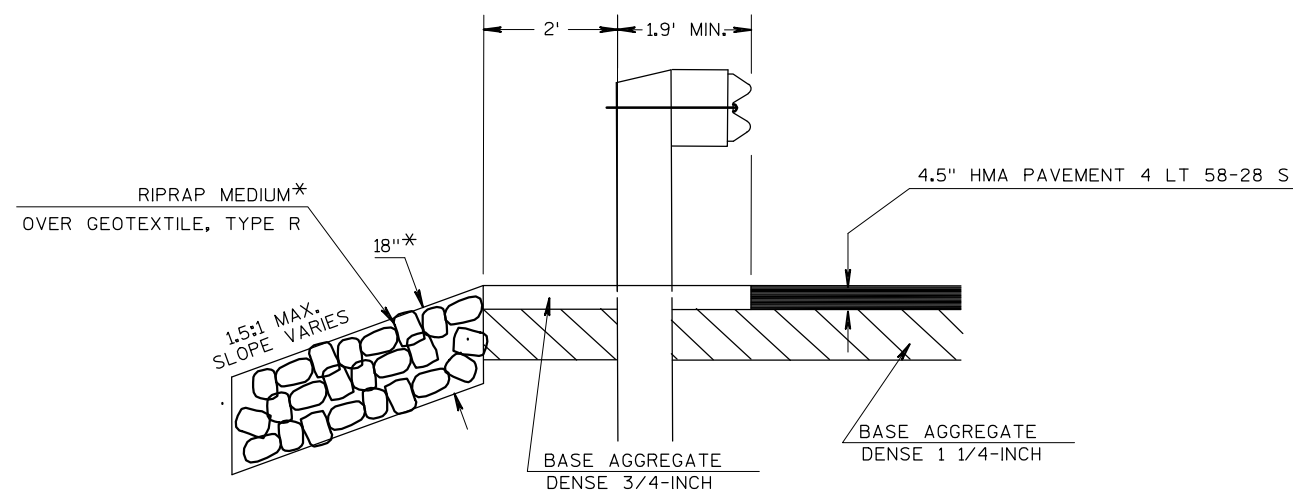


CROSS DRAIN INSTALLATION DETAIL
FOR $D \geq 5'$



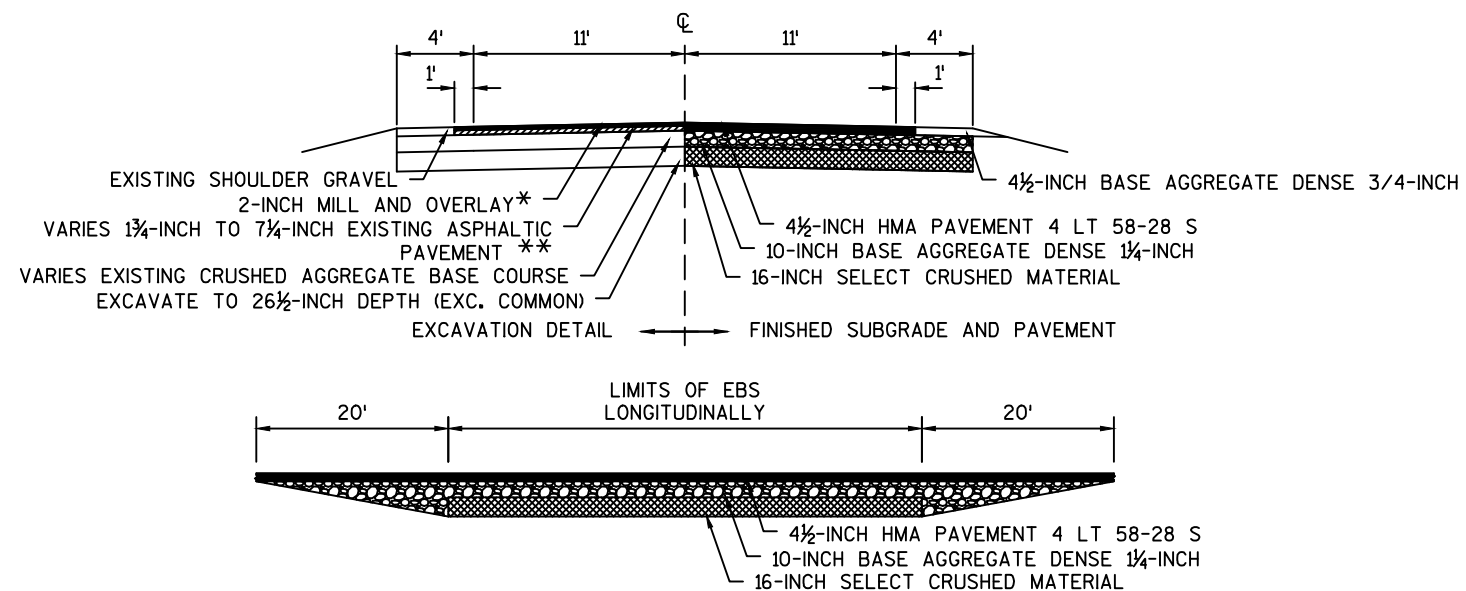
DETAIL FOR COMPUTING INLET ELEVATIONS

STA 226+62, LT
STA 232+00, LT
STA 239+25, LT



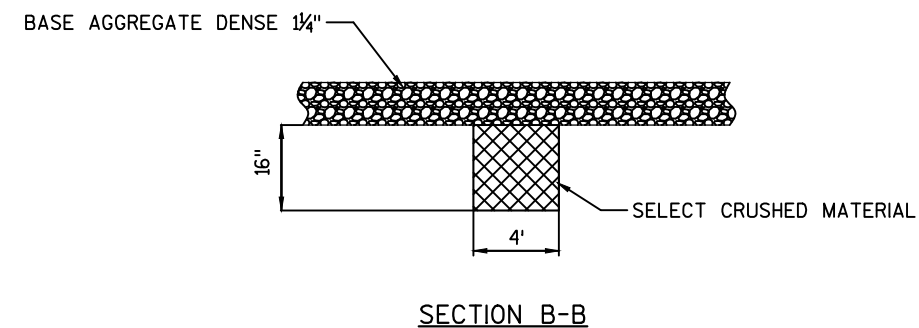
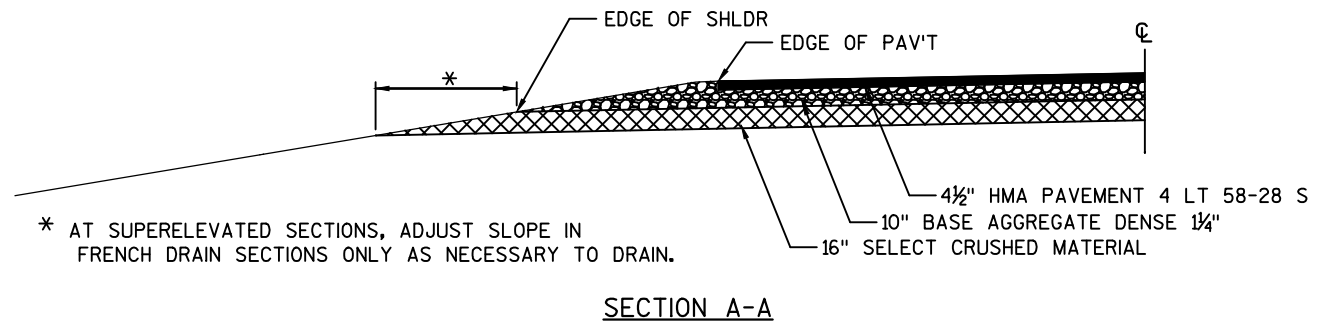
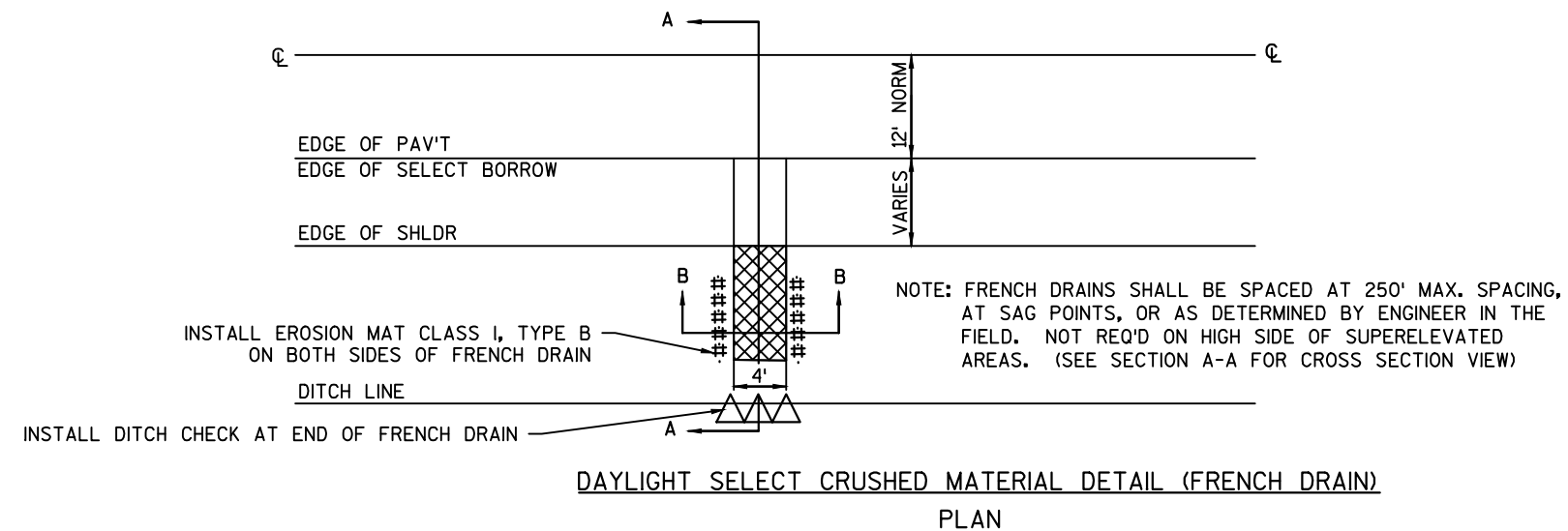
RIPRAP BEHIND GUARD RAIL IN AREAS STEEPER THAN 2.5:1

*=RIPRAP LIGHT, STA 288+66 - 289+50, LT, 1'-0 THICK OVER GEOTEXTILE, TYPE R



DETAIL FOR EXCAVATION BELOW SUBGRADE (EBS)

* STATION 10+85.00 - STATION 107+54.96 HAS A 3.5 INCH MILL AND OVERLAY.
** EXISTING ASPHALT FROM STATION 10+85.00 - STATION 107+54.96 MAY RANGE FROM 0 TO 4 INCHES AFTER THE MILLING OPERATION.

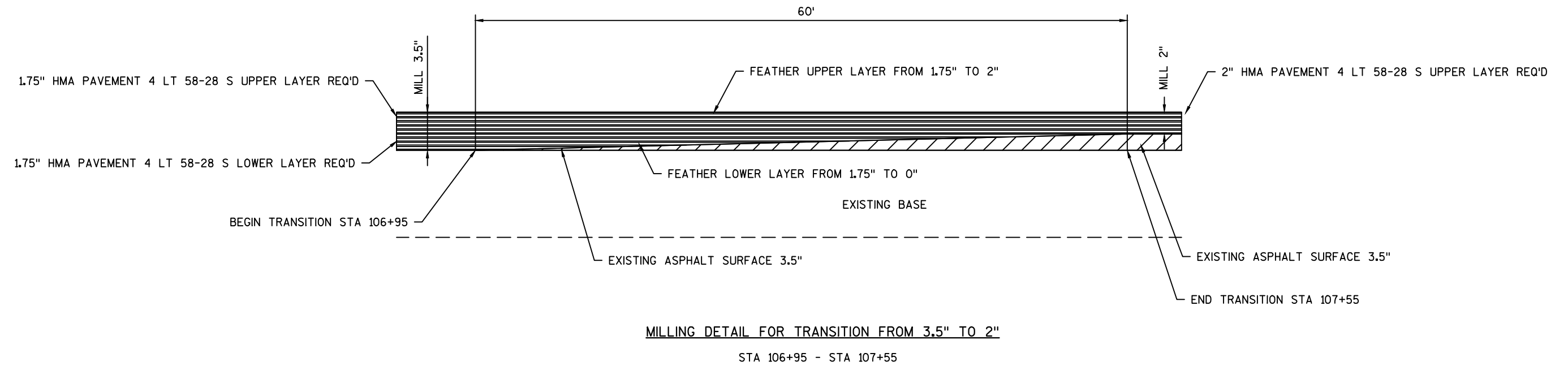


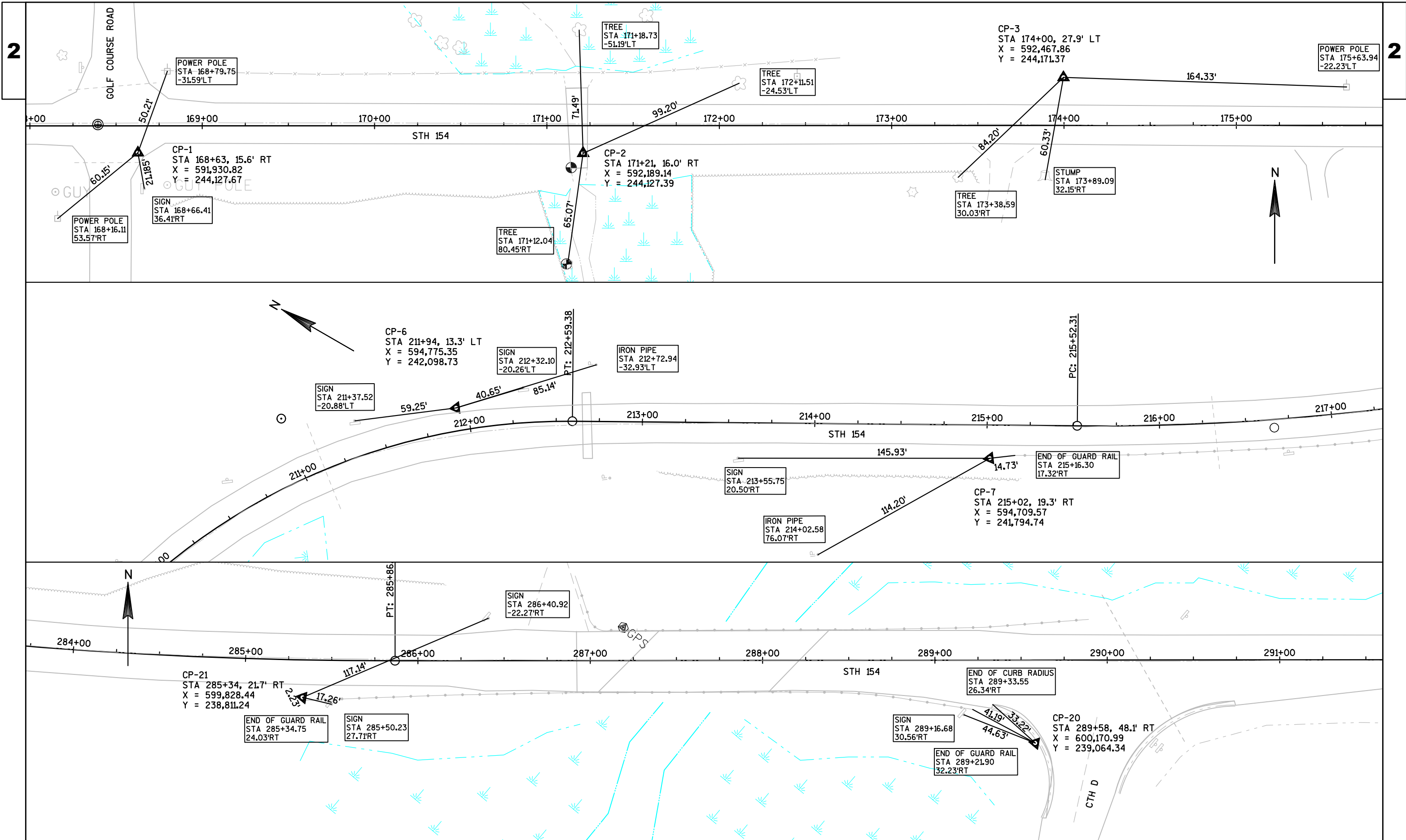
DETAIL FOR SELECT CRUSHED MATERIAL FRENCH DRAINS

EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL
BE CONSIDERED INCIDENTAL TO THE ITEM SELECT CRUSHED MATERIAL.
DO NOT COVER SELECT CRUSHED WITH TOPSOIL.

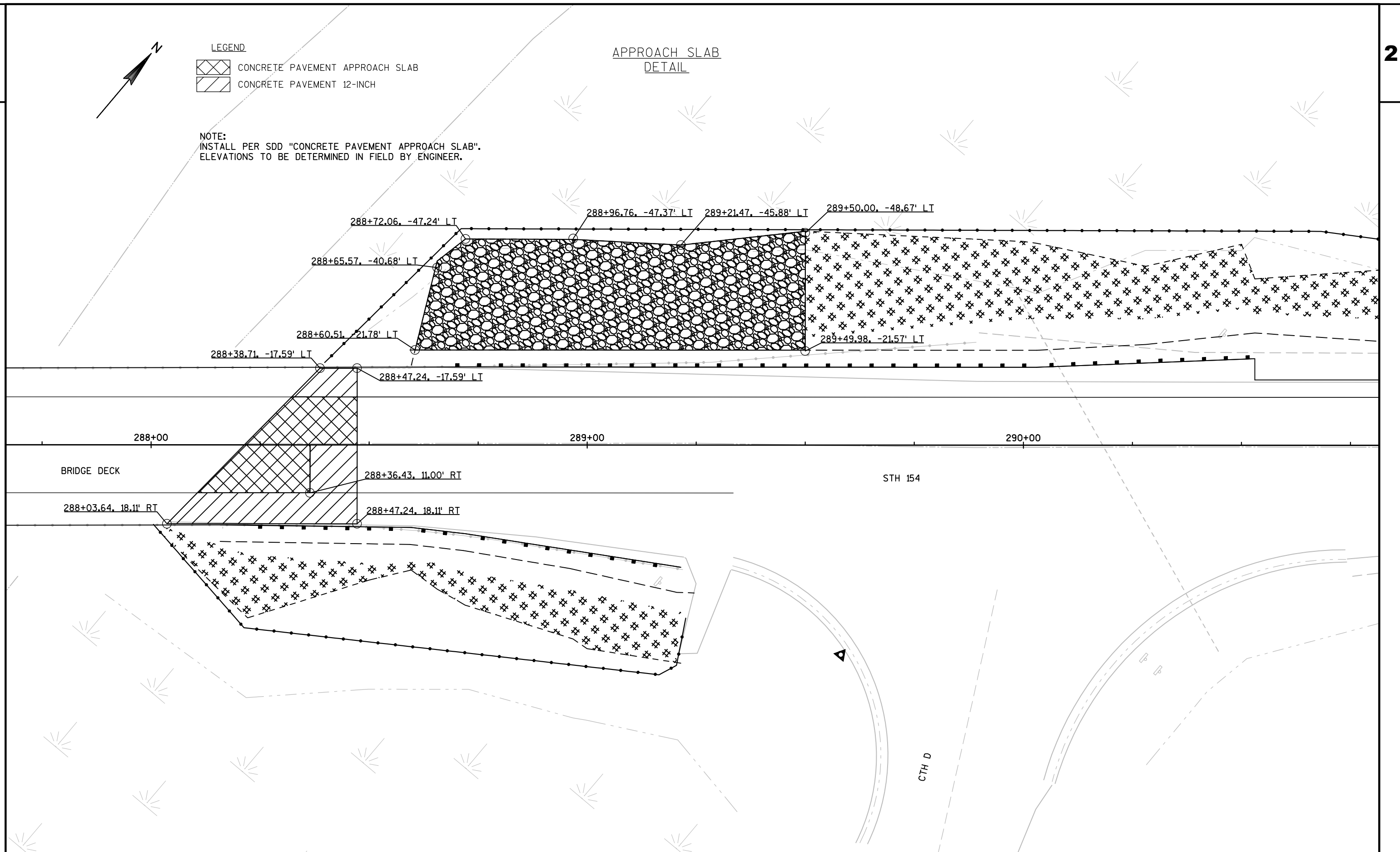
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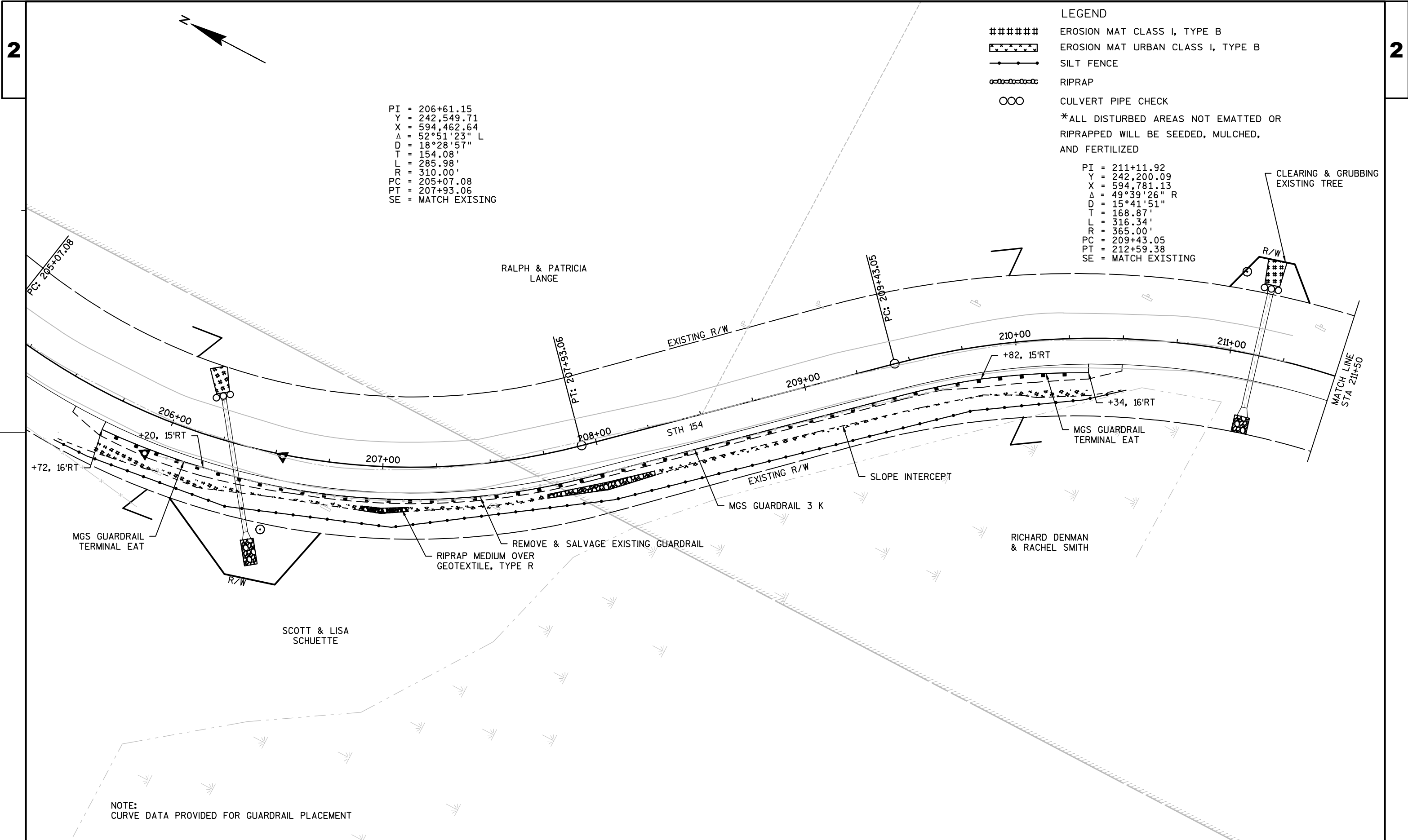
2





2





PI = 206+61.15
Y = 242,549.71
X = 594,462.64
Δ = 52°51'23" L
D = 18°28'57"
T = 154.08'
L = 285.98'
R = 310.00'
PC = 205+07.08
PT = 207+93.06
SE = MATCH EXISING

LEGEND
EROSION MAT CLASS I, TYPE B
***** EROSION MAT URBAN CLASS I, TYPE B
- - - - - SILT FENCE
- - - - - RIPRAP
OOO CULVERT PIPE CHECK
*ALL DISTURBED AREAS NOT EMATTED OR
RIPRAPPED WILL BE SEEDED, MULCHED,
AND FERTILIZED

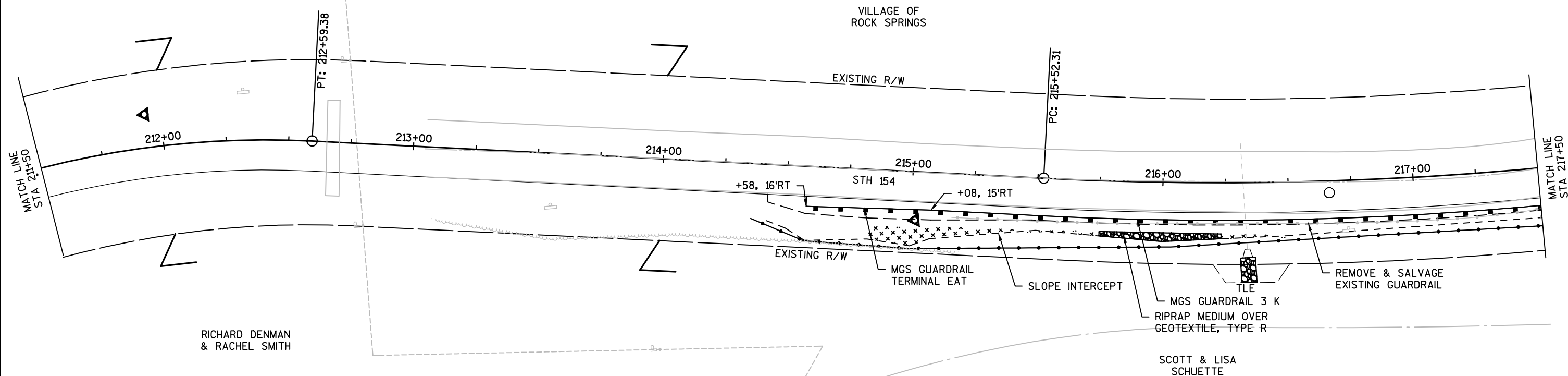
PI = 211+11.92
Y = 242,200.09
X = 594,781.13
Δ = 49°39'26" R
D = 15°41'51"
T = 168.87'
L = 316.34'
R = 365.00'
PC = 209+43.05
PT = 212+59.38
SE = MATCH EXISTING

NOTE:
CURVE DATA PROVIDED FOR GUARDRAIL PLACEMENT



- LEGEND
- ##### EROSION MAT CLASS I, TYPE B
 - ***** EROSION MAT URBAN CLASS I, TYPE B
 - SILT FENCE
 - RIPRAP
 - OOO CULVERT PIPE CHECK
 - *ALL DISTURBED AREAS NOT EMATTED OR RIPRAPPED WILL BE SEEDED, MULCHED, AND FERTILIZED

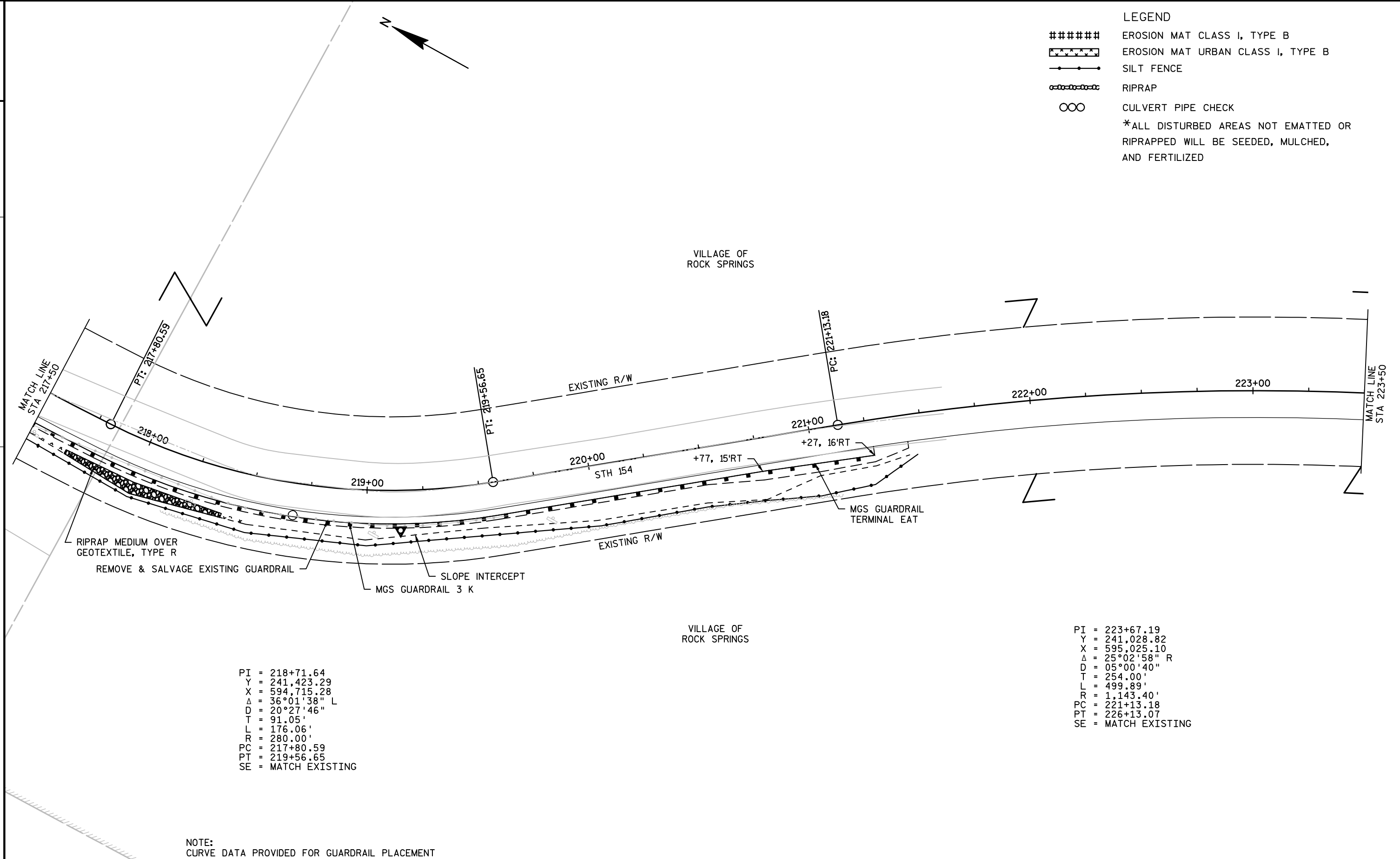
PI = 216+66.70
Y = 241,628.60
X = 594,707.68
Δ = 09°26'37" L
D = 04°08'13"
T = 114.40'
L = 228.28'
R = 1,385.00'
PC = 215+52.31
PT = 217+80.59
SE = MATCH EXISTING



NOTE:
CURVE DATA PROVIDED FOR GUARDRAIL PLACEMENT

LEGEND

- ##### EROSION MAT CLASS I, TYPE B
***** EROSION MAT URBAN CLASS I, TYPE B
- - - - - SILT FENCE
- - - - - RIPRAP
OOO CULVERT PIPE CHECK
*ALL DISTURBED AREAS NOT EMATTED OR
RIPRAPED WILL BE SEEDED, MULCHED,
AND FERTILIZED



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

PLAN: GUARDRAIL REPLACEMENT

SHEET

17

E

FILE NAME : P:\905\93\00093248\CADD\SHEETS\PLAN\PLAN & PROFILES\STH 154 P&P BOX CULVERT.DWG
LAYOUT NAME - STH 154 P&P BOX CULVERT - 03

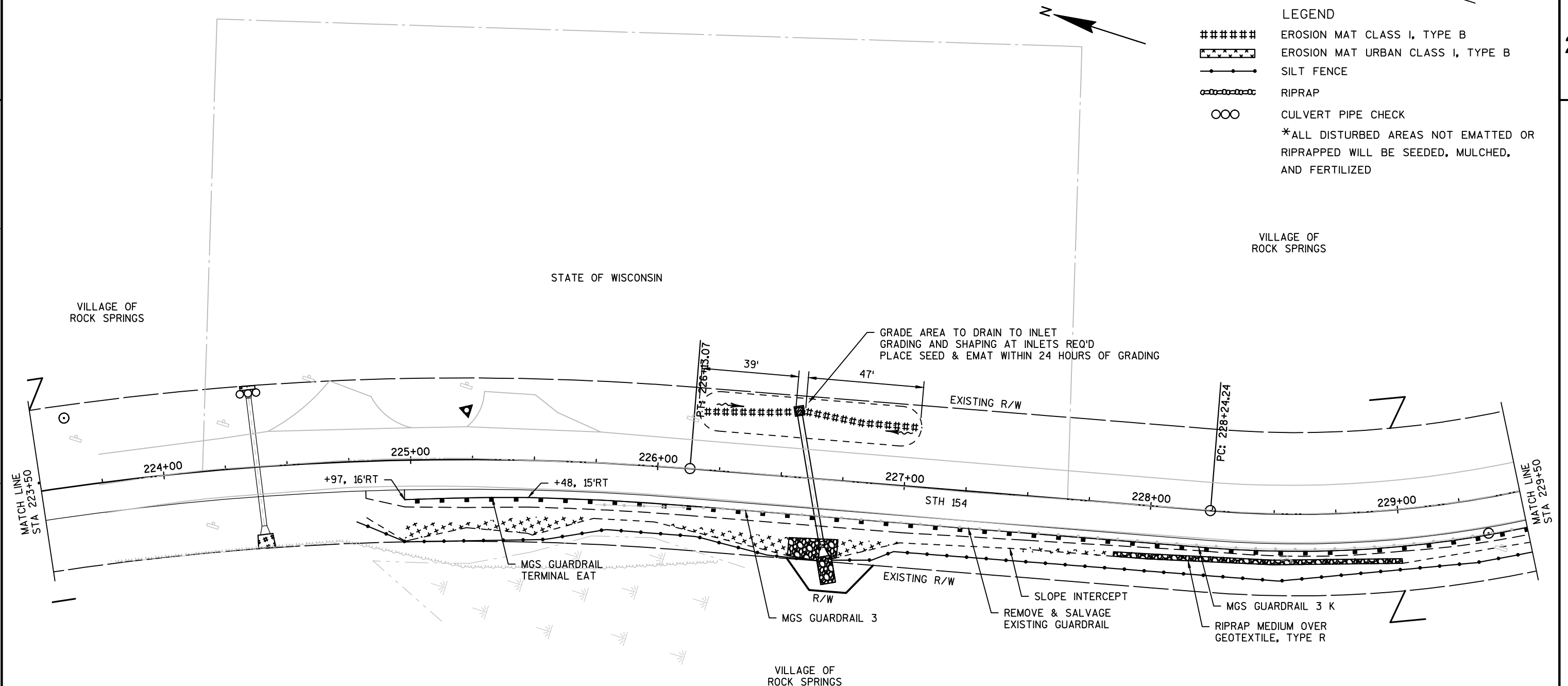
PLOT DATE : 10/19/2016 10:48 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 44



PI = 229+37.09
 Y = 240,465.84
 X = 595,156.09
 Δ = 28°58'45" L
 D = 13°07'13"
 T = 112.85'
 L = 220.88'
 R = 436.70'
 PC = 228+24.24
 PT = 230+45.11
 SE = MATCH EXISTING

NOTE:
CURVE DATA PROVIDED FOR GUARDRAIL PLACEMENT

PROJECT NO:5098-00-72

HWY:STH 154

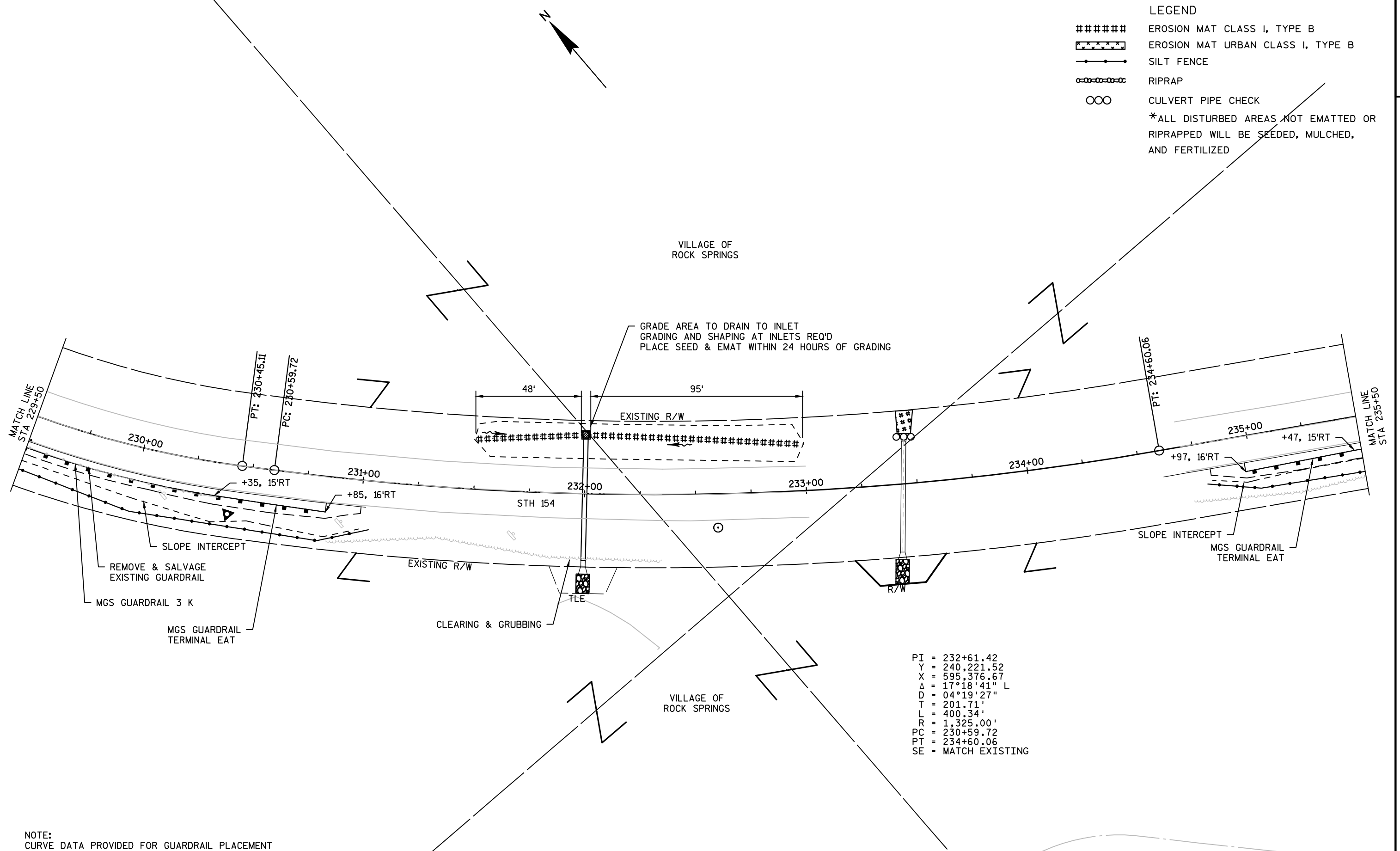
COUNTY:SAUK

PLAN: GUARDRAIL REPLACEMENT

SHEET

18

E



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

PLAN: GUARDRAIL REPLACEMENT

SHEET

19

E

FILE NAME : P:\905\93\00093248\CADD\SHEETS\PLAN\PLAN & PROFILES\STH 154 P&P BOX CULVERT.DWG
LAYOUT NAME - STH 154 P&P BOX CULVERT - 05

PLOT DATE : 10/19/2016 10:48 AM

PLOT BY : BOBBI MAXWELL

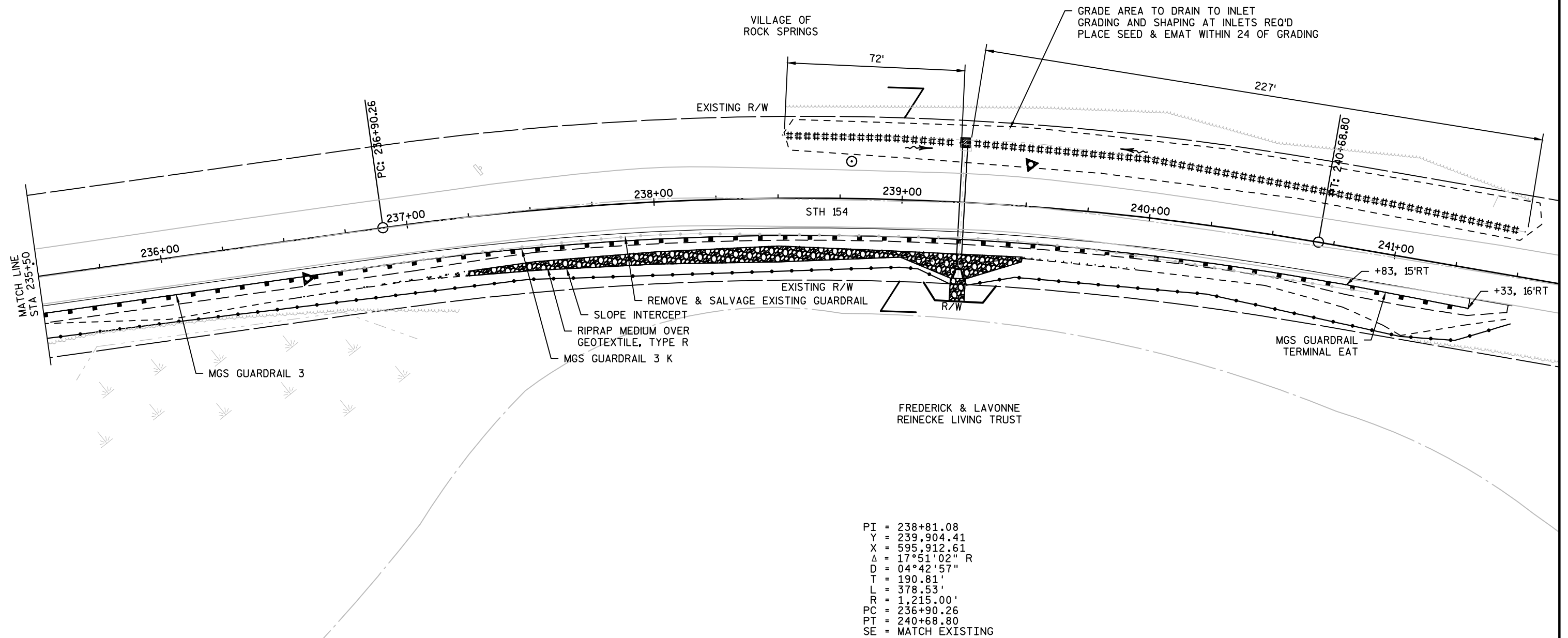
PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 44

LEGEND

- ##### EROSION MAT CLASS I, TYPE B
***** EROSION MAT URBAN CLASS I, TYPE B
- - - - - SILT FENCE
- - - - - RIPRAP
OOO CULVERT PIPE CHECK
*ALL DISTURBED AREAS NOT EMATTED OR
RIPRAPPED WILL BE SEEDED, MULCHED,
AND FERTILIZED



NOTE:
CURVE DATA PROVIDED FOR GUARDRAIL PLACEMENT

PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

PLAN: GUARDRAIL REPLACEMENT

SHEET 20

E

FILE NAME : P:\90S\93\00093248\CADD\SHEETS\PLAN\PLAN & PROFILES\STH 154 P&P BOX CULVERT.DWG
LAYOUT NAME - STH 154 P&P BOX CULVERT - 06

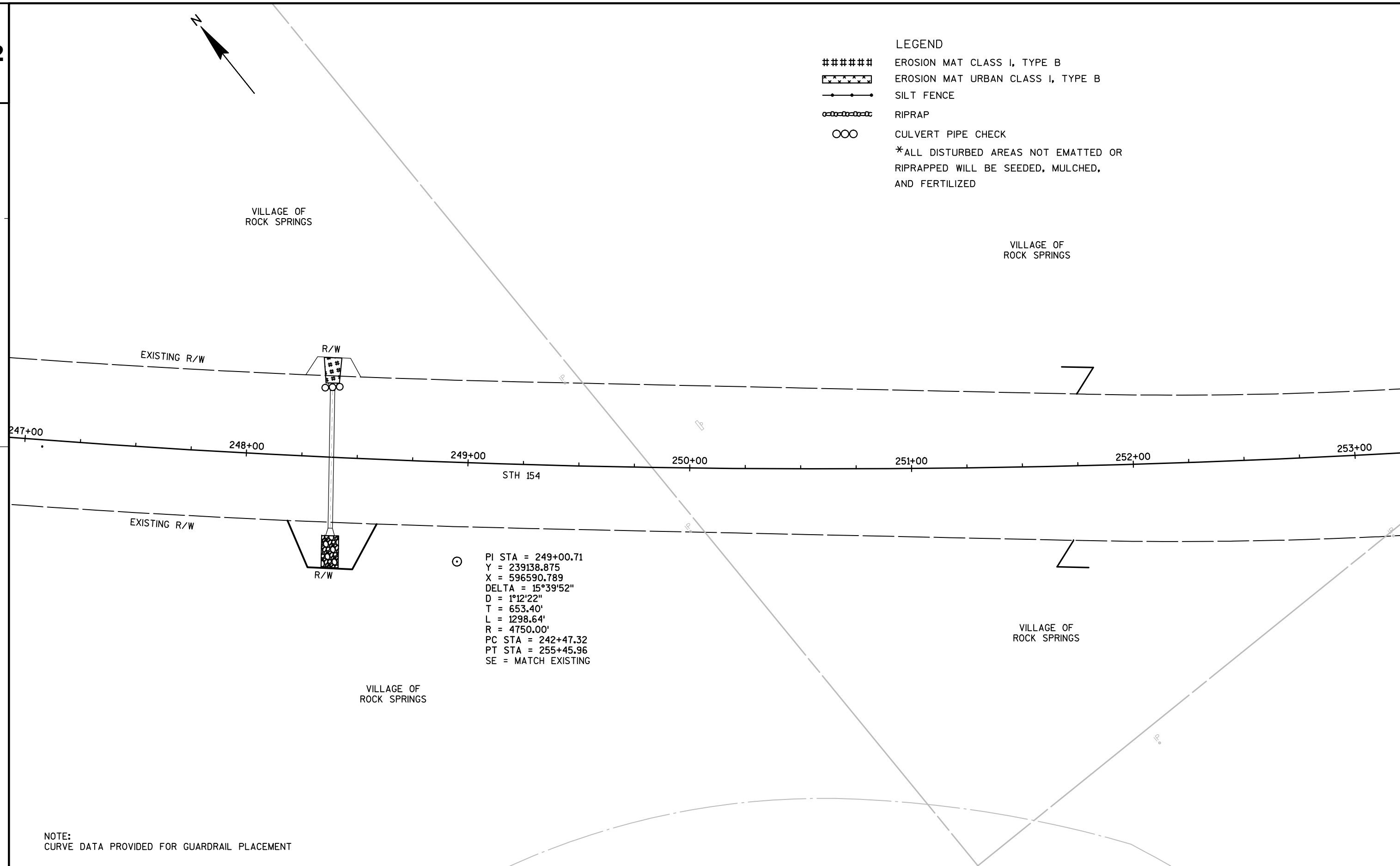
PLOT DATE : 10/19/2016 10:48 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 44

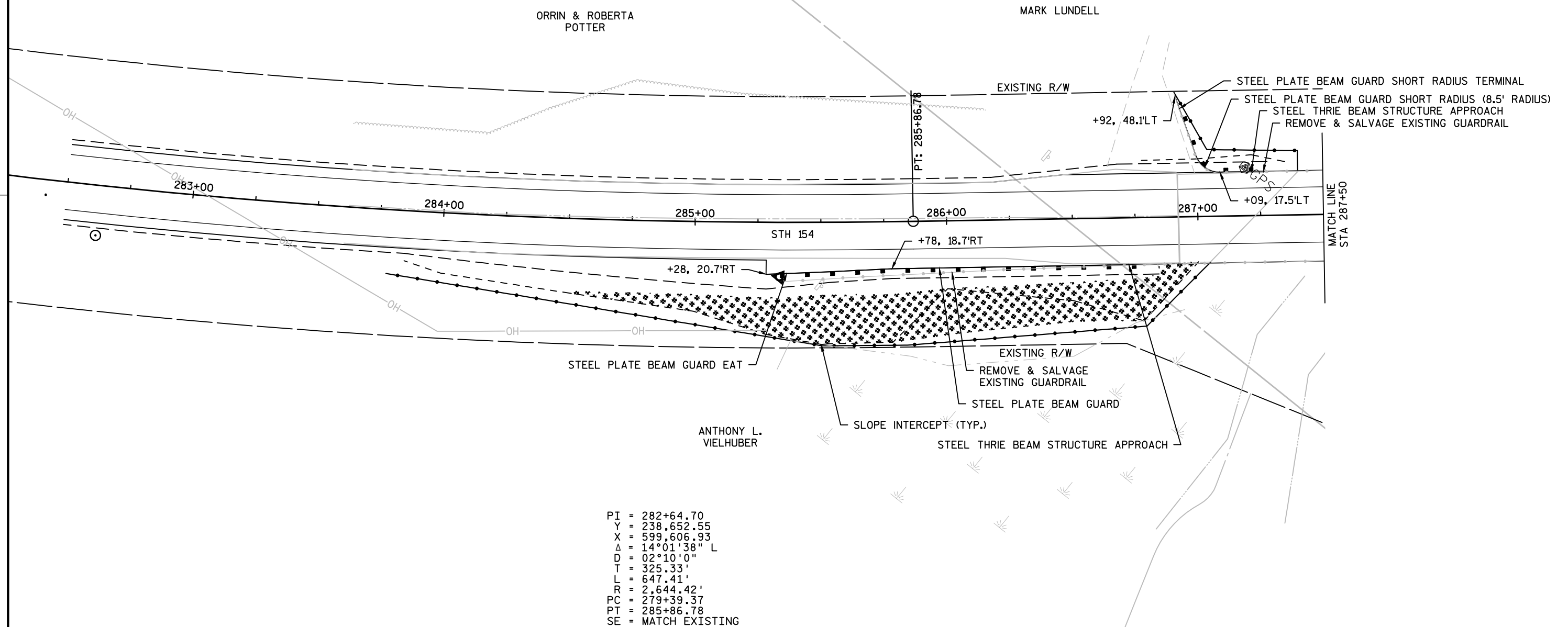


2



LEGEND

- ##### EROSION MAT CLASS I, TYPE B
***** EROSION MAT URBAN CLASS I, TYPE B
- - - - - SILT FENCE
- - - - - RIPRAP
OOO CULVERT PIPE CHECK
*ALL DISTURBED AREAS NOT EMATTED OR
RIPRAPPED WILL BE SEEDED, MULCHED,
AND FERTILIZED



NOTE:
CURVE DATA PROVIDED FOR GUARDRAIL PLACEMENT

PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

PLAN: GUARDRAIL REPLACEMENT

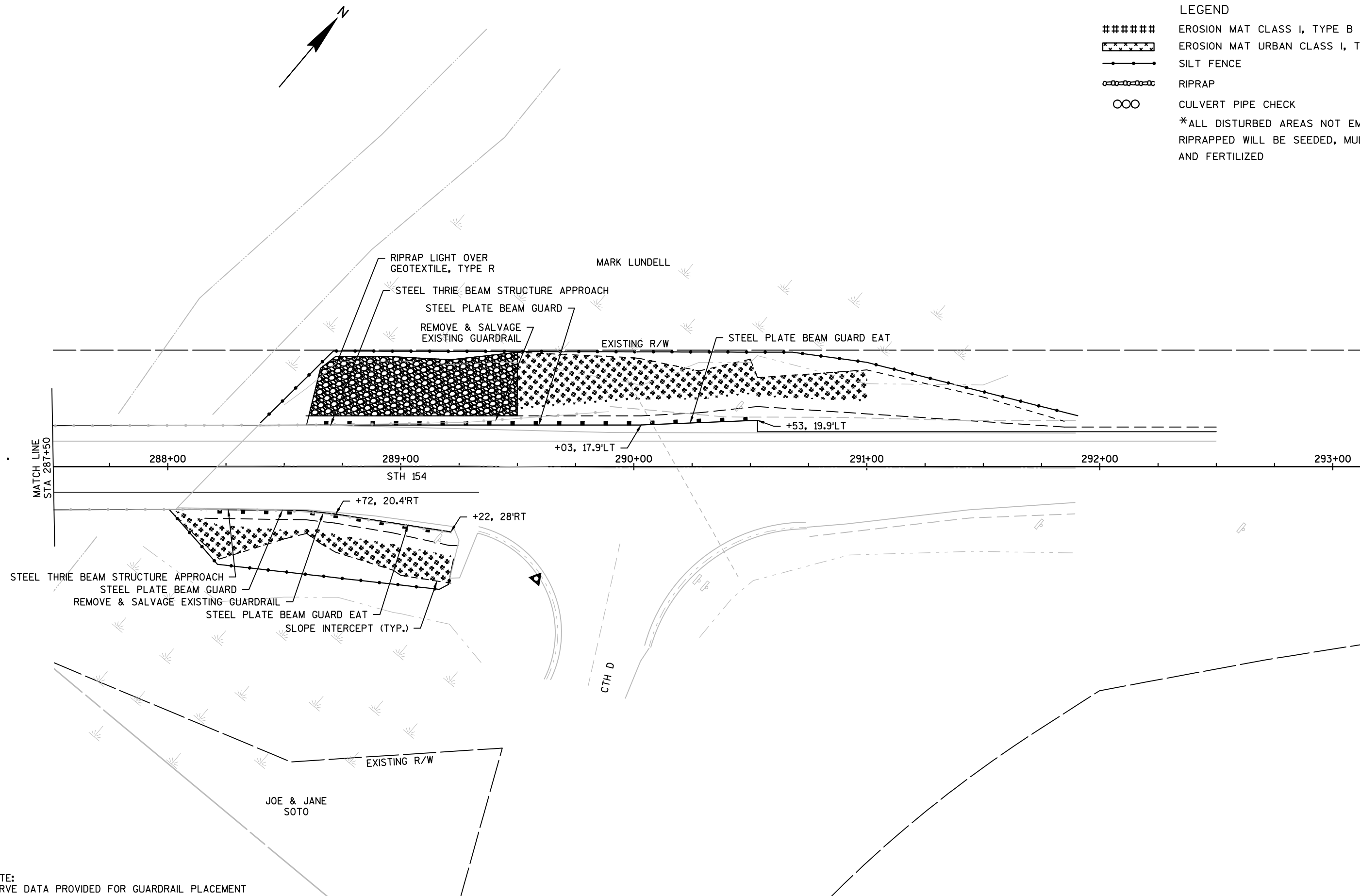
SHEET

23

E

LEGEND

#####	EROSION MAT CLASS I, TYPE B
*****	EROSION MAT URBAN CLASS I, TYPE B
—●—●—●—●—●—●—	SILT FENCE
—○—○—○—○—○—○—	RIPRAP
OOO	CULVERT PIPE CHECK
*ALL DISTURBED AREAS NOT EMATTED OR RIPRAPPED WILL BE SEEDED, MULCHED, AND FERTILIZED	



NOTE:
CURVE DATA PROVIDED FOR GUARDRAIL PLACEMENT

PROJECT NO:5098-00-72

HWY:STH 154

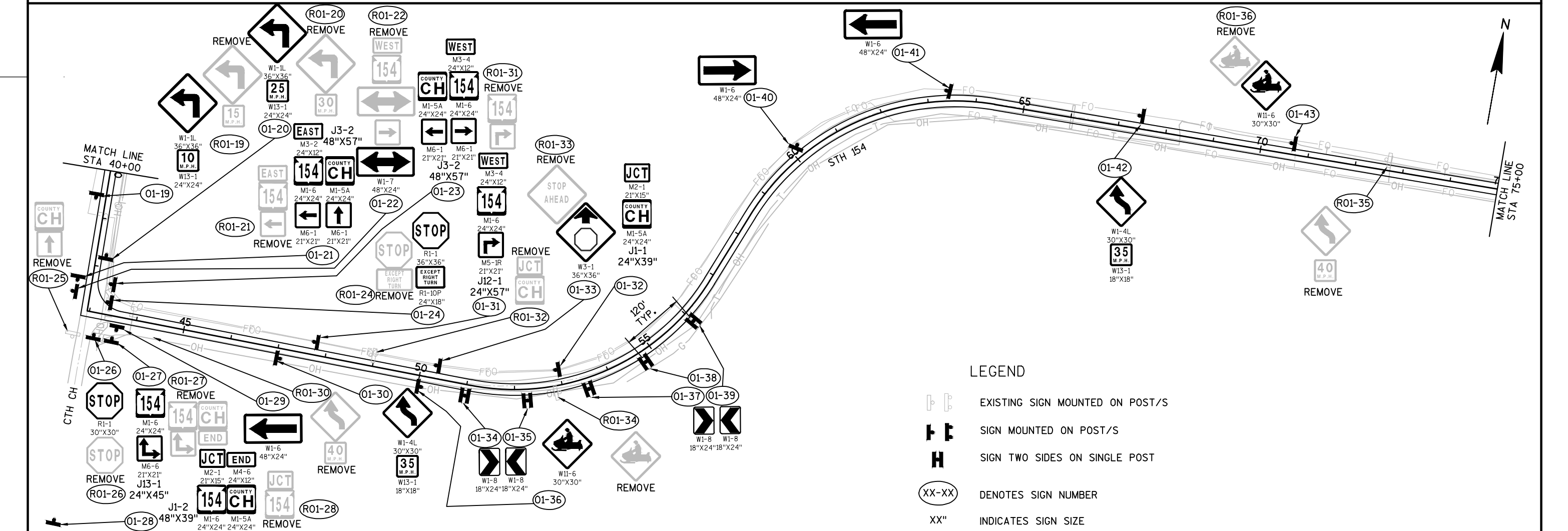
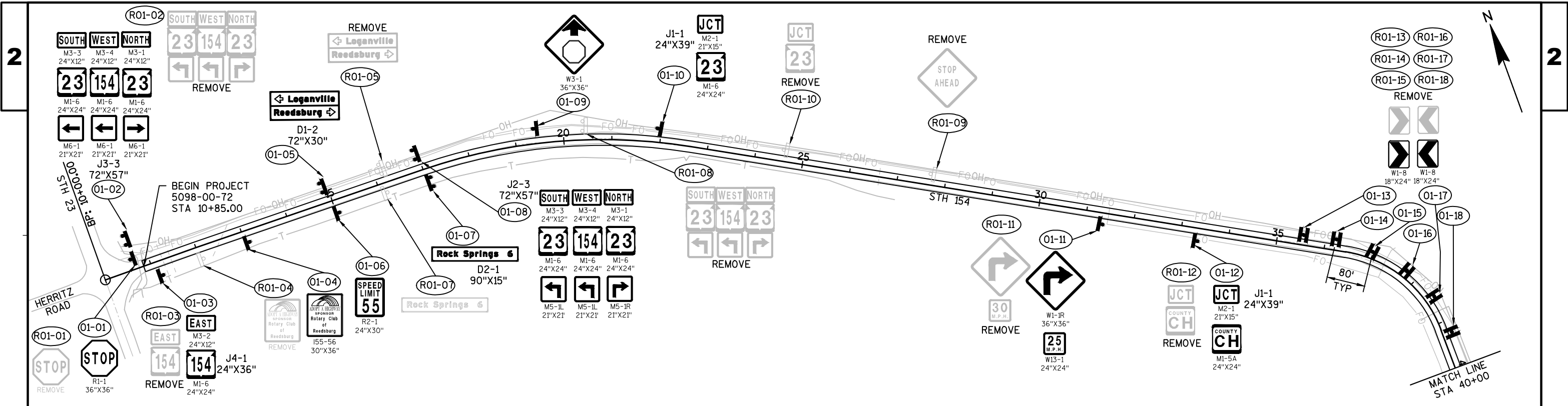
COUNTY:SAUK

PLAN: GUARDRAIL REPLACEMENT

SHEET

24

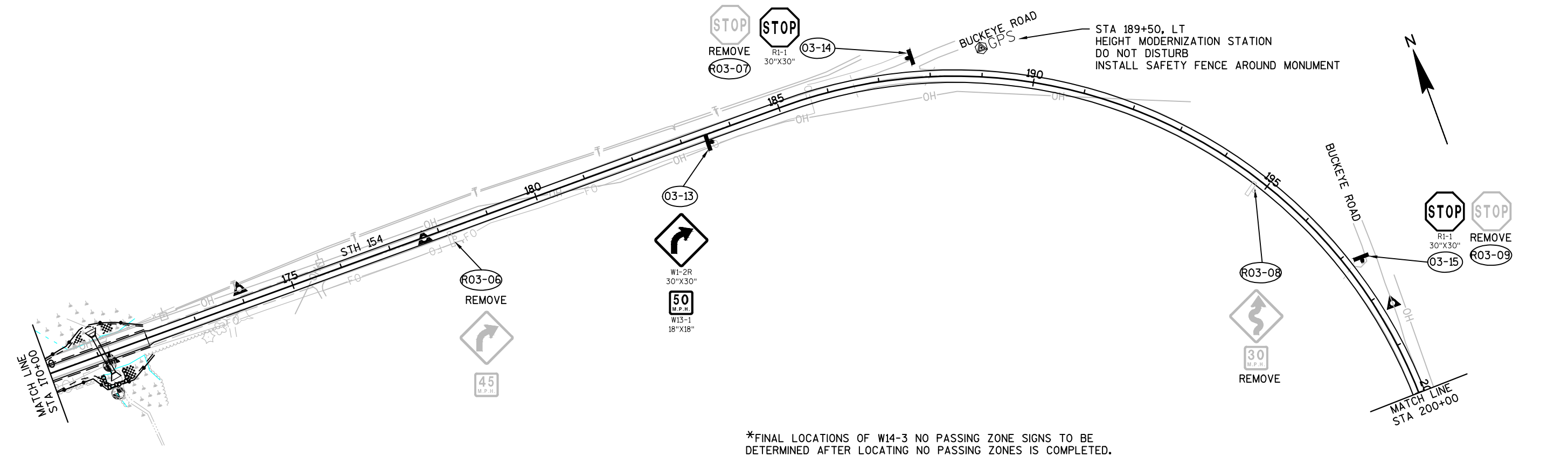
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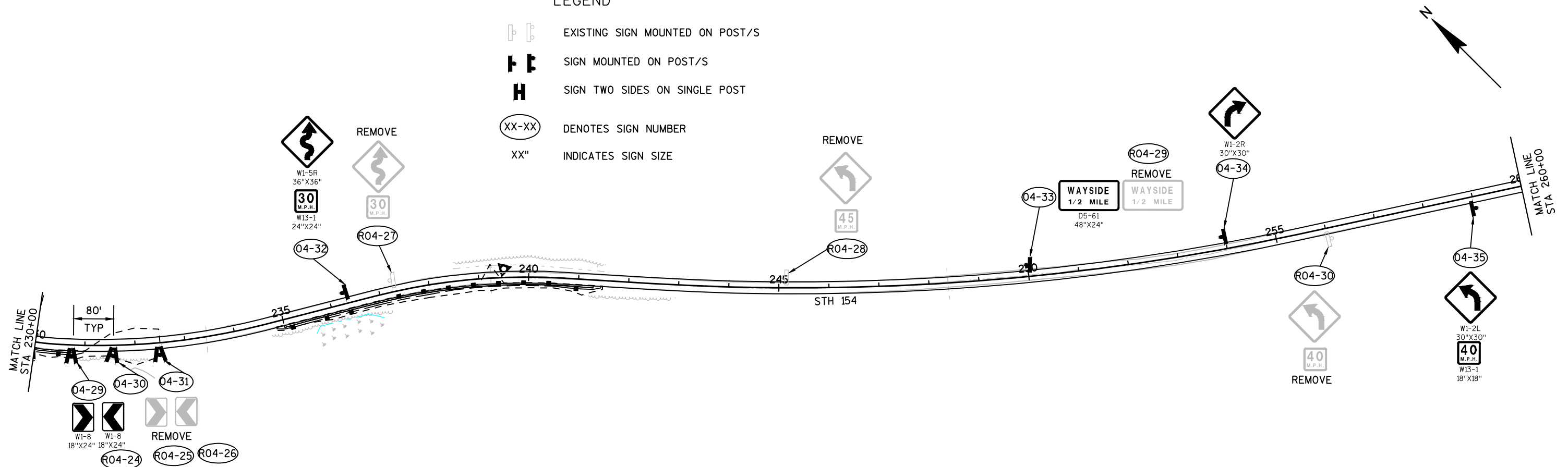
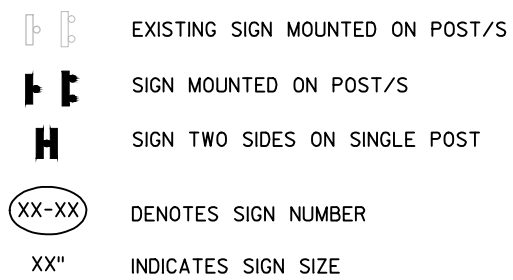


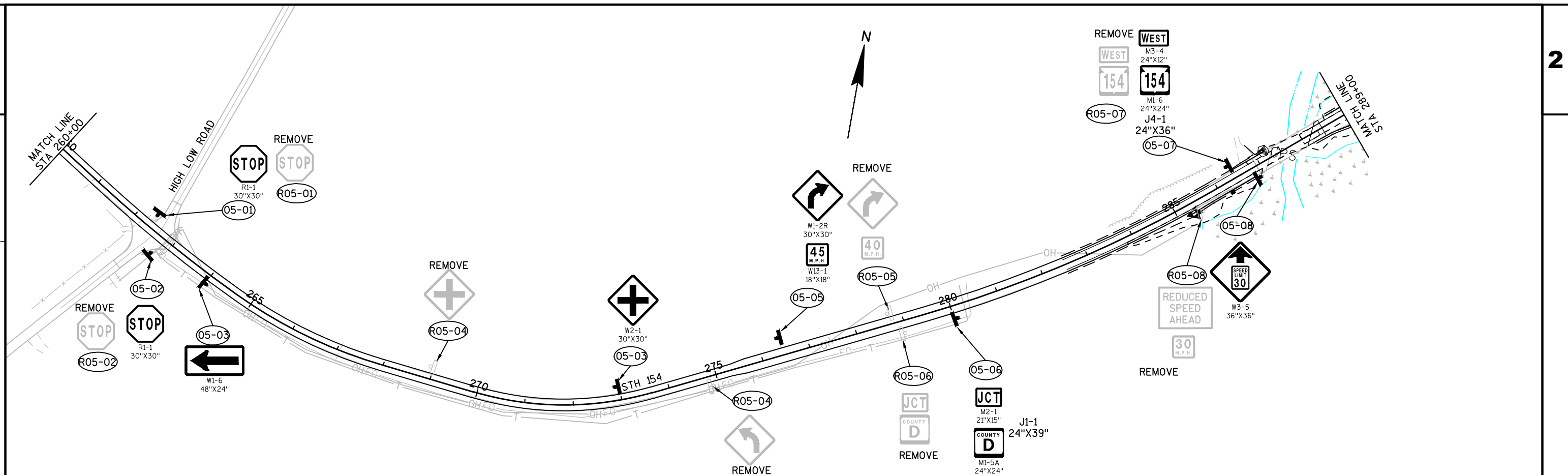
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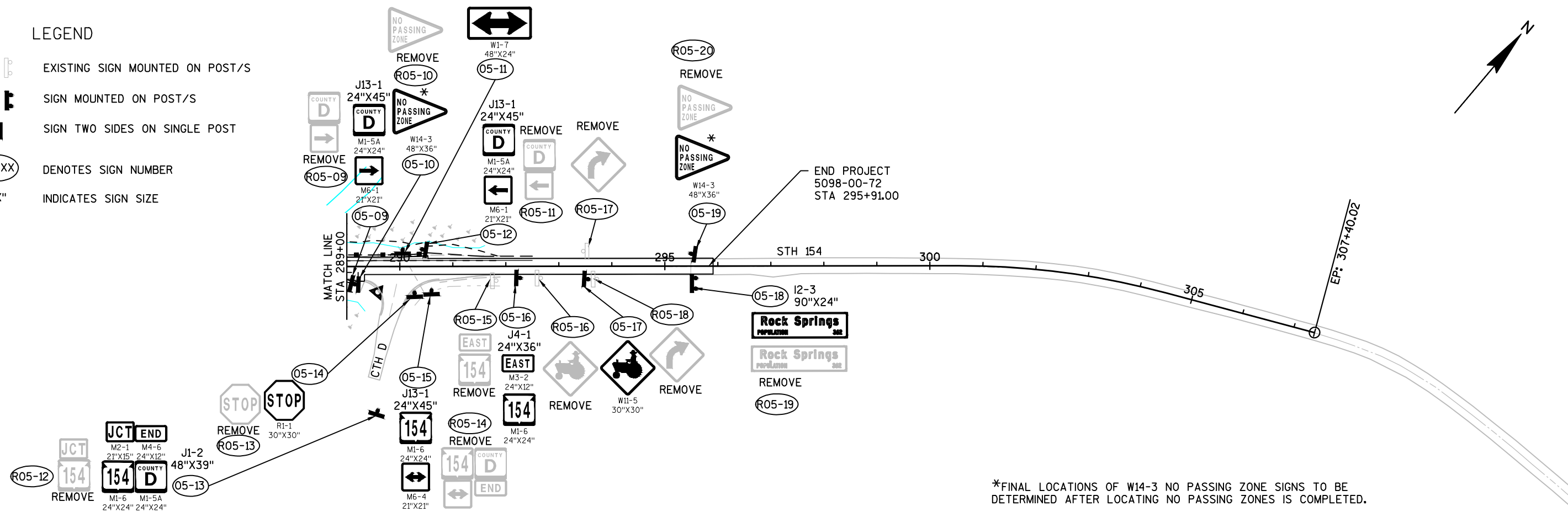
*FINAL LOCATIONS OF W14-3 NO PASSING ZONE SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.



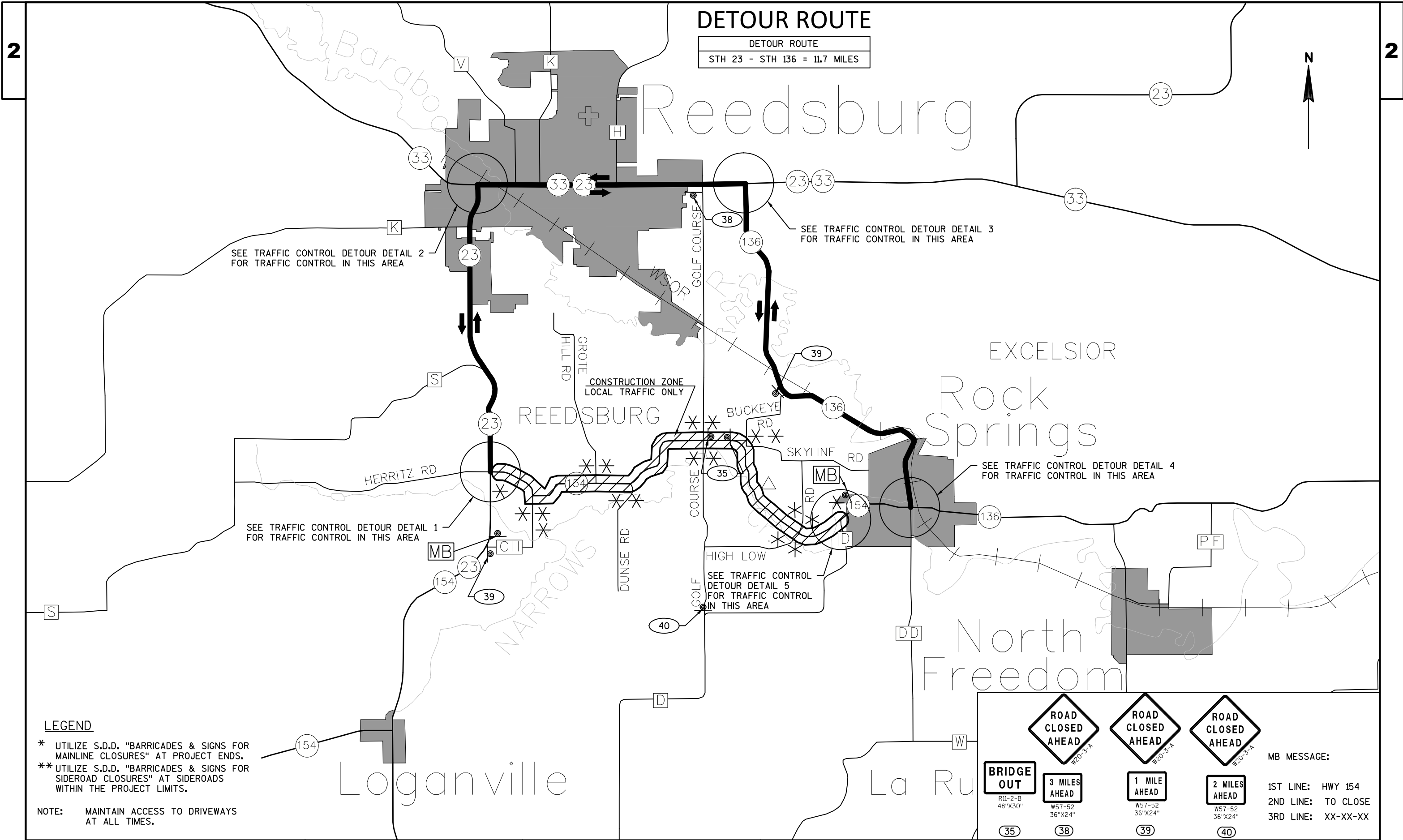


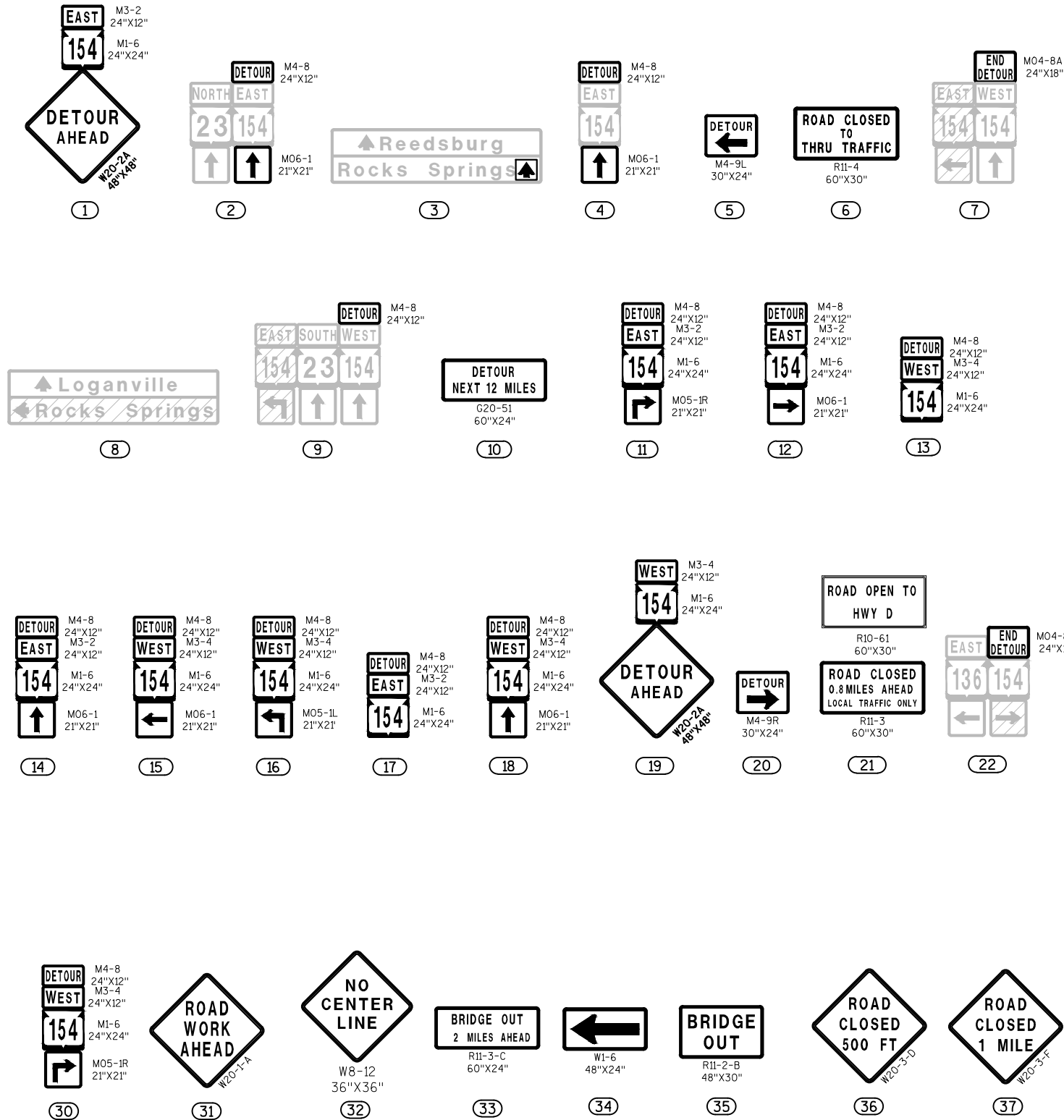
LEGEND

- EXISTING SIGN MOUNTED ON POST/S
- SIGN MOUNTED ON POST/S
- SIGN TWO SIDES ON SINGLE POST
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE



*FINAL LOCATIONS OF W14-3 NO PASSING ZONE SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.



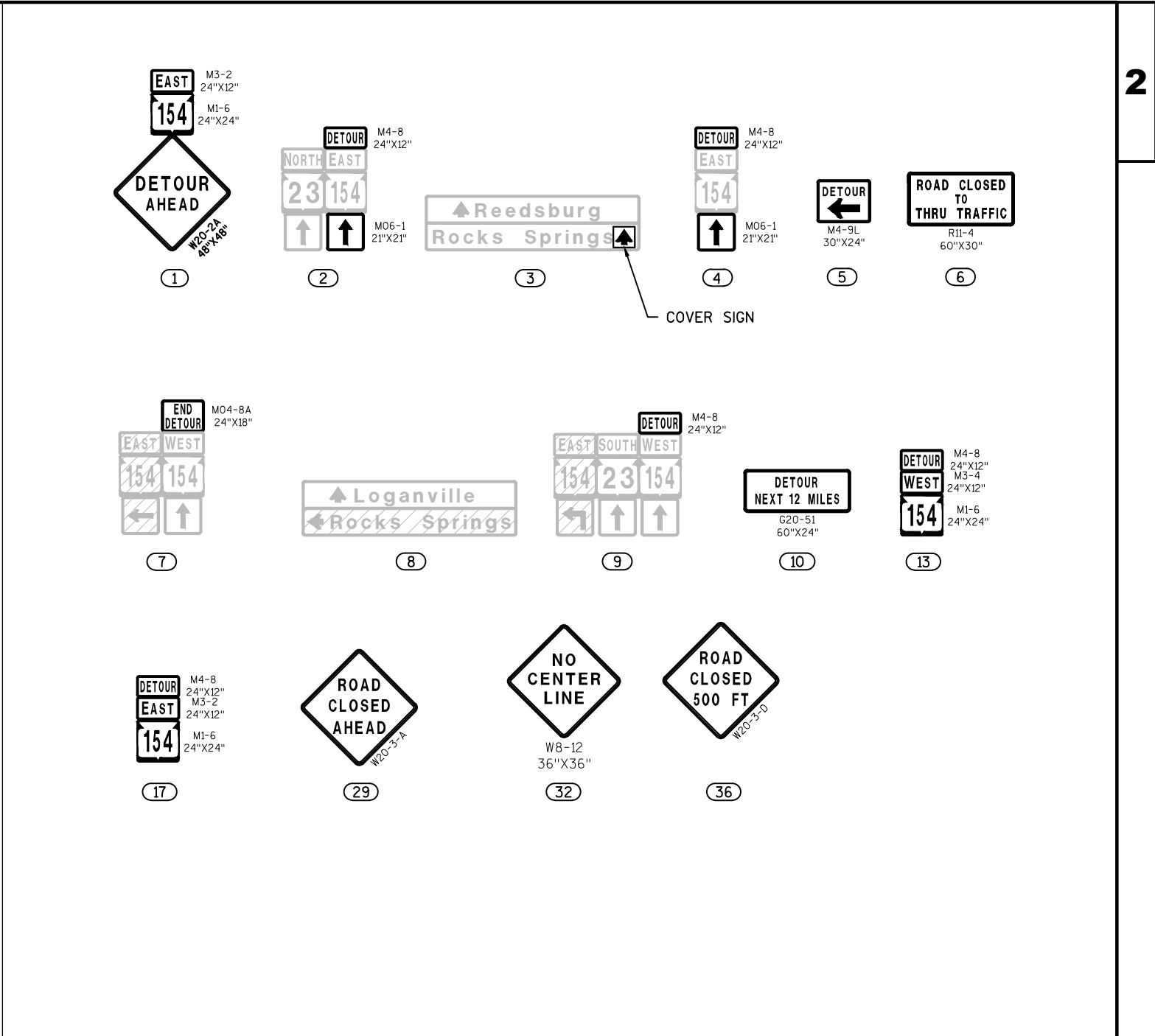
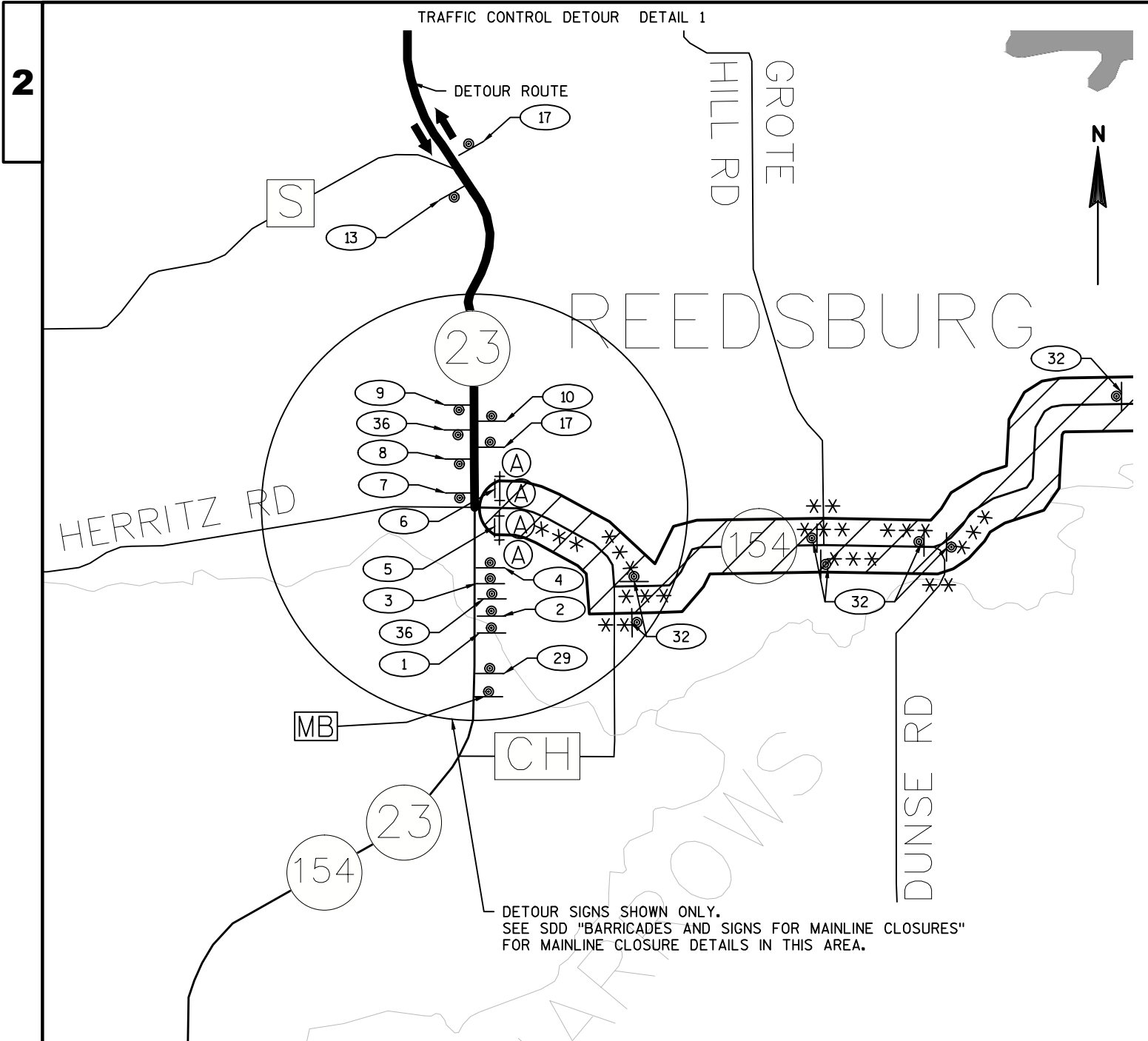


LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- EXISTING SIGN
- EXISTING SIGN TO BE COVERED

TRAFFIC CONTROL SIGNING GENERAL NOTES

- DRAWINGS SHOW TRAFFIC CONTROL DETOUR FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL CHANGES TO THE TRAFFIC CONTROL DETOUR PLAN SHALL BE REVIEWED WITH THE PROJECT ENGINEER.
- SIGN FACE LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE NOTED.
- TRAFFIC CONTROL PLANS ARE NOT TO SCALE.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.
- COVER, REMOVE, OR ALTER ANY EXISTING SIGNS THAT DISPLAY A CONFLICTING MESSAGE WITH THE PROPOSED DETOUR ROUTE.



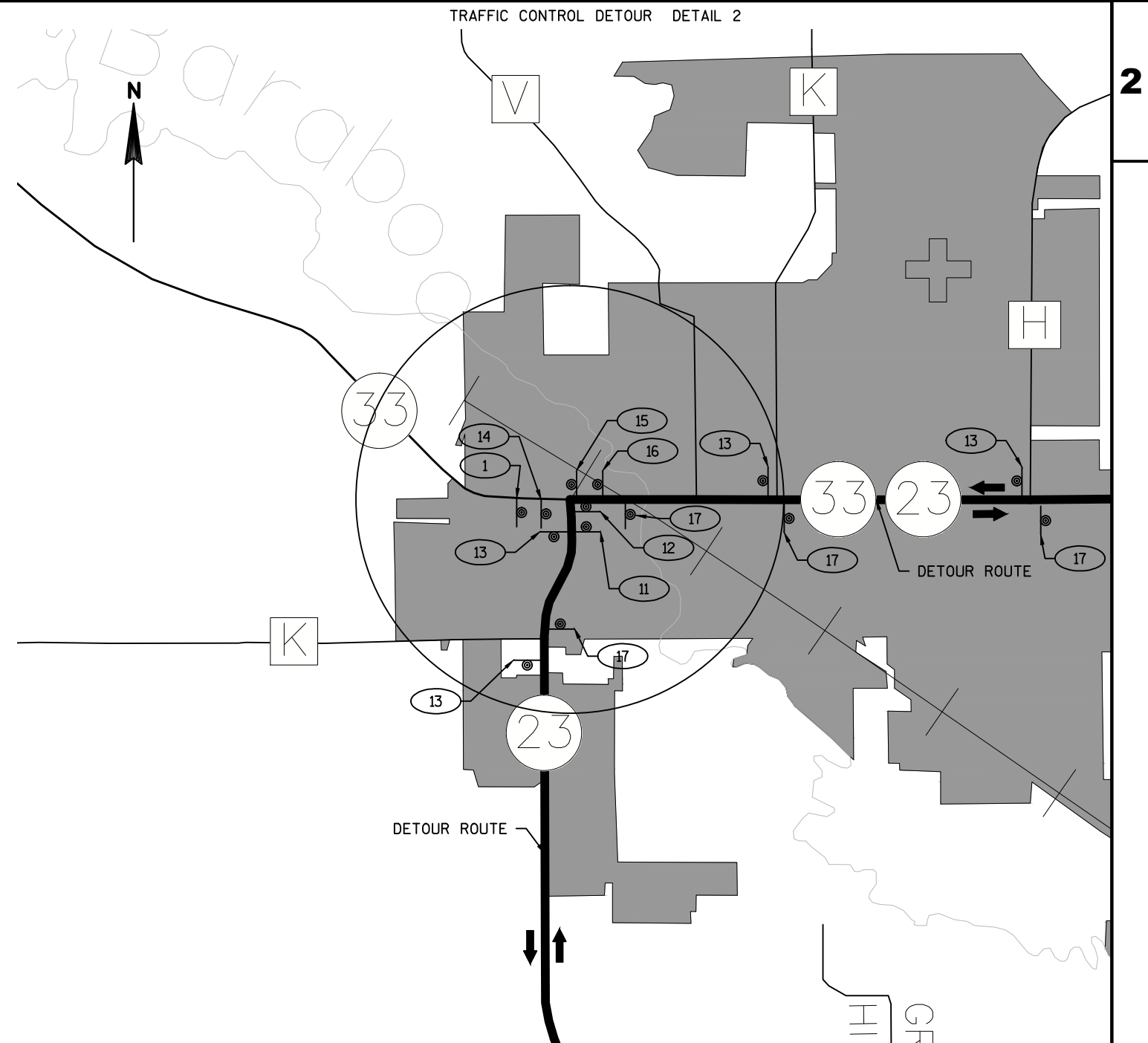
LEGEND

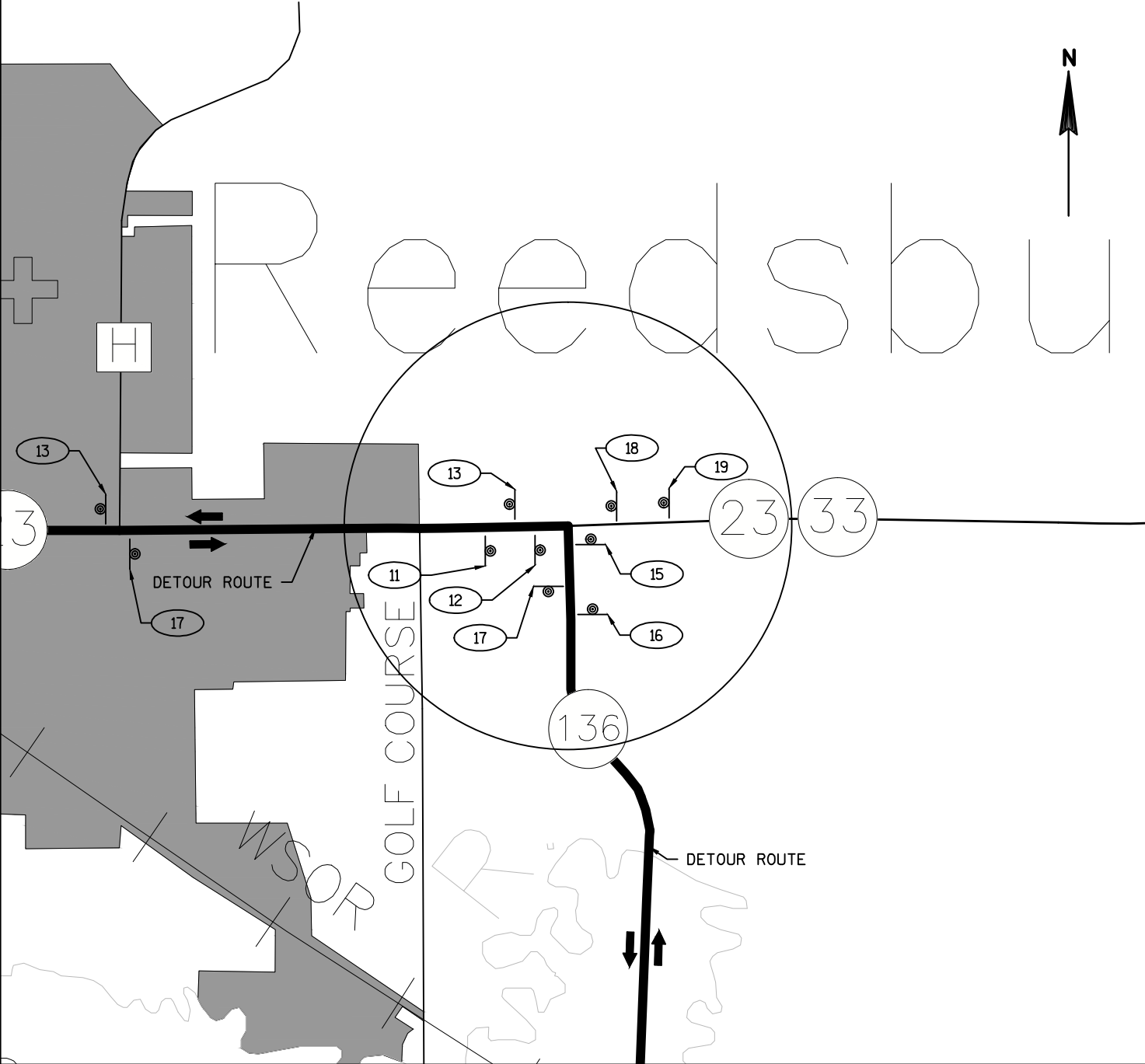
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- EXISTING SIGN
- EXISTING SIGN TO BE COVERED

MB MESSAGE:
1ST LINE: HWY 154
2ND LINE: TO CLOSE
3RD LINE: XX-XX-XX

NOTES:
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES"
** UTILIZE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" AT SIDEROADS WITHIN THE PROJECT LIMITS.
*** INSTALL "NO CENTER LINE" SIGN AFTER THE LOWER LAYER IS PAVED UNTIL THE UPPER LAYER IS PAINTED.

2

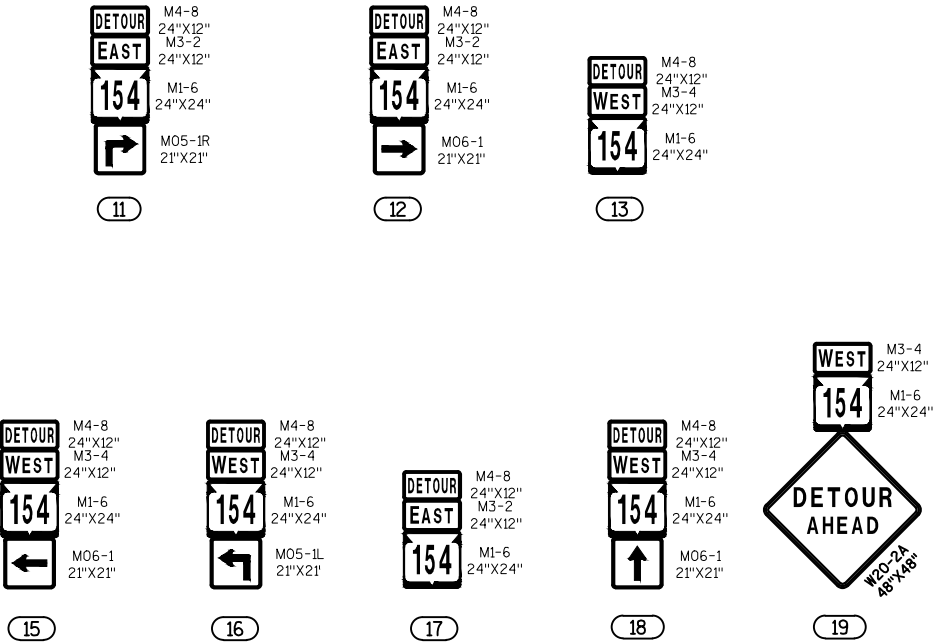


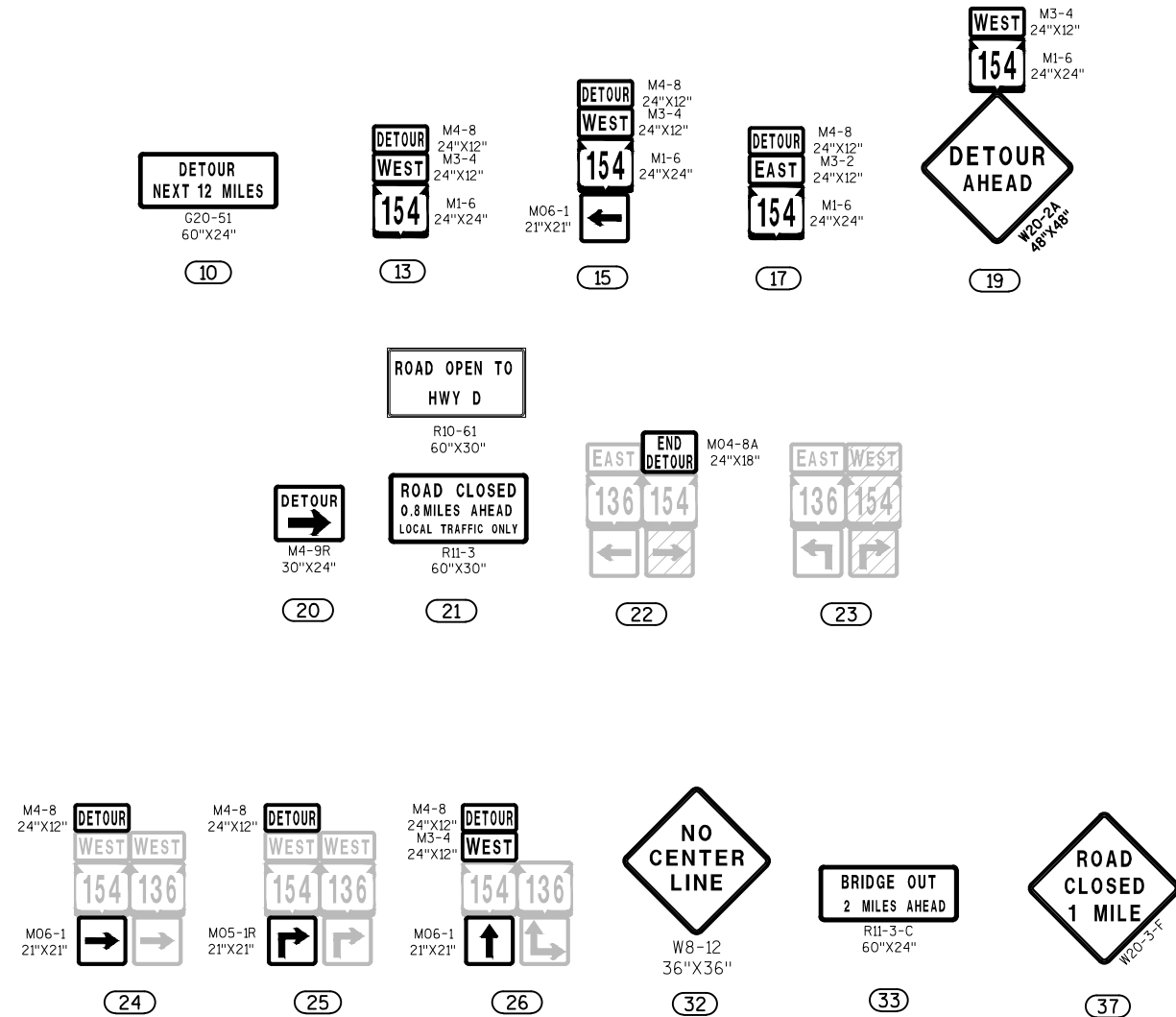


LEGEND

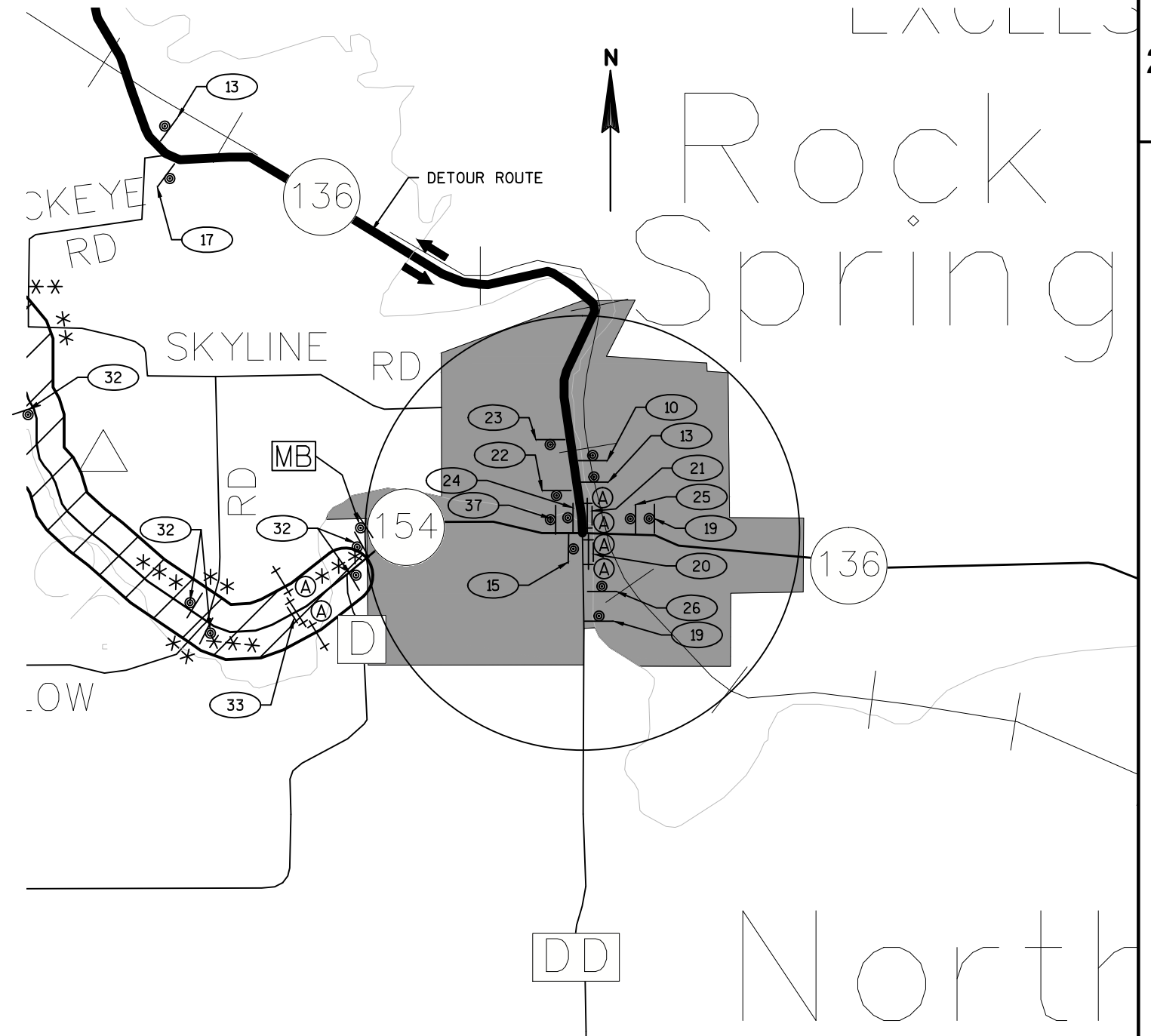
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- EXISTING SIGN
- EXISTING SIGN TO BE COVERED

NOTES:
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES"





TRAFFIC CONTROL DETOUR DETAIL 4



LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	SIGN ON PERMANENT SUPPORT
	TYPE A WARNING LIGHT (FLASHING)
	WORK AREA
	DIRECTION OF TRAFFIC
	PORTABLE CHANGEABLE MESSAGE BOARD
	EXISTING SIGN
	EXISTING SIGN TO BE COVERED

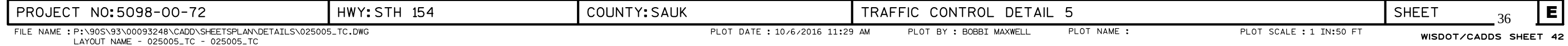
MB MESSAGE:

1ST LINE: HWY 154
2ND LINE: TO CLOSE
3RD LINE: XX-XX-XX

NOTES:

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES"
** UTILIZE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" AT SIDEROADS WITHIN THE PROJECT LIMITS.
*** INSTALL "NO CENTER LINE" SIGN AFTER THE LOWER LAYER IS PAVED UNTIL THE UPPER LAYER IS PAINTED.

2



Estimate Of Quantities

5098-00-72					
Line	Item	Item Description	Unit	Total	Qty
0010	201.0105	Clearing	STA	4.000	4.000
0020	201.0205	Grubbing	STA	4.000	4.000
0030	203.0100	Removing Small Pipe Culverts	EACH	13.000	13.000
0040	203.0200	Removing Old Structure (station) 01. 171+18	LS	1.000	1.000
0050	204.0125	Removing Asphaltic Surface Milling	TON	9,825.000	9,825.000
0060	204.0170	Removing Fence	LF	410.000	410.000
0070	204.0220	Removing Inlets	EACH	1.000	1.000
0080	204.0245	Removing Storm Sewer (size) 01. 24-Inch	LF	50.000	50.000
0090	204.9060.S	Removing (item description) 01. Markers Culvert End	EACH	34.000	34.000
0100	204.9090.S	Removing (item description) 01. 4-Inch Pipe	LF	200.000	200.000
0110	205.0100	Excavation Common	CY	16,102.000	16,102.000
0120	208.0100	Borrow	CY	886.000	886.000
0130	209.2500	Backfill Granular Grade 2	TON	3,967.000	3,967.000
0140	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 5098-00-72	LS	1.000	1.000
0150	213.0100	Finishing Roadway (project) 01. 5098-00-72	EACH	1.000	1.000
0160	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,591.000	8,591.000
0170	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	13,225.000	13,225.000
0180	305.0500	Shaping Shoulders	STA	232.000	232.000
0190	312.0110	Select Crushed Material	TON	15,217.000	15,217.000
0200	415.0120	Concrete Pavement 12-Inch	SY	54.000	54.000
0210	415.0410	Concrete Pavement Approach Slab	SY	50.000	50.000
0220	440.4410	Incentive IRI Ride	DOL	20,500.000	20,500.000
0230	455.0605	Tack Coat	GAL	8,953.000	8,953.000
0240	460.2000	Incentive Density HMA Pavement	DOL	8,180.000	8,180.000
0250	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	29,751.000	29,751.000
0260	460.5224	HMA Pavement 4 LT 58-28 S	TON	12,666.000	12,666.000
0270	492.2010.S	Sealing Cracks and Joints with Hot-Applied Sealant	GAL	3.000	3.000
0280	502.0717.S	Crack Sealing Epoxy	LF	150.000	150.000
0290	504.0900	Concrete Masonry Endwalls	CY	30.000	30.000
0300	509.1500	Concrete Surface Repair	SF	202.000	202.000
0310	509.5100.S	Polymer Overlay	SY	690.000	690.000
0320	521.1235	Apron Endwalls for Pipe Arch Steel 35x24-Inch	EACH	2.000	2.000
0330	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0340	525.0424	Steel Apron Endwalls for Aluminum Culvert Pipe 24-Inch	EACH	18.000	18.000
0350	525.0430	Steel Apron Endwalls for Aluminum Culvert Pipe 30-Inch	EACH	4.000	4.000
0360	525.0448	Steel Apron Endwalls for Aluminum Culvert Pipe 48-Inch	EACH	2.000	2.000

Estimate Of Quantities

5098-00-72

Line	Item	Item Description	Unit	Total	Qty
0370	528.0196	Culvert Pipe Corrugated Steel Polymer Coated 96-Inch	LF	82.000	82.000
0380	529.0124	Culvert Pipe Corrugated Steel Aluminum Coated 24-Inch	LF	424.000	424.000
0390	529.0130	Culvert Pipe Corrugated Steel Aluminum Coated 30-Inch	LF	96.000	96.000
0400	529.0335	Pipe Arch Corrugated Steel Aluminum Coated 35x24-Inch	LF	68.000	68.000
0410	606.0100	Riprap Light	CY	80.000	80.000
0420	606.0200	Riprap Medium	CY	151.000	151.000
0430	606.0300	Riprap Heavy	CY	110.000	110.000
0440	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	50.000	50.000
0450	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	111.000	111.000
0460	611.0642	Inlet Covers Type MS	EACH	3.000	3.000
0470	611.3901	Inlets Median 1 Grate	EACH	3.000	3.000
0480	614.0200	Steel Thrie Beam Structure Approach	LF	75.000	75.000
0490	614.0305	Steel Plate Beam Guard Class A	LF	250.000	250.000
0500	614.0345	Steel Plate Beam Guard Short Radius	LF	25.000	25.000
0510	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	3.000	3.000
0520	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	1.000	1.000
0530	614.0920	Salvaged Rail	LF	2,145.000	2,145.000
0540	614.2300	MGS Guardrail 3	LF	275.000	275.000
0550	614.2330	MGS Guardrail 3 K	LF	1,675.000	1,675.000
0560	614.2610	MGS Guardrail Terminal EAT	EACH	8.000	8.000
0570	616.0700.S	Fence Safety	LF	120.000	120.000
0580	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5098-00-72	EACH	1.000	1.000
0590	619.1000	Mobilization	EACH	1.000	1.000
0600	624.0100	Water	MGAL	559.000	559.000
0610	625.0500	Salvaged Topsoil	SY	4,141.000	4,141.000
0620	627.0200	Mulching	SY	2,964.000	2,964.000
0630	628.1104	Erosion Bales	EACH	75.000	75.000
0640	628.1504	Silt Fence	LF	4,856.000	4,856.000
0650	628.1520	Silt Fence Maintenance	LF	4,856.000	4,856.000
0660	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0670	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0680	628.2004	Erosion Mat Class I Type B	SY	1,555.000	1,555.000
0690	628.2008	Erosion Mat Urban Class I Type B	SY	249.000	249.000
0700	628.6510	Soil Stabilizer Type B	ACRE	0.220	0.220
0710	628.7005	Inlet Protection Type A	EACH	3.000	3.000

Estimate Of Quantities

5098-00-72

Line	Item	Item Description	Unit	Total	Qty
0720	628.7010	Inlet Protection Type B	EACH	3.000	3.000
0730	628.7504	Temporary Ditch Checks	LF	300.000	300.000
0740	628.7555	Culvert Pipe Checks	EACH	78.000	78.000
0750	629.0210	Fertilizer Type B	CWT	4.100	4.100
0760	630.0120	Seeding Mixture No. 20	LB	173.000	173.000
0770	630.0200	Seeding Temporary	LB	115.000	115.000
0780	633.5100	Markers Row	EACH	89.000	89.000
0790	633.5200	Markers Culvert End	EACH	55.000	55.000
0800	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	76.000	76.000
0810	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	51.000	51.000
0820	637.2210	Signs Type II Reflective H	SF	366.175	366.175
0830	637.2230	Signs Type II Reflective F	SF	590.500	590.500
0840	638.2602	Removing Signs Type II	EACH	102.000	102.000
0850	638.3000	Removing Small Sign Supports	EACH	106.000	106.000
0860	642.5001	Field Office Type B	EACH	1.000	1.000
0870	643.0100	Traffic Control (project) 01. 5098-00-72	EACH	1.000	1.000
0880	643.0300	Traffic Control Drums	DAY	748.000	748.000
0890	643.0420	Traffic Control Barricades Type III	DAY	3,268.000	3,268.000
0900	643.0705	Traffic Control Warning Lights Type A	DAY	3,976.000	3,976.000
0910	643.0900	Traffic Control Signs	DAY	3,661.000	3,661.000
0920	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
0930	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0940	643.2000	Traffic Control Detour (project) 01. 5098-00-72	EACH	1.000	1.000
0950	643.3000	Traffic Control Detour Signs	DAY	9,860.000	9,860.000
0960	645.0120	Geotextile Type HR	SY	255.000	255.000
0970	645.0130	Geotextile Type R	SY	812.000	812.000
0980	646.0106	Pavement Marking Epoxy 4-Inch	LF	106,698.000	106,698.000
0990	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	30.000	30.000
1000	648.0100	Locating No-Passing Zones	MI	5.400	5.400
1010	650.4000	Construction Staking Storm Sewer	EACH	3.000	3.000
1020	650.4500	Construction Staking Subgrade	LF	4,051.000	4,051.000
1030	650.5000	Construction Staking Base	LF	4,051.000	4,051.000
1040	650.6000	Construction Staking Pipe Culverts	EACH	12.000	12.000
1050	650.8000	Construction Staking Resurfacing Reference	LF	28,151.000	28,151.000
1060	650.9910	Construction Staking Supplemental Control (project) 01. 5098-00-72	LS	1.000	1.000
1070	650.9920	Construction Staking Slope Stakes	LF	3,380.000	3,380.000
1080	690.0150	Sawing Asphalt	LF	2,057.000	2,057.000
1090	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
1100	SPV.0060	Special 01. Grading and Shaping at Inlets	EACH	3.000	3.000

Estimate Of Quantities

5098-00-72					
Line	Item	Item Description	Unit	Total	Qty
1110	SPV.0060	Special 02. Grading, Shaping, and Finishing Endwalls Sta 26+62	EACH	2.000	2.000
1120	SPV.0060	Special 03. Grading, Shaping, and Finishing Endwalls Sta 143+98	EACH	1.000	1.000
1130	SPV.0060	Special 04. Grading, Shaping, and Finishing Endwalls Sta 186+50	EACH	2.000	2.000
1140	SPV.0060	Special 05. Grading, Shaping, and Finishing Endwalls Sta 200+58	EACH	1.000	1.000
1150	SPV.0060	Special 06. Grading, Shaping, and Finishing Endwalls Sta 216+32	EACH	1.000	1.000
1160	SPV.0060	Special 07. Construction Staking Masonry Endwall	EACH	2.000	2.000
1170	SPV.0090	Special 01. Construction Staking Profile Reference	LF	28,506.000	28,506.000
1180	SPV.0165	Special 01. Fiber Wrap Girder Reinforcing	SF	4.000	4.000
1190	SPV.0180	Special 01. Asphaltic Binder Enhanced Friction Surface Treatment	SY	2,027.000	2,027.000

CLEARING AND GRUBBING

STATION	LOCATION	201.0105	201.0205
		CLEARING STA	GRUBBING STA
170+00 - 172+00	LT & RT	2	2
211+13	LT	1	1
232+00	RT	1	1
TOTAL PROJECT 5098-00-72		4	4

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100	204.0220	204.0245	204.9090.S	LF	REMARKS
		REMOVING SMALL PIPE CULVERTS EACH	REMOVING INLETS EACH	REMOVING STORM SEWER 24-INCH LF	REMOVING 4-INCH PIPE LF		
43+34	CROSS	1	—	—	—	63	24" CMCP / 18" CPCP LINER
141+02	CROSS	1	—	—	—	44	24" CMCP
197+27	CROSS	1	—	—	—	41	30" CMCP
206+28	CROSS	1	—	—	—	62	24" CMCP
211+12	CROSS	1	—	—	—	53	30" CMCP
224+38	CROSS	1	—	—	—	51	24" CMCP
226+62	CROSS	1	—	—	—	48	24" CMCP
233+43	CROSS	1	—	—	—	51	24" CMCP
239+25	CROSS	1	1	50	—	51	24" CMCP / 18" CPCP LINER
239+25 - 241+25	LT	—	—	—	200	—	4" DRAIN TILE
248+38	CROSS	1	—	—	—	61	24" CMCP / 24" PVC LINER
260+89	CROSS	1	—	—	—	48, 53	24" CMCP / 18" CPCP LINER
262+20	CROSS	1	—	—	—	67	36" x 24" CMCP
267+05	CROSS	1	—	—	—	37	24" CMCP
TOTAL PROJECT 5098-00-72		13	1	50	200		

REMOVING STRUCTURES

STATION	LOCATION	203.0200
		REMOVING OLD STRUCTURE STA 171+18 LS
171+18	CROSS	1
TOTAL PROJECT 5098-00-72		1

MILLING

STATION	DEPTH	204.0125
		REMOVING ASPHALTIC SURFACE MILLING TON
10+85.00 - 107+54.96	3.5"	4,928
107+54.96 - 170+00.00	2"	1,803
172+00.00 - 244+50	2"	1,892
255+50 - 275+63.04	2"	502
275+63.04 - 286+92.32	2"	418
288+47.24 - 295+91.00	2"	283
TOTAL PROJECT 5098-00-72		9,825

REMOVING FENCE

STATION	LOCATION	204.0170
		REMOVING FENCE LF
170+00 - 172+10	LT	210
260+50 - 262+25	RT	200
TOTAL PROJECT 5098-00-72		410

REMOVING MARKERS CULVERT END

STATION	LOCATION	204.9060.S
		REMOVING MARKERS CULVERT END EACH
11+34	LT & RT	2
12+54	LT & RT	2
26+62	LT & RT	2
66+03	LT & RT	2
70+73	LT & RT	2
85+80	LT & RT	2
100+55	LT & RT	2
124+60	LT & RT	2
143+98	LT & RT	2
146+55	LT & RT	2
157+23	LT & RT	2
186+50	LT & RT	2
187+98	LT & RT	2
200+58	LT & RT	2
212+68	LT & RT	2
216+32	LT & RT	2
290+18	LT & RT	2
TOTAL PROJECT 5098-00-72		34

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EXCAVATION & BORROW

Division	From/To Station	Location	Common Excavation (ITEM # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Borrow (ITEM # 208.0100)	Comment:
			Cut (2)	EBS Excavation (3)				Factor 1.25				
1	170+00 - 172+00	MAINLINE	345	--	67	278	931	1,164	-886	-886	886	
	205+57 - 210+50	BEAM GUARD RT	169	--	8	161	8	10	-734	152	0	
	214+42 - 221+43	BEAM GUARD RT	246	--	11	235	17	22	-521	213	0	
	224+81 - 231+00	BEAM GUARD RT	227	--	10	217	20	25	-329	192	0	
	234+81 - 241+48	BEAM GUARD RT	249	--	10	239	20	25	-115	214	0	
	283+85 - 291+85	NARROWS CREEK BRIDGE	393	--	25	368	213	277	-24	91	0	
	10+85 - 295+91	UNDISTRIBUTED EBS	0	7523	422	-422	0	0	-446	-422	0	
	245+00 - 255+00	MAINLINE EBS	0	2824	518	-518	0	0	-964	-518	0	
	100 FT	13 PIPES	4,126	--	385	3741	0	0	2777	3741		
	Division 1 Subtotal		5755	10347	1456	4299	1209	1522	2777	2777	886	
Grand Total Project 5098-00-72			5755	10347	1456	4299	1209	1522	2777	2777	886	
PROJECT 5098-00-72 Total Common Exc				16,102								

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Crushed material.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 6) Expanded Fill. Factor = 1.25
- 7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE ITEMS

STATION - STATION	LOCATION	209.2500	305.0110	305.0120	305.0500	312.0110	624.0100	650.4500	650.5000
		BACKFILL GRANULAR GRADE 2 TON	BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	SHAPING SHOULDERS STA	SELECT CRUSHED MATERIAL TON	WATER MGAL	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF
170+00 - 172+00	MAINLINE	---	104	596	---	676	21	200	200
10+85 - 295+91	SHOULDERS UNDIST.	---	6,269	---	232	---	98	---	---
205+57 - 210+50	SHOULDER RT	---	82	241	---	---	5	---	---
214+42 - 221+43	SHOULDER RT	---	124	346	---	---	7	---	---
224+81 - 231+00	SHOULDER RT	---	120	332	---	---	7	---	---
234+81 - 241+48	SHOULDER RT	---	120	339	---	---	7	---	---
283+85.30 - 291+84.71	SHOULDERS	---	185	656	---	---	13	---	---
UNDISTRIBUTED	14 PIPE REPLACEMENTS	3967	637	3,343	---	3,678	115	---	---
10+85 - 295+91	EBS AREAS	---	688	5,279	---	8,024	210	2,851	2,851
245+00 - 255+00	MAINLINE	---	263	2,093	---	2,815	78	1,000	1,000
EBS AREAS	FRENCH DRAINS	---	---	---	---	24	---	---	---
TOTAL PROJECT 5098-00-72		3,967	8,591	13,225	232	15,217	559	4,051	4,051

CONCRETE PAVEMENT ITEMS

STATION - STATION	LOCATION	415.0120	415.0410
		CONCRETE PAVEMENT 12-INCH SY	CONCRETE PAVEMENT APPROACH SLAB SY
288+04 - 288+47	MAINLINE	54	50
TOTAL PROJECT 5098-00-72		54	50

NOTE: BASE AGGREGATE DENSE (3/4-INCH & 1 1/4-INCH) WERE CALCULATED USING 2.0 TONS/CY.
NOTE: SELECT CRUSHED MATERIAL WAS CALCULATED USING 1.9 TONS/CY.
NOTE: BACKFILL GRANULAR WAS CALCULATED USING 1.7 TONS/CY.
EBS QUANTITY IS BASED ON 10% OF PROJECT LENGTH. SUSPECTED AREA IS FROM STA 10+85 TO STA 107+55.

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ASPHALT PAVEMENT ITEMS					
STATION - STATION	LOCATION	THICKNESS INCH	455.0605	460.4110.S	460.5224
			TACK COAT	REHEATING HMA PAVEMENT LONGITUDINAL JOINTS	HMA PAVEMENT 4 LT 58-28 S
10+85.00 - 107+54.96	MAINLINE	3.5	3,574	9,670	5,047
107+54.96 - 170+00.00	MAINLINE	2	1,148	6,245	1,852
170+00.00 - 172+00.00	MAINLINE	4.5	94	200	170
172+00.00 - 244+80.00	MAINLINE	2	1,204	7,250	1,944
244+80.00 - 255+20.00	MAINLINE	4.5	412	1,100	746
255+20.00 - 275+63.04	MAINLINE	2	320	2,013	517
275+63.04 - 286+92.32	MAINLINE	2	264	1,129	426
286+47.24 - 295+91.00	MAINLINE	2	181	744	291
205+75.20 - 210+30.53	SHOULDER RT	4.5	24	---	41
214+59.53 - 221+25.86	SHOULDER RT	4.5	34	---	59
225+00.00 - 230+81.86	SHOULDER RT	4.5	30	---	52
235+00.00 - 241+29.67	SHOULDER RT	4.5	30	---	55
285+28.34 - 290+53.07	SHOULDER	4.5	16	---	28
UNDISTRIBUTED	14 PIPE REPLACEMENT	4.5	556	1,400	1,008
10+85.00 - 295+91.00	EXTRA FOR EBS AREAS	---	1,066	---	430
TOTAL PROJECT 5098-00-72			8,953	29,751	12,666

NOTE: TACK COAT CALCULATED AT 0.07 GALLONS PER SQUARE YARD FOR BOTH LAYERS
EBS QUANTITY IS BASED ON 10% OF PROJECT LENGTH. SUSPECTED AREA IS FROM STA 10+85 TO STA 107+55

MASONRY ENDWALLS			
STATION	LOCATION	504.0900	SPV.0060.07
		CONCRETE MASONRY ENDWALLS CY	CONSTRUCTION STAKING MASONRY ENDWALL EACH
171+03.6	LT	15	1
171+16.6	RT	15	1
TOTAL PROJECT 5098-00-72		30	2

RIPRAP ITEMS					
STATION	LOCATION	606.0100	606.0200	606.0300	645.0120
		RIPRAP LIGHT CY	RIPRAP MEDIUM CY	RIPRAP HEAVY CY	GEOTEXTILE TYPE HR SY
26+62	RT	---	6	---	---
171+04	LT	---	---	41	97
171+17	RT	---	---	58	127
186+50	RT	---	3	---	---
200+58	RT	---	---	2	7
206+28	RT	---	---	9	23
206+90 - 207+12	RT	---	3	---	---
207+73 - 208+23	RT	---	7	---	---
211+12	RT	---	4	---	---
215+75 - 216+23	RT	---	7	---	---
216+32	RT	---	4	---	---
217+68 - 218+39	RT	---	15	---	---
226+62	RT	---	12	---	---
227+86 - 229+00	RT	---	12	---	---
232+00	RT	---	3	---	---
233+43	RT	---	5	---	---
237+23 - 239+50	RT	---	60	---	---
239+25	RT	---	3	---	---
248+38	RT	---	7	---	---
288+61 - 289+50	LT	80	---	---	---
TOTAL PROJECT 5098-00-72		80	151	110	255

** ADDITIONAL QUANTITIES LISTED ELSEWHERE

CULVERT SUMMARY													
STATION	LOCATION	MINIMUM THICKNESS		521.1235	525.0424	525.0430	525.0448	528.0196	529.0124	529.0130	529.0335	**	650.6000
		STEEL INCHES	ALUMINUM INCHES	APRON ENDWALLS FOR CULVERT PIPE ARCH STEEL 35X24-INCH EACH	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 24-INCH EACH	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 30-INCH EACH	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 48-INCH EACH	CULVERT PIPE CORRUGATED STEEL POLYMER COATED 96-INCH LF	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED 24-INCH LF	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED 30-INCH LF	PIPE ARCH CORRUGATED STEEL ALUMINUM COATED 35X24-INCH LF	633.5200 MARKERS CULVERT END EACH	CONSTRUCTION STAKING PIPE CULVERTS EACH
11+26	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
11+43	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
12+54	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
26+62	LT & RT	0.079	0.075	---	---	2	---	---	---	---	---	2	---
43+34	CROSS	0.064	0.075	---	2	---	---	---	64	---	---	2	1
66+03	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
70+73	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
85+80	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
100+55	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
124+60	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
141+02	CROSS	0.064	0.075	---	2	---	---	---	44	---	---	2	1
143+98	LT	0.064	0.075	---	1	---	---	---	---	---	---	2	---
146+55	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
157+23	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
171+10	CROSS	0.109	0.10	---	---	---	---	82	---	---	---	2	1
186+50	LT & RT	0.109	0.105	---	---	---	2	---	---	---	---	2	---
187+98	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
197+27	CROSS	0.079	0.075	---	---	2	---	---	---	42	---	2	1
200+58	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
206+28	CROSS	0.064	0.075	---	2	---	---	---	62	---	---	2	1
211+12	CROSS	0.079	0.075	---	---	2	---	---	---	54	---	2	1
212+68	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
216+32	RT	0.064	0.075	---	1	---	---	---	---	---	---	2	---
224+38	CROSS	0.064	0.075	---	2	---	---	---	52	---	---	2	1
233+43	CROSS	0.064	0.075	---	2	---	---	---	52	---	---	2	1
248+38	CROSS	0.064	0.075	---	2	---	---	---	62	---	---	2	1
260+89	CROSS	0.064	0.075	---	2	---	---	---	50	---	---	2	1
262+20	CROSS	0.079	0.075	2	---	---	---	---	---	---	68	2	1
267+05	CROSS	0.064	0.075	---	2	---	---	---	38	---	---	2	1
290+18	LT & RT	---	---	---	---	---	---	---	---	---	---	2	---
TOTAL PROJECT 5098-00-72				2	18	4	2	82	424	96	68	52	12

**ADDITIONAL QUANTITIES LISTED ELSEWHERE

REINFORCED CONCRETE PIPE & INLET SUMMARY													
STATION	LOCATION	GRATE	INV	DEPTH	522.1024	608.0324	608.0424	611.0642	611.3901	**	650.4000	SPV.0060.01	***
					APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	INLET COVERS TYPE MS EACH	INLETS MEDIAN 1 GRATE EACH	633.5200 MARKERS CULVERT END EACH	CONSTRUCTION STAKING STORM SEWER EACH	GRADING AND SHAPING AT INLETS EACH	PIPE JOINT TIES EACH
226+55	26.85' LT	871.15	867.89	3.26	—	—	54	1	1	—	1	1	—
226+68	24.13' RT	—	866.95	—	1	—	—	—	—	1	—	—	6
232+00	26.62' LT	866.75	863.85	2.9	—	—	57	1	1	—	1	1	—
232+00	29.11' RT	—	863.57	—	1	—	—	—	—	1	—	—	6
239+24	24.32' LT	869.39	865.25	4.14	—	50	—	1	1	—	1	1	—
239+24	24.63' RT	—	862.78	—	1	—	—	—	—	1	—	—	6
TOTAL PROJECT 5098-00-72					3	50	111	3	3	3	3	3	18

** ADDITIONAL QUANTITIES LISTED ELSEWHERE
*** NON-BID ITEM, FOR INFORMATION ONLY
NOTE: TIE THE LAST THREE SECTIONS OF PIPE AND APRON ENDWALL
NOTE: SEE DETAILS ON THE "PLAN SHEETS" AND "CROSS SECTIONS"

ROADWAY BARRIER ITEMS									
STATION - STATION	LOCATION	614.0200	614.0305	614.0345	614.0370	614.0390	614.2300	614.2330	614.2610
		STEEL THRIE BEAM STRUCTURE APPROACH LF	STEEL PLATE BEAM GUARD CLASS A LF	STEEL PLATE BEAM GUARD SHORT RADIUS LF	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL EACH	MGS GUARDRAIL 3 LF	MGS GUARDRAIL 3 K LF	MGS GUARDRAIL TERMINAL EAT EACH
205+57 - 210+50**	RT	—	—	—	—	—	—	362.5	2
214+42 - 221+43	RT	—	—	—	—	—	—	575	2
224+81 - 231+00	RT	—	—	—	—	—	125	362.5	2
234+81 - 241+48	RT	—	—	—	—	—	150	375	2
285+28 - 286+84	RT	18.75	87.5	—	1	—	—	—	—
286+92 - 287+28	LT	18.75	—	25	—	1	—	—	—
288+16 - 289+22	RT	18.75	37.5	—	1	—	—	—	—
288+59 - 290+53	LT	18.75	125	—	1	—	—	—	—
TOTAL PROJECT 5098-00-72		75	250	25	3	1	275.0	1675.0	8

**USE STANDARD POST SPACING OVER THE CULVERT AT STATION 206+34.61 TO AVOID THE CULVERT.

SALVAGED RAIL		
STATION	LOCATION	614.0920 LF
205+99 - 209+71	RT	375
215+16 - 219+61	RT	462.5
225+75 - 230+36	RT	462.5
236+70 - 240+92	RT	412.5
285+35 - 286+78	RT	150
286+92 - 287+09	LT	57.5
288+22 - 289+22	RT	100
288+66 - 289+89	LT	125
TOTAL		2145

SAFETY FENCE			
STATION	LOCATION	REMARKS	616.0700.S LF
92+66	LT	HEIGHT MOD STATION	40
189+00	LT	HEIGHT MOD STATION	40
287+20	LT	HEIGHT MOD STATION	40
TOTAL			120

RESTORATION ITEMS							
STATION - STATION	LOCATION	625.0500	627.0200	628.6510	629.0210	630.0120	630.0200
		SALVAGED TOPSOIL SY	MULCHING SY	SOIL STABILIZER TYPE B ACRE	FERTILIZER TYPE B CWT	SEEDING MIXTURE #20 LB	SEEDING TEMPORARY LB
170+00 - 172+00	LT	342	285	—	0.3	12	8
170+00 - 172+00	RT	397	326	—	0.3	14	9
205+57 - 210+50	RT	45	3	—	0.1	6	4
214+42- 221+43	RT	102	58	—	0.2	11	7
224+81 - 231+00	RT	104	20	—	0.2	10	7
226+15 - 227+05	LT	154	154	—	0.1	4	3
231+49 - 233+00	LT	253	253	—	0.2	7	5
234+81 - 241+48	RT	42	22	—	0.2	8	5
238+53 - 241+56	LT	512	512	—	0.3	14	9
245+00 - 255+00	RT & LT	111	111	—	0.3	12	8
283+85 - 287+00	RT	311	37	—	0.3	11	8
286+68 - 287+35	LT	8	8	—	0.1	1	0
288+00 - 289+22	RT	119	—	—	0.1	5	3
288+60 - 291+85	LT	328	59	—	0.3	13	9
UNDISTRUBUTED	14 PIPES	622	622	—	0.4	17	11
UNDISTRUBUTED		690	494	0.22	0.7	29	19
TOTAL PROJECT 5098-00-72		4,141	2,964	0.22	4.1	173	115

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EROSION CONTROL ITEMS								
		628.1104 EROSION BALES	628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.2004 EROSION MAT CLASS I TYPE B	628.2008 EROSION MAT URBAN CLASS I TYPE B	628.7504 TEMPORARY DITCH CHECKS	628.7555 CULVERT* PIPE CHECKS
STATION - STATION	LOCATION	EACH	LF	LF	SY	SY	LF	EACH
26+62	LT	—	—	—	11	—	—	5
43+34	LT & RT	—	—	—	10	—	—	3
141+02	LT & RT	—	—	—	13	—	—	3
143+98	LT	—	—	—	13	—	—	3
170+00 - 172+00	LT	—	200	200	—	57	—	—
170+00 - 172+00	RT	—	215	215	—	71	—	—
186+50	LT	—	—	—	10	—	—	10
197+27	LT & RT	—	—	—	18	—	—	5
200+58	LT	—	—	—	9	—	—	3
205+57 - 210+50	RT	—	510	510	71	—	—	—
206+28	LT	—	—	—	13	—	—	3
211+12	LT	—	—	—	18	—	—	5
214+42 - 221+43	RT	—	735	735	—	41	—	—
224+38	LT & RT	—	—	—	6	—	—	3
226+16 - 227+05	LT	—	—	—	76	—	—	—
224+81 - 231+00	RT	—	640	640	—	75	—	—
231+50 - 233+00	LT	—	—	—	127	—	—	—
233+43	LT	—	—	—	9	—	—	3
234+81 - 241+48	RT	—	665	665	2	5	—	—
238+50 - 241+50	LT	—	—	—	266	—	—	—
248+38	LT	—	—	—	13	—	—	3
260+89	LT & RT	—	—	—	20	—	—	3
262+20	LT & RT	—	—	—	33	—	—	7
267+05	LT & RT	—	—	—	21	—	—	3
283+85 - 287+00	RT	—	340	340	370	—	—	—
286+68 - 287+35	LT	—	70	70	—	—	—	—
288+00 - 289+22	RT	—	145	145	115	—	—	—
288+60 - 291+85	LT	—	365	365	—	—	—	—
UNDISTRIBUTED		75	971	971	311	—	300	16
TOTAL PROJECT 5098-00-72		75	4,856	4,856	1,555	249	300	78

* BAG IS 18" X 12" X 6"

MOBILIZATION EROSION CONTROL		
LOCATION	628.1905	628.1910
	MOBILIZATION EROSION CONTROL	MOBILIZATION EMERGENCY EROSION CONTROL
		EACH
5098-00-72		3
TOTAL PROJECT 5098-00-72		3

INLET PROTECTION			
STATION - STATION	LOCATION	628.7005	628.7010
		INLET PROTECTION TYPE A	INLET PROTECTION TYPE B
		EACH	EACH
226+67	LT	1	1
232+00	LT	1	1
239+25	LT	1	1
TOTAL PROJECT 5098-00-72		3	3

RIGHT OF WAY MARKER POSTS			
STATION	LOCATION	R/W POINT NO.	633.5100 MARKERS ROW EACH
170+00.00	33.00' LT	101	1
170+85.00	65.00' LT	102	1
171+25.00	65.00' LT	103	1
172+10.00	33.00' LT	104	1
172+10.00	33.00' RT	106	1
171+75.00	65.00' RT	107	1
170+75.00	65.00' RT	108	1
169+75.00	33.00' RT	109	1
203+76.23	33.00' LT	119	1
203+91.84	33.00' LT	120	1
205+07.80	33.00' LT	121	1
206+99.65	32.63' LT	122	1
207+96.52	32.50' LT	123	1
209+17.42	33.84' LT	124	1
210+95.00	29.10' LT	125	1
211+05.00	45.00' LT	126	1
211+20.00	45.00' LT	127	1
211+30.04	29.13' LT	128	1
212+77.09	33.00' LT	129	1
215+64.85	33.69' LT	130	1
217+80.59	33.00' LT	131	1
217+86.67	33.00' LT	132	1
217+83.30	33.00' RT	133	1
217+80.59	33.00' RT	134	1
215+64.43	32.31' RT	135	1
212+77.30	33.00' RT	136	1
209+18.15	32.16' RT	137	1
207+97.25	33.49' RT	138	1
207+97.07	33.50' RT	139	1
206+75.00	33.33' RT	140	1
206+60.00	60.00' RT	141	1
206+40.00	60.00' RT	142	1
206+10.00	33.21' RT	143	1
205+07.66	33.00' RT	144	1
203+88.75	33.00' RT	145	1
219+56.61	33.00' LT	151	1
221+13.18	33.00' LT	152	1
226+13.07	33.00' LT	153	1
228+24.24	33.00' LT	154	1
230+45.11	33.00' LT	155	1
230+59.72	33.00' LT	156	1
233+68.35	33.00' LT	157	1
232+79.76	33.00' RT	158	1
230+59.72	33.00' RT	159	1
230+45.11	33.00' RT	160	1
228+24.24	33.00' RT	161	1
226+90.00	33.00' RT	162	1
226+80.00	45.00' RT	163	1
226+65.00	45.00' RT	164	1
226+55.00	33.00' RT	165	1
226+13.07	33.00' RT	166	1
221+13.18	33.00' RT	167	1
219+56.65	33.00' RT	168	1
234+60.06	33.00' LT	176	1
236+90.26	33.00' LT	177	1
240+68.80	33.00' LT	178	1
242+18.21	33.00' LT	179	1
249+28.01	37.25' LT	180	1
249+51.01	37.33' LT	181	1
250+07.20	28.93' RT	182	1
249+28.41	28.75' RT	183	1
248+60.00	29.17' RT	184	1
248+50.00	50.00' RT	185	1
248+30.00	50.00' RT	186	1
248+20.00	29.41' RT	187	1
242+18.21	33.00' RT	188	1
240+68.80	33.00' RT	189	1
239+40.00	33.00' RT	190	1
239+35.00	40.00' RT	191	1
239+15.00	40.00' RT	192	1

CONTINUED FROM PREVIOUS COLUMN			
RIGHT OF WAY MARKER POSTS			633.5100 MARKERS ROW EACH
STATION	LOCATION	R/W POINT NO.	
239+09.98	33.00' RT	193	1
236+90.29	33.00' RT	194	1
234+60.06	33.00' RT	195	1
233+60.35	33.00' RT	196	1
233+50.00	45.00' RT	197	1
233+30.00	45.00' RT	198	1
233+20.00	33.00' RT	199	1
251+79.67	32.15' LT	206	1
254+06.46	29.91' LT	207	1
254+16.75	30.20' LT	208	1
260+73.32	34.00' LT	209	1
262+24.05	35.01' LT	210	1
262+04.00	63.54' RT	211	1
261+85.00	45.00' RT	212	1
260+75.00	45.00' RT	213	1
260+65.00	32.02' RT	214	1
254+18.74	35.77' RT	215	1
253+11.88	37.18' RT	216	1
251+76.60	33.78' RT	217	1
TOTAL PROJECT 5098-00-72			89

PERMANENT SIGNING									
SIGN NO.	STATION	SIGN CODE	SIGN SIZE IN X IN		637.2210 SIGNS TYPE II	637.2230 SIGNS TYPE II	634.0614 4X6 INCH 14 FT	634.0616 4X6 INCH 16 FT	MESSAGE
					REFLECTIVE H SF	REFLECTIVE F SF	EACH	EACH	
1-01	10+63	R1-1	36	X	36	7.46	—	1	STOP
1-02	10+63	J3-3	72	X	57	28.5	—	2	DIRECTIONAL ASSEMBLY
1-03	11+13	J4-1	24	X	36	6	—	1	ROUTE ASSEMBLY
1-04	13+00	I55-56	30	X	36	7.5	—	1	ROTARY CLUB OF REEDSBURG
1-05	15+00	D1-2	72	X	30	15	2	—	LOGANVILLE / REEDSBURG
1-06	15+00	R2-1	24	X	30	5	1	—	SPEED LIMIT 55 MPH
1-07	17+00	D2-1	90	X	15	9.375	2	—	ROCK SPRINGS 6 MILES
1-08	17+00	J2-3	72	X	57	28.5	—	2	ROUTE TURN ASSEMBLY
1-09	19+50	W3-1	36	X	36	—	9	—	STOP AHEAD
1-10	22+00	J1-1	24	X	39	6.5	—	1	JUNCTION
1-11	31+35	W1-1R	36	X	36	—	9	1	CURVE RIGHT
1-12	33+33	W13-1	24	X	24	—	4	—	25 MPH
		J1-1	24	X	39	6.5	—	1	JCT CTH CH
		W1-8	18	X	24	—	3	—	CHEVRON
1-13	35+53	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-14	36+21	W1-8	18	X	24	—	3	1	CHEVRON
1-15	37+00	W1-8	18	X	24	—	3	—	CHEVRON
		W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-16	37+75	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-17	38+47	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-18	39+25	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-19	40+60	W1-1L	36	X	36	—	9	1	CURVE LEFT
1-20	41+75	W13-1	24	X	24	—	4	—	10 MPH
		W1-1L	36	X	36	—	9	1	CURVE LEFT
		W13-1	24	X	24	—	4	—	25 MPH
1-21	42+34	J3-2	48	X	57	19	—	1	DIRECTIONAL ASSEMBLY
1-22	42+60	W1-7	48	X	24	—	8	1	DOUBLE ARROW
1-23	42+32	J3-2	48	X	57	19	—	1	DIRECTIONAL ASSEMBLY
1-24	43+34	R1-1	36	X	36	5.18	—	1	STOP
		R1-10P	24	X	18	3	—	—	EXCEPT RIGHT TURN
		R1-1	30	X	30	5.18	1	—	STOP
1-27	43+57	J13-1	24	X	45	7.5	—	1	DIRECTIONAL ASSEMBLY
1-28	43+10	J1-2	48	X	39	13	—	1	JUNCTION
1-29	43+63	W1-6	48	X	24	—	8	1	ARROW
1-30	47+05	W1-4L	30	X	30	—	6.25	1	CURVES
		W13-1	18	X	18	—	2.25	—	35 MPH
1-31	47+72	J12-1	24	X	57	9.5	—	1	ROUTE TURN ASSEMBLY
1-32	52+93	J1-1	24	X	39	6.5	—	1	JCT CTH CH
1-33	50+30	W3-1	36	X	36	—	9	1	STOP AHEAD
1-34	51+00	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-35	52+25	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-36	50+00	W11-6	30	X	30	—	6.25	1	SNOWMOBLIE CROSSING
1-37	53+50	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-38	54+75	W1-8	18	X	24	—	3	1	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
		W1-8	18	X	24	—	3	1	CHEVRON
1-39	56+00	W1-8	18	X	24	—	3	—	CHEVRON
		W1-8	18	X	24	—	3	—	CHEVRON
1-40	60+15	W1-6	48	X	24	—	8	1	ARROW
1-41	63+40	W1-6	48	X	24	—	8	1	ARROW
1-42	67+40	W1-4L	30	X	30	—	6.25	1	CURVES
		W13-1	18	X	18	—	2.25	—	35 MPH
		W11-6	30	X	30	—	6.25	1	SNOWMOBLIE CROSSING
2-01	85+90	R1-1	30	X	30	5.18	—	1	STOP
2-02	86+65	W14-3	48	X	36	—	6	1	NO PASSING ZONE
2-03	103+90	W1-5R	30	X	30	—	6.25	1	CURVES
		W13-1	18	X	18	—	2.25	—	40 MPH
		W14-3	48	X	36	—	6	1	NO PASSING ZONE
2-05	107+35	R1-1	30	X	30	5.18	—	1	STOP
2-06	108+25	W1-6	48	X	24	—	8	1	ARROW
2-07	111+35	W1-6	48	X	24	—	8	1	ARROW
2-08	114+90	W2-2	30	X	30	—	6.25	1	INTERSECTION
2-09	116+95	W1-6	48	X	24	—	8	1	ARROW
2-10	120+15	W1-6	48	X	24	—	8	1	ARROW

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CONTINUED FROM PREVIOUS PAGE										
PERMANENT SIGNING										
SIGN NO.	STATION	SIGN CODE	SIGN SIZE IN X IN			637.2210	637.2230	634.0614	634.0616	MESSAGE
						SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	4X6 INCH 14 FT EACH	4X6 INCH 16 FT EACH	
2-11	127+05	W1-6	48	X	24	---	8	1	---	ARROW
2-12	131+10	W1-6	48	X	24	---	8	1	---	ARROW
2-13	136+00	W1-2R	30	X	30	---	6.25	---	1	CURVE
		W13-1	18	X	18	---	2.25	---	---	40 MPH
2-14	136+00	W1-5L	30	X	30	---	6.25	---	1	CURVE
		W13-1	18	X	18	---	2.25	---	---	40 MPH
2-15	139+00	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-01	140+10	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-02	141+25	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-03	142+35	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-04	143+50	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-05	144+65	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-06	145+75	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-07	146+90	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
3-08	151+00	W1-2L	30	X	30	---	6.25	---	1	CURVE
		W13-1	18	X	18	---	2.25	---	---	40 MPH
3-09	166+70	W14-3	48	X	36	---	6	---	1	NO PASSING ZONE
3-10	167+45	W14-3	48	X	36	---	6	---	1	NO PASSING ZONE
3-11	168+30	R1-1	30	X	30	5.18	---	1	---	STOP
3-12	168+65	R1-1	30	X	30	5.18	---	1	---	STOP
3-13	183+55	W1-2R	30	X	30	---	6.25	---	1	CURVE
		W13-1	18	X	18	---	2.25	---	---	50 MPH
3-14	187+60	R1-1	30	X	30	5.18	---	1	---	STOP
3-15	197+28	R1-1	30	X	30	5.18	---	1	---	STOP
4-01	203+28	W1-5L	36	X	36	---	9	---	1	CURVES
		W13-1	24	X	24	---	4	---	---	30 MPH
4-03	230+30	W1-2L	30	X	30	---	6.25	---	1	CURVE
		W13-1	18	X	18	---	2.25	---	---	50 MPH
4-04	205+28	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-05	206+03	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-06	206+78	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-07	207+50	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-08	209+85	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-09	210+60	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-10	211+35	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-11	212+10	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-12	213+55	D5-61	48	X	24	8	---	1	---	WAYSIDE 1/2 MILE
4-15	216+75	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-16	217+50	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-17	218+25	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-18	219+00	W1-8	18	X	24	---	3	1	---	CHEVRON

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PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

MISCELLANEOUS QUANTITIES

SHEET

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E

CONTINUED FROM PREVIOUS PAGE

PERMANENT SIGNING										
SIGN NO.	STATION	SIGN CODE	SIGN SIZE IN X IN			637.2210	637.2230	634.0614	634.0616	MESSAGE
						SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	4X6 INCH 14 FT EACH	4X6 INCH 16 FT EACH	
4-19	219+75	W1-8	18	X	24	---	3	---	---	CHEVRON
		W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-20	223+70	W1-6	48	X	24	---	8	1	---	ARROW
4-21	224+17	D5-62-L	48	X	24	8	---	1	---	WAYSIDE
4-22	224+21	W1-6	48	X	24	---	8	1	---	ARROW
4-23	224+55	R1-1	30	X	30	5.18	---	1	---	STOP
4-24	225+20	R1-1	30	X	30	5.18	---	1	---	STOP
4-25	226+05	D5-62-R	48	X	24	8	---	1	---	WAYSIDE
4-26	228+35	W1-8	18	X	24	---	3	1	---	CHEVRON
4-27	229+15	W1-8	18	X	24	---	3	---	---	CHEVRON
		W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-28	229+90	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-29	230+75	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-30	231+55	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-31	232+45	W1-8	18	X	24	---	3	1	---	CHEVRON
		W1-8	18	X	24	---	3	---	---	CHEVRON
4-32	236+28	W1-8	18	X	24	---	3	---	---	CHEVRON
		W1-5R	36	X	36	---	9	---	1	CURVES
		W13-1	24	X	24	---	4	---	---	30 MPH
4-33	250+00	D5-61	48	X	24	8	---	1	---	WAYSIDE 1/2 MILE
4-34	253+92	W1-2R	30	X	30	---	6.25	---	1	CURVE
4-35	259+00	W1-2L	30	X	30	---	6.25	---	1	CURVE
		W13-1	18	X	18	---	2.25	---	---	40 MPH
5-01	262+36	R1-1	30	X	30	5.18	---	1	---	STOP
5-02	262+73	R1-1	30	X	30	5.18	---	1	---	STOP
5-03	264+00	W1-6	48	X	24	---	8	1	---	ARROW
5-04	272+90	W2-1	30	X	30	---	6.25	---	1	INTERSECTION
5-05	276+40	W1-2R	30	X	30	---	6.25	---	1	CURVE
		W13-1	18	X	18	---	2.25	---	---	45 MPH
5-06	280+05	J1-1	24	X	39	6.5	---	---	1	JUNCTION
5-07	286+35	J4-1	24	X	36	6	---	---	1	REASSURANCE ASSEMBLY
5-08	286+88	W3-5	36	X	36	---	9	---	1	REDUCE SPEED
5-09	289+15	J13-1	24	X	45	7.5	---	---	1	DIRECTIONAL ASSEMBLY
5-10	289+15	W14-3	48	X	36	---	6	---	---	NO PASSING ZONE
5-11	290+05	W1-7	48	X	24	---	8	1	---	DOUBLE ARROW
5-12	290+43	J13-1	24	X	45	7.5	---	---	1	DIRECTIONAL ASSEMBLY
5-13	289+55	J1-2	48	X	39	13	---	---	1	JUNCTION
5-14	290+27	R1-1	30	X	30	5.18	---	1	---	STOP
5-15	290+60	J13-1	24	X	45	7.5	---	---	1	DIRECTIONAL ASSEMBLY
5-16	292+27	J4-1	24	X	36	6	---	---	1	REASSURANCE ASSEMBLY
5-17	293+55	W11-5	30	X	30	---	6.25	---	1	FARM TRACTOR CROSSING
5-18	295+57	I2-3	90	X	24	15	---	2	---	ROCK SPRINGS POPULATION
5-19	295+55	W14-3	48	X	36	---	6	---	1	NO PASSING ZONE
TOTAL PROJECT 5098-00-72						366.175	590.5	76	51	

REMOVING SIGNS				
		638.2602 REMOVING SIGNS TYPE II	638.3000 REMOVING SMALL SIGN SUPPORTS	
SIGN NO.	STATION	EACH	EACH	MESSAGE
R1-01	10+63	1	1	STOP
R1-02	10+63	1	2	ROUTE ASSEMBLY
R1-03	11+13	1	1	ROUTE ASSEMBLY
R1-04	13+00	1	1	ADOPT-A-HIGHWAY
R1-05	15+00	1	2	LOGANVILLE / REEDSBURG
R1-07	17+00	1	2	ROCK SPRINGS 6 MILES
R1-08	20+40	1	2	ROUTE ASSEMBLY
R1-09	27+75	1	1	STOP AHEAD
R1-10	24+60	1	1	ROUTE ASSEMBLY
R1-11	31+35	1	1	CURVE RIGHT 30 MPH
R1-12	33+33	1	1	JCT CTH CH
R1-13	35+53	1	1	CHEVRON
R1-14	36+21	1	1	CHEVRON
R1-15	37+00	1	1	CHEVRON
R1-16	37+75	1	1	CHEVRON
R1-17	38+47	1	1	CHEVRON
R1-18	39+25	1	1	CHEVRON
R1-19	40+60	1	1	CURVE LEFT 15 MPH
R1-20	41+75	1	1	CURVE LEFT 30 MPH
R1-21	42+34	1	1	ROUTE ASSEMBLY
R1-22	42+60	1	1	DOUBLE ARROW & ROUTE ASSEMBLY
R1-24	43+34	1	1	STOP, EXCEPT RIGHT TURN
R1-25	42+95	1	1	ROUTE ASSEMBLY
R1-26	43+18	1	1	STOP
R1-27	43+57	1	1	ROUTE ASSEMBLY
R1-28	43+10	1	1	ROUTE ASSEMBLY
R1-30	44+45	1	1	CURVES 40 MPH
R1-31	47+72	1	1	ROUTE ASSEMBLY
R1-32	48+90	1	1	JCT CTH CH
R1-33	50+30	1	1	STOP AHEAD
R1-34	53+10	1	1	SNOWMOBLIE CROSSING
R1-35	72+63	1	1	CURVES 40 MPH
R1-36	70+60	1	1	SNOWMOBLIE CROSSING
R2-01	85+90	1	1	STOP
R2-02	86+65	1	1	NO PASSING ZONE
R2-03	97+60	1	1	CURVES 40 MPH
R2-04	100+30	1	1	NO PASSING ZONE
R2-05	107+35	1	1	STOP
R2-06	114+90	1	1	INTERSECTION
R2-07	120+95	1	1	CURVE 40 MPH
R2-08	125+35	1	1	CURVES 40 MPH
R2-09	133+85	1	1	CURVE 40 MPH
R2-10	138+38	1	1	CURVE 40 MPH
R3-01	154+65	1	1	CURVE 40 MPH
R3-02	166+70	1	1	NO PASSING ZONE
R3-03	167+45	1	1	NO PASSING ZONE
R3-04	168+30	1	1	STOP
R3-05	168+65	1	1	STOP
R3-06	178+25	1	1	CURVE 45 MPH
R3-07	187+60	1	1	STOP
R3-08	194+85	1	1	CURVES 30 MPH
R3-09	197+28	1	1	STOP
R4-01	205+28	1	1	CHEVRON
R4-02	206+03	1	1	CHEVRON
R4-03	206+78	1	1	CHEVRON
R4-04	207+50	1	1	CHEVRON
R4-05	209+85	1	1	CHEVRON
R4-06	210+60	1	1	CHEVRON
R4-07	211+35	1	1	CHEVRON
R4-08	212+10	1	1	CHEVRON
R4-09	213+55	1	1	WAYSIDE 1/2 MILE
R4-10	216+75	1	1	CHEVRON
R4-11	217+50	1	1	CHEVRON
R4-12	218+25	1	1	CHEVRON
R4-13	219+00	1	1	CHEVRON
R4-14	219+75	1	1	CHEVRON
R4-15	223+70	1	1	ARROW
R4-16	224+17	1	1	WAYSIDE
R4-17	224+21	1	1	ARROW
R4-18	224+55	1	1	STOP

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN					
REMOVING SIGNS					
SIGN NO.	STATION	638.2602	638.3000	EACH	MESSAGE
		REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS		
R4-19	225+20	1	1	1	STOP
R4-20	226+05	1	1	1	WAYSIDE
R4-21	228+35	1	1	1	CHEVRON
R4-22	229+15	1	1	1	CHEVRON
R4-23	229+90	1	1	1	CHEVRON
R4-24	230+75	1	1	1	CHEVRON
R4-25	231+55	1	1	1	CHEVRON
R4-26	232+45	1	1	1	CHEVRON
R4-27	237+25	1	1	1	CURVES 30 MPH
R4-28	245+10	1	1	1	CURVE 45 MPH
R4-29	250+00	1	1	1	WAYSIDE 1/2 MILE
R4-30	256+07	1	1	1	CURVE 40 MPH
R5-01	262+36	1	1	1	STOP
R5-02	262+73	1	1	1	STOP
R5-03	268+95	1	1	1	INTERSECTION
R5-04	274+90	1	1	1	CURVE
R5-05	278+72	1	1	1	CURVE 40 MPH
R5-06	278+95	1	1	1	ROUTE ASSEMBLY
R5-07	286+35	1	1	1	ROUTE ASSEMBLY
R5-08	286+88	1	1	1	REDUCE SPEED 30 MPH
R5-09	289+15	1	1	1	ROUTE ASSEMBLY
R5-10	289+15	1	0	1	NO PASSING ZONE
R5-11	290+43	1	1	1	ROUTE ASSEMBLY
R5-12	289+55	1	1	1	ROUTE ASSEMBLY
R5-13	290+27	1	1	1	STOP
R5-14	290+60	1	1	1	ROUTE ASSEMBLY
R5-15	291+80	1	1	1	ROUTE ASSEMBLY
R5-16	292+65	1	1	1	FARM TRACTOR CROSSING
R5-17	293+58	1	1	1	CURVE
R5-18	293+65	1	1	1	CURVE
R5-19	295+57	1	2	1	ROCK SPRINGS POPULATION
R5-20	295+55	1	1	1	NO PASSING ZONE
TOTAL PROJECT 5098-00-72		102	106		

TRAFFIC CONTROL ITEMS

LOCATION	DAYS	EACH	643.0300	643.0420	643.0705
			TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL WARNING LIGHTS TYPE A
STH 23 INTERSECTION	68	—	—	7	10
CTH CH INTERSECTION	68	—	—	8	7
GROTE HILL ROAD INTERSECTION	68	—	—	2	2
DUNSE ROAD INTERSECTION	68	—	—	2	2
GOLF COURSE ROAD INTERSECTION	68	—	—	4	4
BOX CULVERT REPLACEMENT	14	—	—	10	12
BUCKEYE ROAD INTERSECTIONS	68	—	—	4	4
HIGH LOW ROAD INTERSECTION	68	—	—	4	4
CTH D INTERSECTION	68	6	408	5	7
STH 136 NARROWS CREEK BRIDGE	68	—	—	3	2
STH 136 INTERSECTION	68	—	—	2	4
UNDISTRUBUTED	68	5	340	5	10
TOTAL PROJECT 5098-00-72			748	3,268	3,976

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TRAFFIC CONTROL SIGNS

		TRAFFIC CONTROL SIGNS	643.0900 TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL DETOUR SIGNS	643.3000 TRAFFIC CONTROL DETOUR SIGNS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	TRAFFIC CONTROL SIGNS PCMS	643.1050 TRAFFIC CONTROL SIGNS PCMS	
LOCATION	DAYS	EACH	DAYS	EACH	DAYS	EACH	EACH	DAYS	NOTES
STH 23/CTH CH INTERSECTION	7	—	—	—	—	—	1	7	
STH 23/CTH CH INTERSECTION	68	2	136	—	—	—	—	—	
STH 33/STH 23/GOLF COURSE RD INTERSECTION	68	2	136	—	—	—	—	—	
BUCKEYE ROAD/STH 136 INTERSECTION	68	2	136	—	—	—	—	—	
CTH D/GOLF COURSE ROAD INTERSECTION	68	2	136	—	—	—	—	—	
STH 23 INTERSECTION - DETAIL 1	68	3	204	17	1,156	4	—	—	
DETAIL 1 - NO CENTER LINE	31	7	217	—	—	—	—	—	
STH 23 & CTH K (WEST) INTERSECTION - DETAIL 2	68	—	—	6	408	—	—	—	
STH 23 & STH 33 INTERSECTION - DETAIL 2	68	—	—	29	1,972	—	—	—	
STH 23 & CTH K (NORTH) INTERSECTION - DETAIL 2	68	—	—	6	408	—	—	—	
STH 23 & CTH H INTERSECTION - DETAIL 2	68	—	—	6	408	—	—	—	
CTH CH INTERSECTION	68	4	272	—	—	—	—	—	
GROTE HILL ROAD INTERSECTION	68	3	204	—	—	—	—	—	
DUNSE ROAD INTERSECTION	68	3	204	—	—	—	—	—	
GOLF COURSE ROAD INTERSECTION	68	4	272	—	—	—	—	—	
GOLF COURSE ROAD INTERSECTION	31	2	62	—	—	—	—	—	BRIDGE OUT SIGNS
BOX CULVERT REPLACEMENT	68	2	136	—	—	—	—	—	
BUCKEYE ROAD INTERSECTIONS	68	4	272	—	—	—	—	—	
HIGH LOW ROAD INTERSECTION	68	4	272	—	—	—	—	—	
CTH D INTERSECTION - DETAIL 5	68	4	272	13	884	1	—	—	
STH 23 & STH 136 INTERSECTION - DETAIL 3	68	—	—	29	1,972	—	—	—	
STH 136 & BUCKEYE ROAD INTERSECTION - DETAIL 4	68	—	—	6	408	—	—	—	
STH 136 NARROWS CREEK BRIDGE - DETAIL 4	68	1	68	—	—	—	—	—	
STH 136 INTERSECTION - DETAIL 4	68	2	136	23	1,564	2	—	—	R10-61 (ROAD OPEN TO HWY D)
DETAIL 4 - NO CENTER LINE	31	6	186	—	—	—	—	—	
STH 154/CTH D INTERSECTION	7	—	—	—	—	—	1	7	
UNDISTRIBUTED	68	5	340	10	680	—	—	—	
TOTAL PROJECT 5098-00-72			3,661		9,860	7		14	

PAVEMENT MARKING

		646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH WHITE LF	REMARKS
STATION - STATION	LOCATION	LF	LF	LF	
10+85 - 42+60	CENTERLINE	—	6,350	—	NO PASSING
10+85 - 42+95	RT	3,220	—	—	
10+85 - 85+69	LT	7,485	—	—	
43+45	LT	—	—	14	
43+45 - 78+24	CENTERLINE	—	6,958	—	NO PASSING
43+25 - 106+21	RT	6,296	—	—	
78+24 - 86+76	CENTERLINE	—	1,066	—	EASTBOUND PASSING
86+76 - 100+28	CENTERLINE	—	338	—	PASSING BOTH DIRECTIONS
86+73 - 168+12	LT	8,140	—	—	
100+28 - 107+53	CENTERLINE	—	906	—	WESTBOUND PASSING
107+53 - 159+80	CENTERLINE	—	10,456	—	NO PASSING
107+50 - 168+24	RT	6,075	—	—	
159+80 - 166+65	CENTERLINE	—	856	—	EASTBOUND PASSING
166+65 - 167+64	CENTERLINE	—	200	—	NO PASSING
167+64 - 174+64	CENTERLINE	—	876	—	WESTBOUND PASSING
168+75 - 261+90	RT	9,315	—	—	
168+80 - 186+93	LT	1,815	—	—	
174+64 - 281+59	CENTERLINE	—	21,390	—	NO PASSING
187+81 - 197+28	LT	955	—	—	
199+02 - 262+41	LT	6,340	—	—	
262+90 - 289+34	RT	2,645	—	—	
263+05 - 295+91	LT	3,285	—	—	
281+59 - 289+68	CENTERLINE	—	1,012	—	EASTBOUND PASSING
289+68 - 295+57	CENTERLINE	—	148	—	PASSING BOTH DIRECTIONS
290+00	RT	—	—	16	
290+74 - 295+91	RT	525	—	—	
295+57 - 295+91	CENTERLINE	—	46	—	WESTBOUND PASSING
SUB-TOTALS		56,096	50,602	30	
TOTAL PROJECT 5098-00-72			106,698	30	

TRAFFIC CONTROL DETOUR

		643.2000 TRAFFIC CONTROL DETOUR 5098-00-72 EACH
LOCATION		
STH 154	STH 23/STH 33/STH 136	1
TOTAL PROJECT 5098-00-72		1

NO PASSING ZONES

	648.0100 LOCATING NO PASSING ZONES MI
STATION	
10+85 - 295+91	5.4
TOTAL PROJECT 5098-00-72	5.4

CONSTRUCTION STAKING

	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5098-00-72) LS	SPV.0090.01 CONSTRUCTION STAKING PROFILE REFERENCE LF
LOCATION				
PROJECT 5098-00-72	—	—	1	28,506
10+85 - 170+00	15,915	—	—	—
170+00 - 172+00	—	200	—	—
172+00 - 286+92	11,492	—	—	—
205+57 - 210+50	—	493	—	—
214+42 - 221+43	—	701	—	—
224+81 - 231+00	—	619	—	—
234+81 - 241+48	—	667	—	—
283+85 - 287+22	—	337	—	—
288+22 - 291+85	—	363	—	—
288+47 - 295+91	744	—	—	—
TOTAL PROJECT 5098-00-72	28,151	3,380	1	28,506

PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

MISCELLANEOUS QUANTITIES

SHEET

50

E

SAWING PAVEMENT ITEMS		
STATION	LOCATION	690.0150
		SAWING ASPHALT LF
10+85	MAINLINE	24
42+96	CTH CH INTERSECTION	65
86+00	GROTE HILL RD INTERSECTION	105
107+00	DUNSE RD INTERSECTION	130
168+50	GOLF COURSE RD INTERSECTION RT	55
168+50	GOLF COURSE RD INTERSECTION LT	85
170+00	MAINLINE	24
172+00	MAINLINE	24
187+00	BUCKEYE RD INTERSECTION	105
198+00	BUCKEYE RD INTERSECTION	180
244+50	MAINLINE	24
255+50	MAINLINE	24
262+50	HIGH LOW RD INTERSECTION RT	105
262+50	HIGH LOW RD INTERSECTION LT	65
289+33 - 291+73	CTH D INTERSECTION	250
295+91	MAINLINE	24
UNDISTRIBUTED	13 PIPE LOCATIONS	576
UNDISTRIBUTED	EBS LOCATIONS	192
TOTAL PROJECT 5098-00-72		2,057

FRICTION SURFACE TREATMENT

STATION	LOCATION	SPV.0180.01
		ASPHALTIC BINDER ENHANCED FRICTION SURFACE TREATMENT SY
205+00 - 212+60	MAINLINE	2,027
TOTAL PROJECT 5098-00-72		2,027

GRADING, SHAPING, AND FINISHING ENDWALLS

STATION	LOCATION	SPV.0060.02	SPV.0060.03	SPV.0060.04	SPV.0060.05	SPV.0060.06
		GRADING, SHAPING, AND FINISHING ENDWALLS STA 26+62 EACH	GRADING, SHAPING, AND FINISHING ENDWALLS STA 143+98 EACH	GRADING, SHAPING, AND FINISHING ENDWALLS STA 186+50 EACH	GRADING, SHAPING, AND FINISHING ENDWALLS STA 200+58 EACH	GRADING, SHAPING, AND FINISHING ENDWALLS STA 216+32 EACH
26+62	RT & LT	2	—	—	—	—
143+98	LT	—	1	—	—	—
186+50	RT & LT	—	—	2	—	—
200+58	RT	—	—	—	1	—
216+32	RT	—	—	—	—	1
TOTAL PROJECT 5098-00-72		2	1	2	1	1

RESTORATION ITEMS FOR INFORMATION ONLY

STATION - STATION	LOCATION	SALVAGED TOPSOIL	MULCHING	FERTILIZER TYPE B	SEEDING MIXTURE #20	SEEDING TEMPORARY
		SY	SY	CWT	LB	LB
26+62	RT & LT	22	22	0.0	0.6	0.4
143+98	LT	11	11	0.0	0.3	0.2
186+50	RT & LT	22	22	0.0	0.6	0.4
200+58	RT	11	11	0.0	0.3	0.2
216+32	RT	11	11	0.0	0.3	0.2
UNDISTRUBUTED		16	16	0.0	0.4	0.3
TOTAL PROJECT 5098-00-72		93	93	0.1	2.5	1.7

TRANSPORTATION PROJECT PLAT NO: 5098-00-22 - 4.01

STH 23 - ROCK SPRINGS (STH 23 TO VILLAGE LIMITS)

PART OF THE SOUTHWEST ¼ OF THE NORTHEAST ¼, AND THE NORTHWEST ¼ OF THE SOUTHEAST ¼, ALL BEING PART OF SECTION 25, TOWN 12 NORTH, RANGE 4 EAST, IN THE TOWN OF REEDSBURG, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER STH 154, SAUK COUNTY

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

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

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

EXISTING HIGHWAY RIGHT OF WAY BASED ON PLAT OF RIGHT OF WAY REQUIRED, STATE PROJECT NO. 11110

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
1	DAVID A. & DIANE M. GADE	FEE	0.09 AC.	0.19 AC.	0.28 AC.	---
2	CHARLES W. AYLSWORTH	FEE & TLE	0.12 AC.	0.14 AC.	0.26 AC.	0.02 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
100 - 101	N37°-07'-30"E	41.40'
101 - 102	N69°-20'-55"E	90.82'
102 - 103	N89°-58'-42"E	40.00'
103 - 104	S69°-23'-30"W	90.82'
104 - 105	S00°-01'-18"E	33.00'
105 - 106	S00°-01'-18"E	33.00'
106 - 107	S47°-32'-32"W	47.42'
107 - 108	S89°-58'-42"W	100.00'
108 - 109	N72°-16'-37"W	105.00'
109 - 100	N00°-01'-18"W	33.00'

R/W POINT TABLE		
PT. NO.	STATION	OFFSET
100	169+75.00	0.00' LT
101	170+00.00	33.00' LT
102	170+85.00	65.00' LT
103	171+25.00	65.00' LT
104	172+10.00	33.00' LT
105	172+10.00	0.00' LT
106	172+10.00	33.00' RT
107	171+75.00	65.00' RT
108	170+75.00	65.00' RT
109	169+75.00	33.00' RT

TLE POINT TABLE		
PT. NO.	STATION	OFFSET
500	170+75.00	75.00' RT
501	171+75.00	75.00' RT

DOCUMENT

ACCEPTED IN THE OFFICE OF THE REGISTER OF DEEDS IN SAUK COUNTY, WISCONSIN AT _____ ON _____, 2015. FILED IN _____

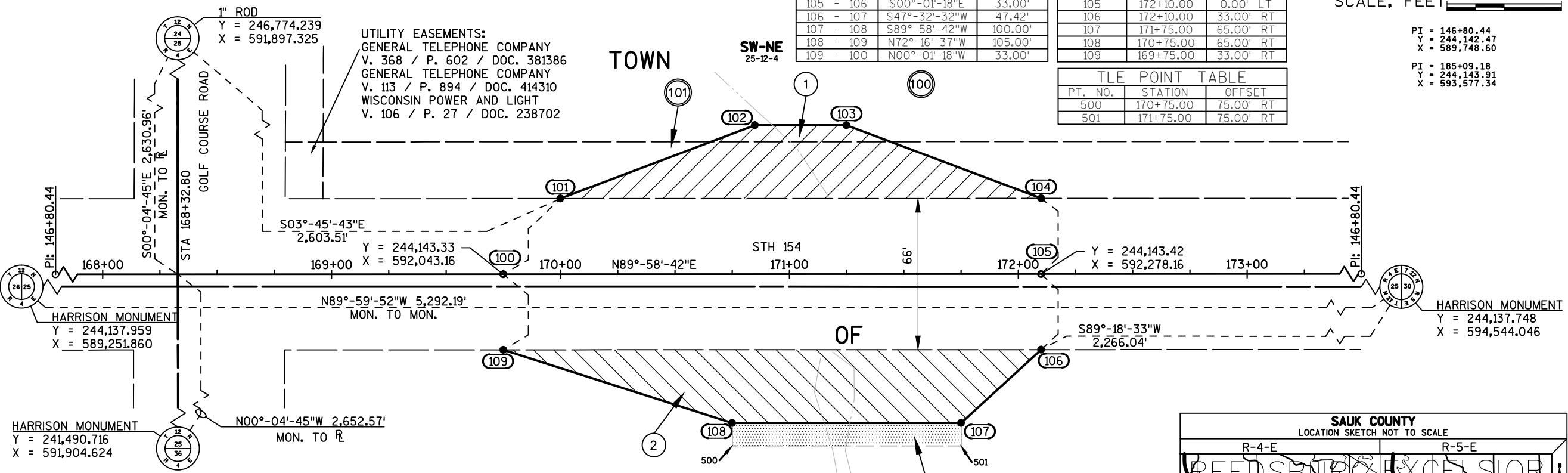
SIGNATURE OF THE REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS PROJECT NUMBER 5098-00-22 - 4.01

SCALE, FEET 0 25 50

PI = 146+80.44
Y = 244,142.47
X = 589,748.60

PI = 185+09.18
Y = 244,143.91
X = 593,577.34



CONVENTIONAL SYMBOLS AND ABBREVIATIONS

STATE, COUNTY, or TOWN LINE	ACCESS POINT/ DRIVEWAY CONNECTION	AP
SECTION LINE	ACCESS RIGHTS	AR
QUARTER LINE	ACRES	AC.
SIXTEENTH LINE	AND OTHERS	ET.AL.
PROPOSED REFERENCE LINE	CENTERLINE	C/L
PROPOSED R/W LINE	CERTIFIED SURVEY MAP	CSM
EXISTING H.E. LINE	DOCUMENT	DOC.
PROPERTY LINE	HIGHWAY EASEMENT	H.E.
EASEMENT LINE	LAND CONTRACT	LC
CORPORATE LIMITS	MONUMENT	MON.
EXISTING CENTERLINE	PAGE	P.
LOT & TIE LINES	PERMANENT LIMITED EASEMENT	PLE
UTILITIES	PROPERTY LINE	PL
(TELEPHONE, GAS, ELECTRIC, CABLE, T.V. CABLE, OPTIC FIBER)	RECORDED AS	R/L
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	REMAINING	REM.
NO ACCESS (BY ACQUISITION)	RIGHT-OF-WAY	R/W
NO ACCESS (BY STATUTORY AUTHORITY)	SECTION	SEC.
FEE (HATCH VARIES)	SQUARE FEET	SQ.FT.
TEMPORARY LIMITED EASEMENT	STATION	STA.
PERMANENT LIMITED EASEMENT	TEMPORARY LIMITED EASEMENT	TLE
PARCEL NUMBER	VOLUME	V.
UTILITY PARCEL NUMBER	CURVE DATA	
SIGN NUMBER (OFF PREMISE)	LONG CHORD	LCH
BUILDING	LONG CHORD BEARING	LCB
FOUND IRON PIPE/PIN (IF UNLESS NOTED) (TO BE SET)	RADIUS	R
R/W MONUMENT	DEGREE OF CURVE	D
R/W STANDARD	CENTRAL ANGLE OR DELTA	DELTA
ISIGN	LENGTH OF CURVE	L
SECTION CORNER SYMBOL	TANGENT	TAN
	NON COMPENSABLE	NON
	COMPENSABLE	COMPENSABLE
	POWER POLE	⊕
	TELEPHONE POLE	⊙
	TELEPHONE PEDESTAL	⊗

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS	INTEREST REQUIRED
100	WISCONSIN POWER AND LIGHT	RELEASE OF RIGHTS
101	GENERAL TELEPHONE COMPANY	RELEASE OF RIGHTS

NOTES:

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

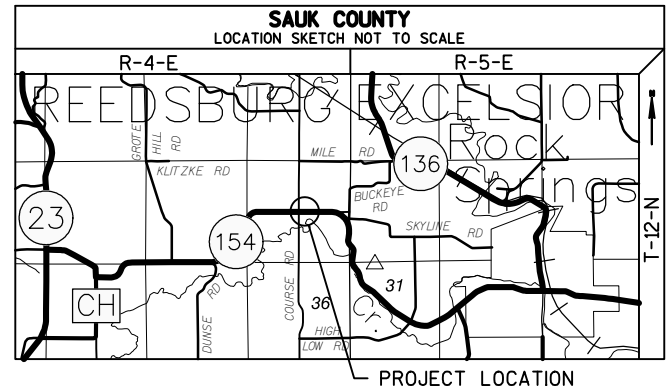
ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS). UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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



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1230 South Boulevard Baraboo, WI 53913
608-356-2771 • 1-800-362-4505 Fax: 608-356-2770
Web Address: www.msa-ps.com
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I, GREGORY P. RHINEHART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Gregory P. Rhinehart* DATE: 9/18/15
PRINT NAME: GREGORY P. RHINEHART
REGISTRATION NUMBER: S-1478

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

SIGNATURE: _____ DATE: _____
PRINT NAME: CORY SCHLAGEL

WISCONSIN
GREGORY P. RHINEHART
S-1478
LAND SURVEYOR

TRANSPORTATION PROJECT PLAT NO: 5098-00-22 - 4.02

STH 23 - ROCK SPRINGS (STH 23 TO VILLAGE LIMITS)

PART OF LOT 1 CSM NO. 4603 IN DOC. 770914, IN AND INCLUDING PART OF THE SOUTHWEST ¼ OF THE SOUTHWEST ¼ OF SECTION 30, TOWN 12 NORTH, RANGE 5 EAST, IN THE TOWN OF EXCELSIOR, ALSO PART OF THE SOUTHEAST ¼ OF THE SOUTHEAST ¼ OF SECTION 25, TOWN 12 NORTH, RANGE 4 EAST, IN THE TOWN OF REEDSBURG, ALL BEING IN SAUK COUNTY, WISCONSIN.

RELOCATION ORDER STH 154, SAUK COUNTY

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

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

EXISTING HIGHWAY RIGHT OF WAY BASED ON THE CENTERLINE OF EXISTING PAVEMENTS, FILED PLATS OF SURVEY, CERTIFIED SURVEY MAPS OF RECORDS, AND EXISTING IRONS LOCATED IN THE FIELD.

R/W POINT TABLE		
PT. NO.	STATION	OFFSET
119	203+76.23	33.00' LT
120	203+91.84	33.00' LT
121	205+07.80	33.00' LT
122	206+99.65	32.63' LT
123	207+96.52	32.50' LT
124	209+17.42	33.84' LT
125	210+95.00	29.10' LT
126	211+05.00	45.00' LT
127	211+20.00	45.00' LT
128	211+30.04	29.13' LT
129	212+77.09	33.00' LT
130	215+64.85	33.69' LT
131	217+80.59	33.00' LT
132	217+86.67	33.00' LT
133	217+83.30	33.00' RT
134	217+80.59	33.00' RT
135	215+64.43	32.31' RT
136	212+77.30	33.00' RT
137	209+18.15	32.16' RT
138	207+97.25	33.49' RT
139	207+97.07	33.50' RT
140	206+75.00	33.33' RT
141	206+60.00	60.00' RT
142	206+40.00	60.00' RT
143	206+10.00	33.21' RT
144	205+07.66	33.00' RT
145	203+88.75	33.00' RT

TLE POINT TABLE		
PT. NO.	STATION	OFFSET
510	216+20.00	32.62' RT
511	216+25.00	40.00' RT
512	216+45.00	40.00' RT
513	216+50.00	32.75' RT

NOTES:

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

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

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

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

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

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

PI = 206+61.15
Y = 242,549.71
X = 594,462.64
Δ = 52°51'23"
D = 18°28'57"
T = 154.08'
L = 285.98'
R = 310.00'
PC = 205+07.08
PT = 207+93.06

PI = 211+11.92
Y = 242,200.09
X = 594,781.13
Δ = 49°39'26"
D = 15°41'51"
T = 168.87'
L = 316.34'
R = 365.00'
PC = 209+43.05
PT = 212+59.38

PI = 216+66.70
Y = 241,628.60
X = 594,707.68
Δ = 09°26'31"
D = 04°08'13"
T = 114.40'
L = 228.28'
R = 1,385.00'
PC = 215+52.31
PT = 217+80.59

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
3	SCOTT & LISA SCHUETTE & DAVID SCHUETTE EDWARD & MARY SCHUETTE LIFE TENANTS RICHARD DENMAN & RACHEL SMITH	FEE	0.03 AC.	0.57 AC.	0.60 AC.	---
4	VILLAGE OF ROCK SPRINGS	FEE	0.01 AC.	0.69 AC.	0.70 AC.	---
6		TLE	---	---	---	0.01 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

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

GN

ACCEPTED FOR RECORDING AND FILING IN
THE OFFICE OF THE REGISTER OF DEEDS IN SAUK COUNTY, WISCONSIN

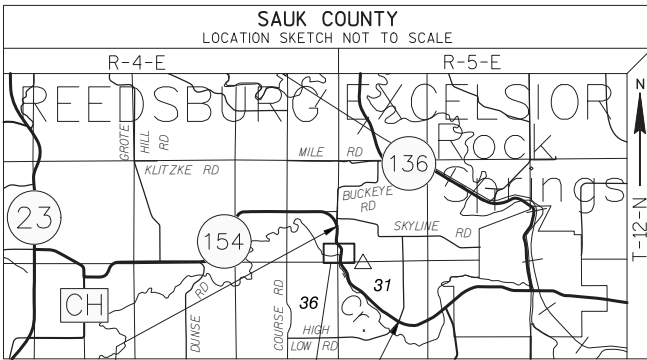
AT 10:30 A.M. ON MAY. 5, 2016 AS

DOCUMENT # 1129585
AND FILED IN D-291C

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5098-00-22 - 4.02

CONVENTIONAL SYMBOLS

SECTION CORNER	SECTION LINE	R/W MONUMENT
NOTATION FOR COMBUSTIBLE FLUIDS	QUARTER LINE	NON-MONUMENTED R/W POINT
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	SIXTEENTH LINE	FOUND IRON PIN
	NEW REFERENCE LINE	VALVE (GAS, WATER, ETC.)
	NEW R/W LINE	SIGN
	EXISTING R/W LINE	OFF-PREMISE SIGN
	PROPERTY LINE	
	LOT, TIE & OTHER MINOR LINES	
	CORPORATE LIMITS	
	UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	
	FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	
	TEMPORARY LIMITED EASEMENT AREA	
	EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	
	TRANSMISSION STRUCTURES	
	BUILDING	
	NATIONAL GEODETIC SURVEY MONUMENT	
	SIXTEENTH CORNER MONUMENT	



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Web Address: www.msa-ps.com
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I, GREGORY P. RHINEHART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Gregory P. Rhinehart* DATE: 4/28/16
PRINT NAME: GREGORY P. RHINEHART
REGISTRATION NUMBER: S-1478

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

SIGNATURE: *Cory Schlager* DATE: 4/28/16
PRINT NAME: CORY SCHLAGEL

TRANSPORTATION PROJECT PLAT NO: 5098-00-22 - 4.03

STH 23 - ROCK SPRINGS (STH 23 TO VILLAGE LIMITS)

PART OF THE NORTHWEST ¼ OF THE NORTHWEST ¼, BEING PART OF SECTION 31, TOWN 12 NORTH, RANGE 5 EAST, IN THE TOWN OF EXCELSIOR, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER STH 154, SAUK COUNTY

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

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

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

EXISTING HIGHWAY RIGHT OF WAY BASED ON THE CENTERLINE OF EXISTING PAVEMENTS, FILED PLATS OF SURVEY, CERTIFIED SURVEY MAPS OF RECORDS, AND EXISTING IRONS LOCATED IN THE FIELD.

R/W POINT TABLE		
PT. NO.	STATION	OFFSET
150	217+86.67	33.00' LT
151	219+56.61	33.00' LT
152	221+13.18	33.00' LT
153	226+13.07	33.00' LT
154	228+24.24	33.00' LT
155	230+45.11	33.00' LT
156	230+59.72	33.00' LT
157	233+68.35	33.00' LT
158	232+79.76	33.00' RT
159	230+59.72	33.00' RT
160	230+45.11	33.00' RT
161	228+24.24	33.00' RT
162	226+90.00	33.00' RT
163	226+80.00	45.00' RT
164	226+65.00	45.00' RT
165	226+55.00	33.00' RT
166	226+13.07	33.00' RT
167	221+13.18	33.00' RT
168	219+56.65	33.00' RT
169	217+83.30	33.00' RT

TLE POINT TABLE		
PT. NO.	STATION	OFFSET
520	231+85.00	33.00' RT
521	231+90.00	45.00' RT
522	232+10.00	45.00' RT
523	232+15.00	33.00' RT

NOTES:

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

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

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

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

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PI = 218+71.64 Y = 241,423.29 X = 594,715.28 Δ = 36°01'38" L D = 20°21'46" T = 91.05' L = 176.06' R = 280.00' PC = 217+80.59 PT = 219+56.65	PI = 229+37.09 Y = 240,465.84 X = 595,156.09 Δ = 28°58'45" L D = 13°07'13" T = 112.85' L = 220.88' R = 436.70' PC = 228+24.24 PT = 230+45.11
--	---

PI = 223+67.19 Y = 241,028.82 X = 595,025.10 Δ = 25°02'58" R D = 05°00'40" T = 254.00' L = 499.89' R = 1,143.40' PC = 221+13.18 PT = 226+13.07	PI = 232+61.42 Y = 240,221.52 X = 595,376.67 Δ = 17°18'41" L D = 04°19'27" T = 201.71' L = 400.34' R = 1,325.00' PC = 230+59.72 PT = 234+60.06
---	---

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
6	VILLAGE OF ROCK SPRINGS	FEE & TLE	0.01 AC.	1.92 AC.	1.93 AC.	0.01 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

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

GN

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN SAUK COUNTY, WISCONSIN

AT 10:30 A.M. ON MAY. 5, 2016 AS

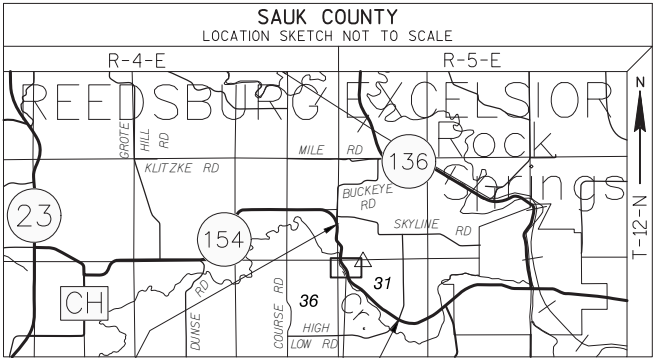
DOCUMENT # 1129585 AND FILED IN D-291D

RESERVED FOR REGISTER OF DEEDS PROJECT NUMBER 5098-00-22 - 4.03

SCALE, FEET 0 100 200

CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER		R/W MONUMENT	●
QUARTER LINE	---	NOTATION FOR COMBUSTABLE FLUIDS		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES		FOUND IRON PIN	IP
NEW REFERENCE LINE	---			VALVE (GAS, WATER, ETC.)	⊙ (TYPE)
NEW R/W LINE	---			SIGN	IP SIGN
EXISTING R/W LINE	---			OFF-PREMISE SIGN	
PROPERTY LINE	---				
LOT, TIE & OTHER MINOR LINES	---				
CORPORATE LIMITS	----				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	----				
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	----				
TEMPORARY LIMITED EASEMENT AREA	----				
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	----				
TRANSMISSION STRUCTURES	----				
BUILDING	----				
NATIONAL GEODETIC SURVEY MONUMENT	----				
SIXTEENTH CORNER MONUMENT	----				



STH 23 - ROCK SPRINGS (STH 23 TO VILLAGE LIMITS)

RELOCATION ORDER STH 154, SAUK COUNTY

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

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

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

EXISTING HIGHWAY RIGHT OF WAY BASED ON THE CENTERLINE OF EXISTING PAVEMENTS, FILED PLATS OF SURVEY, CERTIFIED SURVEY MAPS OF RECORDS, AND EXISTING IRONS LOCATED IN THE FIELD.

TLE POINT TABLE			
PT. NO.	STATION	OFFSET	
530	248+25.00	36.62'	LT
531	248+30.00	45.00'	LT
532	248+45.00	45.00'	LT
533	248+50.00	36.77'	LT

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
176 - 177	S59°-23'-17"E	230.21'
178 - 179	S41°-32'-15"E	149.41'
180 - 181	S50°-05'-53"E	22.82'
182 - 183	N50°-05'-53"W	79.27'
184 - 185	S66°-57'-41"W	23.14'
185 - 186	N48°-41'-12"W	20.21'
186 - 187	N15°-24'-01"E	22.93'
188 - 189	N41°-32'-15"W	149.41'
190 - 191	S76°-59'-10"W	8.52'
191 - 192	N48°-19'-07"W	19.34'
192 - 193	N06°-22'-36"E	8.52'
194 - 195	N59°-23'-17"W	230.21'
196 - 197	S75°-46'-48"W	15.81'
197 - 198	N54°-11'-48"W	20.68'
198 - 199	N04°-10'-23"W	15.81'

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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PI = 232+61.52	PI = 249+00.71
Y = 240,221.52	Y = 239,138.87
X = 595,376.67	X = 596,590.79
Δ = 17°18'41" L	Δ = 15°39'52"
D = 04°19'27"	D = 01°12'22"
T = 2,011.34	T = 653.40
L = 400.54'	L = 1,298.64'
R = 1,325.00'	R = 4,450.00'
PC = 230+59.72	PC = 247+47.32
PT = 234+60.06	PT = 255+45.96

PI = 238+81.08	
Y = 239,904.41	
X = 595,912.61	
Δ = 17°51'02" R	
D = 04°42'57"	
T = 190.81	
L = 378.53'	
R = 1,215.00'	
PC = 236+90.26	
PT = 240+68.80	

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
6	VILLAGE OF ROCK SPRINGS	FEE & TLE	0.02 AC.	2.51 AC.	2.53 AC.	0.01 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

GN

ACCEPTED FOR RECORDING AND
FILING IN
THE OFFICE OF THE REGISTER OF
DEEDS IN SAUK COUNTY, WISCONSIN

AT 10:30 A.M. ON MAY. 5, 2016 AS

DOCUMENT # 1129585
AND FILED IN D-291E

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5098-00-22 - 4.04

SCALE, FEET 

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER
MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY
(COMMUNICATIONS, ELECTRIC, ETC.)
FEE ACQUISITION AREA
(HATCHING VARIES BY OWNER)
TEMPORARY LIMITED
EASEMENT AREA
EASEMENT AREA (HIGHWAY,
PERMANENT LIMITED, OR
RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
NATIONAL GEODETIC SURVEY
SIXTEENTH CORNER MONUMENT

SECTION CORNER



NOTATION FOR COMBUSTABLE FLUIDS



NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES



CAUTION

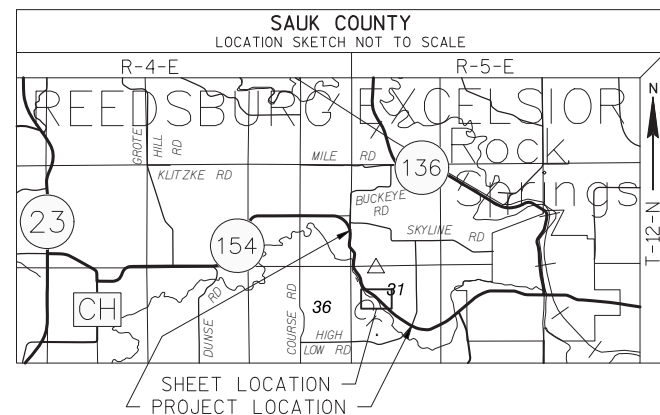
R/W MONUMENT ●
NON-MONUMENTED R/W POINT ○
FOUND IRON PIN IP
VALVE (GAS, WATER, ETC.) (TYPE)
SIGN
OFF-PREMISE SIGN

COMPENSABLE	NON-COMPENSABLE
	
	
	

ACCESS CONTROLLED BY ACQUISITION	
NO ACCESS (BY STATUTORY AUTHORITY)	
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	

PARCEL NUMBER (25)

UTILITY NUMBER (40)



MSA
PROTECTION/SURVIVAL

**TRANSPORTATION • MUNICIPAL
DEVELOPMENT • ENVIRONMENTAL**
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2771
Web Address: www.msa-ps.com
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I, GREGORY P. RHINEHART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: Gregory P. Rhinehart DATE: 4/28/16
PRINT NAME: GREGORY P. RHINEHART
REGISTRATION NUMBER: S-1478

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

SIGNATURE: Cory Schlager DATE: 4/28/16
PRINT NAME: CORY SCHLAGER

FILE NAME : P:\90S\93\00093248\CADD\RW\PRWAY.DWG

PLOT DATE : 4/28/2016 7:37 AM

PLOT BY : BRAD LEE

PLOT NAME :

PLOT SCALE : #####

5098-00-22 4.04

STH 23 - ROCK SPRINGS (STH 23 TO VILLAGE LIMITS)

RELOCATION ORDER STH 154, SAUK COUNTY

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

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

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

R/W		POINT TABLE	
PT. NO.	STATION		OFFSET
205	249+51.01	37.33'	LT
206	251+79.67	32.15'	LT
207	254+06.46	29.91'	LT
208	254+16.75	30.20'	LT
209	260+73.32	34.00'	LT
210	262+24.05	35.01'	LT
211	262+04.00	63.54'	RT
212	261+85.00	45.00'	RT
213	260+75.00	45.00'	RT
214	260+65.00	32.02'	RT
215	254+18.74	35.77'	RT
216	253+11.88	37.18'	RT
217	251+76.60	33.78'	RT
218	250+07.20	28.93'	RT
219	262+50.00	0.00'	LT

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
205 - 206	S50°-05'-53"W	227.02'
208 - 209	S57°-22'-53"E	655.74'
211 - 212	N15°-20'-20"W	26.81'
212 - 213	N57°-50'-53"W	111.33'
213 - 214	N04°-49'-20"W	16.38'
214 - 215	N57°-22'-53"W	647.21'
217 - 218	N50°-05'-53"W	170.57'

HARRISON MONUMENT
Y = 238,874.90
X = 594,567.02

^ N89°-43'-21"E 2,357.81' ALONG
√ QUARTER LINE TO R/W

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

S88°-58'-
28.06

HARRISON MONUMENT

Y = 236,266.09

X = 596,689.69

HARRISON MONU	
Y =	236,266.59
X =	596,717.75

PI = 249+00.71
Y = 239,138.87
X = 596,590.79
 $\Delta = 15^{\circ}39'52''$ L
D = $01^{\circ}12'22''$
T = 653.40'
L = 1,298.64'
R = 4,750.00'
PC = 242+47.32
PT = 255+45.96

PI = 262+83.41
Y = 238,385.49
X = 597,759.92
 $\Delta = 07^{\circ}22'15''$ L
D = $02^{\circ}01'41''$
T = 181.96'
L = 363.42'
R = 2,825.00'
PC = 261+01.45
PT = 264+64.87

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

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED		
			NEW	EXISTING	TOTAL
7	ANTHONY L. VIELHUBER	FEE	0.05 AC.	0.93 AC.	0.98 AC.
ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED					

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

SCALE, FEET 0 100 200

SECTION LINE	
QUARTER LINE	
SIXTEENTH LINE	
NEW REFERENCE LINE	
NEW R/W LINE	
EXISTING R/W LINE	
PROPERTY LINE	
LOT, TIE & OTHER MINOR LINES	
CORPORATE LIMITS	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	
TEMPORARY LIMITED EASEMENT AREA	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	
TRANSMISSION STRUCTURES	
BUILDING	
NATIONAL GEODETIC SURVEY MONUMENT	
SIXTEENTH CORNER MONUMENT	

SECTION
CORNER



NOTATION FOR
COMBUSTIBLE
FLUIDS

NOTATION FOR
HIGH VOLTAGE
TRANSMISSION
LINES

 CAUTION

ELECTRIC POLE
TELEPHONE POLE
PEDESTAL (LABEL TYPE)
(TV, TEL, ELEC, ETC)

ACCESS CONTROLLED BY ACQUISITION       

NO ACCESS (BY STATUTORY AUTHORITY)        

ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)       

R/W MONUMENT	●
NON-MONUMENTED	○
R/W POINT	
FOUND IRON PIN	IP ●
VALVE (GAS, WATER, ETC.)	⊙ (TYPE)

SIGN

OFF-PREMISE SIGN



COMPENSABLE	NON-COMPENSABLE
	
	
	

PARCEL NUMBER (25)

UTILITY NUMBER 40

SAUK COUNTY
LOCATION SKETCH NOT TO SCALE

R-4-E R-5-E

REEDSBURG EXCELSIOR
Rock Springs

GRATEFUL HILL RD
KUTZKE RD
BUCKEYE RD
SKYLINE RD

23 154 136

CH 36 31

DUNSE RD
COURSE RD
HIGH LOW RD

T-12-N

SHEET LOCATION
PROJECT LOCATION

MSA
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
 1230 South Boulevard Baraboo, WI 53913
 608-356-2771 1-800-362-4505 Fax: 608-356-2770
 Web Address: www.msa-ps.com
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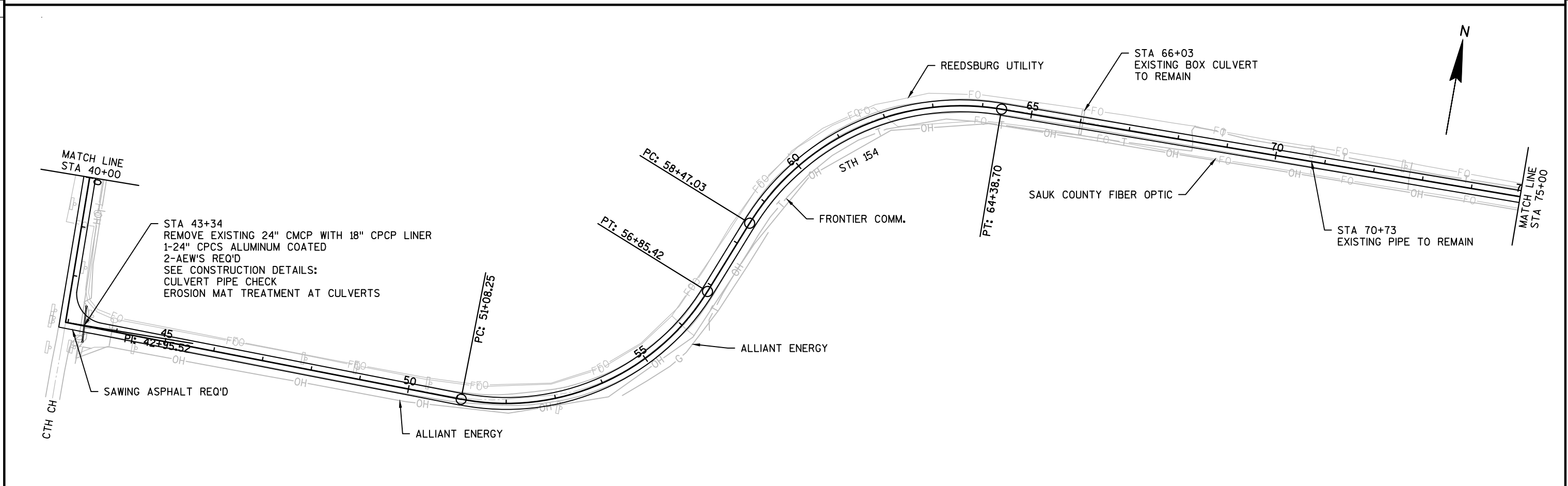
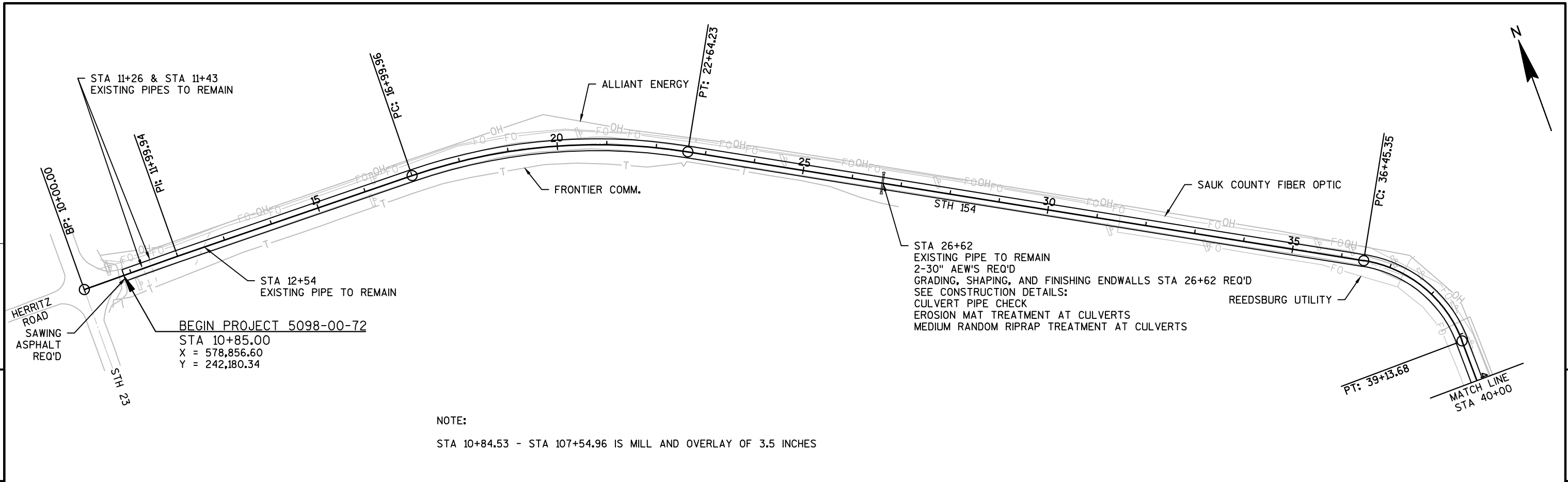
I, GREGORY P. RHINEHART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

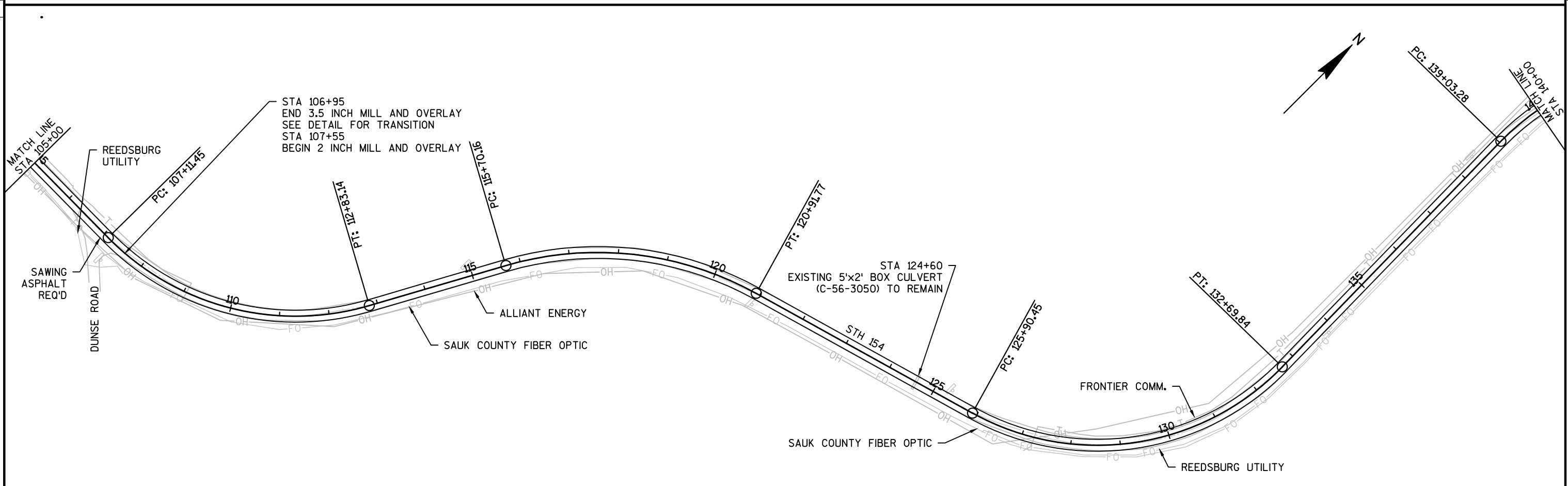
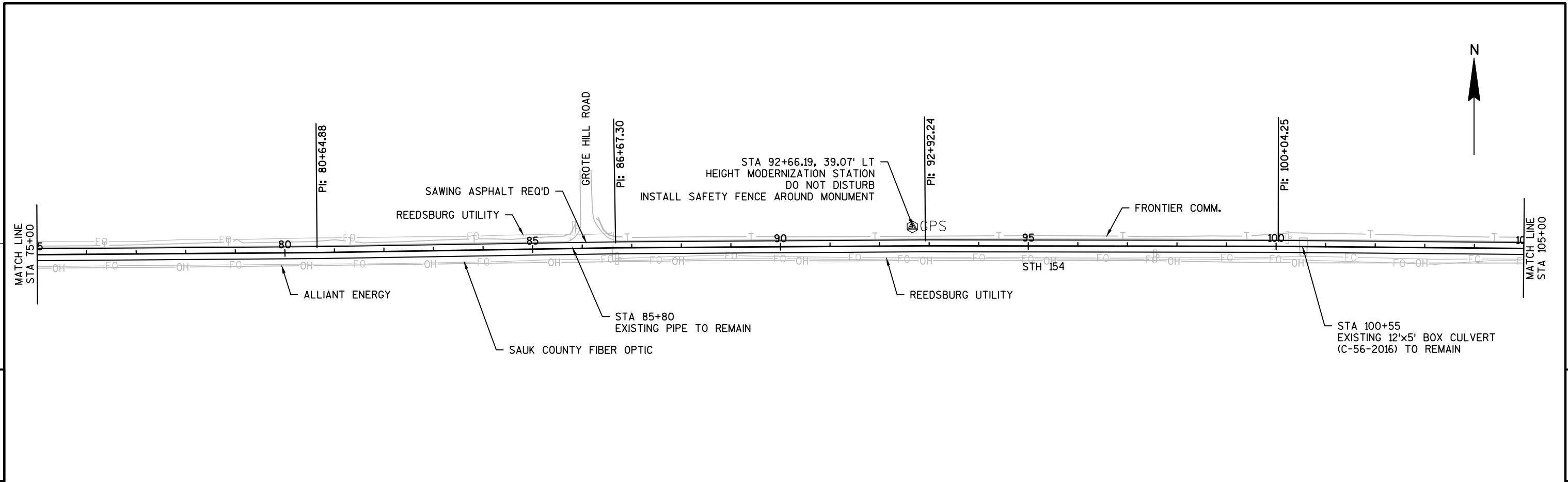
SIGNATURE: Gregory P. Rhinehart DATE: 4/28/16
 PRINT NAME: GREGORY P. RHINEHART
 REGISTRATION NUMBER: S-1478

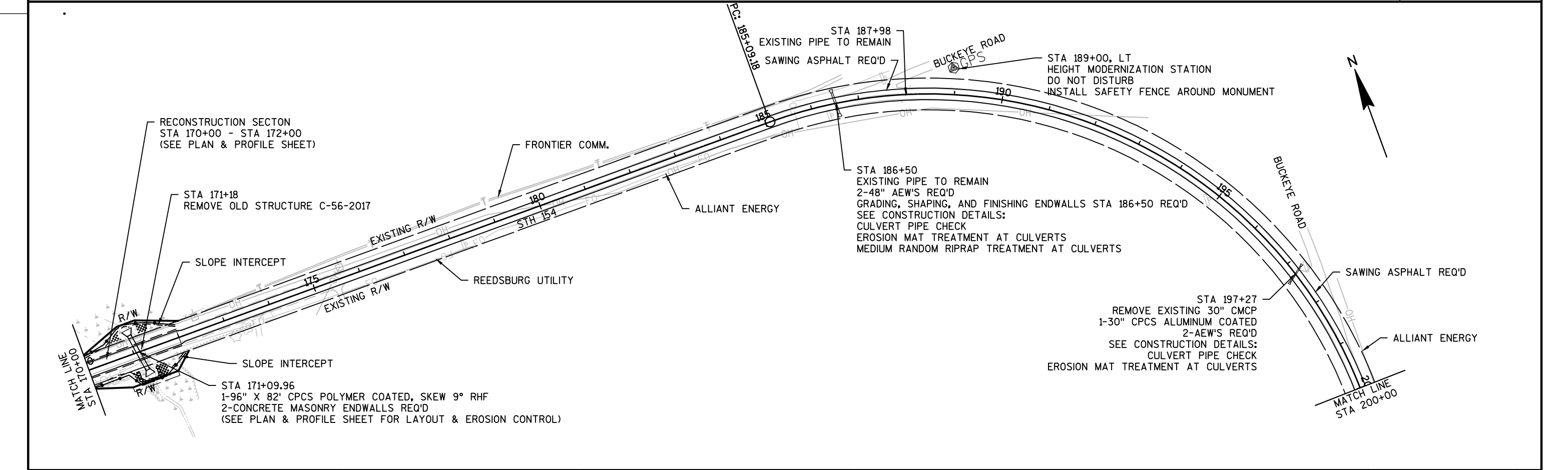
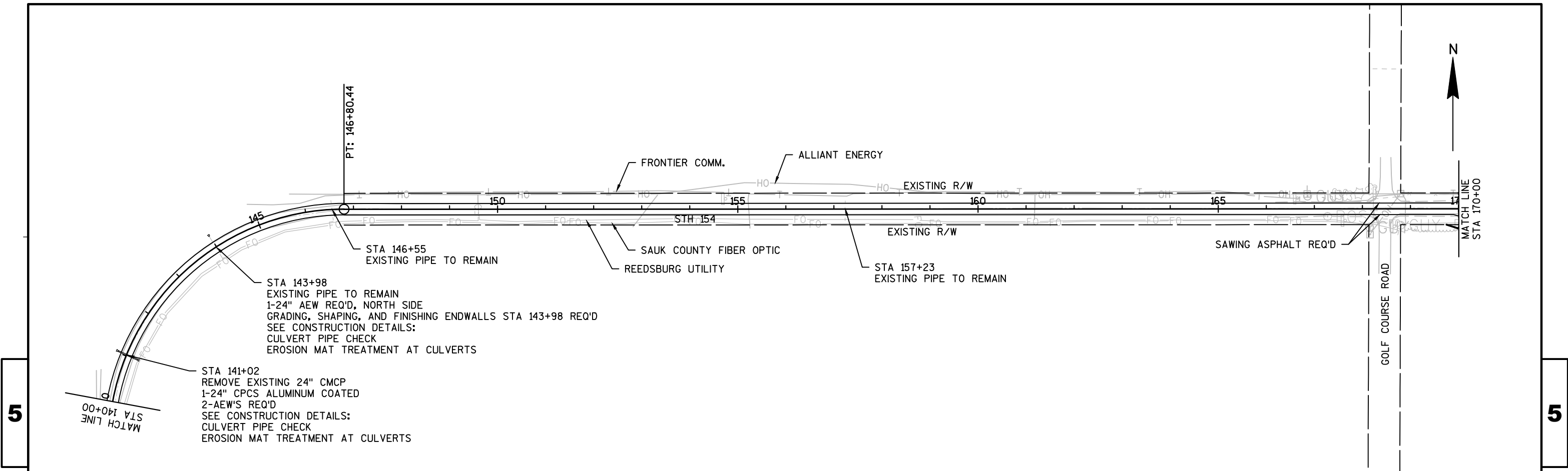
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

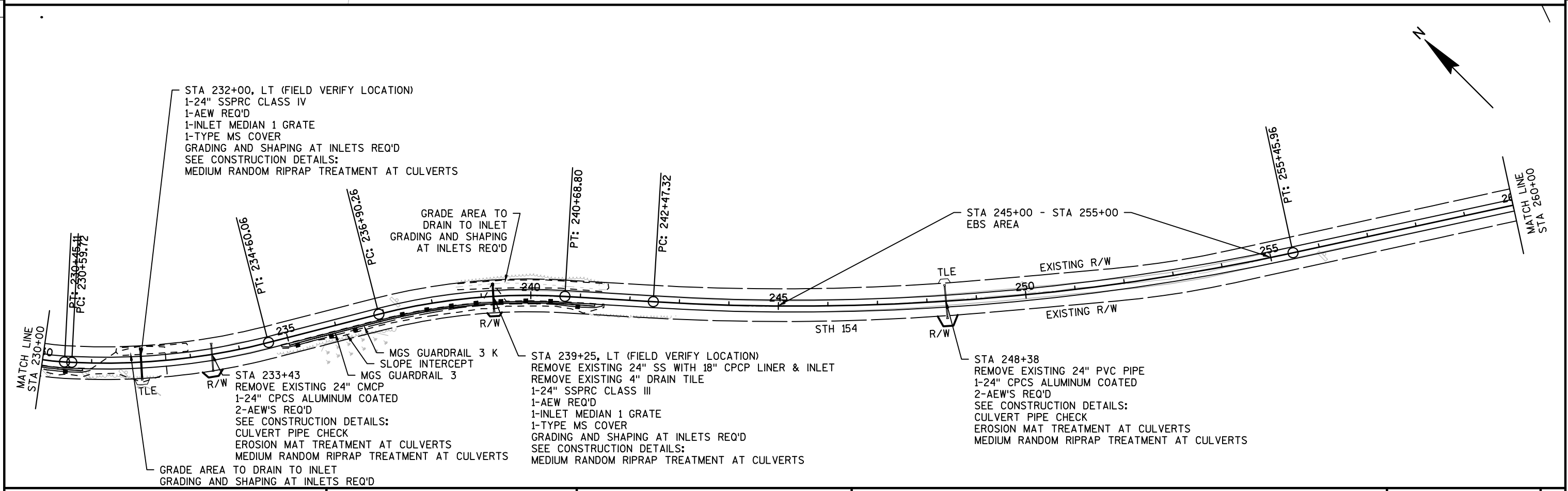
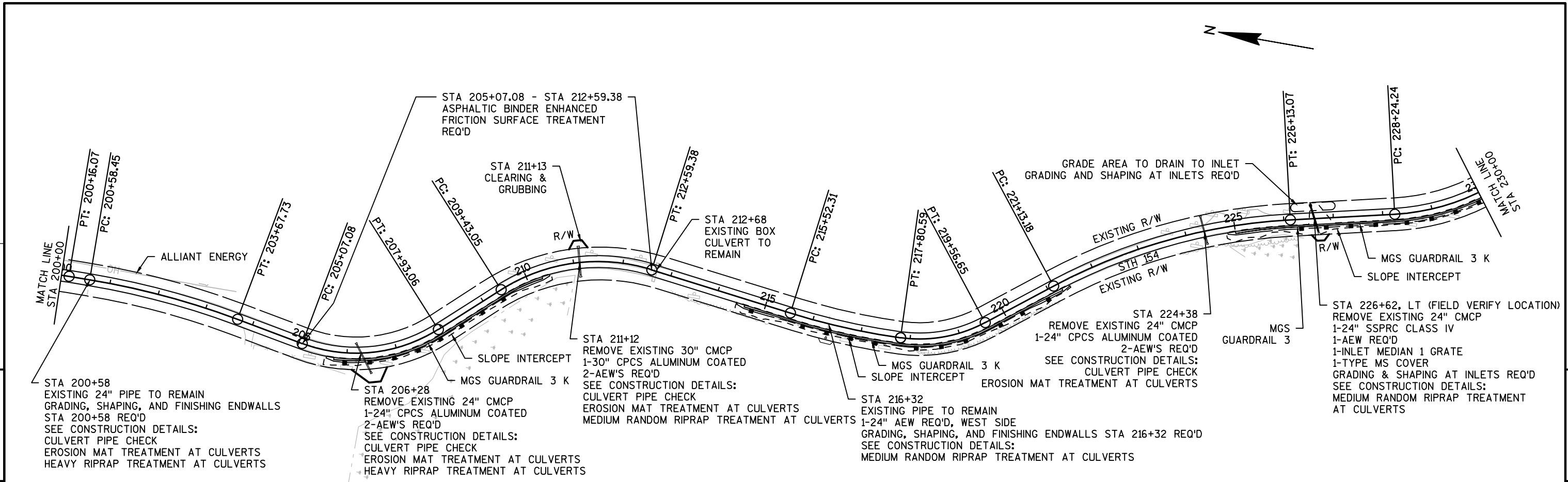
SIGNATURE: Cory Schlager DATE: 4/28/16
 PRINT NAME: CORY SCHLAGER

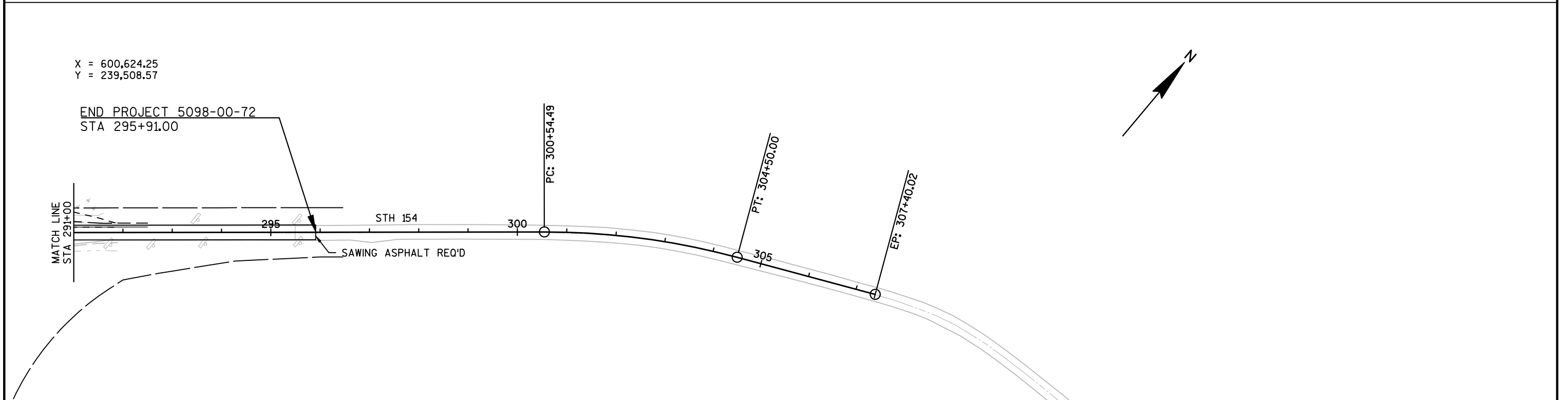
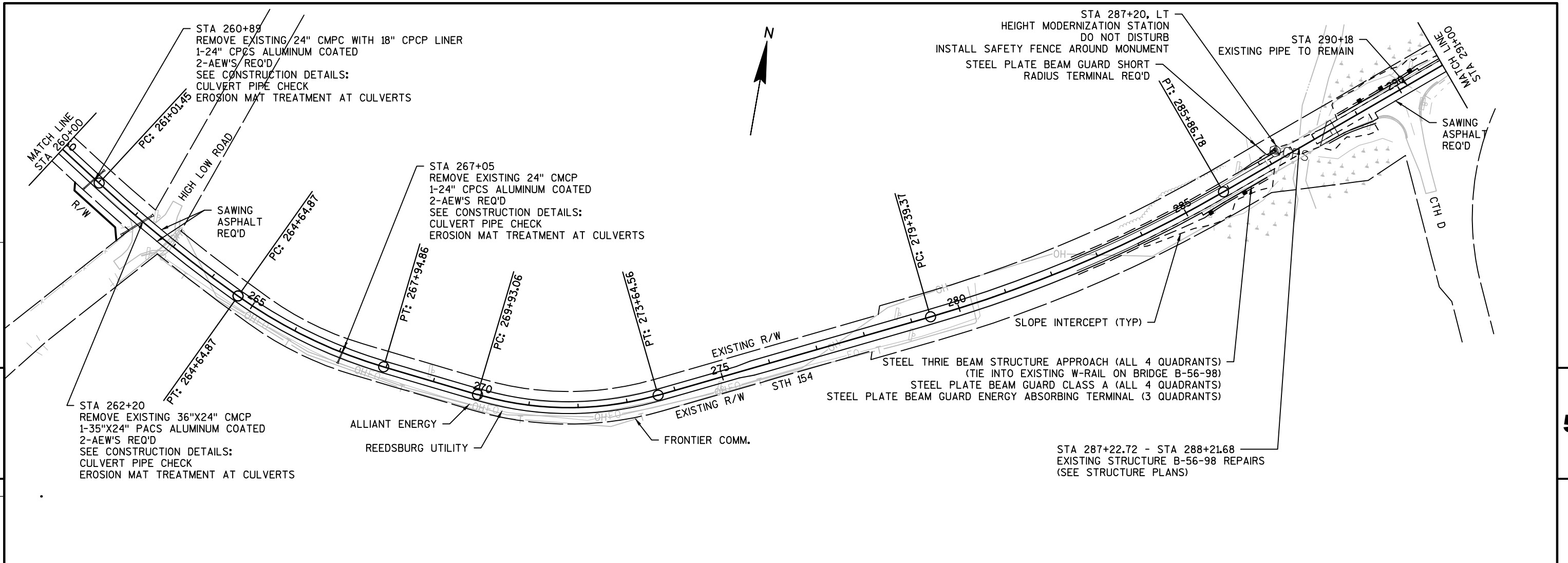


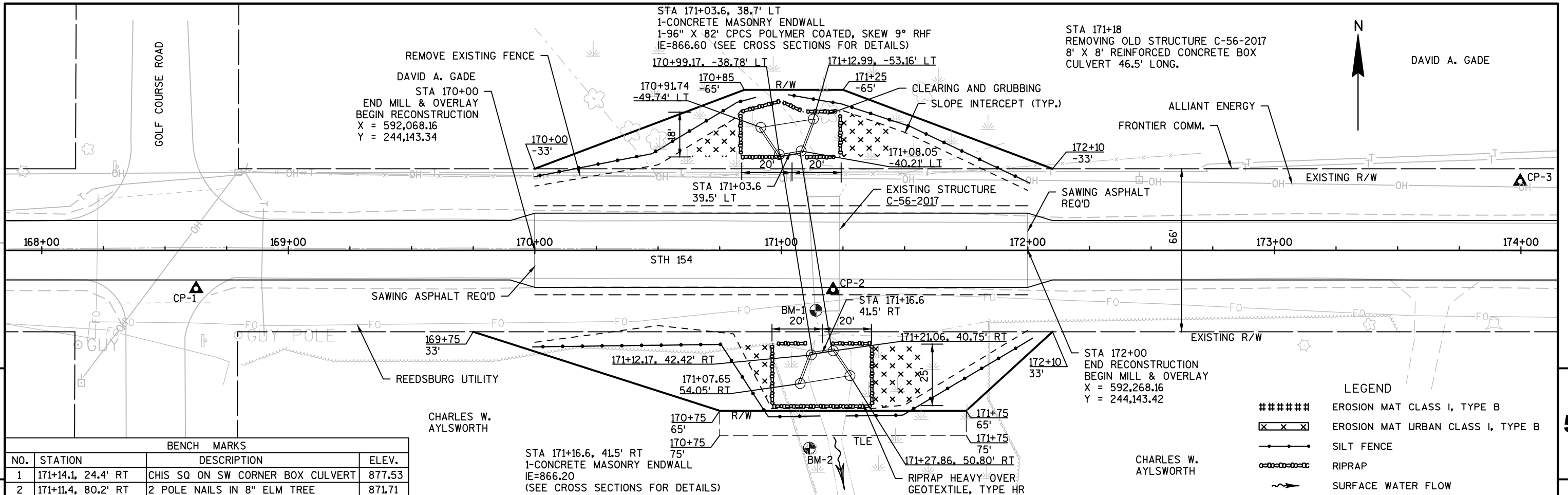




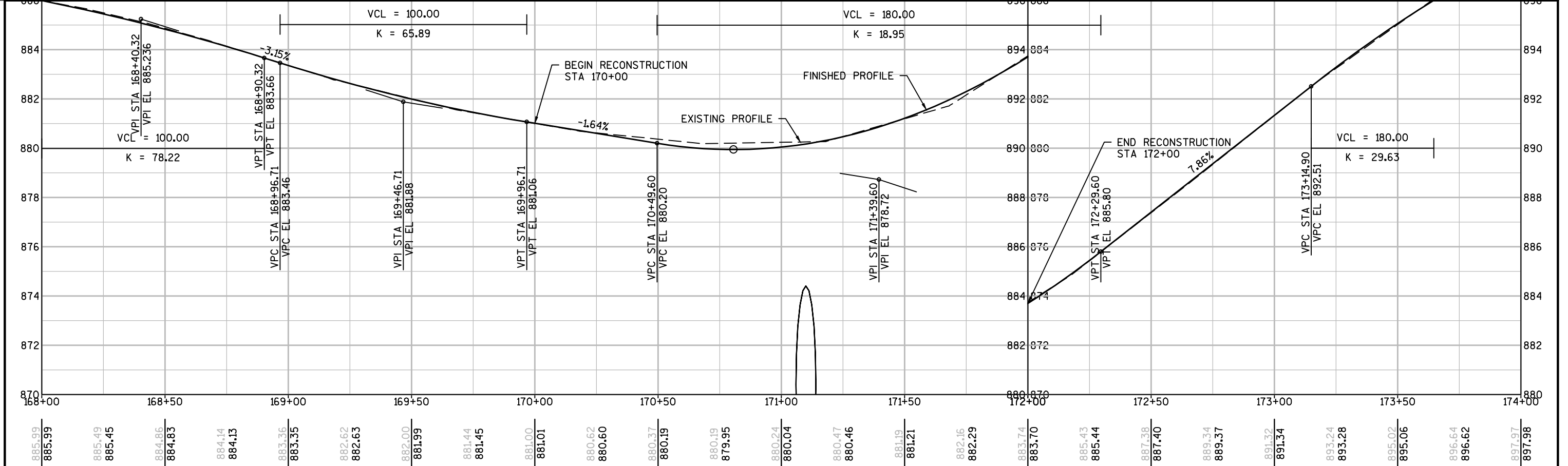






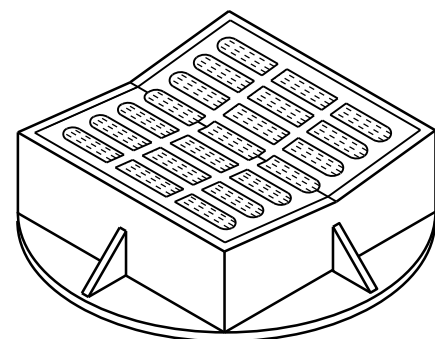
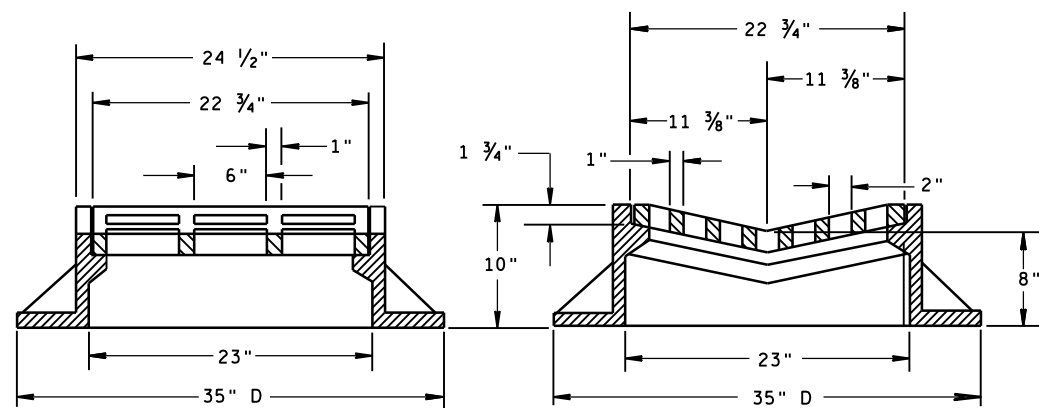


BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	171+14.1, 24.4' RT	CHIS SQ ON SW CORNER BOX CULVERT	877.53
2	171+11.4, 80.2' RT	2 POLE NAILS IN 8" ELM TREE	871.71

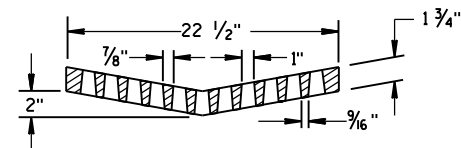
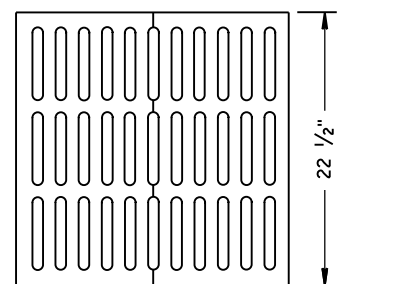


Standard Detail Drawing List

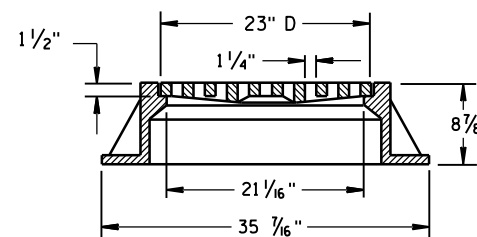
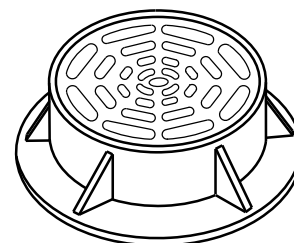
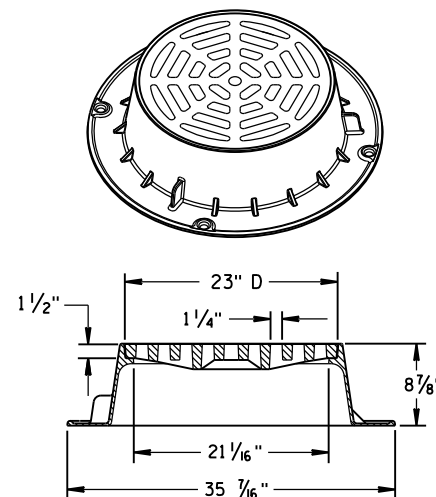
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
14B15-09A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-09B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-09C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B24-08A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A01-13B	FLEXIBLE MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C06-08	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

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



TYPE "C"

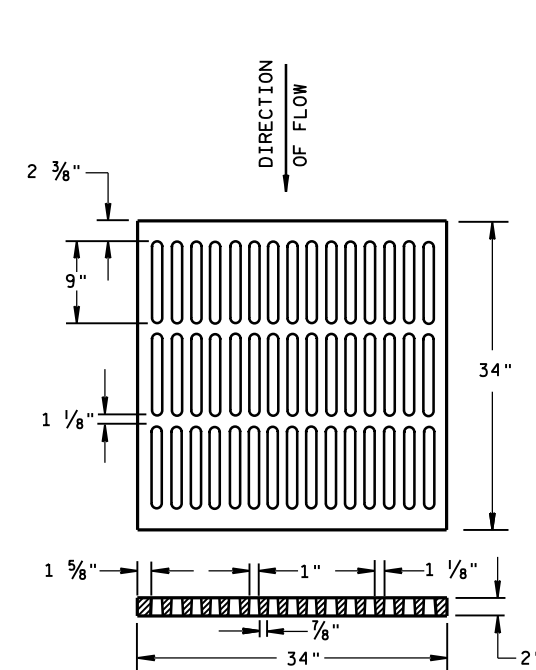
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

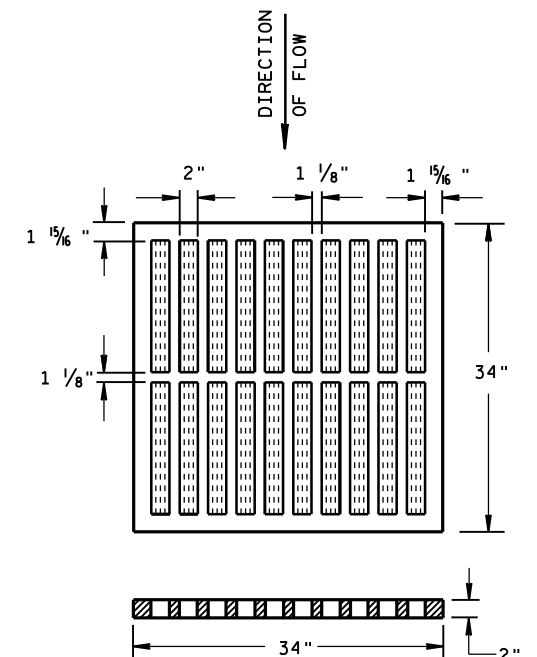
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



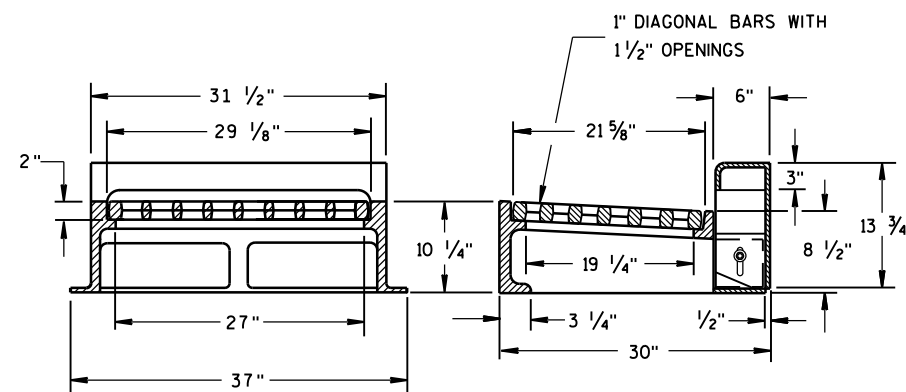
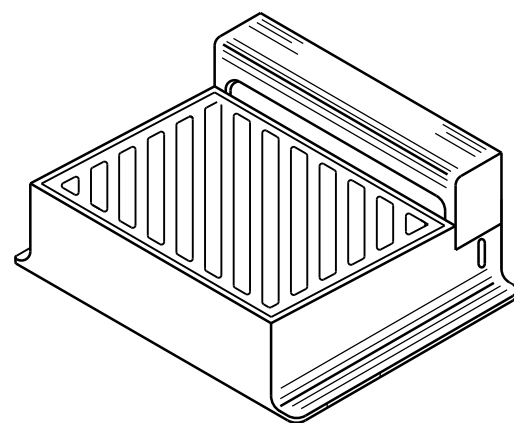
ALTERNATIVE TYPE "MS"

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



TYPE "MS"

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

DIRECTION
OF FLOW

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

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

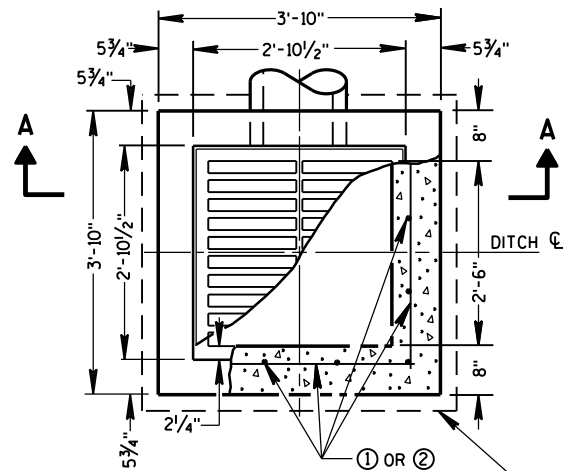
APPROVED

11/27/2013
 DATE

FHWA

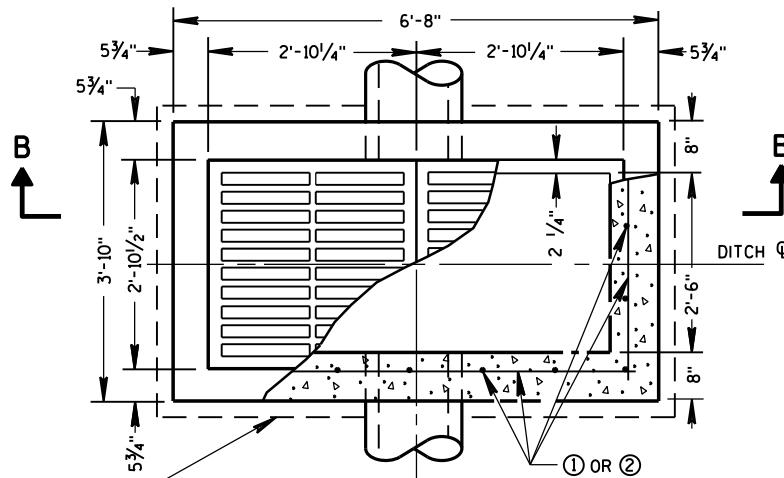
/S/ Jerry H. Zogg
 ROADWAY STANDARDS ENGINEER

NT

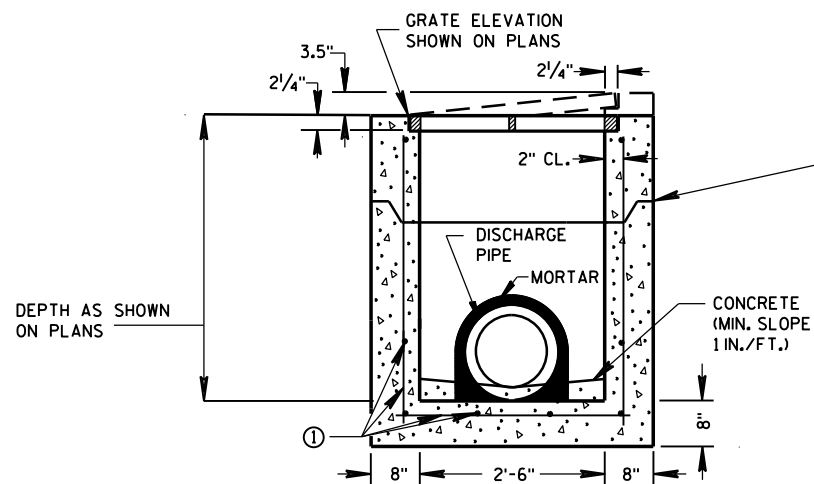


PLAN VIEW

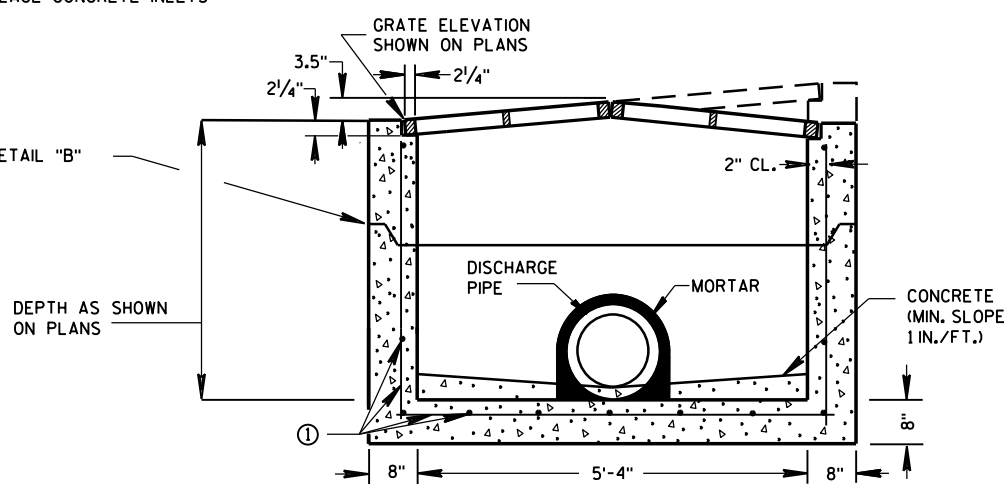
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



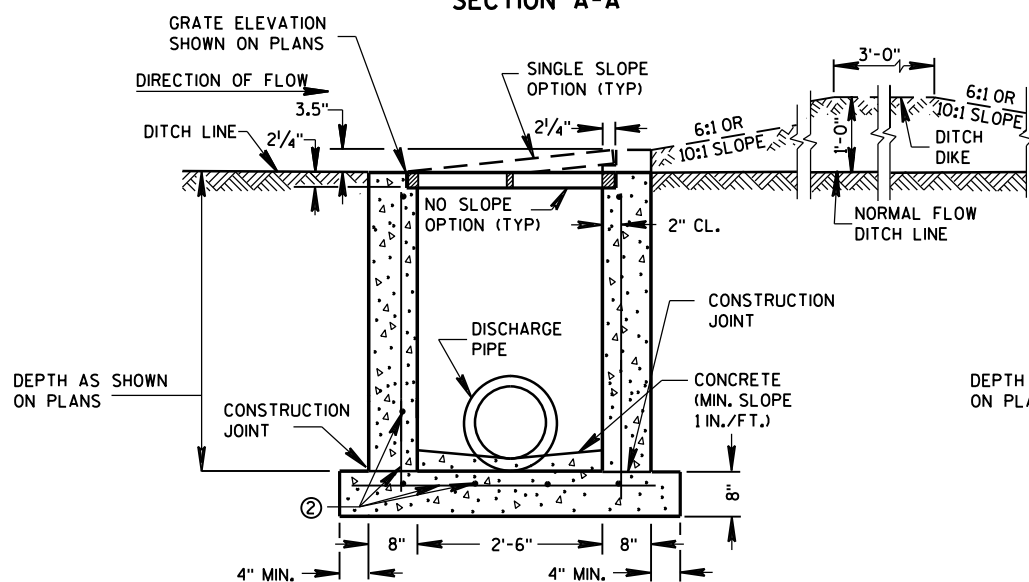
PLAN VIEW



PRECAST REINFORCED CONCRETE SECTION A-A

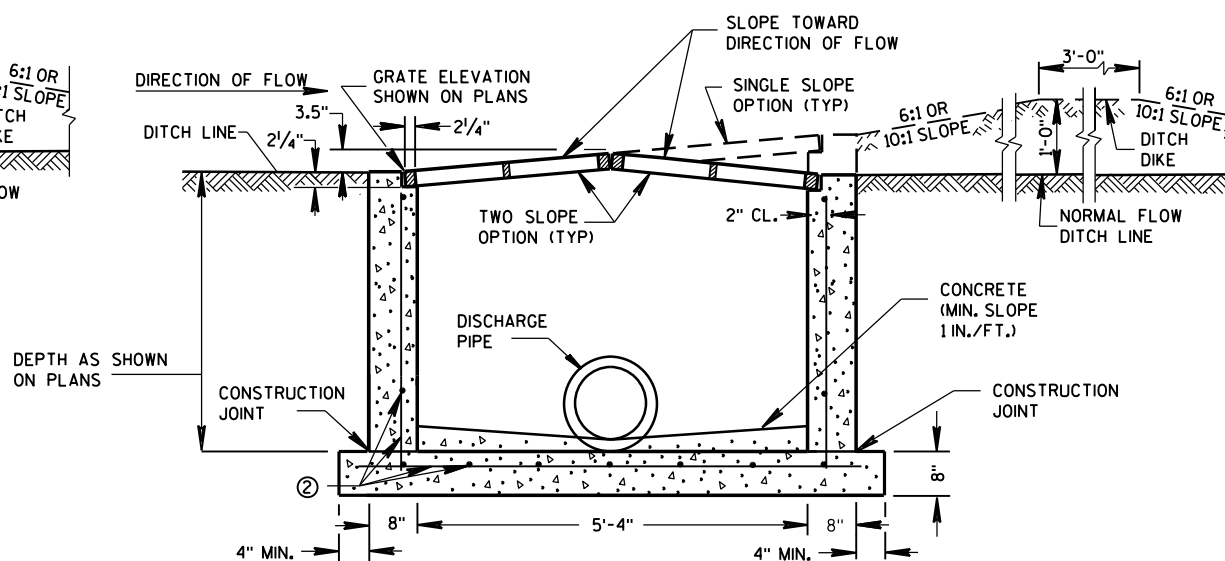


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT. BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

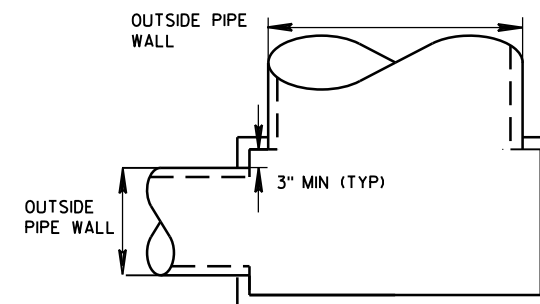
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

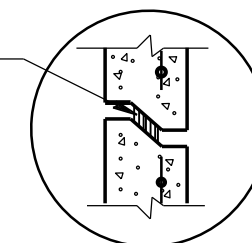
PIPE MATRIX

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



DETAIL "A"

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

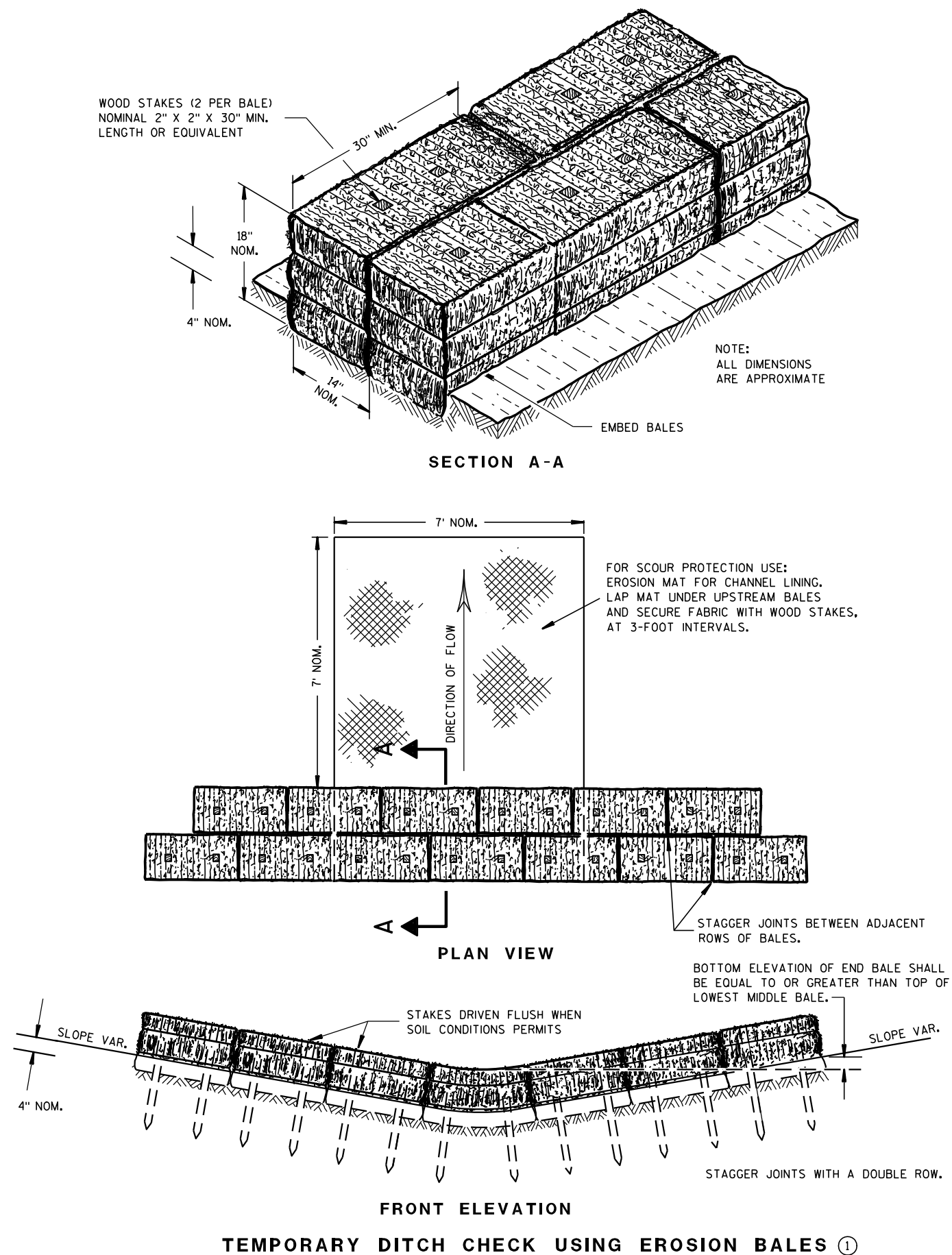


DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

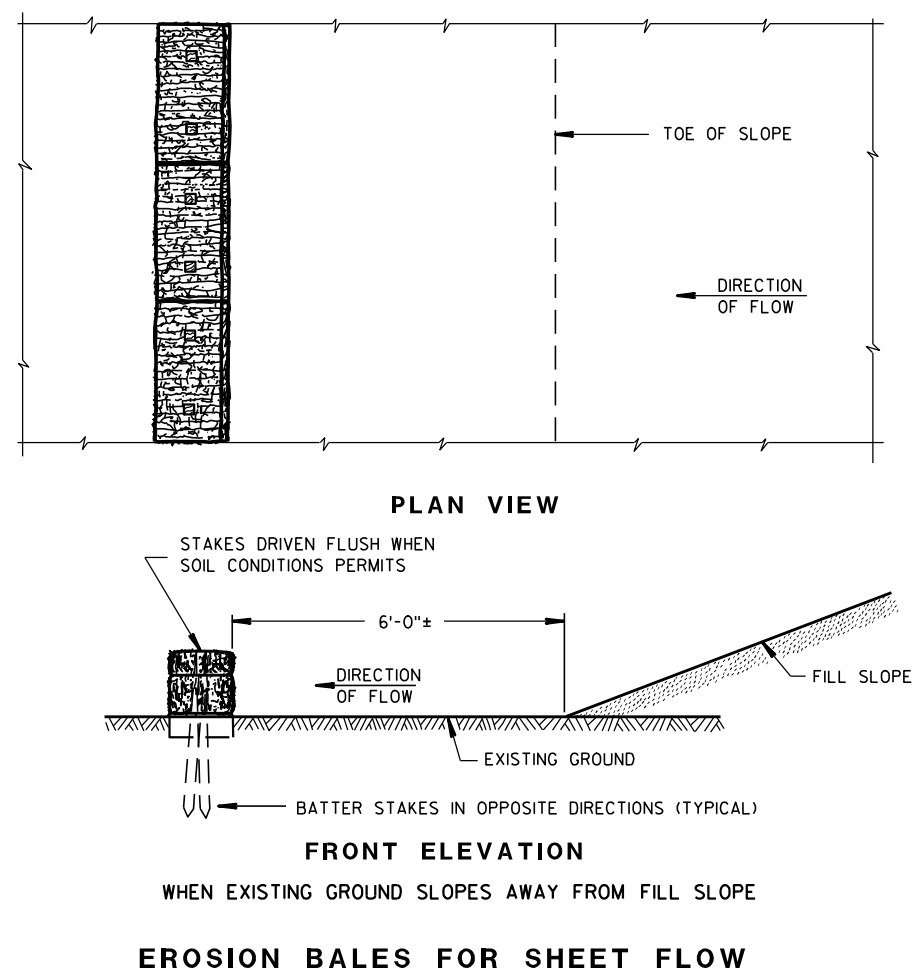
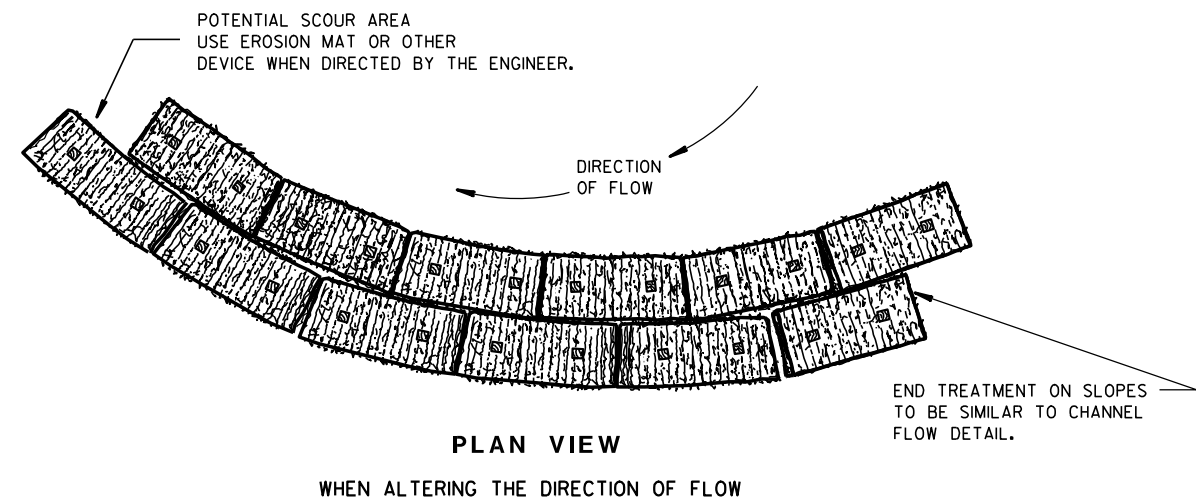
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERVISOR
FHWA



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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

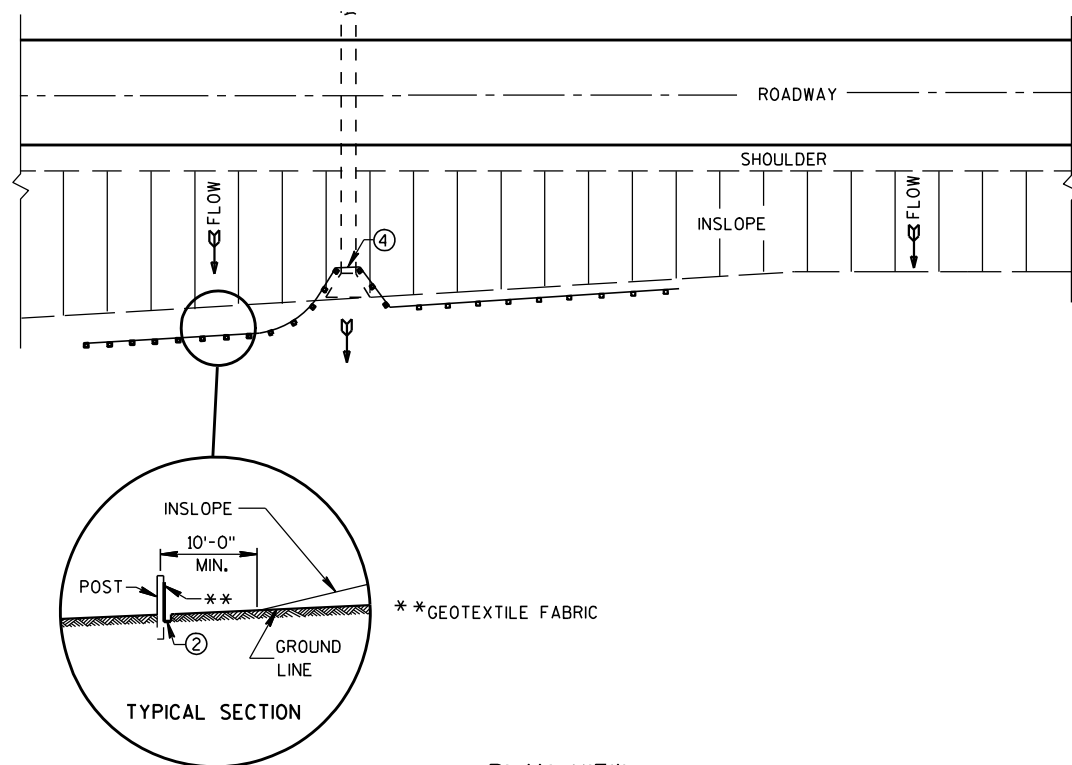
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Conn
CHIEF ROADWAY DEVELOPER

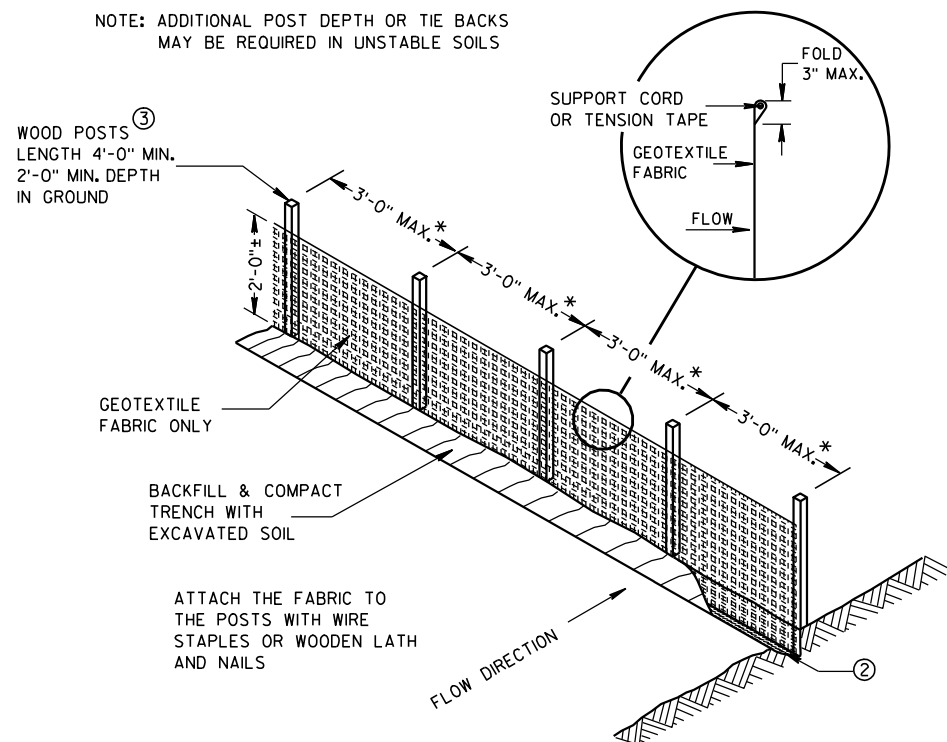
ENGINEER

FHWA



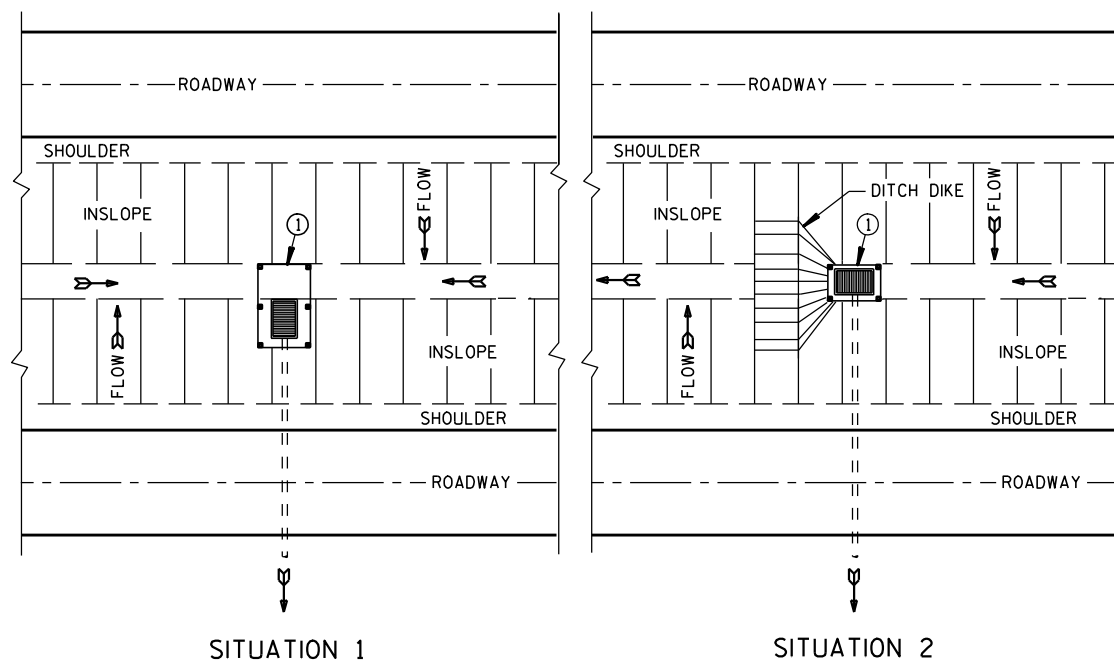
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS
MAY BE REQUIRED IN UNSTABLE SOILS

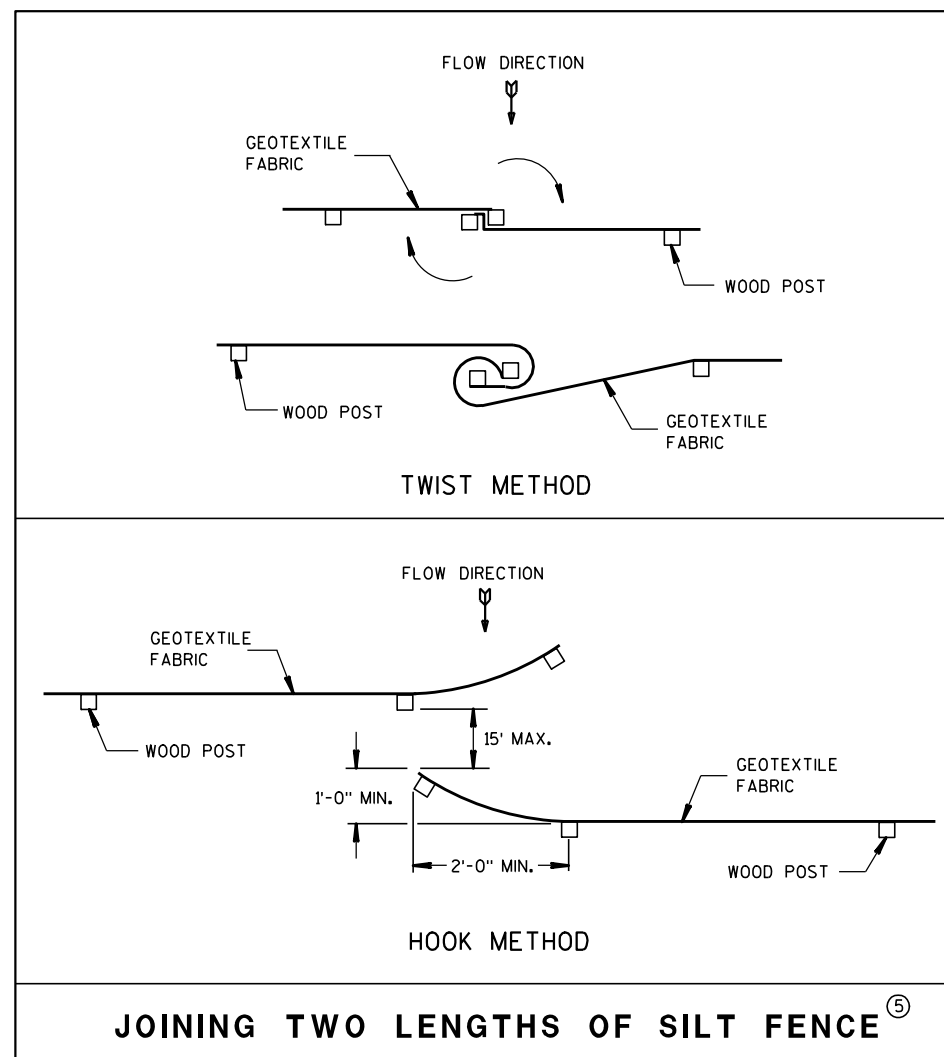


SILT FENCE

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



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

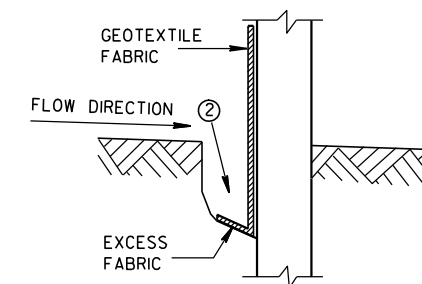


JOINING TWO LENGTHS OF SILT FENCE^⑤

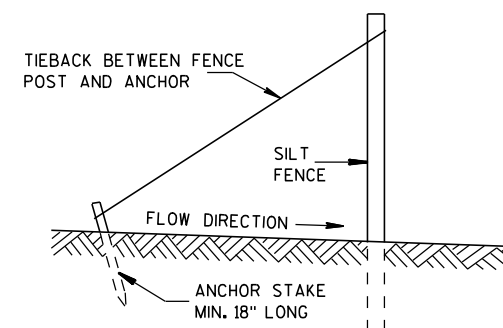
GENERAL NOTES

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 1 1/8" X 1 1/8" 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 TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

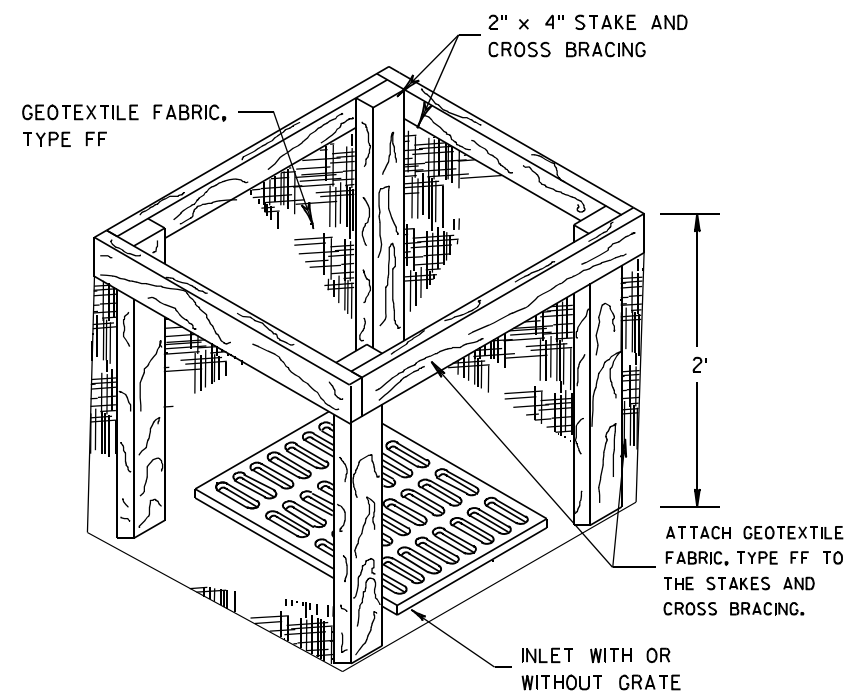
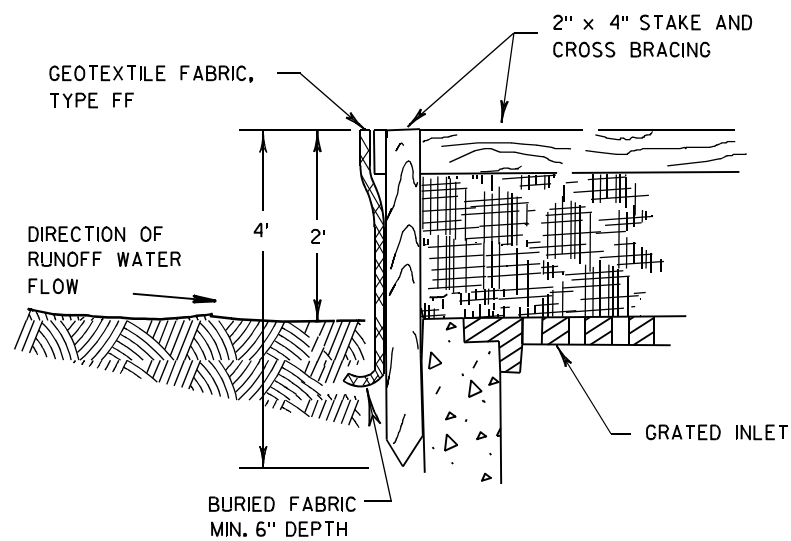
APPROVED

4-29-05
DATE

FHWA

/S/ Beth Conn
CHIEF ROADWAY DEVELOPER

ENGINEER



INLET PROTECTION, TYPE A

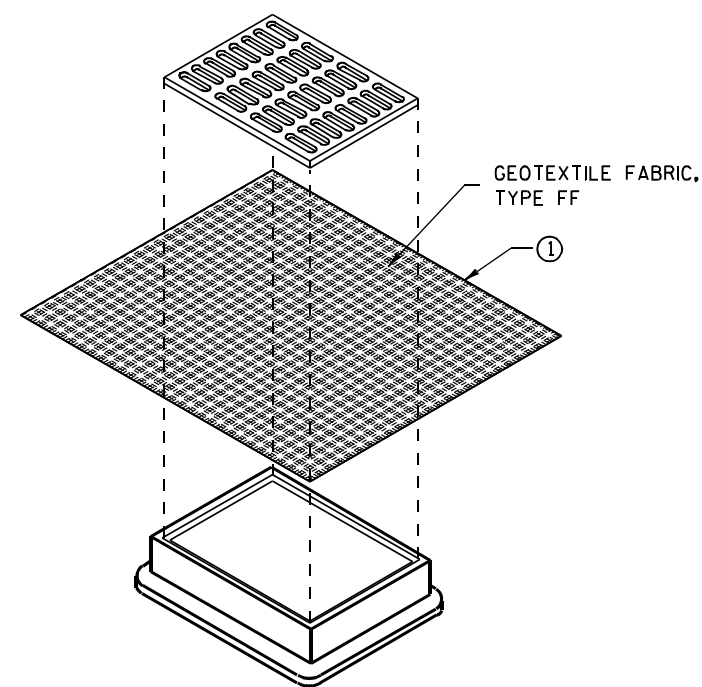
GENERAL NOTES

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

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

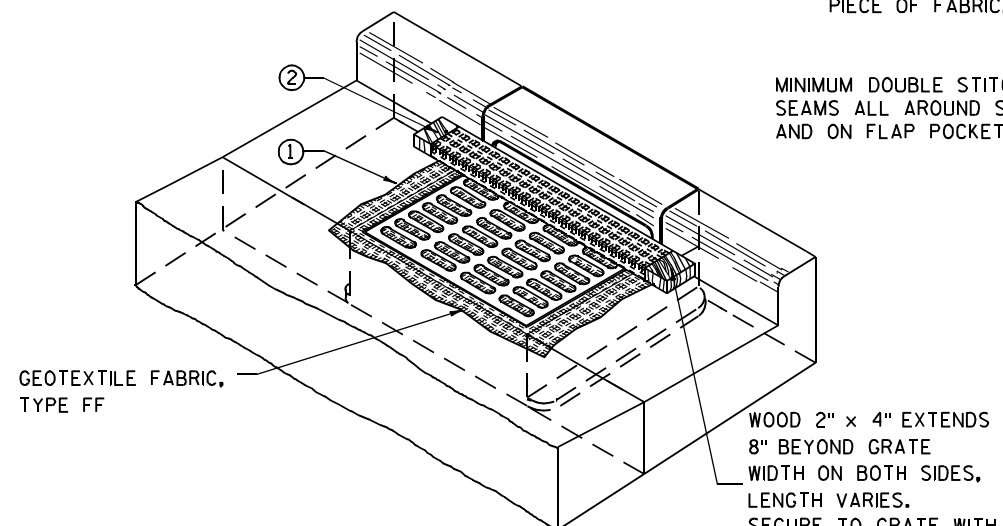
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

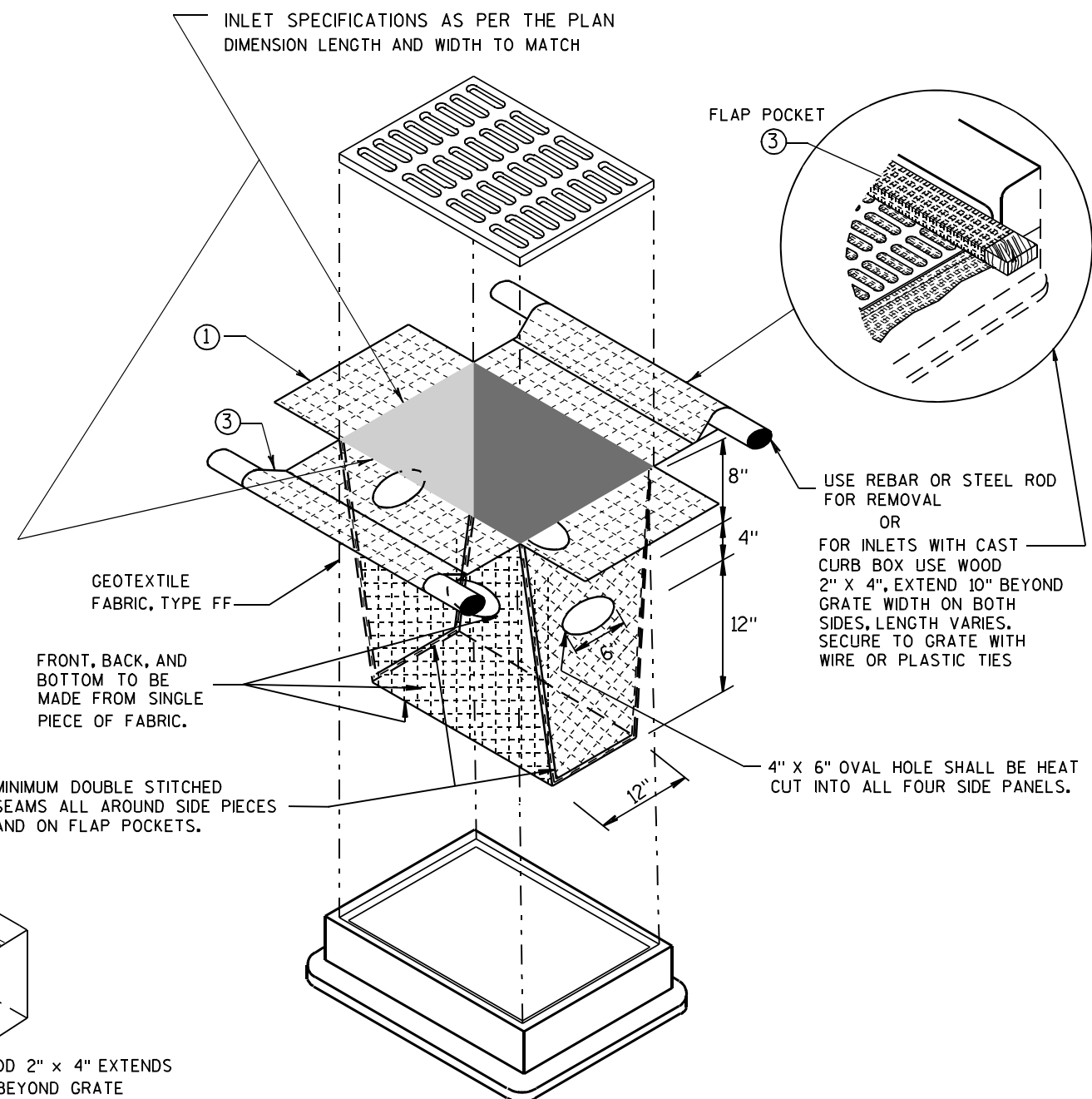
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

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

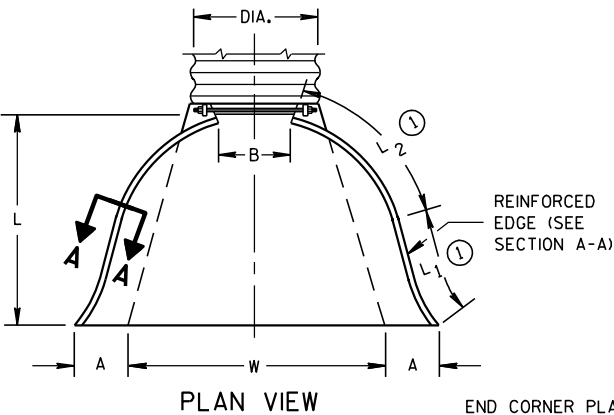
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 68
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)						APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L ₁ ①	L ₂ ①			W (±2")
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	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

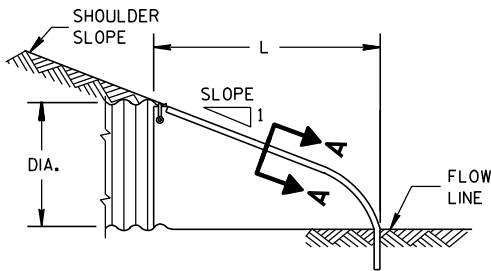
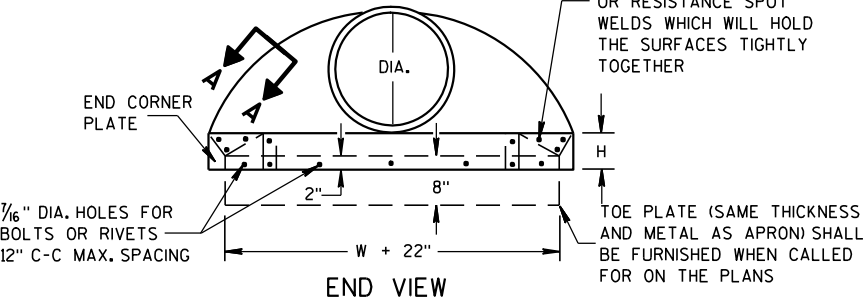
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



REINFORCED
EDGE (SEE
SECTION A-A)

END CORNER PLATES MAY
BE FASTENED TO APRON
PROPER BY BOLTS, RIVETS,
OR RESISTANCE SPOT
WELDS WHICH WILL HOLD
THE SURFACES TIGHTLY
TOGETHER

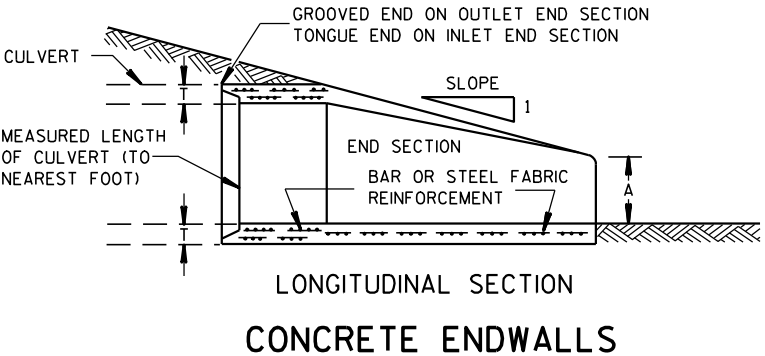
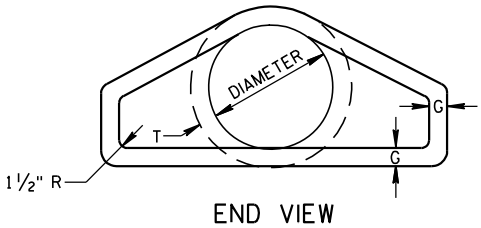
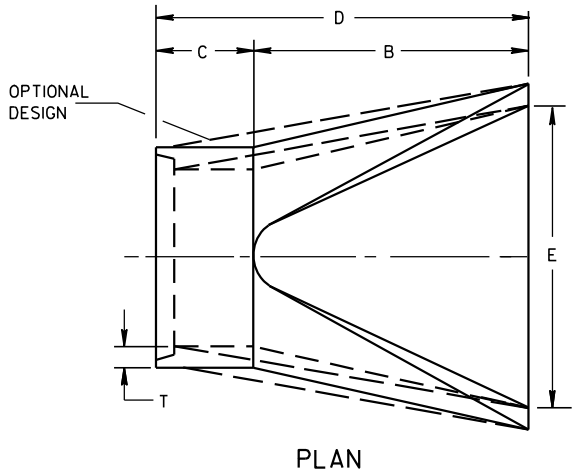
TOE PLATE (SAME THICKNESS
AND METAL AS APRON) SHALL
BE FURNISHED WHEN CALLED
FOR ON THE PLANS



SIDE ELEVATION
METAL ENDWALLS

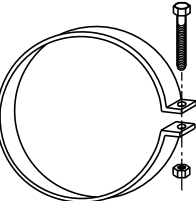
REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ⁷ / ₈	72 ⁷ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 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 ¹ / ₂ 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

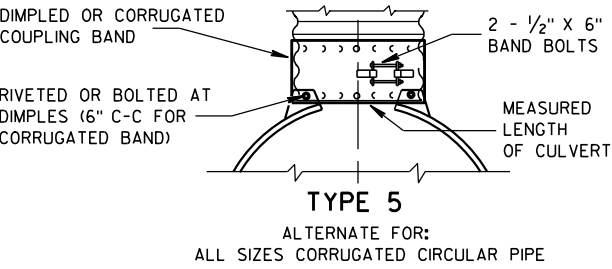
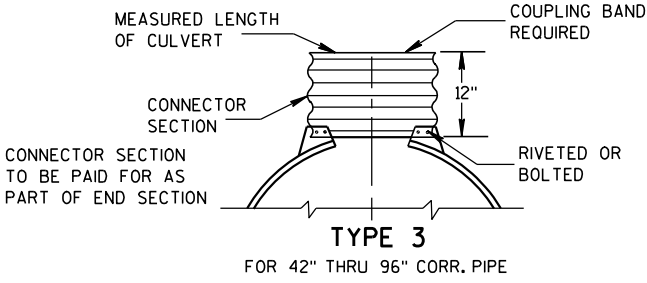
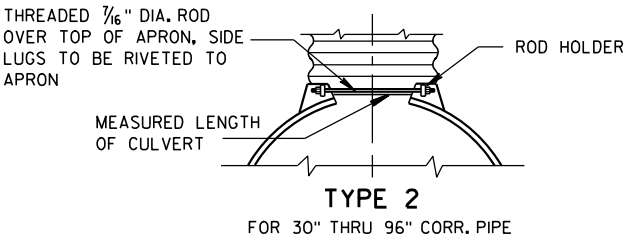
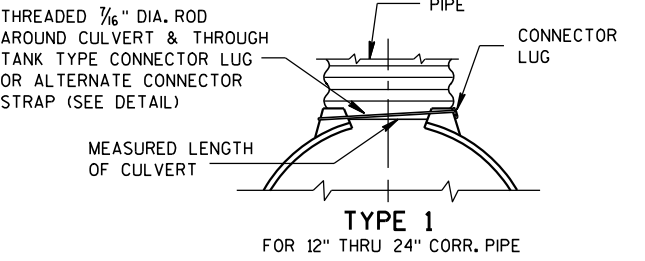


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109"
THICK) GALVANIZED STRAP
WITH STANDARD 6" X 1/2"
BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



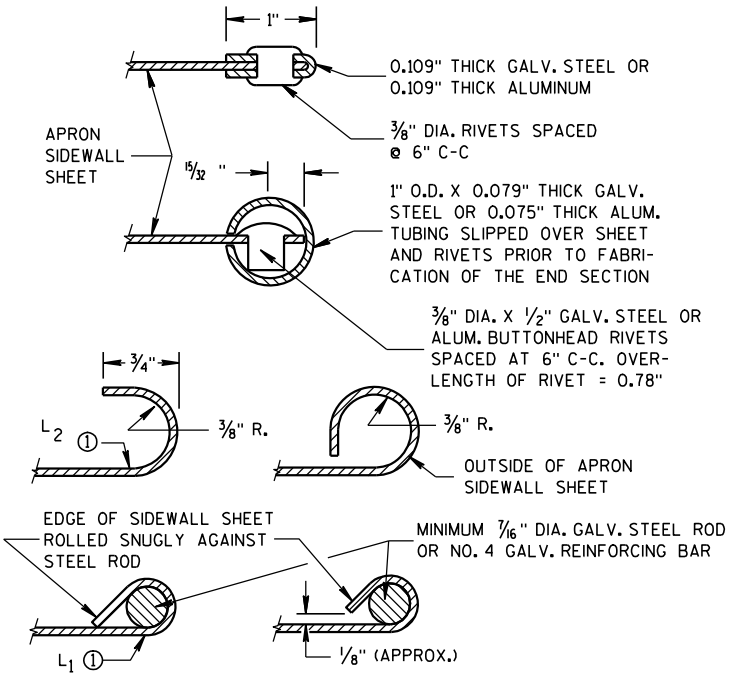
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.
DIMPLED BAND MAY BE USED WITH HELICALLY
CORRUGATED PIPE.

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.

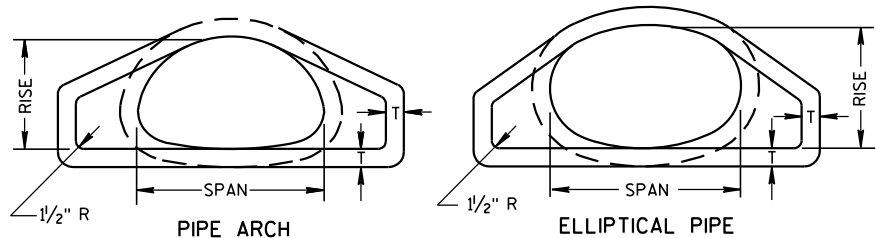
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL
THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH
OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

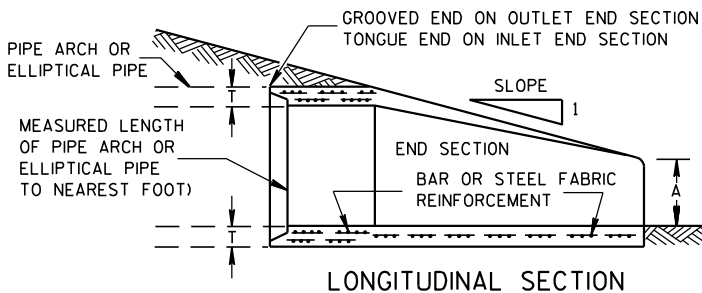
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT
TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT
TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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. Rhinehart CHIEF ROADWAY DEVELOP 69	NEER	
FHWA			

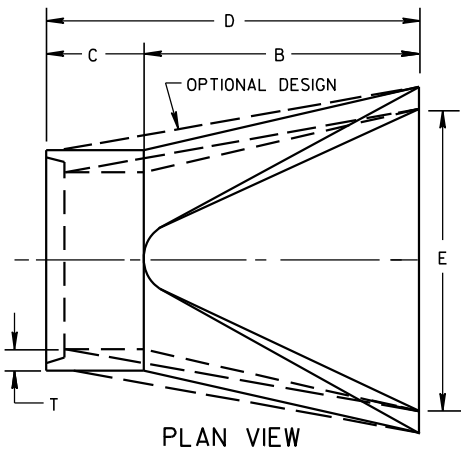


END VIEW

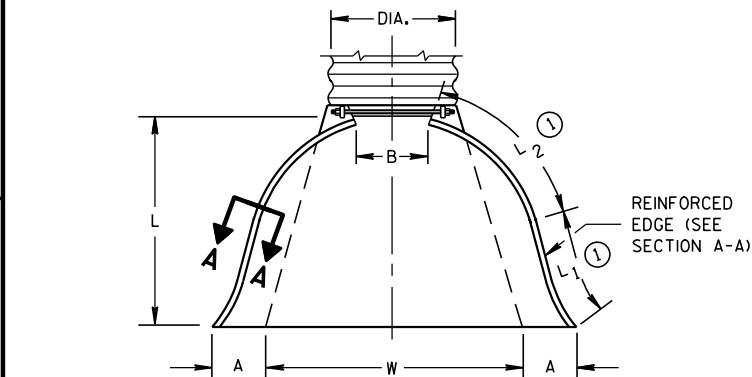


LONGITUDINAL SECTION

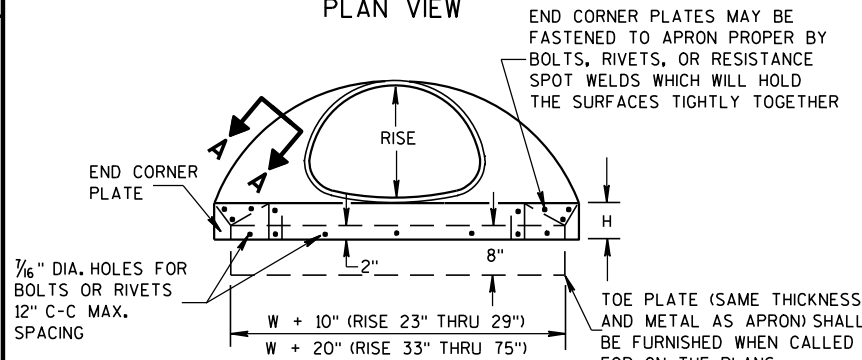
CONCRETE ENDWALLS



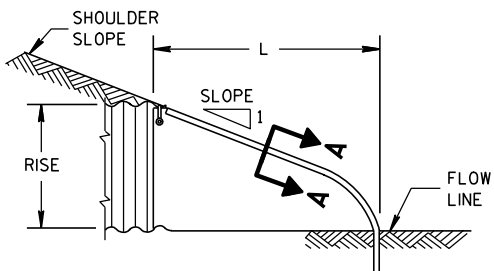
PLAN VIEW



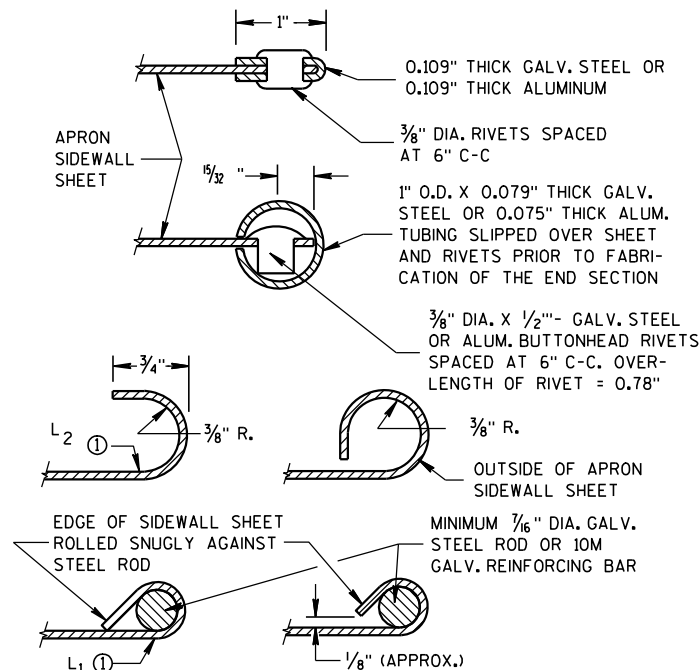
PLAN VIEW



END VIEW



SIDE ELEVATION
METAL ENDWALLS



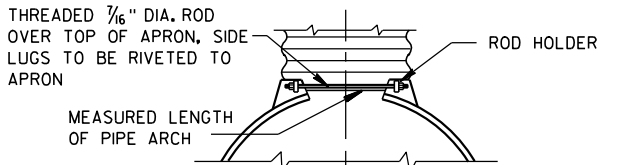
SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

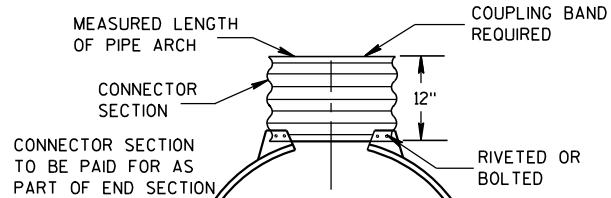
NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



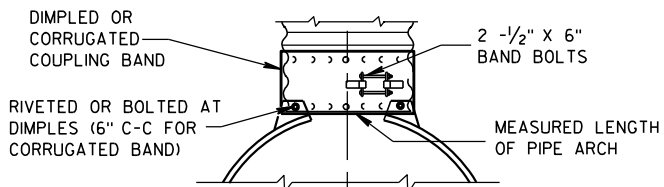
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH											
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE		
	** SPAN	** RISE	T	A	B	C	D	E			
24	29	18	3	8 1/2	39	33	72	48	3 to 1		
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1		
36	44	27	4	11 1/8	60	36	96	72	3 to 1		
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1		
48	58	36	5	21	60	36	96	84	3 to 1		
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1		
60	73	45	6	31	60	36	96	96	3 to 1		
72	88	54	7	31	60	39	99	120	2 to 1		
84	102	62	8	28 1/2	83	19	102	144	2 to 1		

REINFORCED CONCRETE ELLIPTICAL PIPE											
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE		
	** SPAN	** RISE	T	A	B	C	D	E			
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1		
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1		
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1		
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1		
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1		
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1		
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1		

**NOMINAL SIZE

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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.

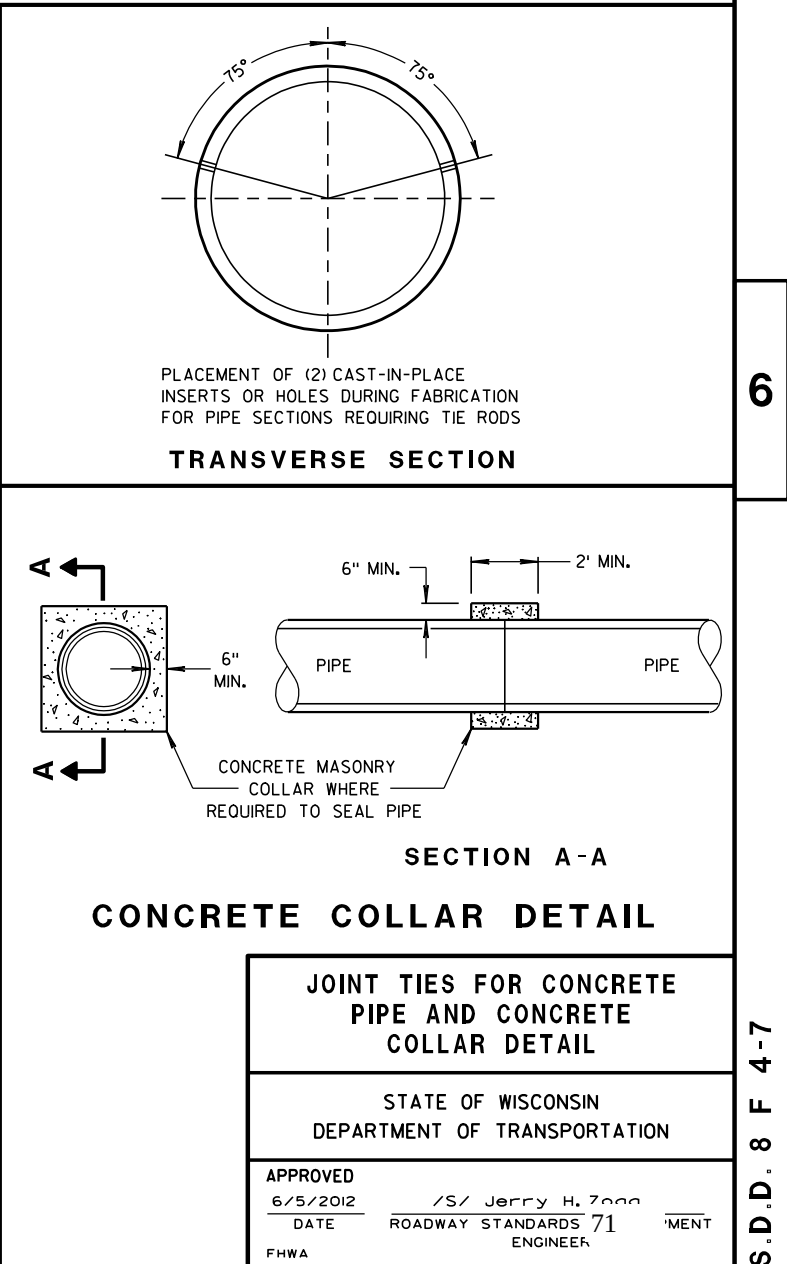
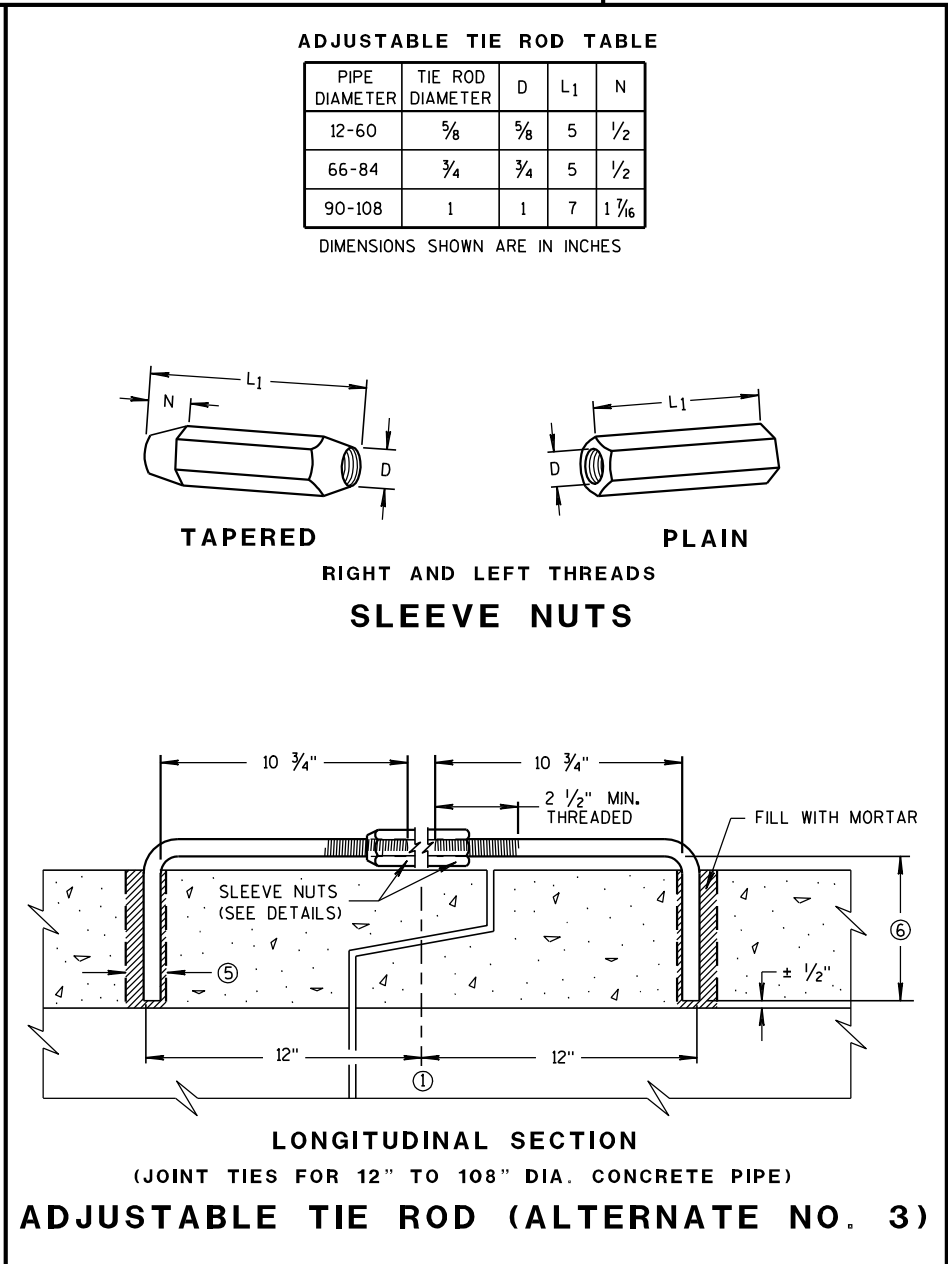
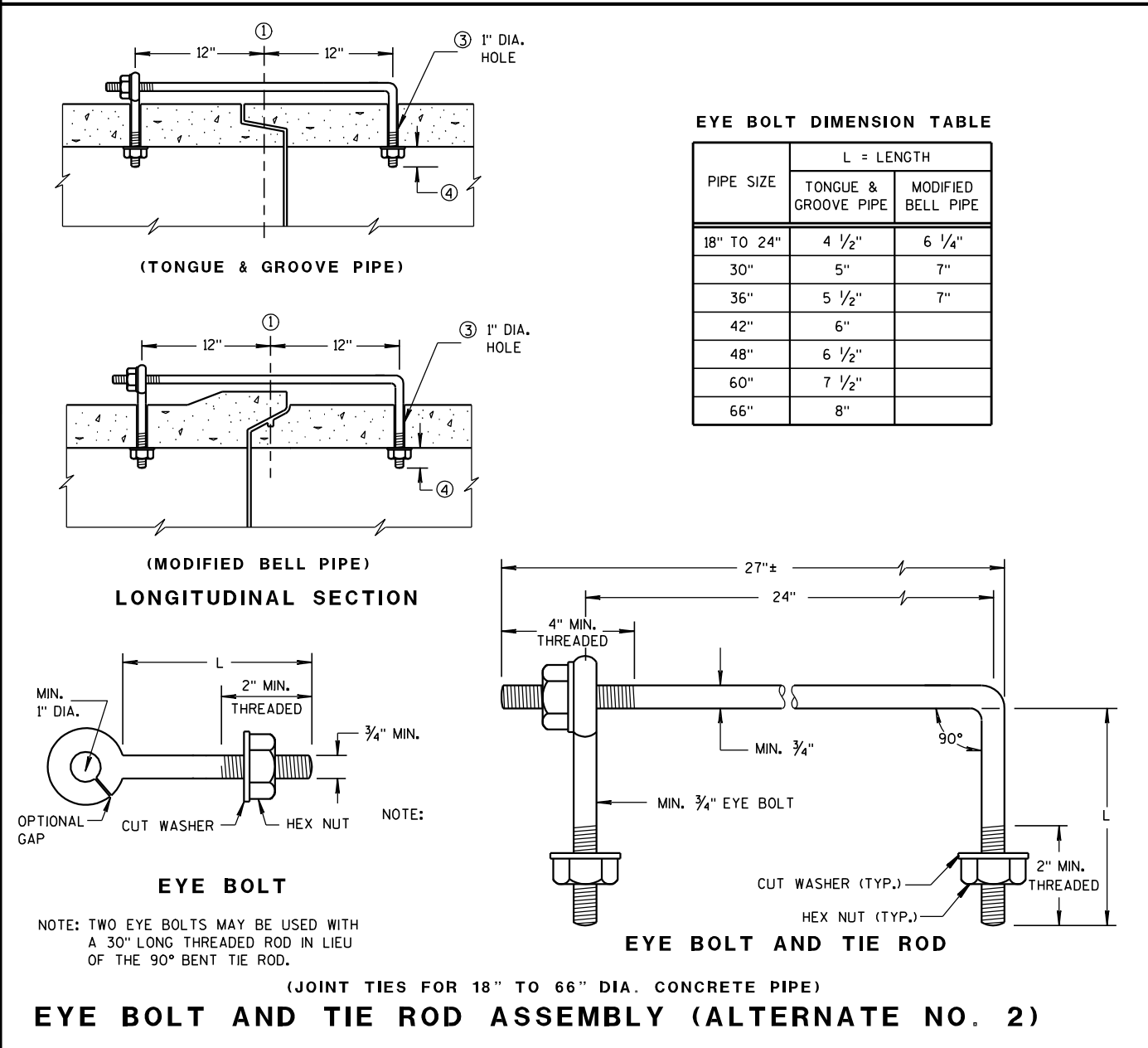
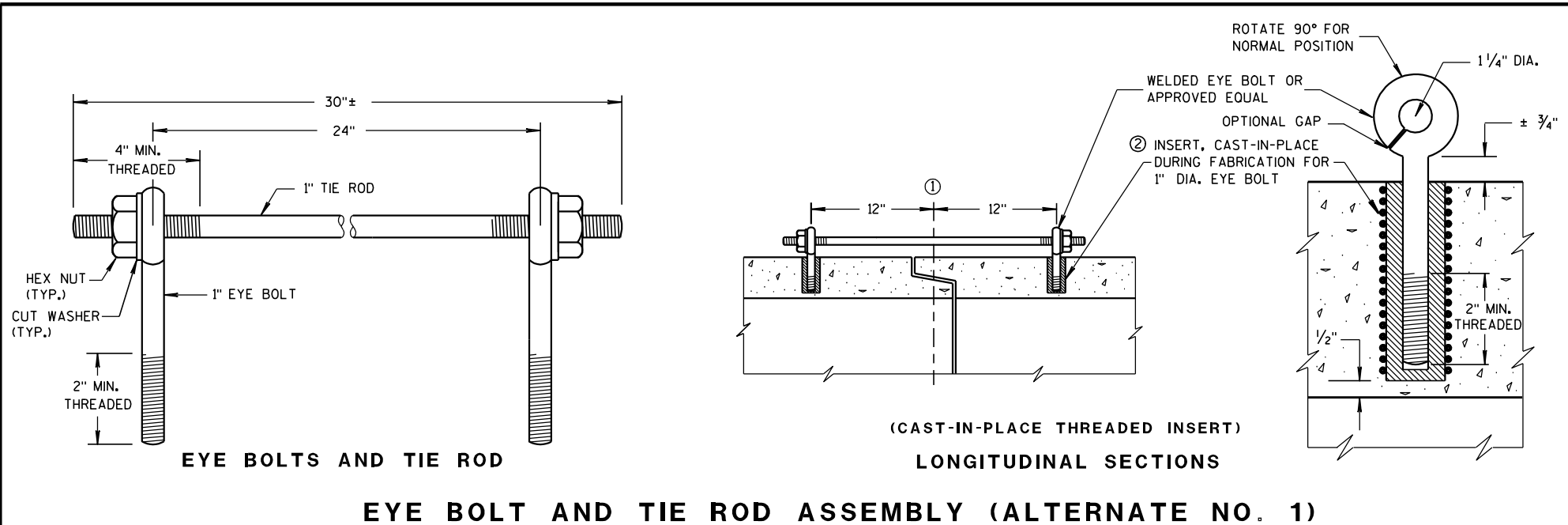
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

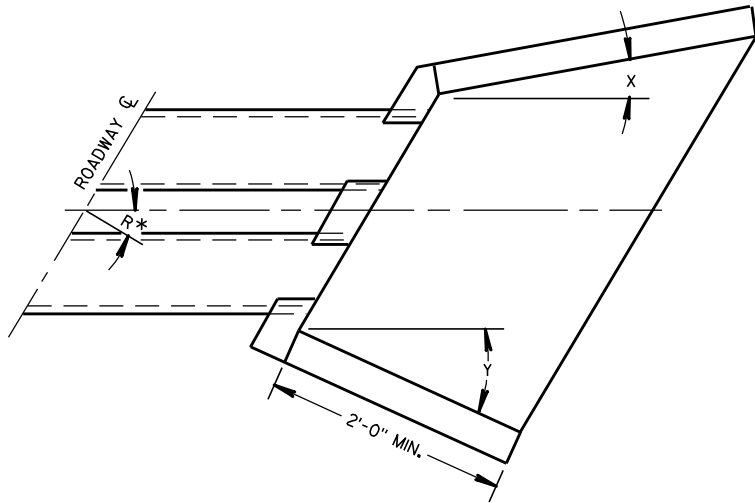
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 /S/ Rory L. Rhinehart
DATE CHIEF ROADWAY DEVELOPER
FHWA





WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

GENERAL NOTES

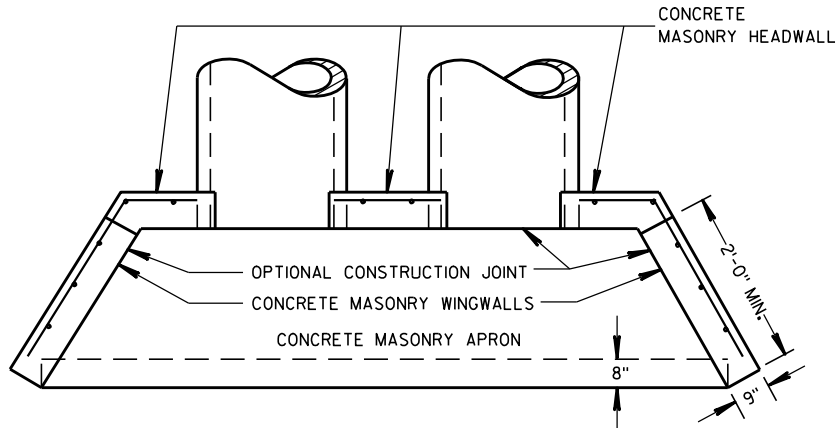
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

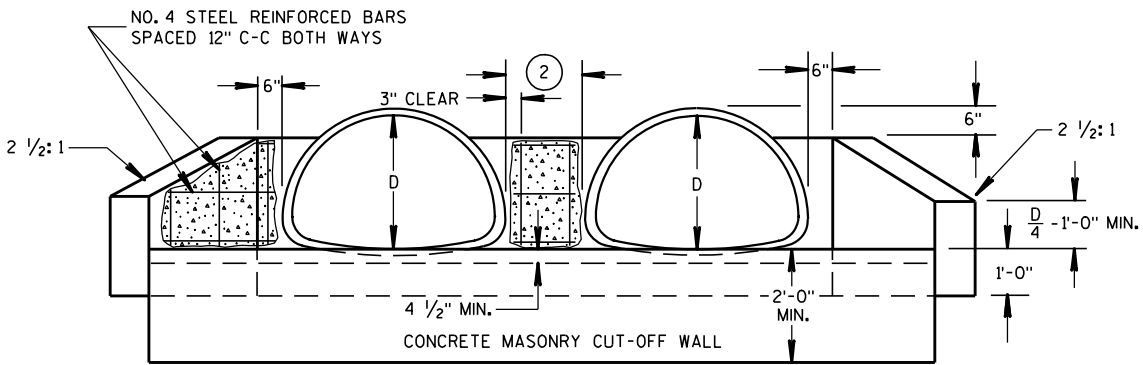
ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

- 1 MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.
- 2 THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

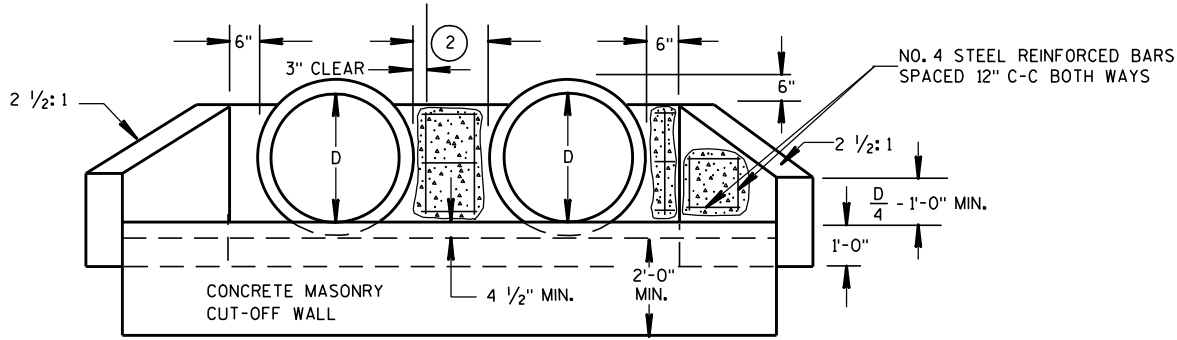
DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	1/2 DIA. OR SPAN
OVER 72"	3'-0"



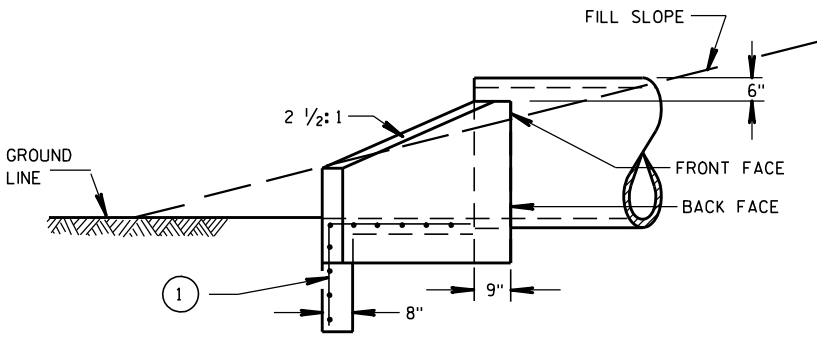
PLAN VIEW
CULVERT PIPE AND PIPE ARCH



END ELEVATION
PIPE ARCH



END ELEVATION
CULVERT PIPE

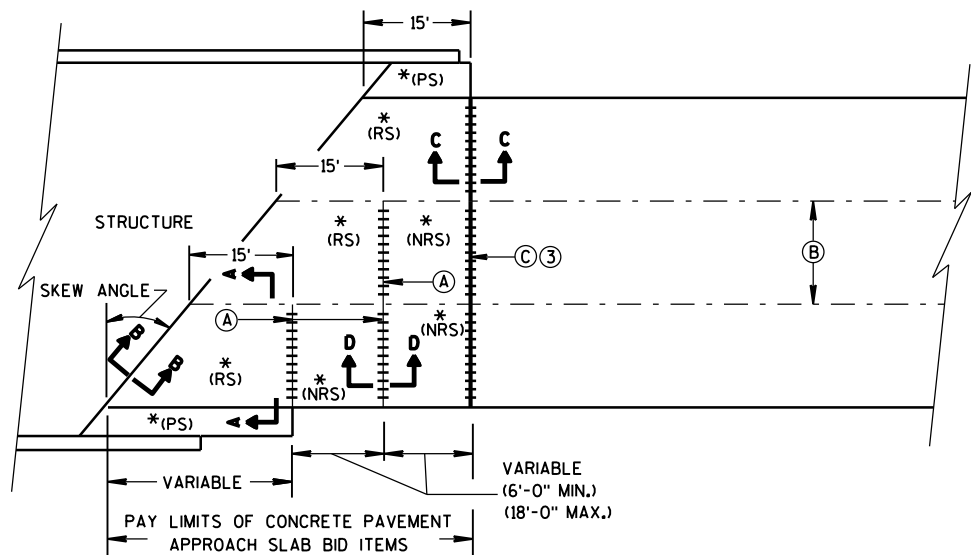


SIDE ELEVATION
CULVERT PIPE AND PIPE ARCH

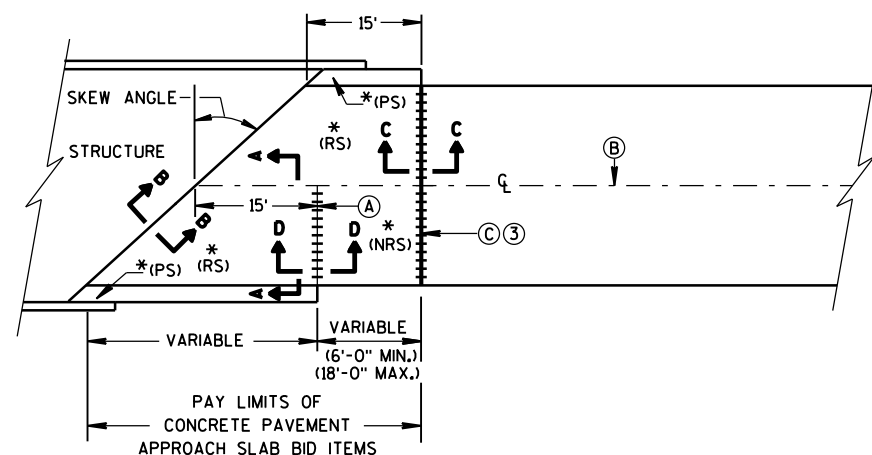
CONCRETE MASONRY ENDWALLS
FOR CULVERT PIPE AND
PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

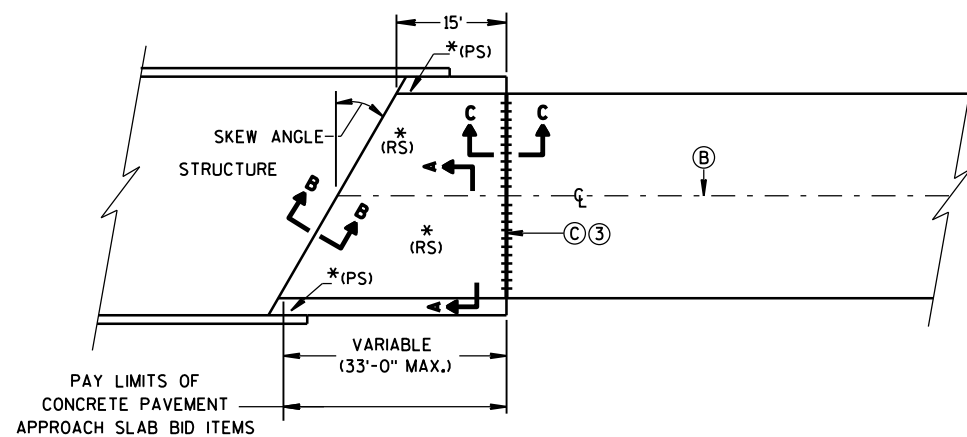
APPROVED
 9/14/98 /S/ Rory L. Rhin...
 DATE CHIEF ROADWAY DEVELOPER ENGINEER
 FHWA



**SKewed APPROACH
(PAVEMENT MORE THAN 2 LANES)**



**SKews > 20°
(PAVEMENT WIDTH ≤ 30')**

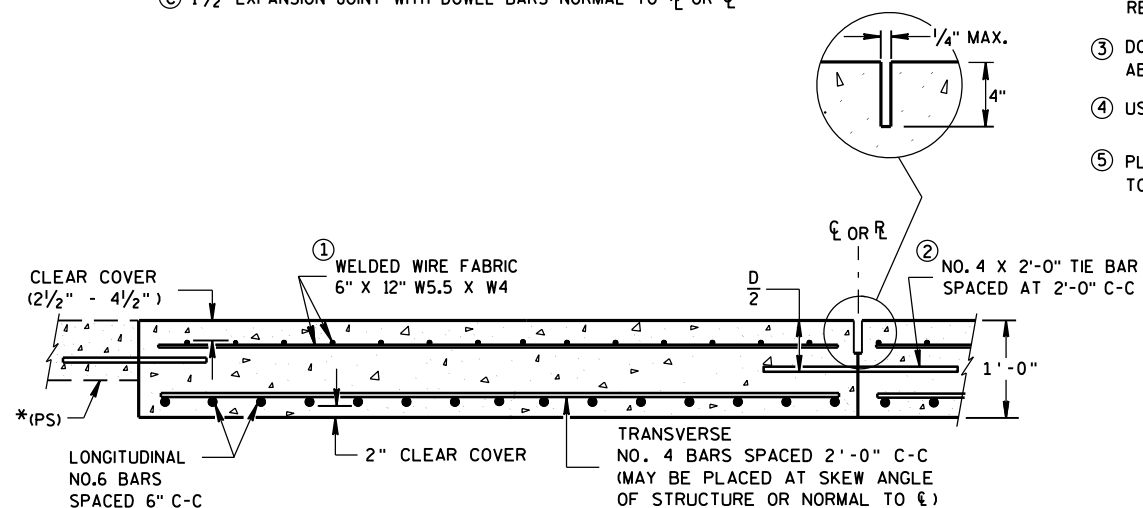


**SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')
APPROACH SLAB AND ADJACENT PAVEMENT**

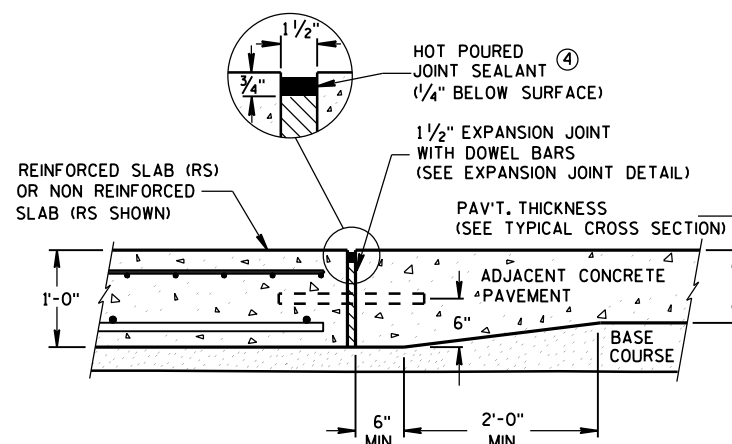
* (RS) = REINFORCED CONCRETE SLAB
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
* (NRS) = NON-REINFORCED CONCRETE SLAB

*** STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

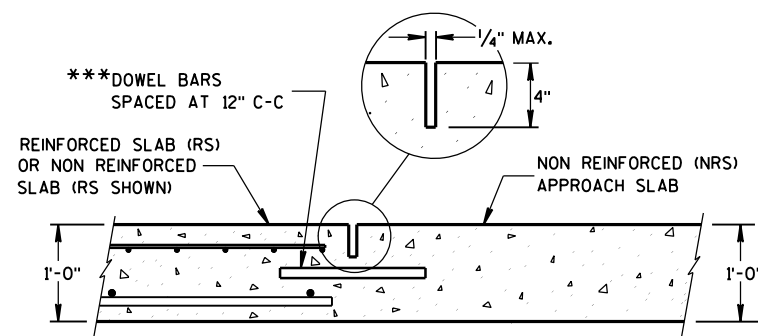
- (A) STANDARD CONTRACTION JOINT NORMAL TO ℓ OR ℓ_c
(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
(C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℓ OR ℓ_c



**SECTION A-A
REINFORCEMENT POSITIONING DETAIL**



**SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**



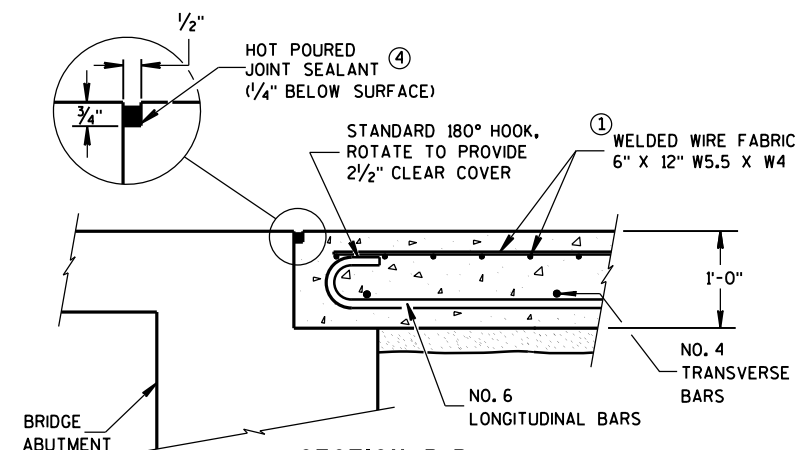
**SECTION D-D
CONTRACTION JOINT**

GENERAL NOTES

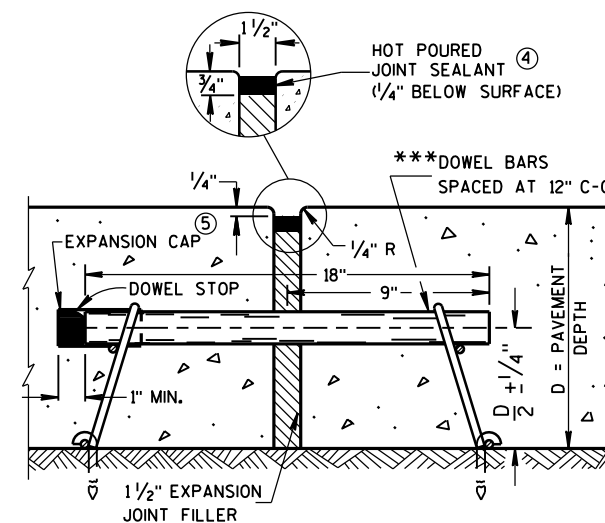
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



**SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT**

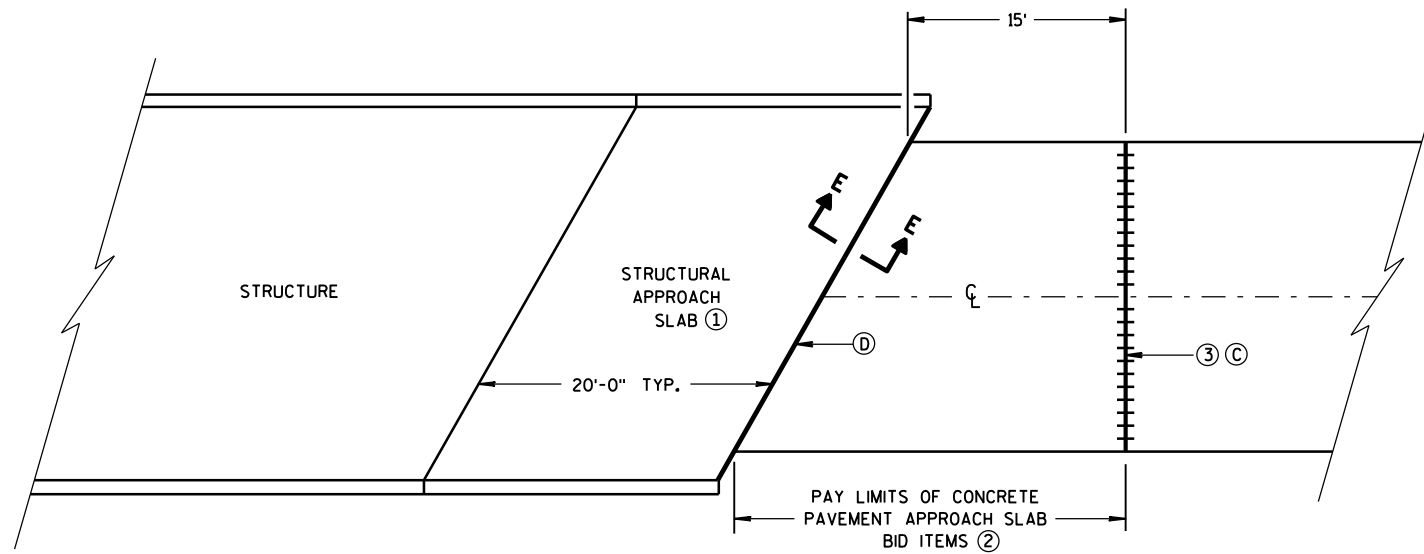


EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPER 73
FHWA

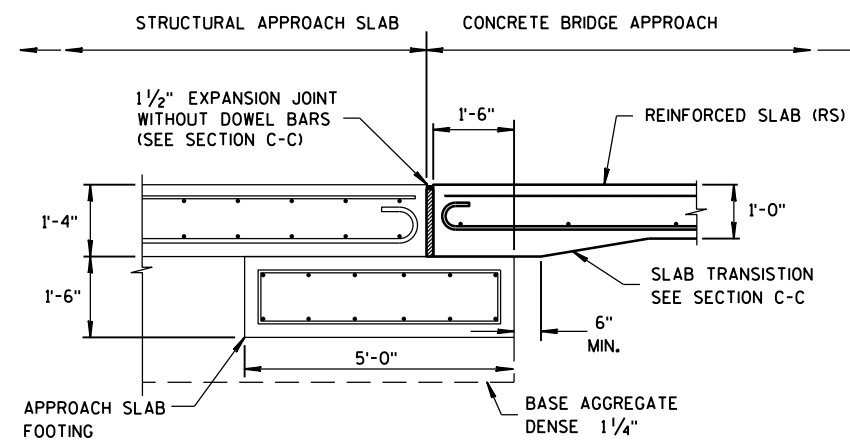
**BRIDGE APPROACHES****GENERAL NOTES**

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

- ① SEE BRIDGE PLAN.
- ② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

③ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO R_L OR C_L

④ 1½" EXPANSION JOINT (NO DOWELS)

**SECTION E-E****FOOTING DETAIL**

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

**STRUCTURAL APPROACH SLAB
AND CONCRETE PAVEMENT
APPROACH SLAB**

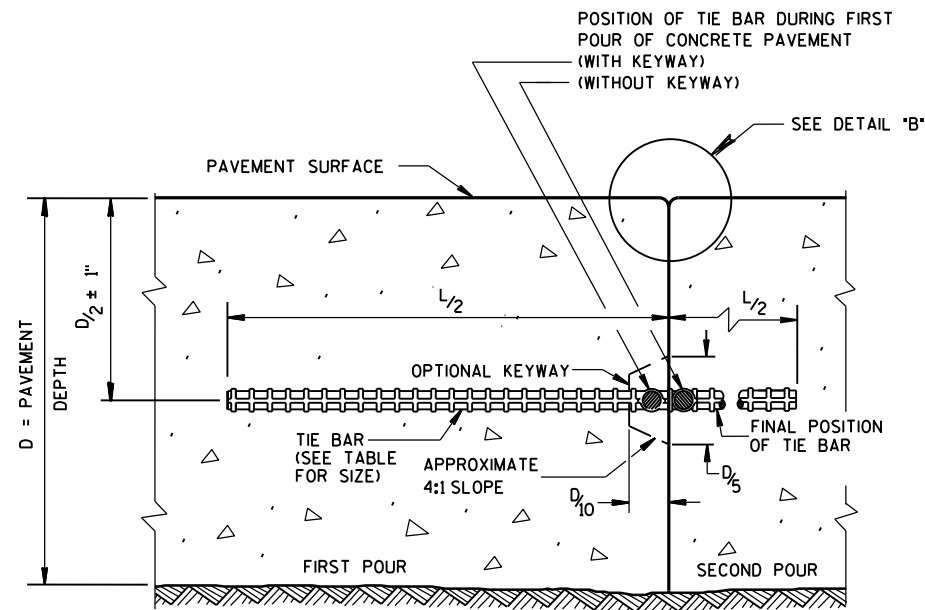
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED

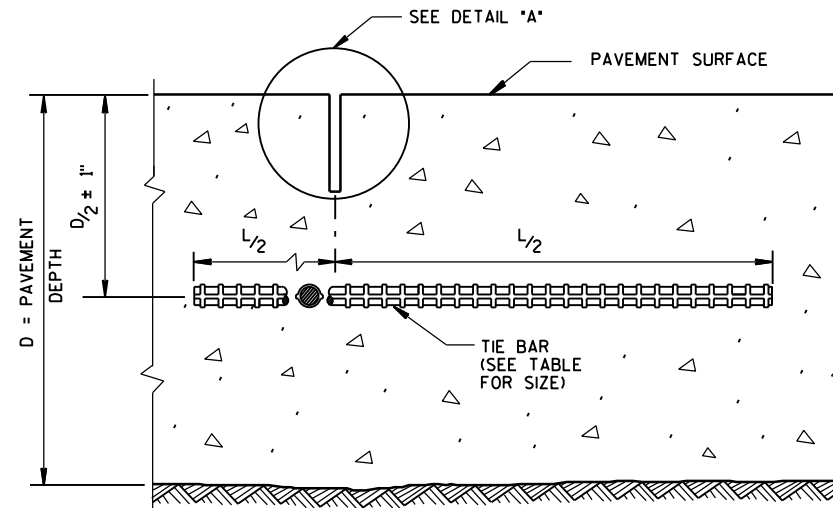
June, 2015
DATE

FHWA

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISOR



CONSTRUCTION JOINT



SAWED JOINT

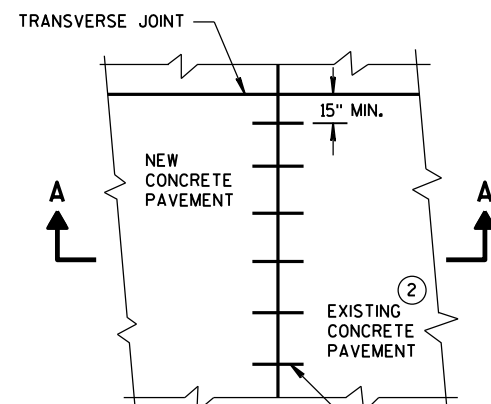
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

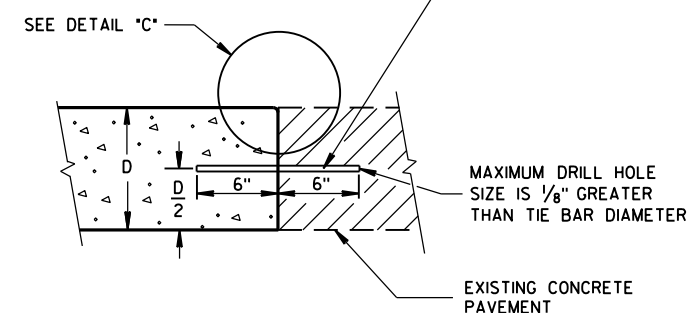
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

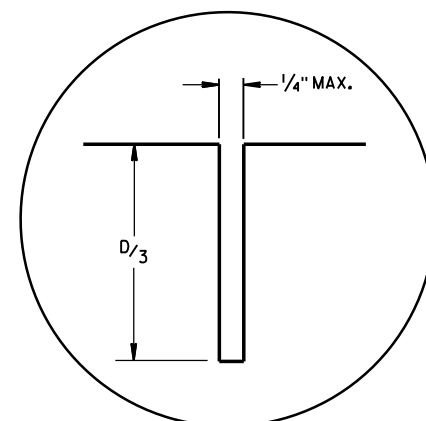
- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



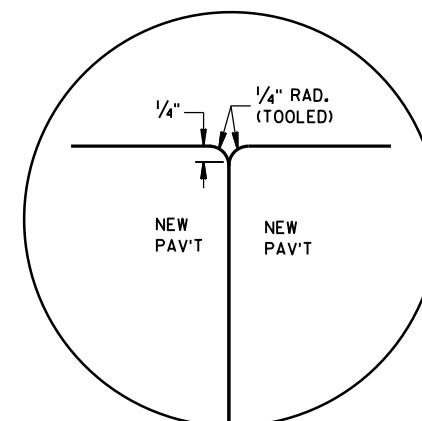
PLAN VIEW



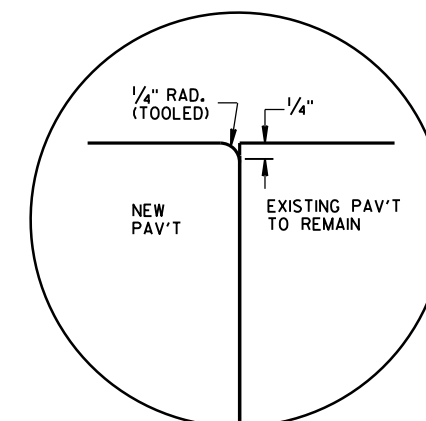
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



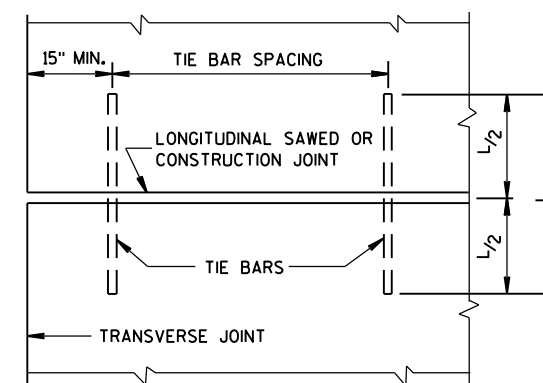
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

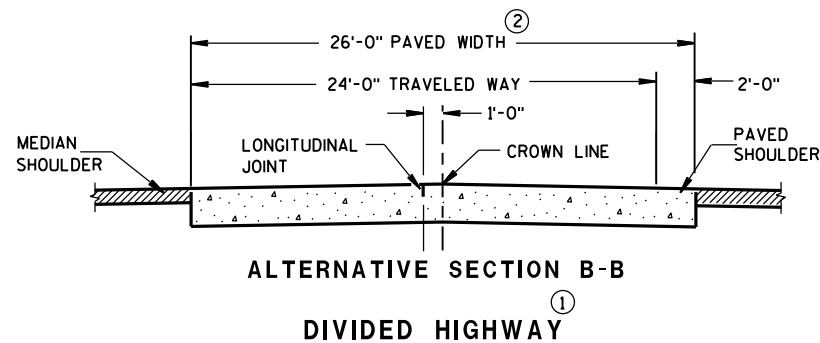
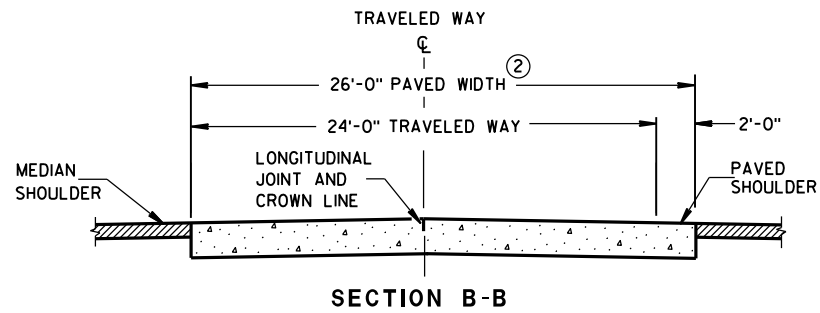
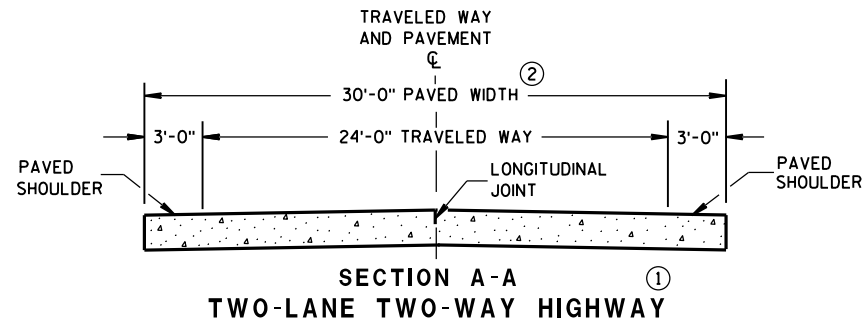


PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPER 75
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GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

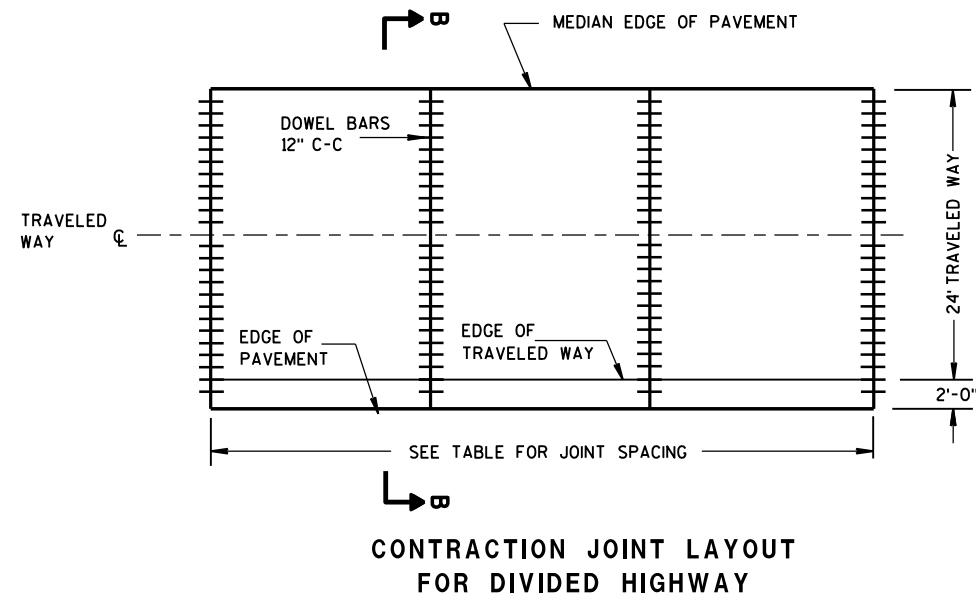
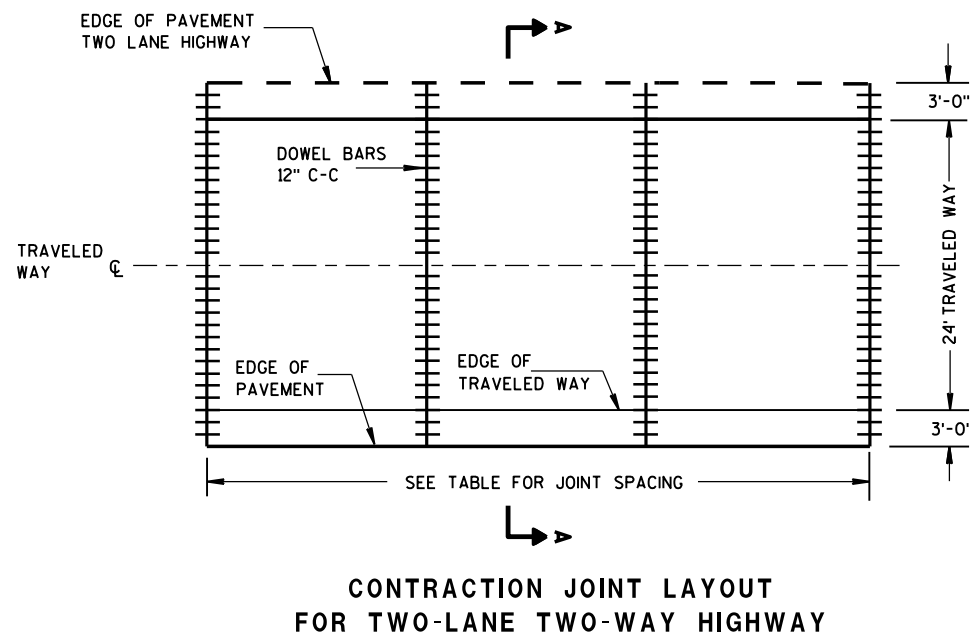
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

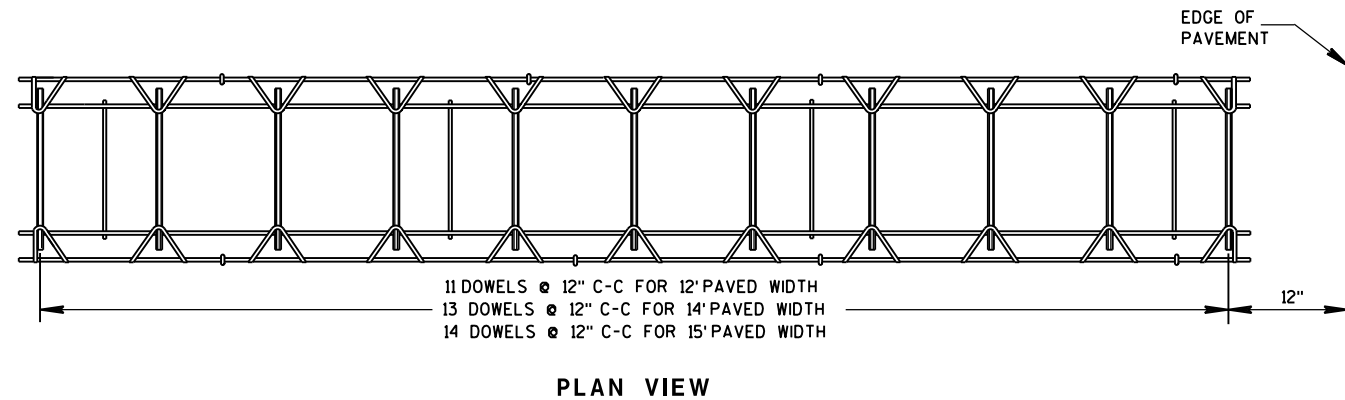
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

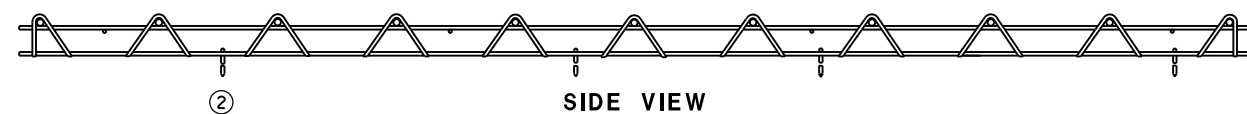


RURAL DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

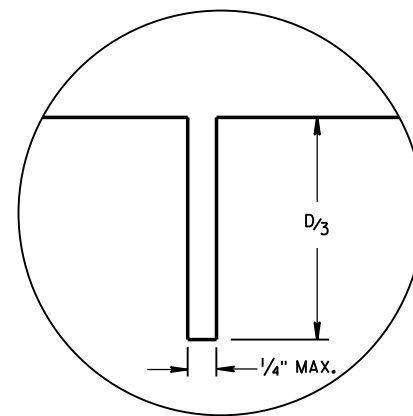


PLAN VIEW

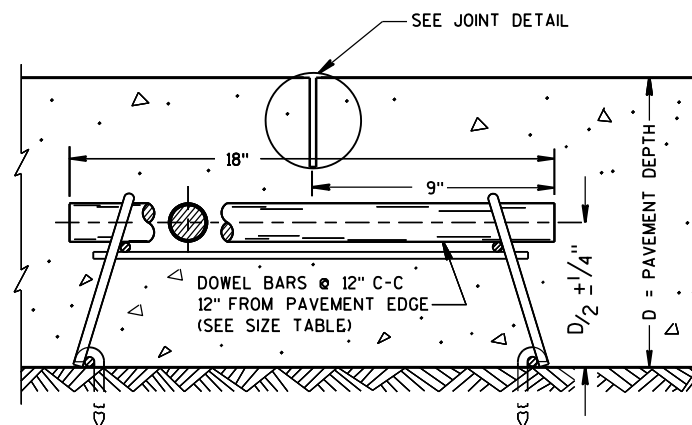


SIDE VIEW

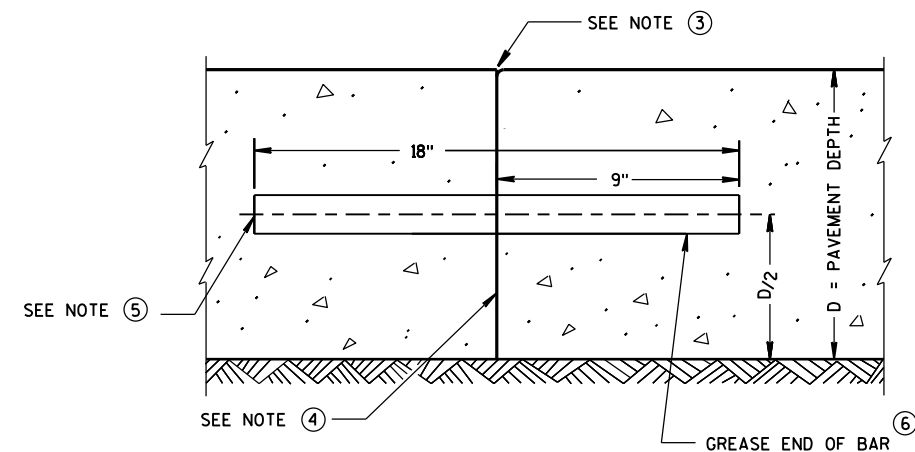
(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY^①

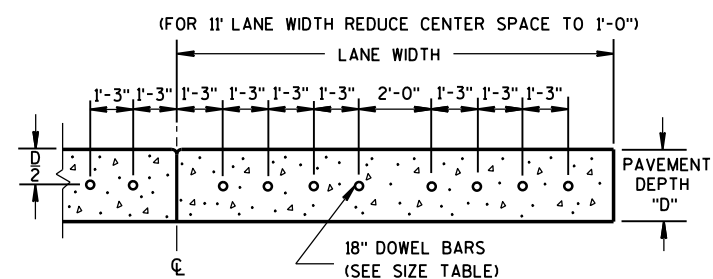
JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT

DRILLED DOWEL BAR CONSTRUCTION JOINT^⑦

GENERAL NOTES

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

RURAL DOWELED
CONCRETE PAVEMENTSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE/S/ Deb Bischoff
PAVEMENT POLICY & DE 77

VEER

FHWA

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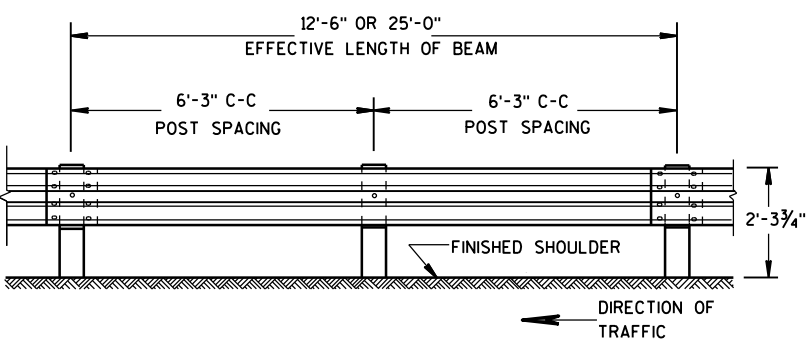
- S.D.D. 14 B 15-9a



TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD



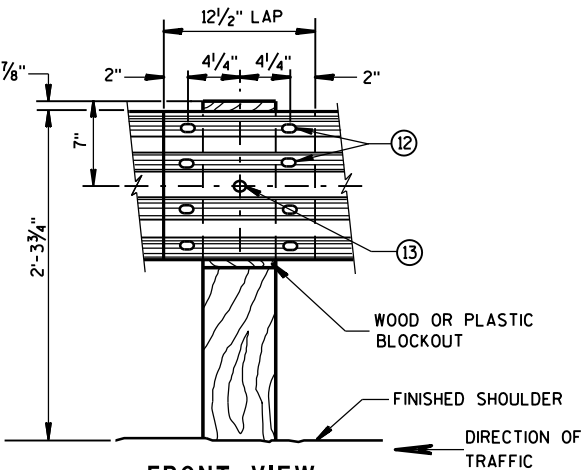
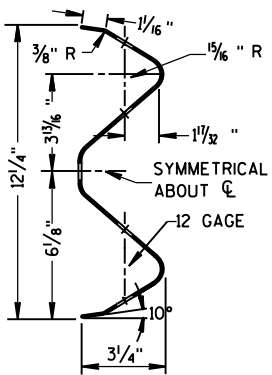
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 78



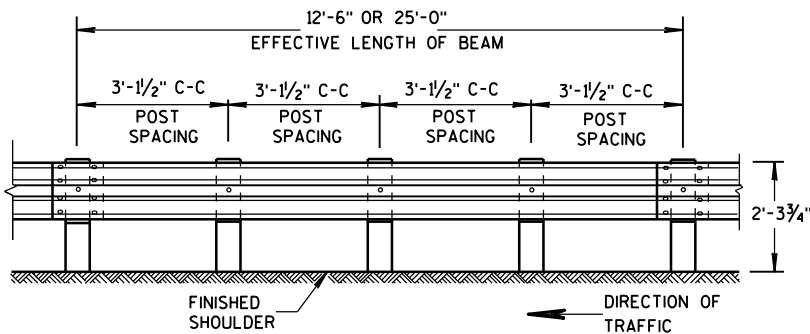
FRONT VIEW

POST SPACING STANDARD INSTALLATION

SECTION THRU W BEAM

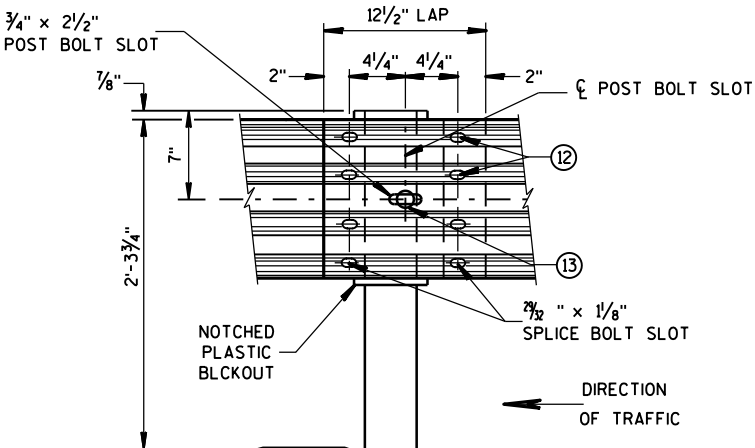


FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



FRONT VIEW

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

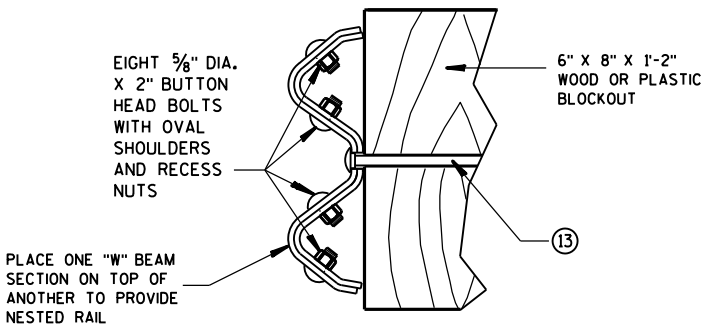


FRONT VIEW
BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD

GENERAL NOTES

- ⑧ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ⑩ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ⑪ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
- ⑫ 8 - 5/8" Ø X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.

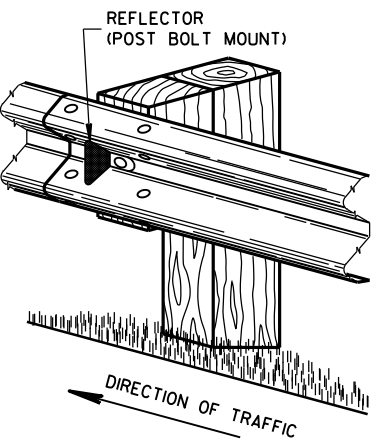


NESTED W BEAM (NW)

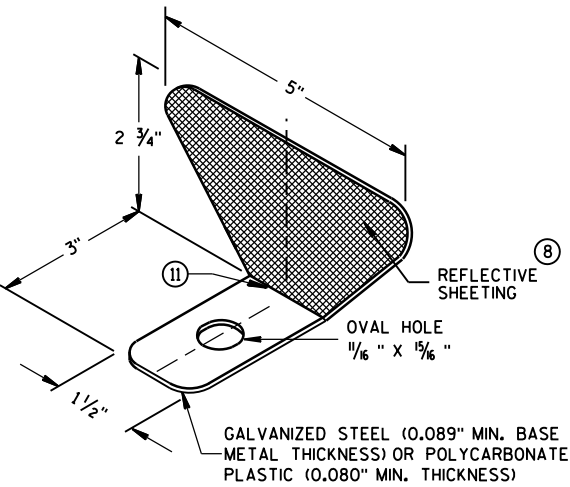
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING ⑨

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑩	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ⑪	3
	> 200'	100' C-C	2	

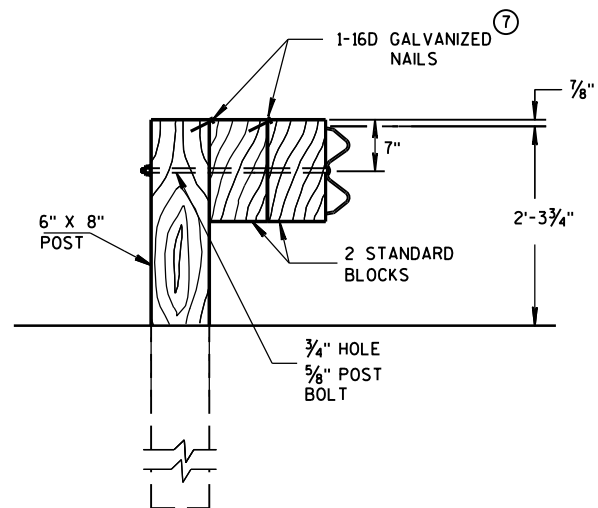


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION



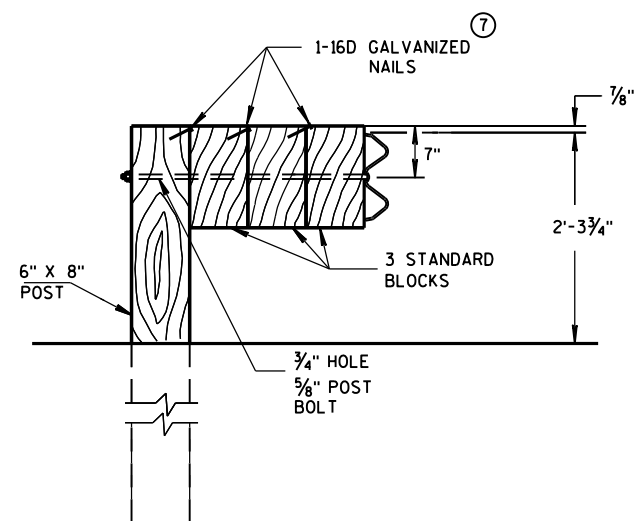
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

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

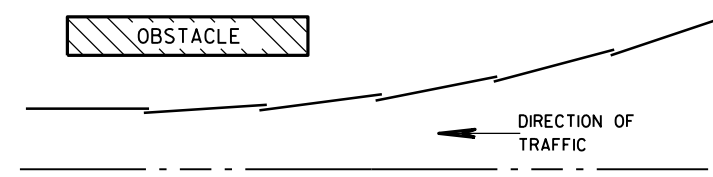


DETAIL FOR TRIPLE BLOCKS

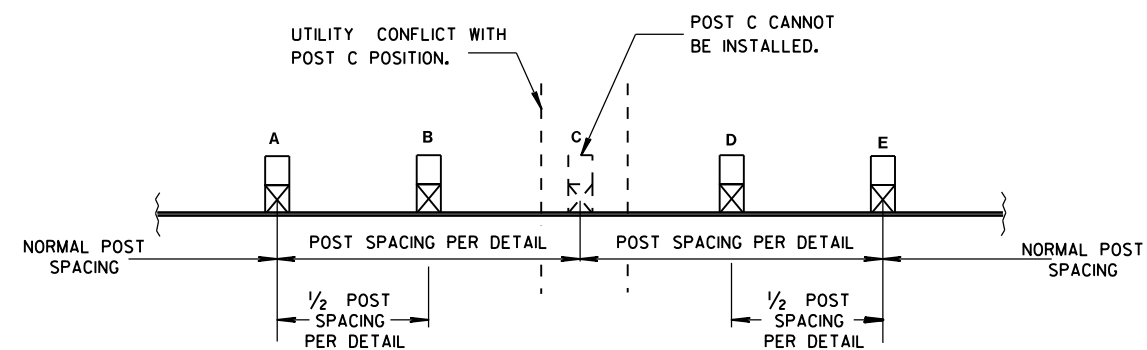
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

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

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



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016

DATE

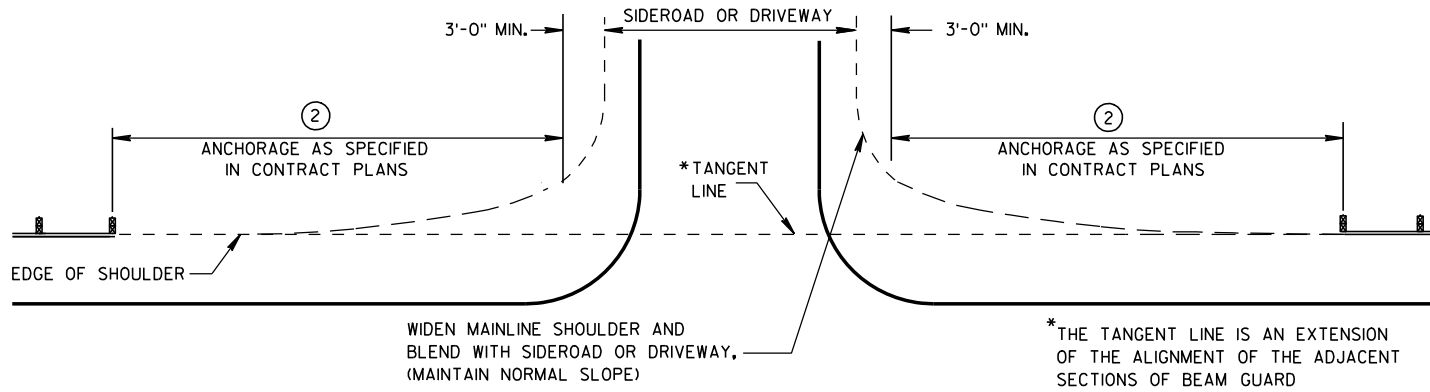
FHWA

/S/ Jerry H. Zogg

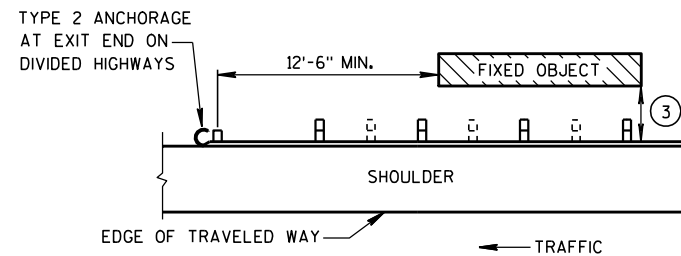
ROADWAY STANDARDS

ENGINEER

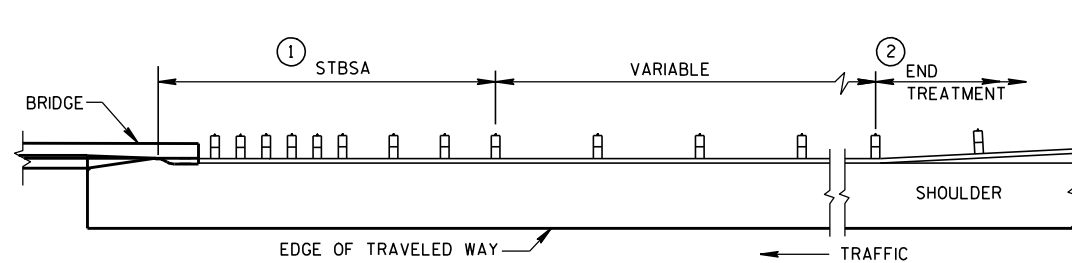
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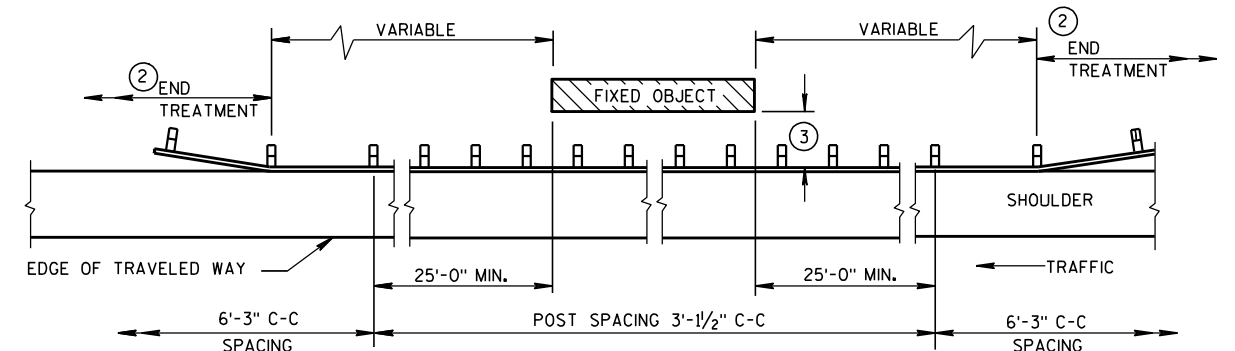
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES

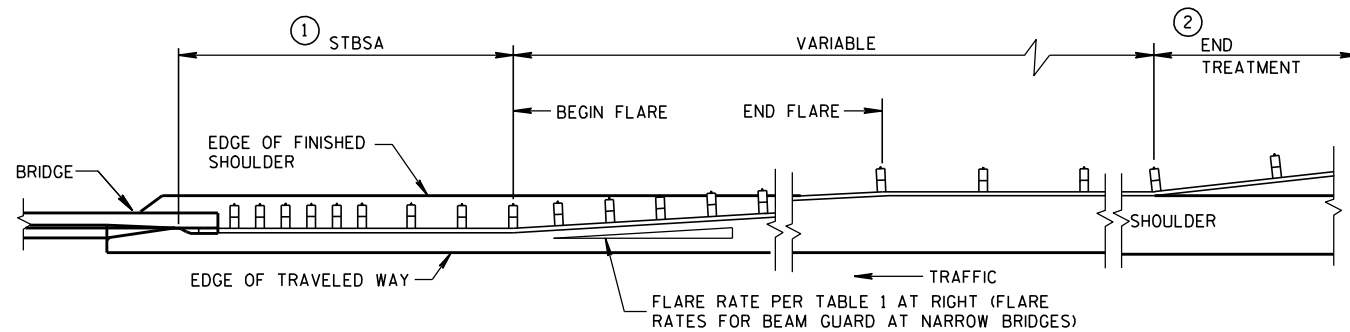


BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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

TABLE 1
FLARE RATES FOR BEAM
GUARD AT NARROW BRIDGES

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



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

GENERAL NOTES

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

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

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

- STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1 1/2"
4'-6"	6' - 3"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-21-07

DATE

FHWA

/s/ Jerry H. Zoon

ROADWAY STANDARDS

ENGINEER

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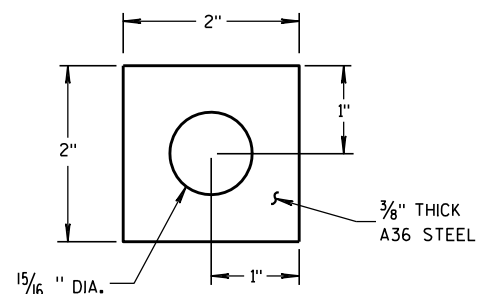
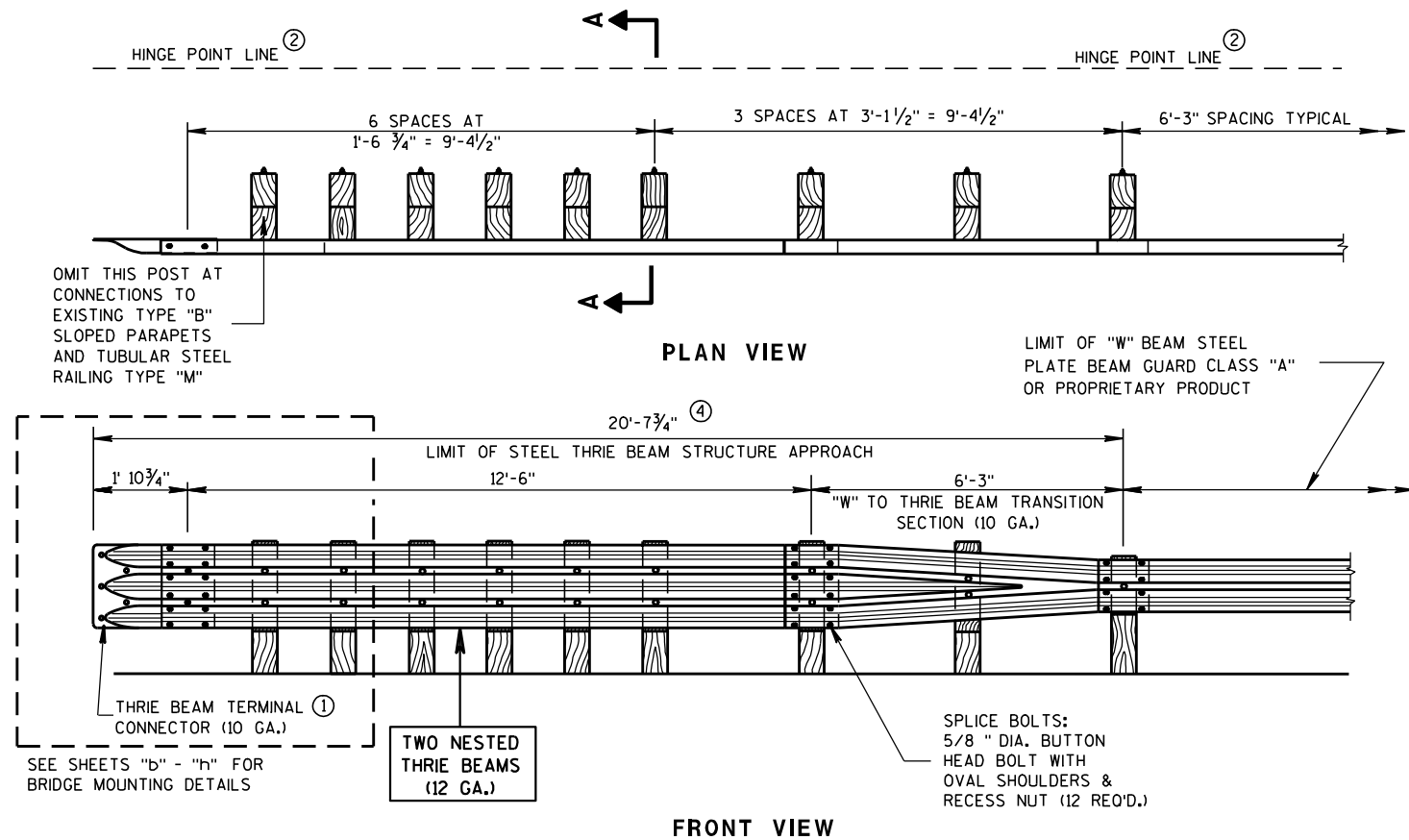


PLATE WASHER DETAIL

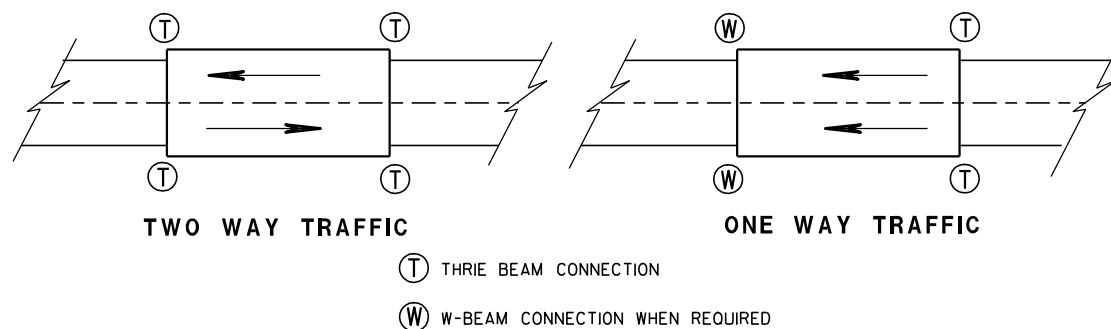
GENERAL NOTES

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

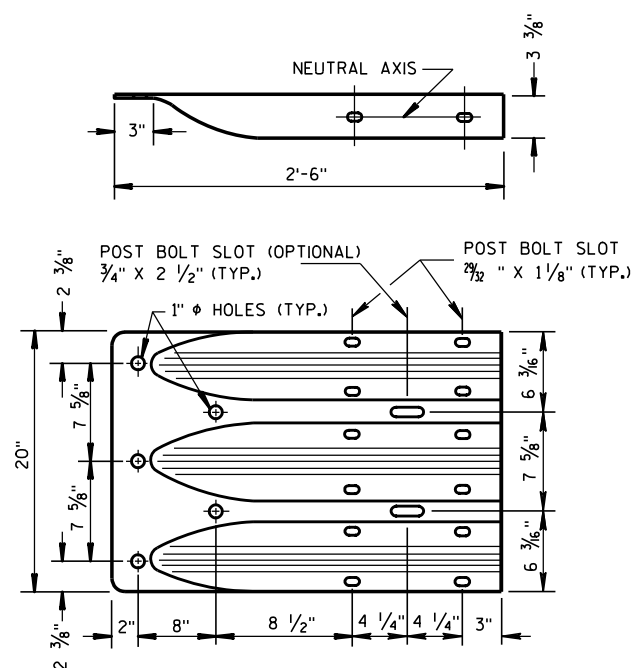
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

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

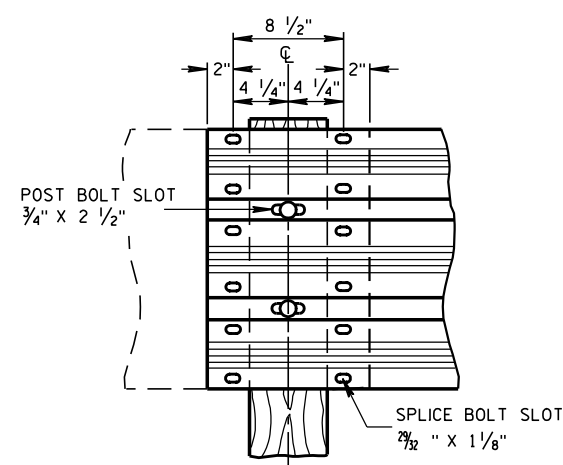
- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.
- ③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.
- ④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



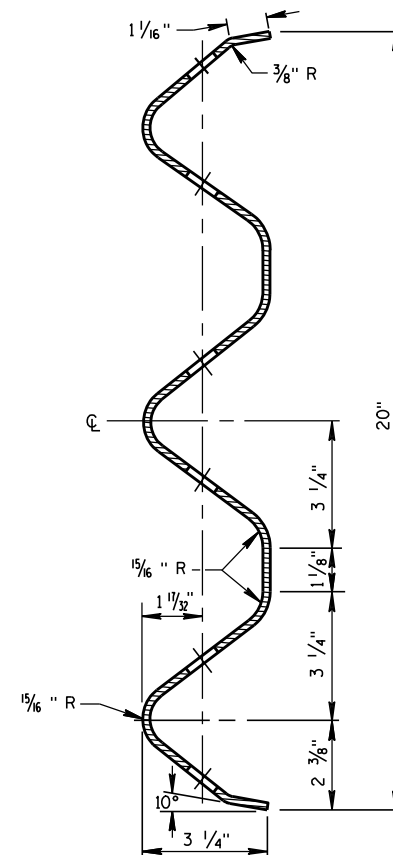
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



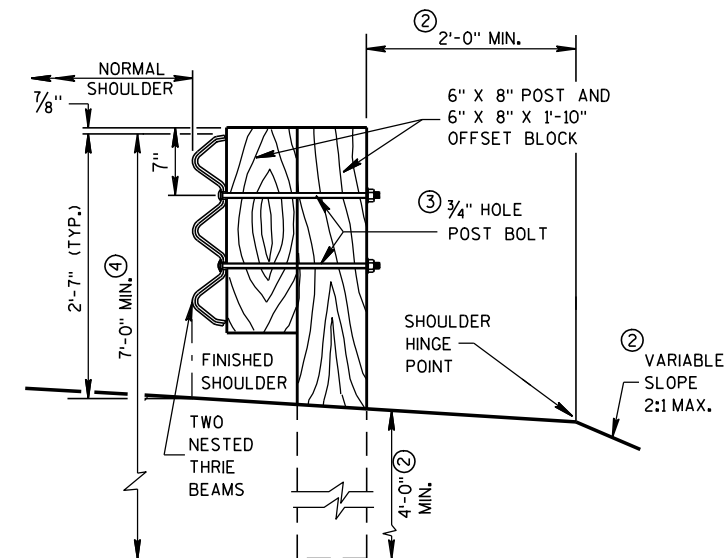
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012

DATE

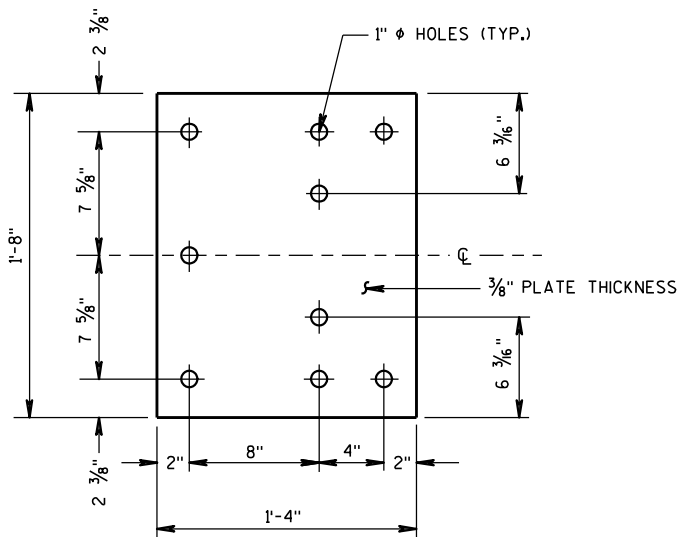
/s/ Jerry H. Zoon

ROADWAY STANDARDS 182

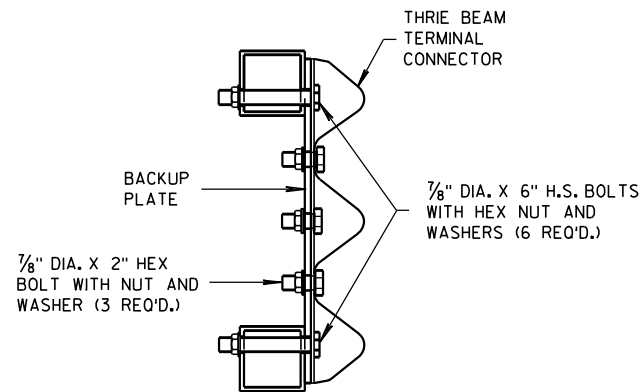
ENGINEER

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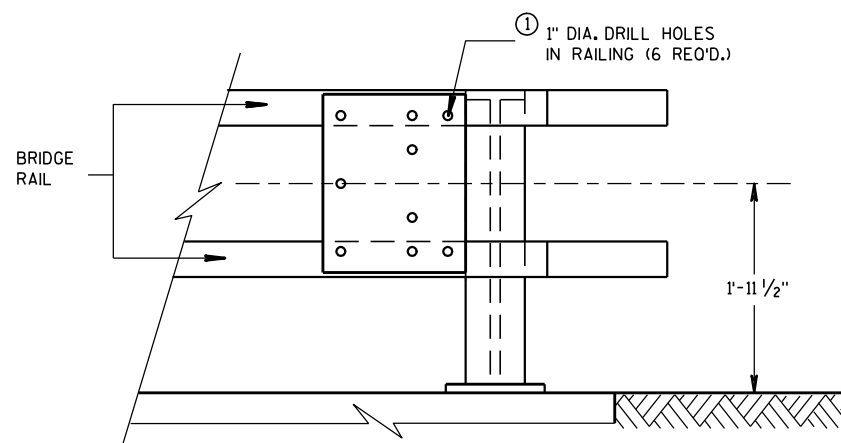
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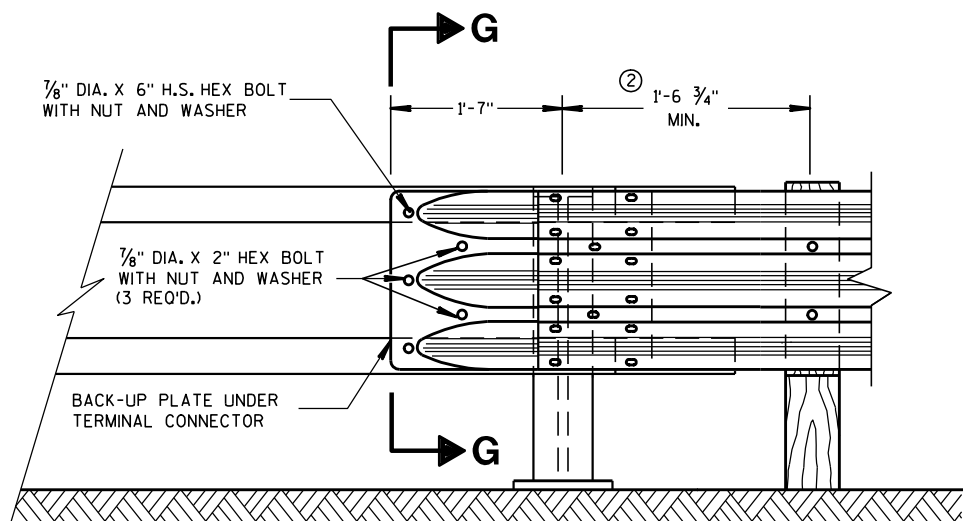
BACK-UP PLATE DETAIL



SECTION G-G

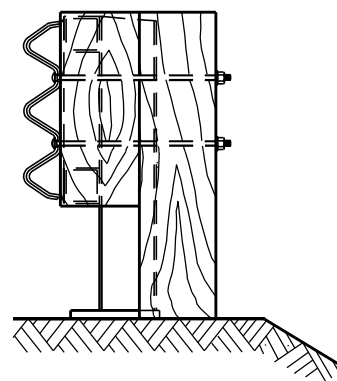


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

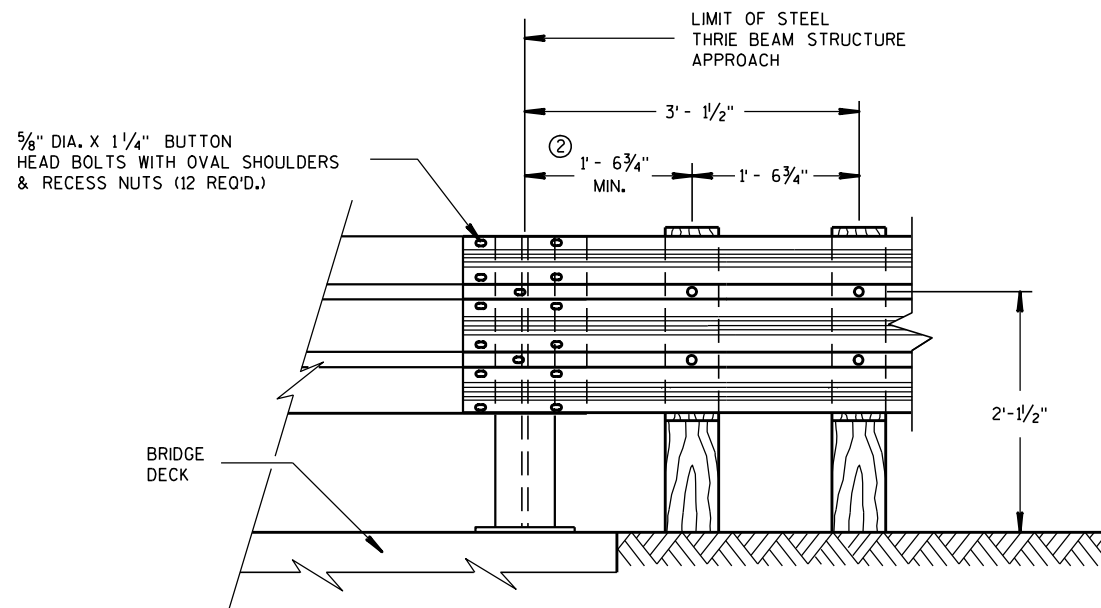


END VIEW

GENERAL NOTES

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE /S/ Jerry H. 7000
ROADWAY STANDARDS 83 ENT
ENGINEER
FHWA

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	**	STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
③	2	SOIL PLATE: 2'-0" X 1'-6" X 1/4" **
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑮	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS, IF NONE ARE AVAILABLE, INSTALL 3/8" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(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) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.

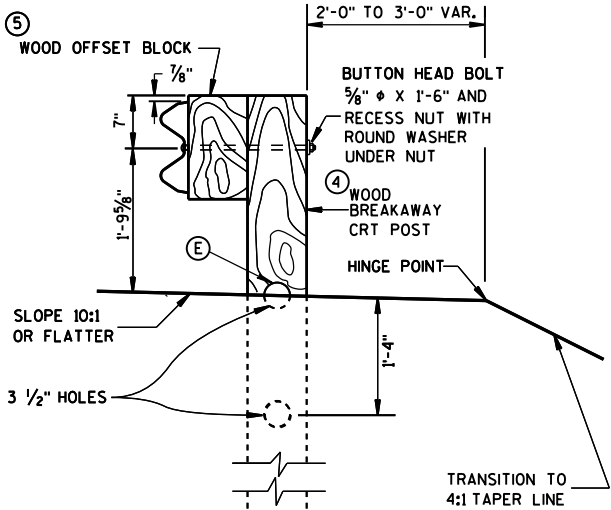
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

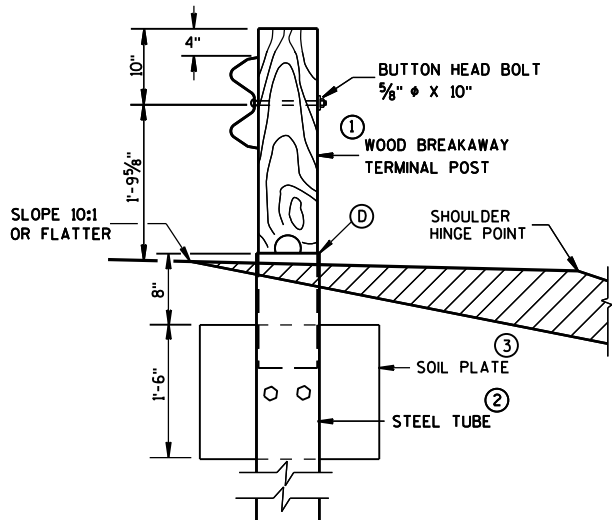
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

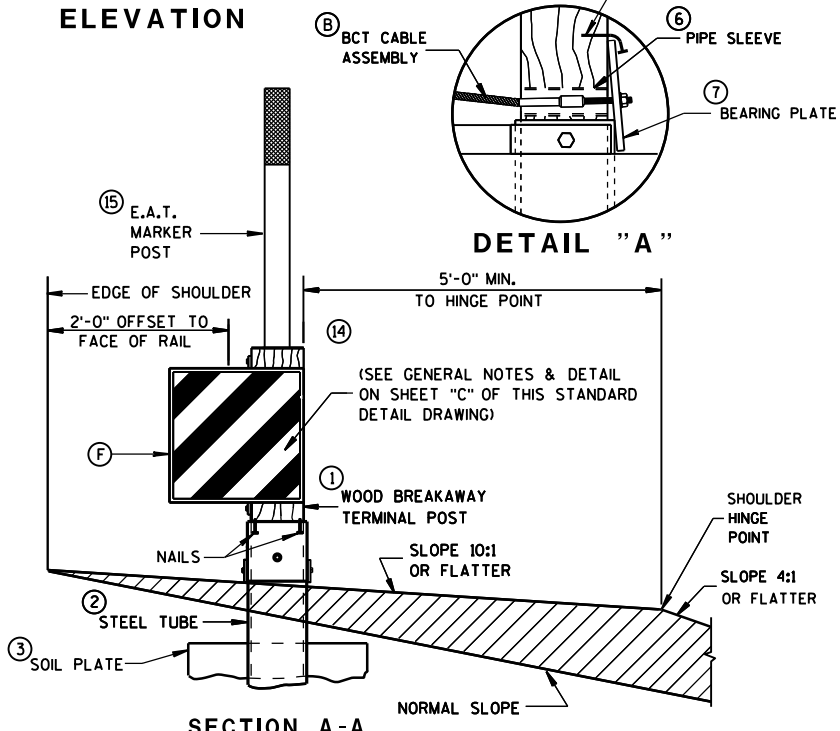
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



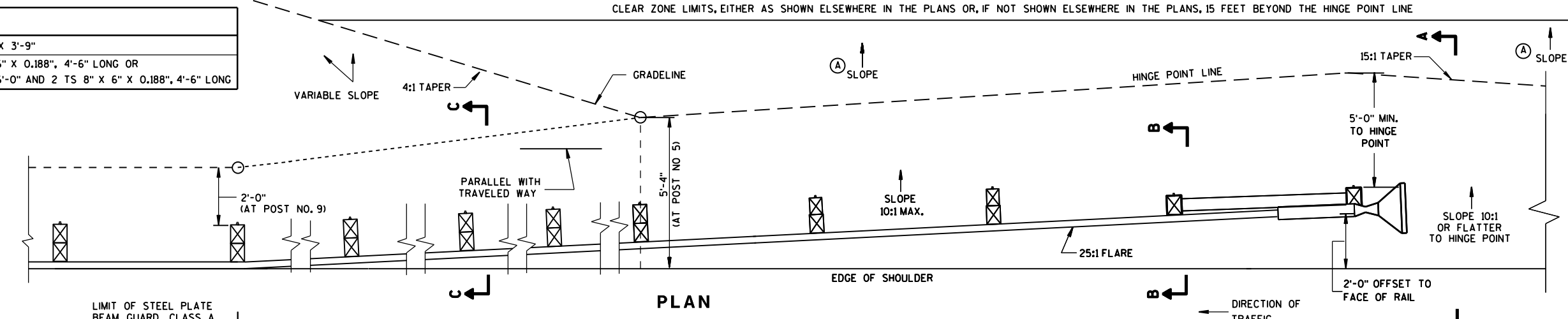
SECTION C-C
TYPICAL AT POST NOS. 6, 8



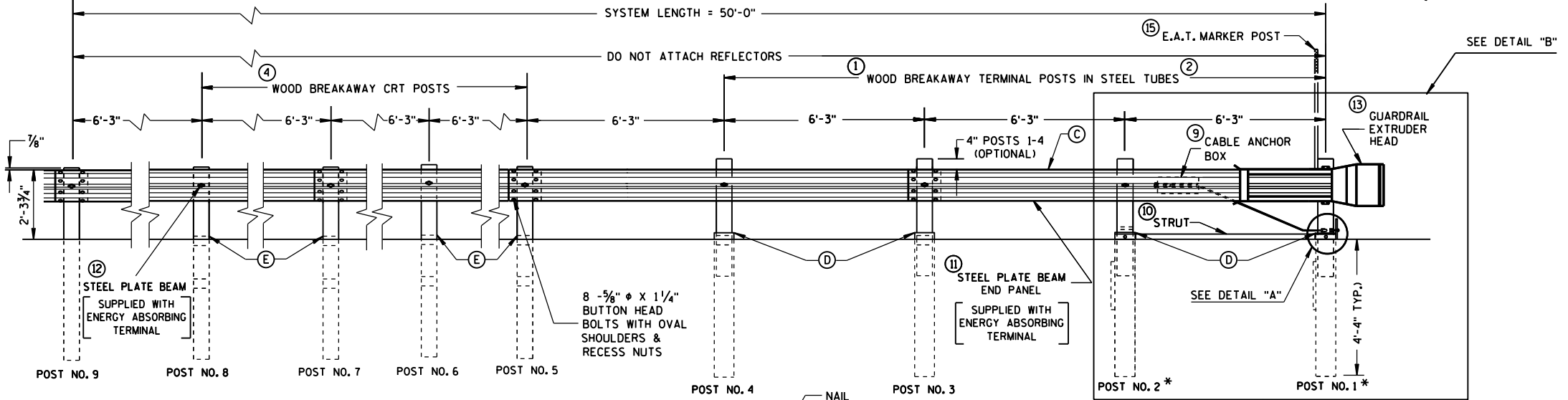
SECTION B-B
TYPICAL AT POST NO. 2 *



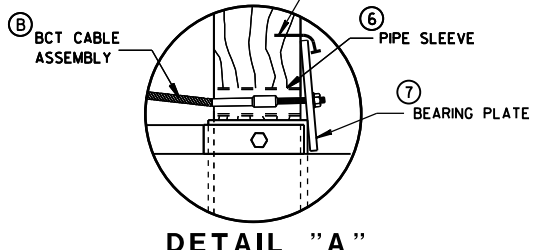
SECTION A-A
TYPICAL AT POST NO. 1 *



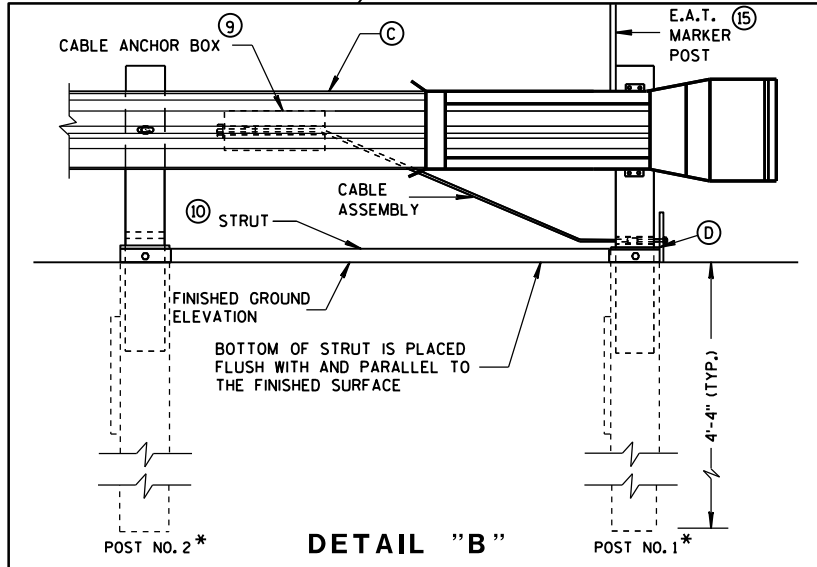
PLAN



ELEVATION



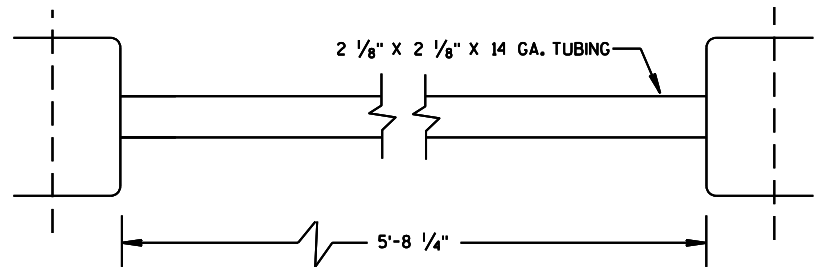
DETAIL "A"



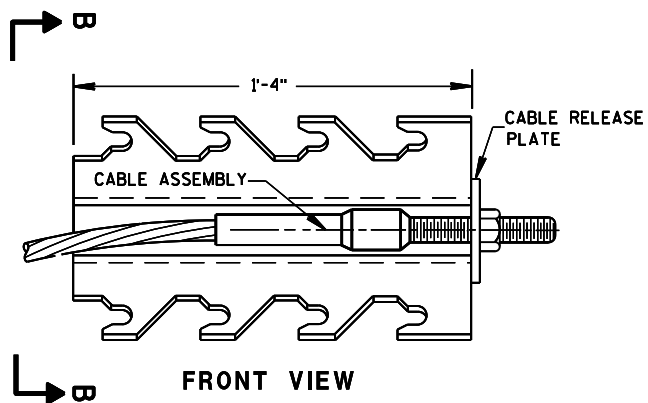
DETAIL "B"

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

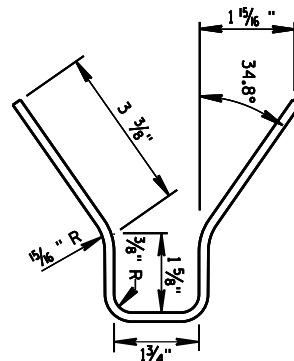
STATE OF WISCONSIN
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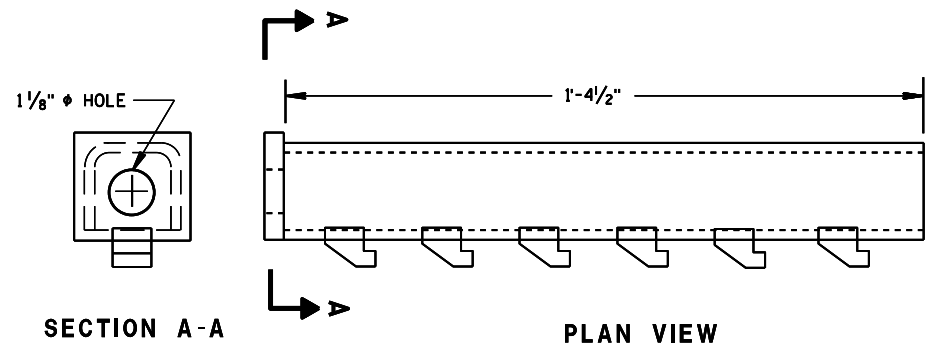
⑩ STRUT DETAIL (SKT-350)



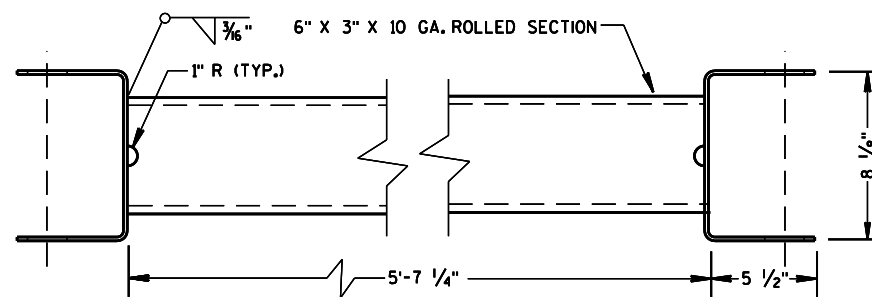
⑨ CABLE ANCHOR BOX (SKT-350)
(SKT-350)



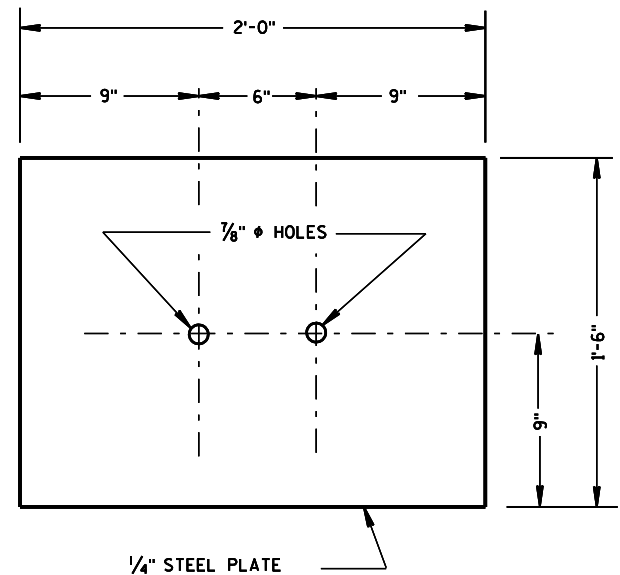
SECTION B-B



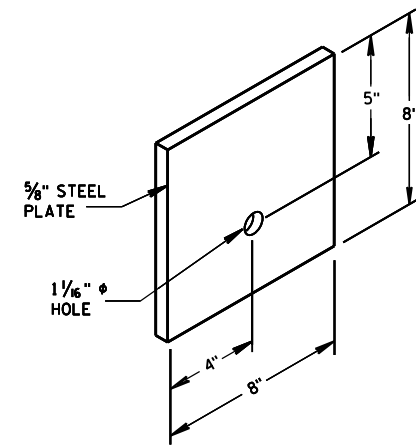
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)
(ET-2000/ET-2000 PLUS)



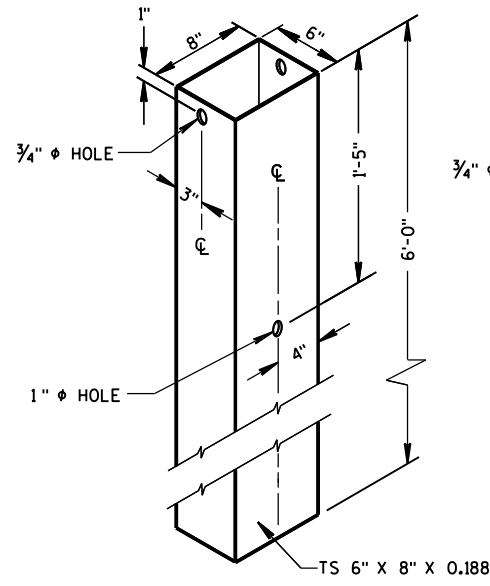
③ SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



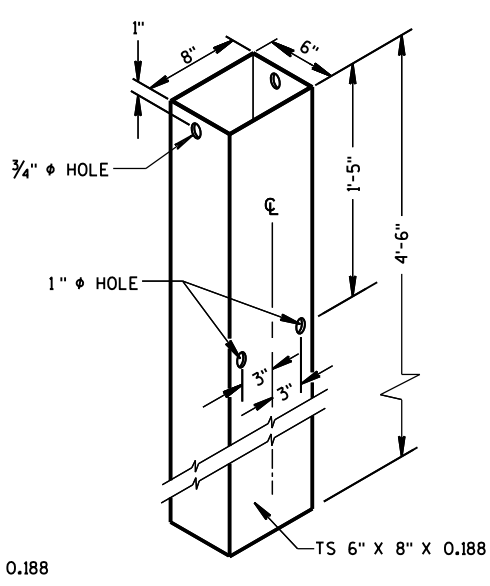
⑦ STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

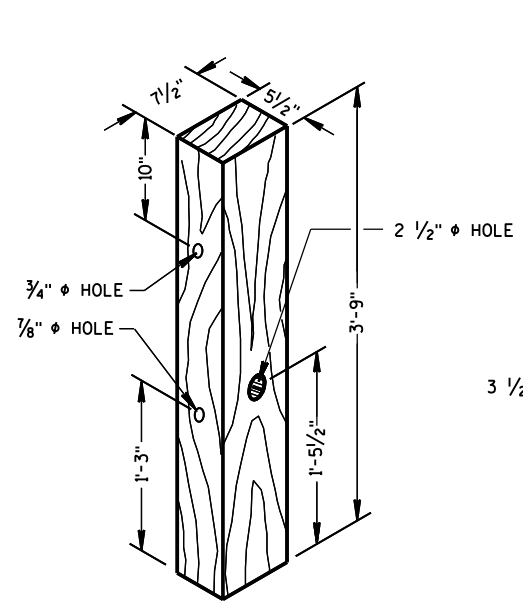
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



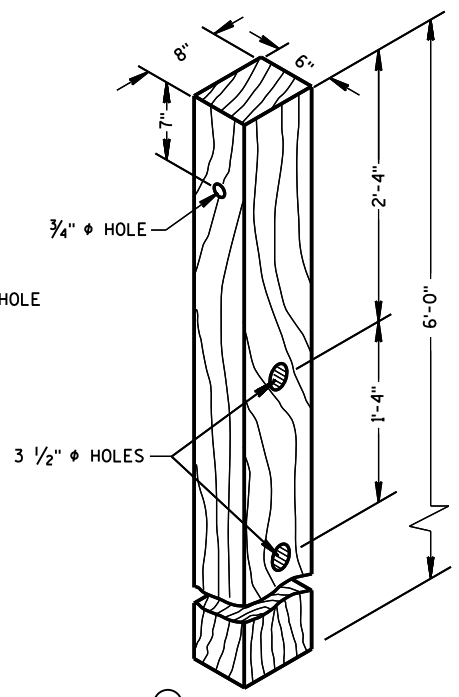
② 72" STEEL TUBE
(POSTS NO. 1-4)



② 54" STEEL TUBE
(POSTS NO. 1-4)



① TERMINAL POST
(POSTS NO. 1-4)



④ CRT POST
(POSTS NO'S 5-8)

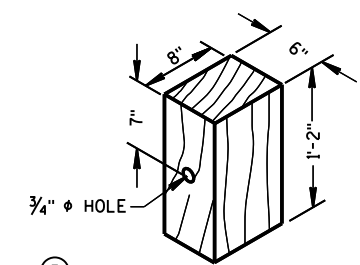
WOOD BREAKAWAY POSTS

GENERAL NOTES

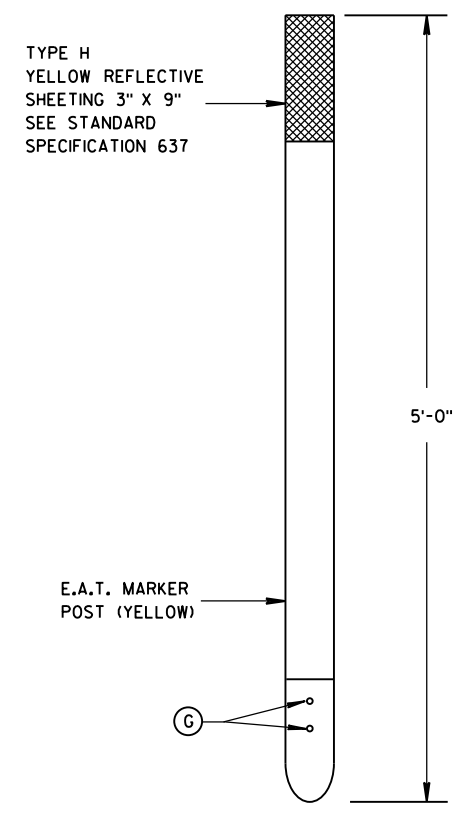
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

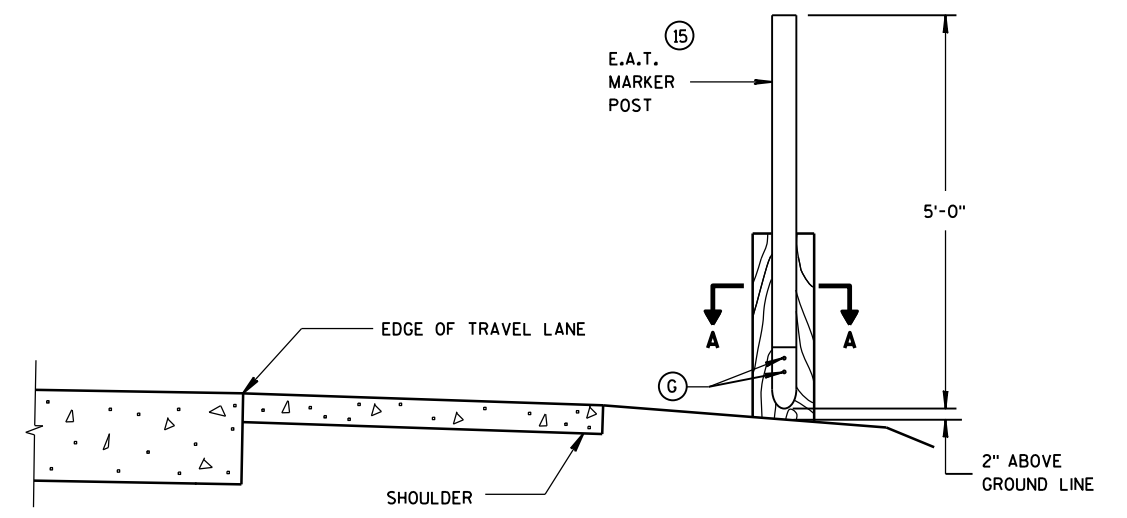
⑥ 1/2" DIA. X 3" LAG BOLT WITH WASHER.



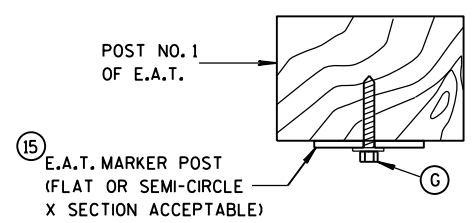
⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



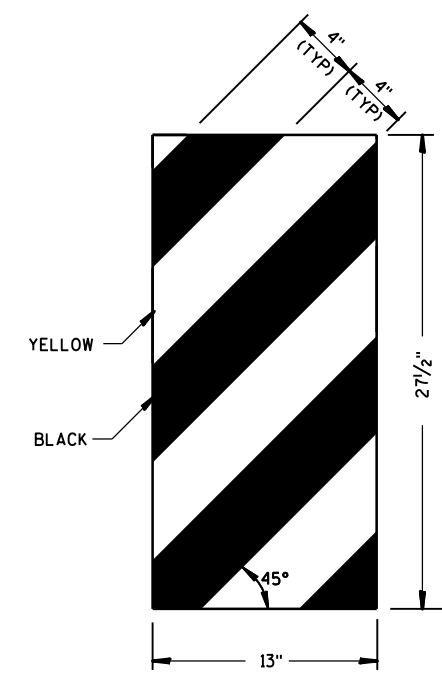
FRONT VIEW SIDE VIEW
⑮ E.A.T. MARKER POST



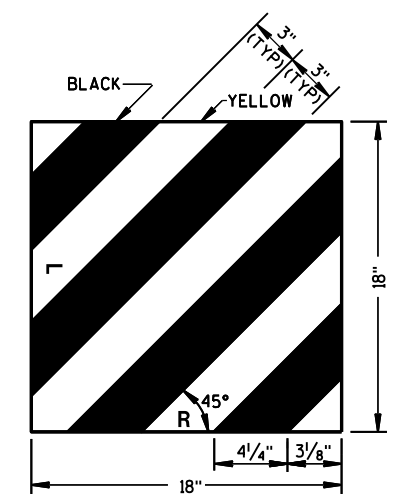
TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A



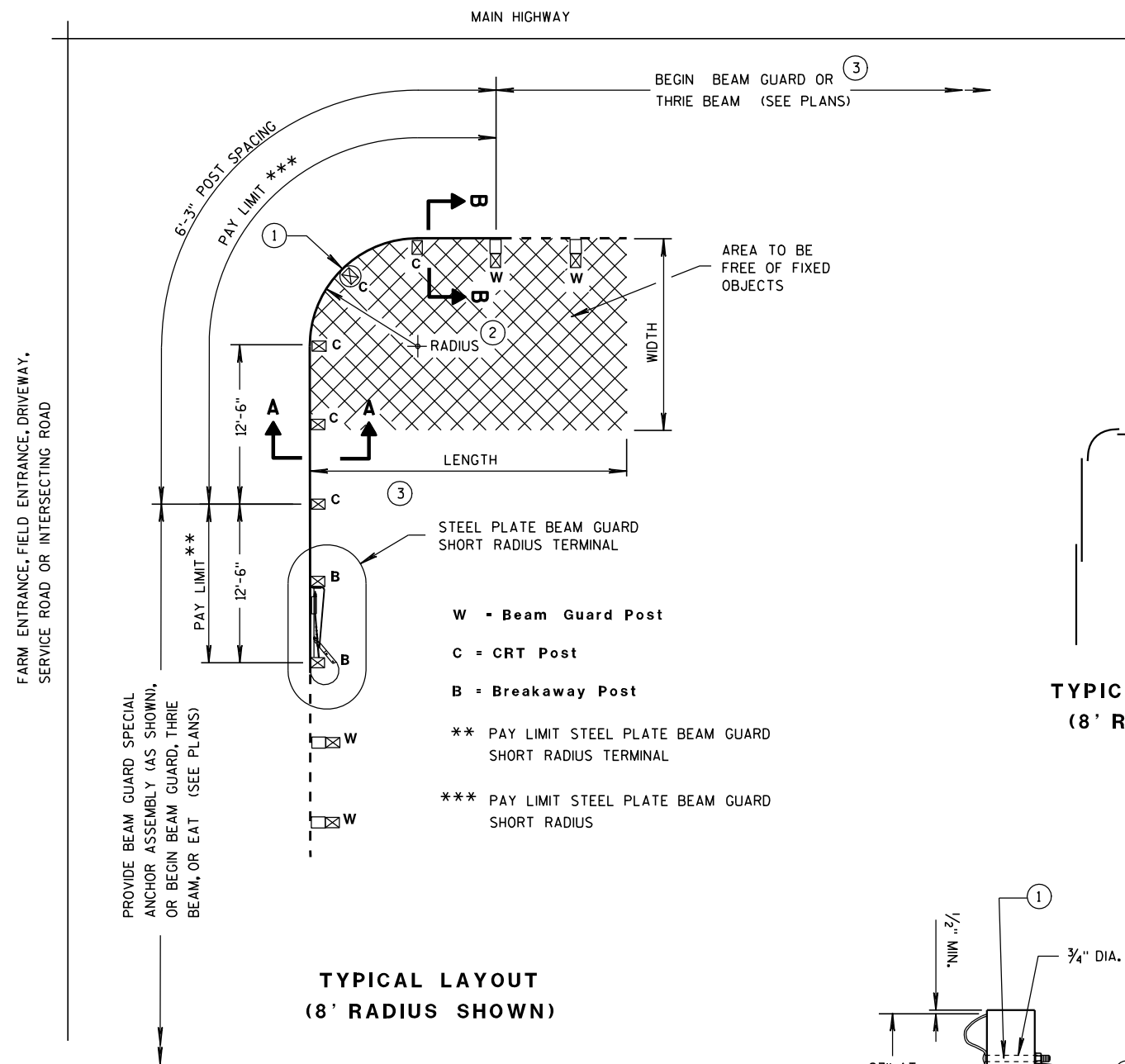
ET-2000 PLUS ONLY



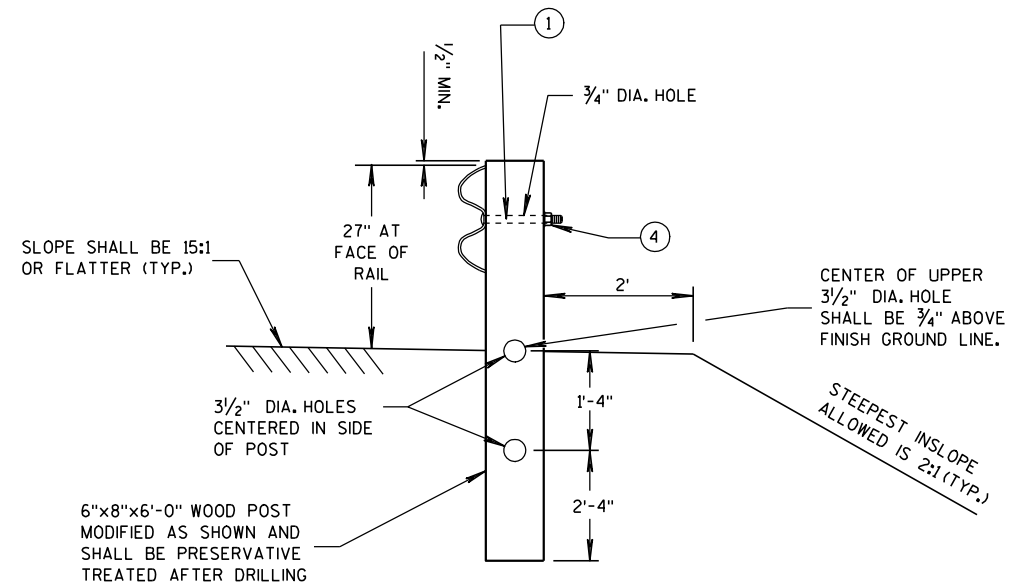
ET-2000 AND SKT-350

⑭ REFLECTIVE SHEETING DETAILS

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER 86
FHWA	



**TYPICAL LAYOUT
(8' RADIUS SHOWN)**



**SECTION A-A
(CRT POST)**

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2, UNLESS NOTED OTHERWISE.

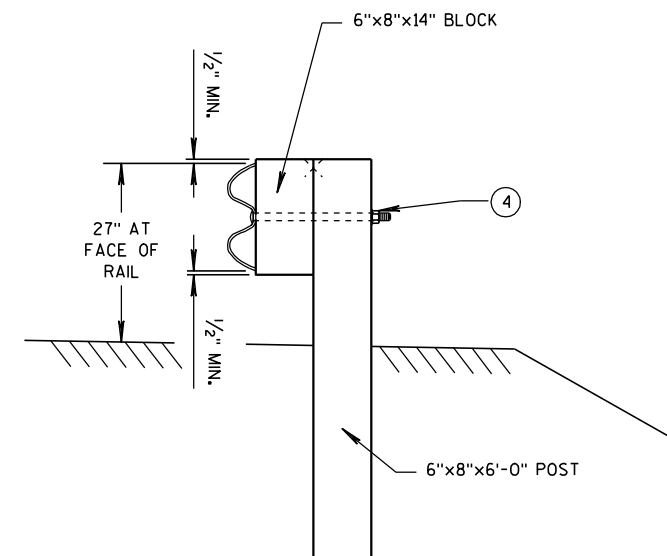
SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

- ① ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
- ② RADIUS FROM 8' - 36'. SEE PLAN.
- ③ HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
- ④ 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH X WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

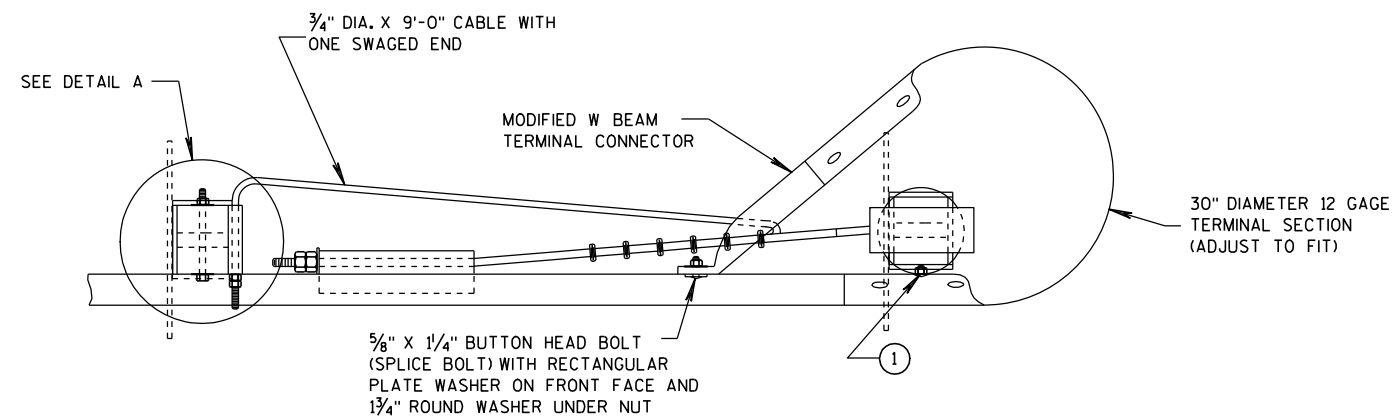
* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



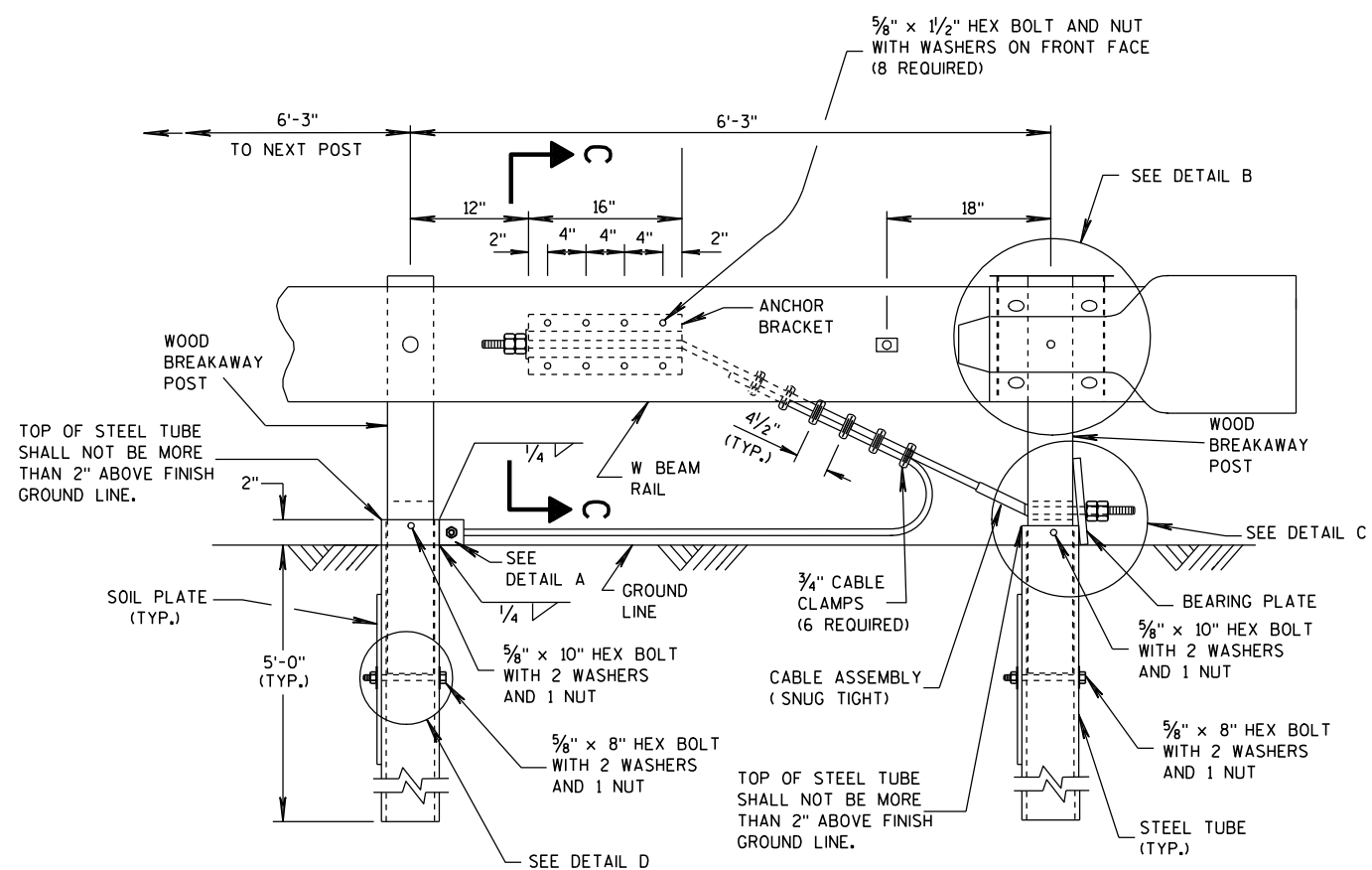
**SECTION B-B
(BEAM GUARD POST)**

**STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW

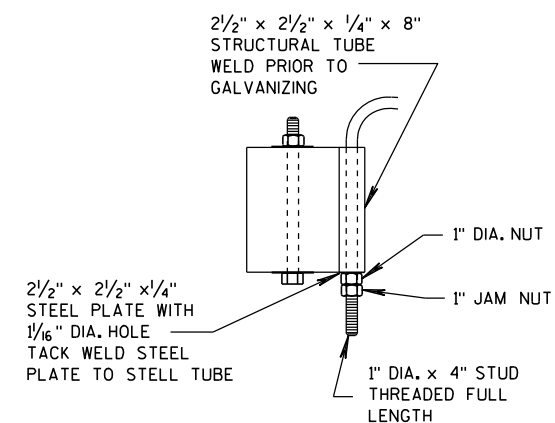


ELEVATION VIEW

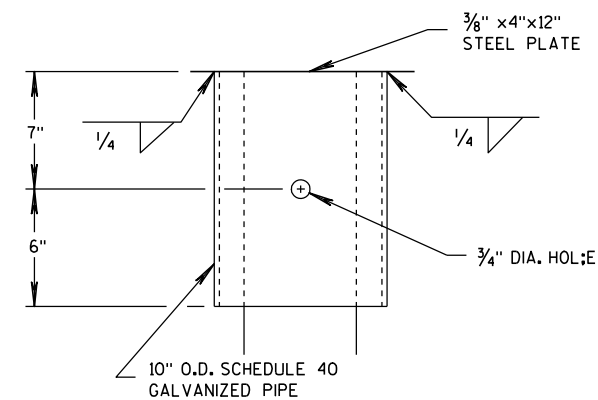
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

- 1 ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A $\frac{5}{8}$ " X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.
- INSTALL GALVANIZED $\frac{3}{4}$ " (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED FLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



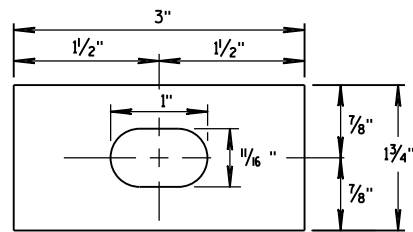
DETAIL A



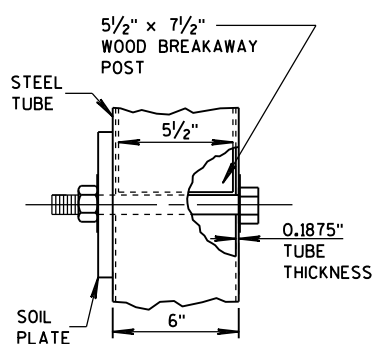
DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

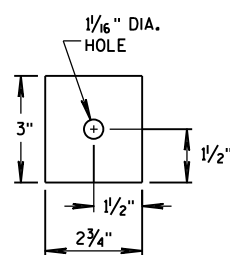
STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINALSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



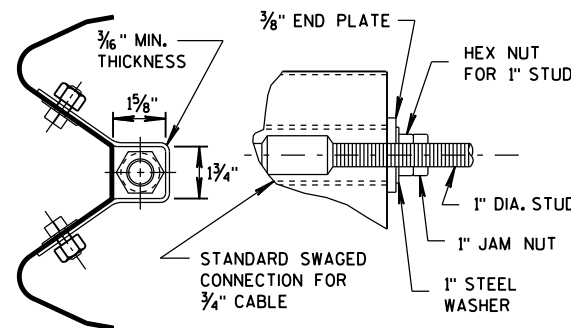
**RECTANGULAR
PLATE WASHER**



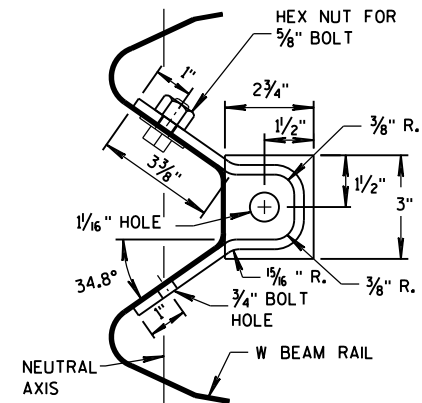
DETAIL D



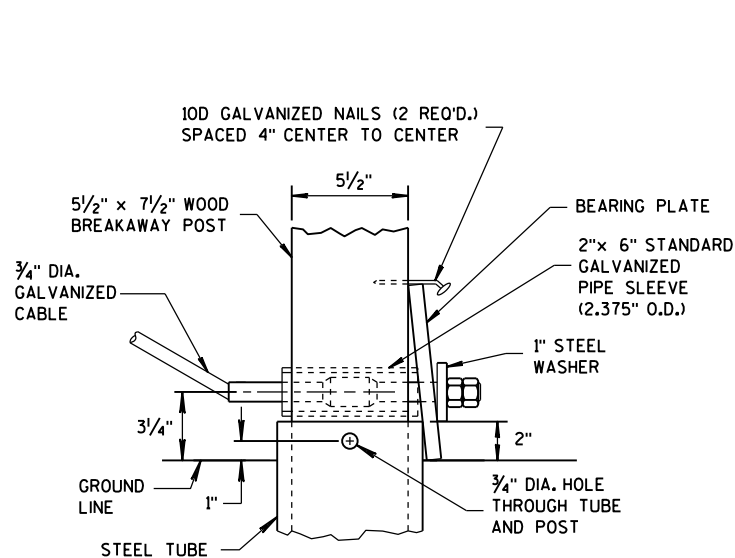
END PLATE



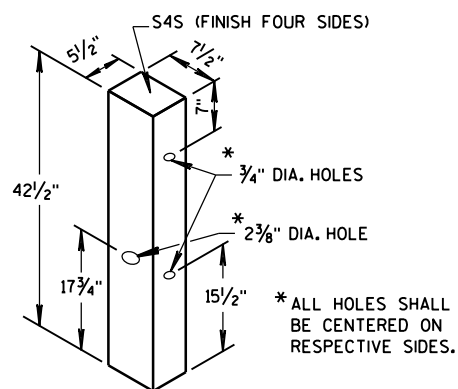
**SECTION C-C
(END PLATE REMOVED)**



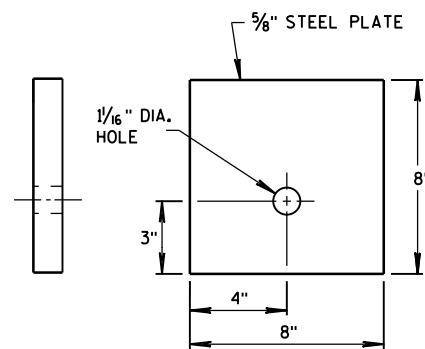
ANCHOR BRACKET



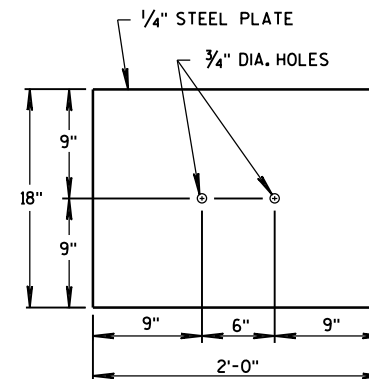
DETAIL C



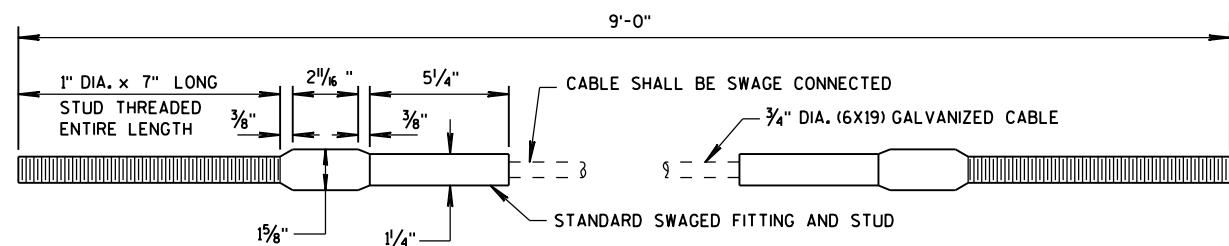
WOOD BREAKAWAY POST



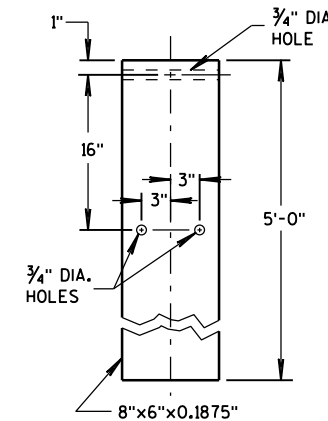
BEARING PLATE



SOIL PLATE



CABLE ASSEMBLY



STEEL TUBE

**STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/18/08

DATE

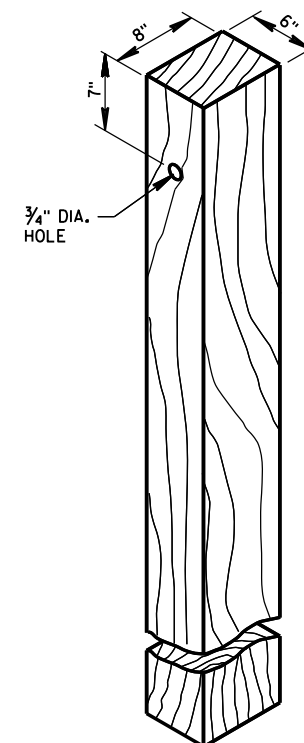
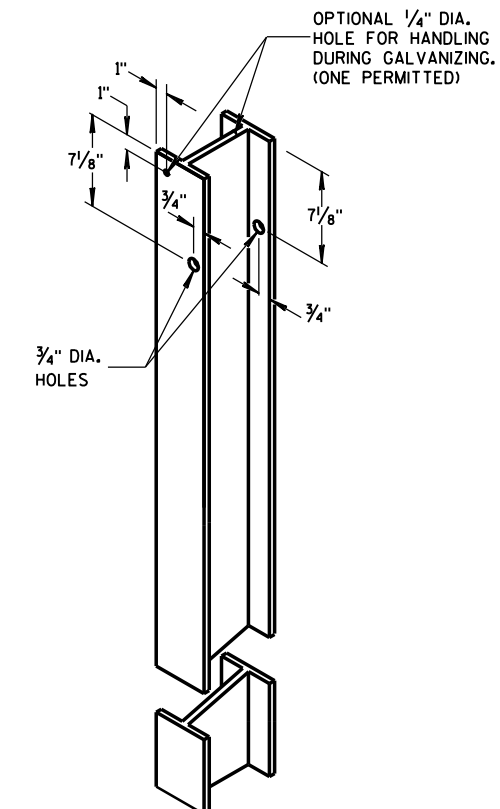
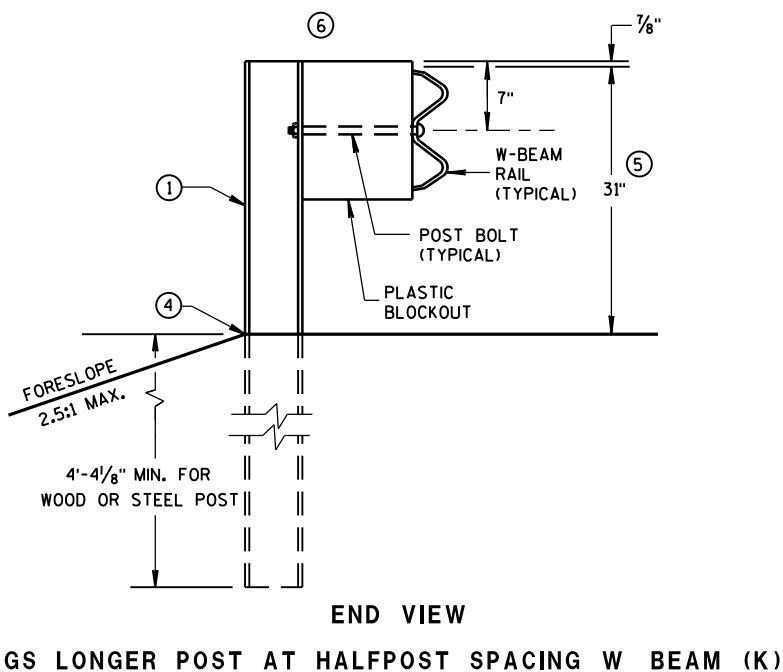
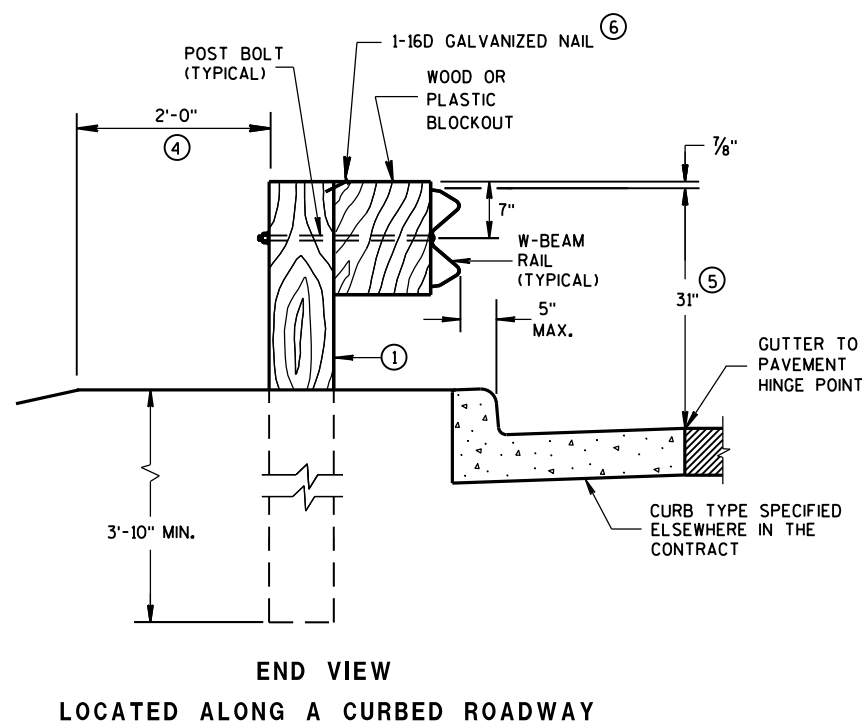
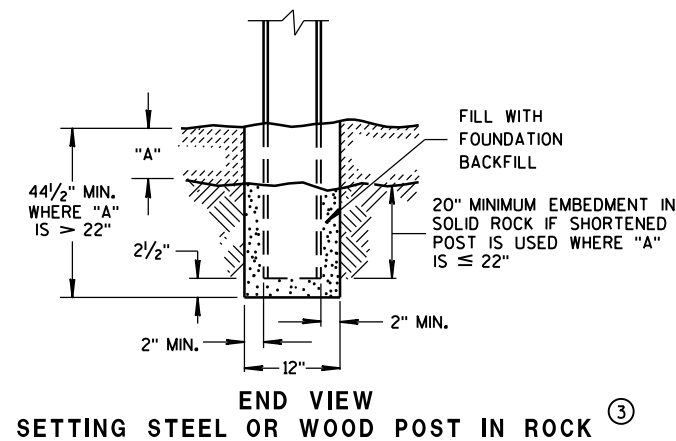
FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS ENGINEER

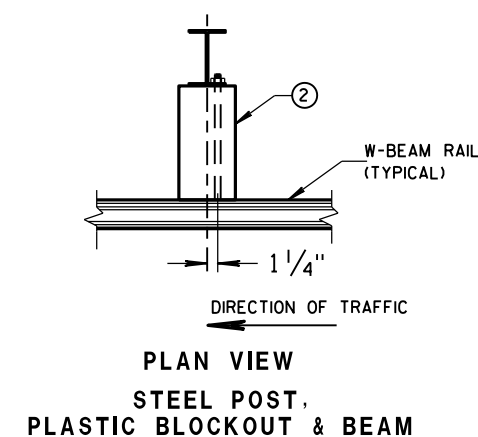
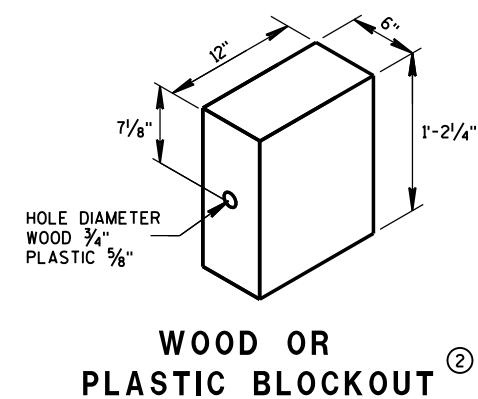
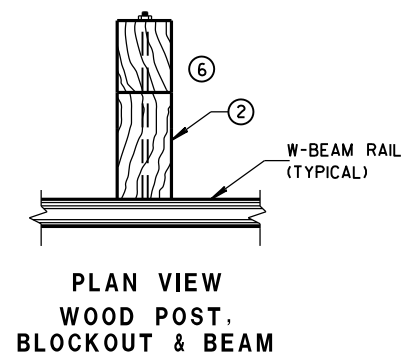
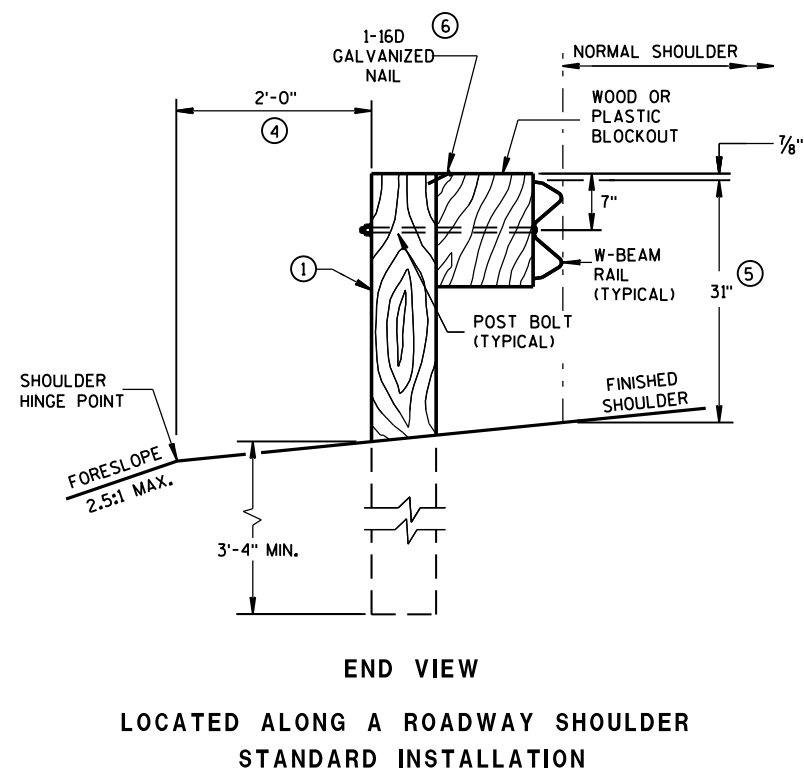
NT

- 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 AND 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 $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" 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.



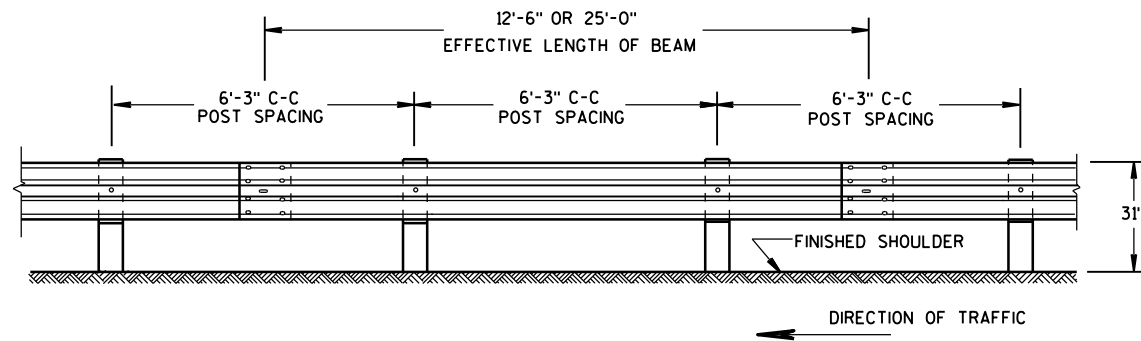
**STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①**

**WOOD POST
(6" X 8") NOMINAL ①**



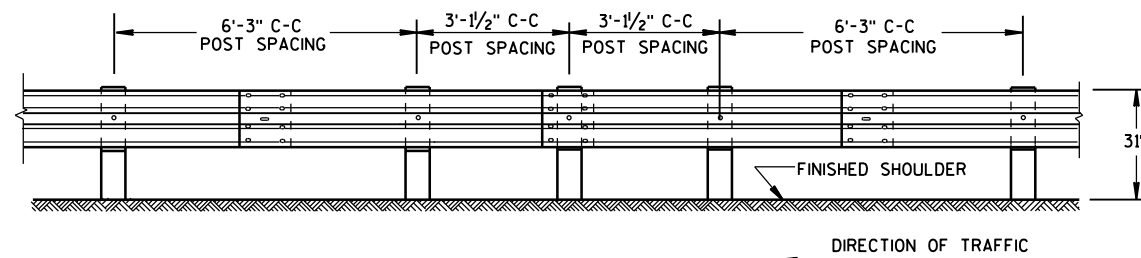
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



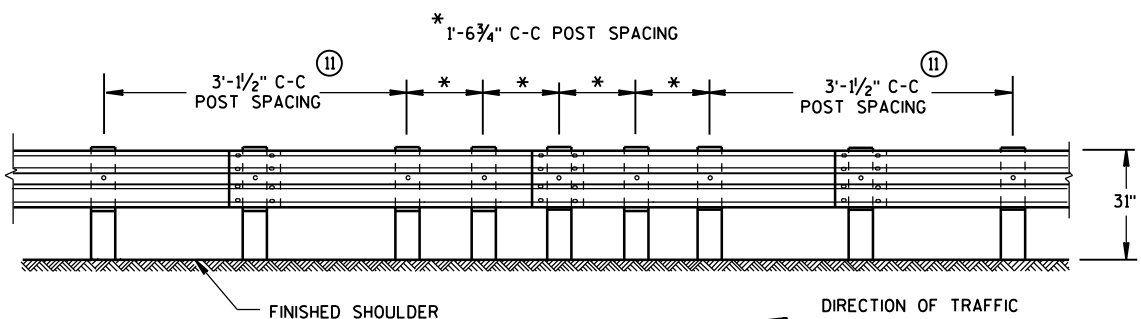
FRONT VIEW

POST SPACING STANDARD INSTALLATION



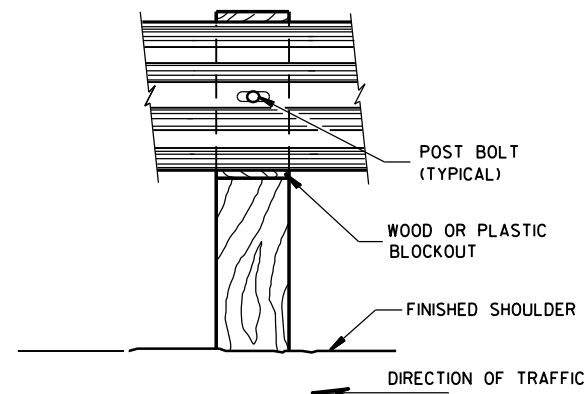
FRONT VIEW

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

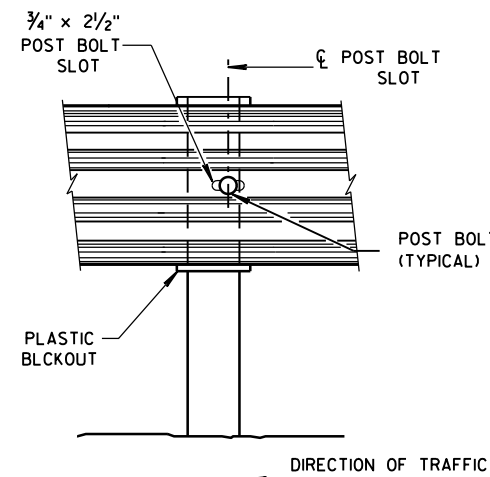


FRONT VIEW

QUARTER POST SPACING (QS)

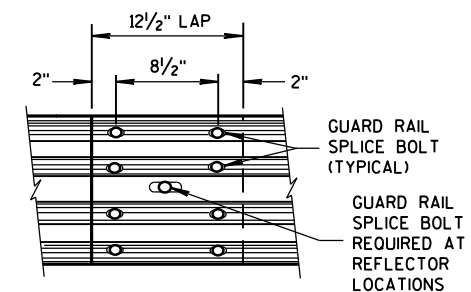


FRONT VIEW AT WOOD POST

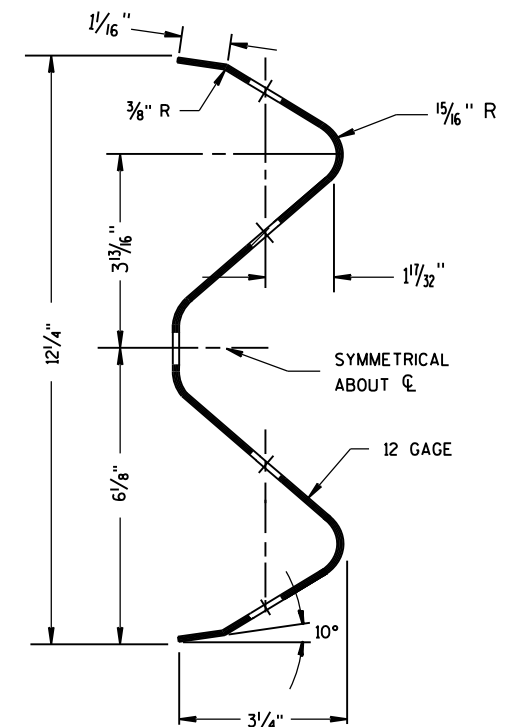


FRONT VIEW AT STEEL POST

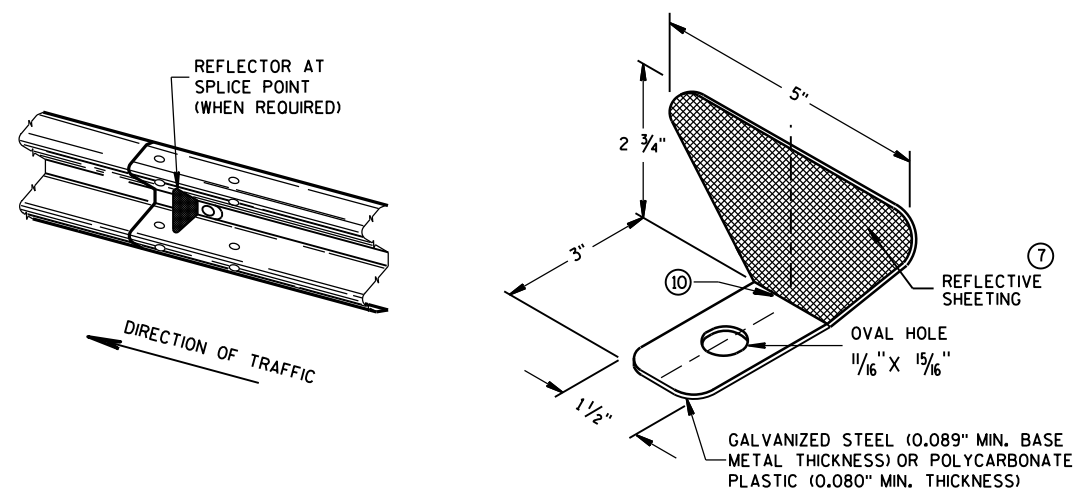
- ⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
 - ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
 - ⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
 - ⑩ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
 - ⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



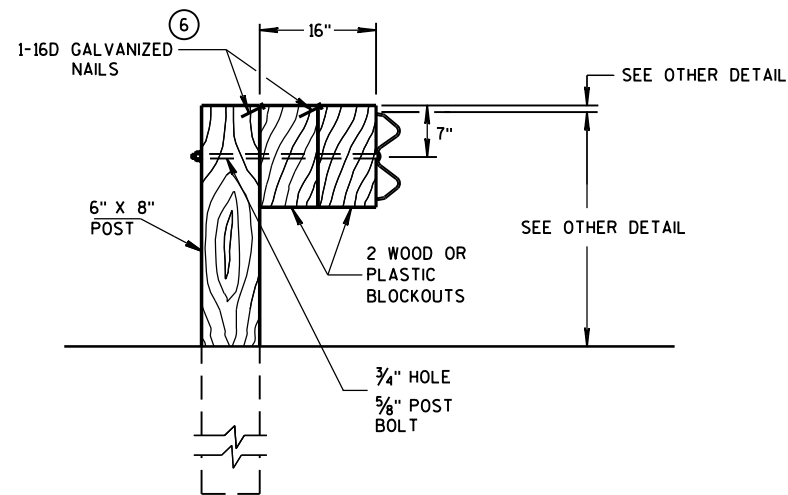
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

REFLECTOR SPACING

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ⑩	3
	> 200'	100' C-C	2	

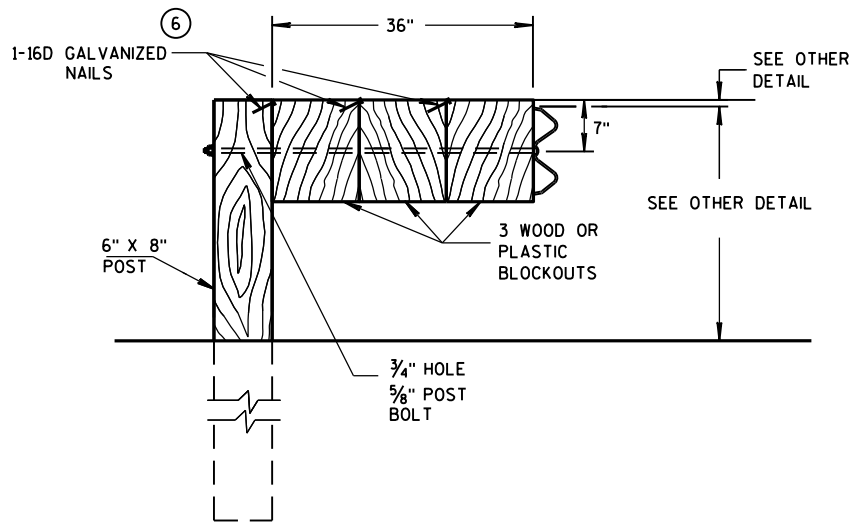
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

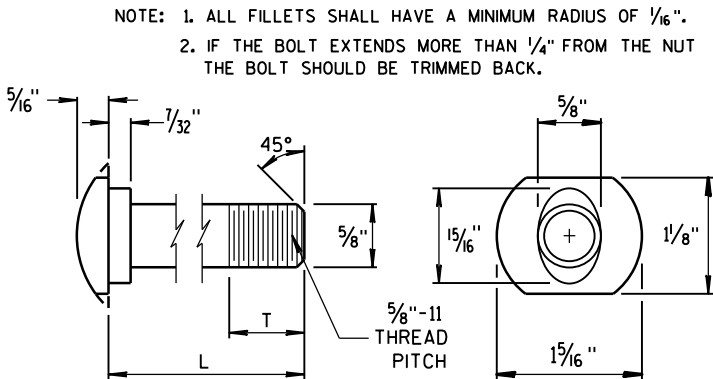
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



DETAIL FOR 36" BLOCKOUT DEPTH

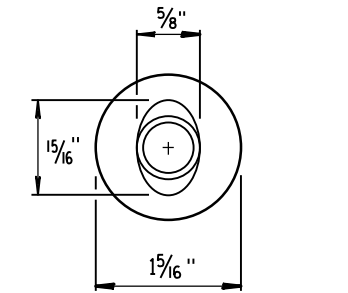
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

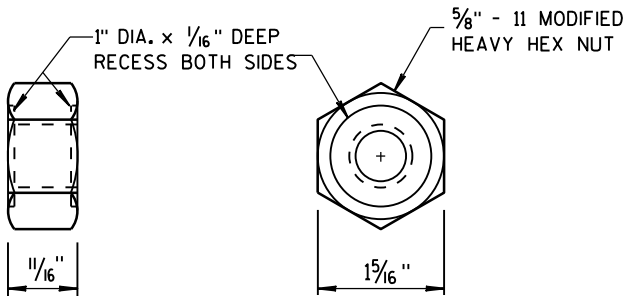


POST BOLT TABLE

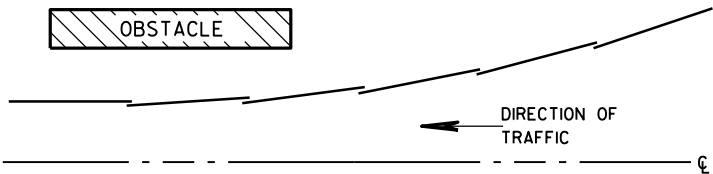
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



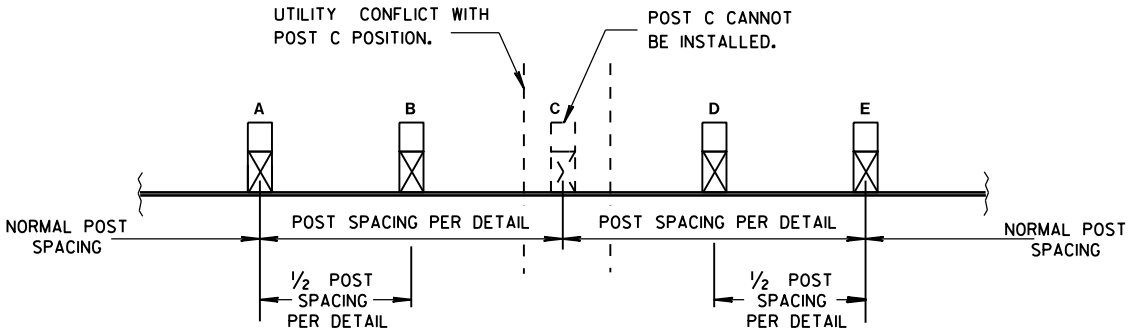
ALTERNATE BOLT HEAD



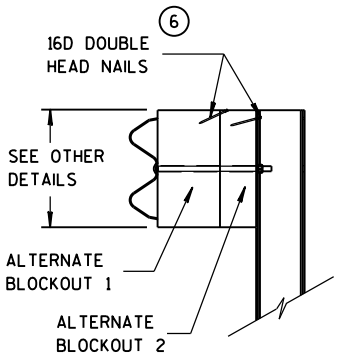
POST BOLT, SPLICE BOLT AND RECESS NUT



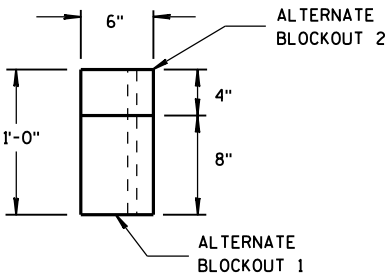
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

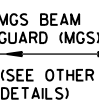
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS (92) INT
FHWA ENGINEER

6

- S.D.D. 14 B 44-23**

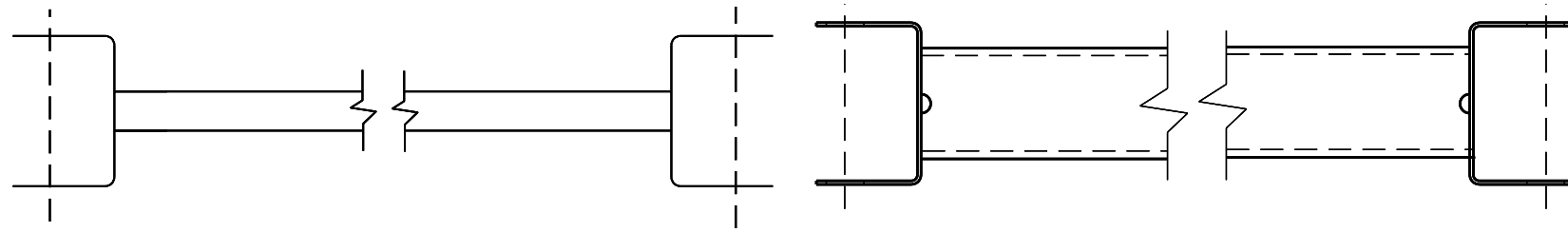
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



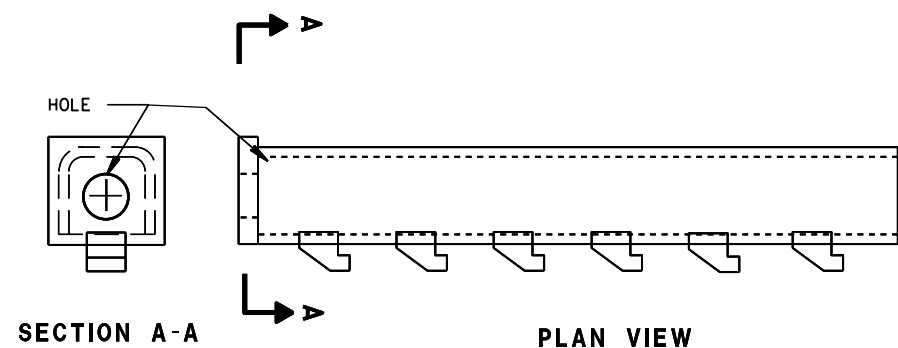
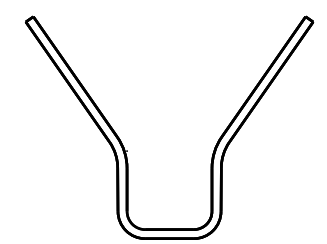
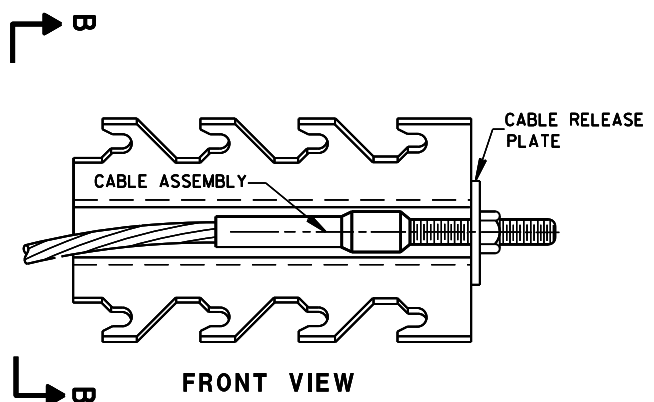
SECTION B-B
TYPICAL AT POST NO. 2*



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 93



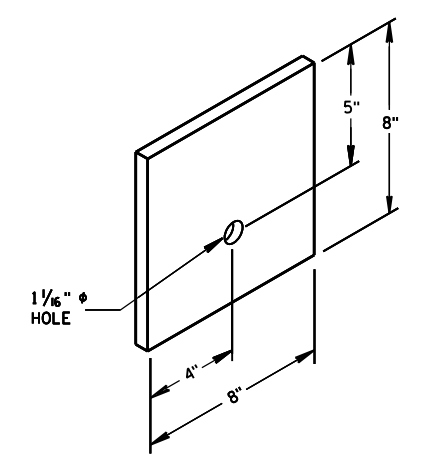
9 H
GENERIC GROUND STRUT



8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

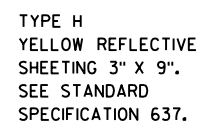
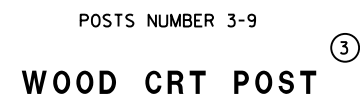
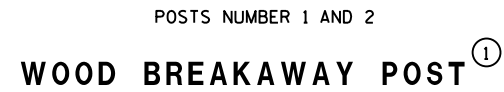
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



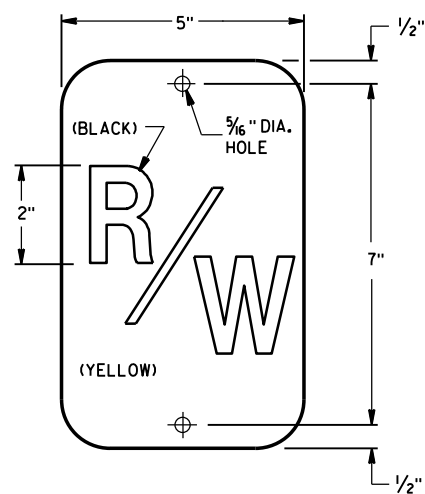
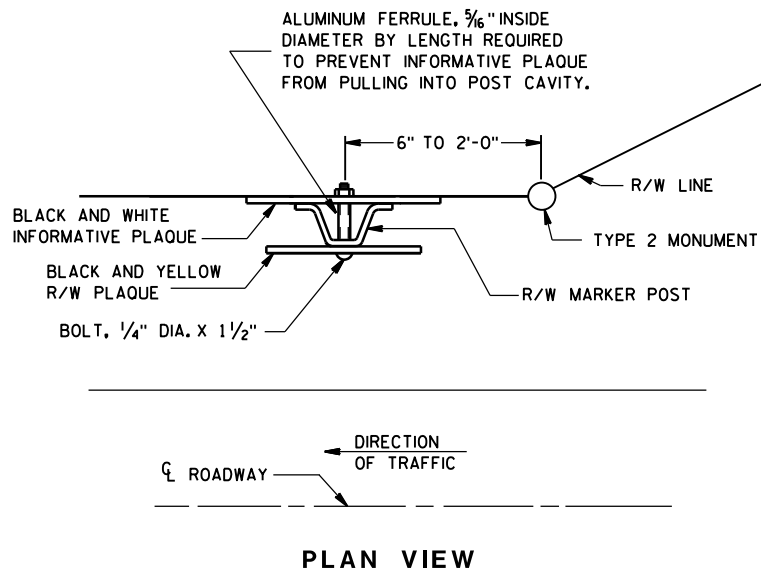
⑥
BEARING PLATE

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

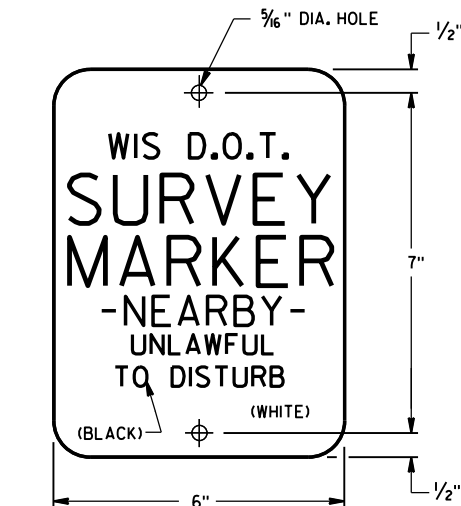
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED _____ June 24, 1954	/s/ Jerry H. Zogg		
DATE	ROADWAY STANDARDS	195	ENT _____ ENGINEER
FHWA			



R/W PLAQUE
THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

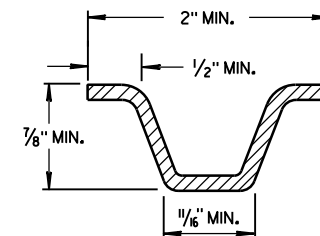
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

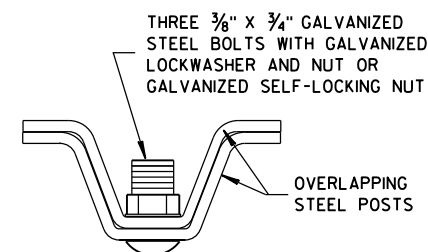
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

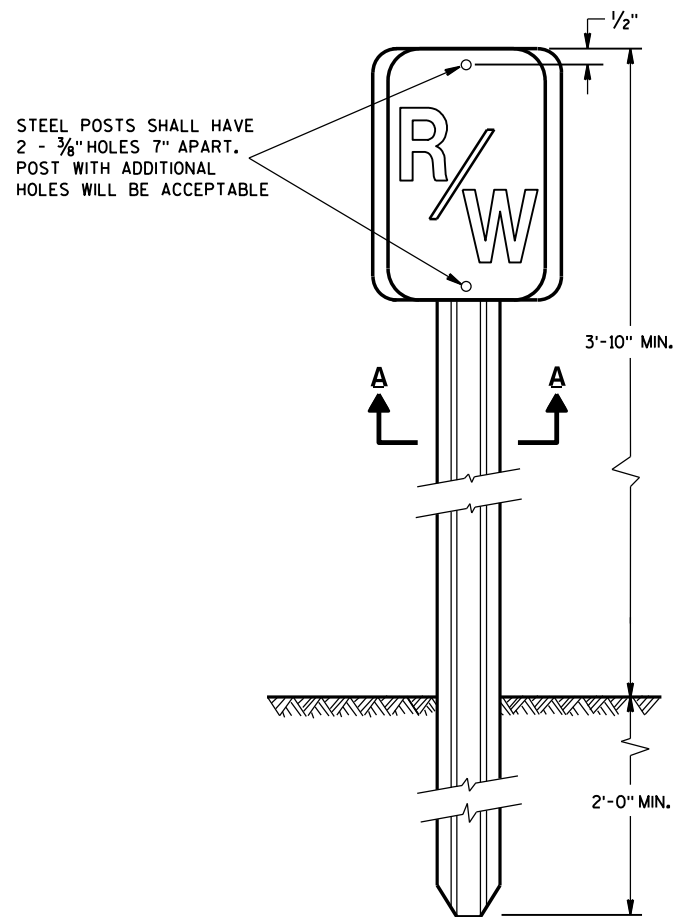
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



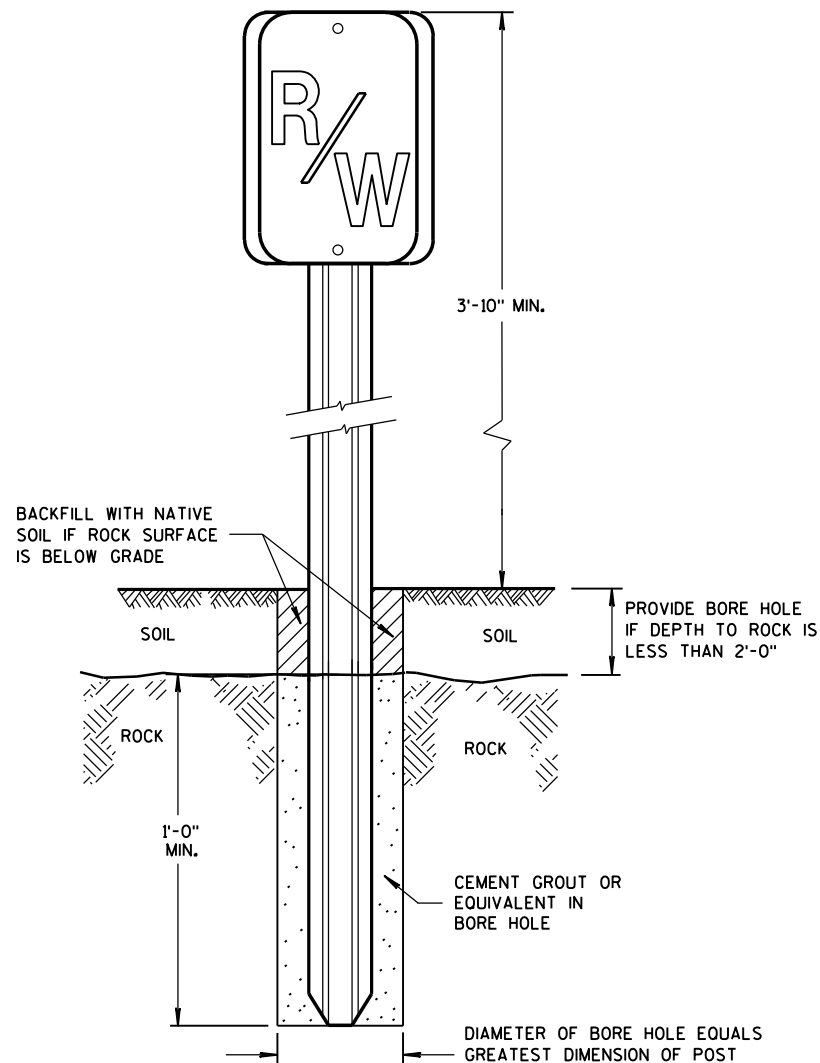
MIN. WEIGHT 1.12 LB./FT.
SECTION A-A



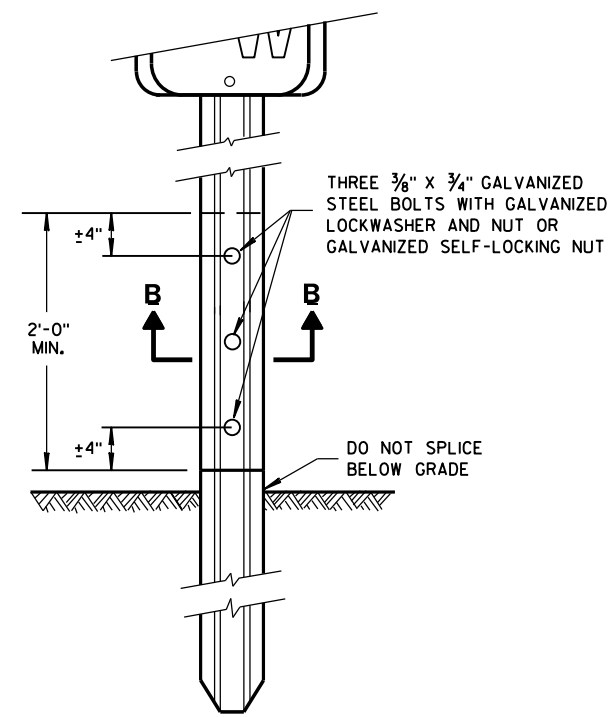
SECTION B-B



**FRONT VIEW
STEEL MARKER POST**



**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**

**MARKER POST
FOR RIGHT-OF-WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/18/2016

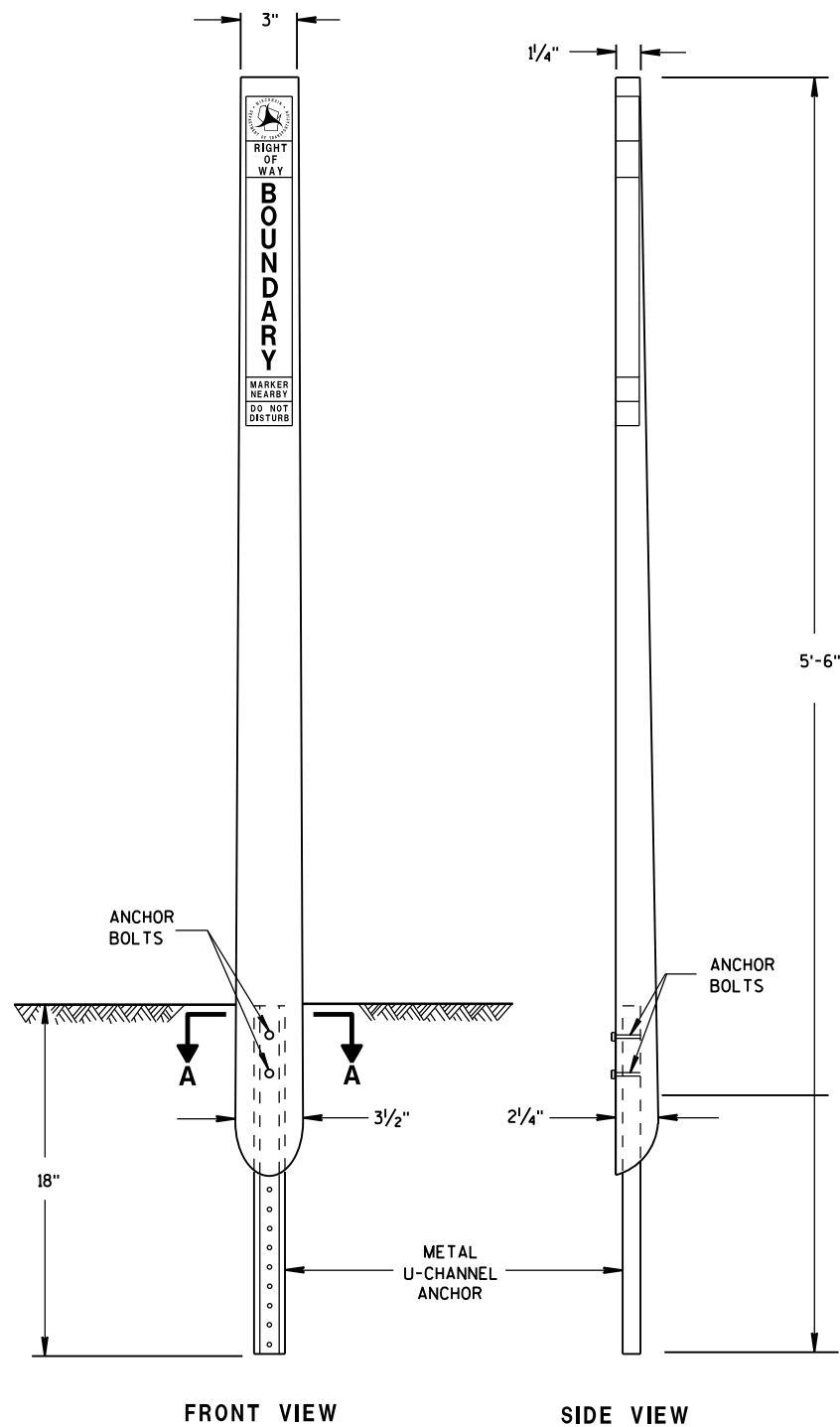
DATE

/S/ Ray Kumapayi

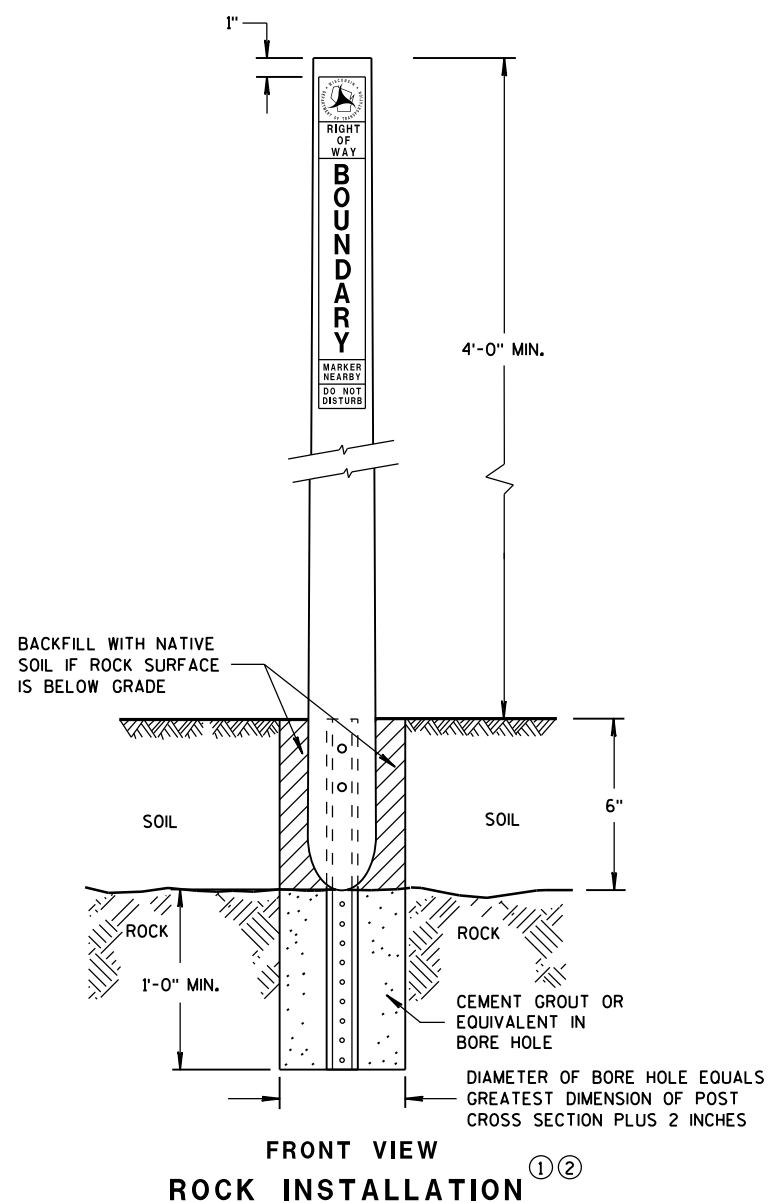
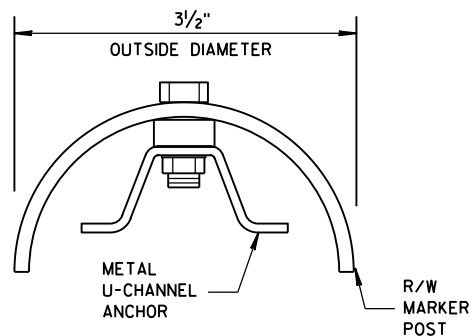
CHIEF SURVEYING AND MA

FHWA

INEER

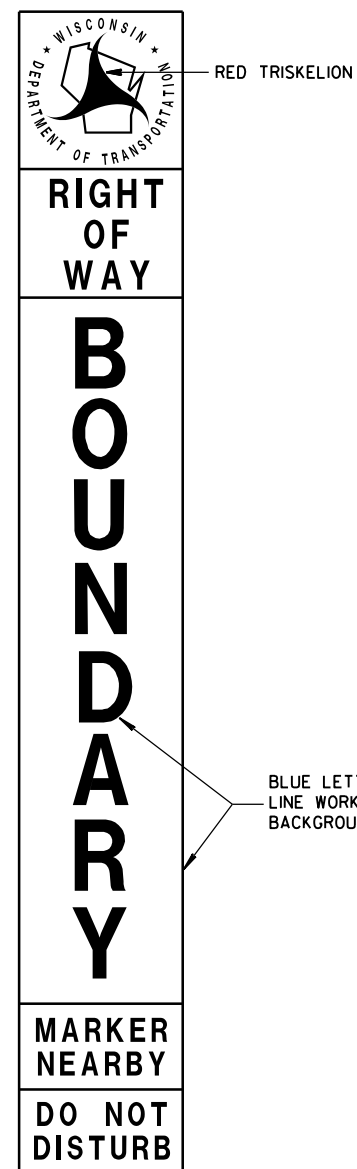


**FLEXIBLE MARKER POST^①
FOR RIGHT-OF-WAY**



RIGHT-OF-WAY STICKER

THE RIGHT-OF-WAY STICKER SHALL BE ATTACHED
1" FROM THE TOP OF THE RIGHT-OF-WAY POST PRIOR TO DELIVERY.



GENERAL NOTES

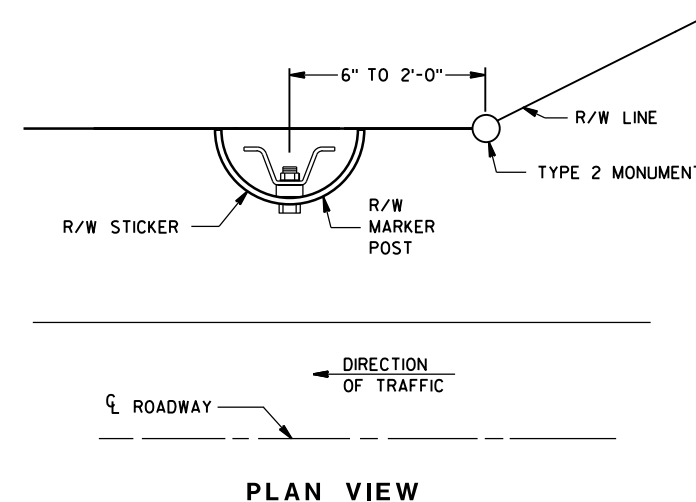
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A FLEXIBLE MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE RIGHT-OF-WAY STICKER DIMENSIONS SHALL BE 2 1/4" X 17" AND THE STICKER SHALL BE MADE OF A NON-REFLECTIVE VINYL MATERIAL. THE RIGHT-OF-WAY STICKER SHALL FACE THE ROADWAY.

INSTALL PER DEPTH OF MANUFACTURER'S RECOMMENDATIONS BUT NOT LESS THAN 18 INCHES BELOW GRADE FROM THE BOTTOM OF THE METAL U-CHANNEL ANCHOR.

- ① FLEXIBLE MARKER POSTS SHALL BE INCLUDED IN THE APPROVED PRODUCTS LIST FOR MARKER POSTS AND SHALL BE FEDERAL YELLOW IN COLOR.
- ② IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 4'-0" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

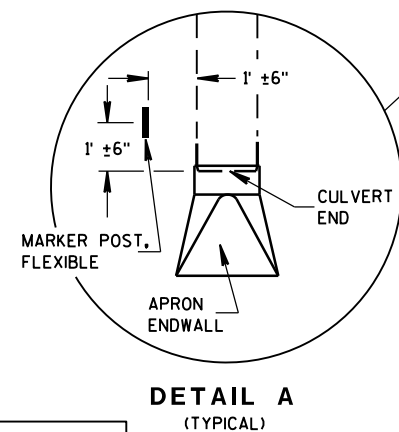
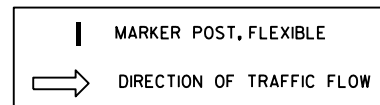
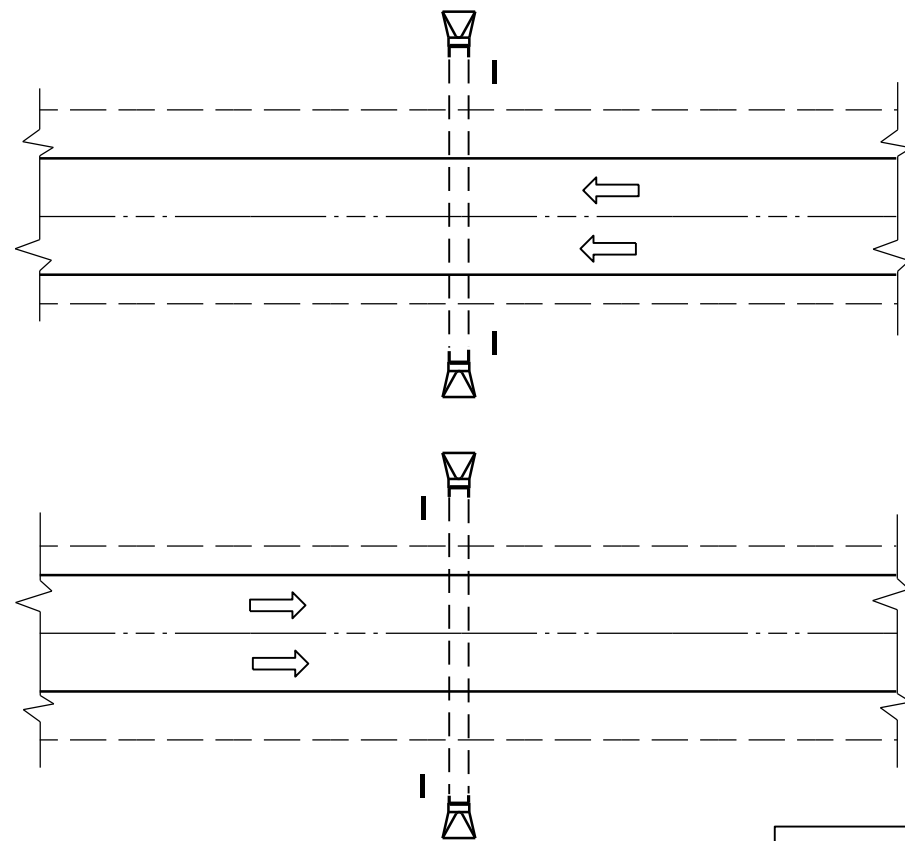


**FLEXIBLE MARKER POST
FOR RIGHT-OF-WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

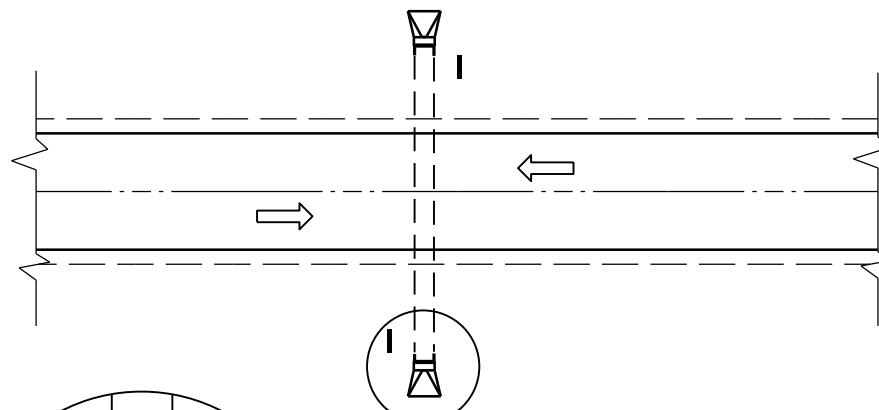
APPROVED
2/18/2016 /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MA 97 INEER
FHWA

PLAN VIEW
DIVIDED HIGHWAY



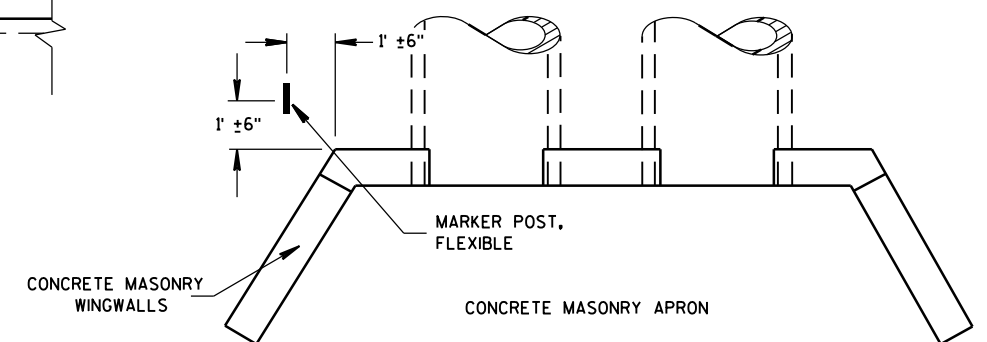
DETAIL A
(TYPICAL)

PLAN VIEW
UNDIVIDED HIGHWAY



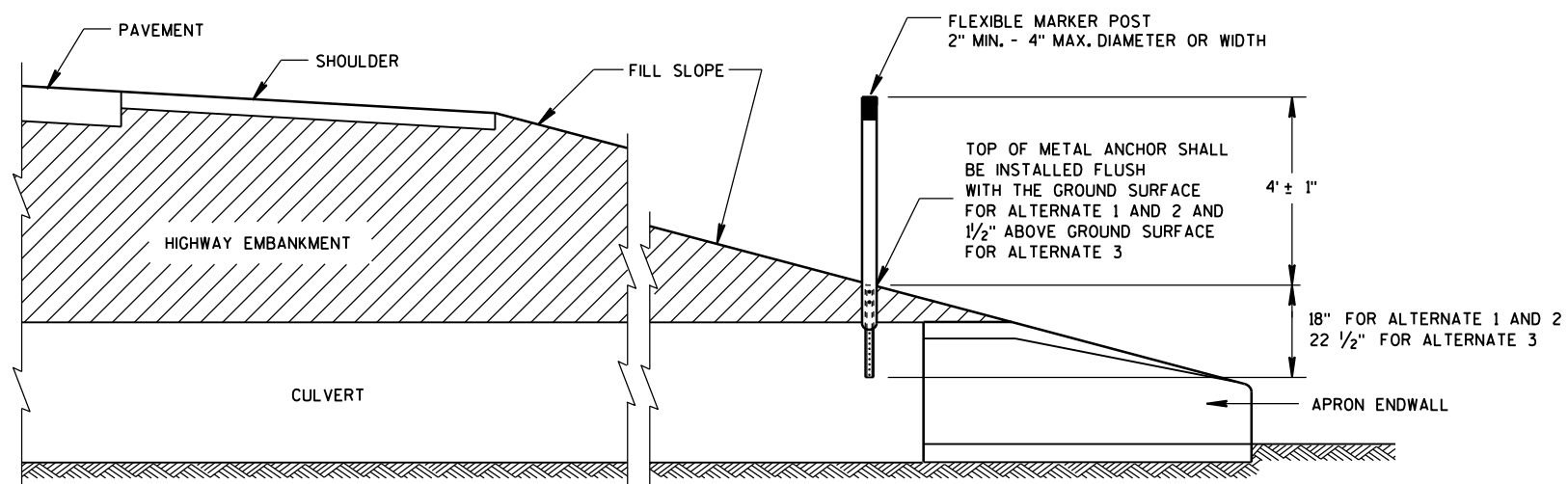
GENERAL NOTES

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

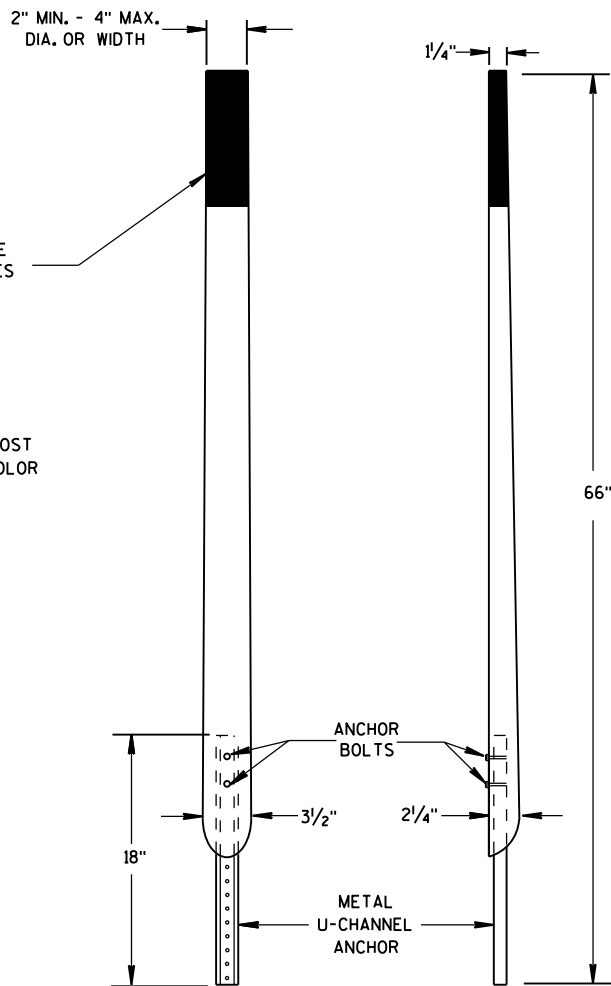
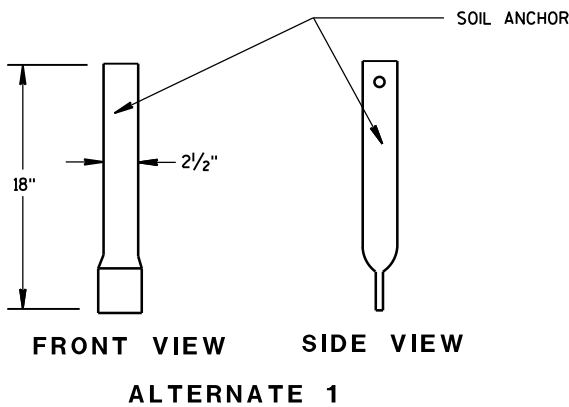
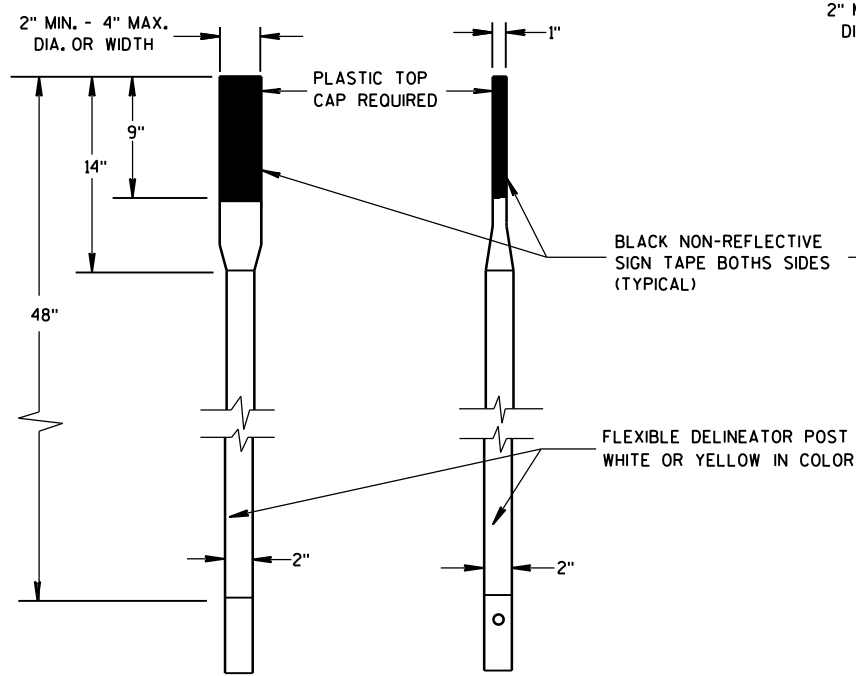
FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

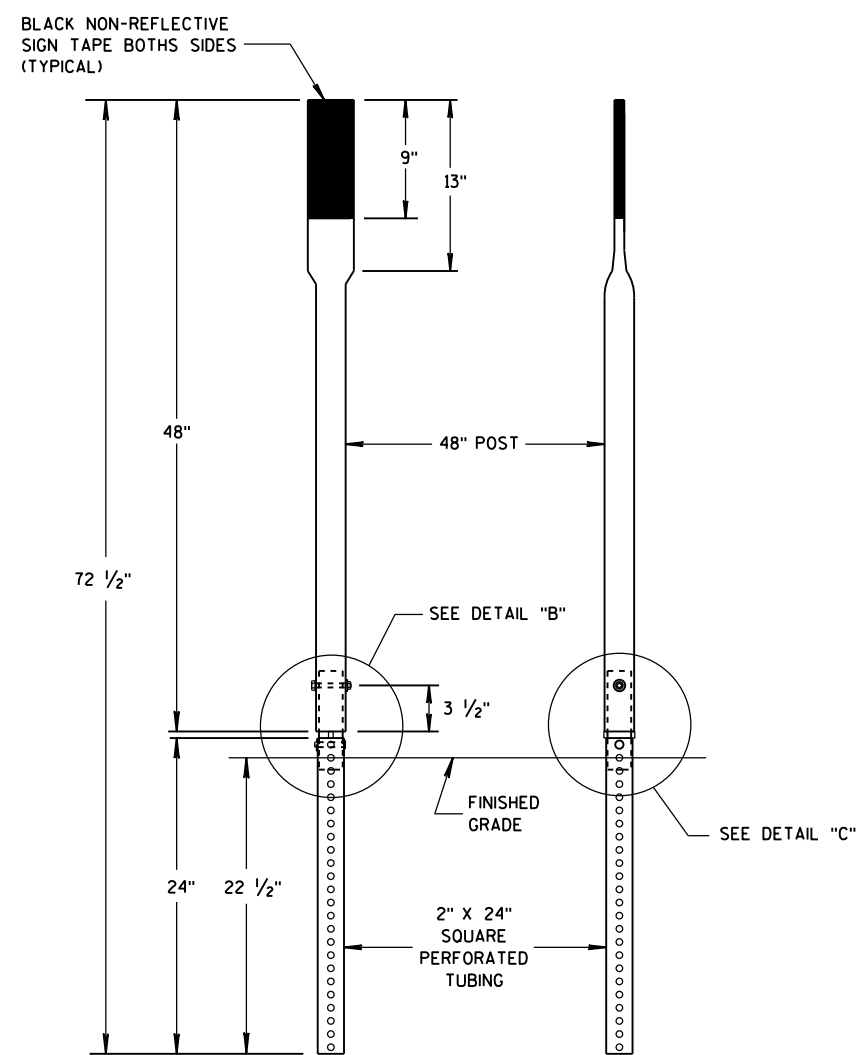
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

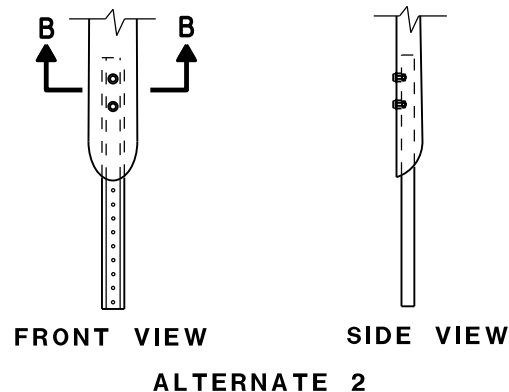
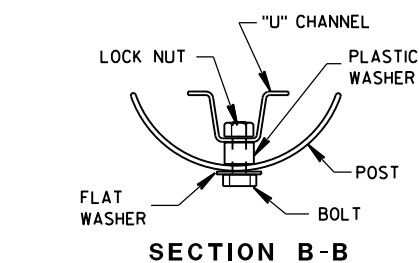
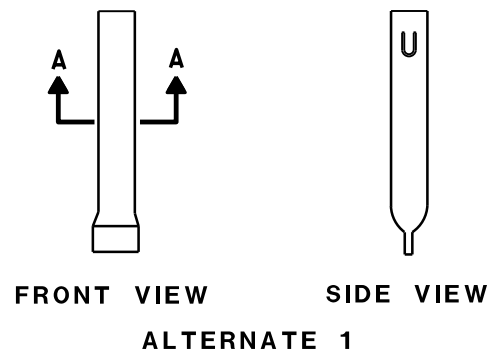
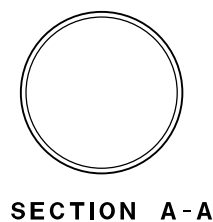
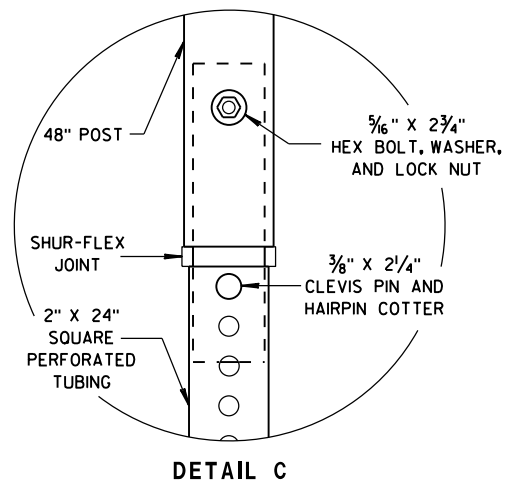
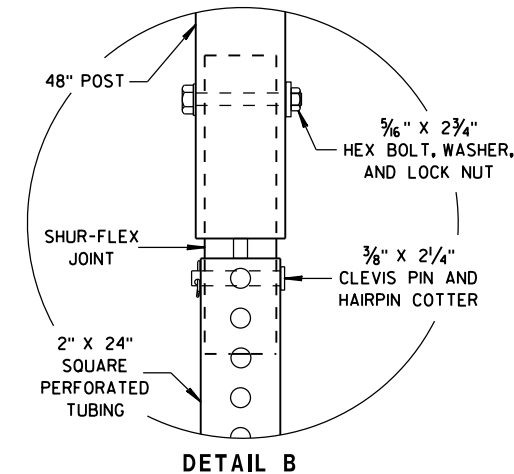
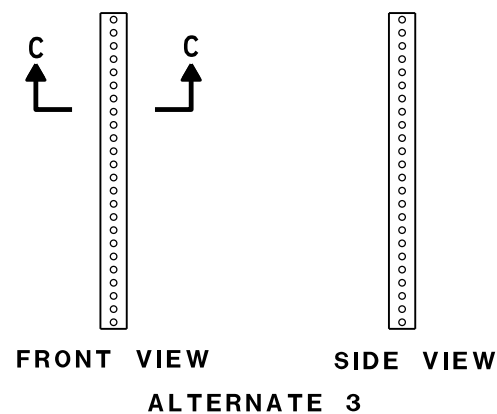
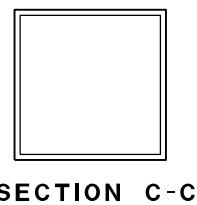


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

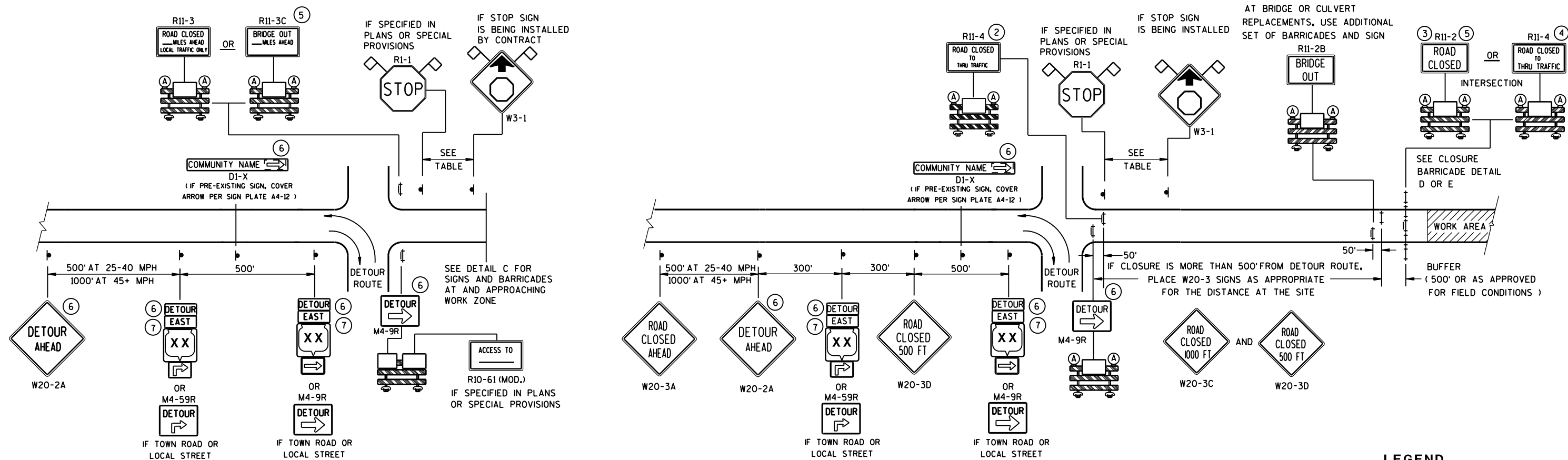


FRONT VIEW SIDE VIEW
ALTERNATE 3



FLEXIBLE MARKER POST ANCHORS

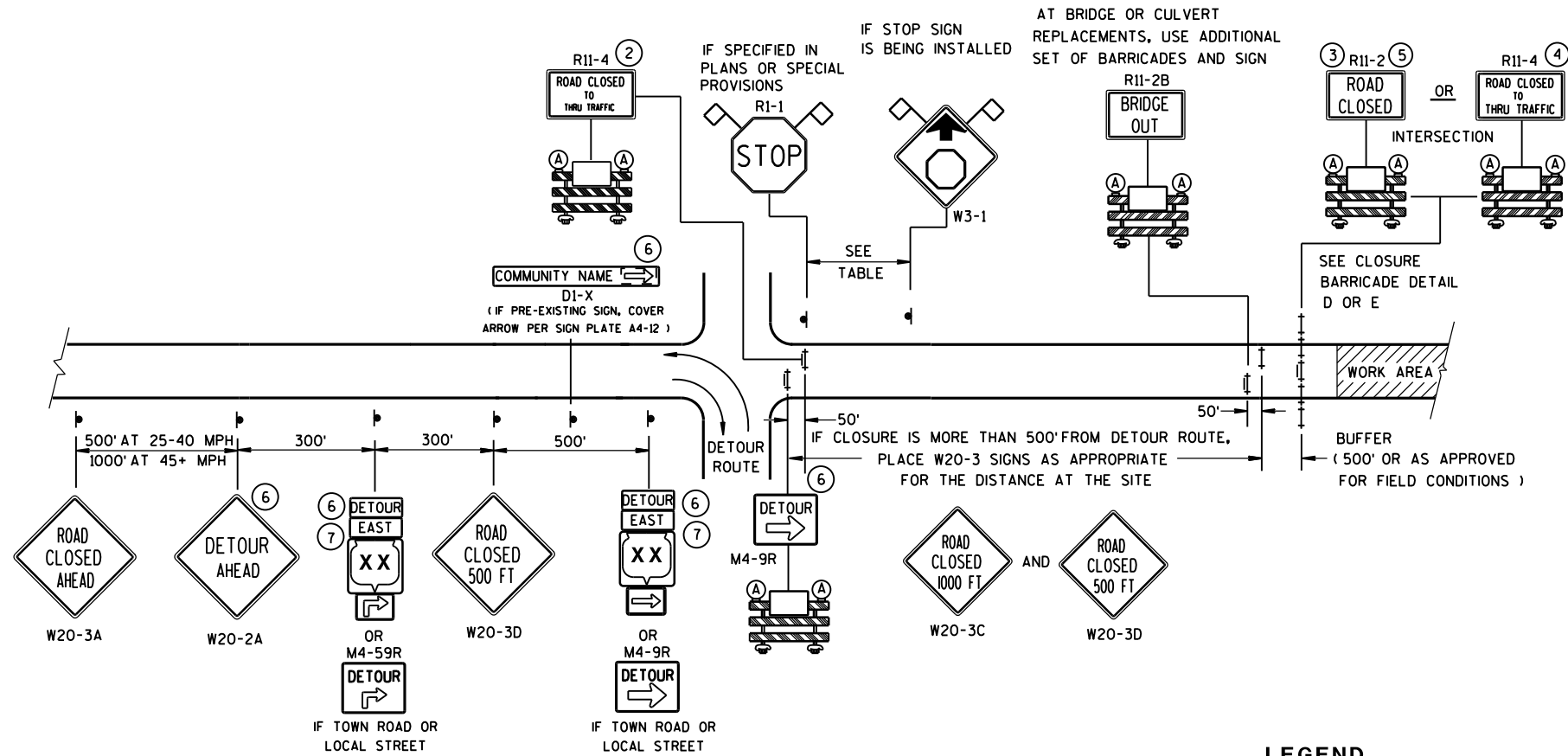
FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER IGN
FHWA	



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

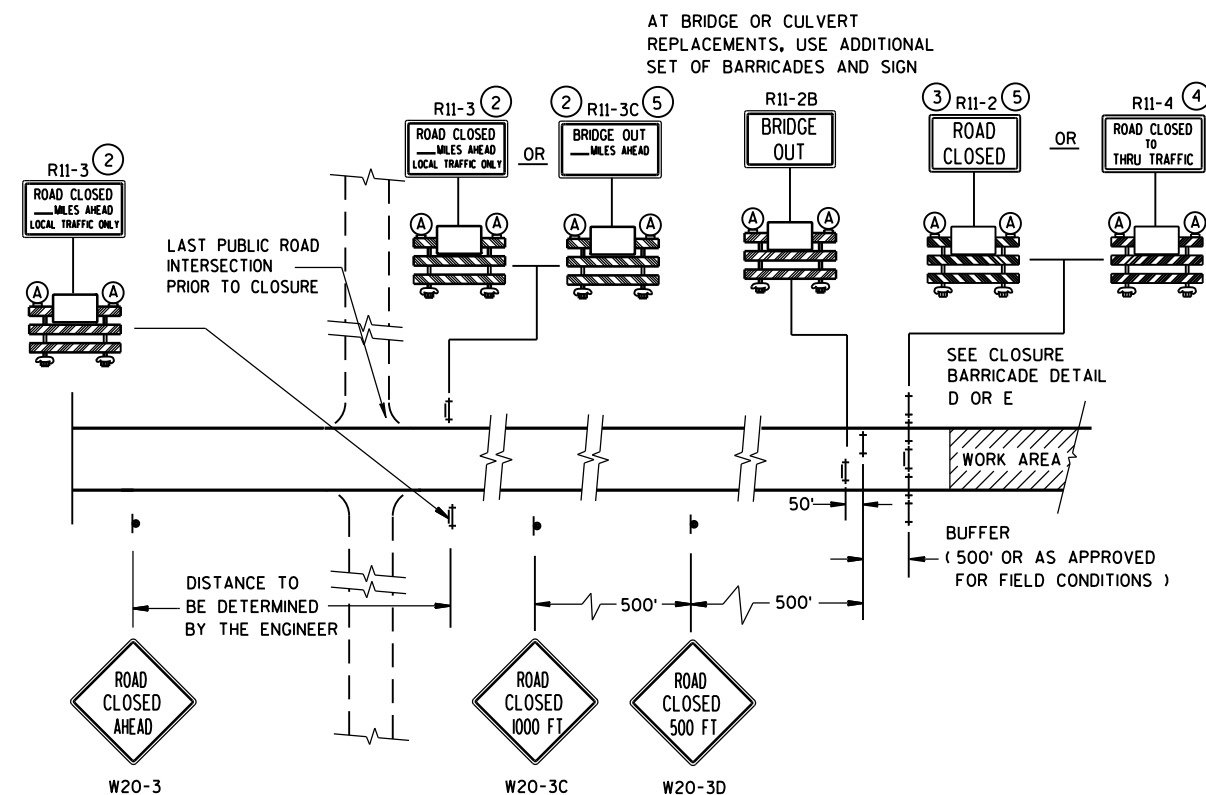
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

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

 WORK AREA

DETOUR M4-8
EAST M3-X

 OR  OR 

M1-4 M1-5A M1-6

 OR 

M05-1 M06-1

 FLAGS, 16" X 16" MIN., (ORANGE)

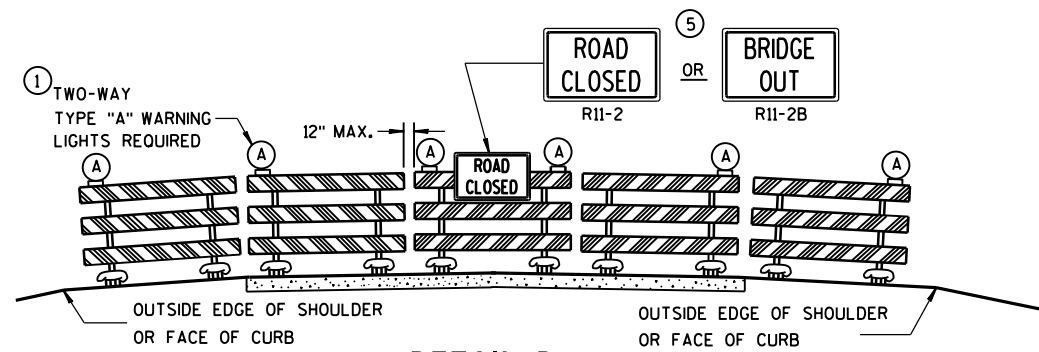
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

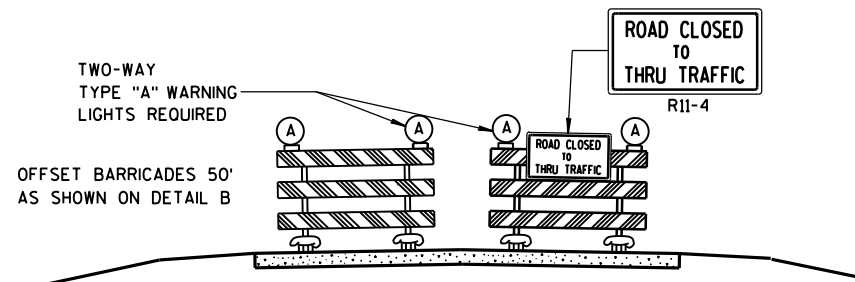
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZO 100 FIC
FHWA	SAFETY ENGINEER



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

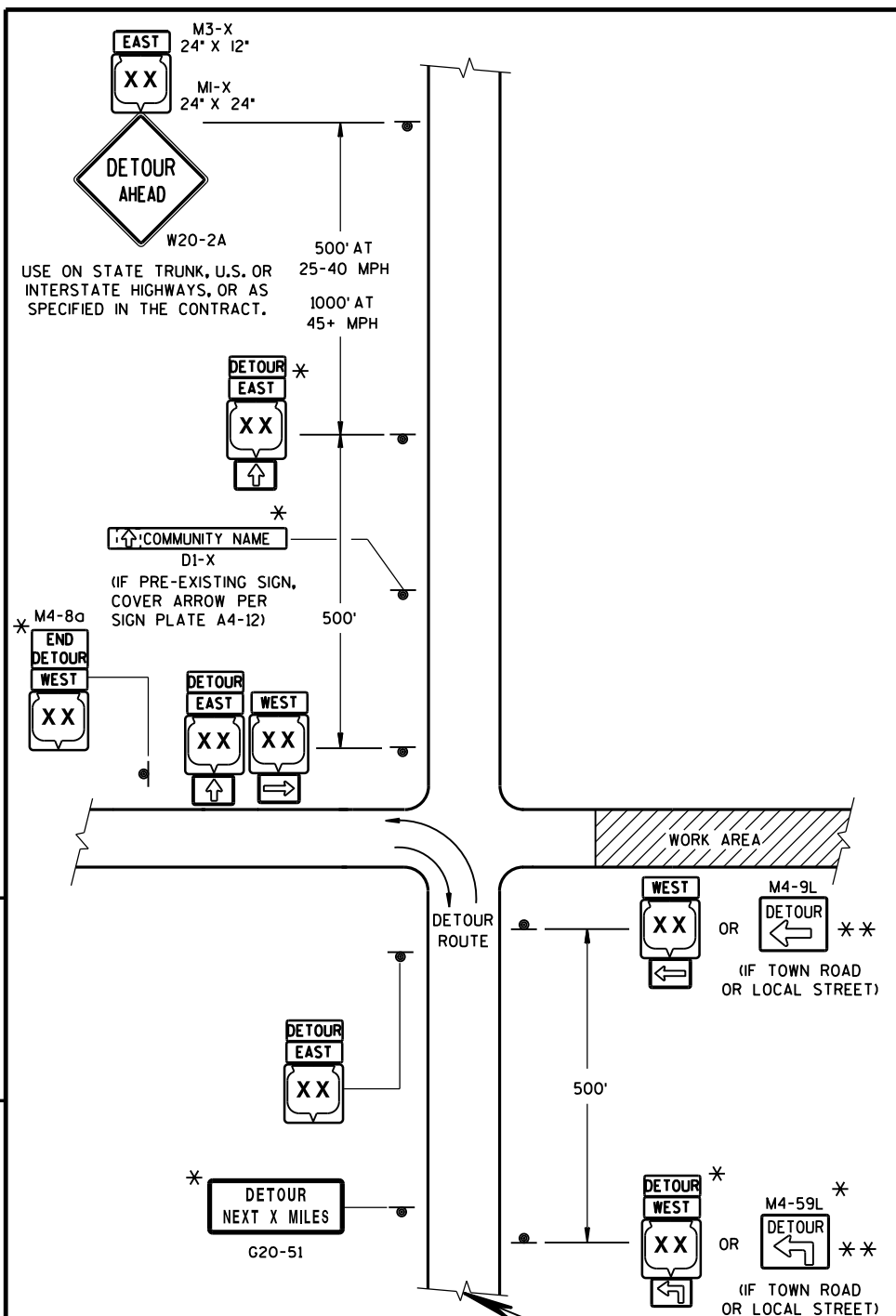
R1-1 SHALL BE 36" X 36".

- 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 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE SAFETY ENGINEER 101 FIC
FHWA



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

MATCH POINT

DETAIL F
DETOUR SIGNING

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.

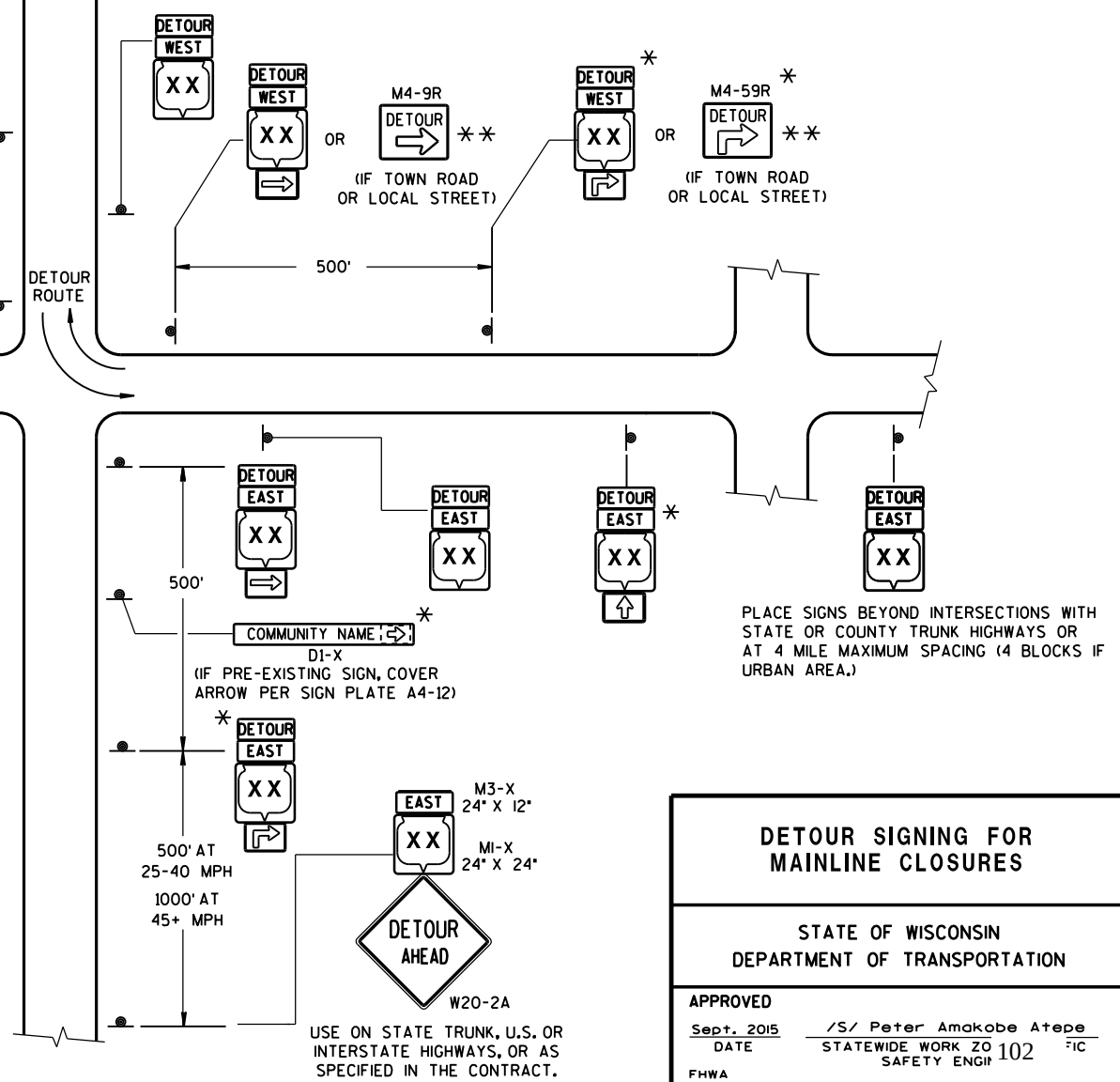
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

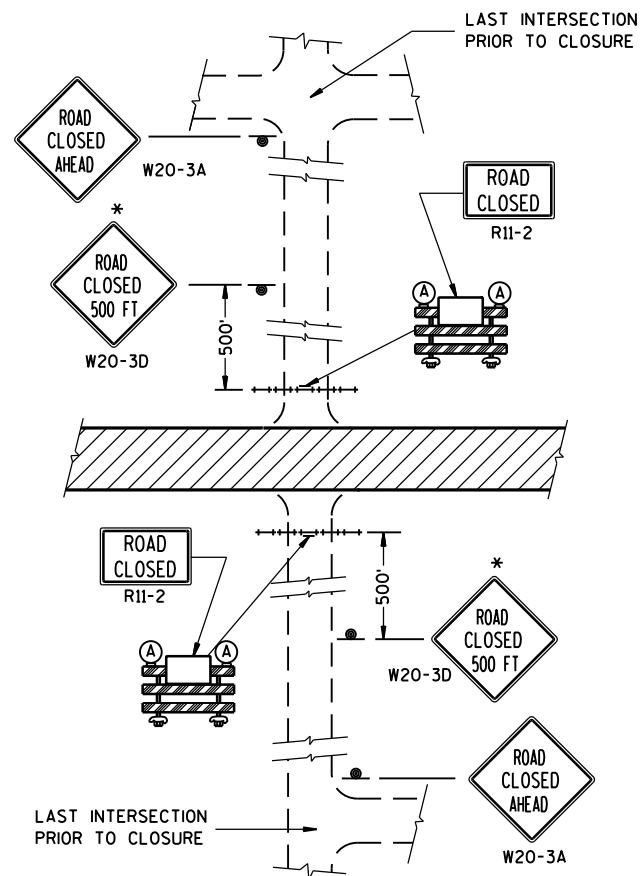
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 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.

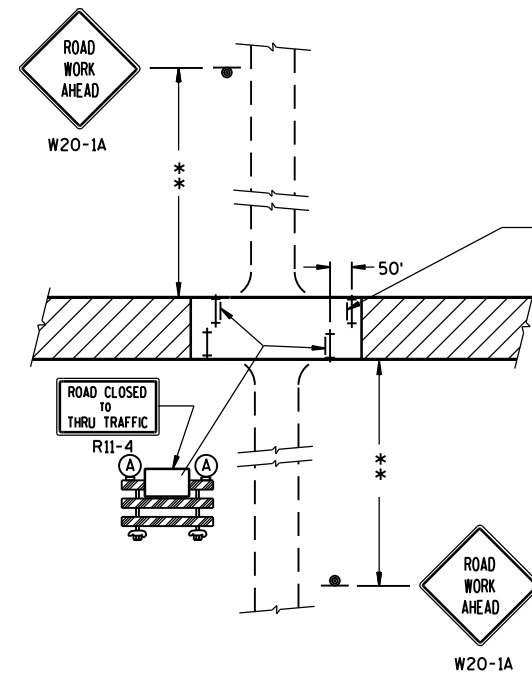
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



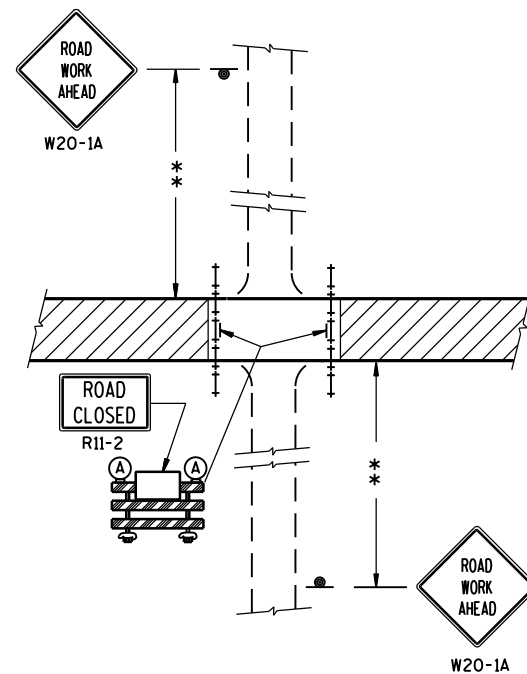
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	DATE
Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE SAFETY ENGINEER 102
FHWA	



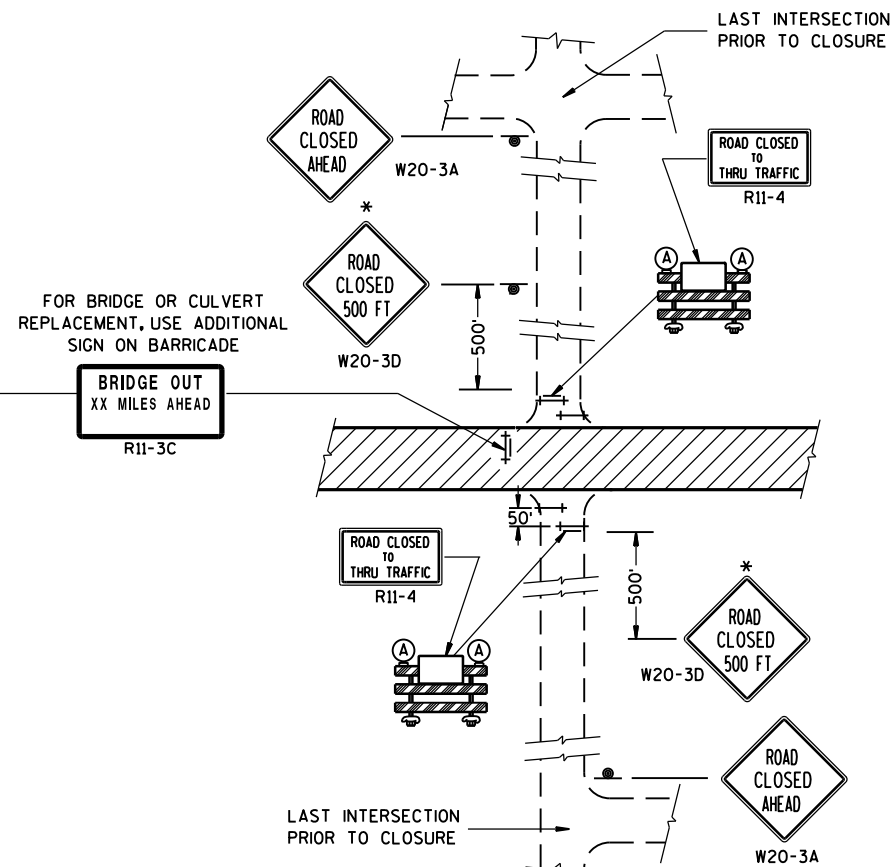
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT 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 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 RE-ESTABLISHED.

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 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015

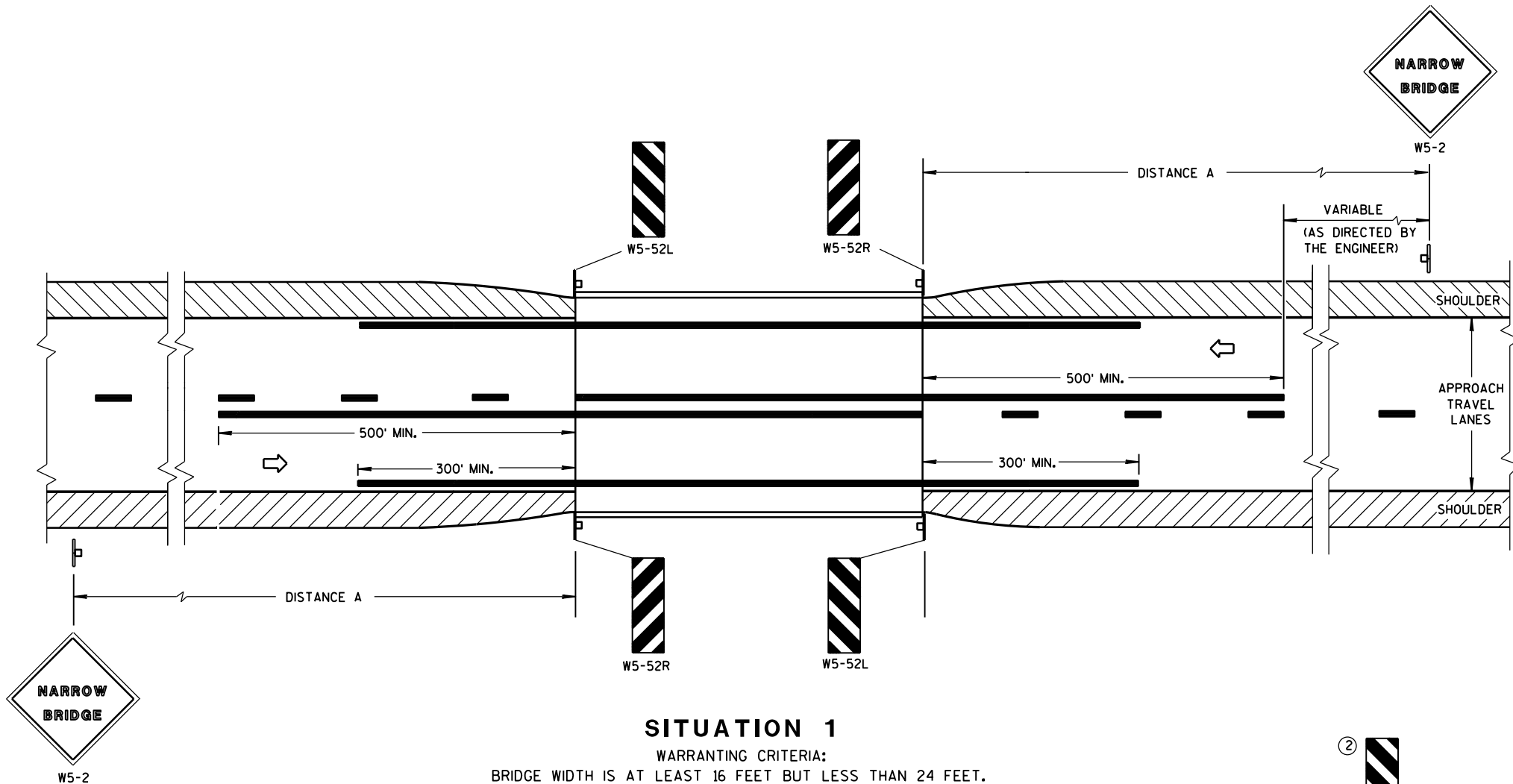
DATE

FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

103

IC



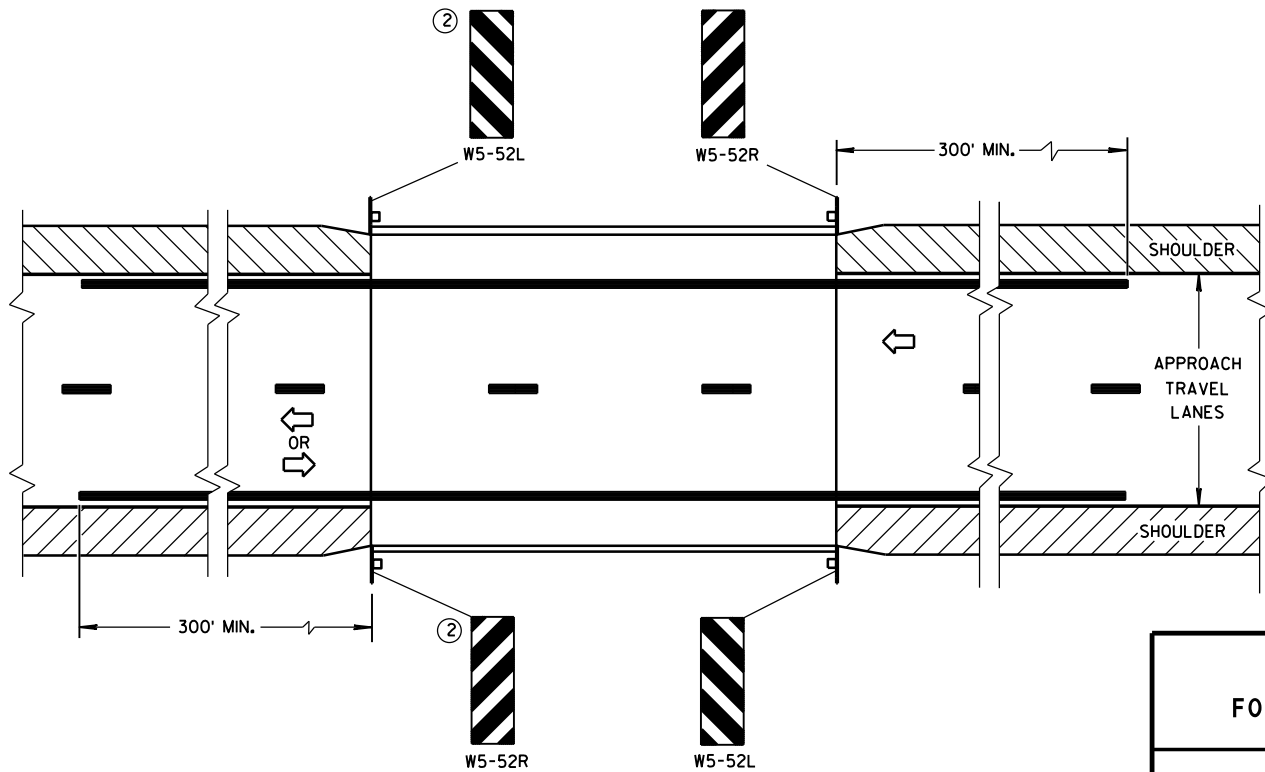
DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

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.

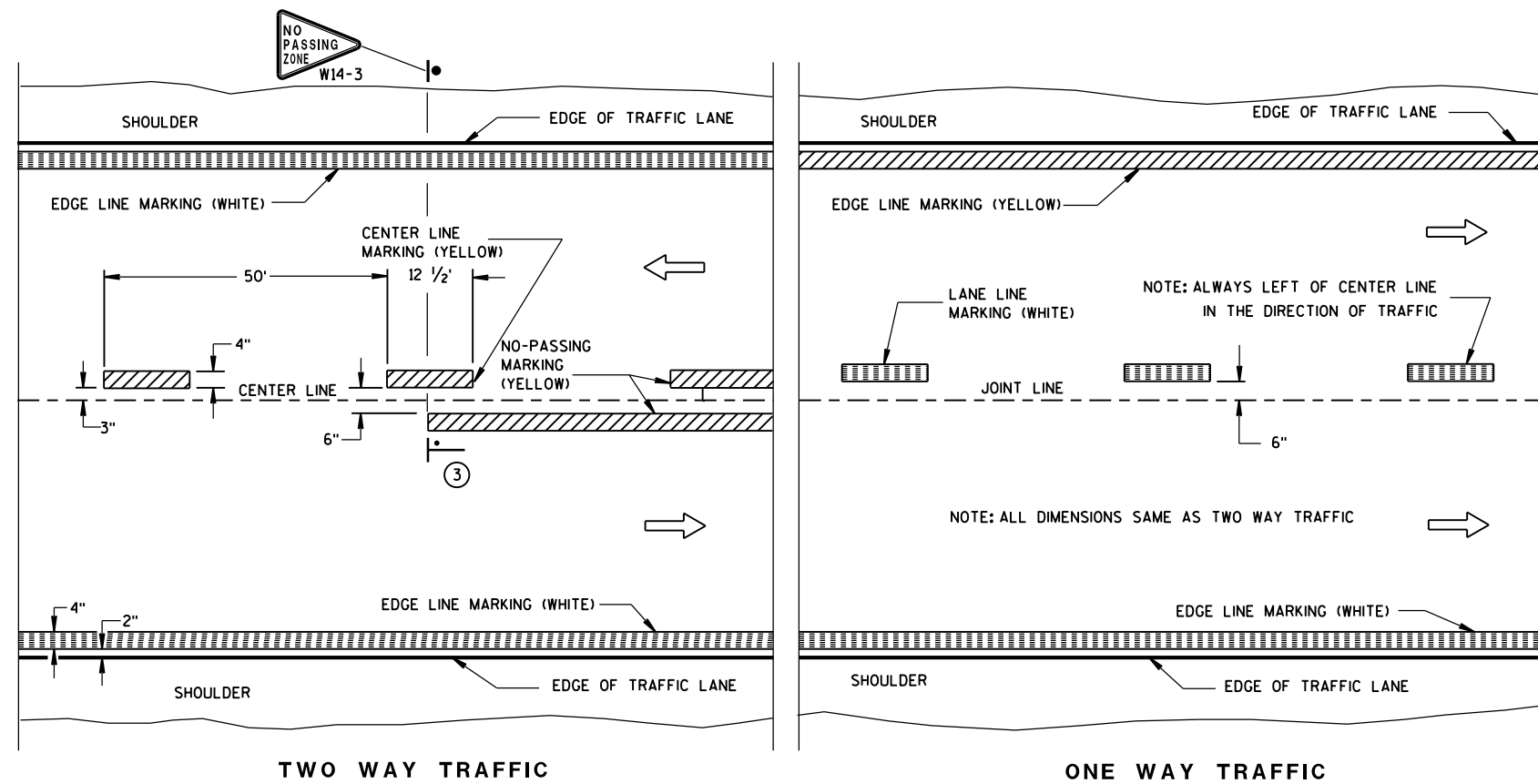
- ① LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.
- ② OMIT ON ONE-WAY TRAVELLED WAYS.
- ③ EDGE OF W5-52 SIGN SHALL BE PLACED IN LINE WITH FACE OF CURB OR PARAPET.



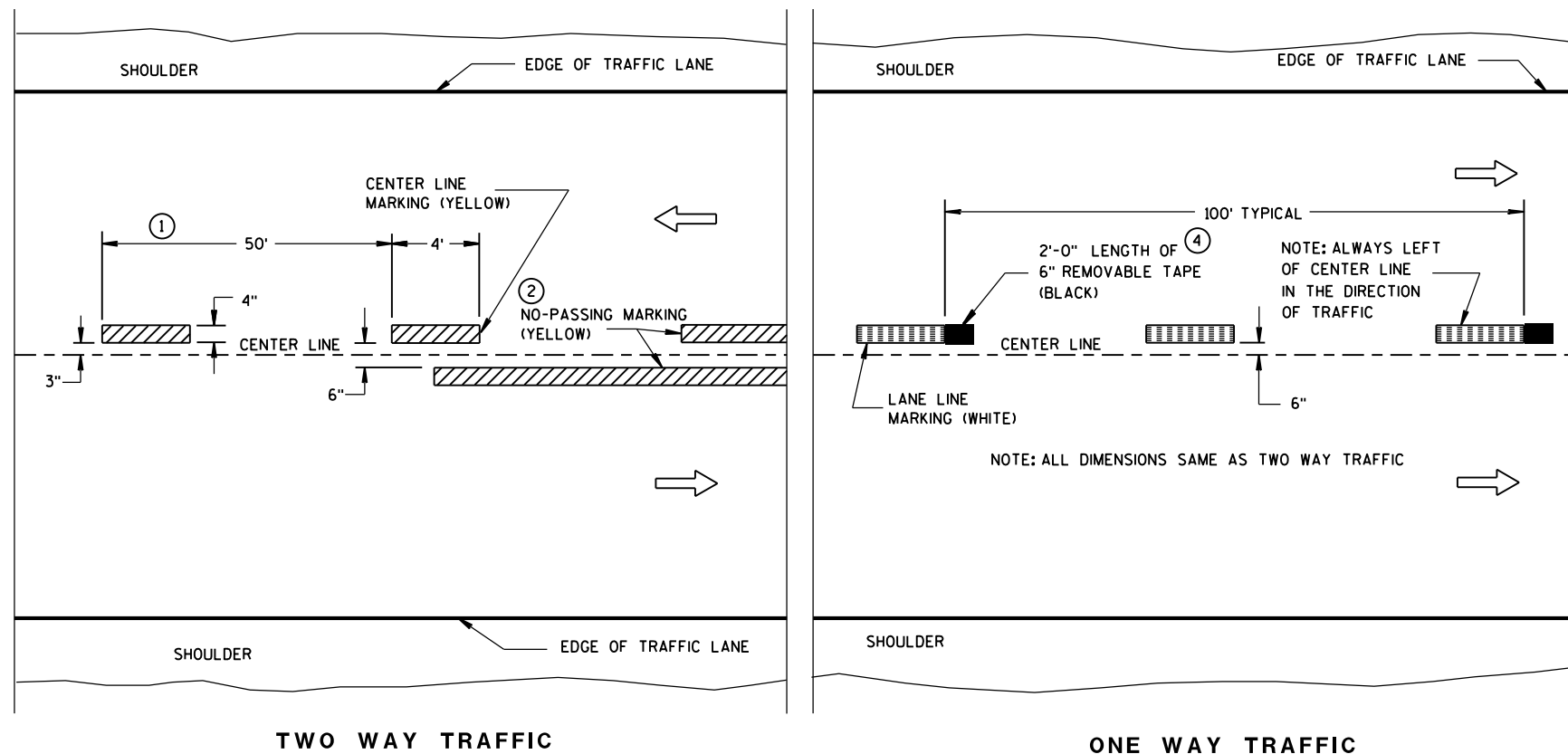
SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MAR 104 JEER
FHWA



PERMANENT PAVEMENT MARKING



TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

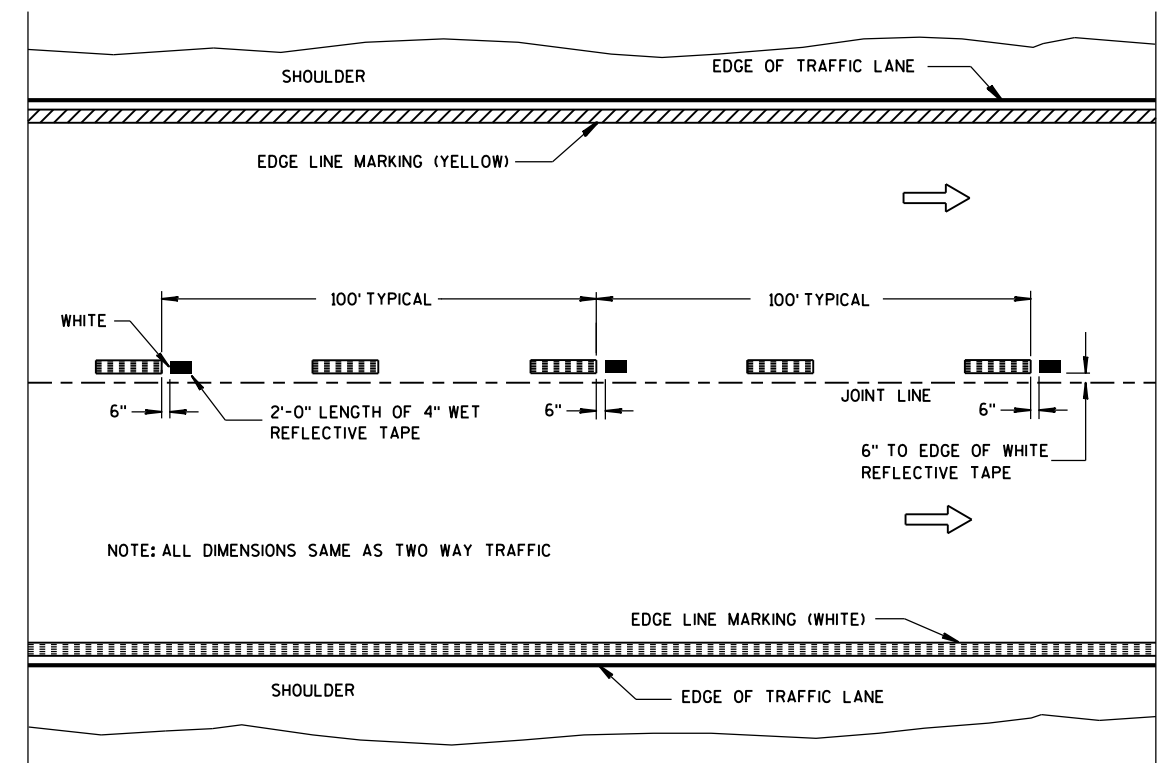
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2" MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

 "T" MARKING

● POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

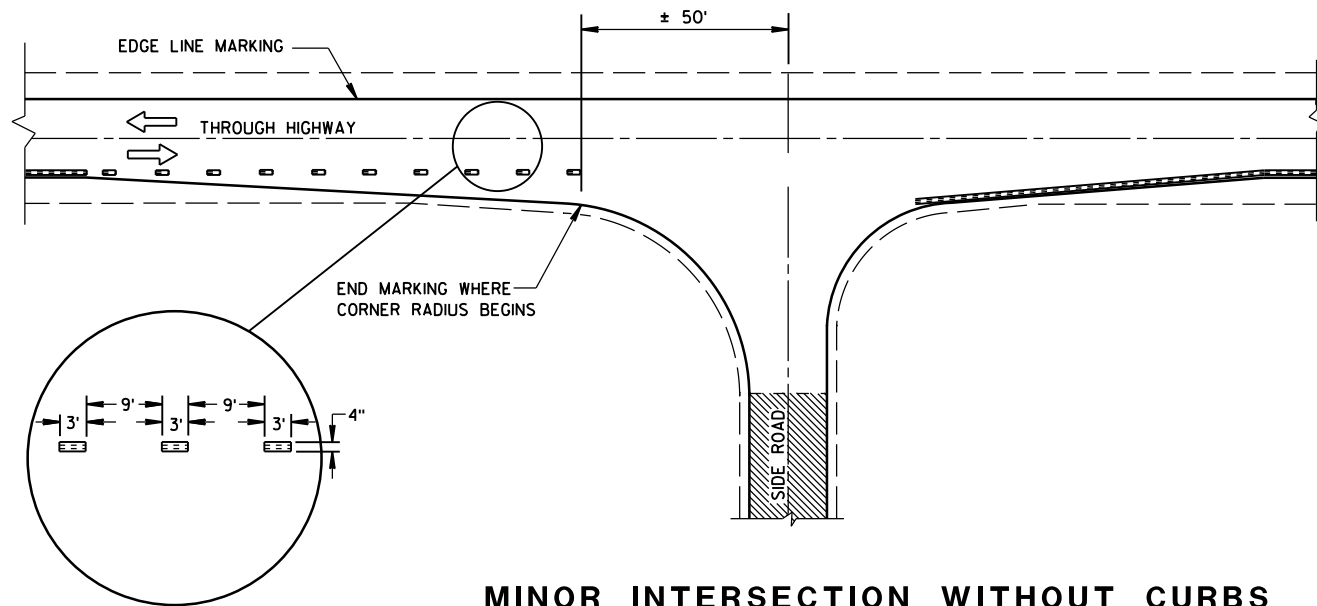
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

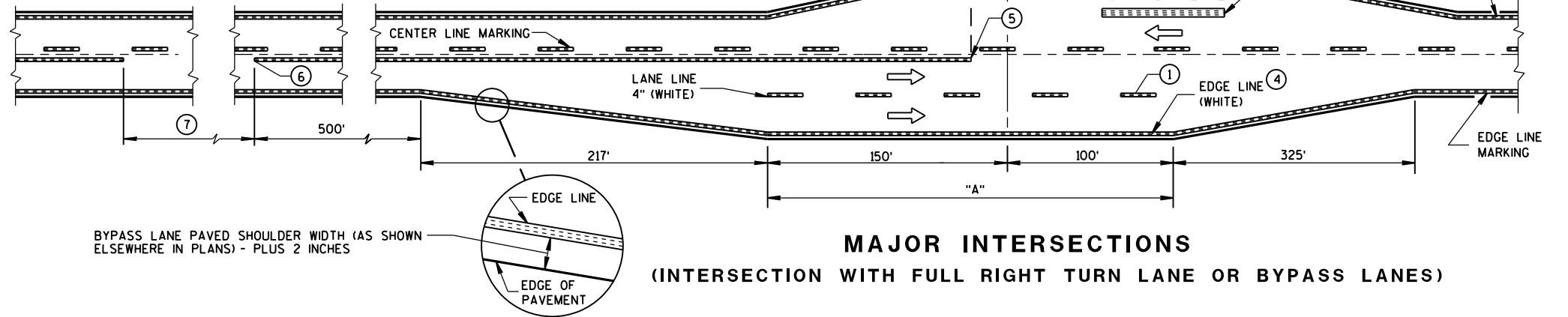
/S/ Travis Feltes
STATE TRAFFIC E 105

FHWA



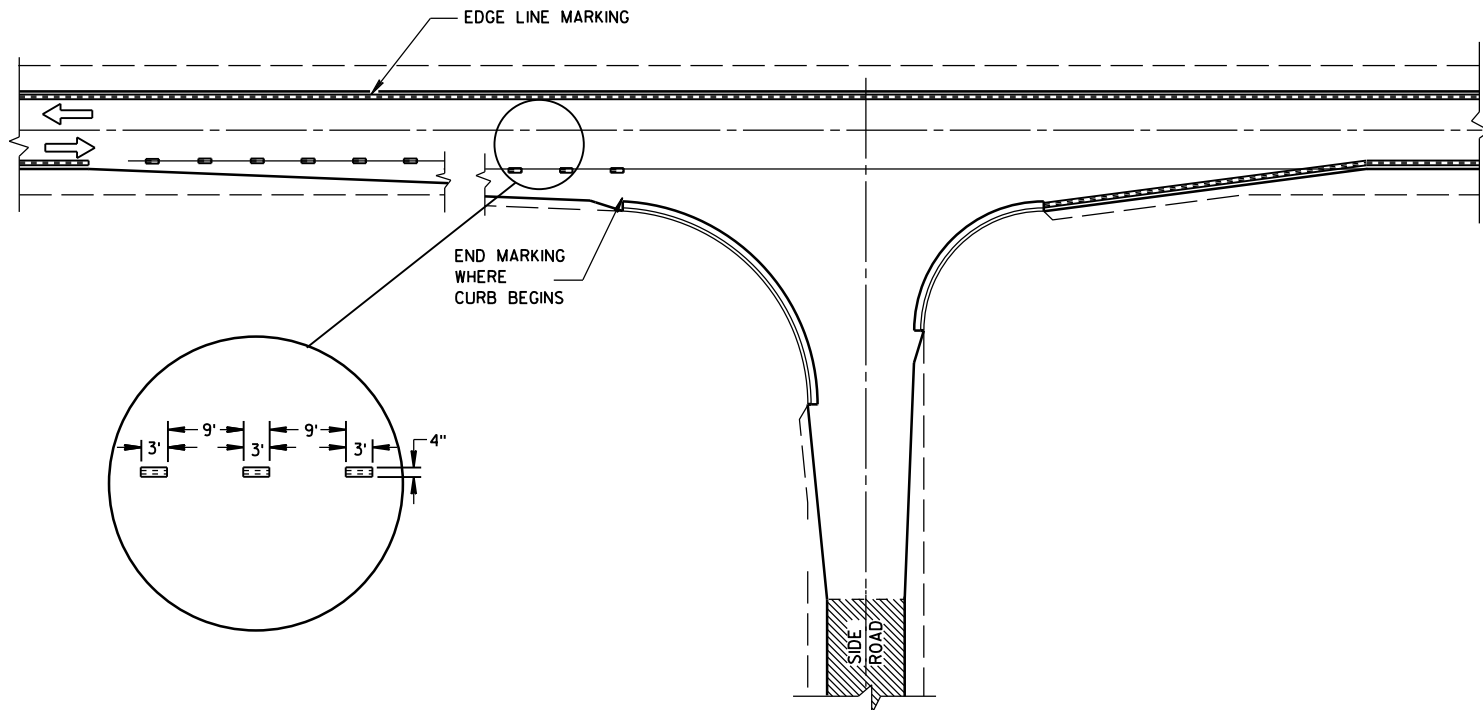
MINOR INTERSECTION WITHOUT CURBS

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792

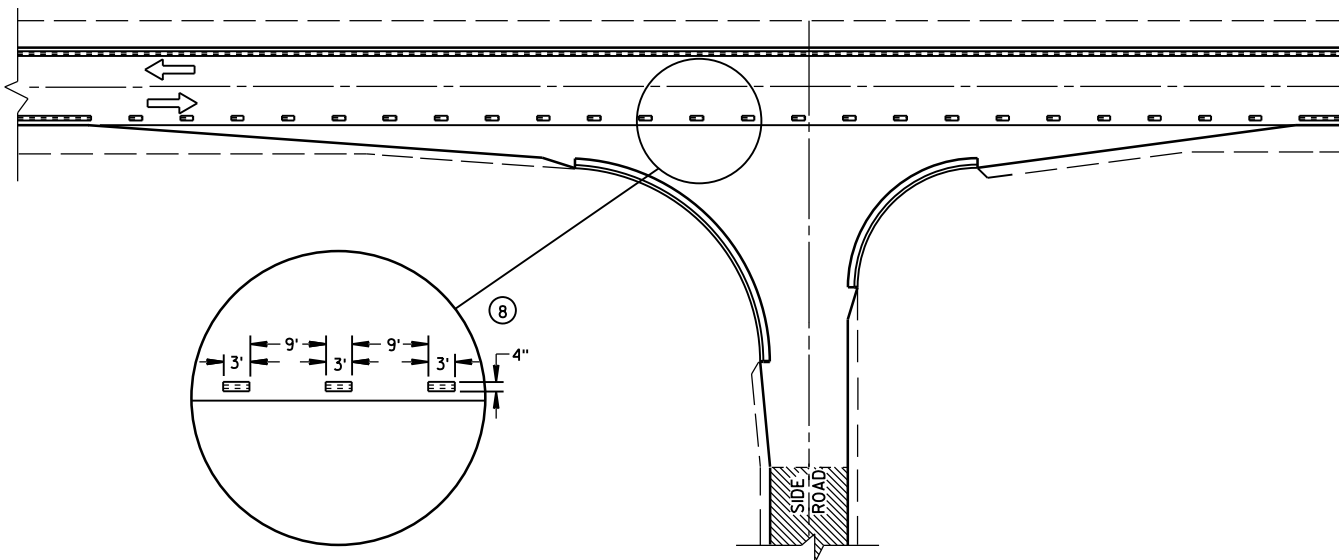


MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
(FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED 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 ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - 4 THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - 5 BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - 6 BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - 7 IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - 8 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

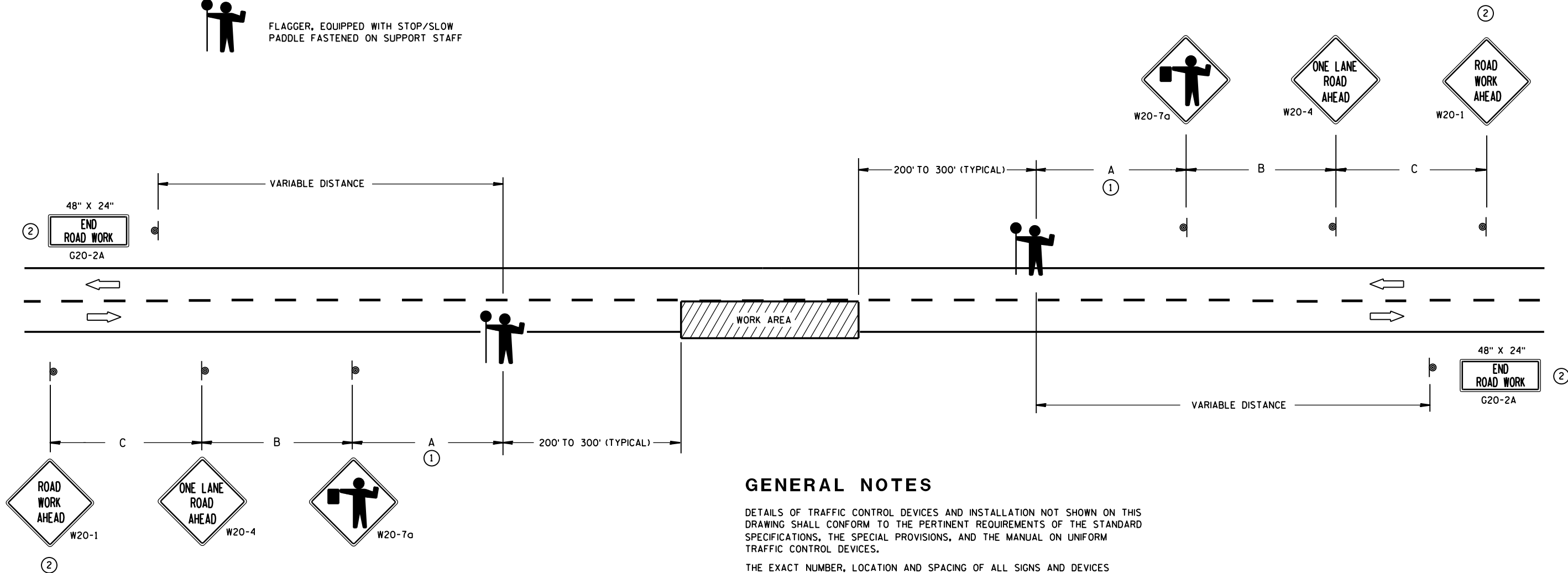
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

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

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

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

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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

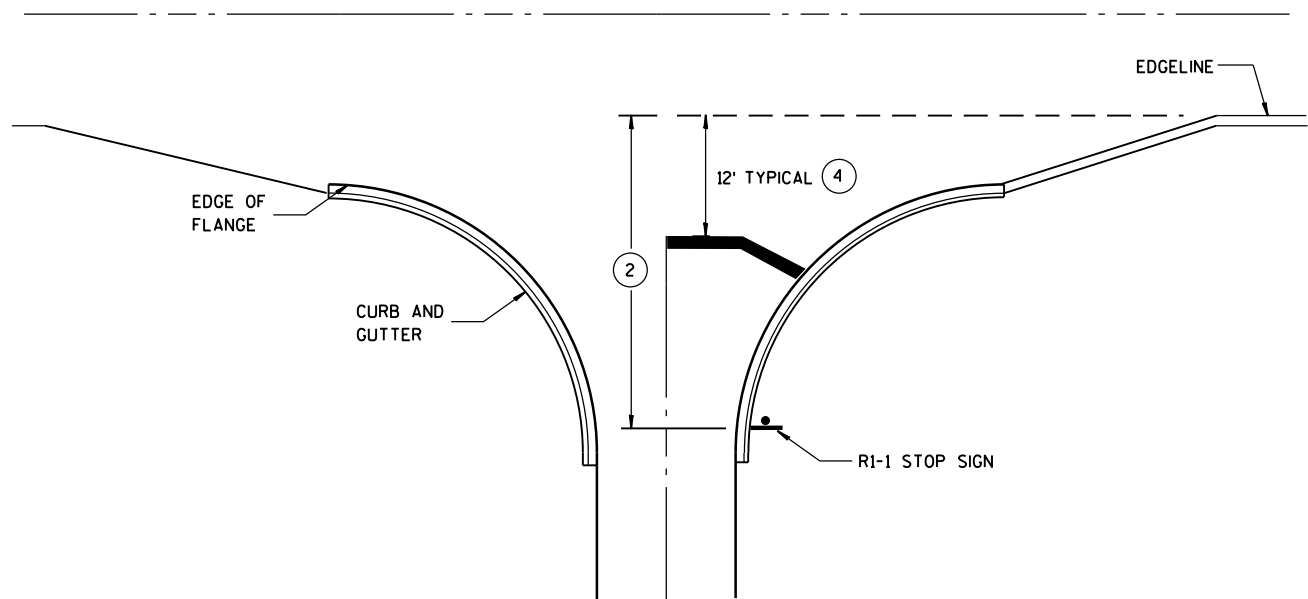
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

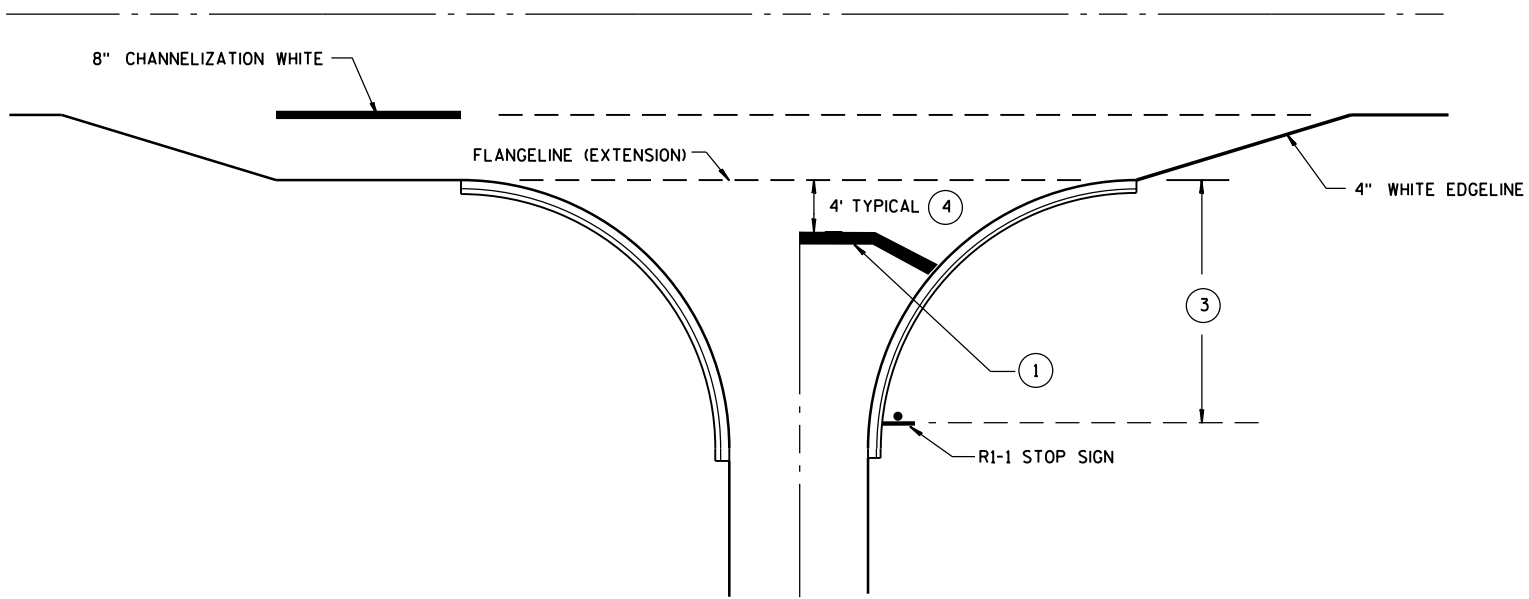
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

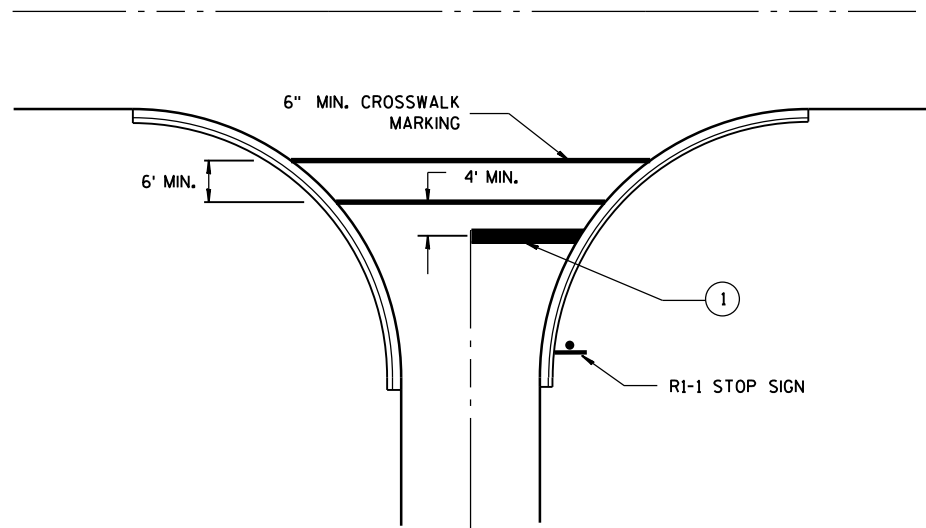
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 107 SIGN
FHWA



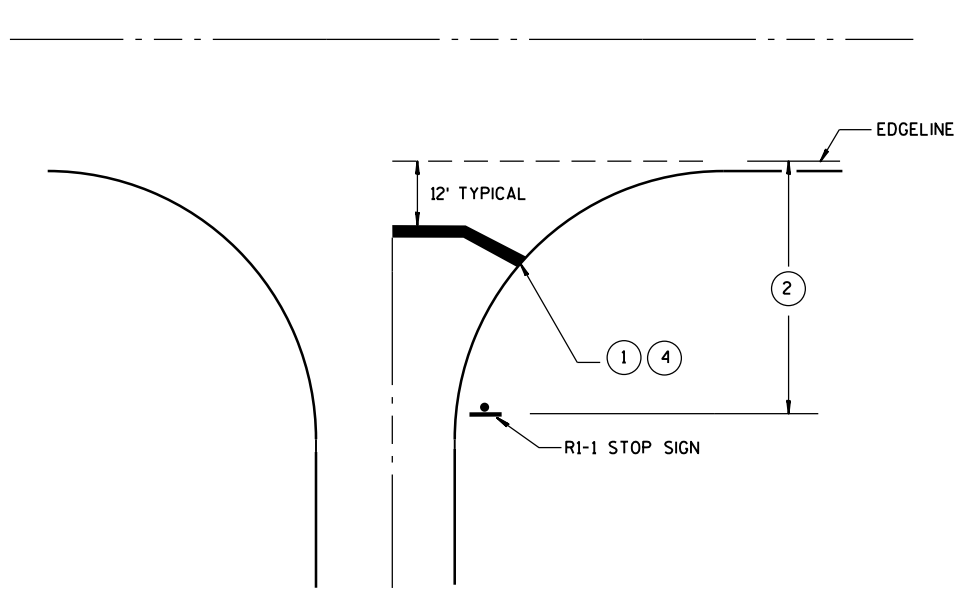
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

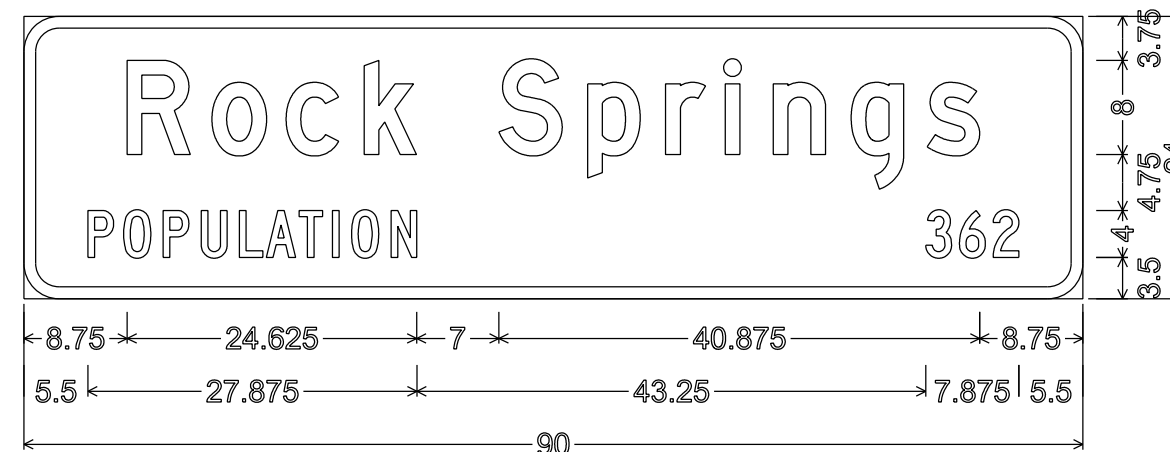
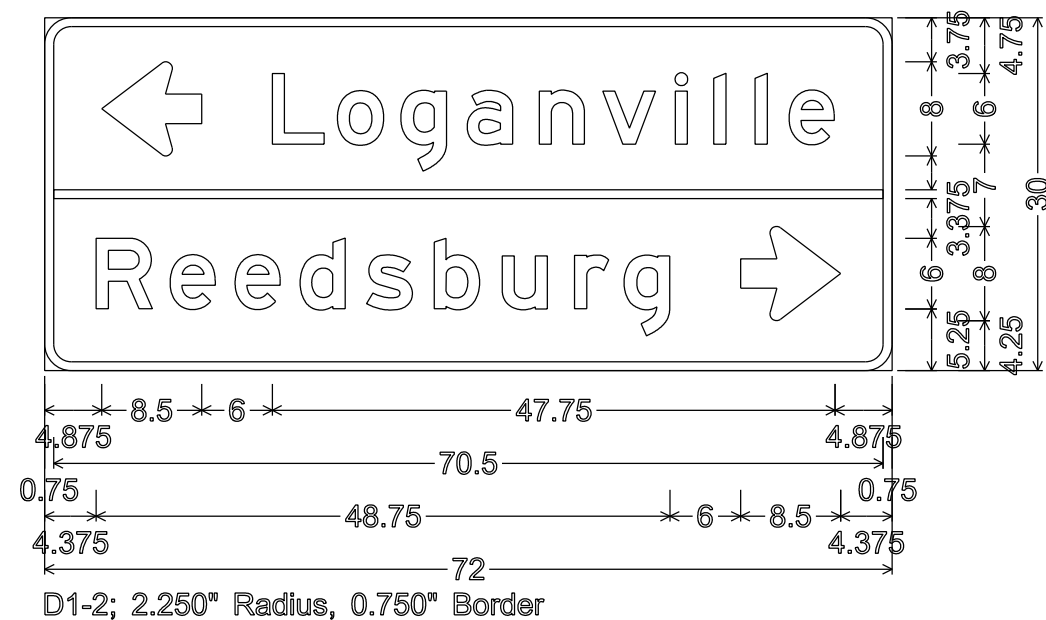
GENERAL NOTES

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- 4 MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

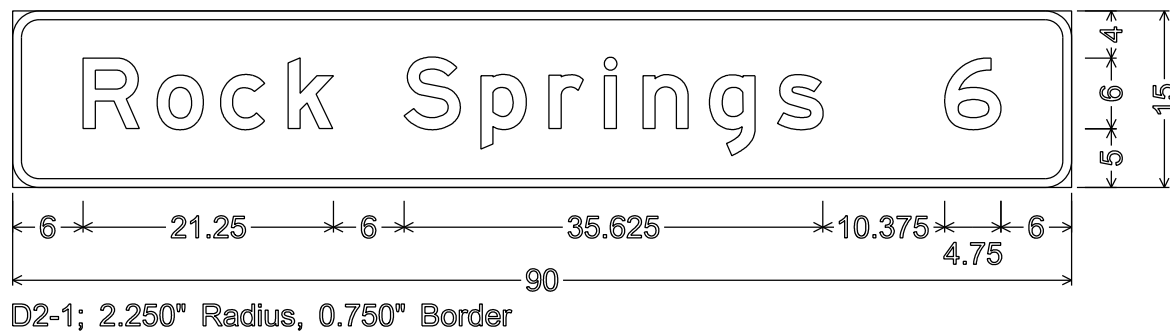
STOP LINE AND CROSSWALK PAVEMENT MARKING			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED			
4-18-2016	/S/ Matthew R. Rauch		
DATE	STATE SIGNING AND MAR 108		
FHWA	JEER		

NOTES

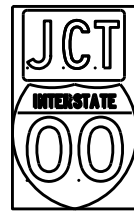
1. All Signs Type II - Type H Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E except as noted



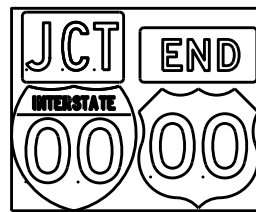
"Rock" D; "Springs" D; "POPULATION" C; "362" C



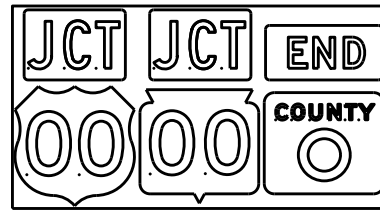
TYPICAL ASSEMBLIES



J1-1



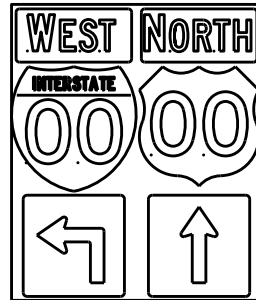
J1-2



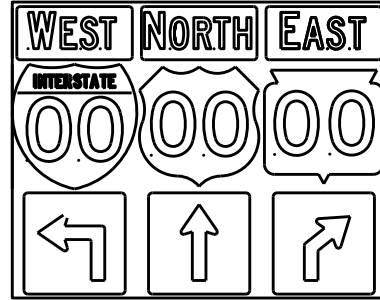
J1-3



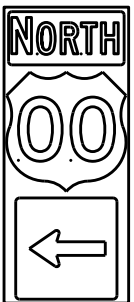
J2-1



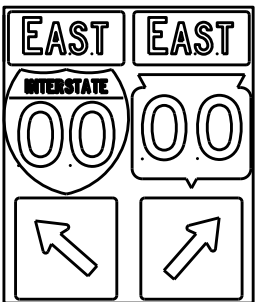
J2-2



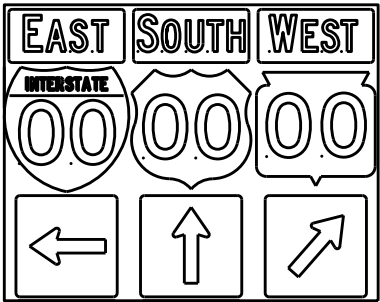
J2-3



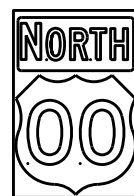
J3-1



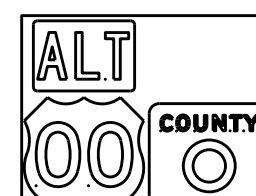
J3-2



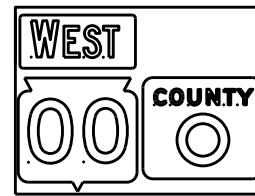
J3-3



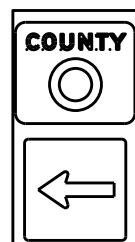
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

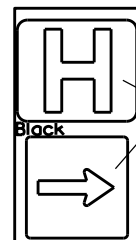


J22-1



JV

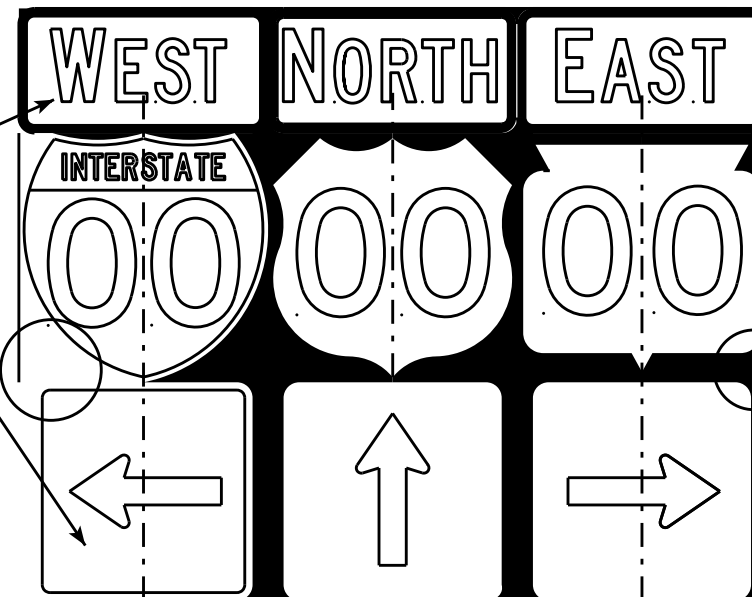
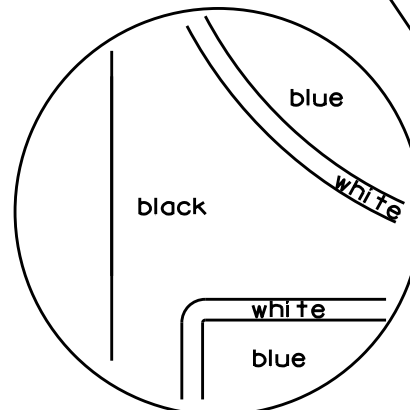
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PL 110 A2-1S.8

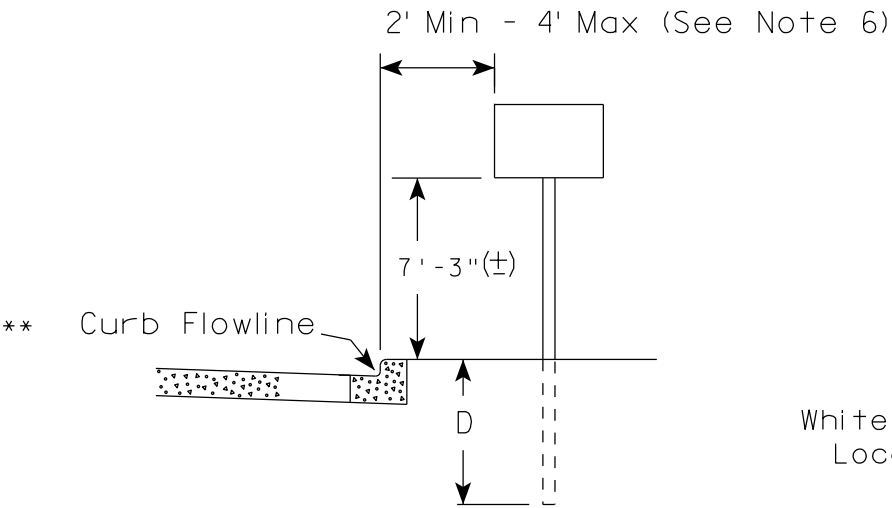
SHEET NO: E

NOTES

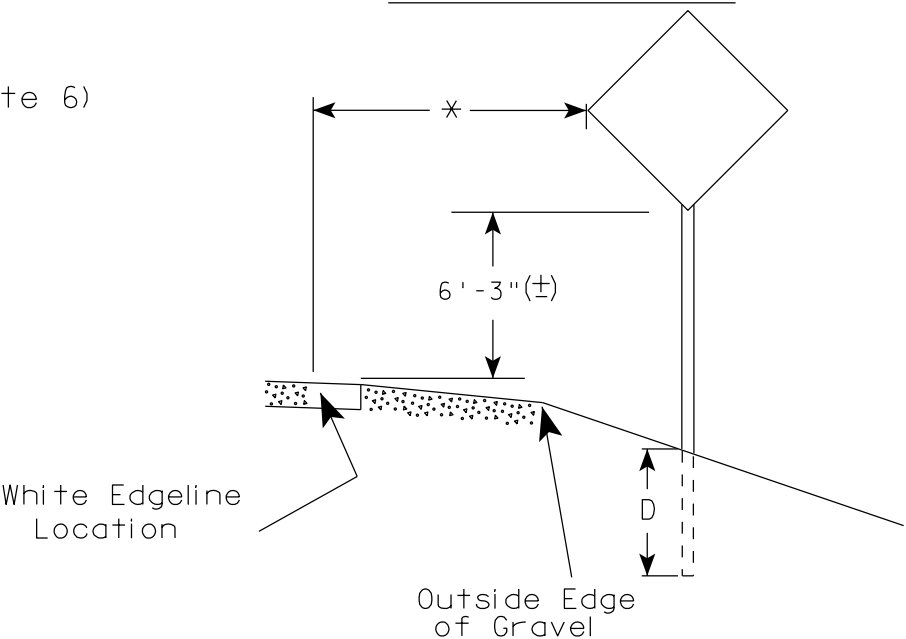
- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

PROJECT NO:

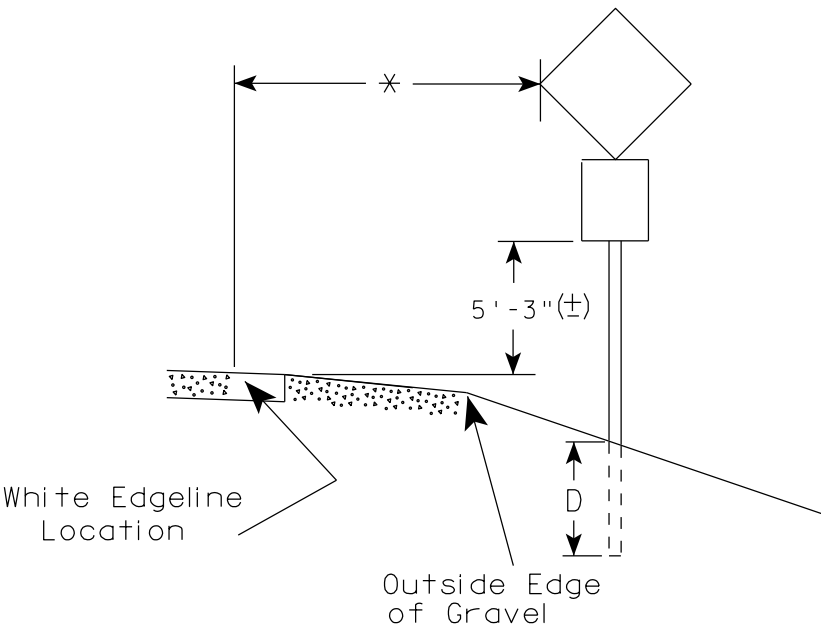
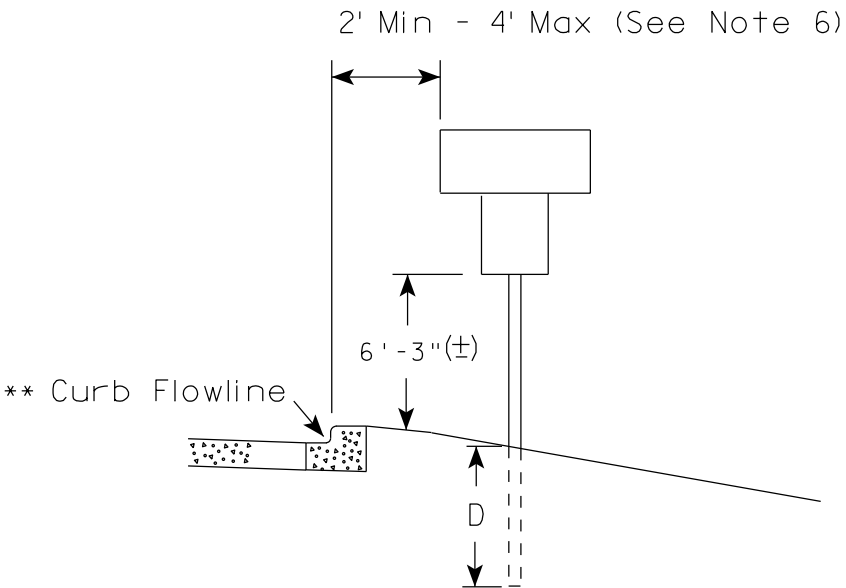
URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. The (±) tolerance for mounting height is 3 inches.
 8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).



POST EMBEDMENT DEPTH

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

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

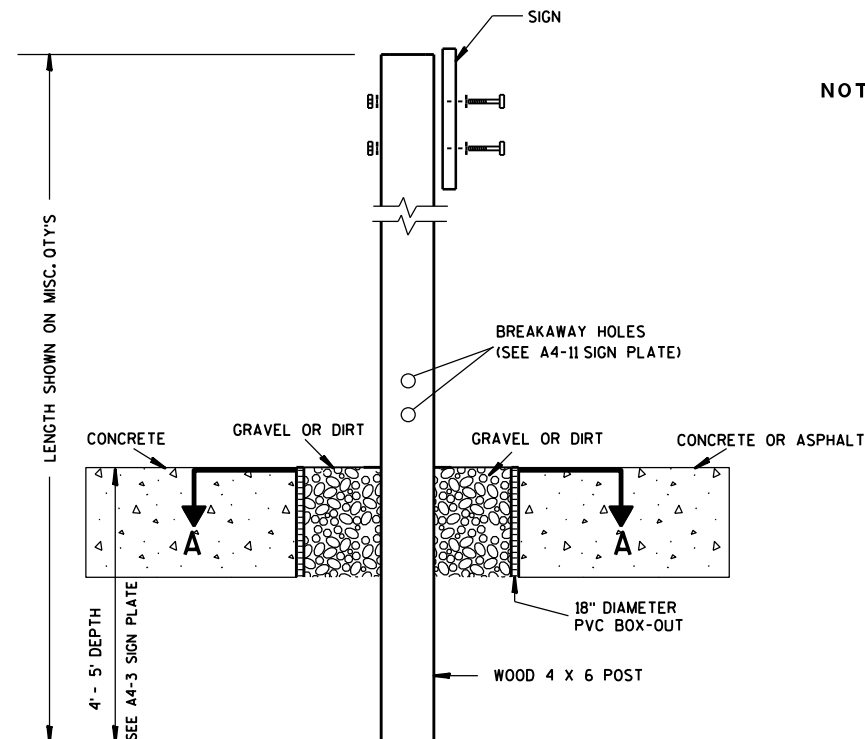
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

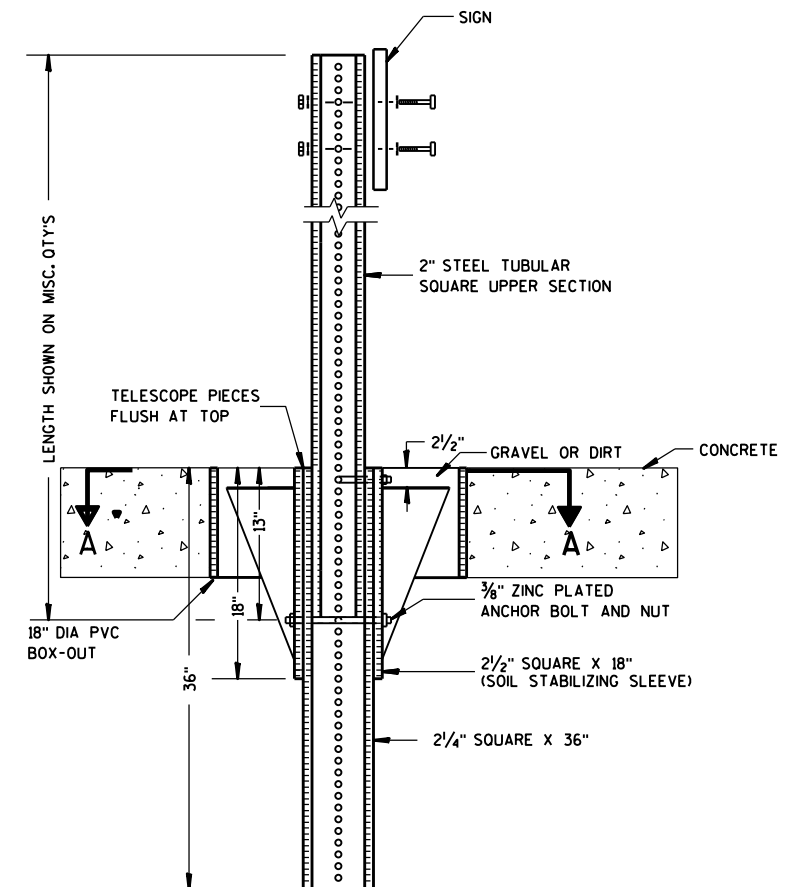
DATE 7/23/15 PLATE NO. A4-3.20



ELEVATION VIEW

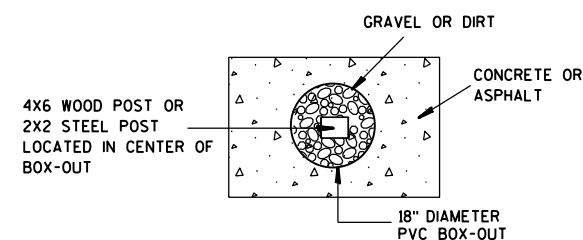
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 112 A4-3B.1

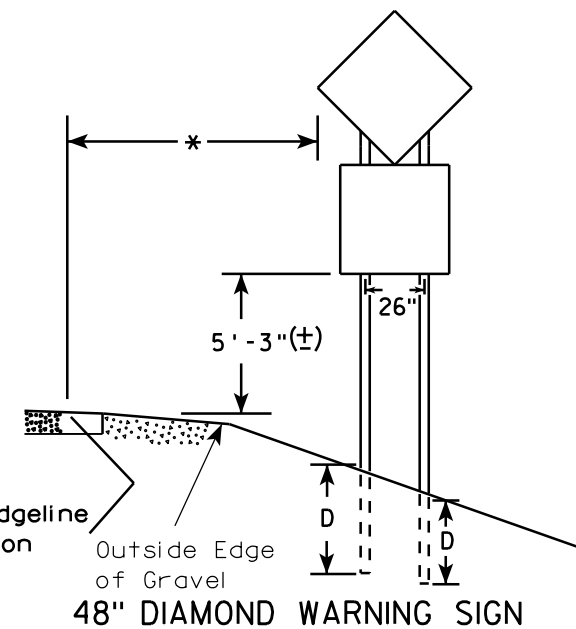
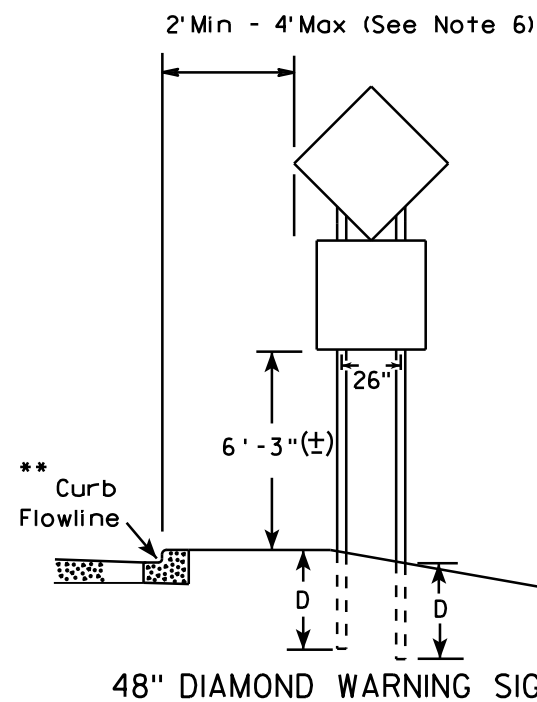
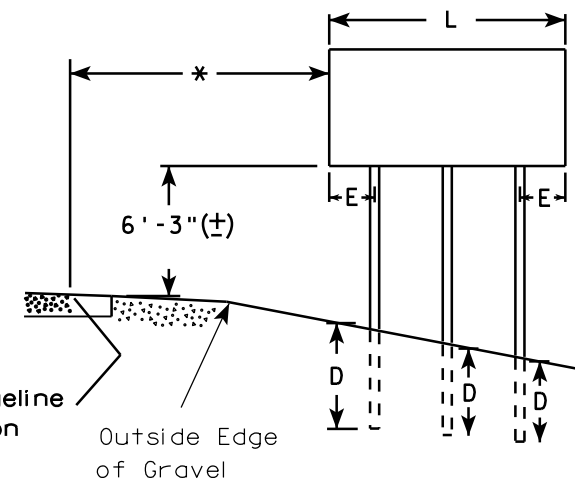
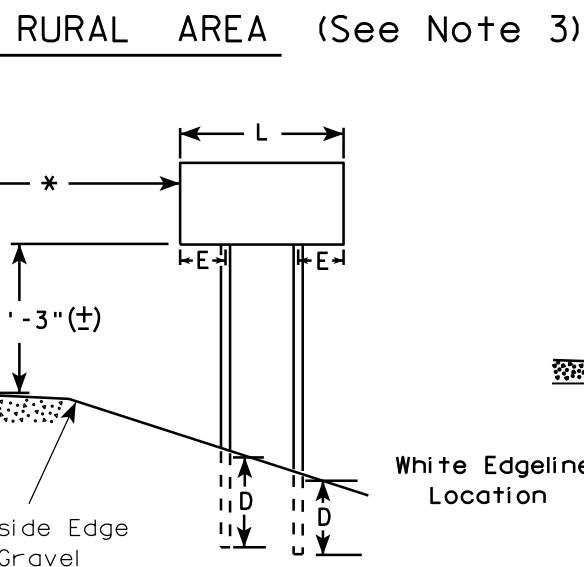
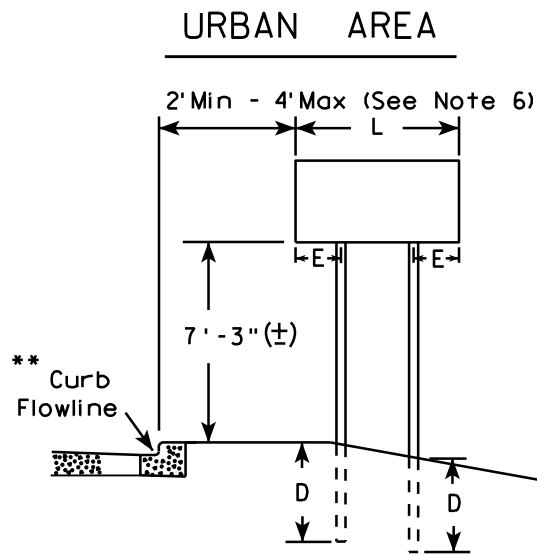
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- GENERAL NOTES**
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 - See tables below for required number of posts.
 - For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 - The (±) tolerance for mounting height is 3 inches.
 - Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 - Offset distance shall be consistent with existing signs or consistent throughout length of project.
 - Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 - The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

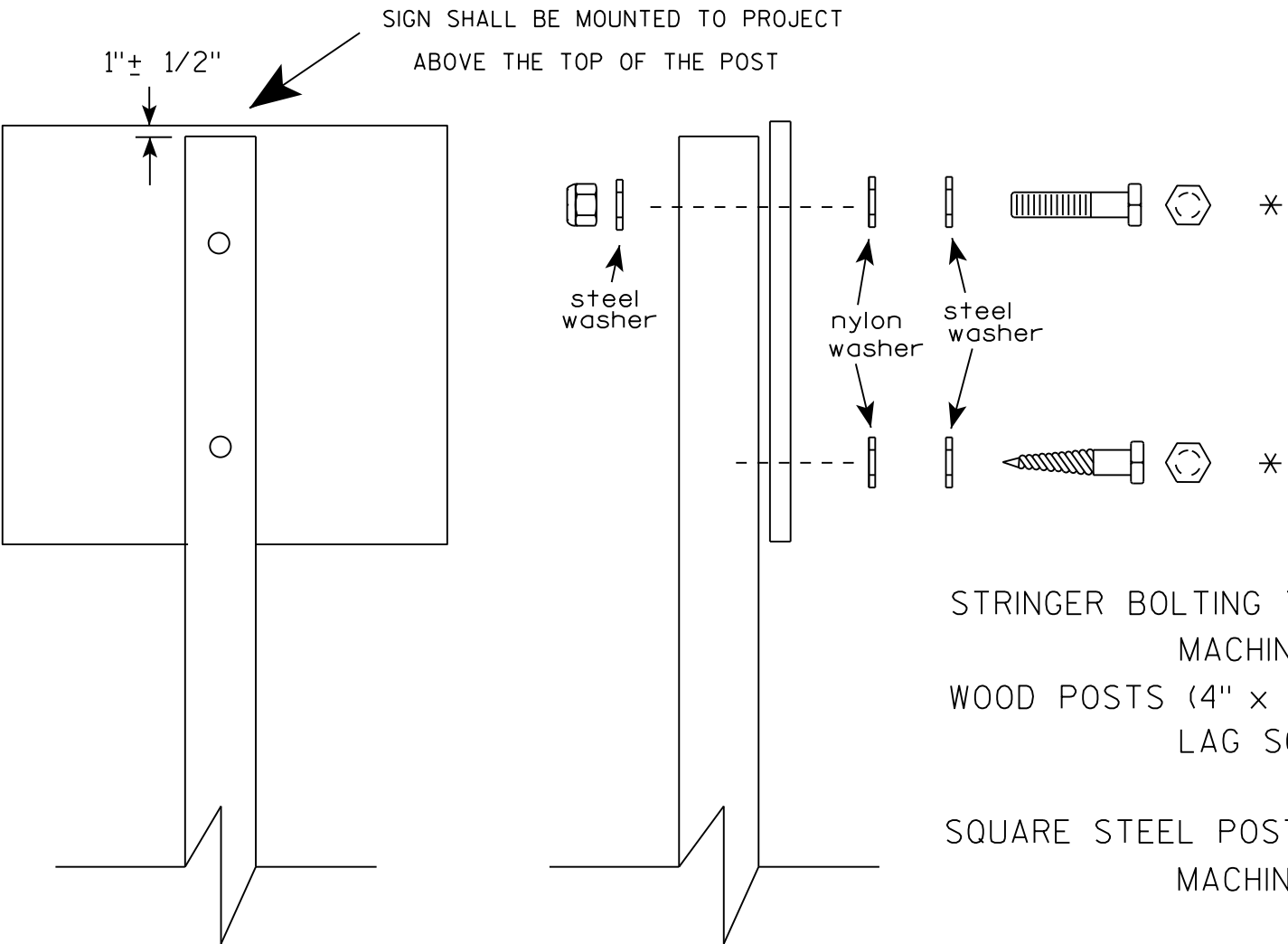
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. 113 14



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

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

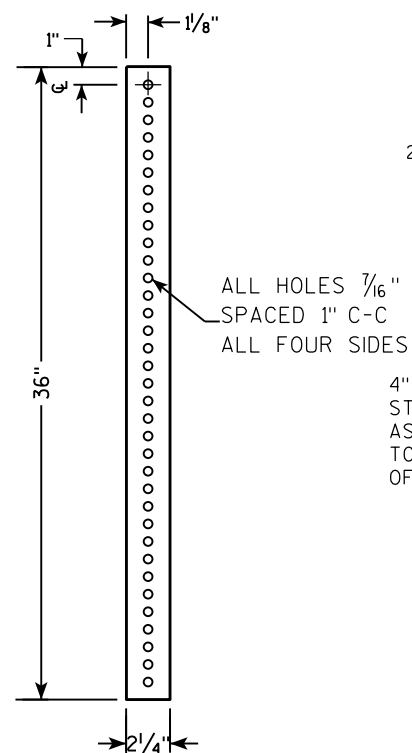
ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

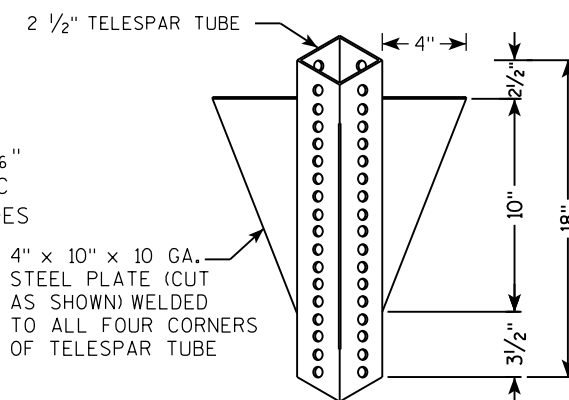
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8
114

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**

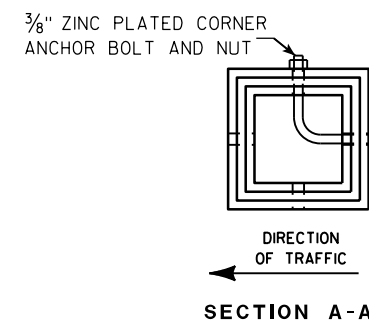


**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**

[illegible]

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the tubular section.
- SIGN**: Attached to the top of the post.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a sign plate for hardware details.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware used to secure the post to the base.
- 1"**: Dimension for the offset of the anchor bolt from the post face.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware used to secure the base plate to the ground.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The base plate of the post.
- 2 1/4" SQUARE X 36"**: The main base plate.
- 36"**: Dimension for the height of the main base plate.
- 18"** and **12"**: Dimensions for the offset of the anchor bolt from the post face.
- A**: Downward arrows indicating load or weight.



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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 2/05/15 PLATI 115 14-9.9

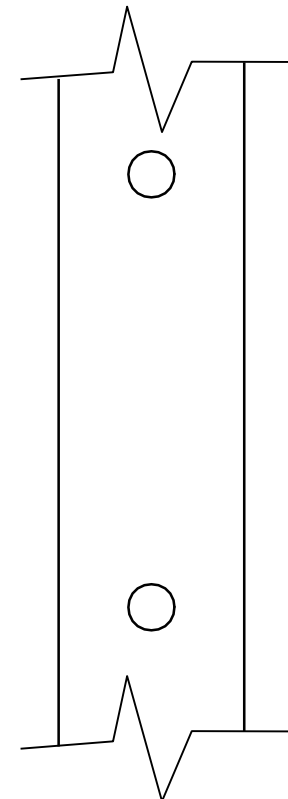
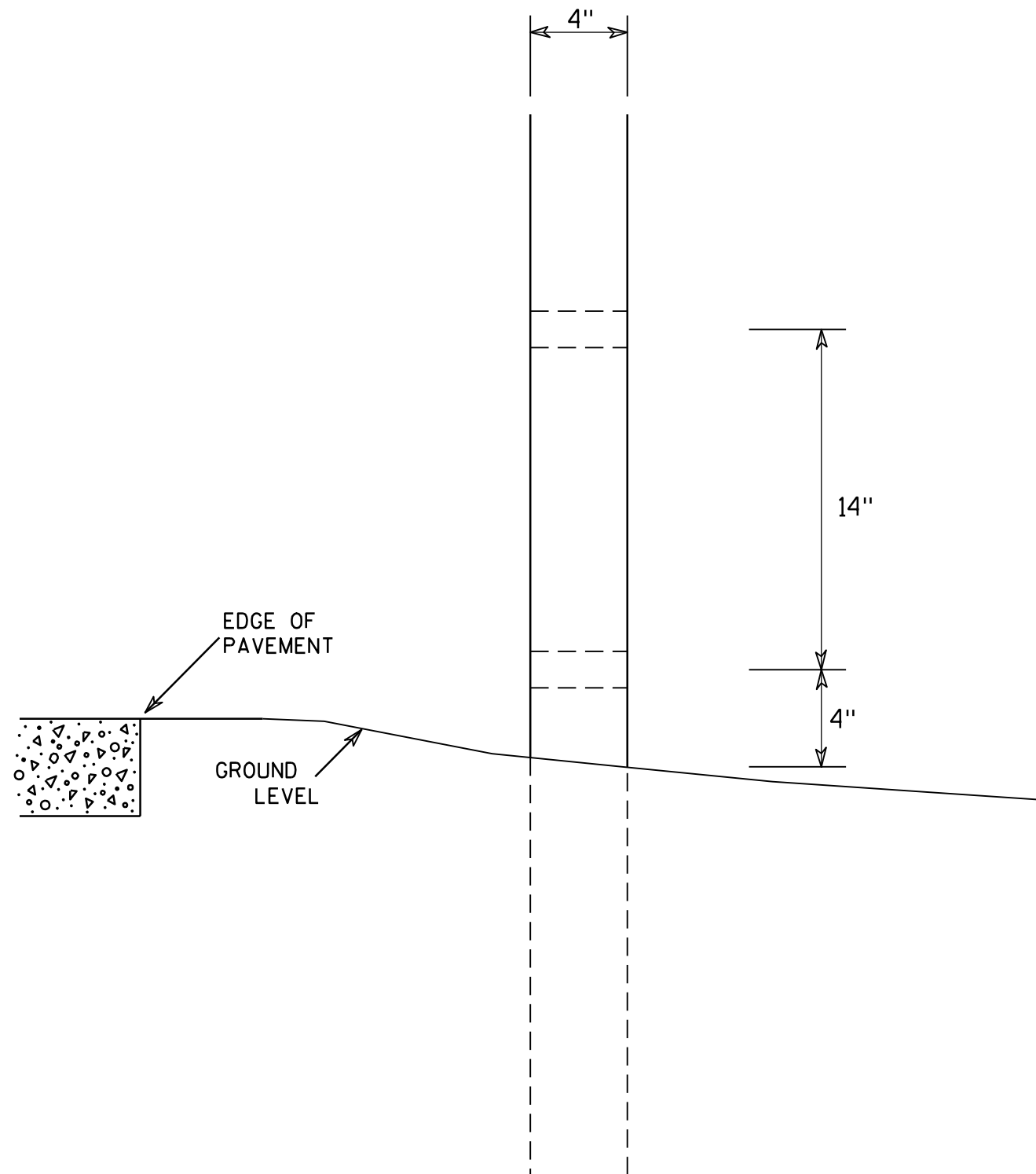
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

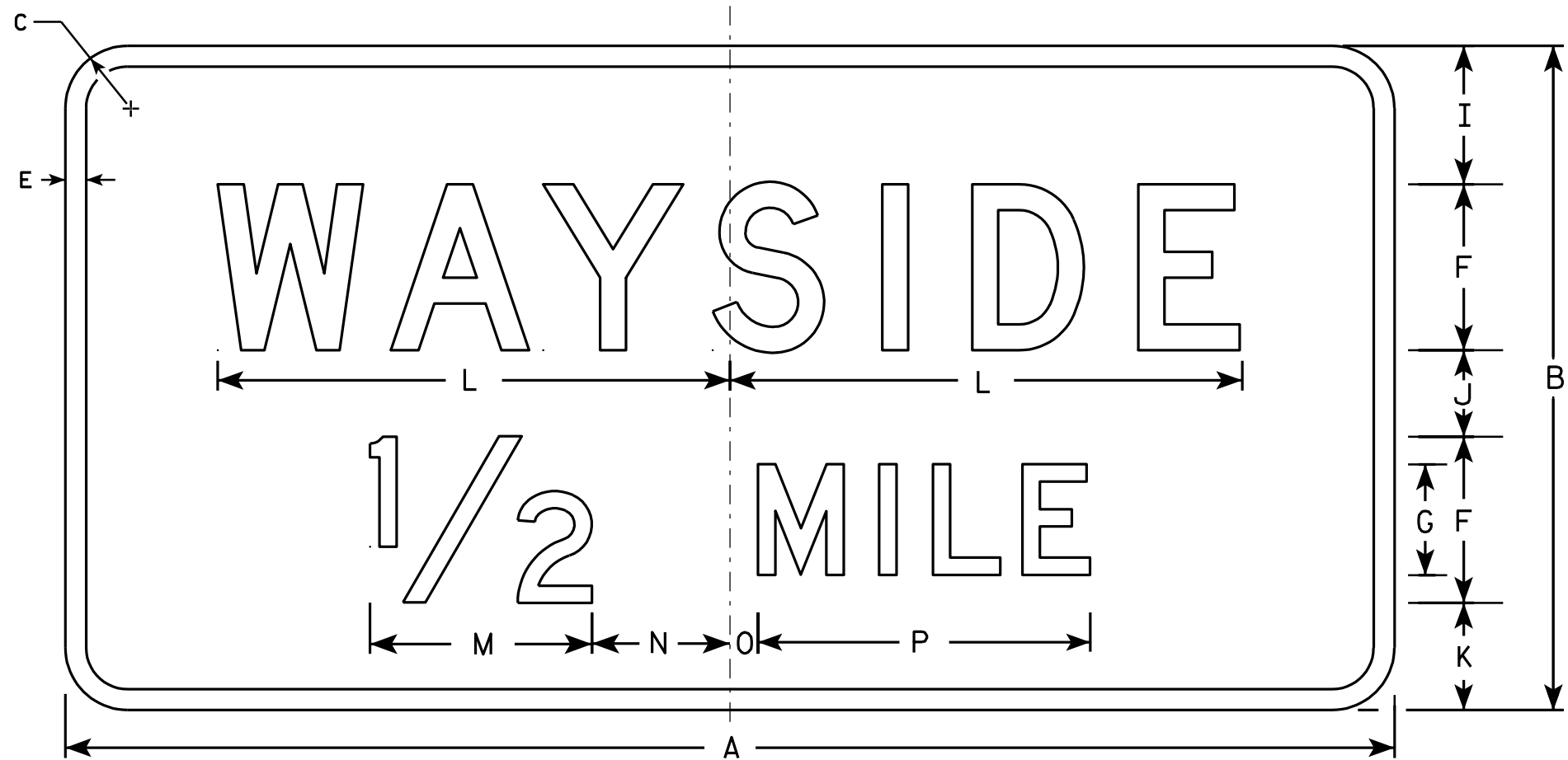
SHEET NO: 116

E

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10,



D5-61

Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z		
1																												
2	48	24	2 1/4		3/4	6	4	6	5	3 1/8	3 7/8	18 1/2	8	5	1	12											8.0	0.72
3																												
4	78	42	3		1	10	7	10 1/2	8 3/4	5 3/4	7	30 1/8	14	8 3/4	1 3/4	21											22.8	2.05
5																												

STATE PROJECT NUMBER:

FILE NAME : D:\Users\Projects\tr_stdplate\D561.DGN

PLOT DATE : 09-JAN-2002 13:01

ORG DATE : 7/24/97

Originator : Don Kluever

STANDARD SIGN
D5-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Charles J. Spang
for State Traffic Engineer

DATE 1/09/02

PLATE NO. D5-61.9

SHEET NO: 117

E

7

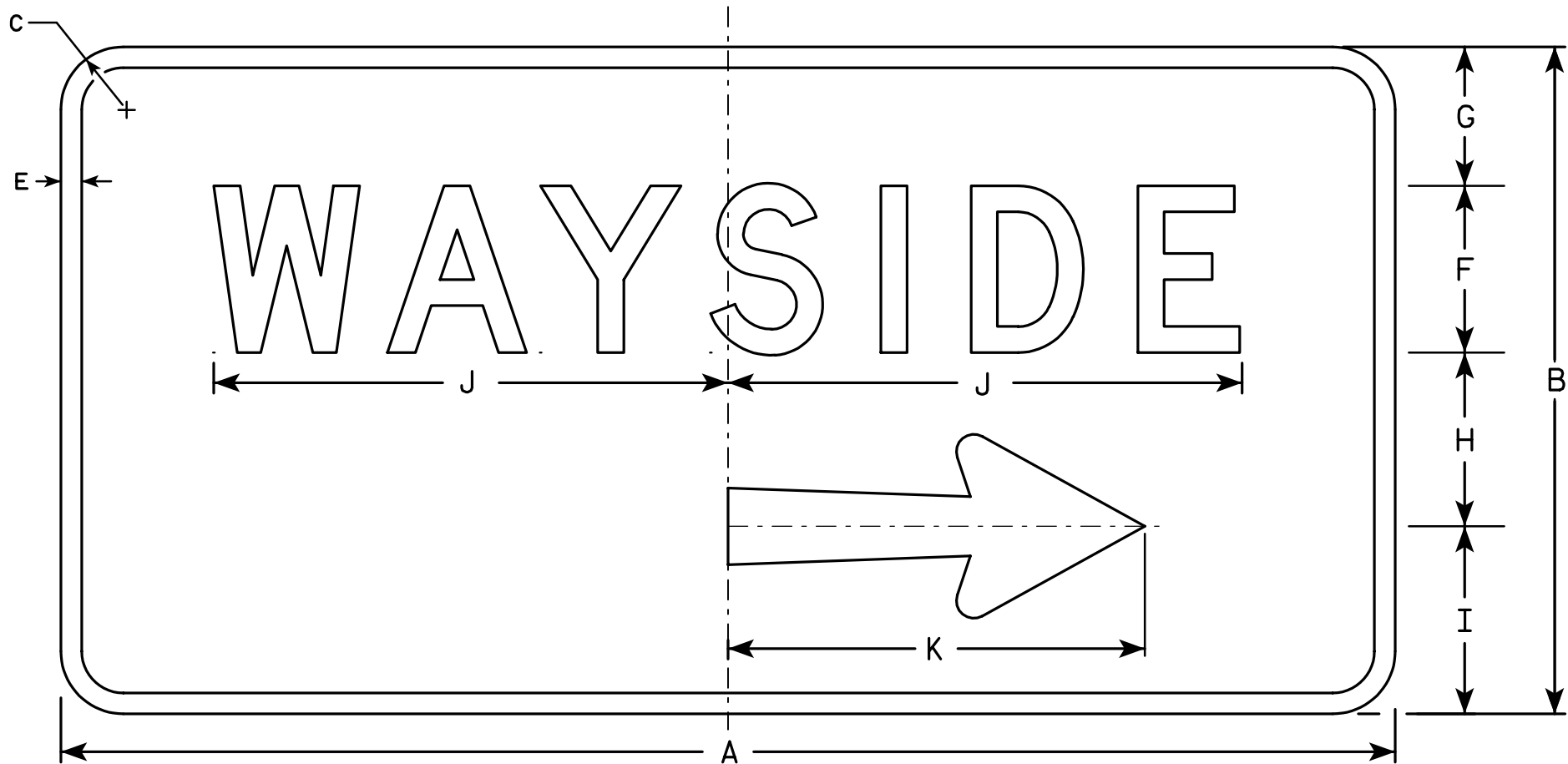
NOTES

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

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 14, 10,



D5-62R

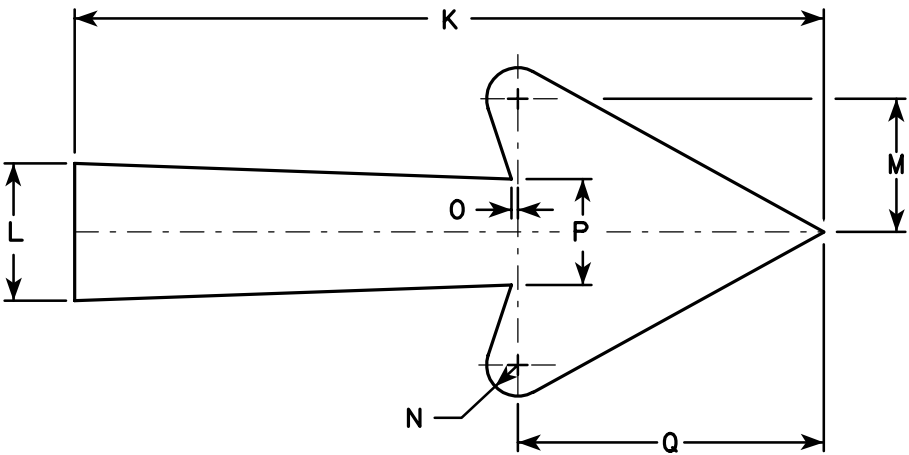
Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	48	24	2 1/4		3/4	6	4	6 1/4	6 3/4	18 1/2	15	2 3/4	3 1/8	5/8	1/8	2 1/8	6 1/8										8.0	0.72
3																												
4	78	42	3		1	10	8 3/4	11	12 1/4	30 1/8	26 1/4	4 3/4	4 5/8	1 1/8	1/4	3 3/4	10 3/4										22.8	2.05
5																												

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Blue
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-62L is the same as D5-62R except that the arrow is rotated 180° about the vertical center line.



Arrow Detail

STANDARD SIGN
D5-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Spang
for State Traffic Engineer

DATE 1/09/02

PLATE NO. D5-62.10

STATE PROJECT NUMBER:

SHEET NO: 118

E

NOTES

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



G20-51

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10	.90
3																												
4	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10	.90
5																												

STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

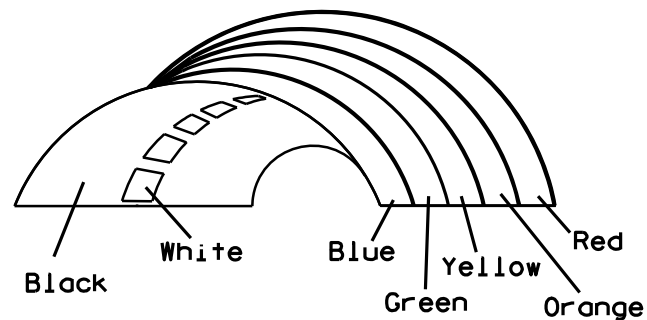
DATE 12/20/02 PLATE NO. G20-51.1

PROJECT NO: HWY: COUNTY: SHEET NO: 119 E



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 120
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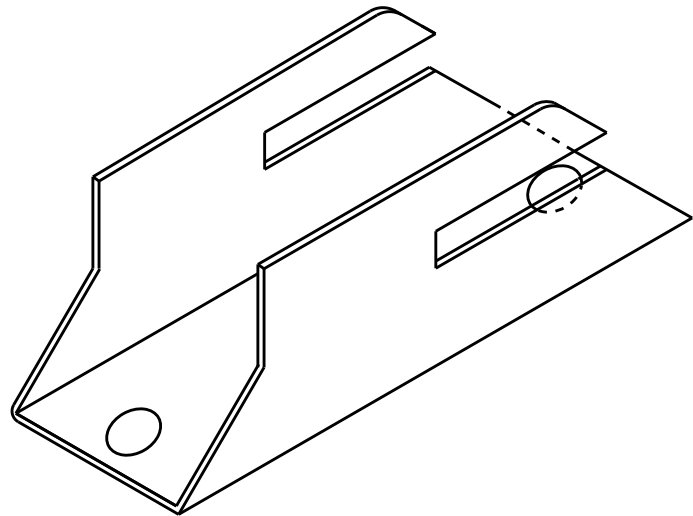
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

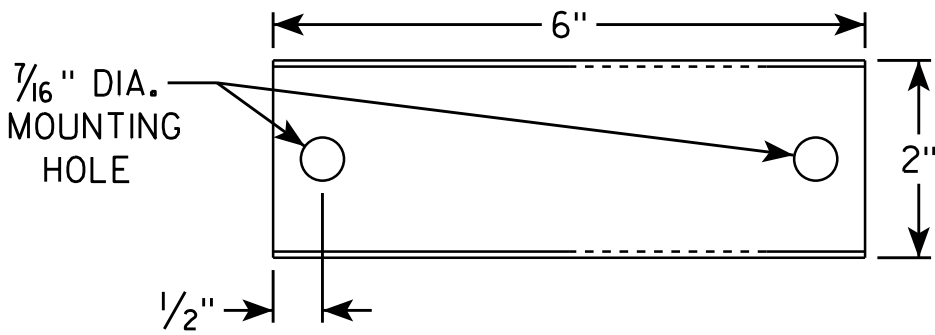
APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

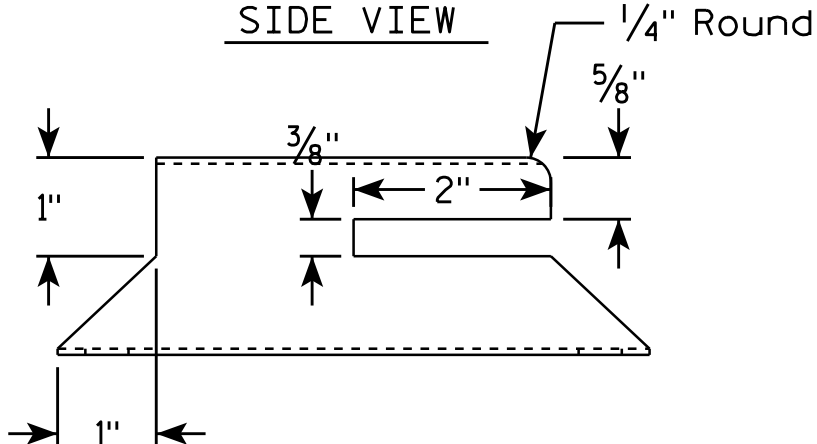
ISOMETRIC VIEW



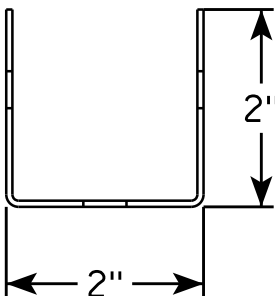
TOP VIEW



SIDE VIEW



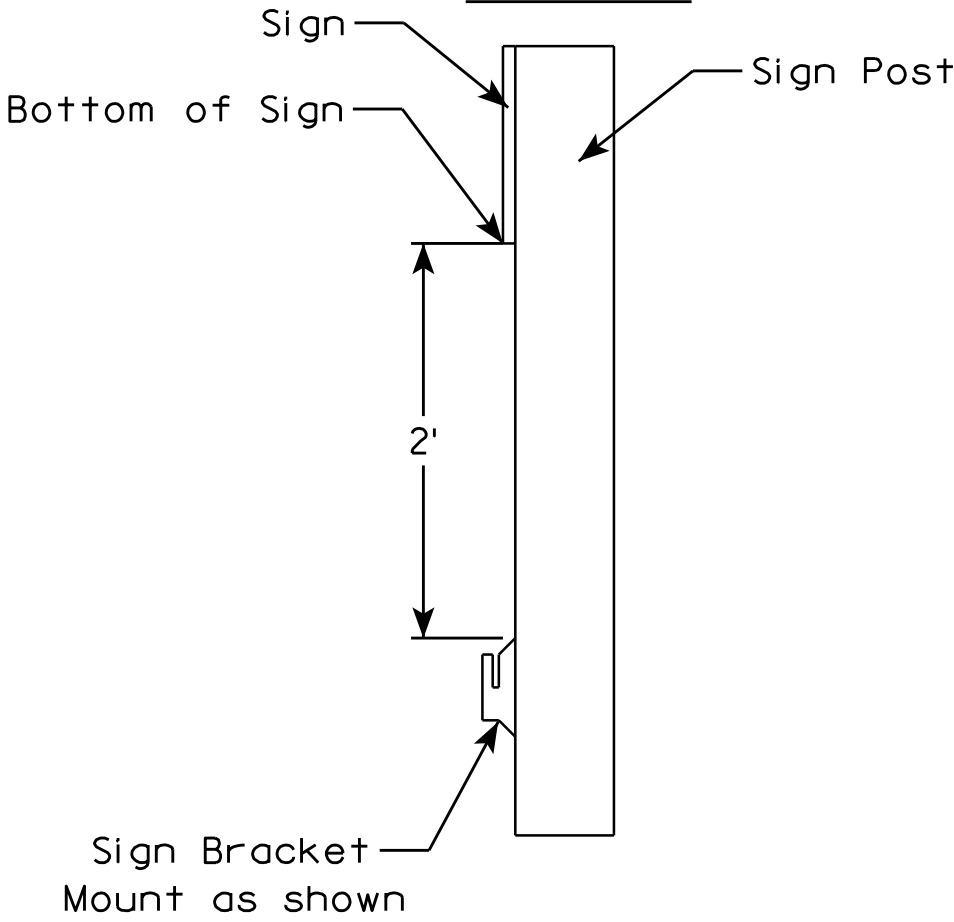
END VIEW



NOTES

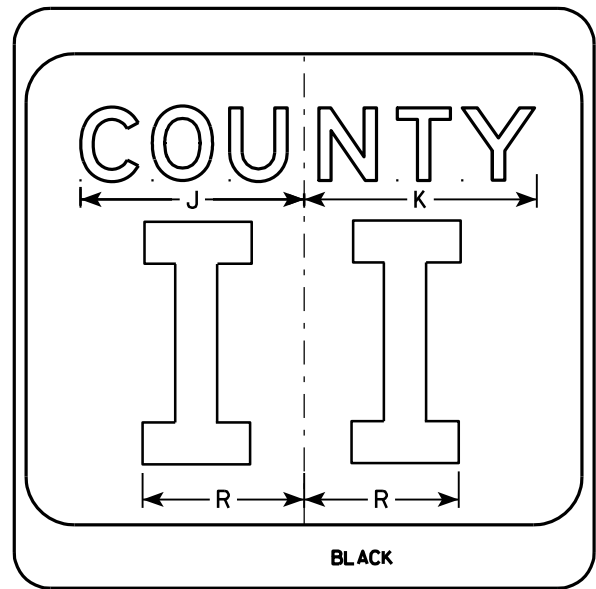
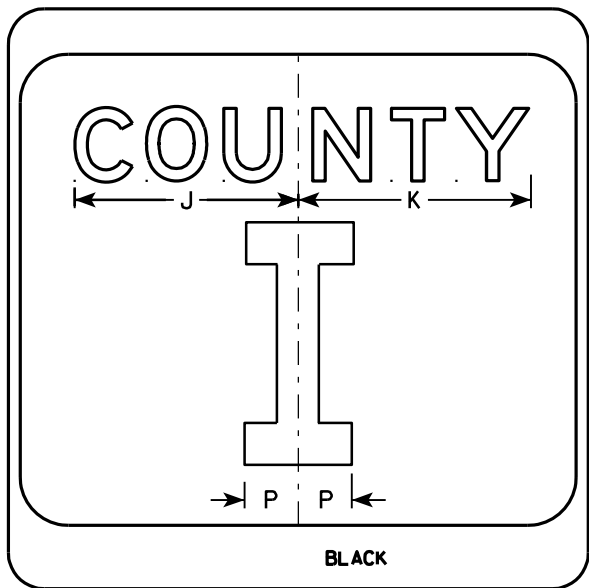
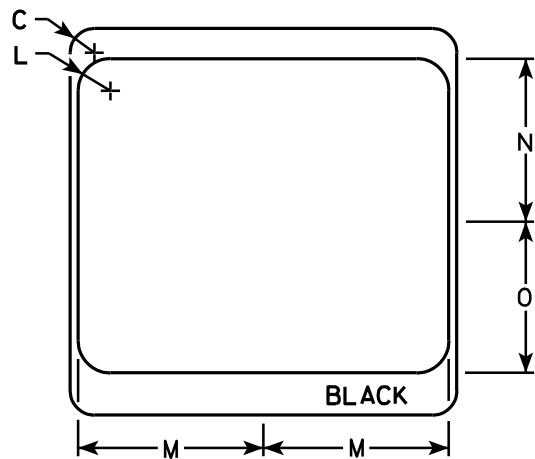
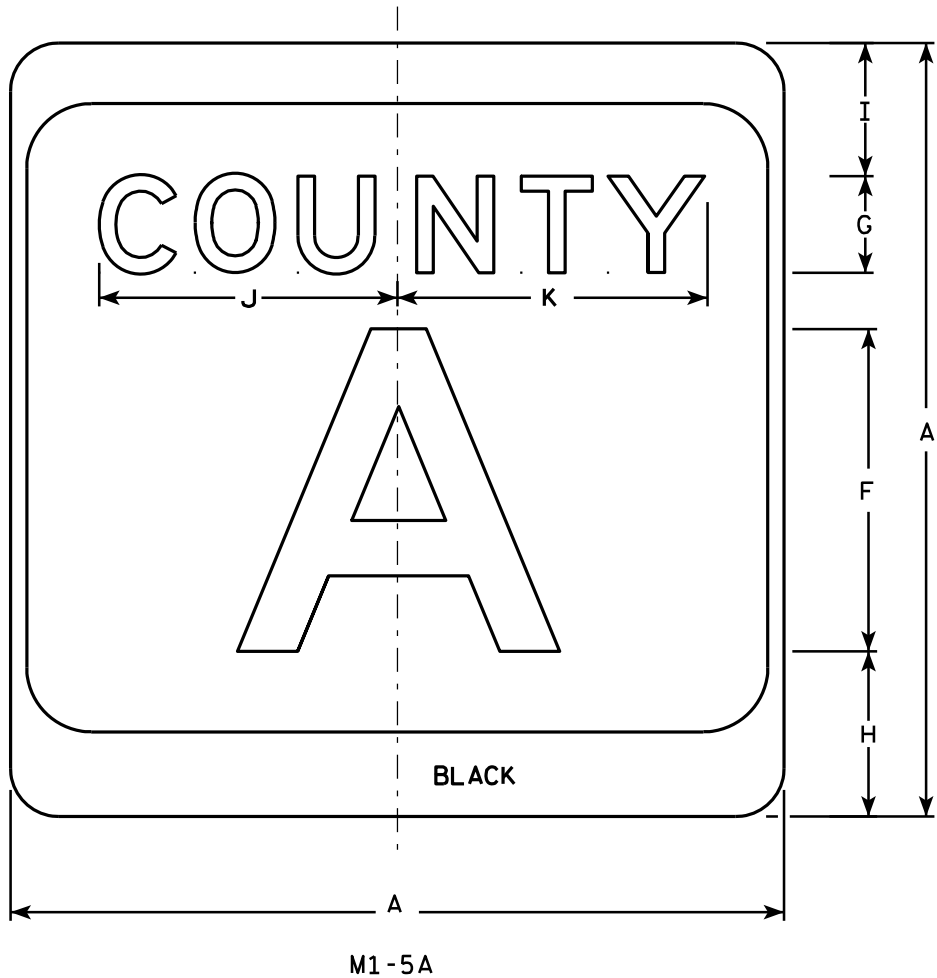
1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET I55-56B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/26/16	PLA 121 I55-56B.2

7



NOTES

- 1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White & Black - See Note 7
Message - Black
- 3. Message Series - see Note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
- 6. Substitute appropriate letters & optically center to achieve proper balance.
- 7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 122

E

CTH MARKER

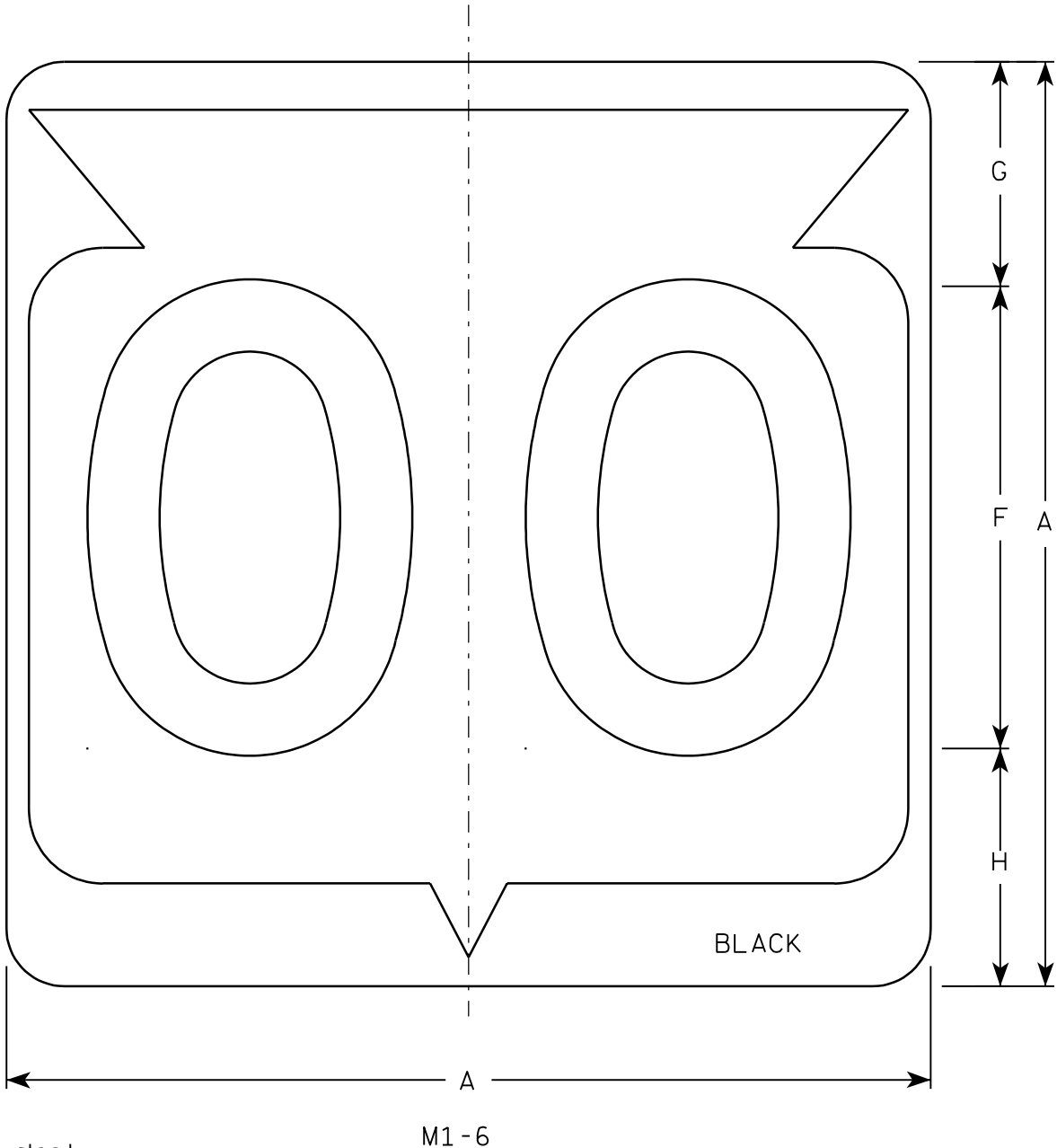
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

7



Metric equivalent
for this sign is:

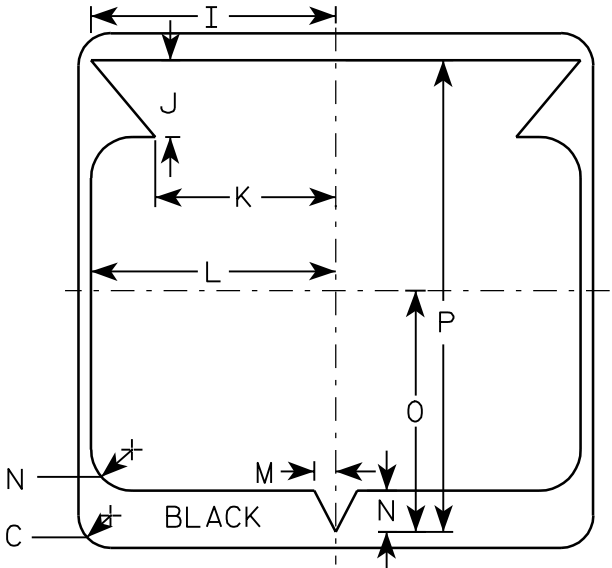
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:		HWY:		COUNTY:		SHEET NO: 123		E
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NOTES

- Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 6
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

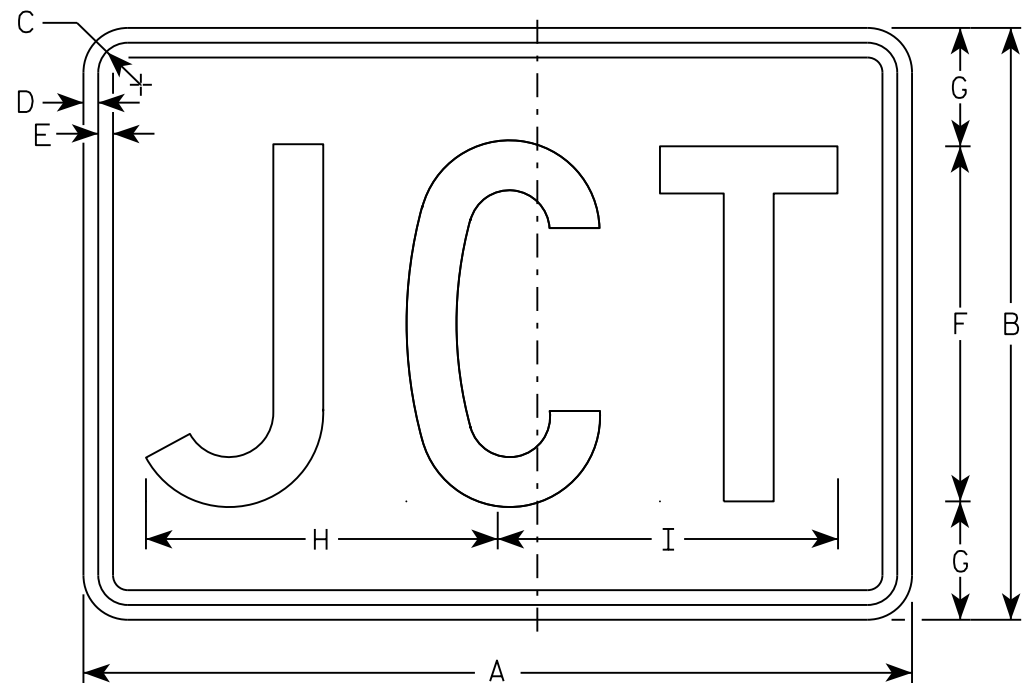


STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

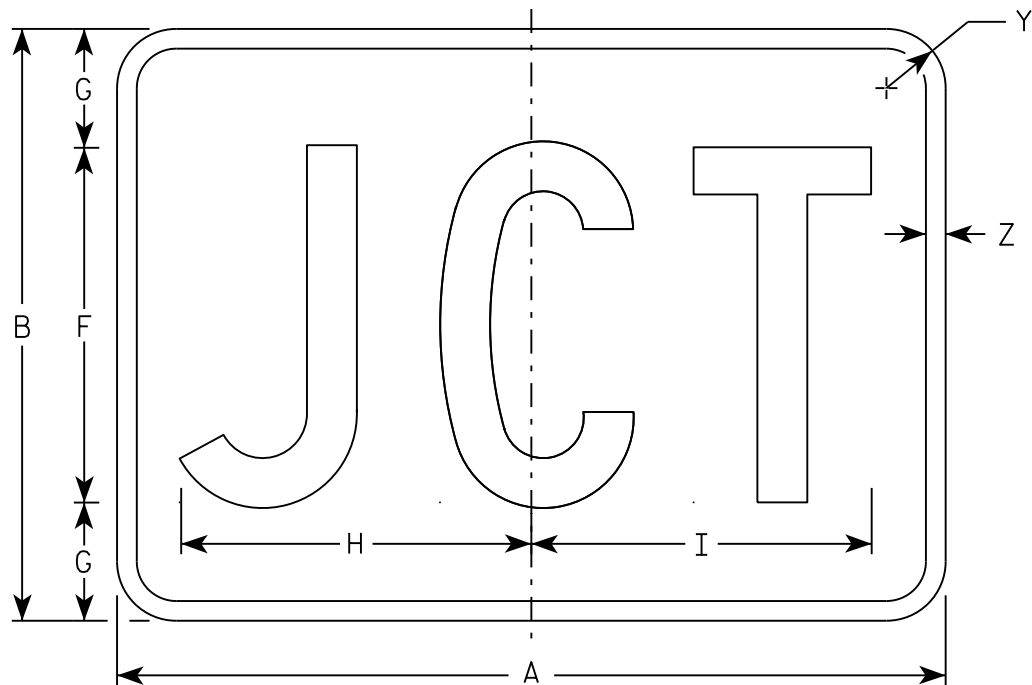
WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

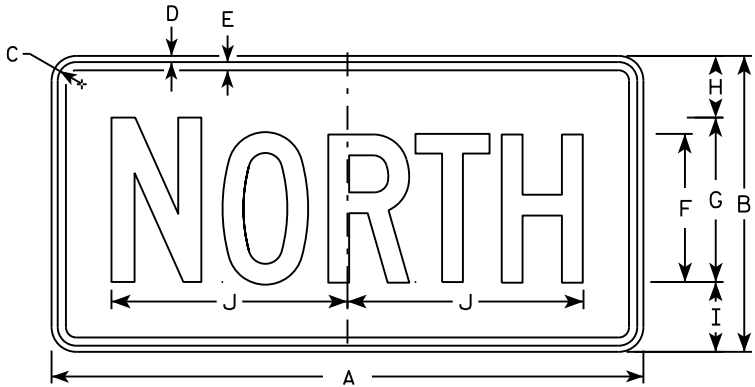
Matthew R. Rauch

For State Traffic Engineer

DATE 10/15/15

PLATE 124

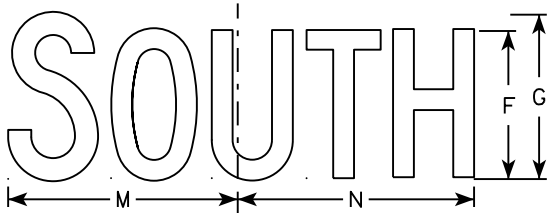
'2-1.12



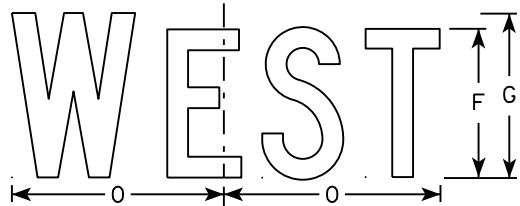
M3-1
MM3-1
MP3-1



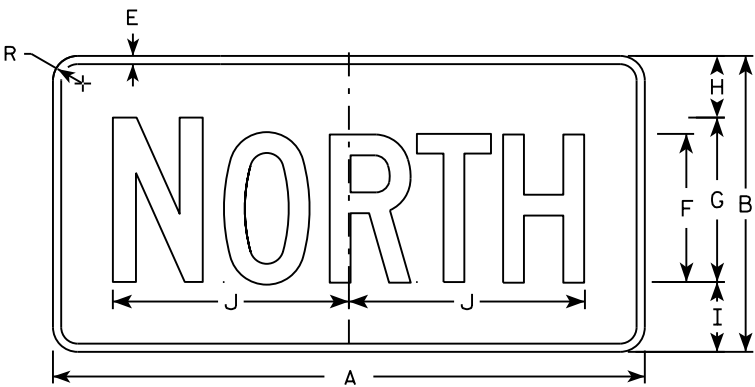
M3-2
MM3-2
MP3-2



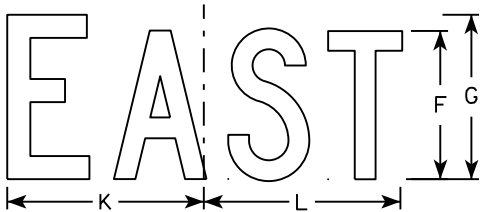
M3-3
MM3-3
MP3-3



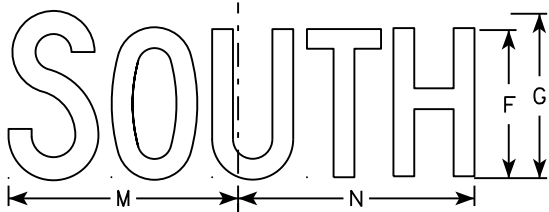
M3-4
MM3-4
MP3-4



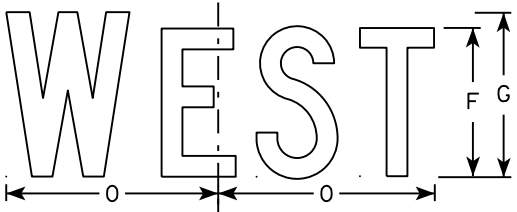
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

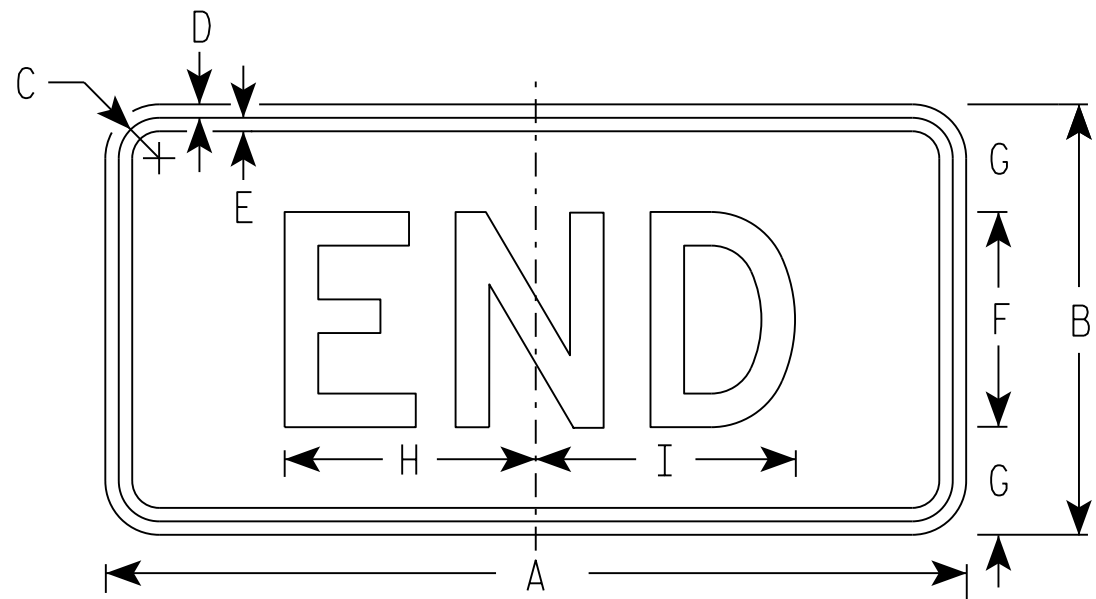
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

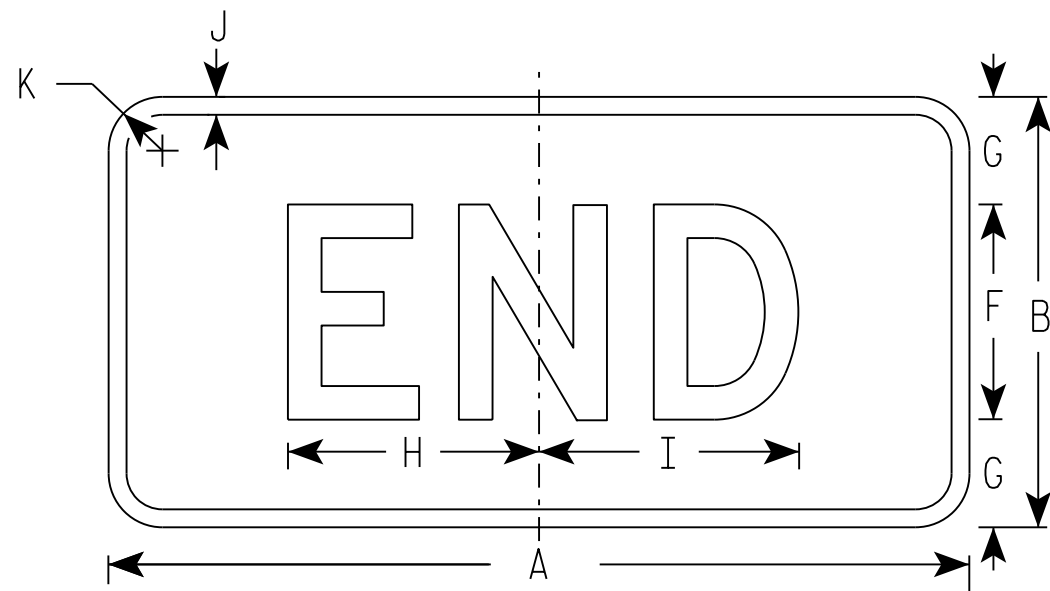
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. 125 M3-1.14



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

NOTES

- Sign is Type II - Type H
- Color:
Background - See note 5
Message - See note 5
- Message Series - D
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M4-6 Background - White
Message - Black
MB4-6 Background - Blue
Message - White
MK4-6 Background - Green
Message - White
MM4-6 Background - White
Message - Green
MN4-6 Background - Brown
Message - White
MP4-6 Background - White
Message - Blue
MR4-6 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-6

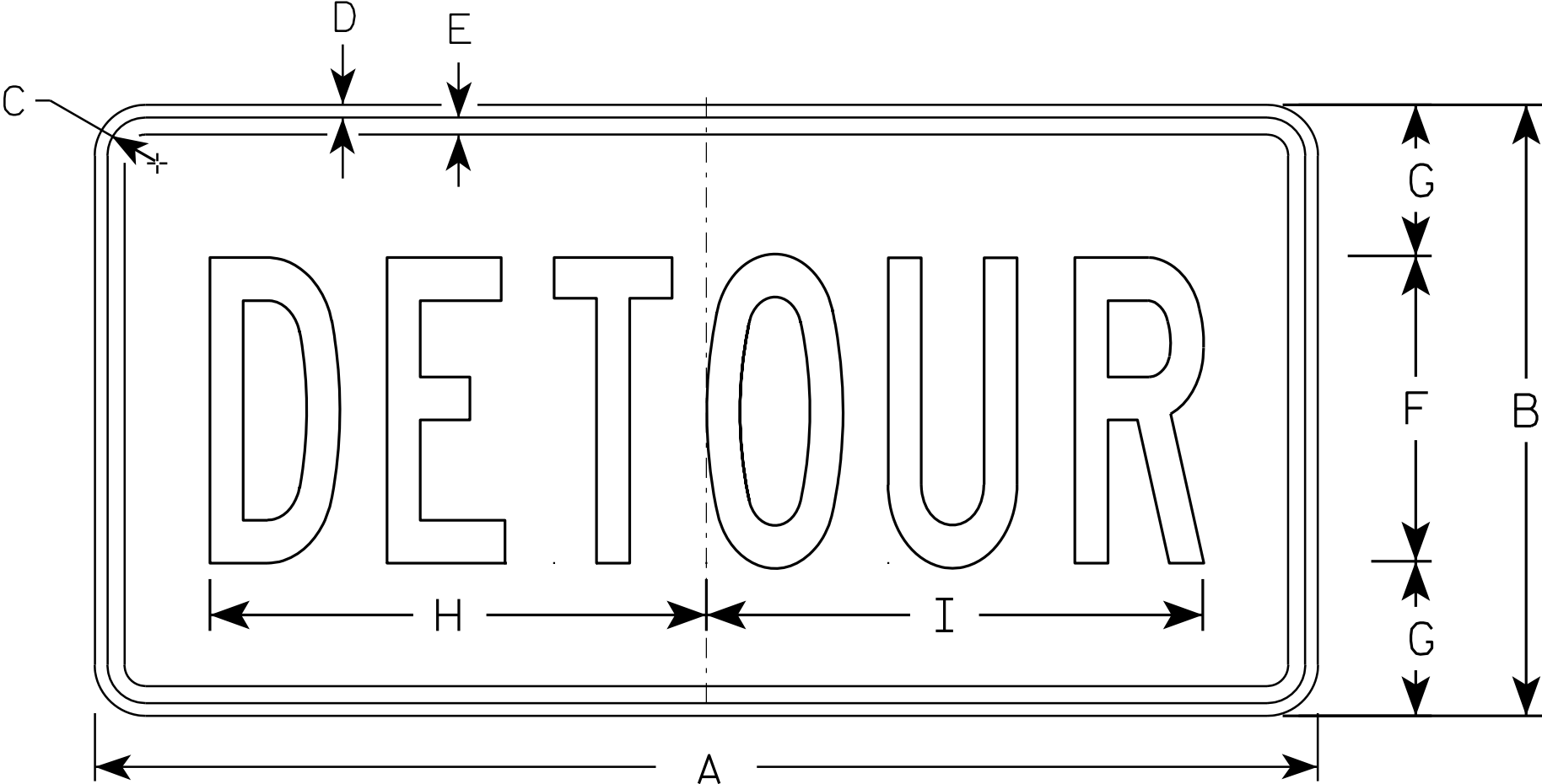
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLAT 126 '14-7.9

NOTES

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



M4 - 8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

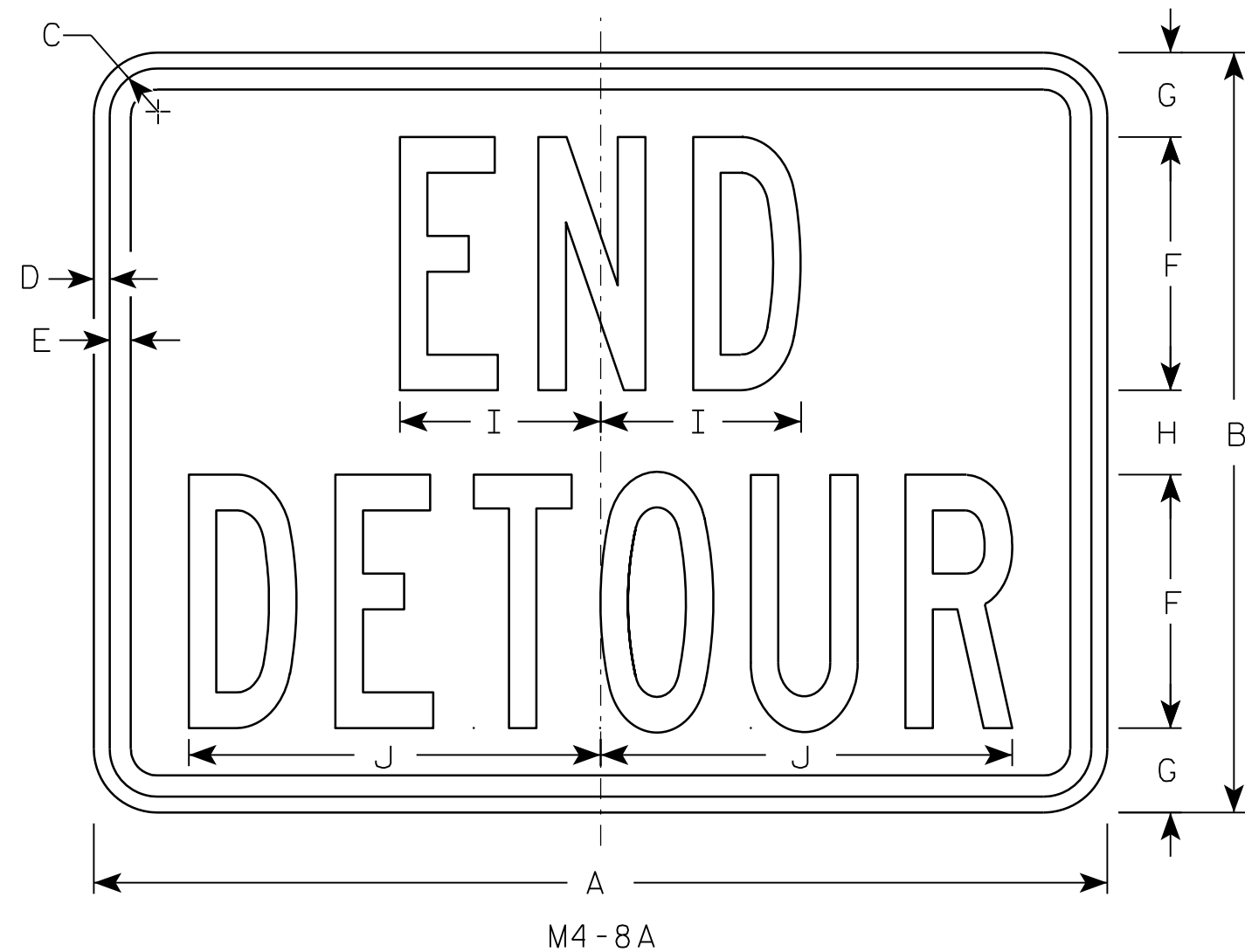
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 128	E
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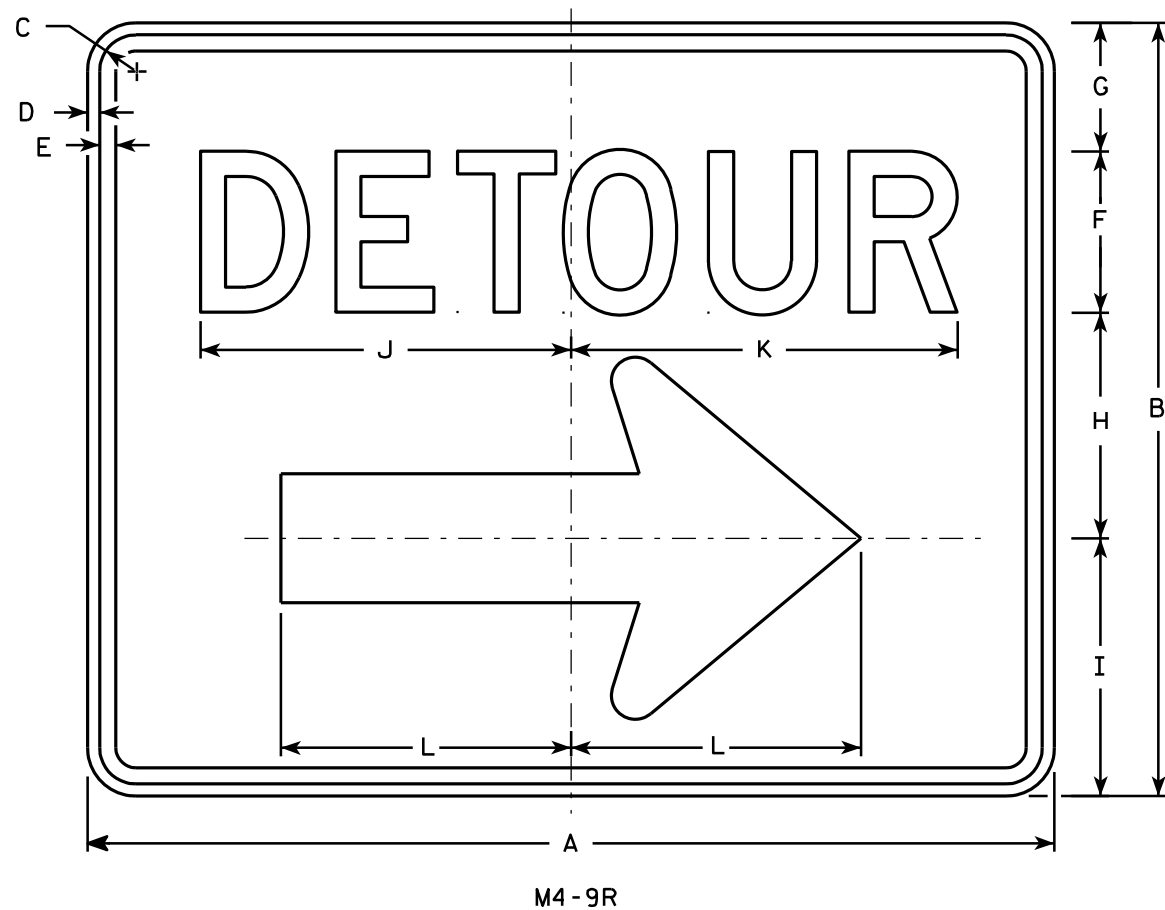
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

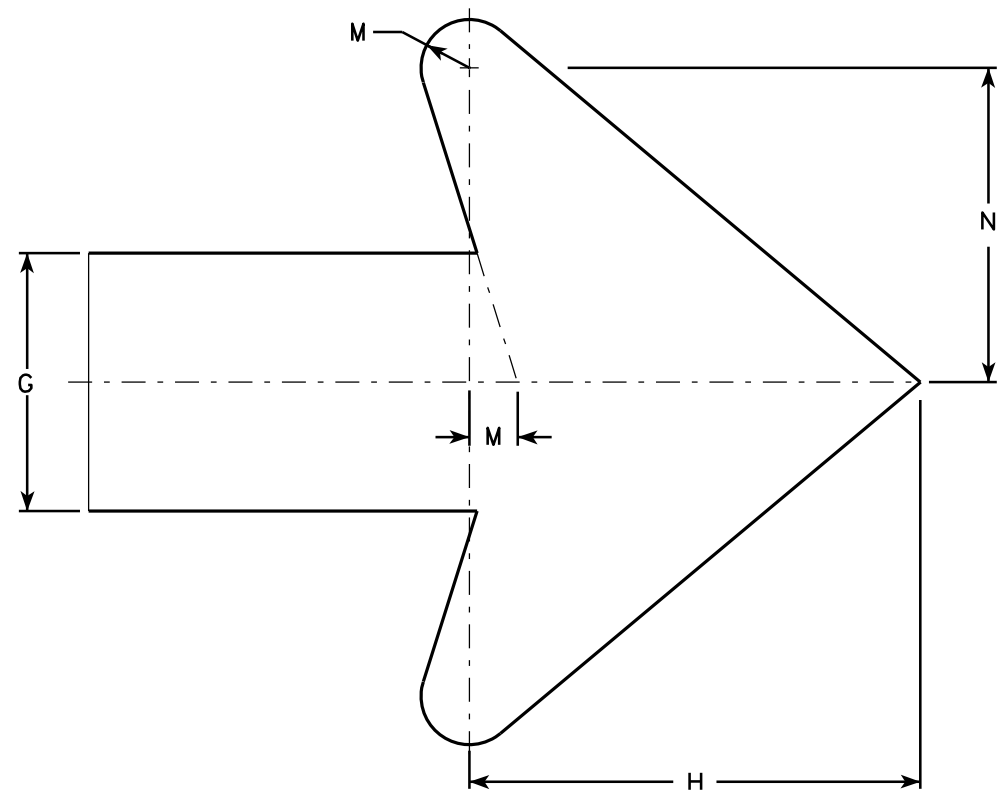
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

7



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

PROJECT NO:

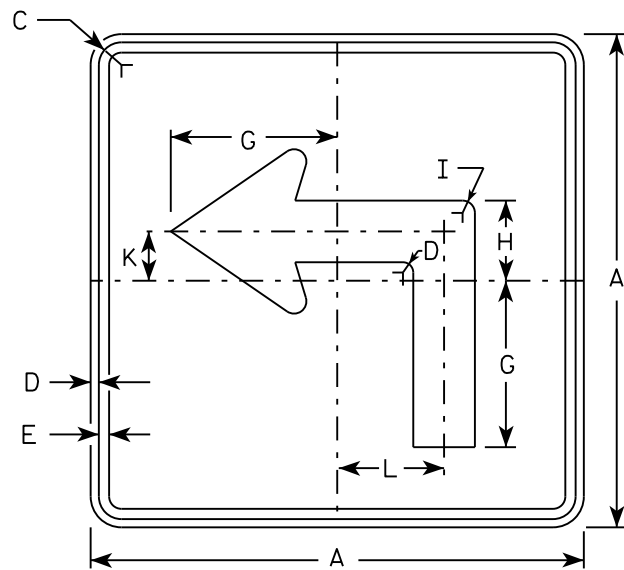
HWY:

COUNTY:

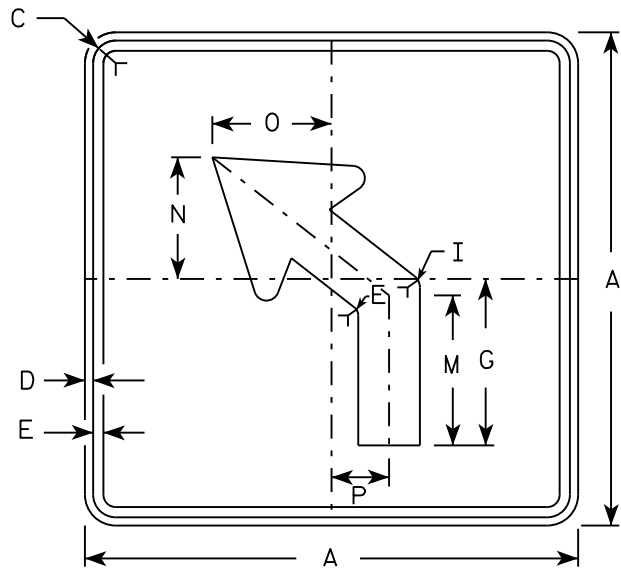
SHEET NO: 129

E

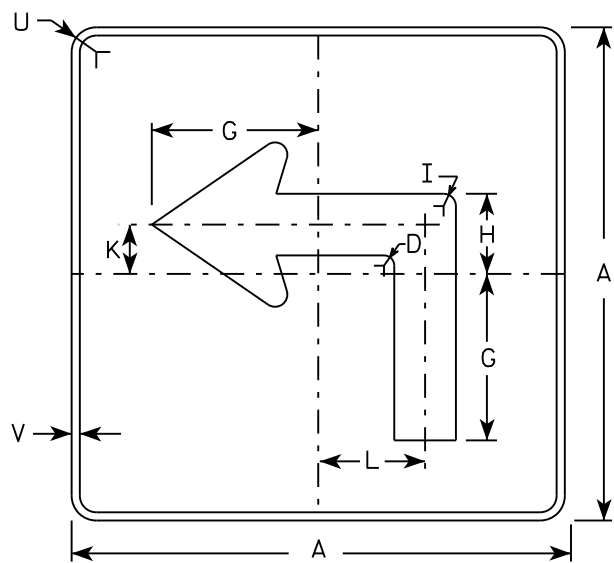
7



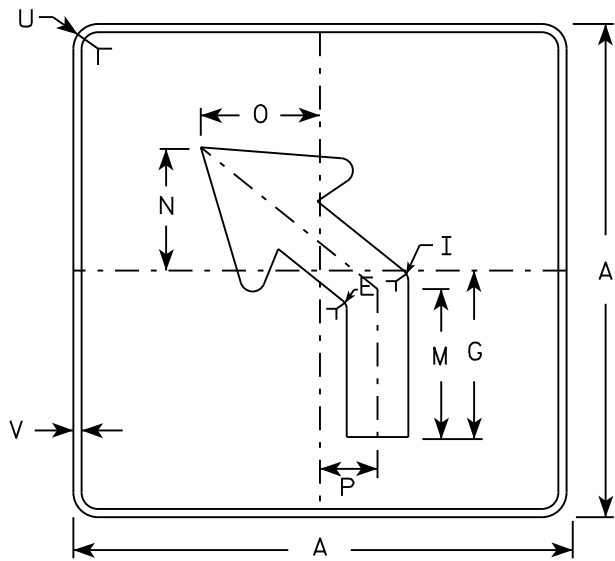
M5-1L
MM5-1L
M05-1L
MP5-1L



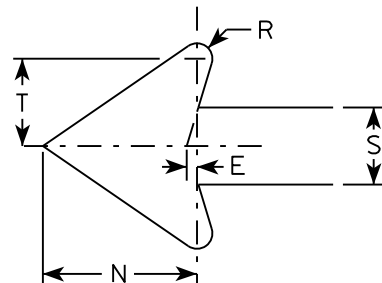
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

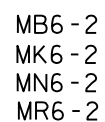
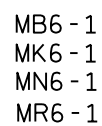
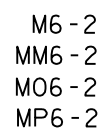
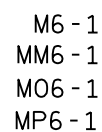
E

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

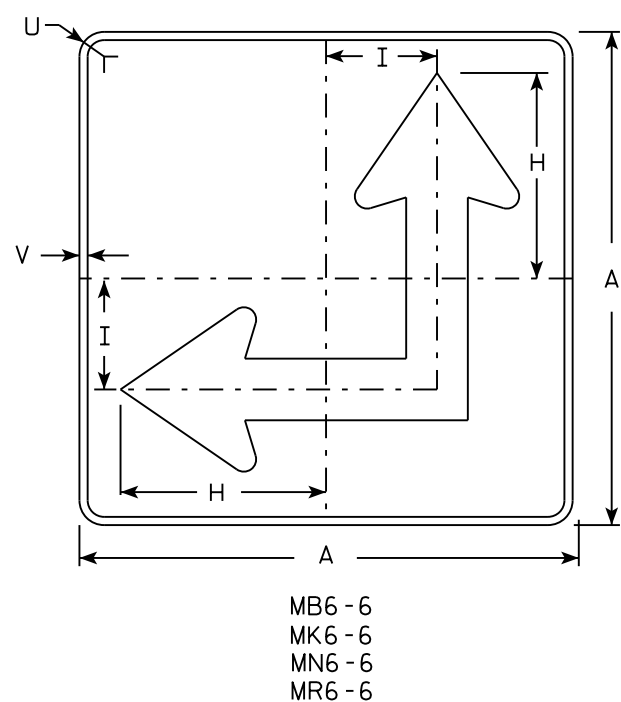
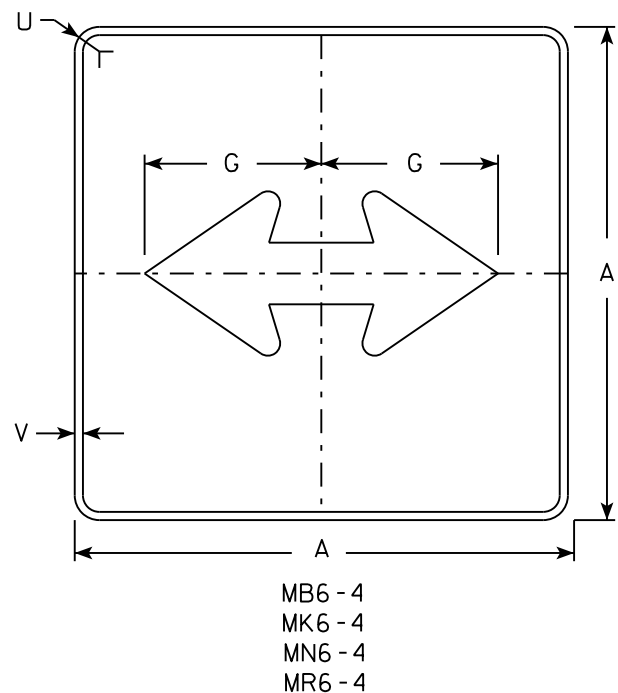
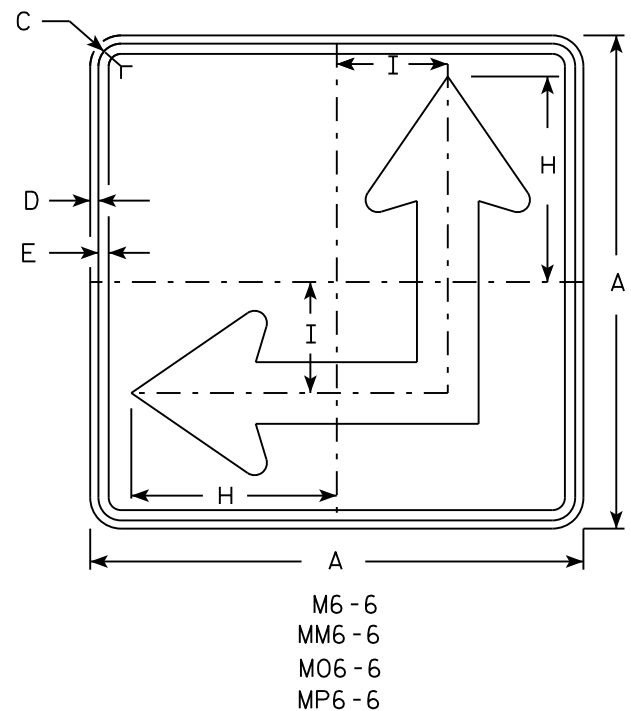
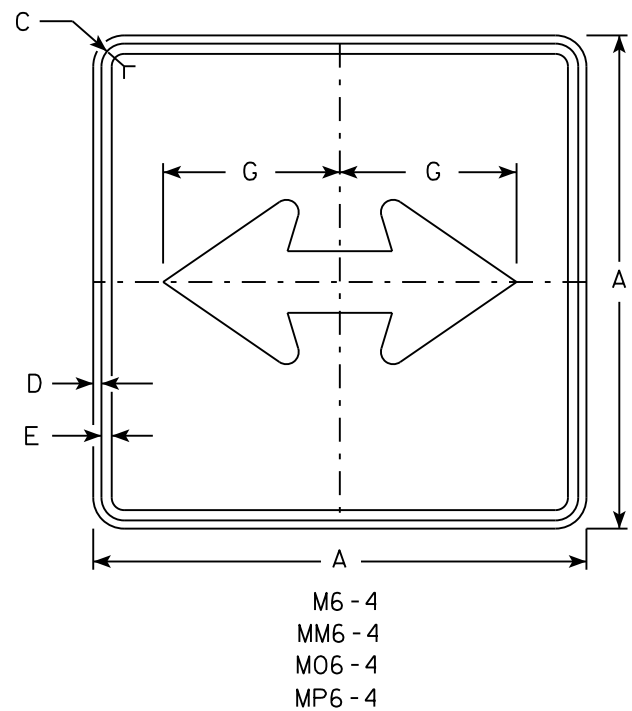
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE 130 M5-1.13



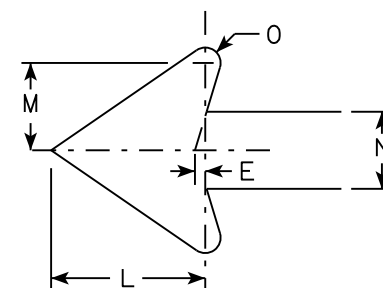
MR6-1 and MR6-2 Background - Brown
Message - Yellow

PI NT SCAL F • 11 675051•1 000000



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See Note 4
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-4 and M6-6 Background - White
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
M06-4 and M06-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

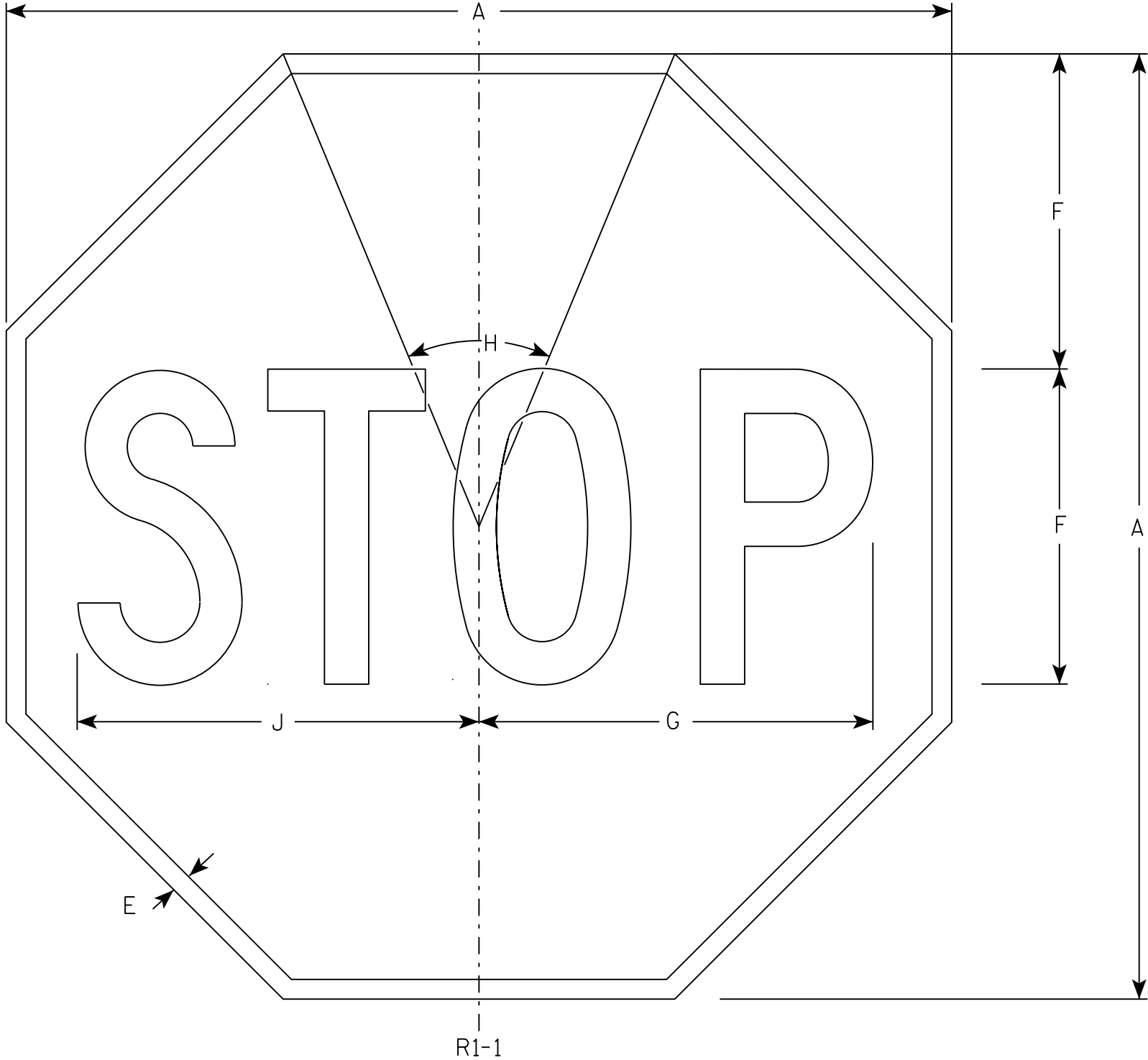
PROJECT NO:	HWY:	COUNTY:	PLAT:	SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLAT 132 M6-4.10



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Red
 - Message - White
- 3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

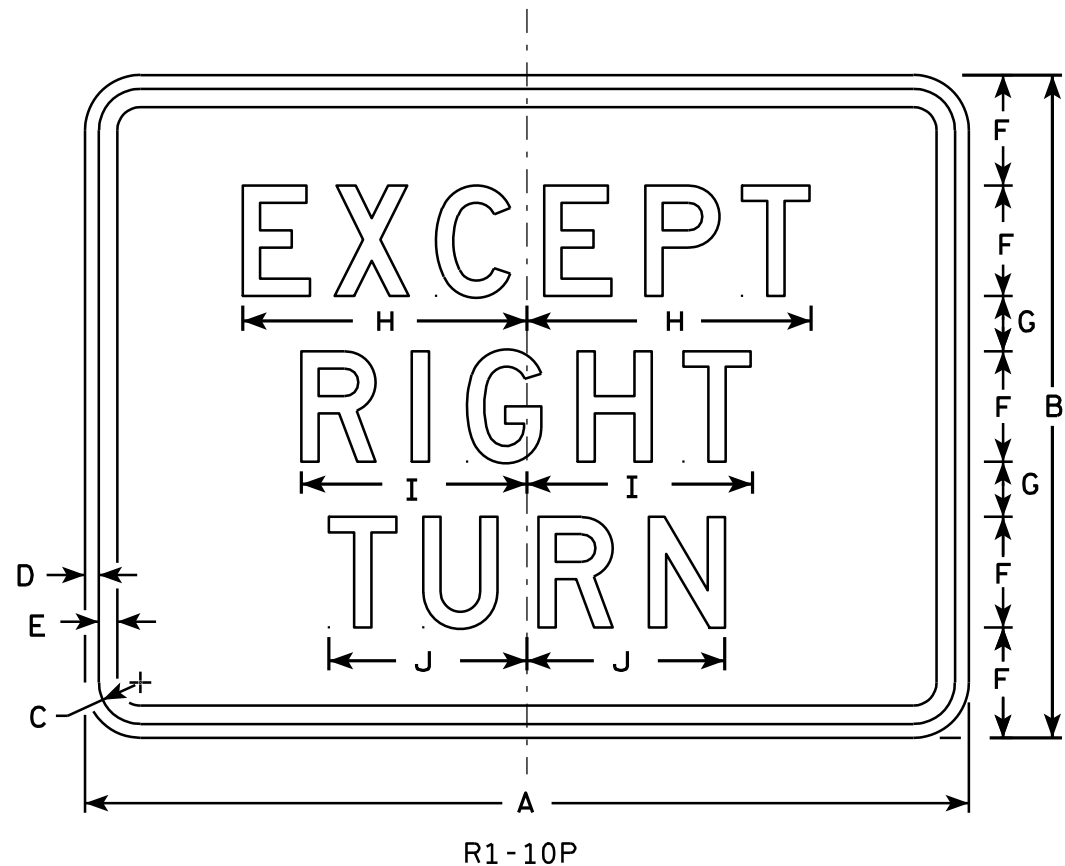
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE 133 R1-1.13



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	1/2	3	1 1/2	7 3/4	6 1/8	5 3/8																	3.0
2M	24	18	1 1/8	3/8	1/2	3	1 1/2	7 3/4	6 1/8	5 3/8																	3.0
3																											
4																											
5																											

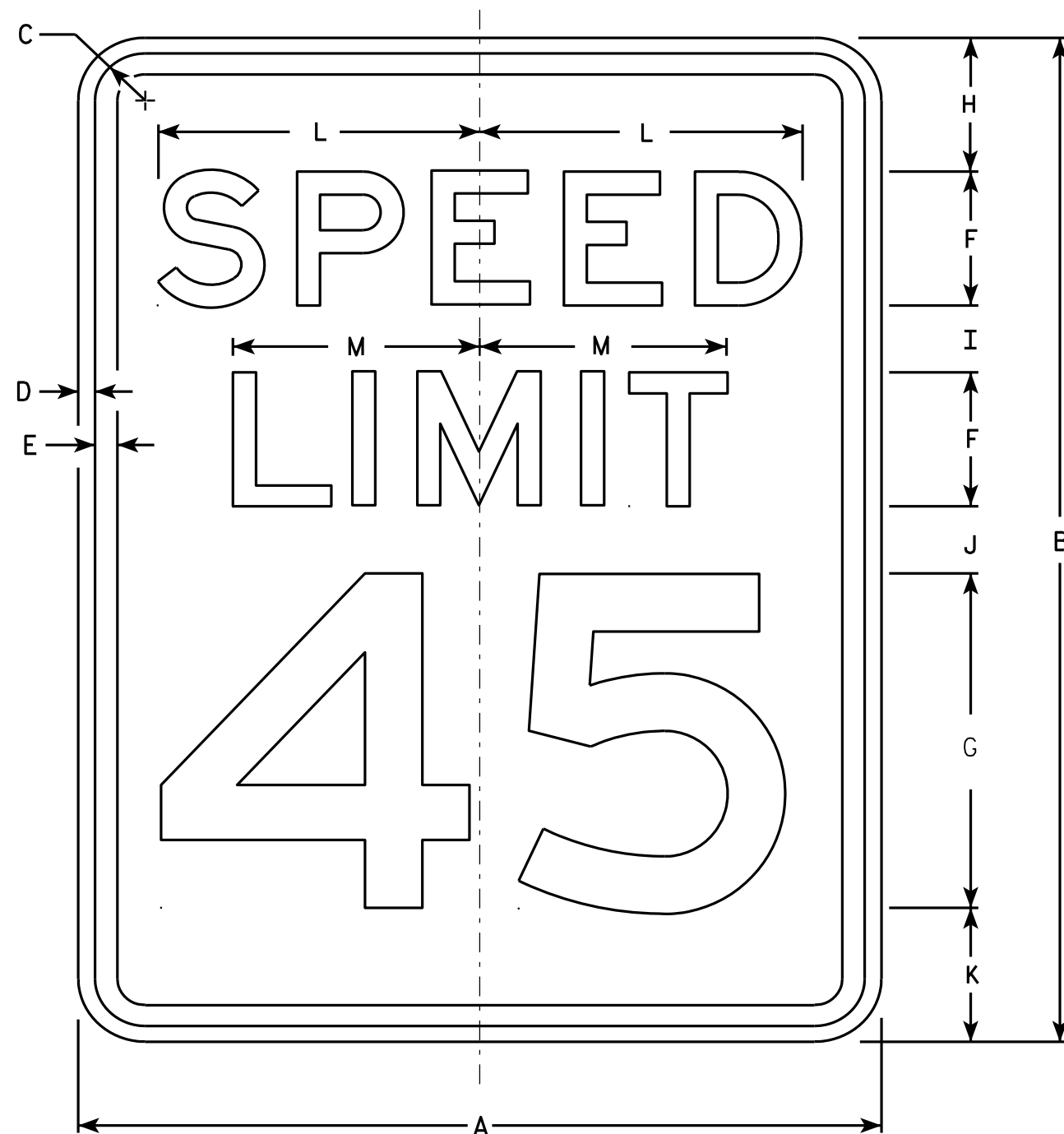
STANDARD SIGN

R1-10P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R1-10P.1



R2-1

NOTES

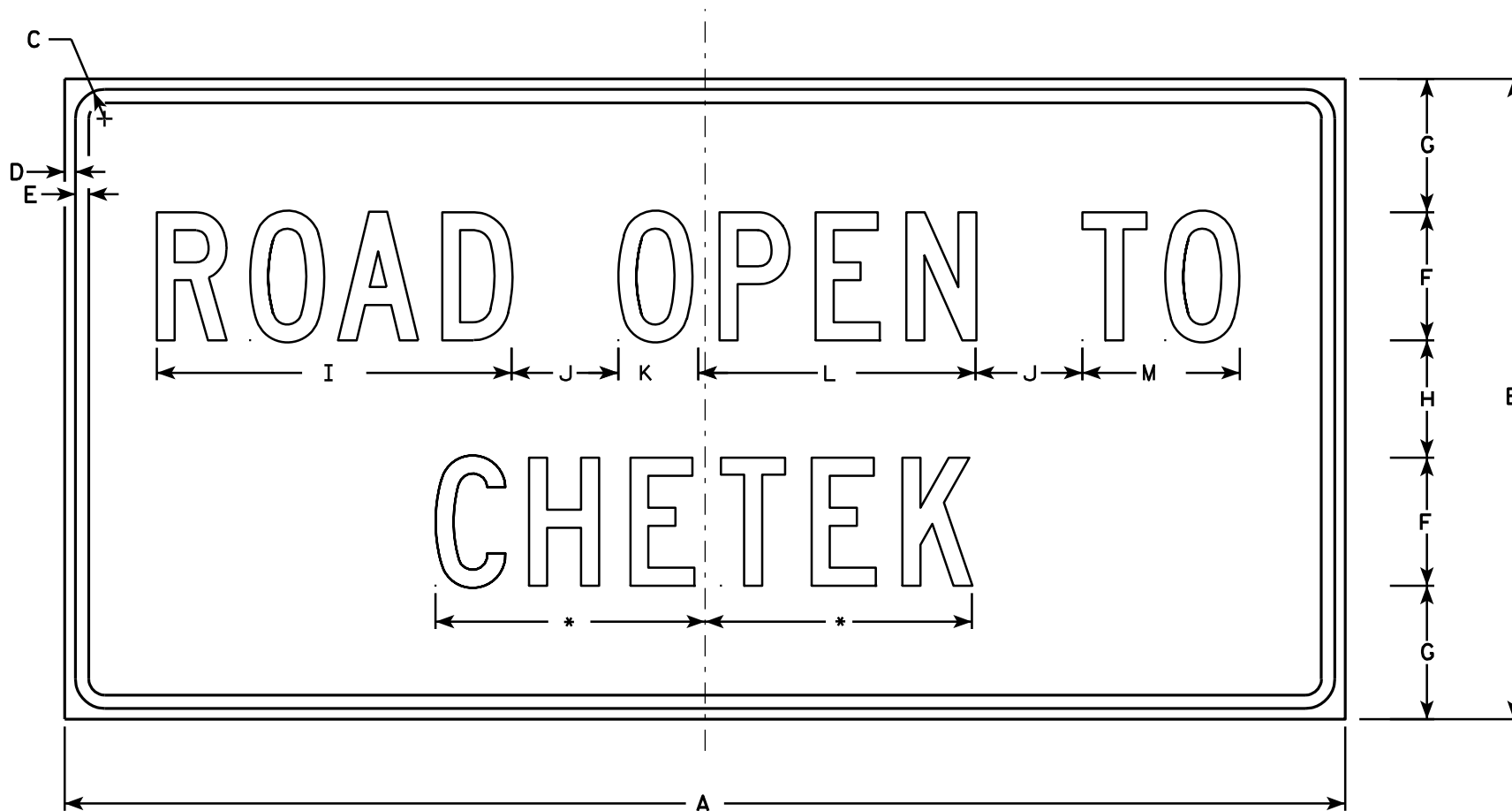
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 135 E



R10-61

*See note 5

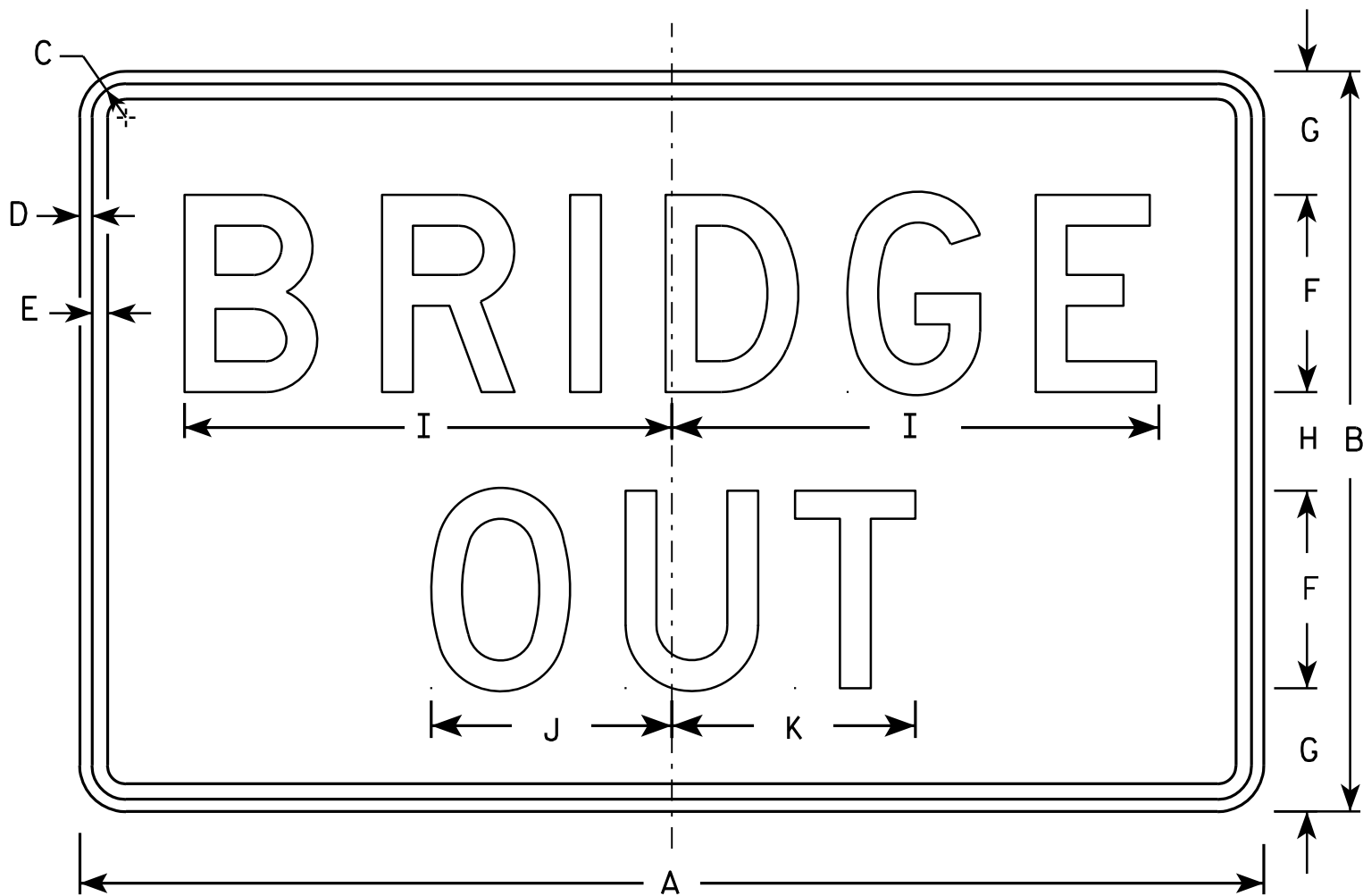
NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 3⁄8	1⁄2	5⁄8	4	5 1⁄2	5	10 3⁄4	2	2 1⁄8	8 3⁄8	4 5⁄8														6.0
2S	60	30	1 3⁄8	1⁄2	5⁄8	6	6 1⁄4	5 1⁄2	16 5⁄8	5	3 3⁄4	13	7 3⁄8														12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	6 1⁄4	5 1⁄2	16 5⁄8	5	3 3⁄4	13	7 3⁄8														12.5
3																											
4																											
5																											

STANDARD SIGN	
R10-61	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/4/11	PLATE NO. R10-61.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 136	E
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R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0

STANDARD SIGN

R11-2B

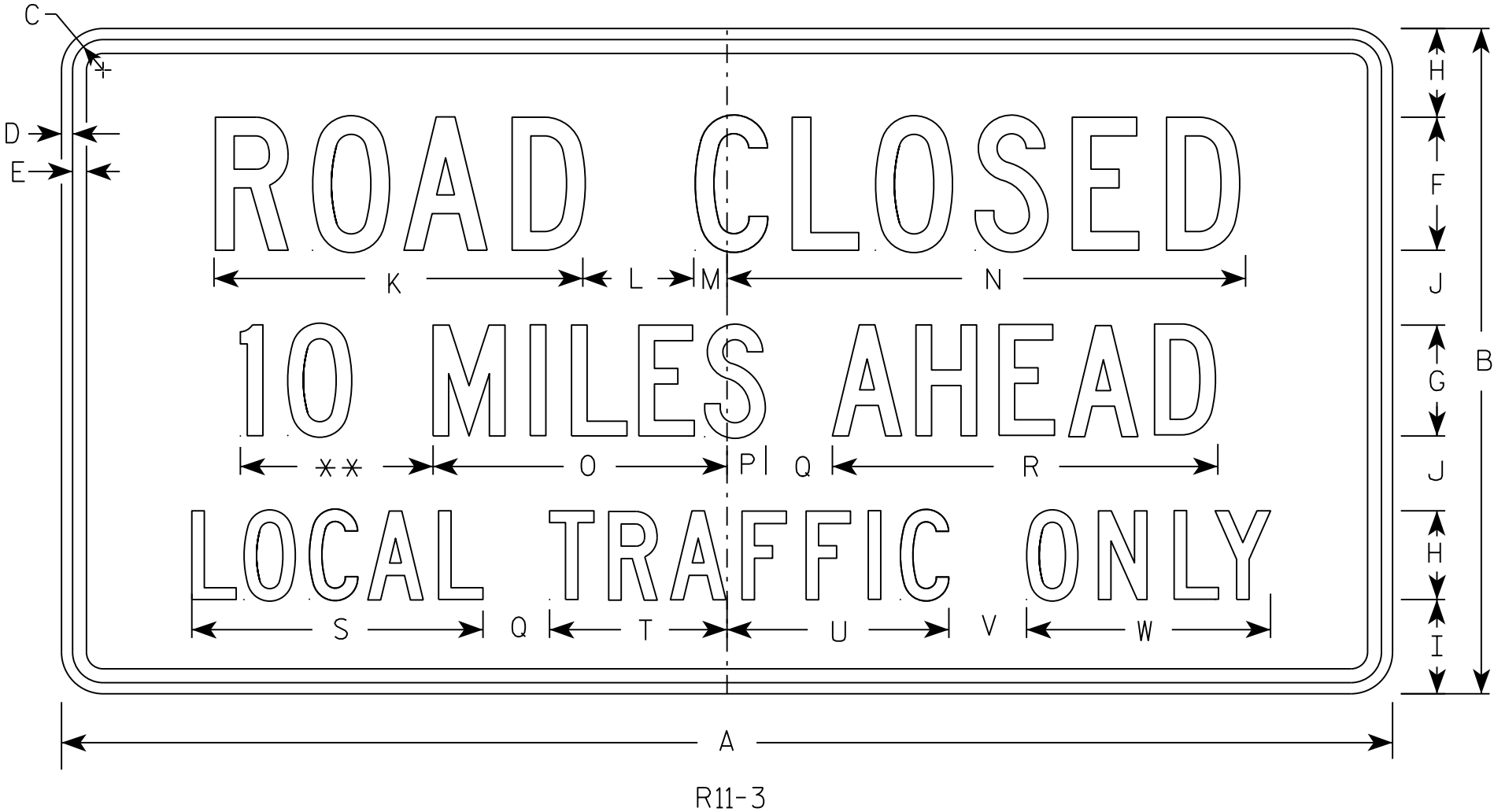
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

DATE 4/1/11

For State Traffic Engineer

PLATE NO. R11-2B.2



NOTES

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

** See Note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36	18	1 ³ / ₈	¹ / ₂	⁵ / ₈	4	3	2 ¹ / ₂	2	2	11 ¹ / ₈	3	1 ¹ / ₈	15 ¹ / ₄	8	1 ¹ / ₂	2	10 ³ / ₄	8 ³ / ₈	4 ³ / ₄	6 ¹ / ₂	2	6 ³ / ₄				4.5
2S	60	30	1 ³ / ₈	¹ / ₂	⁵ / ₈	6	5	4	4 ¹ / ₄	3 ³ / ₈	16 ⁵ / ₈	5	1 ¹ / ₂	23	13 ¹ / ₄	1 ³ / ₄	3	17 ³ / ₈	13 ¹ / ₈	8	10	3 ¹ / ₂	11				12.5
2M	60	30	1 ³ / ₈	¹ / ₂	⁵ / ₈	6	5	4	4 ¹ / ₄	3 ³ / ₈	16 ⁵ / ₈	5	1 ¹ / ₂	23	13 ¹ / ₄	1 ³ / ₄	3	17 ³ / ₈	13 ¹ / ₈	8	10	3 ¹ / ₂	11				12.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: E

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

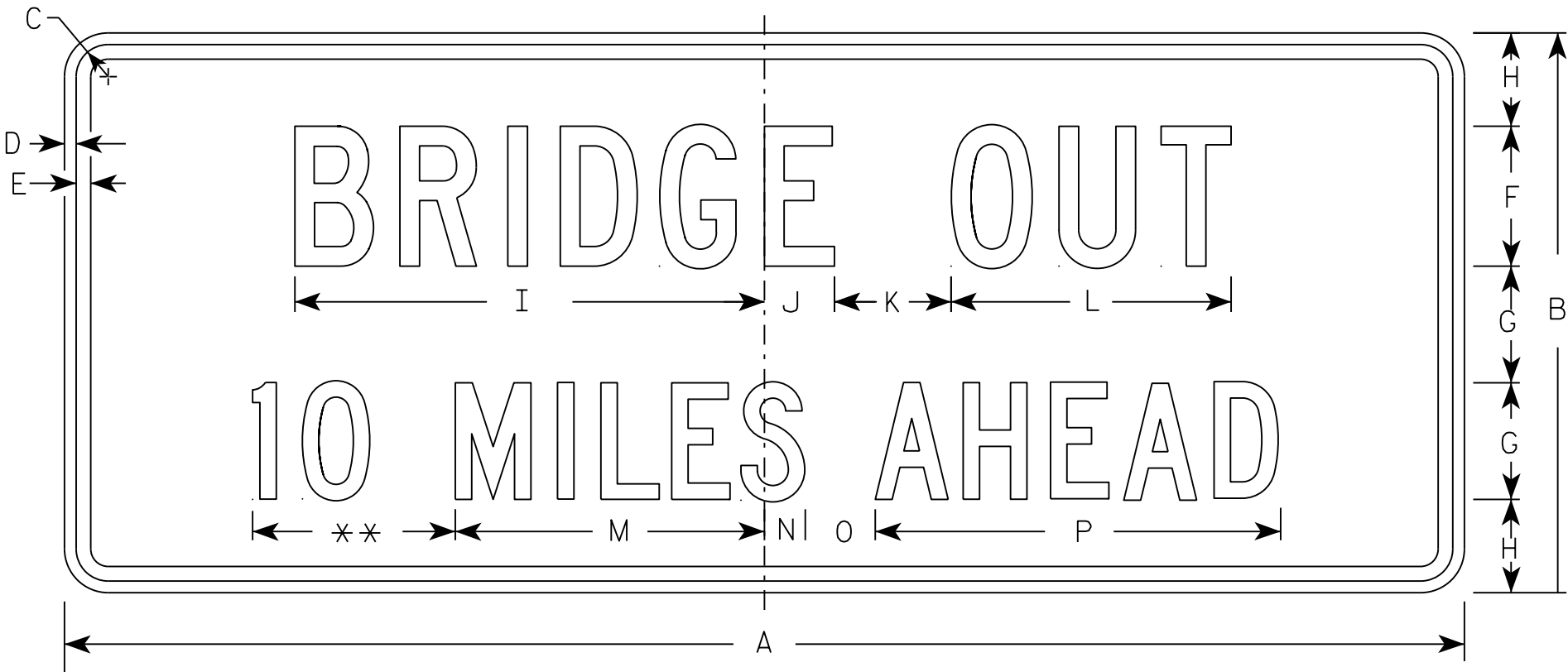
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3.7

138

NOTES

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



R11-3C

** See Note 5

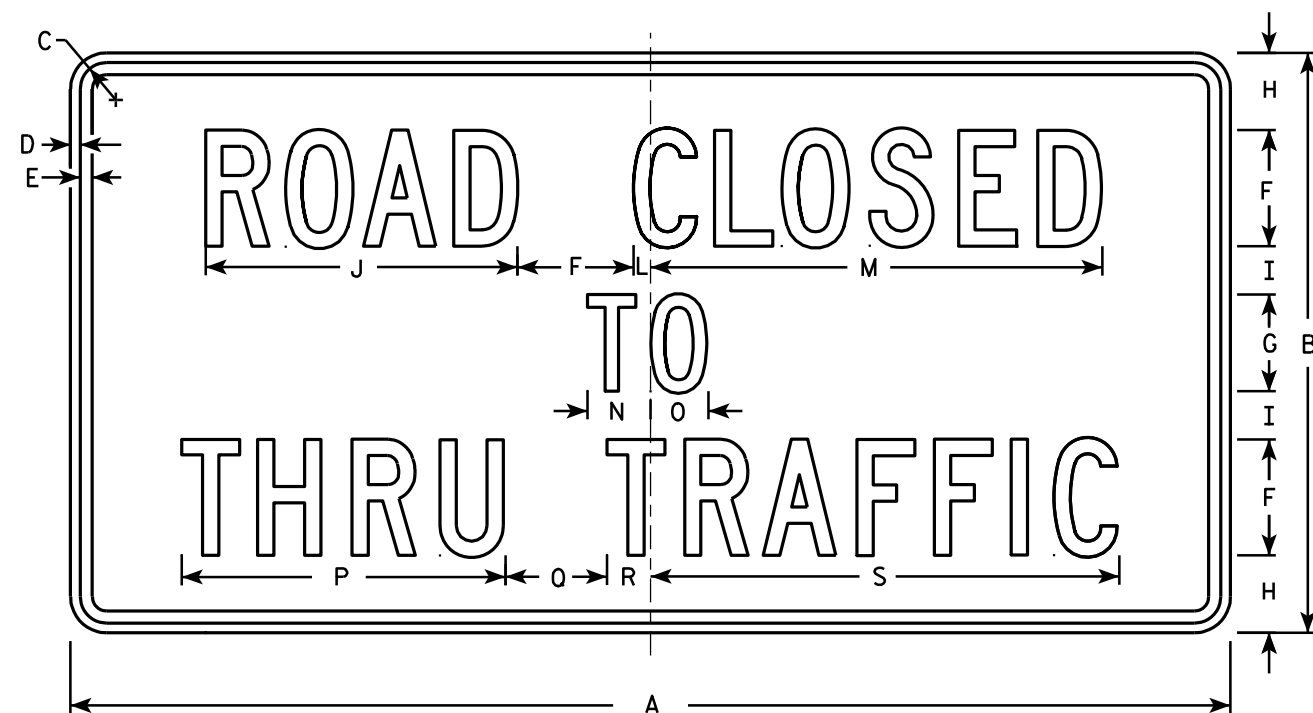
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4											3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8											10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8											10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/28/16 PLATE NO 139 R11-3C.3



R11-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

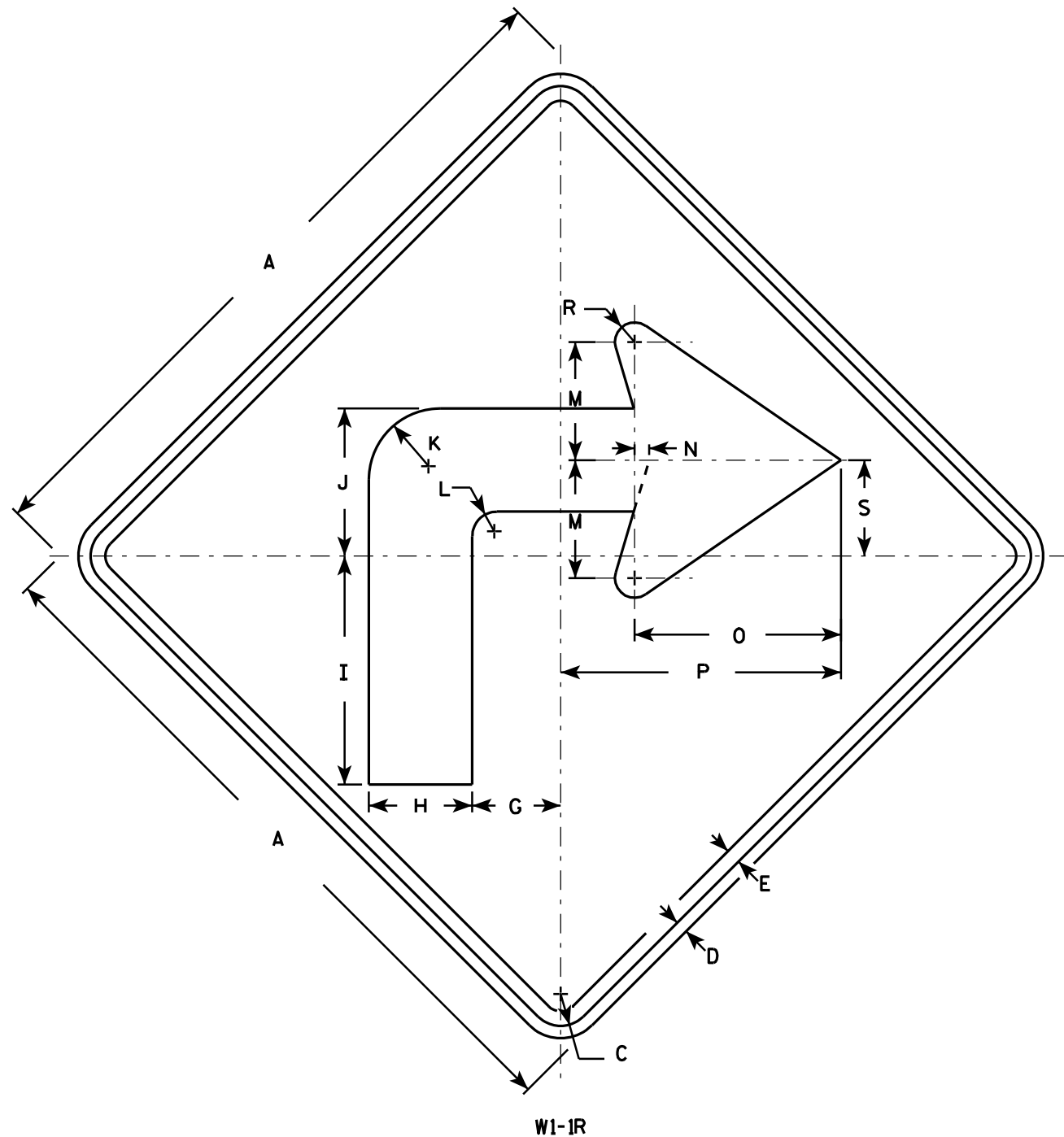
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 140

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

STANDARD SIGN

W1-1

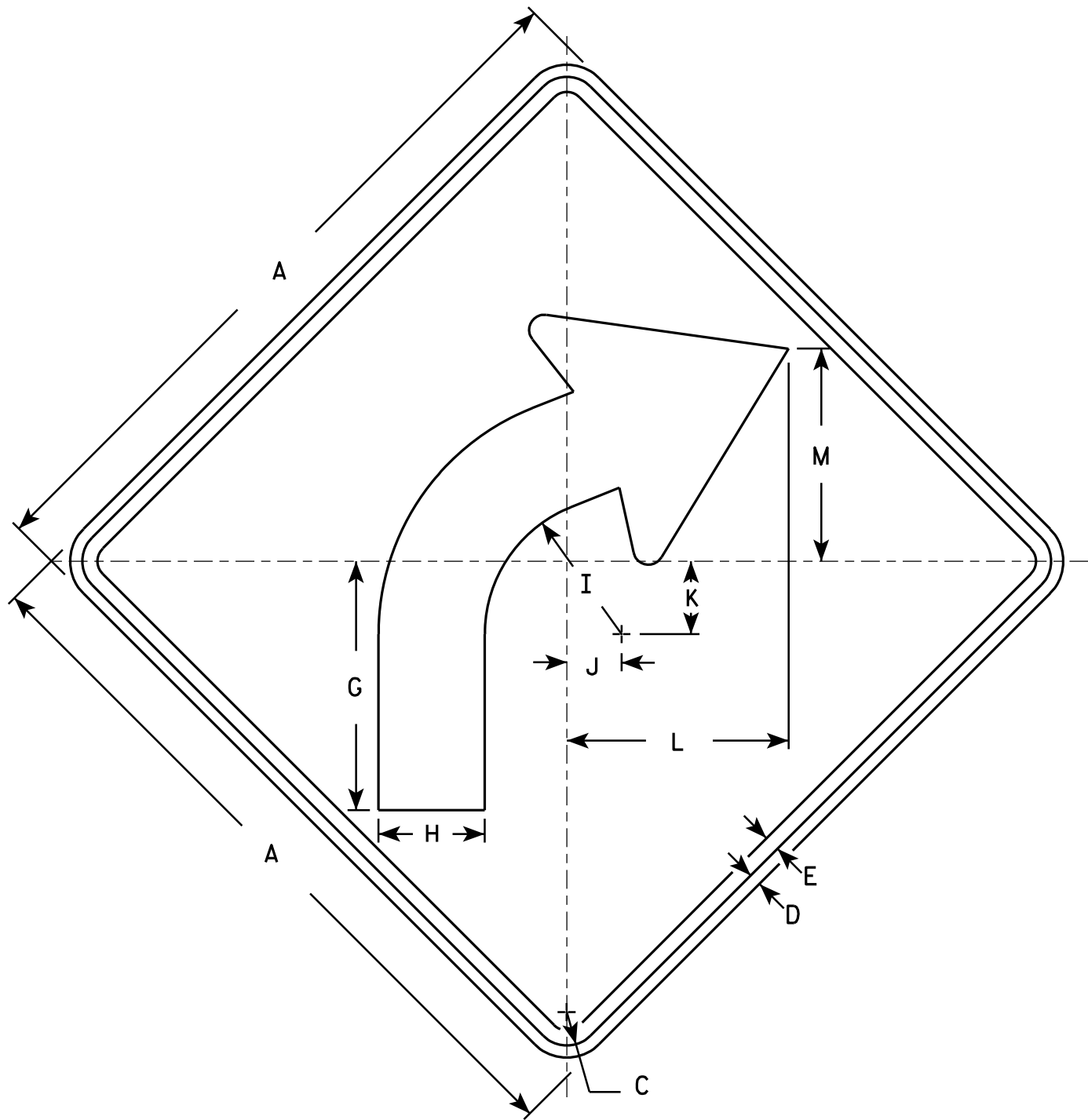
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

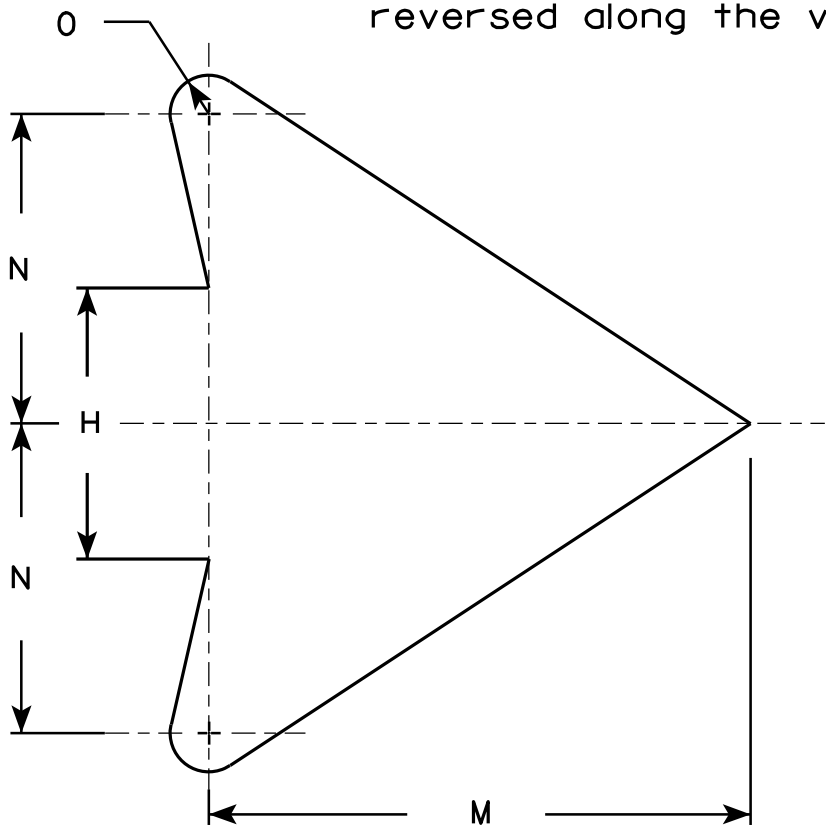
DATE 5/15/12 PLATE NO. W1-1.11

NOTES

1. Sign is Type II - Type F Reflective - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is
reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

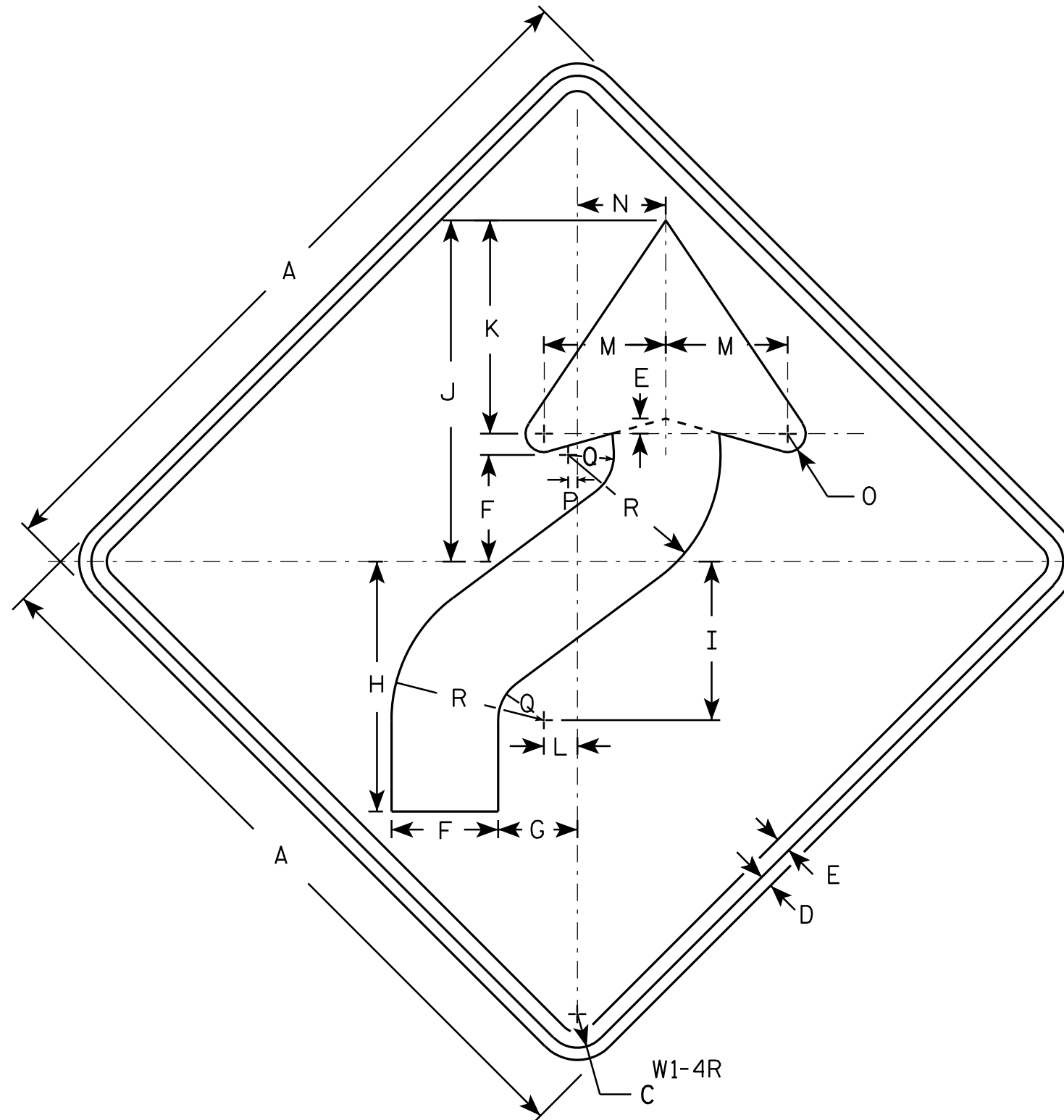
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 142

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

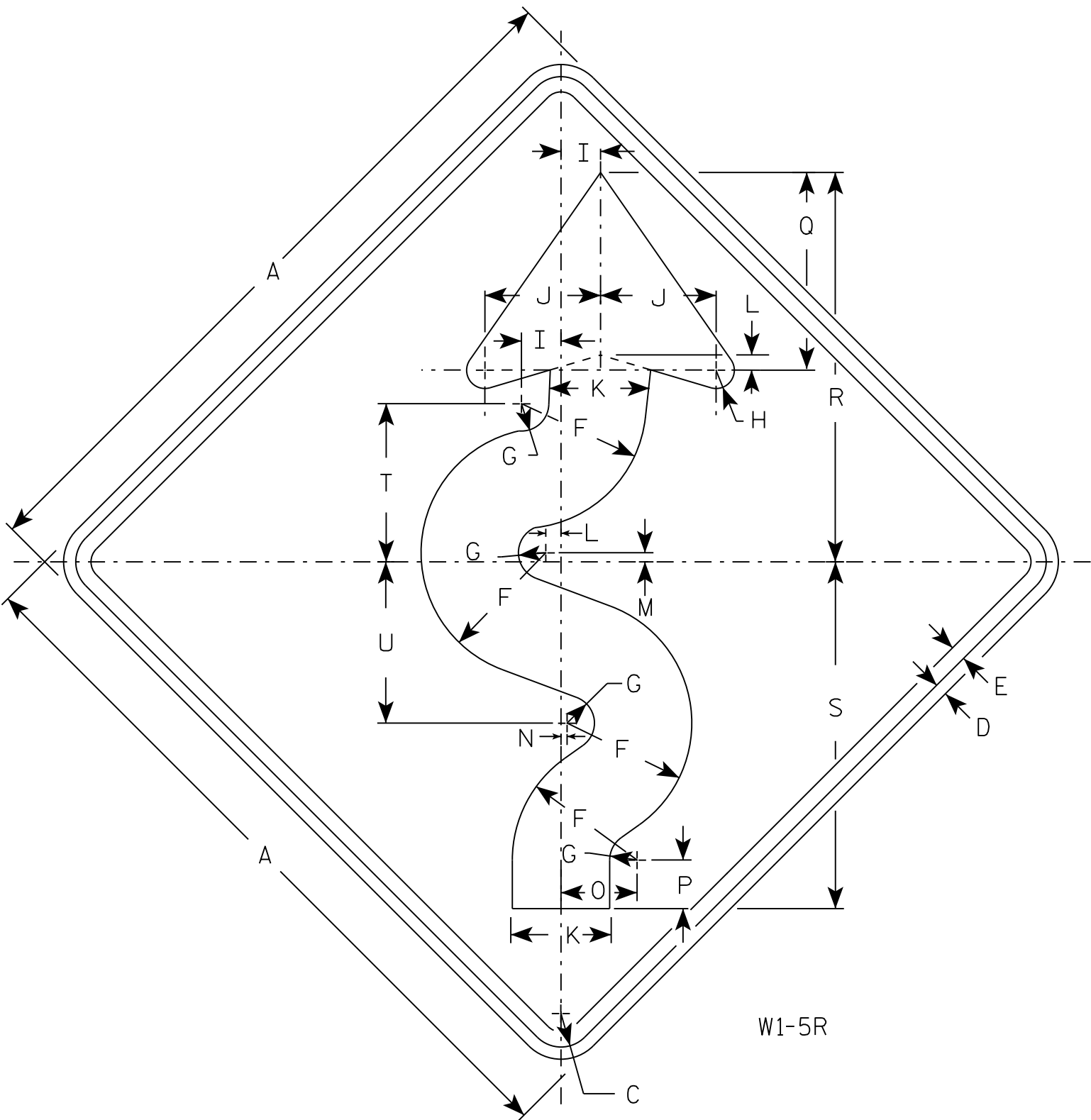
STANDARD SIGN W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 143	E
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NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. W1-5L is the same as W1-5R except the arrow is reversed along the vertical centerline.
- 4. If used with W13-1 of 30 MPH or less, use 36" sign for Size 2S.

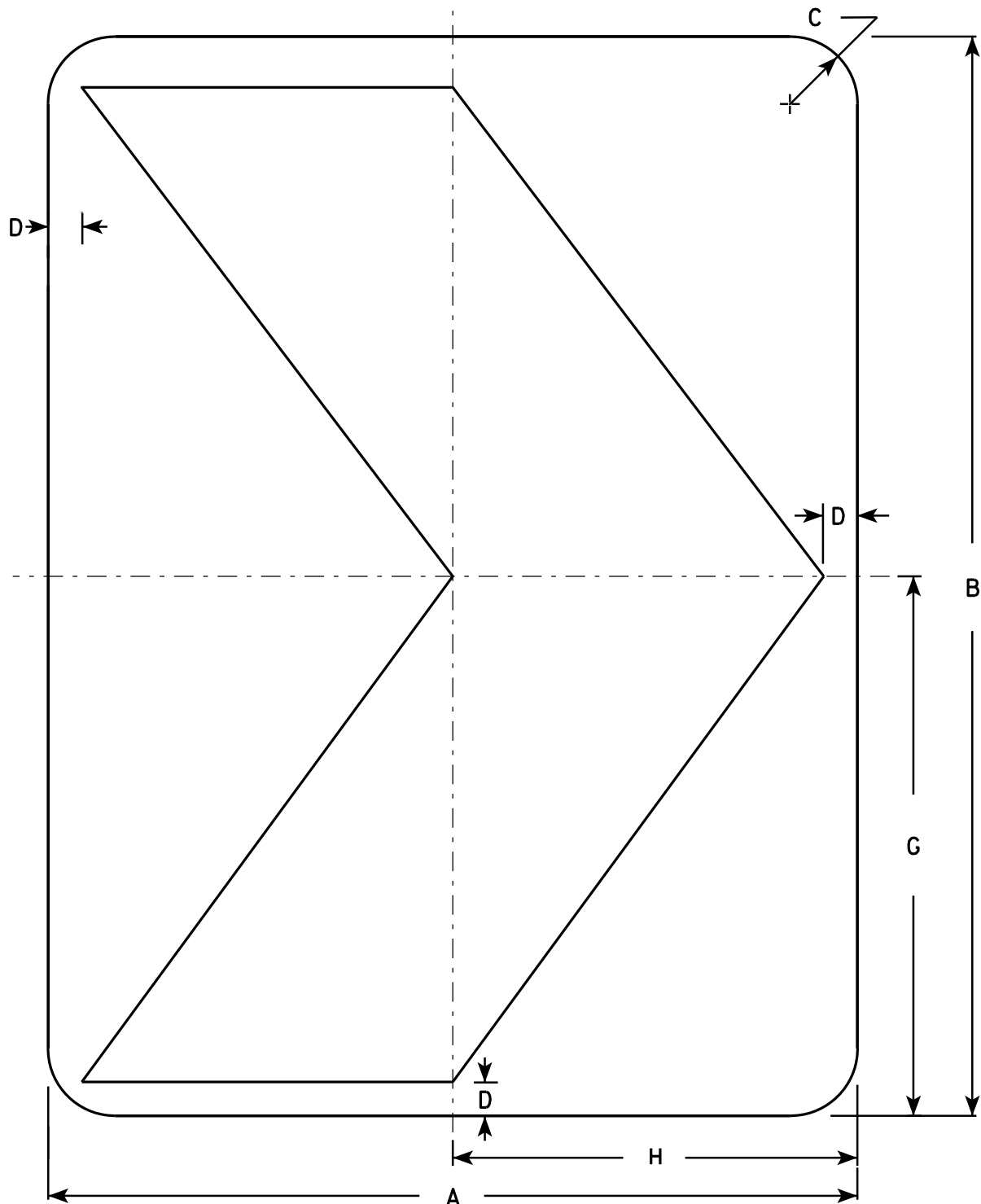
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4 1/8	7/8	5/8	1 1/4	3 3/4	3 1/4	1/2	1/4	1/8	2 1/2	1 5/8	6 1/2	12 3/4	11 3/8	5 1/4	5 1/4						4.0
2S	30		1 3/8	1/2	5/8	5 1/8	1 1/8	3/4	1 5/8	4 3/4	4 1/8	5/8	3/8	1/4	3 1/8	2	8 1/8	16	14 1/4	6 1/2	6 5/8						6.25
2M	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
3	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
4	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
5	48		2 1/4	3/4	1	8 1/4	1 3/4	1 1/4	2 1/2	7 1/2	6 1/2	1	1/2	3/8	5	3 1/4	13	25 1/2	22 3/4	10 3/8	10 1/2						16.0

STANDARD SIGN
W1-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/1/16 PLATE NO. W1-5.9
144



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

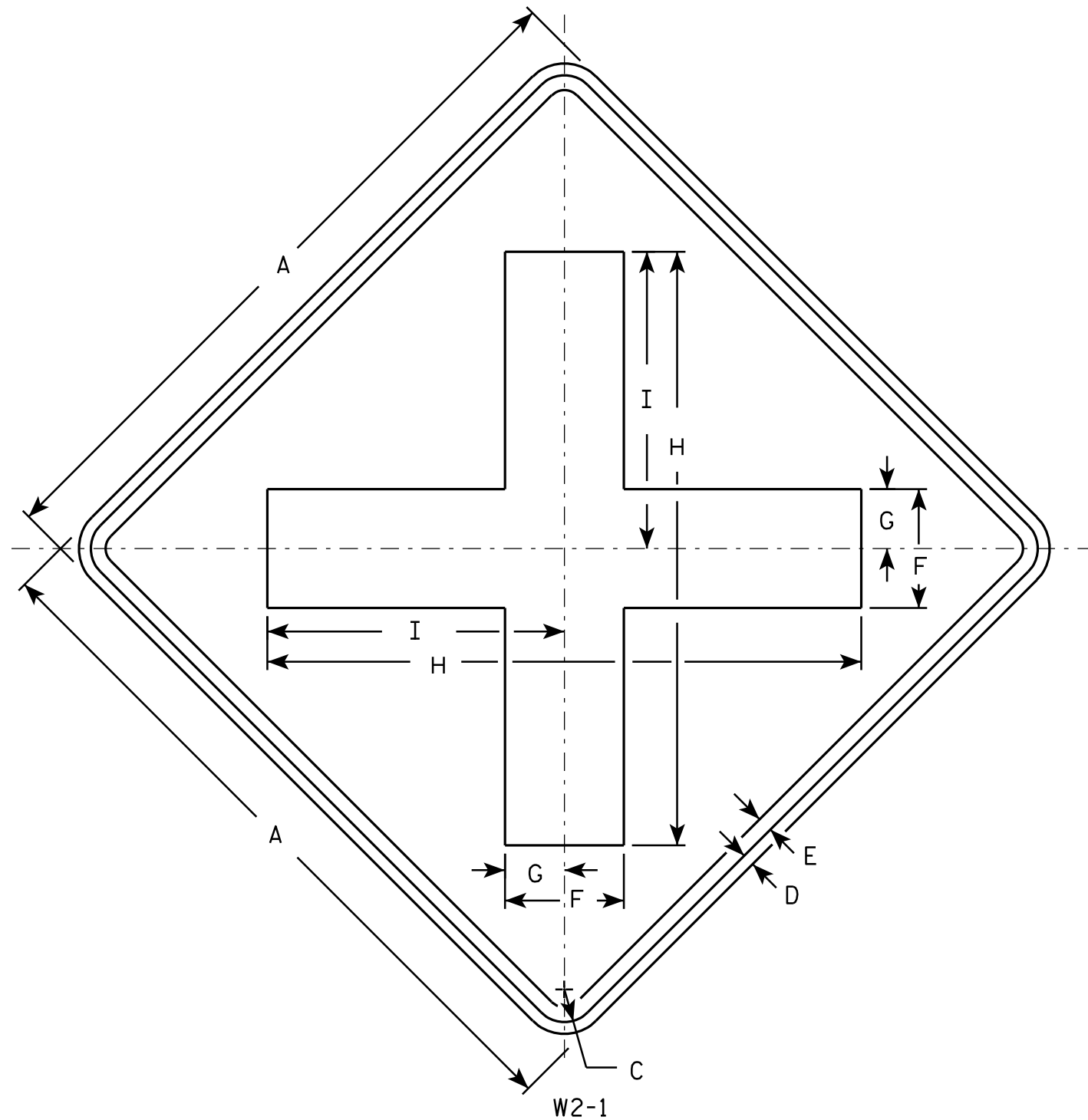
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 145

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

STANDARD SIGN

W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

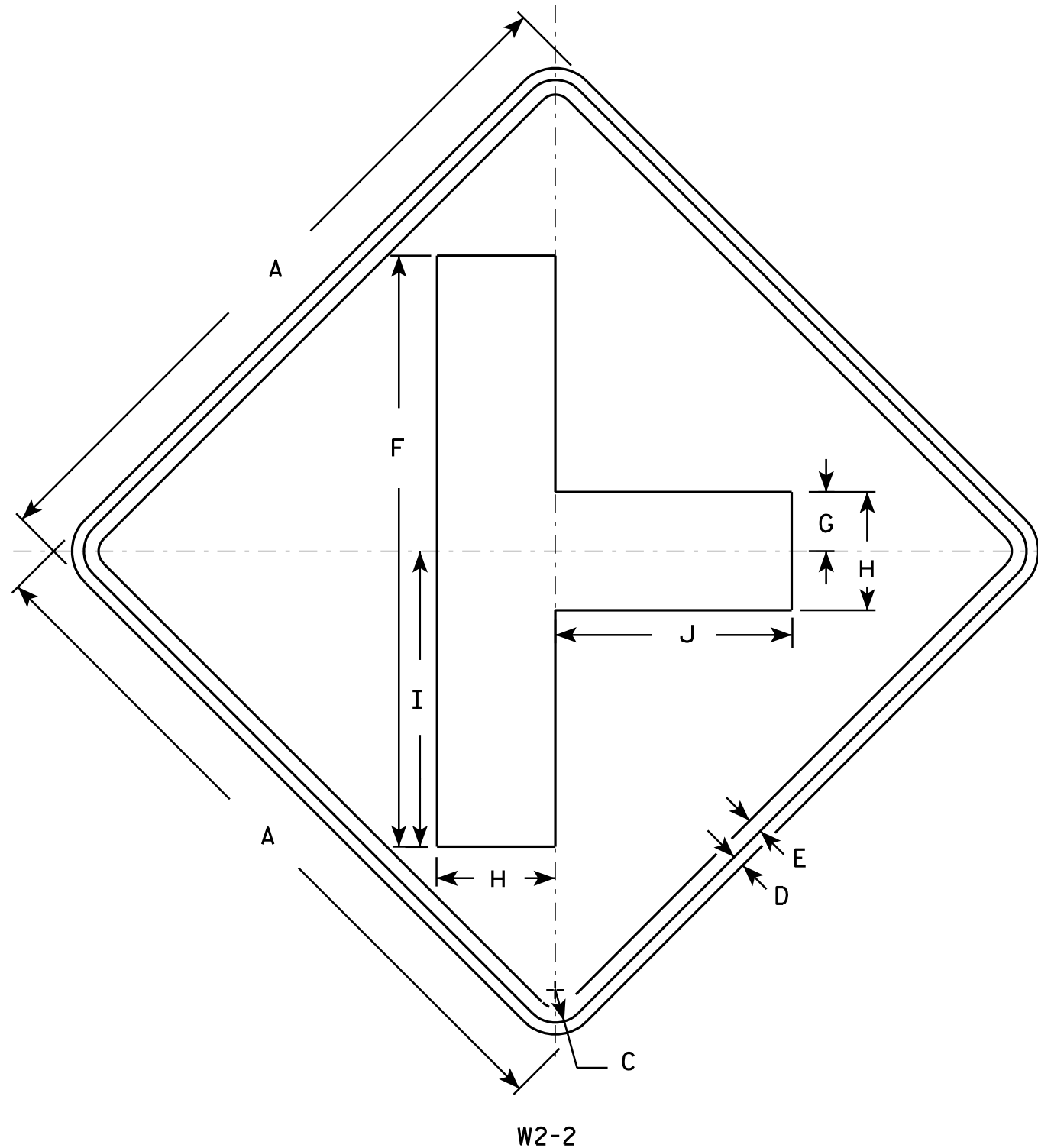
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 146

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

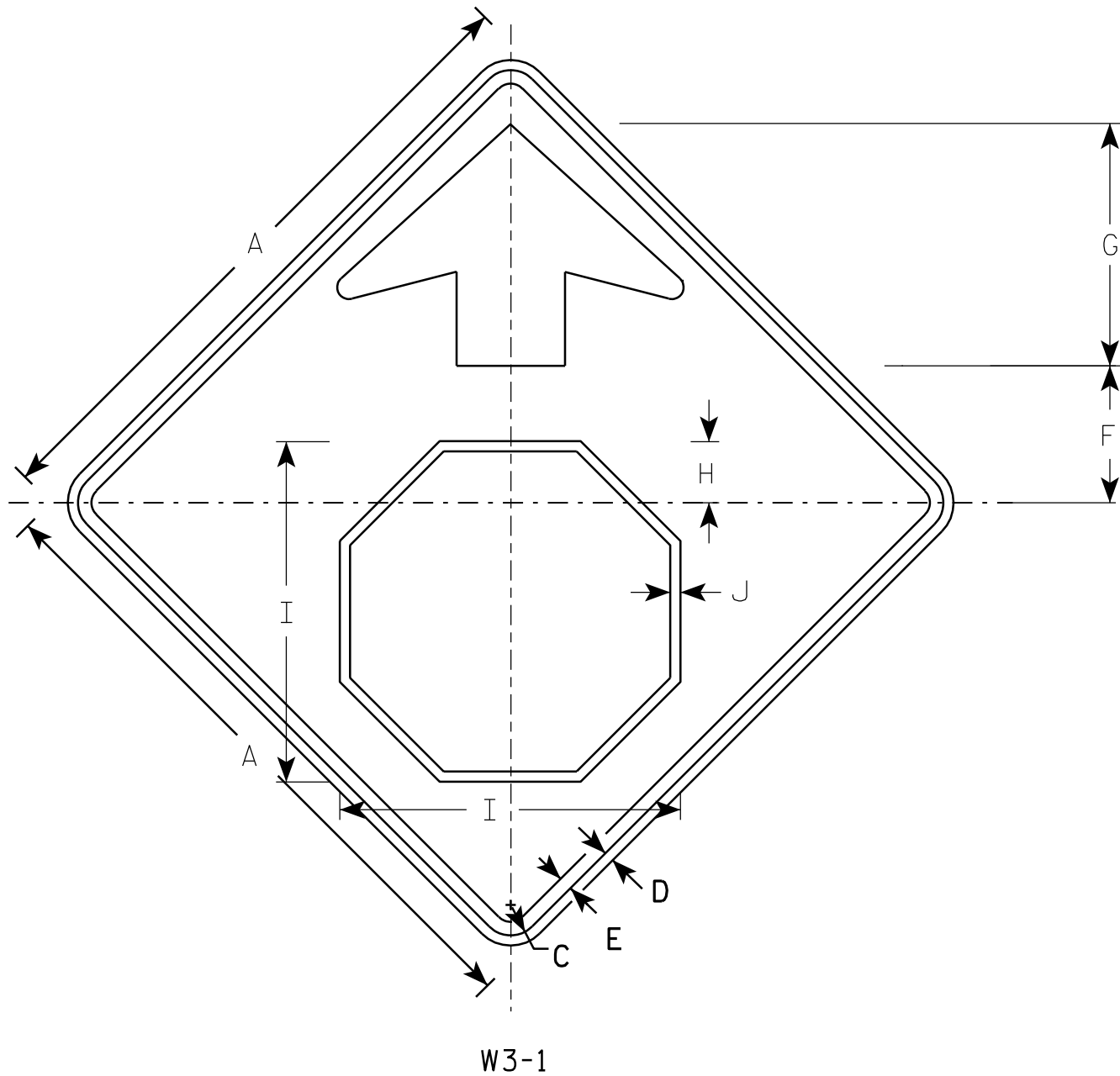
STANDARD SIGN W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

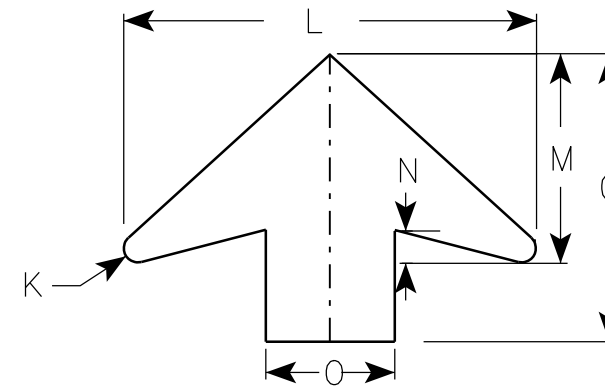
DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: 147 E



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

PROJECT NO:

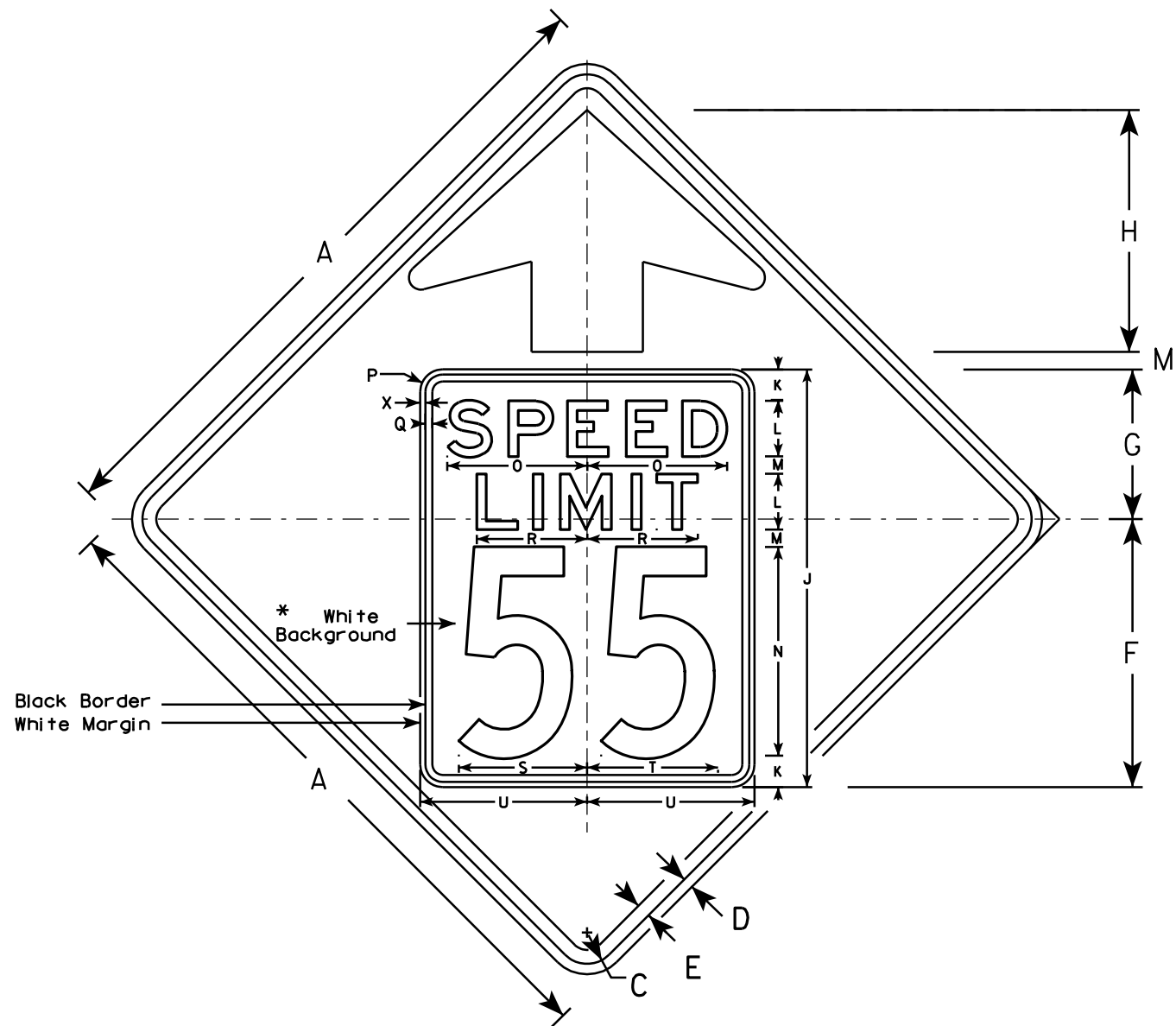
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO: 148

E

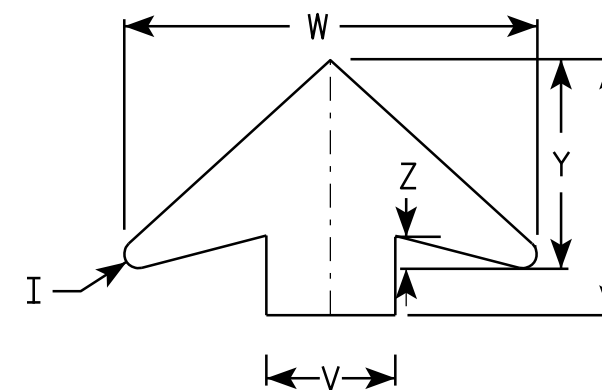


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

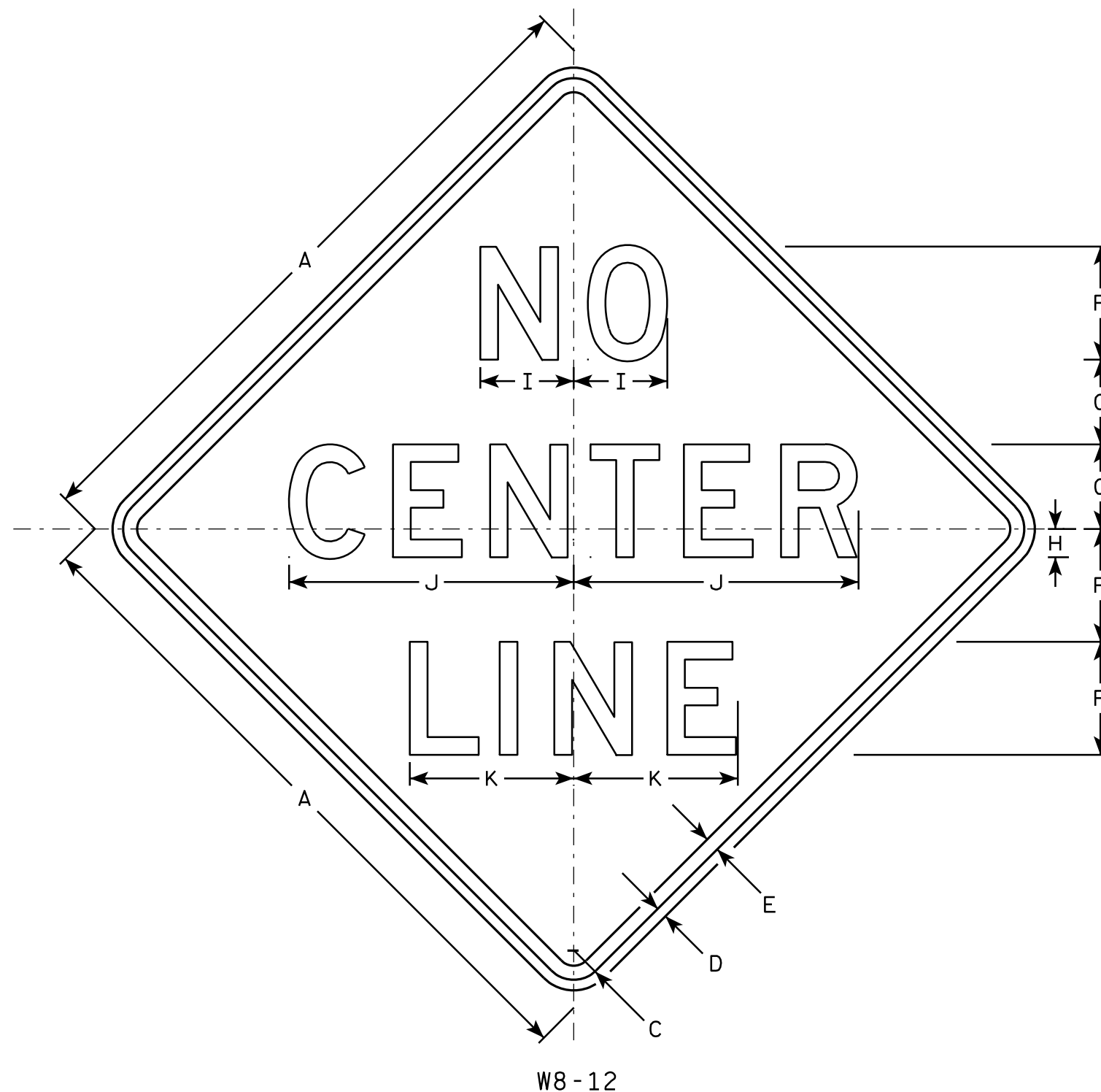
DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 149

E



NOTES

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

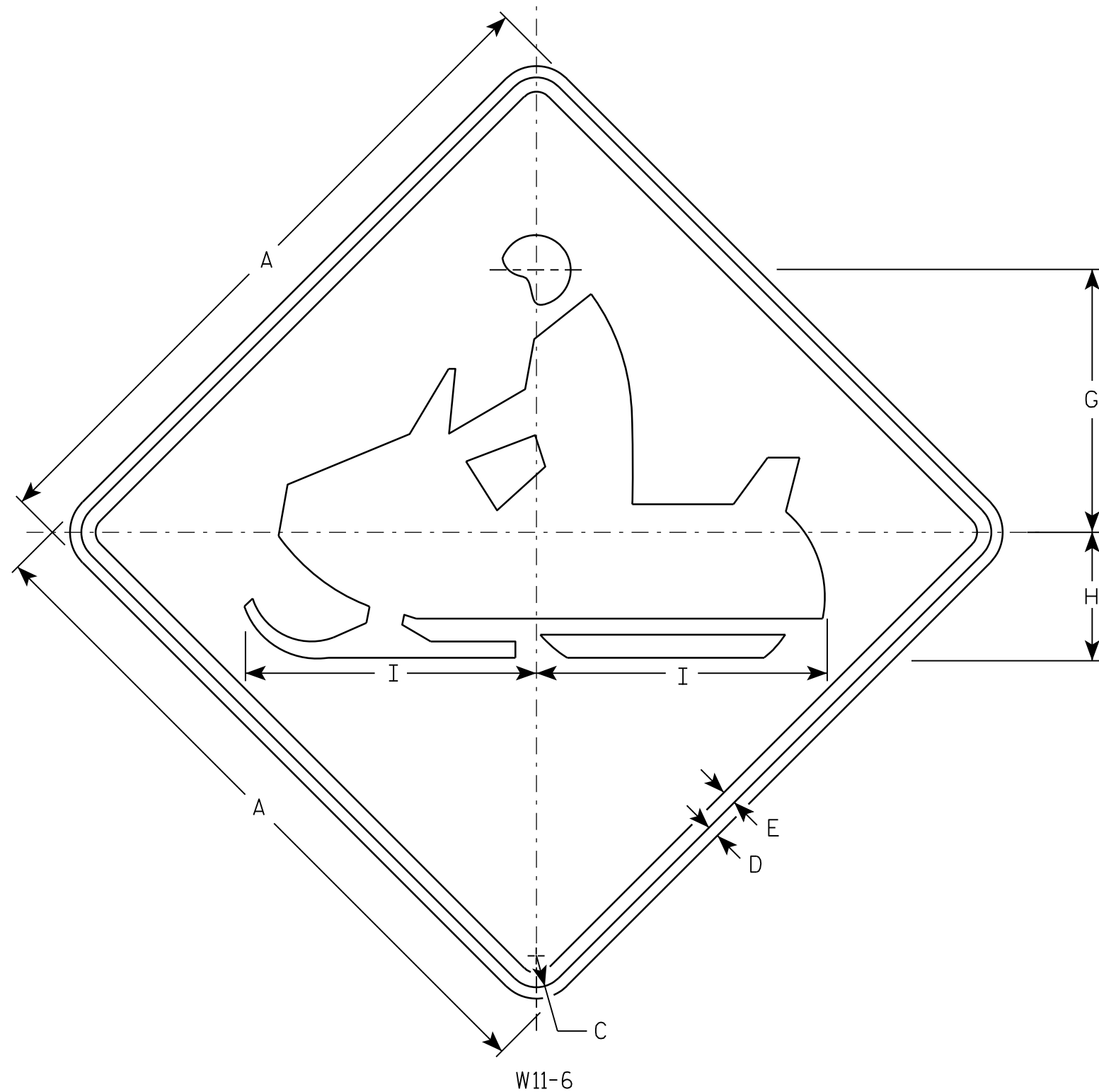
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	6	4 1⁄2	1 1⁄2	5 1⁄8	16	9																9.0
2M	36		1 5⁄8	5⁄8	3⁄4	6	4 1⁄2	1 1⁄2	5 1⁄8	16	9																9.0
3	48		2 1⁄4	3⁄4	1	8	6	2	6 5⁄8	20 1⁄4	11 5⁄8																16.0
4	48		2 1⁄4	3⁄4	1	8	6	2	6 5⁄8	20 1⁄4	11 5⁄8																16.0
5	48		2 1⁄4	3⁄4	1	8	6	2	6 5⁄8	20 1⁄4	11 5⁄8																16.0

STANDARD SIGN W8-12

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 8/24/10 PLATE NO. W8-12.3

PROJECT NO: HWY: COUNTY: SHEET NO: 150 E



NOTES

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

W11-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		9 1/2	4 1/2	10 1/4																		4.0
2S	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
2M	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
3	36		1 5/8	5/8	3/4		14 1/8	6 3/4	15 1/4																		9.0
4	48		2 1/4	3/4	1		19	9	20 1/2																		16.0
5																											

STANDARD SIGN W11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-6.8

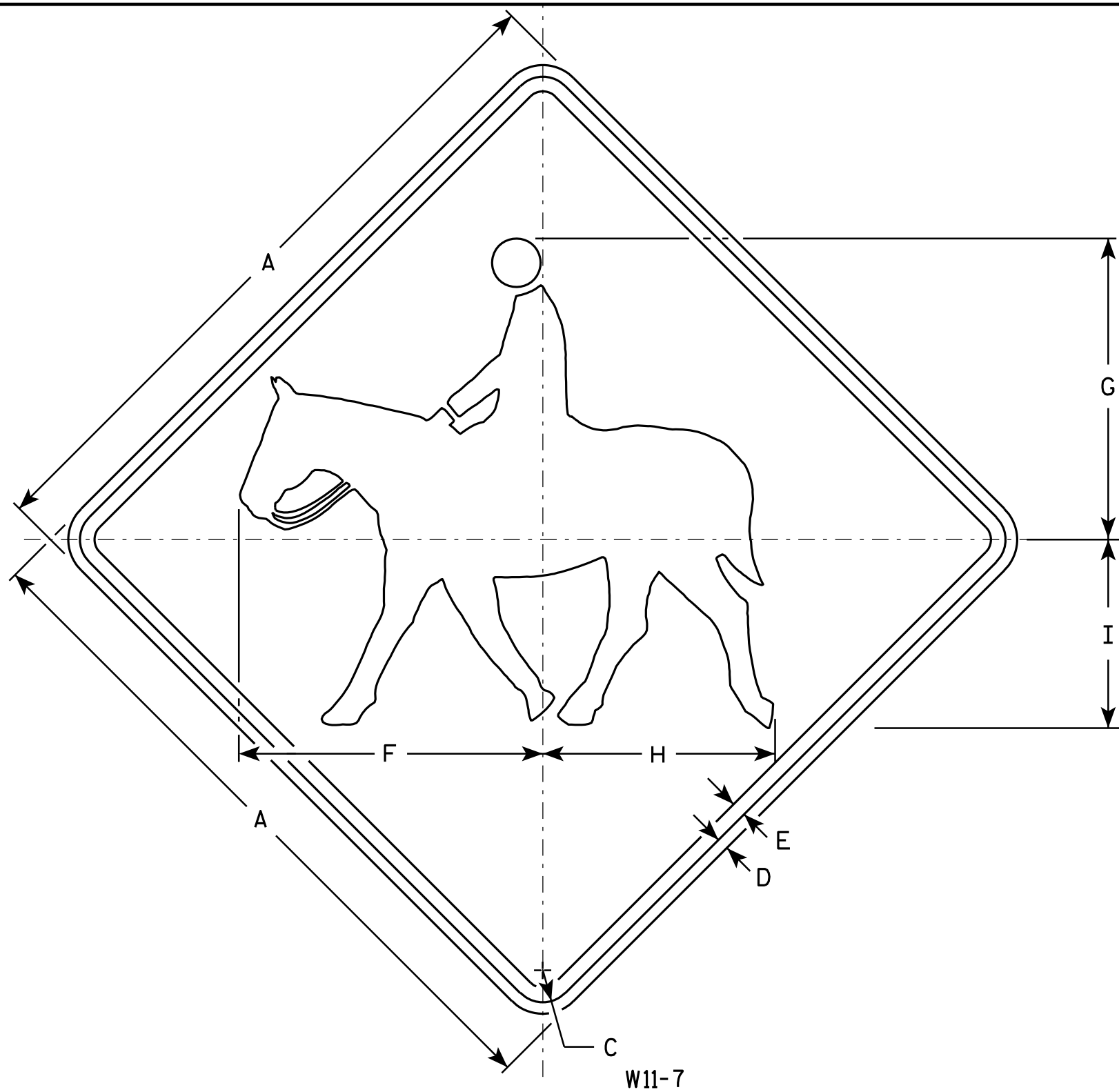
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 151

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	10 5/8	8	6 1/2																		4.0
2S	30		1 3/8	1/2	5/8	13	13	10	8 1/8																		6.25
2M	30		1 3/8	1/2	5/8	13	13	10	8 1/8																		6.25
3	36		1 5/8	5/8	3/4	15 1/2	15 5/8	12	9 3/4																		9.0
4	48		2 1/4	3/4	1	21	21	16	13																		16.0
5																											

STANDARD SIGN W11-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-7.6

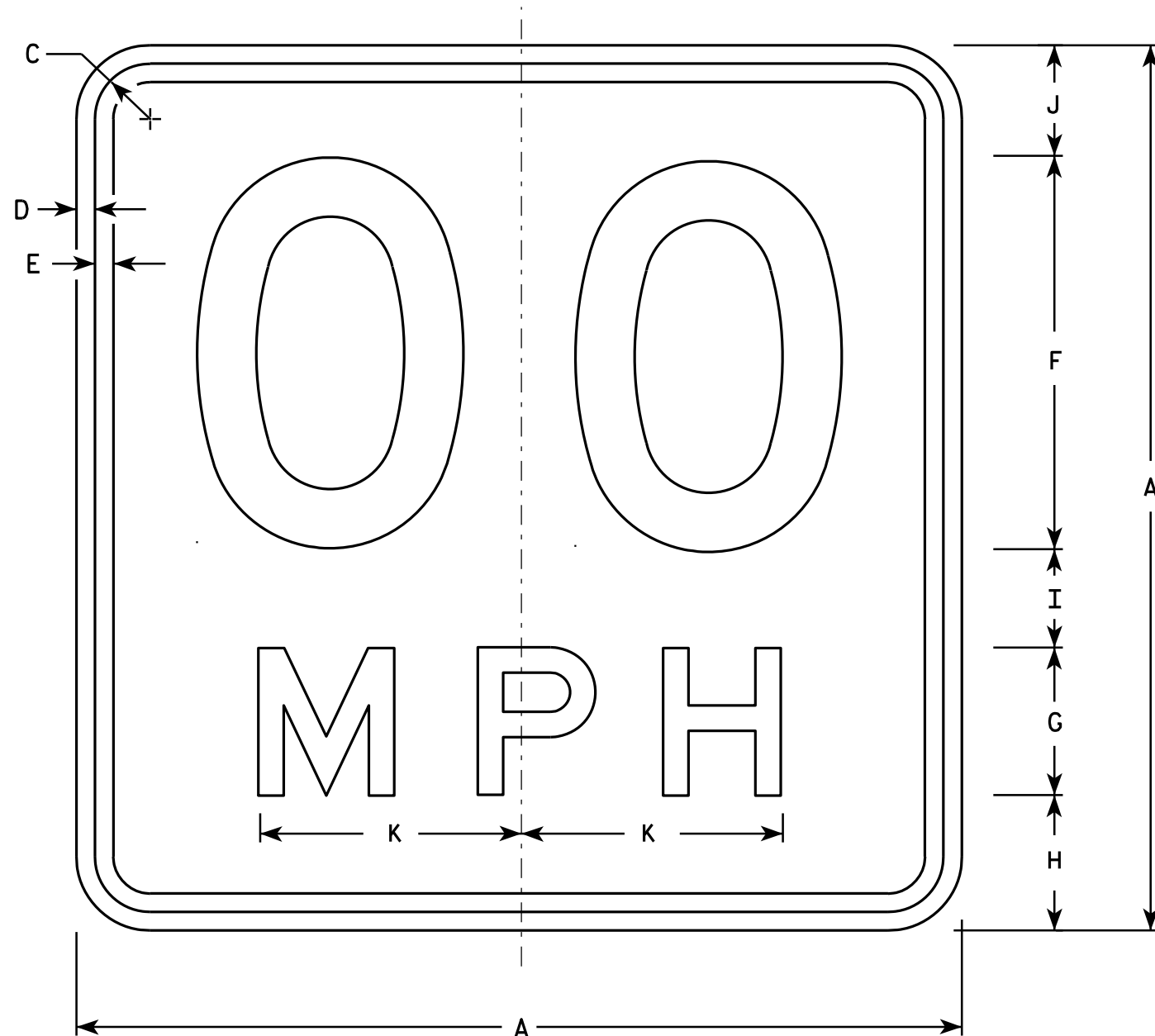
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 152

E



NOTES

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

W13-1

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

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

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO:

HWY:

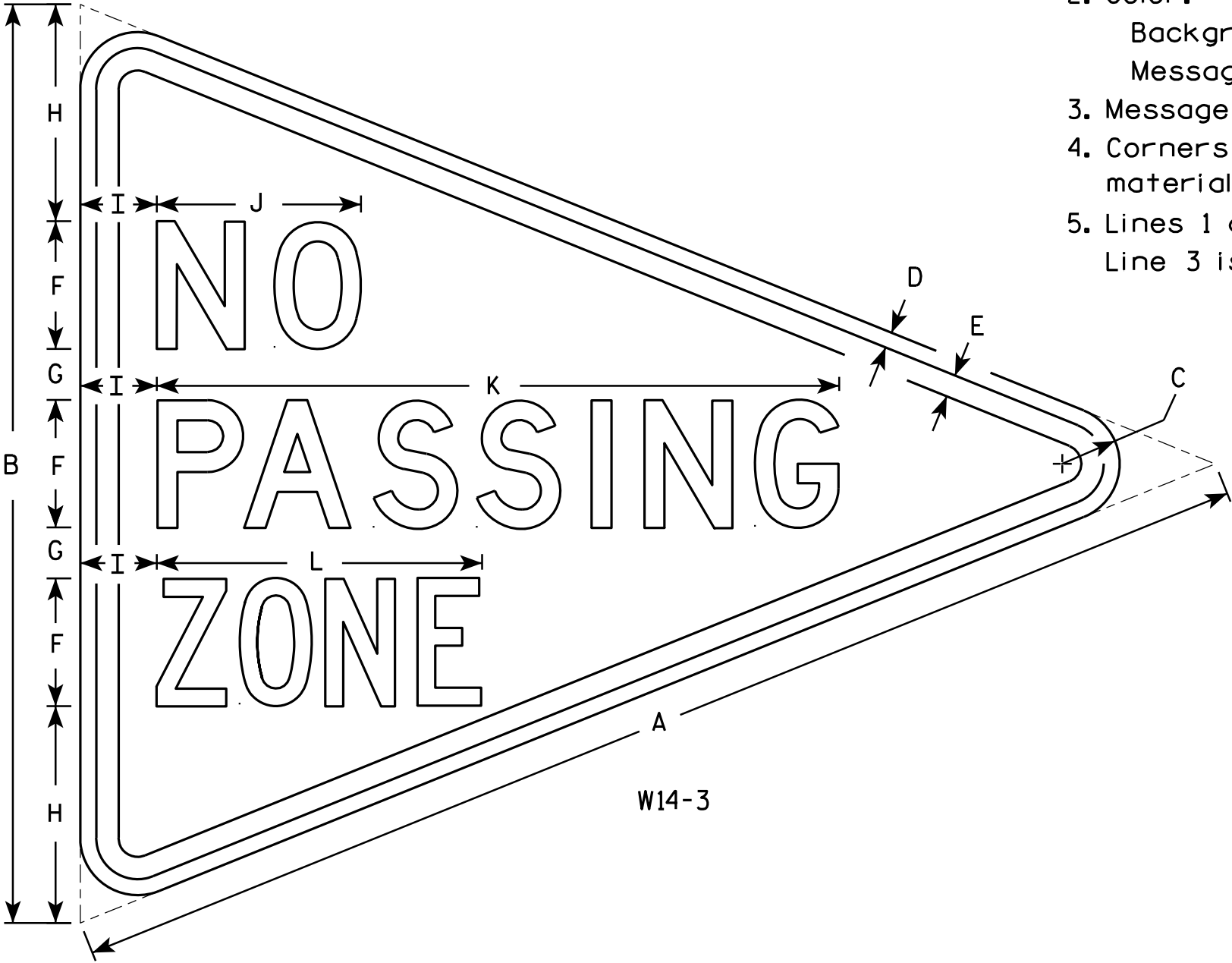
COUNTY:

SHEET NO: 153

E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



W14-3

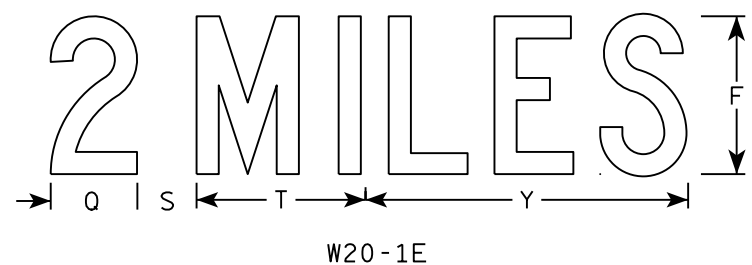
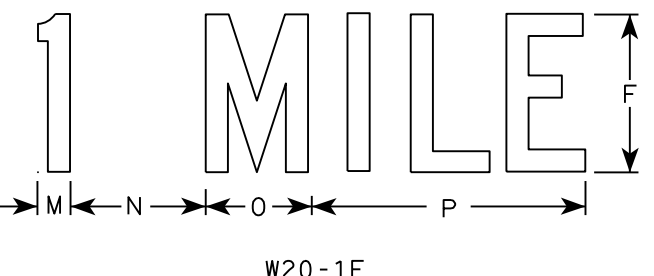
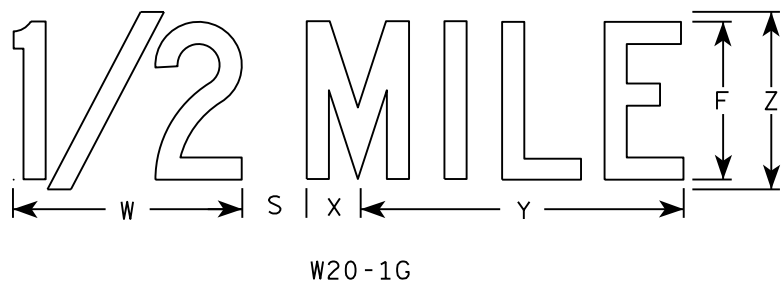
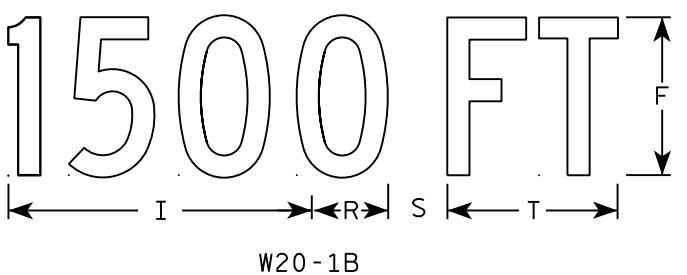
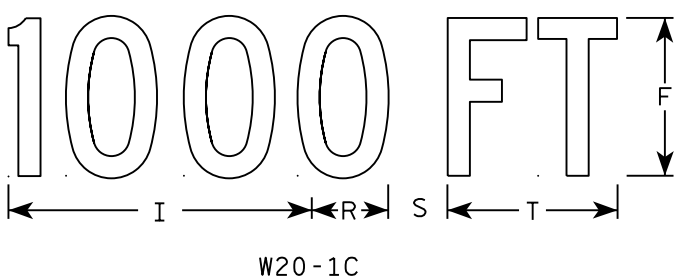
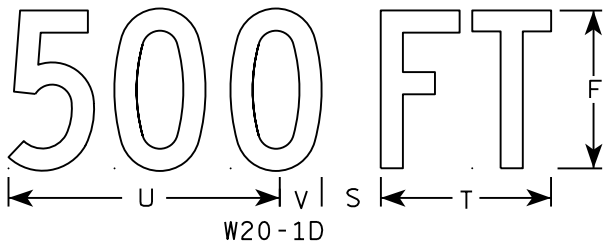
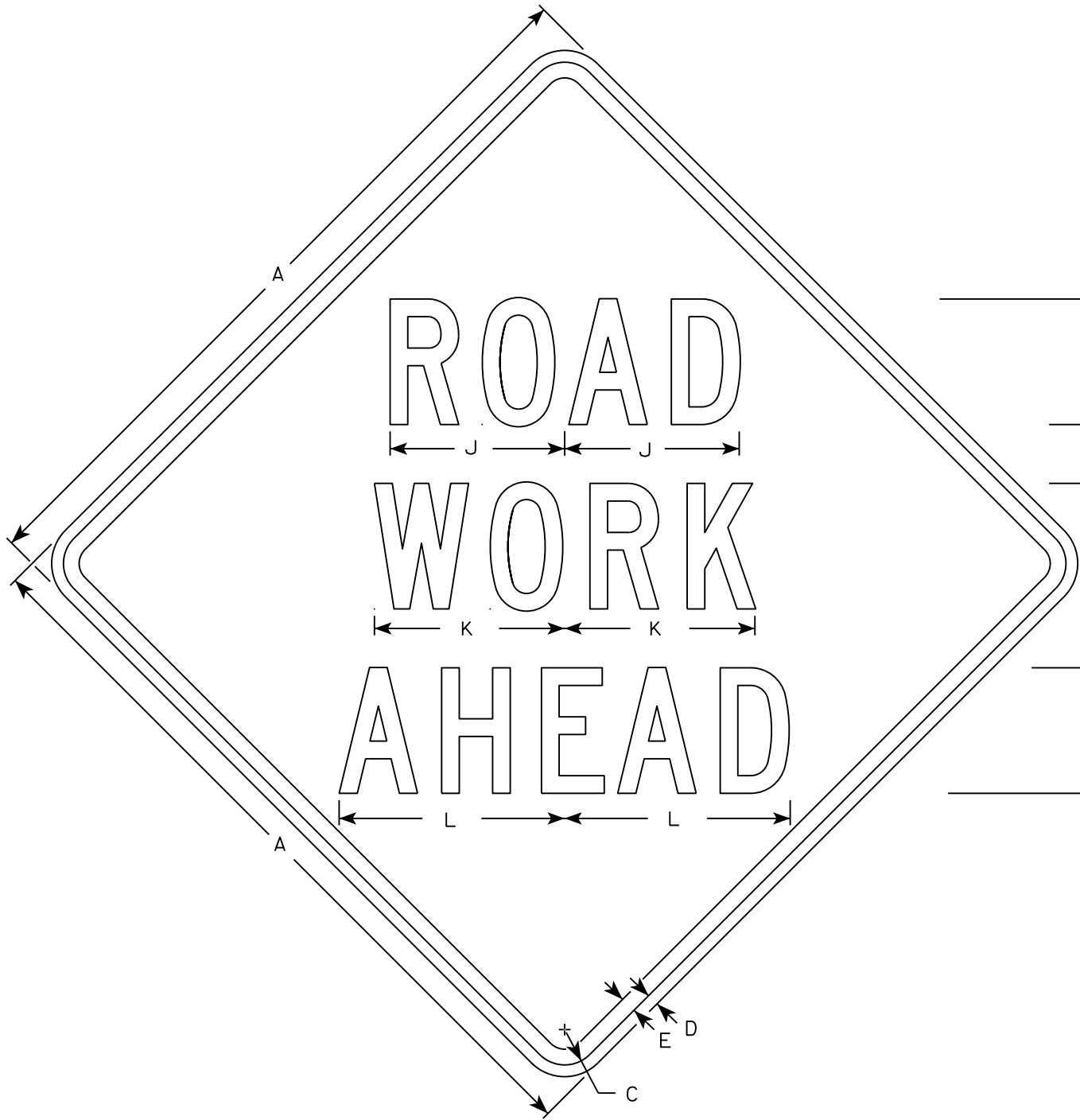
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

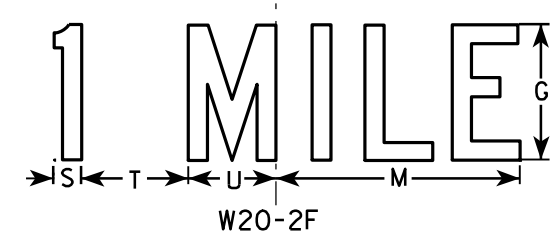
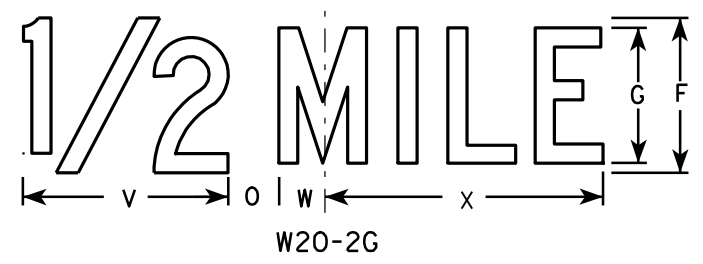
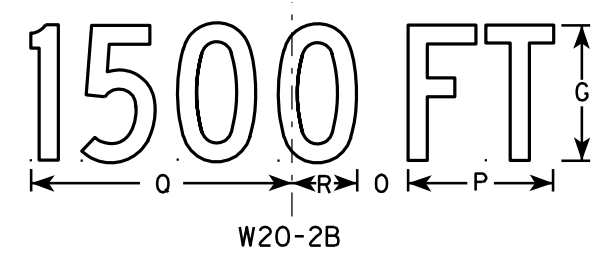
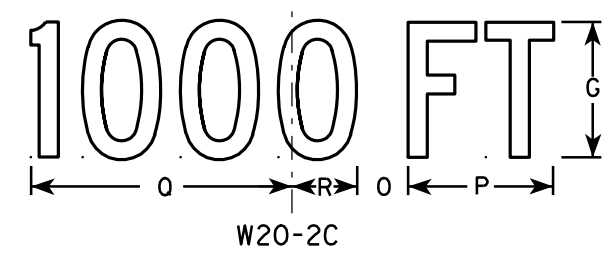
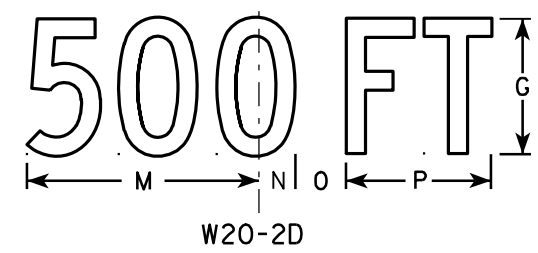
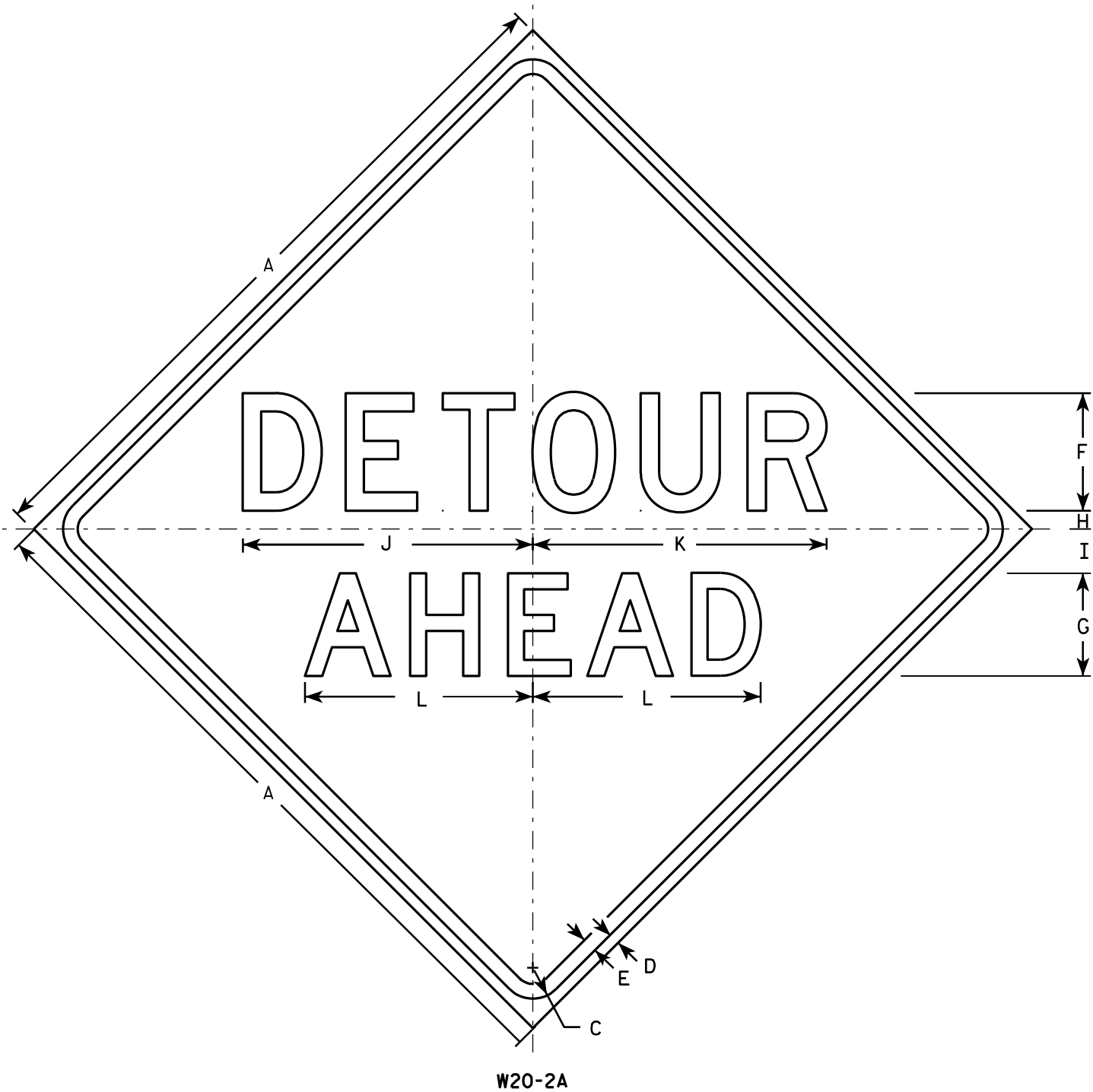
STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

155



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

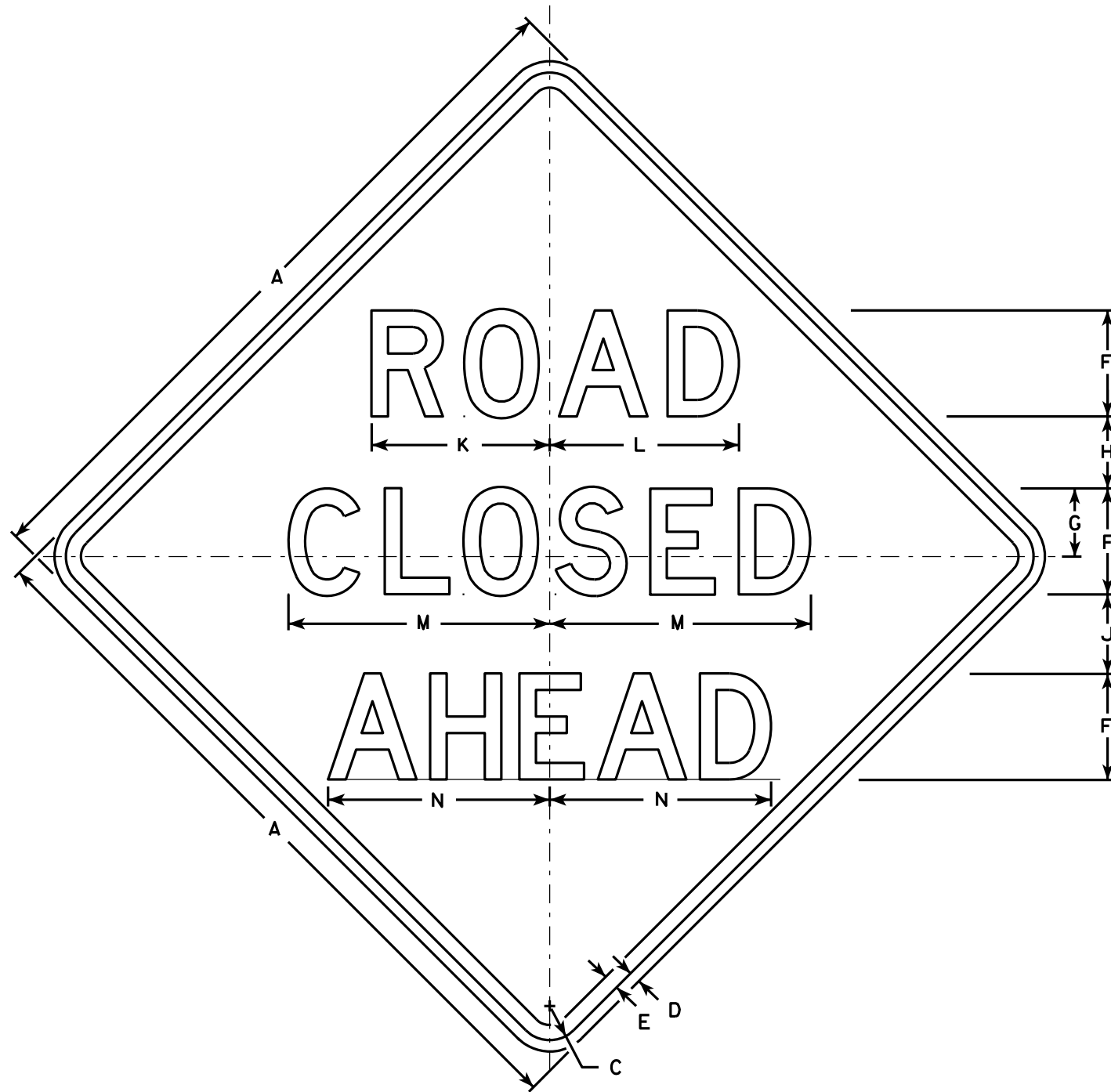
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 156

E



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

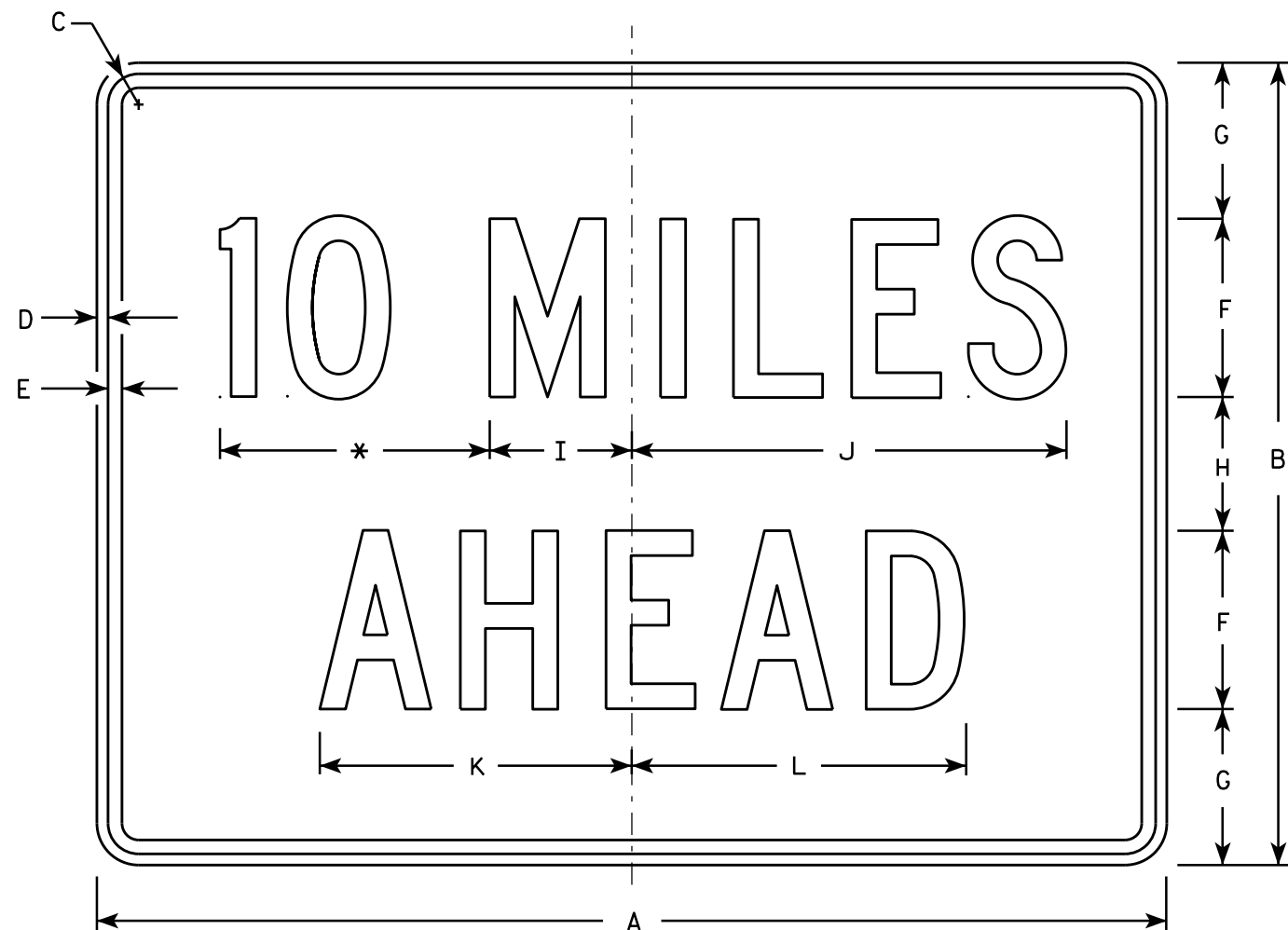
PROJECT NO:

HWY:

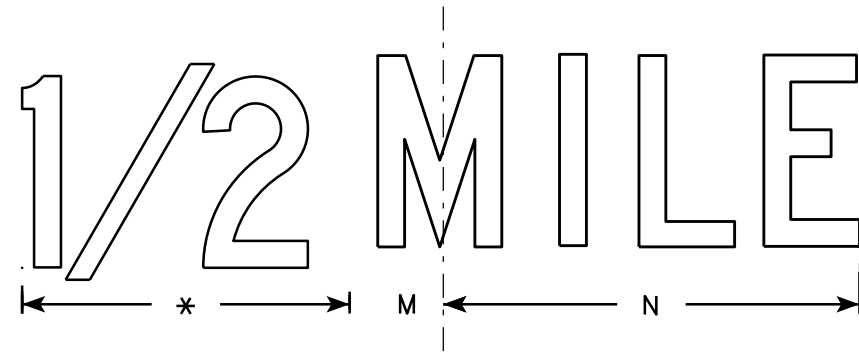
COUNTY:

SHEET NO: 157

E



W057-52



* See note 5

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN

W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13

PLATE 158 W057-52.1

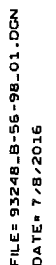
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SUPERSTRUCTURE/ TOTAL
492.2010.S	SEALING CRACKS AND JOINTS WITH HOT-APPLIED SEALANT	GAL	3
* * * 502.0717.S	CRACK SEALING EPOXY	LF	150
* 509.1500	CONCRETE SURFACE REPAIR	SF	202
* * 509.5100.S	POLYMER OVERLAY	SY	690
SPV.0165.01	FIBER WRAP GIRDER REINFORCING	SF	4

* CONCRETE SURFACE REPAIR REQUIRED ON DECK EDGES AS DESIGNATED BY THE ENGINEER. CONCRETE SURFACE REPAIR ALSO INCLUDES REPAIR NEAR THE END OF GIRDER NUMBER 5 AT THE WEST ABUTMENT. QUANTITY LISTED IS APPROXIMATE. COORDINATE THE FIELD IDENTIFICATION AND DETERMINATION OF ALL SURFACE REPAIR LOCATIONS WITH THE ENGINEER.

* * INCLUDES AREAS ON APPROACH PAVEMENTS, AS SHOWN IN PLAN VIEW.

* * * THE LOCATIONS OF TRANSVERSE AND LONGITUDINAL CRACKS IN THE DECK THAT REQUIRE CRACK SEALING EPOXY SHALL BE DETERMINED BY THE ENGINEER AFTER DECK SURFACE PREPARATION.

⬡ - INDICATES GIRDER NUMBER

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND CLEARANCES SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.

STATIONING SHOWN IS BASED ON THE ROAD PLANS.

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-56-98, A SINGLE SPAN, 99' PRESTRESSED CONCRETE GIRDER BRIDGE SET ON CONCRETE SILL ABUTMENTS.

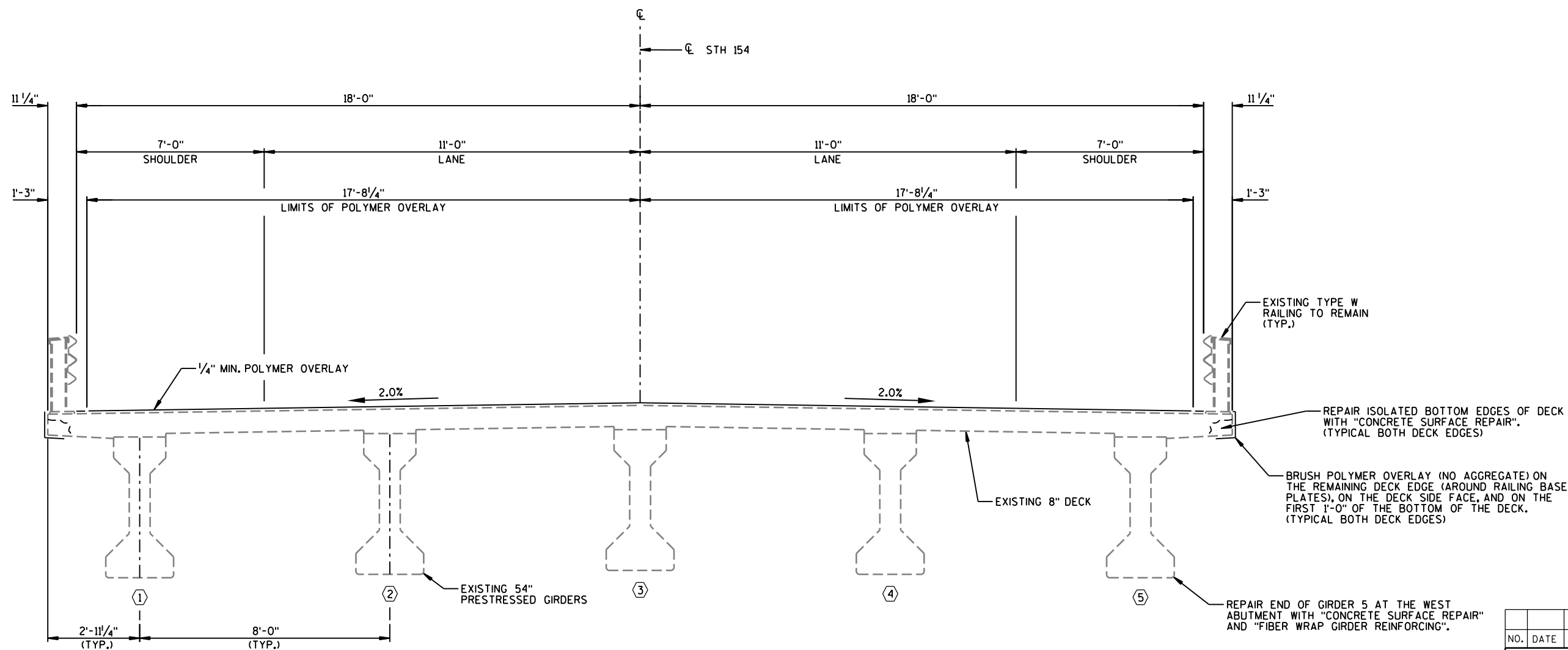
SEE THE ROAD PLAN SHEETS FOR THE APPROXIMATE LOCATIONS OF EXISTING UTILITY INSTALLATIONS. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

APPLY POLYMER OVERLAY TO DECK SURFACE AND CONCRETE APPROACH SLABS/CONCRETE PAVEMENT AS SHOWN.

BRUSH TWO LAYERS OF POLYMER OVERLAY (NO AGGREGATE) ON THE REMAINING DECK EDGE (AROUND RAILING BASE PLATES), ON THE DECK SIDE FACE, AND ON THE FIRST 1'-0" OF THE BOTTOM OF THE DECK. BRUSH POLYMER OVERLAY (NO AGGREGATE) ON THE WING TOPS AND ON THE FIRST 1'-0" OF THE ABUTMENT AND WING SIDE FACE. WORK TO COMPLETE INCLUDED IN THE ITEM "POLYMER OVERLAY".

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

SEAL JOINTS BETWEEN BRIDGE DECK AND CONCRETE APPROACH WITH HOT-APPLIED SEALANT.



CROSS SECTION THRU ROADWAY
(LOOKING EAST)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-98			
DRAWN BY JRS		PLANS CK'D. LJR	
CROSS SECTION, QUANTITIES & NOTES			SHEET 2 OF 2 160

170+00 - 172+00

STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
170+00.00		44	0					
	50.00			86	19	86	19	67
170+50.00		49	16					
	31.00			56	53	142	72	70
170+81.00		49	57					
	29.00			56	276	198	348	-150
171+10.00		56	355					
	40.00			71	545	269	893	-624
171+50.00		40	234					
	50.00			76	271	345	1164	-819
172+00.00		42	0					

200

345

1,164

* INCLUDES 1.25 EXPANSION FACTOR

205+57 - 210+49.90

STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
205+57.00		4	2					
	15.01			3	2	3	2	1
205+72.01		5	4					
	23.83			6	3	9	5	4
205+95.84		9	1					
	4.16			1	0	10	5	5
206+00.00		10	0					
	19.71			7	0	17	5	12
206+19.71		8	1					
	30.29			10	0	27	6	21
206+50.00		9	0					
	50.00			16	0	43	6	36
207+00.00		8	0					
	50.00			15	0	58	7	51
207+50.00		8	0					
	50.00			15	1	73	8	65
208+00.00		8	1					
	50.00			16	1	89	9	80
208+50.00		9	0					
	50.00			18	0	107	9	98
209+00.00		10	0					
	50.00			20	0	127	9	118
209+50.00		12	0					
	31.63			14	0	141	9	133
209+81.63		12	0					
	18.37			8	0	149	9	141
210+00.00		11	0					
	7.68			3	0	152	9	144
210+07.68		10	1					
	26.09			10	1	162	9	153
210+33.77		11	0					
	16.13			7	0	169	10	160
210+49.90		12	0					

493

169

10

* INCLUDES 1.25 EXPANSION FACTOR

214+42.34 - 221+43.24

STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
214+42.34		7	0					
	7.66			2	0	2	0	2
214+50.00		7	2					
	7.94			2	1	2	1	1
214+57.94		6	5					
	25.00			6	4	6	4	1
214+82.94		6	3					
	17.06			4	3	10	7	2
215+00.00		6	5					
	7.94			2	2	11	9	2
215+07.94		6	4					
	42.06			13	4	24	13	11
215+50.00		10	0					
	50.00			17	0	41	13	28
216+00.00		8	0					
	50.00			19	0	60	14	47
216+50.00		12	0					
	50.00			19	0	79	14	65
217+00.00		9	0					
	50.00			16	0	95	14	82
217+50.00		9	0					
	50.00			14	3	110	17	93
218+00.00		6	3					
	50.00			16	3	125	20	106
218+50.00		11	0					
	50.00			19	0	145	20	125
219+00.00		10	0					
	50.00			17	0	162	20	142
219+50.00		8	0					
	50.00			19	0	181	20	162
220+00.00		13	0					
	50.00			24	0	205	20	185
220+50.00		13	0					
	26.59			13	0	218	20	198
220+76.59		13	0					
	25.34			11	0	228	20	208
221+01.93		10	0					
	25.54			9	0	237	20	217
221+27.47		9	0					
	15.77			5	0	242	20	222
221+43.24		8	0					

701

246

22

* INCLUDES 1.25 EXPANSION FACTOR

9

9

224+81.44 - 231+00.19

STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
224+81.44		8	0					
	15.76			5	1	5	1	5
224+97.20		10	2					
	25.34			10	4	10	4	6
225+22.54		11	0					
	25.33			9	0	9	0	8
225+47.87		7	5					
	27.13			9	3	19	7	12
225+75.00		12	0					
	25.00			11	0	30	7	23
226+00.00		12	0					
	50.00			22	4	53	11	42
226+50.00		12	3					
	50.00			24	4	77	15	62
227+00.00		15	0					
	50.00			24	0	101	15	87
227+50.00		11	0					
	50.00			19	0	121	15	106
228+00.00		10	0					
	50.00			15	0	136	15	121
228+50.00		7	0					
	50.00			12	0	148	15	133
229+00.00		6	0					
	50.00			14	0	162	16	146
229+50.00		9	0					
	50.00			18	0	181	16	165
230+00.00		11	0					
	34.52			14	0	194	16	178
230+34.52		10	0					
	15.48			6	0	200	17	183
230+50.00		10	0					
	9.53			3	0	203	17	186
230+59.53		8	1					
	25.06			7	4	210	21	189
230+84.59		6	7					
	15.60			3	3	213	24	189
231+00.19		6	1					

619

227

25

* INCLUDES 1.25 EXPANSION FACTOR

234+81.28 - 241+48.39

STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
234+81.28		2	0					
	15.60			1	0	1	0	1
234+96.88		2	0					
	25.00			6	0	7	0	7
235+21.88		10	0					
	25.00			9	0	15	0	15
235+46.88		9	0					
	53.12			24	0	24	0	40
236+00.00		15	0					
	50.00			26	0	50	0	66
236+50.00		13	0					
	50.00			21	0	21	0	86
237+00.00		10	0					
	50.00			16	3	37	3	100
237+50.00		8	2					
	50.00			15	8	15	8	106
238+00.00		8	5					
	50.00			15	9	29	17	112
238+50.00		8	3					
	50.00			15	4	15	4	123
239+00.00		8	1					
	50.00			18	1	33	5	140
239+50.00		11	0					
	50.00			20	0	20	0	161
240+00.00		11	0					
	50.00			20	0	41	0	181
240+50.00		11	0					
	32.79			14	0	14	0	195
240+82.79		12	0					
	17.21			9	0	23	0	204
241+00.00		15	0					
	7.79			4	0	4	0	208
241+07.79		15	0					
	25.00			12	0	16	0	220
241+32.79		11	0					
	15.60			4	0	4	0	224
241+48.39		3	0					

667

249

25

* INCLUDES 1.25 EXPANSION FACTOR

Narrows Creek Bridge

STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
283+85.00		2	0					
	15.00			4	0	4	0	4
284+00.00		12	0					
	50.00			22	2	26	2	25
284+50.00		12	1					
	50.00			23	9	49	10	39
285+00.00		13	6					
	28.00			13	17	62	28	35
285+28.00		13	20					
	22.00			11	16	73	44	29
285+50.00		13	12					
	3.00			1	2	75	45	29
285+53.00		14	10					
	25.00			13	16	88	62	26
285+78.00		15	18					
	22.00			12	9	100	71	29
286+00.00		16	0					
	50.00			28	2	128	73	56
286+50.00		15	2					
	28.00			14	5	142	77	65
286+78.00		12	6					

29314277

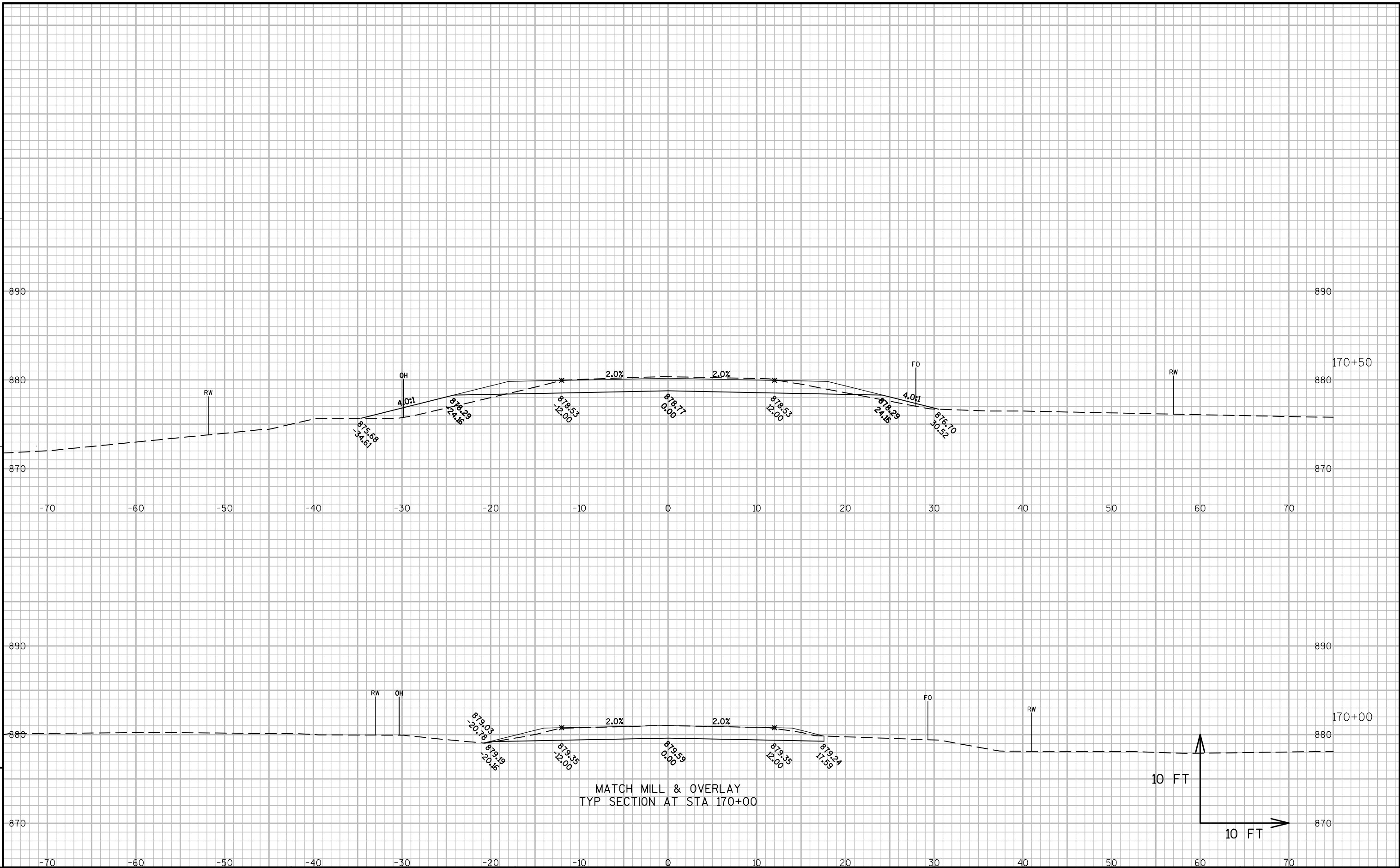
STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
287+00.00		2	0					
	22.00			2	0	2	0	2
287+22.00		4	0					

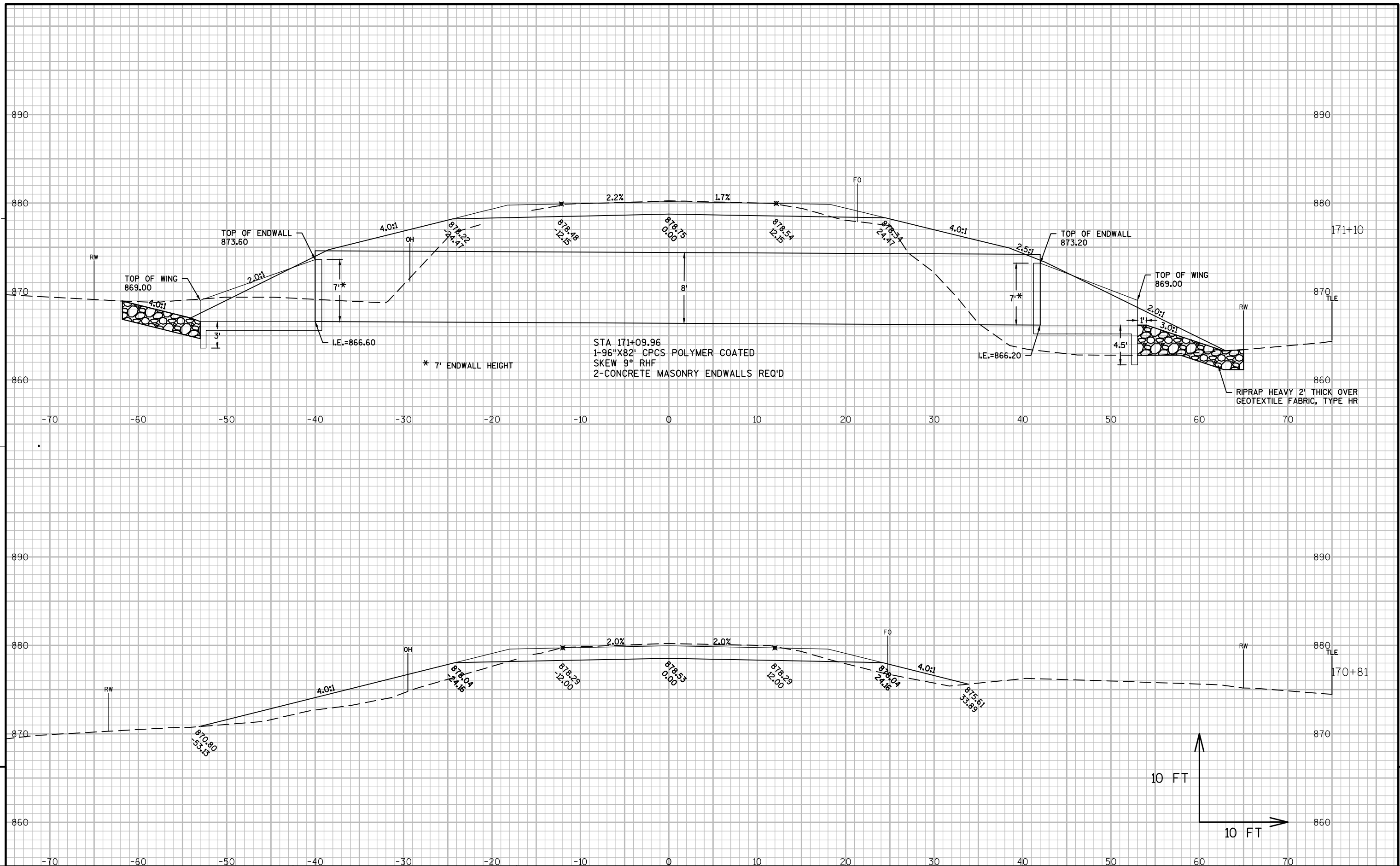
2220

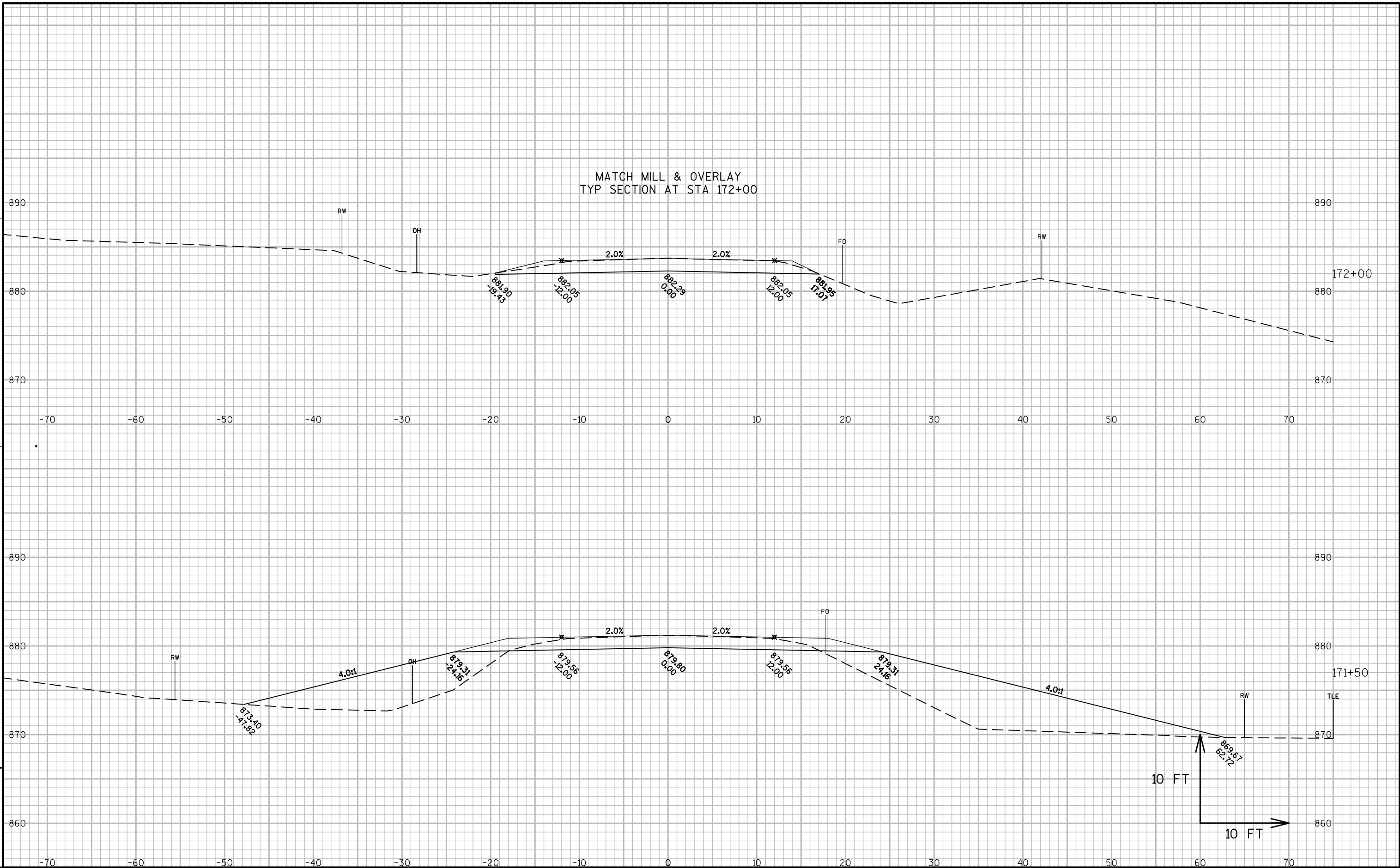
STATION	DISTANCE FEET	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		MASS HAUL
		COMMON	FILL	COMMON	FILL *	COMMON	FILL	
288+22.00		13	8					
	28.00			16	5	16	5	11
288+50.00		18	1					
	10.00			7	0	23	6	17
288+60.00		17	0					
	6.00			5	3	28	9	19
288+66.00		29	23					
	6.00			7	7	35	16	19
288+72.00		31	28					
	25.00			30	27	65	43	22
288+97.00		35	19					
	3.00			4	3	69	46	23
289+00.00		35	20					
	21.00			29	18	98	64	34
289+21.00		40	18					
	29.00			29	27	127	91	35
289+50.00		13	23					
	50.00			28	45	154	136	19
290+00.00		17	16					
	3.00			2	2	156	138	18
290+03.00		17	16					
	25.00			15	13	172	151	21
290+28.00		16	6					
	22.00			14	7	185	158	27
290+50.00		17	8					
	3.00			2	1	187	159	29
290+53.00		17	4					
	47.00			27	16	214	175	39
291+00.00		14	11					
	50.00			25	13	238	188	50
291+50.00		13	1					
	35.00			10	1	248	188	59
291+85.00		2	0					

363248188

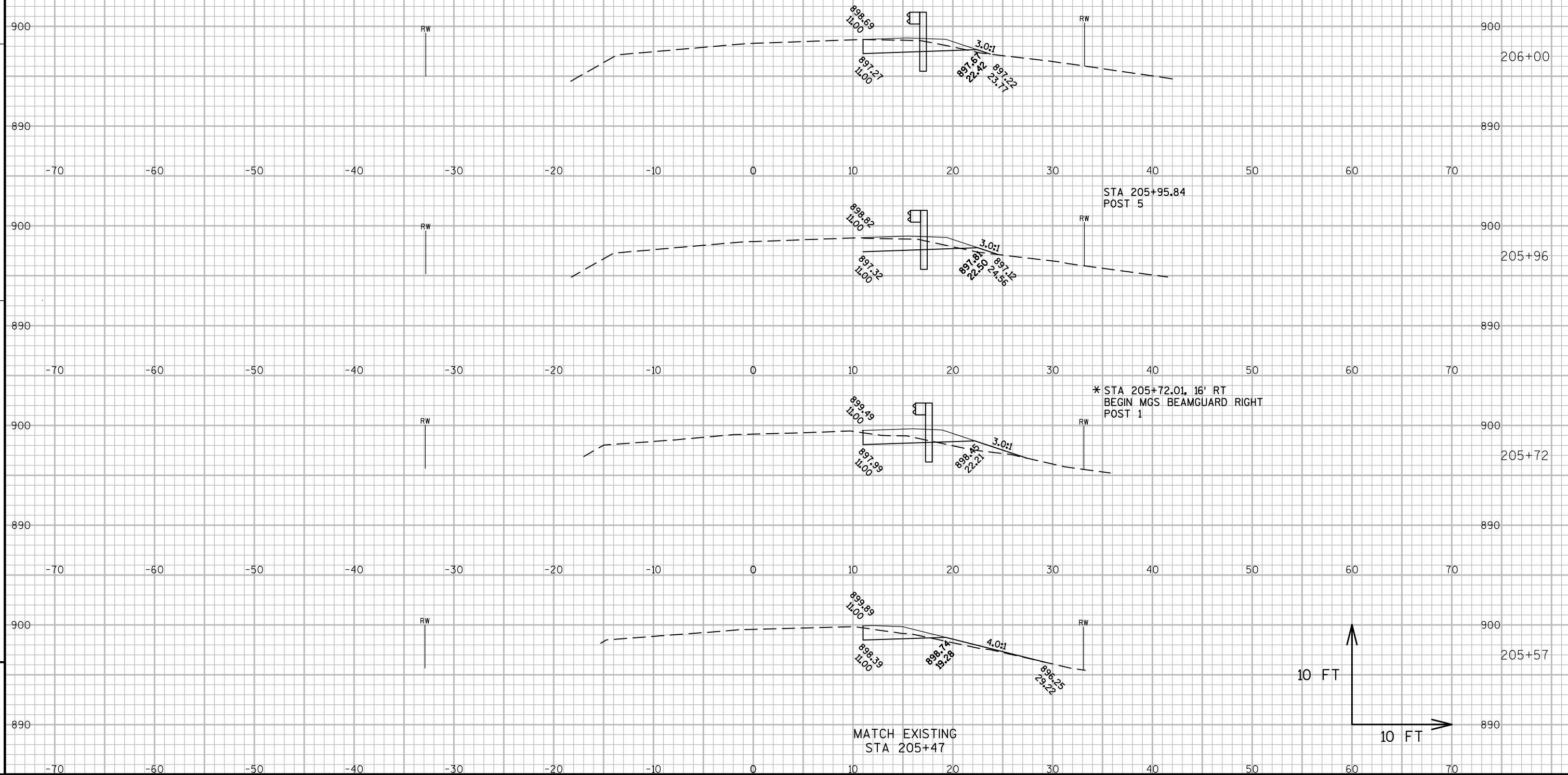
* INCLUDES 1.25 EXPANSION FACTOR







* NOTE: OFFSET DISTANCE FORM C_L TO FACE OF RAIL



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY: SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET 167

--	--

FILE NAME : P:\90S\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 1 - 090201

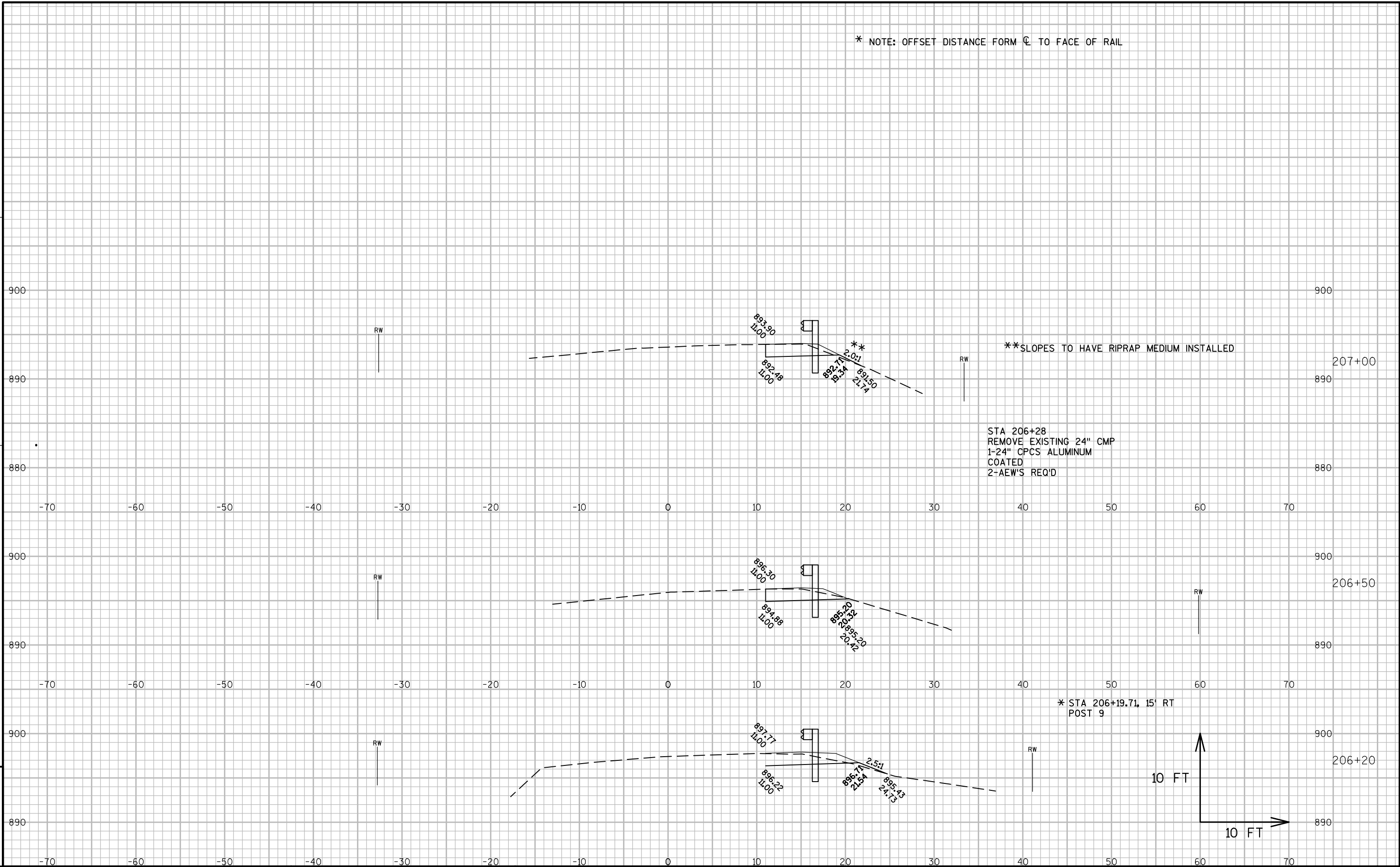
PLOT DATE : 10/10/2016 2:05 PM

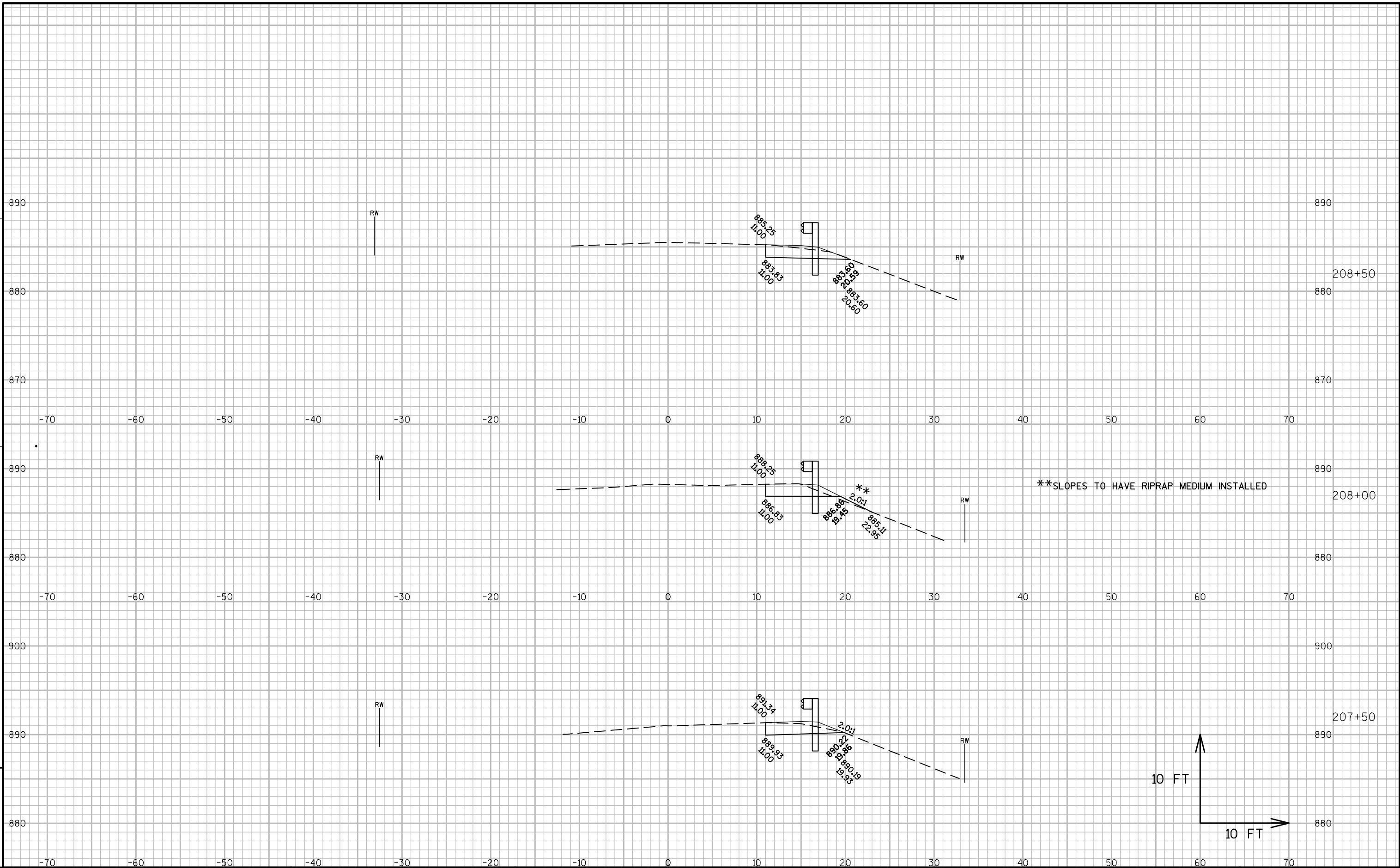
PLOT BY : BOBBI MAXWELL

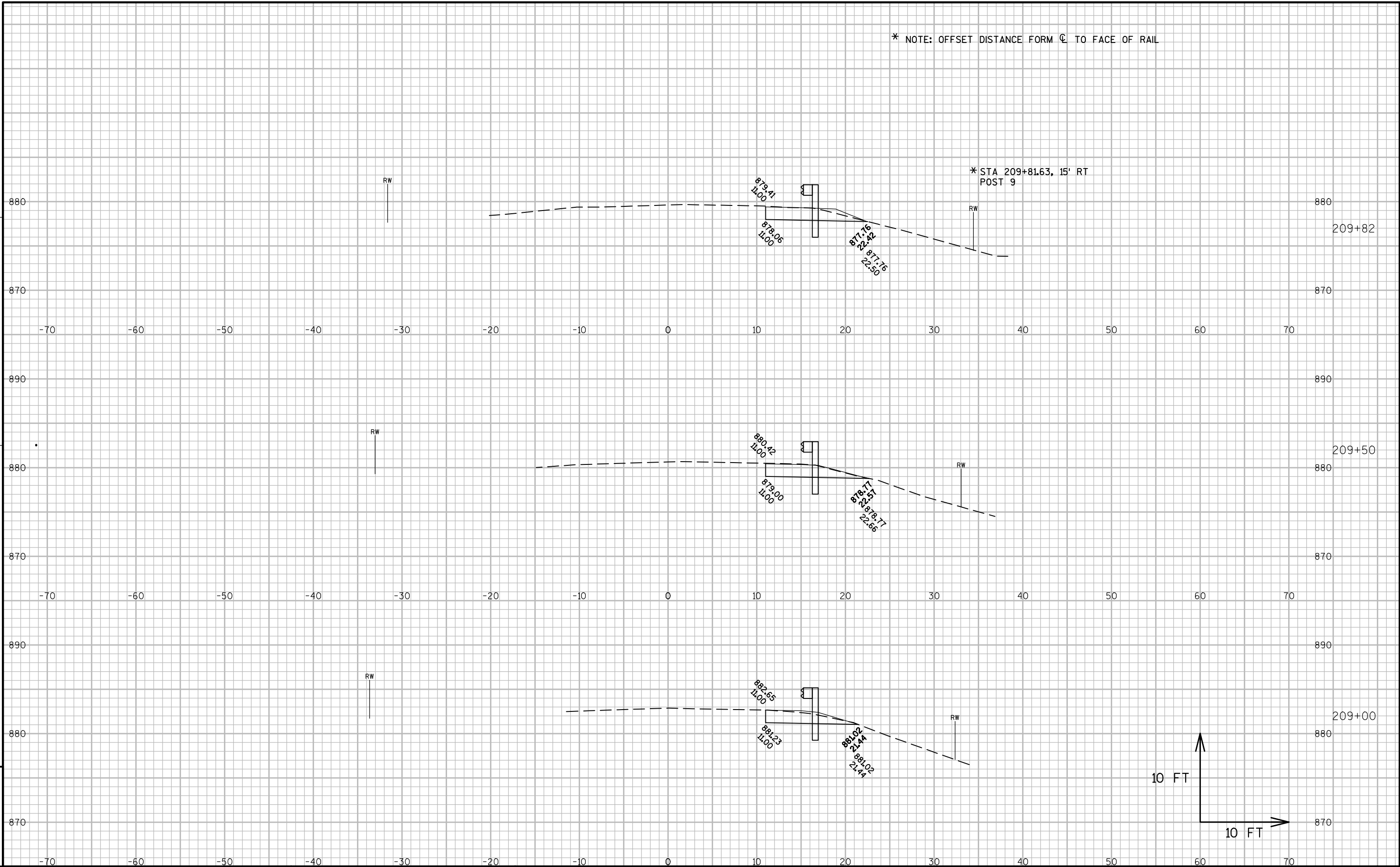
PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49







* NOTE: OFFSET DISTANCE FORM $\varnothing$ TO FACE OF RAIL

STA 211+12
REMOVE EXISTING 30" CMP
1-30" CPCS ALUMINUM COATED
2-AEW'S REQ'D

MATCH EXISTING
STA 210+50

* STA 210+33.77, 16' RT
END MGS BEAMGUARD RIGHT
POST 1

STA 210+07.68
POST 5

10 FT

10 FT

9

9

PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET

171

E

FILE NAME : P:\905\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 1 - 090205

PLOT DATE : 10/10/2016 2:05 PM

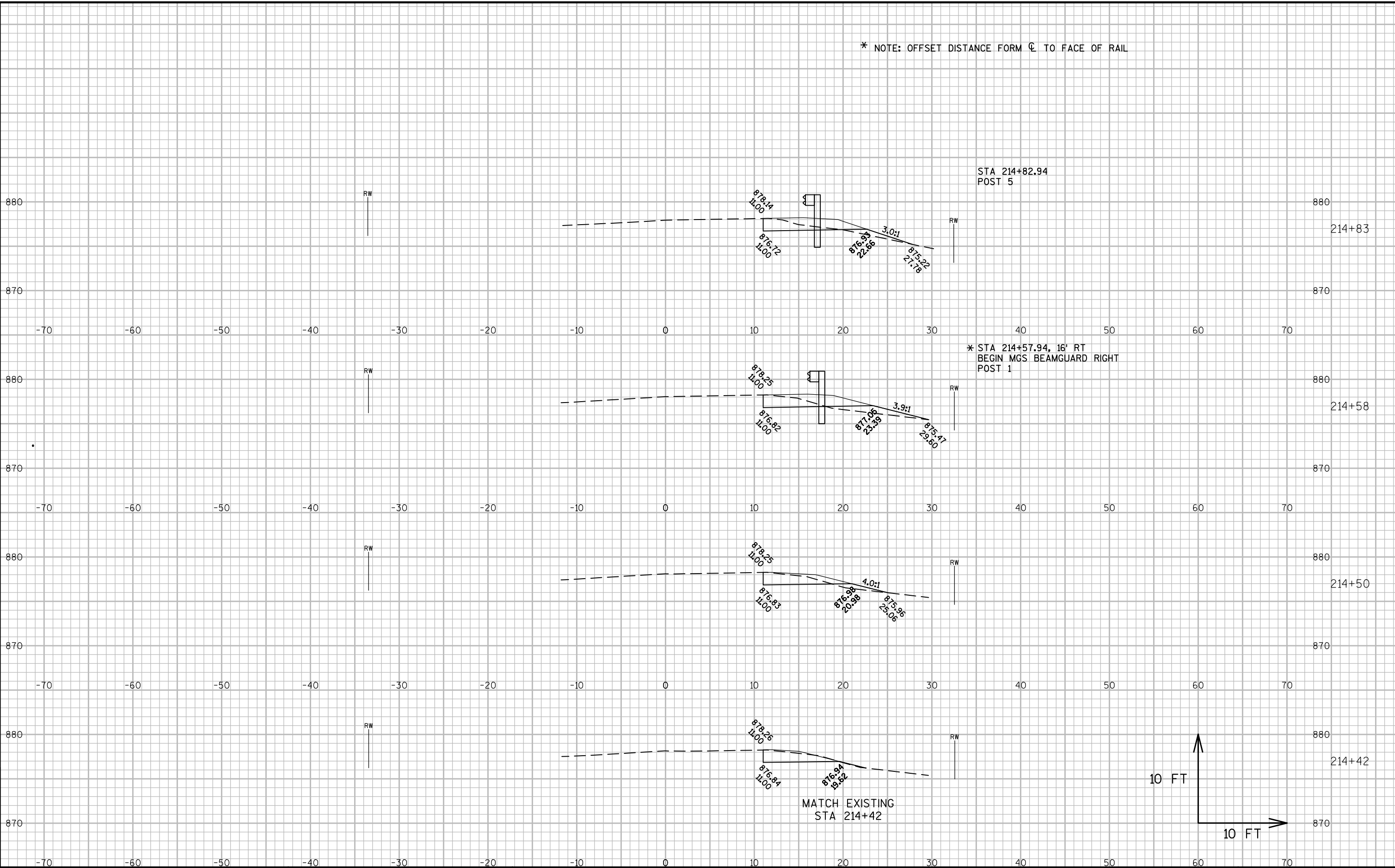
PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

* NOTE: OFFSET DISTANCE FORM $\varnothing$ TO FACE OF RAIL



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET 172

E

FILE NAME : P:\905\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 2 - 090201.XS

PLOT DATE : 10/10/2016 2:06 PM

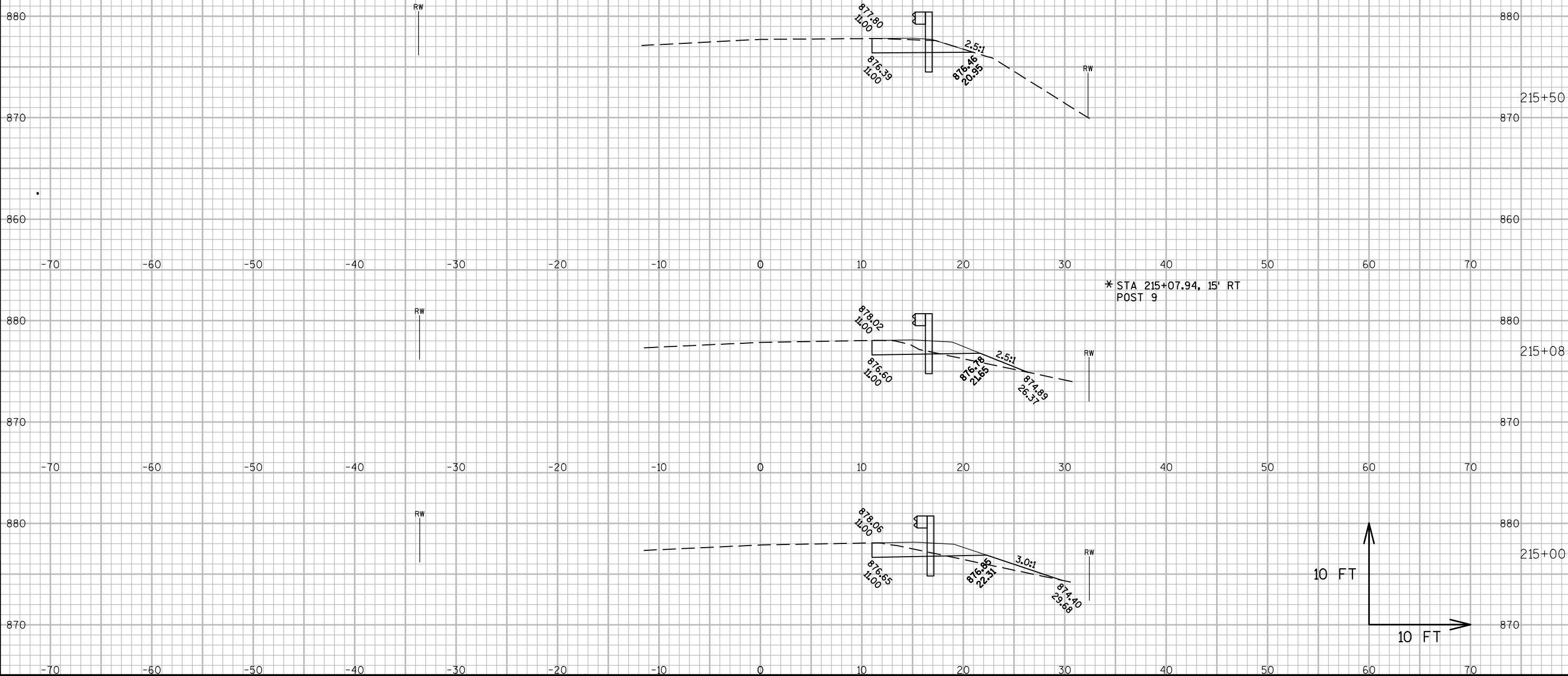
PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49

* NOTE: OFFSET DISTANCE FORM $\varnothing$ TO FACE OF RAIL



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET 173

E

FILE NAME : P:\905\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 2 - 090202_XS

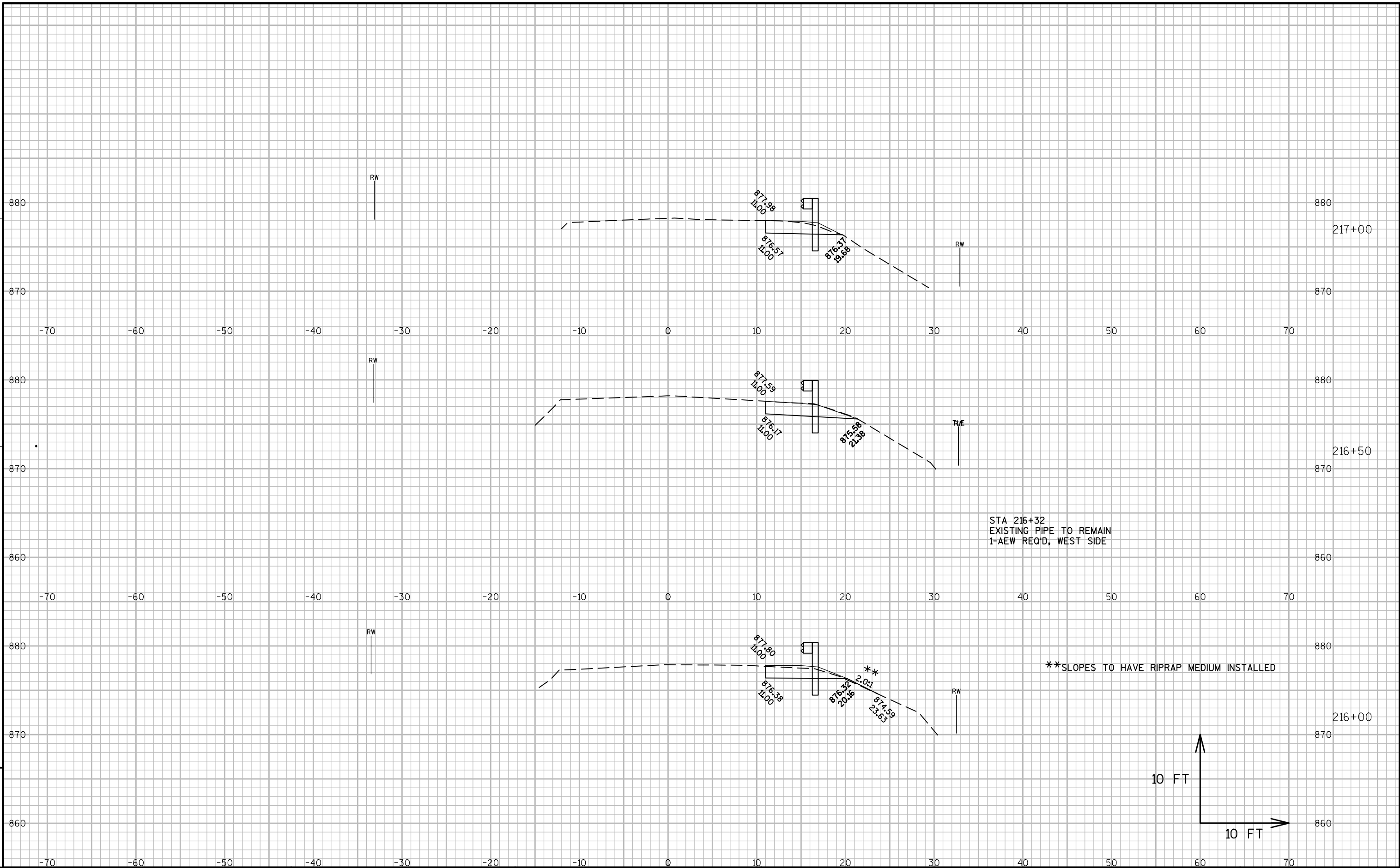
PLOT DATE : 10/10/2016 2:06 PM

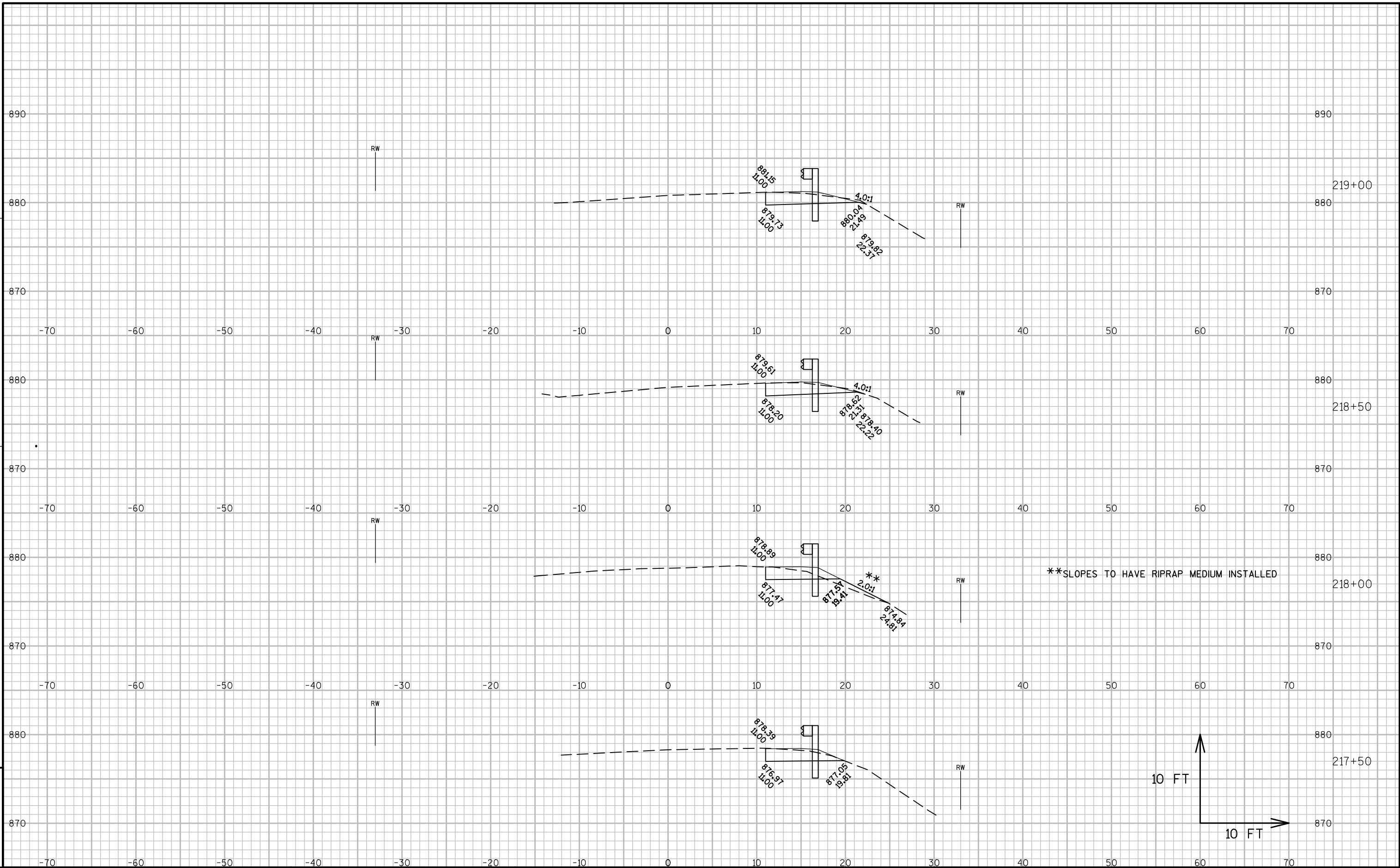
PLOT BY : BOBBI MAXWELL

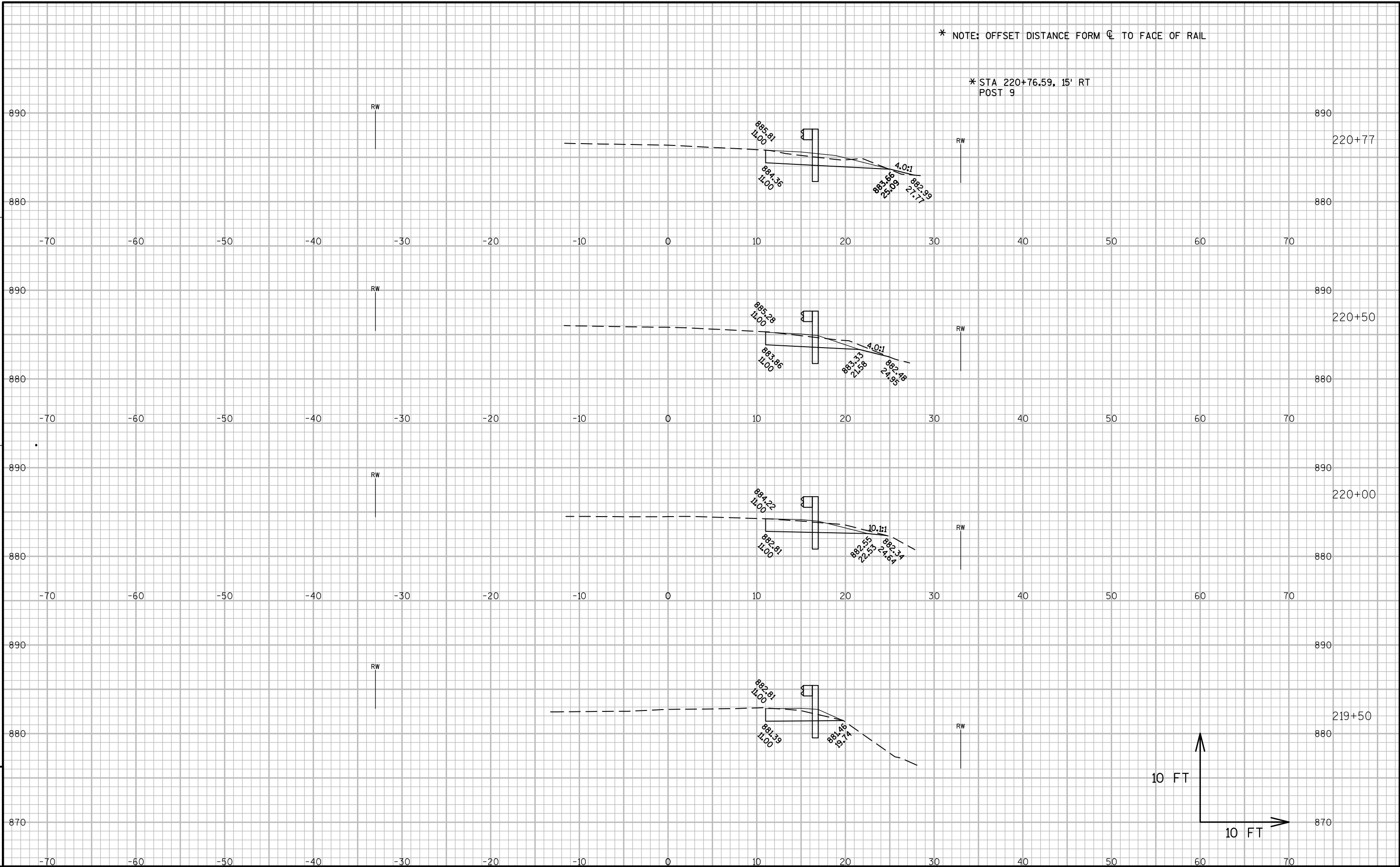
PLOT NAME :

PLOT SCALE : 1 IN:10 FT

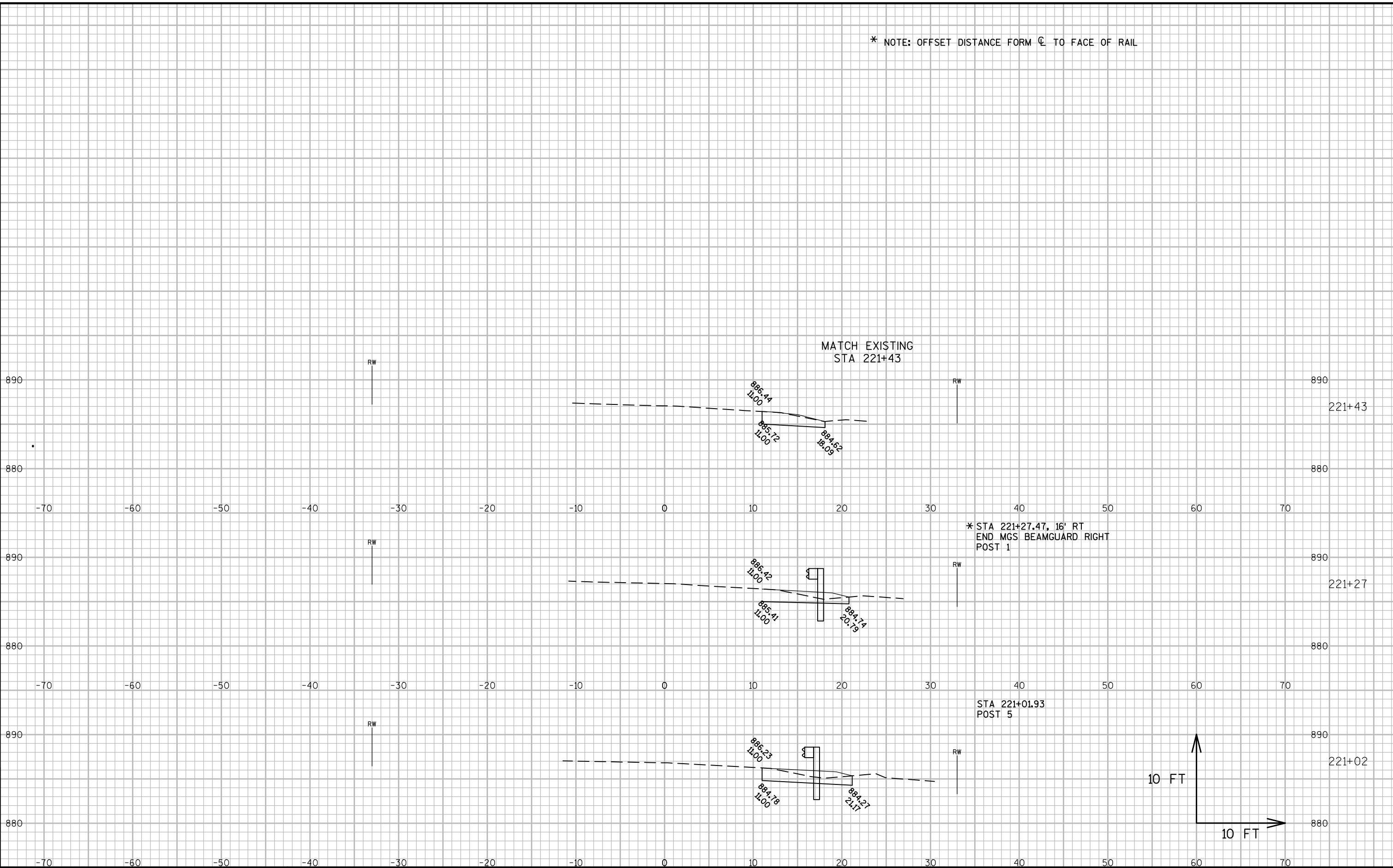
WISDOT/CADDs SHEET 49







* NOTE: OFFSET DISTANCE FORM $\varnothing$ TO FACE OF RAIL



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET

177

E

FILE NAME : P:\905\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 2 - 090206_XS

PLOT DATE : 10/10/2016 2:06 PM

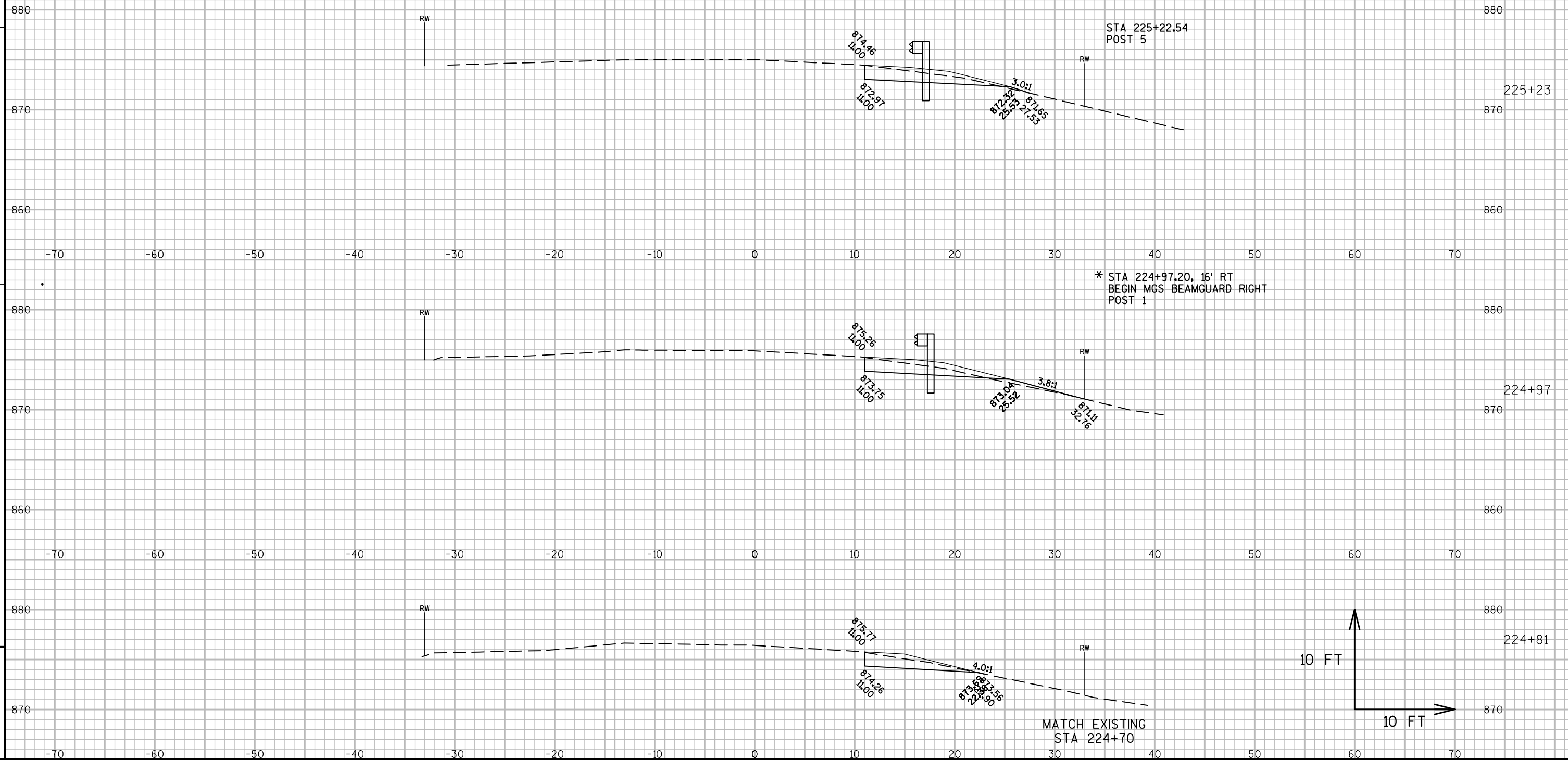
PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49

* NOTE: OFFSET DISTANCE FORM ϕ TO FACE OF RAIL



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY: SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET 178

FILE NAME : P:\90S\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 3 - 090201

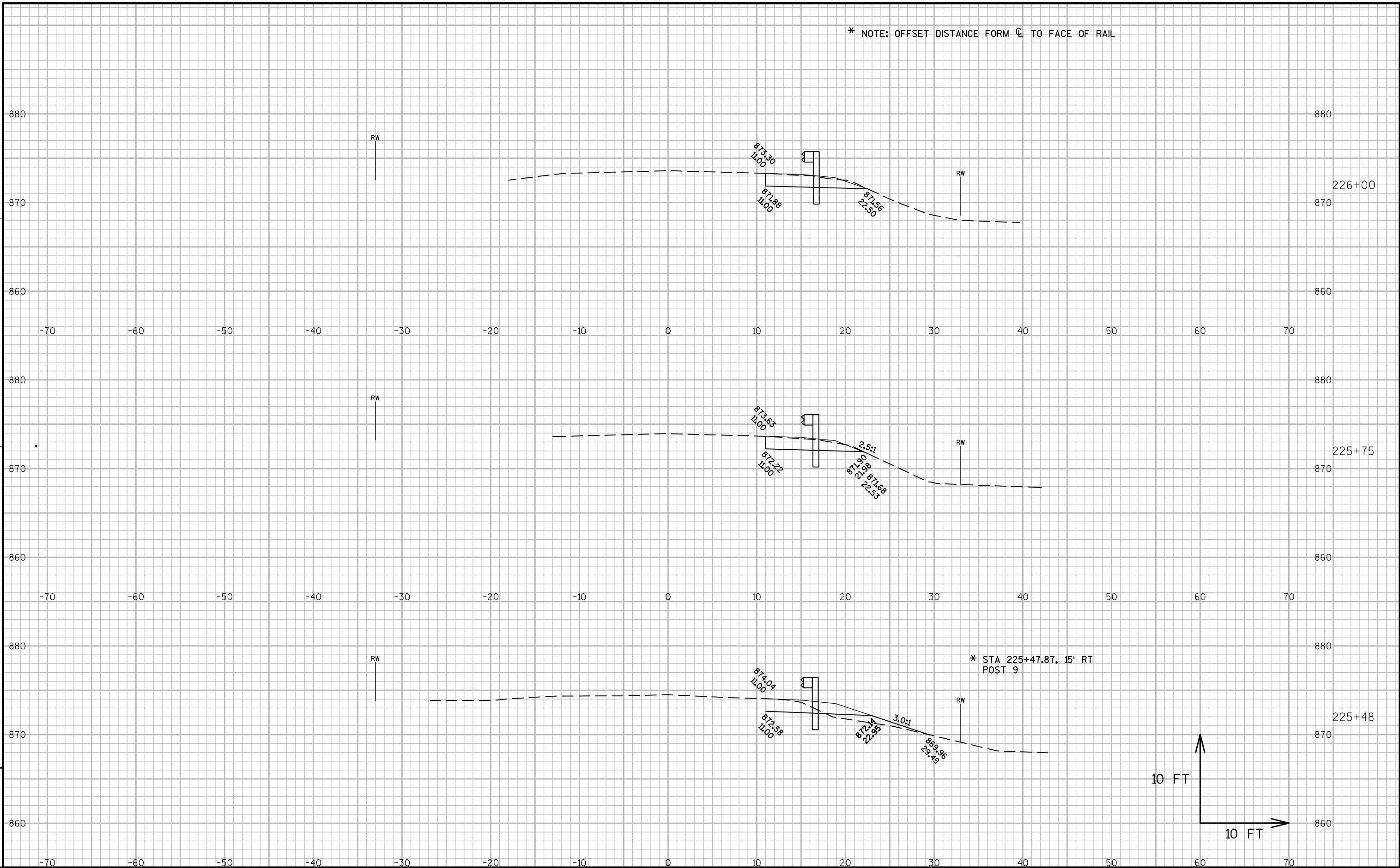
PLOT DATE : 10/10/2016 2:06 PM

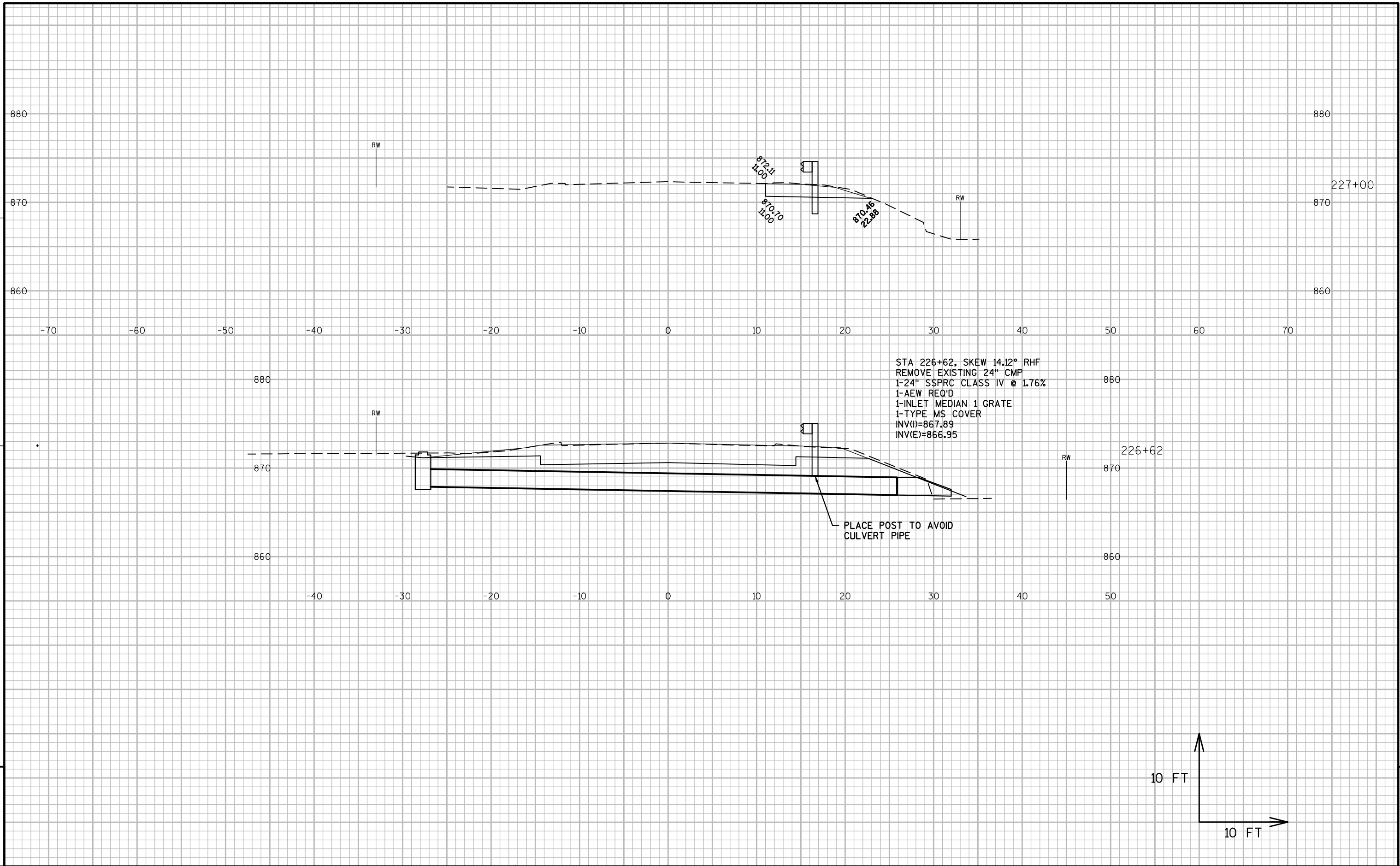
PLOT BY : BOBBI MAXWELL

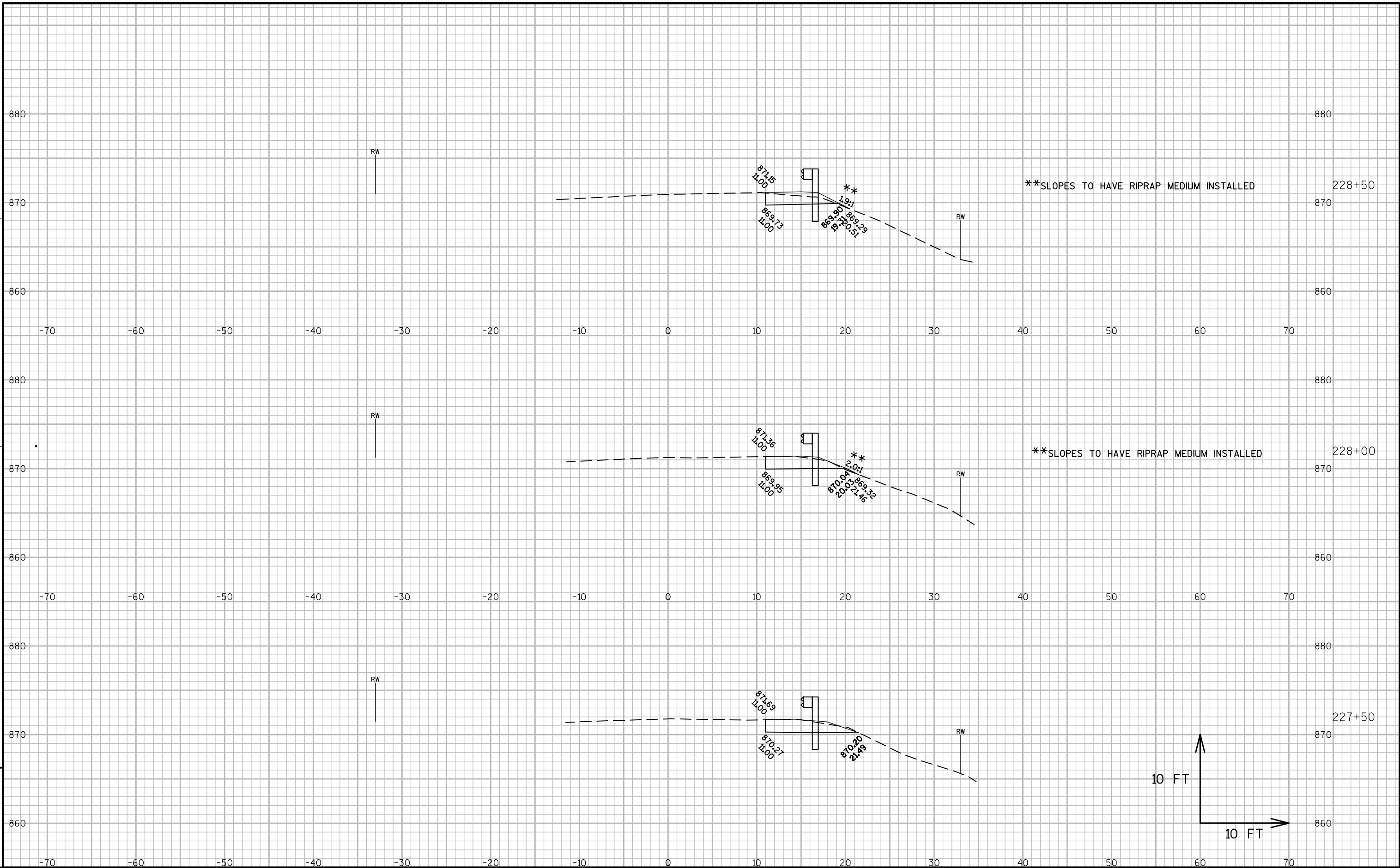
PLOT NAME :

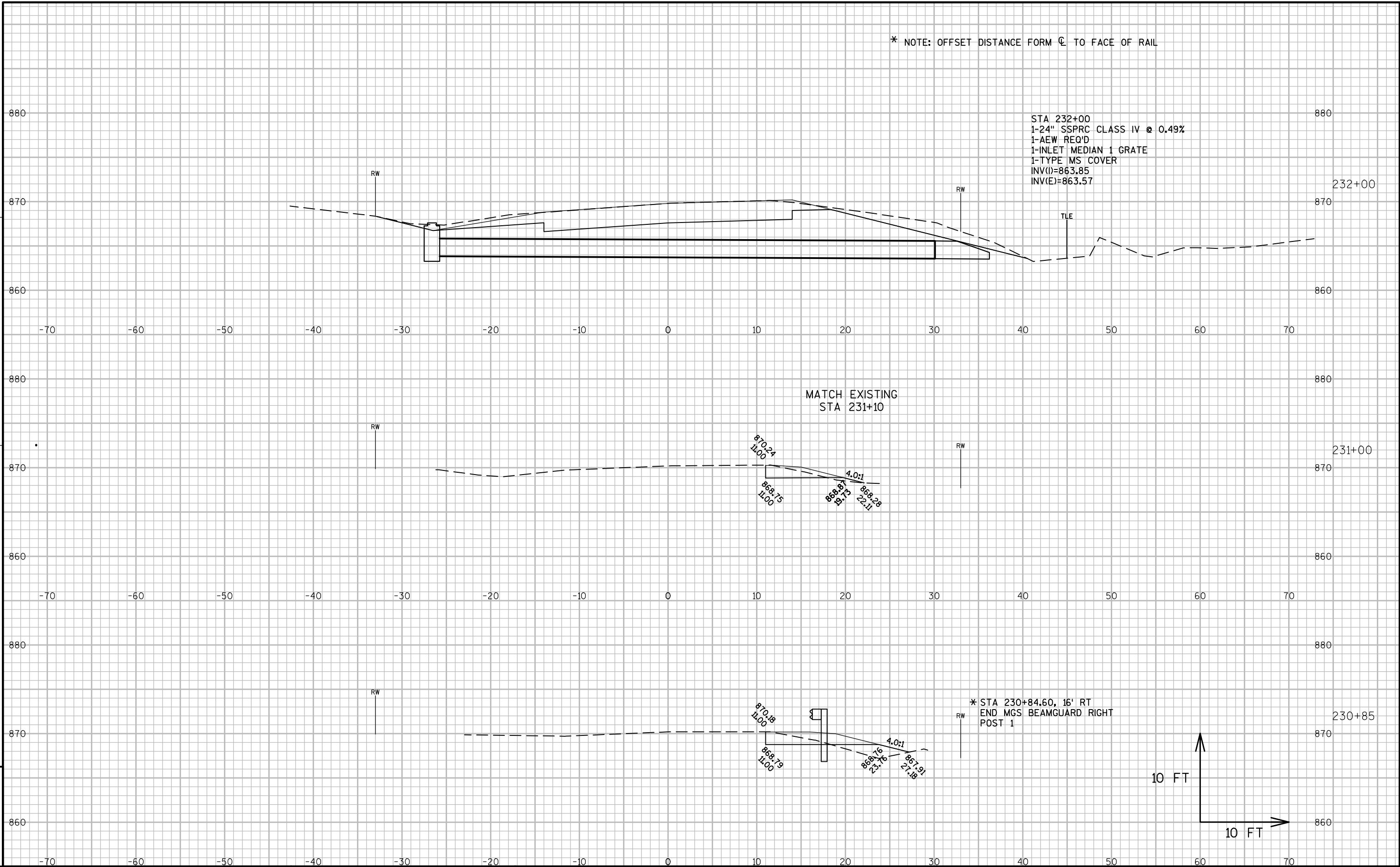
PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

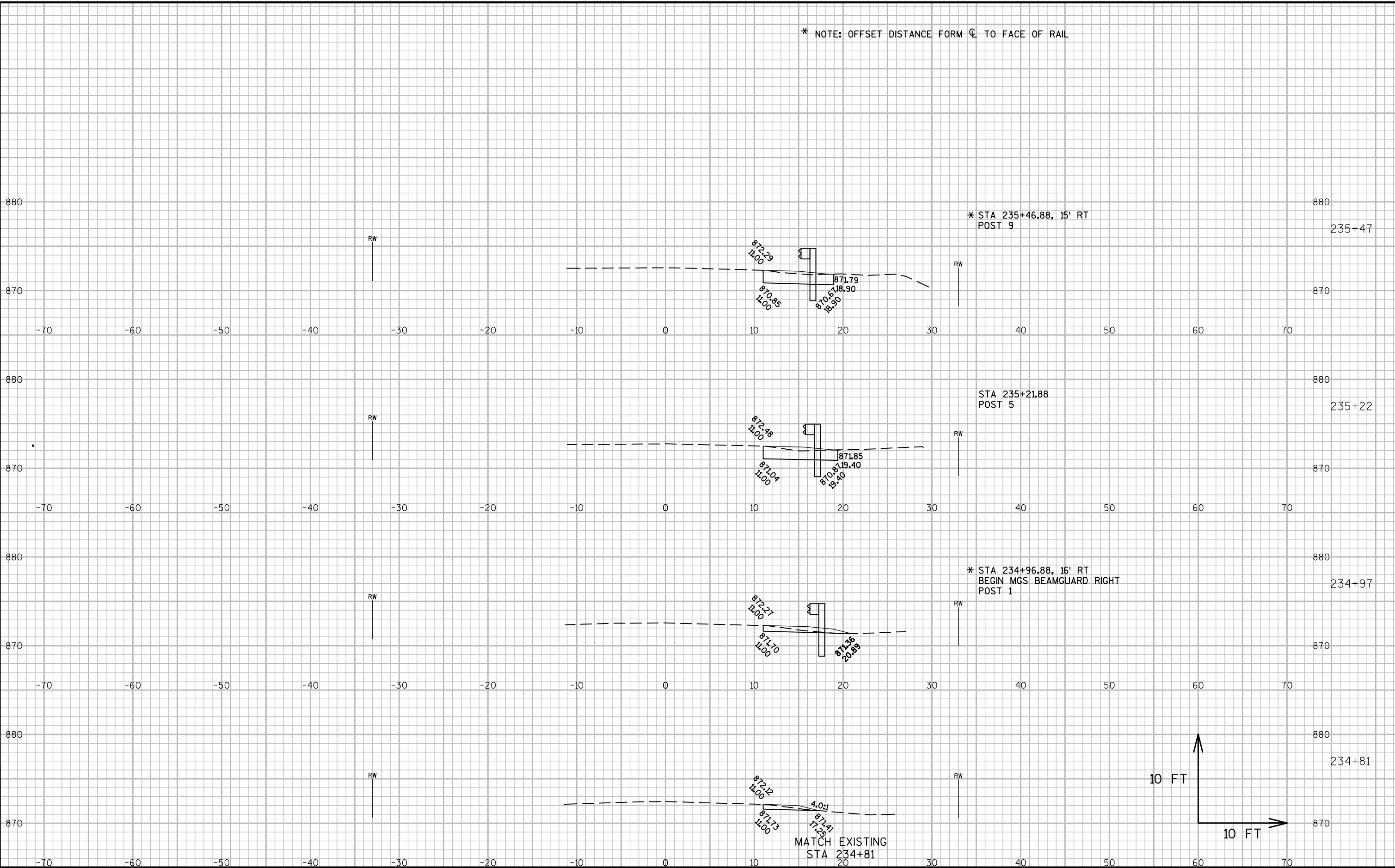








* NOTE: OFFSET DISTANCE FORM $\varnothing$ TO FACE OF RAIL



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET 185

E

FILE NAME : P:\905\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 4 - 090201.XS

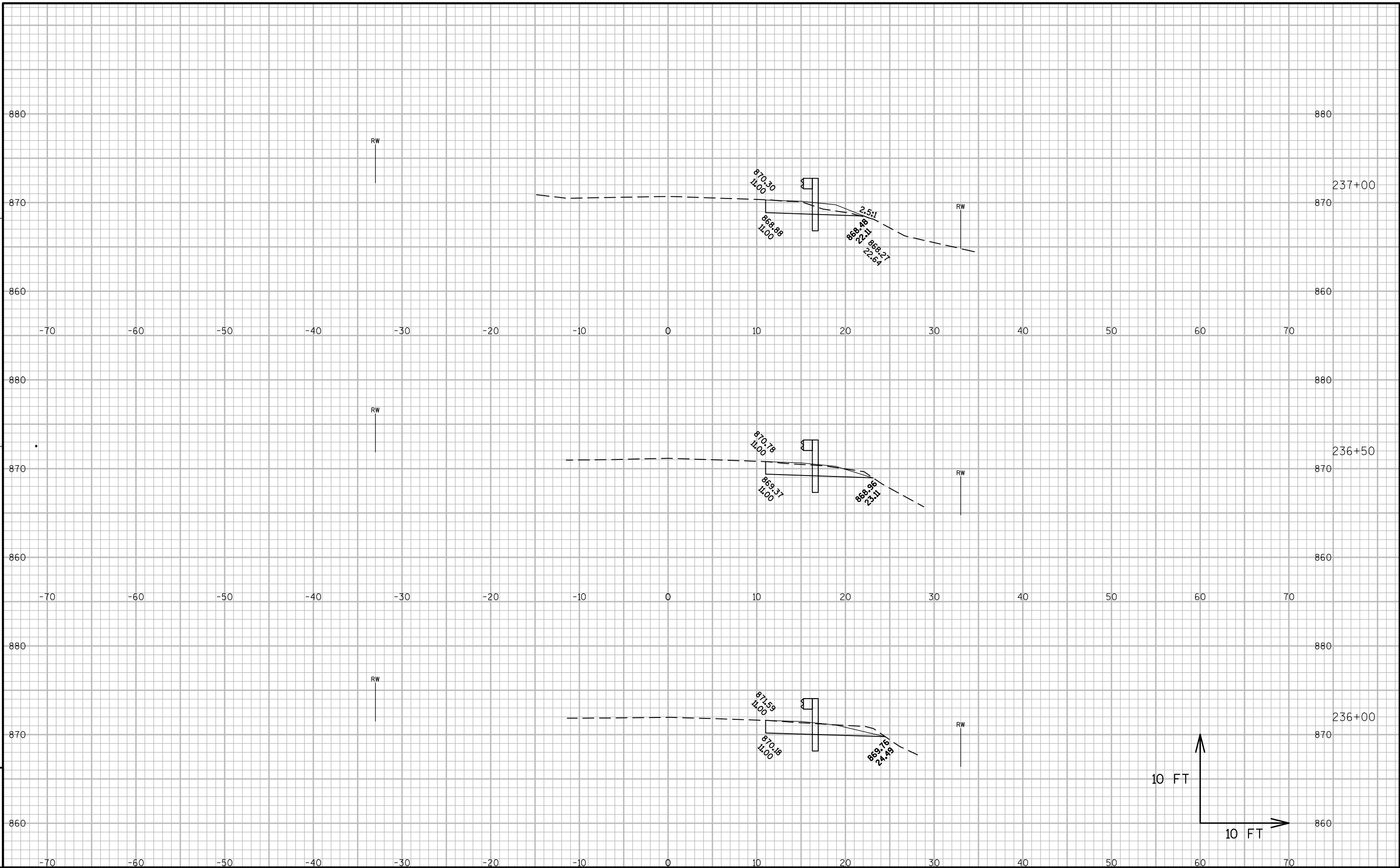
PLOT DATE : 10/10/2016 2:07 PM

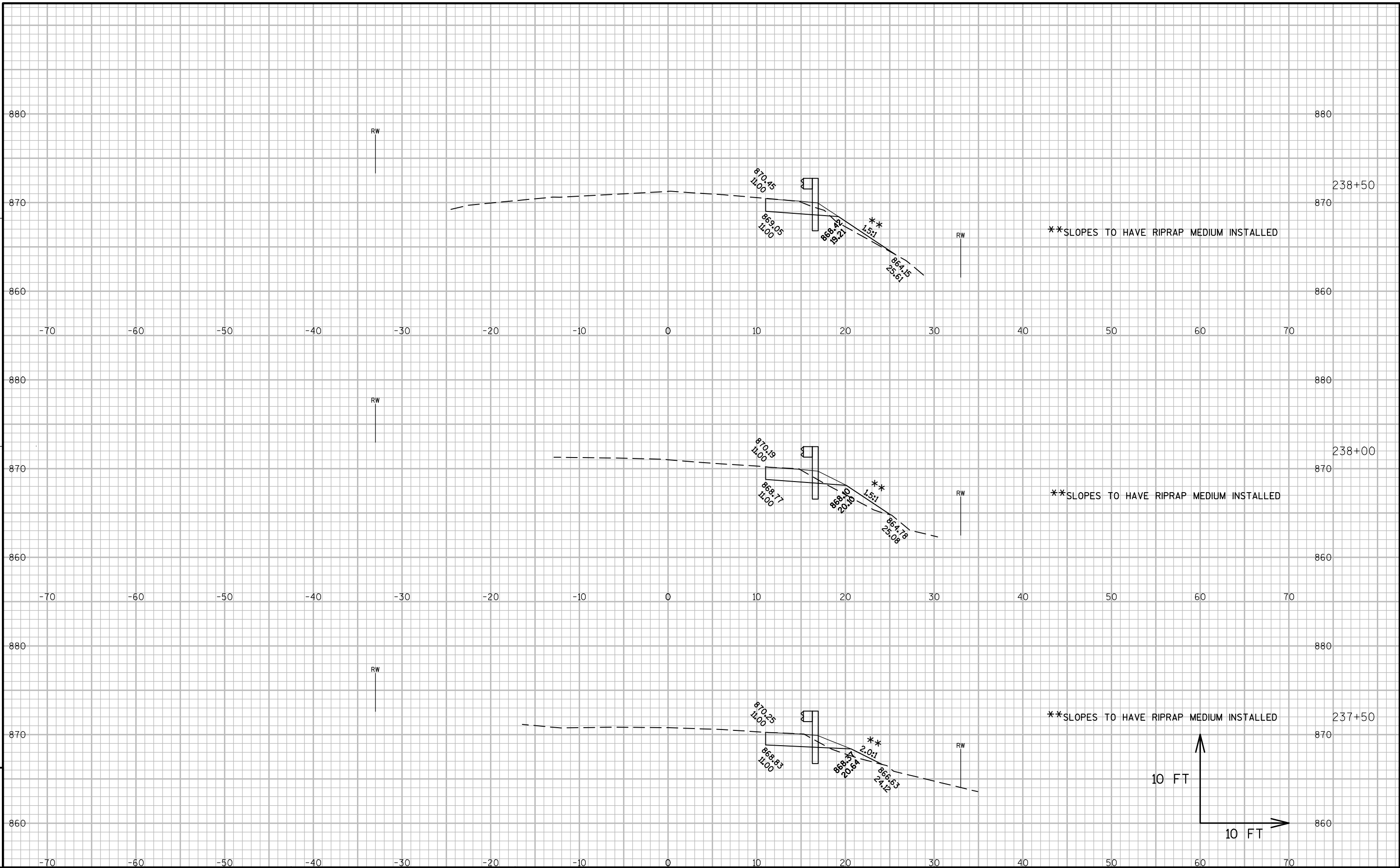
PLOT BY : BOBBI MAXWELL

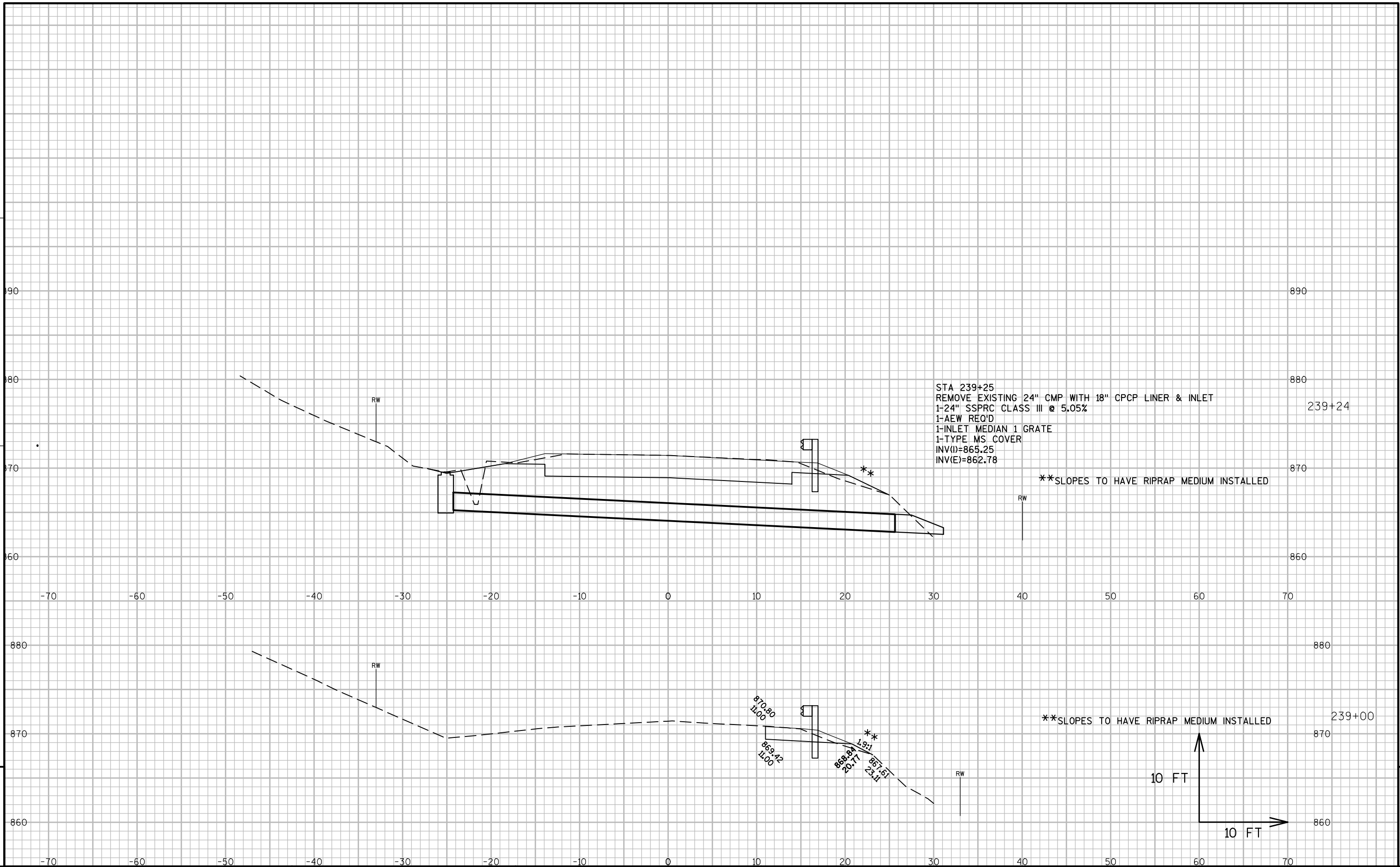
PLOT NAME :

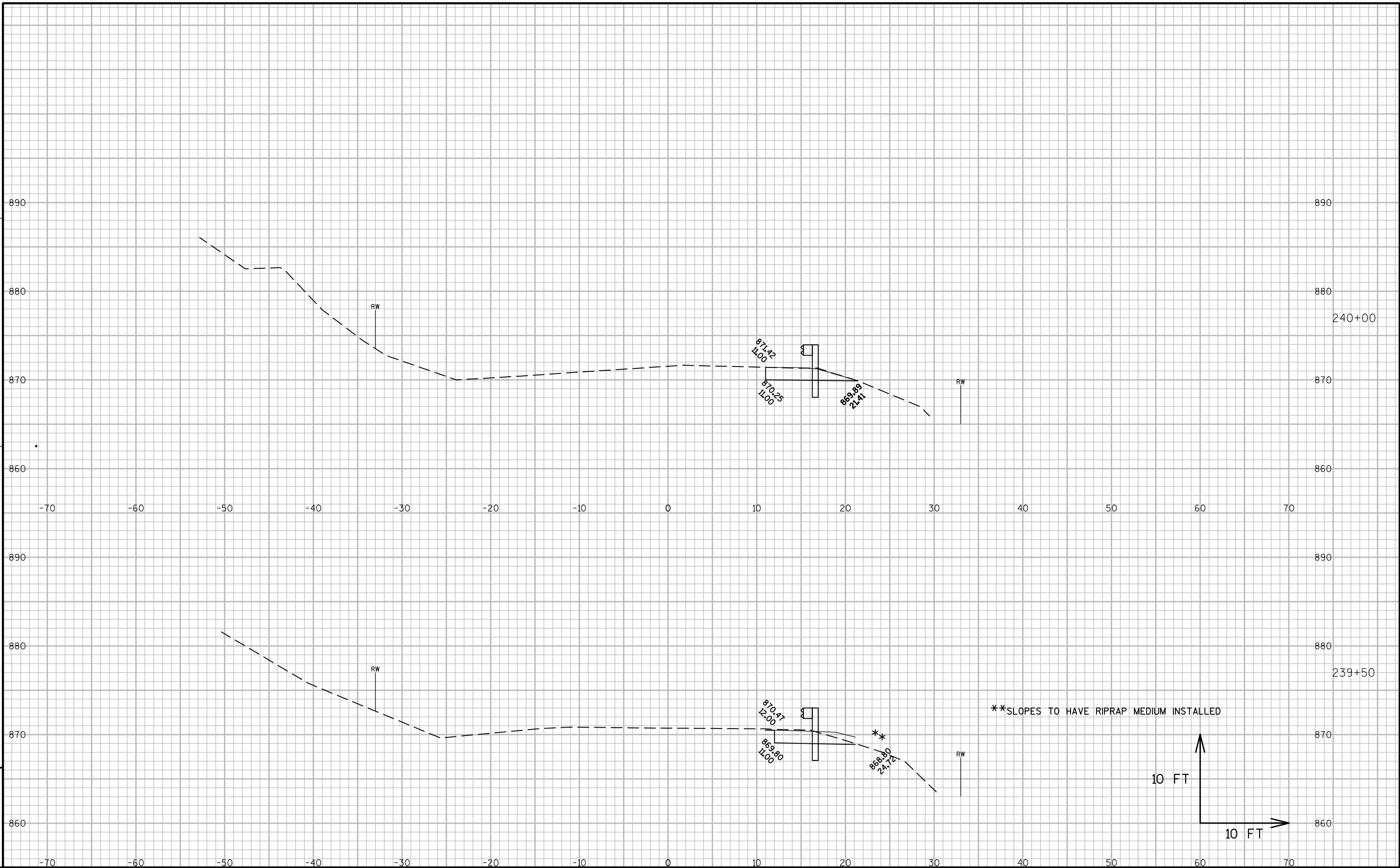
PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49

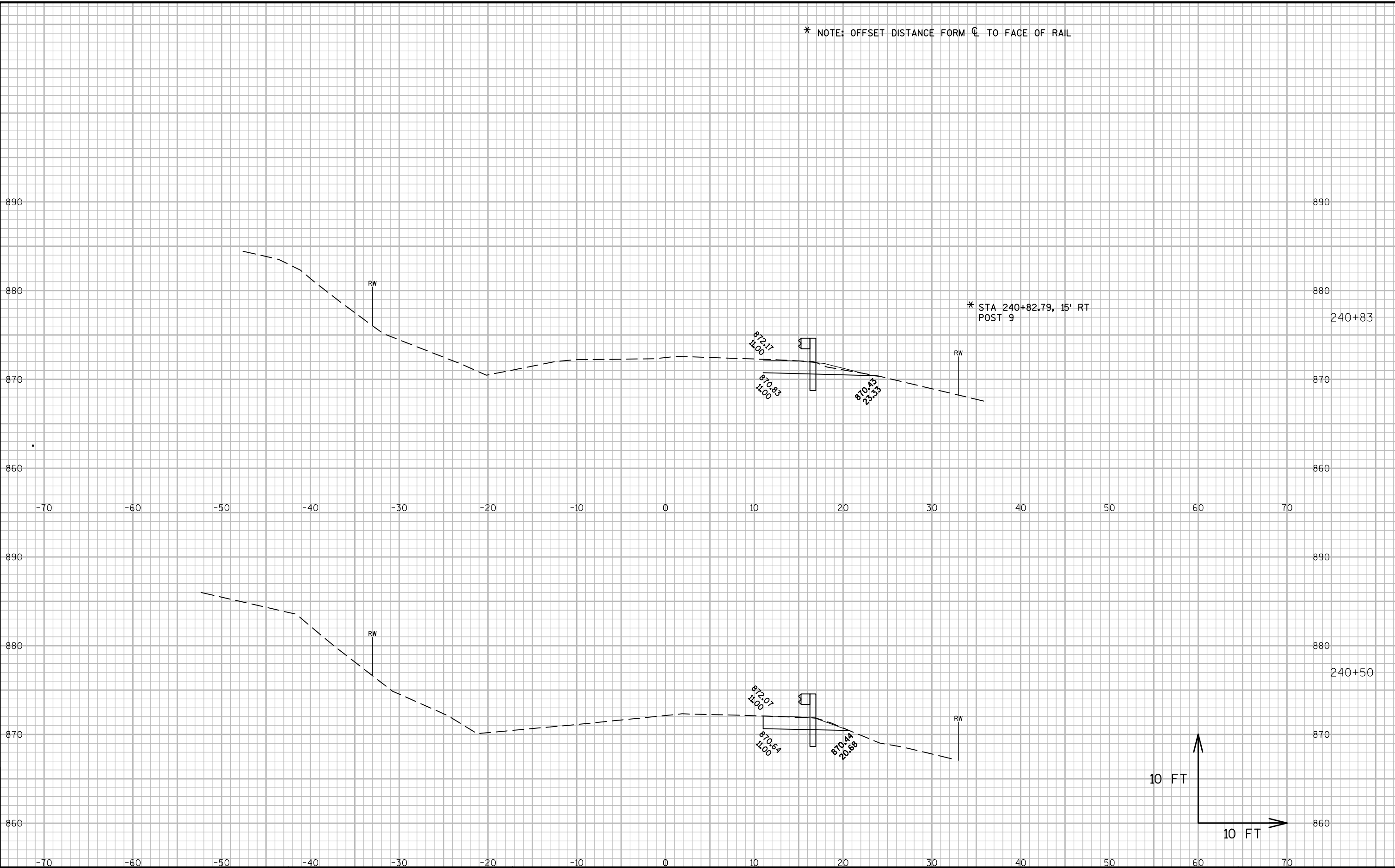








* NOTE: OFFSET DISTANCE FORM $\varnothing$ TO FACE OF RAIL



PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET 190

E

FILE NAME : P:\905\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - BEAMGUARD 4 - 090206_XS

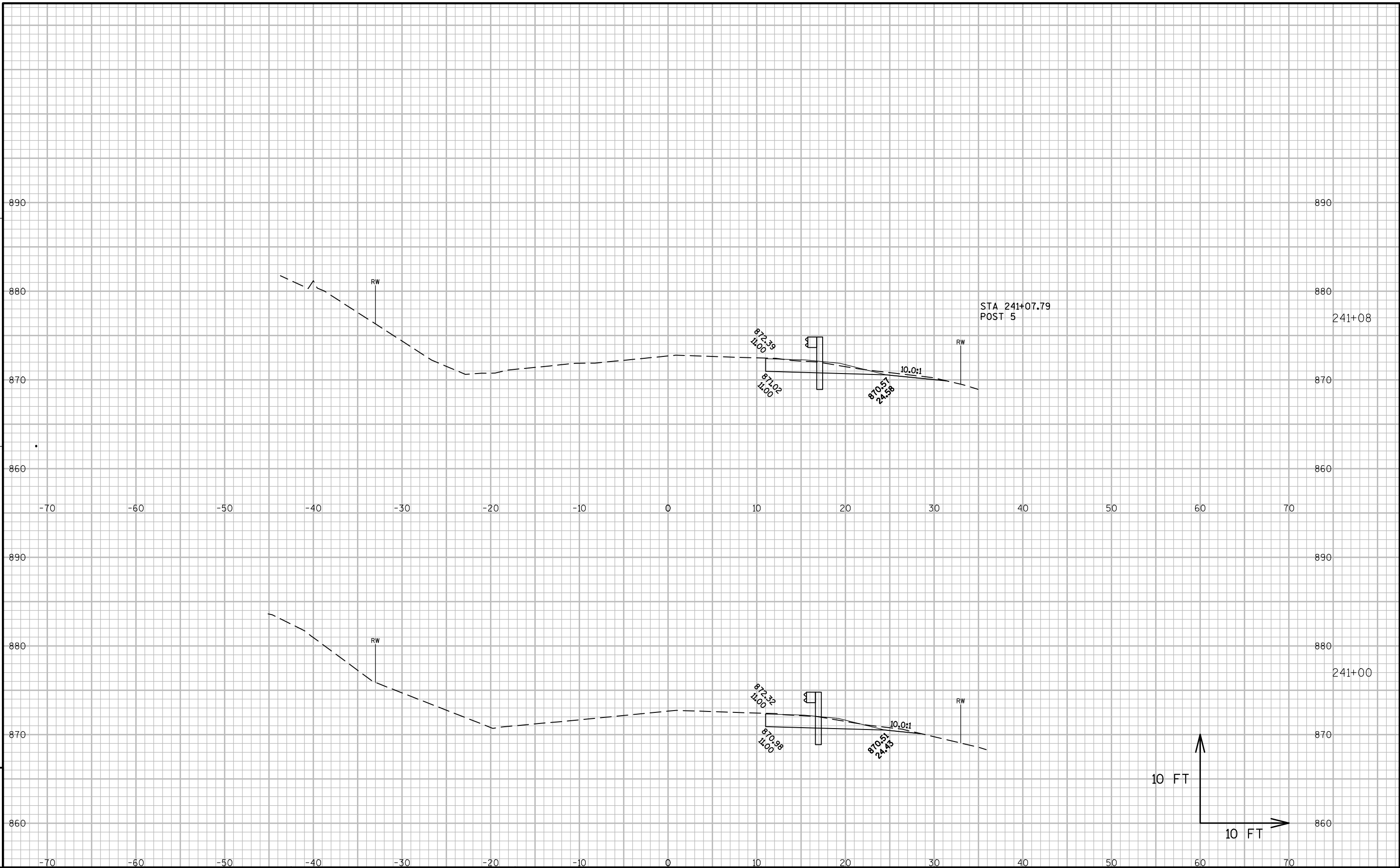
PLOT DATE : 10/10/2016 2:08 PM

PLOT BY : BOBBI MAXWELL

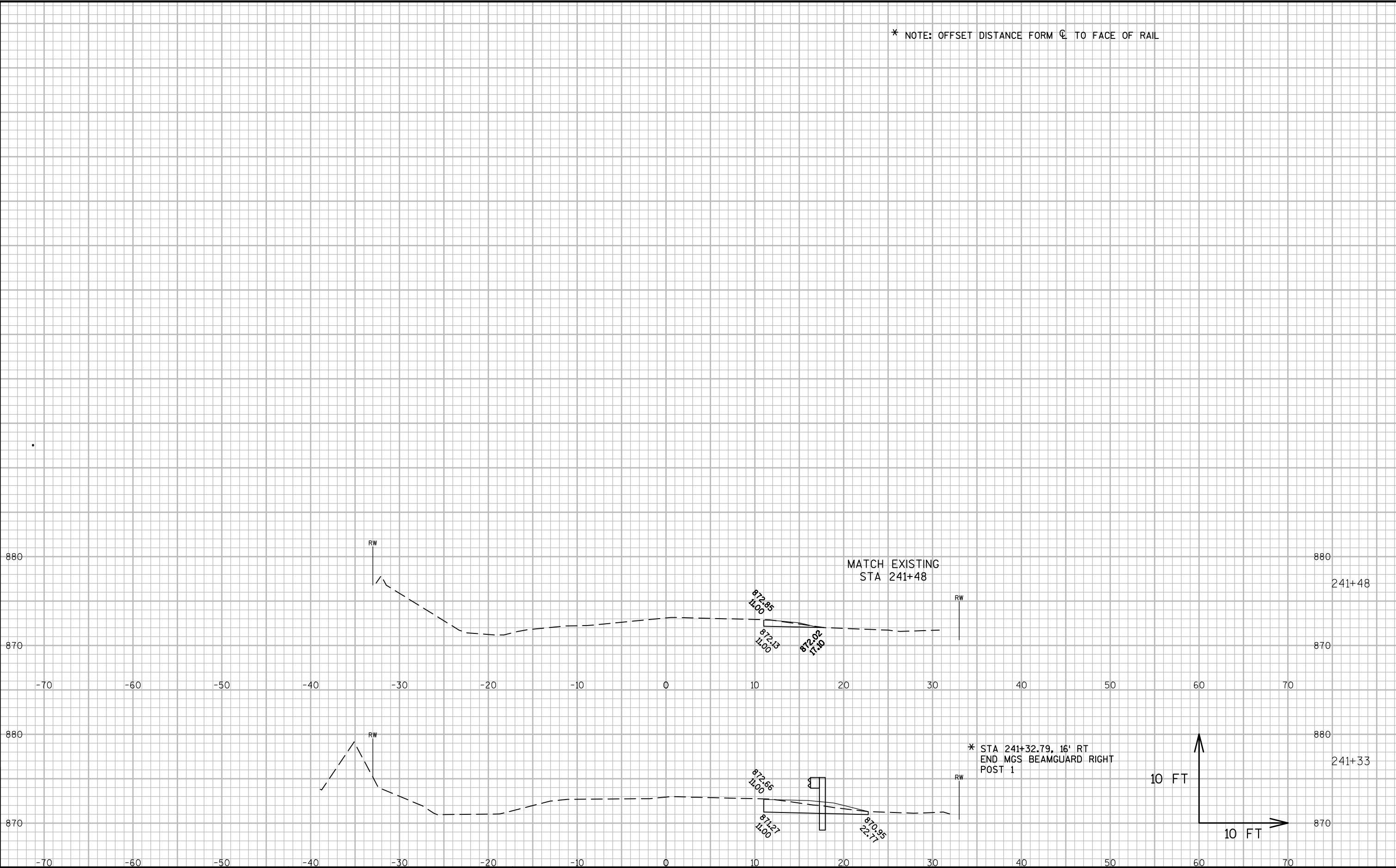
PLOT NAME :

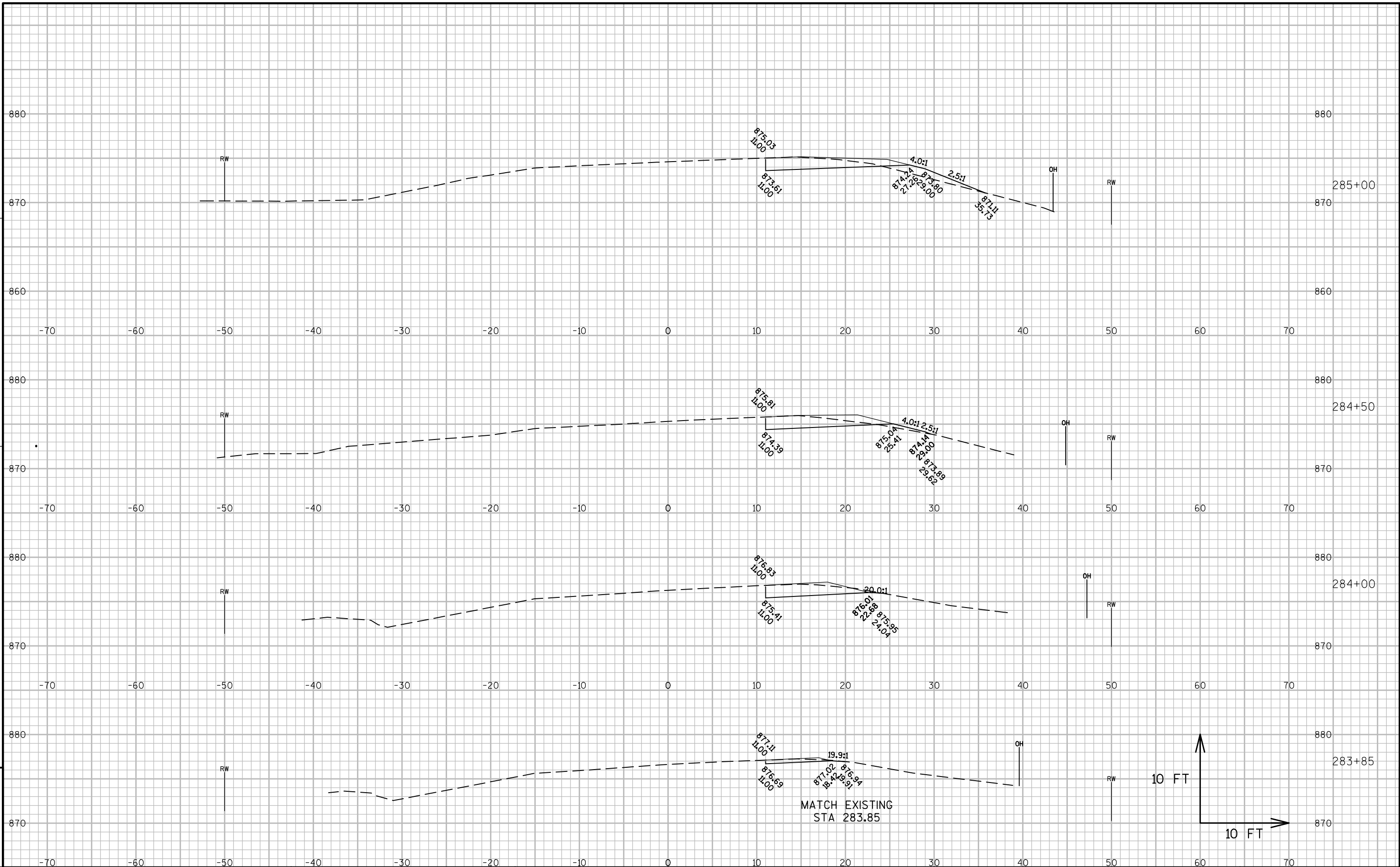
PLOT SCALE : 1 IN:10 FT

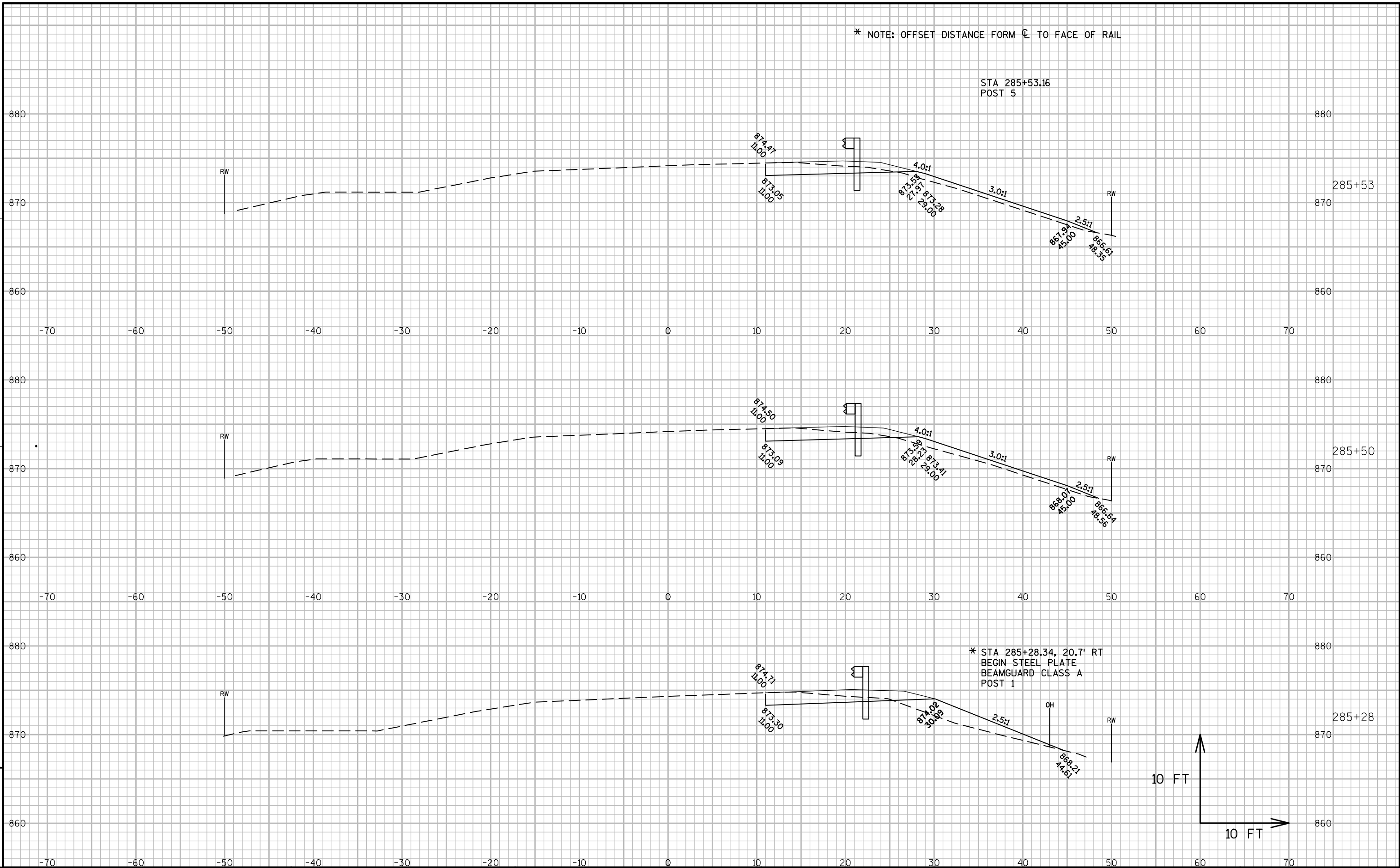
WISDOT/CADDs SHEET 49

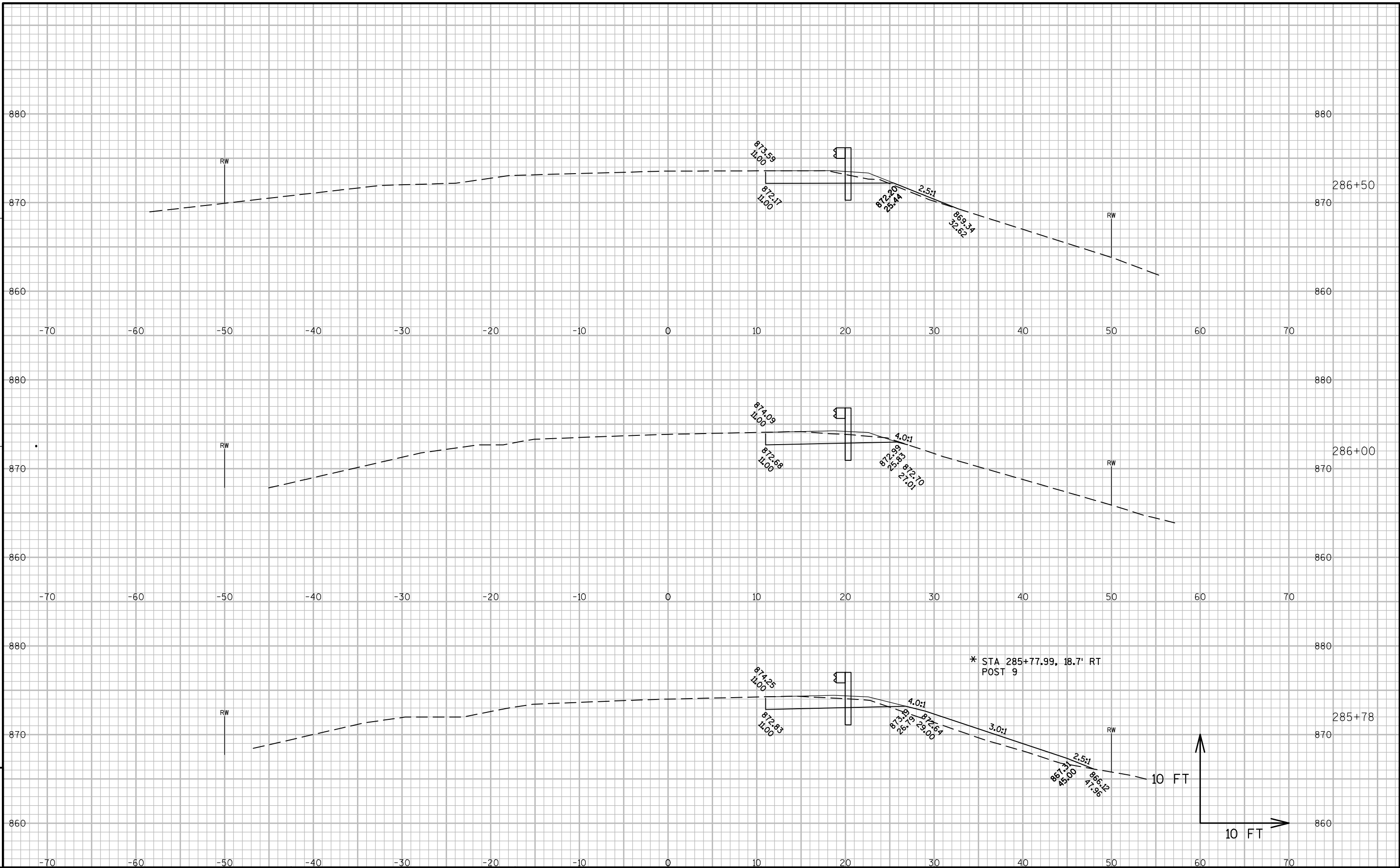


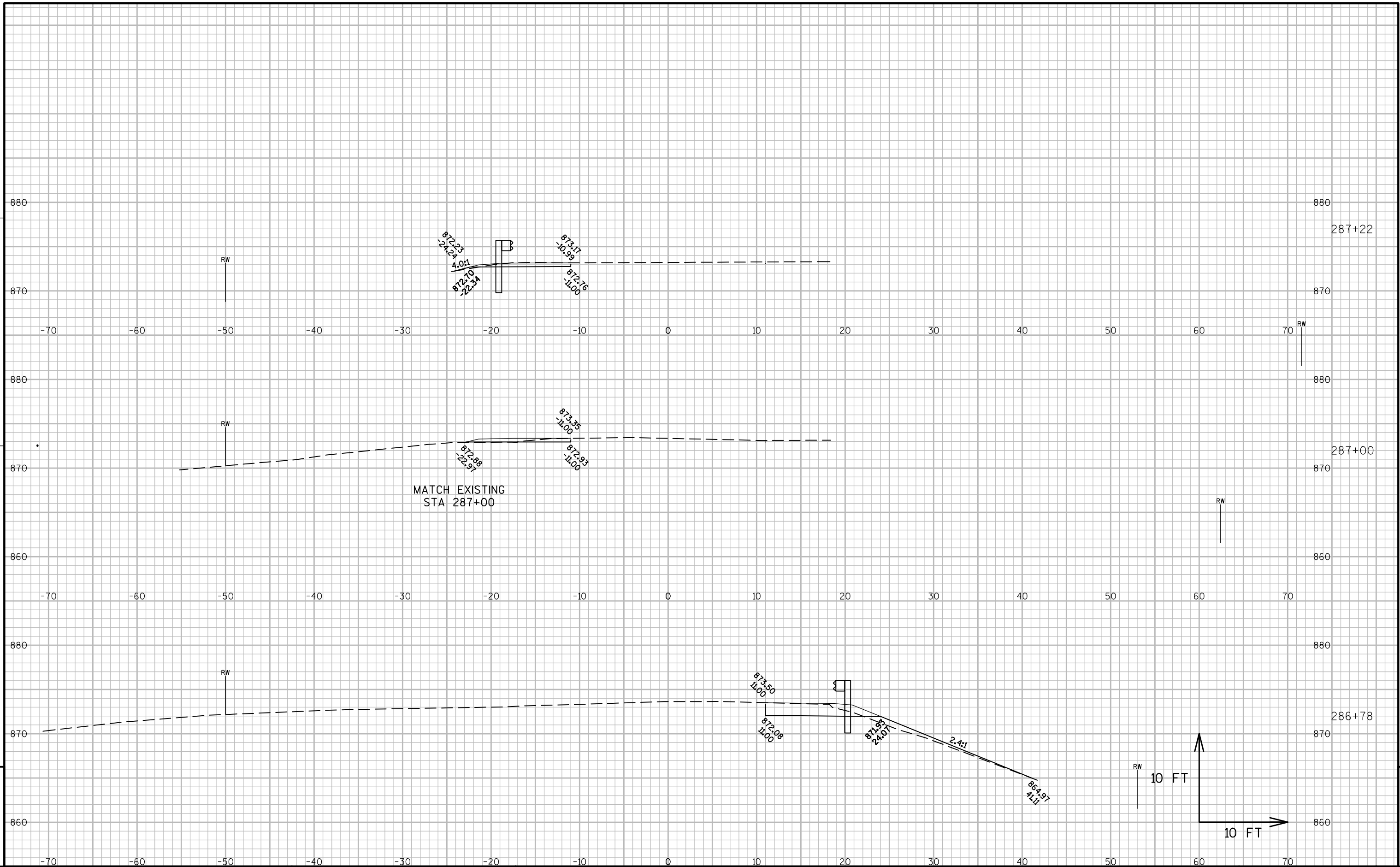
* NOTE: OFFSET DISTANCE FORM C TO FACE OF RAIL

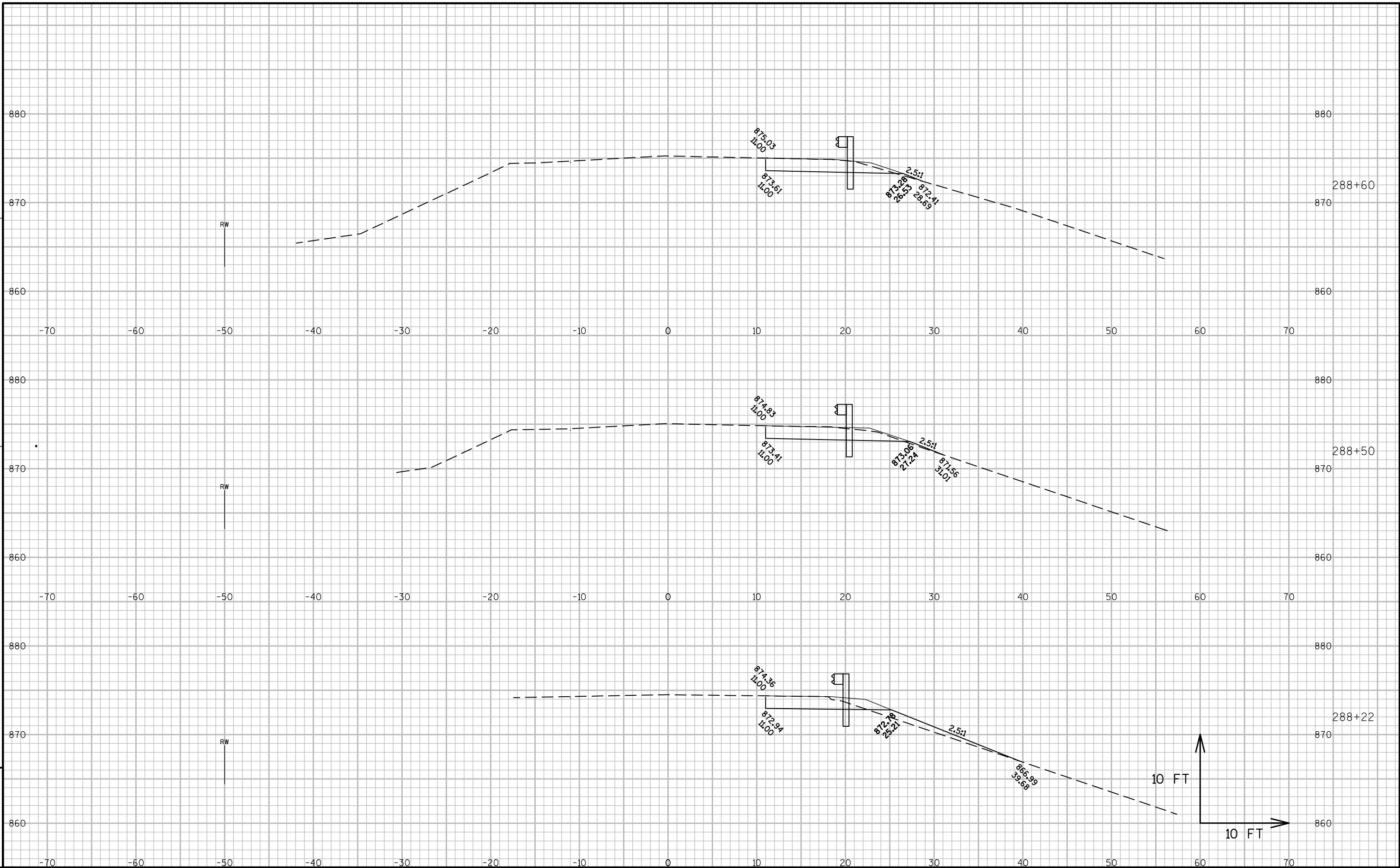


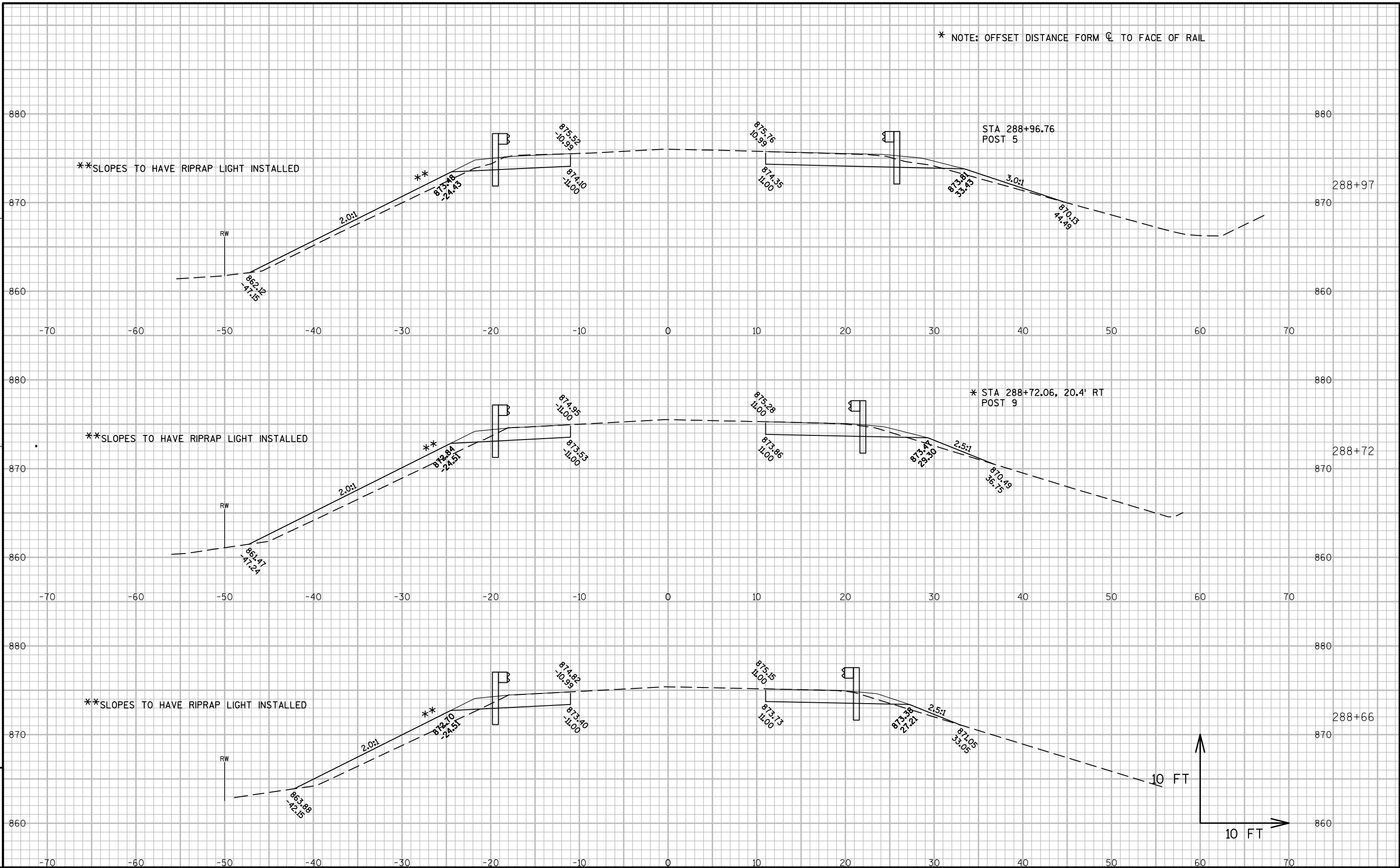


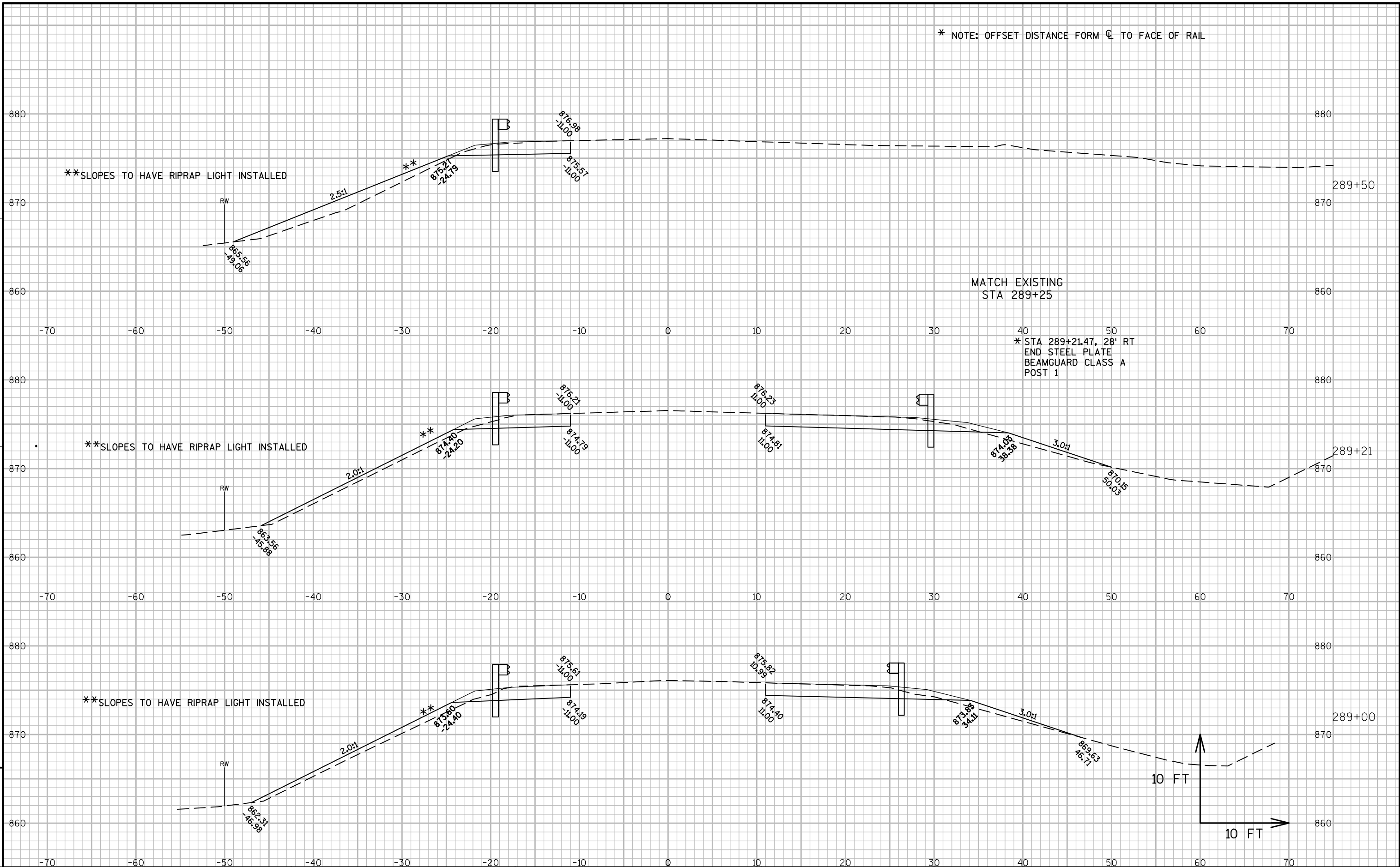


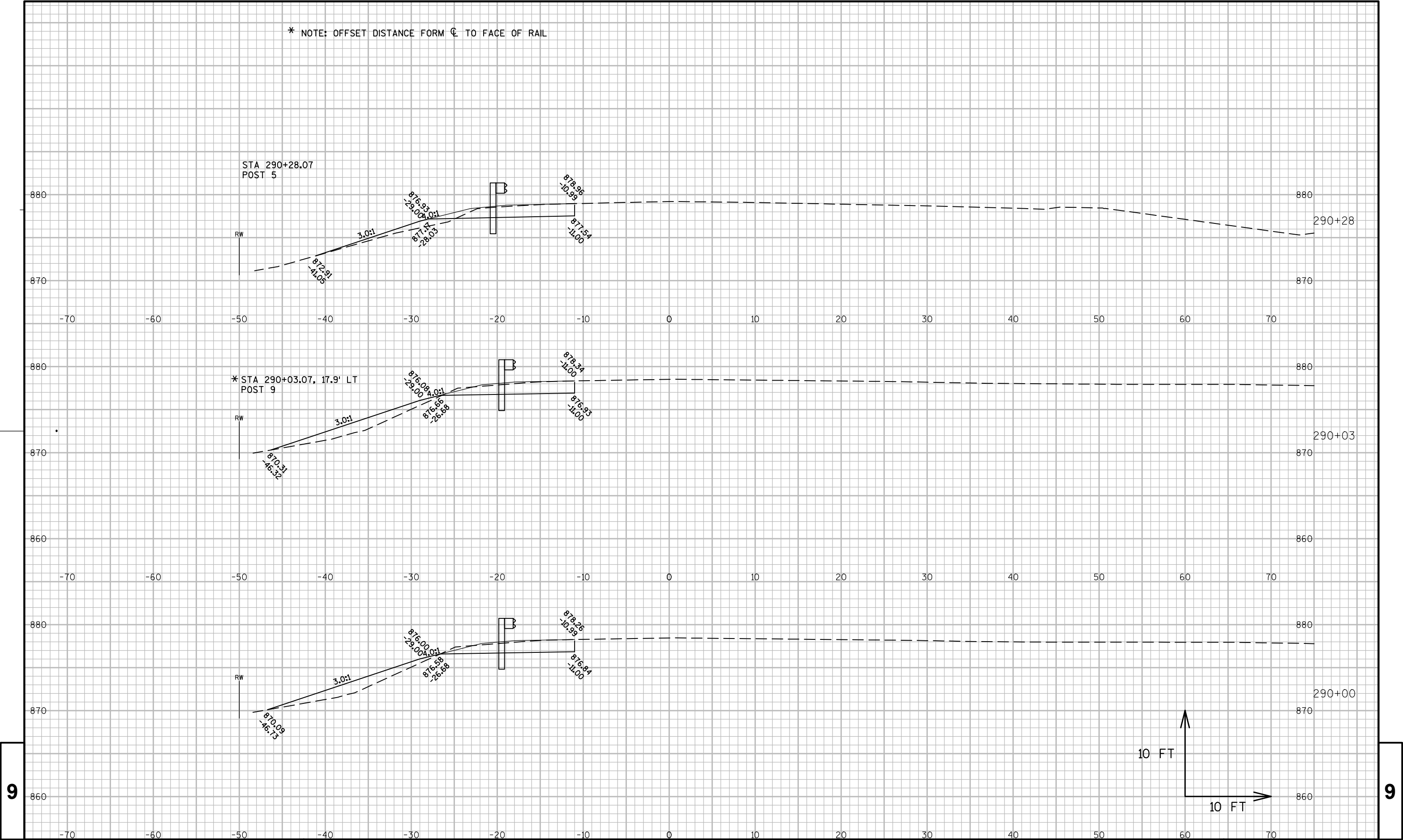












9

9

PROJECT NO:5098-00-72

HWY:STH 154

COUNTY:SAUK

CROSS SECTIONS: BEAM GUARD SECTIONS

SHEET

200

E

FILE NAME : P:\90S\93\00093248\CADD\DESIGN\CORRIDORS\CORRIDOR-STH154-BOXCULVERT.DWG
LAYOUT NAME - CORRIDOR-STH154-BOXCULVERT - NARROWSCREEKBRIDGE - 090208.XS

PLOT DATE : 10/10/2016 2:09 PM

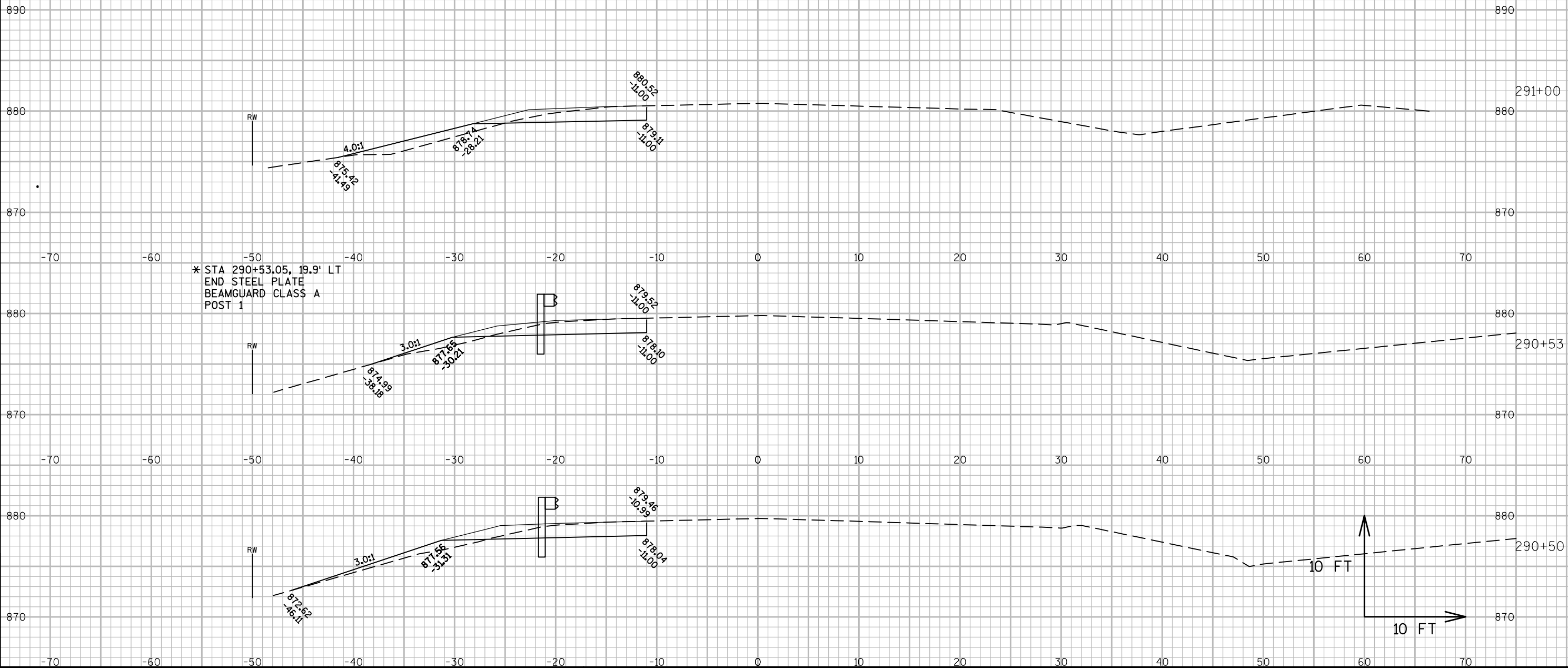
PLOT BY : BOBBI MAXWELL

PLOT NAME :

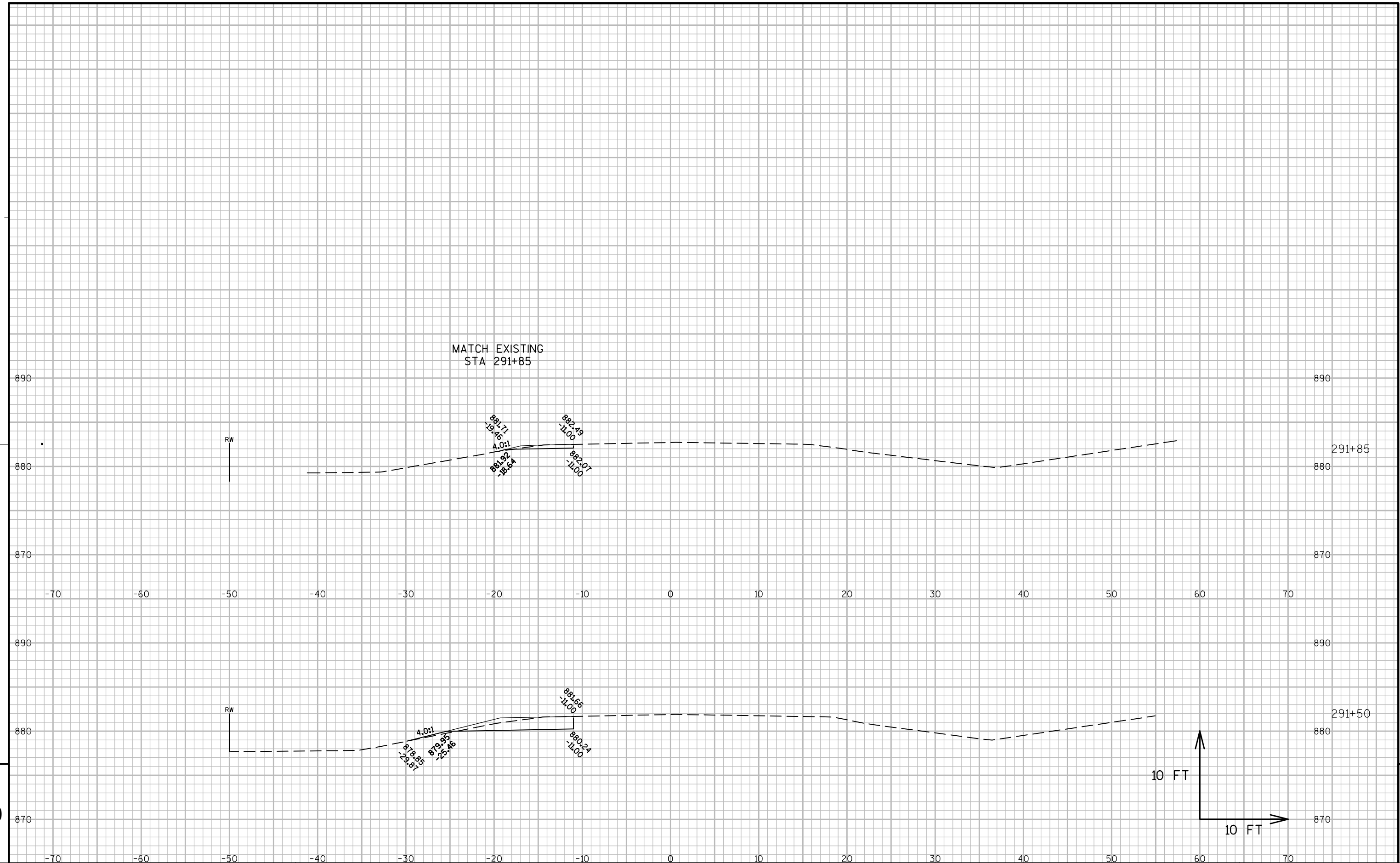
PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49

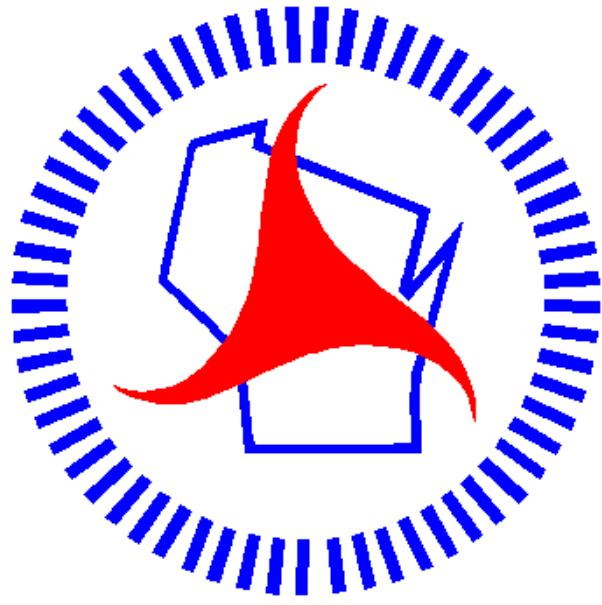
* NOTE: OFFSET DISTANCE FORM $\varnothing$ TO FACE OF RAIL



* STA 290+53.05, 19.9' LT
END STEEL PLATE
BEAMGUARD CLASS A
POST 1



Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>