

MAD

MARCH 2024

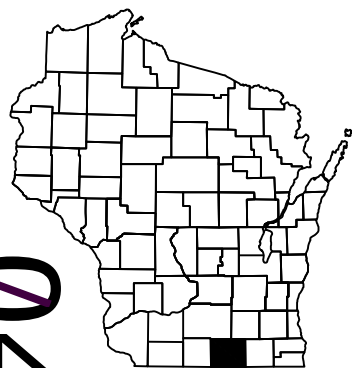
PROJECT ID: 5670-00-65
WITH: N/A

COUNTY: ROCK

ORDER OF SHEETS

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

TOTAL SHEETS = 118



04

DESIGN DESIGNATION 5670-00-35

A.A.D.T.	2026	=	1800
A.A.D.T.	2046	=	2000
D.H.V.		=	256
D.D.		=	60/40
T.		=	16.2%
DESIGN SPEED		=	60 MPH
ESALS		=	600,000

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	
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 21+00
X: 401497.27
Y: 289239.77

STRUCTURE C-53-2011
STA 186+70-186+86

END PROJECT
STA 197+59
X: 419155.59
Y: 289211.79

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

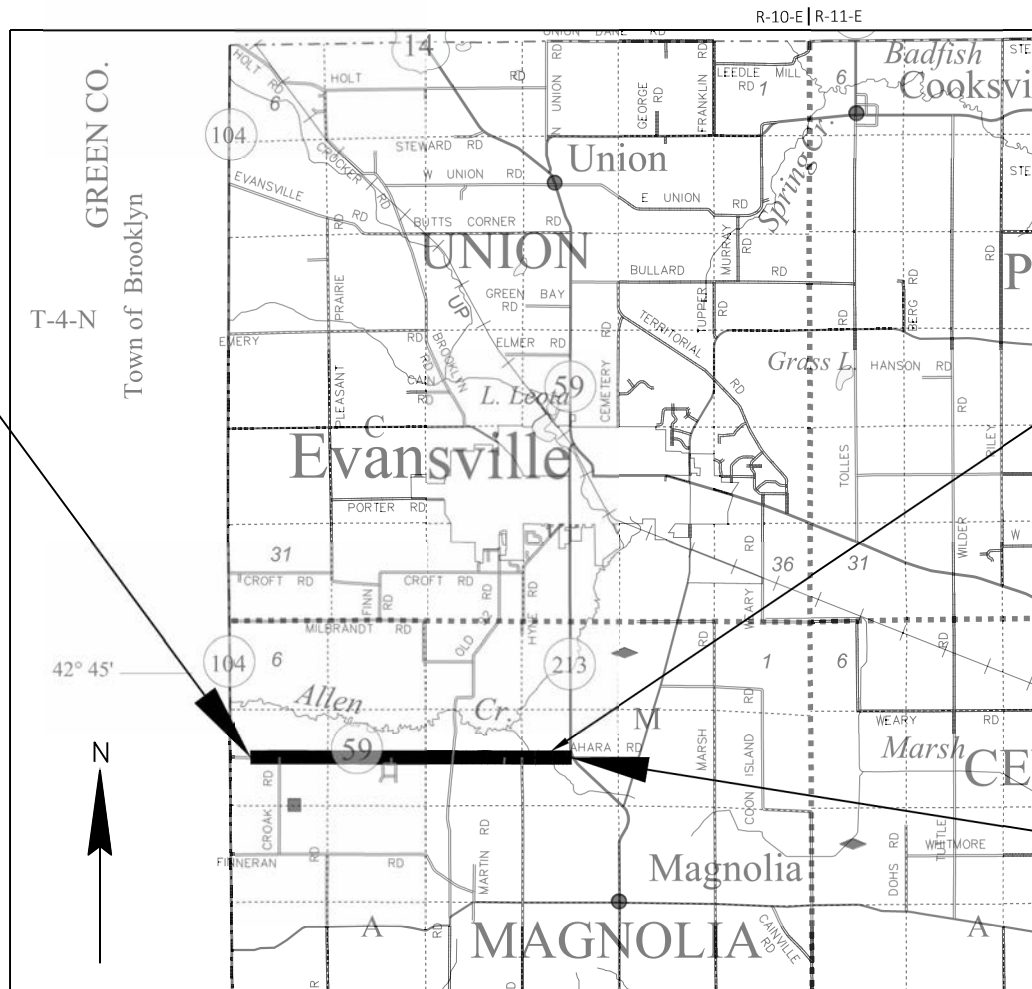
MONROE - EVANSVILLE

STH 104 TO STH 213

STH 59

ROCK COUNTY

STATE PROJECT NUMBER
5670-00-65



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 3.35 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WCCS), ROCK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5670-00-65	WISC 2024274	1

ORIGINAL PLANS DEVELOPED BY
WISDOT SW REGION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SW REGION
Designer	ERIN CLEMENTS
Project Manager	CHRIS HAZARD, P.E.
Regional Examiner	SW REGION
Regional Supervisor	JIM SIMPSON, P.E., P.L.S.

APPROVED FOR THE DEPARTMENT

DATE: _____ Chris Hazard _____
(Signature)

STANDARD ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
AP	ACCESS POINT
AC	ACRE
AECPRC	APRON ENDWALLS FOR CULVERT
ASPH	ASPHALTIC
AGG	AGGREGATE
ADT	AVERAGE DAILY TRAFFIC
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C/L	CENTER LINE
CONST	CONSTRUCTION
CTH	COUNTY TRUNK HIGHWAY
CABC	CRUSHED AGGREGATE BASE COURSE
CY	CUBIC YARD
CP	CULVERT PIPE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DRV	DESIGN HOUR VOLUME
DIA	DIAMETER
DWY	DRIVEWAY
E	EAST
EL	ELEVATION
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FT	FOOT
HMA	HOT MIX ASPHALT
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
INV	INVERT
IP	IRON PIPE OR PIN
JT	JOINT
LB	POUND
L	LENGTH OF CURVE
LF	LINEAR FOOT
LS	LUMP SUM
MH	MANHOLE
MAX	MAXIMUM
Mgal	MEGAGALLON
MPH	MILES PER HOUR
MIN	MINIMUM
MON	MONUMENT
N	NORTH
NC	NORMAL CROWN
NO	NUMBER
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PC	POINT OF CURVATURE
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RD	ROAD
RDWY	ROADWAY
REINF	REINFORCING OR REINFORCEMENT
REQD	REQUIRED
R/L	REFERENCE LINE
R/W	RIGHT-OF-WAY
S	SOUTH
SC	SECTION CORNER
SDD	STANDARD DETAIL DRAWINGS
SE	SUPERELEVATION
SF	SQUARE FEET
SHLDR	SHOULDER
ST	STREET
STA	STATION
STH	STATE TRUNK HIGHWAYS
SY	SQUARE YARD

T	TANGENT
t	TON
T	TRUCKS (PERCENT OF)
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
W	WEST
X	EAST GRID COORDINATE
Y	YARD
Y	NORTH GRID COORDINATE

ORDER OF SECTION 2 SHEETS :

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVEMENT MARKINGS
TRAFFIC CONTROL

GENERAL NOTES

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE SEEDED, FERTILIZED, AND MULCHED AS DIRECTED BY THE ENGINEER. ALL OTHER DISTURBED AREAS SHALL BE SEEDED, FERTILIZED, AND MULCHED AT THE CONTRACTORS EXPENSE.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

SAWCUTS AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED PAVEMENT SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

ASPHALTIC SURFACE/HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/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.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

GRADING IS NOT ALLOWED IN DELINEATED WETLAND AREAS. DO NOT STORE EQUIPMENT OR MATERIAL IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

NUMBER, LOCATIONS, AND SPACING OF TEMPORARY SIGNS AND DEVICES AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

UTILITY CONTACTS :

AT&T WISCONSIN - COMMUNICATION
MATTHEW VACHALIK
411 7TH STREET
RACINE, WI 53403
(262) 707-6216
MV5616@ATT.COM

EVANSVILLE WATER & LIGHT - ELECTRICITY
KERRY LINDROTH
31 S. MADISON STREET
PO BOX 529
EVANSVILLE, WI 53536
(608) 490-3275
KERRY.LINDROTH@CI.EVANSVILLE.WI.GOV

SPECTRUM - COMMUNICATION
TOMMY ROWE
1348 PLAINFIELD AVE
JANESVILLE, WI 53545
(608) 206-5741
TOMMY.ROWE@CHARTER.COM

OTHER CONTACTS :

TDS TELECOM - COMMUNICATION
JERRY MYERS
525 JUNCTION ROAD
MADISON, WI 53717
(608) 664-4404
JERRY.MYERS@TDSTELECOM.COM

WISCONSIN DEPT OF NATURAL RESOURCES CONTACTS

SHELLEY NELSON
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711-5367
608-444-2835
shelley.nelson@wisconsin.gov

WISCONSIN DEPT OF TRANSPORTATION CONTACTS

PROJECT MANAGER
CHRIS HAZARD, P.E.
2101 WRIGHT ST
MADISON WI, 53704
608-245-2652
christopher.hazard@dot.wi.gov

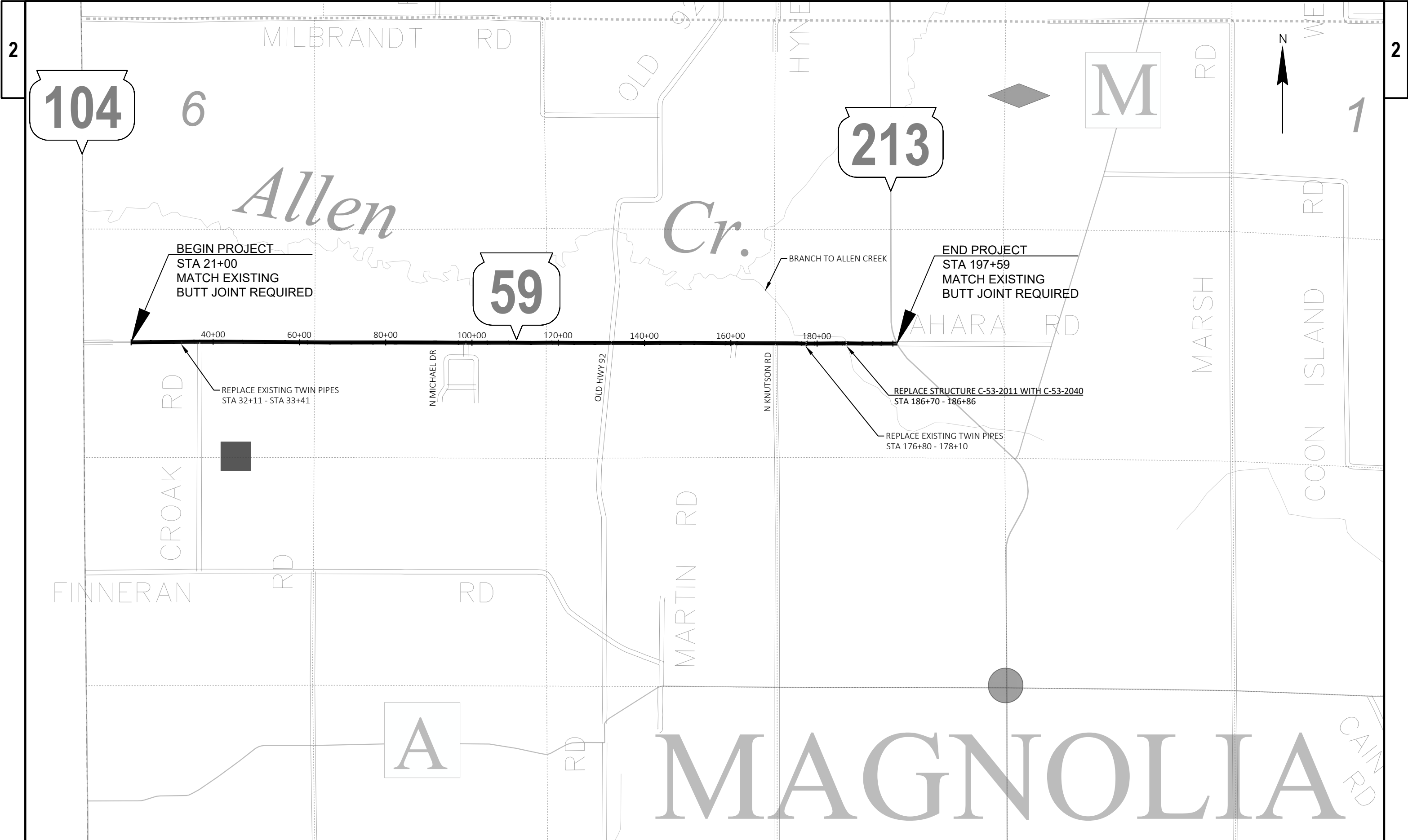
DESIGN ENGINEER
ERIN CLEMENTS
2101 WRIGHT ST
MADISON, WI 53704
608-261-6122
erin.clements@dot.wi.gov



CONTROL POINTS						
NO.	STATION	OFFSET	X	Y	ELEVATION	DESCRIPTION
901	75+21.25	28.82' RT	406918.419	289208.245	901.039	NGS DF9786
902	146+06.59	25.42' LI	414003.675	289251.795	900.185	NGS DF9787
905	184+64.78	31.09' LT	417861.612	289245.313	877.149	CP FEVO
906	189+36.99	34.25' RT	418333.905	289177.794	881.981	CP FFVO
907	189+52.24	32.36' LI	418349.462	289244.237	883.351	CP FENO S6 FRM 906 BS 905
908	183+94.09	31.67' RT	417791.415	289182.001	881.382	CP FENO S6 FRM 905 BS 906
1100	196+83.27	0.39' RT	419080.271	289211.339	899.663	SFC DISK
1104	90+36.95	0.20' RT	408434.104	289233.194	904.606	SEC CENTER PK NA L
2001	182+10.28	46.03' RT	417607.719	289166.218	880.291	IPRIBND 3/4

ROADWAY BORING SUMMARY TABLE						
BORING #	STATION	OFFSET	HMA	BASE	LAYER 1	LAYER 2
1	21+00	6' R	5.5"	3.0"	2.35'	1.0'
2	34+20	6' L	6.0"	5.0"	4.0'	-
3	47+40	9' R	7.0"	4.0"	2.0'	2.0'
4	60+60	9' L	7.0"	4.0"	1.0'	3.0'
5	73+80	11' R	4.0"	4.0"	2.25'	2.0'
6	87+00	11' L	7.0"	3.0"	4.0'	-
7	100+20	6' R	8.0"	5.0"	4.0'	-
8	113+40	6' L	7.0"	7.0"	1.75'	2.0'
9	126+60	9' R	6.0"	7.0"	1.0'	3.0'
10	139+80	11' R	9.0"	4.0"	1.0'	3.0'
11	153+00	9' L	7.0"	5.0"	4.0'	-
12	166+20	11' L	8.0"	6.0"	0.75'	3.0'
13	179+40	6' R	9.0"	4.0"	1.0'	3.0'
14	192+60	6' L	7.0"	5.0"	1.0'	3.0'

NOTE: ALL STATIONING IS APPROXIMATE
BORINGS TAKEN MARCH 2021



104

6

213

59

BEGIN PROJECT
STA 21+00
MATCH EXISTING
BUTT JOINT REQUIRED

END PROJECT
STA 197+59
MATCH EXISTING
BUTT JOINT REQUIRED

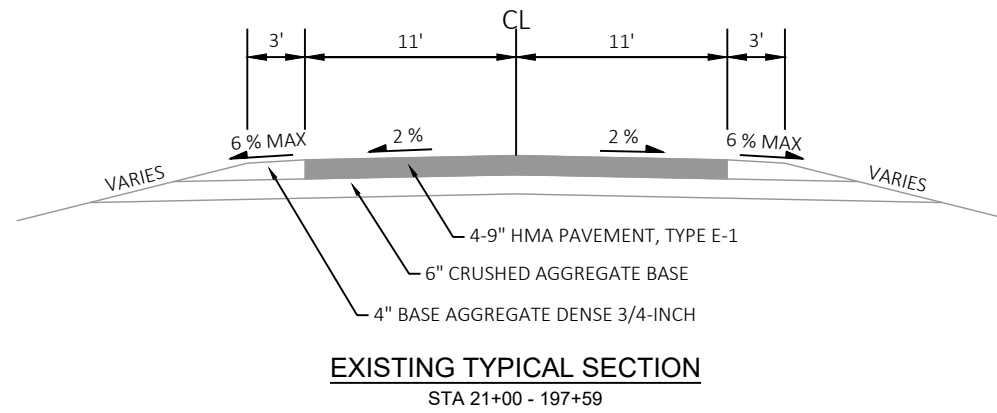
REPLACE EXISTING TWIN PIPES
STA 32+11 - STA 33+41

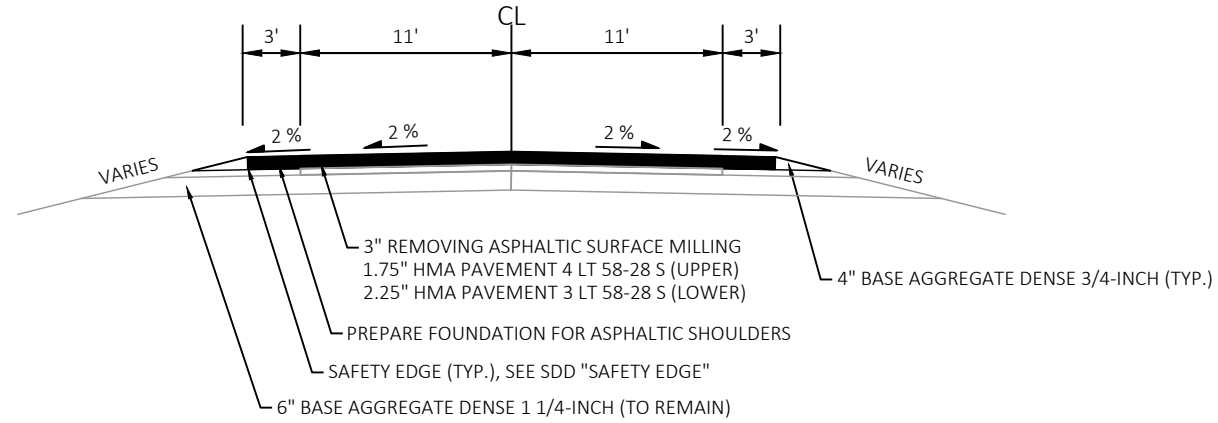
REPLACE STRUCTURE C-53-2011 WITH C-53-2040
STA 186+70 - 186+86

REPLACE EXISTING TWIN PIPES
STA 176+80 - 178+10

MAGNOLIA

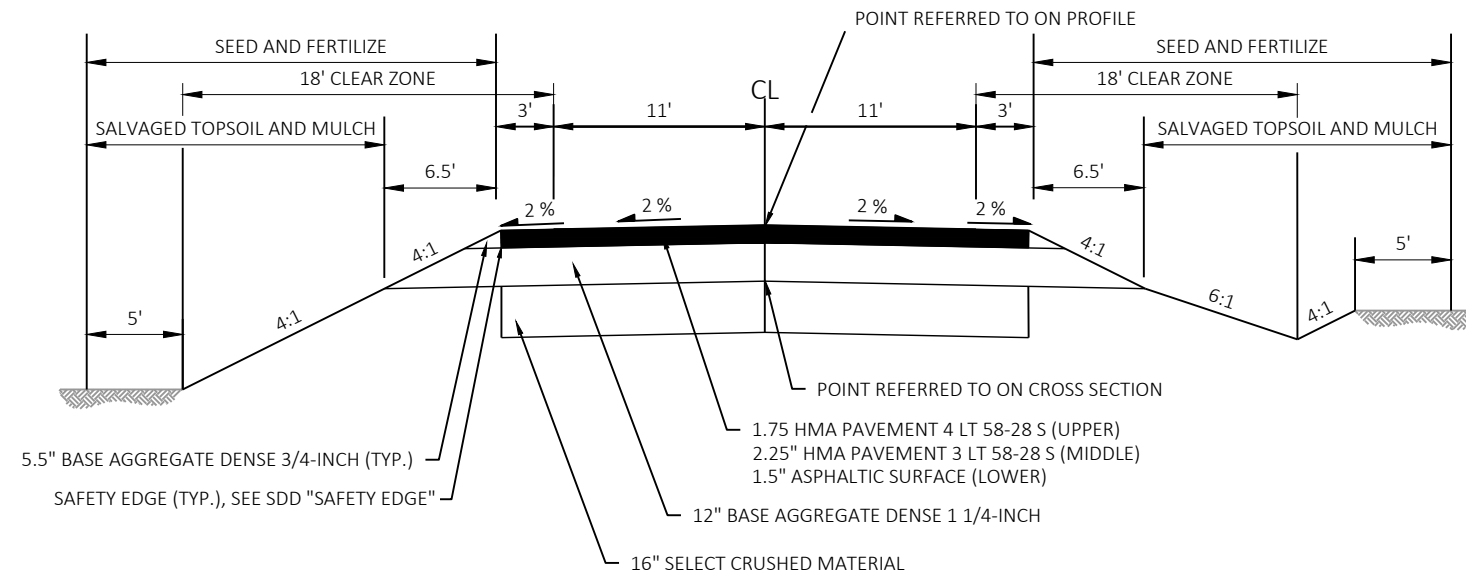
PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	PROJECT OVERVIEW	SHEET	E
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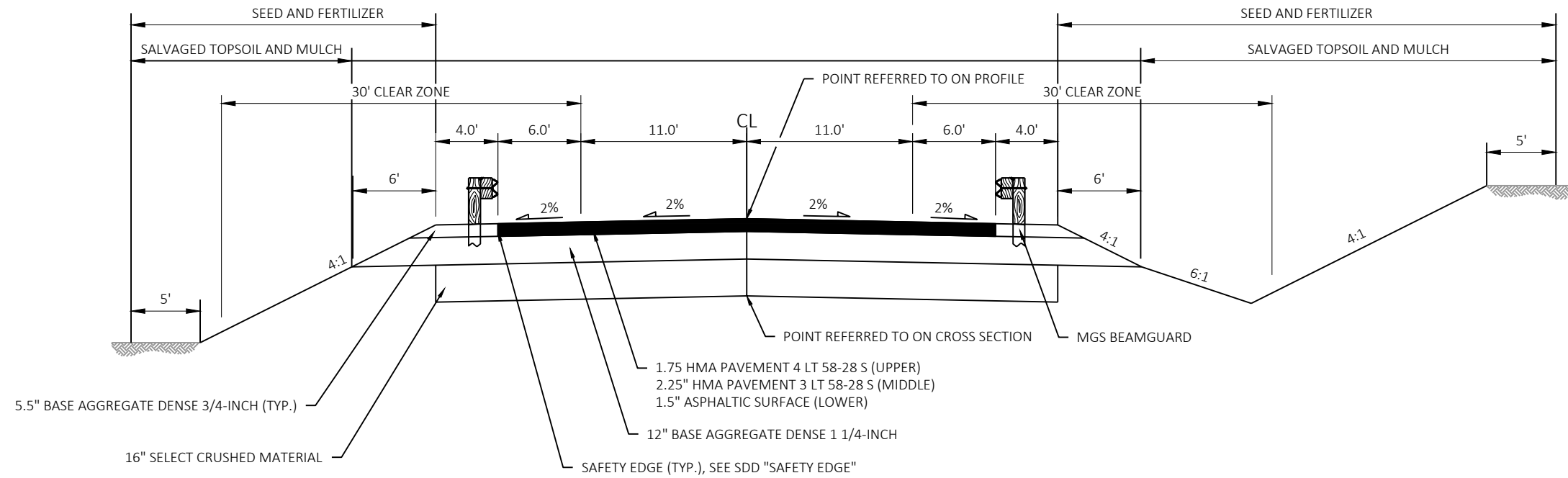
FINISHED TYPICAL SECTION

STA 21+00 - 32+11
STA 33+41 - 176+80
STA 178+10 - 183+50
STA 190+57 - 197+59



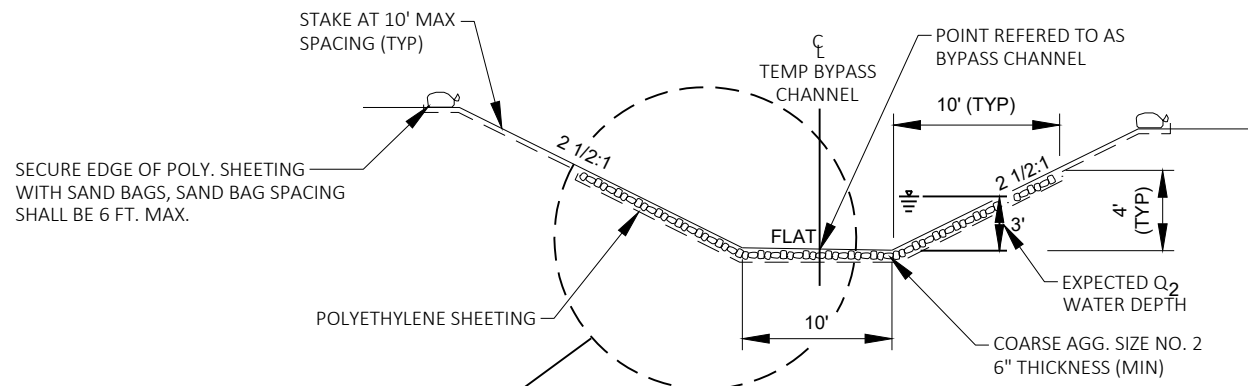
FINISHED TYPICAL SECTION

STA 32+11 - 33+41
STA 176+80 - 178+10



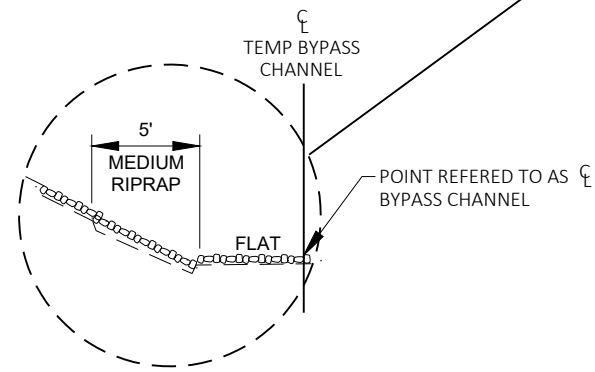
FINISHED TYPICAL SECTION

STA 183+50 - 186+70
STA 186+86 - 190+57



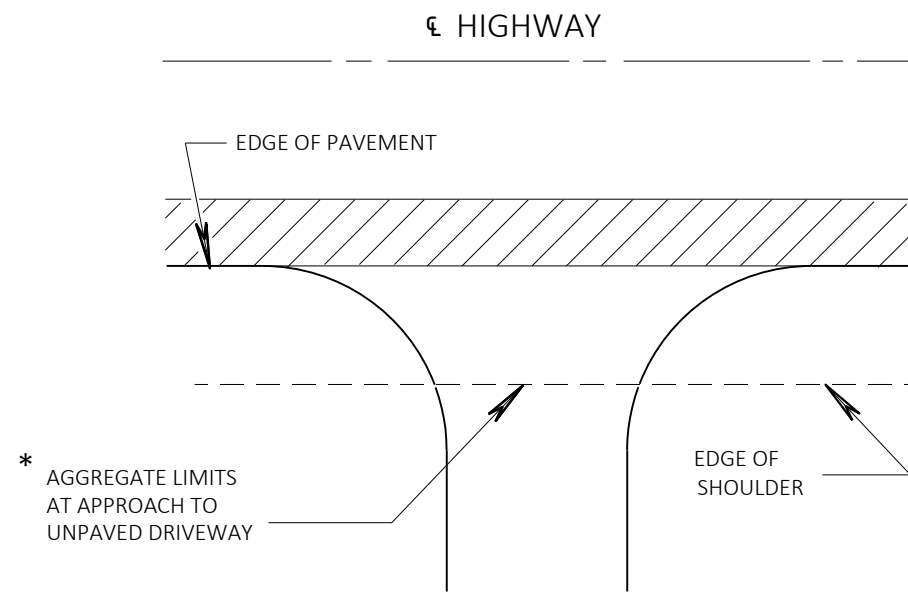
FINISHED TYPICAL SECTION

TEMP. BYPASS CHANNEL
STA TC-100+ - TC-102+51



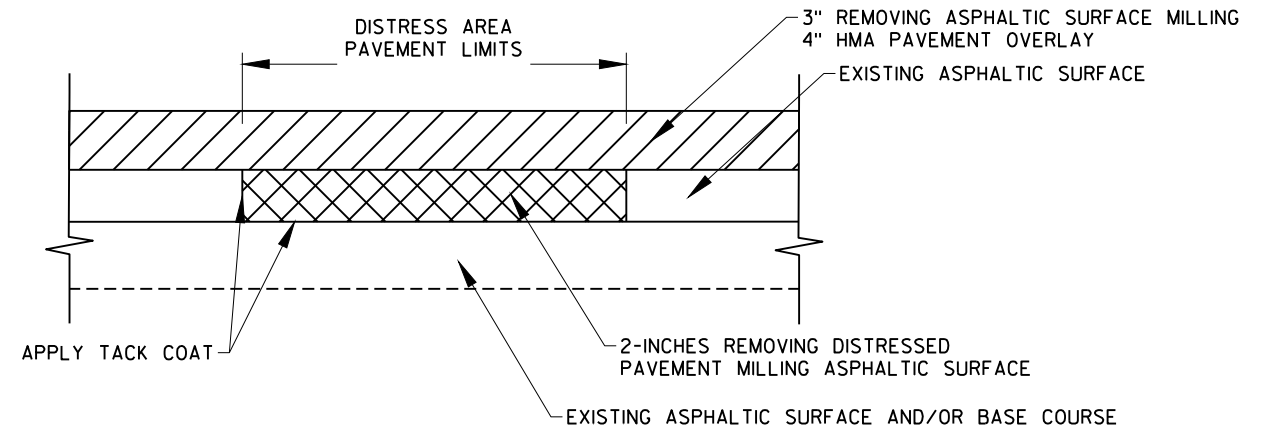
DETAIL

MEDIUM RIPRAP (TEMPORARY)
PLACE ALONG BANK TURNS
AS INDICATED IN THE PLANS
1 FT THICKNESS (MIN)

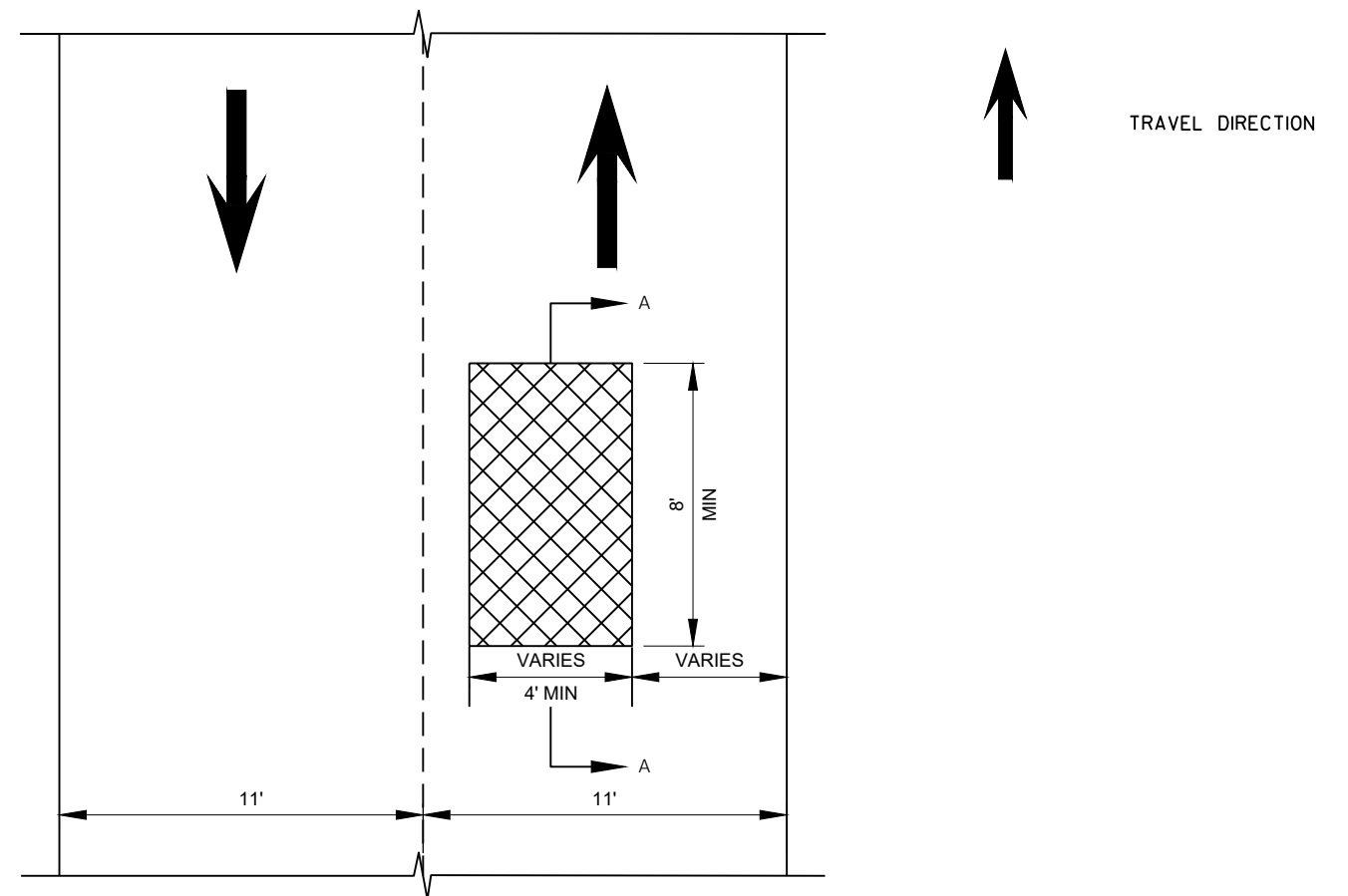
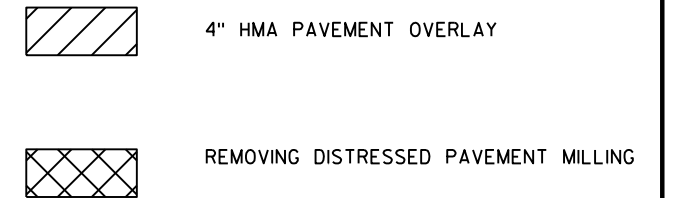


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
RURAL DRIVEWAY DETAIL

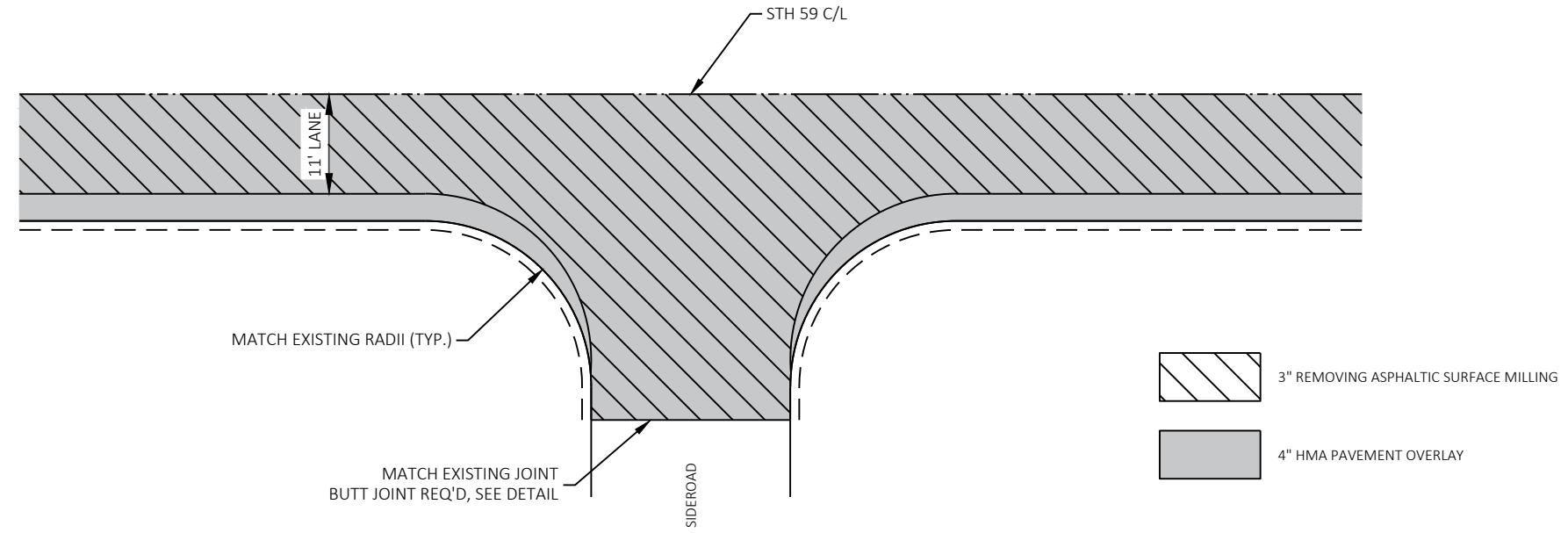


REMOVING DISTRESSED PAVEMENT MILLING
SECTION A-A

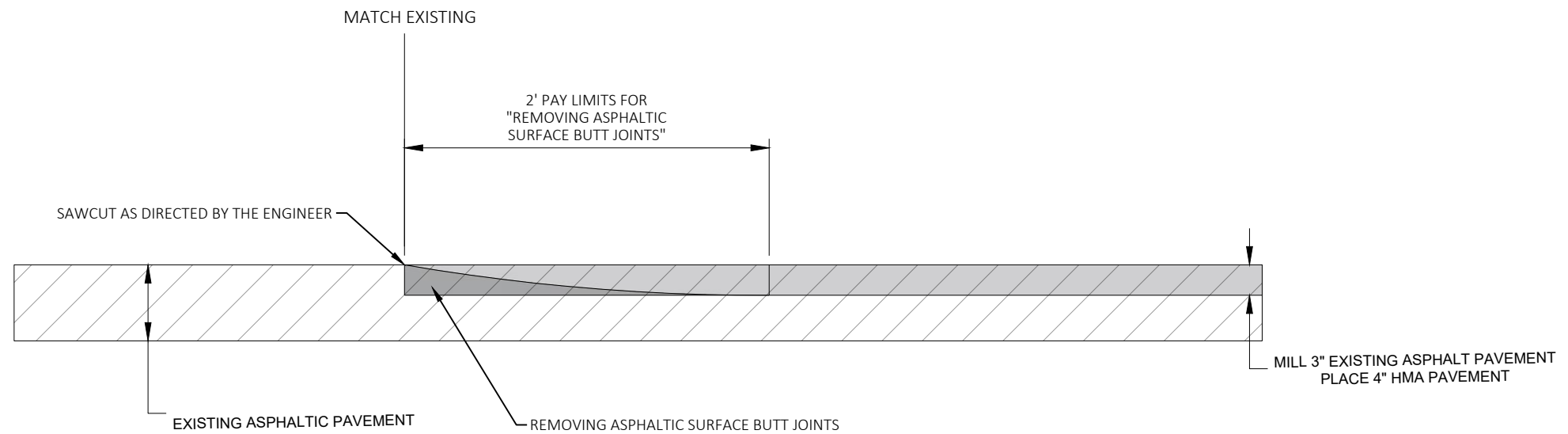


REMOVING DISTRESSED PAVEMENT MILLING
PLAN VIEW

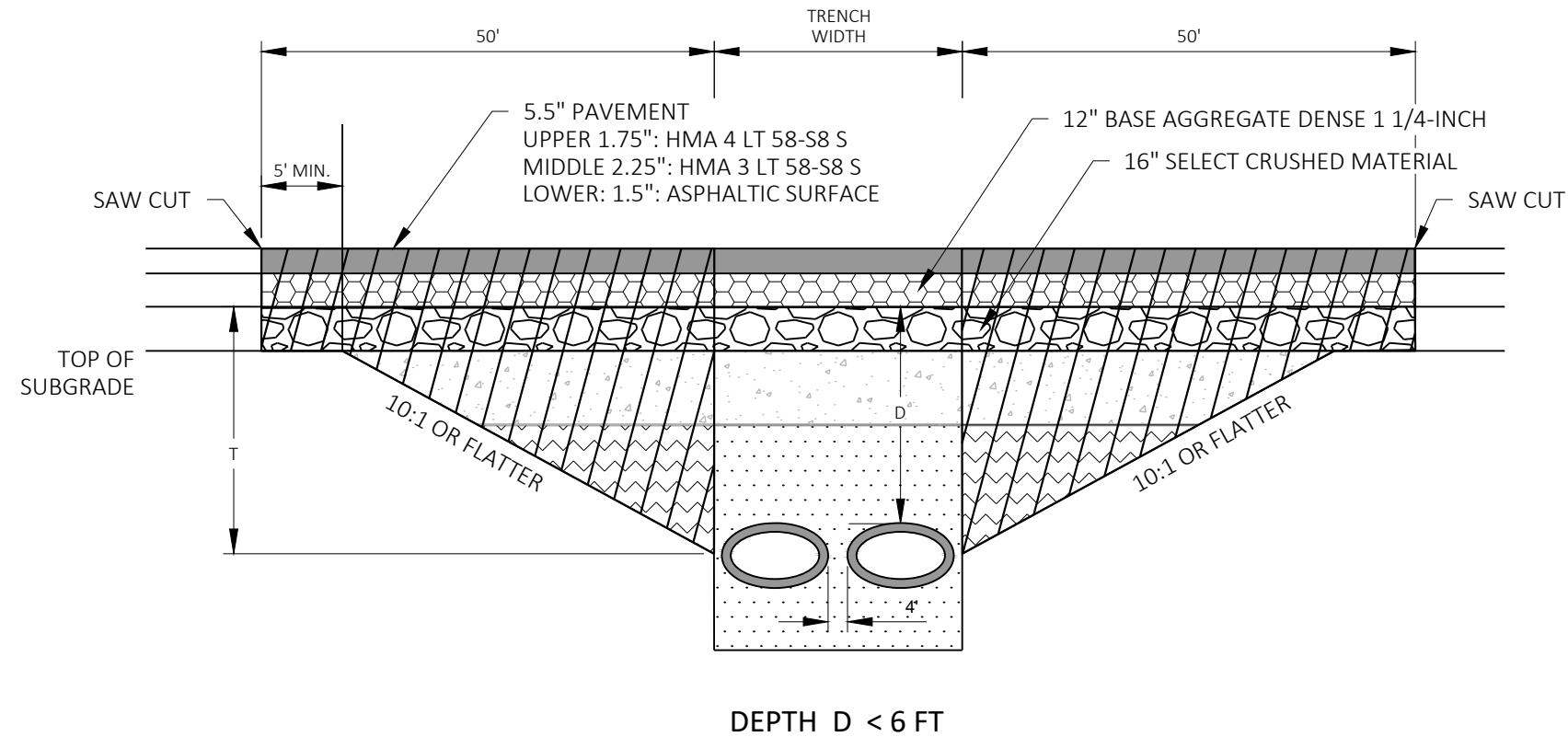
EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD



TYPICAL SIDEROAD PAVING LIMITS



BUTT JOINT TO MATCH EXISTING - STH 59, SIDE ROADS



KEY	
	PROPOSED SURFACE
	PROPOSED BASE
	PROPOSED SUBBASE
	TRENCH BACKFILL
	TRENCH OR FOUNDATION BACKFILL
	FOUNDATION BACKFILL
	TRANSITION CUT

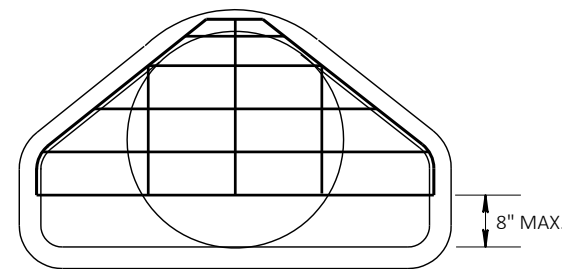
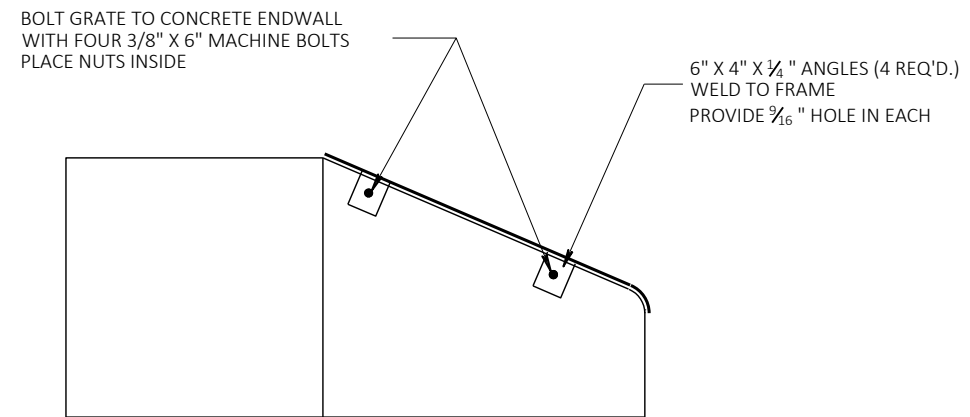
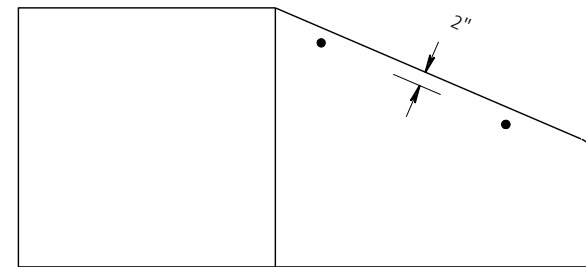
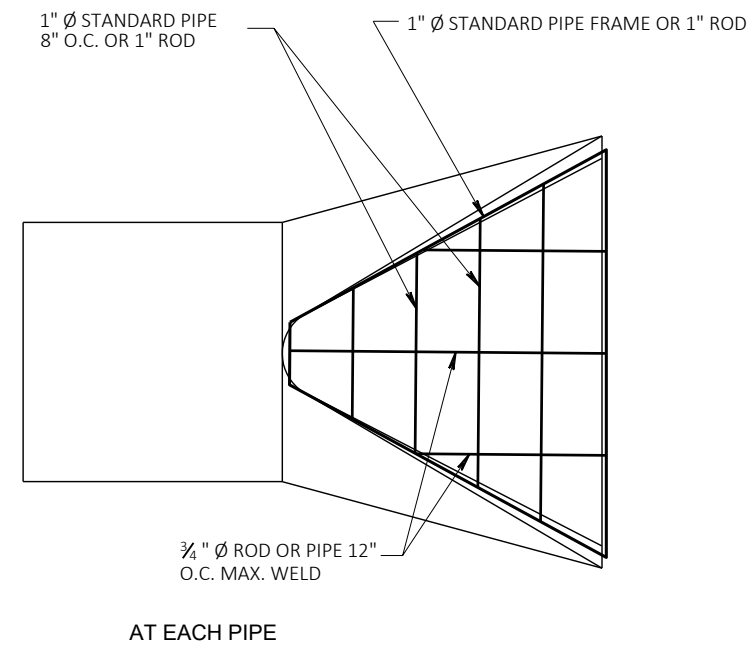
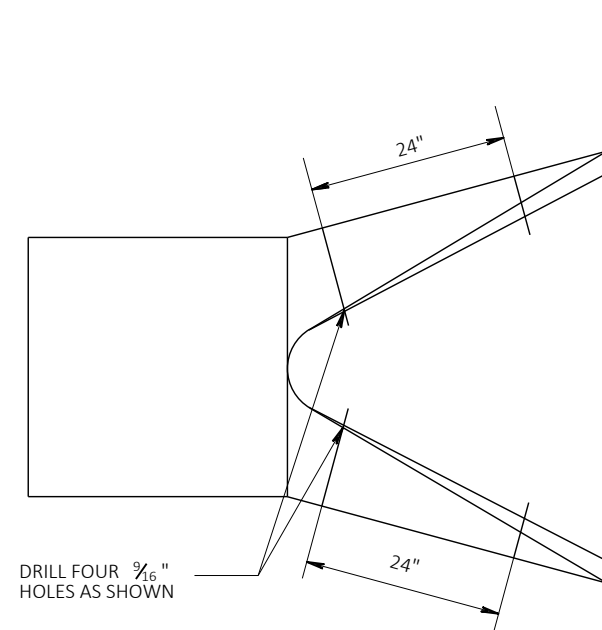
DEPTH D < 6 FT
 TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
 DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

NOTES:

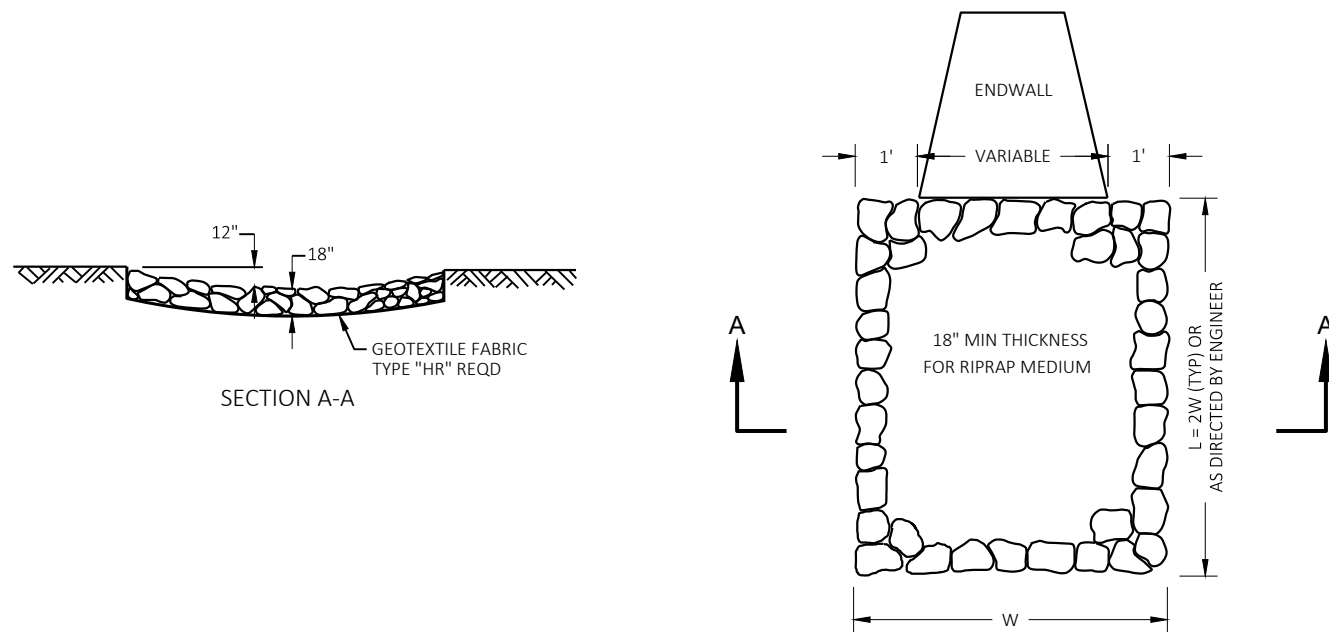
- TRANSITION CUT IS INCIDENTAL TO CULVERT PIPE ITEM.
- TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT
- BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520
- PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING
- DESIRED MINIMUM COVER IS 2- FEET BELOW SUBGRADE. WHERE LESS THAN 2- FEET OF COVER IS PROVIDED, SPECIAL MEASURES MAY BE REQUIRED DURING CONSTRUCTION TO MINIMIZE EQUIPMENT LOADING IMPACTS ON THE PIPE.

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	APPROX. DEPTH D (FT)	PIPE SIZE (IN)	REMARKS
STH 59	32+70	1.05	34X53	CPRC-HE
STH 59	32+80	1.03	34X53	CPRC-HE
STH 59	177+40	1.15	29X45	CPRC-HE
STH 59	177+50	1.22	29X45	CPRC-HE



PIPE GRATE DETAIL

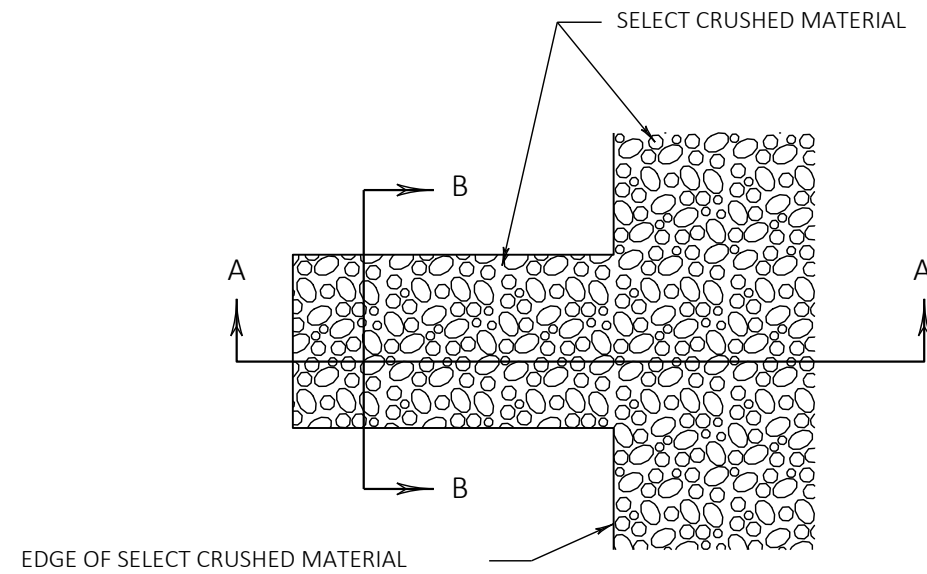
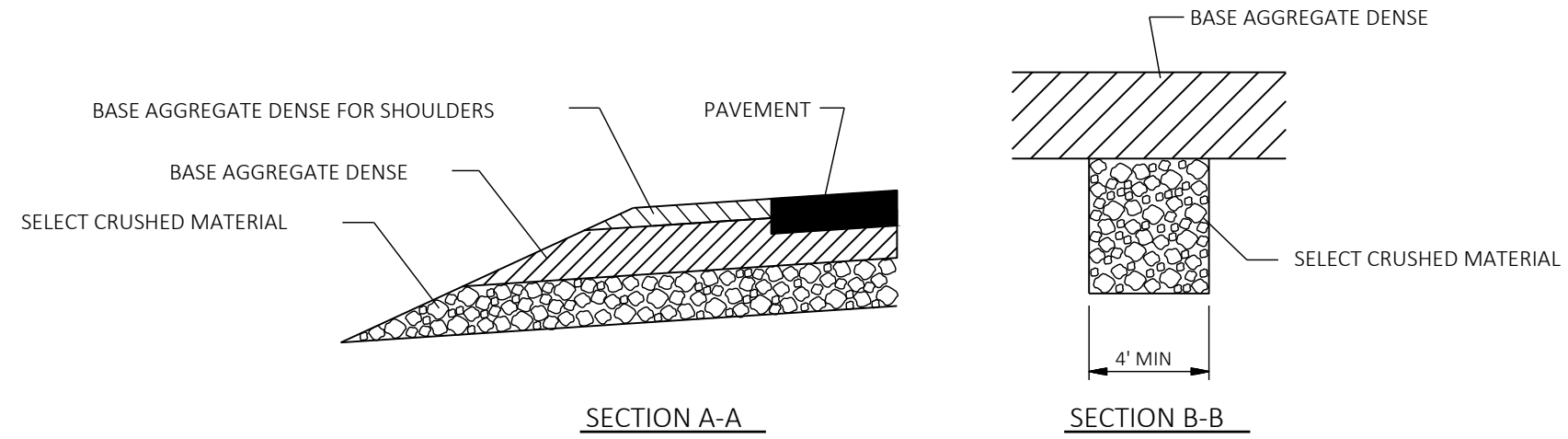


RIPRAP MEDIUM TREATMENT AT CULVERTS

ESTIMATED BAG SIZE = 18" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
21"	3
14" X 23"	3
24"	3
27"	4
30"	5
19" X 30"	5
36"	7
24" X 38"	8
42"	8
29" X 45"	10
48"	10
34" X 53"	10
38" X 60"	13
60"	13
66"	15
53" X 83"	19

SEE SDD 8E15 FOR PLACEMENT OF ROCK BAGS AT END OF CULVERT PIPE

ROCK BAGS FOR CULVERT PIPE CHECKS

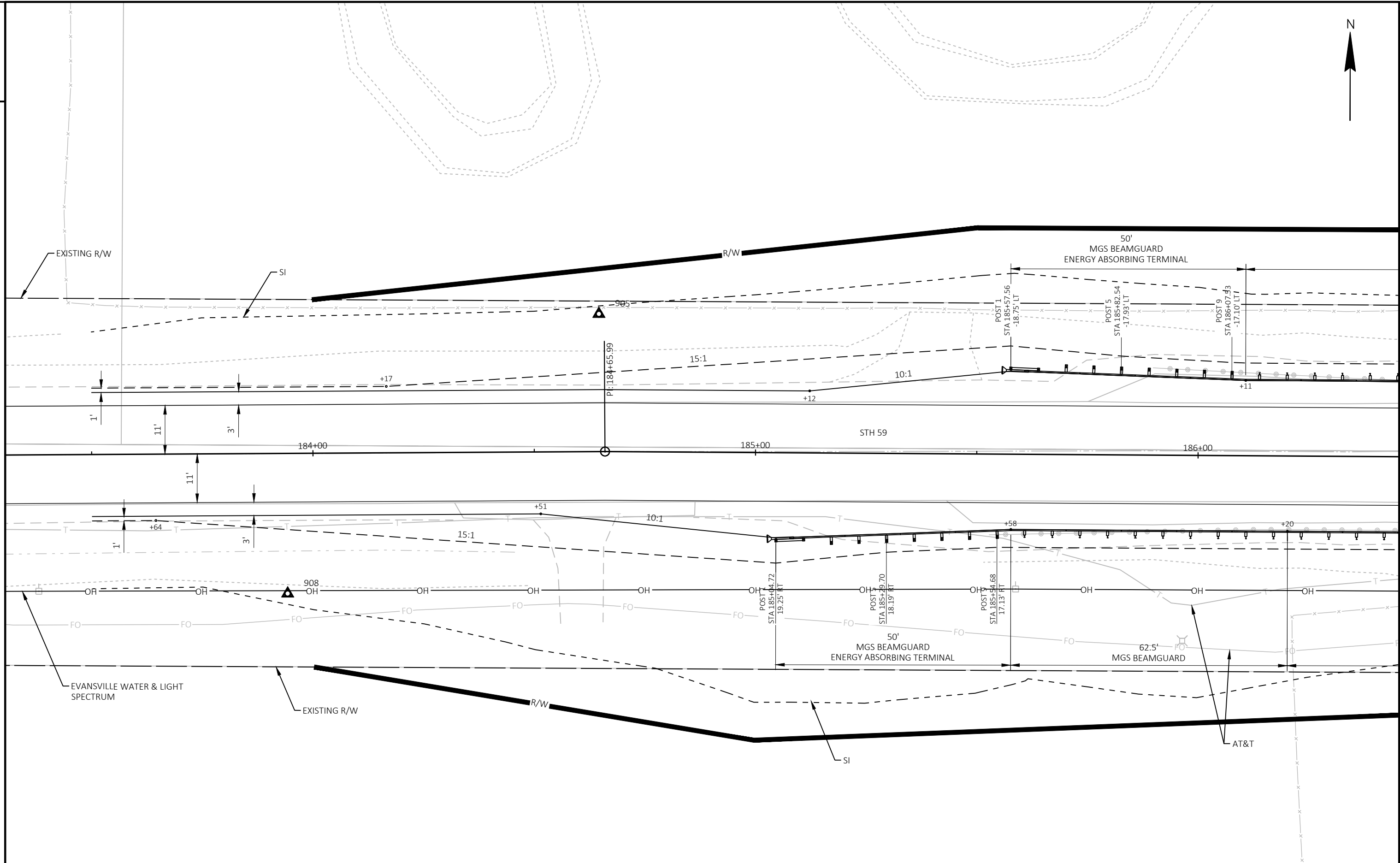


DETAIL FOR FRENCH DRAINS

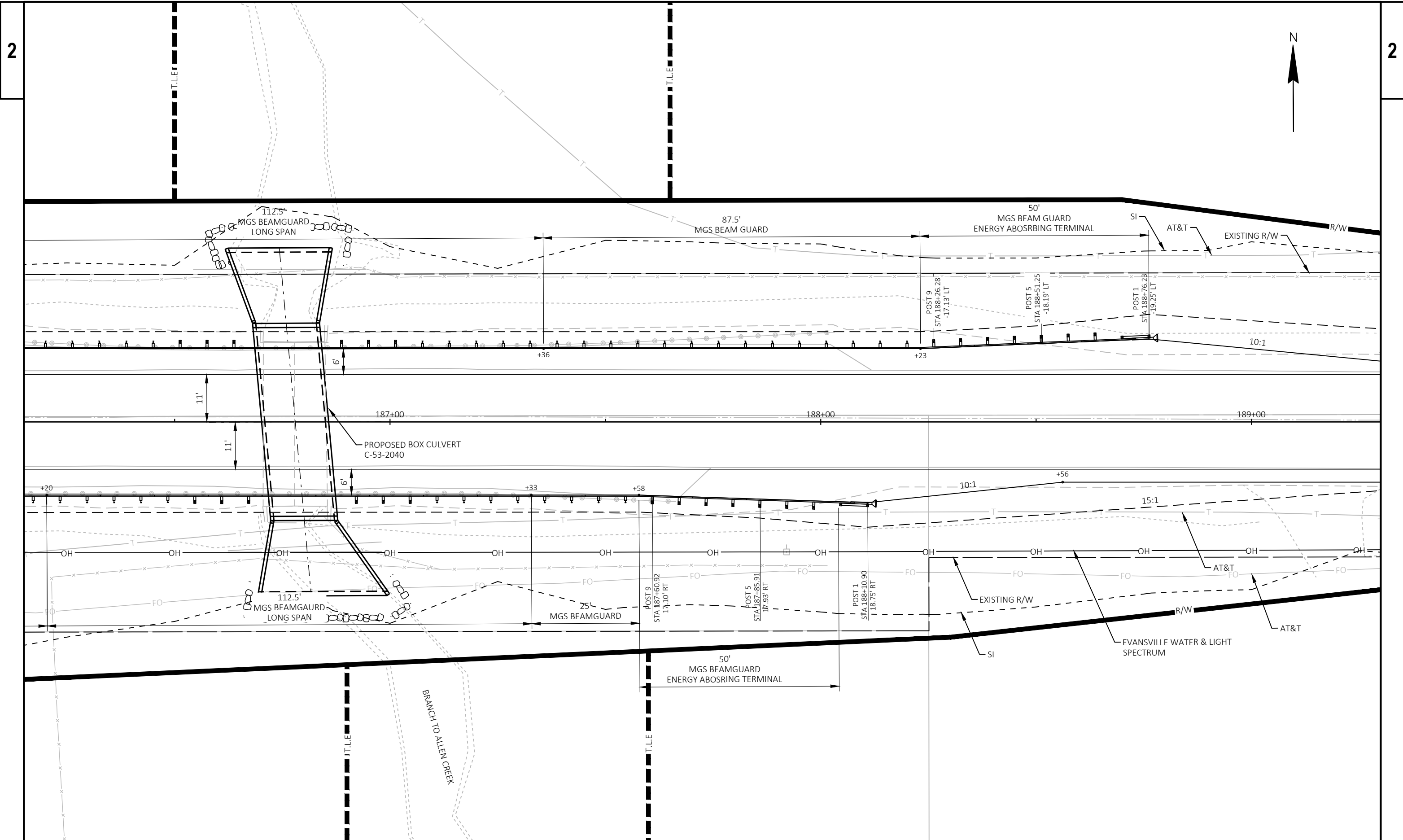
DRAINS ARE TO BE CONSTRUCTED AT LEAST EVERY 250'
AND AT EACH SAG VERTICLE CURVE IN THE PROFILE.

(LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER)

EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL
BE CONSIDERED INCIDENTAL TO THE ITEM SELECT CRUSHED MATERIAL.



PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	CONSTRUCTION DETAILS: BEAMGUARD	SHEET	E
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PROJECT NO: 5670-00-65

HWY: STH 59

COUNTY: ROCK

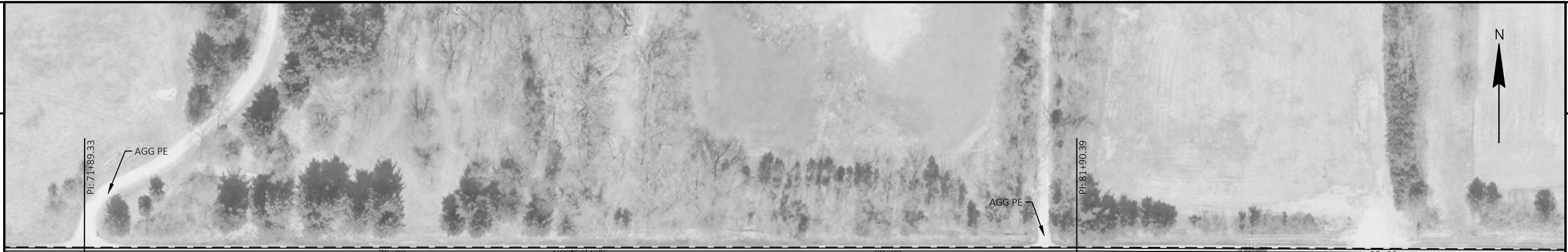
CONSTRUCTION DETAILS

SHEET

E



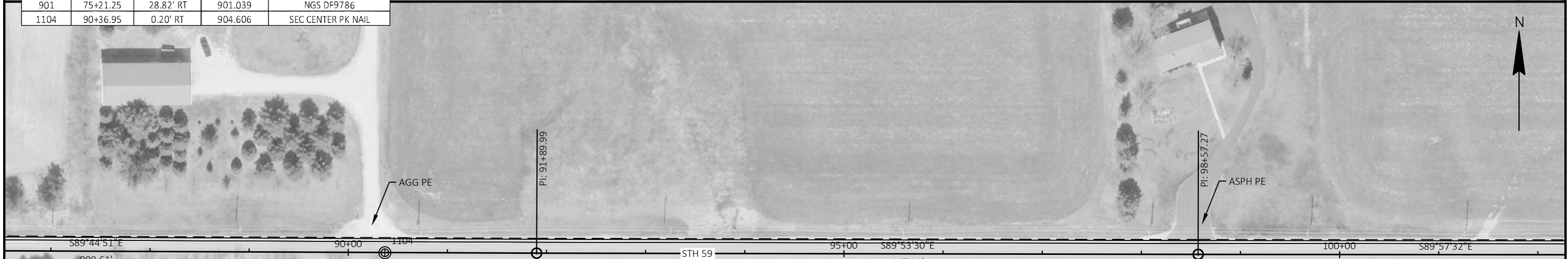
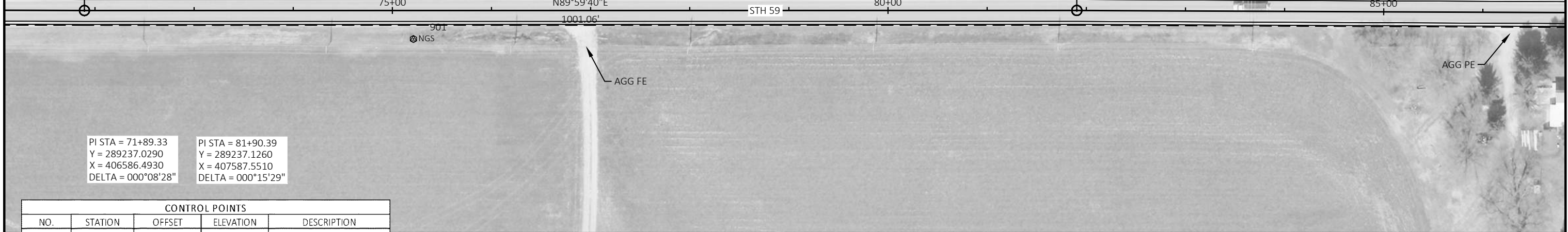
PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK PLAN DETAILS SHEET E



PI STA = 71+89.33
 Y = 289237.0290
 X = 406586.4930
 DELTA = 000°08'28"

PI STA = 81+90.39
 Y = 289237.1260
 X = 407587.5510
 DELTA = 000°15'29"

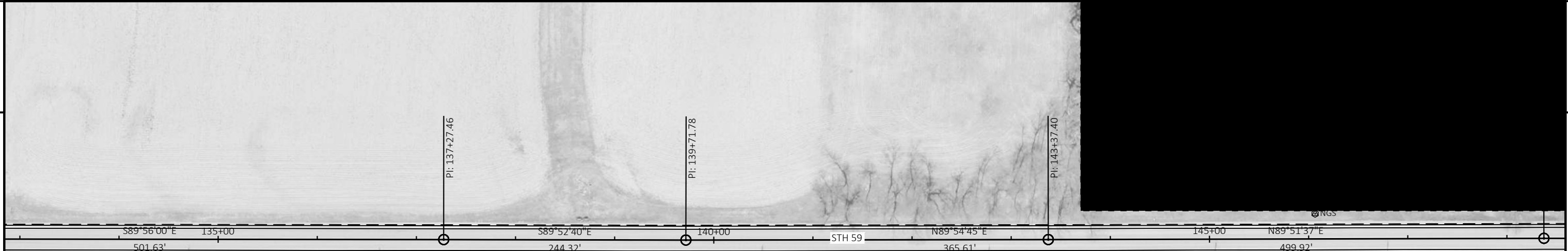
CONTROL POINTS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
901	75+21.25	28.82' RT	901.039	NGS DF9786
1104	90+36.95	0.20' RT	904.606	SEC CENTER PK NAIL



PI STA = 91+89.99
 Y = 289232.7220
 X = 408587.1480
 DELTA = 000°08'39"

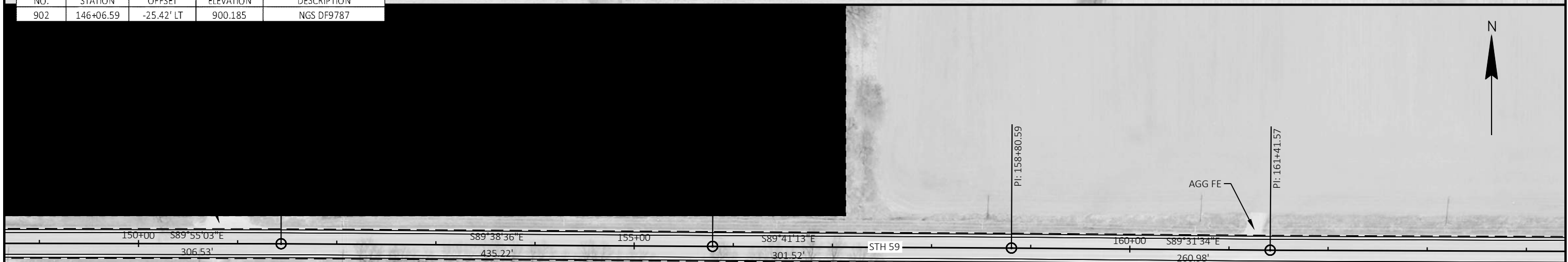
PI STA = 98+57.27
 Y = 289231.4600
 X = 409254.4240
 DELTA = 000°04'02"





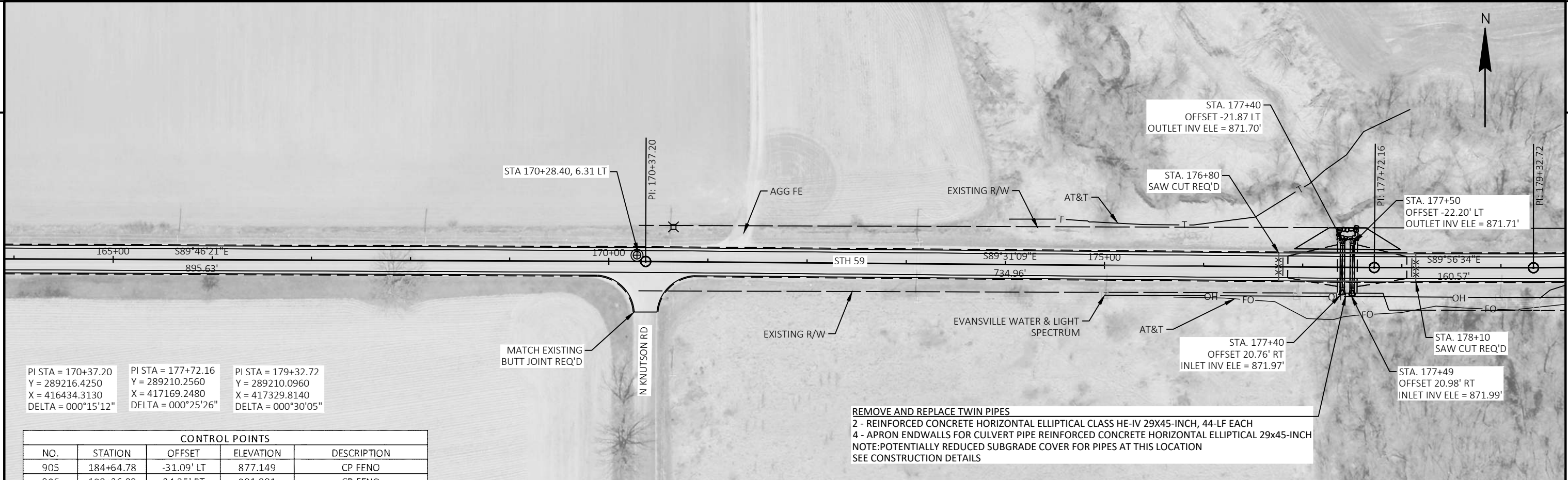
PI STA = 137+27.46 Y = 289225.6850 X = 413124.6090 DELTA = 000°03'20"	PI STA = 139+71.78 Y = 289225.1640 X = 413368.9310 DELTA = 000°12'35"	PI STA = 143+37.40 Y = 289225.7220 X = 413734.5450 DELTA = 000°03'08"	PI STA = 148+37.32 Y = 289226.9400 X = 414234.4620 DELTA = 000°13'20"
--	--	--	--

CONTROL POINTS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
902	146+06.59	-25.42' LT	900.185	NGS DF9787



PI STA = 151+43.85 Y = 289226.4980 X = 414540.9950 DELTA = 000°16'26"	PI STA = 155+79.07 Y = 289223.7890 X = 414976.2090 DELTA = 000°02'36"	PI STA = 158+80.59 Y = 289222.1410 X = 415277.7210 DELTA = 000°09'39"	PI STA = 161+41.57 Y = 289219.9820 X = 415538.6930 DELTA = 000°14'47"
--	--	--	--

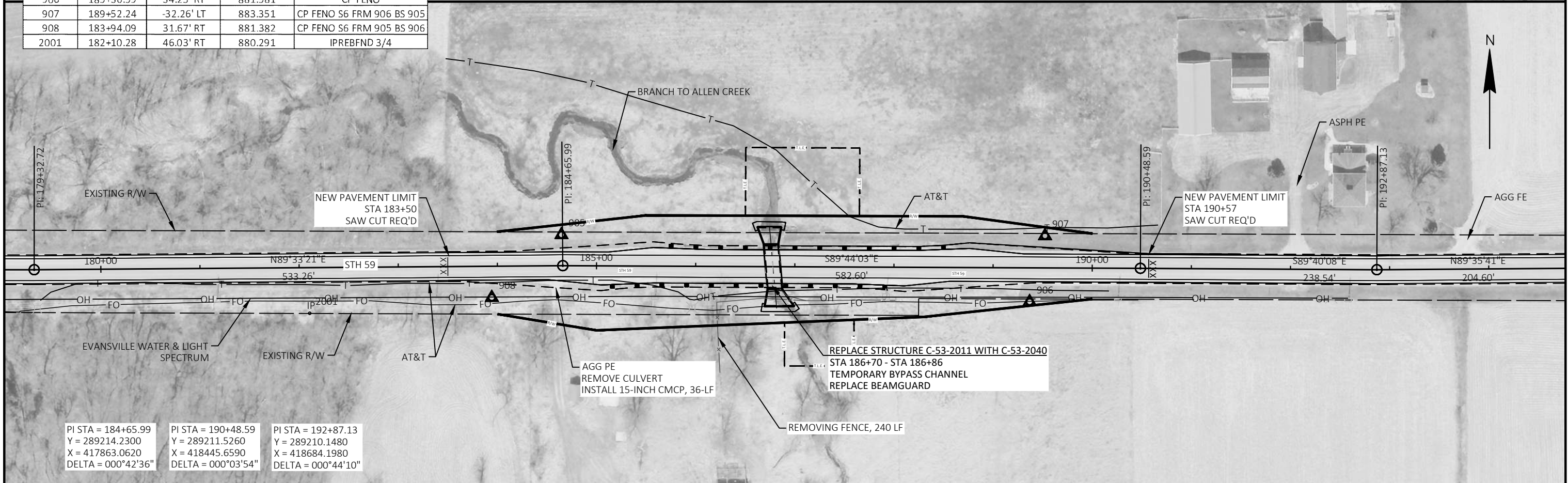
PI STA
Y = 28
X = 41
DELTA



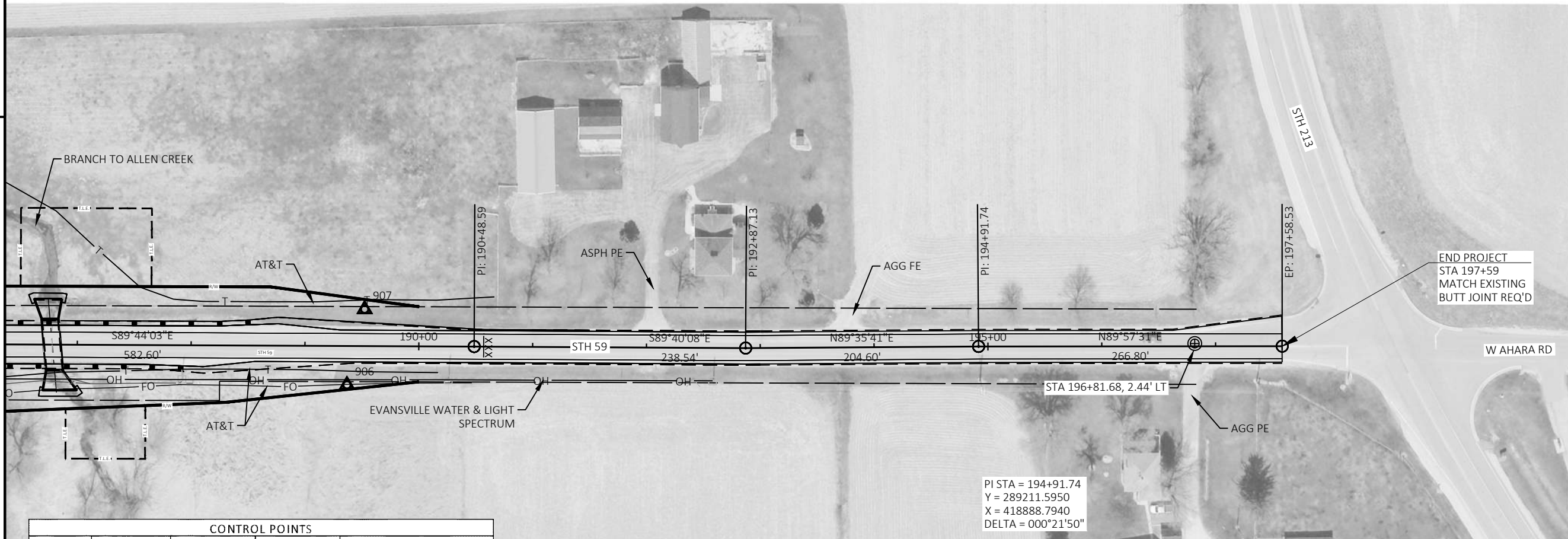
PI STA = 170+37.20 Y = 289216.4250 X = 416434.3130 DELTA = 000°15'12"	PI STA = 177+72.16 Y = 289210.2560 X = 417169.2480 DELTA = 000°25'26"	PI STA = 179+32.72 Y = 289210.0960 X = 417329.8140 DELTA = 000°30'05"
--	--	--

CONTROL POINTS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
905	184+64.78	-31.09' LT	877.149	CP FENO
906	189+36.99	34.25' RT	881.981	CP FENO
907	189+52.24	-32.26' LT	883.351	CP FENO S6 FRM 906 BS 905
908	183+94.09	31.67' RT	881.382	CP FENO S6 FRM 905 BS 906
2001	182+10.28	46.03' RT	880.291	IPREBND 3/4

REMOVE AND REPLACE TWIN PIPES
 2 - REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH, 44-LF EACH
 4 - APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29x45-INCH
 NOTE: POTENTIALLY REDUCED SUBGRADE COVER FOR PIPES AT THIS LOCATION
 SEE CONSTRUCTION DETAILS



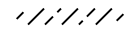

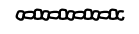

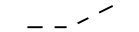



PI STA = 184+65.99 Y = 289214.2300 X = 417863.0620 DELTA = 000°42'36"	PI STA = 190+48.59 Y = 289211.5260 X = 418445.6590 DELTA = 000°03'54"	PI STA = 192+87.13 Y = 289210.1480 X = 418684.1980 DELTA = 000°44'10"
--	--	--

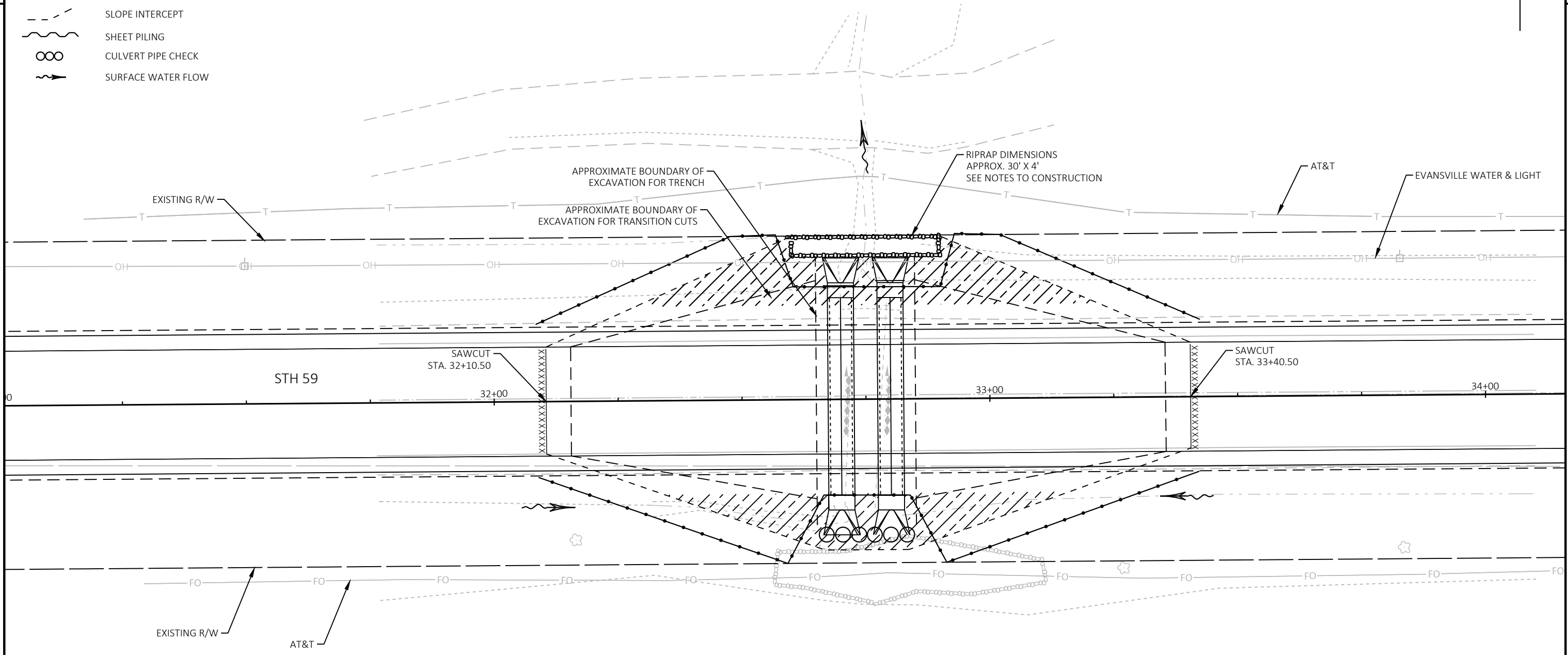


PI STA = 194+91.74
 Y = 289211.5950
 X = 418888.7940
 DELTA = 000°21'50"

CONTROL POINTS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
1100	196+83.21	0.39' RT	899.663	SEC DISK



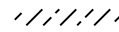
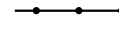
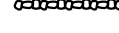
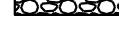
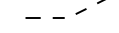



- LEGEND**
-  MULCH
 -  SILT FENCE
 -  RIPRAP MEDIUM
 -  RIPRAP HEAVY
 -  SLOPE INTERCEPT
 -  SHEET PILING
 -  CULVERT PIPE CHECK
 -  SURFACE WATER FLOW

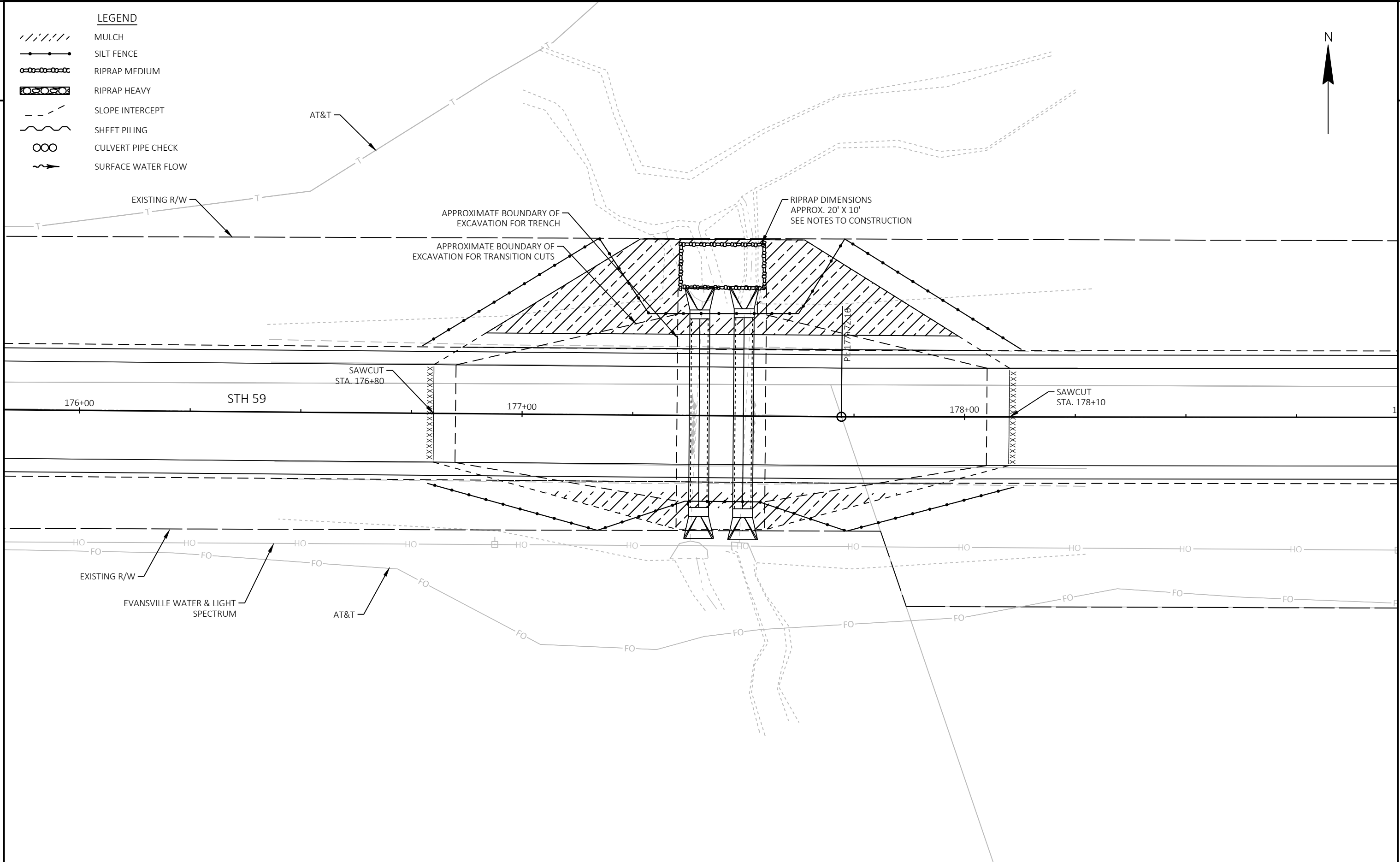


PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	EROSION CONTROL: TWIN 38"X60" CPRC, STA 32+75	SHEET	E
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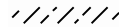
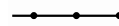






LEGEND

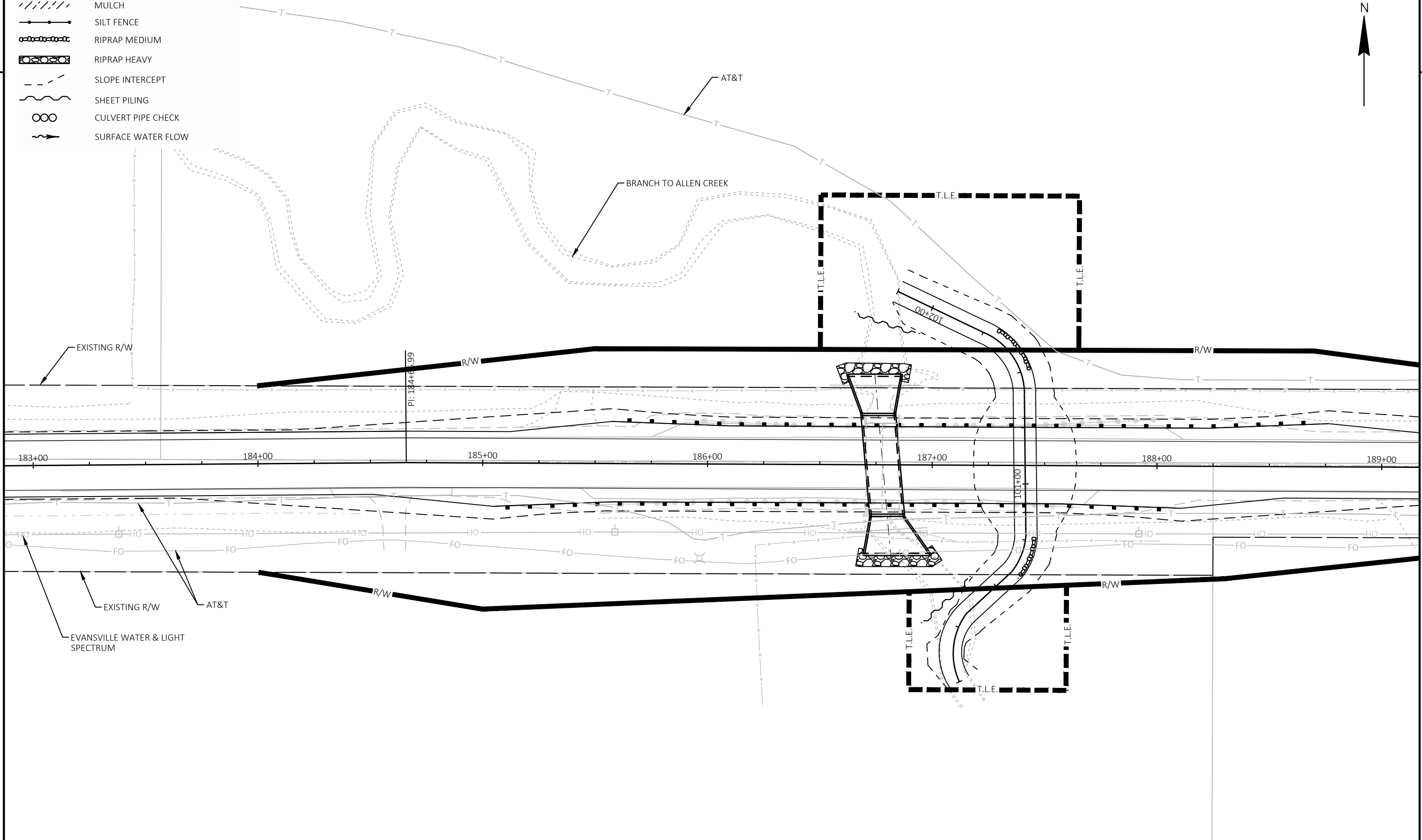
-  MULCH
-  SILT FENCE
-  RIPRAP MEDIUM
-  RIPRAP HEAVY
-  SLOPE INTERCEPT
-  SHEET PILING
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW



PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	EROSION CONTROL: TWIN 29"X45" CPRC, STA 177+45
SHEET			E

LEGEND

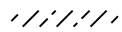
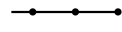


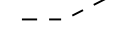
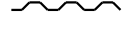


-  MULCH
-  SILT FENCE
-  RIPRAP MEDIUM
-  RIPRAP HEAVY
-  SLOPE INTERCEPT
-  SHEET PILING
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW

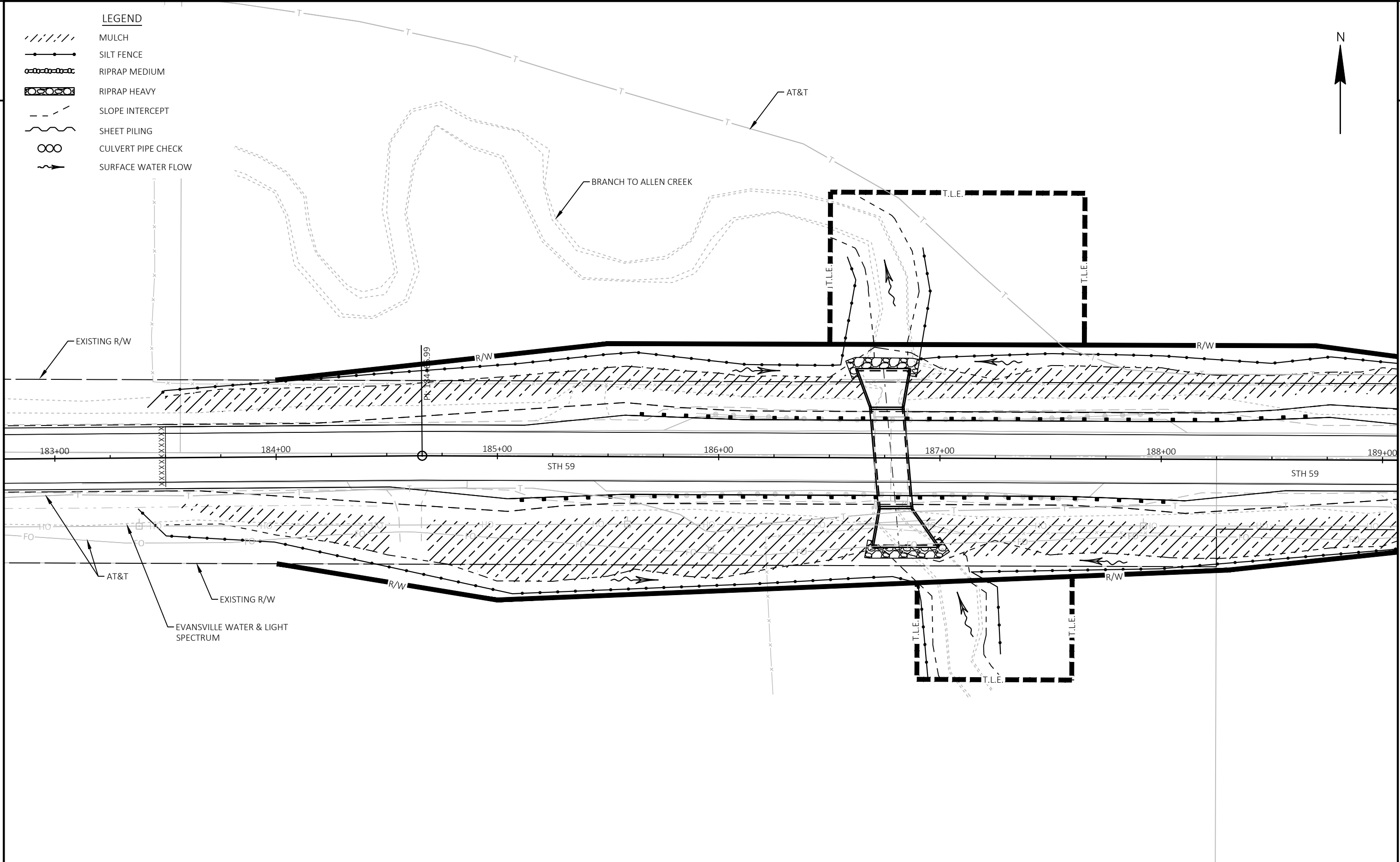


PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	EROSION CONTROL: TEMPORARY CHANNEL	SHEET	E
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LEGEND

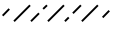
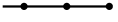



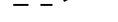


-  MULCH
-  SILT FENCE
-  RIPRAP MEDIUM
-  RIPRAP HEAVY
-  SLOPE INTERCEPT
-  SHEET PILING
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW

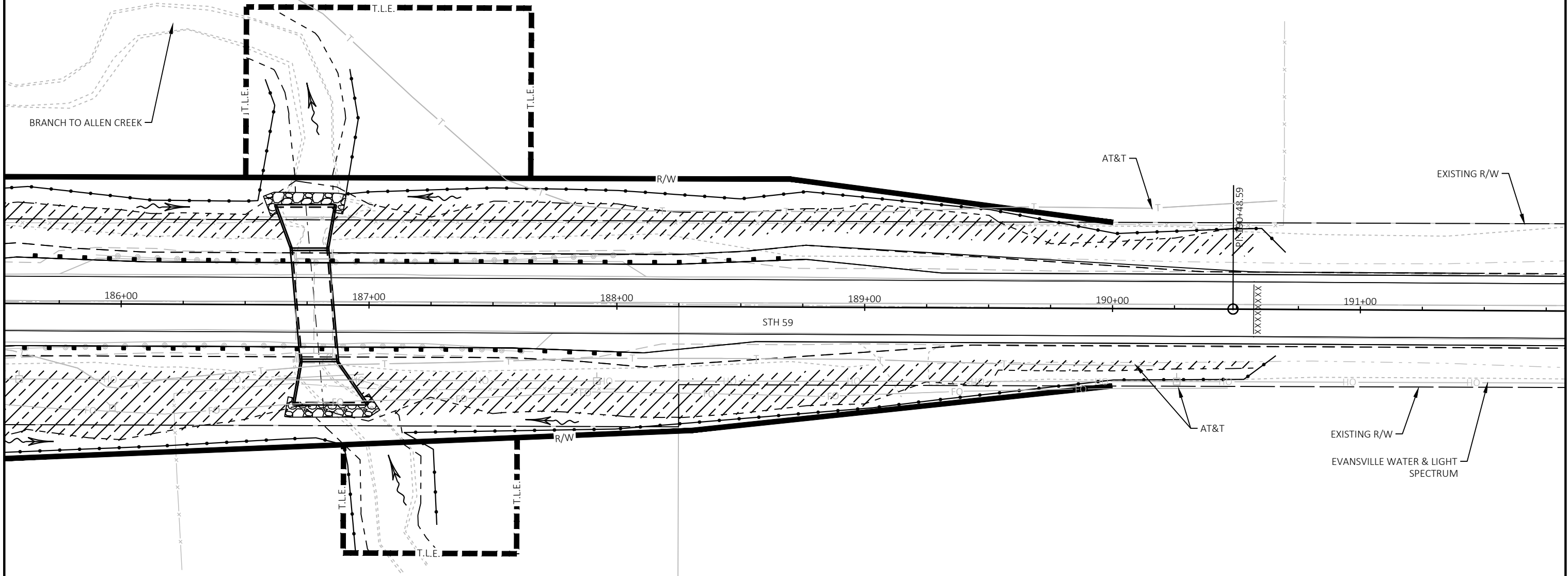


PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	EROSION CONTROL: BOX CULVERT	SHEET	E
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LEGEND

-  MULCH
-  SILT FENCE
-  RIPRAP MEDIUM
-  RIPRAP HEAVY
-  SLOPE INTERCEPT
-  SHEET PILING
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW



PROJECT NO: 5670-00-65

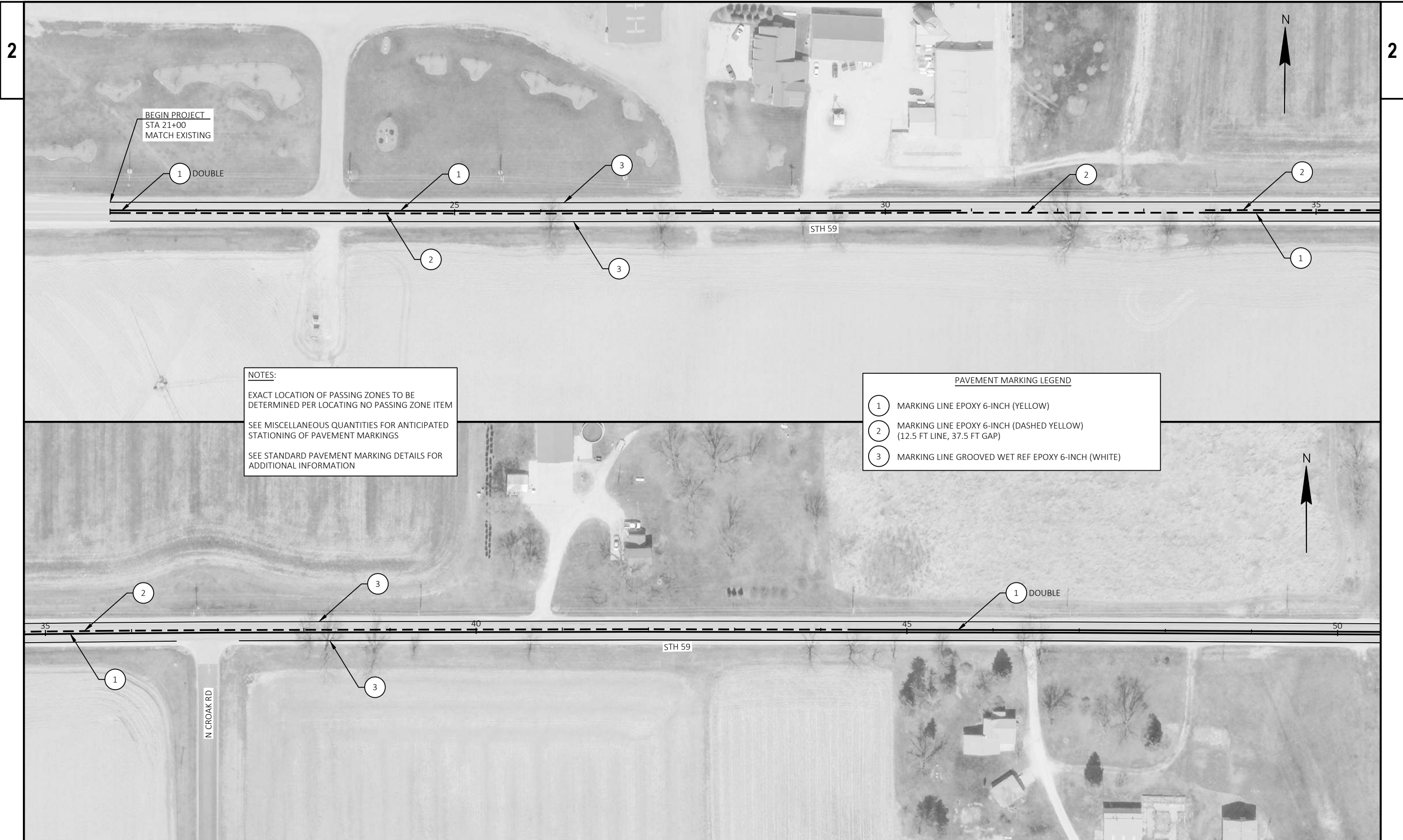
HWY: STH 59

COUNTY: ROCK

EROSION CONTROL: BOX CULVERT

SHEET

E



BEGIN PROJECT
STA 21+00
MATCH EXISTING

1 DOUBLE

1

3

2

2

2

3

1

STH 59

NOTES:

EXACT LOCATION OF PASSING ZONES TO BE DETERMINED PER LOCATING NO PASSING ZONE ITEM

SEE MISCELLANEOUS QUANTITIES FOR ANTICIPATED STATIONING OF PAVEMENT MARKINGS

SEE STANDARD PAVEMENT MARKING DETAILS FOR ADDITIONAL INFORMATION

PAVEMENT MARKING LEGEND

- 1 MARKING LINE EPOXY 6-INCH (YELLOW)
- 2 MARKING LINE EPOXY 6-INCH (DASHED YELLOW) (12.5 FT LINE, 37.5 FT GAP)
- 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)

2

3

1 DOUBLE

35

40

45

50

STH 59

1

3

N CROAK RD



NOTES:
 EXACT LOCATION OF PASSING ZONES TO BE DETERMINED PER LOCATING NO PASSING ZONE ITEM
 SEE MISCELLANEOUS QUANTITIES FOR ANTICIPATED STATIONING OF PAVEMENT MARKINGS
 SEE STANDARD PAVEMENT MARKING DETAILS FOR ADDITIONAL INFORMATION

PAVEMENT MARKING LEGEND

- 1 MARKING LINE EPOXY 6-INCH (YELLOW)
- 2 MARKING LINE EPOXY 6-INCH (DASHED YELLOW) (12.5 FT LINE, 37.5 FT GAP)
- 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)

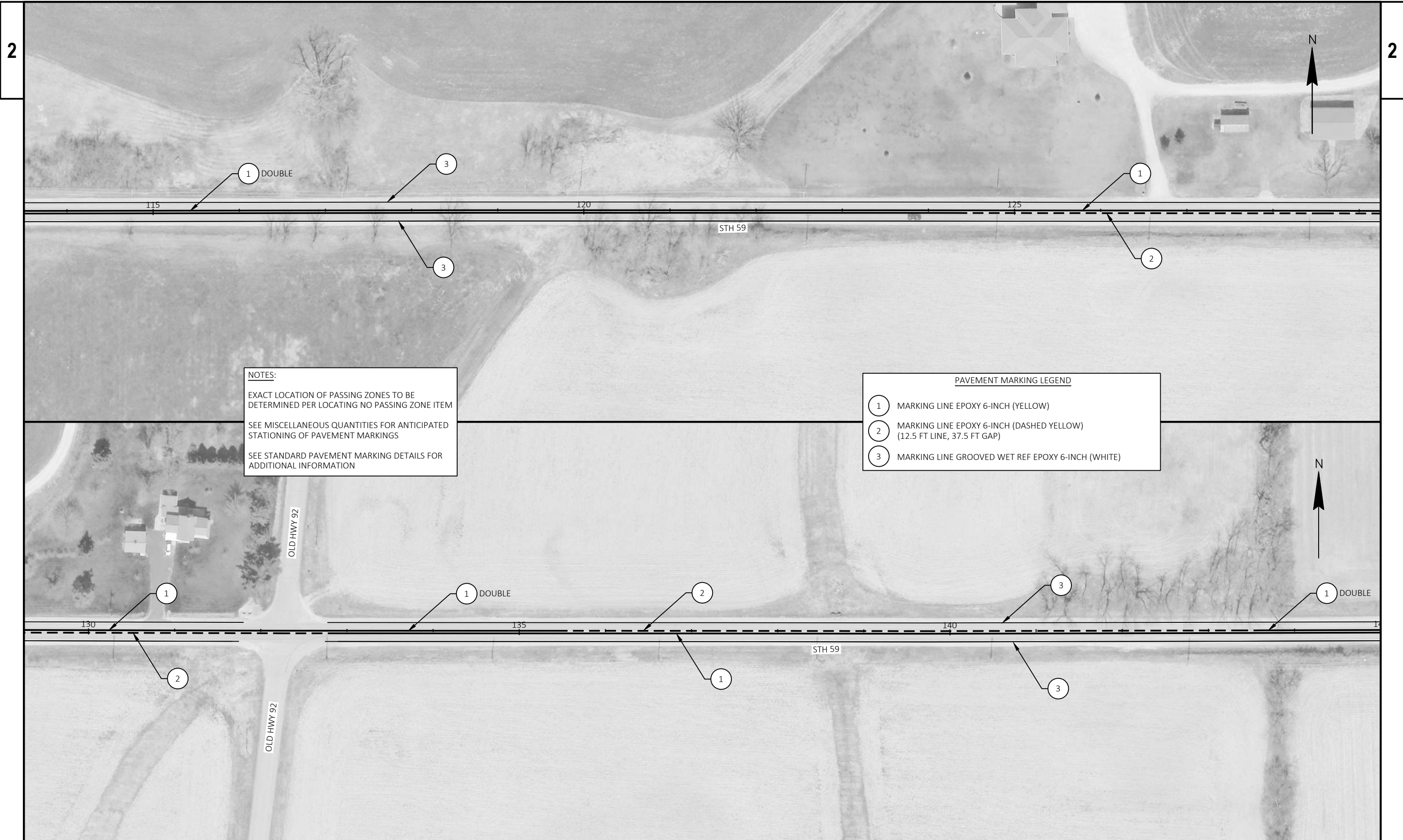




NOTES:
 EXACT LOCATION OF PASSING ZONES TO BE DETERMINED PER LOCATING NO PASSING ZONE ITEM
 SEE MISCELLANEOUS QUANTITIES FOR ANTICIPATED STATIONING OF PAVEMENT MARKINGS
 SEE STANDARD PAVEMENT MARKING DETAILS FOR ADDITIONAL INFORMATION

PAVEMENT MARKING LEGEND

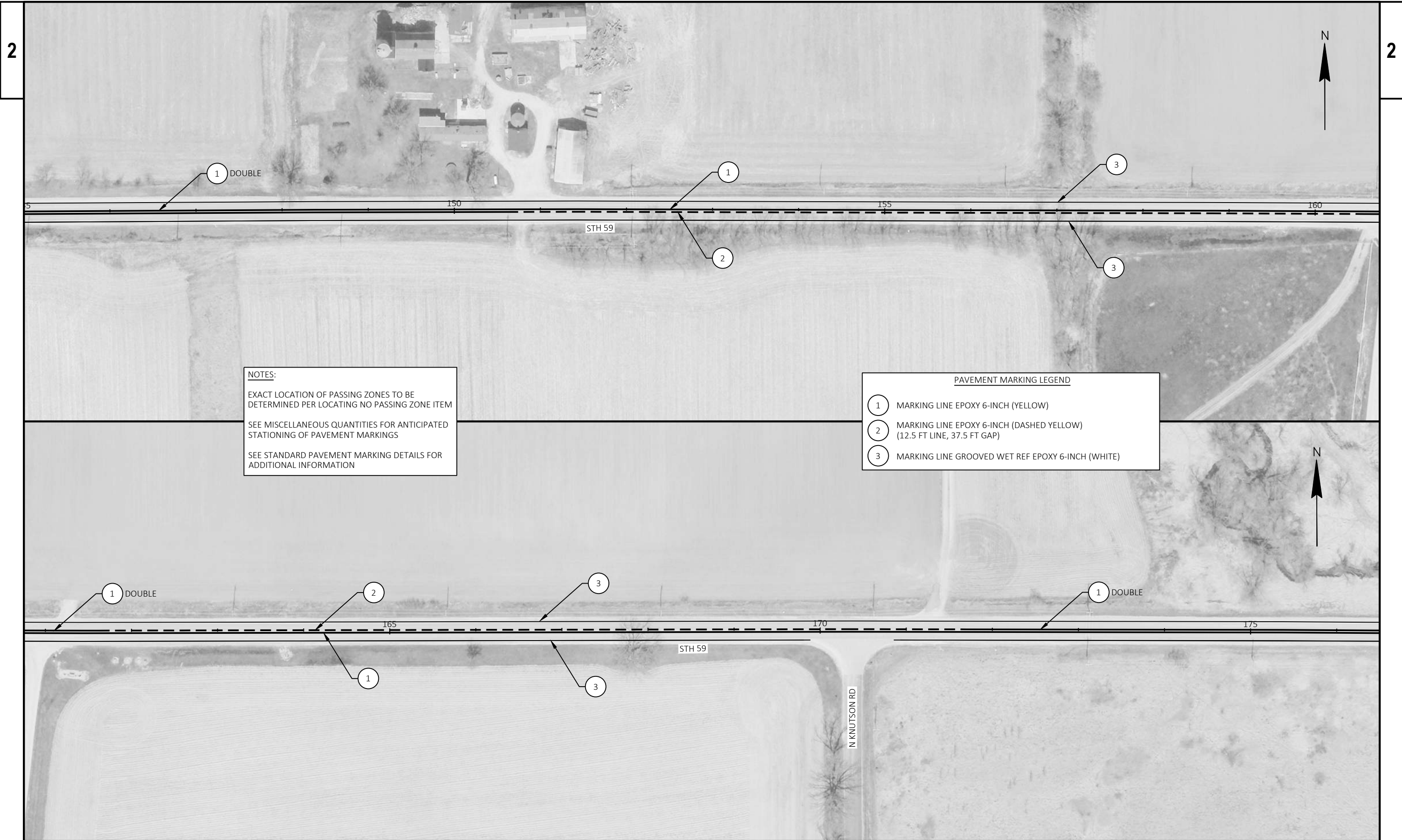
- 1 MARKING LINE EPOXY 6-INCH (YELLOW)
- 2 MARKING LINE EPOXY 6-INCH (DASHED YELLOW) (12.5 FT LINE, 37.5 FT GAP)
- 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)



NOTES:
 EXACT LOCATION OF PASSING ZONES TO BE DETERMINED PER LOCATING NO PASSING ZONE ITEM
 SEE MISCELLANEOUS QUANTITIES FOR ANTICIPATED STATIONING OF PAVEMENT MARKINGS
 SEE STANDARD PAVEMENT MARKING DETAILS FOR ADDITIONAL INFORMATION

PAVEMENT MARKING LEGEND

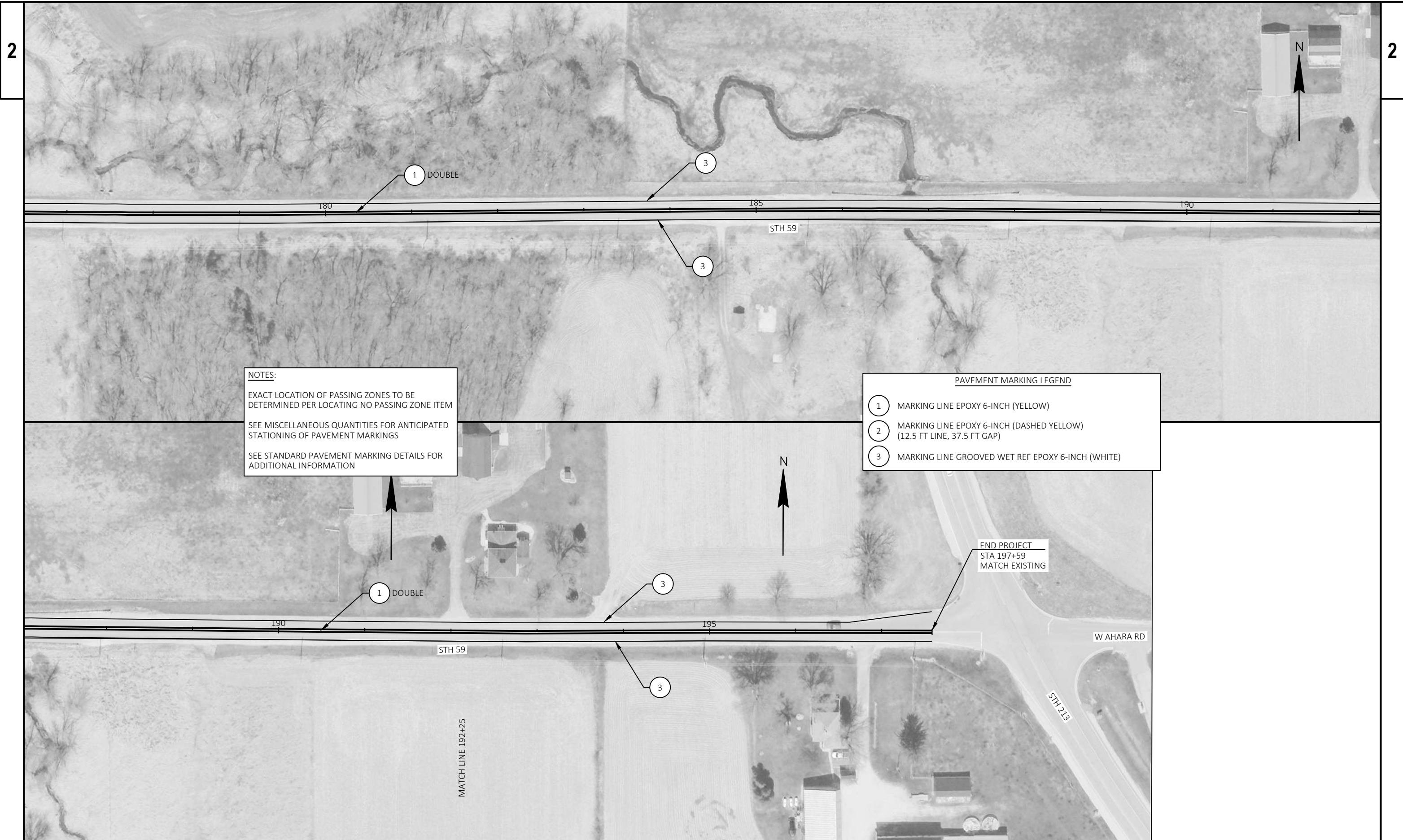
- ① MARKING LINE EPOXY 6-INCH (YELLOW)
- ② MARKING LINE EPOXY 6-INCH (DASHED YELLOW) (12.5 FT LINE, 37.5 FT GAP)
- ③ MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)



NOTES:
 EXACT LOCATION OF PASSING ZONES TO BE DETERMINED PER LOCATING NO PASSING ZONE ITEM
 SEE MISCELLANEOUS QUANTITIES FOR ANTICIPATED STATIONING OF PAVEMENT MARKINGS
 SEE STANDARD PAVEMENT MARKING DETAILS FOR ADDITIONAL INFORMATION

PAVEMENT MARKING LEGEND

- ① MARKING LINE EPOXY 6-INCH (YELLOW)
- ② MARKING LINE EPOXY 6-INCH (DASHED YELLOW) (12.5 FT LINE, 37.5 FT GAP)
- ③ MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)



PROJECT NO: 5670-00-65

HWY: STH 59









COUNTY: ROCK

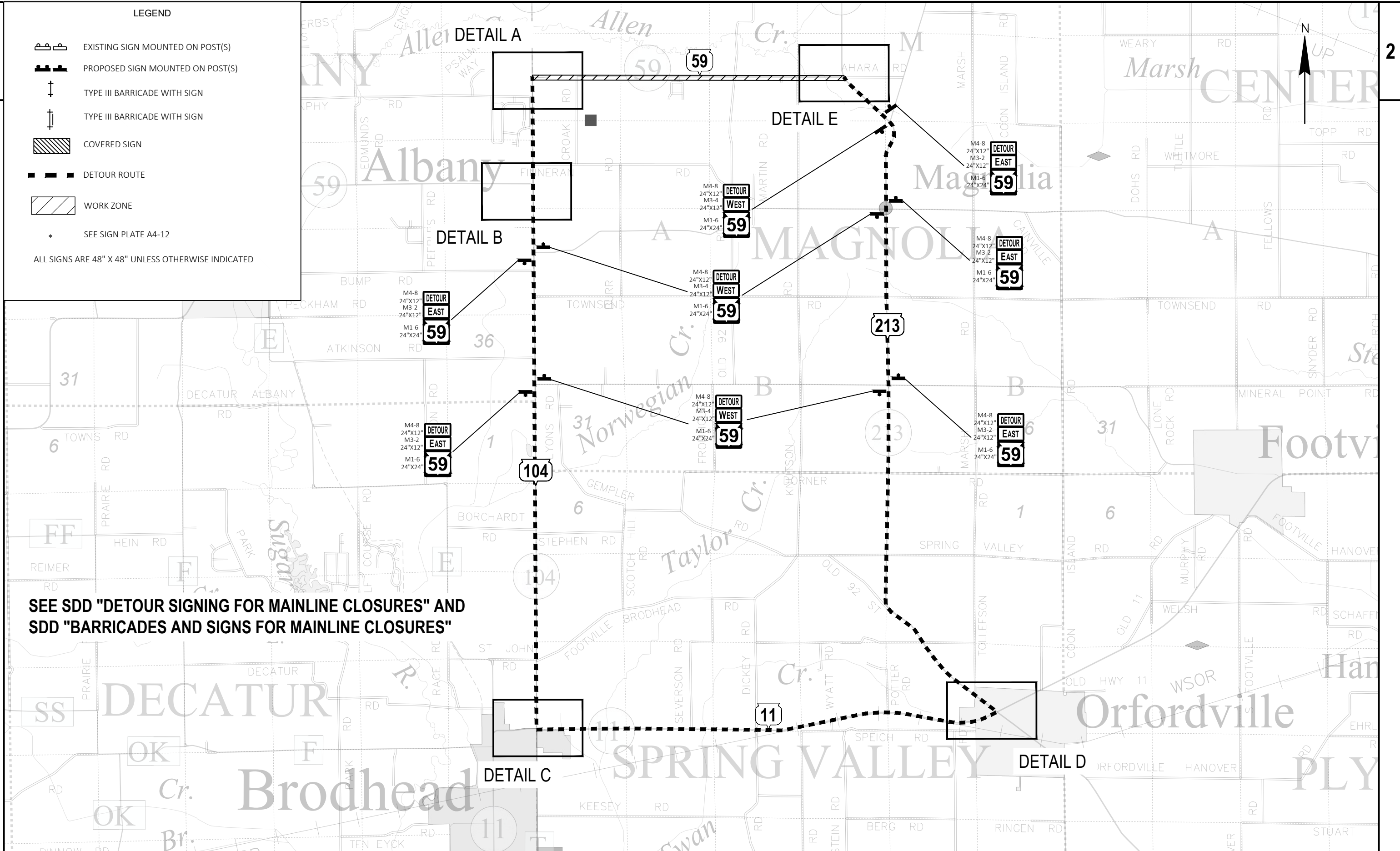
PAVEMENT MARKINGS

SHEET

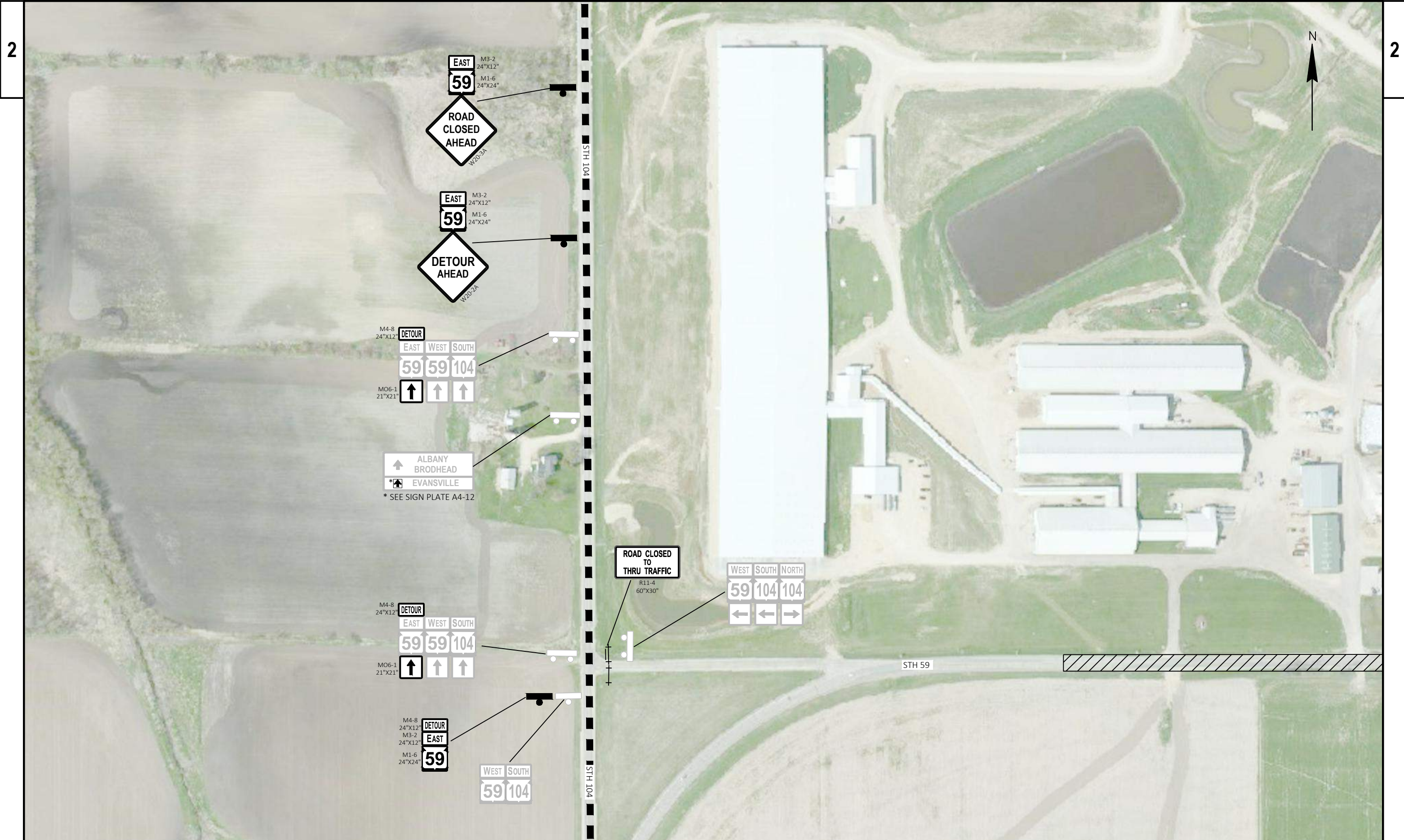
E

LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
 -  PROPOSED SIGN MOUNTED ON POST(S)
 -  TYPE III BARRICADE WITH SIGN
 -  TYPE III BARRICADE WITH SIGN
 -  COVERED SIGN
 -  DETOUR ROUTE
 -  WORK ZONE
 -  * SEE SIGN PLATE A4-12
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE INDICATED



SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES" AND SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"



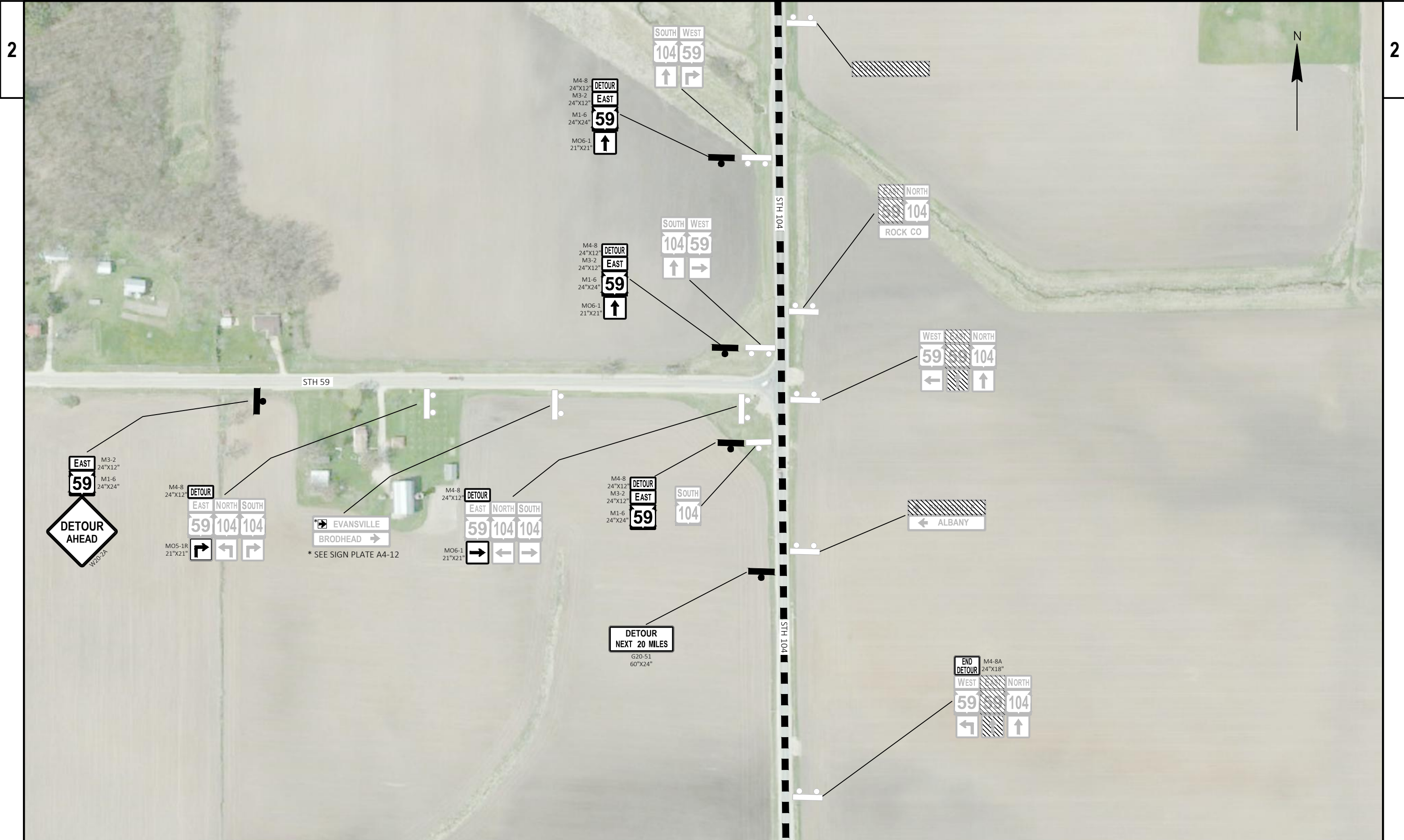
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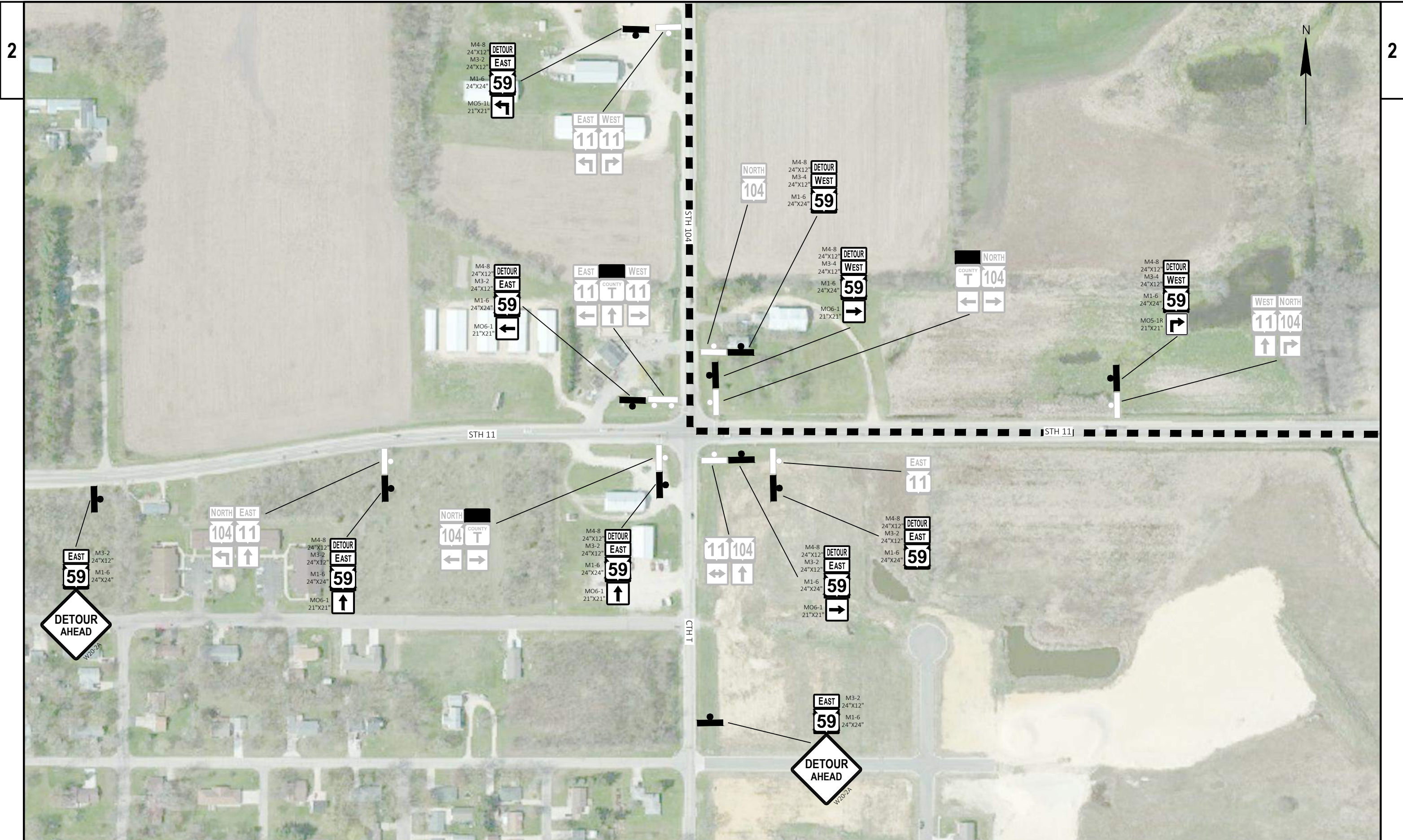
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PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK DETOUR: DETAIL A SHEET E

FILE NAME : N:\PDS\C3D\56700035\SHEETSPLAN\027001-DT.DWG PLOT DATE : 9/5/2023 1:28 PM PLOT BY : CLEMENTS, ERIN A PLOT NAME : PLOT SCALE : 1 IN:200 FT WISDOT/CADD SHEET 42

LAYOUT NAME - DETAIL A

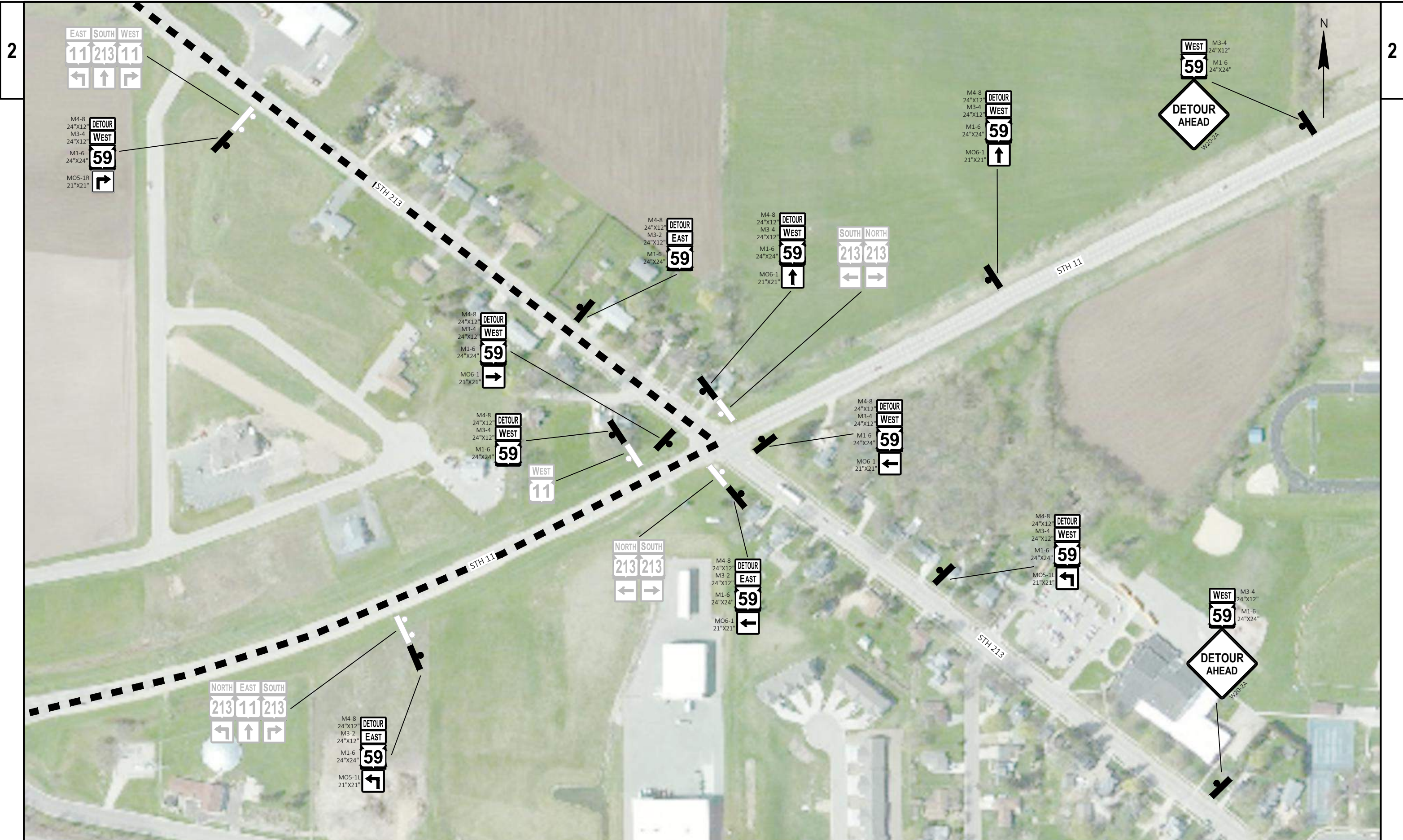




2

2

PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	DETOUR: DETAIL C	SHEET	E
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PROJECT NO: 5670-00-65

HWY: STH 59

COUNTY: ROCK

DETOUR: DETAIL D

SHEET

E

FILE NAME : N:\PDS\C3D\56700035\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - DETAIL D

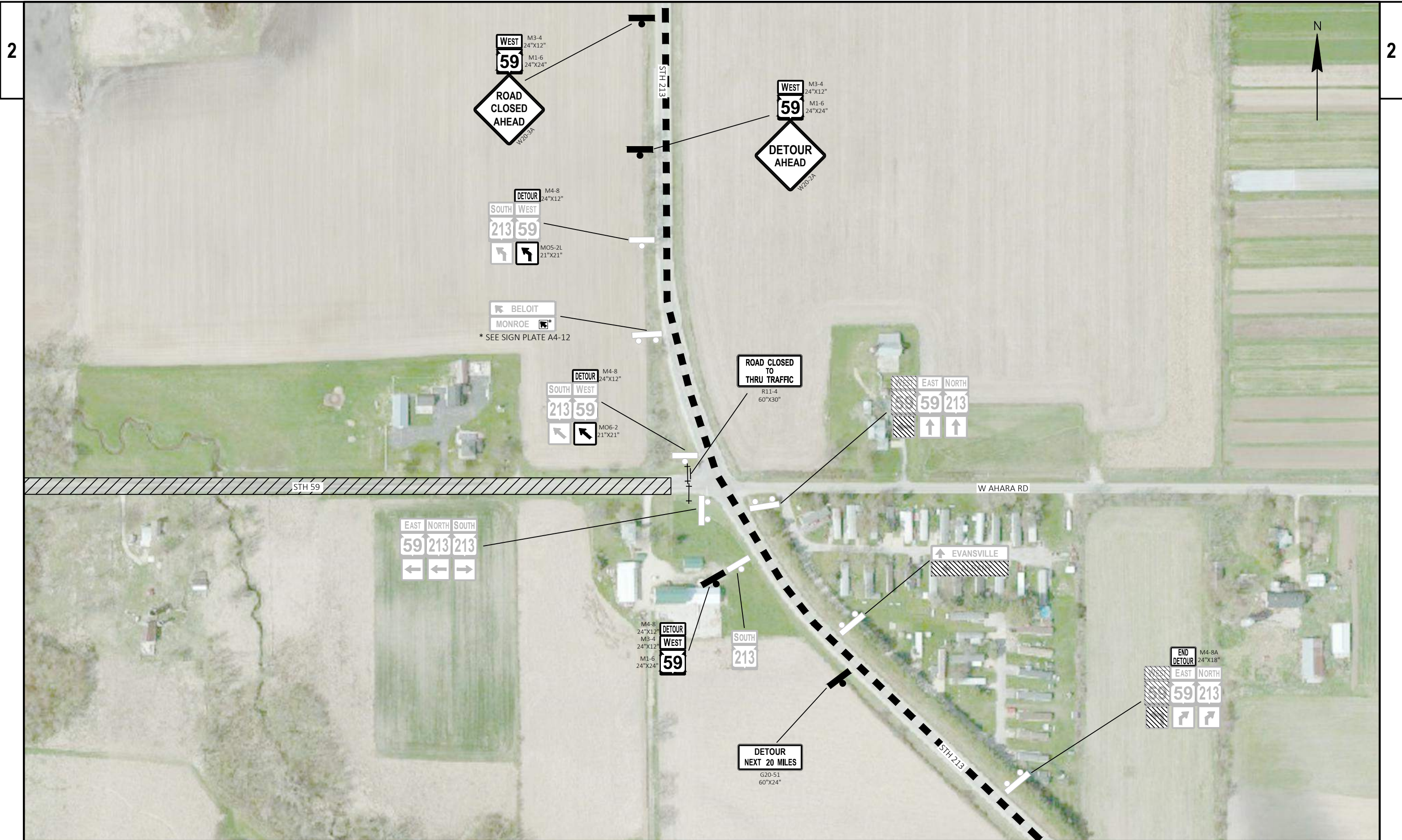
PLOT DATE : 9/5/2023 1:28 PM

PLOT BY : CLEMENTS, ERIN A

PLOT NAME :

PLOT SCALE : 1 IN:200 FT

WISDOT/CADD SHEET 42



PROJECT NO: 5670-00-65

HWY: STH 59

COUNTY: ROCK

DETOUR: DETAIL E

SHEET

E

Estimate Of Quantities

5670-00-65

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0100	Removing Small Pipe Culverts	EACH	5.000	5.000
0008	203.0220	Removing Structure (structure) 01. C-53-2011	EACH	1.000	1.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	41.000	41.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	44,300.000	44,300.000
0014	204.0165	Removing Guardrail	LF	440.000	440.000
0016	204.0170	Removing Fence	LF	240.000	240.000
0018	205.0100	Excavation Common	CY	2,208.000	2,208.000
0020	206.2001	Excavation for Structures Culverts (structure) 01. C-53-2040	EACH	1.000	1.000
0022	208.0100	Borrow	CY	750.000	750.000
0024	209.0300.S	Backfill Coarse Aggregate (size) 01. NO. 2	CY	75.000	75.000
0026	209.1100	Backfill Granular Grade 1	CY	540.000	540.000
0028	210.2500	Backfill Structure Type B	TON	630.000	630.000
0030	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5670-00-65	EACH	1.000	1.000
0032	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	177.000	177.000
0034	213.0100	Finishing Roadway (project) 01. 5670-00-65	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	520.000	520.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,730.000	4,730.000
0040	311.0110	Breaker Run	TON	126.000	126.000
0042	312.0110	Select Crushed Material	TON	3,440.000	3,440.000
0044	455.0605	Tack Coat	GAL	6,776.000	6,776.000
0046	460.2000	Incentive Density HMA Pavement	DOL	7,990.000	7,990.000
0048	460.5223	HMA Pavement 3 LT 58-28 S	TON	7,110.000	7,110.000
0050	460.5224	HMA Pavement 4 LT 58-28 S	TON	5,355.000	5,355.000
0052	465.0105	Asphaltic Surface	TON	560.000	560.000
0054	504.0100	Concrete Masonry Culverts	CY	98.000	98.000
0056	505.0400	Bar Steel Reinforcement HS Structures	LB	17,590.000	17,590.000
0058	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,540.000	1,540.000
0060	512.1000	Piling Steel Sheet Temporary	SF	1,300.000	1,300.000
0062	516.0500	Rubberized Membrane Waterproofing	SY	35.000	35.000
0064	521.3115	Culvert Pipe Corrugated Steel 15-Inch	LF	36.000	36.000
0066	522.2429	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	88.000	88.000
0068	522.2434	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	LF	80.000	80.000
0070	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0072	522.2634	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	EACH	2.000	2.000
0074	606.0200	Riprap Medium	CY	16.000	16.000
0076	606.0300	Riprap Heavy	CY	26.000	26.000
0078	614.2300	MGS Guardrail 3	LF	175.000	175.000
0080	614.2340	MGS Guardrail 3 L	LF	225.000	225.000
0082	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0084	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5670-00-65	EACH	1.000	1.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	624.0100	Water	MGAL	90.000	90.000
0090	625.0500	Salvaged Topsoil	SY	4,268.000	4,268.000
0092	627.0200	Mulching	SY	2,420.000	2,420.000
0094	628.1504	Silt Fence	LF	2,240.000	2,240.000
0096	628.1520	Silt Fence Maintenance	LF	2,240.000	2,240.000
0098	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0100	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000

Estimate Of Quantities

5670-00-65

Line	Item	Item Description	Unit	Total	Qty
0102	628.5505	Polyethylene Sheeting	SY	1,300.000	1,300.000
0104	628.7555	Culvert Pipe Checks	EACH	52.000	52.000
0106	629.0210	Fertilizer Type B	CWT	2.300	2.300
0108	630.0130	Seeding Mixture No. 30	LB	70.000	70.000
0110	630.0500	Seed Water	MGAL	85.000	85.000
0112	633.5200	Markers Culvert End	EACH	4.000	4.000
0114	642.5001	Field Office Type B	EACH	1.000	1.000
0116	643.0300	Traffic Control Drums	DAY	70.000	70.000
0118	643.0420	Traffic Control Barricades Type III	DAY	424.000	424.000
0120	643.0705	Traffic Control Warning Lights Type A	DAY	848.000	848.000
0122	643.0900	Traffic Control Signs	DAY	19,716.000	19,716.000
0124	643.0920	Traffic Control Covering Signs Type II	EACH	8.000	8.000
0126	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0128	643.3170	Temporary Marking Line Epoxy 6-Inch	LF	29,520.000	29,520.000
0130	643.5000	Traffic Control	EACH	1.000	1.000
0132	645.0105	Geotextile Type C	SY	189.000	189.000
0134	645.0120	Geotextile Type HR	SY	122.000	122.000
0136	646.2020	Marking Line Epoxy 6-Inch	LF	34,830.000	34,830.000
0138	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	30,540.000	30,540.000
0140	648.0100	Locating No-Passing Zones	MI	3.350	3.350
0142	650.4500	Construction Staking Subgrade	LF	970.000	970.000
0144	650.5000	Construction Staking Base	LF	970.000	970.000
0146	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0148	650.6501	Construction Staking Structure Layout (structure) 01. C-53-2040	EACH	1.000	1.000
0150	650.8000	Construction Staking Resurfacing Reference	LF	17,660.000	17,660.000
0152	650.9911	Construction Staking Supplemental Control (project) 01. 5670-00-65	EACH	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes	LF	1,190.000	1,190.000
0156	690.0150	Sawing Asphalt	LF	132.000	132.000
0158	715.0502	Incentive Strength Concrete Structures	DOL	588.000	588.000
0160	740.0440	Incentive IRI Ride	DOL	13,378.000	13,378.000
0162	999.2005.S	Maintaining Bird Deterrent System (station) 01. 186+78	EACH	1.000	1.000
0164	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	700.000	700.000
0166	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	575.000	575.000
0168	SPV.0060	Special 01. Sand Bags	EACH	75.000	75.000
0170	SPV.0060	Special 02. Verify Landmark Reference Monuments	EACH	4.000	4.000
0172	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	2,100.000	2,100.000

3

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)				FACTOR 1.25				
DIVISION 1											
59	183+50.00/190+57.25		1,242	494	748	282	353	396	396	0	
DIVISION 1 SUBTOTAL			1,242	494	748	282	353	396	396	0	
DIVISION 2											
WEST TWIN PIPES	32+10.50/33+40.50		238	54	184	119	149	35	35	0	
DIVISION 2 SUBTOTAL			238	54	184	119	149	35	35	0	
DIVISION 3											
EAST TWIN PIPES	176+80.00/177+50.00		136	33	103	21	26	77	77	0	
DIVISION 3 SUBTOTAL			136	33	103	21	26	77	77	0	
DIVISION 4											
TEMP CHANNEL	100+00.00/102+18.25		592	104	488	0	0	488	488	0	
DIVISION 4 SUBTOTAL			592	104	488	0	0	488	488	0	
GRAND TOTAL			2,208	685	1,523	422	528	996	996	0	

NOTES:

- (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
- (2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (13) EXPANDED FILL FACTOR = 1.25
- DEPENDING ON SELECTIONS:
 - OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR
 - OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR
 - OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR
 - OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR
- (14) 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.
- (15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

CLEARING & GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	185+00	-	188+00	C-53-2011	3	3
TOTAL 0010					3	3

REMOVING CULVERT PIPES

203.0100 REMOVING SMALL PIPE CULVERTS						
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	32+70	-	32+80	WEST TWIN CULVERTS	2	52X40" CMCE, 84 LF TOTAL
	177+40	-	177+50	EAST TWIN CULVERTS	2	54X38" CMCE, 108 LF TOTAL
	184+43	-	184+78	DRIVEWAY, RT	1	12" CMCP, 20 LF
TOTAL 0010					5	

PROJECT NO: 5670-00-65

HWY: STH 59

COUNTY: ROCK

MISCELLANEOUS QUANTITIES

SHEET

E

3

REMOVING STRUCTURE

CATEGORY	STATION	TO	STATION	LOCATION	203.0220.01 REMOVING STRUCTURE (STRUCTURE) (01. C-53-2011) EACH
0020	186+70	-	186+86	C-53-2011	1
TOTAL 0020					1

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010	185+05	-	188+11	RT	220
	185+58	-	188+76	LT	220
TOTAL 0010					440

3

REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	204.0170 REMOVING FENCE LF
0010	186+21	-	188+02	RT	240
TOTAL 0010					240

MILLING

CATEGORY	STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	SPV.0180.01 SPECIAL (01. REMOVING DISTRESSED PAVEMENT MILLING) SY	REMARKS
0010	21+00	-		MAINLINE	5	-	-	PROJECT START
	21+00	-	197+59	MAINLINE	-	44,300	-	MILL & OVERLAY
	36+89	-		RT	5	-	-	N CROAK RD
	98+57	-		RT	6	-	-	N MICHAEL DR
	132+20	-		RT	6	-	-	OLD HWY 92
	132+32	-		LT	5	-	-	OLD HWY 92
	170+37	-		RT	6	-	-	N KNUTSON RD
	197+59	-		MAINLINE	8	-	-	PROJECT END
				UNDISTRIBUTED	-	-	2,100	
TOTAL 0010					41	44,300	2,100	

TEMPORARY CHANNEL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	208.0100 BORROW CY	209.0300.S.01 BACKEILL COARSE AGGREGATE (SIZE) (01. NO. 2) CY	209.1100 BACKFILL GRANULAR GRADE 1 CY	512.1000 PILING STEEL SHEET TEMPORARY SF	628.5505 POLYETHYLENE SHEETING SY	SPV.0060.01 SPECIAL (01. SAND BAGS) EACH
0010	100+00-TC	-	102+17-TC	TEMP CHANNEL	750	75	540	1,300	1,300	75
TOTAL 0010					750	75	540	1,300	1,300	75

PROJECT NO: 5670-00-65

HWY: STH 59

COUNTY: ROCK

MISCELLANEOUS QUANTITIES

SHEET

E

PREPARE FOUNDATION

CATEGORY	STATION	TO	STATION	LOCATION	211.0101.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 5670-00-65) EACH	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
0030	21+00	-	197+59	PROJECT	1	177
TOTAL 0030					1	177

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4- INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL
0010	21+00	-	36+77	RT	21	-	-	0.2
	21+00	-	132+21	LT	150	-	-	2
	32+11	-	33+41	LT/RT	-	1,123	500	16
	37+00	-	98+46	RT	80	-	-	1
	98+71	-	132+08	RT	44	-	-	0
	132+43	-	197+58	LT	113	-	-	1
	132+32	-	170+26	RT	50	-	-	0
	170+49	-	197+59	RT	62	-	-	1
	176+80	-	178+10	LT/RT	-	1,053	440	15
	183+50	-	190+57	LT/RT	-	2,550	2,500	51
TOTAL 0010					520	4,730	3,440	90

ASPHALT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S MIDDLE LAYER	460.5224 HMA PAVEMENT 4 LT 58-28 S UPPER LAYER TON	465.0105 ASPHALTIC SURFACE LOWER LAYER TON	REMARKS
0010	21+00	-	197+59	MAINLINE	5,017	5,270	4,100	-	OVERLAY
	32+11	-	33+41	MAINLINE	86	40	5	27	WEST TWIN CULVERTS
	176+80	-	178+10	MAINLINE	87	40	5	27	EAST TWIN CULVERTS
	183+50	-	190+57	MAINLINE	467	220	25	146	BOX CULVERT
	UNDISTRIBUTED				155	-	-	280	DISTRESSED PVMNT MILLING
TOTAL 0010					5,812	5,570	4,135	480	
0030	21+00	-	36+52	RT	42	70	60	4	START - N CROAK
	21+00	-	131+81	LT	280	470	370	4	START - OLD HWY 92
	37+25	-	98+01	RT	152	260	200	-	N CROAK - N MICHAEL
	99+25	-	131+75	RT	82	140	110	-	N MICHAEL - OLW HWY 92
	132+75	-	169+89	RT	93	160	130	-	OLD HWY 92 - N KNUTSON
	132+77	-	197+59	LT	208	300	240	36	OLD HWY 92 - END
	170+86	-	197+59	RT	107	140	110	36	N KNUTSON - END
TOTAL 0030					964	1,540	1,220	80	
PROJECT TOTAL					6,776	7,110	5,360	560	

CULVERTS

CATEGORY	STATION TO STATION	LOCATION	MIN. THICKNESS INCH		CULVERT PIPE CORRUGATED STEEL 15-INCH LF	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH LF	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 34X53-INCH LF	522.2629 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH EACH	522.2634 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH EACH	633.5200 MARKERS CULVERT END EACH	
			STEEL	ALUM.							
0010	32+70 - 32+80	WEST TWIN CULVERTS	0.064	0.060	-	-	80	-	2	2	
	177+40 - 177+50	EAST TWIN CULVERTS	-	-	-	88	-	2	-	2	
	184+43 - 184+78	DRIVEWAY, RT	-	-	36	-	-	-	-	-	
TOTAL 0010						36	88	80	2	2	4

RIPRAP & GEOTEXTILE

CATEGORY	STATION TO STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	* 645.0120 GEOTEXTILE TYPE	
				HR SY	SY
0010	32+70 - 32+80	WEST TWIN PIPES	7	15	
	177+40 - 177+50	EAST TWIN PIPES	9	45	
TOTAL 0010			16	60	

*ADDITIONAL QUANTITY LISTED IN STRUCTURE PLANS

BEAMGUARD

CATEGORY	STATION TO STATION	LOCATION	614.2300	614.2340	614.2610
			MGS GUARDRAIL 3 LF	MGS GUARDRAIL 3 L LF	MGS GUARDRAIL TERMINAL EAT EACH
0010	185+05 - 185+58	RT LT	88 88	113 113	2 2
TOTAL 0010			175	225	4

LANDSCAPING ITEMS

CATEGORY	STATION TO STATION	LOCATION	625.0500	627.0200	629.0210	630.0130	630.0500
			SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEED WATER MGAL
0010	32+11 - 33+41	LT	317	80	0.09	3	4
	32+11 - 33+41	RT	225	60	0.08	3	3
	176+80 - 178+10	LT	294	140	0.13	4	5
	176+80 - 178+10	RT	305	30	0.05	2	2
	183+50 - 190+57	LT	1,196	780	0.78	23	28
	183+50 - 190+57	RT	1,544	1,110	0.97	28	35
	UNDISTRIBUTED		388	220	0.21	7	8
TOTAL 0010			4,268	2,420	2.3	70	85

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7555 CULVERT PIPE CHECKS EACH
0010	32+11	-	33+41	WEST TWIN PIPES	320	320	3	1	26
	176+80	-	178+10	EAST TWIN PIPES	310	310	3	1	26
	183+50	-	190+57	BOX CULVERT	1,610	1,610	4	1	-
TOTAL 0010					2,240	2,240	10	3	52

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS *EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III *EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A *EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS *EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS *EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH	REMARKS
0010	PROJECT	10	70	-	-	-	-	-	-	-	2	14	-	PRE-CONSTRUCTION
	PROJECT	-	-	4	424	8	848	171	18,126	8	-	-	-	DETOUR
	PROJECT	-	-	-	-	-	-	15	1,590	-	-	-	1	PROJECT DURATION
TOTAL 0010			70	424	424	848	848	19,716	19,716	8	14	14	1	

*'EACH' QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY
 **ONLY ONE CYCLE FOR TRAFFIC CONTROL COVERING SIGNS

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. C-53-2040) EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 5670-00-65) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	21+00	-	197+59	PROJECT	-	-	-	-	17,660	1	-	
	32+11	-	33+41	RT/LT	130	130	2	-	-	-	130	TWIN PIPE WEST OF N CROAK RD
	176+80	-	178+10	RT/LT	130	130	2	-	-	-	130	TWIN PIPE EAST OF N KNUTSON RD
	183+50	-	190+57	RT/LT	710	710	-	1	-	-	930	BOX CULVERT & TEMP CHANNEL
TOTAL 0010					970	970	4	1	17,660	1	1,190	

PAVEMENT MARKINGS

CATEGORY	STATION	TO	STATION	LOCATION	MI	648.0100	646.2040	646.2020	643.3170	REMARKS
						LOCATING NO-PASSING ZONES	MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE LF	MARKING LINE EPOXY 6-INCH YELLOW LF	TEMPORARY MARKING LINE EPOXY 6-INCH YELLOW LF	
0010	21+00	-	21+16	CL	-	-	32	-	32	DOUBLE YELLOW
	21+00	-	36+52	RT	-	-	-	1,552	-	EDGE LINE
	21+00	-	131+80	LT	-	-	-	11,080	-	EDGE LINE
	21+00	-	197+59	CL	3.35	-	-	-	-	
	21+16	-	30+88	CL	-	-	1215	-	1,050	EB PASSING ONLY
	30+88	-	33+71	CL	-	-	71	-	23	PASSING
	33+71	-	44+41	CL	-	-	1338	-	1,156	WB PASSING ONLY
	37+25	-	98+02	RT	-	-	-	6,077	-	EDGE LINE
	44+41	-	124+31	CL	-	-	15980	-	15,980	DOUBLE YELLOW
	99+25	-	131+75	RT	-	-	-	3,250	-	EDGE LINE
	124+31	-	132+86	CL	-	-	1069	-	924	EB PASSING ONLY
	132+86	-	135+41	CL	-	-	510	-	510	DOUBLE YELLOW
	132+77	-	197+59	LT	-	-	-	6,481	-	EDGE LINE
	132+75	-	169+89	RT	-	-	-	3,714	-	EDGE LINE
	135+41	-	143+61	CL	-	-	1025	-	886	WB PASSING ONLY
	143+61	-	150+67	CL	-	-	1412	-	1,412	DOUBLE YELLOW
	150+67	-	160+57	CL	-	-	1238	-	1,070	EB PASSING ONLY
	160+57	-	161+62	CL	-	-	210	-	210	DOUBLE YELLOW
	161+62	-	171+70	CL	-	-	1260	-	1,089	WB PASSING ONLY
	170+86	-	197+59	RT	-	-	-	2,673	-	EDGE LINE
	171+70	-	197+59	CL	-	-	5177	-	5,178	DOUBLE YELLOW
TOTAL 0010					3.35		30,540	34,830	29,520	

* TO BE USED ON HMA FINAL SURFACE FOR LOCAL TRAFFIC BEFORE PERMANENT MARKING COMPLETED

SAWING ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	690.0150
					SAWING ASPHALT LF
0010	32+11	-	33+41	WEST TWIN CULVERTS	44
	176+80	-	178+10	EAST TWIN CULVERTS	44
	183+50	-	190+57	BOX CULVERT	44
TOTAL 0010					132

MONUMENTS

CATEGORY	STATION	OFFSET	SPV.0060.02 SPECIAL (VERIFY LANDMARK REFERENCE MONUMENTS) EACH
0010	117+18	1.69' LT	1
0010	170+28	6.31' LT	1
0010	196+82	2.44' LT	1
TOTAL 0010			4

BIRD DETERRENT SYSTEM

CATEGORY	STATION	TO	STATION	LOCATION	999.2005.S.01
					MAINTAINING BIRD DETERRENT SYSTEM (STATION) (STA. 186+78) EACH
0010	186+70	-	186+86	LT/RT	1
TOTAL 0010					1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET

5670-00-23 MONROE - EVANSVILLE

STH 104 - STH 213

STH 59 ROCK COUNTY



CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	---	SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE	---	ELECTRIC POLE		NON-COMPENSABLE	
PROPERTY LINE	---	TELEPHONE POLE			
LOT, TIE & OTHER MINOR LINES	---	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
SLOPE INTERCEPT	---	ACCESS RESTRICTED BY ACQUISITION			
CORPORATE LIMITS	---	NO ACCESS (BY STATUTORY AUTHORITY)			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---	NO ACCESS (NEW HIGHWAY)			
TEMPORARY LIMITED EASEMENT AREA	---	PARCEL NUMBER (25)		UTILITY NUMBER (40)	
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---	PARALLEL OFFSETS			
TRANSMISSION STRUCTURES	---				
BUILDING TO BE REMOVED					
BRIDGE					
CULVERT					

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS (100')	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	GV	TEMPORARY LIMITED EASEMENT	TLE
GRID NORTH	GN		
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

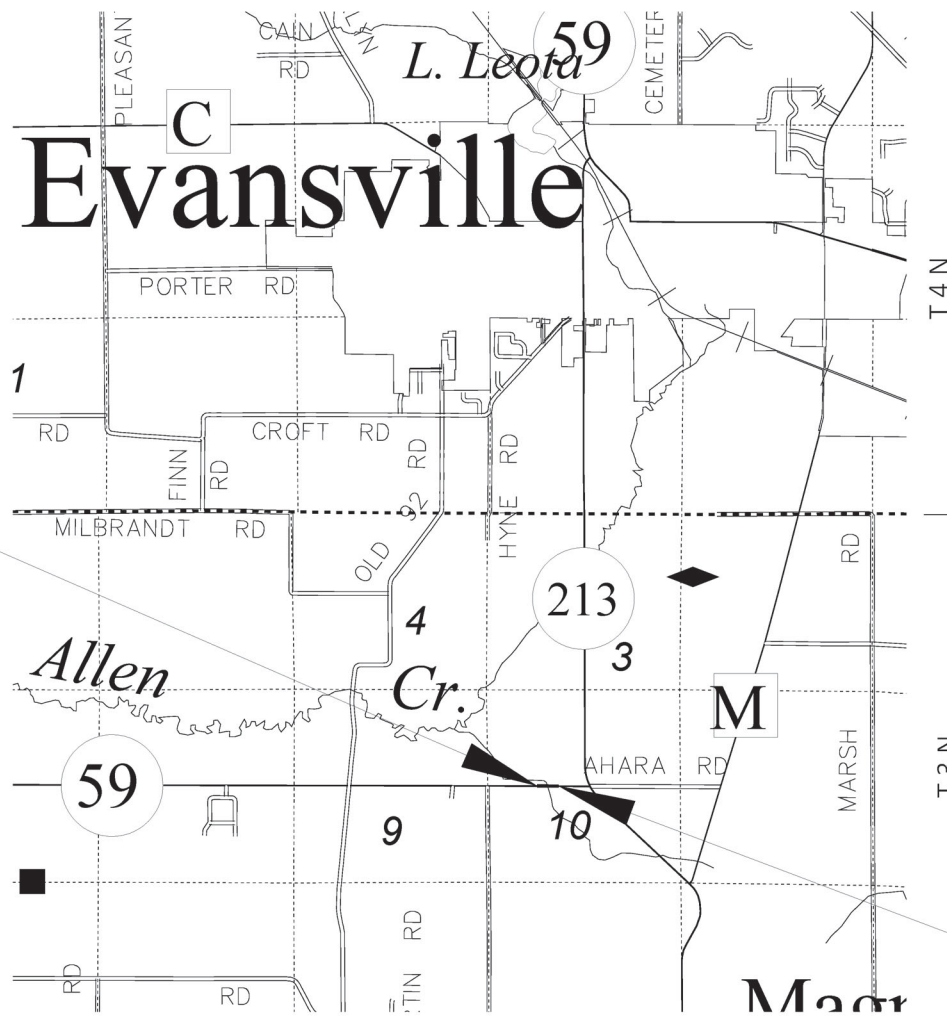
CURVE DATA ABBREVIATIONS

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

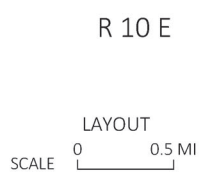
CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
ELECTRIC TOWER	⊠

BEGIN PROJECT



END PROJECT



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5670-00-23

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ROCK 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.

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.

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

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

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

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

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON, WI.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 5670-00-23 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

TRANSPORTATION PROJECT PLAT NO: 5670-00-23 - 4.01 AMENDMENT NO.1
 AMENDS UTILITY NO. 80 OF TRANSPORTATION PROJECT PLAT 5670-00-23 - 4.01 RECORDED AS DOCUMENT NO. 2220517.
 THE LOCATION OF UTILITY NO. 80 THROUGHOUT THE PLAT HAS BEEN UPDATED.

PART OF LOT 1 OF A CSM RECORDED AS DOCUMENT #845754 IN VOL 5 PG 288, LOCATED IN THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER; PART OF LOT 1 OF A CSM RECORDED AS DOCUMENT #1218779 IN VOLUME 17 PAGE 84, LOCATED IN THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER; AND PART OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER; ALL LOCATED IN SECTION 10, TOWNSHIP 3 NORTH, RANGE 10 EAST, TOWN OF MAGNOLIA, ROCK COUNTY, WISCONSIN.

RELOCATION ORDER STH 59, MONROE - EVANSVILLE (STH 104 - STH 213), ROCK 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.

SCHEDULE OF LANDS & INTERESTS REQUIRED

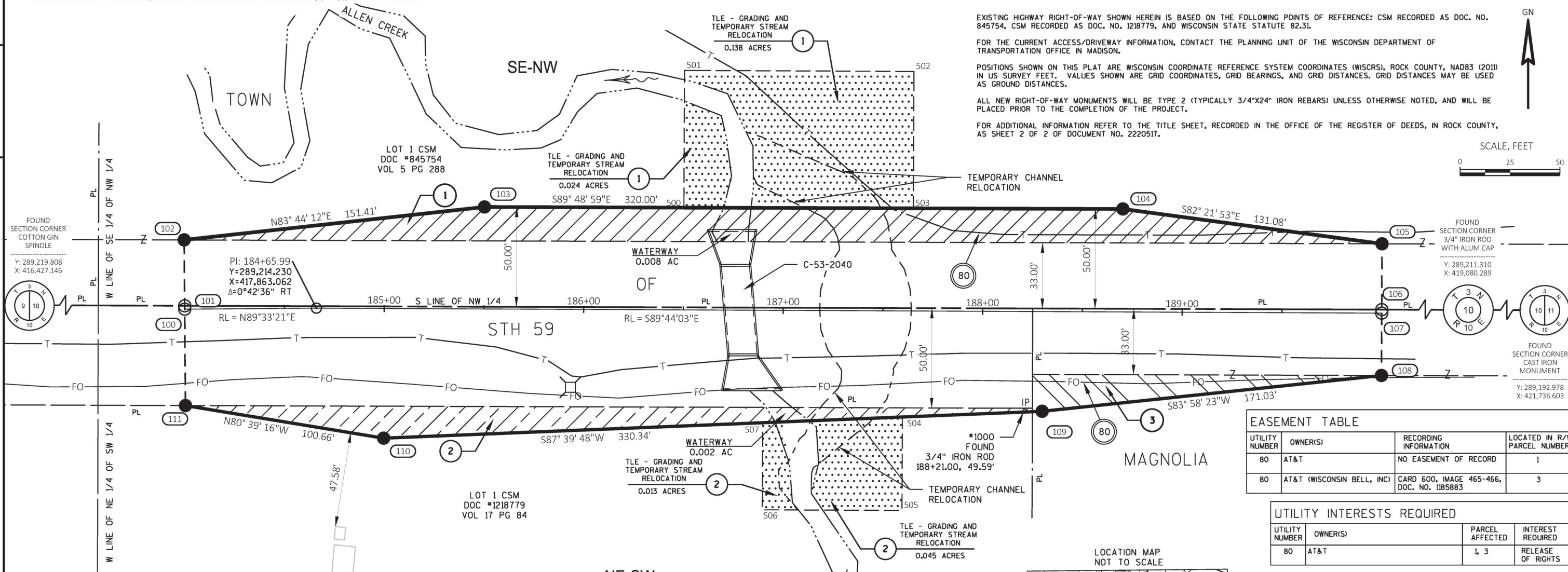
PARCEL NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
1	SHARON K. MAGEE, TRUSTEE, OR A SUCCESSOR TRUSTEE, OF THE SHARON MAGEE REVOCABLE LIVING TRUST DATED MAY 19, 2011	FEE, TLE	0.180	0.455	0.635	0.162
2	RICHARD L. MCCOY AND KATHRYN J. MCCOY, HUSBAND AND WIFE, AS TO AN UNDIVIDED ONE-HALF (1/2) INTEREST, AND ALLEN MCCOY AND WENDY MCCOY, HUSBAND AND WIFE, AS TO THE REMAINING UNDIVIDED 1/2 INTEREST, AS TENANTS IN COMMON, DATED 05/06/2011	FEE, TLE	0.085	--	0.085	0.058
3	RICHARD L. MCCOY AND ALLEN D. MCCOY AS TENANTS IN COMMON	FEE	0.038	0.133	0.171	--

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

2246637
 SANDY DISRUD
 REGISTER OF DEEDS
 ROCK COUNTY, WI
 RECORDED ON
 08/23/2023 11:45 AM
 REC FEE: 25.00
 TPP-E214
 PAGES: 1

The above recording information verifies that this document has been electronically recorded and returned to the submitter.

RESERVED FOR REGISTER OF DEEDS
 PROJECT NUMBER 5670-00-23-4.01
 AMENDMENT NO. 1



EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: CSM RECORDED AS DOC. NO. 845754, CSM RECORDED AS DOC. NO. 1218779, AND WISCONSIN STATE STATUTE 82.31.

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

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ROCK COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"x24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ROCK COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 2220517.



EASEMENT TABLE

UTILITY NUMBER	OWNER(S)	RECORDING INFORMATION	LOCATED IN R/W PARCEL NUMBER
80	AT&T	NO EASEMENT OF RECORD	1
80	AT&T (WISCONSIN BELL, INC)	CARD 600, IMAGE 465-466, DOC. NO. 1185883	3

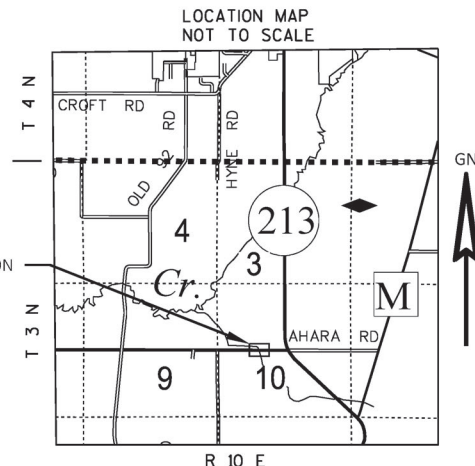
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	PARCEL AFFECTED	INTEREST REQUIRED
80	AT&T	1, 3	RELEASE OF RIGHTS

RW POINT	STATION	OFFSET
100	184+00.00	0.00'
101	184+00.00	-1.70'
102	184+00.00	-34.70'
103	185+50.00	-51.10'
104	188+70.00	-51.56'
105	190+00.00	-34.75'
106	190+00.00	-1.75'
107	190+00.00	0.00'
108	190+00.00	31.25'
109	188+30.00	50.00'
110	185+00.00	65.00'
111	184+00.00	48.30'

TLE POINT	STATION	OFFSET
500	186+50.00	-51.24'
501	186+50.00	-120.00'
502	187+65.00	-120.00'
503	187+65.00	-51.41'
504	187+60.00	53.18'
505	187+60.00	100.00'
506	186+90.00	100.00'
507	186+90.00	56.36'

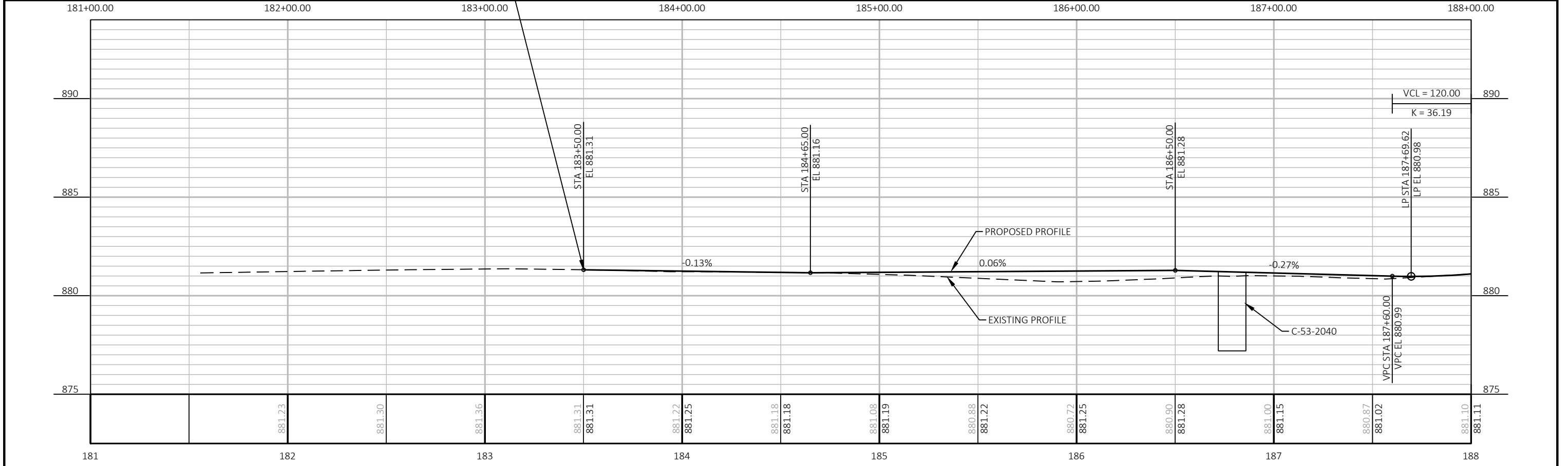
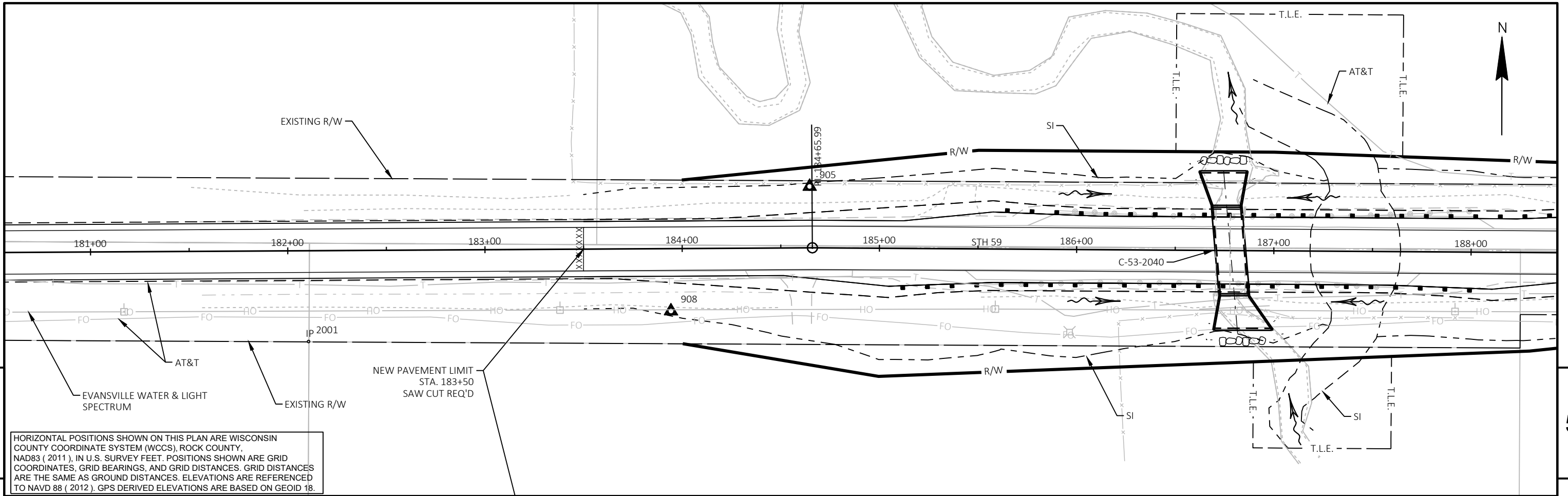
LINE	BEARING	DISTANCE
100-101	N00°26'39"W	1.70'
101-102	N00°26'39"W	33.00'
105-106	S00°15'57"W	33.00'
106-107	S00°15'57"W	1.75'
107-108	S00°15'57"W	31.25'
111-100	N00°26'39"W	48.30'
101-106	S89°48'59"E	600.02'
W1/4-101	S89°48'59"E	1369.92'
106-CEN	S89°48'59"E	683.22'
CEN-E1/4	S89°36'17"E	2656.38'



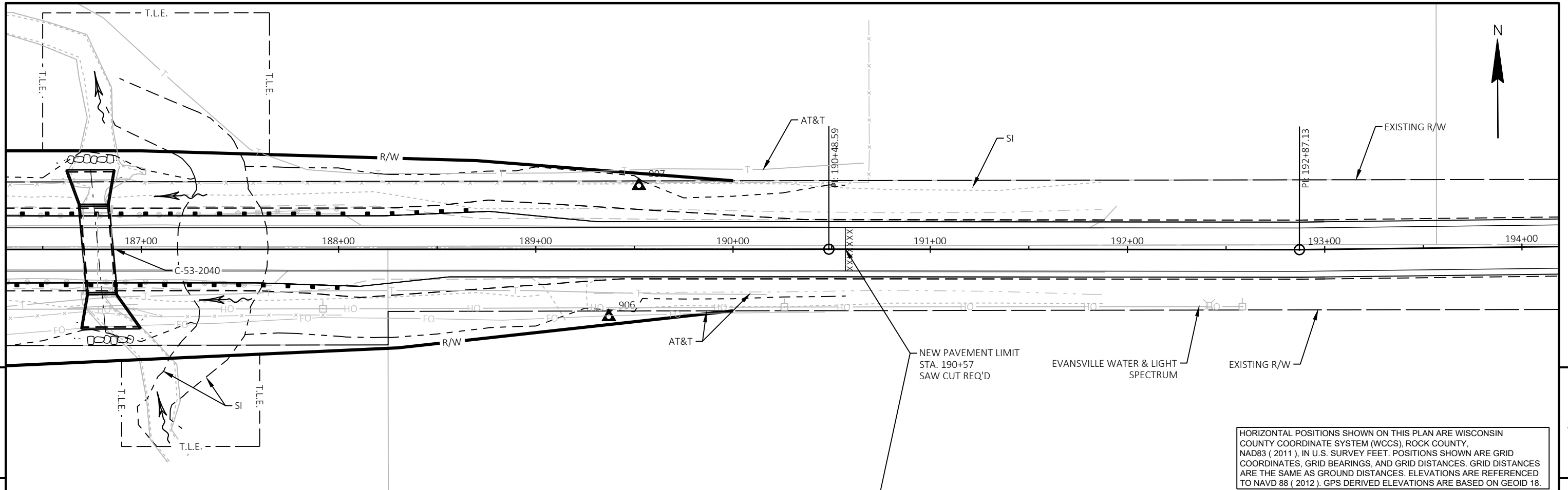
ENGINEERING | ARCHITECTURE | SURVEYING
 FUNDING | PLANNING | ENVIRONMENTAL
 1702 Pankratz St Madison, WI 53704
 (608) 242-7779 www.msa-ps.com
 © MSA Professional Services, Inc.

I, BRADLEY L TISDALE, 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 WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

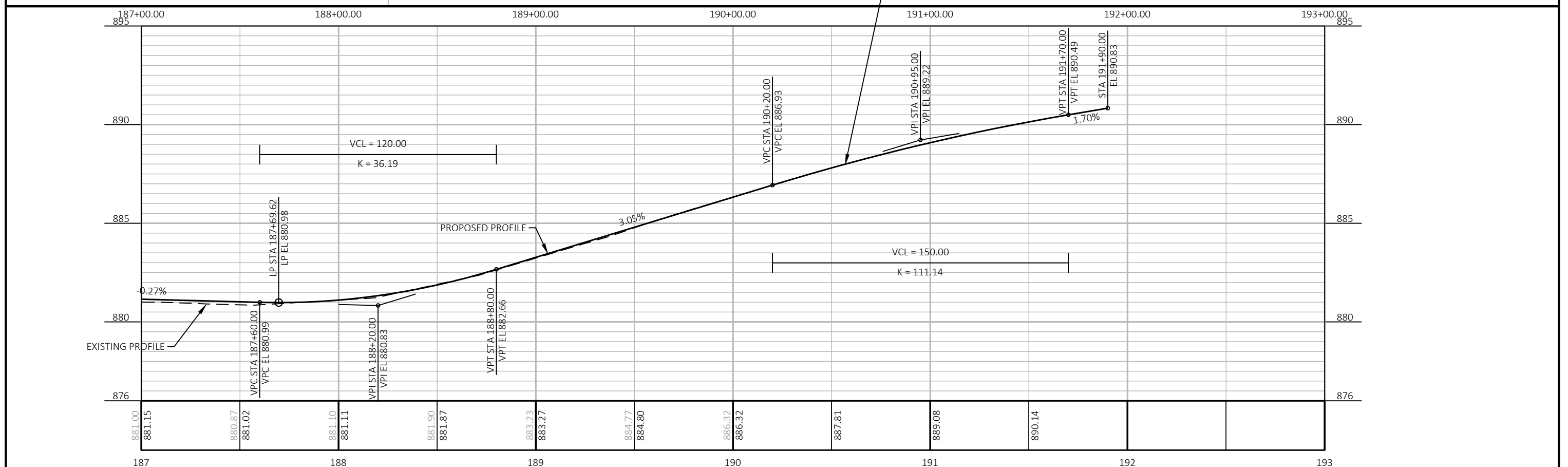
SIGNATURE: *Bradley L Tisdale* DATE: 08/18/23
 PRINT NAME: BRADLEY L TISDALE
 REGISTRATION NUMBER: S-2824
 THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
 SIGNATURE: *Cory Schlager* DATE: 08/18/23
 PRINT NAME: CORY SCHLAGEL



PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK PLAN AND PROFILE: BOX CULVERT REPLACEMENT SHEET: 5

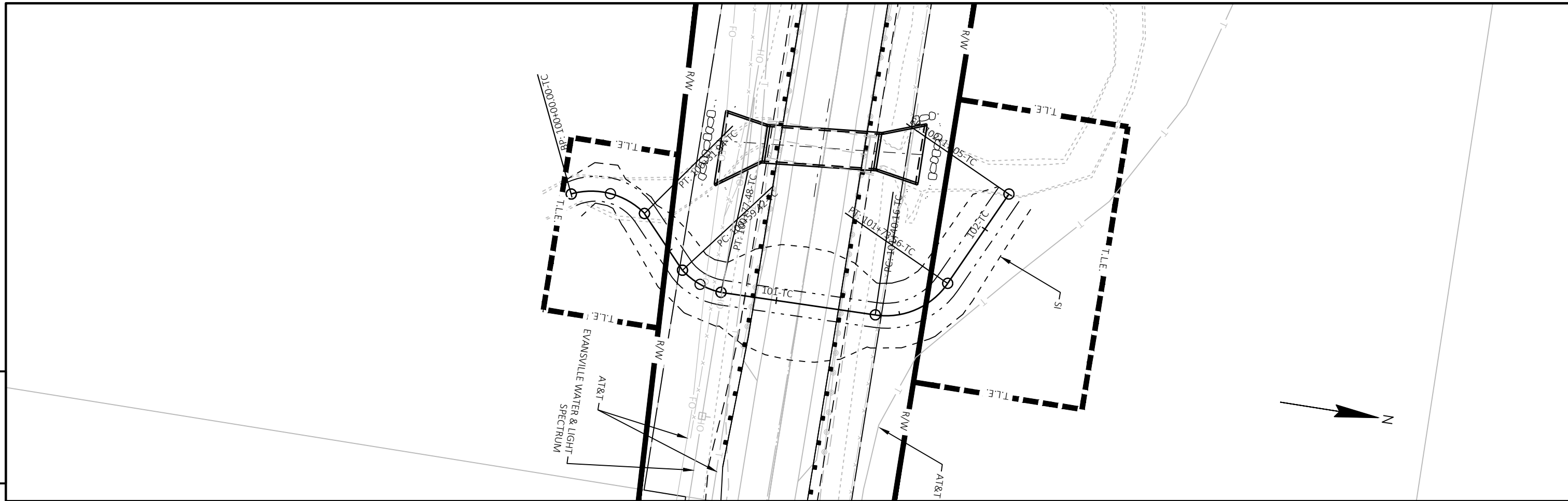


HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), ROCK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

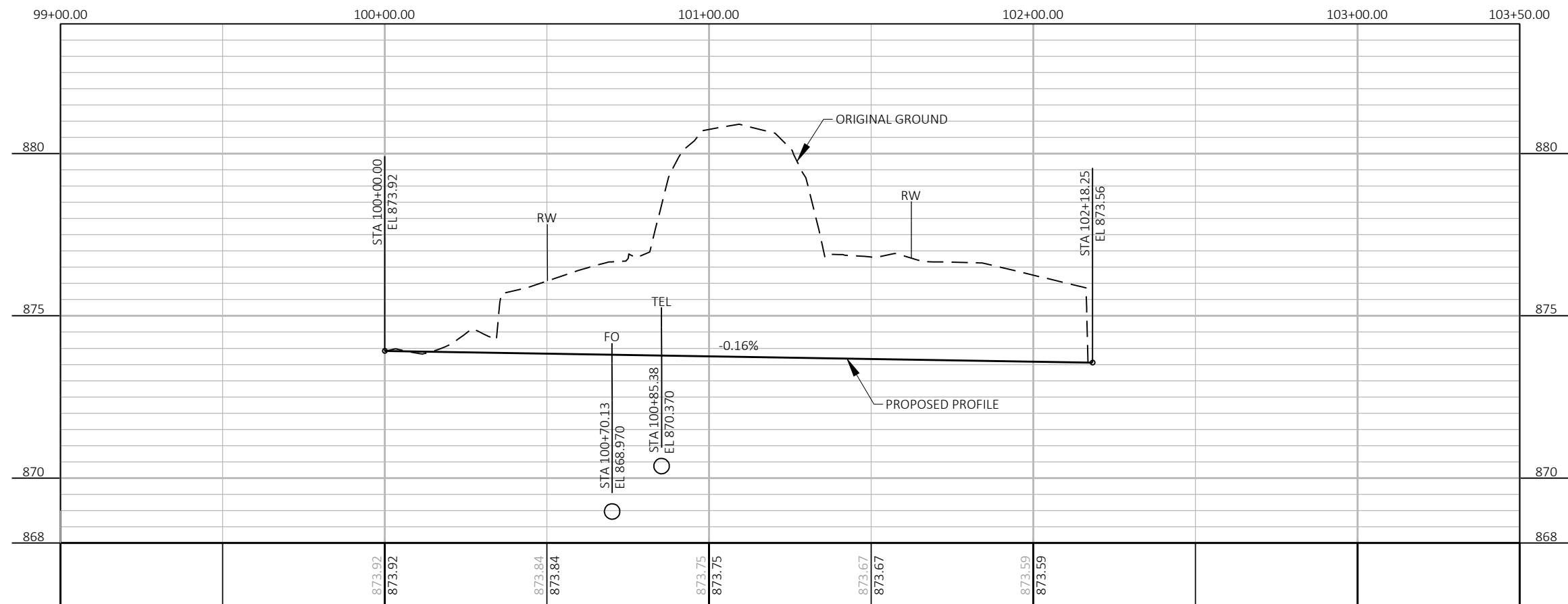


PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	PLAN AND PROFILE: BOX CULVERT REPLACEMENT	SHEET E
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5



5



PROJECT NO: 5670-00-65

HWY: STH 59

COUNTY: ROCK

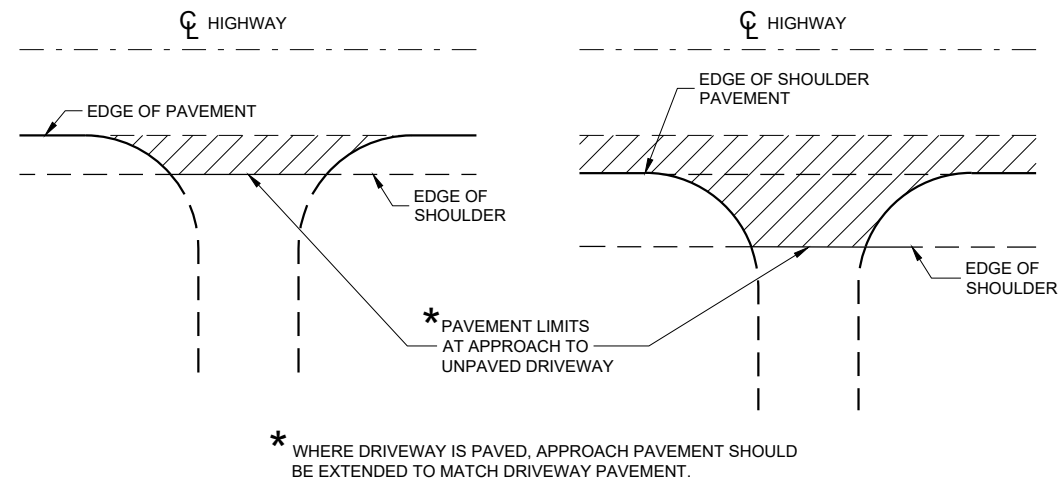
PLAN AND PROFILE: TEMPORARY CHANNEL

SHEET

E

Standard Detail Drawing List

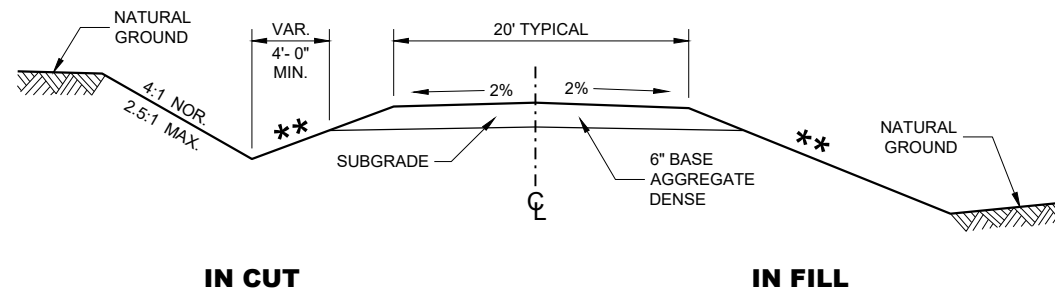
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B51-03A	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-03B	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-03C	ANCHOR POST ASSEMBLY TOP-MOUNTED
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-10	SIGNING & MARKING FOR TWO LANE BRIDGES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

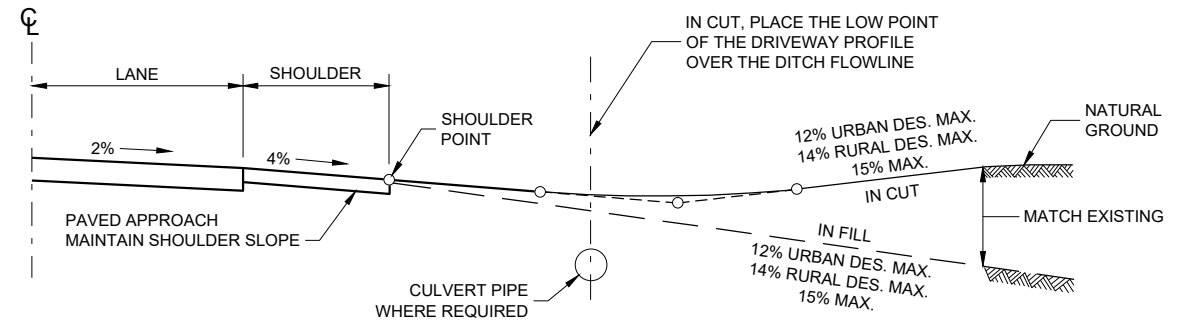
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



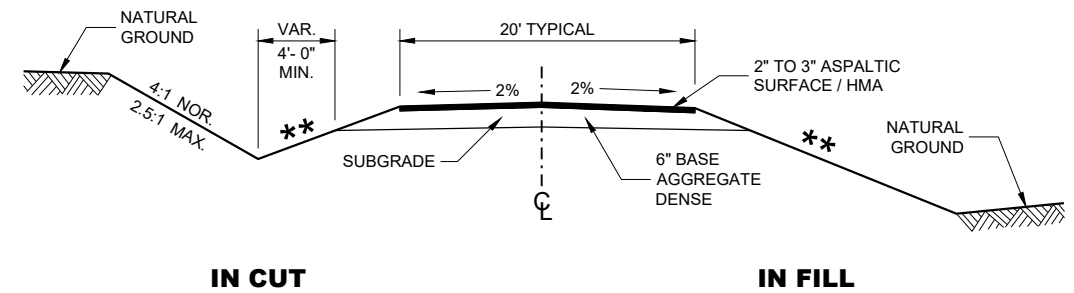
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

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



TYPICAL DRIVEWAY PROFILES



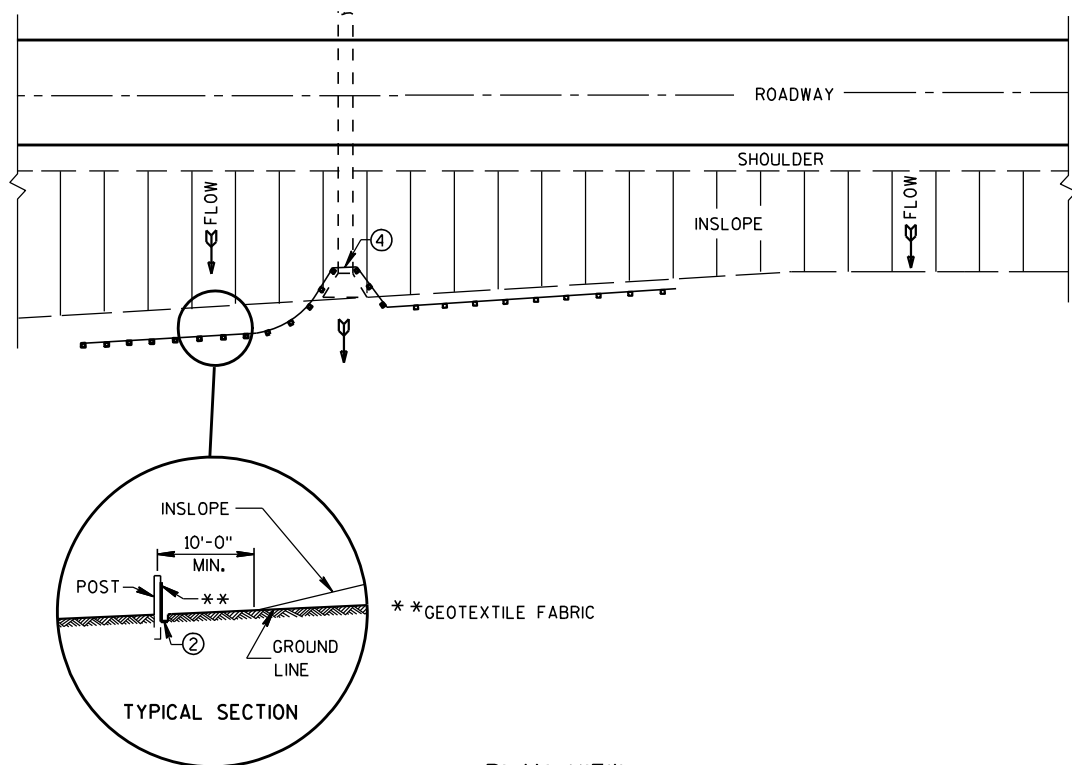
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

DRIVEWAYS WITHOUT CURB AND GUTTER

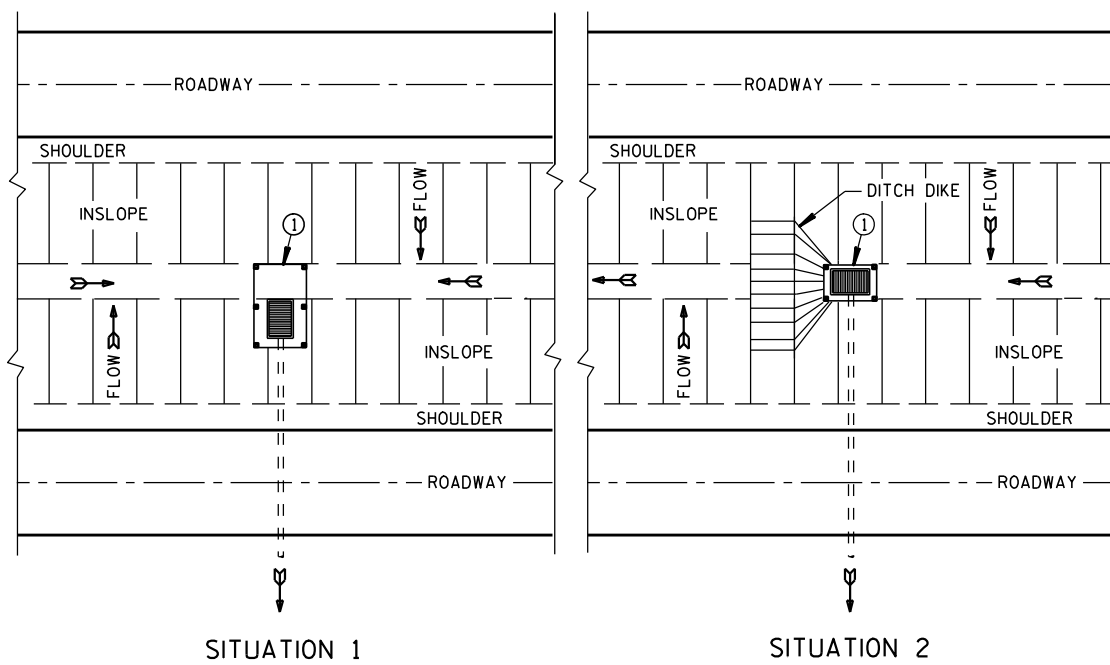
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

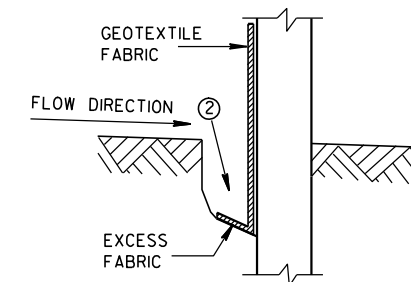


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

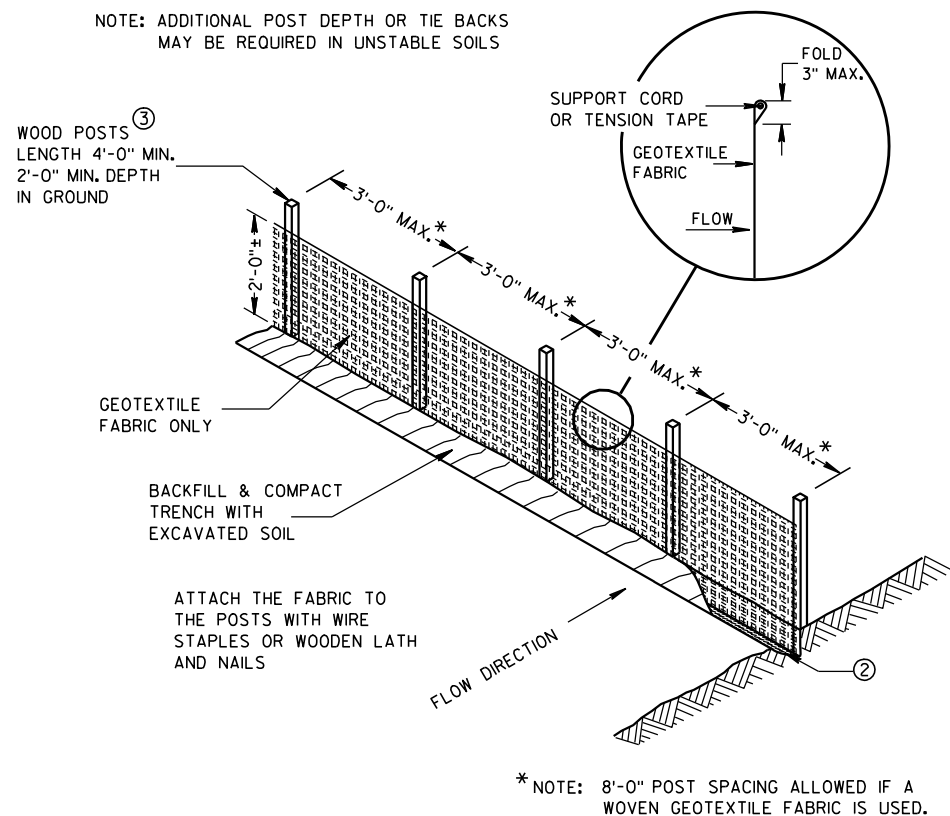
GENERAL NOTES

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

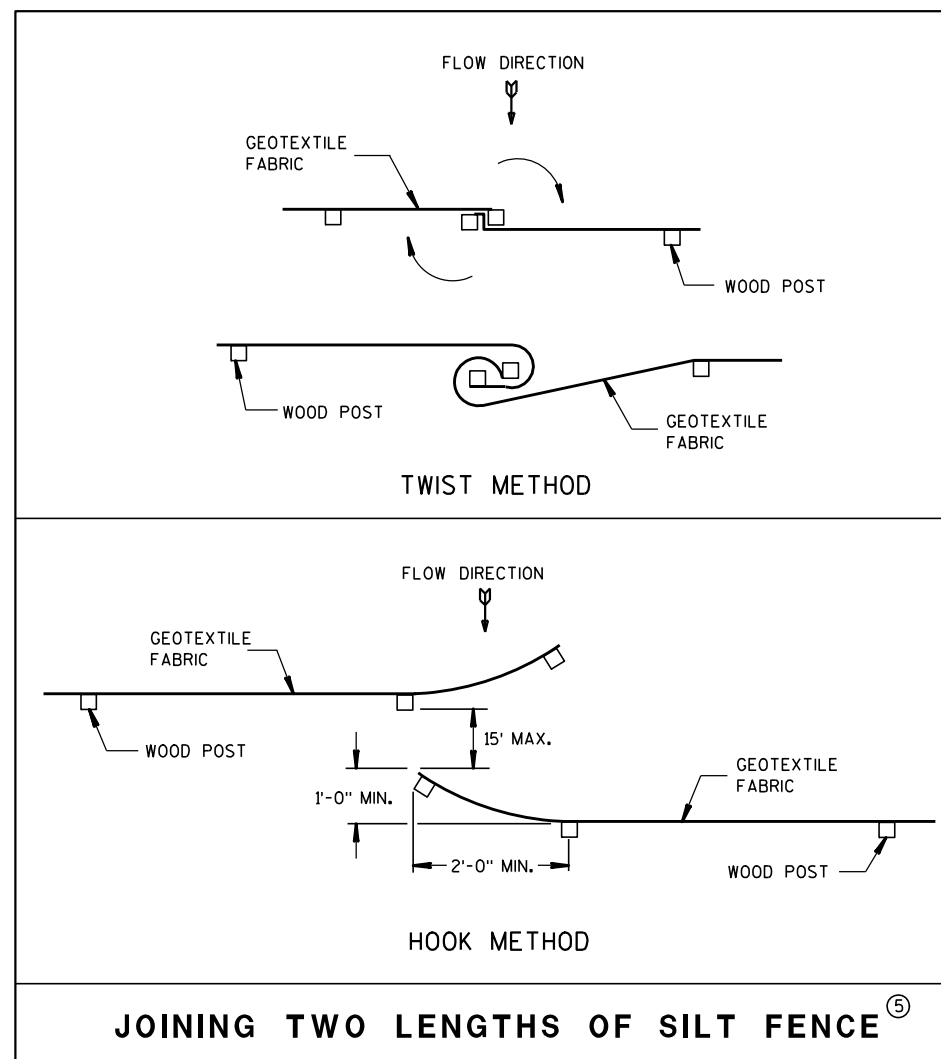
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 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.



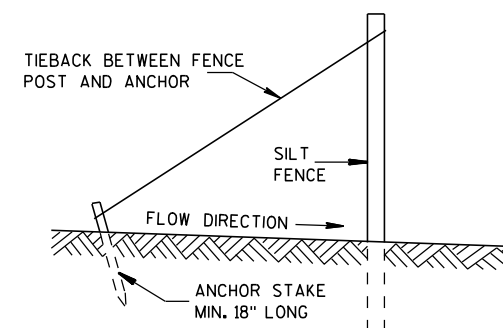
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

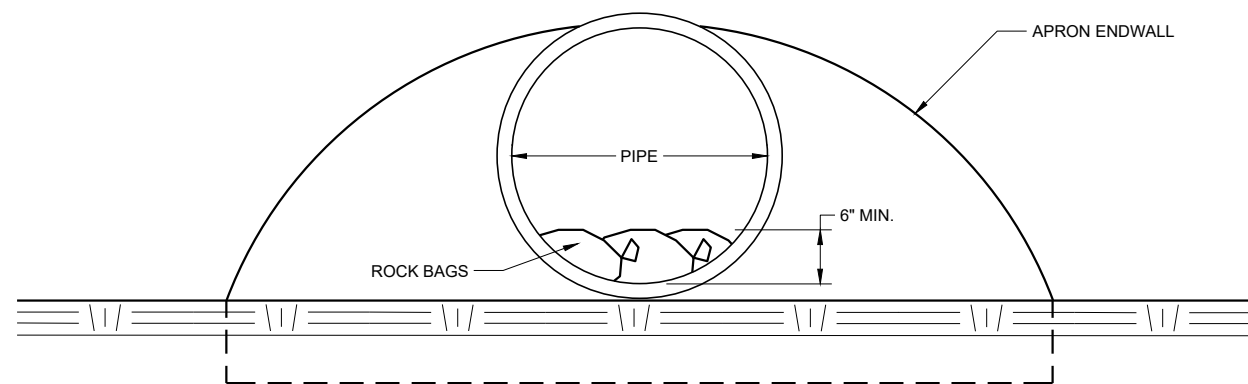


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

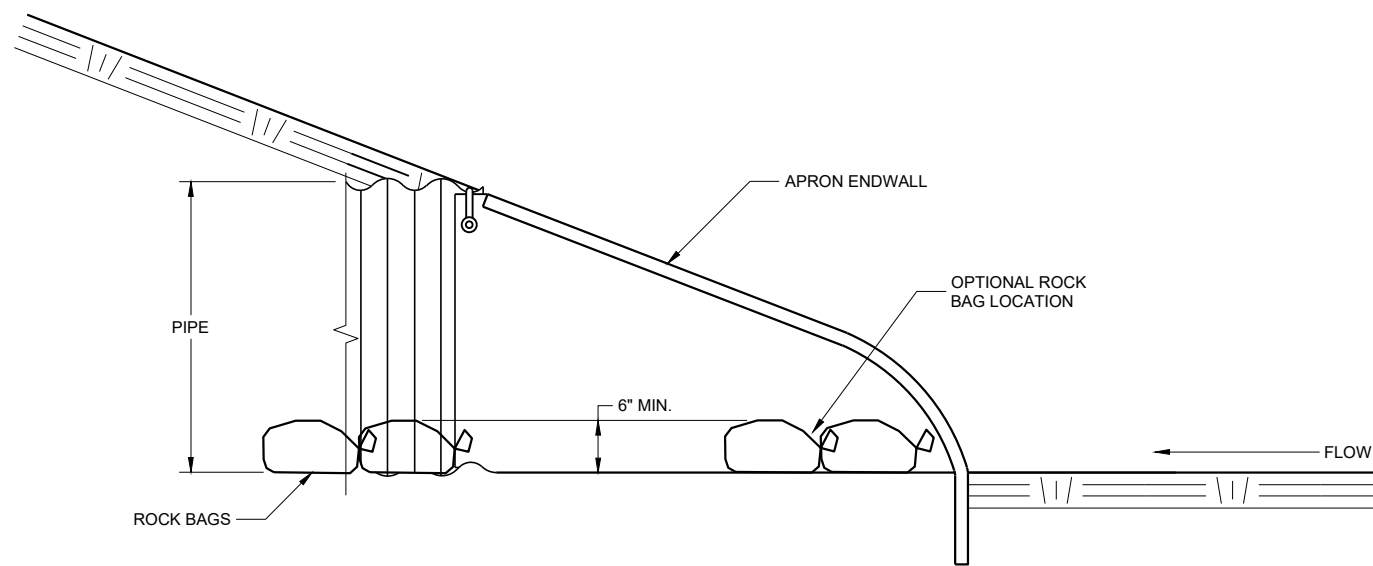
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



END VIEW



SIDE VIEW

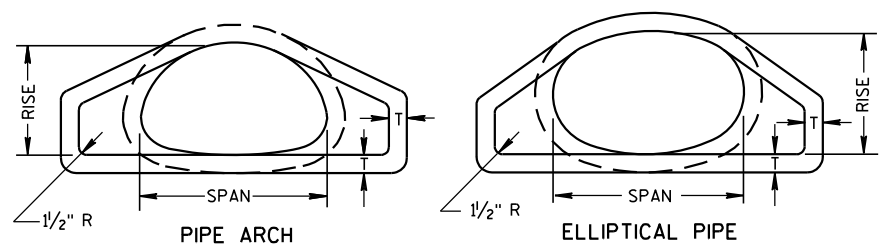
CULVERT PIPE CHECK
 (INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

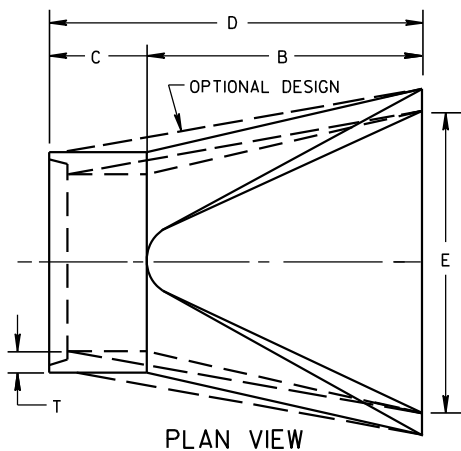
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

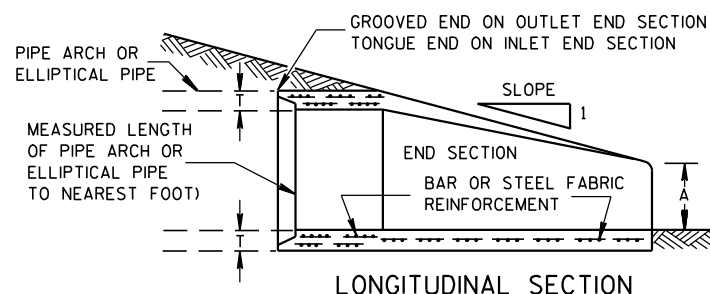
FHWA



END VIEW

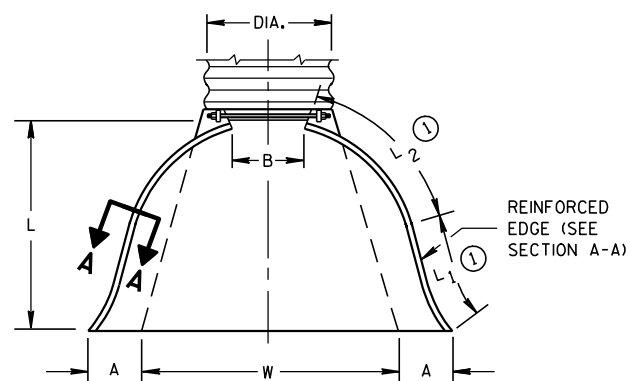


PLAN VIEW



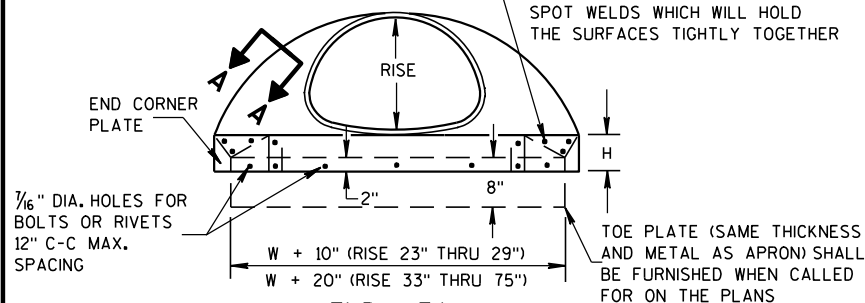
LONGITUDINAL SECTION

CONCRETE ENDWALLS



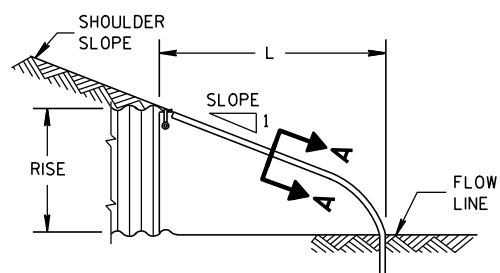
PLAN VIEW

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

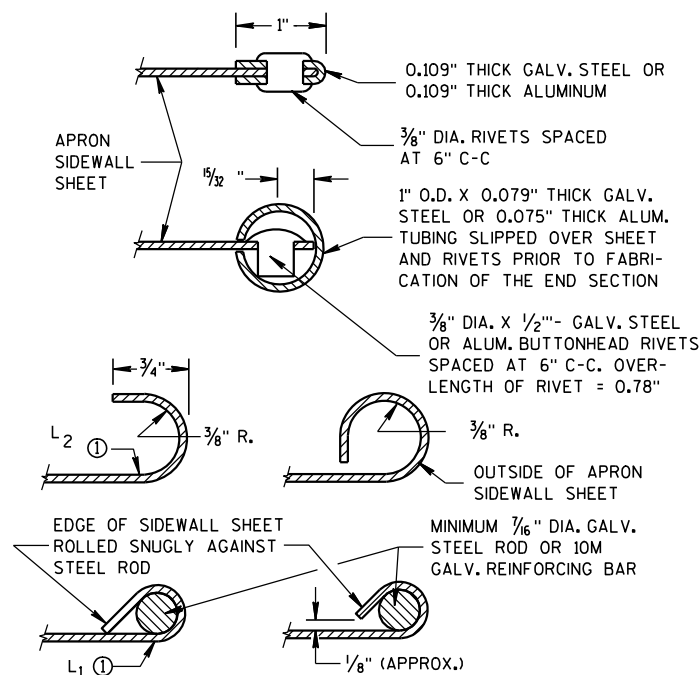


END VIEW

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



SIDE ELEVATION
METAL ENDWALLS



SECTION A-A

2- 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 (⓪)	L2 (⓪)	W (±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 (⓪)	L2 (⓪)	W (±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

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 3/4	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.

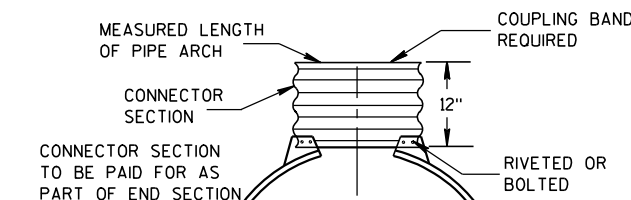
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

⓪ 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.



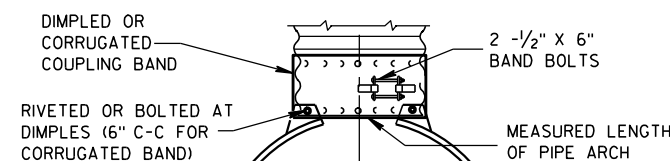
TYPE 2

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

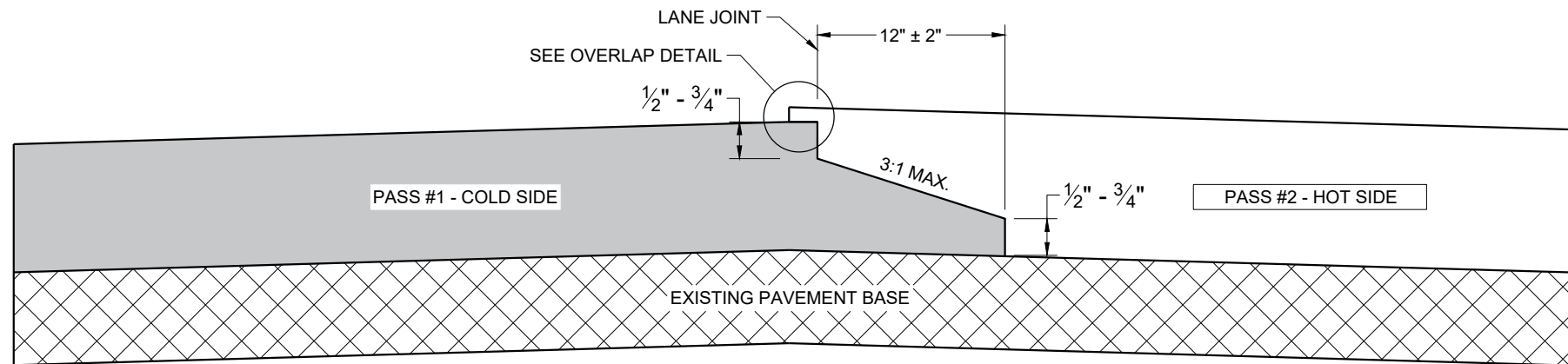
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

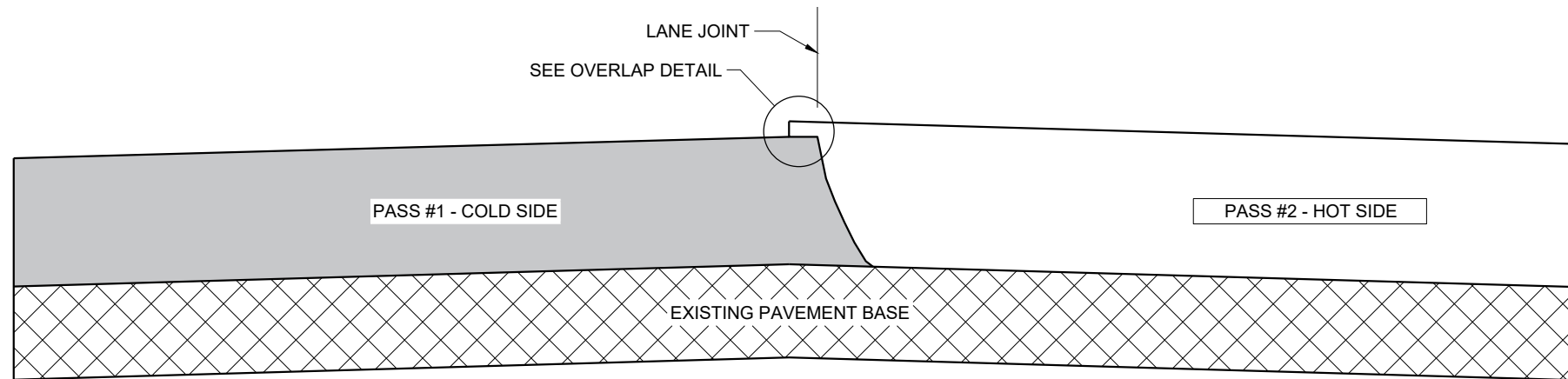
APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

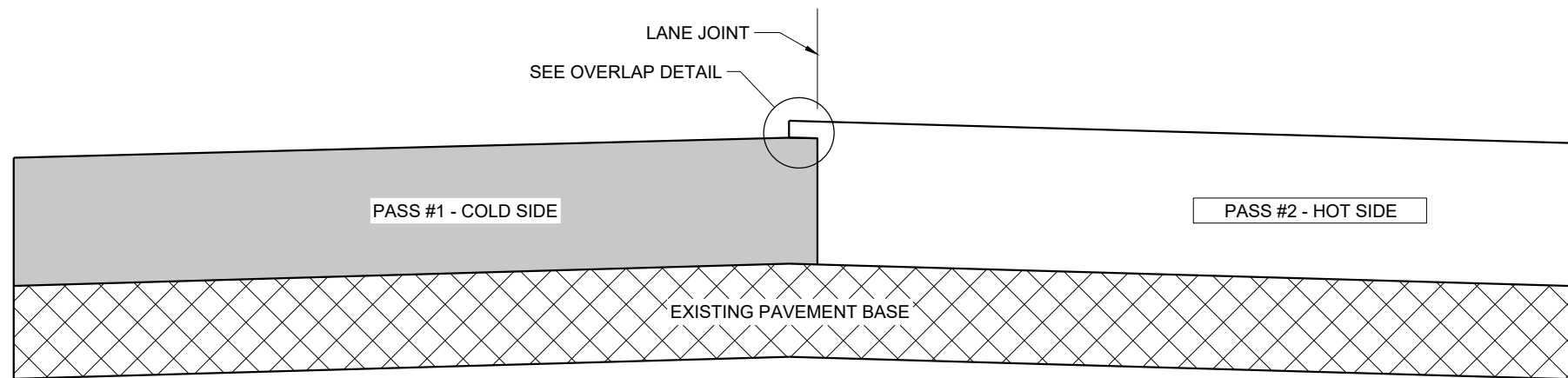
APPROVED
11/30/94 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

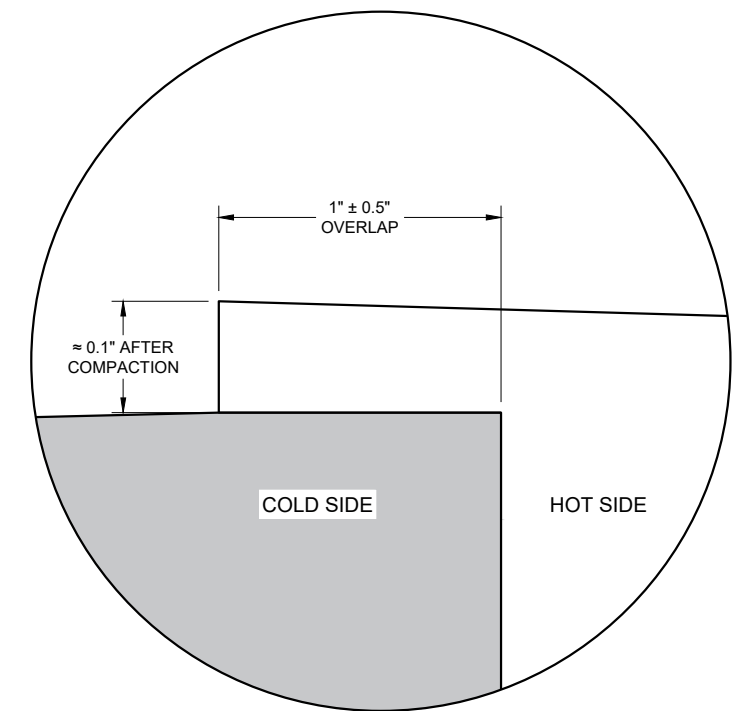
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

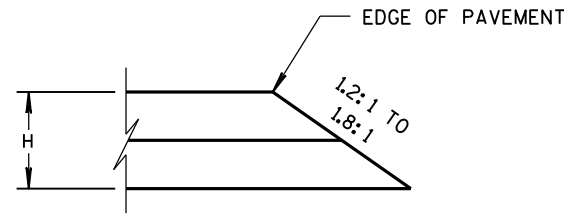
6

6

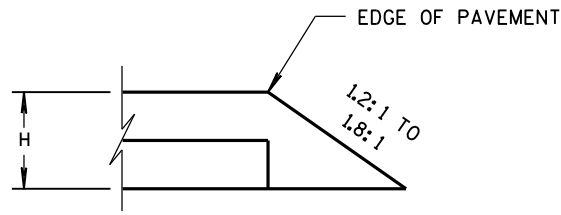
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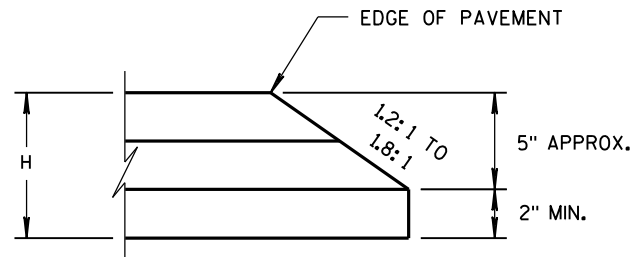
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



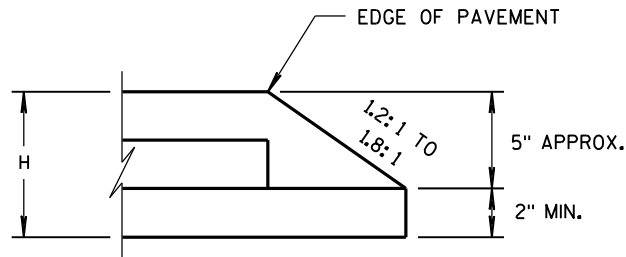
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

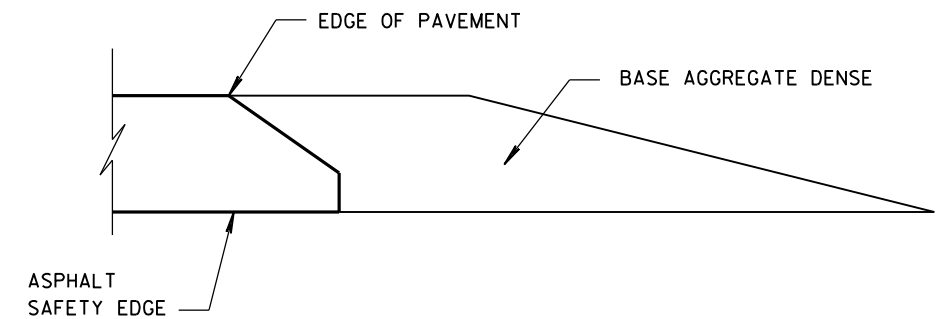


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

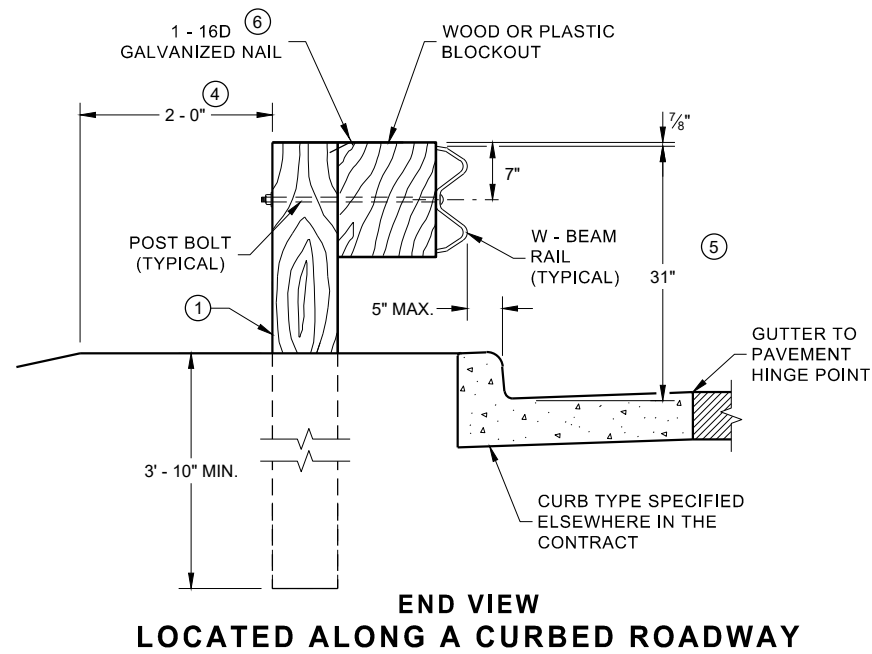
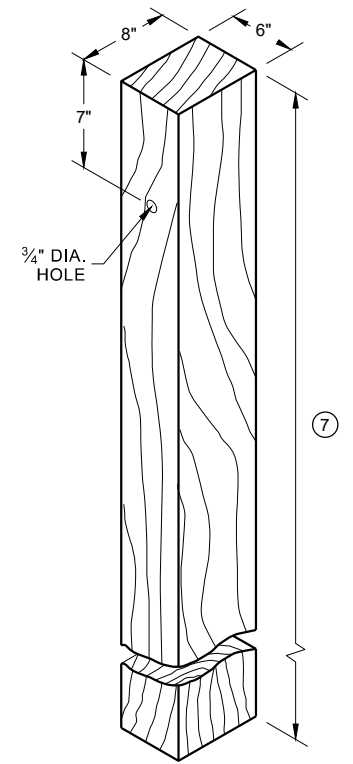
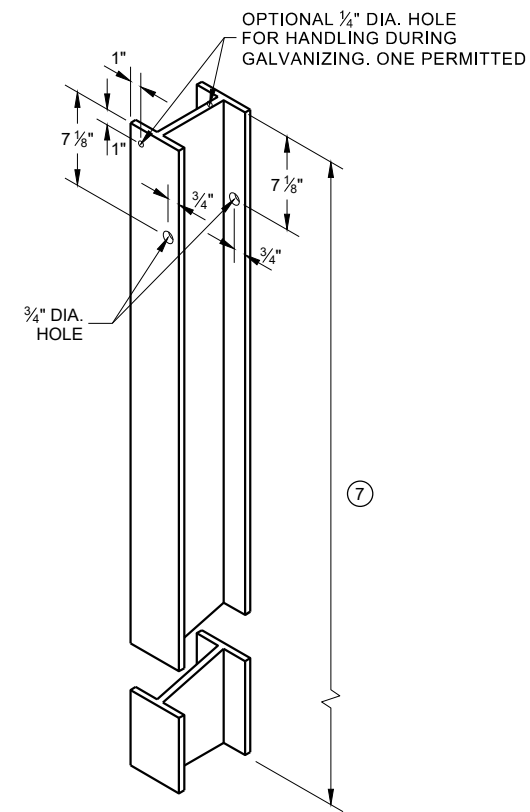
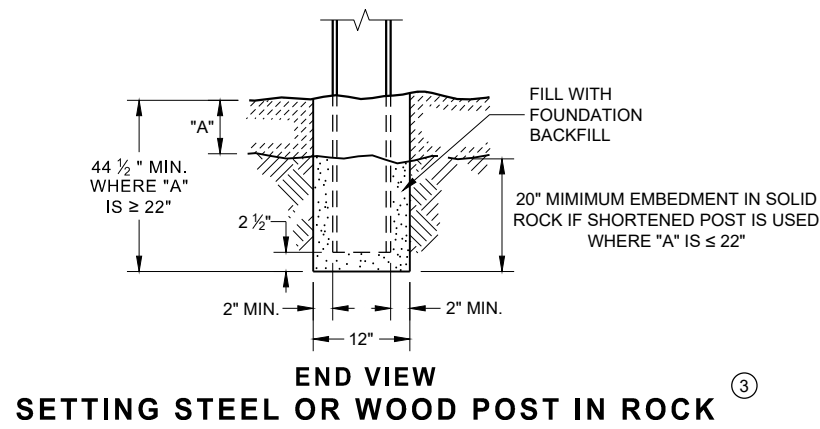
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S.D.D. 14 B 29-1

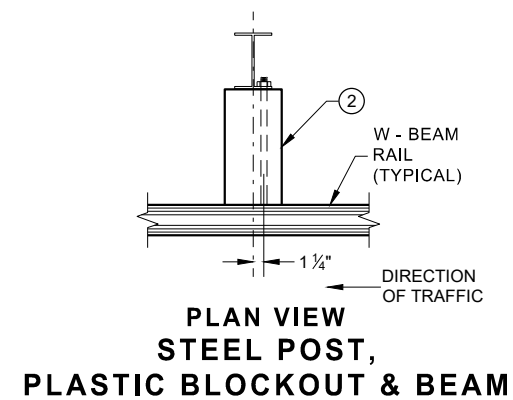
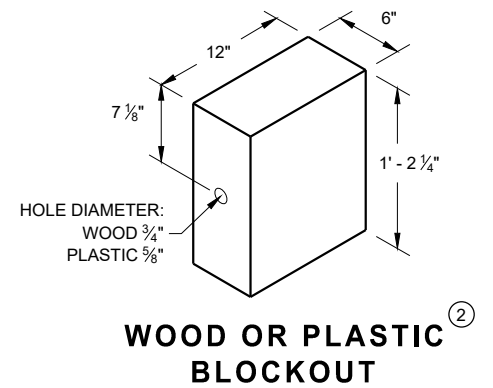
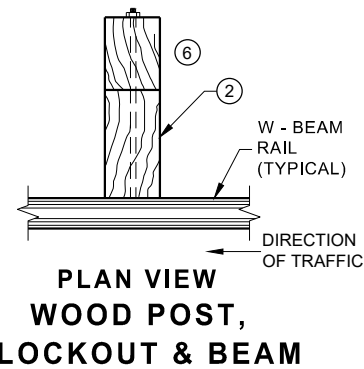
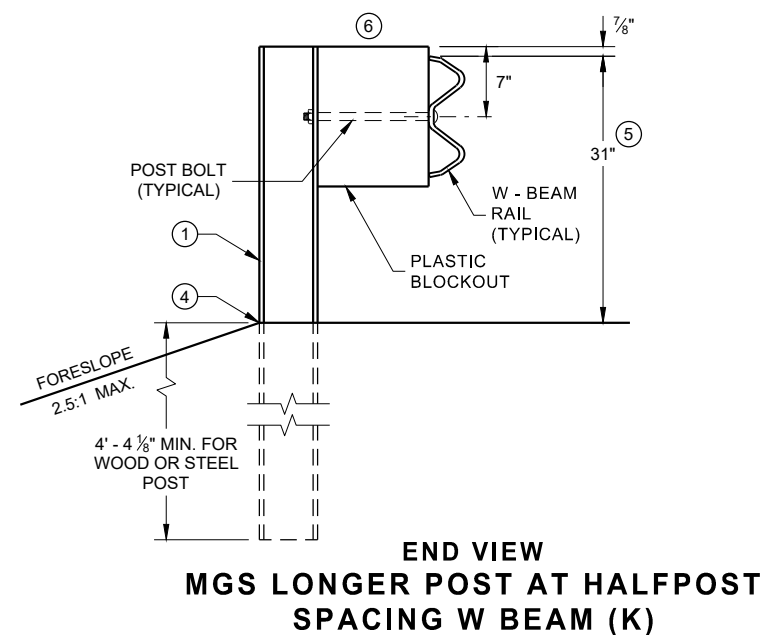
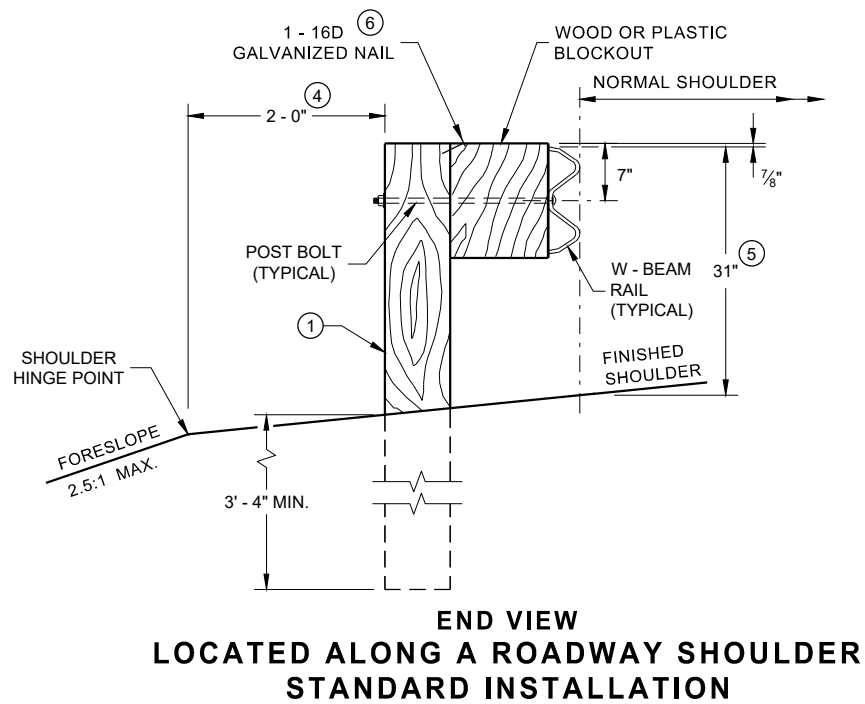
SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH 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.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



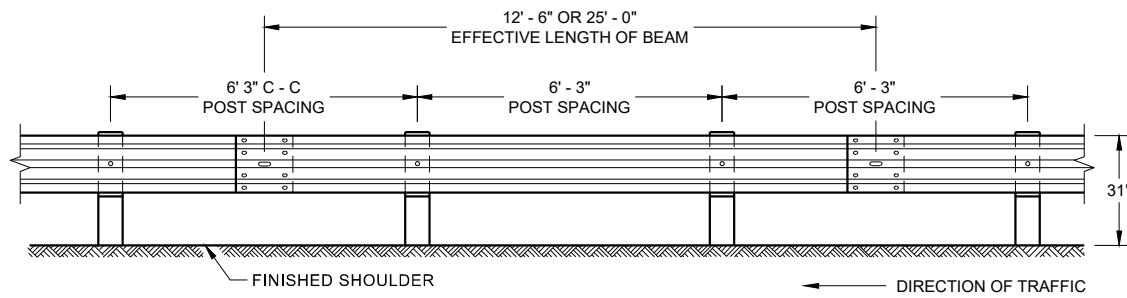
**STEEL POST & HOLE
PUNCHING DETAIL** ①
(W 6 X 9) ①

**WOOD POST
(6" X 8") NOMINAL** ①

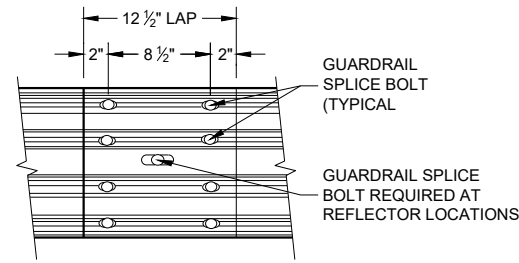


**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



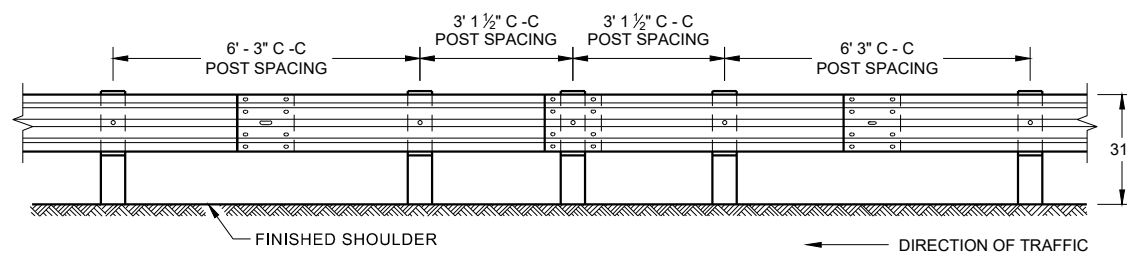
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



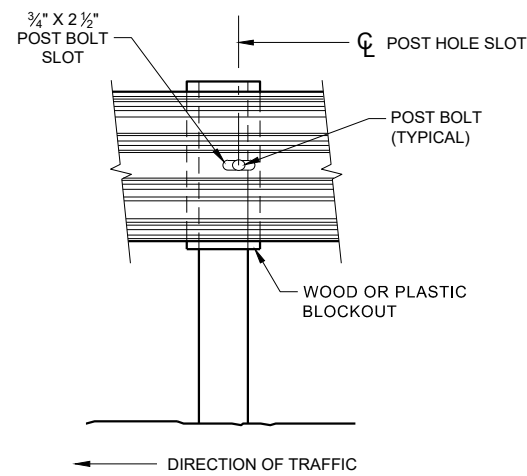
**FRONT VIEW
MID-SPAN BEAM SPLICE**

GENERAL NOTES

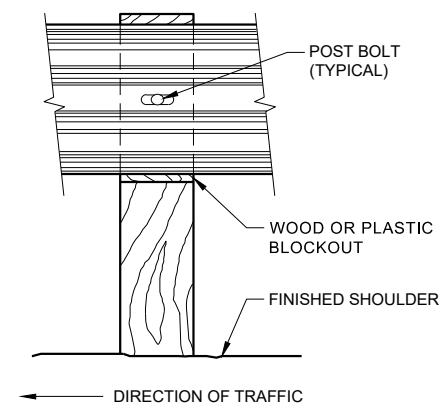
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
 - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



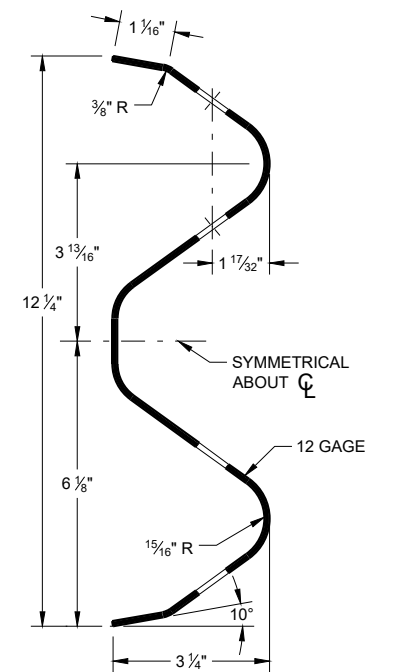
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



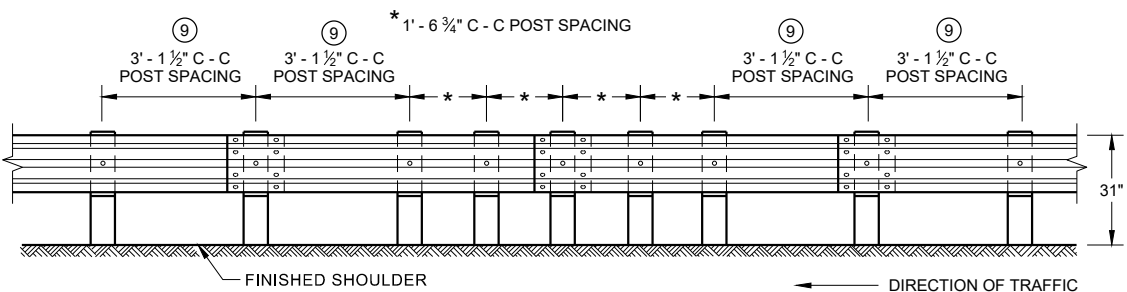
FRONT VIEW AT STEEL POST



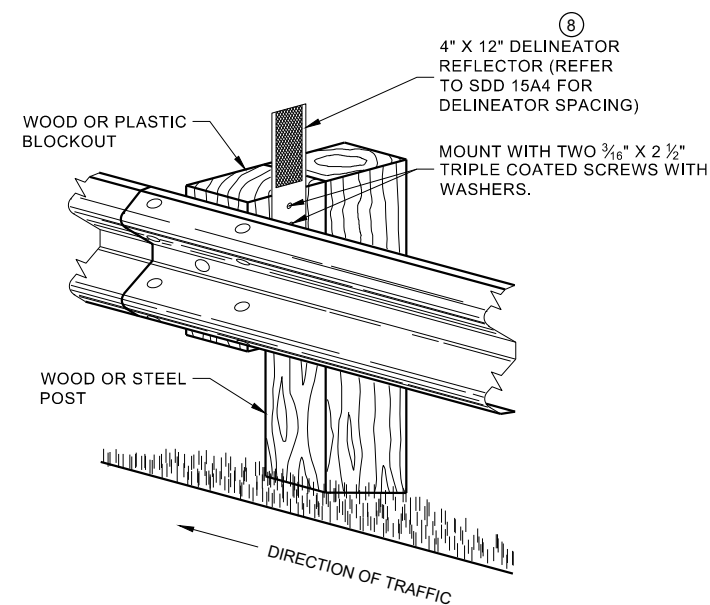
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



**FRONT VIEW
QUARTER POST SPACING (QS)**



**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

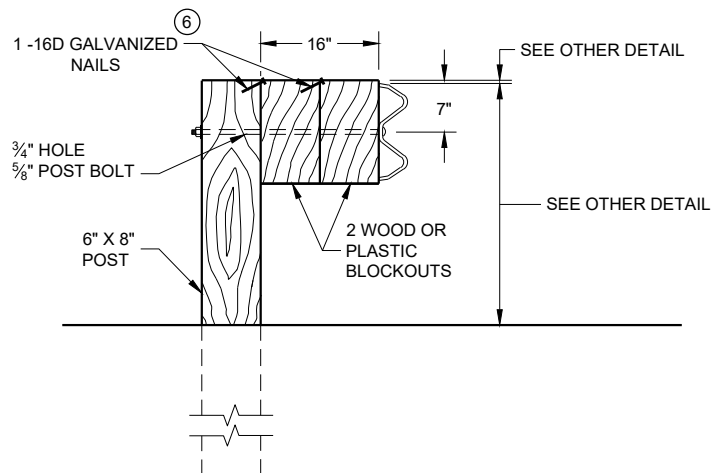
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6

SDD 14B42 - 07b

SDD 14B42 - 07b

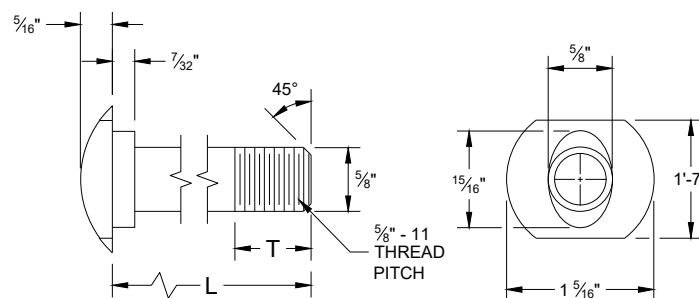


DETAIL FOR 16" BLOCKOUT DEPTH

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

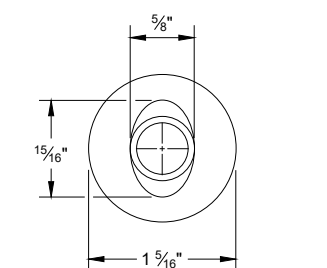
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

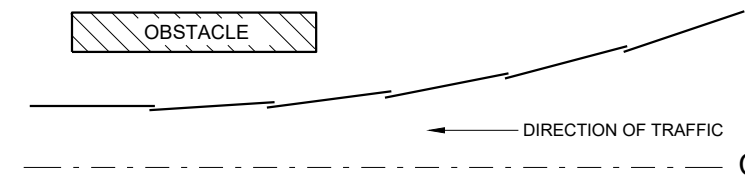


POST BOLT TABLE

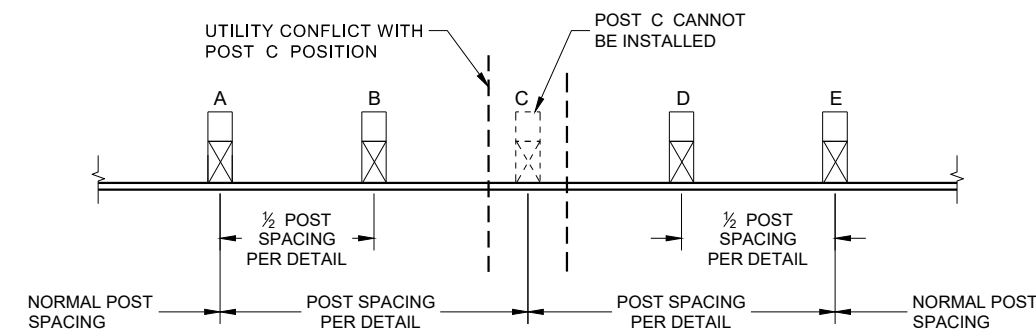
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



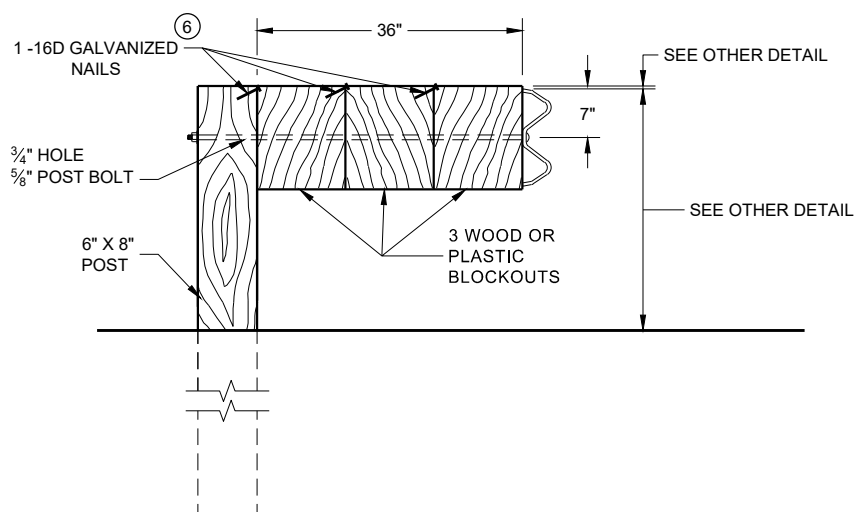
ALTERNATE BOLT HEAD



**PLAN VIEW
BEAM LAPPING DETAIL**

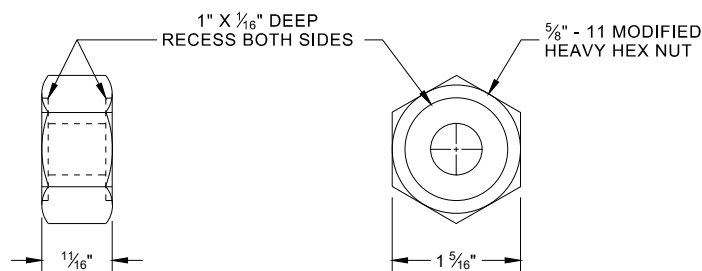


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

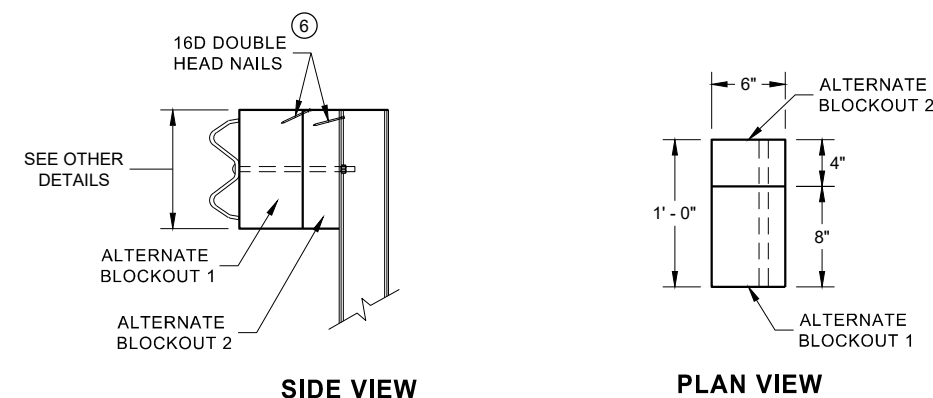


DETAIL FOR 36" BLOCKOUT DEPTH

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, SPLICE BOLT
AND RECESS NUT**

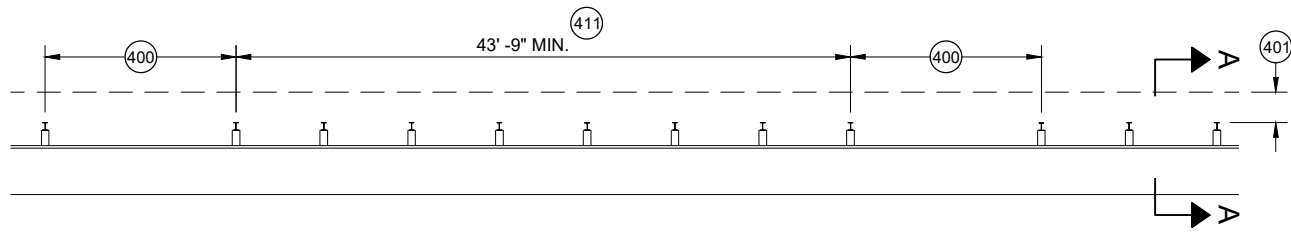


**ALTERNATE WOOD
BLOCKOUT DETAIL**

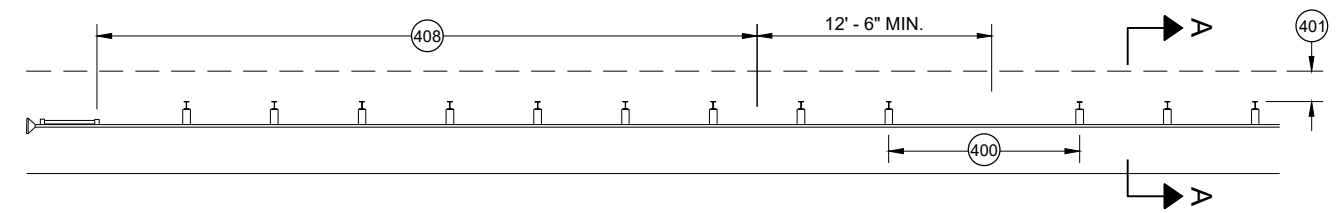
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

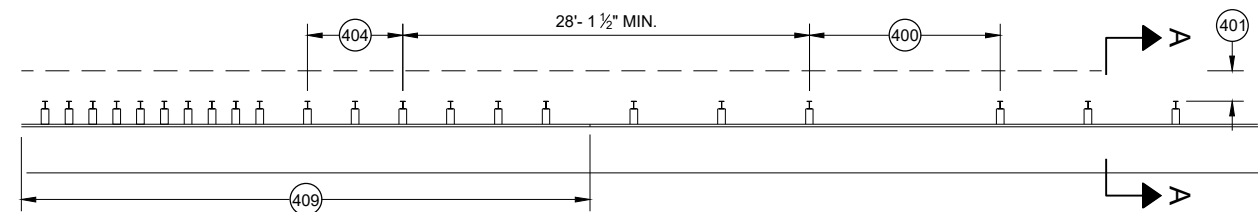
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



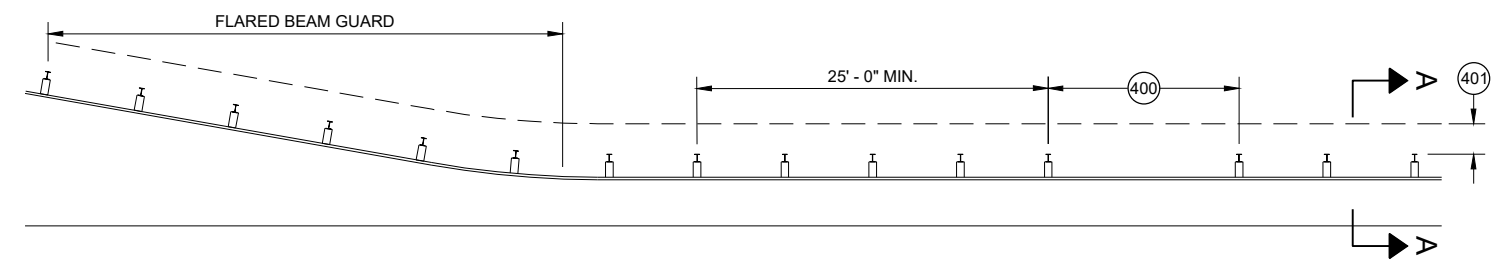
MISSING POST IN MGS GUARDRAIL



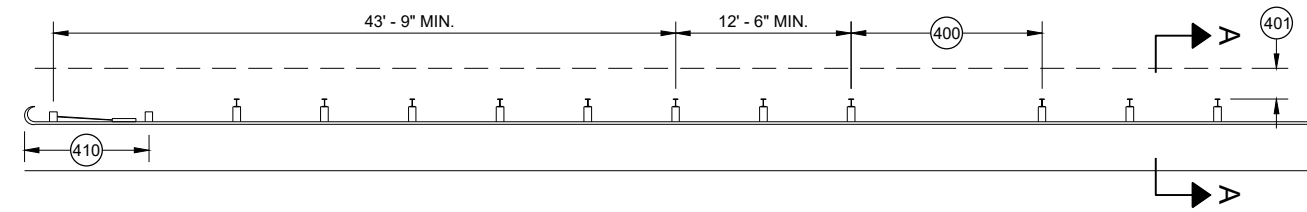
MISSING POST IN MGS GUARDRAIL NEAR EAT



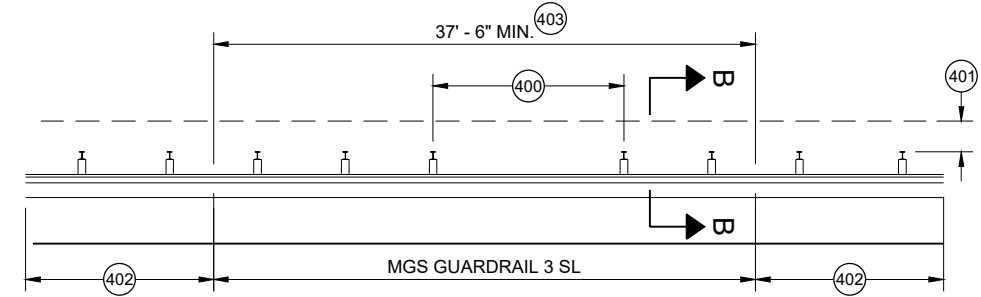
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

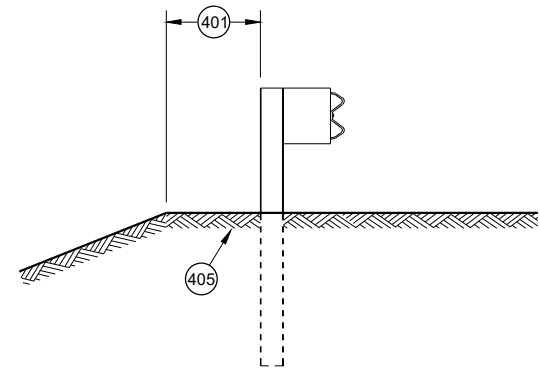


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

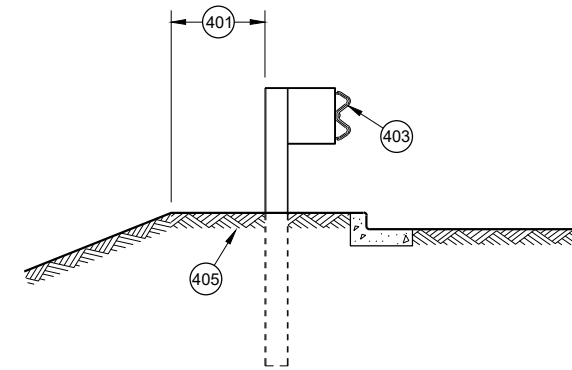


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

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



SECTION A - A



SECTION B - B

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE May 2021	/s/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

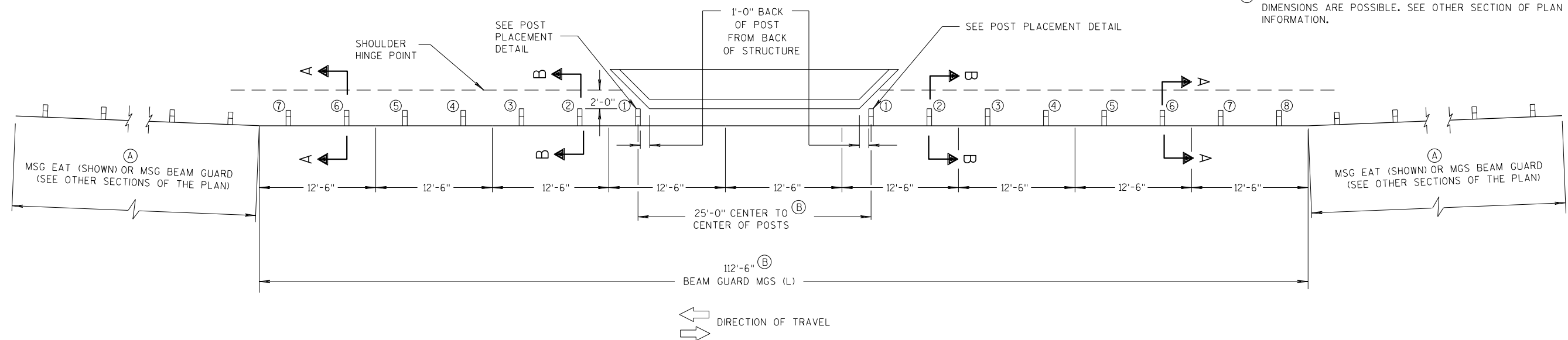
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

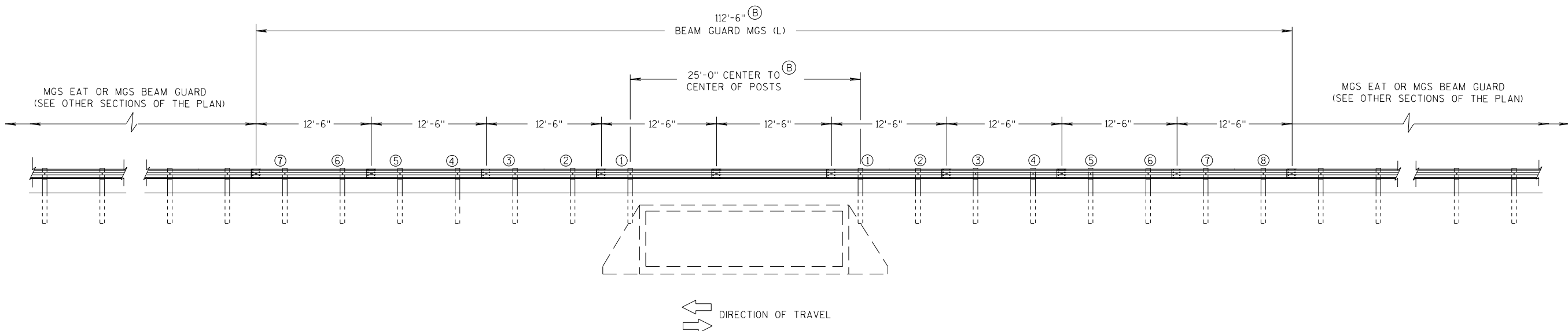
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN, IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

<p>MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>

6

6

S.D.D. 14 B 43-4a

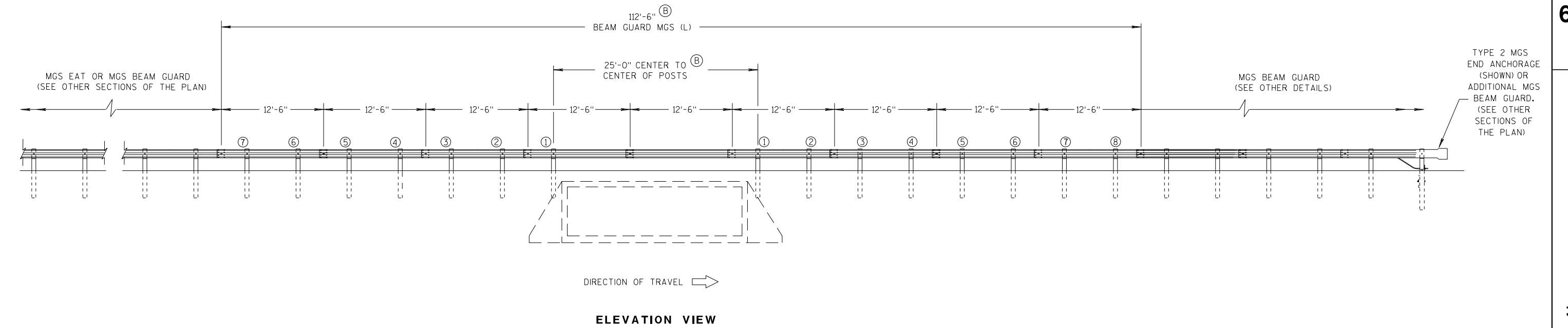
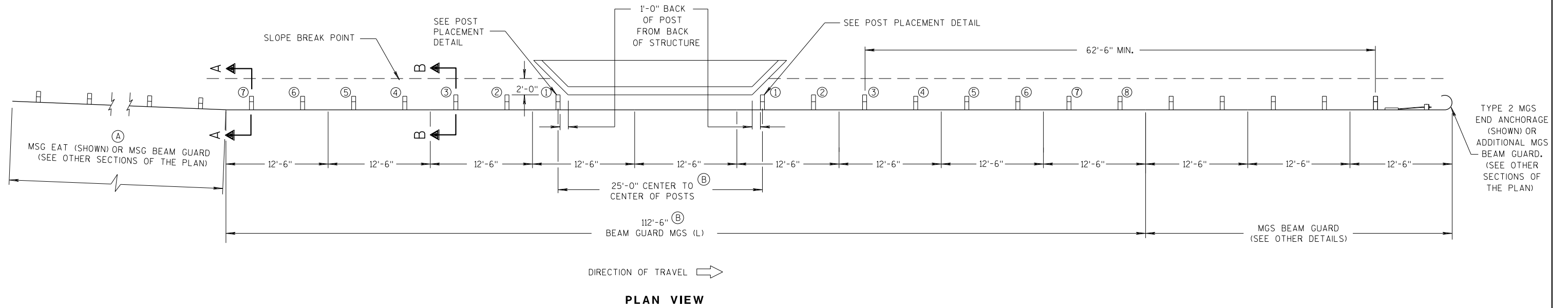
S.D.D. 14 B 43-4a

GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

SEE SDD 14 B 42 FOR MORE DETAILS.

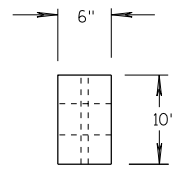
- (A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.
- (B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



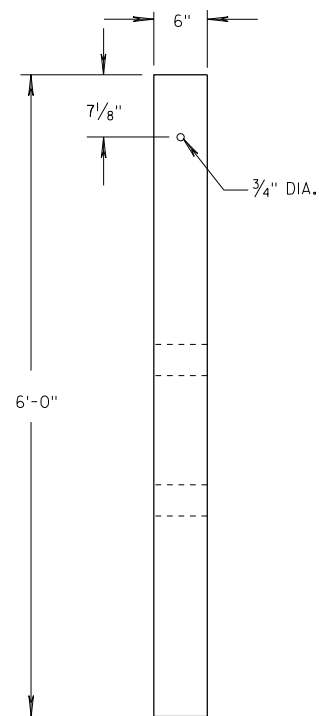
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

**MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)**

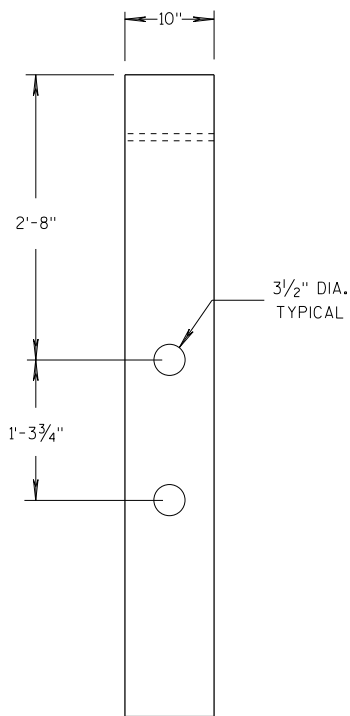
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW

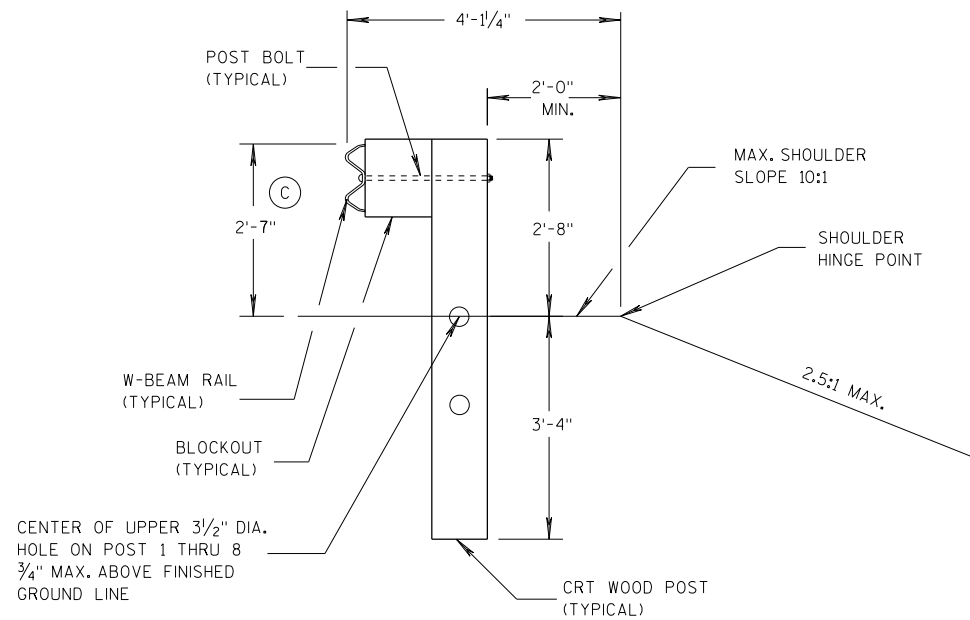


FRONT VIEW



SIDE VIEW

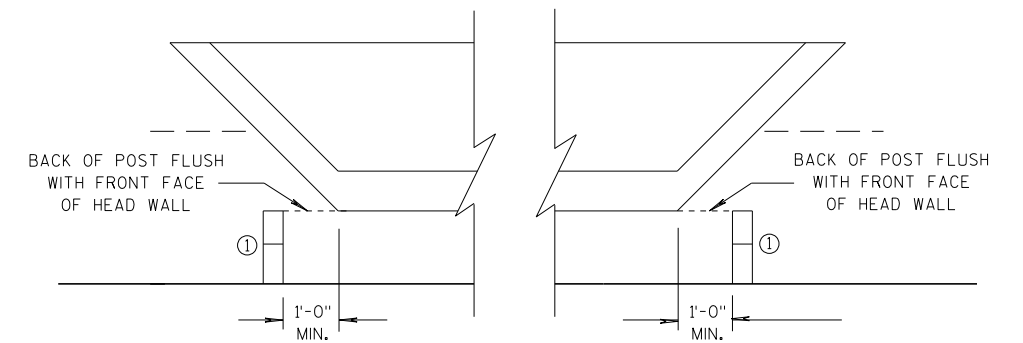
CRT WOOD POST



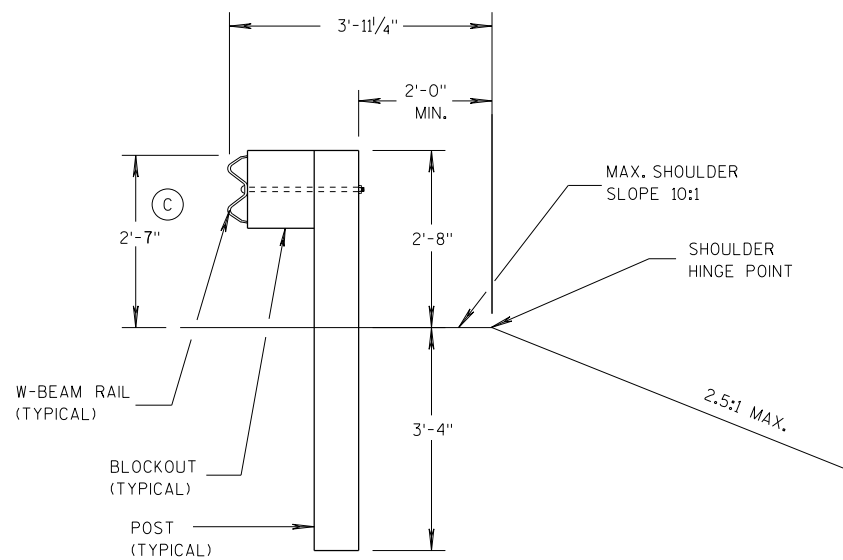
SECTION B-B
POSTS NO. 1-3

SEE OTHER DETAILS

CENTER OF UPPER 3/2" DIA.
HOLE ON POST 1 THRU 8
3/4" MAX. ABOVE FINISHED
GROUND LINE



POST PLACEMENT DETAIL



SECTION A-A
POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 07/2018 /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
 - (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
 - (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
 - (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
 - (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.
- DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

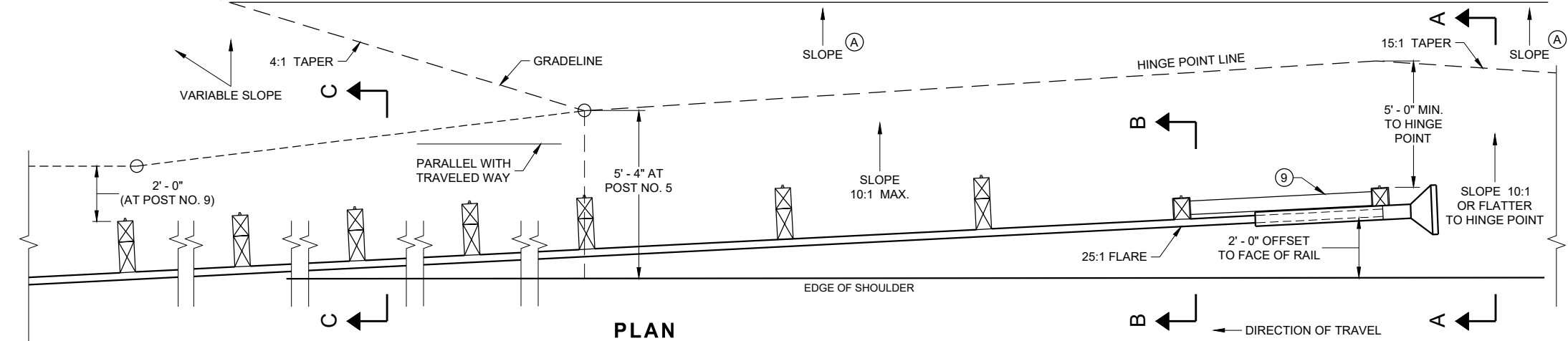
* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

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

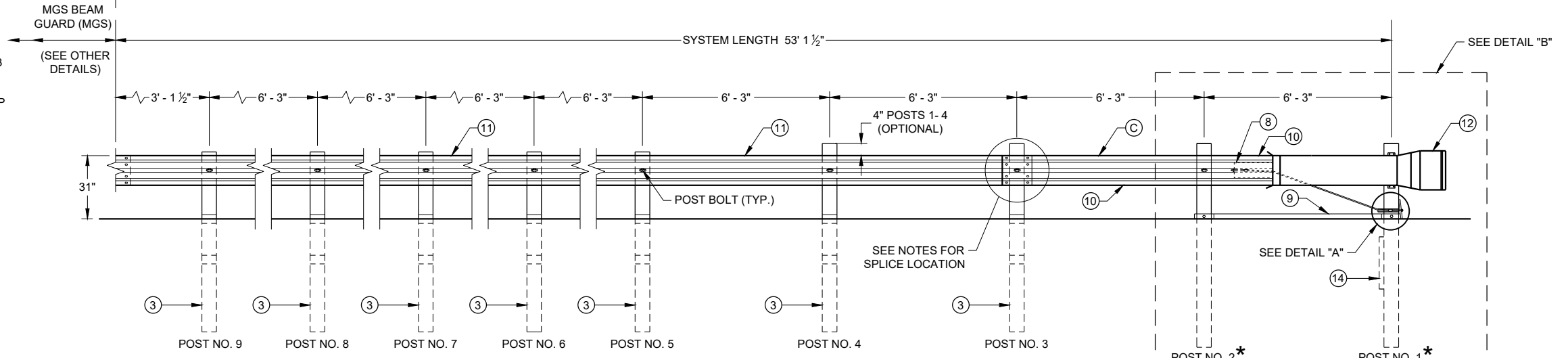
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 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. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

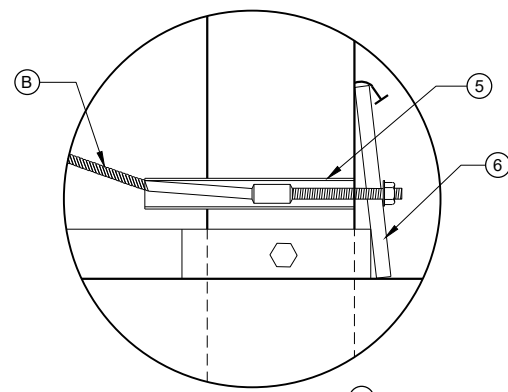
CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



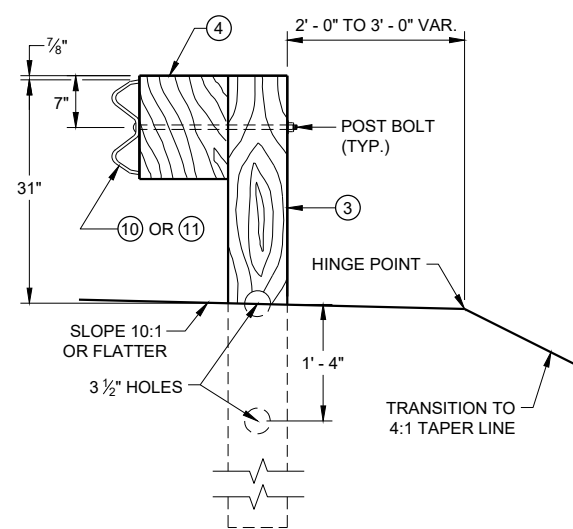
PLAN



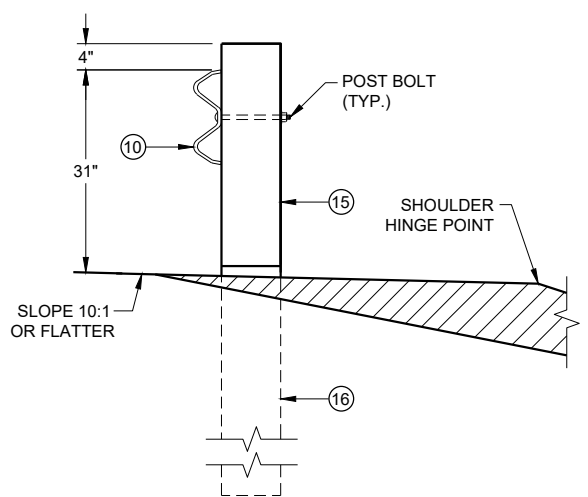
ELEVATION



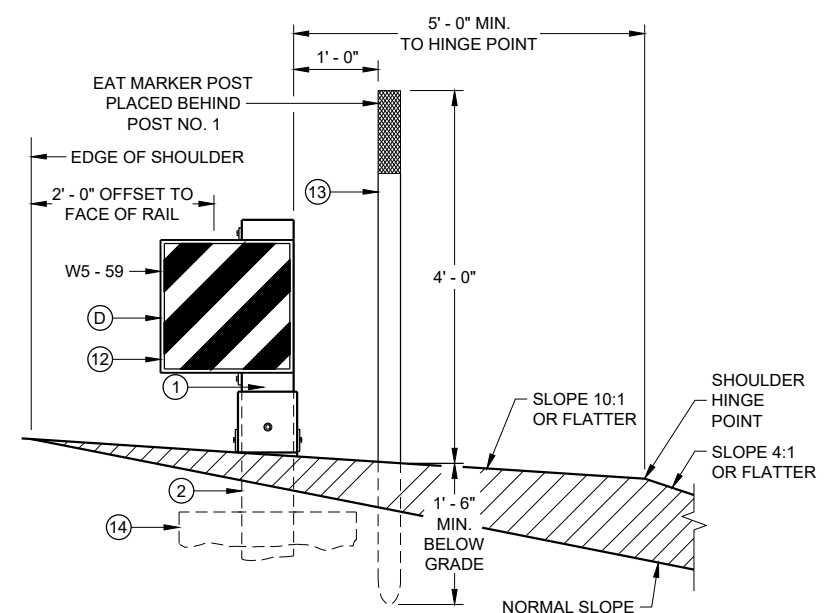
DETAIL "A"



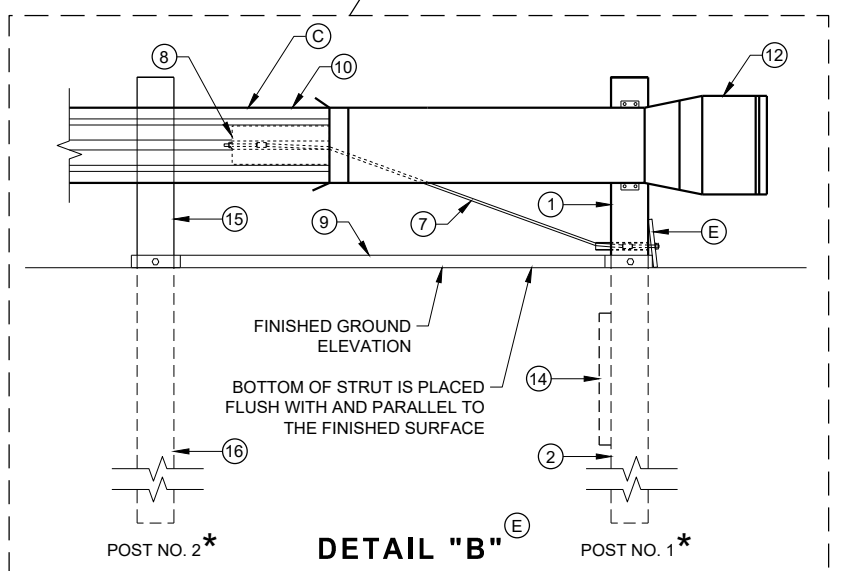
**SECTION C - C
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B
TYPICAL AT POST NO. 2***



**SECTION A - A
TYPICAL AT POST NO. 1***



DETAIL "B"

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

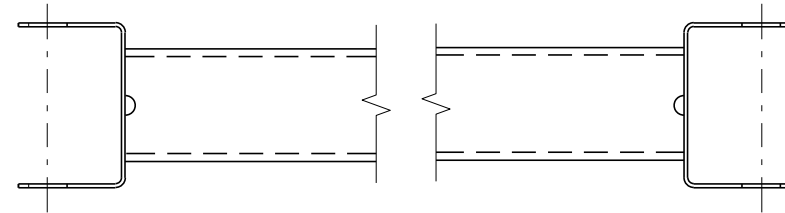
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SDD 14B44 - 04a

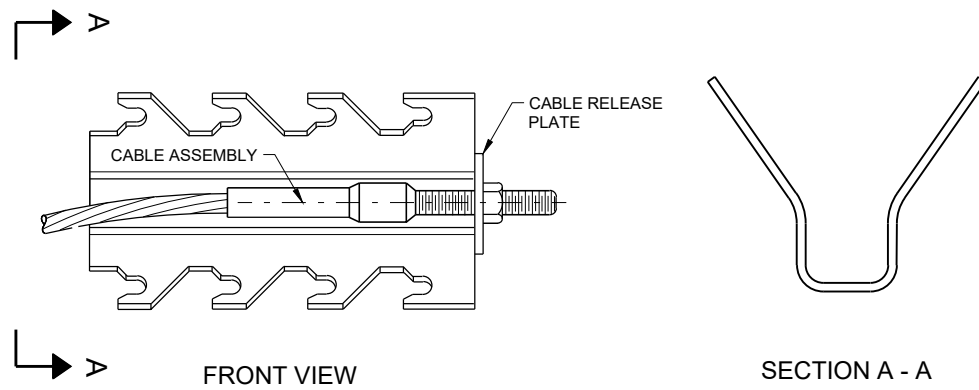
SDD 14B44 - 04a

BILL OF MATERIALS

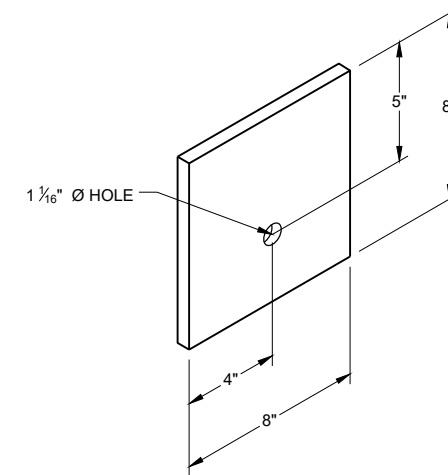
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL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



GENERIC GROUND STRUT ⑨ ⑤



GENERIC ANCHOR CABLE BOX ⑨ ⑤



BEARING PLATE ⑥ ⑤

6

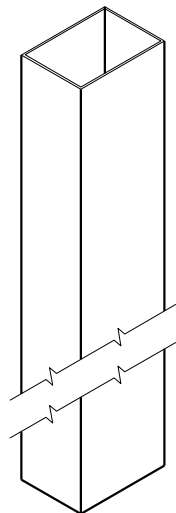
6

SDD 14B44 - 04b

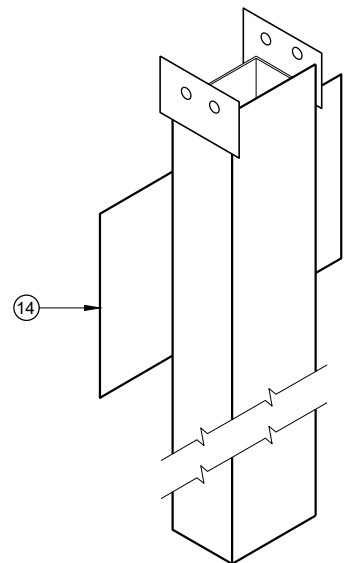
SDD 14B44 - 04b

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

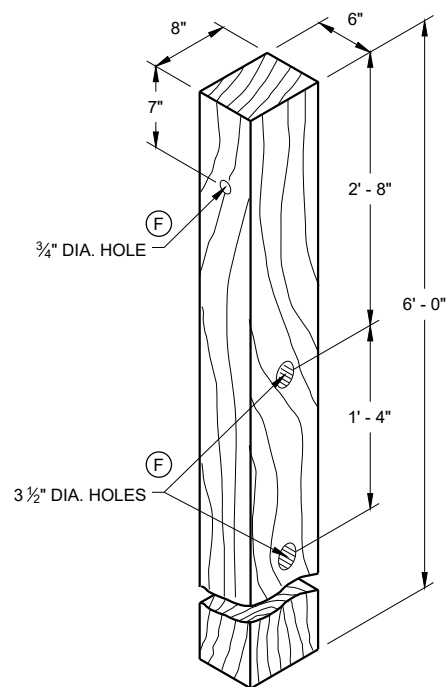
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



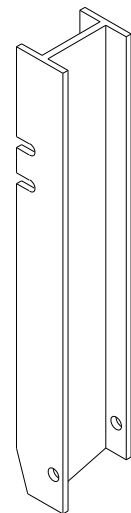
UPPER POST NO. 1 ⁽¹⁾ (E)



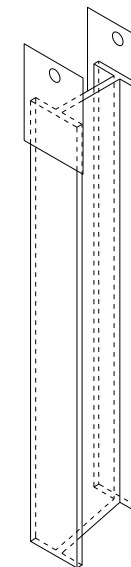
LOWER POST NO. 1 ⁽²⁾ (E)



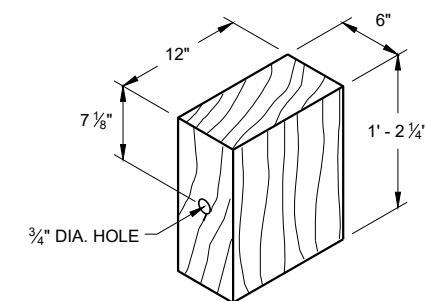
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 ⁽¹⁵⁾ (E)

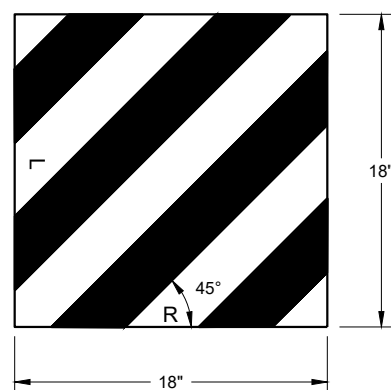


LOWER POST NO. 2 ⁽¹⁶⁾ (E)



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

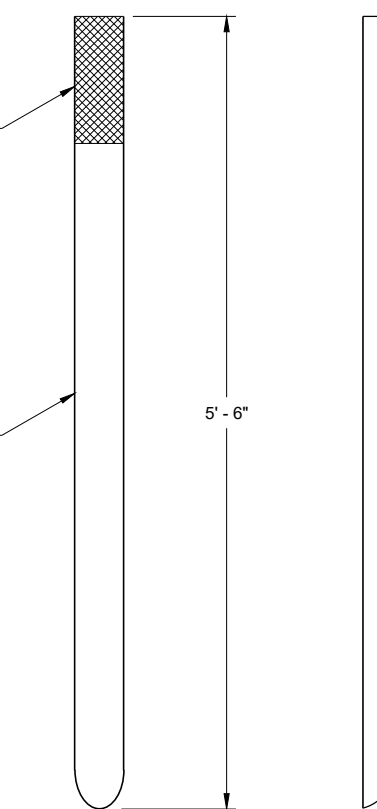
6



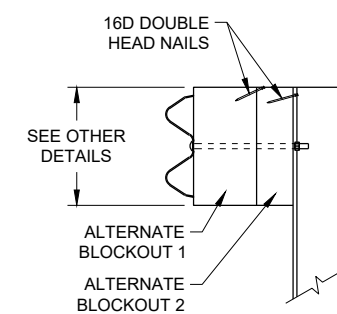
REFLECTIVE SHEETING DETAIL ^(E)
W5 - 59

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

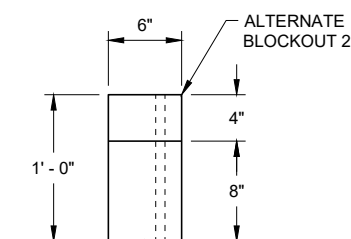
E.A.T. MARKER
POST (YELLOW)



FRONT VIEW SIDE VIEW
E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



TOP VIEW

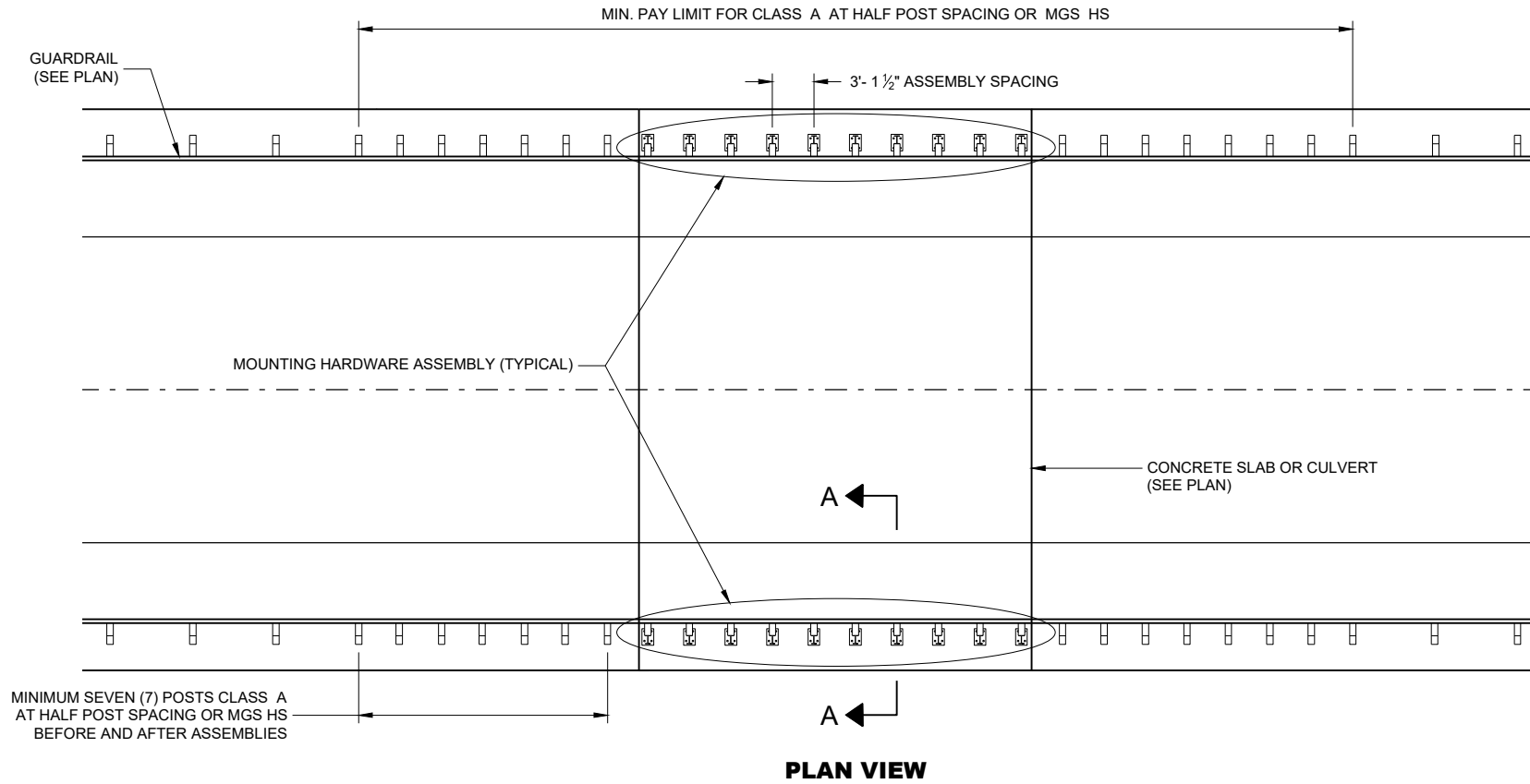
ALTERNATE WOOD
BLOCKOUT DETAIL

6

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



GENERAL NOTES

HOLES DRILLED INTO CONCRETE SLAB OR CULVERT ARE 1 1/8" DIAMETER.

POST BASE PLATE (AND BOTTOM PLATES IF USED) SHALL BE FLAT WITH ALL SURFACES SMOOTH, AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS. CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF CONCRETE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

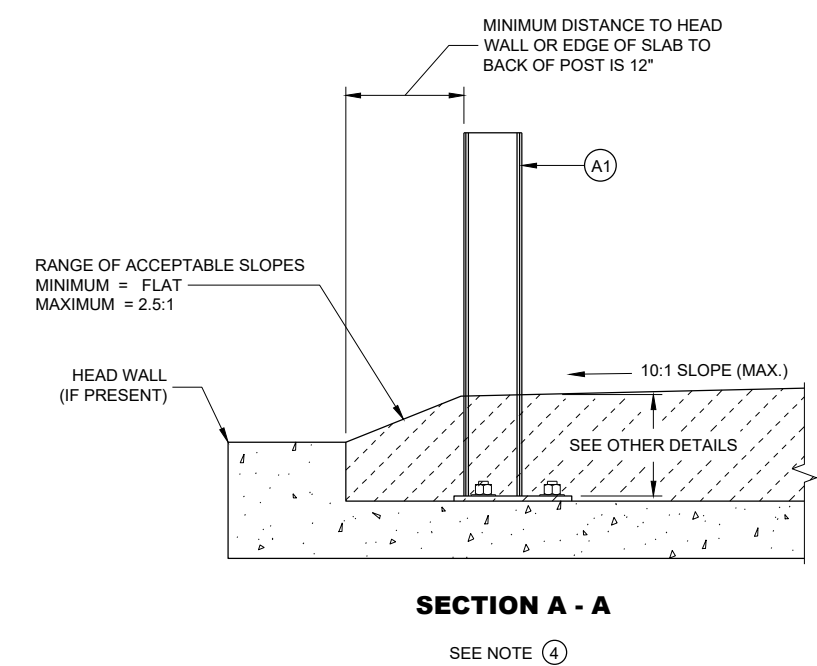
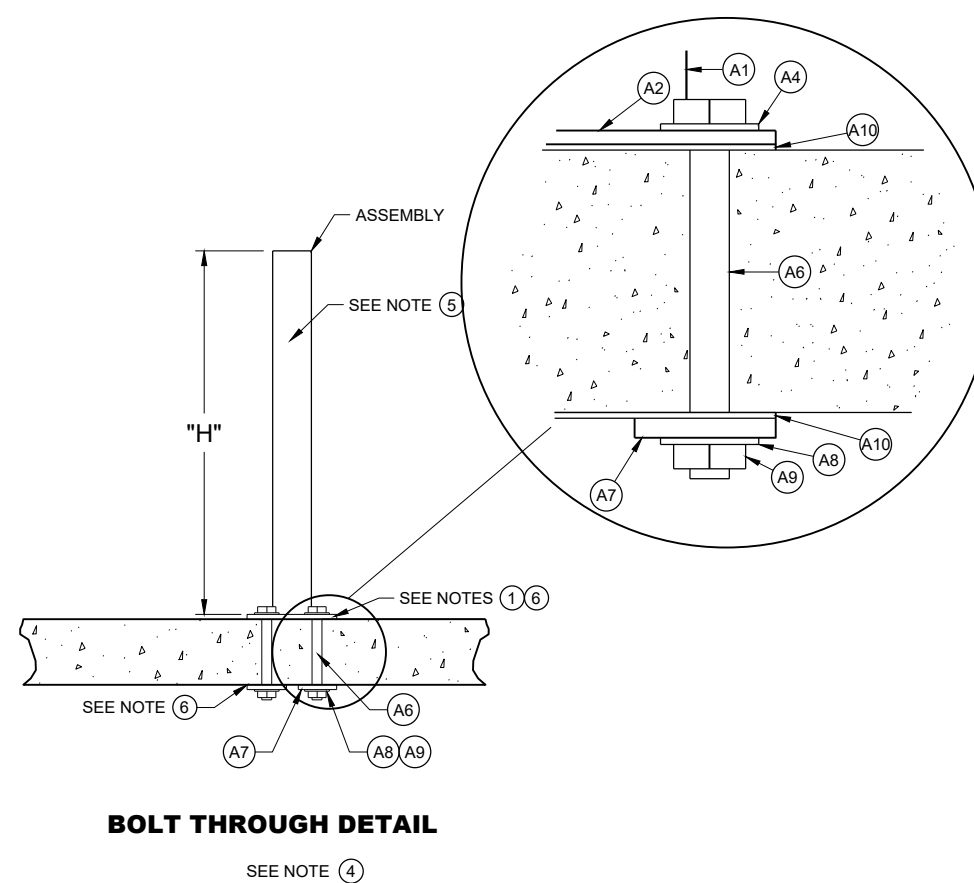
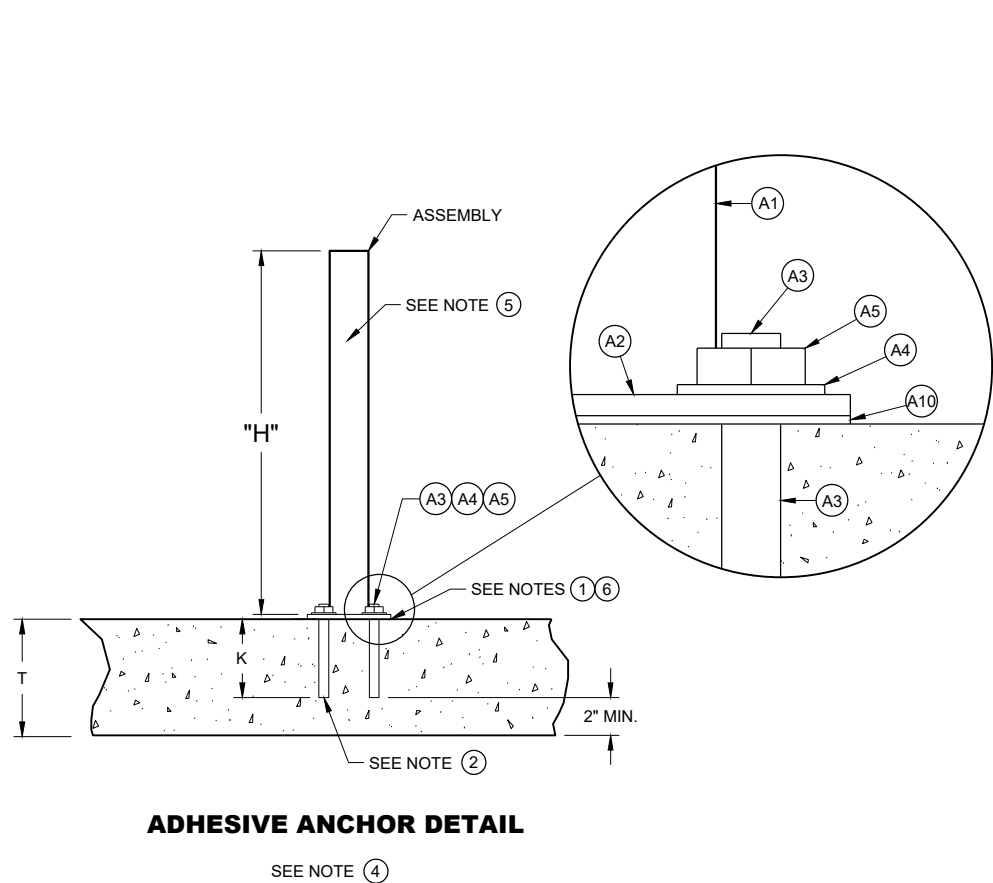
"H" DIMENSION WILL VARY. SEE PLAN FOR "H" DIMENSION. CONTRACTOR HAS OPTION OF INSTALLING POSTS THAT ARE TALLER THAN "H" DIMENSION AND CUT POSTS TO PROPER "H" DIMENSION IN THE FIELD. IF ELECTING TO FIELD CUT POSTS, DRILL HOLES AT APPROPRIATE LOCATIONS AND APPLY GALVANIZATION.

GALVANIZE STEEL COMPONENTS AFTER FABRICATION PER SECTION 614 OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

INSTALL 1 NUT AND 1 WASHER WHERE APPLICABLE. PROVIDE SUFFICIENT LENGTH OF BOLT OR THREADED ROD TO ALLOW FOR 1/4" TO 1/2" OF THREAD TO BEYOND THE NUT.

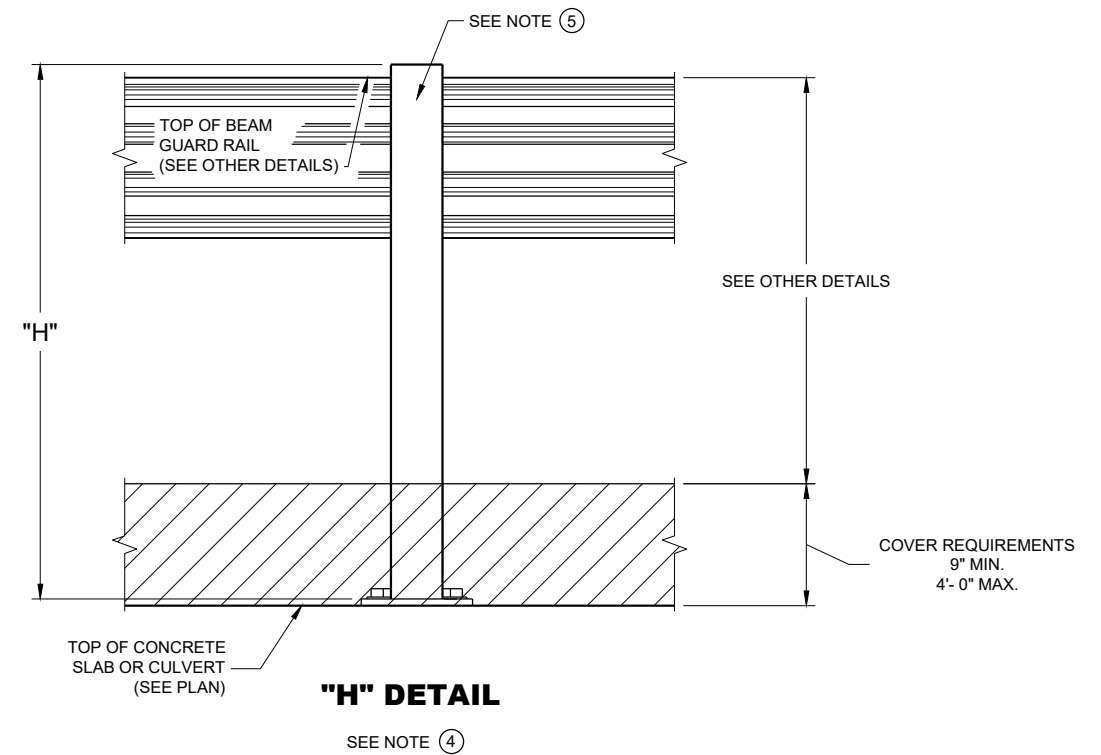
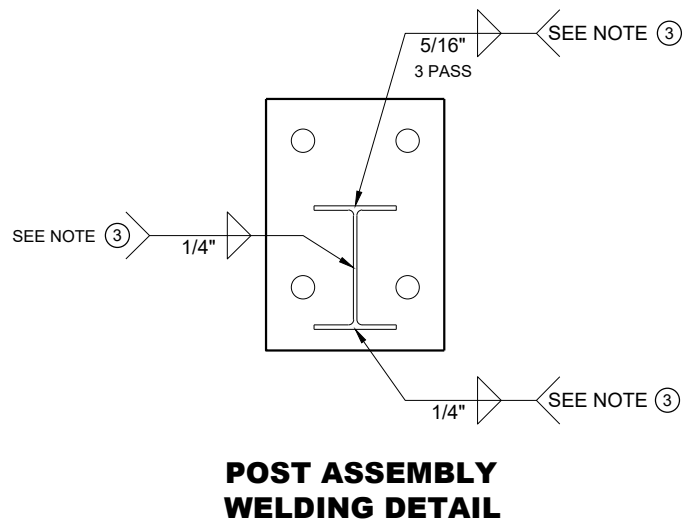
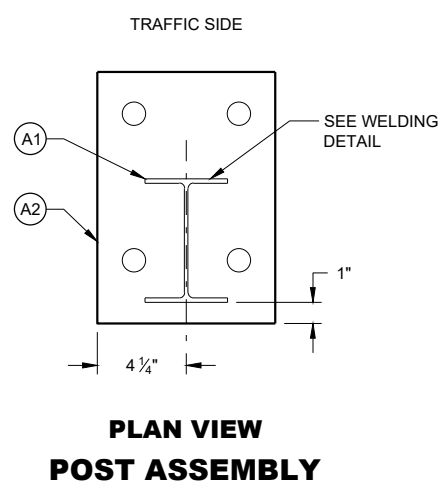
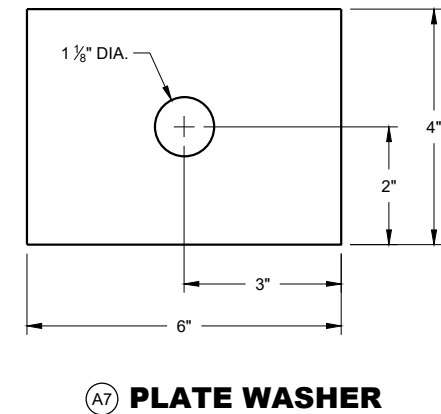
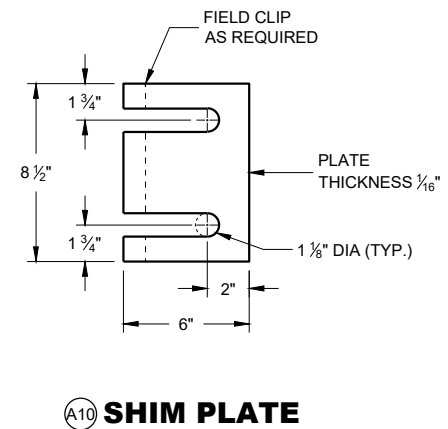
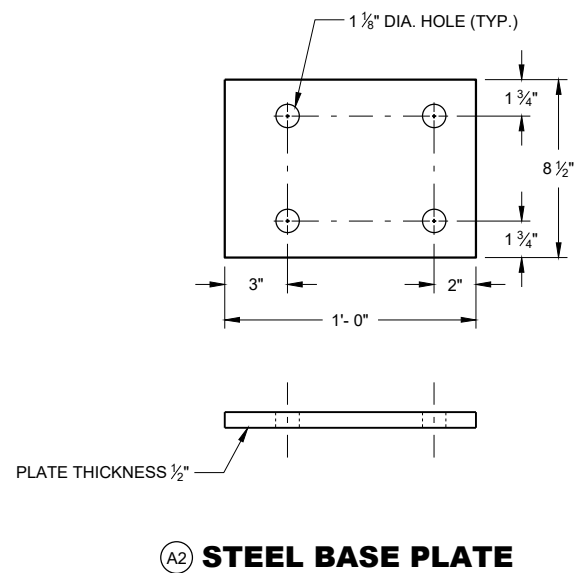
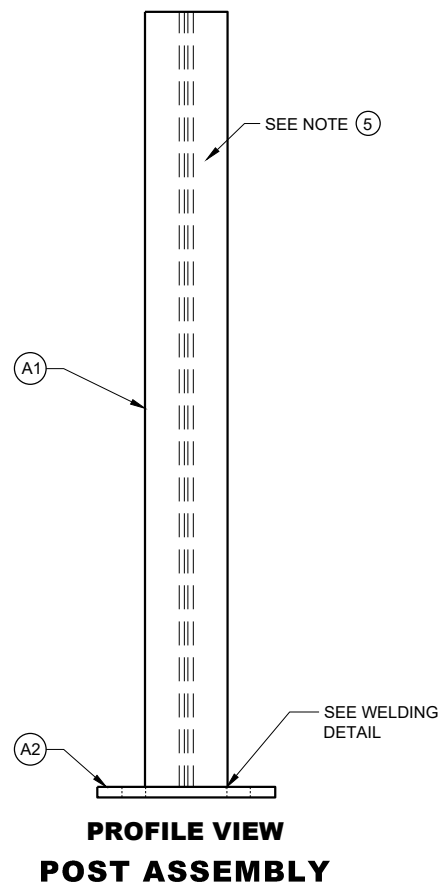
- ① FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE A2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. CAULK AROUND PERIMETER OF A2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ② BOND STRENGTH OF ADHESIVE IS 1,305 PSI OR GREATER WITH A MINIMUM EMBEDMENT DEPTH OF 8-INCHES. IF MINIMUM EMBEDMENT CANNOT BE ACHIEVED, BOLT THROUGH STRUCTURE.
- ③ USE GAS-METAL ARC WELDING (GMAW) PROCESS WITH ER70S-3 WELDING WIRE AND ARGON-OXYGEN OR CO₂ COVER GAS.
- ④ OTHER COMPONENT OF BARRIER SYSTEM NOT SHOWN. SEE SDD 14B15 OR SDD 14B42 FOR MORE DETAILS.
- ⑤ HOLES TO MOUNT BEAM GUARD AND BLOCK NOT SHOWN ON DRAWINGS. SEE SDD 14B15 OR SDD 14B42 FOR MORE DETAILS.
- ⑥ ADD AND ADJUST SHIM PLATES AS NECESSARY TO INSTALL POST PLUMB. SEE (A10) FOR DETAIL.

Concrete Strength (f'c) PSI	"T" Inch	Min. "K" Inch
3,500	11 ≤	9
4,000	10 ≤	8



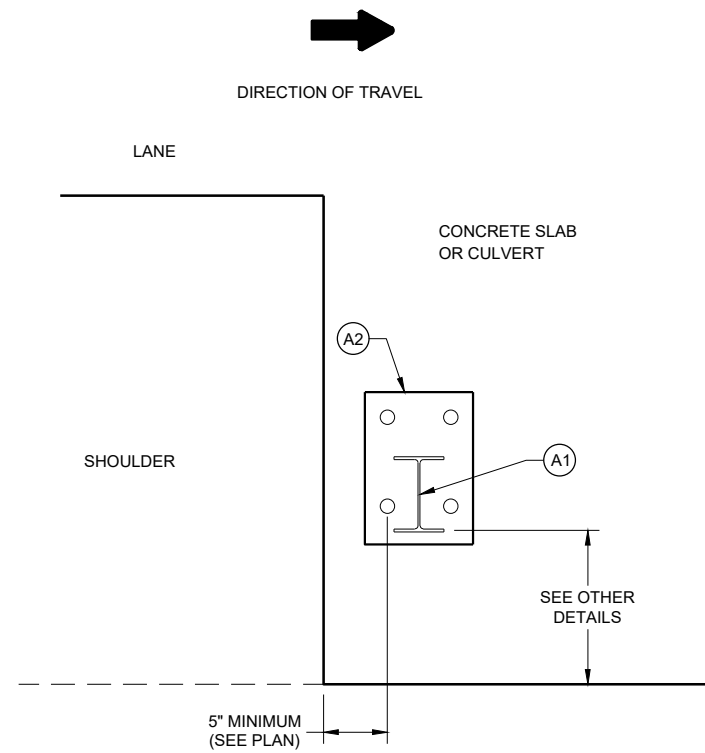
**ANCHOR POST ASSEMBLY
TOP MOUNTED**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



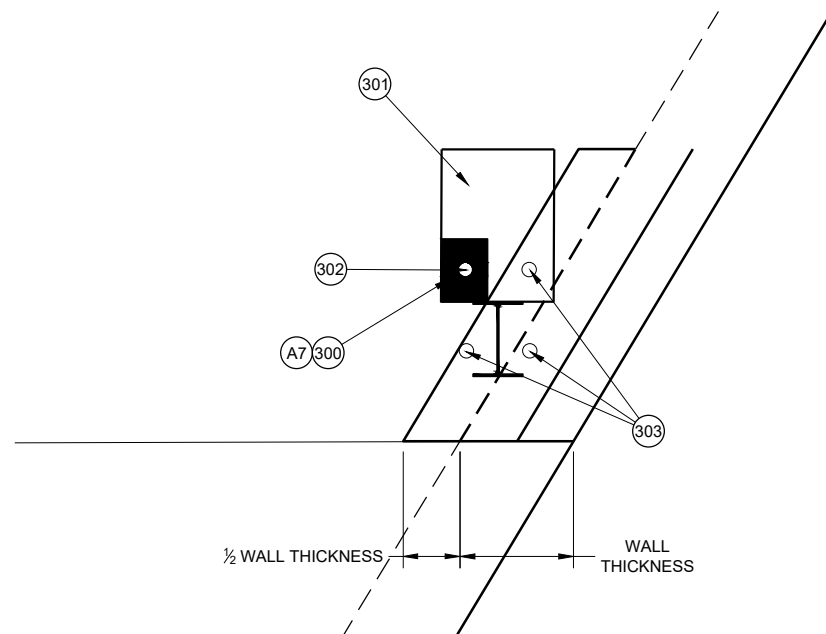
**ANCHOR POST ASSEMBLY
TOP MOUNTED**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



EDGE PLACEMENT

SEE NOTE (4)



TOP MOUNT OPTION NEAR EDGE OF SLAB

BILL OF MATERIALS LIST

ITEM	DESCRIPTION	MATERIAL SPECIFICATIONS	NOTES
(A1)	W6x9 or W6x8.5	ASTM A992 50 KSI MIN., ASTM A709 GRADE 50, OR ASTM A36	SEE SDD 14B15 OR 14B42 LENGTH WILL VARY
(A2)	STEEL BASE PLATE	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	
(A3)	1" DIA. THREADED ROD	SAE J429 GRADE 2, OR ASTM F1554 GRADE 55	LENGTH WILL VARY
(A4)	1" DIA. FLAT WASHER	ASTM F844	
(A5)	1" HEX NUT	ASTM A563A	
(A6)	1" DIA. HEX BOLT	ASTM A307	LENGTH WILL VARY
(A7)	PLATE WASHER	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	1/4" THICKNESS
(A8)	1" DIA. FLAT WASHER	ASTM F844	
(A9)	1" DIA. HEX NUT	ASTM A563A	
(A10)	SHIM PLATE	SEE (A2)	4 MAX PER POST

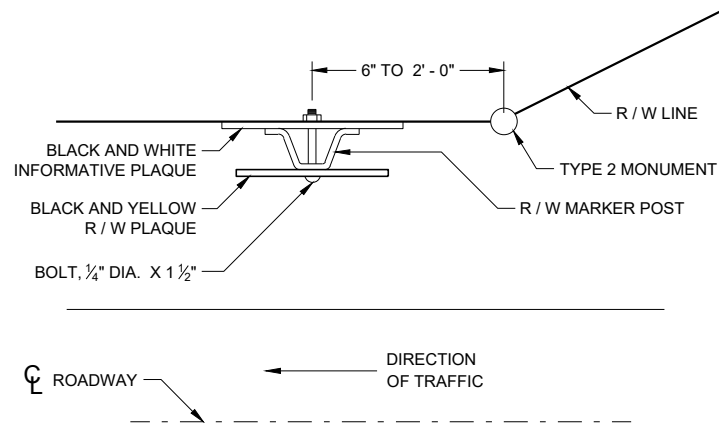
NOTES

- 300. Plate washer installed on underside of slab or culvert
- 301. Top plate assembly on top of slab or culvert
- 302. Bolt through option allowed
- 303. Adhesive Anchors

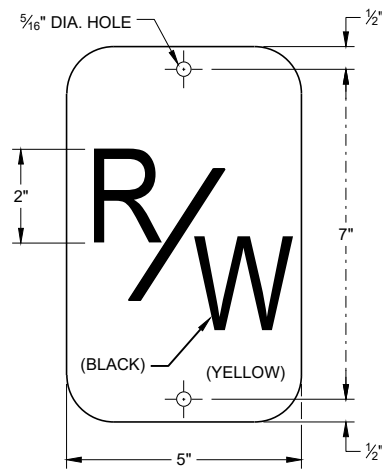
**ANCHOR POST ASSEMBLY
TOP MOUNTED**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

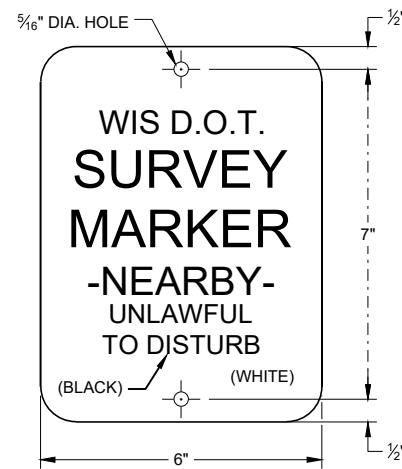


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

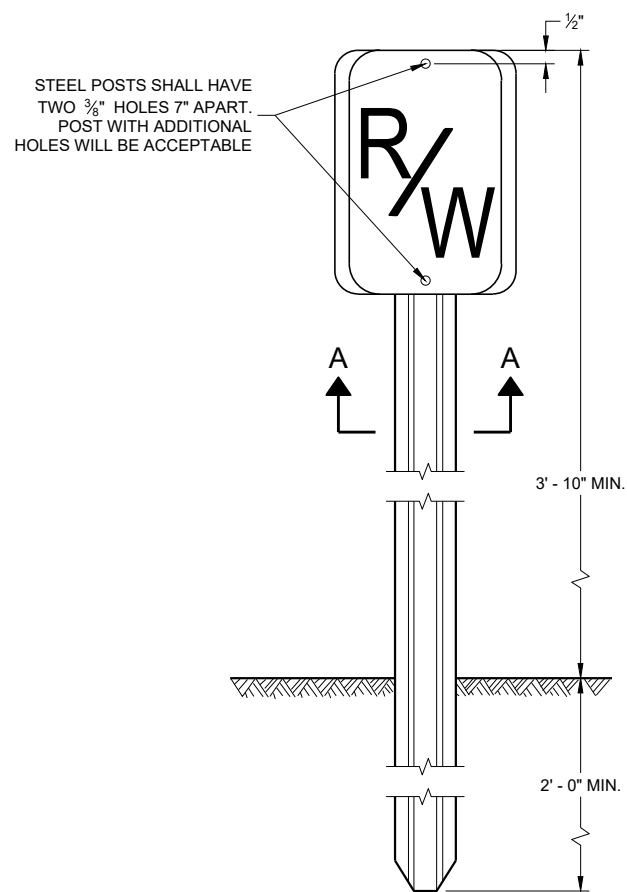
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

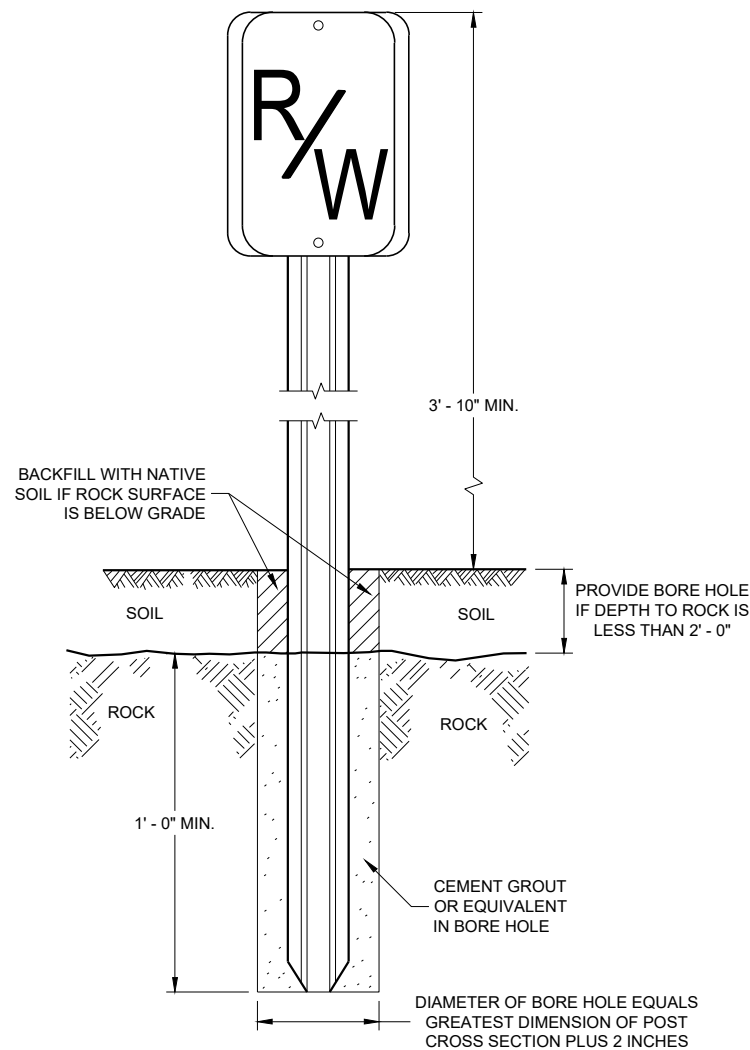
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

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.

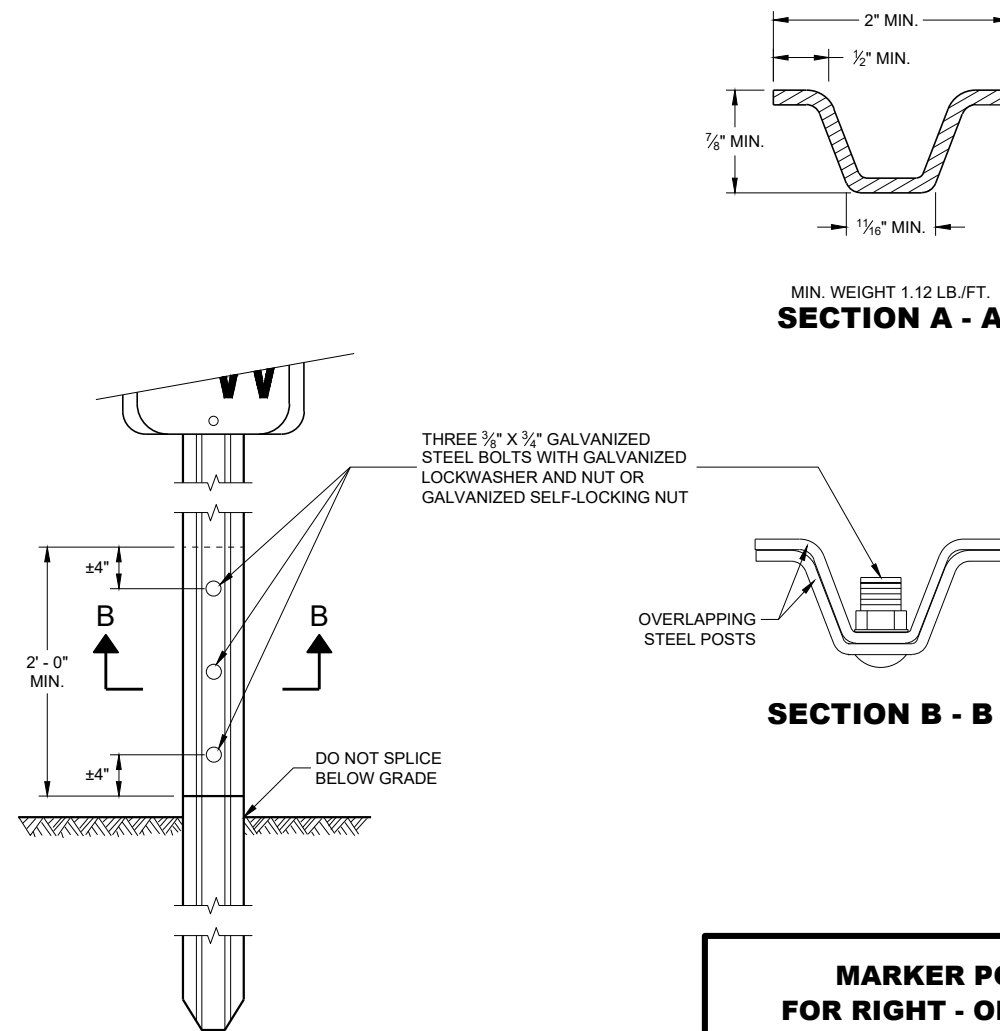
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL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



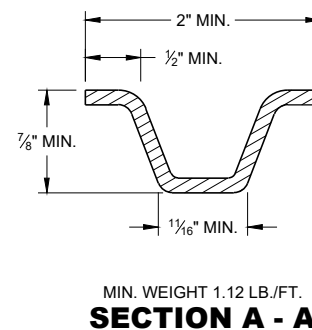
**FRONT VIEW
STEEL MARKER POST**



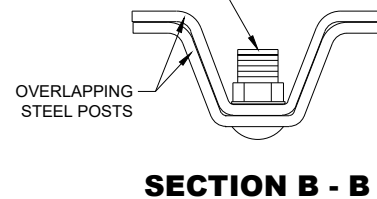
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



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



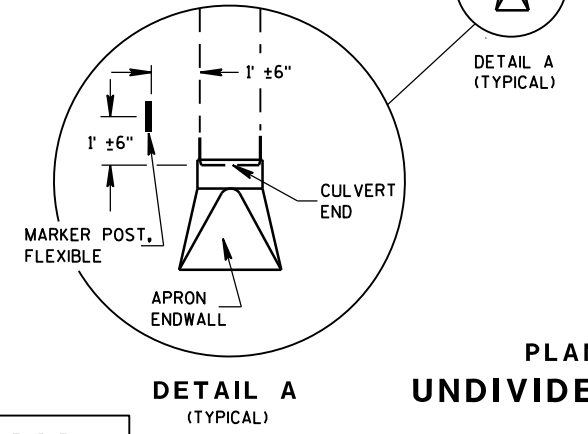
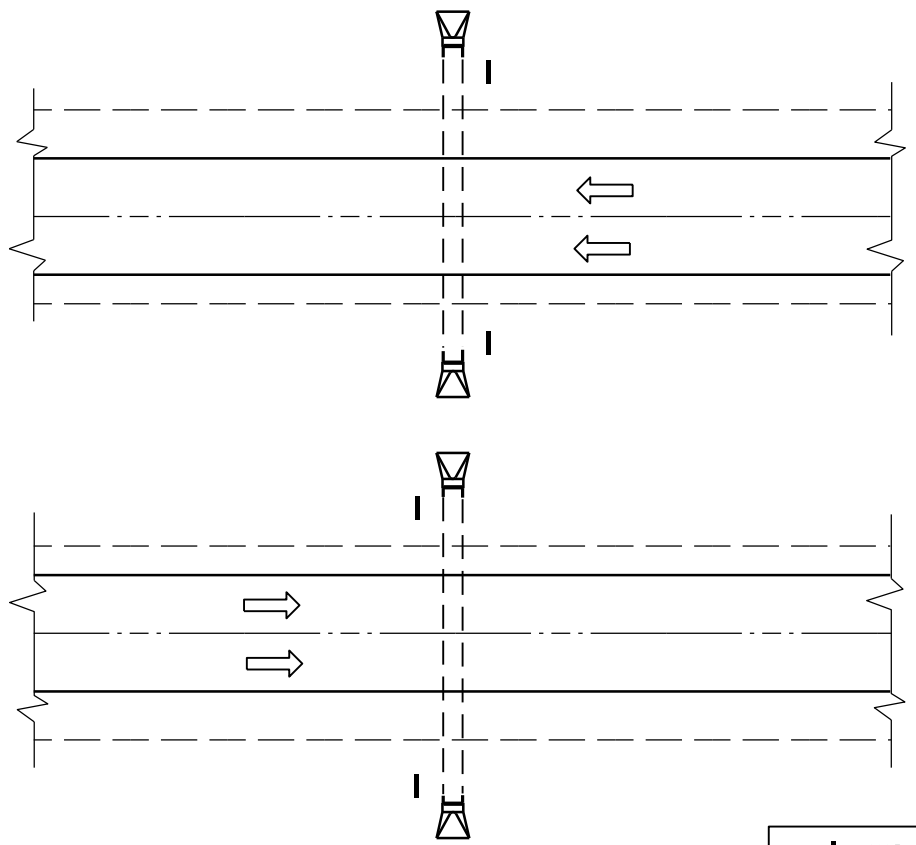
SECTION B - B

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

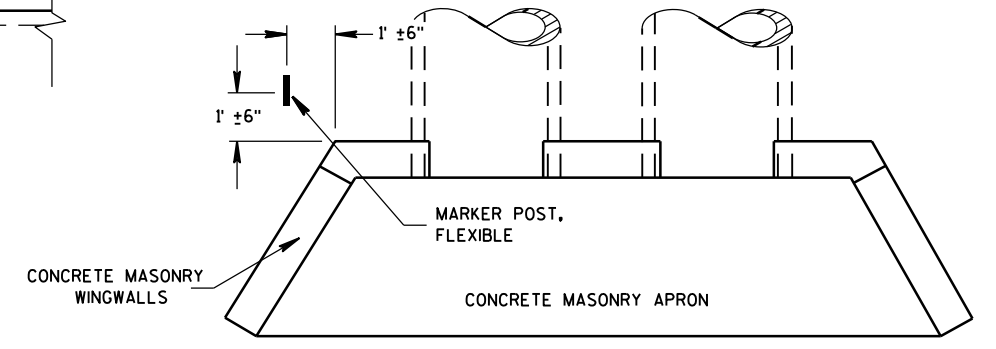
APPROVED
2/18/2016 DATE /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER

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.

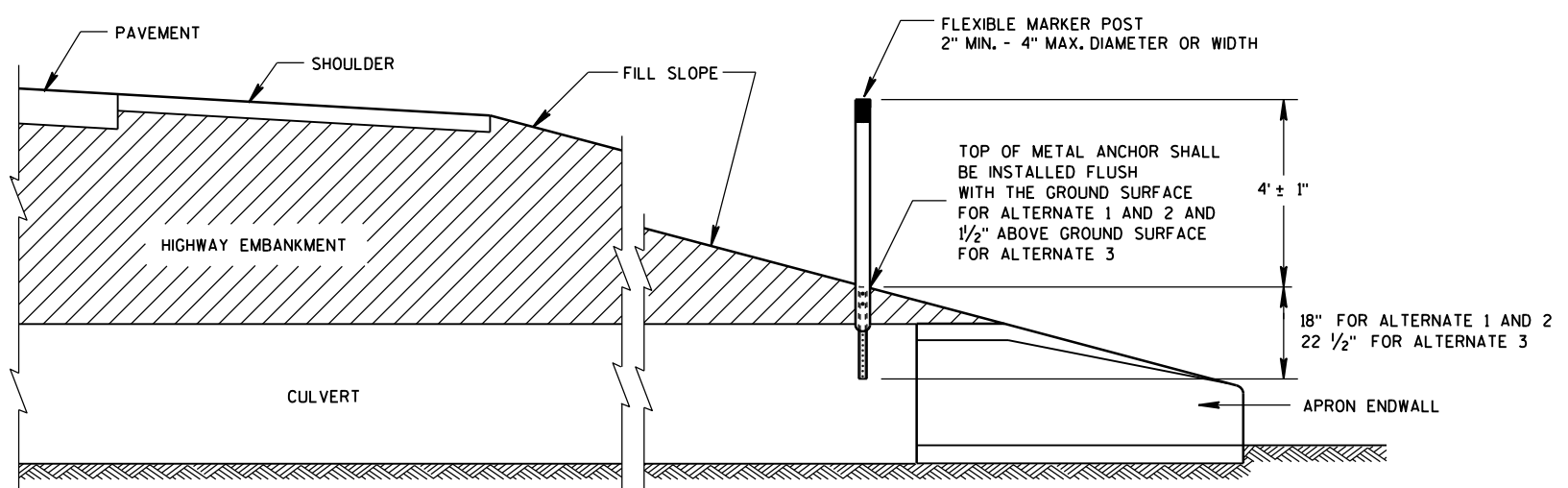


PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

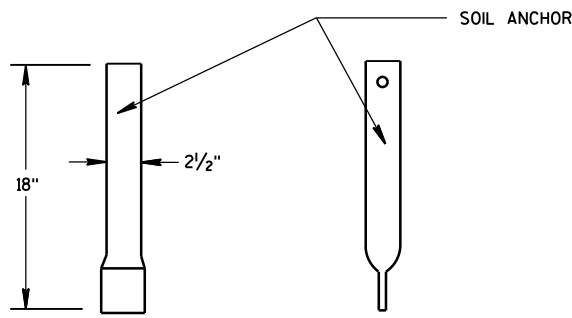
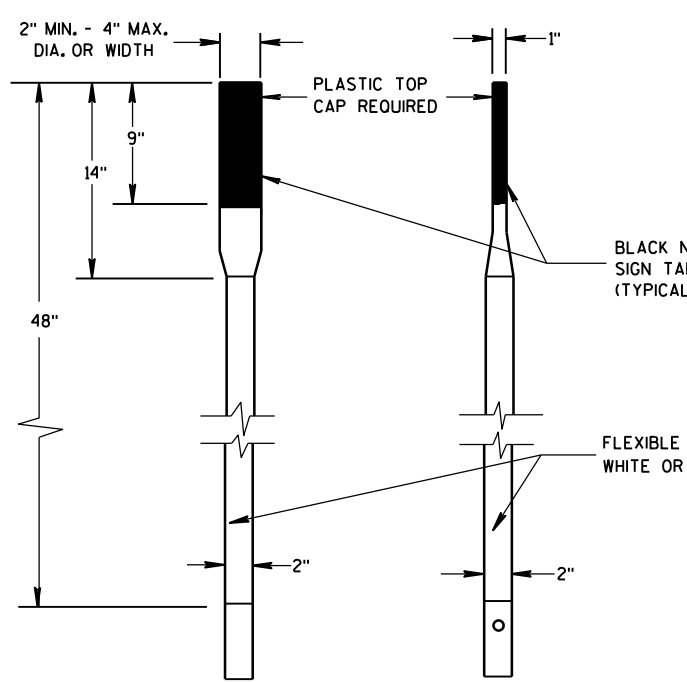
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

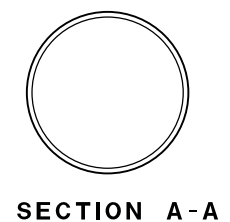
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S.D.D. 15 A 3-2a

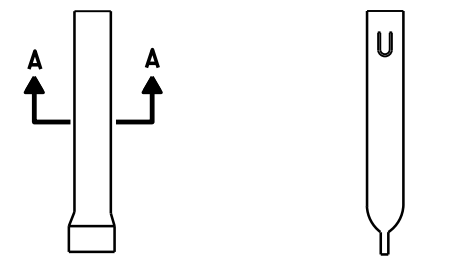
S.D.D. 15 A 3-2a



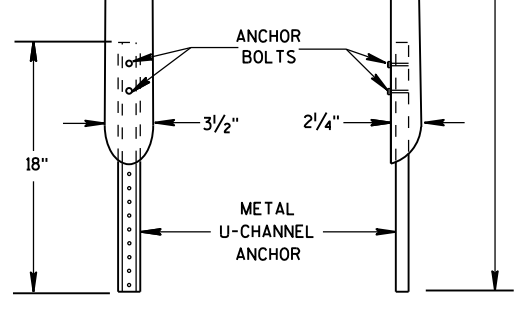
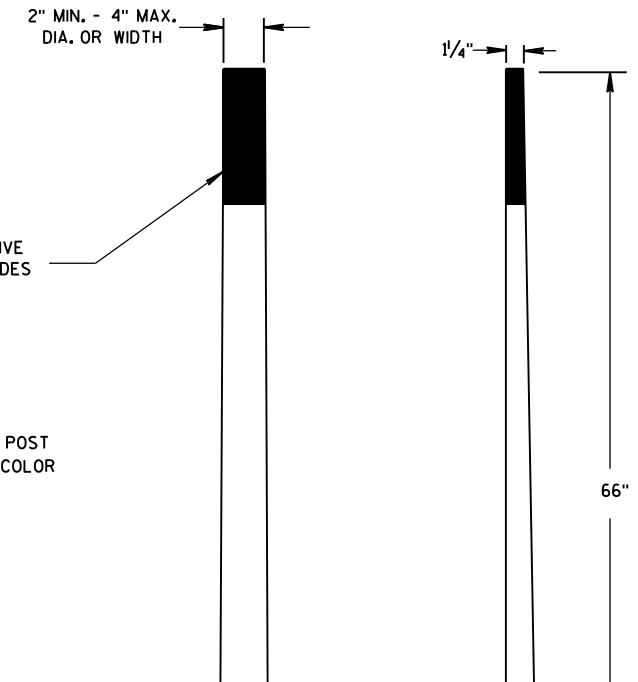
FRONT VIEW SIDE VIEW
ALTERNATE 1



SECTION A-A

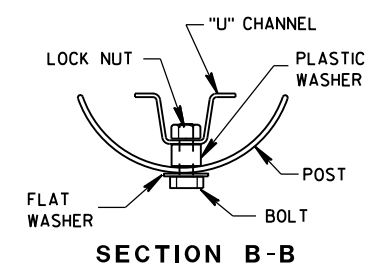


FRONT VIEW SIDE VIEW
ALTERNATE 1

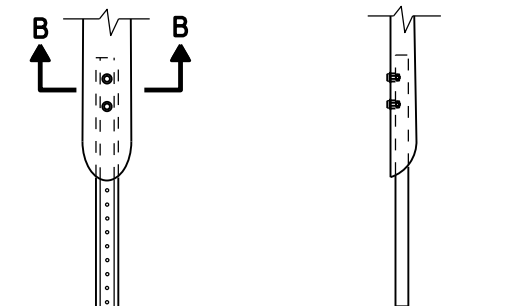


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

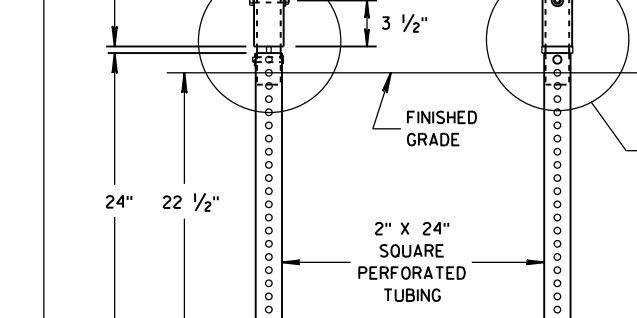
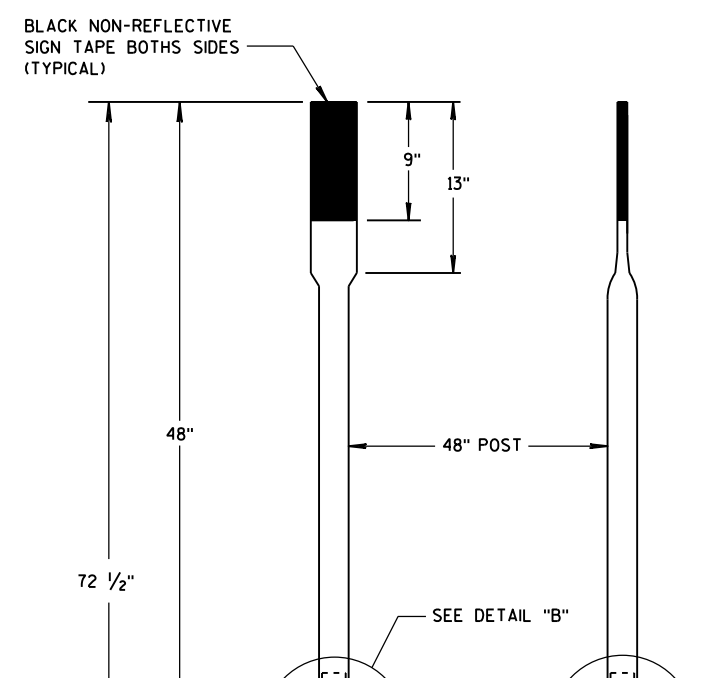


SECTION B-B

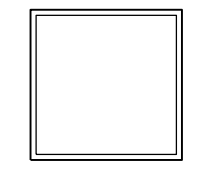


FRONT VIEW SIDE VIEW
ALTERNATE 2

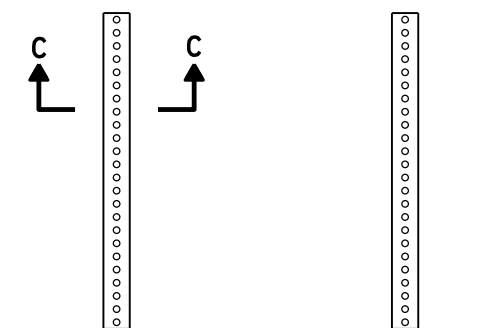
FLEXIBLE MARKER POST ANCHORS



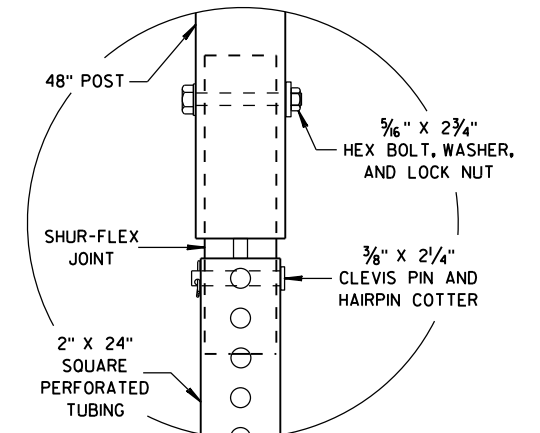
FRONT VIEW SIDE VIEW
ALTERNATE 3



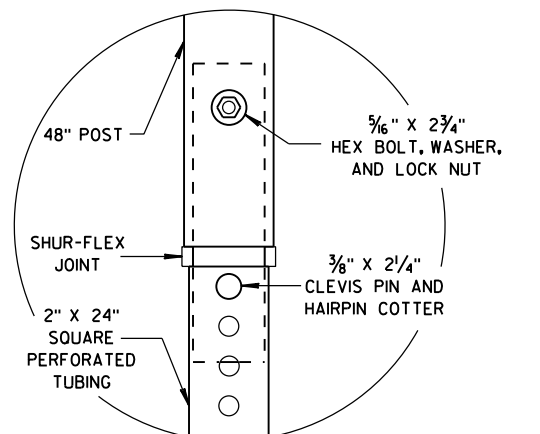
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B

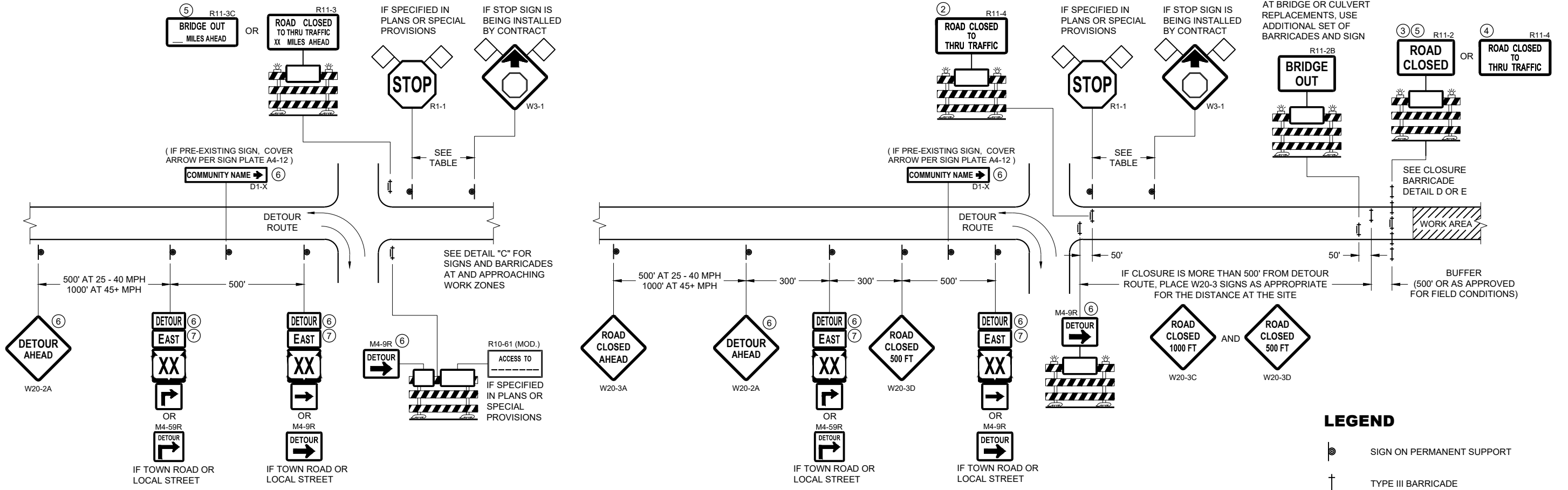


DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

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

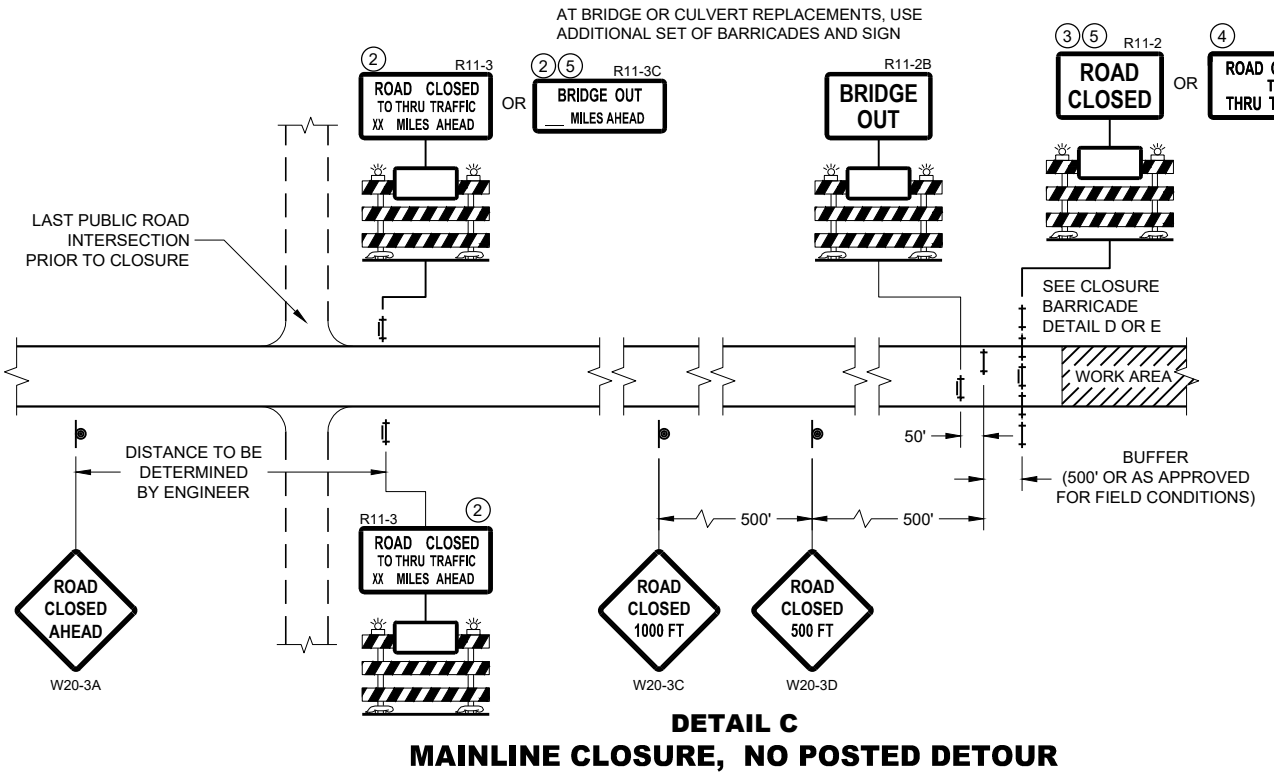
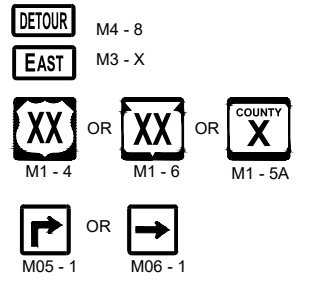
**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

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

LEGEND

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

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



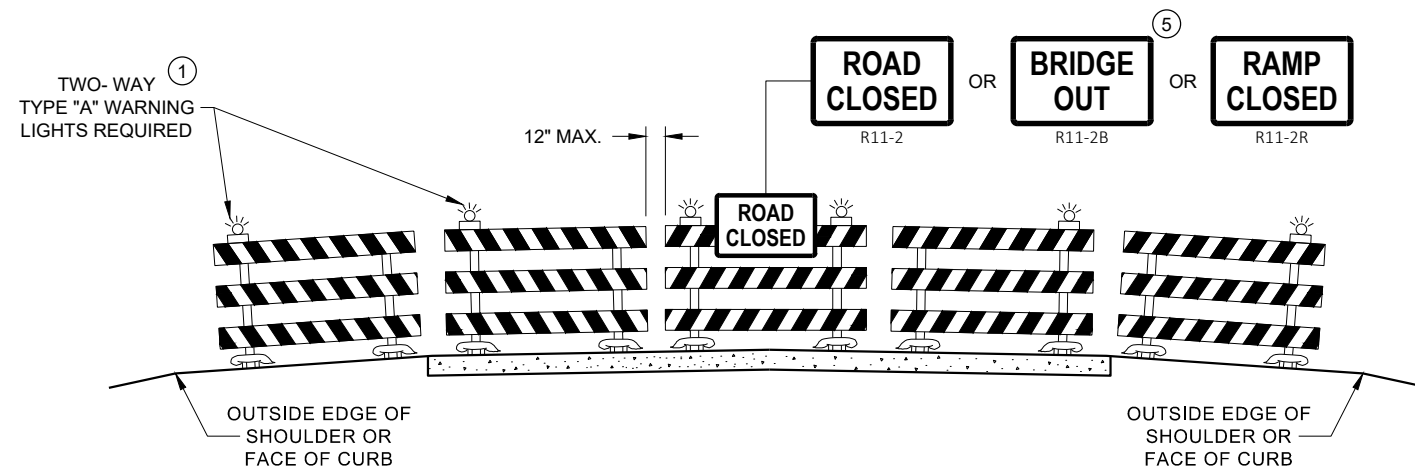
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

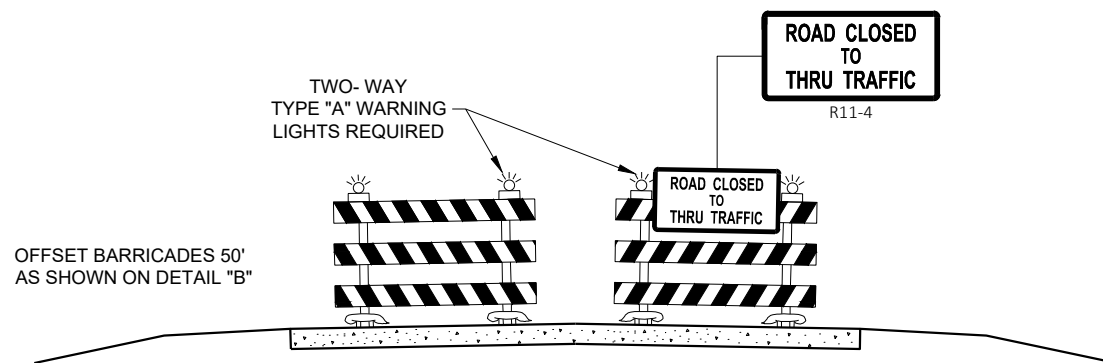
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE 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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

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

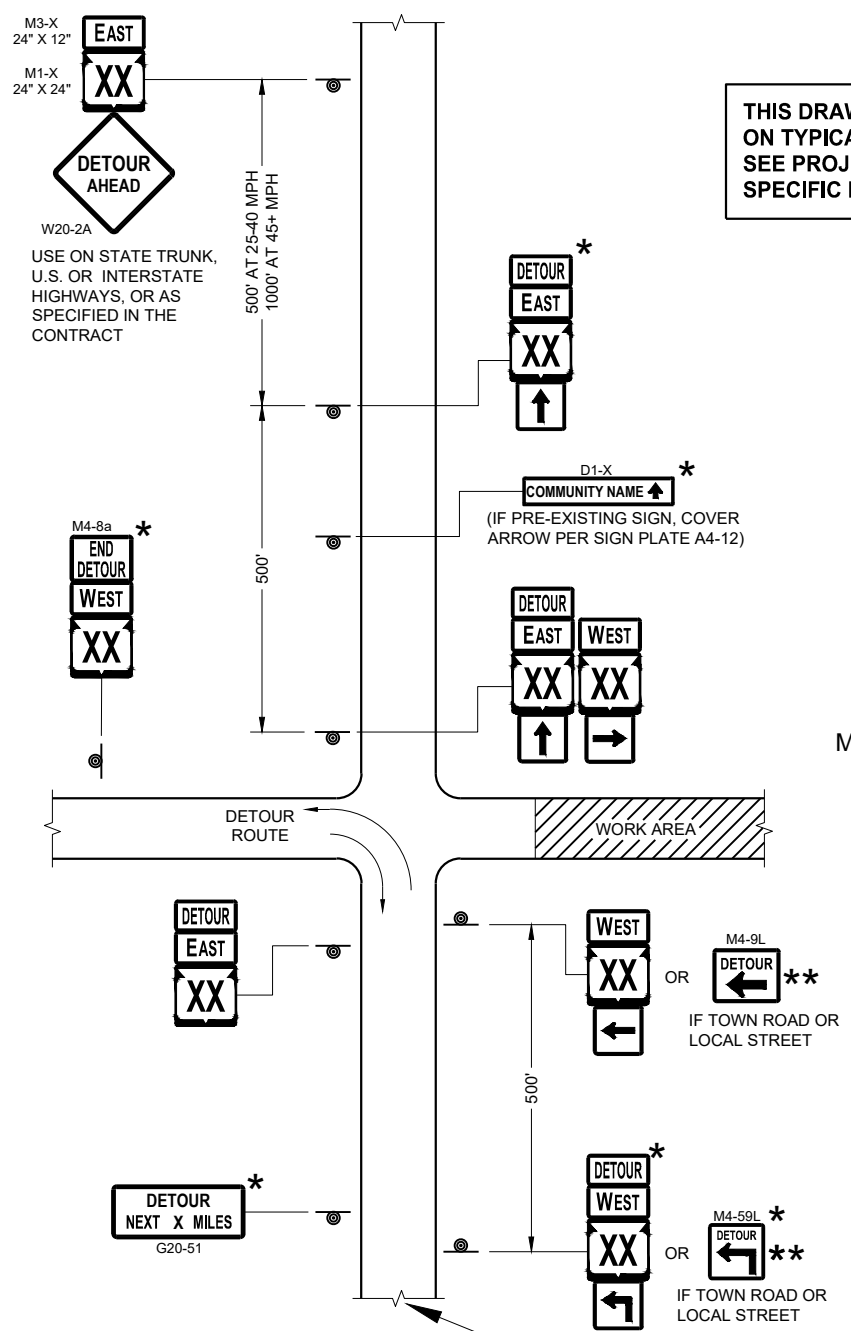
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

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

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

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

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

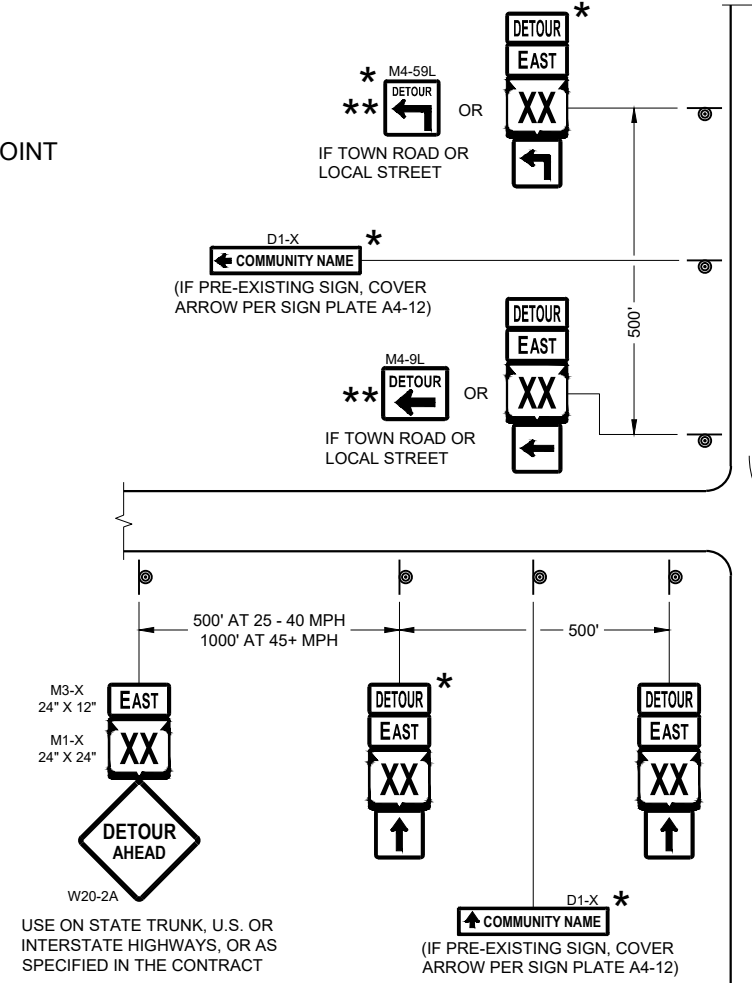
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

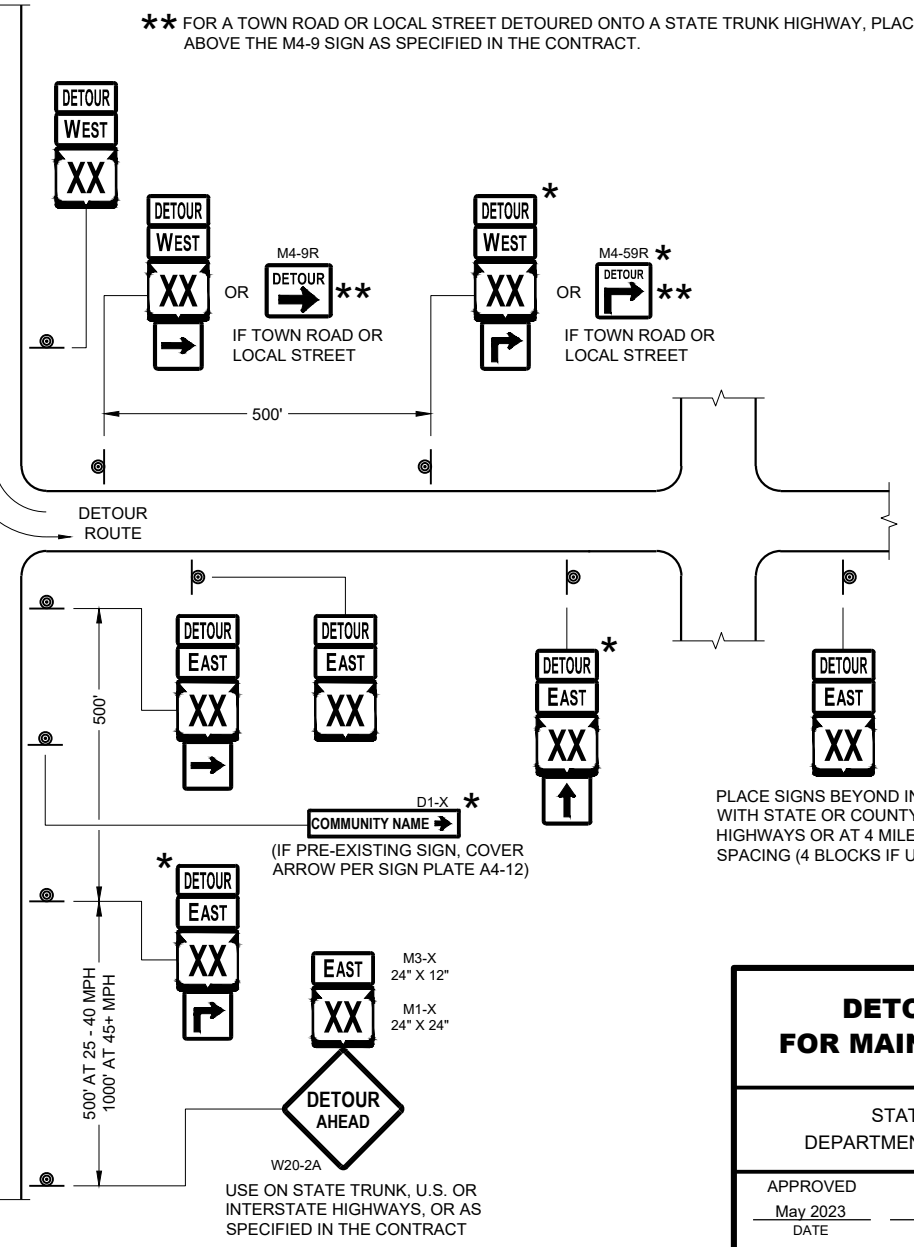
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING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

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



**DETAIL F
DETOUR SIGNING**



**DETOUR SIGNING
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

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




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

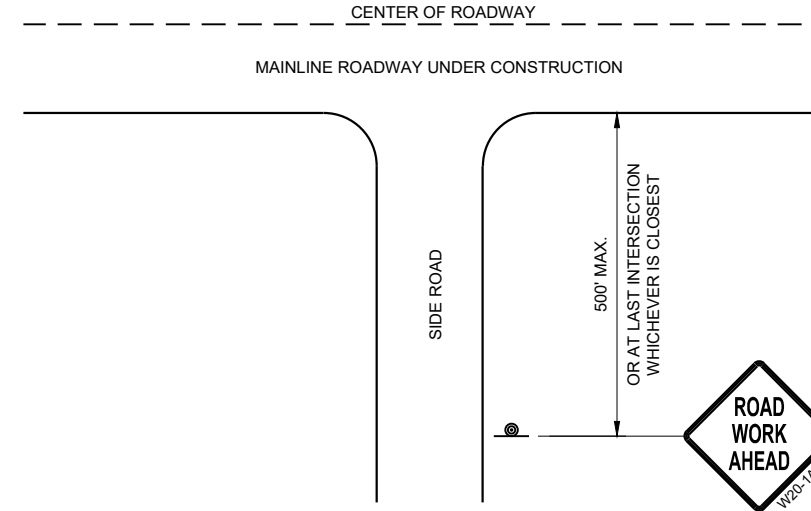
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

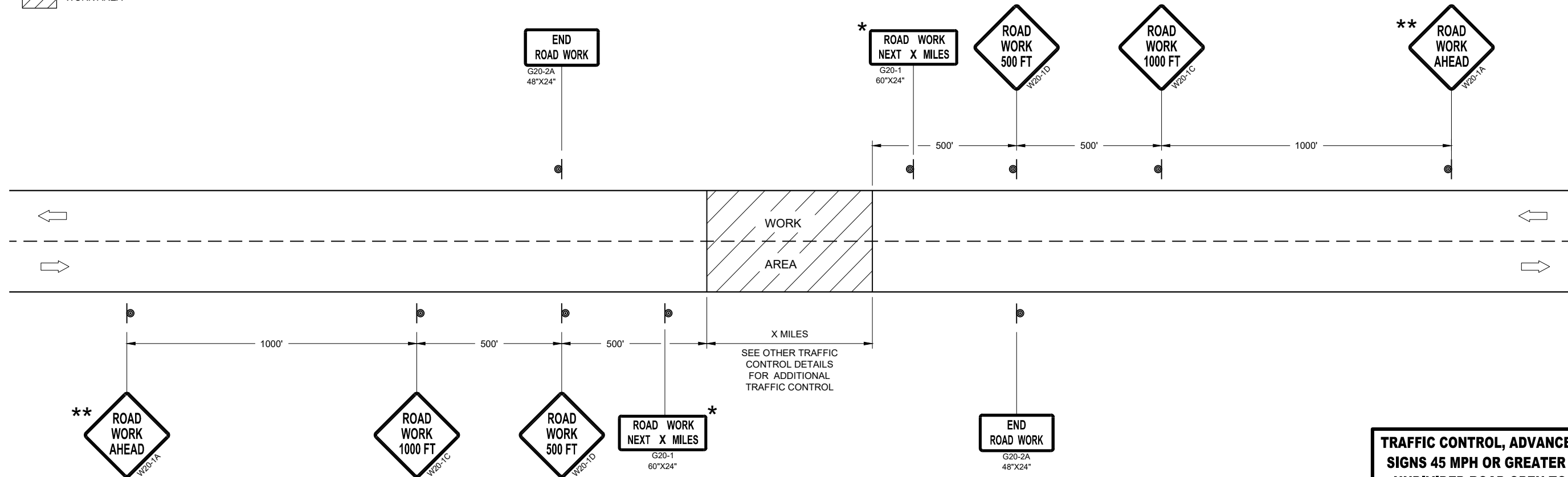
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



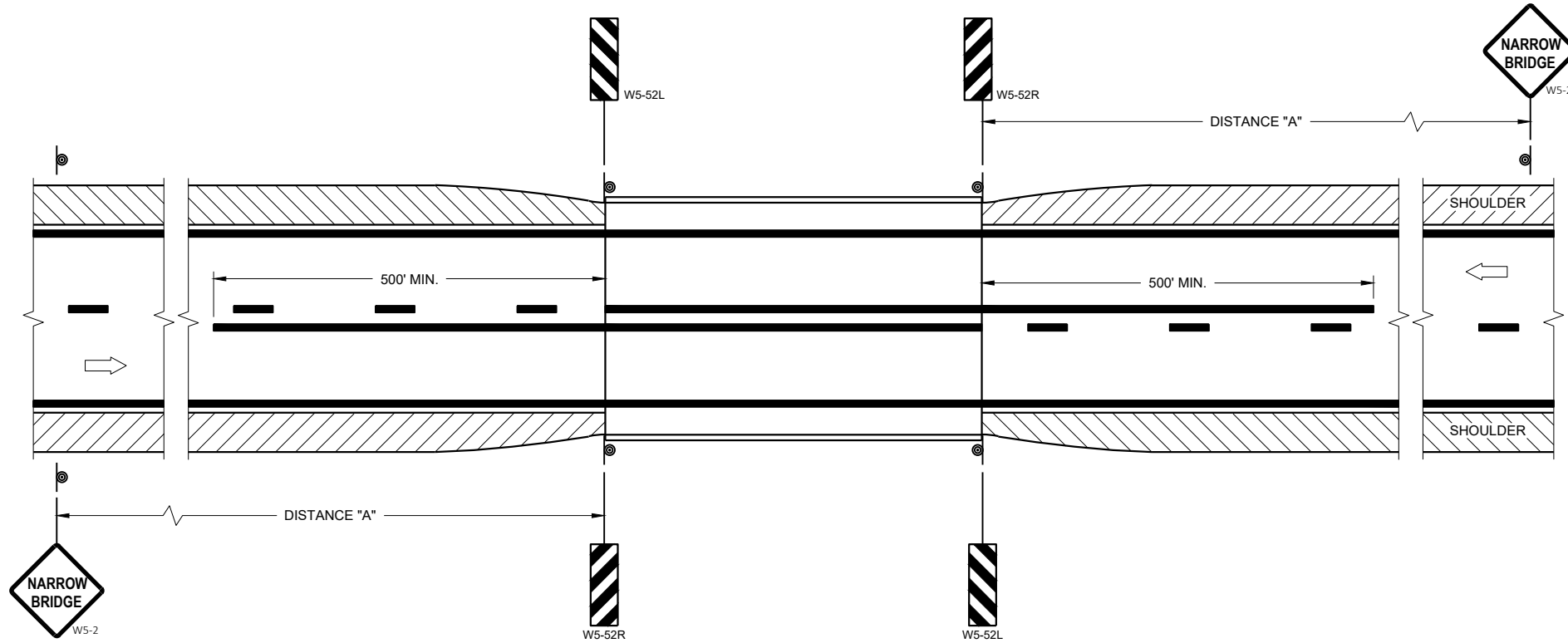
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

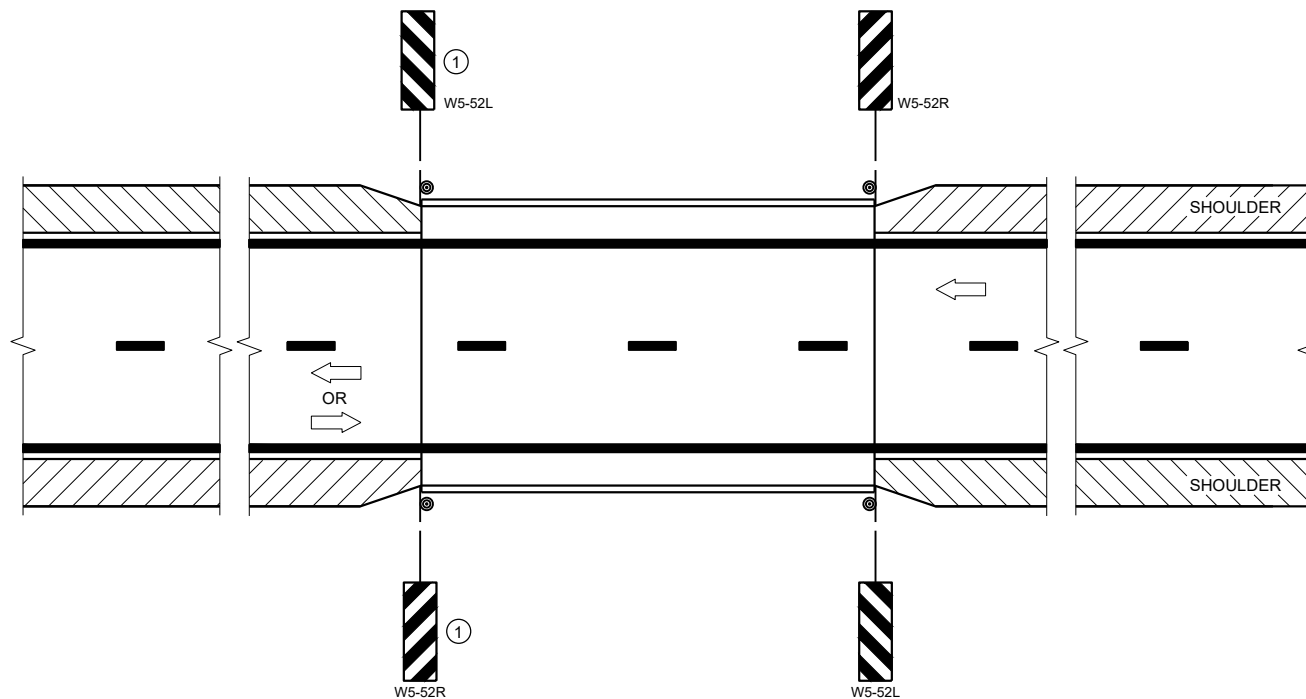
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE July 2018 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA



SITUATION 1
 WARRANTING CRITERIA:
 BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2
 WARRANTING CRITERIA:
 1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
 2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

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

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

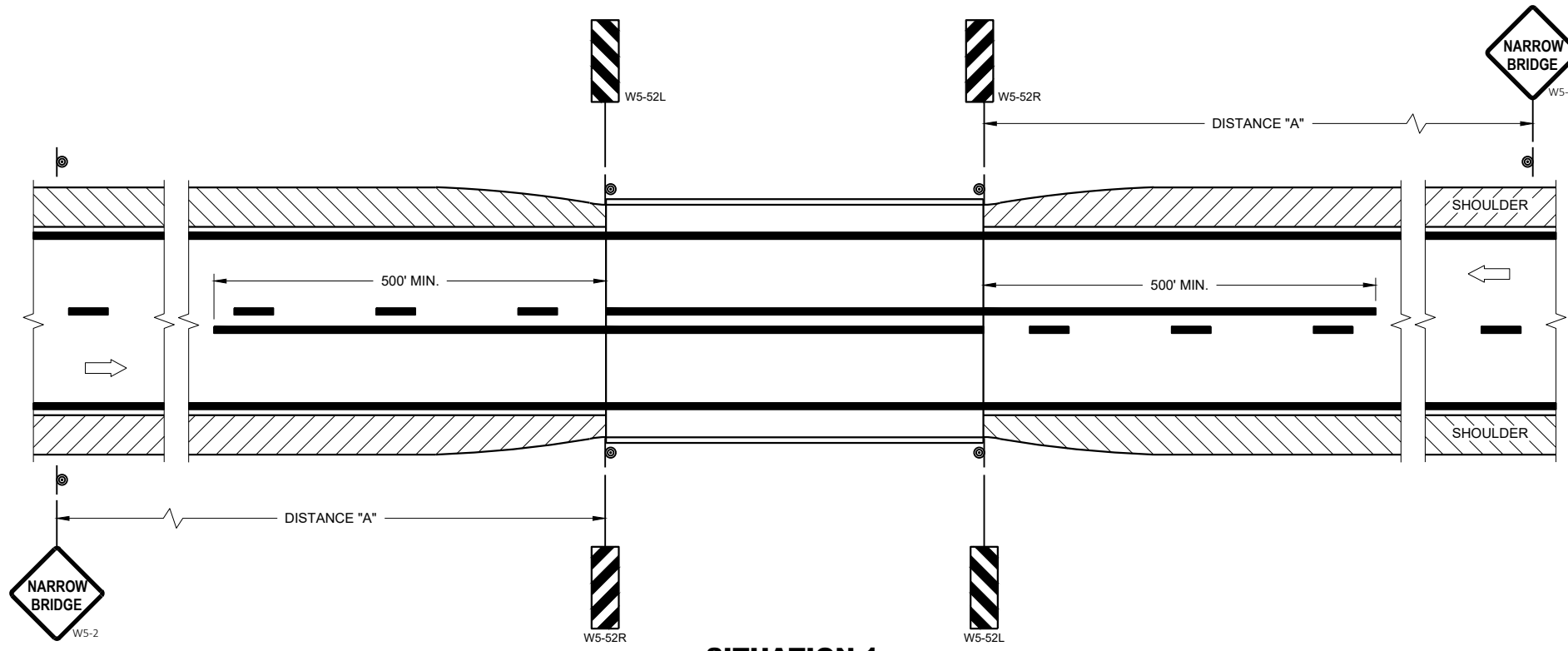
DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

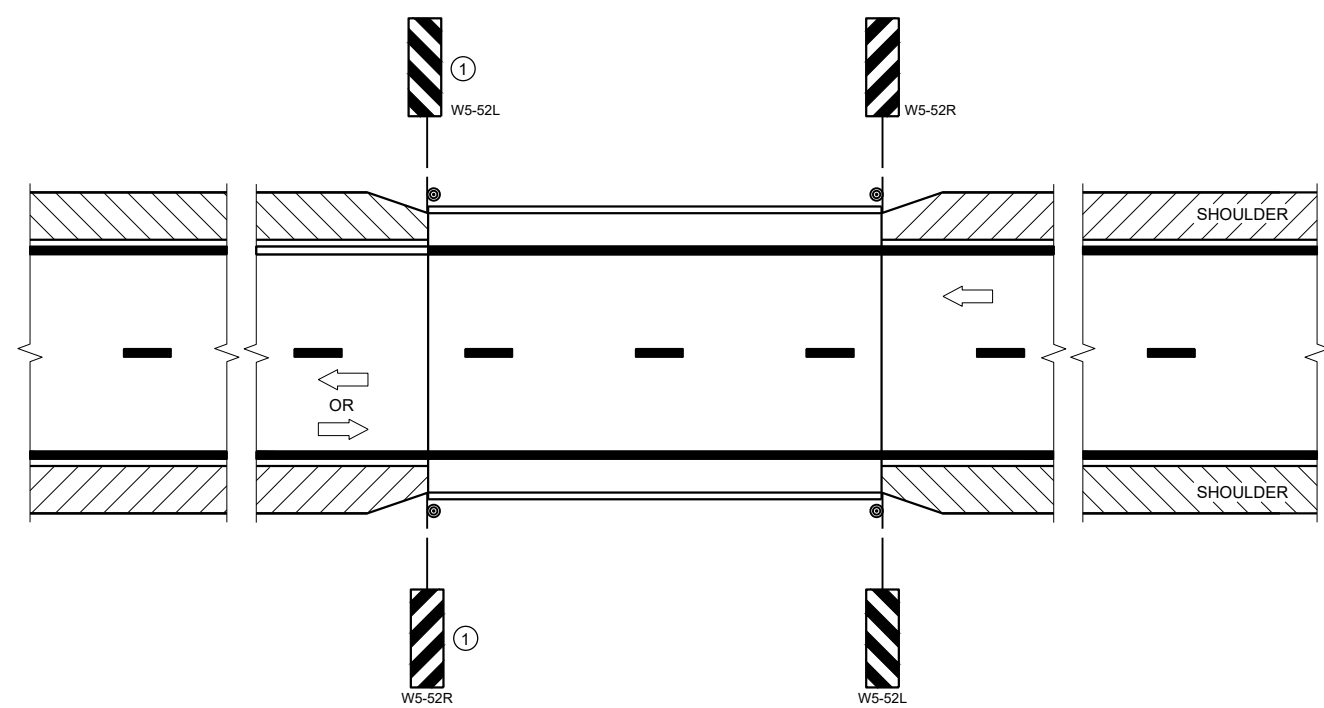
SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 May 2022 /S/ Jeannie Silver
 DATE STATE SIGNING AND MARKING ENGINEER



SITUATION 1
 WARRANTING CRITERIA:
 BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2
 WARRANTING CRITERIA:
 1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
 2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

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

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

6

6

SDD 15C06-12

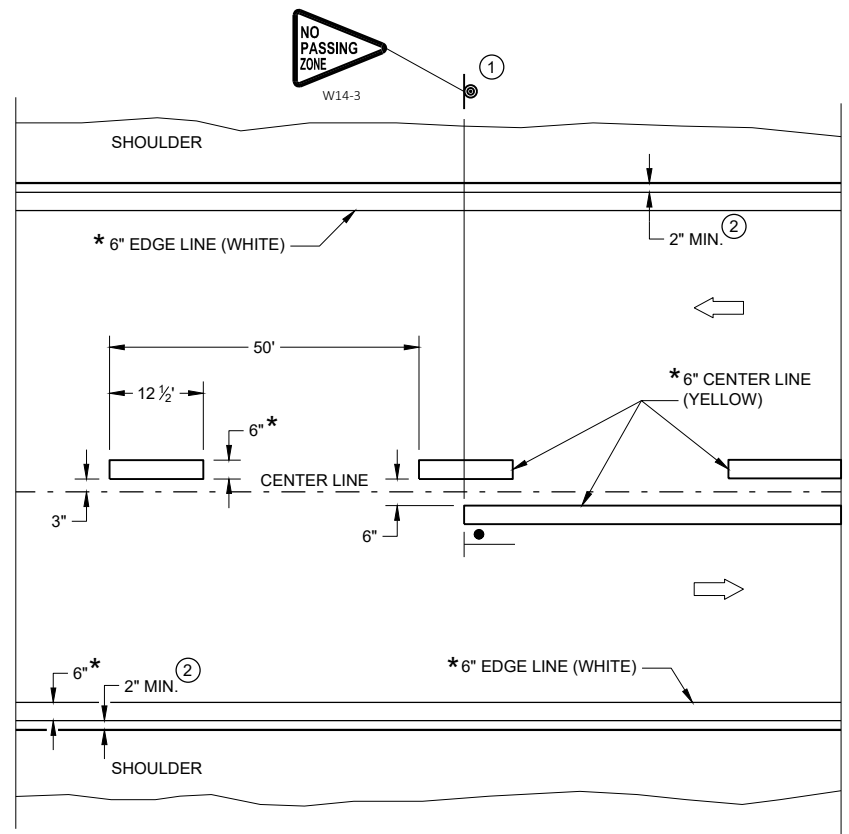
SDD 15C06-12

SIGNING AND MARKING FOR TWO LANE BRIDGES

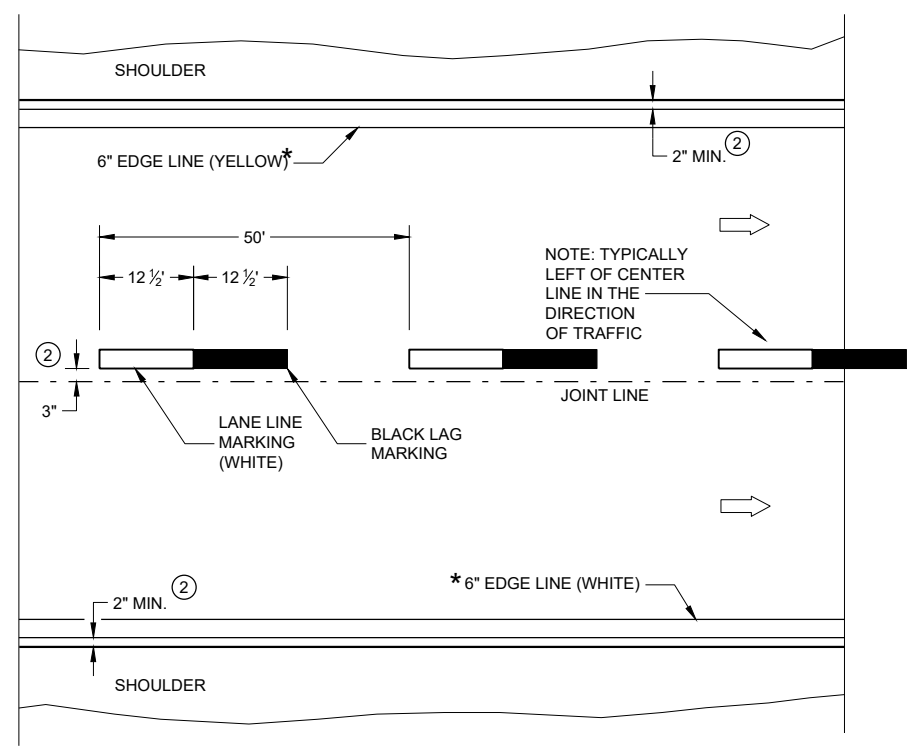
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 May 2023 /S/ Jeannie Silver
 DATE STATE SIGNING AND MARKING ENGINEER

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

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

LEGEND

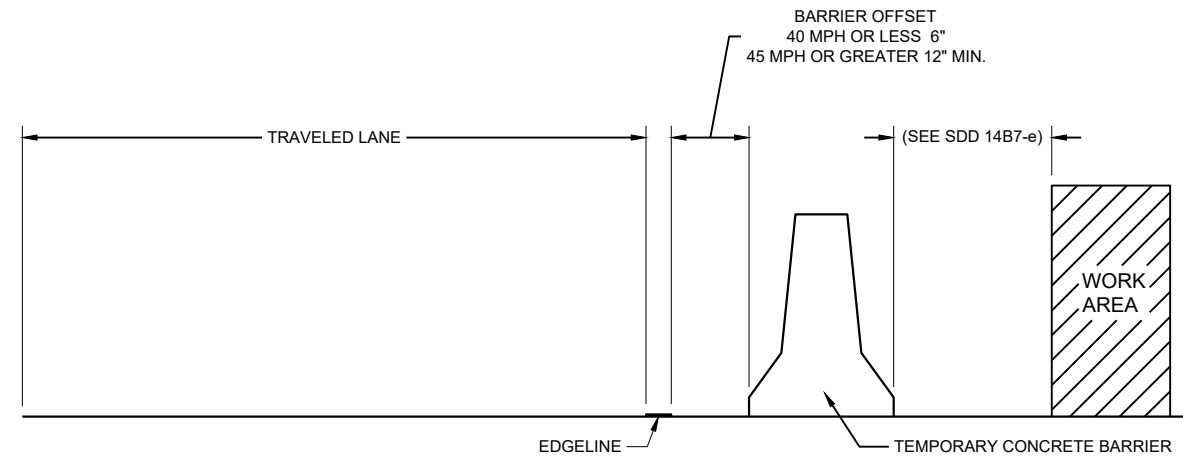
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

**PERMANENT LONGITUDINAL
PAVEMENT MARKINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 DATE /S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



TEMPORARY BARRIER OFFSET FROM EDGELINE

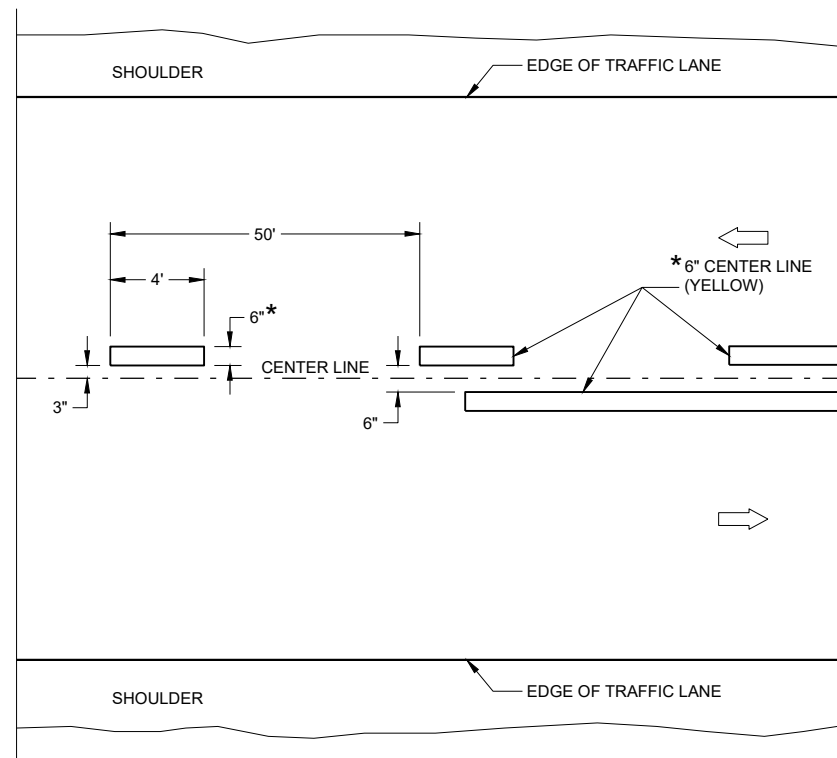
GENERAL NOTES

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

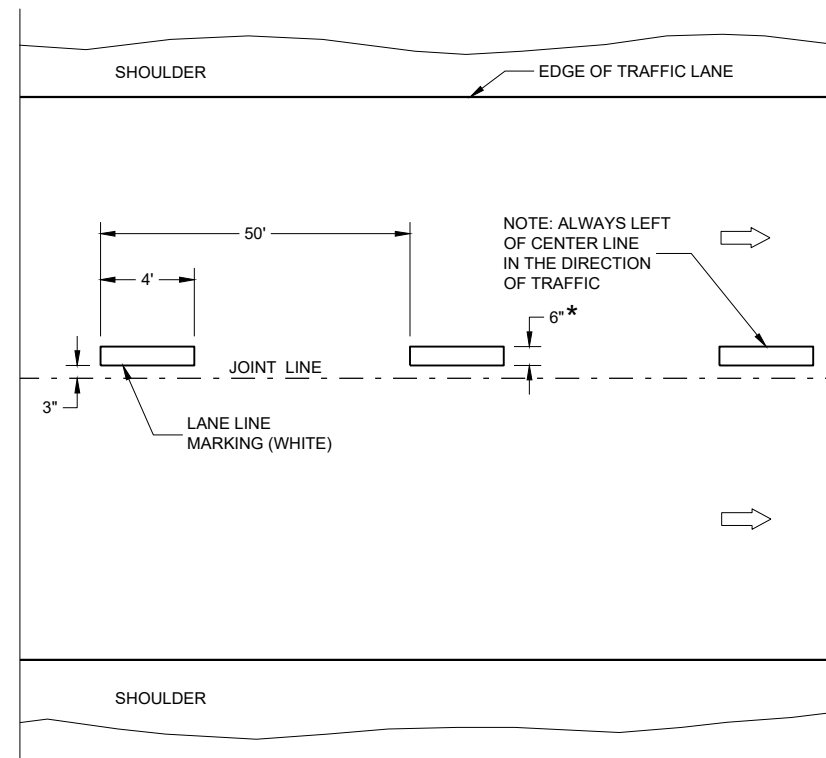
LEGEND

➡ DIRECTION OF TRAFFIC

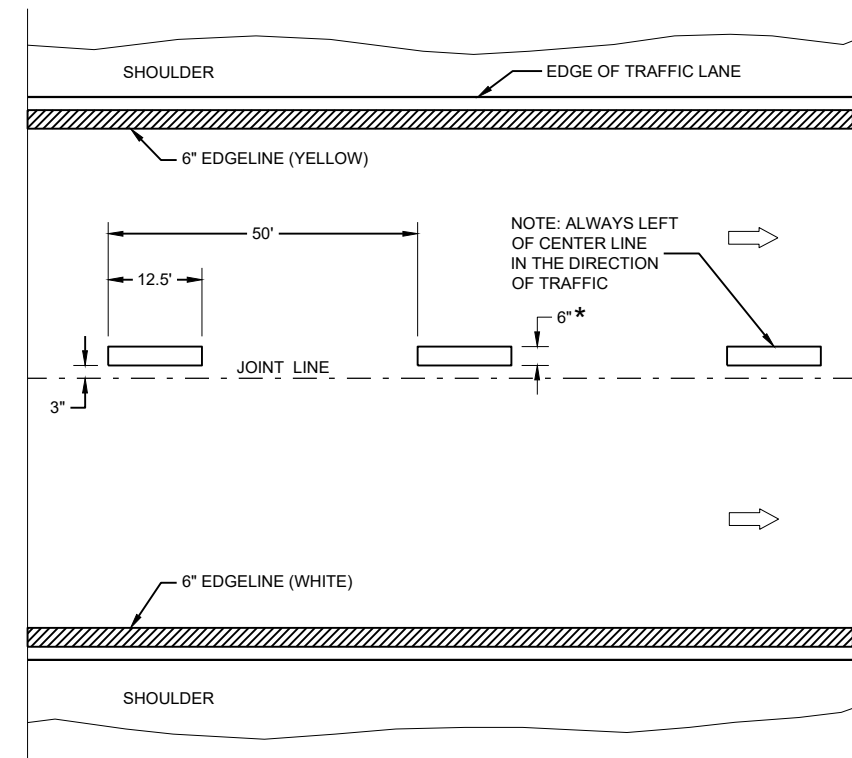
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING ENGINEER

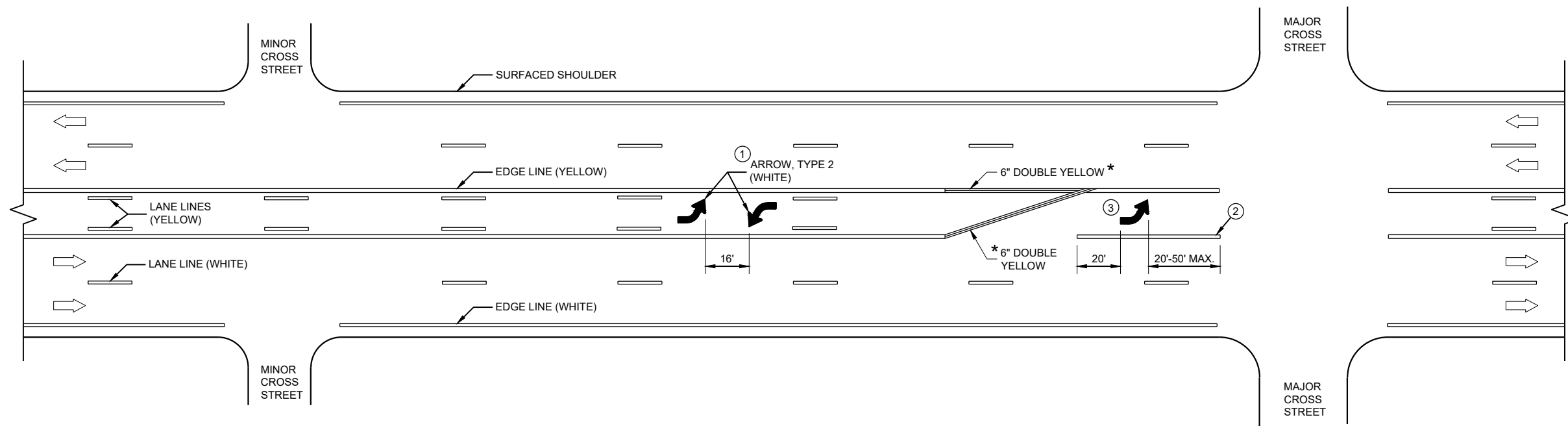
FHWA

GENERAL NOTES

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

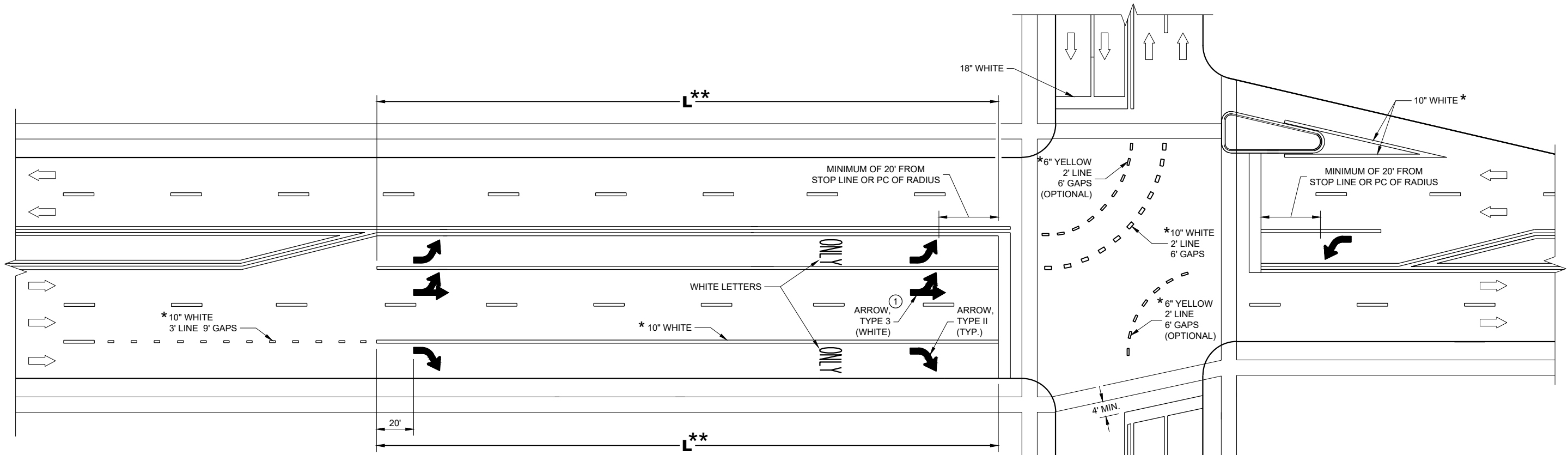
➡ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



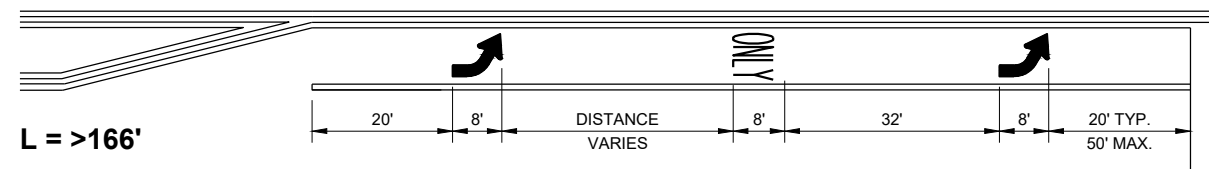
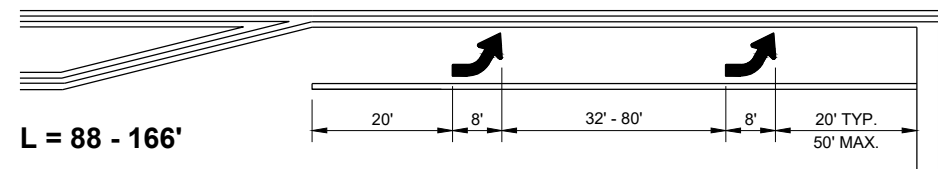
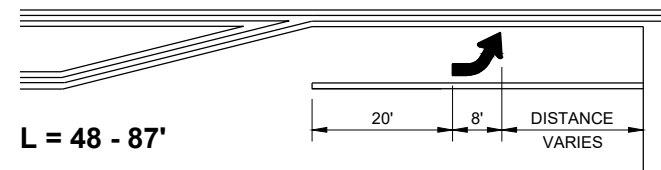
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



TURN LANE OPTIONS

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



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

GENERAL NOTES

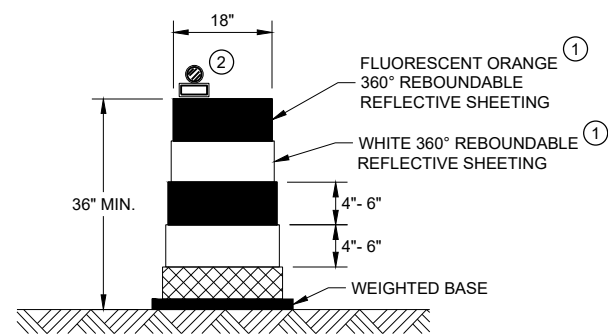
① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

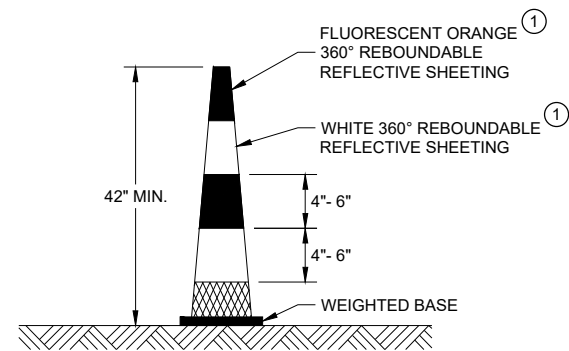
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



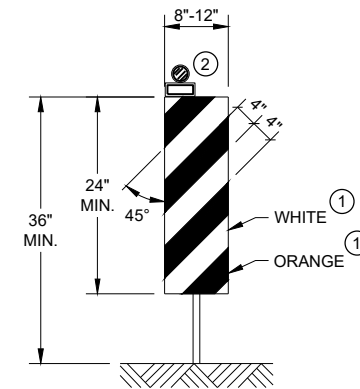
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

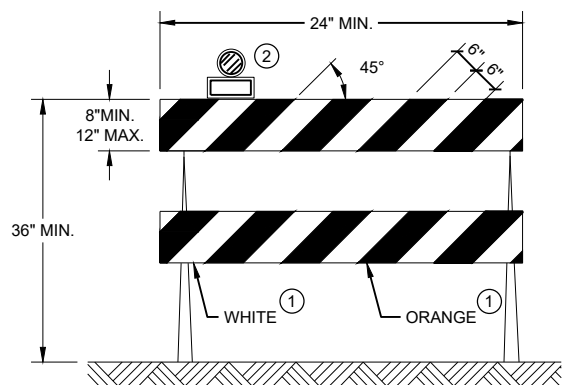


VERTICAL PANEL

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

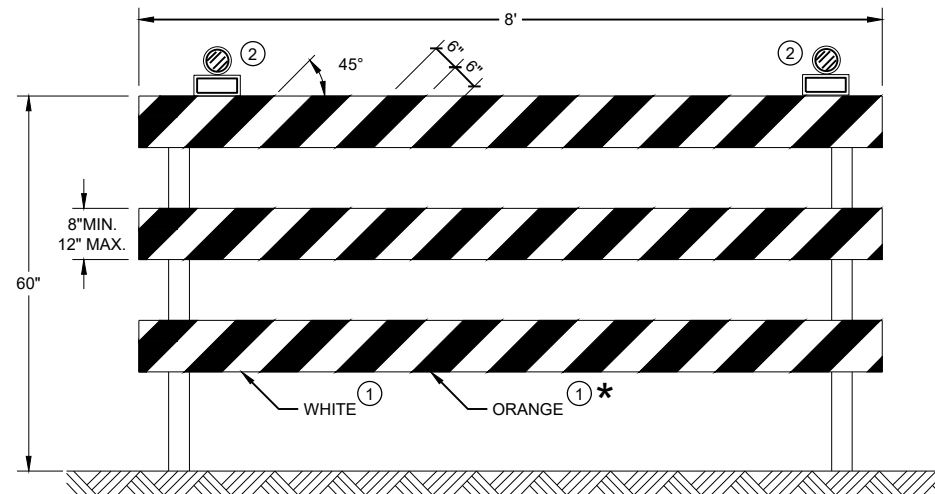
GENERAL NOTES

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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






* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2022 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

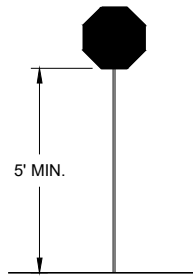
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



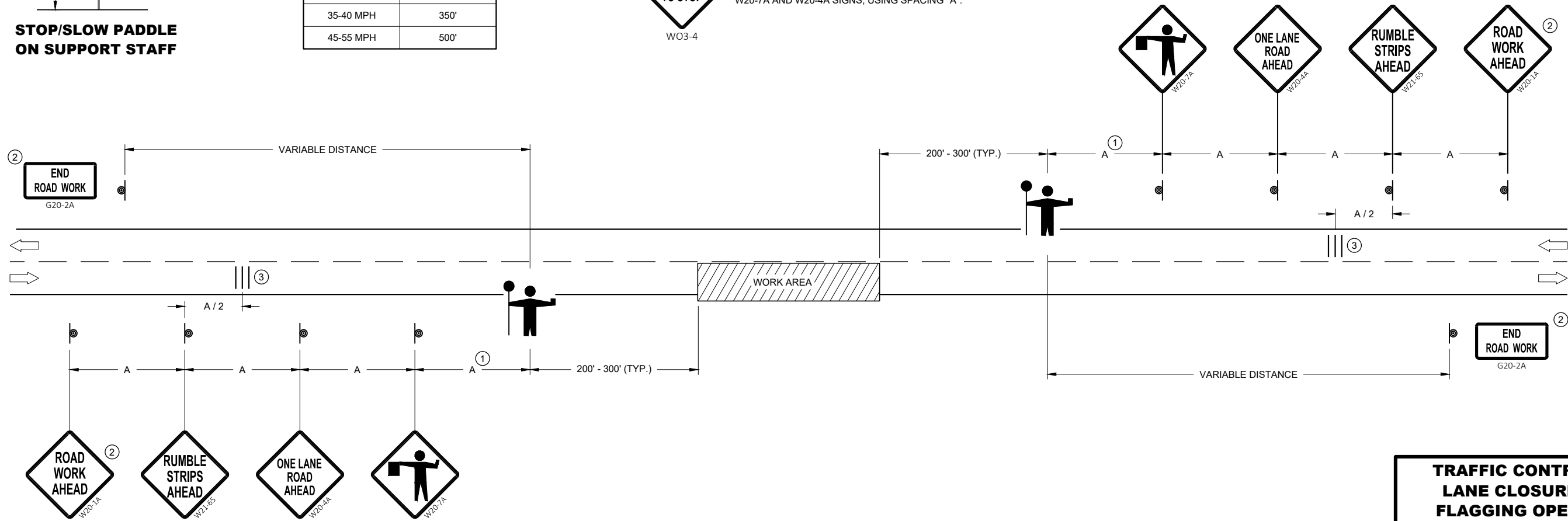
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".










TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

GENERAL NOTES

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL CONE 42-INCH
-  TRAFFIC CONTROL DRUM
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

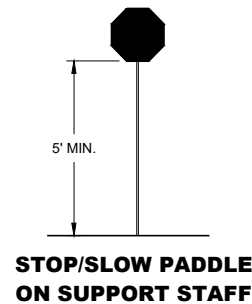
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

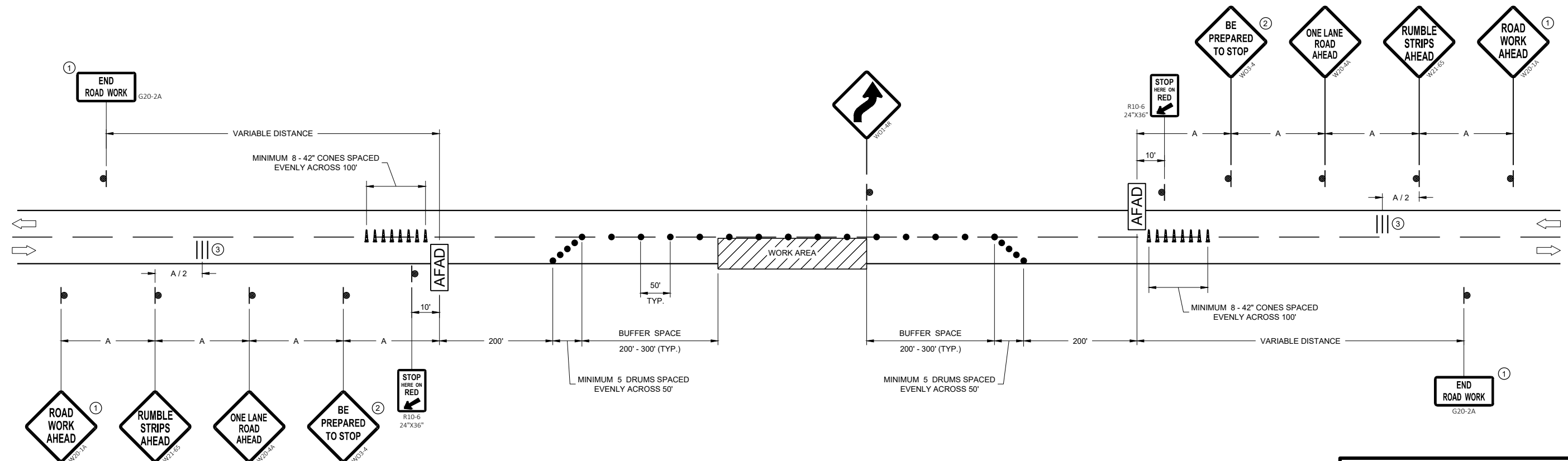
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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







TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

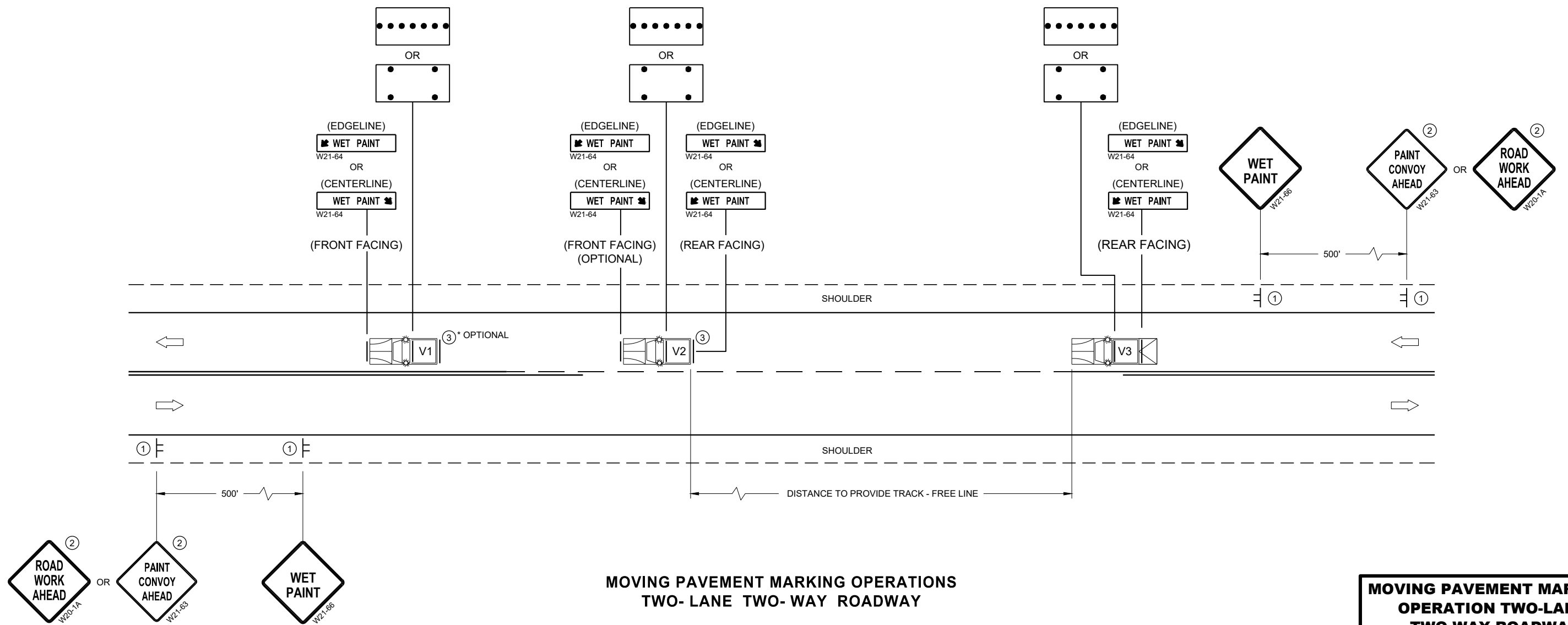
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

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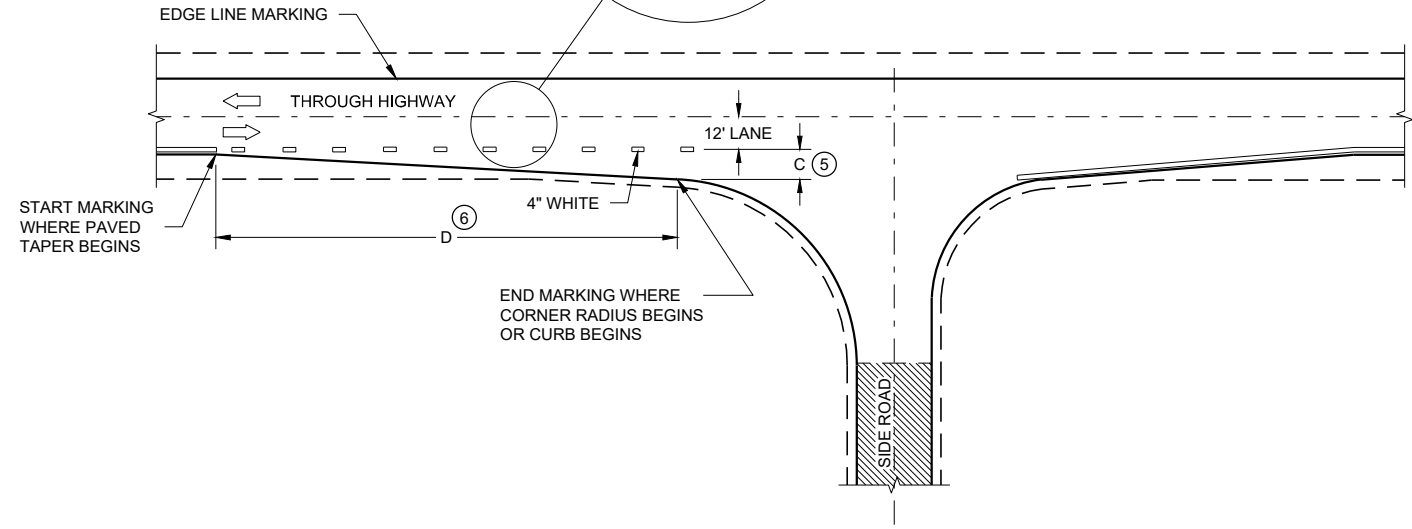
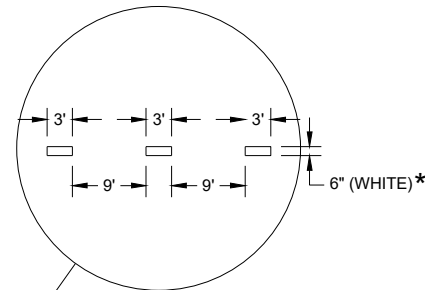


SDD 15C19-08a

SDD 15C19-08a

**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

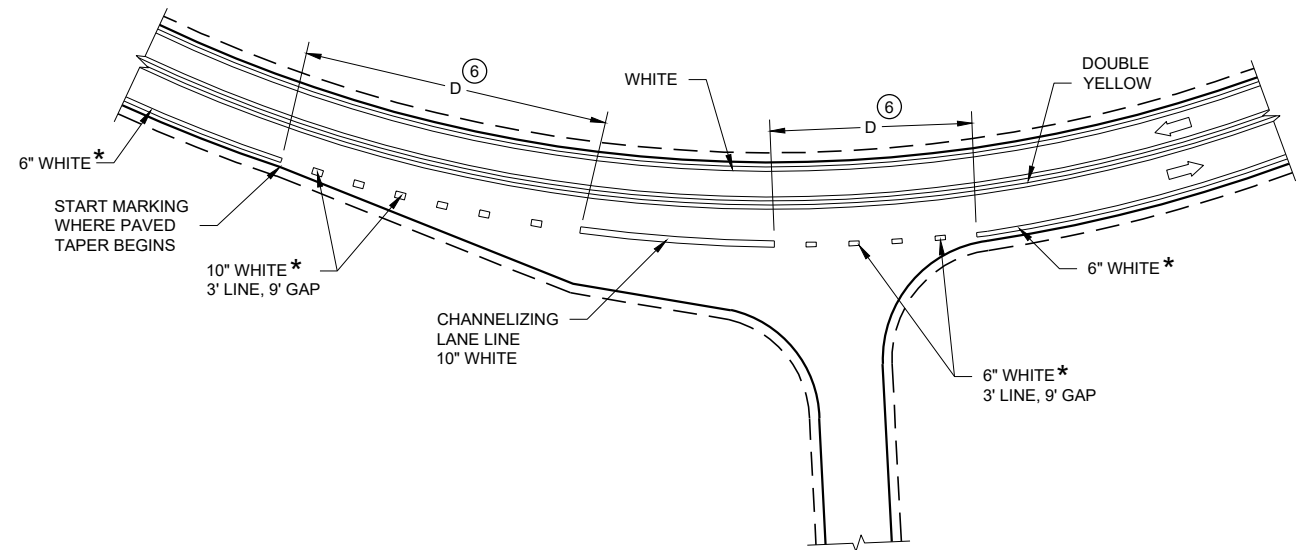
GENERAL NOTES

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

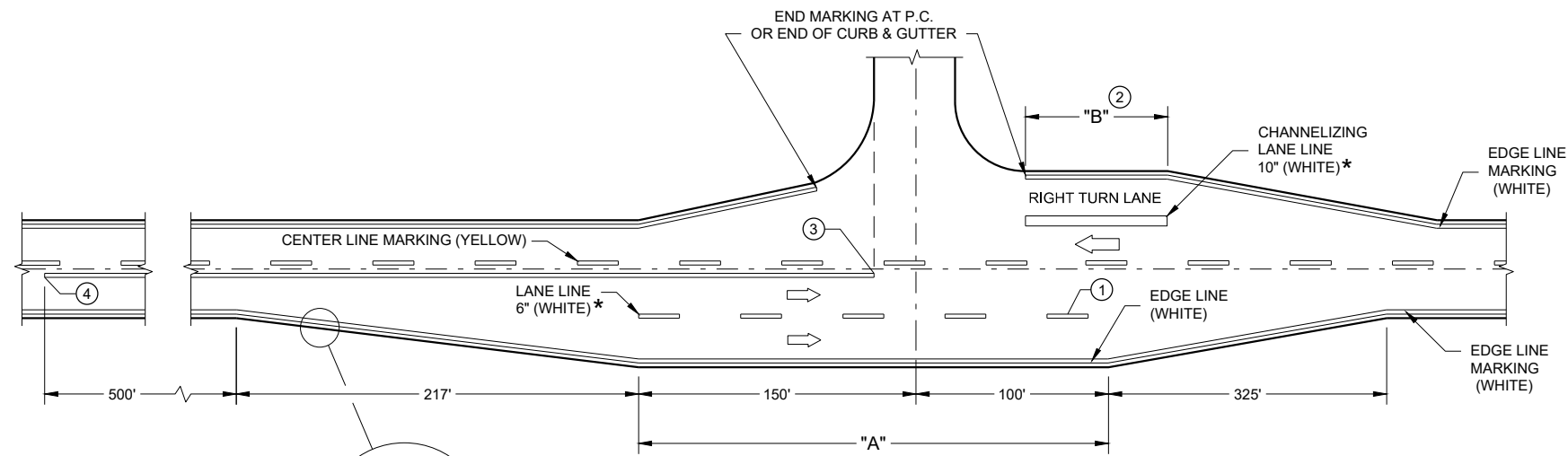
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

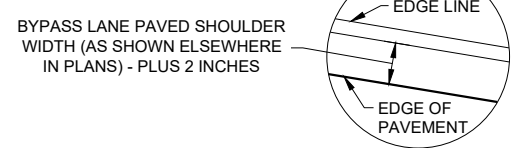
➔ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**



**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

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

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

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



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

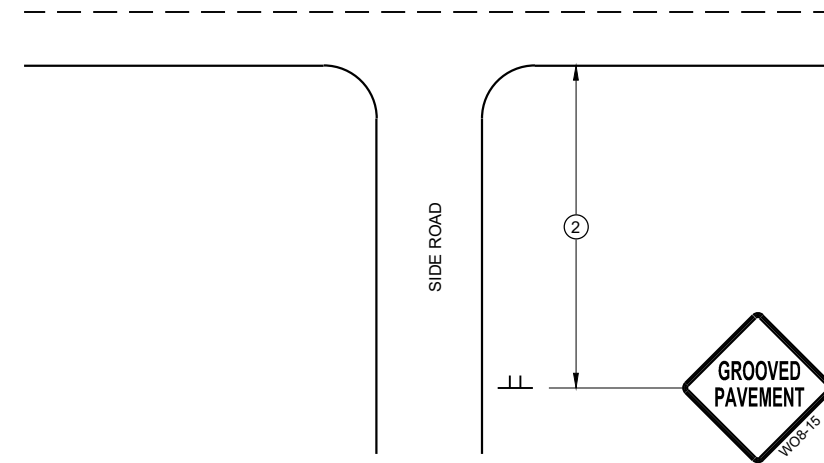
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

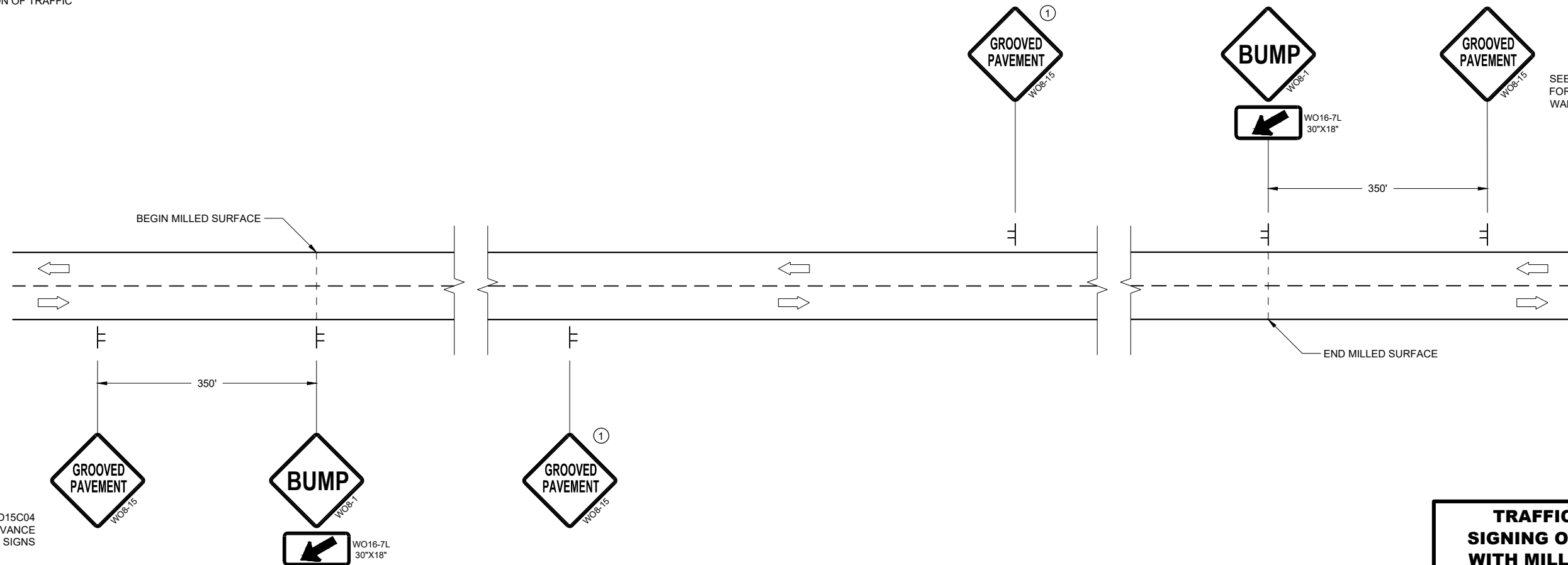
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

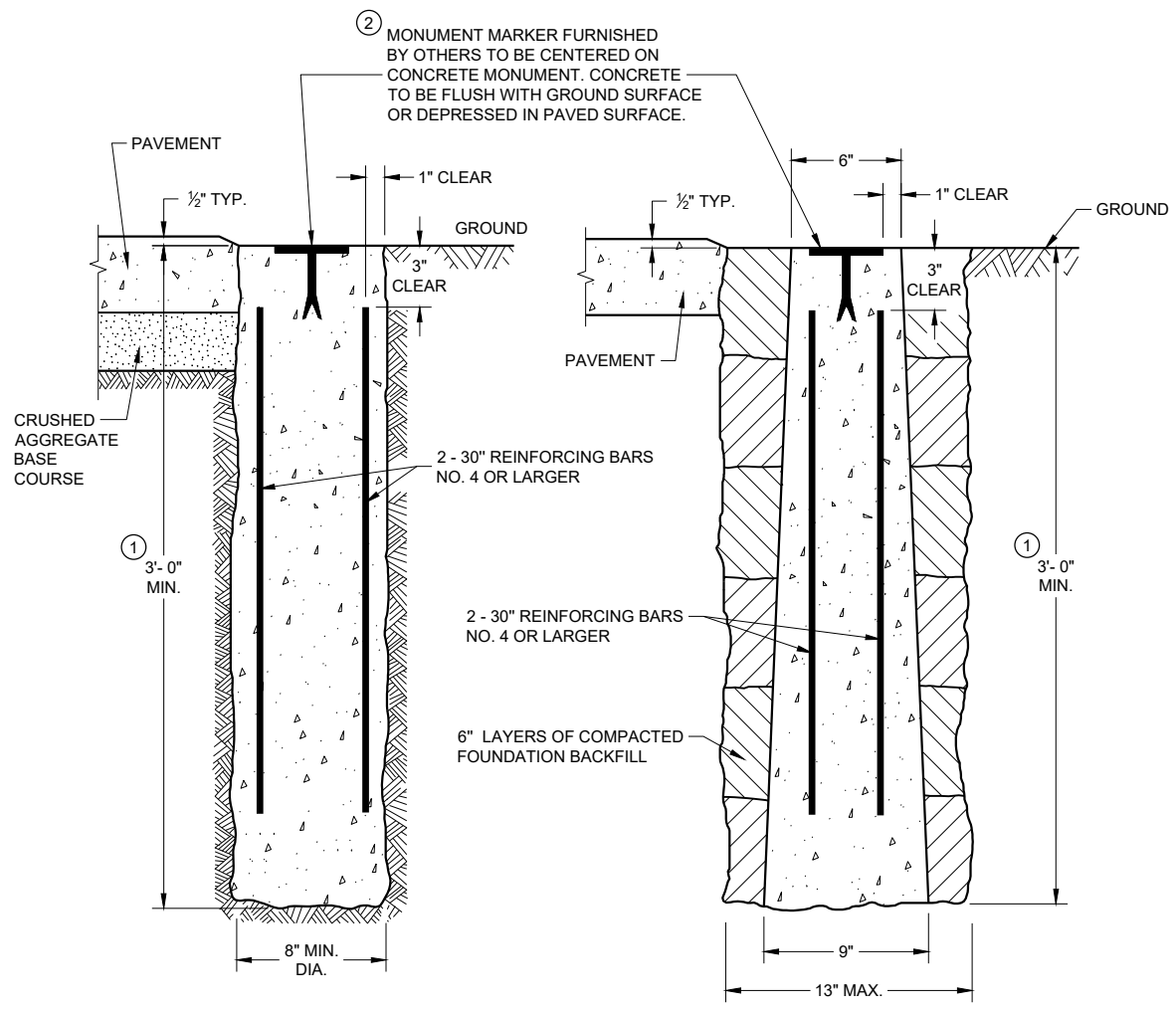
SEE SDD15C04 FOR ADVANCE WARNING SIGNS

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

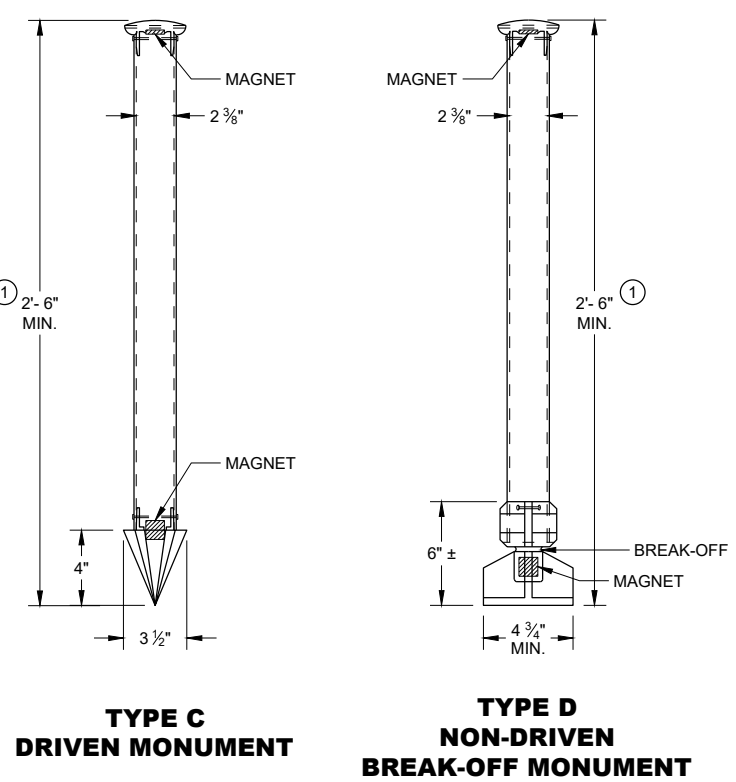
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



**CAST-IN-PLACE
CONCRETE MONUMENTS
TYPE A**



**ALUMINUM MONUMENTS
(INCLUDES MARKER)**

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

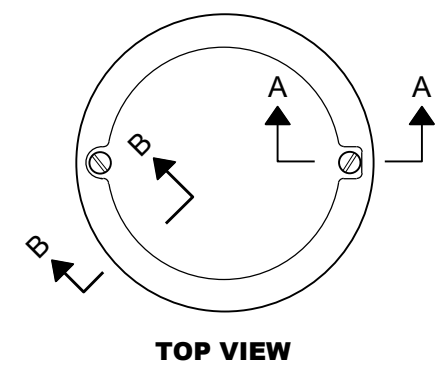
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

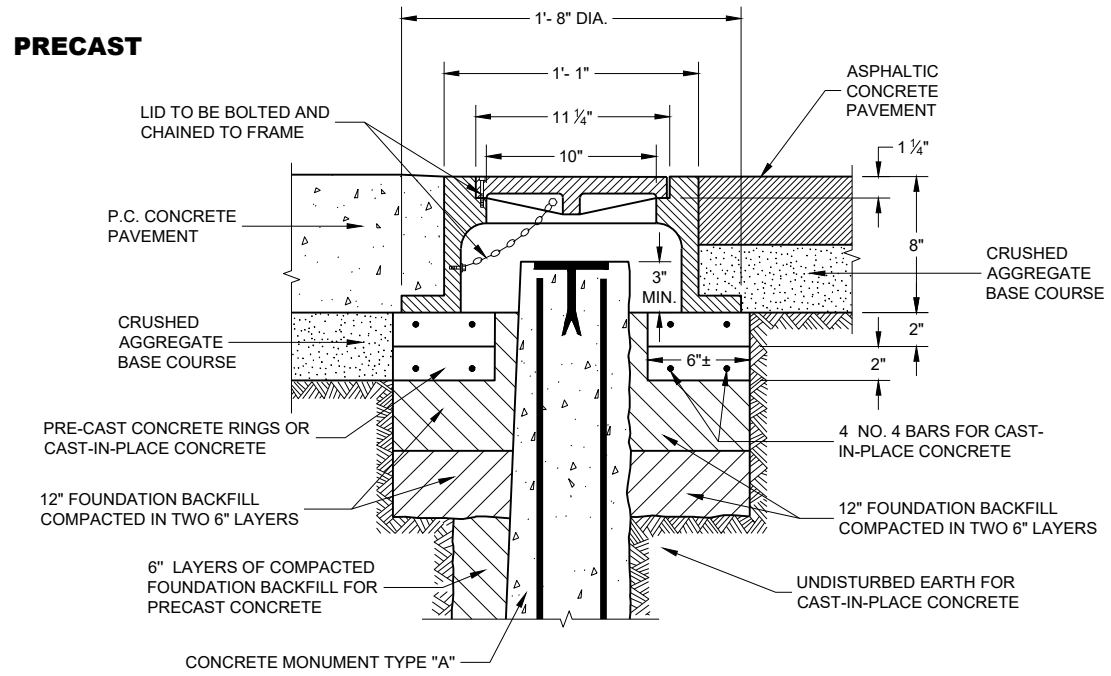
THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

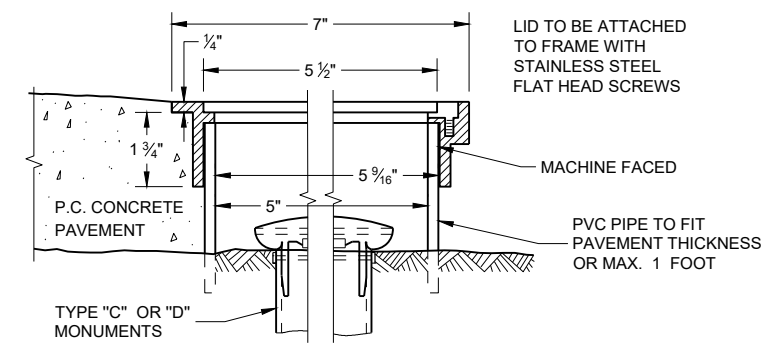
① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



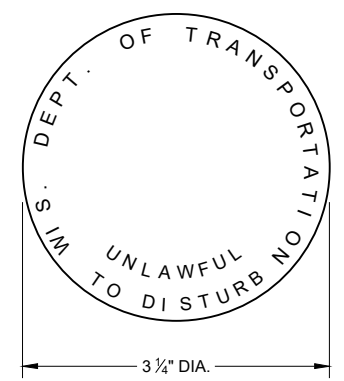
TOP VIEW



**CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)**



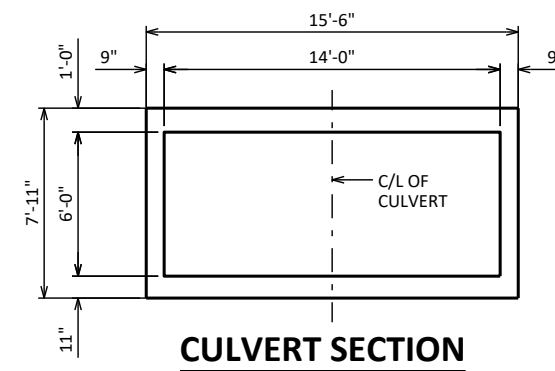
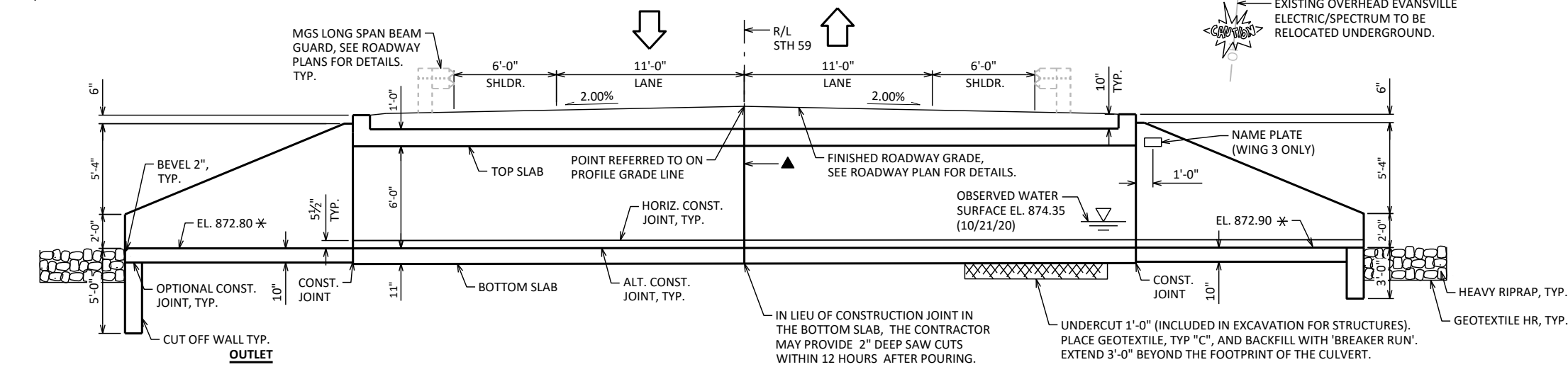
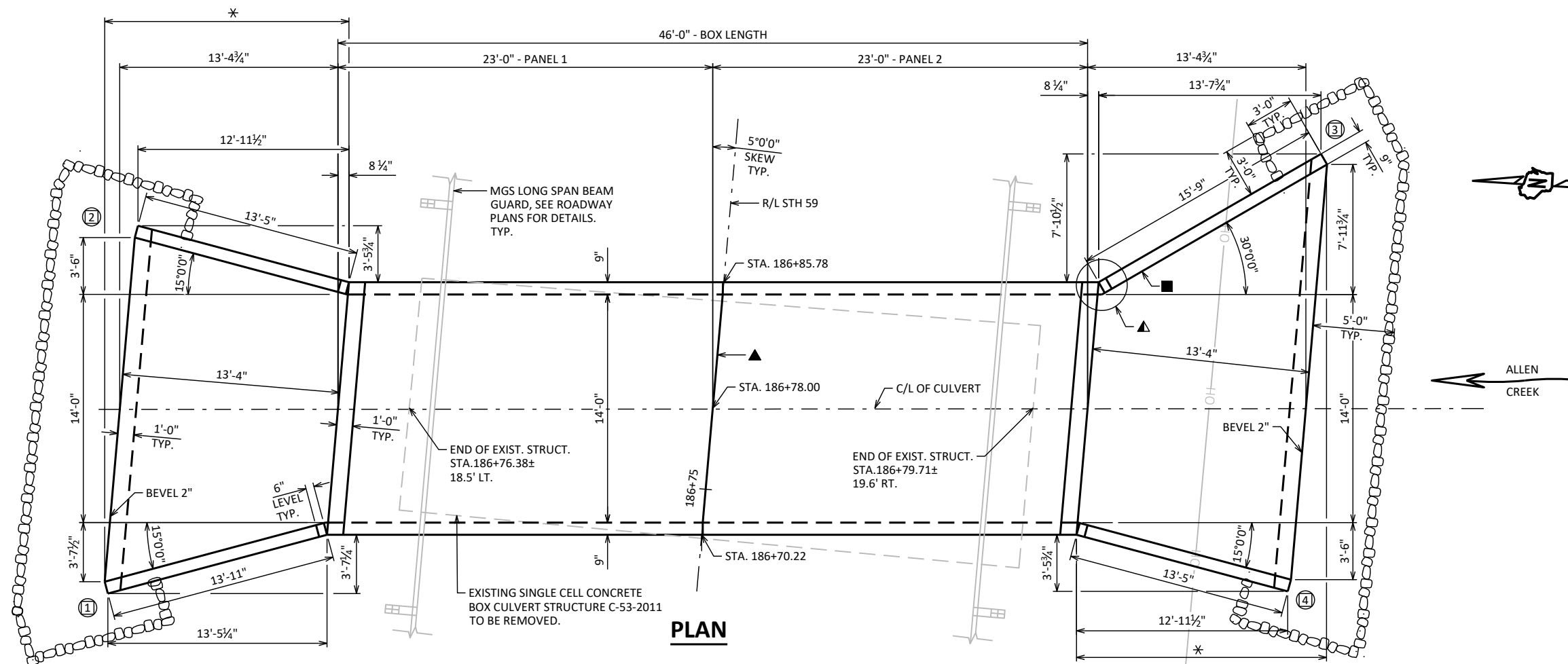
**SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)**



② **WIS DOT MONUMENT MARKER LOGO**
FOR TYPES "A", "C" & "D"

LANDMARK REFERENCE MONUMENTS AND COVERS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Raymond A. Kumapayii CHIEF SURVEYING AND MAPPING ENGINEER
FHWA	

- ▲ SEE CORNER DETAILS ON "DETAILS" SHEET
 - NAME PLATE LOCATION (SEE "DETAILS" SHEET)
 - * BUILD APRON AND END OF BOX LEVEL
 - INDICATES WING NUMBER
 - ▲ VERT. CONST. JOINT (TYP.)
- NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.



LIST OF DRAWINGS

1. LAYOUT
2. QUANTITIES & NOTES
3. BOX DETAILS
4. APRON DETAILS
5. WING DETAILS
6. DETAILS
7. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:
 ALEXIS HANLEY 608-266-3350
 DOMINIQUE BECHLE 608-261-8205

NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES ACCEPTED DMB 11/22/23 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE C-53-2040			
STH 59 OVER ALLEN CREEK			
COUNTY	ROCK	TOWN	MAGNOLIA
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
LIH	DLM	LIH	DLM
LAYOUT			SHEET 1 OF 7

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HL-93
 INVENTORY RATING: RF = 1.39
 OPERATING RATING: RF = 1.80
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

EARTHLOAD:
 DESIGNED FOR 0.5 TO 1.5 FT. OF FILL.

MATERIAL PROPERTIES:
 CONCRETE MASONRY $f_c = 3,500$ PSI
 BAR STEEL REINFORCEMENT $f_y = 60,000$ PSI

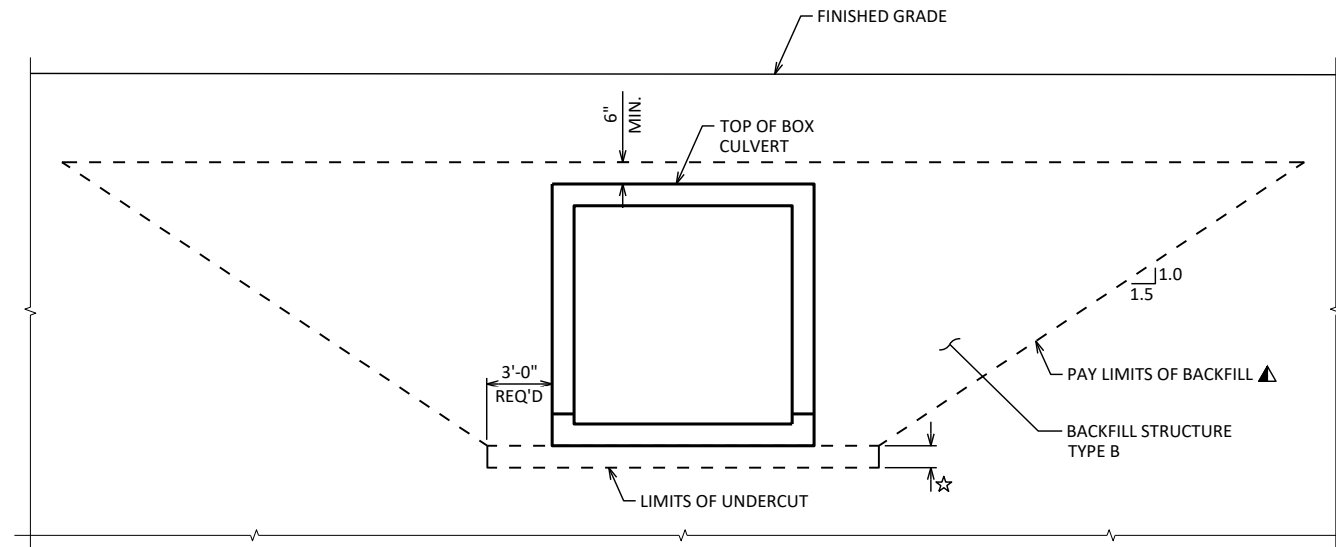
HYDRAULIC DATA

100-YEAR FREQUENCY:
 $Q_{100} = 420$ C.F.S.
 $V_{100} = 5.8$ F.P.S.
 $HW_{100} = EL. 878.91$
 WATERWAY AREA = 84 SQ. FT.
 DRAINAGE AREA = 4.4 SQ. MI.
 ROADWAY OVERTOPPING = N/A
 SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:
 $Q_2 = 160$ C.F.S.
 $V_2 = 2.7$ F.P.S.
 $HW_2 = EL. 877.31$

TRAFFIC DATA

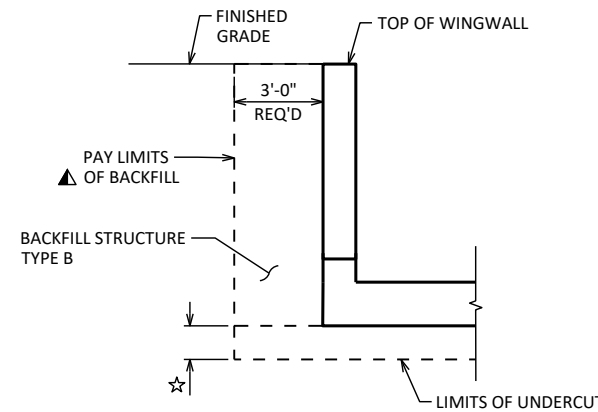
STH 59:
 ADT = 2,000 (2046)
 R.D.S. = 60 MPH



TYPICAL SECTION THRU BOX CULVERT

- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ☆ UNDERCUT 1'-0". EXCAVATION FOR UNDER CUT IS TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTIBLE.



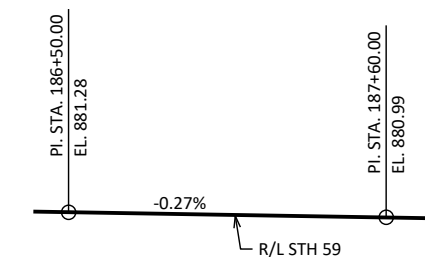
TYPICAL SECTION THRU WINGWALL

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-53-2040" SHALL BE THE EXISTING GROUNDLINE.
- ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT, INCLUDING THE APRON WING WALLS.
- THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
- THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
- PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.
- THE SOUTHWEST REGION SOILS ENGINEER SHALL BE PRESENT TO EVALUATE THE SUBSURFACE CONDITIONS AT THE TIME OF CONSTRUCTION.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-53-2011	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-53-2040	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	630
311.0110	BREAKER RUN	TON	126
504.0100	CONCRETE MASONRY CULVERTS	CY	98
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	17,590
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,540
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	35
606.0300	RIPRAP HEAVY	CY	26
645.0105	GEOTEXTILE TYPE C	SY	189
645.0120	GEOTEXTILE TYPE HR	SY	62
	NON-BID ITEMS		
	FILLER	SIZE	3/4"



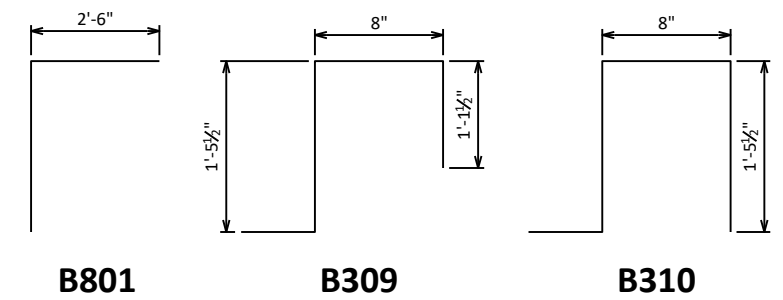
PROFILE GRADE LINE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-53-2040			
DRAWN BY		LIH	PLANS CK'D DLM
QUANTITIES & NOTES			SHEET 2

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

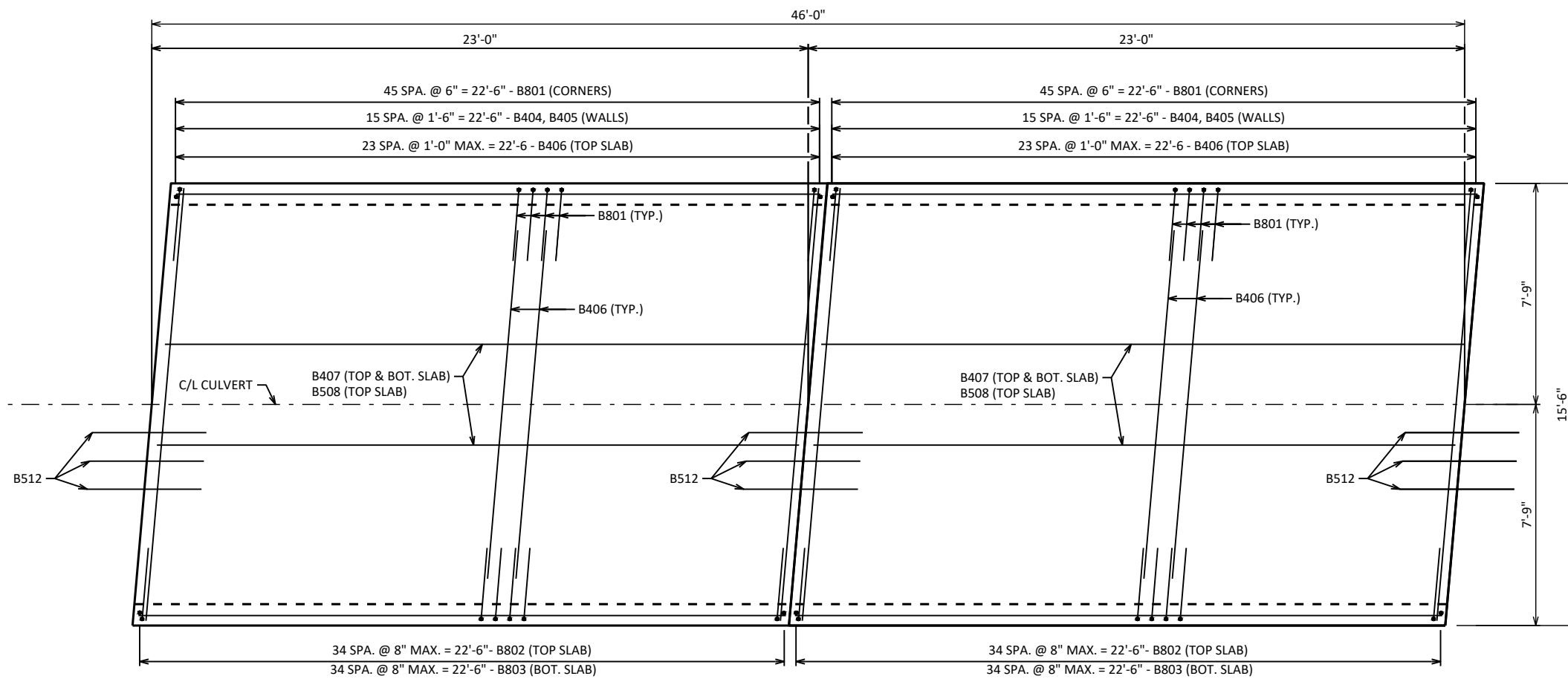
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B801		368	7' 11"	X		CORNERS VERTICAL
B802		70	14'-10"			TOP SLAB - TRANSVERSE - HORIZONTAL - LOWER
B803		70	14'-10"			BOT. SLAB - TRANSVERSE - HORIZONTAL - UPPER
B404		64	6'-4"			WALLS - VERTICAL
B405		64	2'-4"			WALLS - VERTICAL - DOWEL
B406		48	14'-0"			TOP SLAB - TRANSVERSE - HORIZONTAL - UPPER
B407		78	22'-8"			TOP & BOT. SLAB & WALLS - LONGITUDINAL
B508		38	22' 8"			TOP SLAB LONGITUDINAL
B309		32	3'-7"	X		HEADER - VERTICAL - INLET
B310		32	3'-11"	X		HEADER - VERTICAL - OUTLET
B411		4	15'-2"			HEADERS - TRANSVERSE - HORIZONTAL
B512		48	4'-0"			VERTICAL CONST. JOINT & APRON CONNECTION



B801

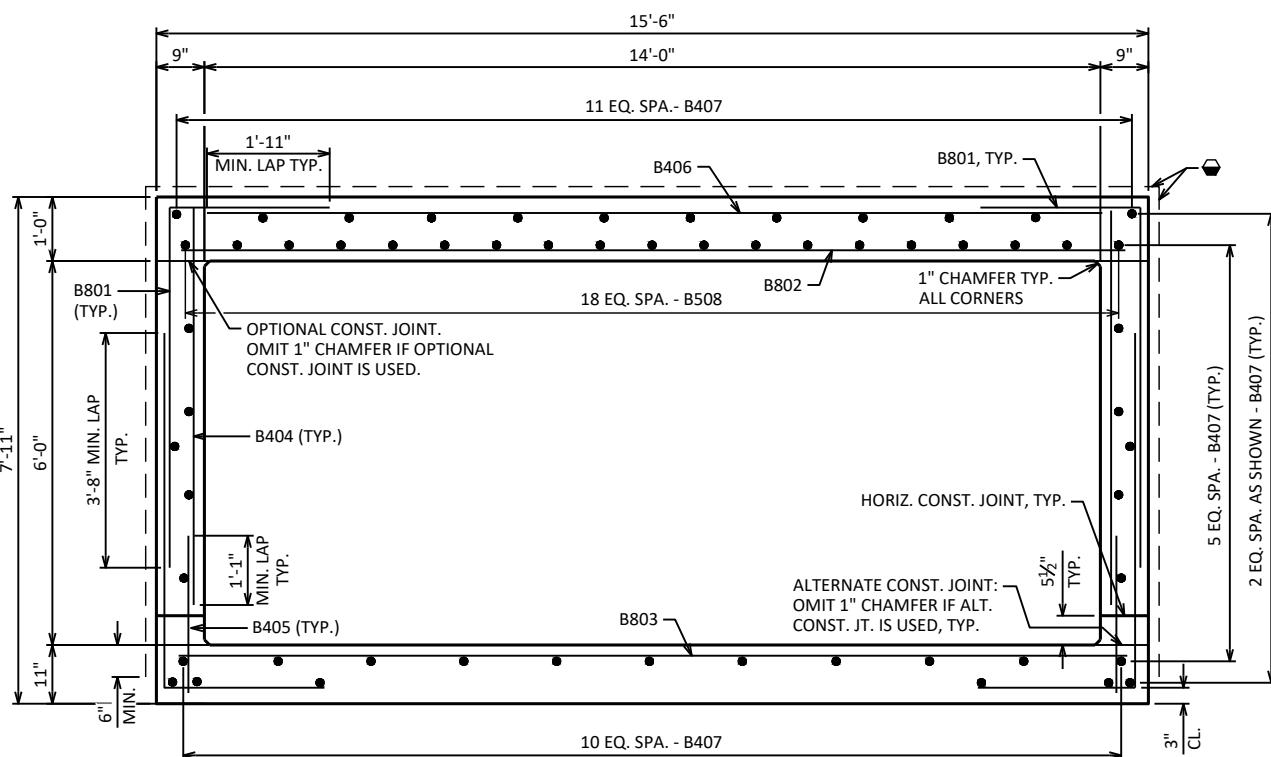
B309

B310



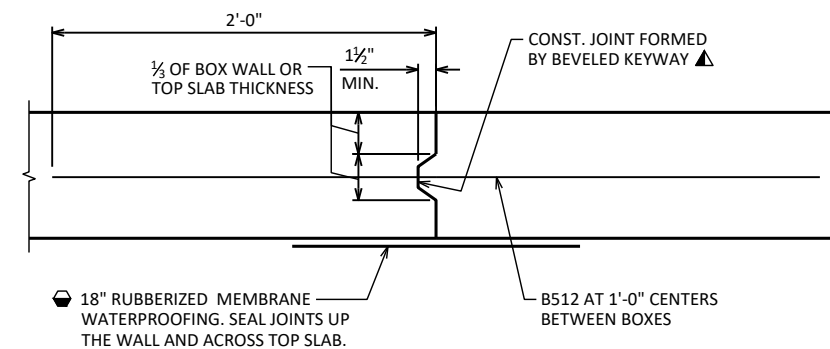
PLAN

APRON AND HEADER ARE NOT SHOWN FOR CLARITY

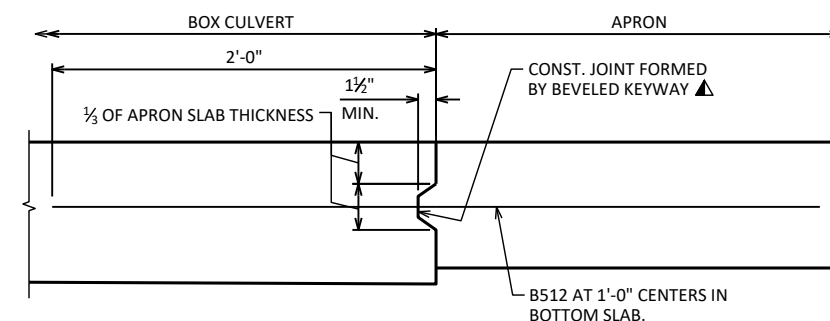


TYPICAL SECTION THRU BOX

ALL LONGITUDINAL BARS NOT LABELED ARE B407 AS SHOWN

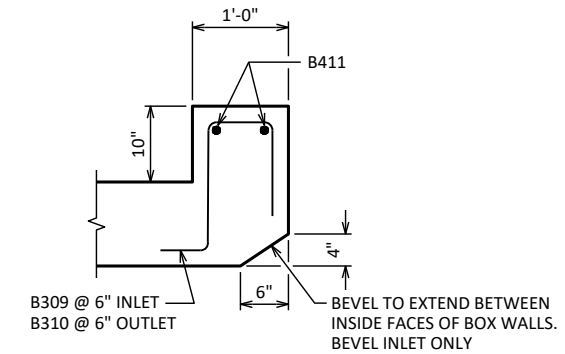


VERTICAL CONSTRUCTION JOINT



APRON CONNECTION DETAIL

TYP. BOTH SIDES

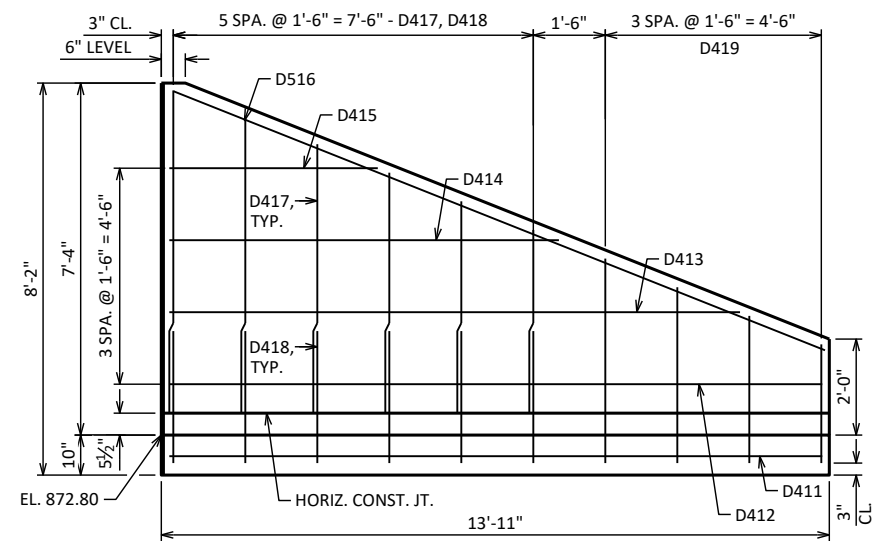


SECTION THRU HEADER

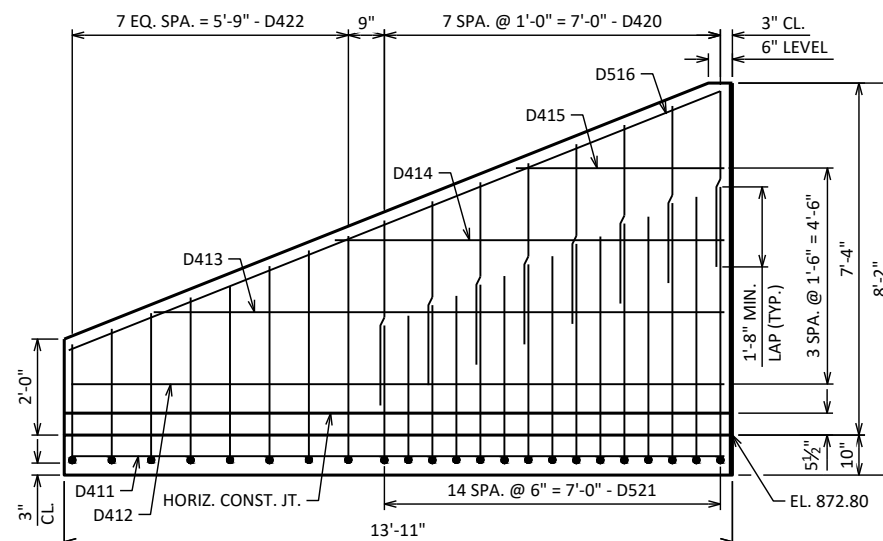
18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

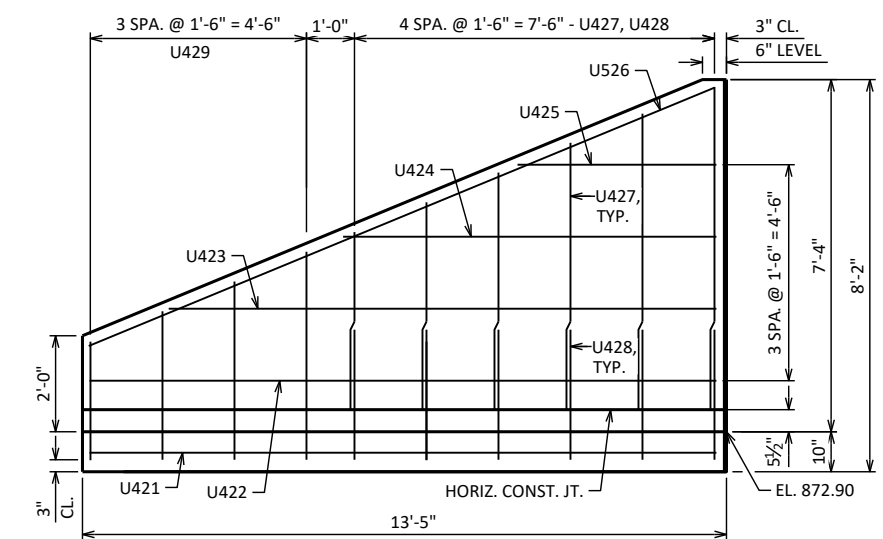
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-53-2040			
DRAWN BY LIH		PLANS CK'D DLM	
BOX DETAILS			SHEET 3



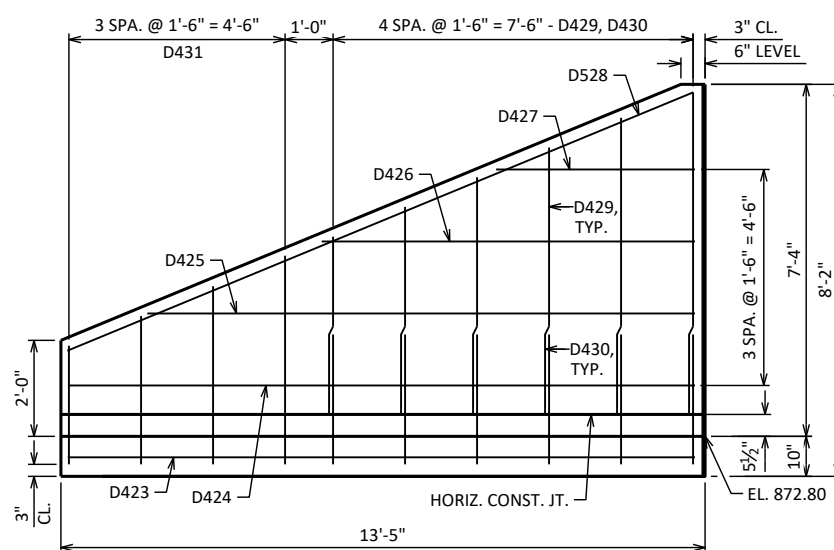
WING 1
SHOWING F.F. REINFORCEMENT



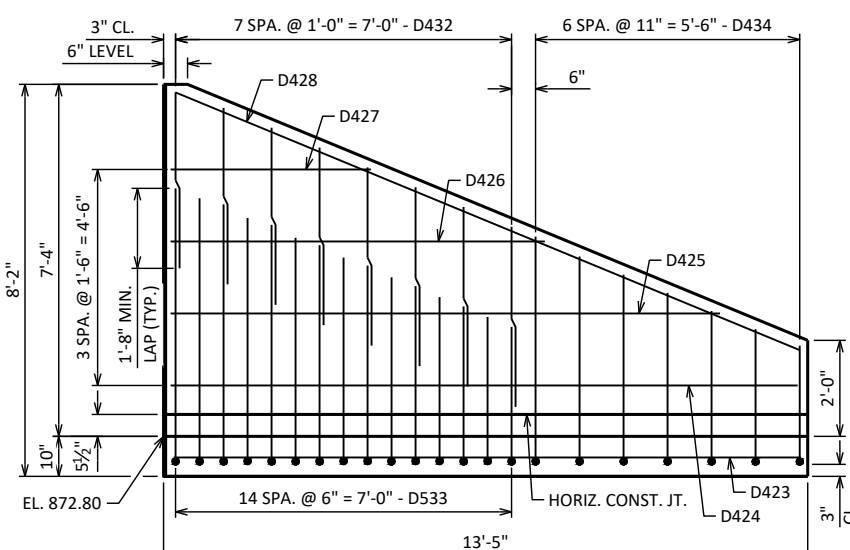
WING 1
SHOWING B.F. REINFORCEMENT



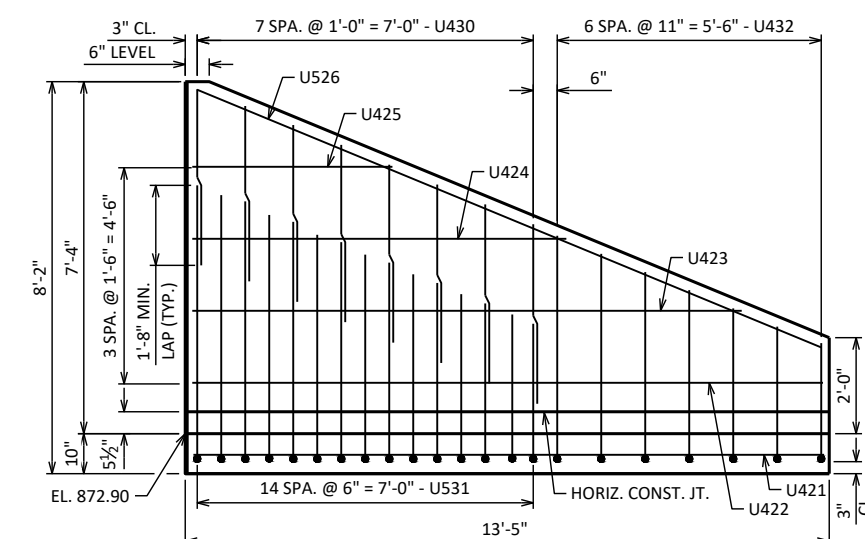
WING 4
SHOWING F.F. REINFORCEMENT



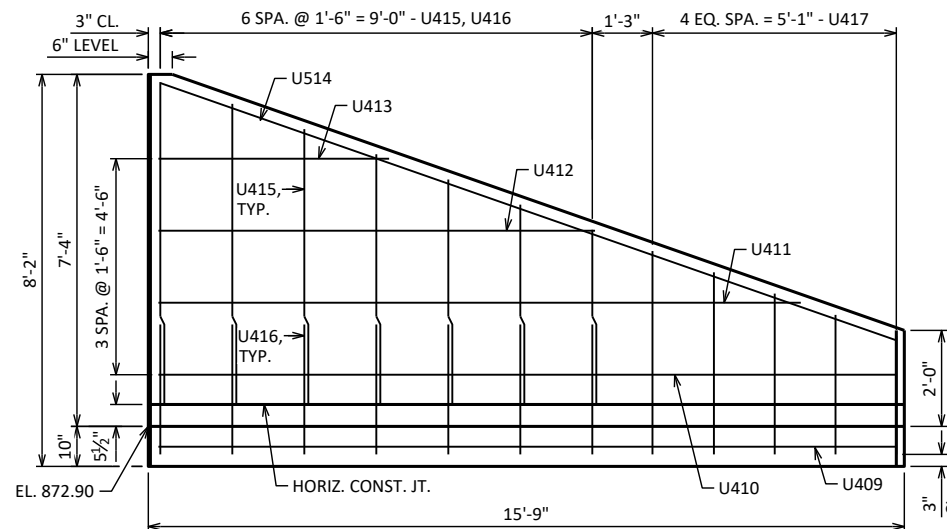
WING 2
SHOWING F.F. REINFORCEMENT



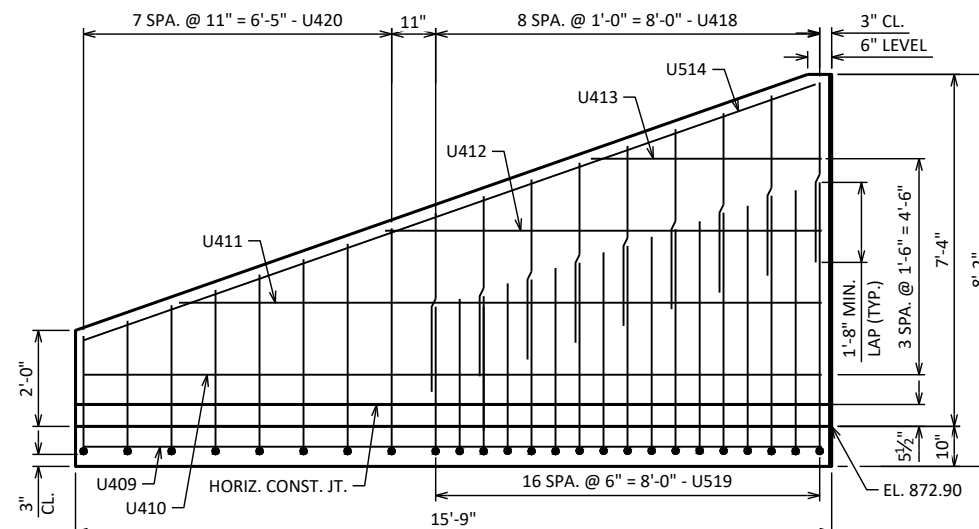
WING 2
SHOWING B.F. REINFORCEMENT



WING 4
SHOWING B.F. REINFORCEMENT



WING 3
SHOWING F.F. REINFORCEMENT



WING 3
SHOWING B.F. REINFORCEMENT

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-53-2040			
DRAWN BY		LIH	PLANS CK'D DLM
WING DETAILS			SHEET 5

SCALE =

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

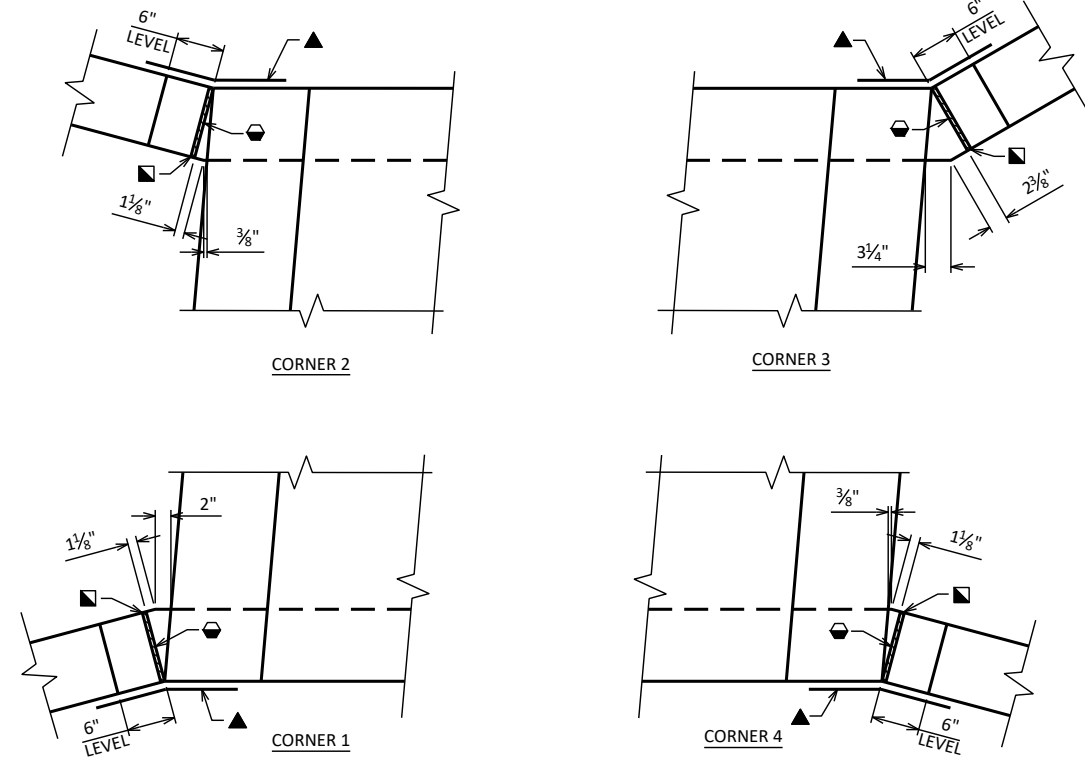
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
U401		26	3'-6"	X		INLET APRON CUTOFF - VERT.
U402		4	25'-10"			INLET APRON CUTOFF - HORIZ.
U403		13	20'-5"		▲	INLET APRON - HORIZ.
U404		16	13'-0"			INLET APRON - LONGIT.
U405		7	6'-8"		▲	INLET APRON - LONGIT.
U406		1	9'-8"			INLET APRON - LONGIT.
U407		1	5'-10"			INLET APRON - LONGIT.
U408		1	2'-0"			INLET APRON - LONGIT.
U409		3	15'-5"			WING 3 - HORIZ. - BOT.
U410	X	2	15'-5"			WING 3 - HORIZ.
U411	X	2	13'-4"			WING 3 - HORIZ.
U412	X	2	9'-0"			WING 3 - HORIZ.
U413	X	2	4'-9"			WING 3 - HORIZ.
U514	X	2	16'-1"			WING 3 - HORIZ. - TOP
U415	X	7	5'-2"		▲	WING 3 - VERT. - F.F.
U416	X	7	2'-9"			WING 3 - VERT. - DOWELS - F.F.
U417	X	5	3'-4"		▲	WING 3 - VERT. - F.F.
U418	X	9	3'-9"			WING 3 - VERT. - B.F.
U519	X	17	11'-0"	X	▲	WING 3 - VERT. - B.F.
U420	X	8	10'-3"	X	▲	WING 3 - VERT. - B.F.
U421	X	3	13'-1"			WING 4 - HORIZ. - BOT.
U422	X	2	13'-1"			WING 4 - HORIZ.
U423	X	2	11'-4"			WING 4 - HORIZ.
U424	X	2	7'-9"			WING 4 - HORIZ.
U425	X	2	4'-1"			WING 4 - HORIZ.
U526	X	2	14'-0"			WING 4 - HORIZ. - TOP
U427	X	5	5'-2"		▲	WING 4 - VERT. - F.F.
U428	X	5	2'-9"			WING 4 - VERT. - DOWELS - F.F.
U429	X	4	3'-5"		▲	WING 4 - VERT. - F.F.
U430	X	8	3'-8"			WING 4 - VERT. - B.F.
U531	X	15	11'-0"	X	▲	WING 4 - VERT. - B.F.
U432	X	7	10'-3"	X	▲	WING 4 - VERT. - B.F.
D401		22	5'-6"	X		OUTLET APRON CUTOFF - VERT.
D402		6	21'-5"			OUTLET APRON CUTOFF - HORIZ.
D403		13	18'-6"		▲	OUTLET APRON - HORIZ.
D404		16	13'-0"			OUTLET APRON - LONGIT.
D405		1	9'-11"			OUTLET APRON - LONGIT.
D406		1	6'-3"			OUTLET APRON - LONGIT.
D407		1	2'-8"			OUTLET APRON - LONGIT.
D408		1	9'-6"			OUTLET APRON - LONGIT.
D409		1	5'-8"			OUTLET APRON - LONGIT.
D410		1	1'-10"			OUTLET APRON - LONGIT.
D411		3	13'-7"			WING 1 - HORIZ. - BOT.
D412	X	2	13'-7"			WING 1 - HORIZ.
D413	X	2	11'-10"			WING 1 - HORIZ.
D414	X	2	8'-1"			WING 1 - HORIZ.
D415	X	2	4'-4"			WING 1 - HORIZ.
D516	X	2	14'-6"			WING 1 - HORIZ. - TOP
D417	X	6	5'-3"		▲	WING 1 - VERT. - F.F.
D418	X	6	2'-9"			WING 1 - VERT. - DOWELS - F.F.
D419	X	4	3'-4"		▲	WING 1 - VERT. - F.F.
D420	X	8	3'-8"			WING 1 - VERT. - B.F.
D521	X	15	11'-0"	X	▲	WING 1 - VERT. - B.F.
D422	X	8	10'-3"	X	▲	WING 1 - VERT. - B.F.
D423	X	3	13'-1"			WING 2 - HORIZ. - BOT.
D424	X	2	13'-1"			WING 2 - HORIZ.
D425	X	2	11'-6"			WING 2 - HORIZ.
D426	X	2	7'-9"			WING 2 - HORIZ.
D427	X	2	4'-1"			WING 2 - HORIZ.
D528	X	2	14'-0"			WING 2 - HORIZ. - TOP
D429	X	5	5'-2"		▲	WING 2 - VERT. - F.F.
D430	X	5	2'-9"			WING 2 - VERT. - DOWELS - F.F.
D431	X	4	3'-5"		▲	WING 2 - VERT. - F.F.
D432	X	8	3'-8"			WING 2 - VERT. - B.F.
D533	X	15	11'-0"	X	▲	WING 2 - VERT. - B.F.
D434	X	7	10'-3"	X	▲	WING 2 - VERT. - B.F.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

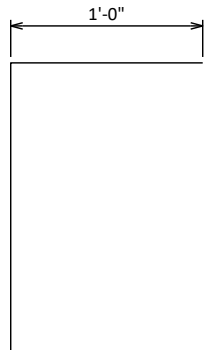
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D	LENGTH
U403	1 SERIES OF 13	15'-4" TO 25'-6"
U405	1 SERIES OF 7	1'-8" TO 11'-7"
U415	1 SERIES OF 7	3'-7" TO 6'-8"
U417	1 SERIES OF 5	2'-5" TO 4'-3"
U519	1 SERIES OF 17	9'-8" TO 12'-4"
U420	1 SERIES OF 8	9'-1" TO 11'-4"
U427	1 SERIES OF 5	3'-8" TO 6'-8"
U429	1 SERIES OF 4	2'-5" TO 4'-4"
U531	1 SERIES OF 15	9'-7" TO 12'-5"
U432	1 SERIES OF 7	9'-1" TO 11'-5"
D403	1 SERIES OF 13	15'-4" TO 21'-7"
D417	1 SERIES OF 6	3'-9" TO 6'-8"
D419	1 SERIES OF 4	2'-5" TO 4'-3"
D521	1 SERIES OF 15	9'-7" TO 12'-5"
D422	1 SERIES OF 8	9'-1" TO 11'-5"
D429	1 SERIES OF 5	3'-8" TO 6'-8"
D431	1 SERIES OF 4	2'-5" TO 4'-4"
D533	1 SERIES OF 15	9'-7" TO 12'-5"
D434	1 SERIES OF 7	9'-1" TO 11'-5"

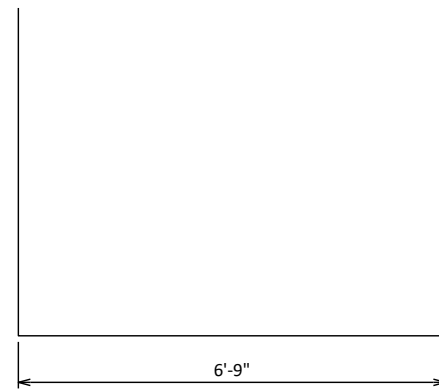


CORNER DETAILS

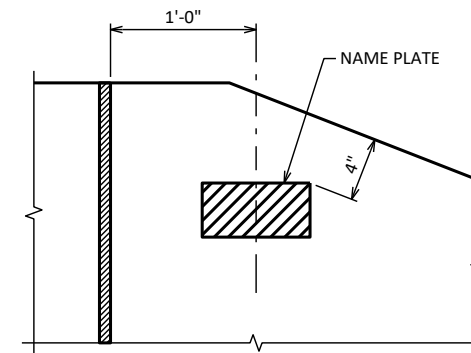
- 3/4" FILLER TO EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.
- 1" BEVEL TYP.
- ▲ 18" WIDE RUBBERIZE MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.



U401, D401



U519, U420, U531, U432, D521, D422, D533, D434



NAME PLATE DETAIL

WING 3

STATE PROJECT NUMBER

5670-00-65

8

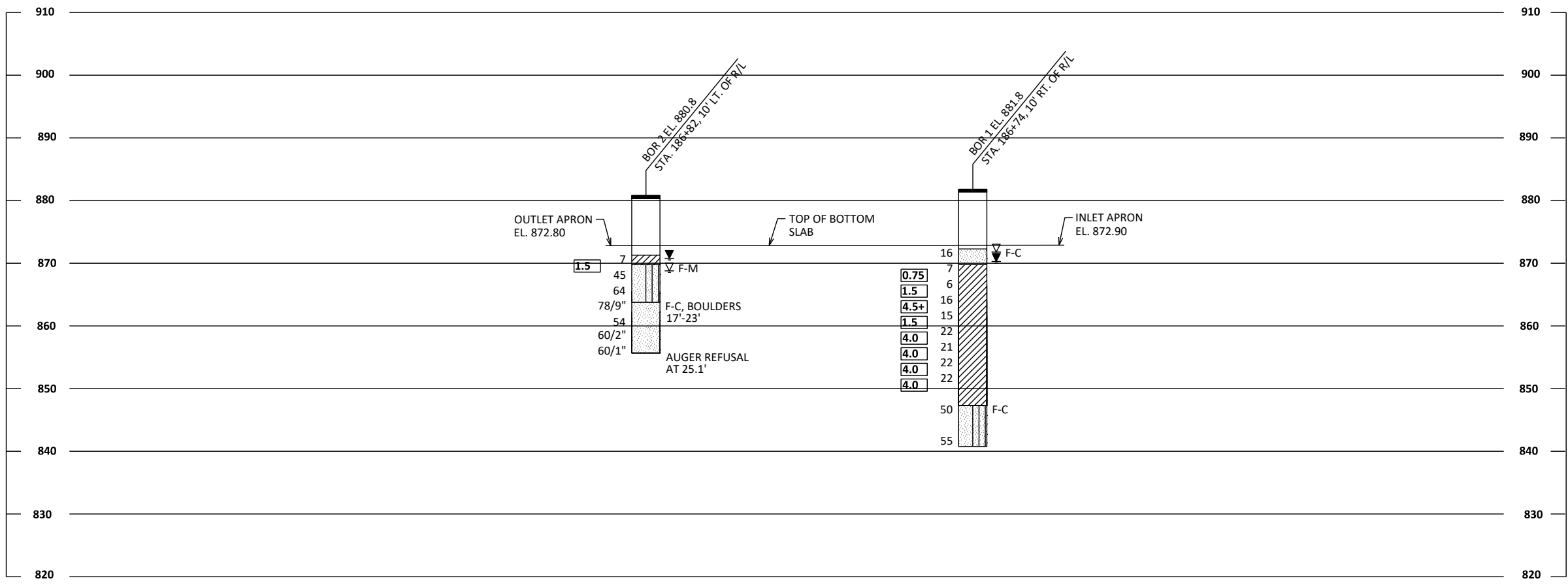
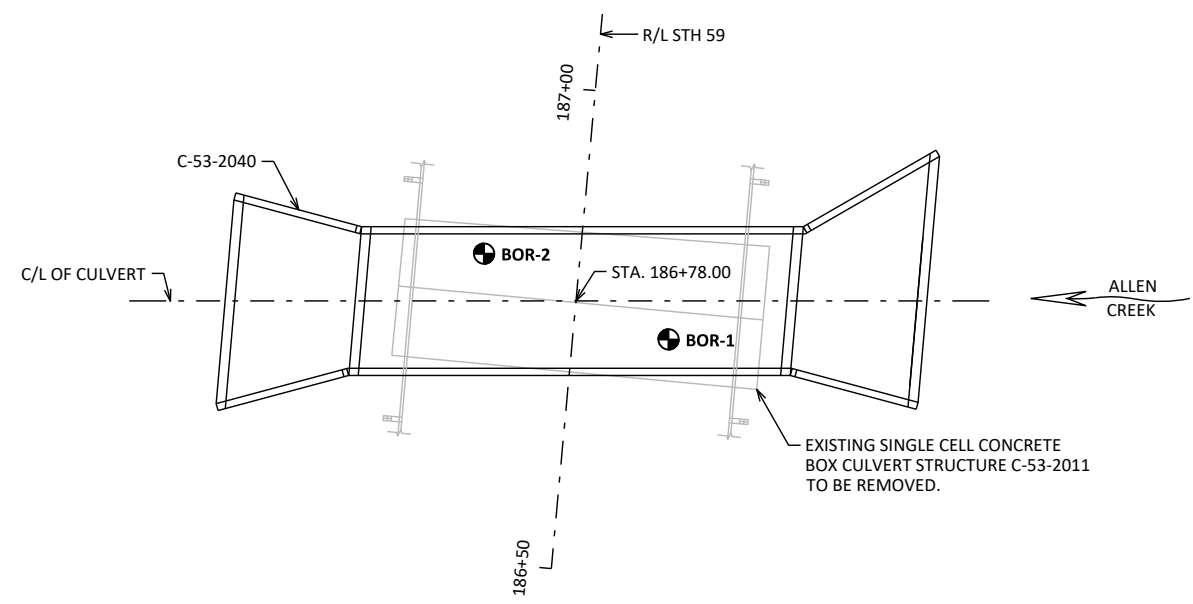
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		C-53-2040	
DRAWN BY		PLANS CK'D DLM	
DETAILS		SHEET 6	

SCALE =

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	2/1/2023	289203.9	418072.7
2	2/1/2023	289223.8	418080

BORINGS COMPLETED BY: GESTRA
 REPORT COMPLETED BY: WISDOT
 ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) ROCK COUNTY
 COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT



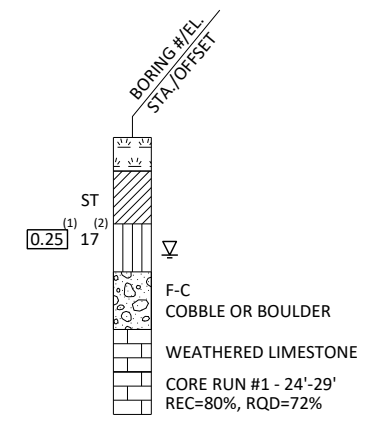
STATE PROJECT NUMBER

5670-00-65

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



⁽¹⁾ UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

⁽²⁾ UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 STRUCTURES DESIGN SECTION

STRUCTURE C-53-2040

DRAWN BY: LIH PLANS CK'D: DLM

SUBSURFACE EXPLORATION SHEET 7

8

8

DIVISION 1 - STH 59

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
183+50.00	18350.00	0.00	48.90	0.00	6.11	0	0	0	0	0	0
184+00.00	18400.00	50.00	51.33	37.50	4.67	93	35	10	93	13	46
184+43.27	18443.27	43.27	59.25	32.45	4.56	89	56	7	182	21	70
184+50.00	18450.00	6.73	62.68	5.05	4.58	15	5	1	197	23	79
184+77.67	18477.67	27.67	63.06	20.75	7.19	64	13	6	261	30	122
185+00.00	18500.00	22.33	60.75	16.75	9.88	51	16	7	312	39	148
185+04.73	18504.73	4.73	58.79	3.55	10.55	10	2	2	322	41	154
185+29.70	18529.70	24.97	48.30	18.73	7.89	50	10	9	372	53	183
185+50.00	18550.00	20.30	42.30	15.22	8.90	34	13	6	406	60	196
185+54.68	18554.68	4.68	41.04	3.51	8.65	7	2	2	413	63	199
185+57.56	18557.56	2.88	39.95	1.92	8.44	4	0	1	417	64	201
185+82.54	18582.54	24.98	34.62	16.65	7.82	34	9	8	451	74	216
186+00.00	18600.00	17.46	32.22	11.64	8.89	22	9	5	473	80	223
186+07.53	18607.53	7.53	32.26	5.02	9.28	9	2	3	482	84	226
186+50.00	18650.00	42.47	36.65	28.31	14.88	54	26	19	536	108	231
186+78.02	18678.02	28.02	44.22	18.68	88.68	42	24	54	578	175	181
187+00.00	18700.00	21.98	47.15	14.65	13.04	37	14	41	615	226	153
187+50.00	18750.00	50.00	45.71	33.33	11.01	86	44	22	701	254	167
187+60.92	18760.92	10.92	47.04	7.28	10.56	19	8	4	720	259	173
187+85.91	18785.91	24.99	51.08	16.66	10.90	45	11	10	765	271	195
188+00.00	18800.00	14.09	50.83	8.22	11.60	27	6	6	792	279	208
188+10.90	18810.90	10.90	48.91	6.36	12.68	20	3	5	812	285	219
188+26.28	18826.28	15.38	50.63	8.97	14.27	28	4	8	840	295	233
188+50.00	18850.00	23.72	51.33	13.84	10.44	45	10	11	885	309	254
188+51.25	18851.25	1.25	50.94	0.73	10.32	2	0	0	887	309	256
188+76.23	18876.23	24.98	46.59	14.57	9.93	45	7	9	932	320	283
189+00.00	18900.00	23.77	46.28	13.87	5.76	41	13	7	973	329	302
189+50.00	18950.00	50.00	45.64	29.17	3.96	85	40	9	1,058	340	336
190+00.00	19000.00	50.00	47.42	29.17	2.71	86	54	6	1,144	348	361
190+50.00	19050.00	50.00	50.34	29.17	1.52	91	54	4	1,235	353	393
190+57.25	19057.25	7.25	0.00	4.23	0.00	7	4	0	1,242	353	396

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: ((CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR

9

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DIVISION 2 - STH 59

STATION	REAL STATION	DISTANCE	AREA (SE)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	EILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED EILL	MASS ORDINATE
32+10.50	3210.50	0.00	48.59	0.00	16.53	0	0	0	0	0	0
32+50.00	3250.00	39.50	47.82	19.75	28.69	71	14	33	71	41	16
32+70.00	3270.00	20.00	50.43	10.00	41.21	36	11	26	107	74	8
32+75.00	3275.00	5.00	48.02	2.50	49.47	9	1	8	116	84	6
32+80.00	3280.00	5.00	49.14	2.50	36.05	9	0	8	125	94	5
33+00.00	3300.00	20.00	50.08	10.00	18.66	37	5	20	162	119	12
33+40.50	3340.50	40.50	51.33	20.25	13.40	76	23	24	238	149	35

DIVISION 3 - STH 59

STATION	REAL STATION	DISTANCE	AREA (SE)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	EILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	EILL	CUT	EXPANDED EILL	MASS ORDINATE
176+80.00	17680.00	0.00	55.34	0.00	9.15	0	0	0	0	0	0
177+00.00	17700.00	20.00	52.36	15.00	8.28	40	6	6	40	8	27
177+25.00	17725.00	25.00	51.01	18.75	4.41	48	16	6	88	15	51
177+40.00	17740.00	15.00	52.22	11.25	11.64	29	8	4	117	20	67
177+50.00	17750.00	10.00	52.67	7.50	16.89	19	3	5	136	26	77

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: ((CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR

DIVISION - ALI-TBC

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
100+00.00	10000.00	0.00	5.00	0.00	0.00	0	0	0	0	0	0
100+50.00	10050.00	50.00	35.06	0.00	0.00	37	0	0	37	0	37
101+00.00	10100.00	50.00	190.89	37.50	0.00	209	35	0	246	0	211
101+50.00	10150.00	50.00	57.37	18.75	0.00	230	52	0	476	0	389
102+00.00	10200.00	50.00	45.64	0.00	0.00	95	17	0	571	0	467
102+18.25	10218.25	18.25	15.95	0.00	0.00	21	0	0	592	0	488

TEMPORARY BYPASS CHANNEL NOTES

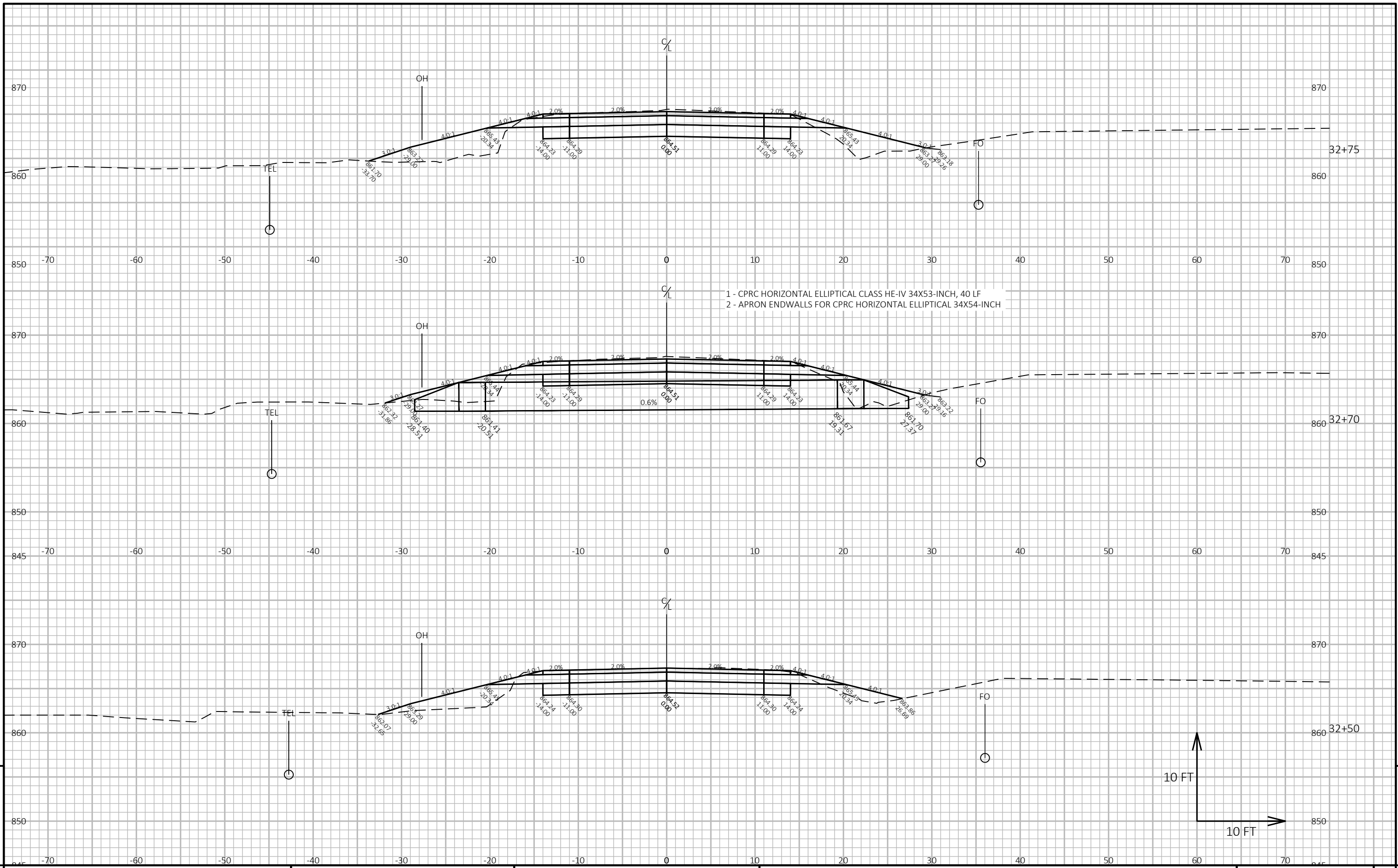
THE TEMPORARY BYPASS CHANNEL SHALL BE BACKFILLED WITH GRANULAR BACKFILL WITHIN THE ROADWAY LIMITS ESTABLISHED BY 1:1 SLOPES EXTENDING FROM THE ROADWAY SUBGRADE SHOULDER POINTS, GRANULAR BACKFILL SHALL BE MEASURED AND PAID SEPARATELY FROM OTHER ITEMS.

- ESTIMATED GRANULAR BACKFILL:

CUT MATERIAL GENERATED FROM EXCAVATION OF THE TEMPORARY BYPASS CHANNEL TO BE SALVAGED AND USED FOR BACKFILL OF THE TEMPORARY CHANNEL OUTSIDE OF THE ROADWAY LIMITS. PLACEMENT OF THIS BACKFILL MATERIAL TO BE PAID UNDER THE ITEM "BORROW".

- ESTIMATED BORROW:
- WASTE:

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: ((CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR



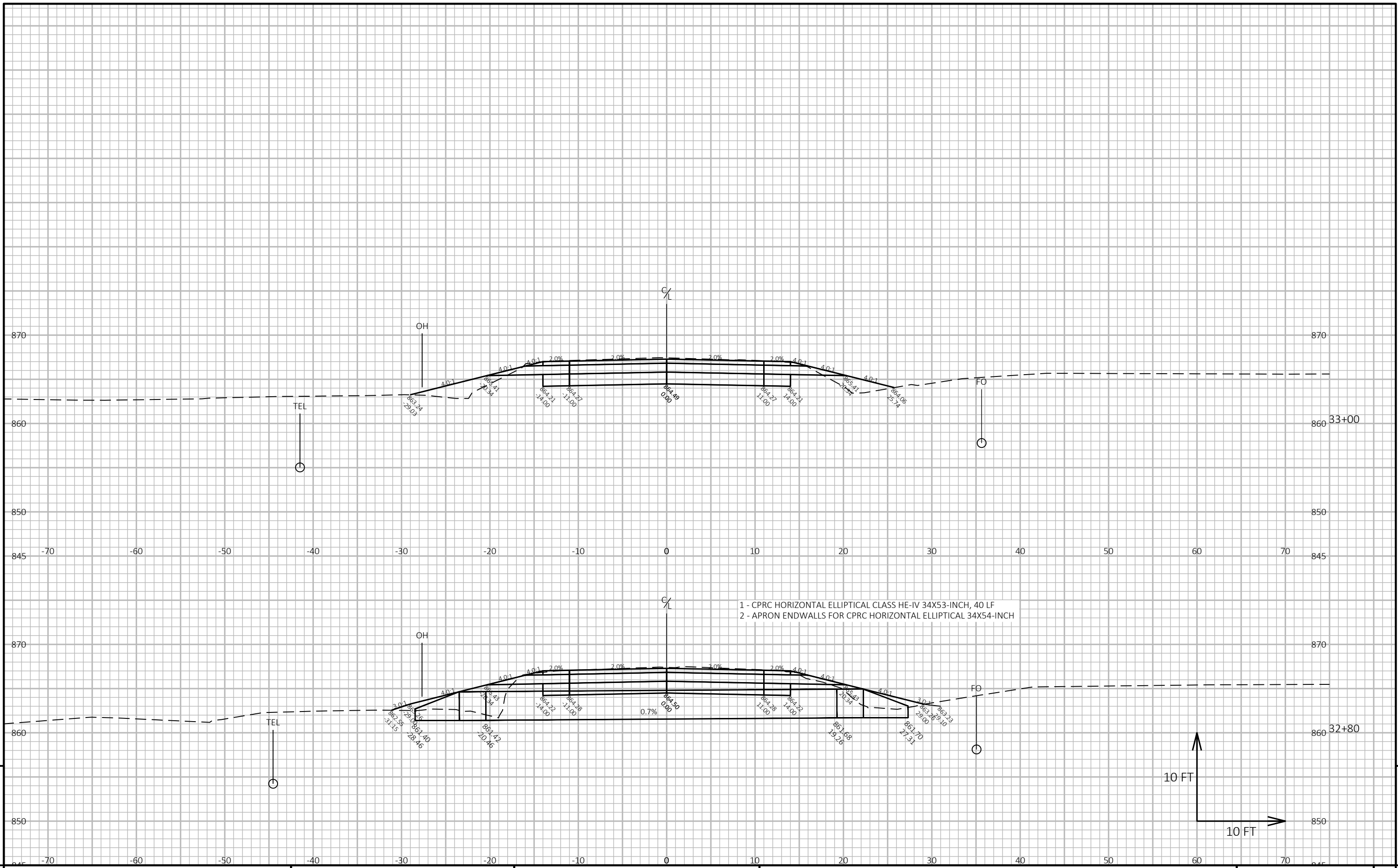
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PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK CROSS SECTIONS: TWIN 34X53-INCH CPRC SHEET E

FILE NAME : C:\WISDOT\DESIGN\C3D\56700035\DESIGN\CORRIDORS\CULVERT CORRIDORS - PROPOSED.DWG PLOT DATE : 10/9/2023 10:28 AM PLOT BY : CLEMENTS, ERIN A PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 01



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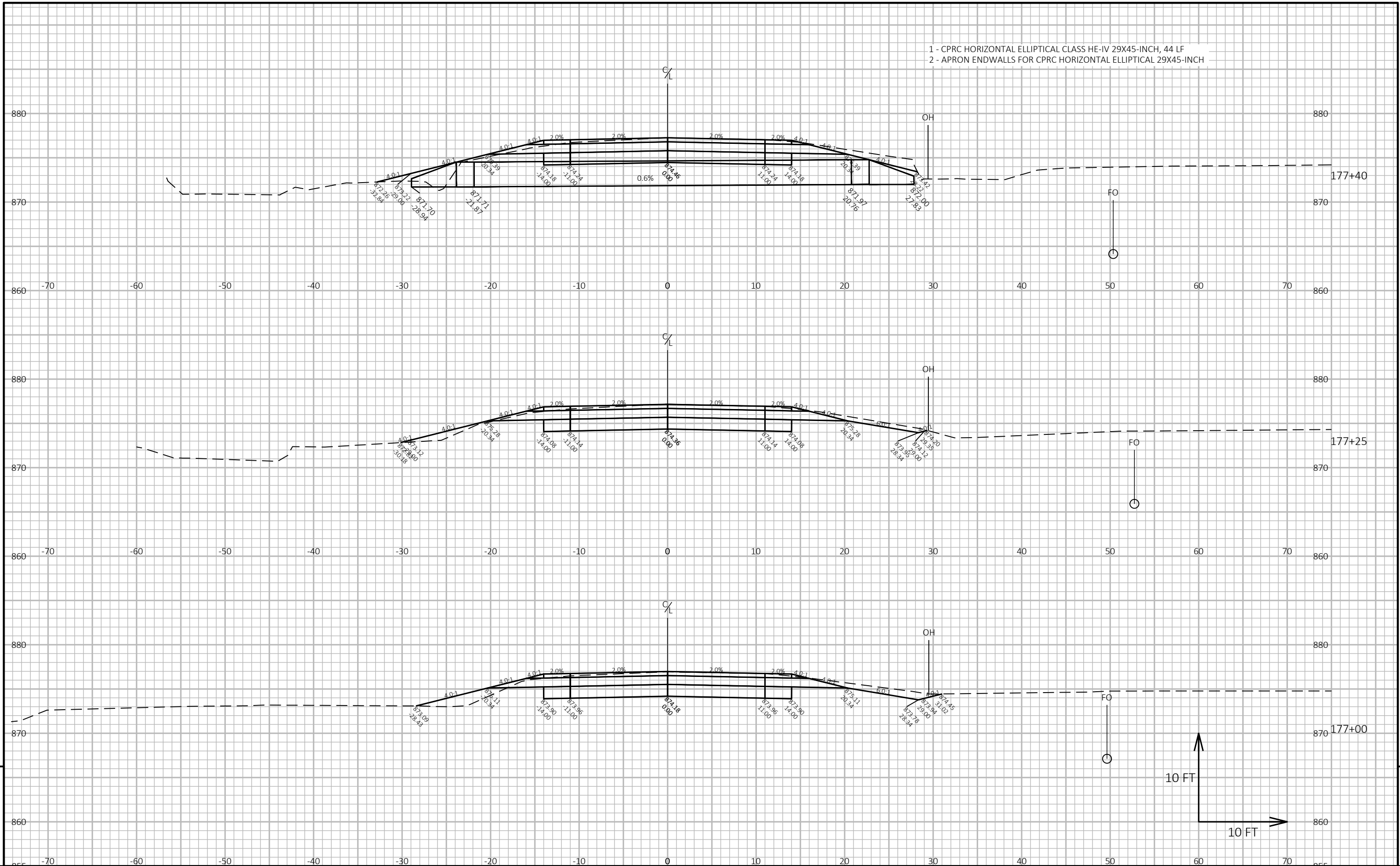
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PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK CROSS SECTIONS: TWIN 34X53-INCH CPRC SHEET E

FILE NAME : C:\WISDOT\DESIGN\C3D\56700035\DESIGN\CORRIDORS\CULVERT CORRIDORS - PROPOSED.DWG PLOT DATE : 10/9/2023 10:28 AM PLOT BY : CLEMENTS, ERIN A PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 02

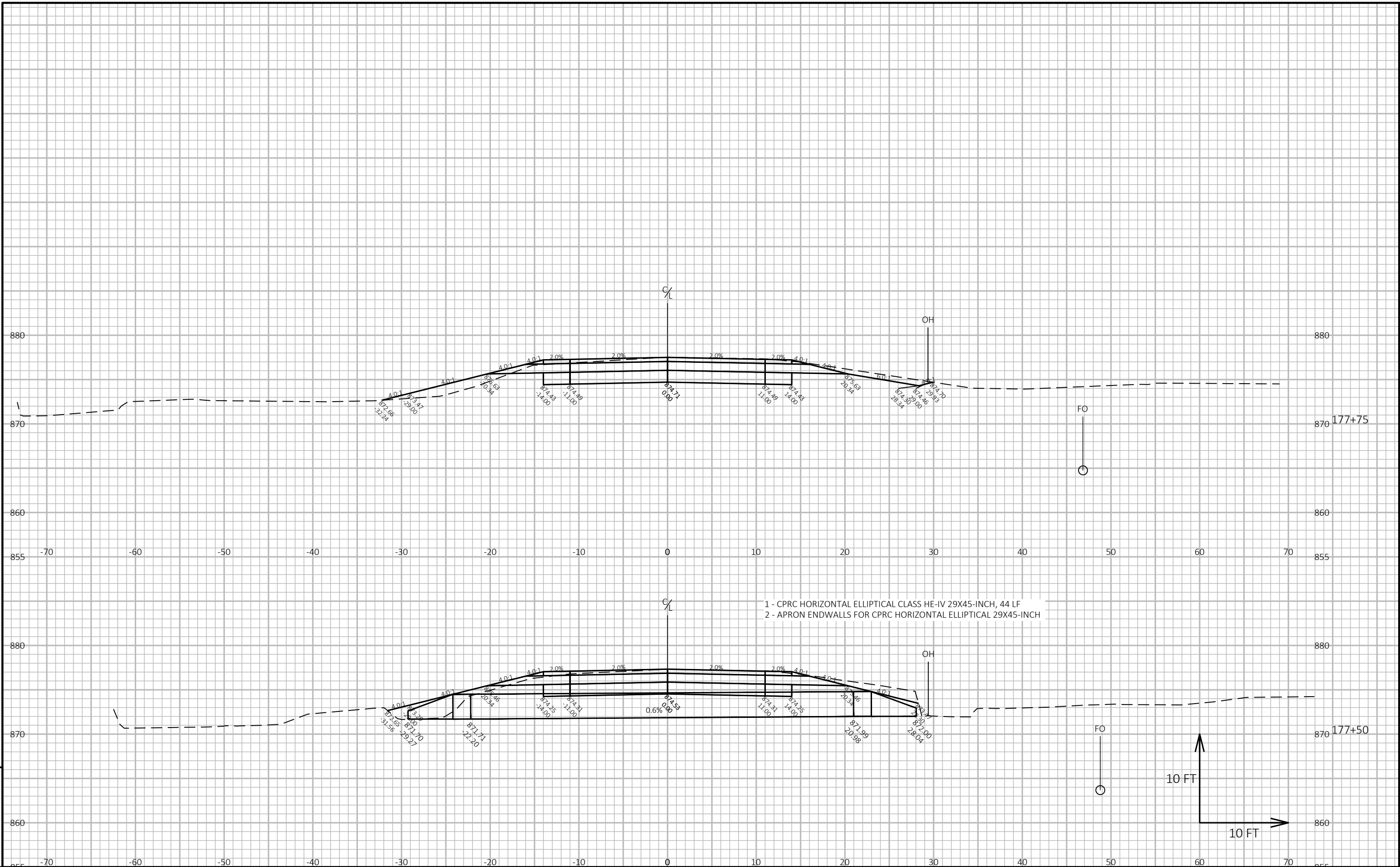
- 1 - CPRC HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH, 44 LF
- 2 - APRON ENDWALLS FOR CPRC HORIZONTAL ELLIPTICAL 29X45-INCH



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PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	CROSS SECTIONS: TWIN 29X45-INCH CPRC	SHEET E
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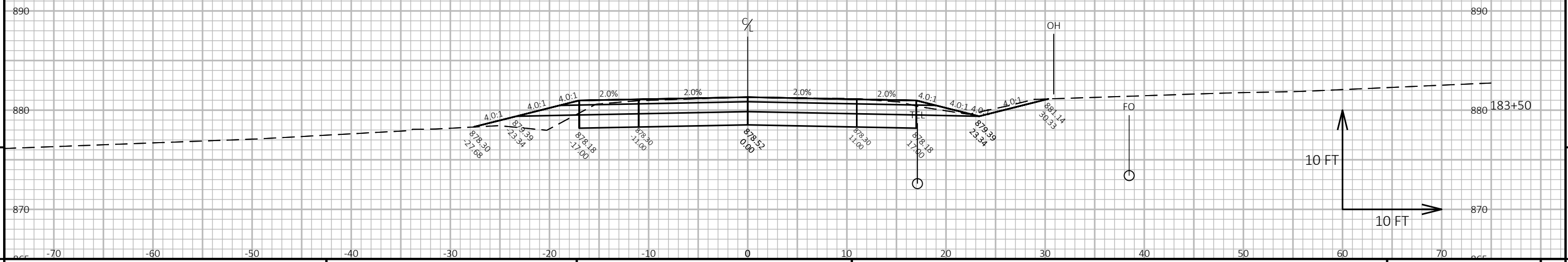
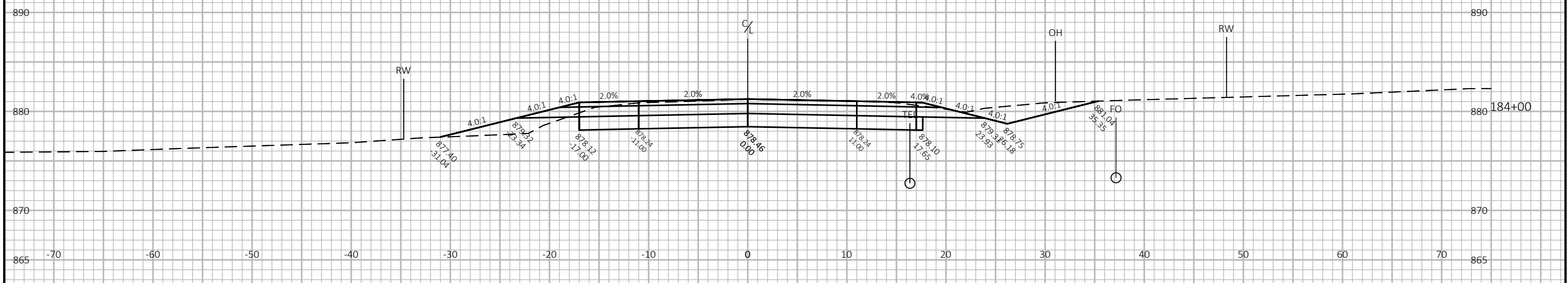
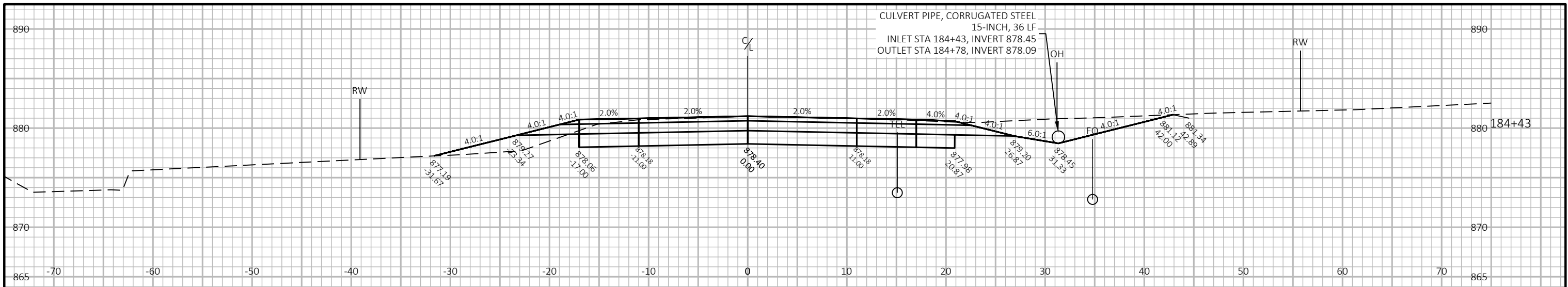


1 - CPCR HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH, 44 LF
 2 - APRON ENDWALLS FOR CPCR HORIZONTAL ELLIPTICAL 29X45-INCH

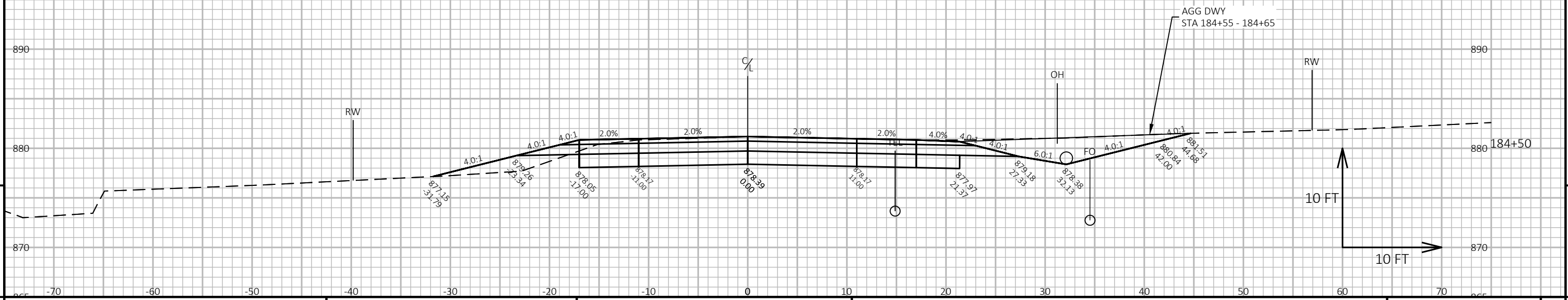
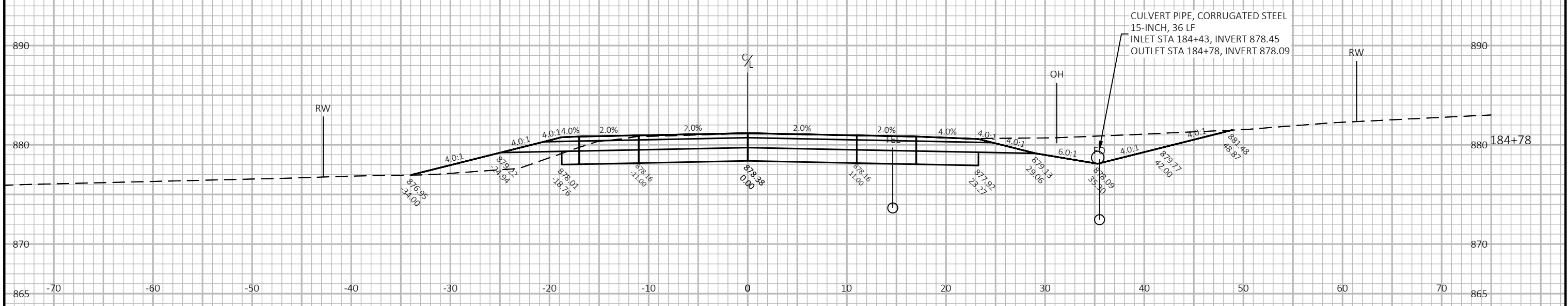
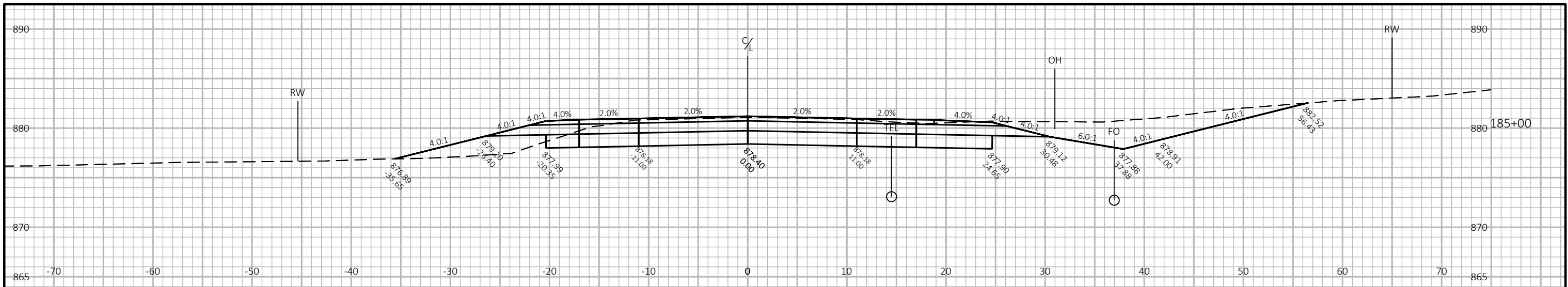
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PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	CROSS SECTIONS: TWIN 29X45-INCH CPCR	SHEET	E
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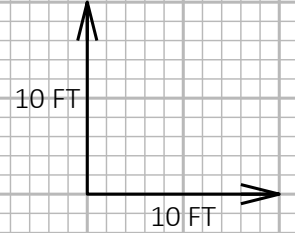


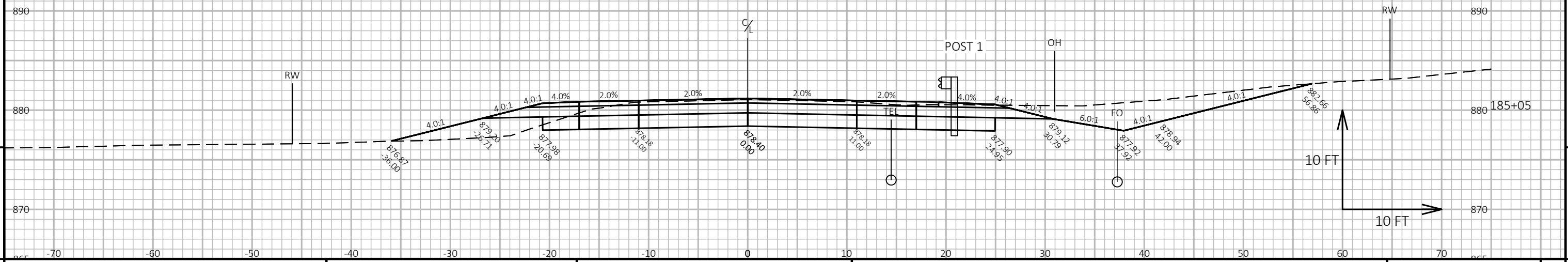
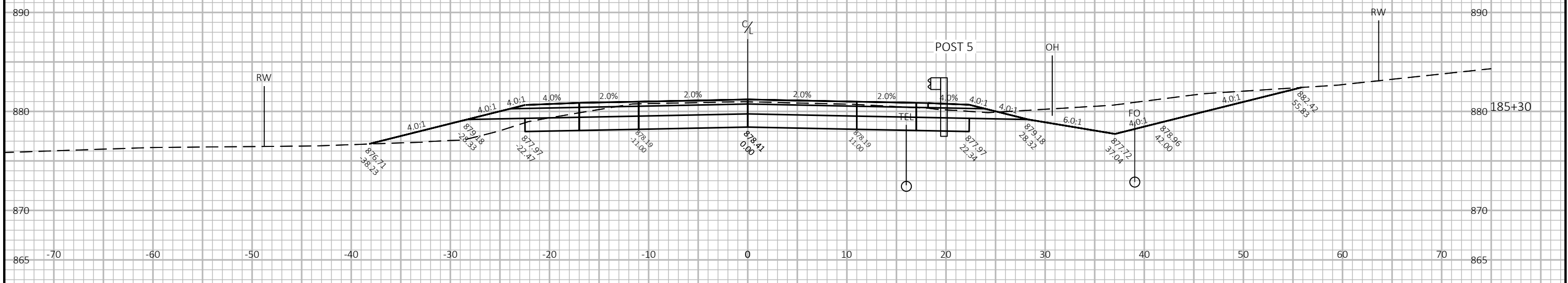
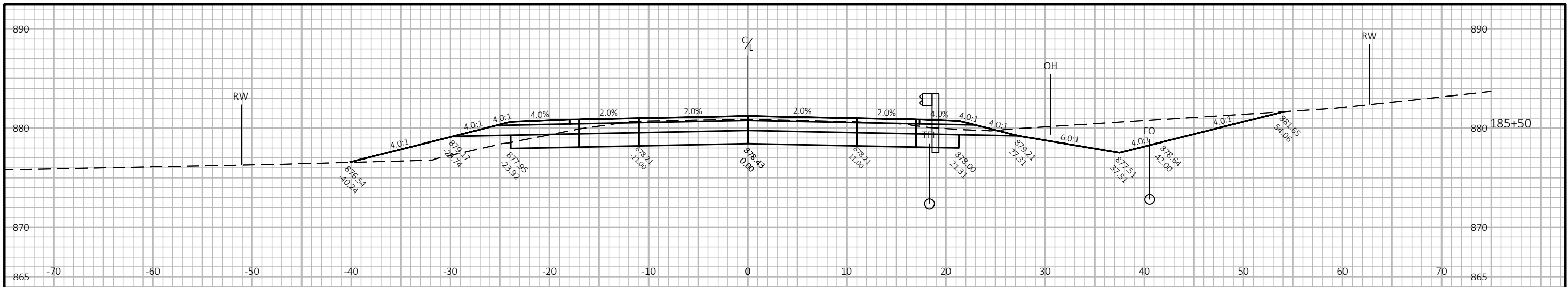
PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK CROSS SECTIONS: BOX CULVERT REPLACEMENT SHEET E



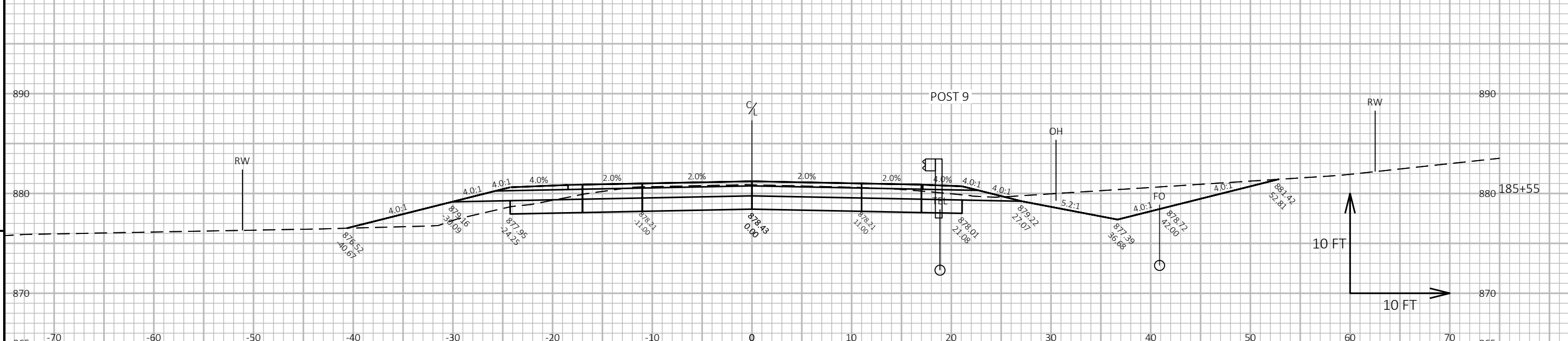
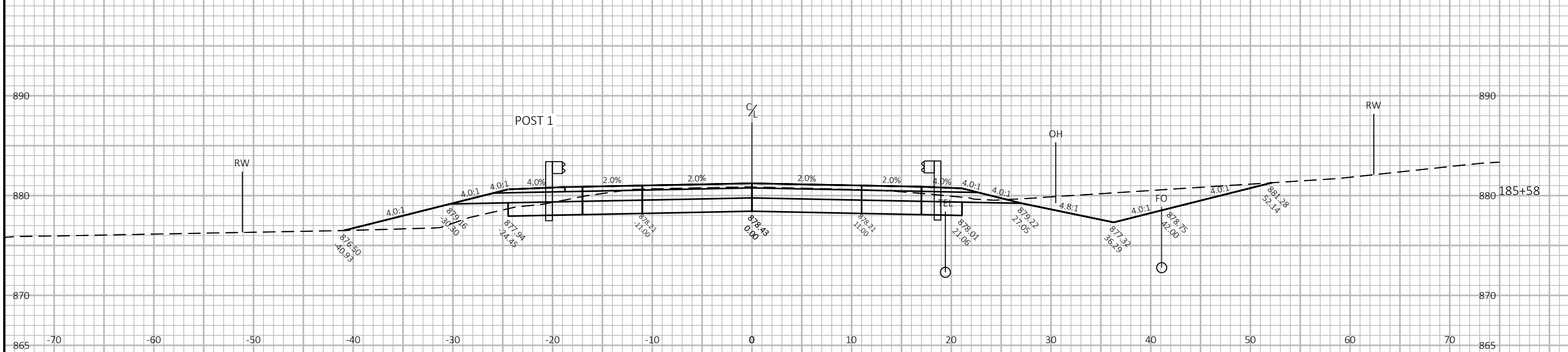
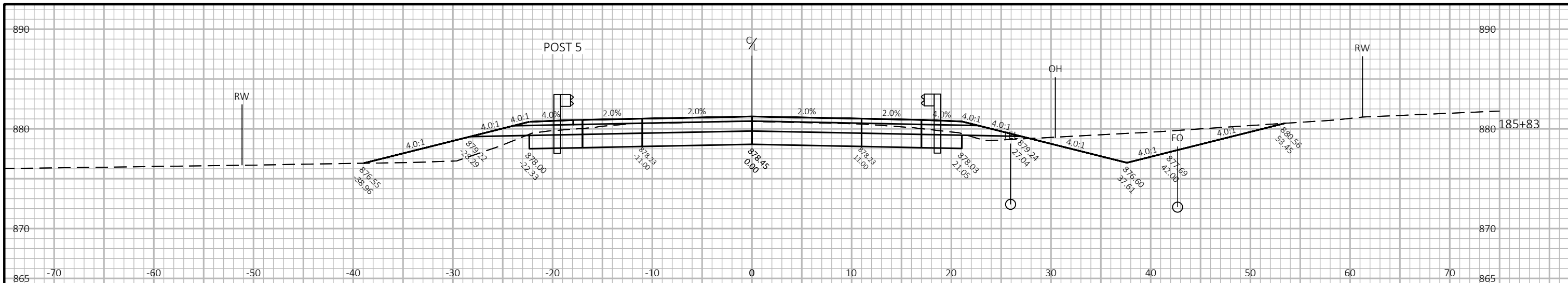
CULVERT PIPE, CORRUGATED STEEL
 15-INCH, 36 LF
 INLET STA 184+43, INVERT 878.45
 OUTLET STA 184+78, INVERT 878.09

AGG DWY
 STA 184+55 - 184+65

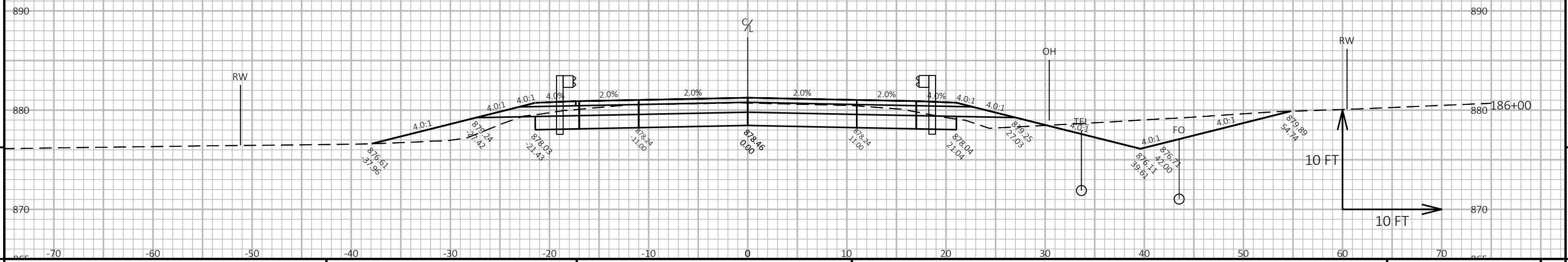
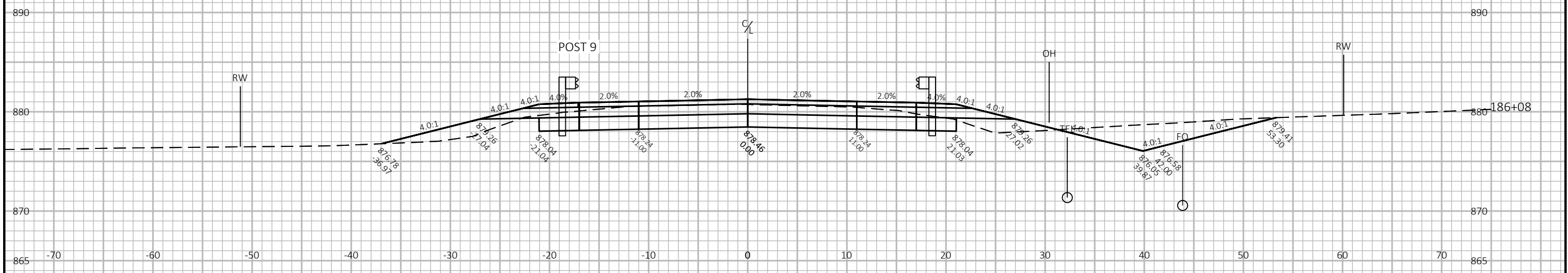
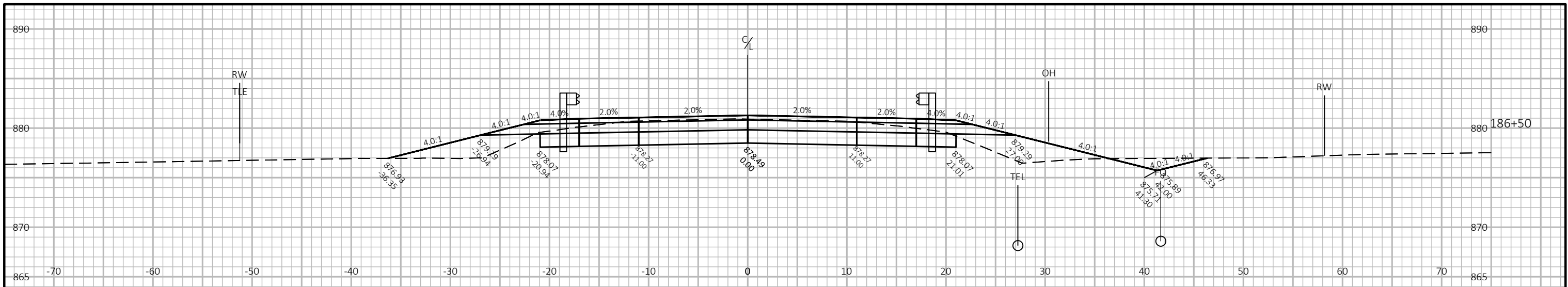




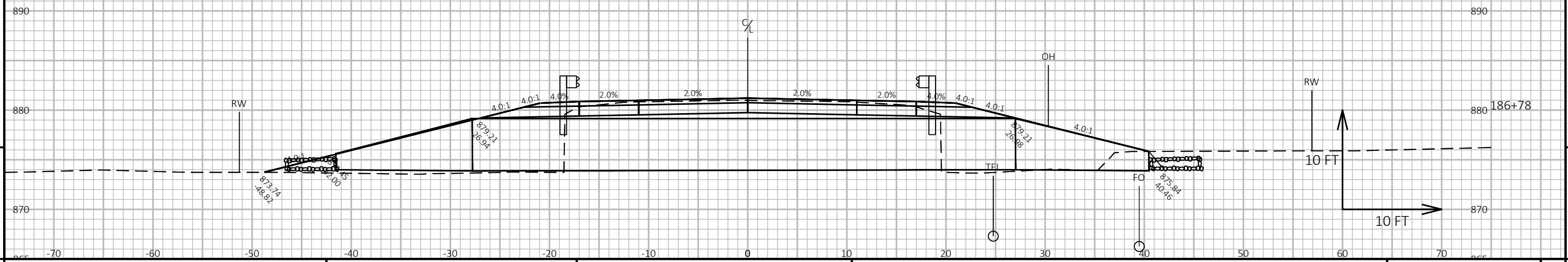
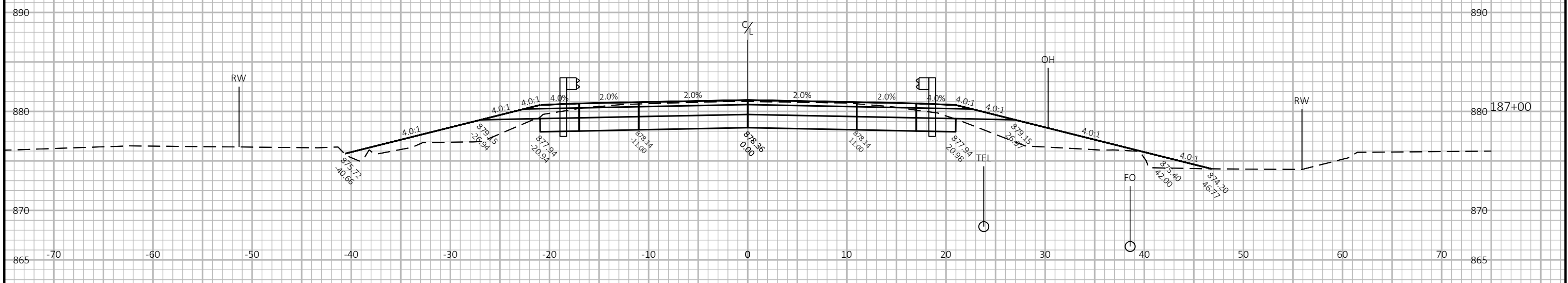
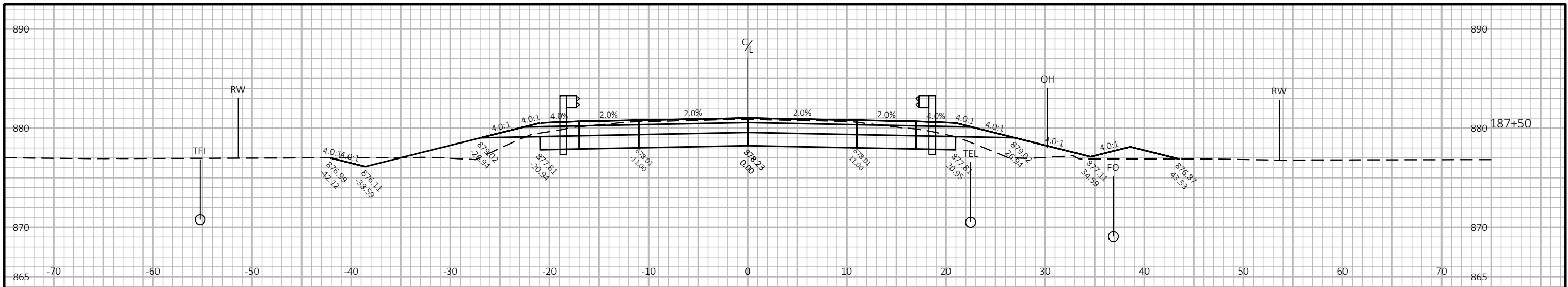
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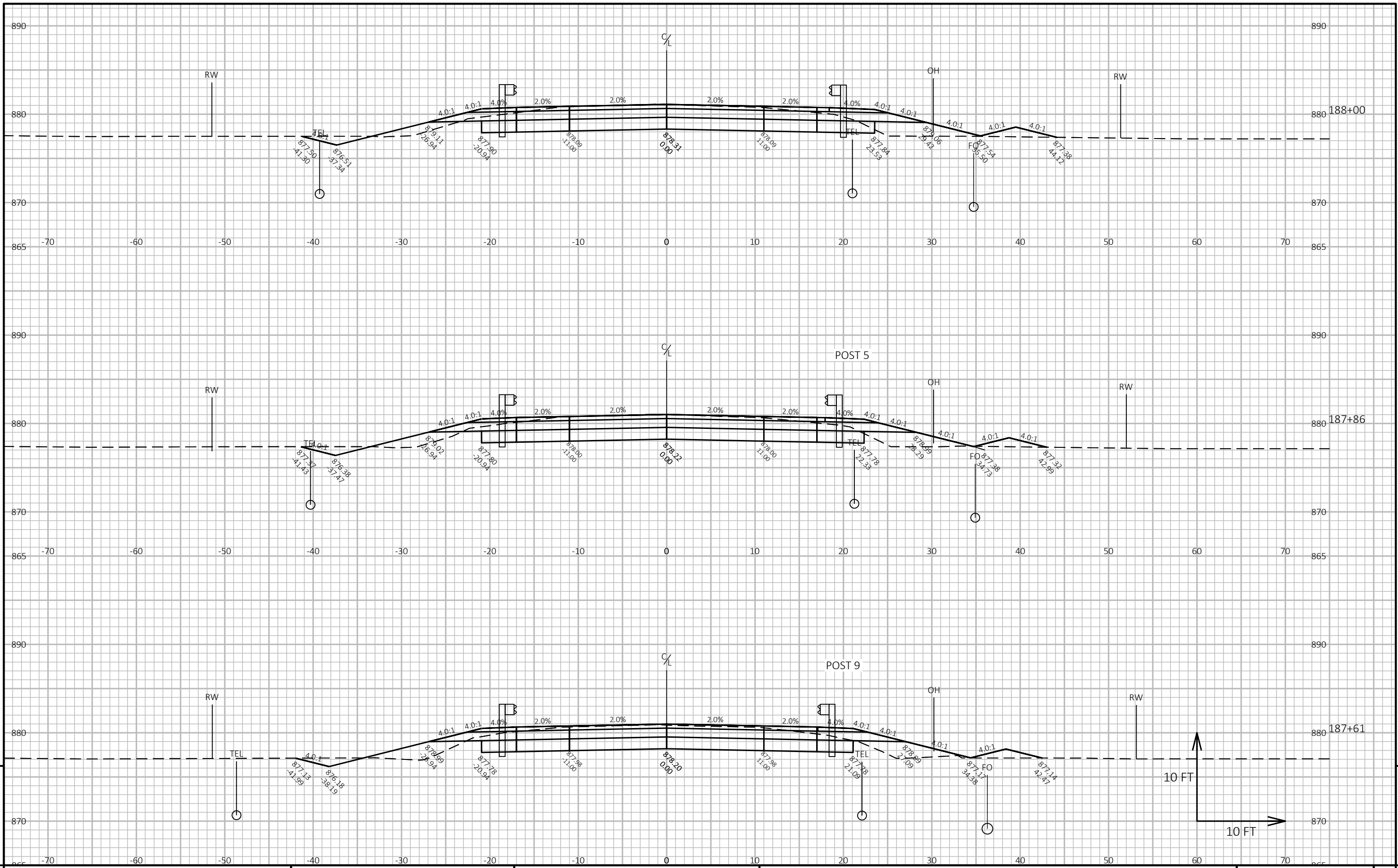
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PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK CROSS SECTIONS: BOX CULVERT REPLACEMENT SHEET E



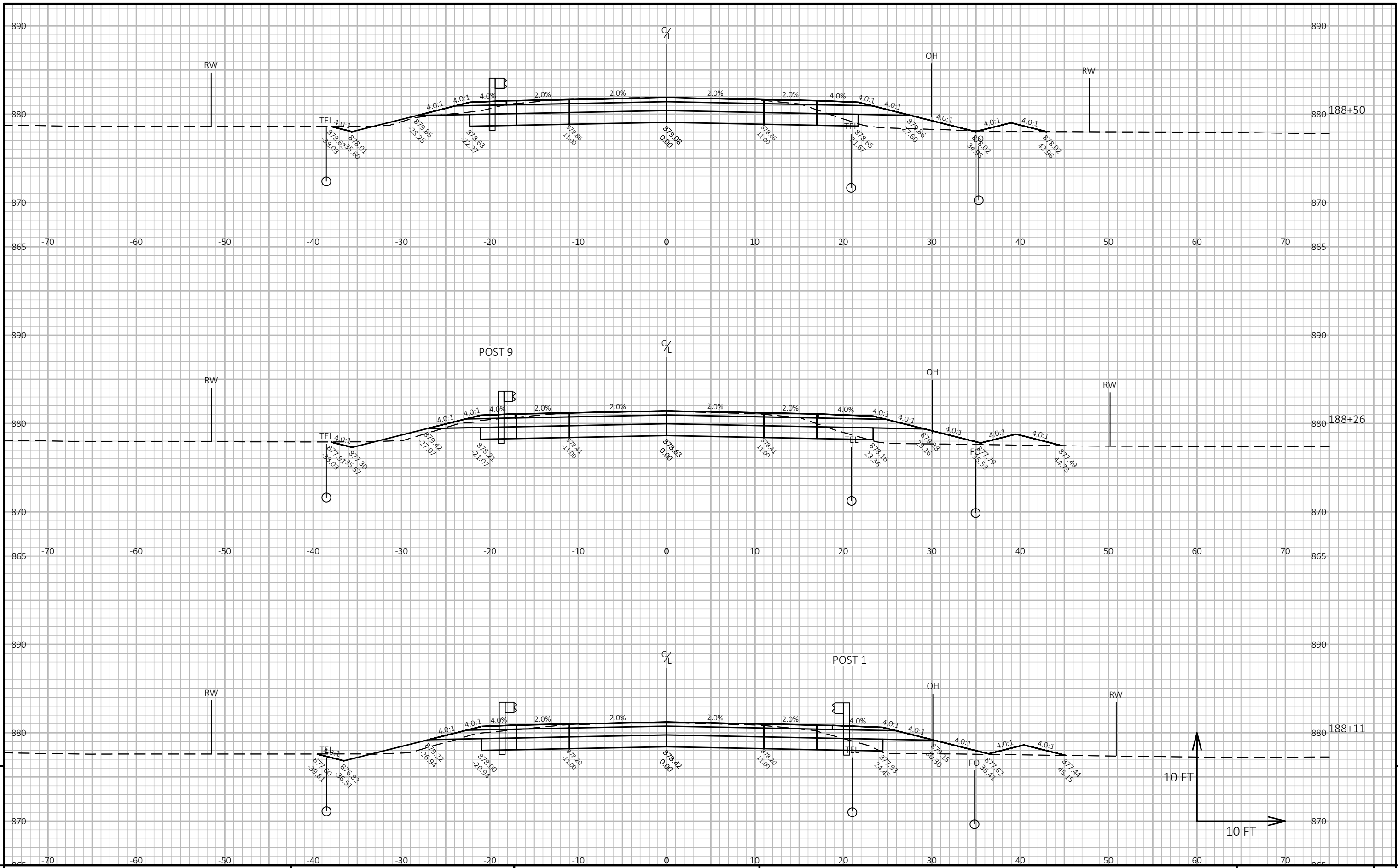
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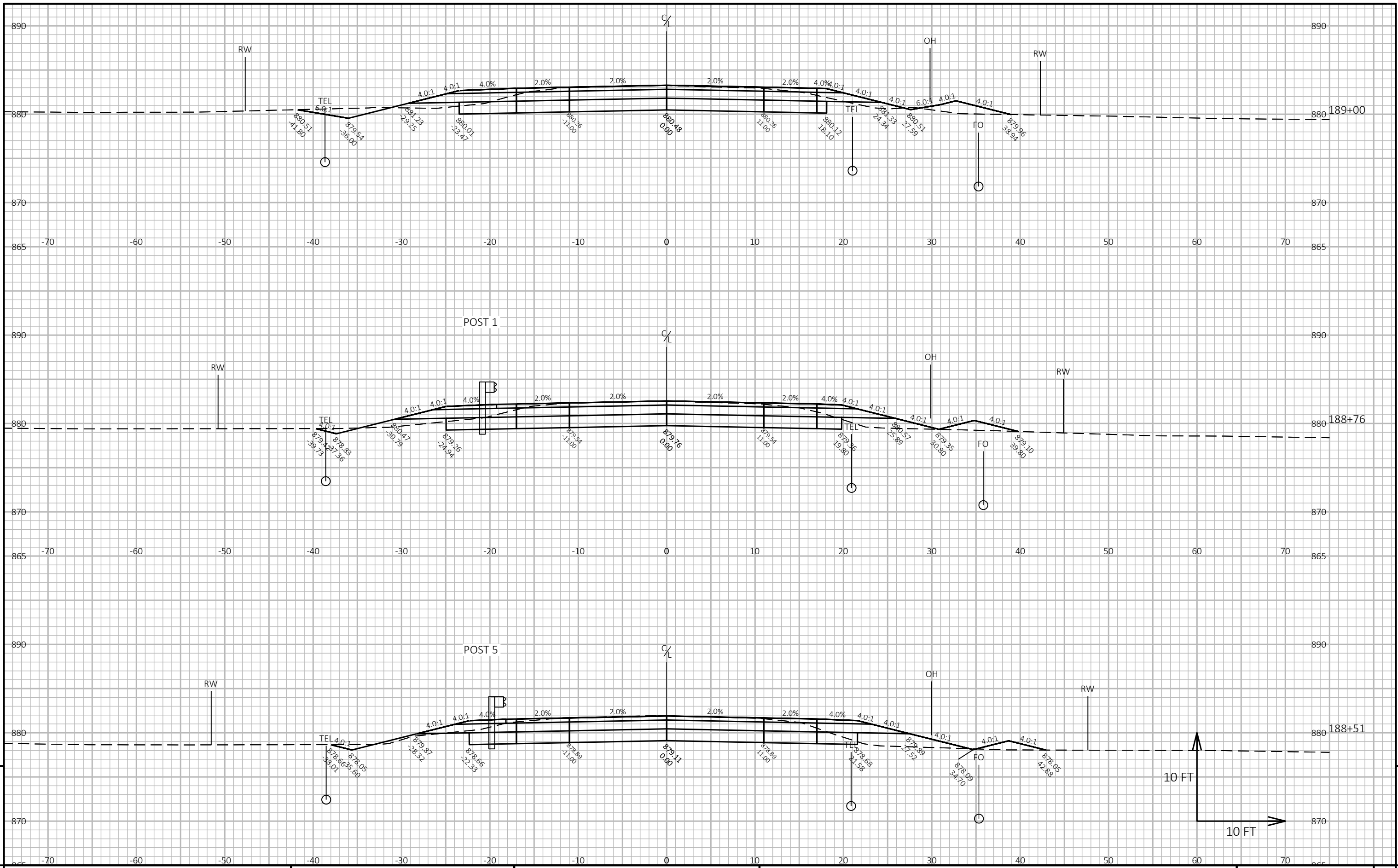
PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	CROSS SECTIONS: BOX CULVERT REPLACMENT	SHEET
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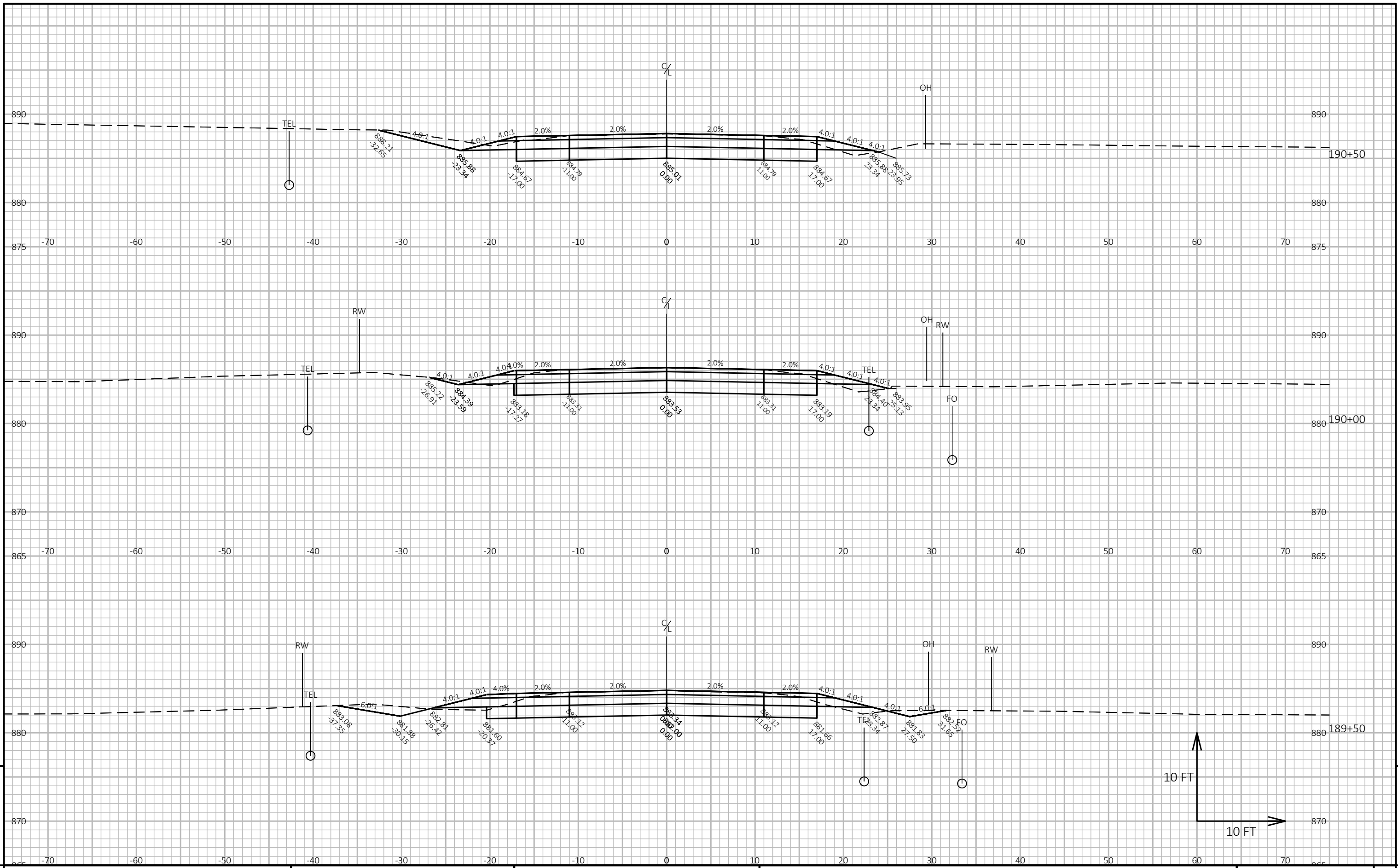


PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	CROSS SECTIONS: BOX CULVERT REPLACEMENT	SHEET	9
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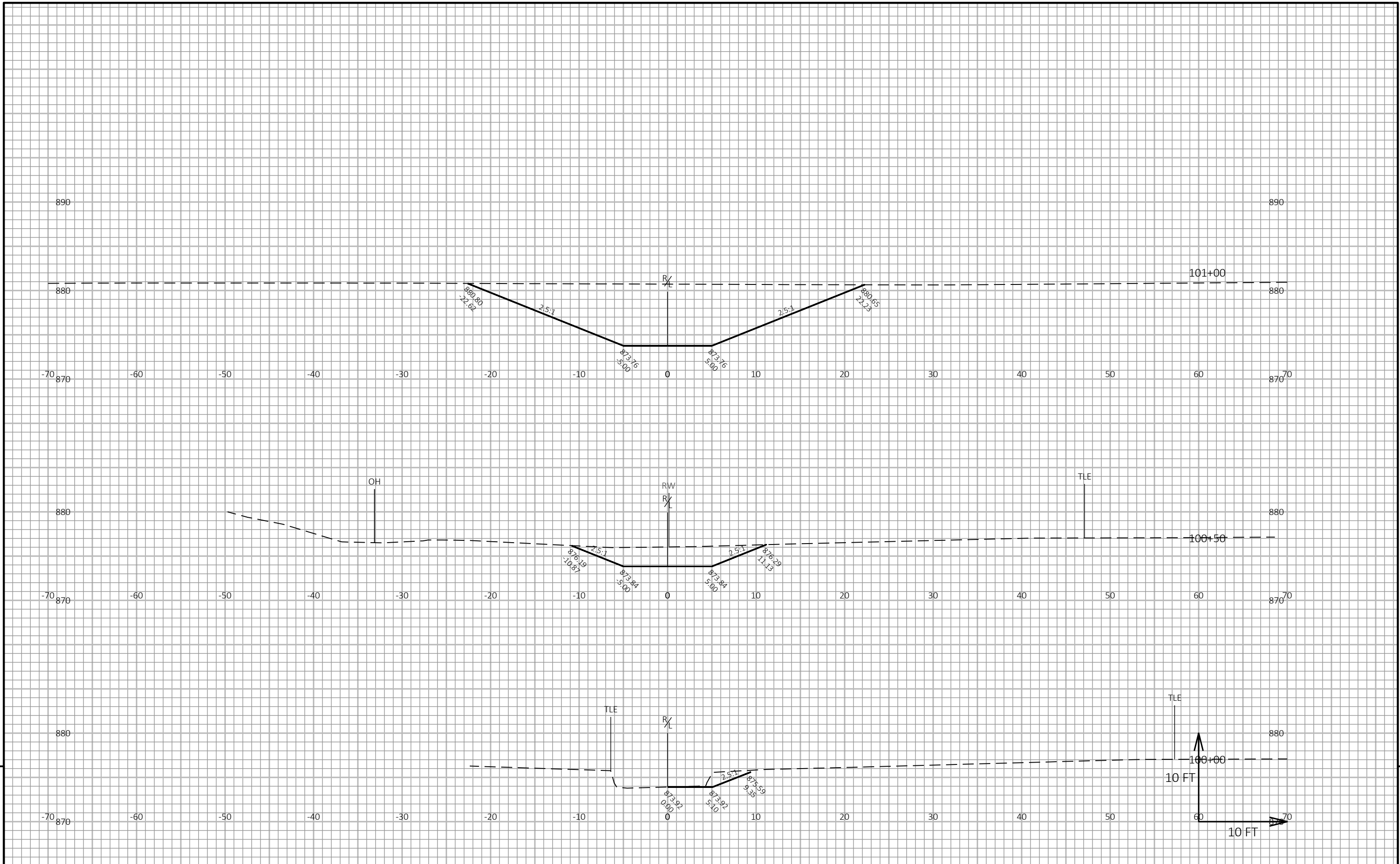


PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK CROSS SECTIONS: BOX CULVERT REPLACEMENT SHEET 9

FILE NAME : C:\WISDOT\DESIGN\C3D\56700035\DESIGN\CORRIDORS\CRD-C-53-2011 - PROPOSED (MGS LONG SPAN)-NEW.DWG PLOT DATE : 10/9/2023 10:50 AM PLOT BY : CLEMENTS, ERIN A PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



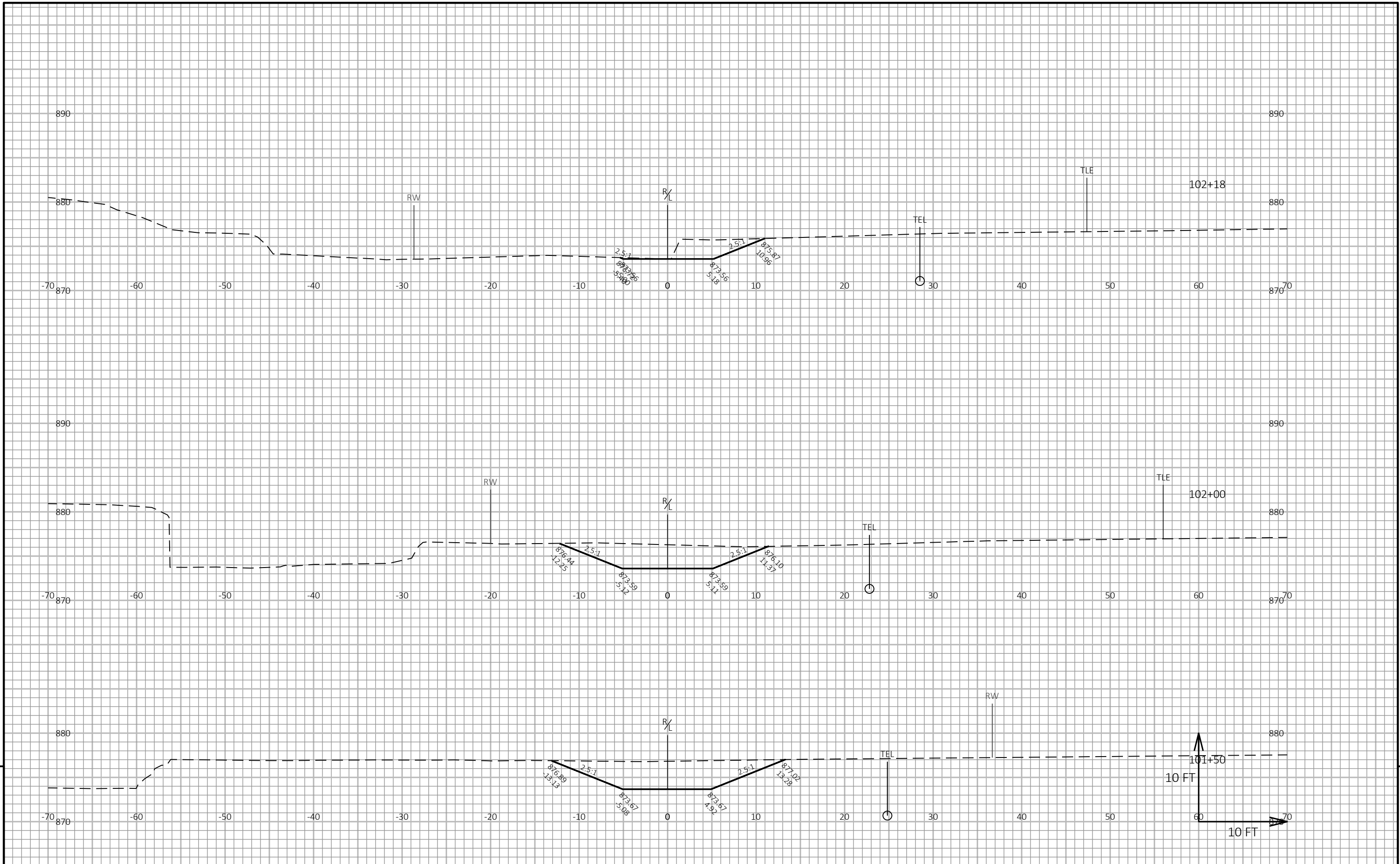
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PROJECT NO: 5670-00-65	HWY: STH 59	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY CHANNEL	SHEET	E
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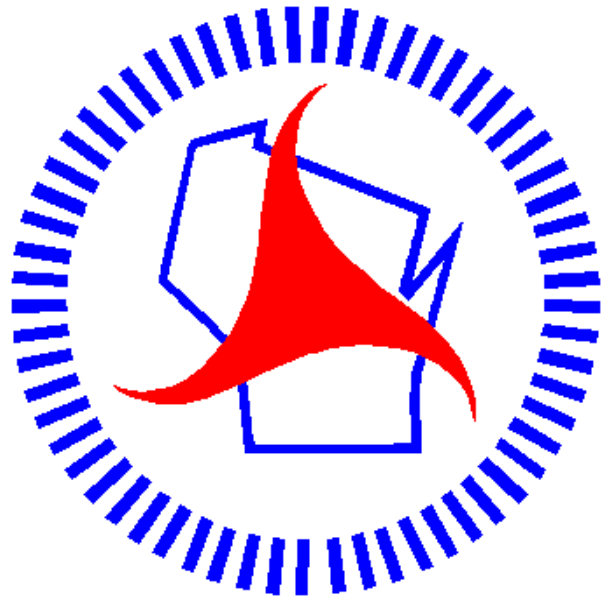
PROJECT NO: 5670-00-65 HWY: STH 59 COUNTY: ROCK CROSS SECTIONS: TEMPORARY CHANNEL SHEET

FILE NAME: N:\PDS\C3D\56700035\SHEETSPLAN\090202-TEMP CHANNEL XS.DWG PLOT DATE: 9/6/2023 10:23 AM PLOT BY: CLEMENTS, ERIN A PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

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