RHI

PROJECT ID: 1009-43-69

WITH: 9650-16-72/9650-17-73/9660-09-70

COUNTY: MENOMINEE

FEBRUARY 2026

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 = 82



N

30

DESIGN DESIGNATION 1009-43-39

A.A.D.T.	2025	=	2025
A.A.D.T.	2045	=	2025
D.H.V.		=	9.7
D.D.		=	60/40
T.		=	11.5
DESIGN SPEED		=	60 MPH
ESALS		=	370,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MENOMINEE CO CULVERT REPLACEMENT

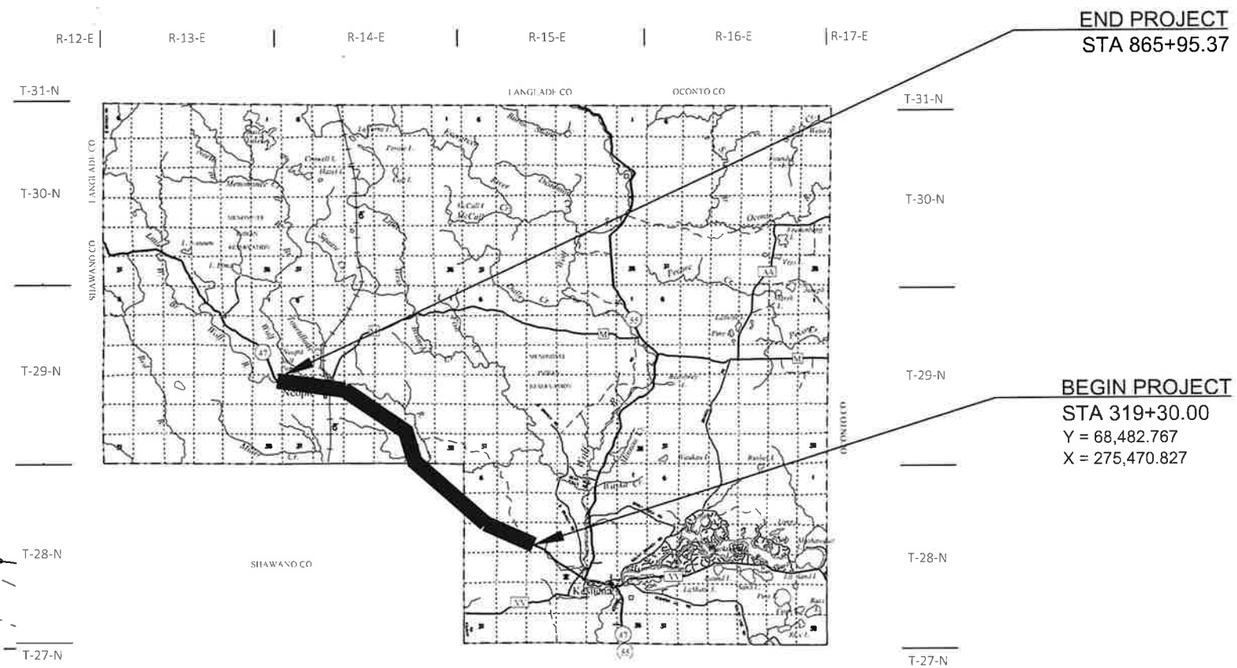
STH 47 COUNTYWIDE

STH 47
MENOMINEE

STATE PROJECT NUMBER
1009-43-69

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1009-43-69	WISC 2026248	1

NET EXCEPTION TO CL LENGTH
STA 320+40.04 - STA 347+12.91
STA 348+22.91 - STA 381+65.55
STA 382+75.60 - STA 389+30.47
STA 390+40.57 - STA 403+73.43
STA 404+83.59 - STA 620+38.81
STA 621+48.82 - STA 654+92.27
STA 656+02.35 - STA 672+30.57
STA 673+40.81 - STA 815+34.20
STA 816+44.28 - STA 819+98.76
STA 821+09.24 - STA 828+88.83
STA 830+05.90 - STA 833+00.79
STA 834+10.98 - STA 853+50.75
STA 854+60.83 - STA 863+75.42



END PROJECT
STA 865+95.37

BEGIN PROJECT
STA 319+30.00
Y = 68,482.767
X = 275,470.827

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 (30FT)
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

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

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

LAYOUT
SCALE 0 4MI

TOTAL NET LENGTH OF CENTERLINE = 0.314

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MENOMINEE 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

ORIGINAL PLANS PREPARED BY

JT ENGINEERING
WISCONSIN
ANDREW W. BLOCK
E-41224-6
APPLETON
WI.
PROFESSIONAL ENGINEER

DATE 10/7/25 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COLEMAN ENGINEERING COMPANY
Designer	JT ENGINEERING
Project Manager	STACY HAGENBUCHER
Regional Examiner	FRED SCHUNKE
Regional Supervisor	KAI KILEN

APPROVED FOR THE DEPARTMENT

DATE: 10/20/2025 (Signature)

E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\DESIGN\C3D\SHEETSPLAN\010101_TI.DWG

PLOT DATE : 9/9/2025 6:56 AM

PLOT BY : ANDY BLOCK

PLOT NAME :

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
STUMP GRUBBING
DETOUR

GENERAL NOTES

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

ALL SLOPE INTERCEPTS SHOWN IN THE PLAN ARE APPROXIMATE.

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 60.22 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.02 ACRES

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

UTILITY CONTACTS

ELECTRICITY

ALLIANT ENERGY
BILL BASTIAN
800 W SCOTT ST
FOND DU LAC, WI 54937
(920) 322-6716
WILLIAMBASTIAN@ALLIANTENERGY.COM

COMMUNICATIONS

FRONTIER COMMUNICATIONS OF WI LLC
CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
(715) 847-1240
CHRISTOPHER.POLLACK@FTR.COM

COMMUNICATIONS

SPECTRUM
SCOTT KAISER
5024 HEFFRON ST
STEVENS POINT, WI 54481
(715) 382-3493
SCOTT.KAISER@CHARTER.COM

TRIBAL/ENVIRONMENTAL CONTACT

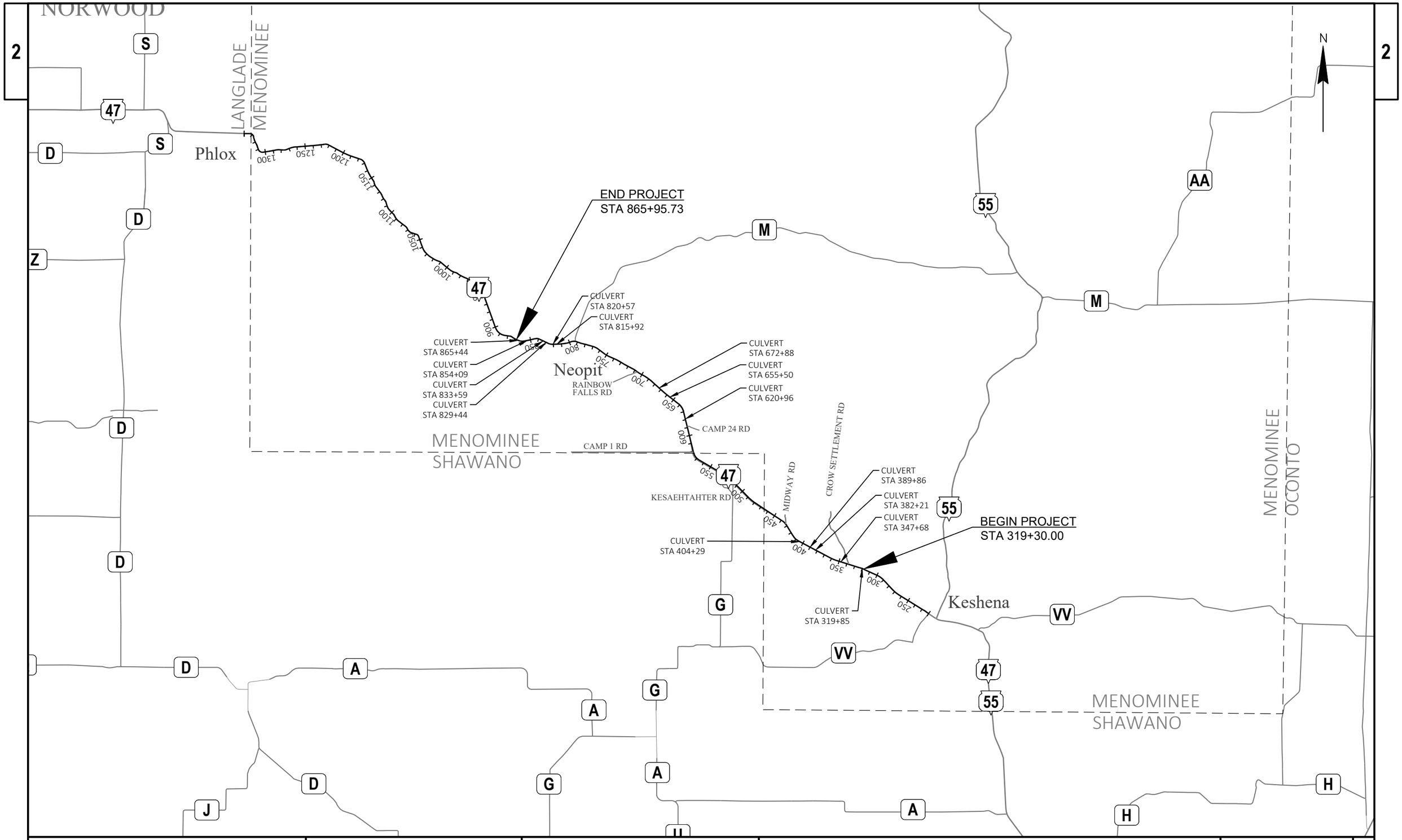
JEREMY PYATSKOWIT
PO BOX 910
KESHENA, WI 54135
(715) 799-6150
JPYATSKOWIT@MITW.com

DNR LIAISON

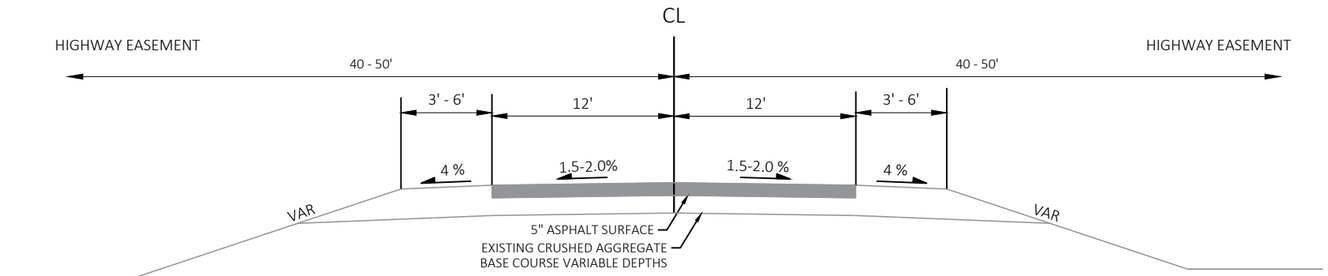
JAMES DOPERALSKI, JR.
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 412-0165
JAMES.DOPERALSKI@WISCONSIN.GOV

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC
AC	ASPHALT CEMENT
AGG	AGGREGATE
ASPH	ASPHALT
BM	BENCHMARK
C/L	CENTERLINE
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CR	CREEK
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
ESALS	EQUIVALENT SINGLE AXIS LOADS
EXIST	EXISTING
FE	FIELD ENTRANCE
HYD	HYDRANT
IP	IRON PIPE
L	LENGTH OF CURVE
LC	LONG CHORD OF CURVE
LR	LENGTH OF RUN OFF
MH	MANHOLE
NC	NORMAL CROWN
PT	POINT OF TANGENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PE	PRIVATE ENTRANCE
R	RADIUS
REM	REMOVE
R/L OR RL	REFERENCE LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RCPSS	REINFORCED CONCRETE STORM SEWER
RO	RUNOUT
R/W	RIGHT OF WAY
STA	STATION
SE	SUPER ELEVATION
SS	STORM SEWER
T	TANGENT
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
T	TRUCKS
VC	VERTICAL CURVE
W	WELL

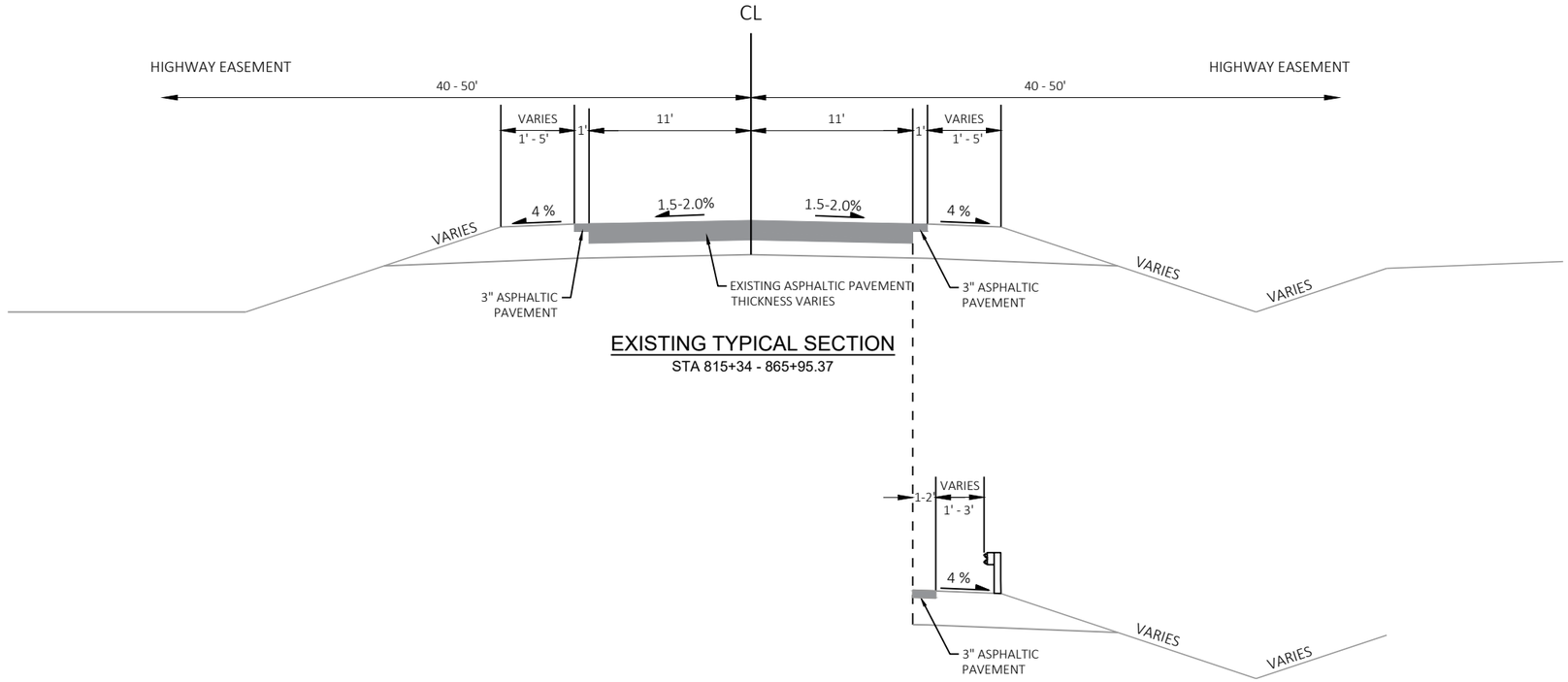


PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	PROJECT OVERVIEW	SHEET 3	E



EXISTING TYPICAL SECTION

STA 319+30.00 - 673+41



EXISTING TYPICAL SECTION

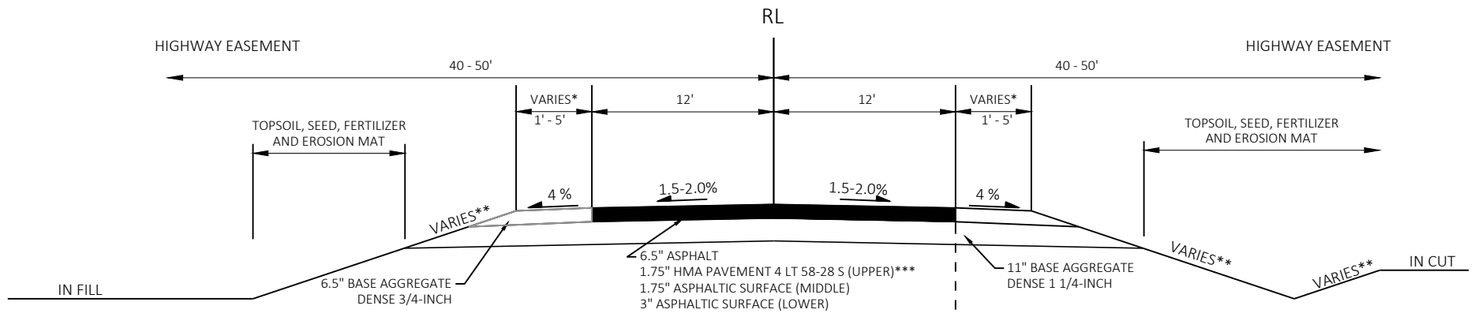
STA 815+34 - 865+95.37

EXISTING BEAM GUARD RUN

STA 864+85 - 865+95 RT

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	TYPICAL SECTIONS	SHEET 4	E

2



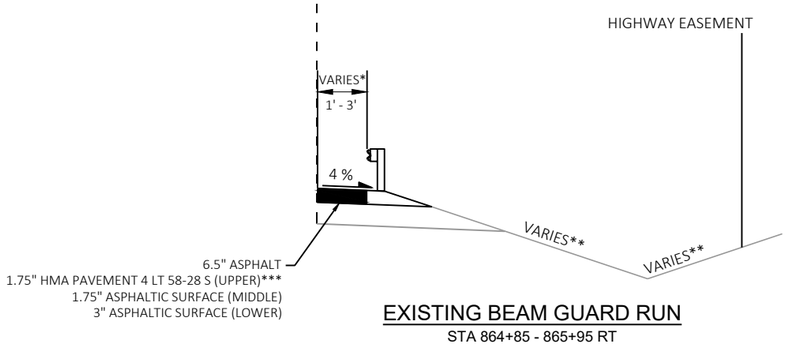
PROPOSED TYPICAL SECTION (PATCHES)

STA 319+30.00 - 320+40
STA 347+13 - 348+23
STA 381+66 - 382+76
STA 389+30 - 390+41
STA 403+74 - 404+84
STA 620+39 - 621+49
STA 654+92 - 656+02
STA 672+31 - 673+41
STA 815+34 - 816+44
STA 819+99 - 821+09
STA 828+89 - 830+06
STA 833+01 - 834+11
STA 853+51 - 854+61
STA 863+75 - 865+95.37

*MATCH EXISTING WIDTH

** MATCH EXISTING SLOPES

***HMA PAVEMENT UPPER LAYER CONSTRUCTED WITH MAINLINE PAVING OPERATION UNDER SEPARATE ID WITHIN THIS CONTRACT



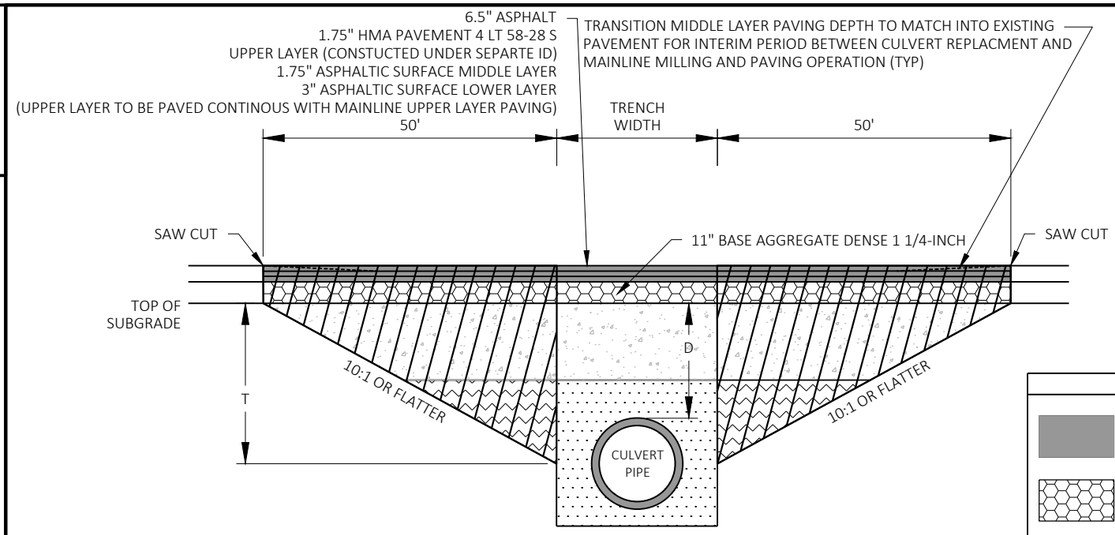
EXISTING BEAM GUARD RUN

STA 864+85 - 865+95 RT

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\DESIGN\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02-10ft

PLOT DATE : 12/18/2025 7:12 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT

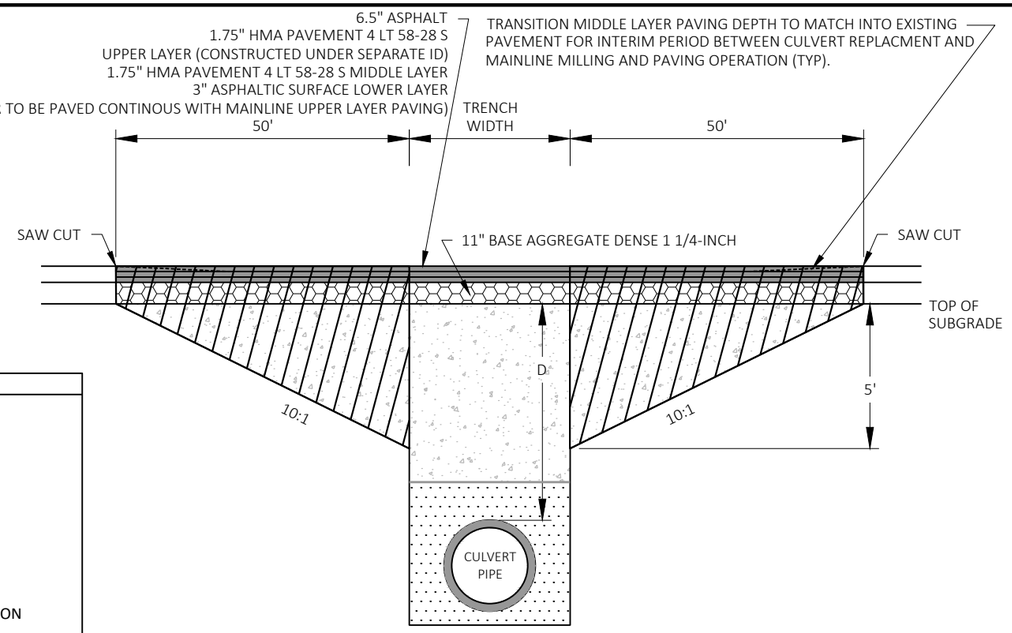


DEPTH D < 6 FT

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.

KEY

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT



DEPTH D ≥ 6 FT

2

NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.

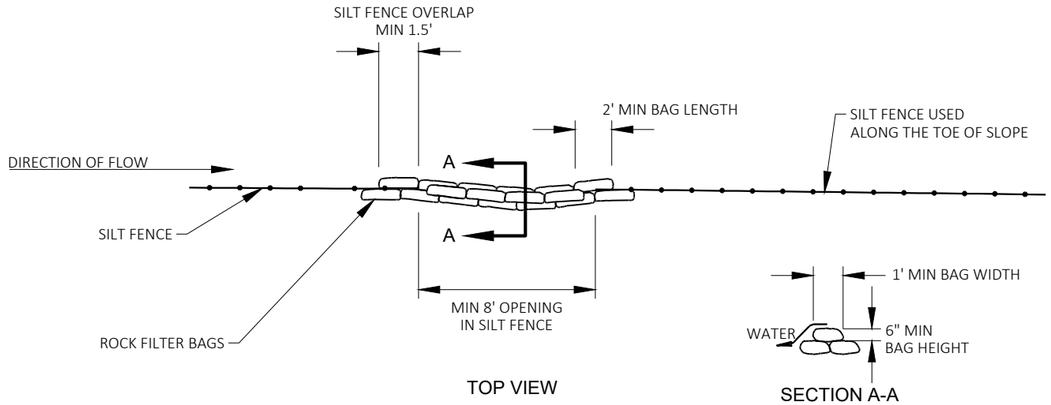
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.

BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.

CULVERT PIPE TRANSITION

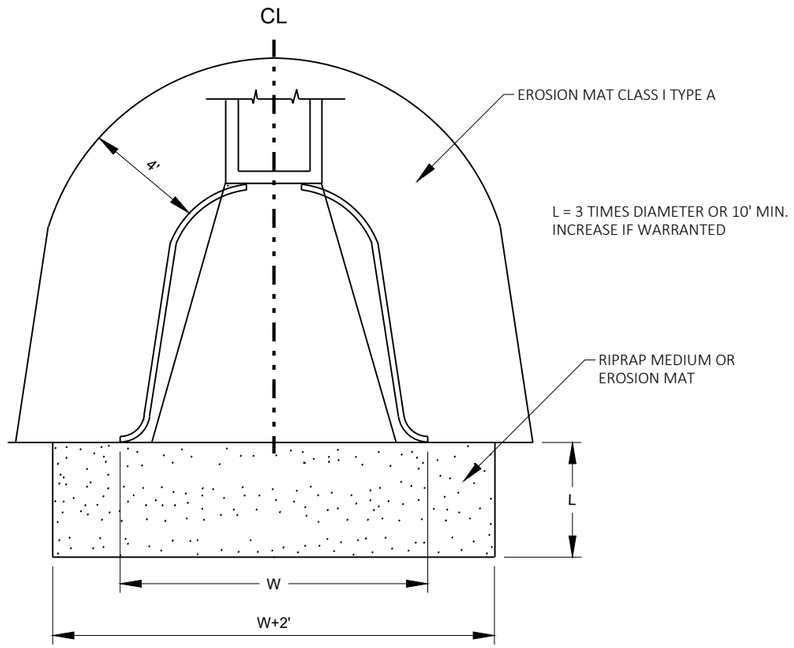
ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)
STH 47	319+85	4.70	36
STH 47	347+68	0.00	19X30
STH 47	382+21	3.83	30
STH 47	389+86	2.96	30
STH 47	404+29	3.26	42
STH 47	620+96	6.45	34x53
STH 47	655+50	1.42	30
STH 47	672+88	4.15	30
STH 47	815+92	2.00	24
STH 47	820+57	0.00	19X30
STH 47	829+44	0.48	36
STH 47	833+59	0.98	24
STH 47	854+09	2.26	24
STH 47	865+44	0.00	30 - REMOVAL ONLY

2

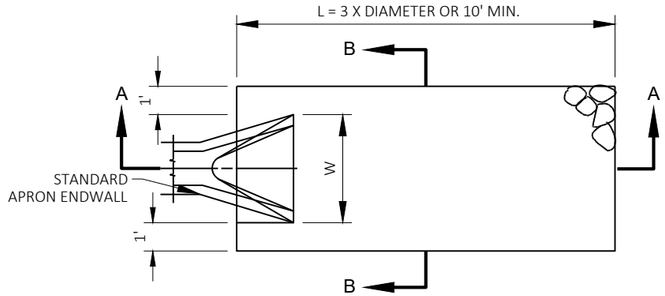


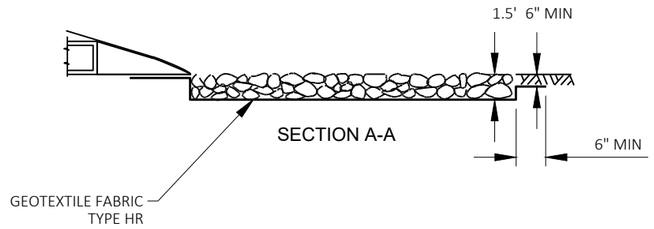
ROCK BAGS USED FOR SILT FENCE RELIEF

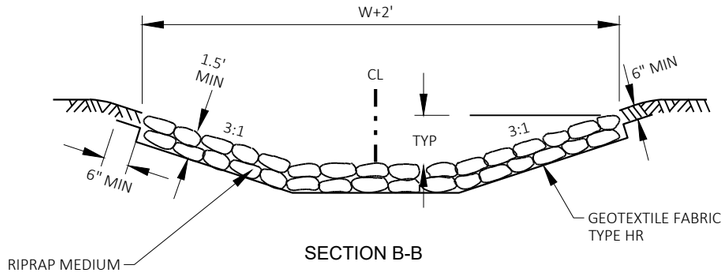
PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	CONSTRUCTION DETAILS	SHEET 7	E



EROSION CONTROL AT PIPE ENDS

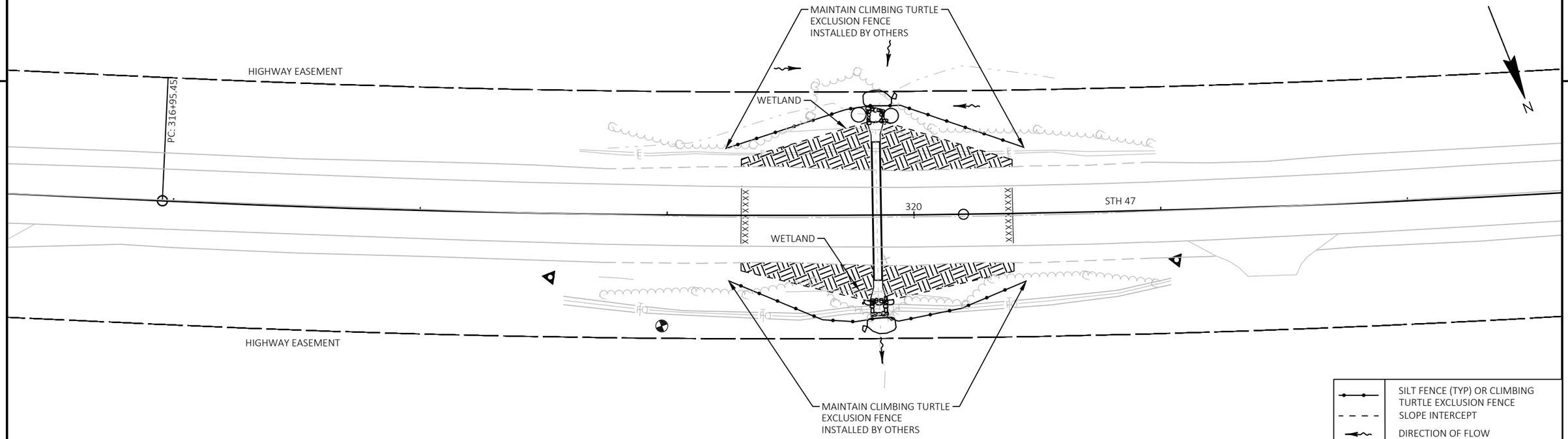




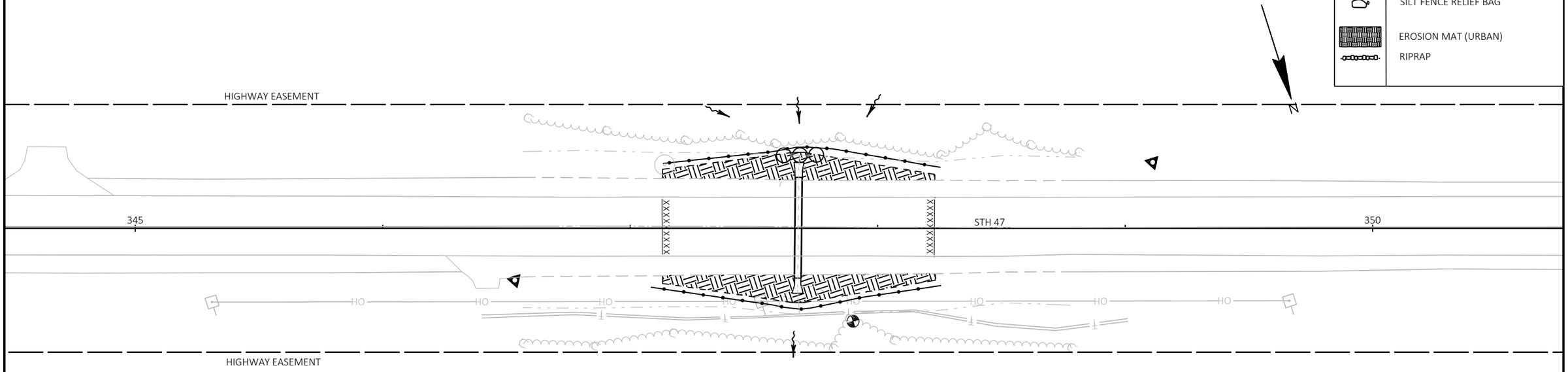


RIP RAP AND GEOTEXTILE

2

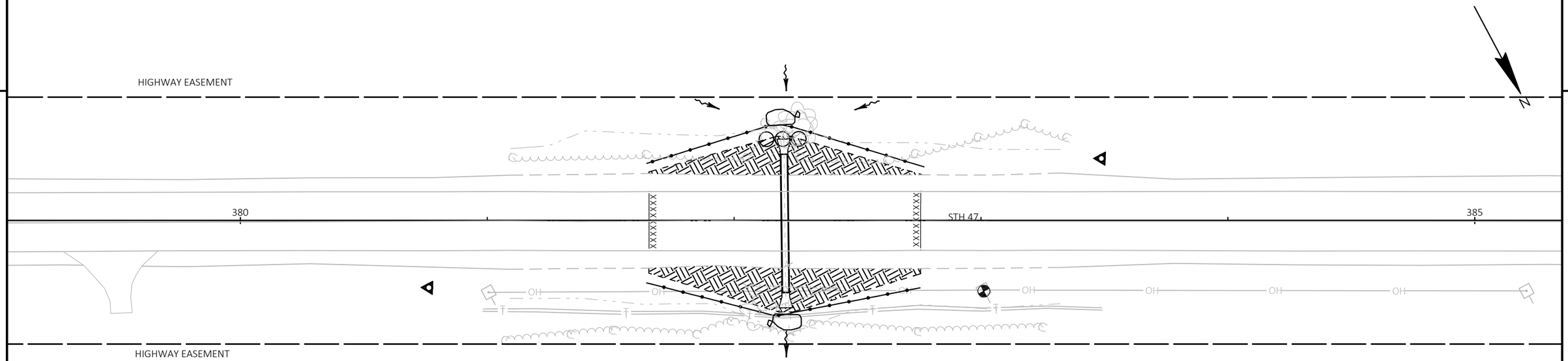


SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
SLOPE INTERCEPT
DIRECTION OF FLOW
CULVERT PIPE CHECKS REQD
SILT FENCE RELIEF BAG
EROSION MAT (URBAN)
RIPRAP

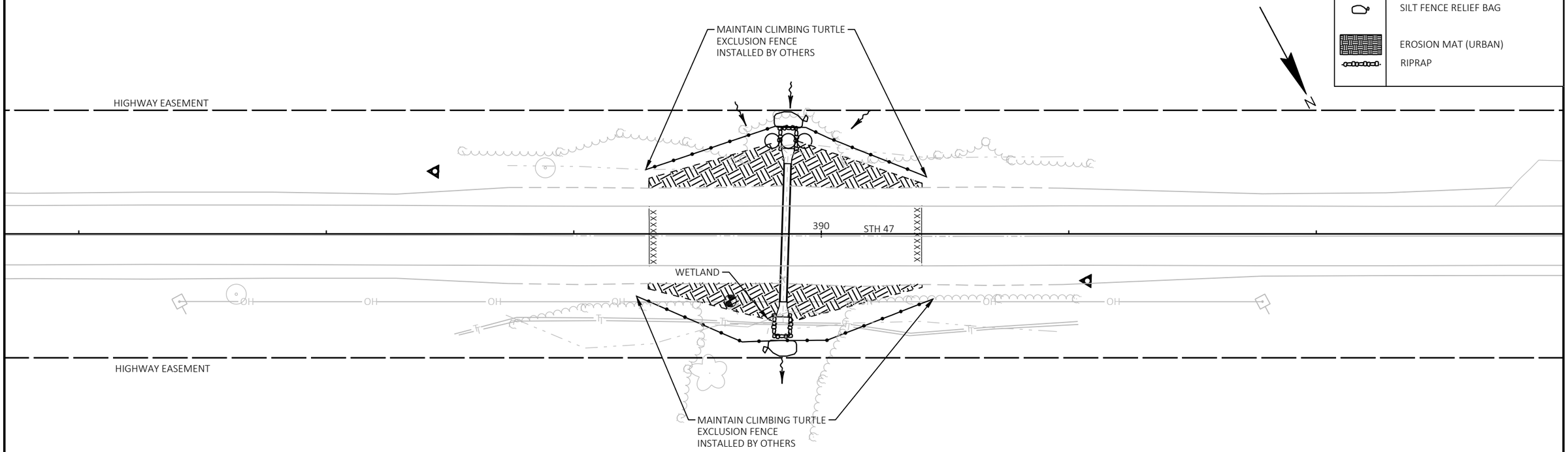


PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL PLAN	SHEET 9	E

2



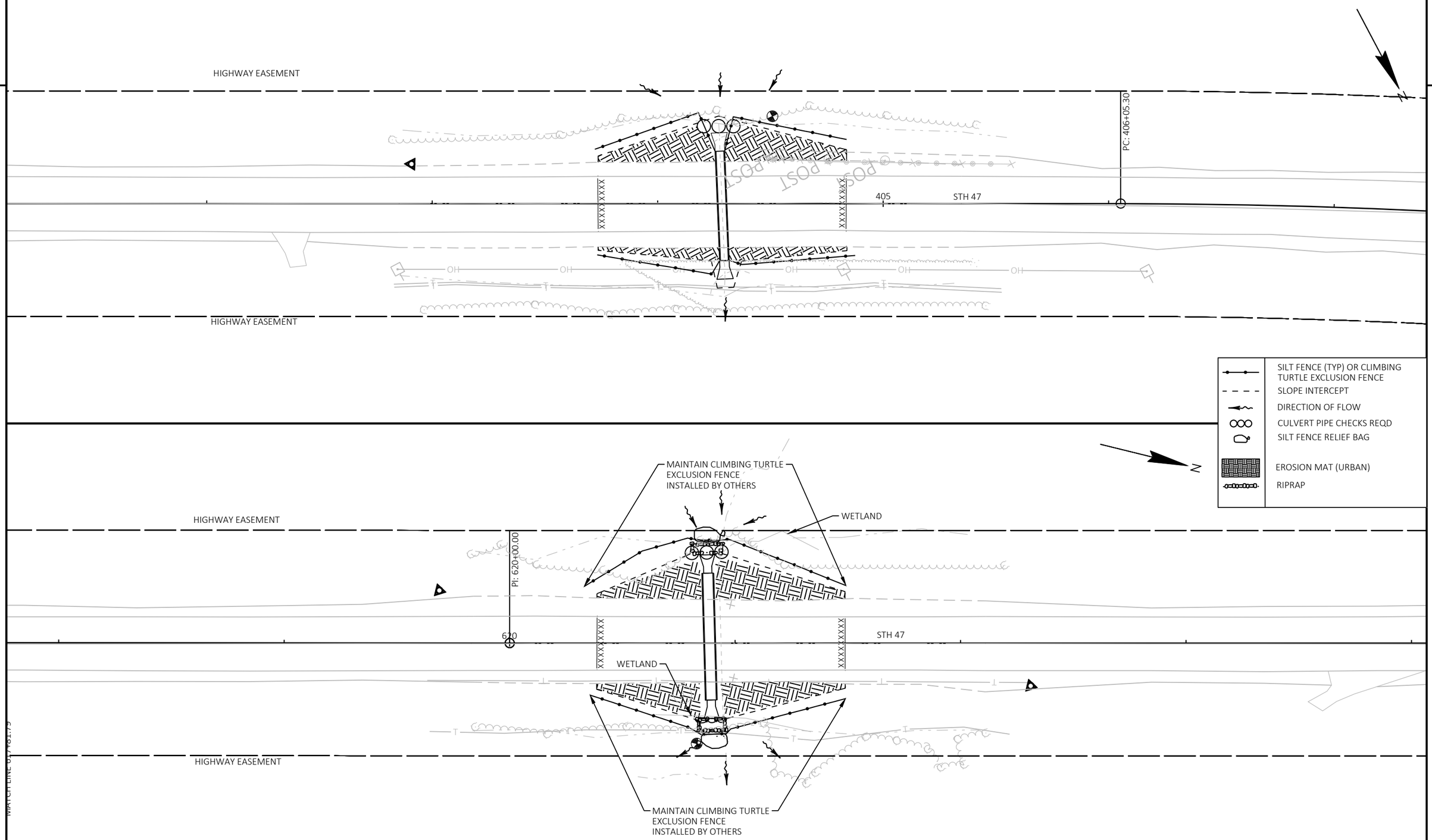
- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT (URBAN)
- RIPRAP



2

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL PLAN	SHEET 10	E

2



PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL PLAN	SHEET 11	E

2

2

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

HIGHWAY EASEMENT

WETLAND

655

STH 47

WETLAND

HIGHWAY EASEMENT

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

MATCH LINE 0624-50-52

N

N

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

HIGHWAY EASEMENT

WETLAND

670

STH 47

675

WETLAND

HIGHWAY EASEMENT

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

MATCH LINE 0624-50-52

SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE

SLOPE INTERCEPT

DIRECTION OF FLOW

CULVERT PIPE CHECKS REQD

SILT FENCE RELIEF BAG

EROSION MAT (URBAN)

RIPRAP

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL PLAN	SHEET 12	E

2

2

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

N

HIGHWAY EASEMENT

PT: 812+93.22

PI: 817+00.00

WETLAND

815

STH 47

WETLAND

HIGHWAY EASEMENT

MATCH LINE 811+94.59

TEMPORARY SAND BAG DAM FOR CULVERT INSTALLATION

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE

SLOPE INTERCEPT

DIRECTION OF FLOW

CULVERT PIPE CHECKS REQD

SILT FENCE RELIEF BAG

EROSION MAT (URBAN)

RIPRAP

SAND BAGS

N

HIGHWAY EASEMENT

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

PC: 822+23.67

WETLAND

820

STH 47

HIGHWAY EASEMENT

MATCH LINE 818+52.72

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

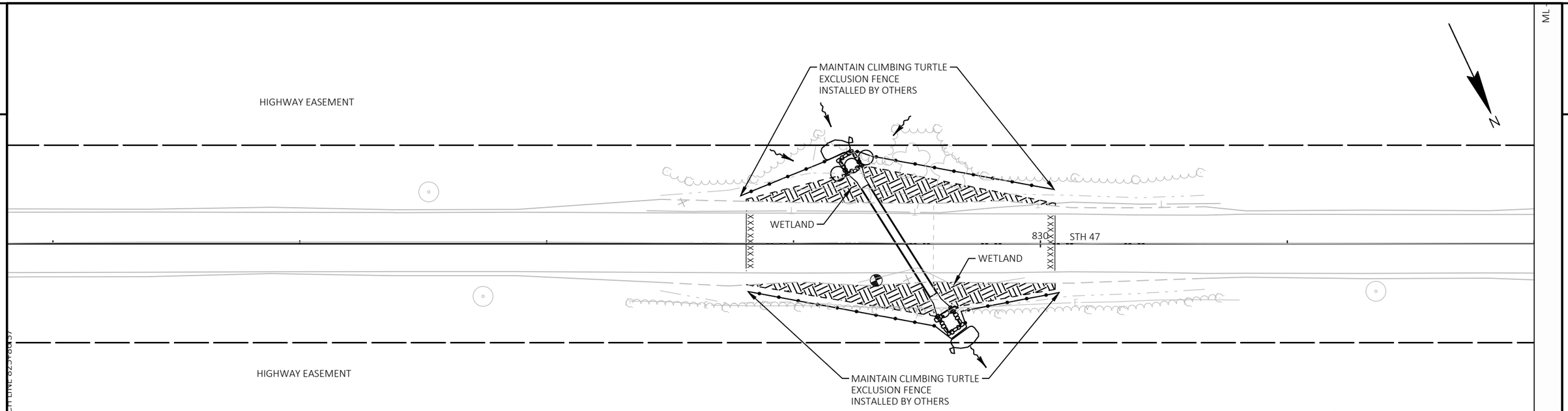
PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL PLAN	SHEET 13	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC (COPY FOR SHEETSET) ACTUAL PLAN (1009-43-39).DWG
LAYOUT NAME - 05

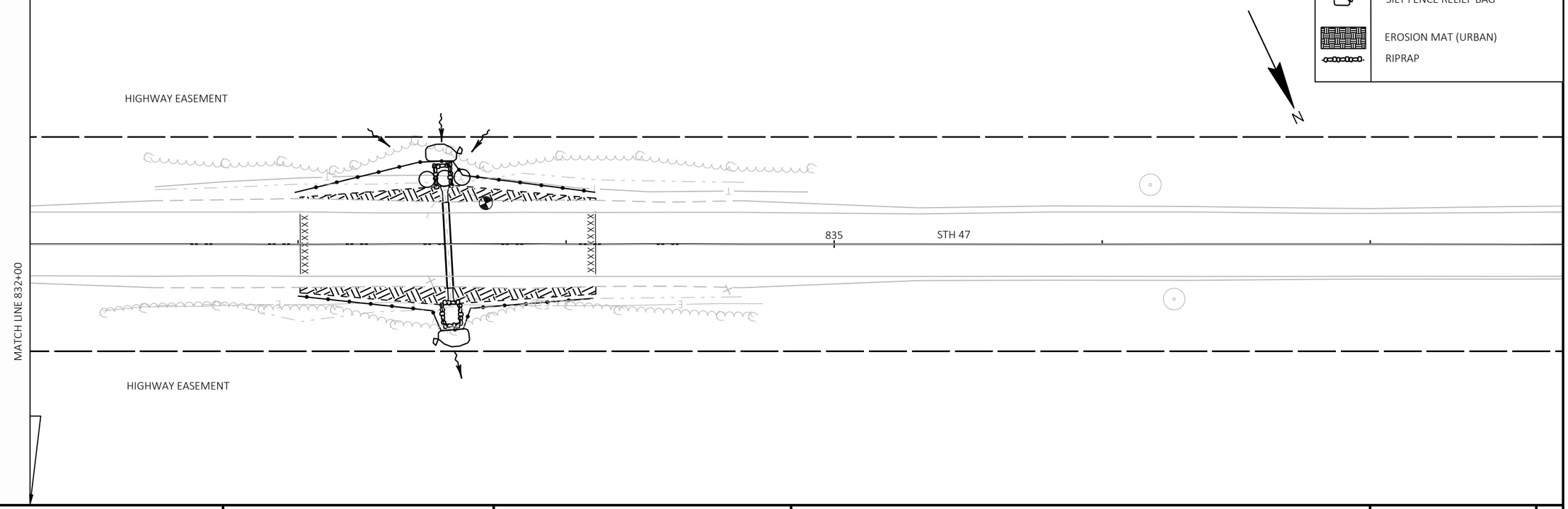
PLOT DATE : 10/22/2025 8:45 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2



SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
SLOPE INTERCEPT
DIRECTION OF FLOW
CULVERT PIPE CHECKS REQD
SILT FENCE RELIEF BAG
EROSION MAT (URBAN)
RIPRAP



PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL PLAN	SHEET 14	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC (COPY FOR SHEETSET) ACTUAL PLAN (1009-43-39).DWG
LAYOUT NAME - 06
PLOT DATE : 10/22/2025 8:46 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

HIGHWAY EASEMENT

N

PI: 855+00.00

855

STH 47

HIGHWAY EASEMENT

MATCH LINE 860+99.02

	SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
	SLOPE INTERCEPT
	DIRECTION OF FLOW
	CULVERT PIPE CHECKS REQD
	SILT FENCE RELIEF BAG
	EROSION MAT (URBAN)
	RIPRAP

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

HIGHWAY EASEMENT

N

PCC: 862+51.77

PI: 864+86.78

PC: 866+80.55

865

STH 47

POST

MATCH LINE 861+30.55

HIGHWAY EASEMENT

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

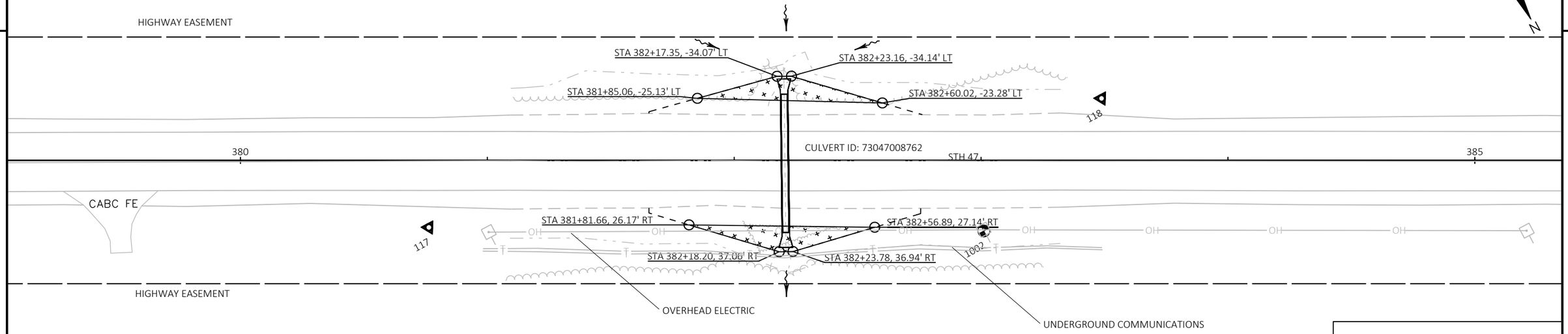
PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL PLAN	SHEET 15	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC (COPY FOR SHEETSET) ACTUAL PLAN (1009-43-39).DWG
LAYOUT NAME - 07

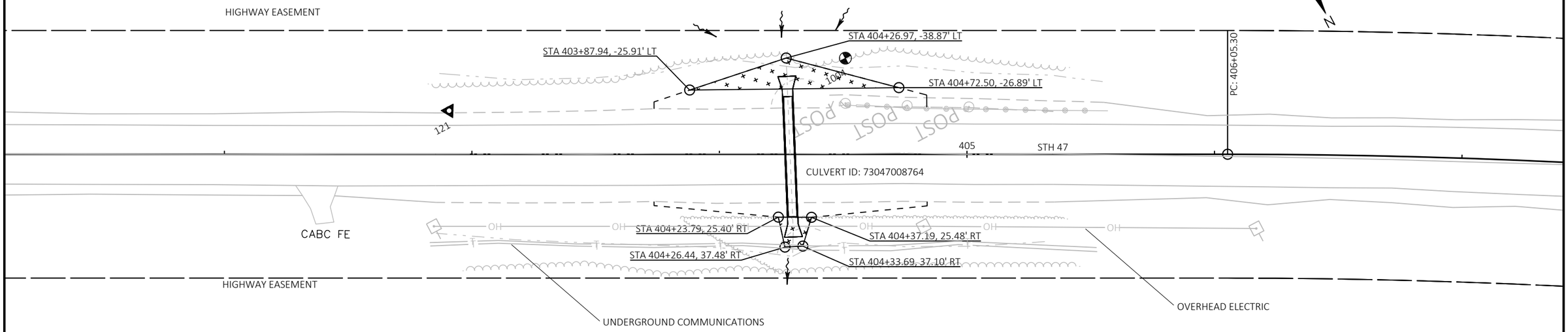
PLOT DATE : 10/22/2025 8:47 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

NOTE: SLOPE INTERCEPTS ARE APPROXIMATE, CLEARING LIMITS ARE EXACT.



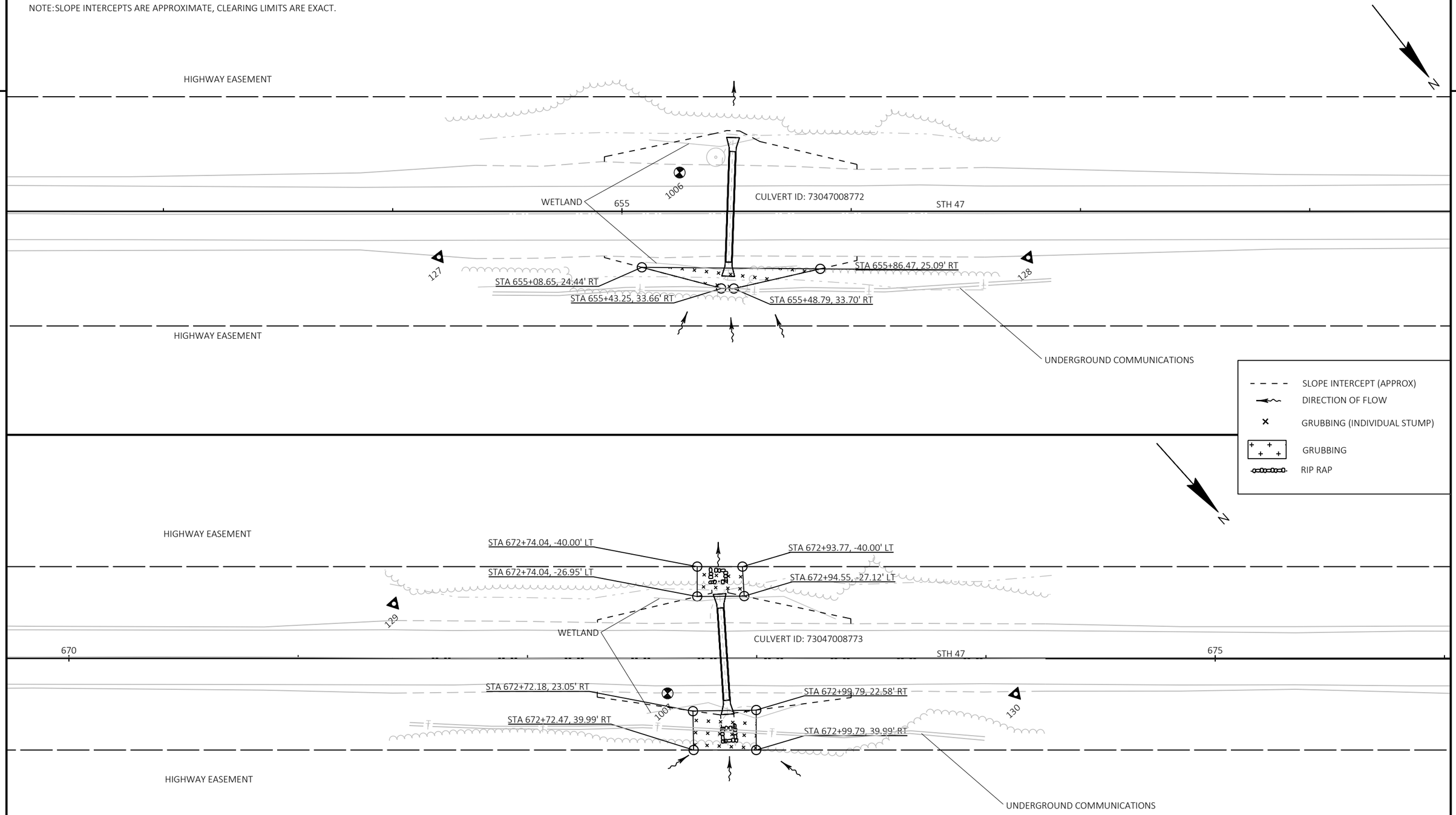
- SLOPE INTERCEPT (APPROX)
- DIRECTION OF FLOW
- GRUBBING (INDIVIDUAL STUMP)
- GRUBBING
- RIP RAP



PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	STUMP GRUBBING	SHEET 16	E

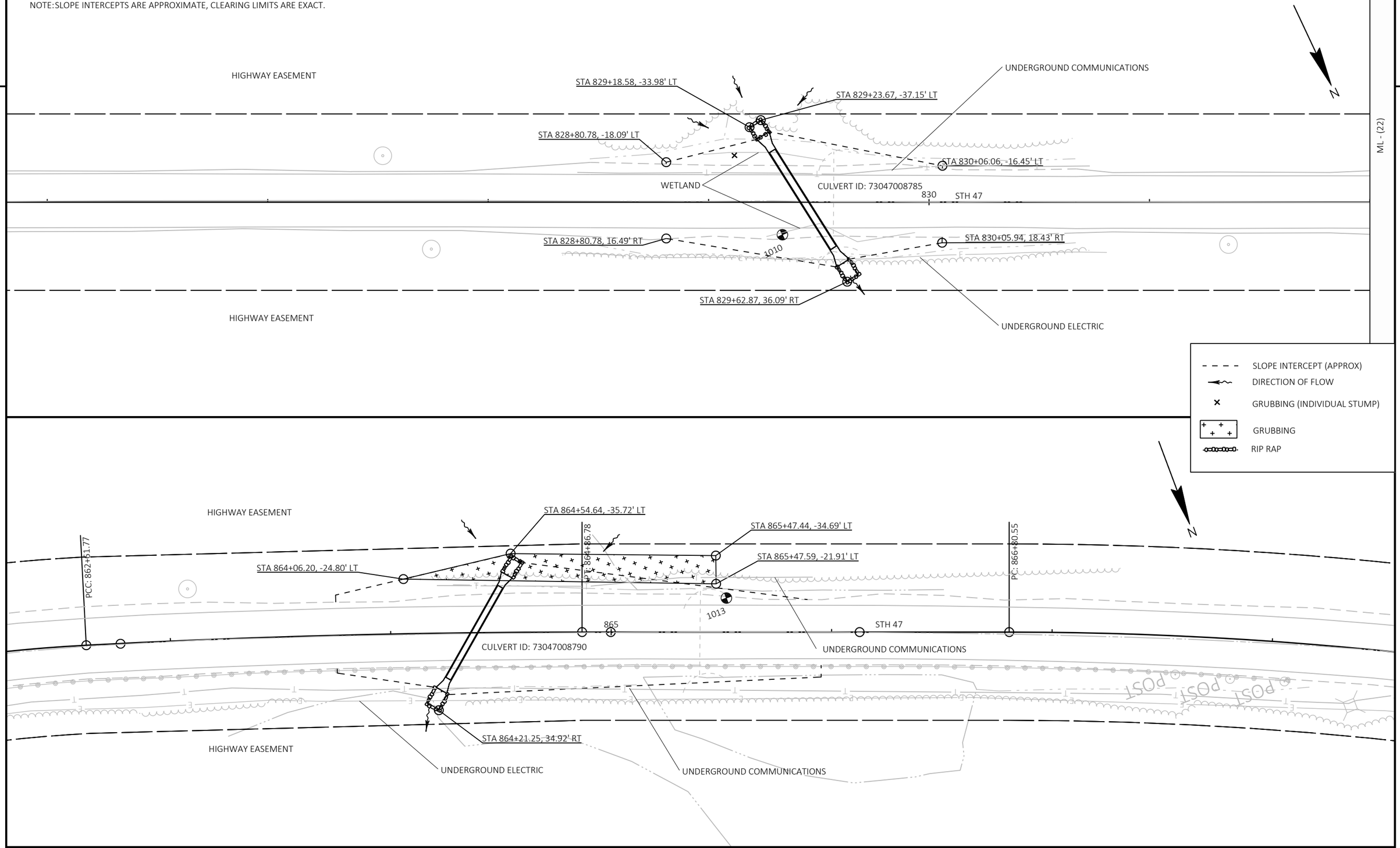
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\DESIGN\C3D\SHEETSPLAN\021002-GRUBBING.DWG
LAYOUT NAME - 02
PLOT DATE : 8/7/2024 10:32 AM PLOT BY : ANNA QUALLS PLOT NAME : PLOT SCALE : ##########

NOTE: SLOPE INTERCEPTS ARE APPROXIMATE, CLEARING LIMITS ARE EXACT.

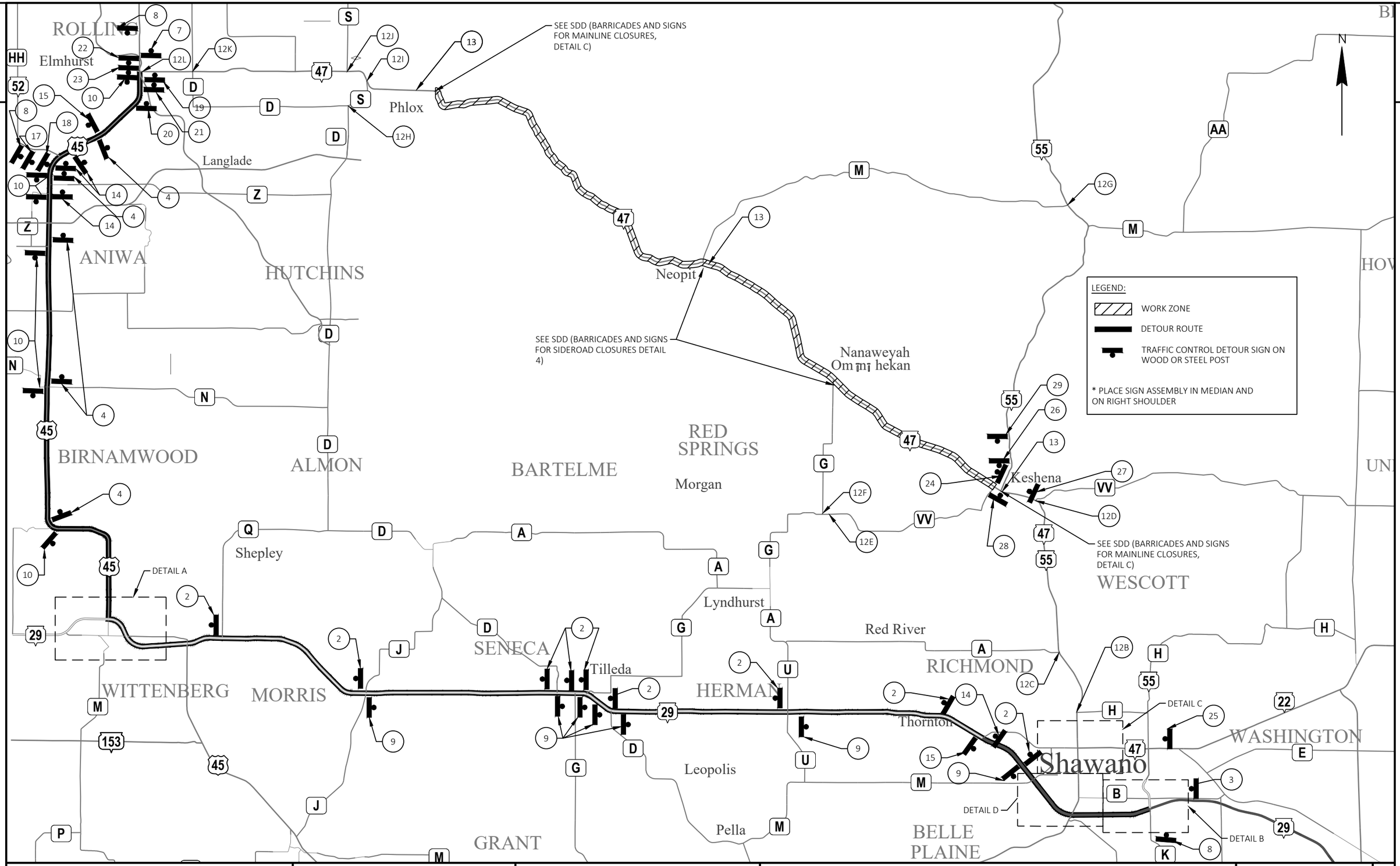


PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	STUMP GRUBBING	SHEET 17	E

NOTE:SLOPE INTERCEPTS ARE APPROXIMATE, CLEARING LIMITS ARE EXACT.



PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	STUMP GRUBBING	SHEET 18	E



PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 19	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (1009-43-39).DWG
LAYOUT NAME - 01
PLOT DATE : 10/22/2025 7:22 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN: 2.5 MI
WISDOT/CADDS SHEET 42



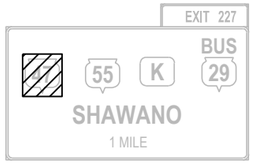
M3-1 36"X18"
M1-6 36"X36"

1



M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"

2



COVER SIGN TYPE I

3



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

4



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

5



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

6



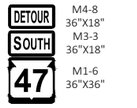
M4-8A 24"X18"

7



M3-3 24"X12"
M1-6 24"X24"

8



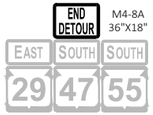
M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"

9



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

10



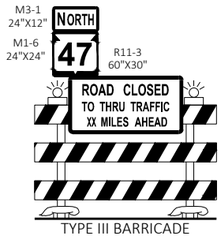
M4-8A 36"X18"

11



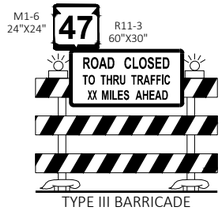
R11-3 60"X30"
TYPE III BARRICADE

12X



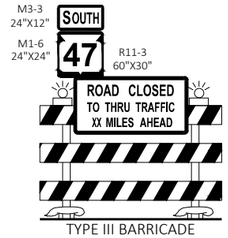
M3-1 24"X12"
M1-6 24"X24"
R11-3 60"X30"
TYPE III BARRICADE

12E



M1-6 24"X24"
R11-3 60"X30"
TYPE III BARRICADE

12F 12G



M3-3 24"X12"
M1-6 24"X24"
R11-3 60"X30"
TYPE III BARRICADE

12H

12X MILEAGES:

12A: 8 1/2 MILES
12B: 7 1/2 MILES
12C: 5 1/2 MILES
12D: 1 MILES
12E: 5 3/4 MILES
12F: 4 MILES
12G: 11 3/4 MILES
12H: 2 MILES
12I: 1 MILES
12J: 1 3/4 MILES
12K: 6 1/4 MILES
12L: 6 3/4 MILES

HWY 47
ROAD CLOSED
BEGINS XX-XX-XX

G20-57C
72"X36"

INSTALL G20-57C SIGNS 7 DAYS PRIOR TO CLOSURE AND REMOVE WHEN CLOSURE BEGINS.

13



M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

14



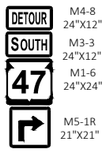
M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

15



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

16



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
M5-1R 21"X21"

17



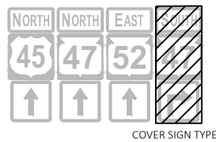
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

18



COVER SIGN TYPE II

19



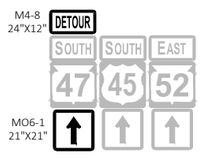
COVER SIGN TYPE II

20



COVER SIGN TYPE II

21



M4-8 24"X12"
MO6-1 21"X21"

22



ARROW PER SIGN
A4-12 9.5"X9.5"

23



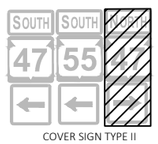
COVER SIGN TYPE II

24



M3-1 24"X12"
M1-6 24"X24"

25



COVER SIGN TYPE II

26



COVER SIGN TYPE II

27

NOTES:

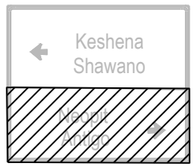
ALL DETOUR AHEAD SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 20	E



COVER SIGN TYPE II

28



COVER SIGN TYPE II

29

NOTES:

ALL DETOUR AHEAD SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

DETAIL A

N

45

29

W GRAND AVE

M4-8 24"X12" / M3-3 24"X12" / M1-6 24"X24" / MO6-1 21"X21" — DETOUR SOUTH 47

M4-8 24"X12" / M3-3 24"X12" / M1-6 24"X24" / MO5-1L 21"X21" — DETOUR SOUTH 47

M4-8 24"X12" / M3-3 24"X12" / M1-6 24"X24" / MO6-1 21"X21" — DETOUR SOUTH 47

M4-8 24"X12" / M3-1 24"X12" / M1-6 24"X24" — DETOUR NORTH 47

M4-8 24"X12" / M3-1 24"X12" / M1-6 24"X24" / MO6-1 21"X21" — DETOUR NORTH 47

M4-8 24"X12" / M3-1 24"X12" / M1-6 24"X24" / MO5-1R 21"X21" — DETOUR NORTH 47

M4-8 36"x18" / M3-1 36"x18" / M1-6 36"x36" / MO6-2 30"x30" — DETOUR NORTH 47

M4-8 36"x18" / M3-1 36"x18" / M1-6 36"x36" / MO5-2R 30"x30" — DETOUR NORTH 47

M4-8 36"X18" / M3-1 36"X18" / M1-6 36"X36" / MO6-1 30"X30" — DETOUR NORTH 47

M4-8 36"X18" / M3-1 36"x18" / M1-6 36"x36" — DETOUR NORTH 47

M4-8 36"X18" / M3-3 36"x18" / M1-6 36"x36" — DETOUR SOUTH 47

SOUTH EAST 45 29 — M4-8 36"X18" / M3-3 36"x18" / M1-6 36"x36" — DETOUR SOUTH 47

SOUTH EAST 45 29 — M4-8 36"X18" / M3-3 36"x18" / M1-6 36"x36" — DETOUR SOUTH 47

M4-8 36"X18" / M3-3 36"X18" / M1-6 36"X36" / MO6-1 30"X30" — DETOUR SOUTH 47

45

29

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 22	E

DETAIL B

N

2

2

47

B

29

K

EXIT 227
NORTH
55 K
SHAWANO
1 MILE
COVER SIGN TYPE I

DETOUR
SOUTH
47
M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

DETOUR
NORTH
47
M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"

WEST
29

EXIT 227
NORTH
55 K
SHAWANO
COVER SIGN TYPE I

NORTH BUSINESS
55 29

DETOUR
WEST NORTH NORTH BUSINESS
29 47 55 29
M4-8 24"X12"
MO6-1 21"X21"

EAST SOUTH SOUTH
29 47 55

DETOUR
NORTH NORTH BUSINESS
K 47 55 29
M4-8 24"X12"
MO6-1 21"X21"

DETOUR
NORTH NORTH BUSINESS
47 55 29
M4-8 24"X12"
MO6-1 21"X21"

EXIT 227
BUS
55 K 29
COVER
SHAWANO
COVER SIGN TYPE I

DETOUR
NORTH
47
M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

NORTH
47
M3-1 36"X18"
M1-6 36"X36"

DETOUR AHEAD
W20-2A

DETOUR
NORTH
47
M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

DETOUR
WEST NORTH NORTH BUSINESS
29 47 55 29
M4-8 24"X12"
MO5-1L 21"X21"

END DETOUR
M4-8A 36"X18"

EAST SOUTH SOUTH
29 47 55

EAST SOUTH SOUTH
29 47 55

EAST SOUTH SOUTH
29 47 55

NORTH BUSINESS
55 29

NORTH BUSINESS
55 29 K

EXIT 227
NORTH
55 K
SHAWANO
COVER SIGN TYPE I

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 23	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (1009-43-39).DWG
LAYOUT NAME - DETAIL B

PLOT DATE : 10/22/2025 7:25 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : Custom

DETAIL C

2

2

N

47 55

R11-3
60"X30"
ROAD CLOSED
TO THRU TRAFFIC
8 1/2 MILES AHEAD

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO6-1
21"X21"

NORTH
55

NORTH
55

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO5-1L
21"X21"

NORTH
47
M3-1
24"X12"
M1-6
24"X24"

DETOUR
AHEAD
W20-2A

MMM

MM

47 55
22

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"

ANDREWS ST

SAWYER ST

55

22

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO6-1
21"X21"

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO5-1R
21"X21"

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 24	E

DETAIL D

2

2

N

M

29

22

B

CC

DETOUR AHEAD W20-2A

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 25	E

1009-43-69

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	8.000	8.000
0004	201.0220	Grubbing	ID	7.000	7.000
0006	203.0100	Removing Small Pipe Culverts	EACH	14.000	14.000
0018	205.0100	Excavation Common	CY	7,227.000	7,227.000
0030	213.0100	Finishing Roadway (project) 01. 1009-43-69	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	565.000	565.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,125.000	4,125.000
0046	455.0605	Tack Coat	GAL	320.000	320.000
0060	465.0105	Asphaltic Surface	TON	1,185.000	1,185.000
0072	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000
0074	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	6.000	6.000
0076	520.1036	Apron Endwalls for Culvert Pipe 36-Inch	EACH	2.000	2.000
0078	520.3624	Culvert Pipe Class III-B Non-metal 24-Inch	LF	80.000	80.000
0080	520.3630	Culvert Pipe Class III-B Non-metal 30-Inch	LF	152.000	152.000
0082	520.3636	Culvert Pipe Class III-B Non-metal 36-Inch	LF	56.000	56.000
0090	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	48.000	48.000
0092	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	32.000	32.000
0094	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	96.000	96.000
0096	522.0436	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	52.000	52.000
0102	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0104	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	4.000	4.000
0106	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0108	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	2.000	2.000
0112	522.2334	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	LF	56.000	56.000
0118	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	80.000	80.000
0120	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	4.000	4.000
0122	522.2634	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	EACH	2.000	2.000
0134	606.0200	Riprap Medium	CY	47.000	47.000
0150	614.0950	Replacing Guardrail Posts and Blocks	EACH	42.000	42.000
0156	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1009-43-69	EACH	1.000	1.000
0164	619.1000	Mobilization	EACH	0.050	0.050
0166	624.0100	Water	MGAL	115.000	115.000
0168	625.0100	Topsoil	SY	7,805.000	7,805.000
0170	628.1504	Silt Fence	LF	1,350.000	1,350.000
0172	628.1520	Silt Fence Maintenance	LF	2,700.000	2,700.000
0174	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0176	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0178	628.2006	Erosion Mat Urban Class I Type A	SY	7,805.000	7,805.000
0182	628.7555	Culvert Pipe Checks	EACH	77.000	77.000
0184	628.7570	Rock Bags	EACH	120.000	120.000
0186	629.0210	Fertilizer Type B	CWT	6.000	6.000
0190	630.0170	Seeding Mixture No. 70	LB	32.000	32.000
0192	630.0400	Seeding Nurse Crop	LB	62.000	62.000
0194	630.0500	Seed Water	MGAL	175.000	175.000
0196	633.5200	Markers Culvert End	EACH	28.000	28.000
0198	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	3.000	3.000
0204	638.2102	Moving Signs Type II	EACH	3.000	3.000
0210	638.4000	Moving Small Sign Supports	EACH	3.000	3.000
0212	642.5401	Field Office Type D	EACH	0.050	0.050

1009-43-69

Line	Item	Item Description	Unit	Total	Qty
0214	643.0300	Traffic Control Drums	DAY	3,024.000	3,024.000
0216	643.0420	Traffic Control Barricades Type III	DAY	924.000	924.000
0218	643.0705	Traffic Control Warning Lights Type A	DAY	1,624.000	1,624.000
0220	643.0900	Traffic Control Signs	DAY	11,424.000	11,424.000
0222	643.0910	Traffic Control Covering Signs Type I	EACH	4.000	4.000
0224	643.0920	Traffic Control Covering Signs Type II	EACH	19.000	19.000
0226	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0230	643.5000	Traffic Control	EACH	0.050	0.050
0232	645.0120	Geotextile Type HR	SY	210.000	210.000
0234	646.2020	Marking Line Epoxy 6-Inch	LF	6,335.000	6,335.000
0246	650.4500	Construction Staking Subgrade	LF	1,666.000	1,666.000
0248	650.5000	Construction Staking Base	LF	1,666.000	1,666.000
0252	650.6000	Construction Staking Pipe Culverts	EACH	14.000	14.000
0256	650.9911	Construction Staking Supplemental Control (project) 01. 1009-43-69	EACH	1.000	1.000
0264	650.9920	Construction Staking Slope Stakes	LF	1,666.000	1,666.000
0266	690.0150	Sawing Asphalt	LF	680.000	680.000
0272	999.2105.S	Maintaining Climbing Turtle Exclusion Fence	LF	4,890.000	4,890.000
0274	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,100.000	2,100.000
0276	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	4,800.000	4,800.000
0280	SPV.0060	Special 01. Sand Bags	EACH	160.000	160.000
0284	SPV.0090	Special 01. Grading and Shaping Ditch	LF	100.000	100.000
0286	SPV.0090	Special 02. Remove, Salvage, and Reinstall Guardrail	LF	263.000	263.000

GRUBBING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	201.0205 GRUBBING STA	201.0220 GRUBBING ID	REMARKS
0010	381+00	-	383+00	STH 47 RT + LT	2	---	
0010	403+00	-	405+00	STH 47 RT + LT	2	---	
0010	655+00	-	656+00	STH 47 RT	1	---	
0010	672+00	-	673+00	STH 47 LT & RT	1	---	
0010	829+00	-	830+00	STH 47 RT + LT	---	7	
0010	864+00	-	866+00	STH 47 LT	2	---	
				TOTALS	8	7	

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS
0010	319+85	STH 47	1	36" CMCP 66 LF
0010	347+68	STH 47	1	24" CMCP 49 LF
0010	382+21	STH 47	1	30" CMCP 66 LF
0010	389+86	STH 47	1	30" CMCP 63 LF
0010	404+29	STH 47	1	42" CMCP 31 LF
0010	620+96	STH 47	1	36" CMCP 69 LF
0010	655+50	STH 47	1	30" CMCP 59 LF
0010	672+88	STH 47	1	30" CMCP 52 LF
0010	815+92	STH 47	1	24" CMCP 57 LF
0010	820+57	STH 47	1	18" CMCP 49 LF
0010	829+59	STH 47	1	32" CMCP 45 LF
0010	833+59	STH 47	1	18" CMCP 40 LF
0010	854+09	STH 47	1	18" CMCP 41 LF
0010	865+40	STH 47	1	30" CMCP 38 LF
		TOTAL:	14	

EARTHWORK

DIVISION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	COMMENT
CULVERT PIPE TRANSITION AT STA. 319+85	793	0	7	786	599	749	37	37	
CULVERT PIPE TRANSITION AT STA. 347+68	274	0	5	269	80	100	169	169	
CULVERT PIPE TRANSITION AT STA. 382+21	686	0	7	679	492	615	64	64	
CULVERT PIPE TRANSITION AT STA. 389+86	609	0	7	602	413	516	86	86	
CULVERT PIPE TRANSITION AT STA. 404+29	638	0	8	630	442	553	78	78	
CULVERT PIPE TRANSITION AT STA. 620+96	480	0	7	473	286	358	116	116	
CULVERT PIPE TRANSITION AT STA. 655+50	472	0	7	465	278	348	118	118	
CULVERT PIPE TRANSITION AT STA. 672+88	633	0	7	626	439	549	77	77	
CULVERT PIPE TRANSITION AT STA. 815+89	465	0	6	459	271	339	120	120	
CULVERT PIPE TRANSITION AT STA. 820+57	238	0	5	233	44	55	178	178	
CULVERT PIPE TRANSITION AT STA. 829+44	514	0	7	507	308	385	122	122	
CULVERT PIPE TRANSITION AT STA. 833+56	336	0	6	330	142	178	153	153	
CULVERT PIPE TRANSITION AT STA. 854+06	419	0	6	413	225	281	132	132	
CULVERT PIPE TRANSITION AT STA. 864+38	670	0	7	663	282	353	311	311	
GRAND TOTAL	7,227	0	92	7,135	4,301	5,376	1,759	1,759	
TOTAL COMMON EXC	7,227								

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25X
(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.

BASE AGGREGATE DENSE

CATEGORY	STA		STA	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	319+30	-	320+40	STH 47	30	220	6	
0010	347+13	-	348+23	STH 47	30	220	6	
0010	381+66	-	382+76	STH 47	30	220	6	
0010	389+30	-	390+41	STH 47	30	220	6	
0010	403+74	-	404+84	STH 47	30	220	6	
0010	620+39	-	621+49	STH 47	30	220	6	
0010	654+92	-	656+02	STH 47	30	220	6	
0010	672+31	-	673+41	STH 47	30	220	6	
0010	815+34	-	816+44	STH 47	30	220	6	
0010	819+99	-	821+09	STH 47	30	220	6	
0010	828+81	-	830+06	STH 47	30	220	6	
0010	833+01	-	834+11	STH 47	30	220	6	
0010	853+51	-	854+61	STH 47	30	220	6	
0010	863+75	-	865+95	STH 47	60	440	12	
	UNDISTRIBUTED				115	825	25	
				TOTAL:	565	4,125	115	

ASPHALT SUMMARY

CATEGORY	STA		STA	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	319+30	-	320+40	STH 47	21	78	
0010	347+13	-	348+23	STH 47	21	78	
0010	381+66	-	382+76	STH 47	21	78	
0010	389+30	-	390+41	STH 47	21	79	
0010	403+74	-	404+84	STH 47	21	78	
0010	620+39	-	621+49	STH 47	21	78	
0010	654+92	-	656+02	STH 47	21	78	
0010	672+31	-	673+41	STH 47	21	78	
0010	815+34	-	816+44	STH 47	21	78	
0010	819+99	-	821+09	STH 47	21	78	
0010	828+81	-	830+06	STH 47	25	89	
0010	833+01	-	834+11	STH 47	21	79	
0010	853+51	-	854+61	STH 47	21	79	
0010	863+75	-	865+95	STH 47	43	157	
					320	1,185	

CULVERT PIPE SUMMARY

CATEGORY	STATION	LOCATION	520.3624 CULVERT PIPE NON-METAL CLASS III-B 24-INCH LF	520.3630 CULVERT PIPE NON-METAL CLASS III-B 30-INCH LF	520.3636 CULVERT PIPE NON-METAL CLASS III-B 36-INCH LF	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.0436 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	522.2334 CULVERT PIPE REINFORCED CONCRETE CLASS HE-III 34X53-INCH LF	522.2419 CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30-INCH LF	INLET INVERT** STATION	INLET INVERT** OFFSET	INLET INVERT** ELEV.	OUTLET INVERT** STATION	OUTLET INVERT** OFFSET	OUTLET INVERT** ELEV.
0010	319+85	STH 47	---	---	56	---	---	---	---	---	---	319+84.7	29.7' LT	892.51	319+85.3	26.4' RT	891.90
0010	347+68	STH 47	---	---	---	---	---	---	---	---	40	347+68.1	20.6' LT	929.37	347+67.7	20.1' RT	929.00
0010	382+21	STH 47	---	56	---	---	---	---	---	---	---	382+20.2	26.8' LT	941.61	382+20.9	29.2' RT	940.78
0010	389+86	STH 47	---	56	---	---	---	---	---	---	---	389+86.4	28.4' LT	951.94	389+84.7	27.4' RT	949.98
0010	404+29	STH 47	---	---	---	48	---	---	---	---	---	404+27.6	23.3' LT	965.95	404+29.6	25.2' RT	964.53
0010	620+94	STH 47	---	---	---	---	---	---	---	56	---	620+87.9	31.0' LT	986.45	620+89.5	25.2' RT	986.45
0010	655+50	STH 47	---	---	---	---	---	48	---	---	---	655+46.6	22.2' RT	1009.62	655+48.3	26.1' LT	1009.48
0010	672+88	STH 47	---	40	---	---	---	---	---	---	---	672+86.9	18.3' RT	1031.93	672+84.2	21.9' LT	1031.63
0010	815+89	STH 47	48	---	---	---	---	---	---	---	---	815+90.2	25.7' LT	1051.53	815+88.4	22.6' RT	1050.97
0010	820+57	STH 47	---	---	---	---	---	---	---	---	40	820+52.3	18.7' LT	1060.68	820+56.0	21.2' RT	1059.88
0010	829+44	STH 47	---	---	---	---	---	---	52	---	---	829+28.9	23.2' LT	1057.82	829+56.7	20.7' RT	1057.38
0010	833+56	STH 47	---	---	---	---	32	---	---	---	---	833+55.0	15.6' LT	1053.07	833+56.8	16.4' RT	1052.44
0010	854+06	STH 47	32	---	---	---	---	---	---	---	---	854+05.8	16.0' LT	1058.92	854+05.7	16.1' RT	1057.98
0010	864+38	STH 47	---	---	---	---	---	48	---	---	---	864+49.9	20.7' LT	1051.00	864+25.8	20.7' RT	1050.50
		TOTAL:	80	152	56	48	32	96	52	56	80						

**OFFSET AND ELEVATION SHOWN FOR END OF PIPE

APRON END WALLS AND STAKING

CATEGORY	STATION	LOCATION	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.1030 APRON ENDWALLS FOR CULVERT PIPE 30-INCH EACH	520.1036 APRON ENDWALLS FOR CULVERT PIPE 36-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	522.2634 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
0010	319+85	STH 47	---	---	2	---	---	---	---	---	---	2	1
0010	347+68	STH 47	---	---	---	---	---	---	---	2	---	2	1
0010	382+21	STH 47	---	2	---	---	---	---	---	---	---	2	1
0010	389+86	STH 47	---	2	---	---	---	---	---	---	---	2	1
0010	404+29	STH 47	---	---	---	---	---	---	2	---	---	2	1
0010	620+94	STH 47	---	---	---	---	---	---	---	---	2	2	1
0010	655+50	STH 47	---	---	---	---	2	---	---	---	---	2	1
0010	672+88	STH 47	---	2	---	---	---	---	---	---	---	2	1
0010	815+89	STH 47	2	---	---	---	---	---	---	---	---	2	1
0010	820+57	STH 47	---	---	---	---	---	---	---	2	---	2	1
0010	829+44	STH 47	---	---	---	---	---	2	---	---	---	2	1
0010	833+56	STH 47	---	---	---	2	---	---	---	---	---	2	1
0010	854+06	STH 47	2	---	---	---	---	---	---	---	---	2	1
0010	864+38	STH 47	---	---	---	---	2	---	---	---	---	2	1
		TOTAL:	4	6	2	2	4	2	2	4	2	28	14

EROSION CONTROL

CATEGORY	LOCATION	606.02 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA	SPV.0060.01 SAND BAGS EA	628.7555 CULVERT PIPE CHECKS EA	628.7570 ROCK BAGS EA	645.0120 GEOTEXTILE TYPE HR SY	999.2105.S MAINTAINING CLIMBING TURTLE EXCLUSION FENCE LF	REMARKS
0010	CULVERT PIPE AT STA. 319+85	5	---	---			---	7	---	22	520	
0010	CULVERT PIPE AT STA. 347+68	---	260	520			---	5	---	---	---	
0010	CULVERT PIPE AT STA. 382+21		240	480				4				
0010	CULVERT PIPE AT STA. 389+86	5	---	---			---	4	30	22	520	
0010	CULVERT PIPE AT STA. 404+29	---	240	480			---	7	---	---	---	
0010	CULVERT PIPE AT STA. 620+94	7						7		37	540	
0010	CULVERT PIPE AT STA. 655+50	---	---	---			---	5	---	---	500	
0010	CULVERT PIPE AT STA. 672+88	5	---	---	4	3	---	5	---	22	520	
0010	CULVERT PIPE AT STA. 815+89	5					120	3		22	520	
0010	CULVERT PIPE AT STA. 820+57	---	---	---			---	5	---	---	480	
0010	CULVERT PIPE AT STA. 829+44	5	---	---			---	7	---	22	500	
0010	CULVERT PIPE AT STA. 833+56	5	260	520			---	3	---	22	---	
0010	CULVERT PIPE AT STA. 854+06	---	250	500			---	3	---	---	---	
0010	CULVERT PIPE AT STA. 864+38	5	---	---			---	5	---	22	580	
0010	UNDISTRIBUTED	2	100	200			40	7	90	19	210	
	TOTAL:	47	1,350	2,700	4	3	160	77	120	210	4,890	

LANDSCAPING ITEMS

CATEGORY	LOCATION	625.0100 TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0170 SEEDING MIXTURE NO. 70 LB	630.0400 SEEDING NURSE CROP LB	630.0500 SEED WATER MGAL	REMARKS
0010	CULVERT PIPE TRANSITION AT STA. 319+85	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 347+68	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 382+21	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 389+86	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 404+29	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 620+94	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 655+50	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 672+88	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 815+92	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 820+57	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 829+44	555	555	0.35	2	4	12	TRANSITION VARIES
0010	CULVERT PIPE TRANSITION AT STA. 833+59	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 854+09	490	490	0.31	2	4	11	
0010	CULVERT PIPE TRANSITION AT STA. 864+38	980	980	0.62	4	7	22	TRANSITION VARIES
0010	UNDISTRIBUTED	390	390	1.00	2	3	9	
	TOTALS	7,805	7,805	6	32	62	175	

GRADING AND SHAPING DITCH

CATEGORY	STA	TO	STA	LOCATION	SPV.0090.01 LF	REMARKS
0010	654+92	-	656+02	STH 55, LT	100	NORTH & SOUTH OF NEW AEW
				TOTAL:	100	

TRAFFIC CONTROL SUMMARY

CATEGORY	LOCATION	APPROX. SERVICE DAYS	643.0300 DRUMS NO IN SERVICE	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO IN SERVICE	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO IN SERVICE	643.0900 SIGNS DAYS	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	643.1000 FIXED MESSAGE SIGNS SF
0010	MAINLINE DETOUR	28	-	-	18	504	28	784	310	8680	4	15	---
0010	MAINLINE CLOSURE	28	-	-	8	224	16	448	12	336	---	---	---
0010	SIDEROADS	28			2	56	4	112	6	168			---
0010	UNDISTRIBUTED	28	108	3024	5	140	10	280	80	2240	---	4	---
0010	ADVANCED CLOSURE WARNING	7	-	-	---	---	---	---	---	---	---	---	36.00
	TOTAL:			3,024		924		1,624		11,424	4	19	36.00

STEEL PLATE BEAM GUARD

CATEGORY	STATION	TO	STATION	LOCATION	614.0950 REPLACING GUARDRAIL POSTS & BLOCKS EACH	SPV.0090.02 REMOVE, SALVAGE, AND REINSTALL GUARDRAIL LF
0010	404+49	-	404+84	STH 47, RT	6	38
0010	863+75		865+95	STH 47, RT	36	225
				TOTAL:	42	263

PERMANENT SIGNING SUMMARY

CATEGORY	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	UNDISTRIBUTED	3	3	3	
	TOTAL:	3	3	3	

PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	646.2020 MARKING LINE EPOXY 6-INCH (YELLOW) LF	646.2020 MARKING LINE EPOXY 6-INCH (WHITE) LF	646.2020 MARKING LINE EPOXY 6-INCH (DASHED YELLOW) LF	REMARKS
0010	319+30	-	320+40	STH 47	220	220	---	
0010	347+13	-	348+23	STH 47	110	220	25	PASSING ZONE
0010	381+66	-	382+76	STH 47	110	220	25	PASSING ZONE
0010	389+30	-	390+41	STH 47	115	230	25	PASSING ZONE
0010	403+74	-	404+84	STH 47	220	220	---	
0010	620+39	-	621+49	STH 47	220	220	---	
0010	654+92	-	656+02	STH 47	110	220	25	PASSING ZONE
0010	672+31	-	673+41	STH 47	220	220	---	
0010	815+34	-	816+44	STH 47	220	220	---	
0010	819+99	-	821+09	STH 47	220	220	---	
0010	828+81	-	830+06	STH 47	250	250	---	
0010	833+01	-	834+11	STH 47	220	220	---	
0010	853+51	-	854+61	STH 47	220	220	---	
0010	863+75	-	865+95	STH 47	440	440	---	
				SUBTOTAL:	2,895	3,340	100	
				TOTAL:		6,335		

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CONSTRUCTION STAKING SUMMARY

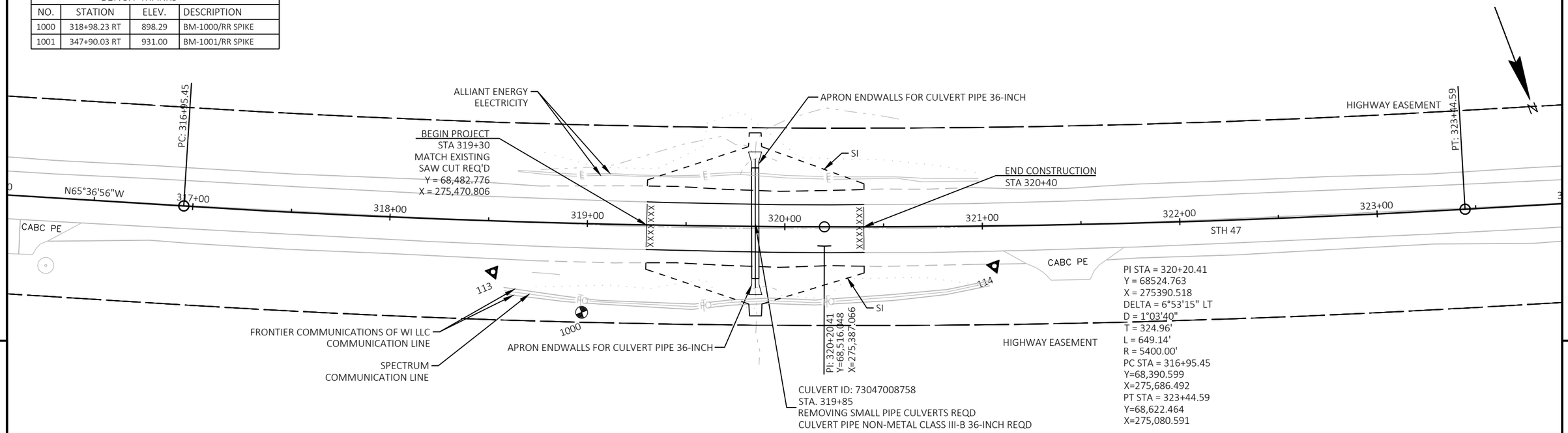
CATEGORY	STA		STA	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF	REMARKS
0010	319+30		320+40	STH 47	110	110	110	
0010	347+13	-	348+23	STH 47	110	110	110	
0010	381+66	-	382+76	STH 47	110	110	110	
0010	389+30		390+41	STH 47	111	111	111	
0010	403+74	-	404+84	STH 47	110	110	110	
0010	620+39	-	621+49	STH 47	110	110	110	
0010	654+92		656+02	STH 47	110	110	110	
0010	672+31	-	673+41	STH 47	110	110	110	
0010	815+34	-	816+44	STH 47	110	110	110	
0010	819+99		821+09	STH 47	110	110	110	
0010	828+81	-	830+06	STH 47	125	125	125	
0010	833+01	-	834+11	STH 47	110	110	110	
0010	853+51	-	854+61	STH 47	110	110	110	
0010	863+75	-	865+95	STH 47	220	220	220	
				TOTAL:	1,666	1,666	1,666	

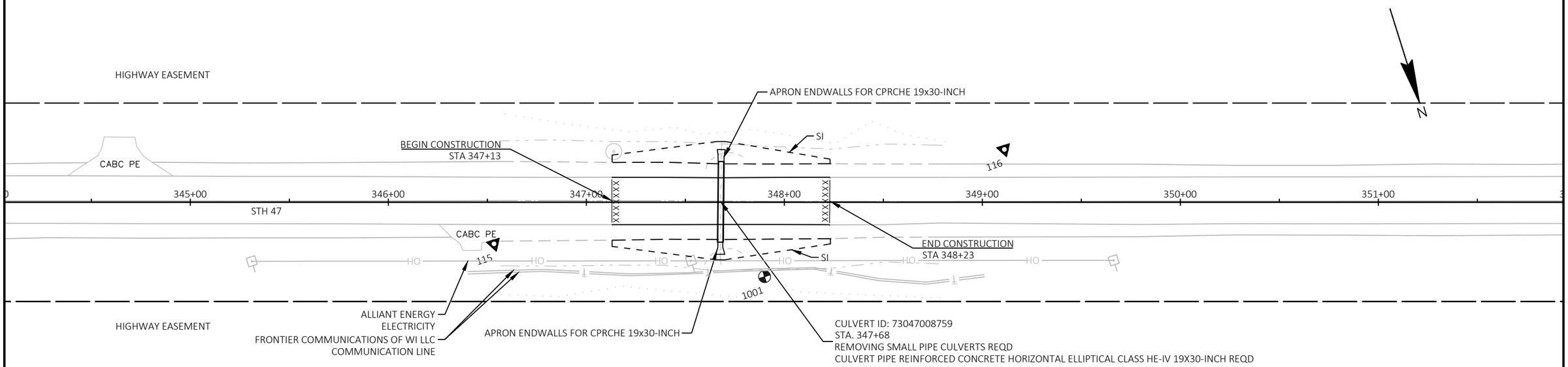
NOTE: CONSTRUCTION STAKING PIPE CULVERTS ITEM SHOWN ELSEWHERE WITH OTHER CULVERT REPLATED ITEMS

SAWING SUMMARY

CATEGORY	STA	LOCATION	690.0150 ASPHALT LF	REMARKS
0010	319+30	STH 47	24	CUT AT END OF CULVERT
0010	320+40	STH 47	24	CUT AT END OF CULVERT
0010	347+13	STH 47	24	CUT AT END OF CULVERT
0010	348+23	STH 47	24	CUT AT END OF CULVERT
0010	381+66	STH 47	24	CUT AT END OF CULVERT
0010	382+76	STH 47	24	CUT AT END OF CULVERT
0010	389+30	STH 47	24	CUT AT END OF CULVERT
0010	390+41	STH 47	24	CUT AT END OF CULVERT
0010	403+74	STH 47	25	CUT AT END OF CULVERT
0010	404+84	STH 47	25	CUT AT END OF CULVERT
0010	620+39	STH 47	24	CUT AT END OF CULVERT
0010	621+49	STH 47	24	CUT AT END OF CULVERT
0010	654+92	STH 47	24	CUT AT END OF CULVERT
0010	656+02	STH 47	24	CUT AT END OF CULVERT
0010	672+31	STH 47	24	CUT AT END OF CULVERT
0010	673+41	STH 47	24	CUT AT END OF CULVERT
0010	815+34	STH 47	25	CUT AT END OF CULVERT
0010	816+44	STH 47	25	CUT AT END OF CULVERT
0010	819+99	STH 47	24	CUT AT END OF CULVERT
0010	821+09	STH 47	24	CUT AT END OF CULVERT
0010	828+81	STH 47	25	CUT AT END OF CULVERT
0010	830+06	STH 47	24	CUT AT END OF CULVERT
0010	833+01	STH 47	24	CUT AT END OF CULVERT
0010	834+11	STH 47	24	CUT AT END OF CULVERT
0010	853+51	STH 47	25	CUT AT END OF CULVERT
0010	854+61	STH 47	24	CUT AT END OF CULVERT
0010	863+75	STH 47	25	CUT AT END OF CULVERT
0010	865+95	STH 47	25	CUT AT END OF CULVERT
		TOTAL:	680	

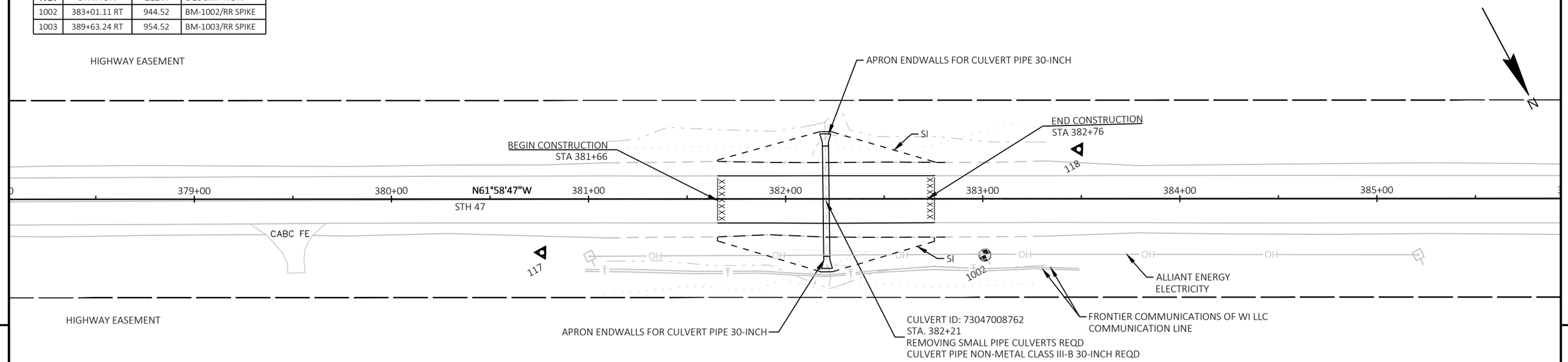
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1000	318+98.23 RT	898.29	BM-1000/RR SPIKE
1001	347+90.03 RT	931.00	BM-1001/RR SPIKE

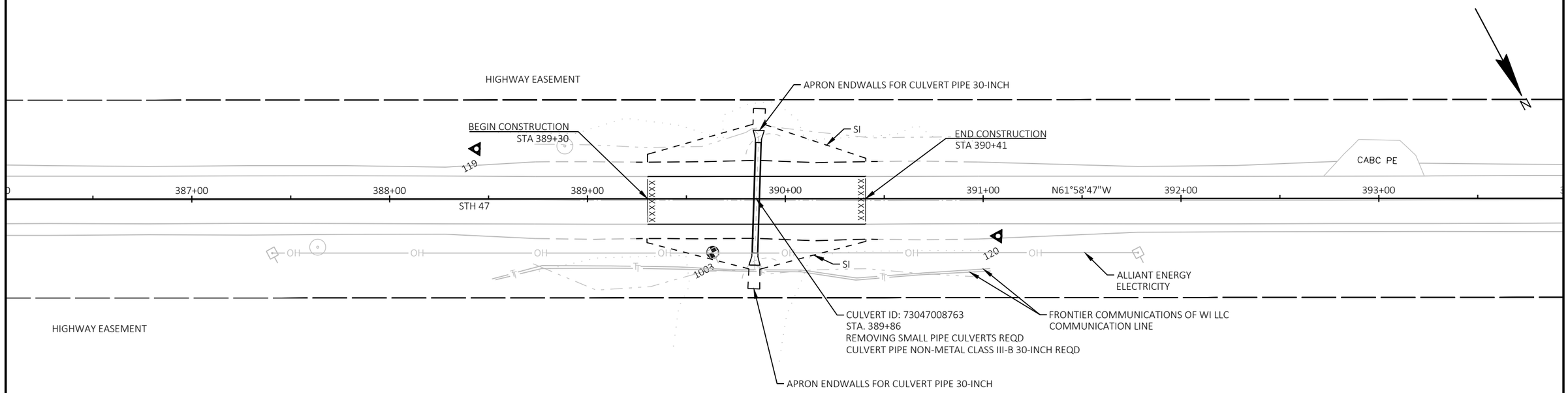




PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 34	E

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1002	383+01.11 RT	944.52	BM-1002/RR SPIKE
1003	389+63.24 RT	954.52	BM-1003/RR SPIKE





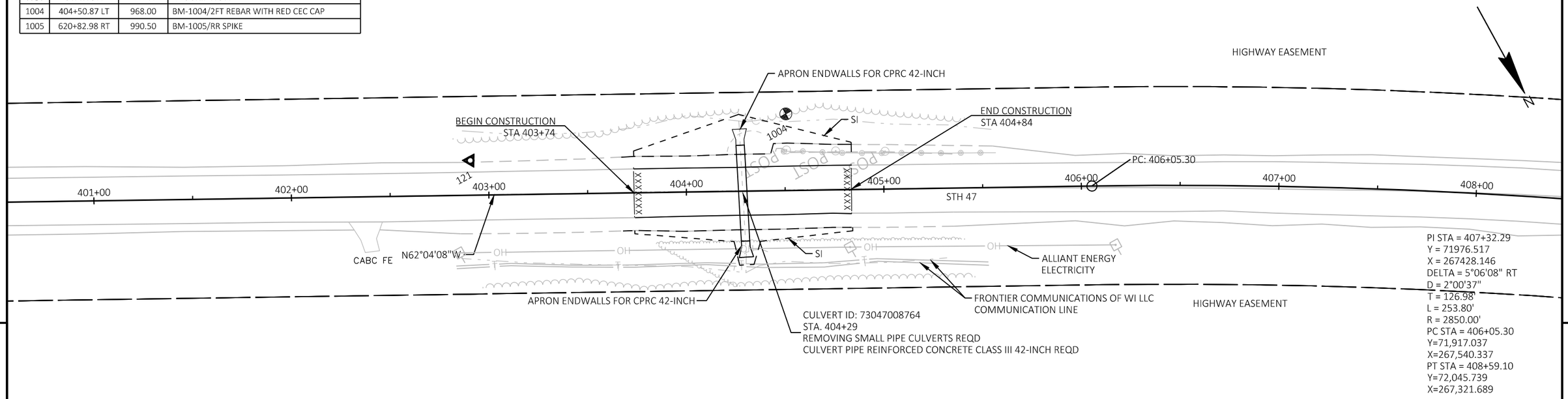
PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 35	E

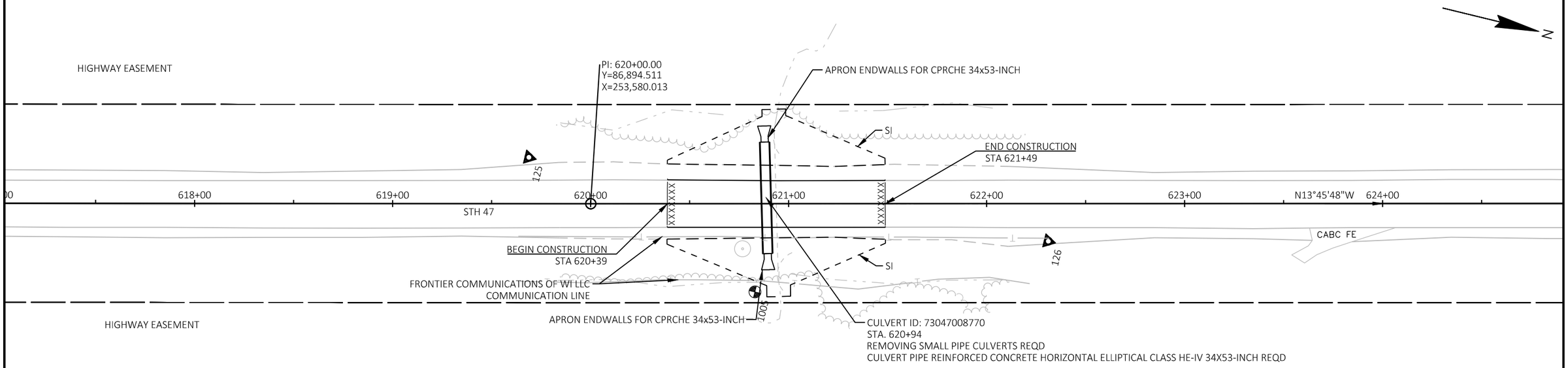
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02

PLOT DATE : 12/3/2025 9:20 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

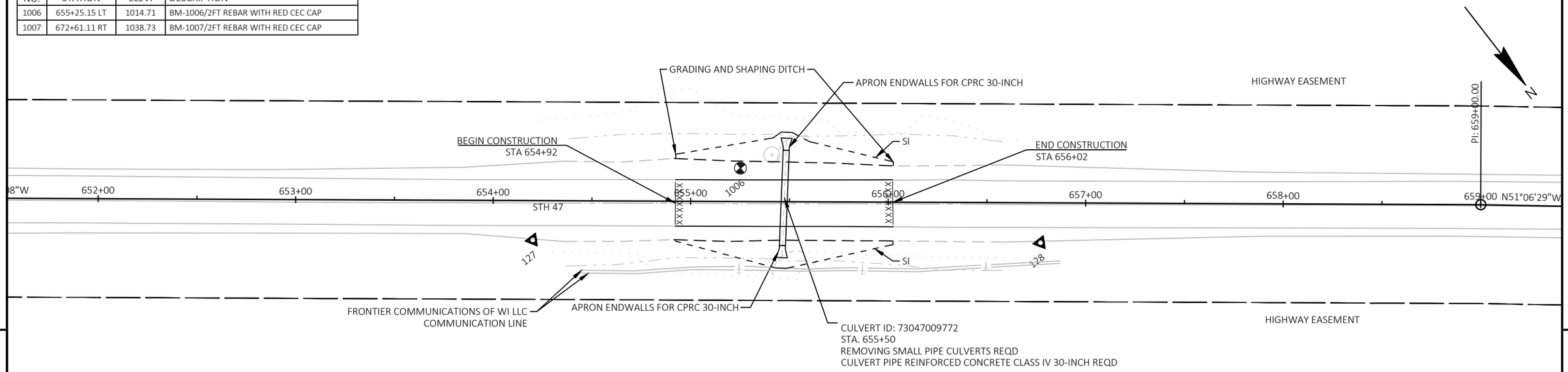
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1004	404+50.87 LT	968.00	BM-1004/2FT REBAR WITH RED CEC CAP
1005	620+82.98 RT	990.50	BM-1005/RR SPIKE

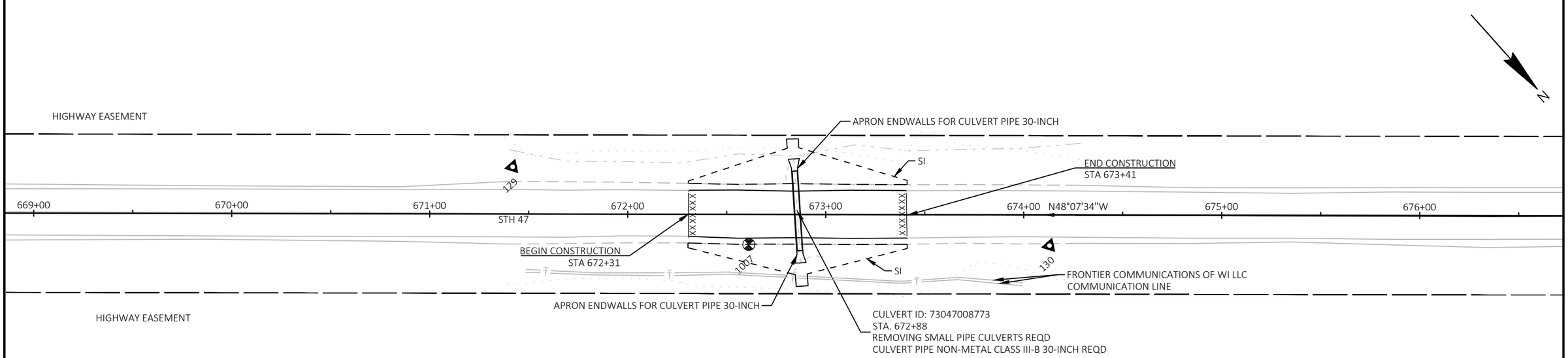




PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 36	E

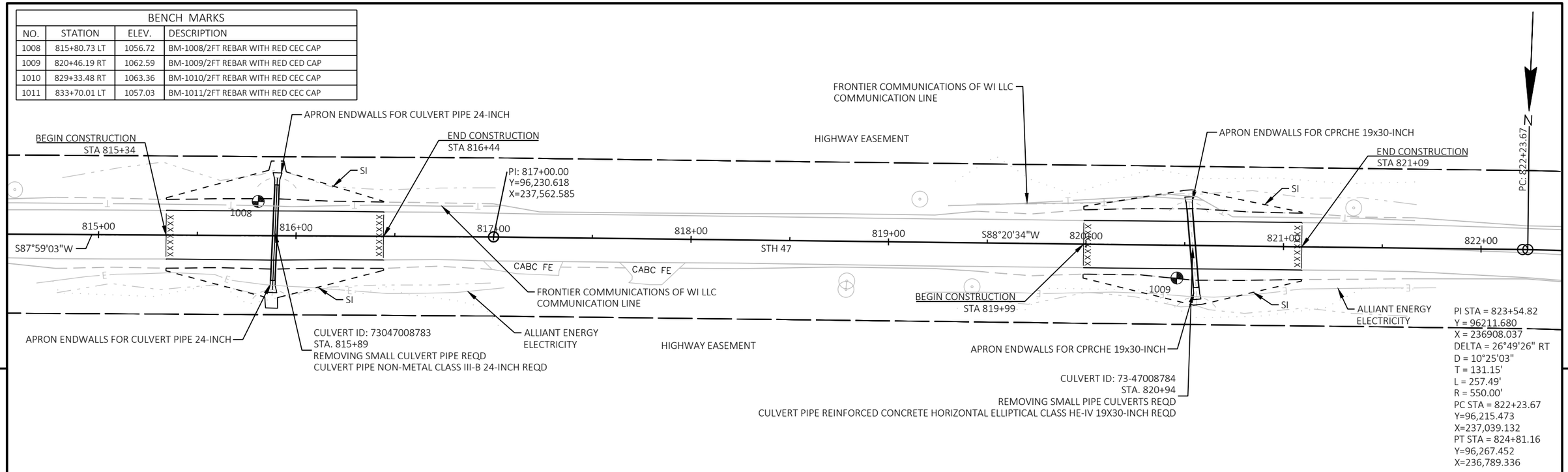
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1006	655+25.15 LT	1014.71	BM-1006/2FT REBAR WITH RED CEC CAP
1007	672+61.11 RT	1038.73	BM-1007/2FT REBAR WITH RED CEC CAP

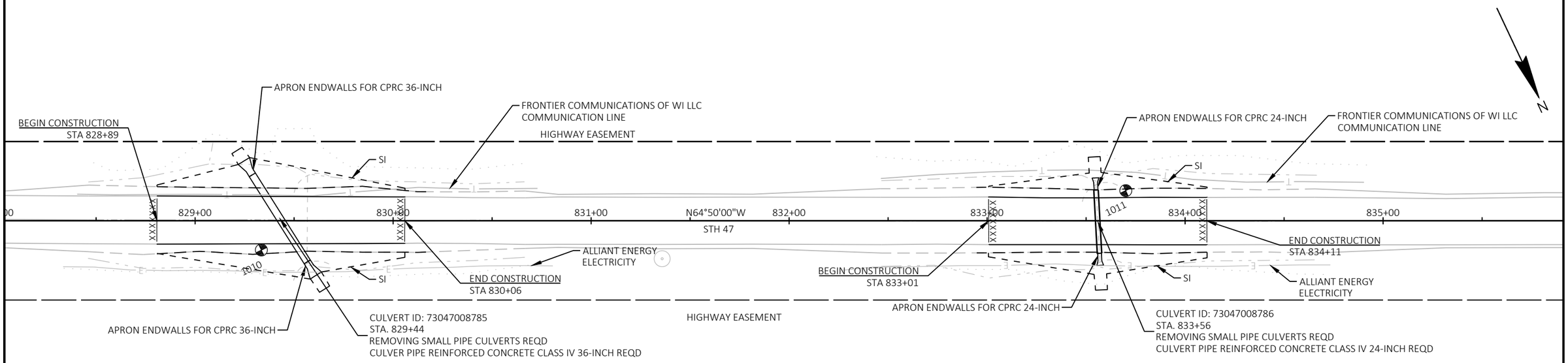




PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 37	E

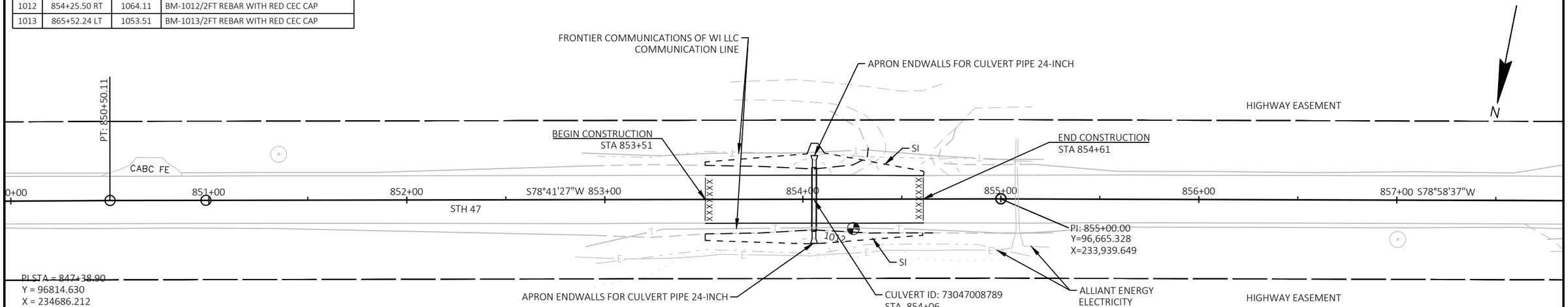
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1008	815+80.73 LT	1056.72	BM-1008/2FT REBAR WITH RED CEC CAP
1009	820+46.19 RT	1062.59	BM-1009/2FT REBAR WITH RED CED CAP
1010	829+33.48 RT	1063.36	BM-1010/2FT REBAR WITH RED CEC CAP
1011	833+70.01 LT	1057.03	BM-1011/2FT REBAR WITH RED CEC CAP

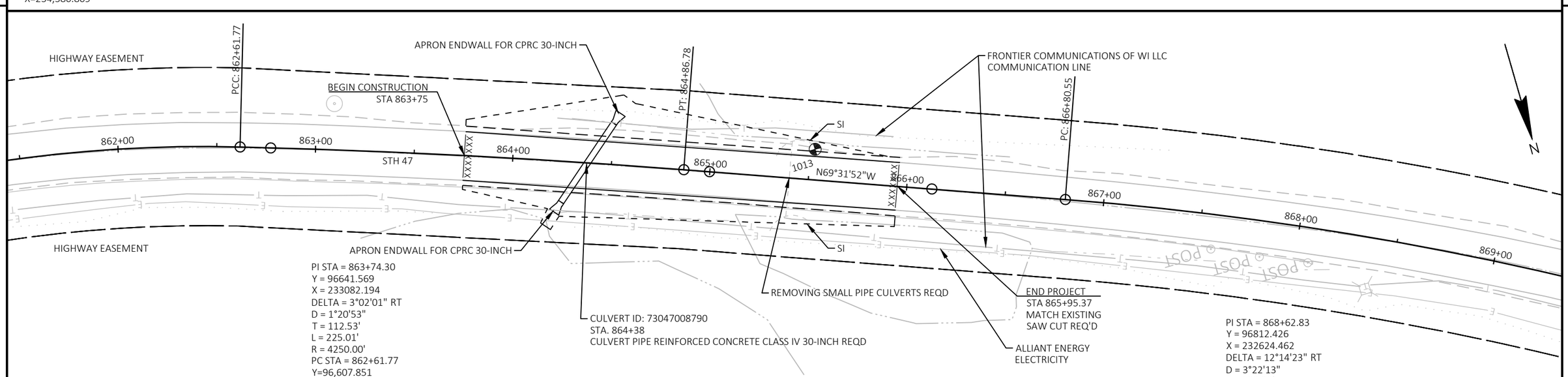




PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 38	E

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1012	854+25.50 RT	1064.11	BM-1012/2FT REBAR WITH RED CEC CAP
1013	865+52.24 LT	1053.51	BM-1013/2FT REBAR WITH RED CEC CAP





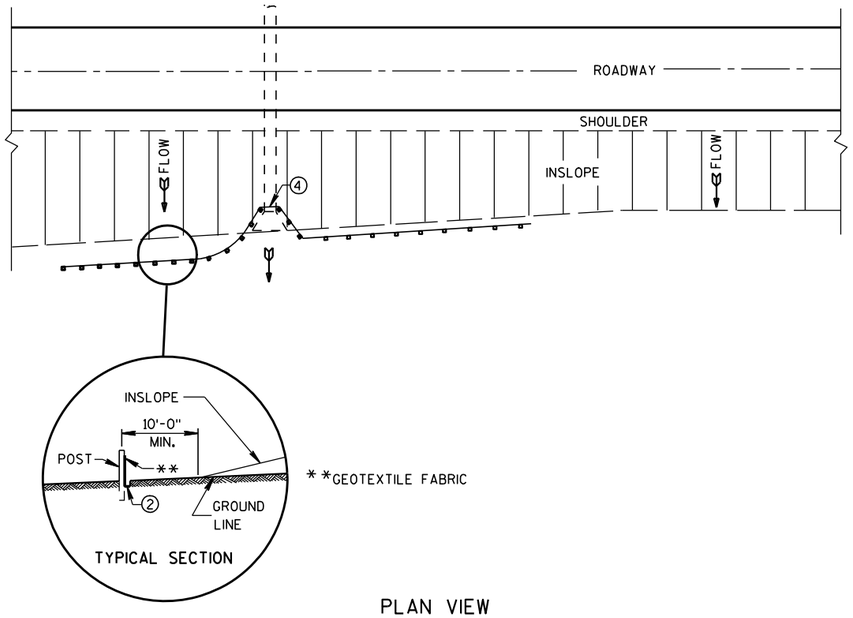
PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 39	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 06
PLOT DATE : 12/3/2025 9:21 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:50 FT

Standard Detail Drawing List

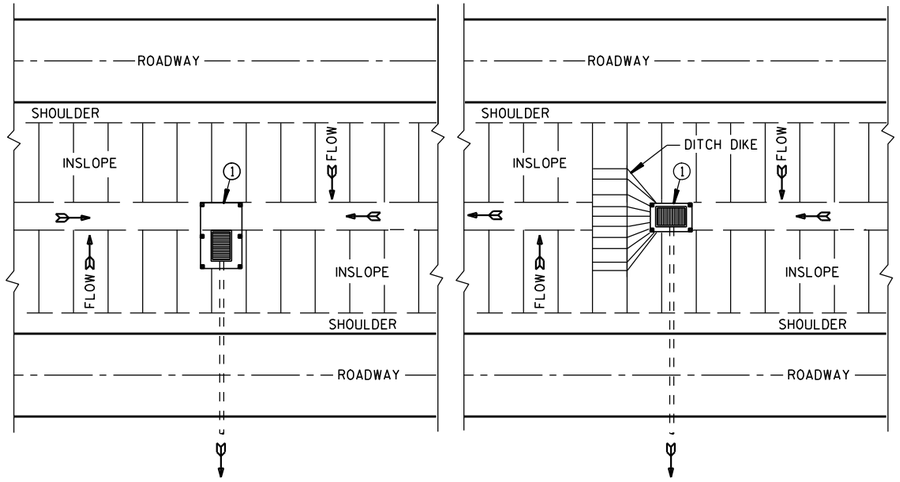
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14D01-01	TURTLE EXCLUSION FENCE CLIMBING TURTLE
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
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

6



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



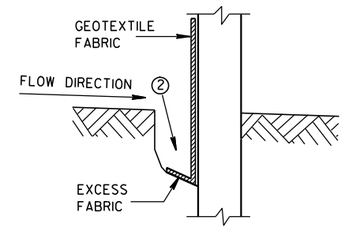
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

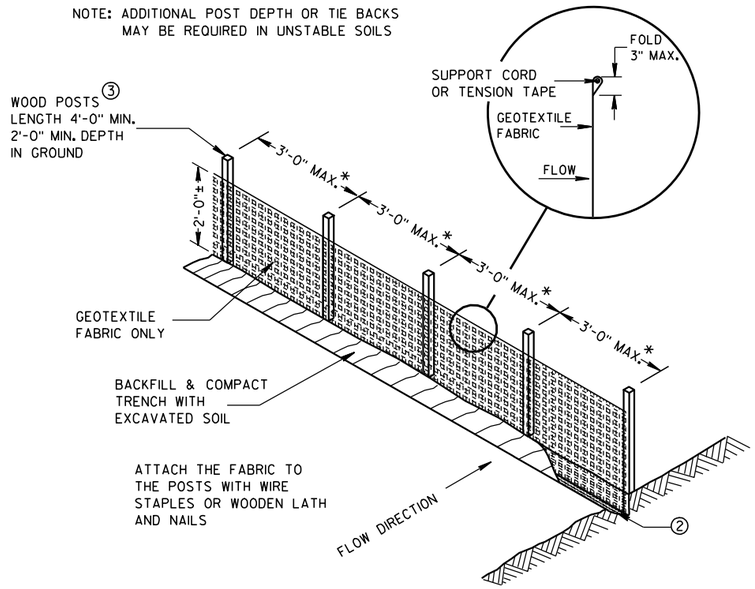
GENERAL NOTES

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

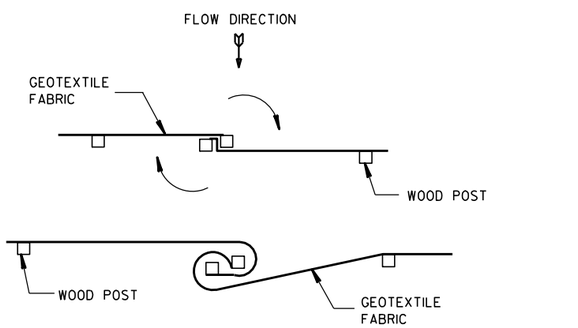
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



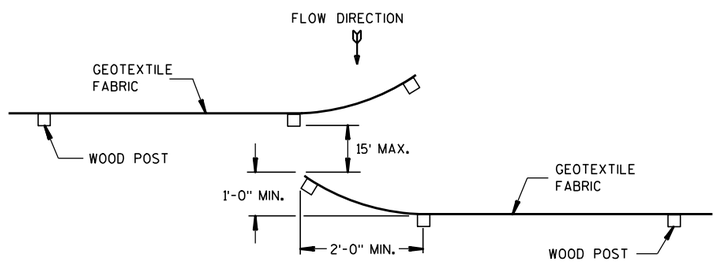
TRENCH DETAIL



SILT FENCE

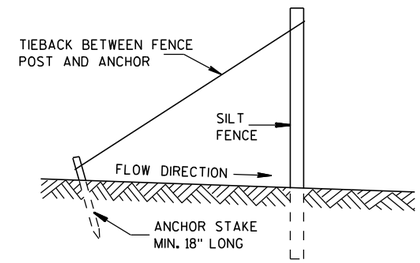


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

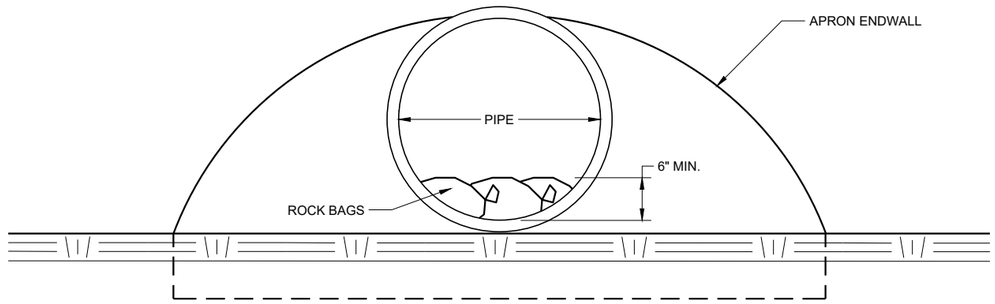
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

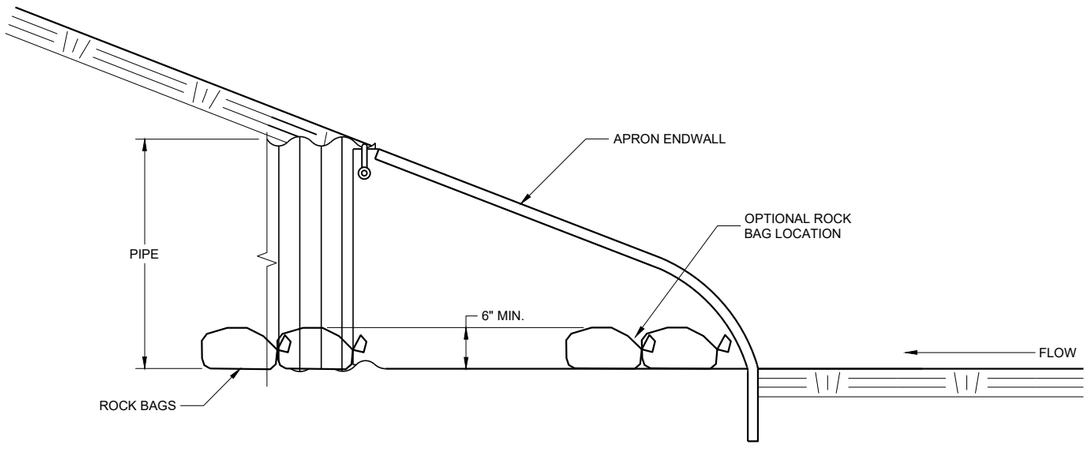
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

SDD 08E15 - 01

METAL APRON ENDWALLS

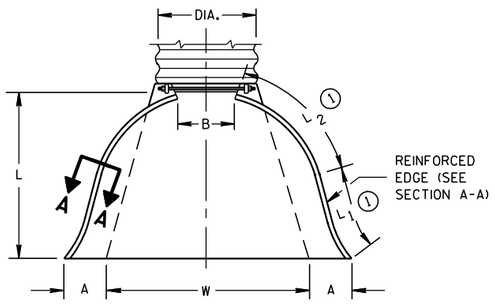
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

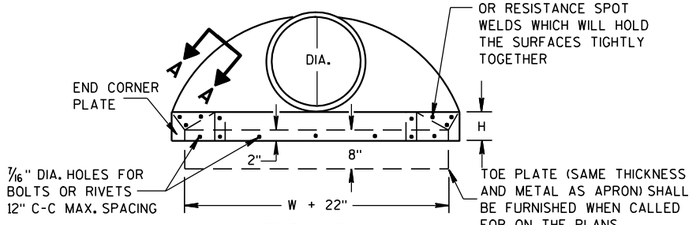
REINFORCED CONCRETE APRON ENDWALLS

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

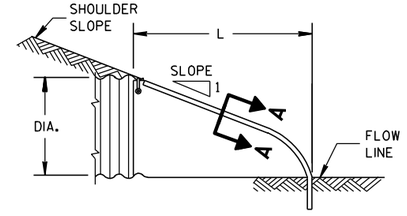
*MINIMUM
**MAXIMUM



PLAN VIEW

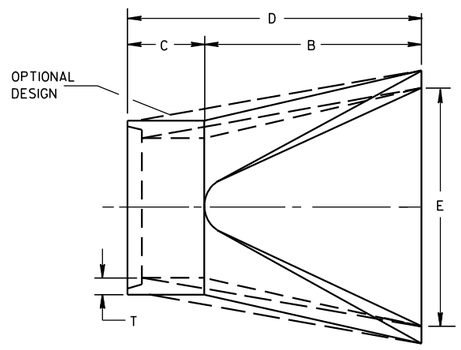


END VIEW

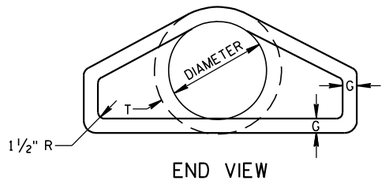


SIDE ELEVATION

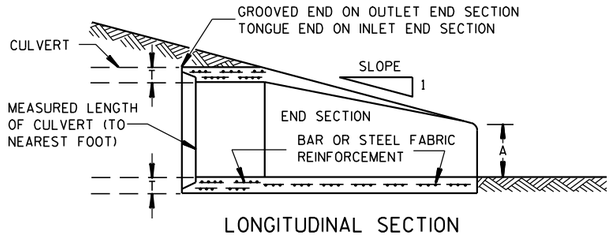
METAL ENDWALLS



PLAN

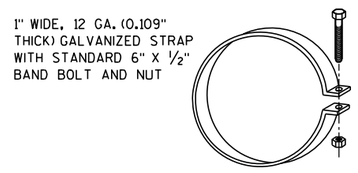


END VIEW



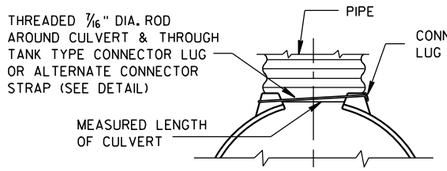
LONGITUDINAL SECTION

CONCRETE ENDWALLS

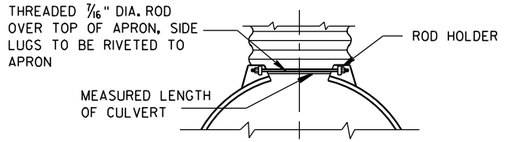


ALTERNATE FOR TYPE 1 CONNECTION

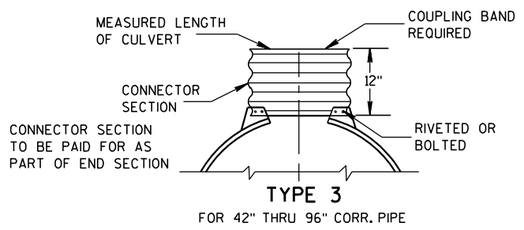
END SECTION CONNECTOR STRAP



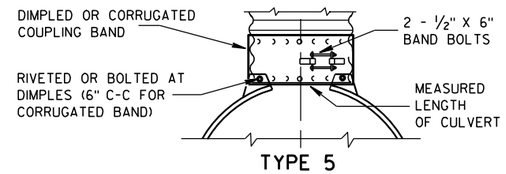
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

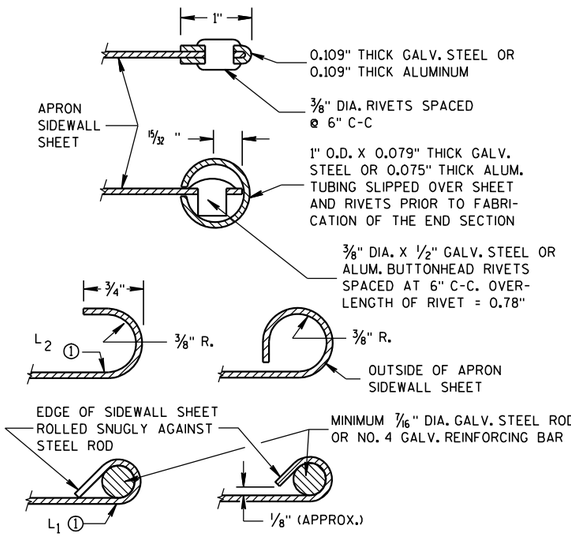
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

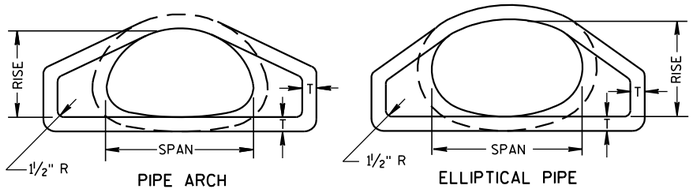
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

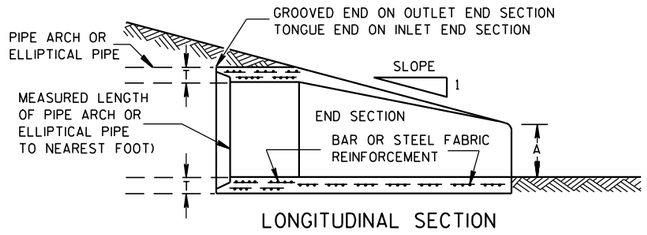
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

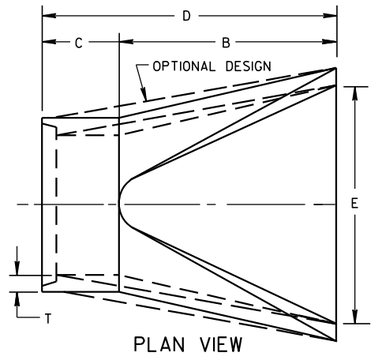
6
S.D.D. 8 F 1-11



END VIEW

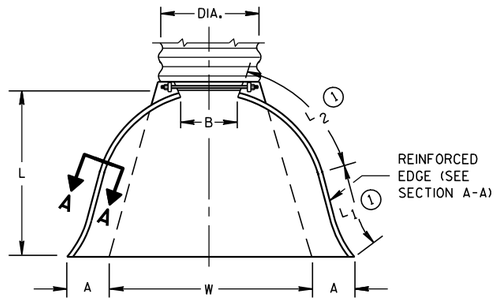


LONGITUDINAL SECTION

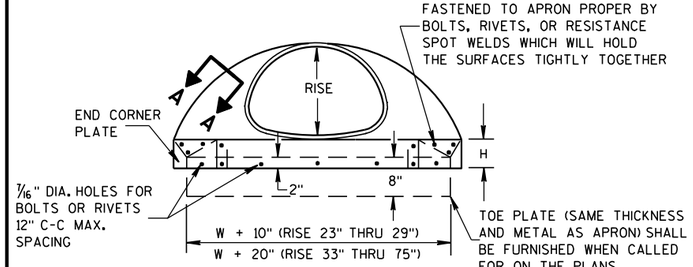


PLAN VIEW

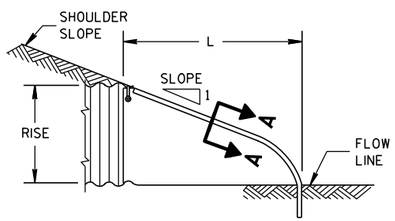
CONCRETE ENDWALLS



PLAN VIEW

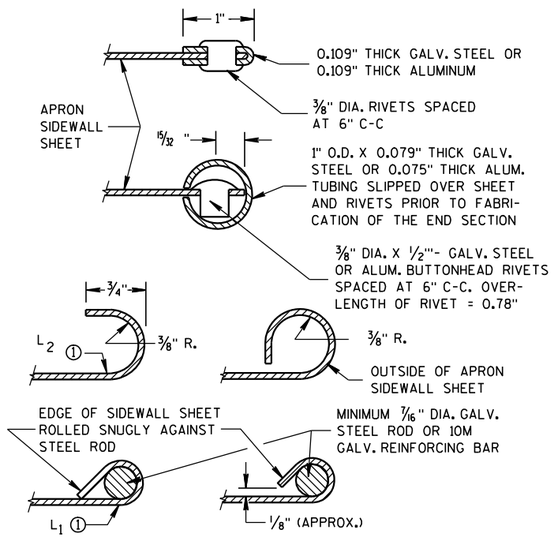


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ 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) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ 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	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

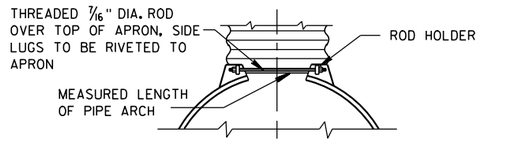
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	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	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

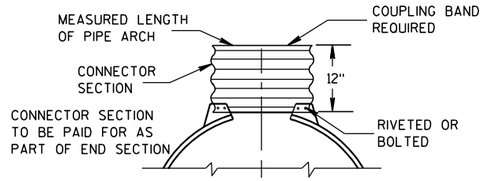
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



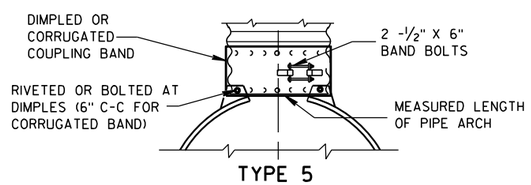
TYPE 2

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

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

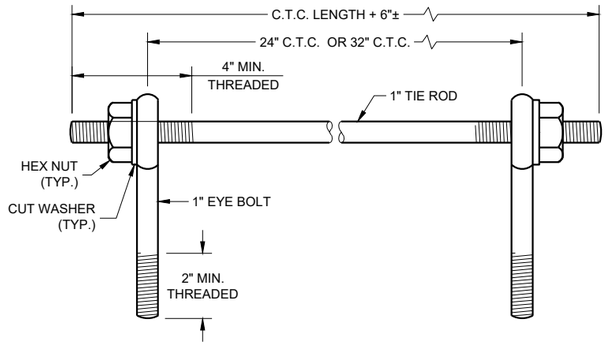
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

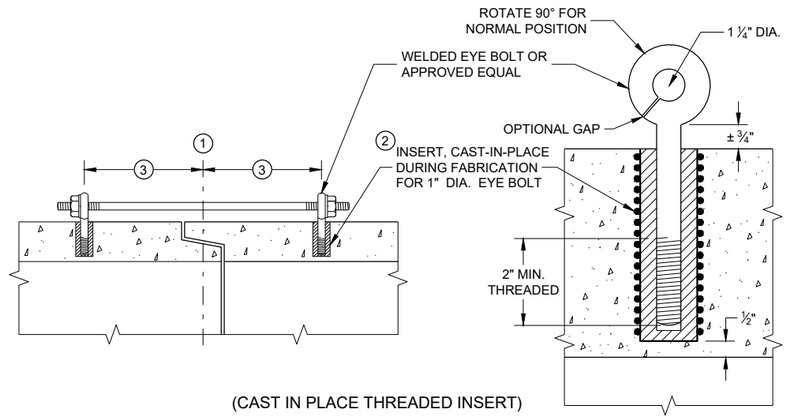
FHWA

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S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

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

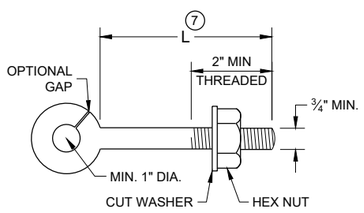
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

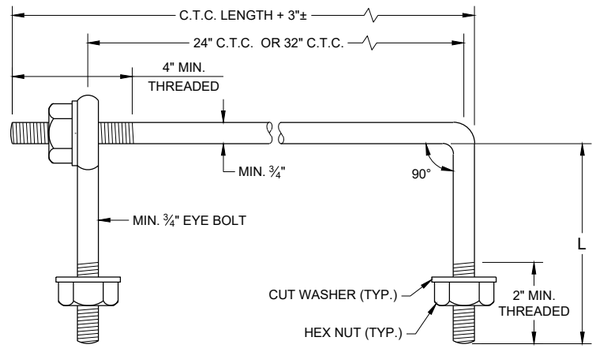
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

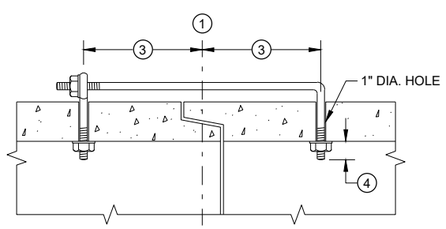


EYE BOLT (7)

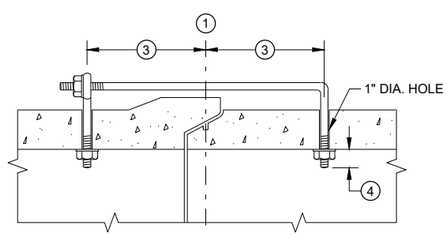
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

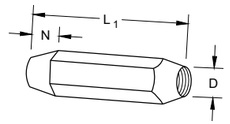
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

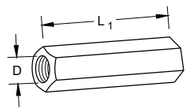
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



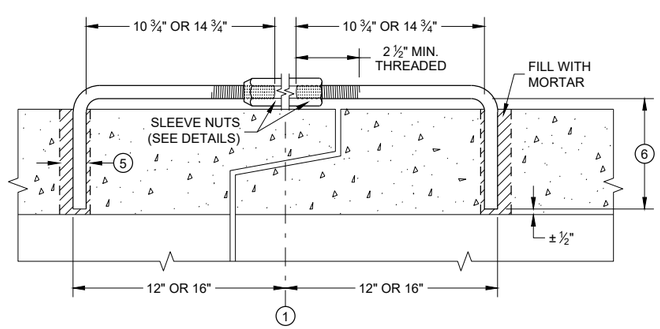
TAPERED



PLAIN

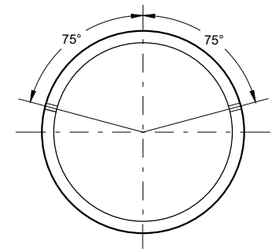
RIGHT AND LEFT THREADS

SLEEVE NUTS



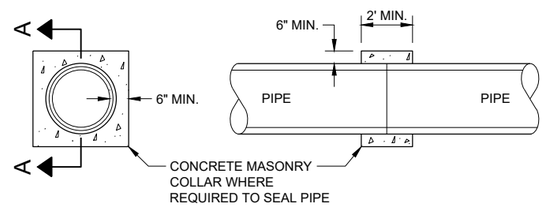
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

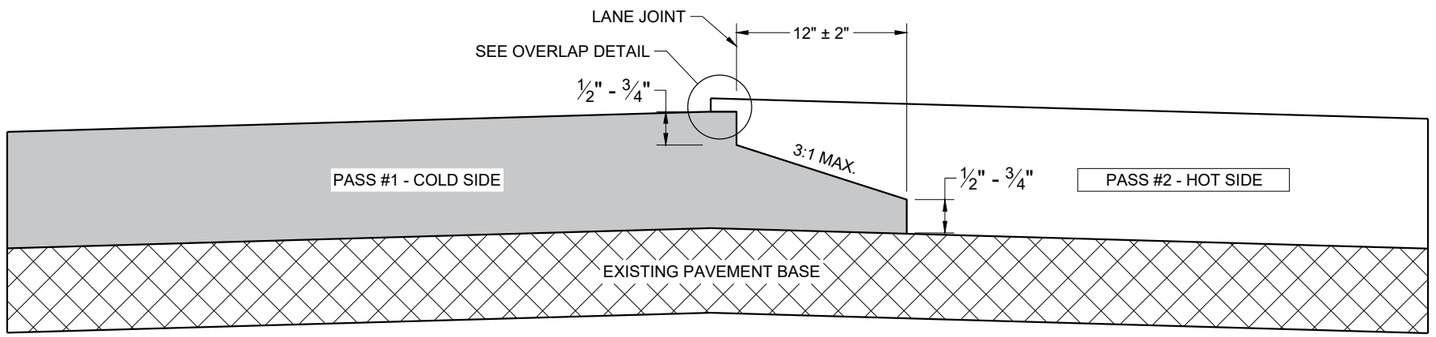
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

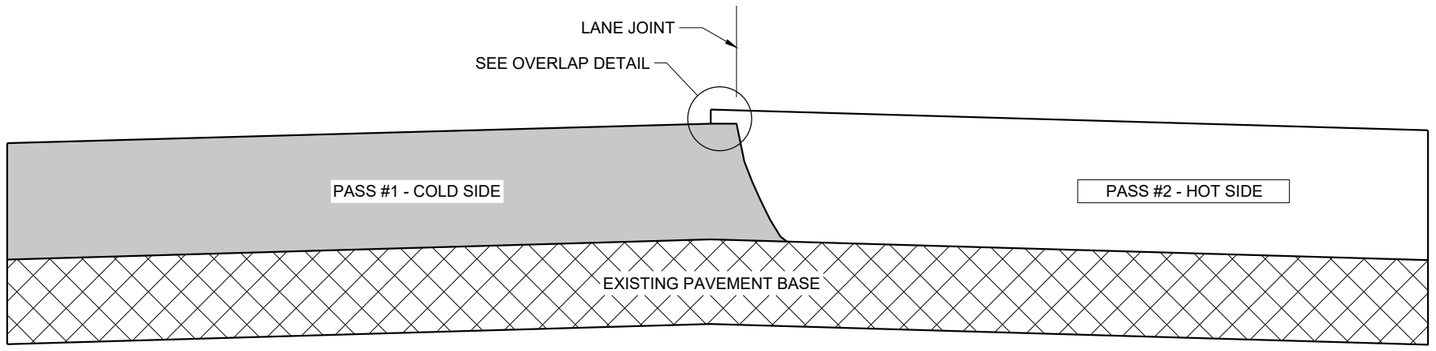
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 08F04 - 08

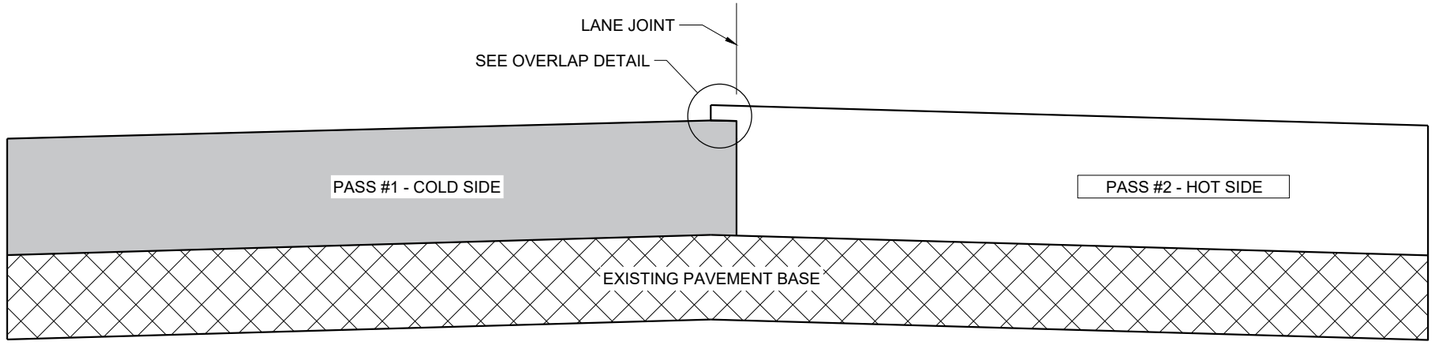
SDD 08F04 - 08



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

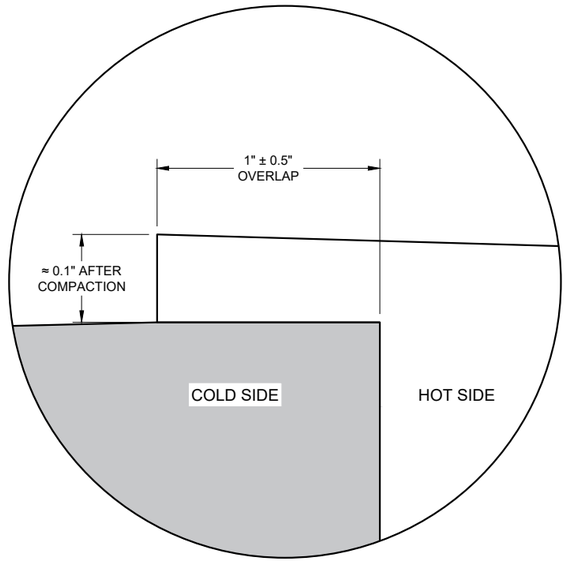
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"X8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.

2. USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPELTER COATING ON GALVANIZED POSTS.

3. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

4. USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

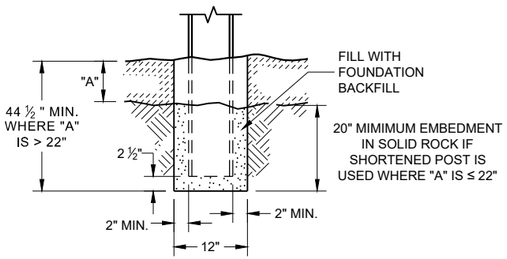
5. IF THE DISTACE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

6. IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.

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

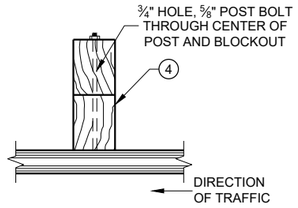
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



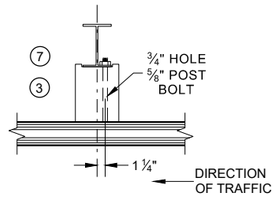
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (6)



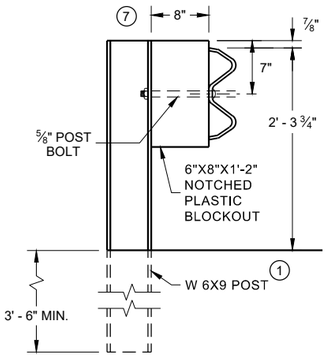
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



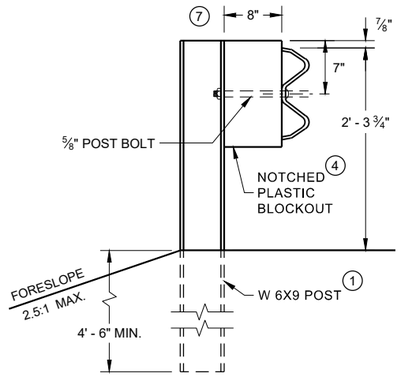
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



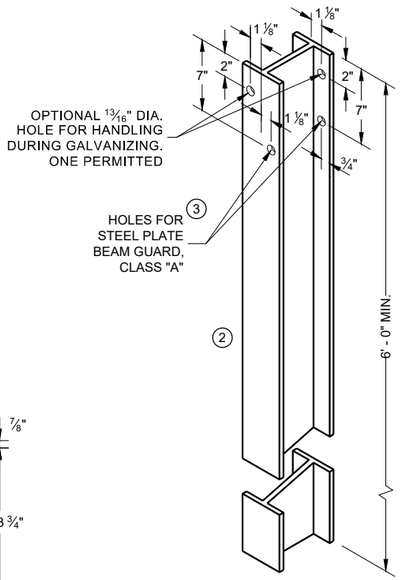
END VIEW

STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



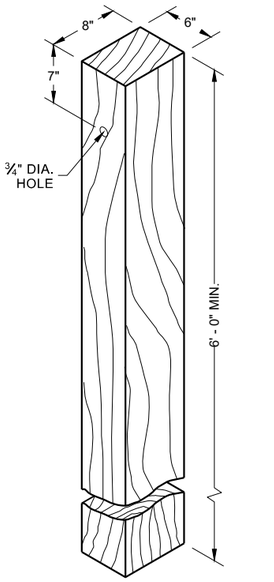
END VIEW

LONGER POST AT HALF POST SPACING W BEAM (LHW)

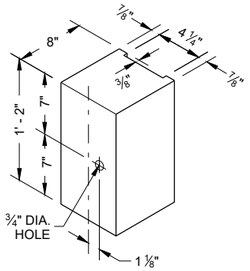


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)

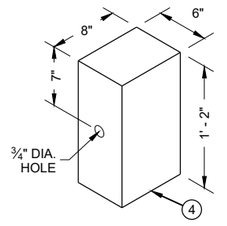
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



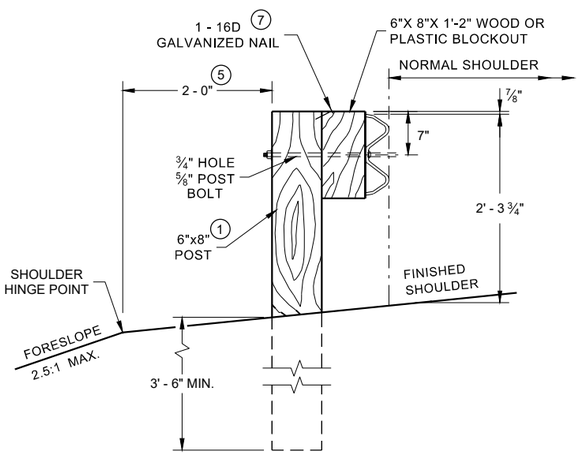
WOOD POST (6" X 8") NOMINAL (1)



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS

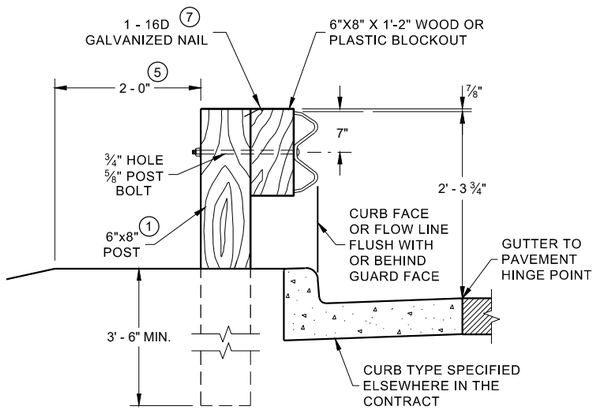


WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



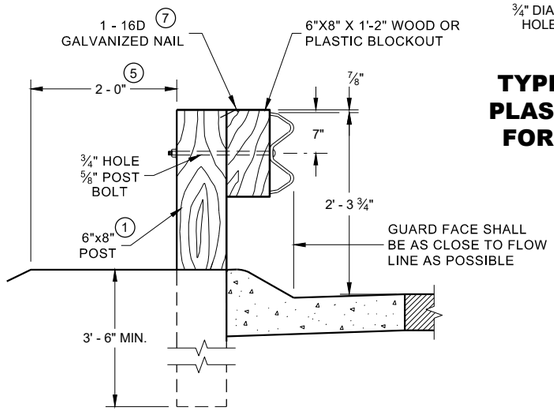
END VIEW

LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



END VIEW

LOCATED ALONG A CURBED ROADWAY



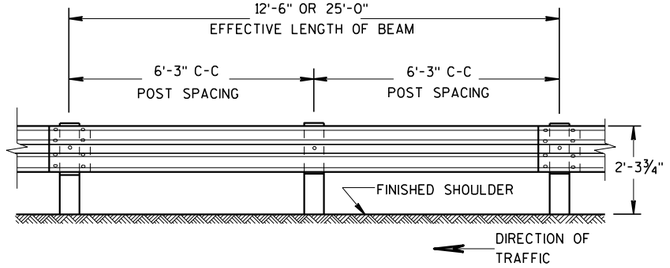
END VIEW

LOCATED ALONG A MOUNTABLE CURBED ROADWAY

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

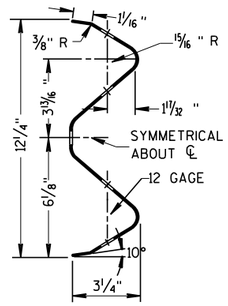
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B15 -11a

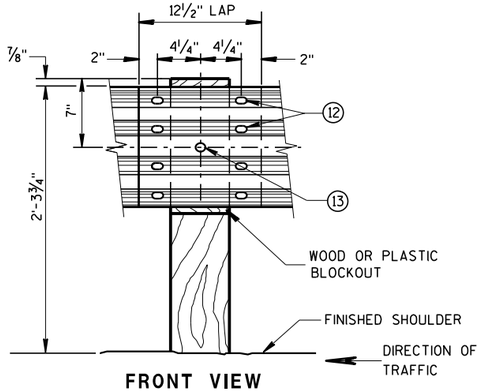


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

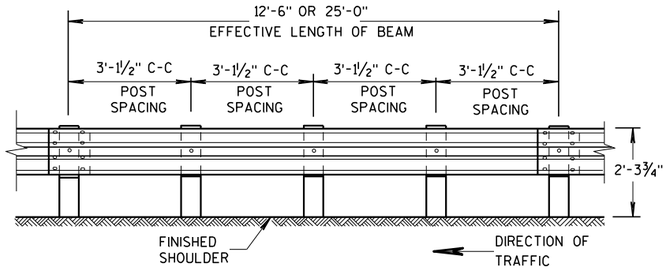
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

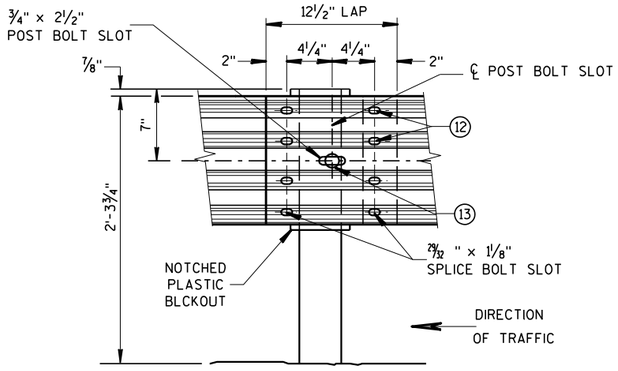
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



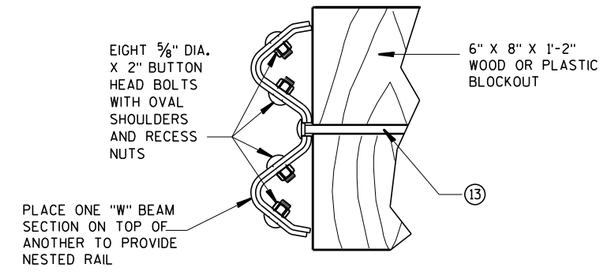
FRONT VIEW

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



FRONT VIEW

BEAM SPLICE AT STEEL POST

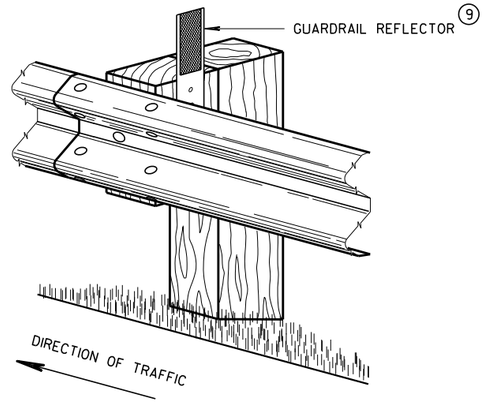


NESTED W BEAM (NW)

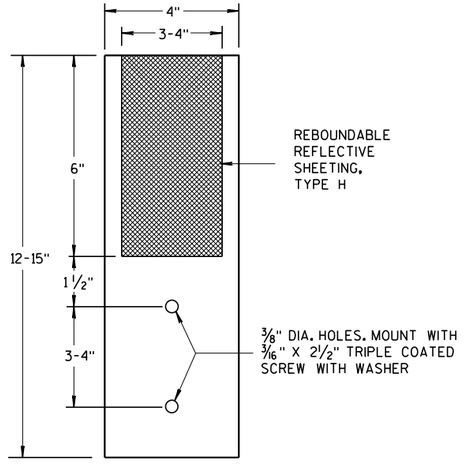
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

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

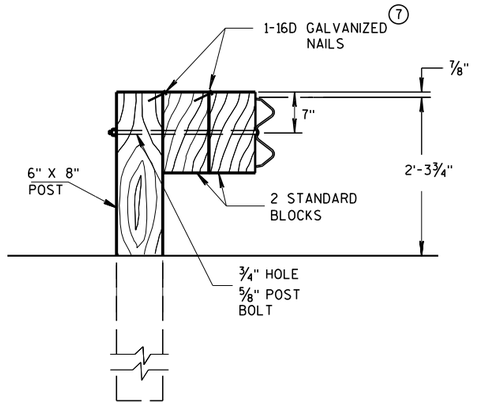
STATE OF WISCO 48
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

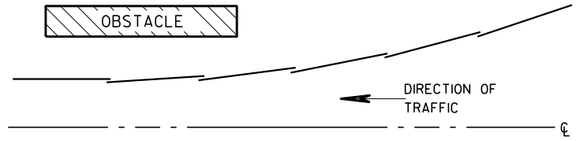
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S.D.D. 14 B 15-11b

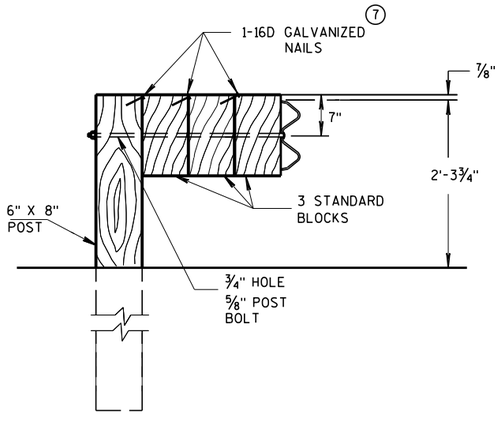


DETAIL FOR DOUBLE BLOCKS

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

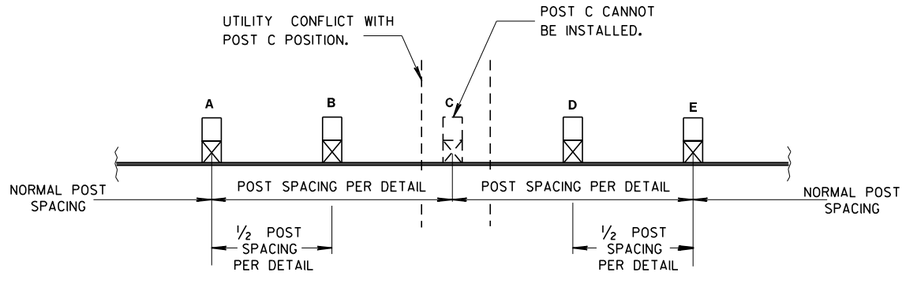


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

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

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

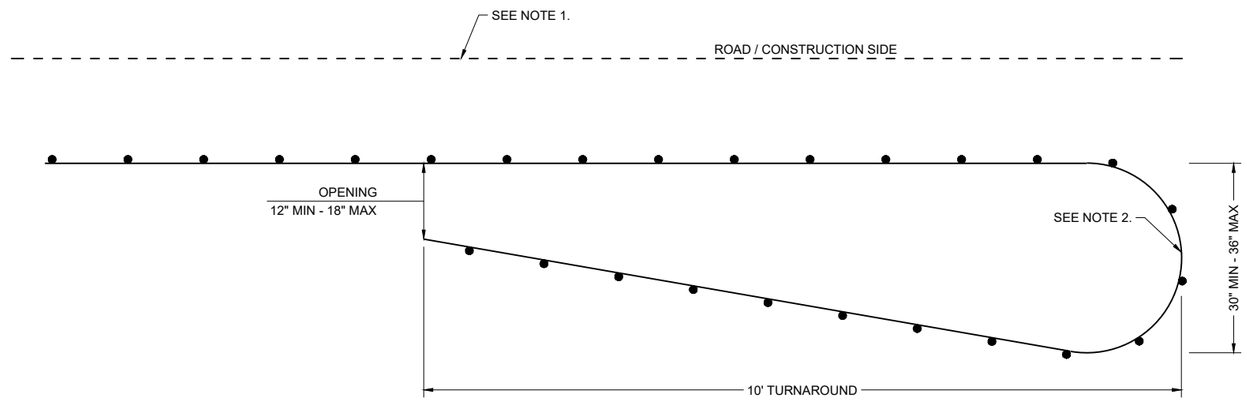
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES:

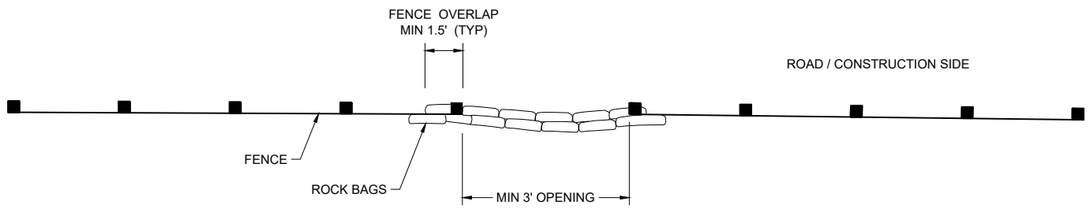
1. WHERE SILT FENCE IS REQUIRED, IT SHALL BE PLACED ON THE CONSTRUCTION SIDE OF THE EXCLUSION FENCING, OR COMBINED WITH THE EXCLUSION FENCING AS ALLOWED IN THE SPECIFICATIONS. STAKES ON THIS DETAIL ARE OPPOSITE OF STANDARD SILT FENCE FOR SEDIMENT CONTROL.
2. PLACE TURNAROUNDS AT ALL TERMINI ENDS OF THE EXCLUSION FENCING.
3. IF TEMPORARY ACCESS POINTS ARE NEEDED DURING CONSTRUCTION THAT REQUIRE OPENINGS IN THE EXCLUSION FENCING, ACCESS OPENINGS SHOULD BE TIGHTLY SECURED WITH BALES OF HAY OR STRAW WHENEVER CONSTRUCTION RELATED ACTIVITIES ARE NOT OCCURRING. REINSTALL EXCLUSION FENCING WHEN THE WORK REQUIRING THE TEMPORARY ACCESS OPENING IS COMPLETED.
4. THE FENCE CAP MAY BE A 6" UNDER DRAIN PIPE, SLIT DOWN THE CENTER AND PLACED OVER THE FENCE. COMMERCIALLY AVAILABLE SAFETY CAPS WITH A LIP MAY BE USED. OTHER DNR APPROVED METHODS TO PREVENT TURTLES FROM PASSING OVER THE TOP OF THE FENCE MAY BE USED.

   SECURELY FASTEN THE CAP TO PREVENT IT FROM BEING DISLODGED.

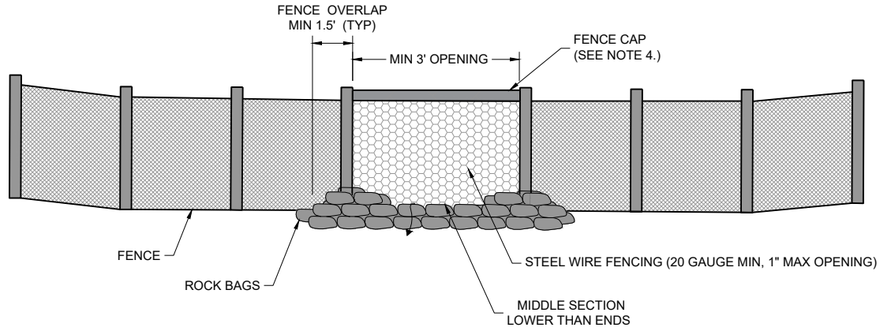


PLAN VIEW

CLIMBING TURTLE EXCLUSION FENCE DETAIL



PLAN VIEW



FRONT VIEW

CLIMBING TURTLE FENCE RELIEF DETAIL

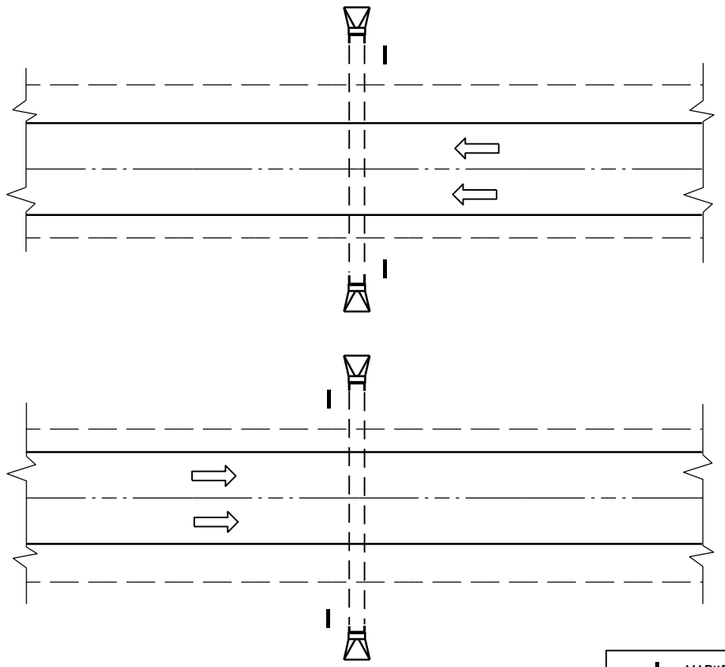
TURTLE EXCLUSION FENCE
CLIMBING TURTLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2025
DATE

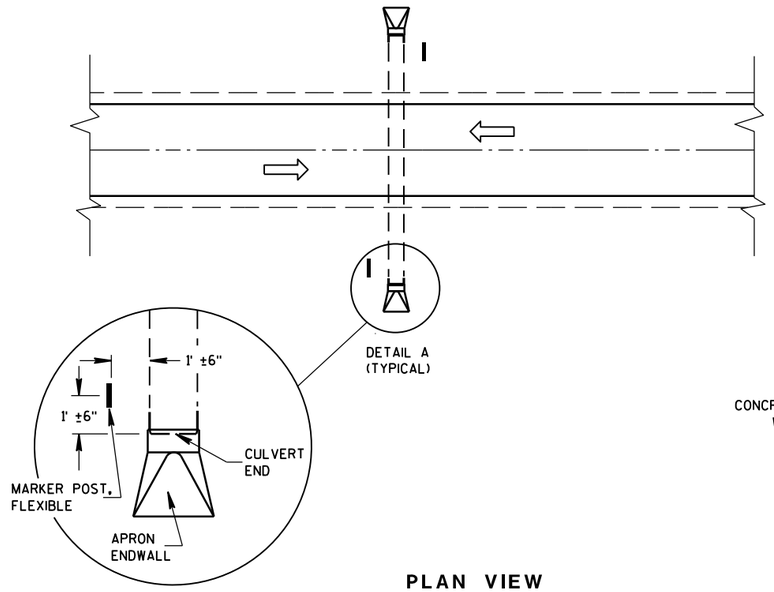
/S/ ALYSSA BARRETTE
CHIEF STATEWIDE ENVIRONMENTAL SERVICES
BUREAU OF TECHNICAL SER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

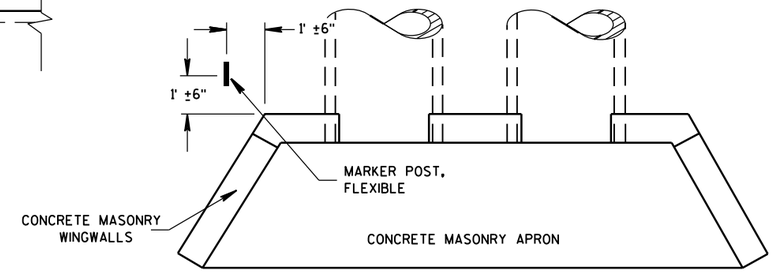
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

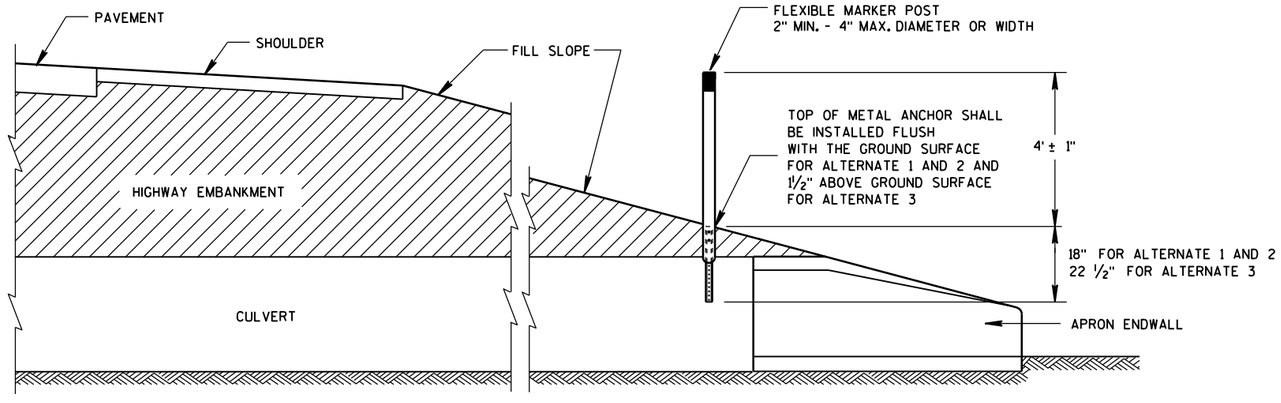
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

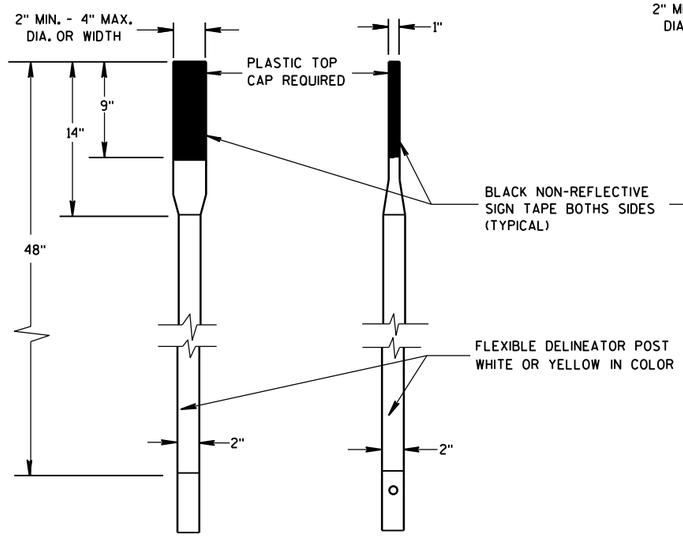
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

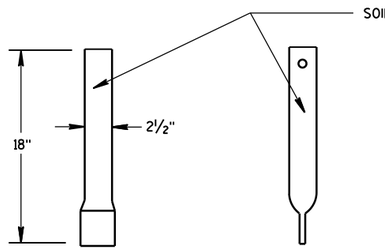
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S.D.D. 15 A 3-2a

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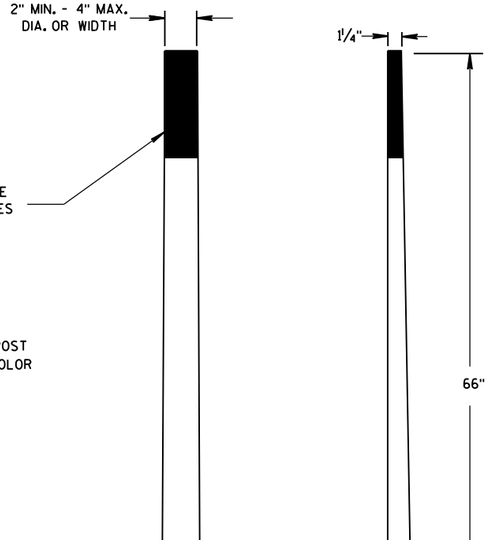
S.D.D. 15 A 3-2a





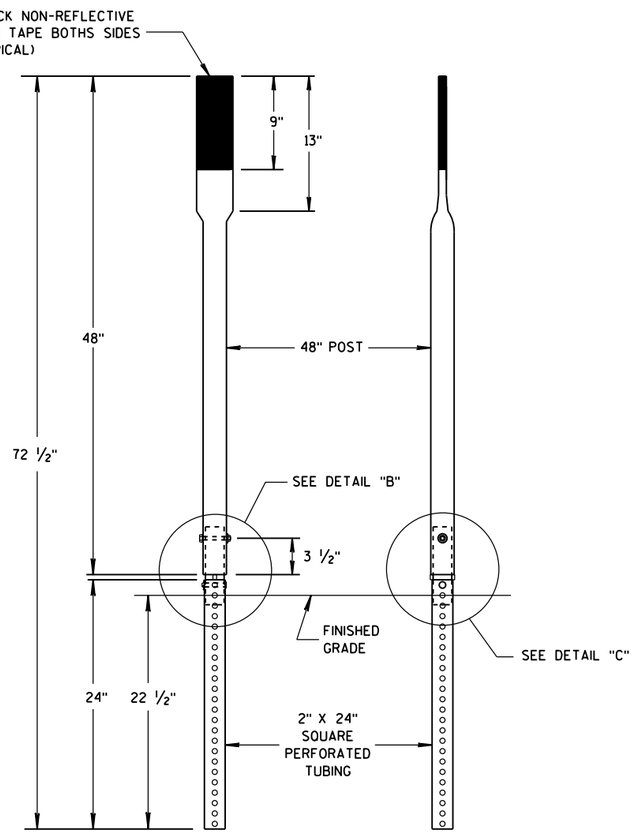
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

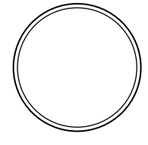
ALTERNATE 2



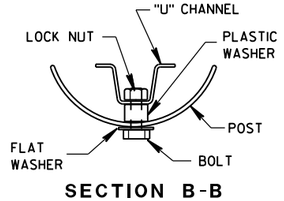
FRONT VIEW SIDE VIEW

ALTERNATE 3

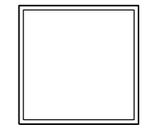
FLEXIBLE MARKER POSTS



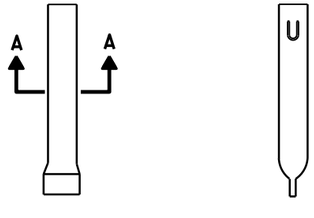
SECTION A-A



SECTION B-B

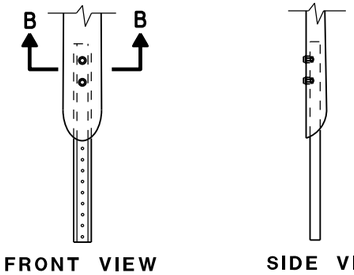


SECTION C-C



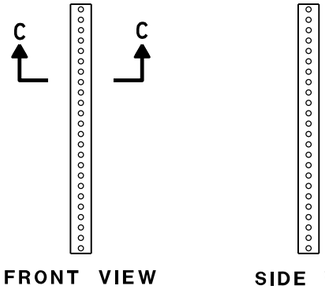
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

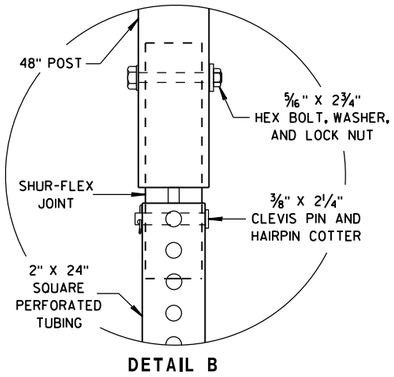
ALTERNATE 2



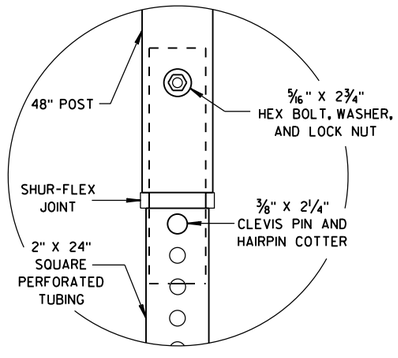
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

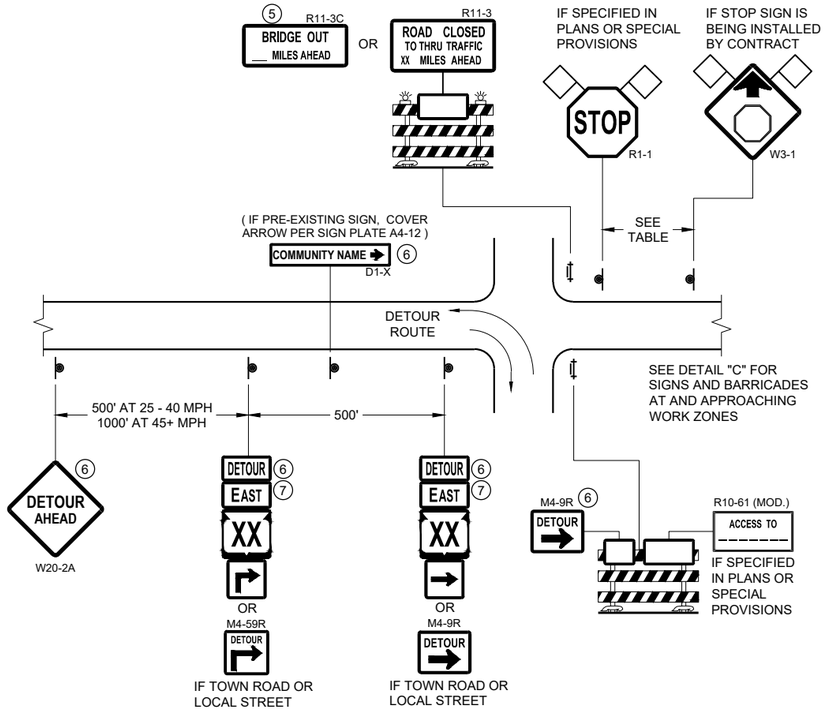
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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

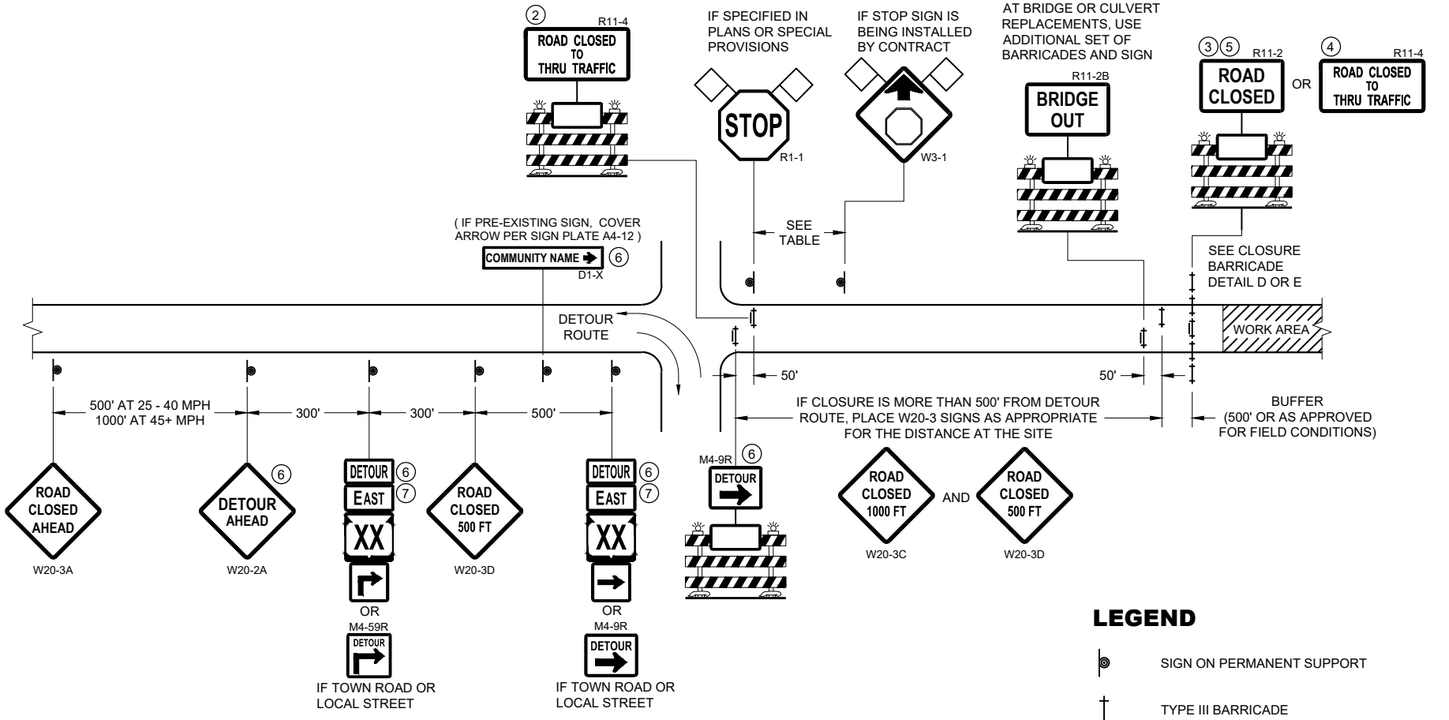
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S.D.D. 15 A 3-2b



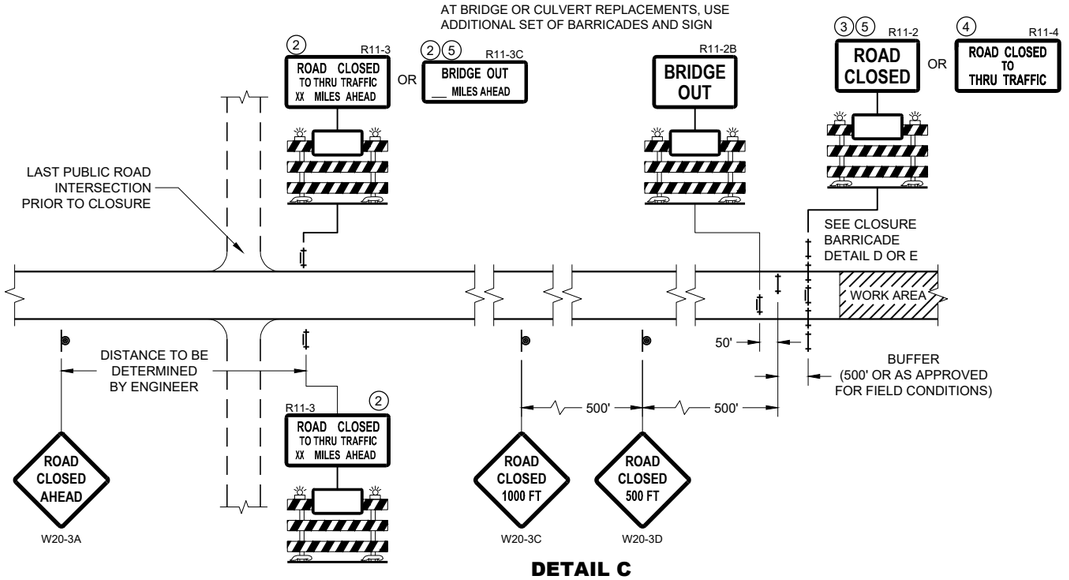
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

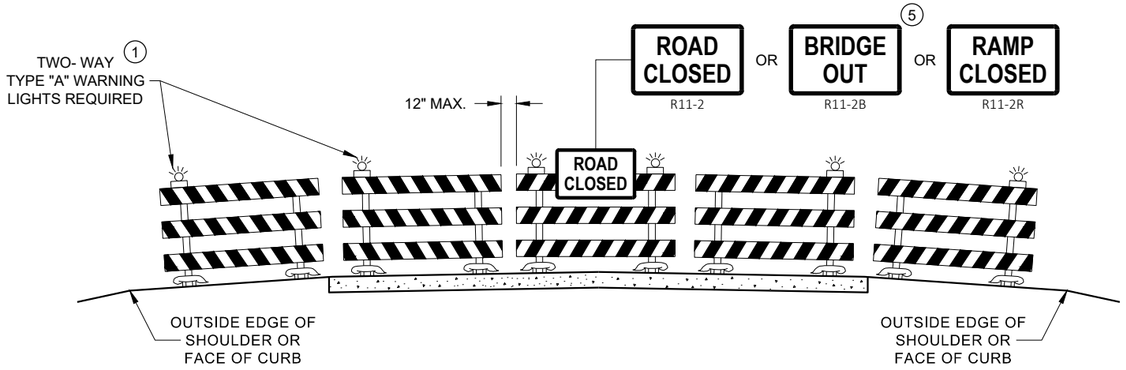
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

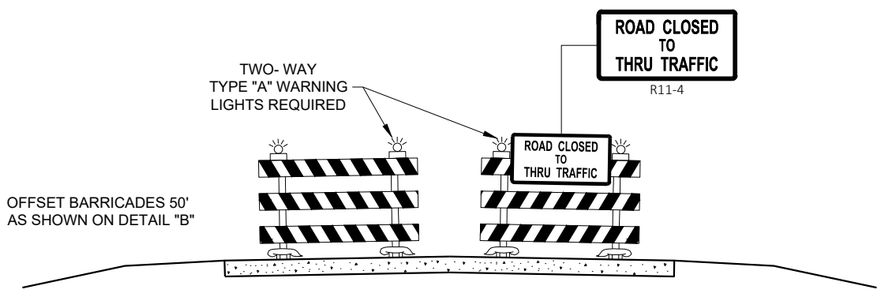
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SDD 15C02 - 09a

SDD 15C02 - 09a



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 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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SDD 15C02 - 09b

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SDD 15C02 - 09b

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

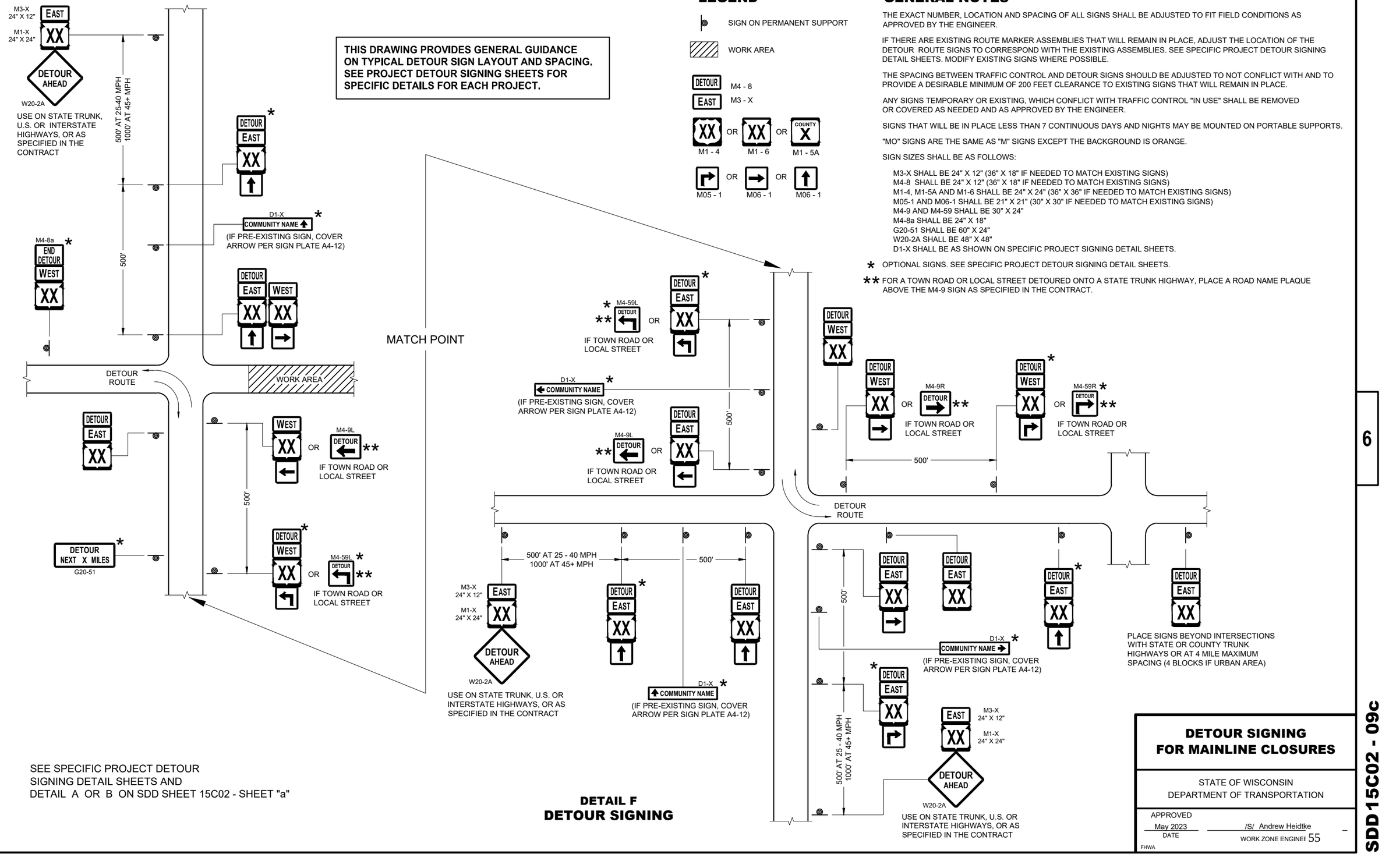
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

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

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

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



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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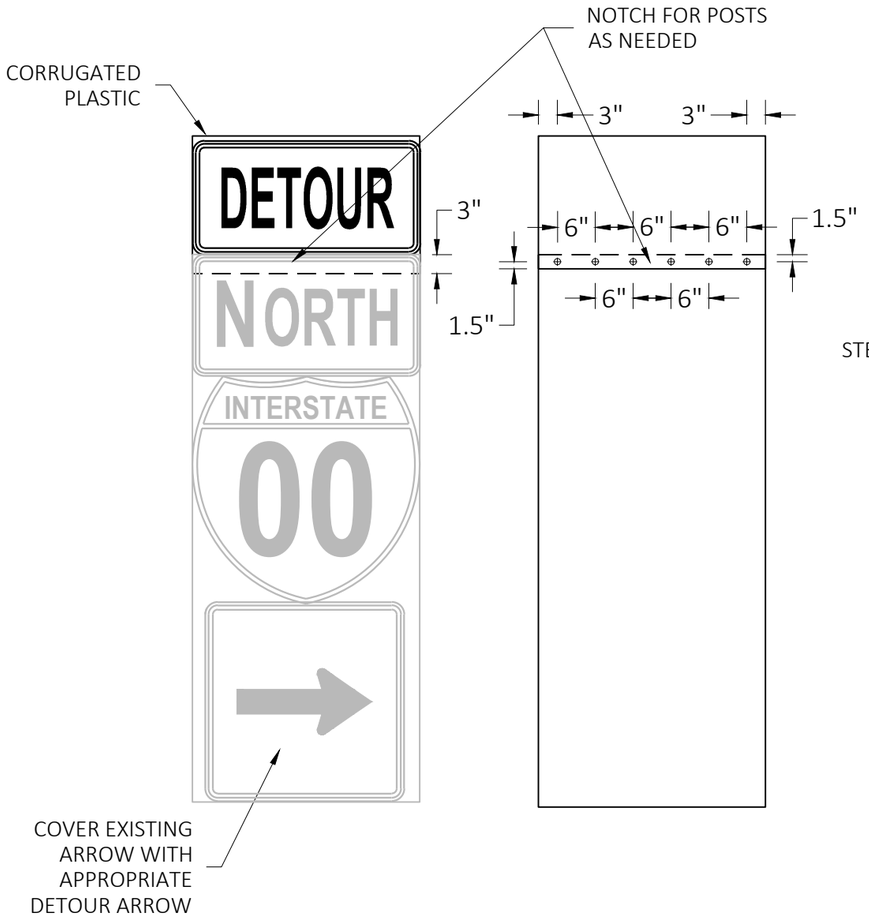
SDD 15C02 - 09c

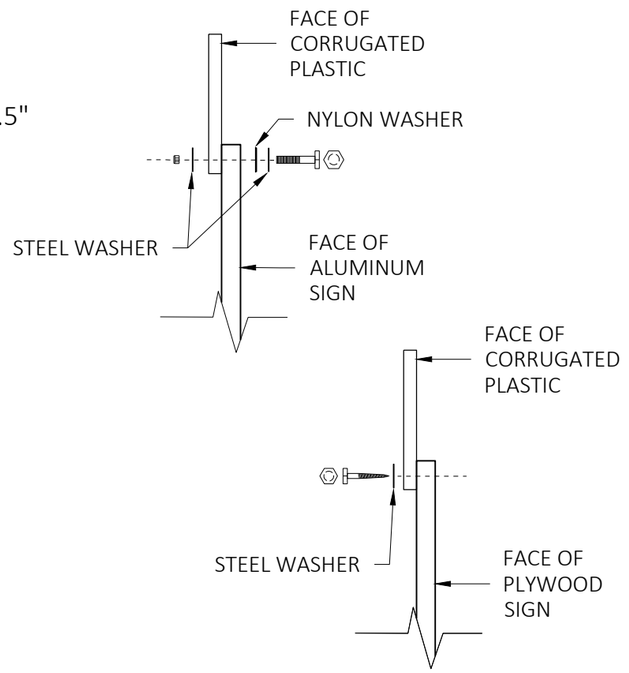
SDD 15C02 - 09c

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

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

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC3

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

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
1-1/4" O.D. x 3/8" I.D. x .080 NYLON

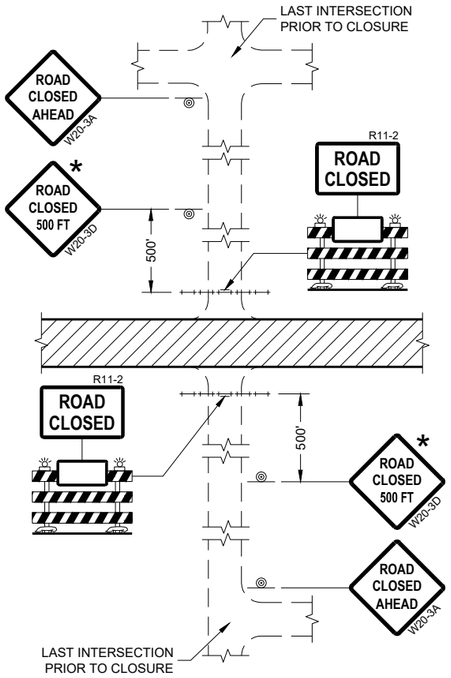
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

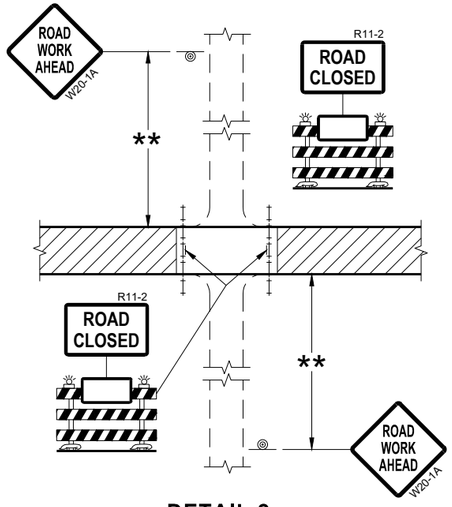
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVEL ENGINEER
FHWA

6
SDD 15C02-09h



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

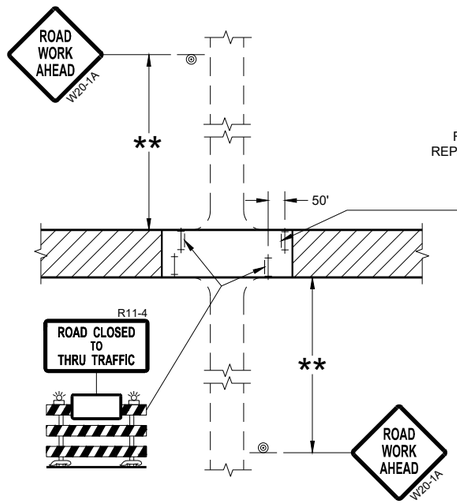
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

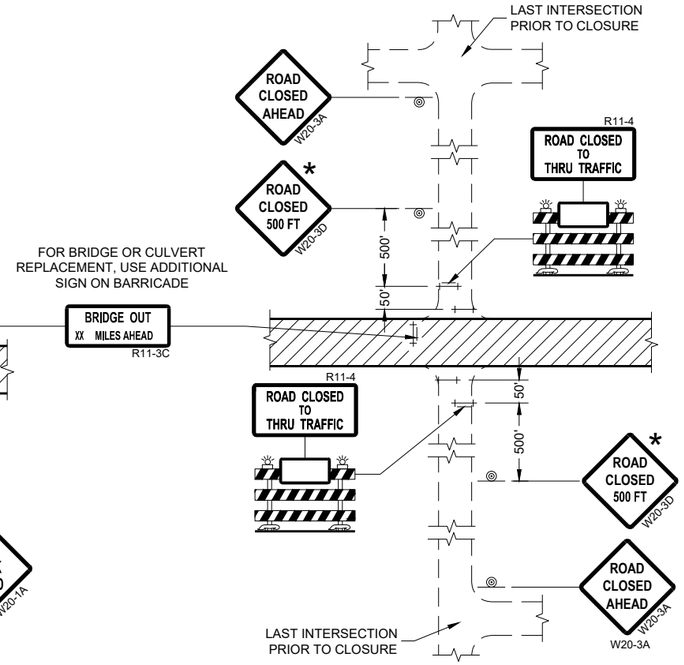
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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



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



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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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

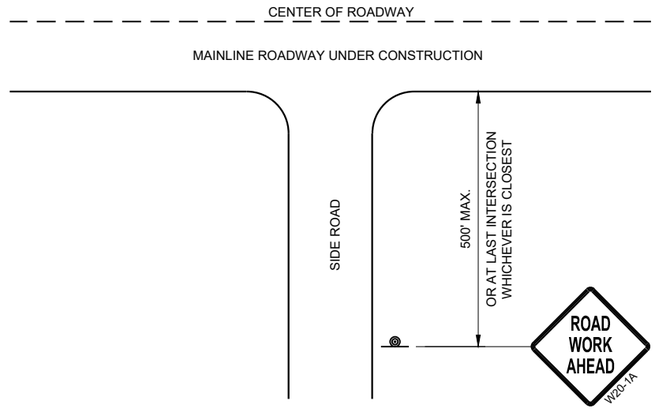
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

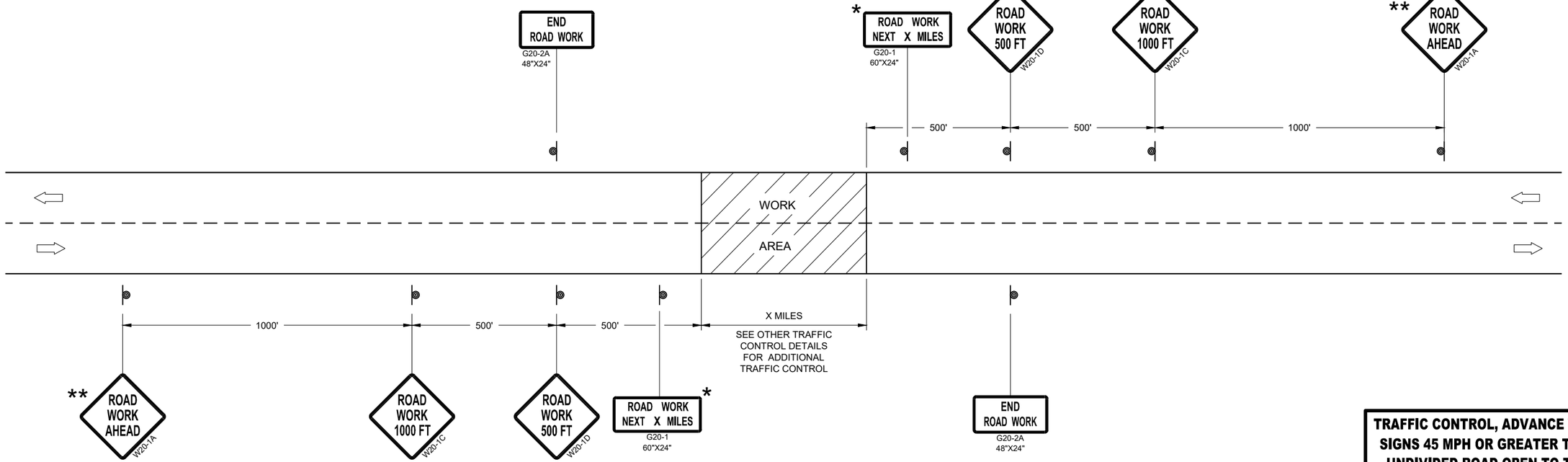
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

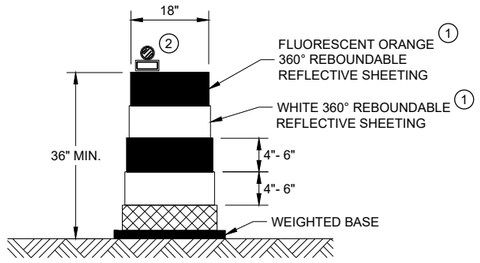
FHWA

6

SDD 15C04 - 05

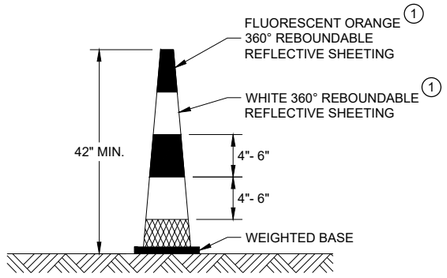
GENERAL NOTES

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



DRUM

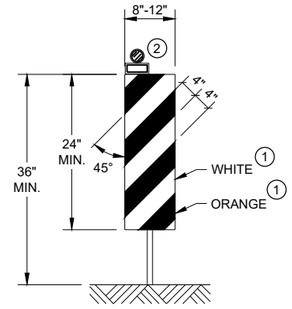
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

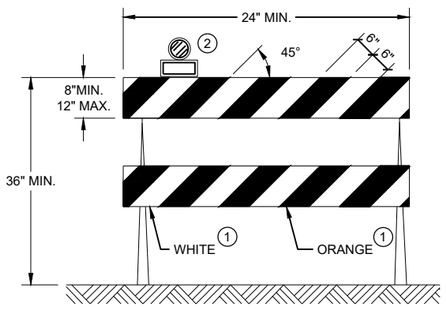
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



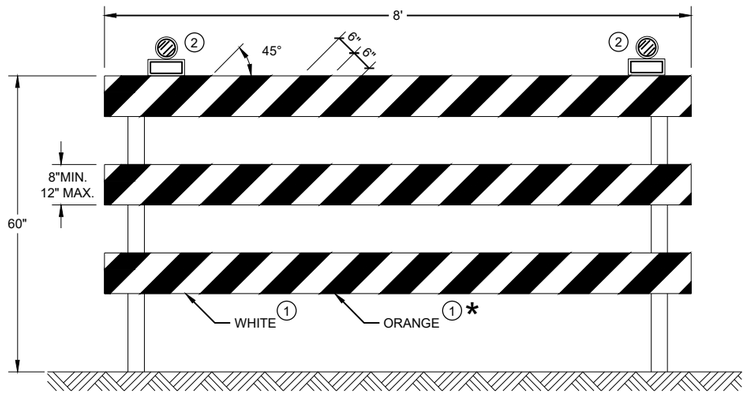
VERTICAL PANEL

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



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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

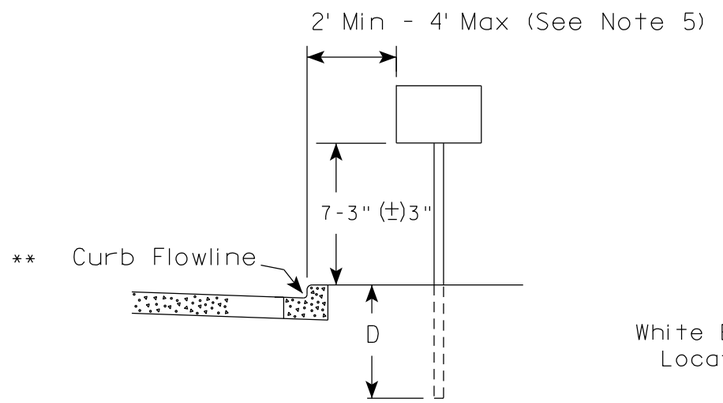
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SDD 15C11 - 10b

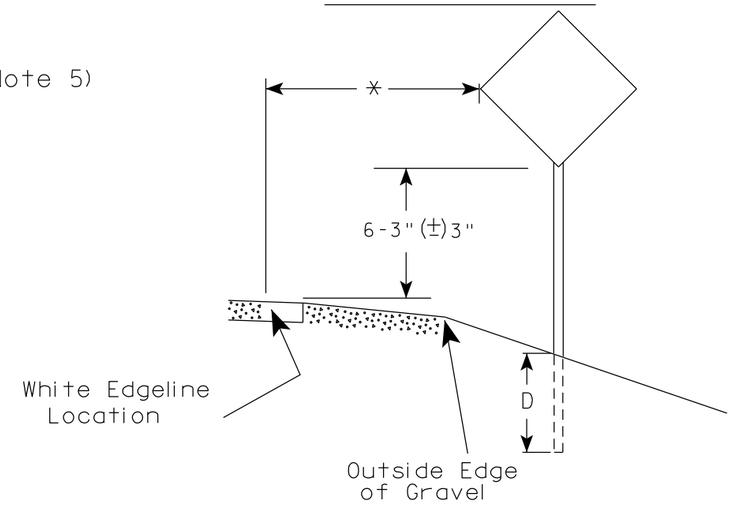
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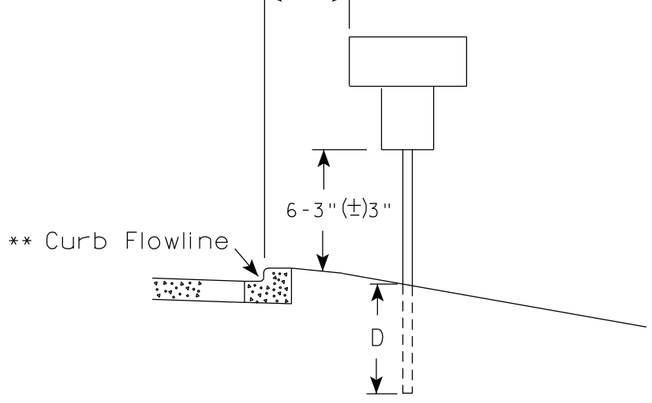
SDD 15C11 - 10b

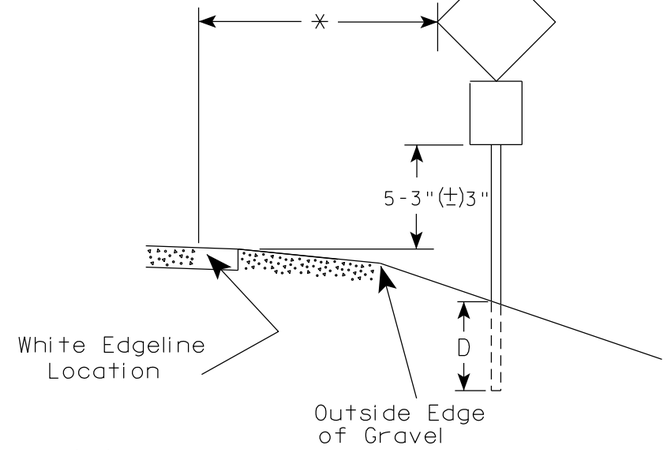
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

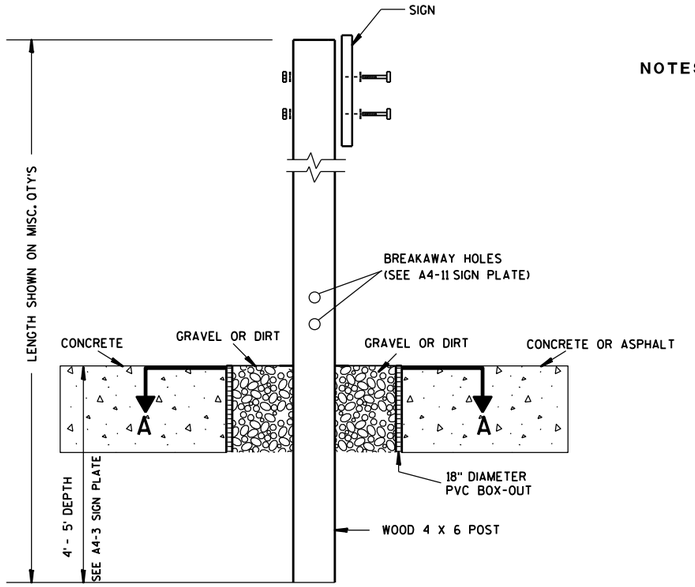
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

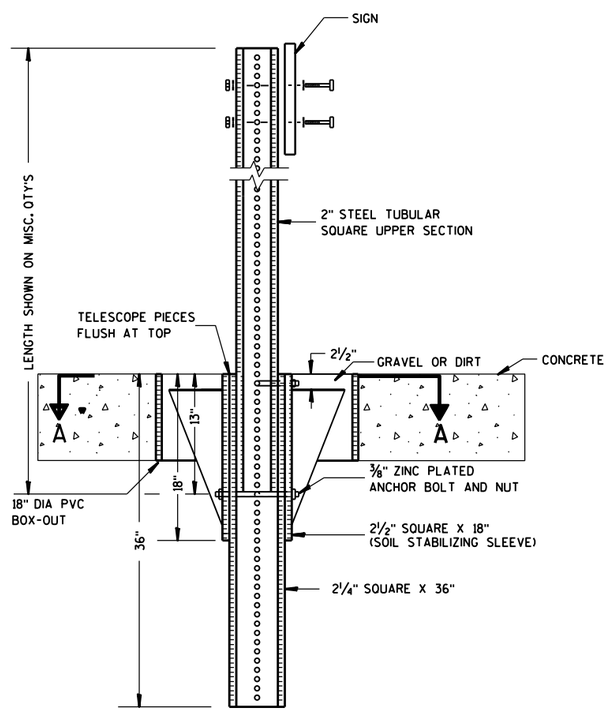
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 60	E



ELEVATION VIEW

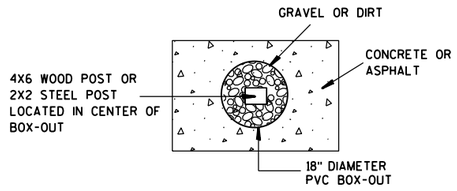
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

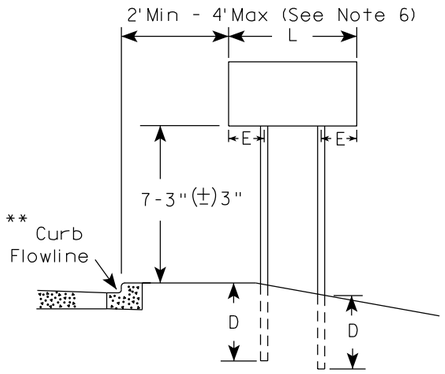
APPROVED Matthew R Rauch
for State Traffic Engineer

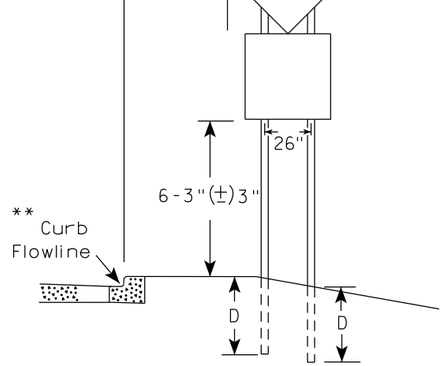
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

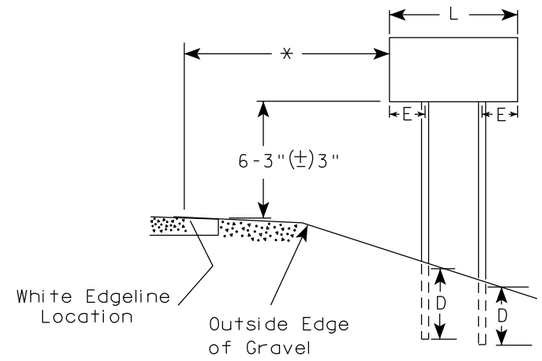
URBAN AREA

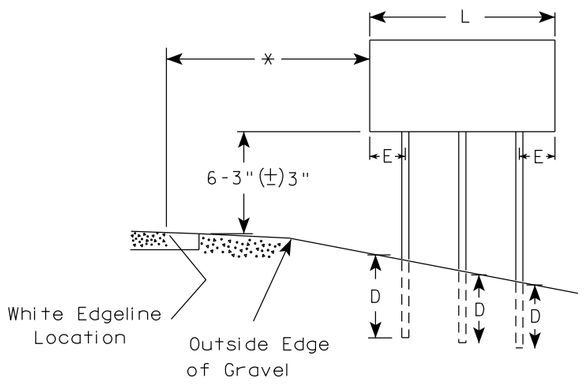


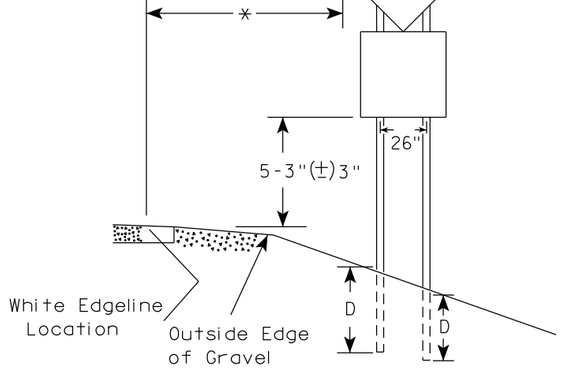


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

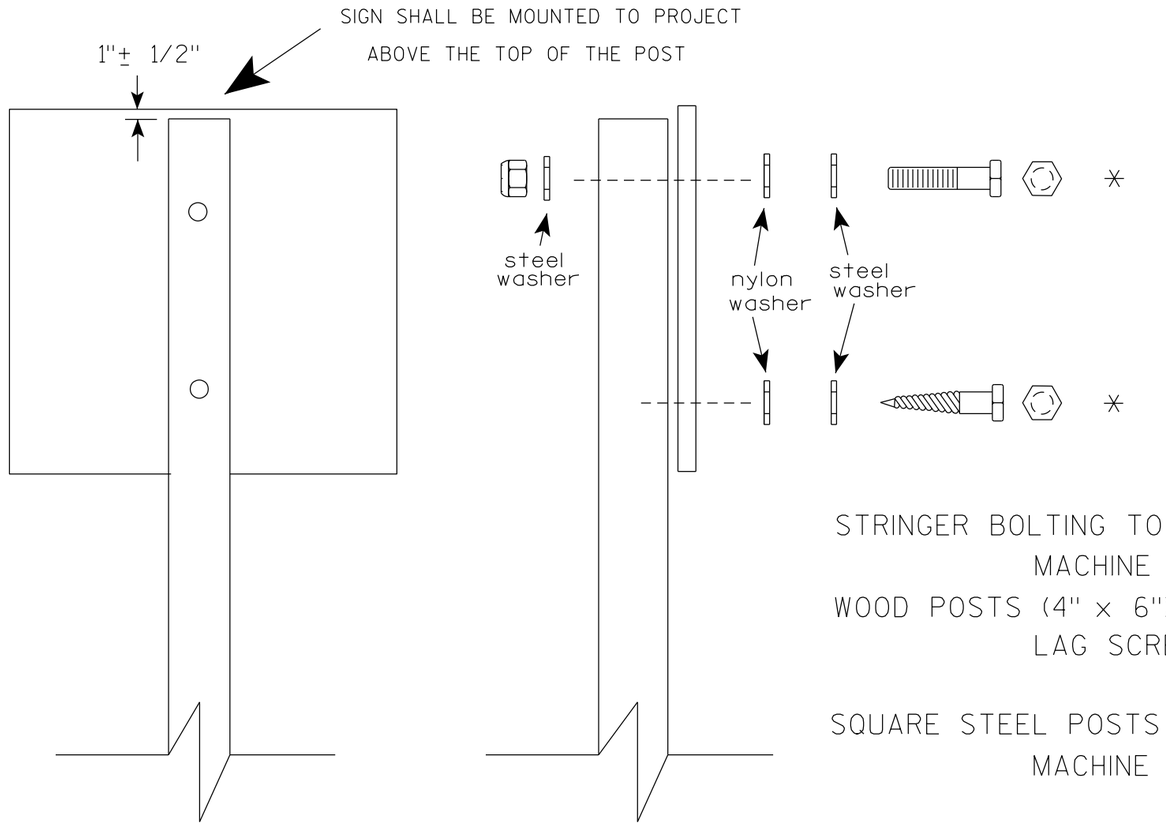
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 62	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

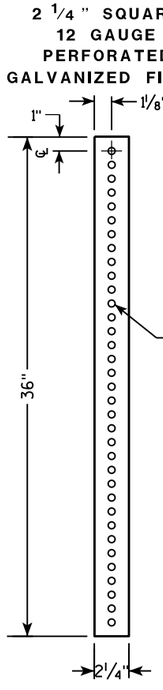
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

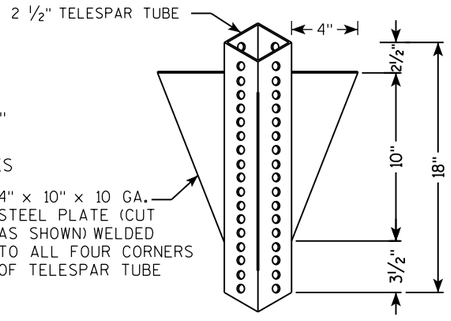
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

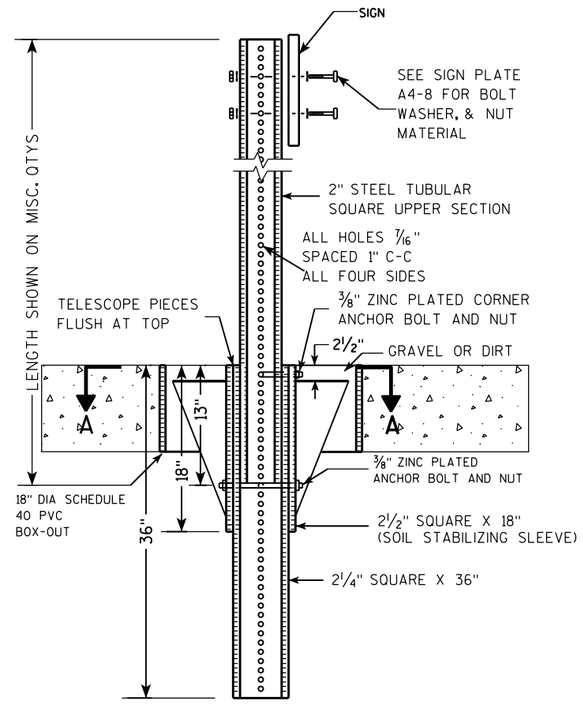
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



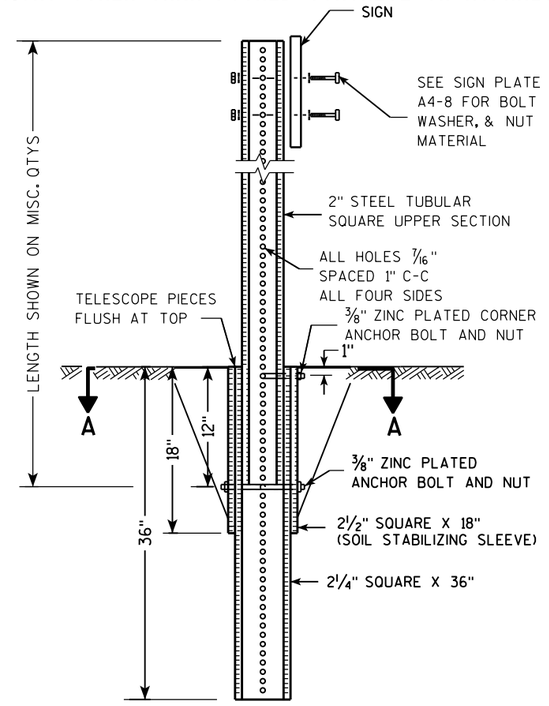
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

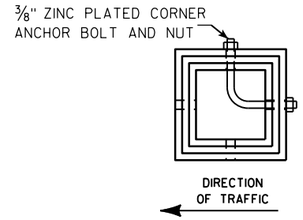


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

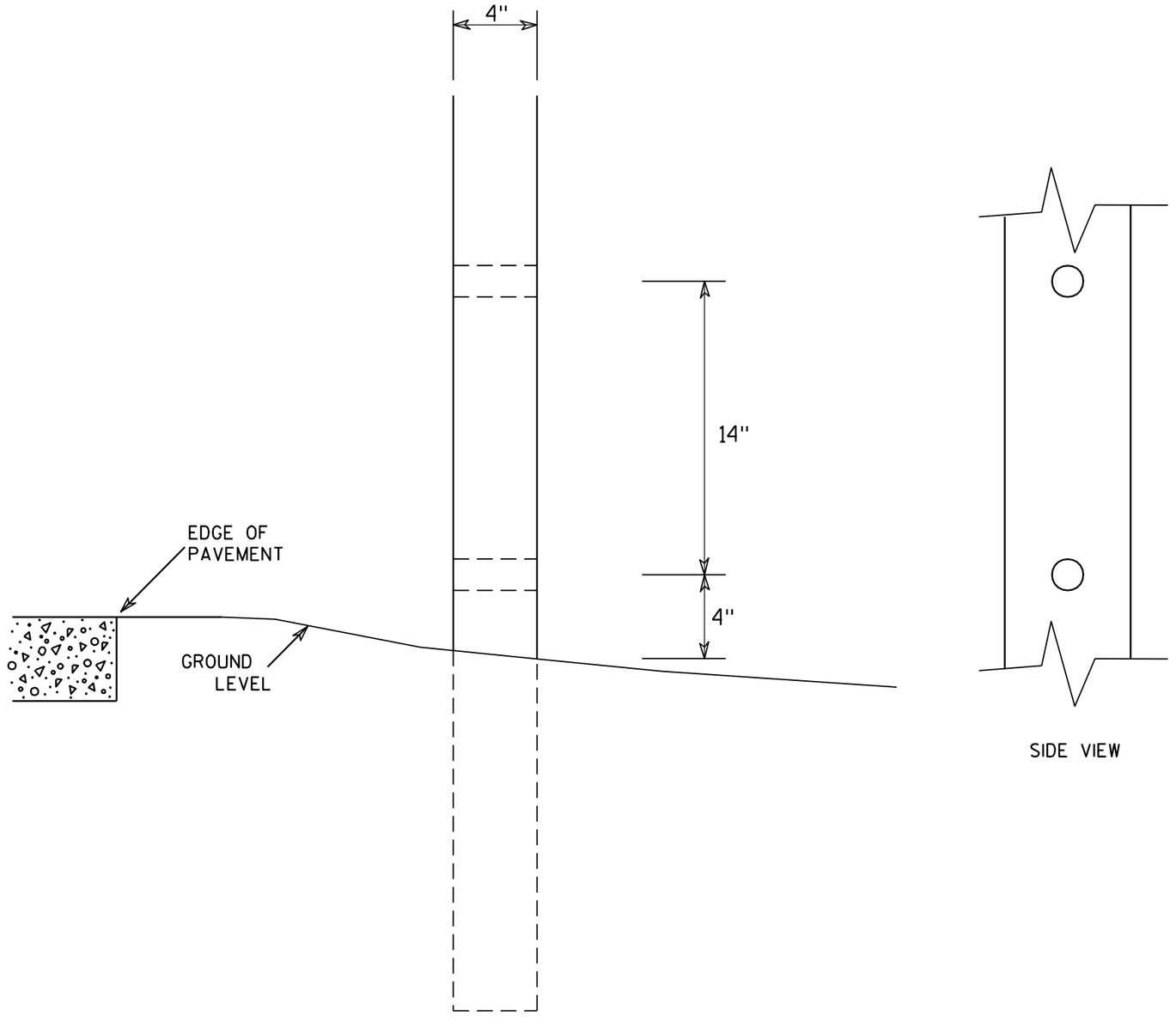
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 64 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

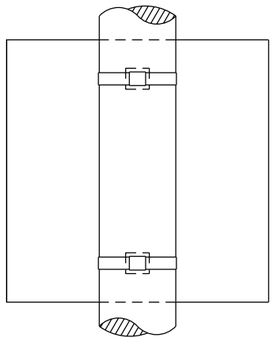
APPROVED Chester J Spang for State Traffic Engineer

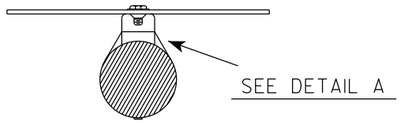
DATE 3/27/97 PLATE NO. A4-11.2

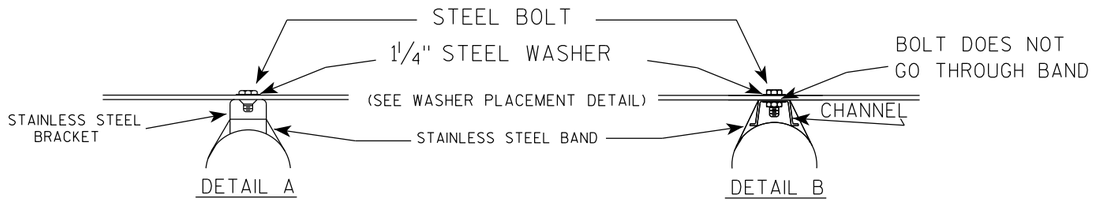
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 65	E

BANDING

SINGLE SIGN



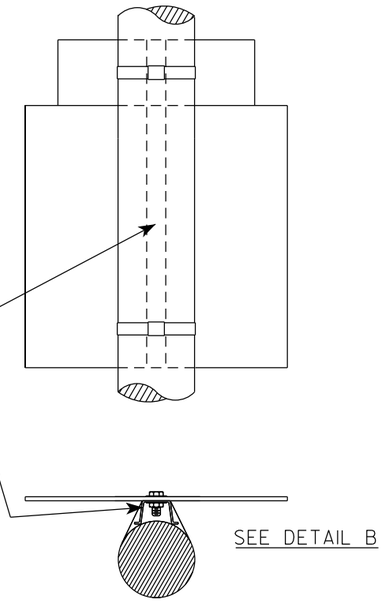




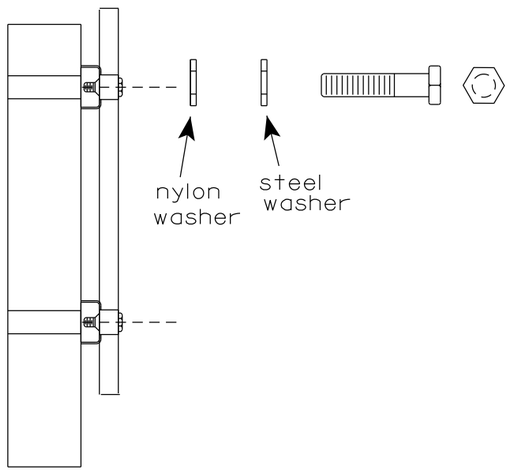
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

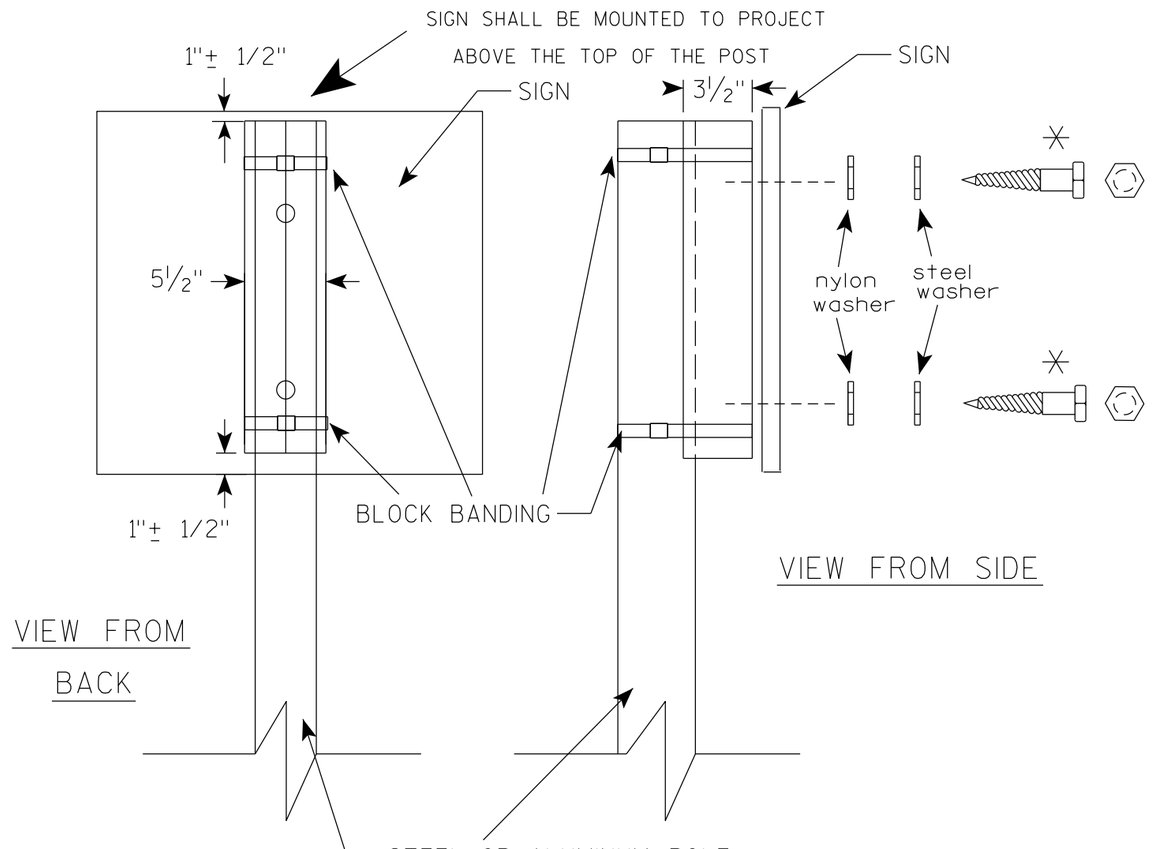
WISCONSIN DEPT OF TRANSPORTATION

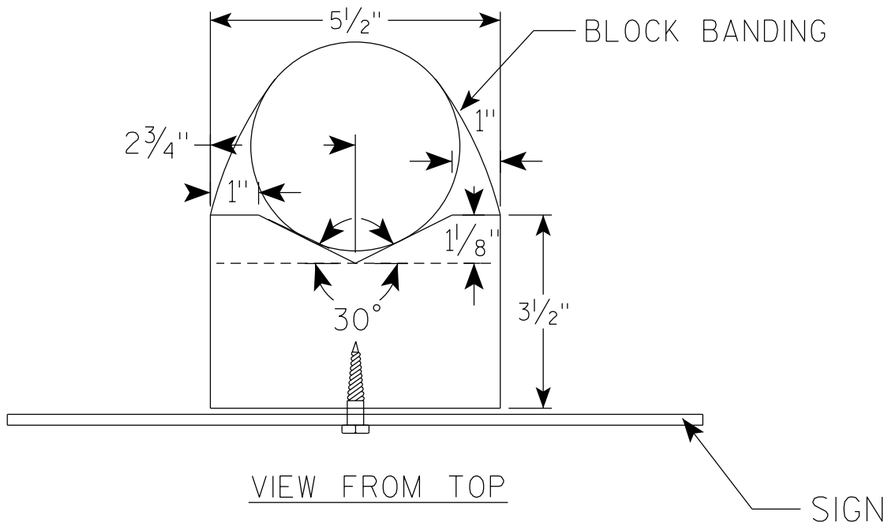
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 66	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

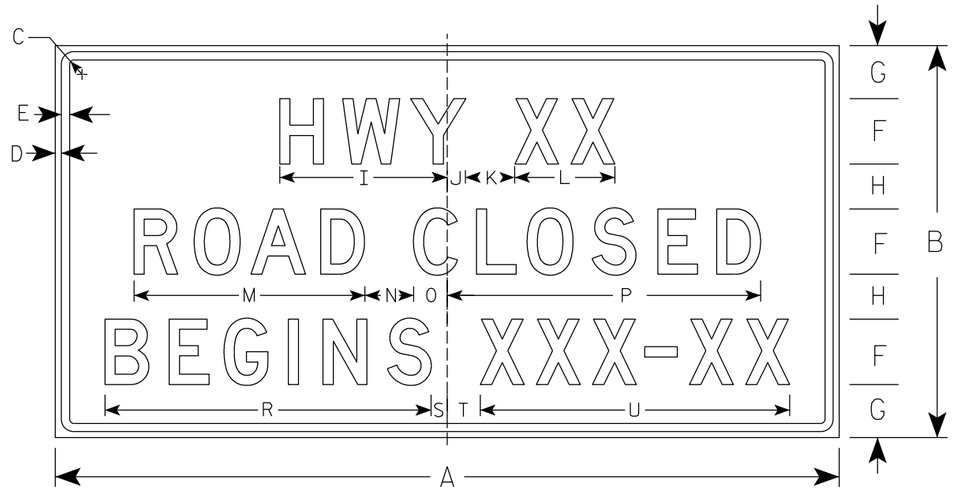
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

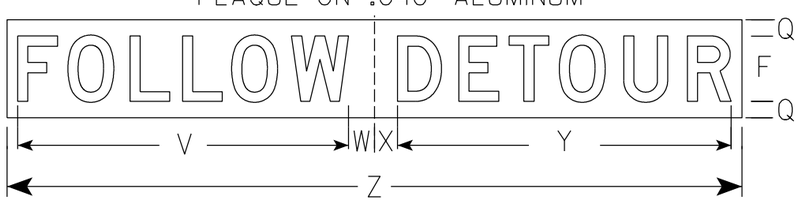
PROJECT NO:

SHEET NO: 67 E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

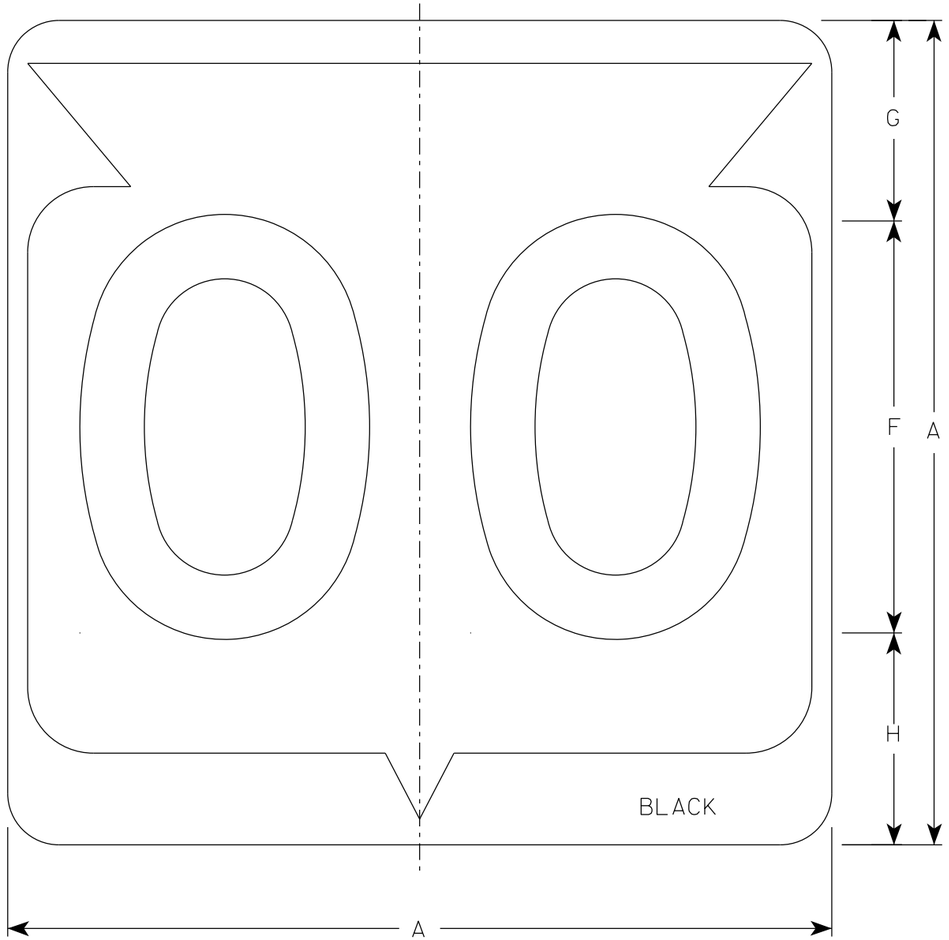
STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

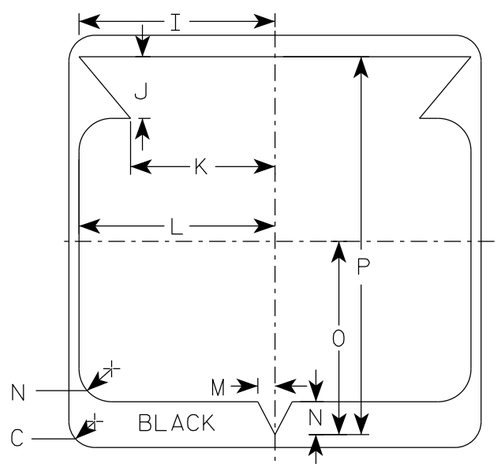
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 68 | E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C



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

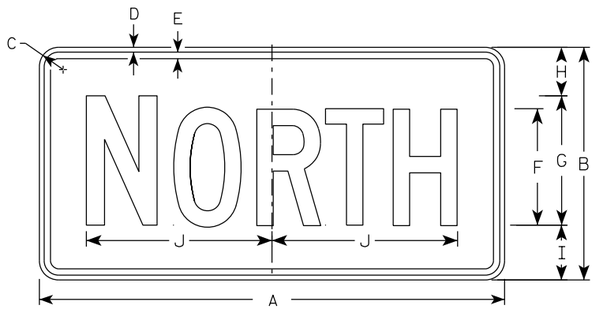
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

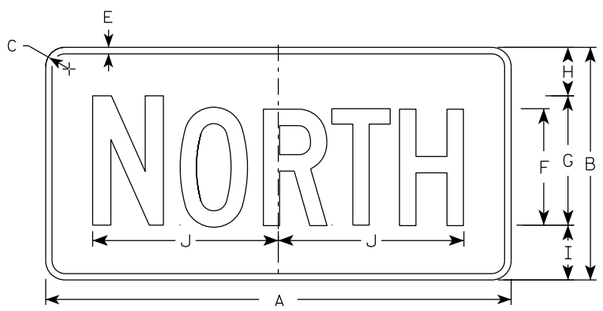
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

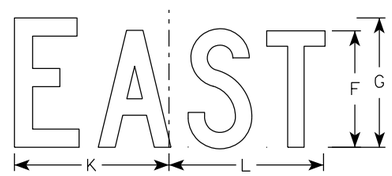
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 69	E



M3-1
MM3-1
MP3-1



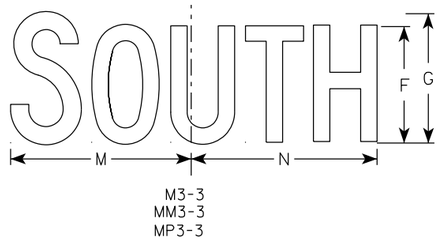
MB3-1
MK3-1
MN3-1



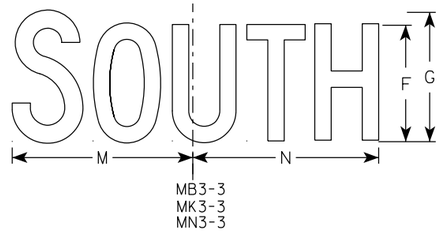
M3-2
MM3-2
MP3-2



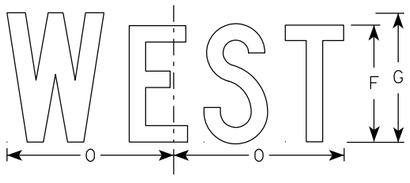
MB3-2
MK3-2
MN3-2



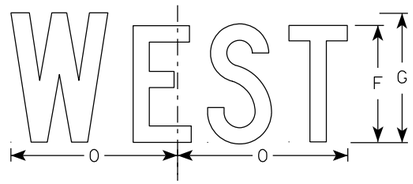
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

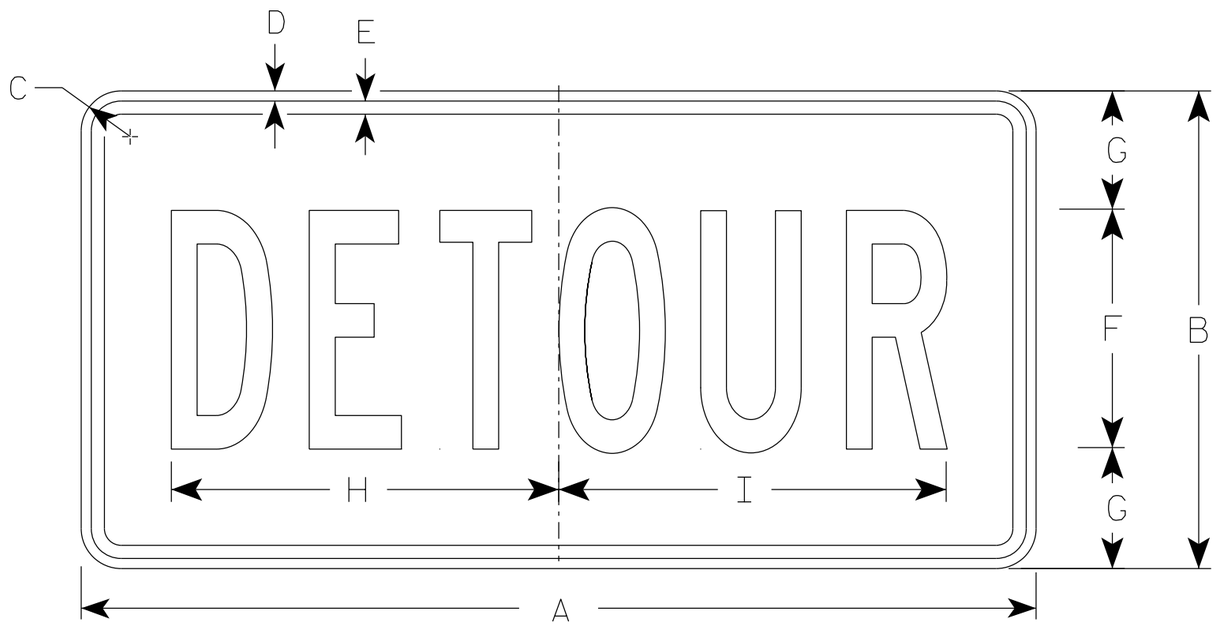
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 70 | E

NOTES

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



M4-8

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

STANDARD SIGN
M4-8

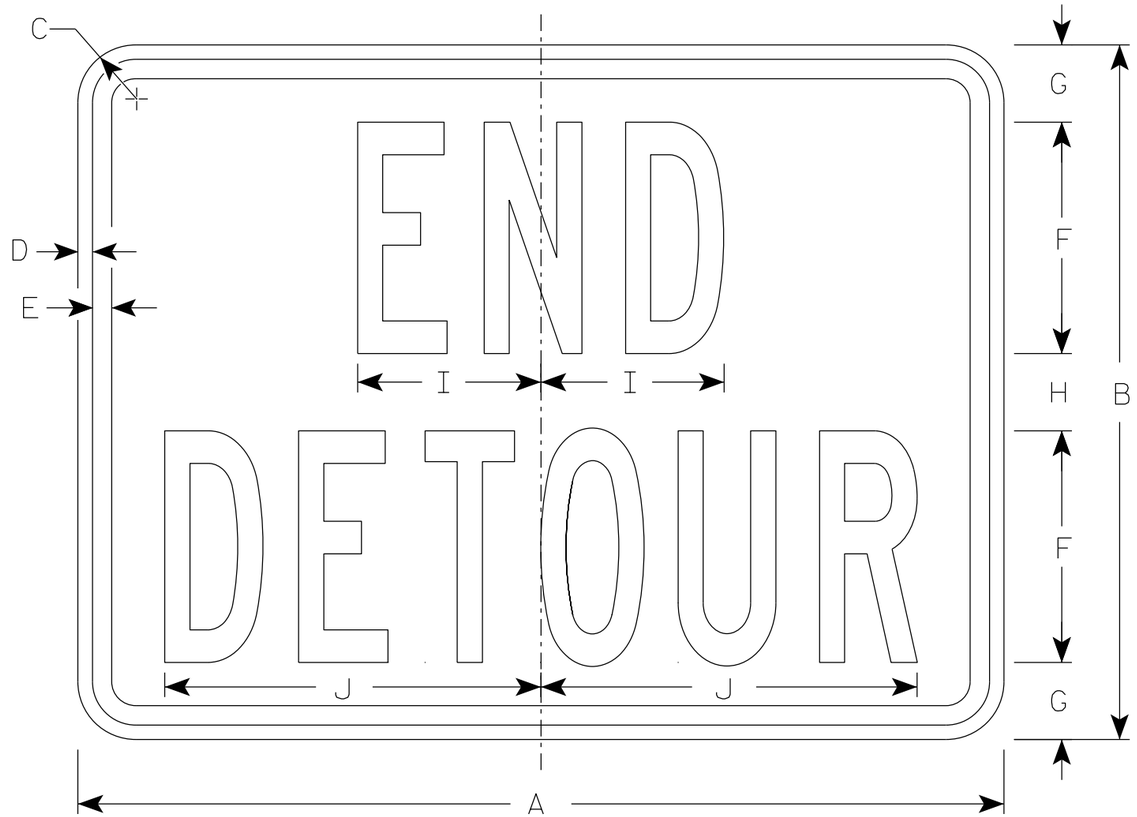
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48.dgn PLOT DATE : 9-FEB 2023 7:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

STANDARD SIGN
M4-8A

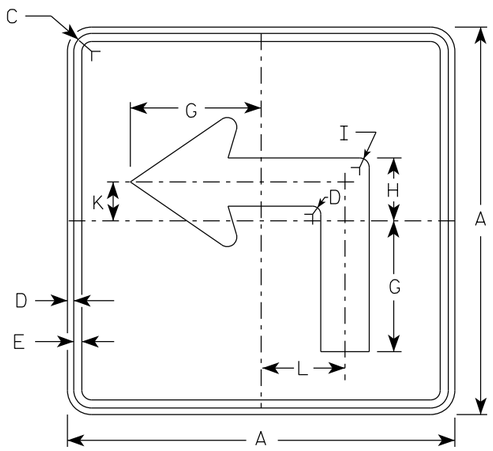
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

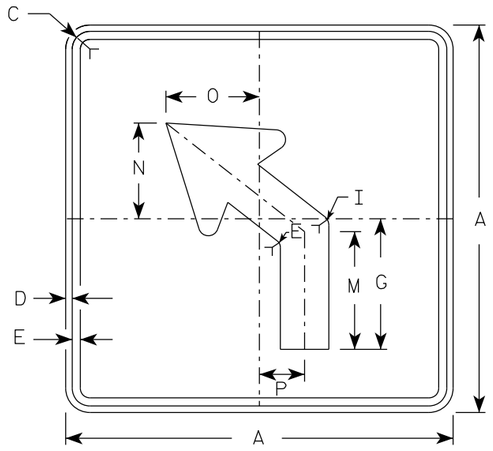
DATE 2/9/2023 PLATE NO. M4-8A.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 72 | E

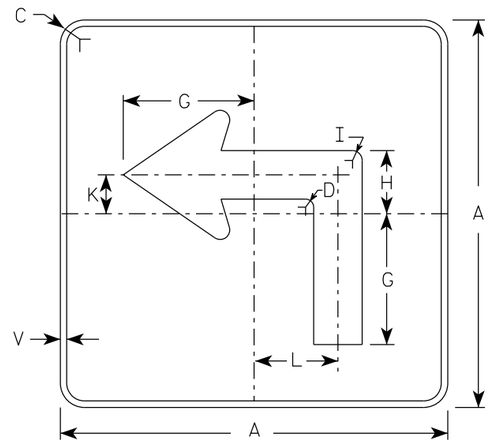
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48A.dgn PLOT DATE : 9-FEB 2023 8:03 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



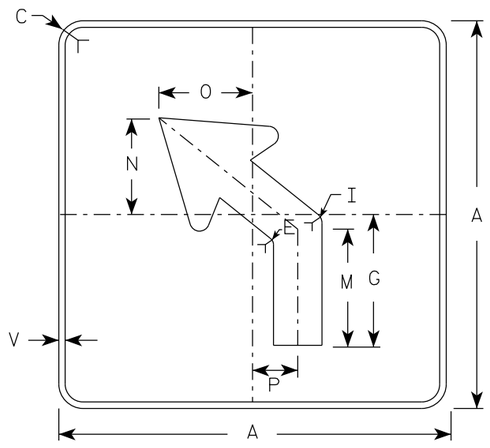
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



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

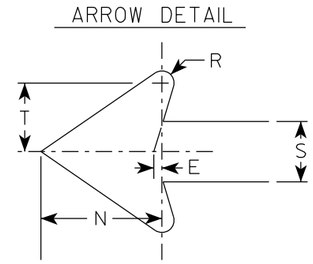


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



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

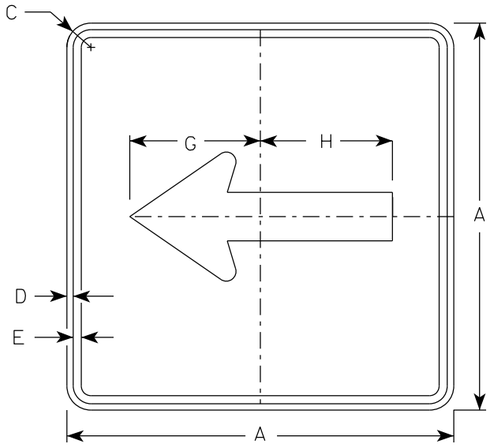
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

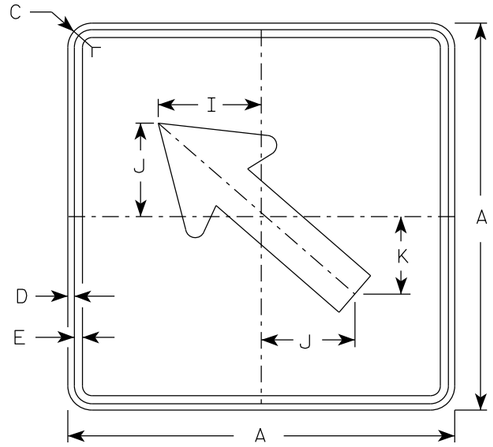
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

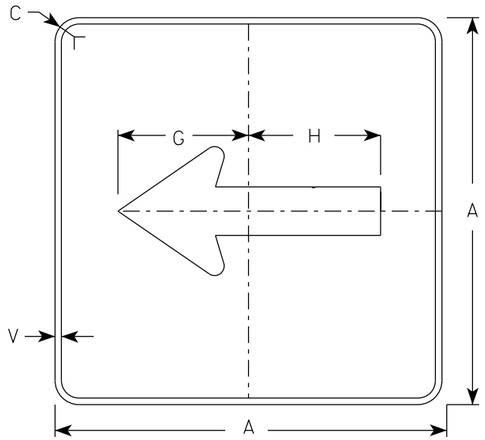
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 73 | E



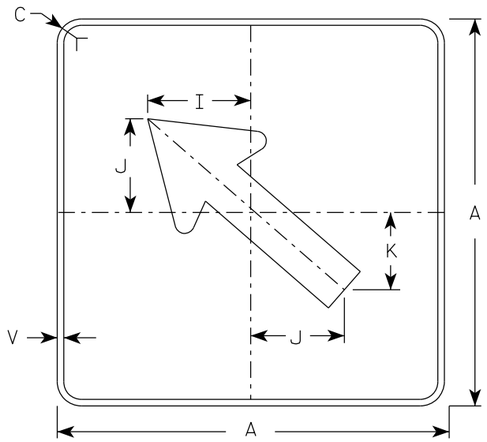
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

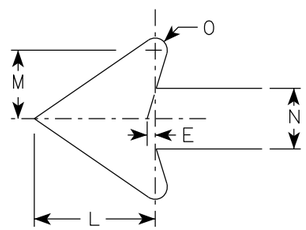


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



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

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

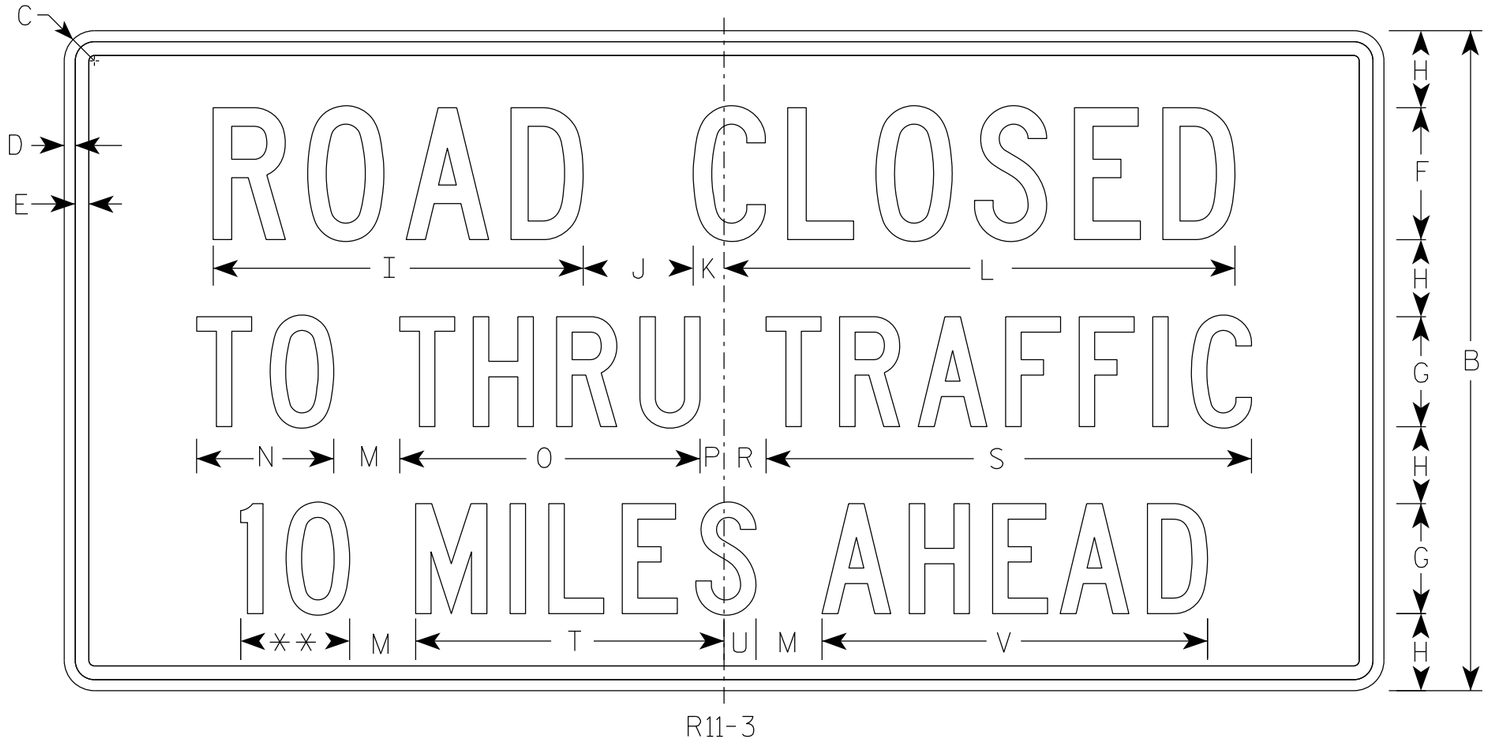
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 74 | E

7

7

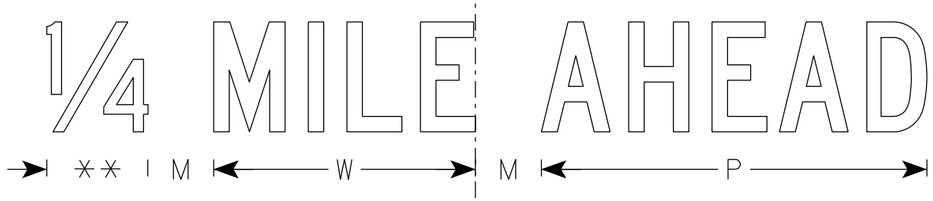
NOTES

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



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

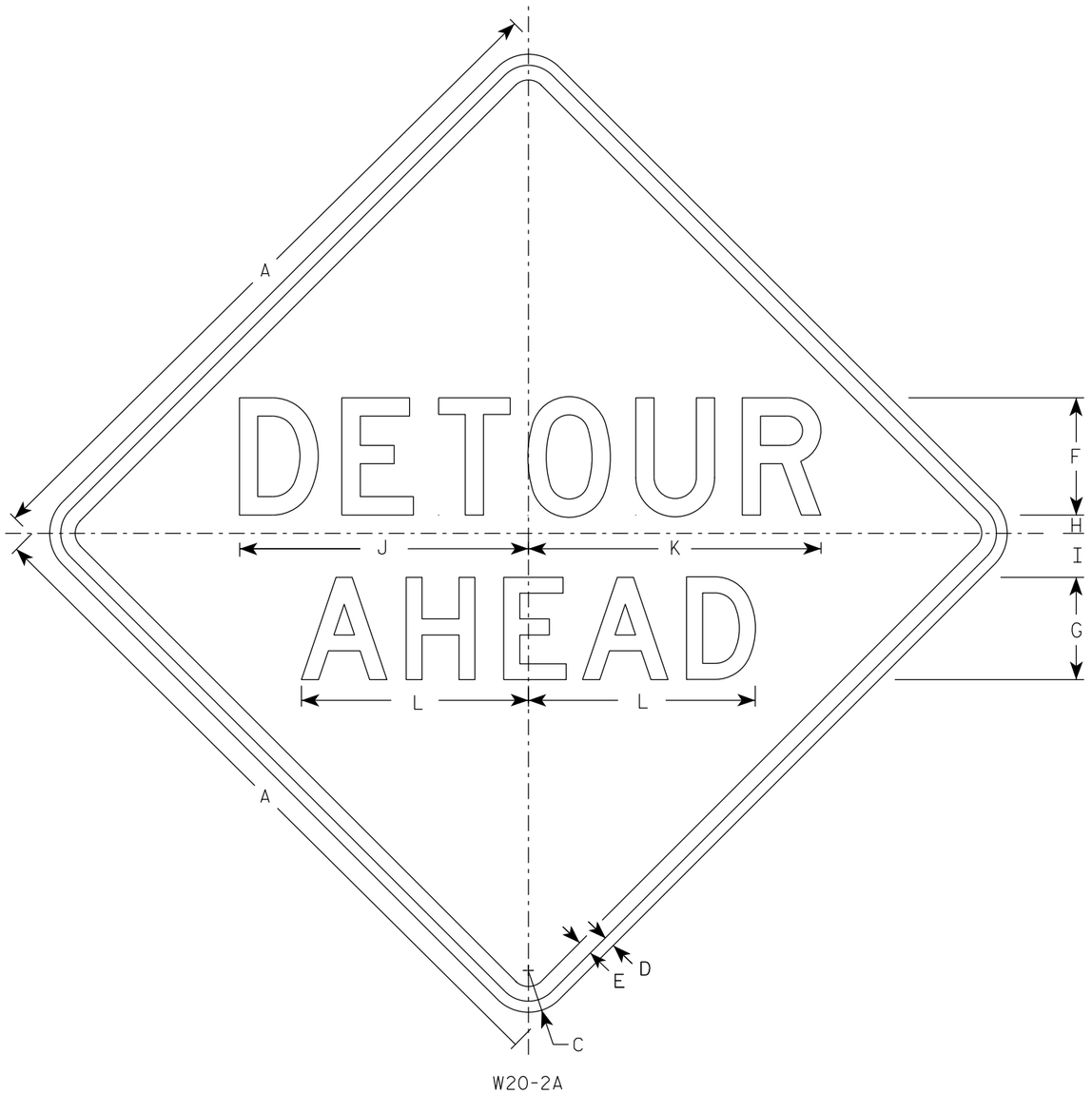
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

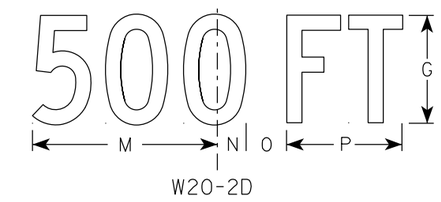
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

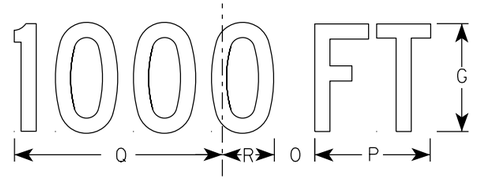
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 75 | E



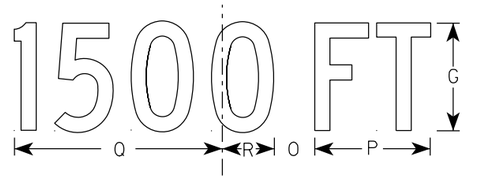
W20-2A



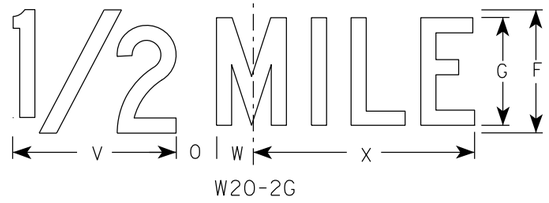
W20-2D



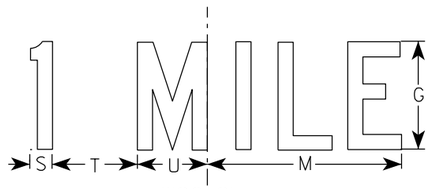
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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

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

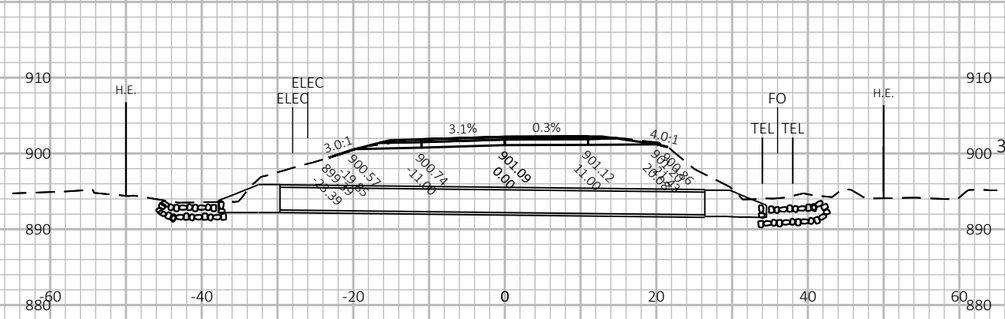
WISCONSIN DEPT OF TRANSPORTATION

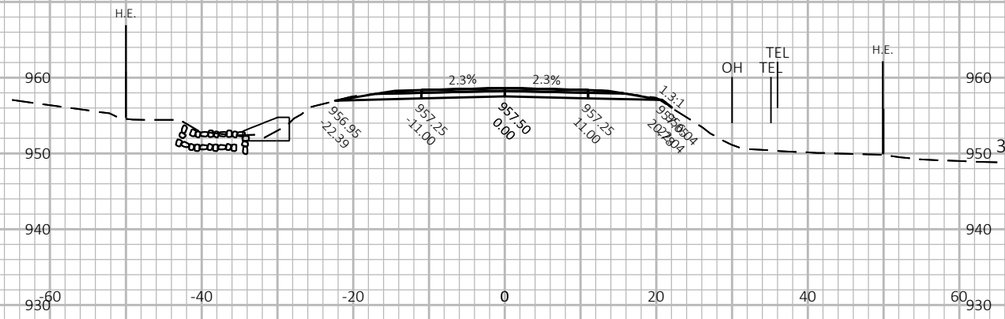
APPROVED Matthew R Rauch
For State Traffic Engineer

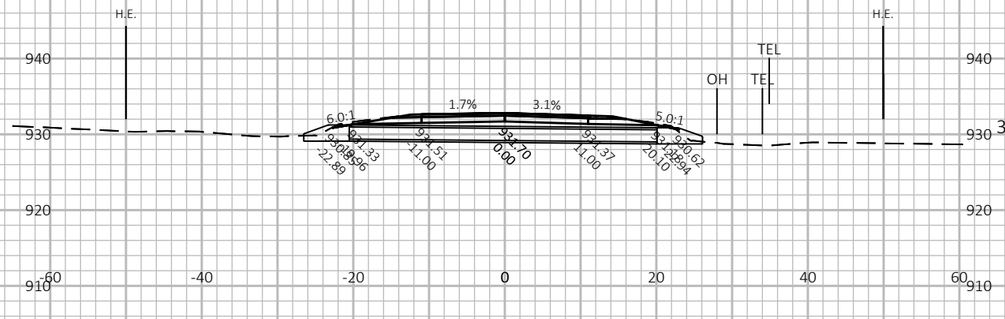
DATE 1/10/2024 PLATE NO. W20-2.7

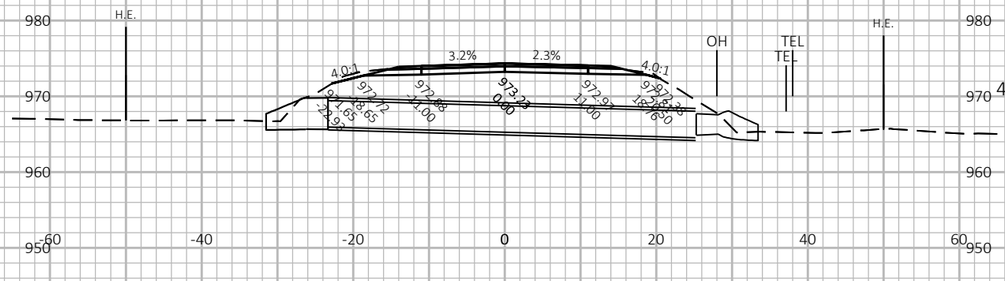
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

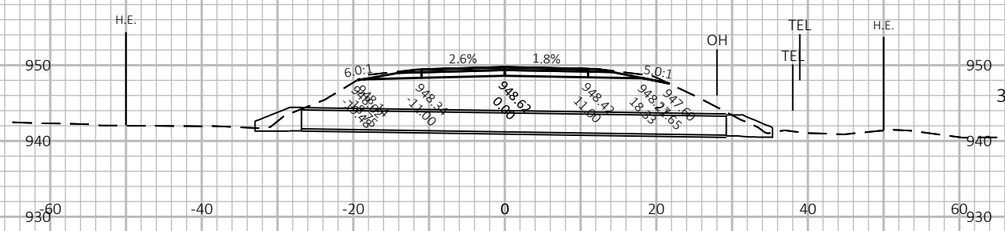
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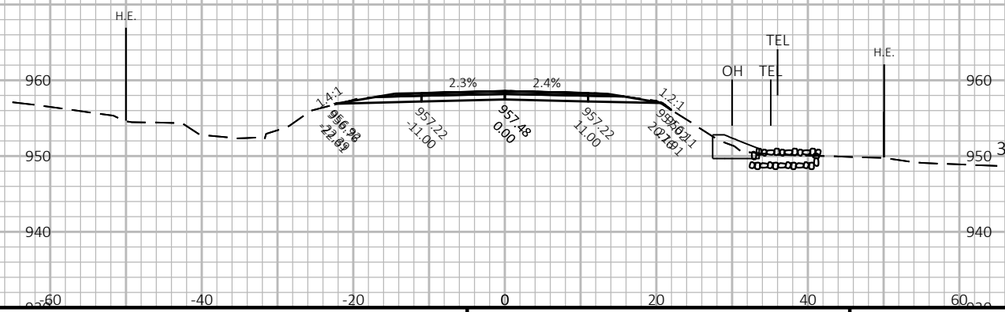


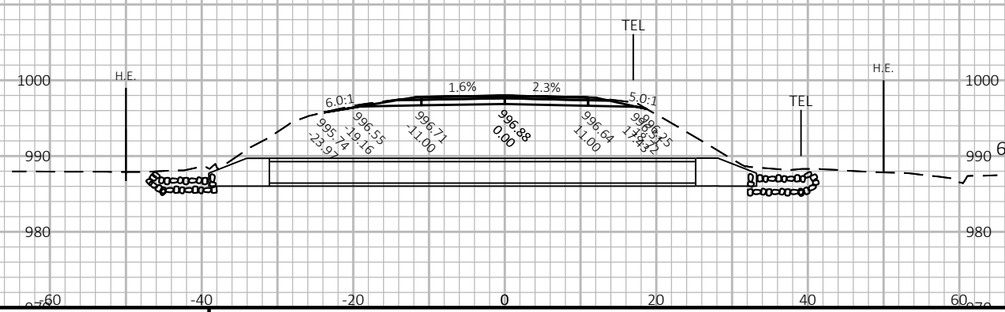


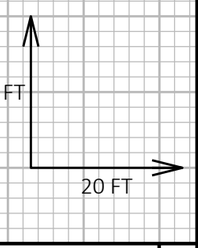












9

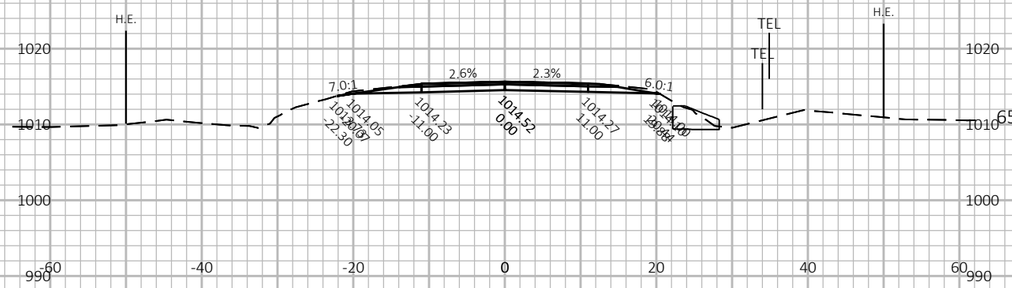
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PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 77	E

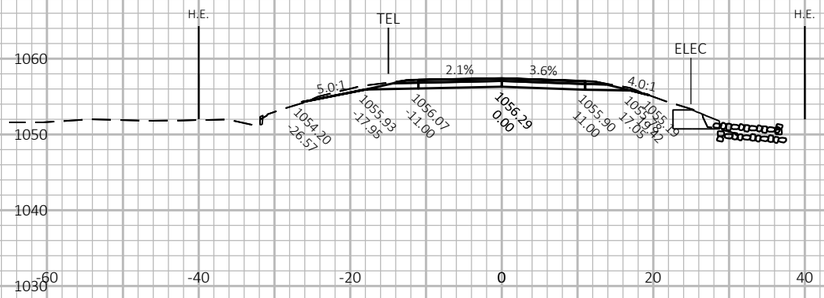
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LAYOUT NAME - 27

PLOT DATE : 10/10/2024 1:26 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

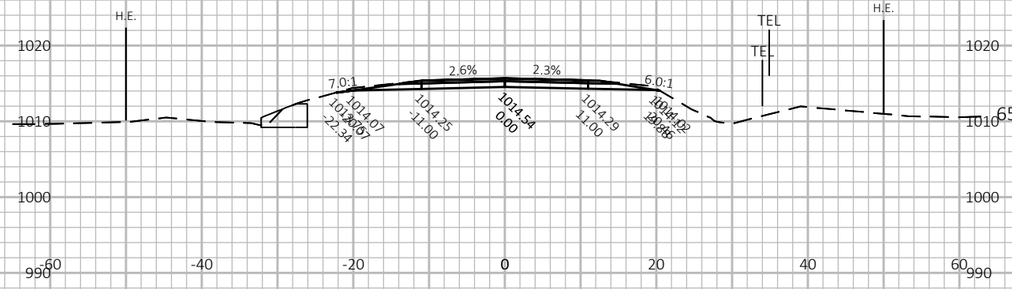
WISDOT/CADDS SHEET 49



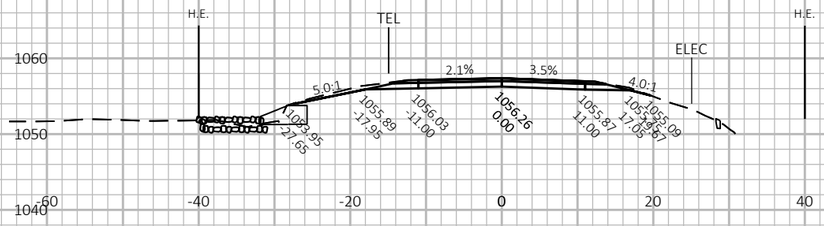
655+46



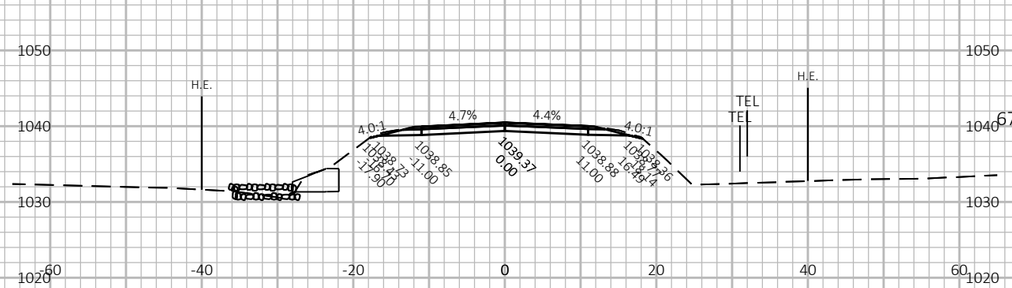
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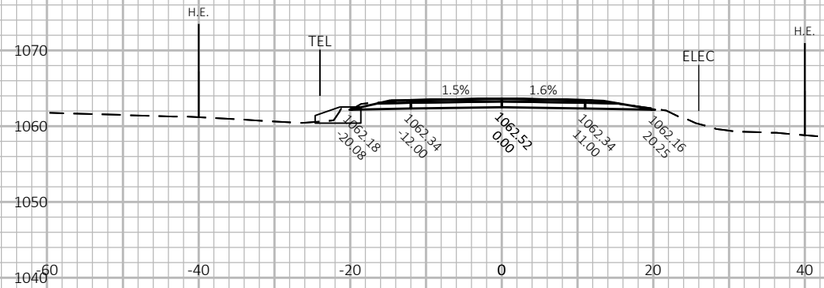
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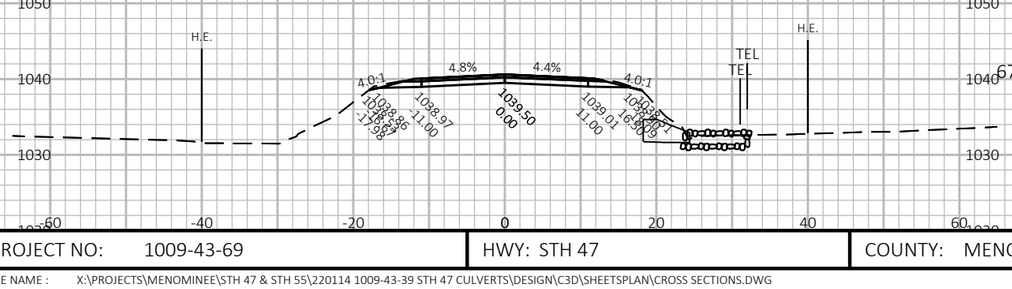
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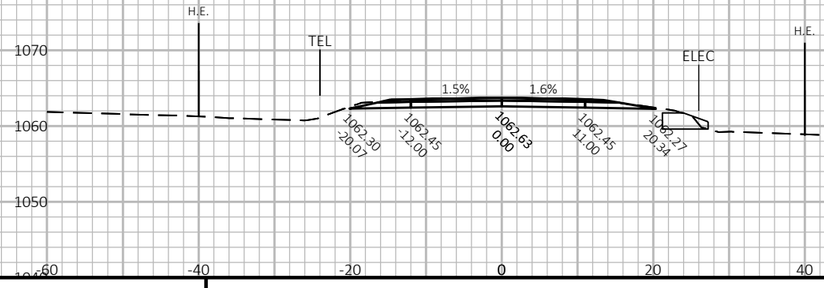
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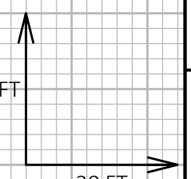
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672+87



820+56



9

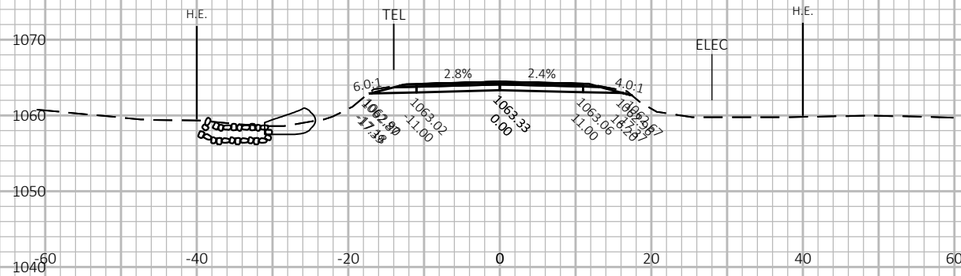
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PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 78	E

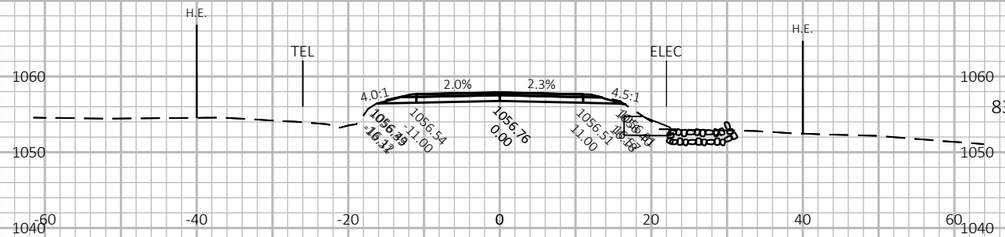
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LAYOUT NAME - 28

PLOT DATE : 10/10/2024 1:26 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

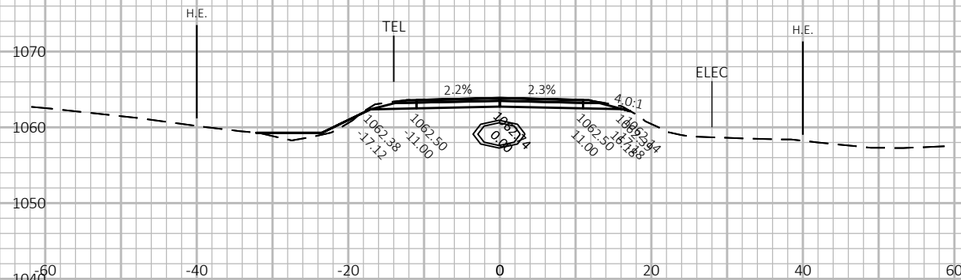
WISDOT/CADDS SHEET 49



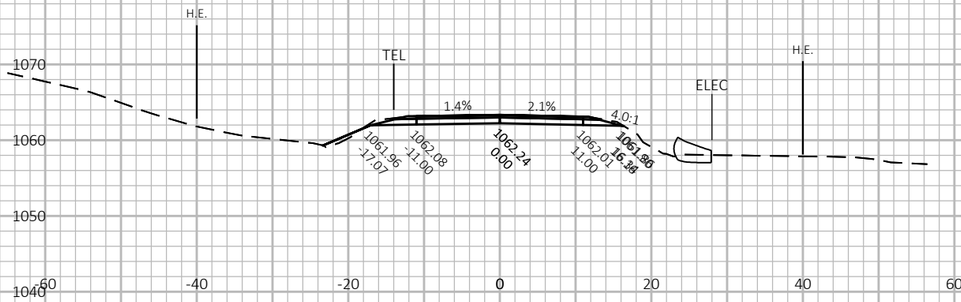
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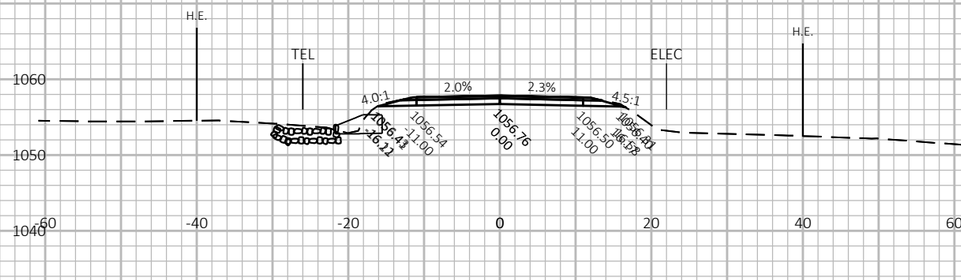
833+57



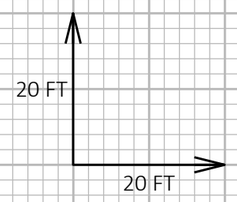
829+43



829+61



833+55



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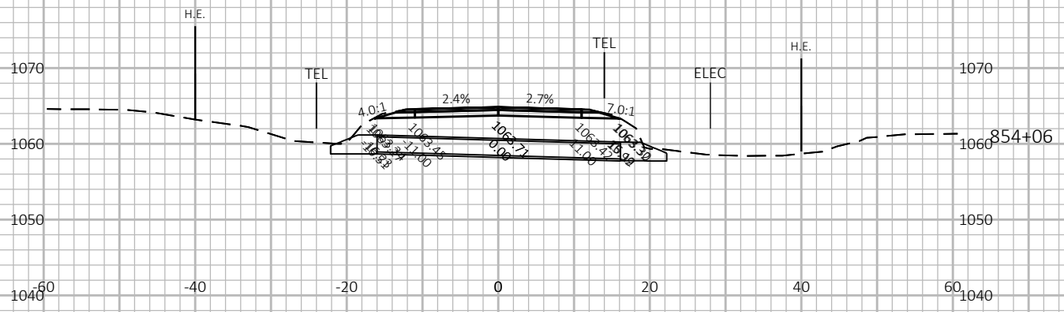
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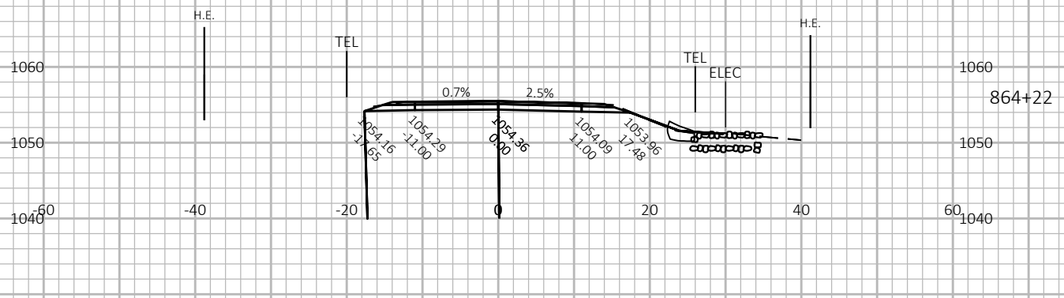
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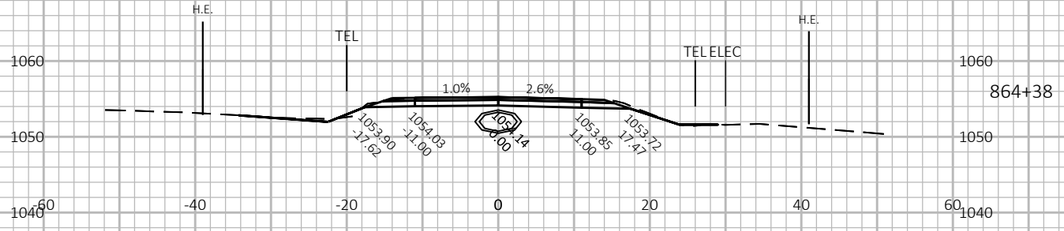
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LAYOUT NAME - 29

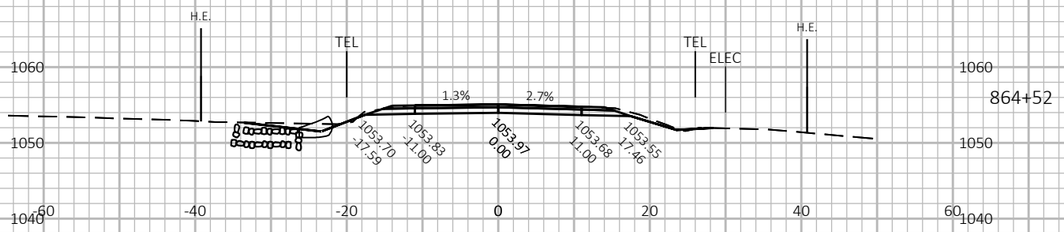
PLOT DATE : 10/10/2024 1:26 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

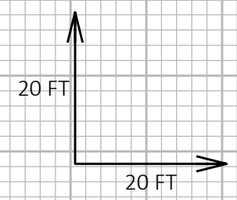
WISDOT/CADDS SHEET 49











9

9

PROJECT NO: 1009-43-69	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 80	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\DESIGN\C3D\SHEETSPLAN\CROSS SECTIONS.DWG
LAYOUT NAME - 30

PLOT DATE : 10/10/2024 1:26 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

RHI

FEBRUARY 2026

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.	5	Plan
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 172

PROJECT ID: 9650-16-72

WITH: 1009-43-69/9650-17-73/9660-09-70

COUNTY: MENOMINEE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NEOPIT - ANTIGO

CHURCH STREET TO LANGLADE CO LINE

STH 47

MENOMINEE

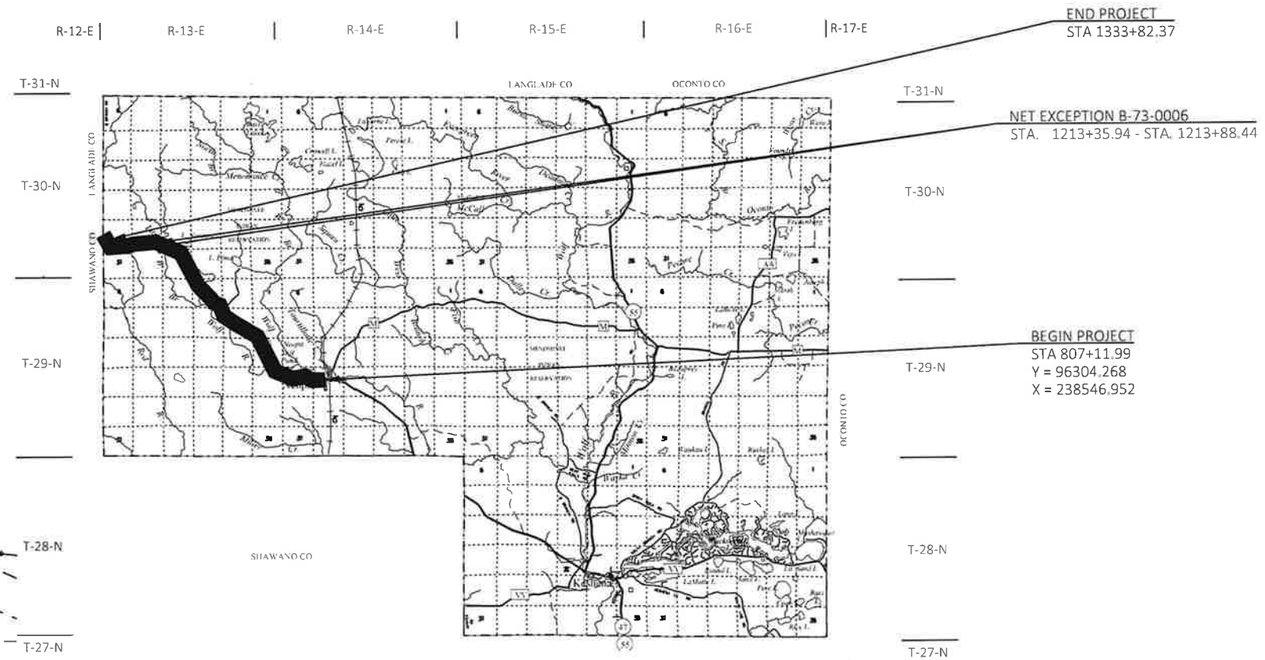
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9650-16-72	WISC 202624B	1

STATE PROJECT NUMBER

9650-16-72







DESIGN DESIGNATION

A.A.D.T.	2027	=	900
A.A.D.T.	2047	=	1060
D.H.V.		=	20.5
D.D.		=	61/39
T.		=	21.8%
DESIGN SPEED		=	60 MPH
ESALS		=	380,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

- GRADE LINE (T-28-N)
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL) (T-27-N)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

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

LAYOUT SCALE 0 4MI

TOTAL NET LENGTH OF CENTERLINE = 9.975 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MENOMINEE 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

ORIGINAL PLANS PREPARED BY

JT ENGINEERING WISCONSIN

ANDREW W. BLOCK E-41224-6 APPLETON WI. PROFESSIONAL ENGINEER

DATE: 10/7/25 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COLEMAN ENGINEERING COMPANY
Designer	JT ENGINEERING
Project Manager	STACY HAGENBUCHER
Regional Examiner	FRED SCHUNK
Regional Supervisor	KAI KILEN

APPROVED FOR THE DEPARTMENT

DATE: 10/20/2025 (Signature)

E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650 16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\010101_TI.DWG PLOT DATE : 9/9/2025 6:58 AM PLOT BY : ANDY BLOCK PLOT NAME :

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
STUMP GRUBBING
DETOUR

TRIBAL/ENVIRONMENTAL CONTACT

JEREMY PYATSKOWIT
PO BOX 910
KESHENA, WI 54135
(715) 799-6150
JPYATSKOWIT@MITW.COM

DNR LIAISON

JAMES DOPERALSKI, JR.
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 412-0165
JAMES.DOPERALSKI@WISCONSIN.GOV

UTILITY CONTACTS

ELECTRICITY

ALLIANT ENERGY
BILL BASTIAN
800 W SCOTT ST
FOND DU LAC, WI 54937
(920) 322-6716
BILLBASTIAN@ALLIANTENERGY.COM

COMMUNICATIONS

FRONTIER COMMUNICATIONS OF WI LLC
CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
(715) 847-1240
CHRISTOPHER.POLLACK@FTR.COM

COMMUNICATIONS

SPECTRUM
SCOTT KAISER
5024 HEFFRON ST
STEVENS POINT, WI 54481
(715) 382-3493
SCOTT.KAISER@CHARTER.COM

GENERAL NOTES

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

ALL SLOPE INTERCEPTS SHOWN IN THE PLAN ARE APPROXIMATE.

ON MILLED SURFACES, APPLY TACK COAT AT 0.07 GAL/SY APPLICATION RATE.

UTILIZE SDD 14B29 SAFETY EDGE FOR ALL PROPOSED ASPHALT PAVEMENT LAYERS.

PAVEMENT DEPTHS PROVIDED IN THE EXISTING TYPICAL SECTIONS WITHIN THE PLANS ARE BASED ON AVAILABLE AS-BUILT INFORMATION. PAVEMENT CORINGS WERE PERFORMED WITHIN THE PROJECT CORRIDOR WITH THE FOLLOWING RESULTS:

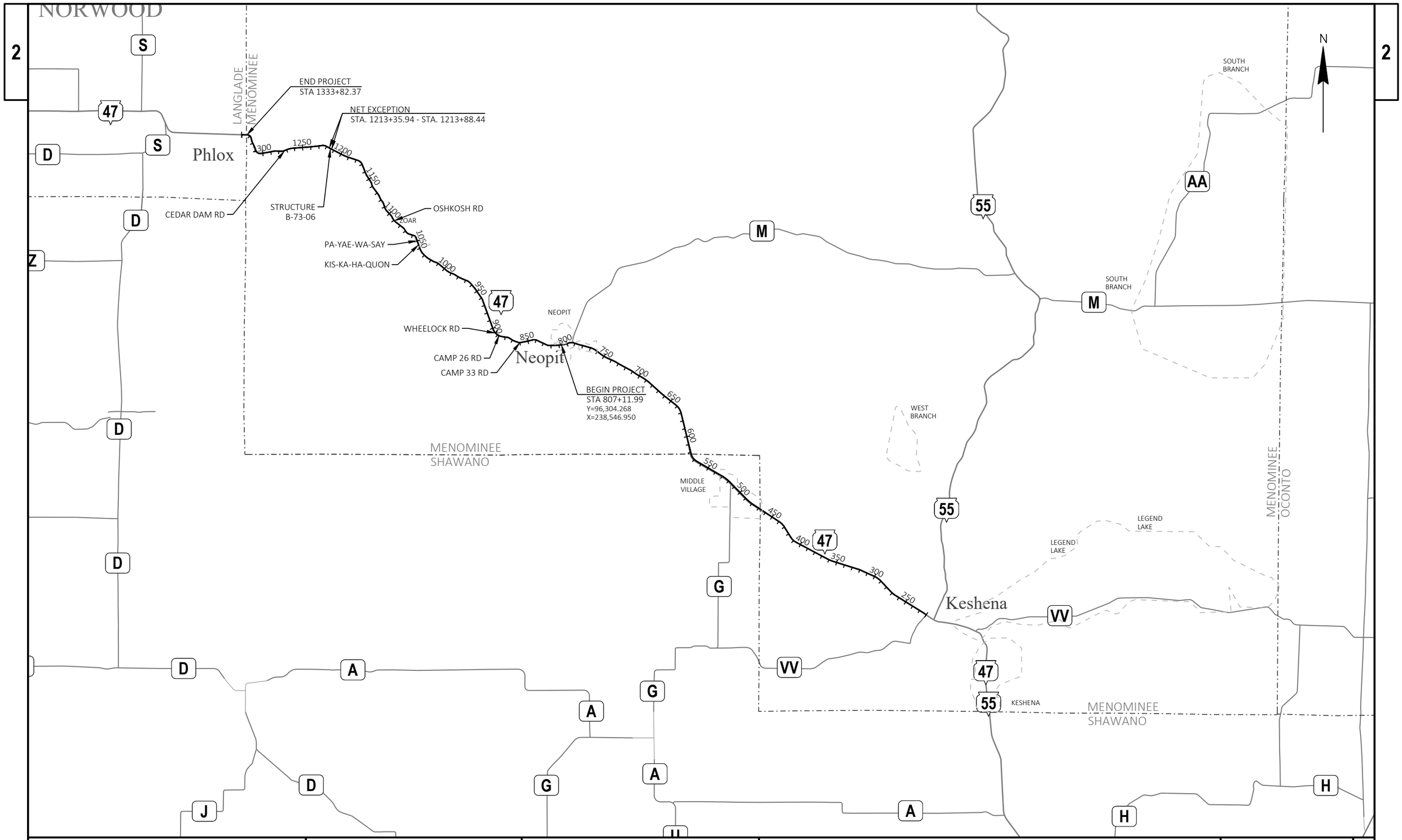
LOCATION	PAVEMENT DEPTH (IN)
STA 880+94	$7\frac{1}{2}$
STA 1085+42	$10\frac{3}{4}$
STA 1171+60	$17\frac{1}{2}$

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 120.9 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.48 ACRES

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



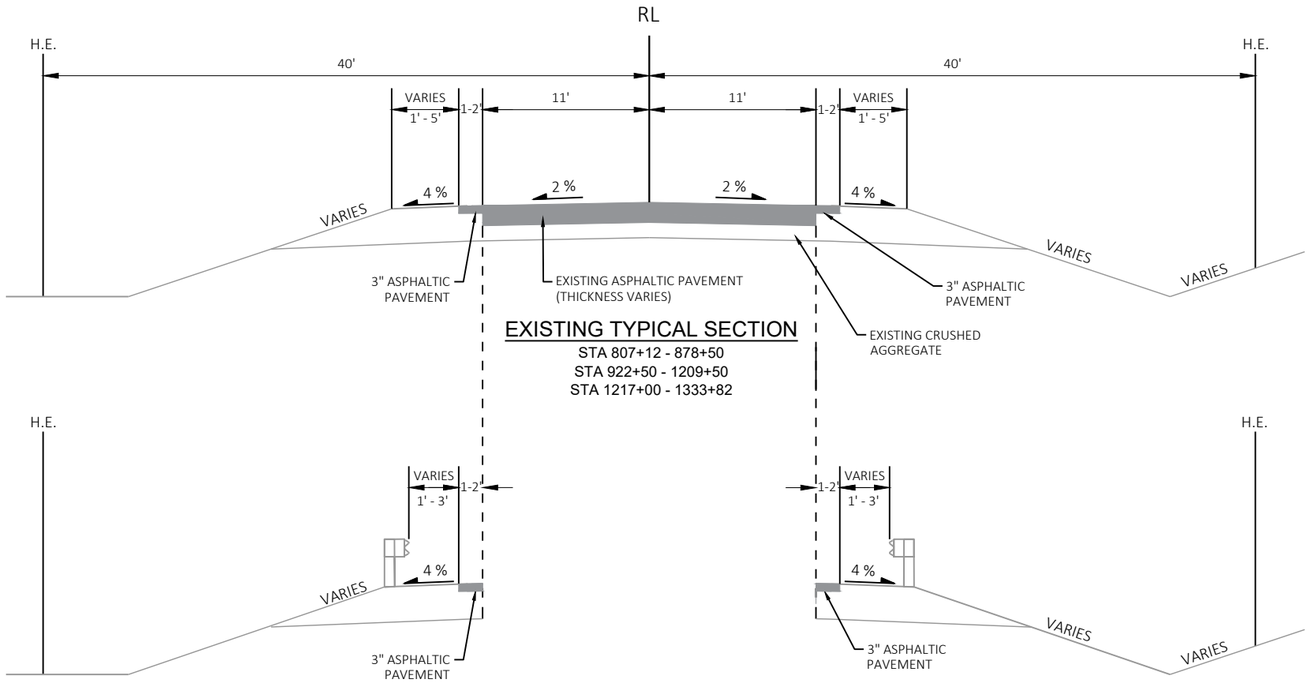
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\020201_PO.DWG
LAYOUT NAME - 01

PLOT DATE : 12/6/2024 8:20 AM PLOT BY : RYAN WECH PLOT NAME : PLOT SCALE : 1 IN:2 MI

WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL SECTION

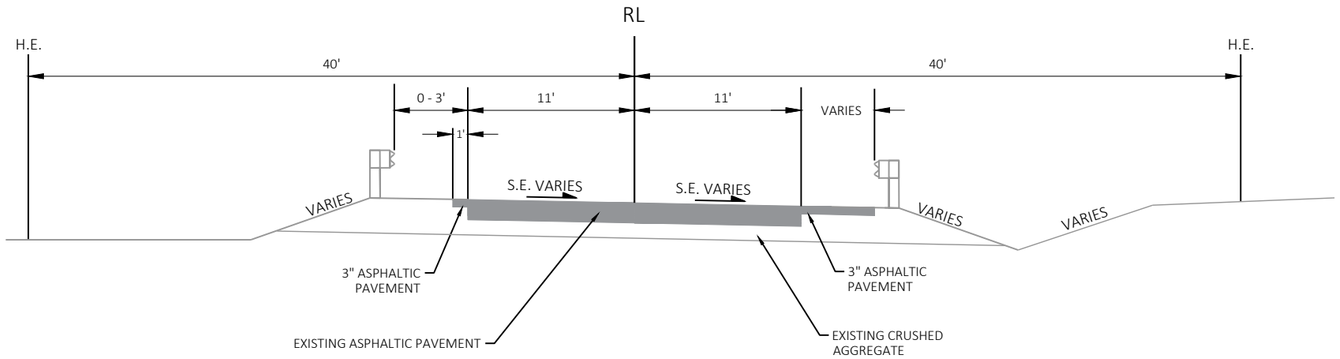
STA 807+12 - 878+50
STA 922+50 - 1209+50
STA 1217+00 - 1333+82

EXISTING BEAM GUARD

STA 811+03 to 812+21 LT
STA 1063+26 - 1069+81 LT
STA 1302+71 - 1309+08 LT

EXISTING BEAM GUARD

STA 807+57 - 812+87 RT
STA 859+75 - 868+13 RT
STA 1052+39 - 1057+68 RT
STA 1165+40 - 1183+19 RT
STA 1217+64 - 1230+94 RT



EXISTING TYPICAL SECTION

STA 878+50 - 897+59

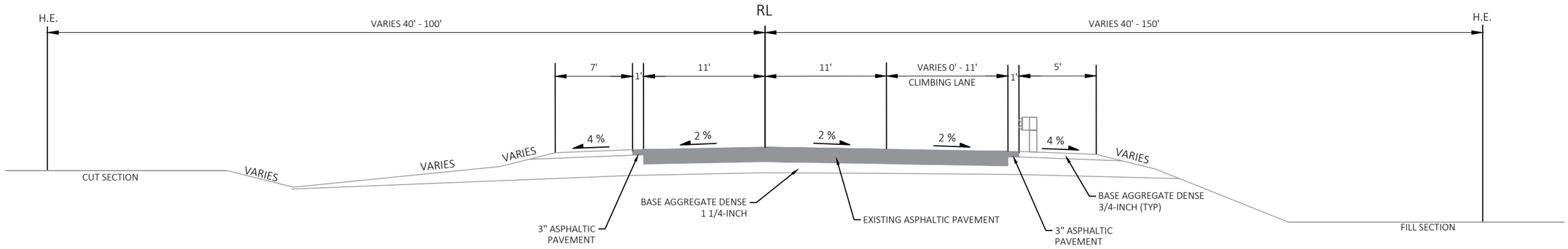
EXISTING BEAM GUARD

STA 881+98 - 893+21 RT
STA 888+02 - 892+77 LT
STA 893+08 - 896+05 LT
STA 893+45 - 897+59 RT

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	TYPICAL SECTIONS	SHEET 4	E

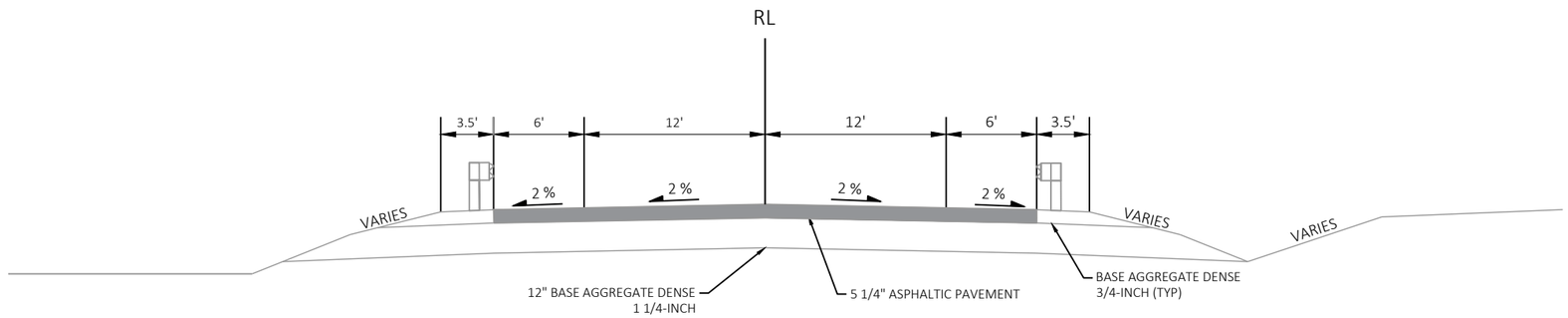
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 01-10ft
PLOT DATE : 12/11/2024 2:39 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT

BRIDGE APPROACH



EXISTING TYPICAL SECTION

STA 897+59 - 922+50



EXISTING TYPICAL SECTION

STA 1209+50 - 1213+36

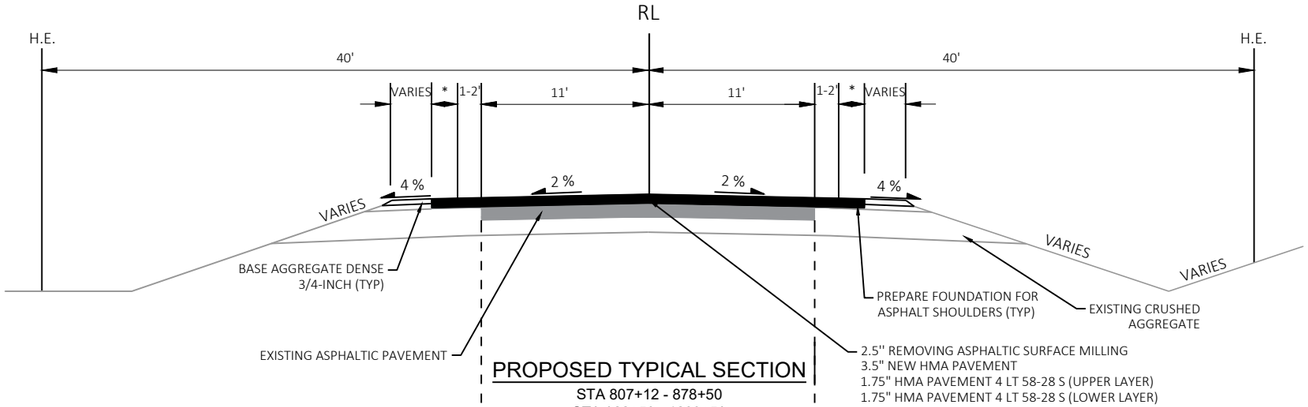
STA 1213+88 - 1217+00

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02-10ft

PLOT DATE : 12/11/2024 2:39 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

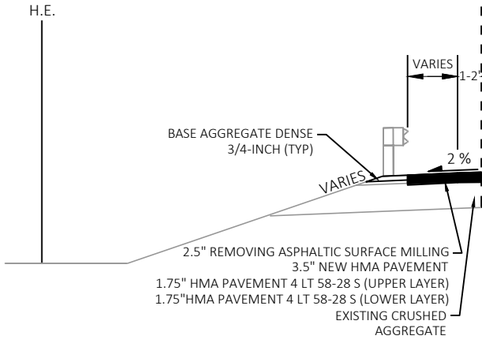


PROPOSED TYPICAL SECTION

STA 807+12 - 878+50
STA 922+50 - 1209+50
STA 1217+00 - 1333+82

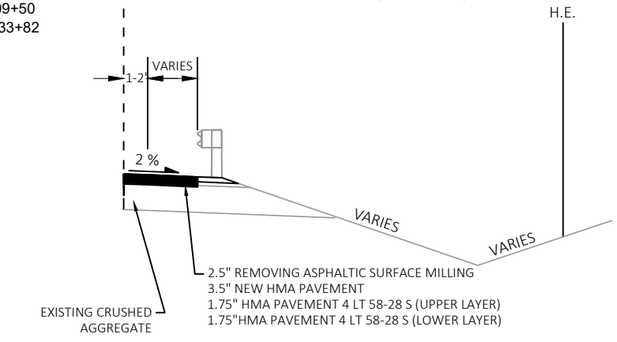
*ADDITIONAL MAINLINE PAVED SHOULDERS

STA 808+50 - 880+00	1'
STA 880+00 - 936+00	3'
STA 936+00 - 1324+00	1'



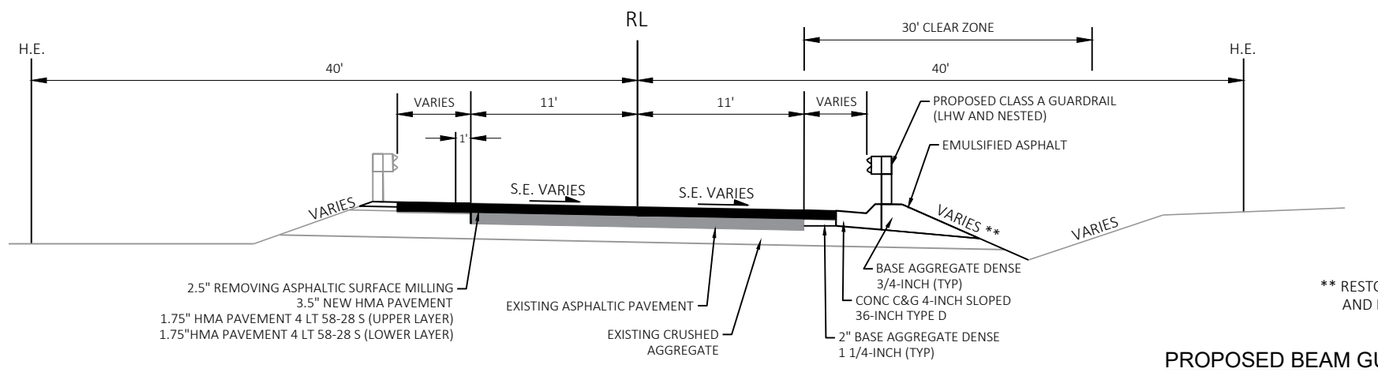
SHOULDERS ADJACENT TO EXISTING GUARDRAIL

STA 811+03 - 812+21 LT
STA 888+02 - 892+77 LT
STA 893+08 - 896+05 LT
STA 1063+26 - 1069+81 LT
STA 1302+71 - 1309+08 LT



SHOULDERS ADJACENT TO EXISTING GUARDRAIL

STA 807+57 - 812+87 RT
STA 859+75 - 868+13 RT
STA 1052+39 - 1057+68 RT
STA 1165+40 - 1183+19 RT
STA 1217+64 - 1230+94 RT



PROPOSED TYPICAL SECTION

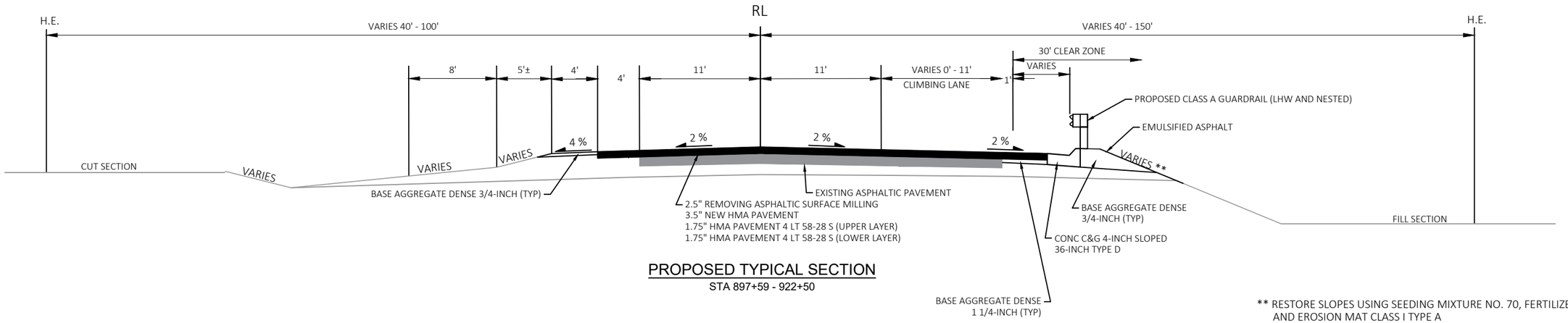
STA 878+50 - 897+59

** RESTORE SLOPES USING SEEDING MIXTURE NO. 70, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE A

PROPOSED BEAM GUARD

STA 881+98 - 893+21 RT
STA 893+45 - 897+52 RT

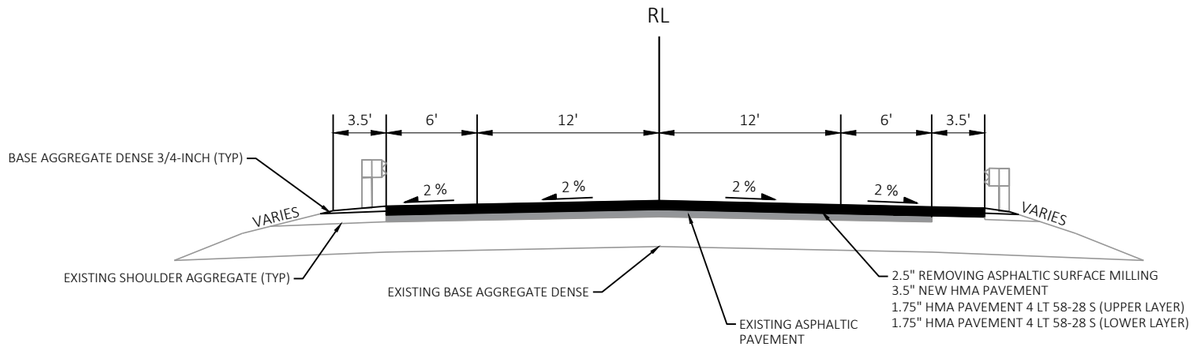
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	TYPICAL SECTIONS	SHEET 6	E



PROPOSED TYPICAL SECTION

STA 897+59 - 922+50

** RESTORE SLOPES USING SEEDING MIXTURE NO. 70, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE A

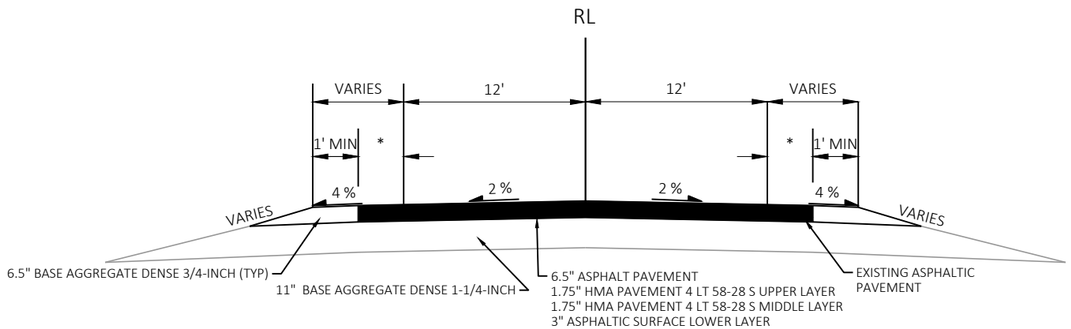


PROPOSED BEAM GUARD

STA 897+59 - 922+50 RT

PROPOSED TYPICAL SECTION

STA 1209+50 - 1213+36
STA 1213+88 - 1217+00

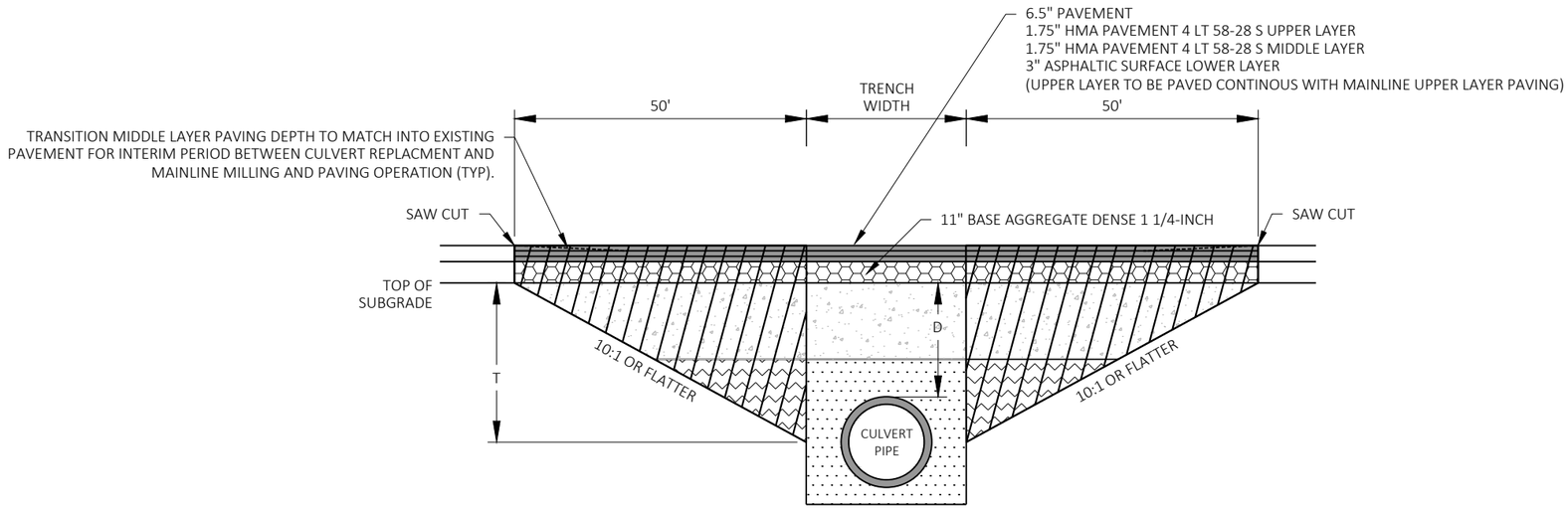


PROPOSED TYPICAL SECTION

CULVERT PATCHES

*EXISTING PAVED SHOULDER WIDTH PLUS VALUES BELOW.

STA 808+50 - 880+00	1'
STA 880+00 - 936+00	3'
STA 936+00 - 1324+00	1'



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.

KEY

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT

CULVERT PIPE TRANSITION

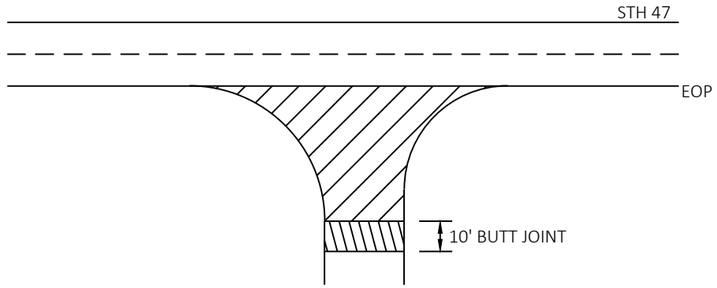
ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 47	880+94	5.7	24	
STH 47	939+20	1.7	24	
STH 47	971+36	1.3	19X30	Removal Only
STH 47	994+07	1.0	24	
STH 47	1011+07	1.5	24	
STH 47	1054+21	2.4	24	
STH 47	1068+50	1.8	24	
STH 47	1085+42	0.7	30	TWIN PIPES
STH 47	1127+80	1.6	24	
STH 47	1148+03	0.8	24	
STH 47	1157+52	1.3	24	
STH 47	1163+84	5.0	24	

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 47	1171+60	1.4	24	
STH 47	1179+24	0.8	19X30	
STH 47	1220+79	0.8	19X30	
STH 47	1240+85	2.3	24	Removal Only
STH 47	1245+18	3.1	24	Removal Only
STH 47	1250+80	2.1	19X30	Removal Only
STH 47	1276+30	1.3	36	TWIN PIPES
STH 47	1288+74	0.9	24	
STH 47	1328+82	0.9	24	

NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING OPERATIONS.



REMOVING ASPHALTIC SURFACE MILLING

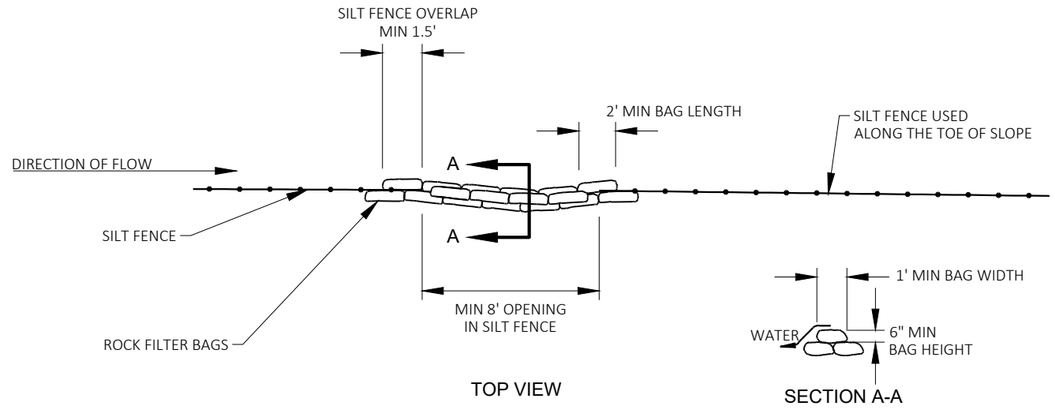
REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE
BUTT JOINT IS NOT REQUIRED

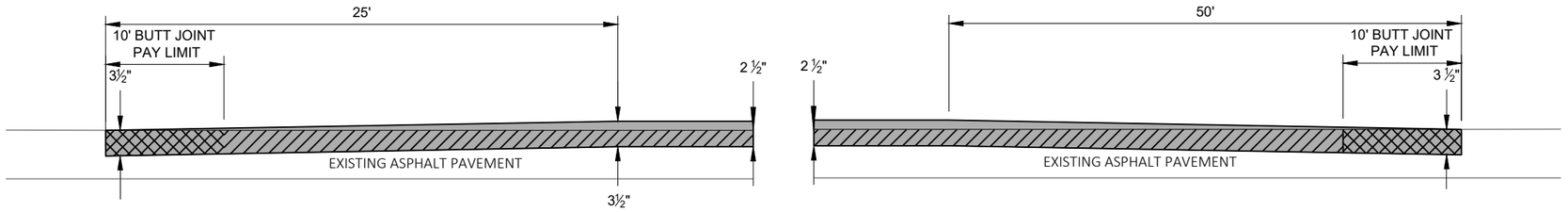
SIDE ROADS

WITHOUT CURB AND GUTTER

WHEELOCK RD
KIS-KA-HA-QUON
PA-YAE-WA-SAY



ROCK BAGS USED FOR SILT FENCE RELIEF



SIDE ROAD BUTT JOINT

MAINLINE BUTT JOINT

REMOVING ASPHALTIC SURFACE BUTT JOINTS

REMOVING ASPHALTIC SURFACE MILLING

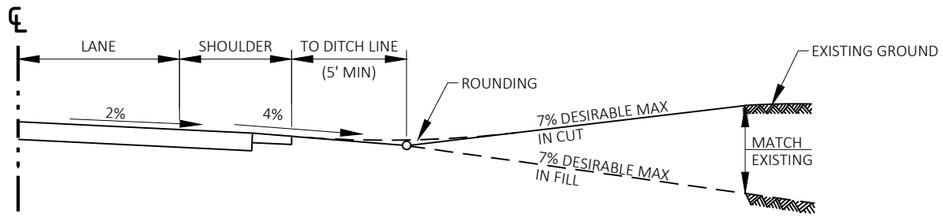
HMA PAVEMENT

BUTT JOINT - WITH PAVEMENT ELEVATION CHANGE

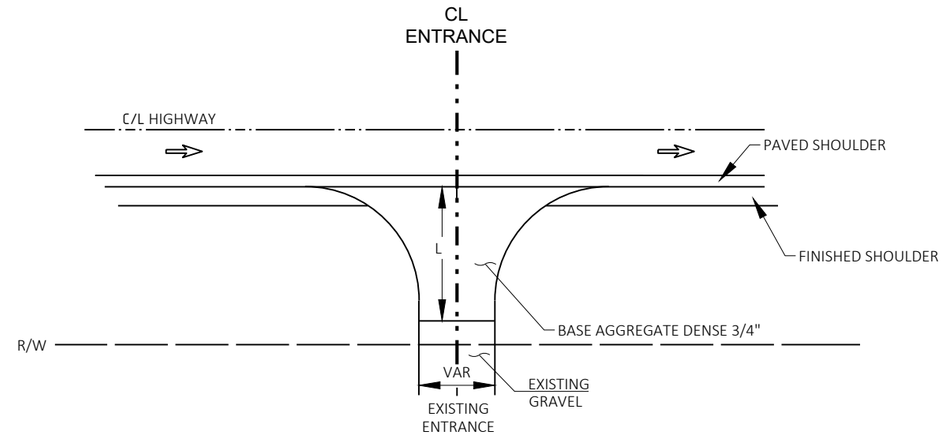
MAINLINE AND SIDE ROADS
PROJECT START - STA 807+11.99
PROJECT END - STA 1333+82.37
B-73-06 - STA 1213+35.94
B-73-06 - STA 1213+88.44

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CONSTRUCTION DETAILS	SHEET 9	E

2



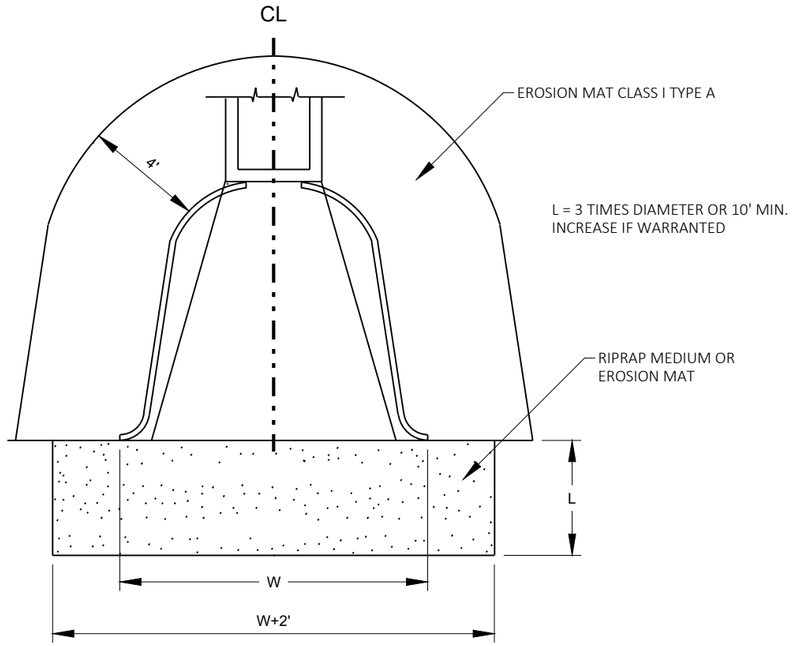
TYPICAL PROFILE VIEW



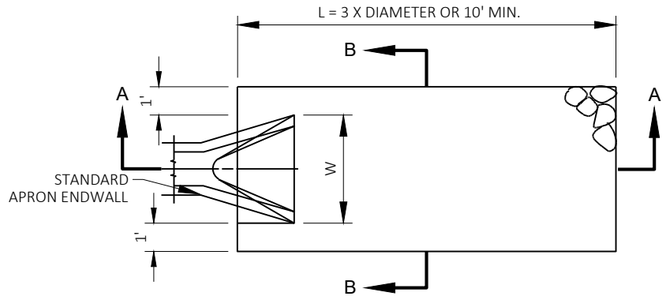
L=8' TYP, EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER

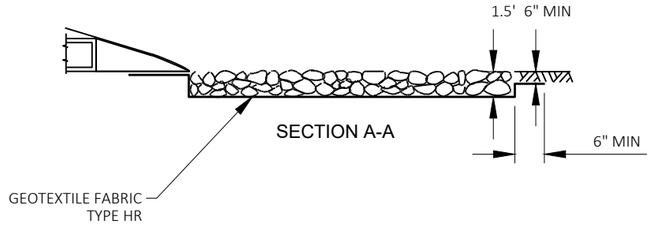
PLAN VIEW

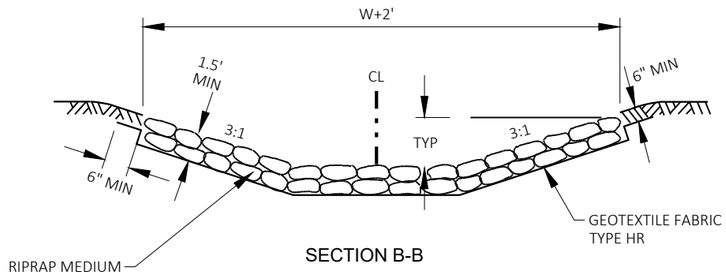
RURAL DRIVEWAY INTERSECTION (PE, FE & CE)



EROSION CONTROL AT PIPE ENDS







RIP RAP AND GEOTEXTILE

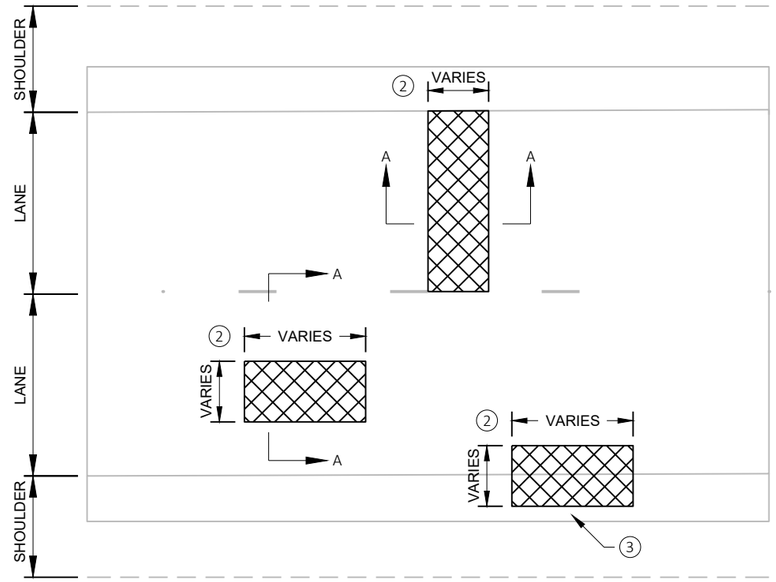
NOTES:

PERFORM REMOVING ASPHALTIC SURFACE MILLING PRIOR TO REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

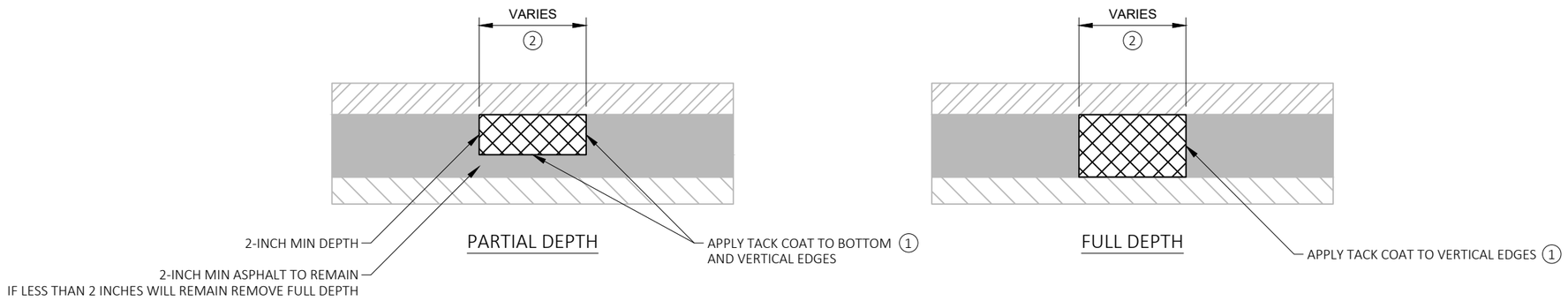
(1) MILLED VERTICAL EDGES ARE ACCEPTABLE, SAW CUTS ARE NOT REQUIRED.

(2) THE SMALLEST DIMENSION OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS 4 FEET IN ANY DIRECTION.

(3) WHEN THE DISTANCE FROM THE EDGE OF PAVEMENT TO EDGE OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS LESS THAN 1-FOOT, EXTEND THE REMOVING DISTRESSED ASPHALTIC SURFACE MILLING TO THE EDGE OF PAVEMENT.



PLAN VIEW



SECTION A-A

REMOVING ASPHALTIC SURFACE MILLING

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING
ASPHALTIC SURFACE PATCHING

EXISTING ASPHALT

EXISTING BASE COURSE

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

LOCATIONS AND LIMITS DETERMINED BY THE ENGINEER IN THE FIELD

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CONSTRUCTION DETAILS	SHEET 12	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 03 (2)
PLOT DATE : 10/23/2025 8:11 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1:10
WISDOT/CADDS SHEET 42

2

2

NOTES:
SEE SDD 14B28 FOR THE INSTALLATION OF
GUARDRAIL MOW STRIP EMULSIFIED ASPHALT

HIGHWAY EASEMENT

SLOPE INTERCEPT

PC: 883+38.00

MATCH LINE 887+50

N

881 882 883 884 885 886 887

STH 47

+56.22
17.69' RT

+95
26.94' RT

+95
21.00' RT

+19.98
20.00' RT

+44.96
19.12' RT

+45
20.72' RT

EDGE OF GRAVEL SHOULDER

SLOPE INTERCEPT

STA 880+69.86 STH 47 TO STA 10+99.65 WHEELOCK RD
GUARDRAIL MOW STRIP EMULSIFIED ASPHALT

STA 882+45 TO STA 892+52
1007 LF - CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

STA 884+35 *
CONCRETE SURFACE DRAIN
17 CY - MEDIUM RIP RAP

REMOVING SMALL PIPE CULVERT

STA 885+56 *
CONCRETE SURFACE DRAIN
17 CY - MEDIUM RIP RAP

STA 886+88 *
CONCRETE SURFACE DRAIN
17 CY - MEDIUM RIP RAP

STA 880+69.86 STH 47 TO STA 10+99.65 WHEELOCK RD
1160 LF - REMOVING GUARDRAIL
50 LF - STEEL PLATE GUARD CLASS A
1000 LF - GUARDRAIL (STIFFENED LHW & NESTED)
75 LF - STEEL PLATE GUARD SHORT RADIUS (55 DEGREE)
1 - STEEL PLATE GUARD ENERGY ABSORBING TERMINAL
1 - BARRIER SYSTEM GRADING SHAPING FINISHING

HIGHWAY EASEMENT

LEGEND

RIPRAP MEDIUM

GUARDRAIL

* CONCRETE FLUME LOCATION
APPROXIMATE FIELD FIT REQ'D

NOTES:
SEE SDD 14B28 FOR THE INSTALLATION OF
GUARDRAIL MOW STRIP EMULSIFIED ASPHALT
SEE SDD 8D4 FOR THE INSTALLATION OF
CONCRETE SURFACE DRAINS

HIGHWAY EASEMENT

N

STA 893+16.09 STH 47
STA 10+00.00 WHEELOCK RD

STA 10+97.57 WHEELOCK RD TO 897+95.63 STH 47
460 LF - REMOVING GUARDRAIL
25 LF - STEEL PLATE GUARD CLASS A
312.5 LF - GUARDRAIL (STIFFENED LHW & NESTED)
75 LF - STEEL PLATE GUARD SHORT RADIUS
40' RADIUS; 13 CRT POSTS; 2 - 25' AND 1 - 12.5' CURVED RAILS
1 - STEEL PLATE GUARD ENERGY ABSORBING TERMINAL

GUARDRAIL TO REMAIN

GUARDRAIL TO REMAIN

CAMP 26 RD

CABC
PE

STA 880+69.86 STH 47 TO STA 10+99.65 WHEELOCK RD
GUARDRAIL MOW STRIP EMULSIFIED ASPHALT

888 889 890 891 892 893 894

STH 47

BP: 10+00.00

STA 889+30 *
CONCRETE SURFACE DRAIN
24 CY - MEDIUM RIP RAP

STA 882+45 TO STA 892+52
1007 LF - CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

+52.42
19.00' RT

+52.66
74.68' RT
R=55'

+12.02
73.30' RT

+79.85
22.35' RT

PC: 10+33.89

+82.33
62.85' RT
R=40'

+40.75
76.54' RT

STA 894+10 *
CONCRETE SURFACE DRAIN
24 CY - MEDIUM RIP RAP

REMOVING SMALL PIPE CULVERT

EDGE OF GRAVEL SHOULDER

SLOPE INTERCEPT

REMOVING SMALL PIPE CULVERT

HIGHWAY EASEMENT

STA 880+69.86 STH 47 TO STA 10+99.65 WHEELOCK RD
1160 LF - REMOVING GUARDRAIL
50 LF - STEEL PLATE GUARD CLASS A
1000 LF - GUARDRAIL (STIFFENED LHW & NESTED)
87.5 LF - STEEL PLATE GUARD SHORT RADIUS
55' RADIUS; 15 CRT POSTS; 3 - 25' CURVED RAILS
1 - STEEL PLATE GUARD ENERGY ABSORBING TERMINAL

WHEEL LOCK RD

REMOVING SMALL PIPE CULVERT

GUARDRAIL TO REMAIN

STA 893+80 TO STA 896+79
300 LF - CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

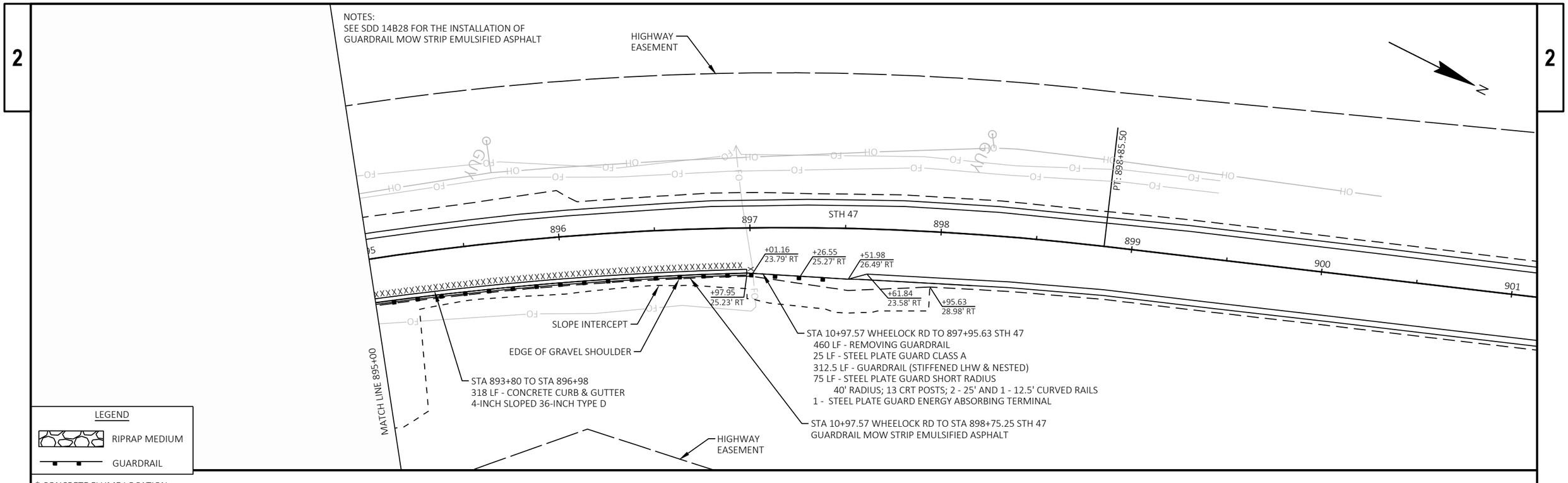
MATCH LINE 887+50

MATCH LINE 895+00

2

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN DETAILS	SHEET 13	E

NOTES:
SEE SDD 14B28 FOR THE INSTALLATION OF
GUARDRAIL MOW STRIP EMULSIFIED ASPHALT



LEGEND

RIPRAP MEDIUM

GUARDRAIL

* CONCRETE FLUME LOCATION
APPROXIMATE FIELD FIT REQ'D

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN DETAILS	SHEET 14	E

2

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

HIGHWAY EASEMENT

N

PC: 883+38.00

CULVERT ID: 73047007392

880 881 882 STH 47 883 884

MATCH LINE 885+00

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

HIGHWAY EASEMENT

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQ'D
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP

HIGHWAY EASEMENT

CAMP 26 RD

N

MATCH LINE 885+00

886 STH 47 887 888 889

MATCH LINE 890+00

CULVERT PIPE REMOVAL

CULVERT PIPE REMOVAL

HIGHWAY EASEMENT

2

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 15	E

2

STA 893+16.09 STH 47
STA 10+00.00 WHEELOCK RD

BP: 10+00.00

PC: 10+33.98

MATCH LINE 890+00

MATCH LINE 895+00

STH 47

891 892 893 894

CULVERT PIPE REMOVAL

WHEELOCK ROAD

CULVERT PIPE REMOVAL

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

PT: 898+85.50

896 897 898 899 900

MATCH LINE 895+00

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

HIGHWAY EASEMENT

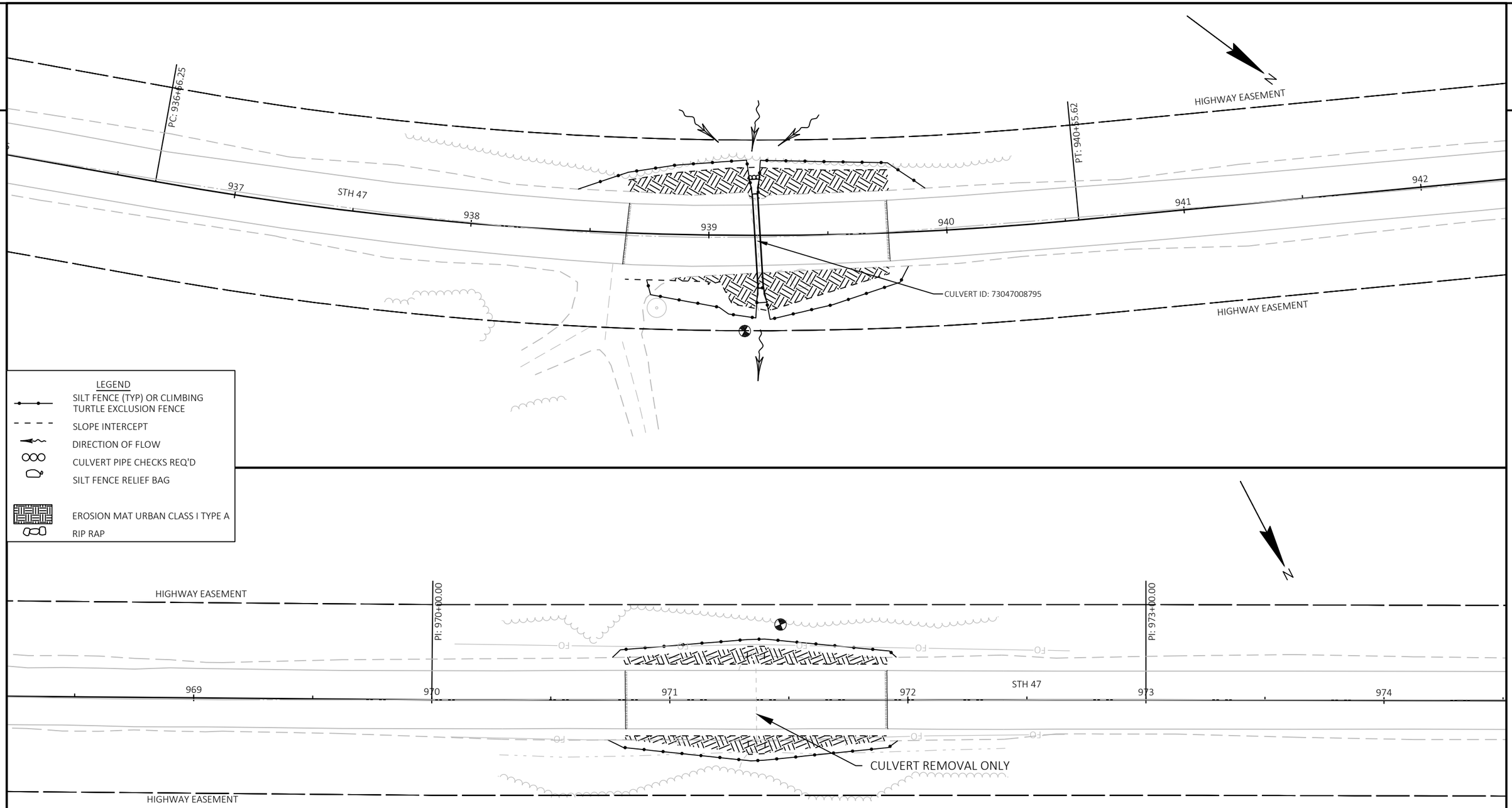
LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQ'D
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 16	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-16-02.DWG
LAYOUT NAME - 82
PLOT DATE : 12/17/2025 6:55 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

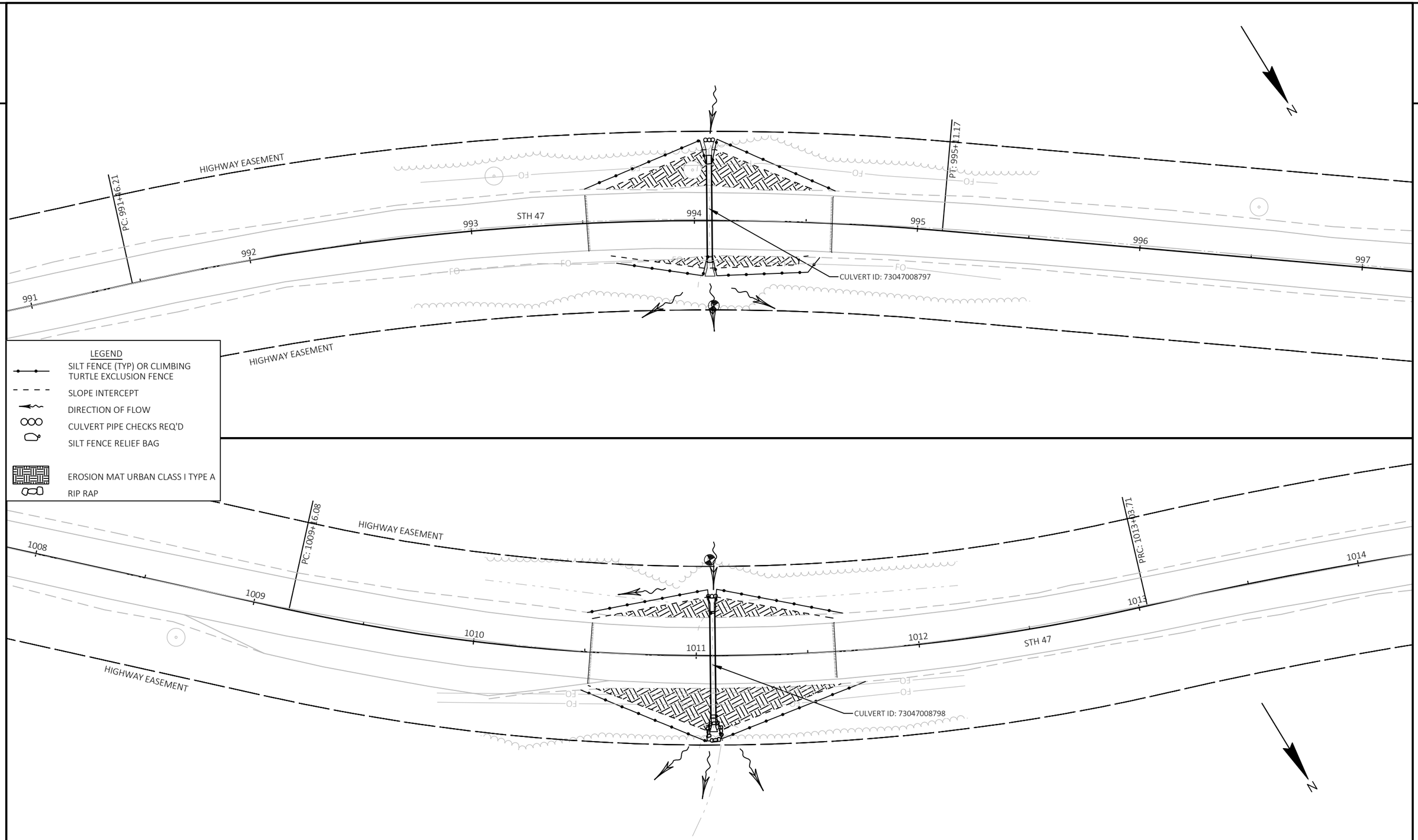
2



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 17	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-16-02.DWG
LAYOUT NAME - 83
PLOT DATE : 12/17/2025 6:56 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



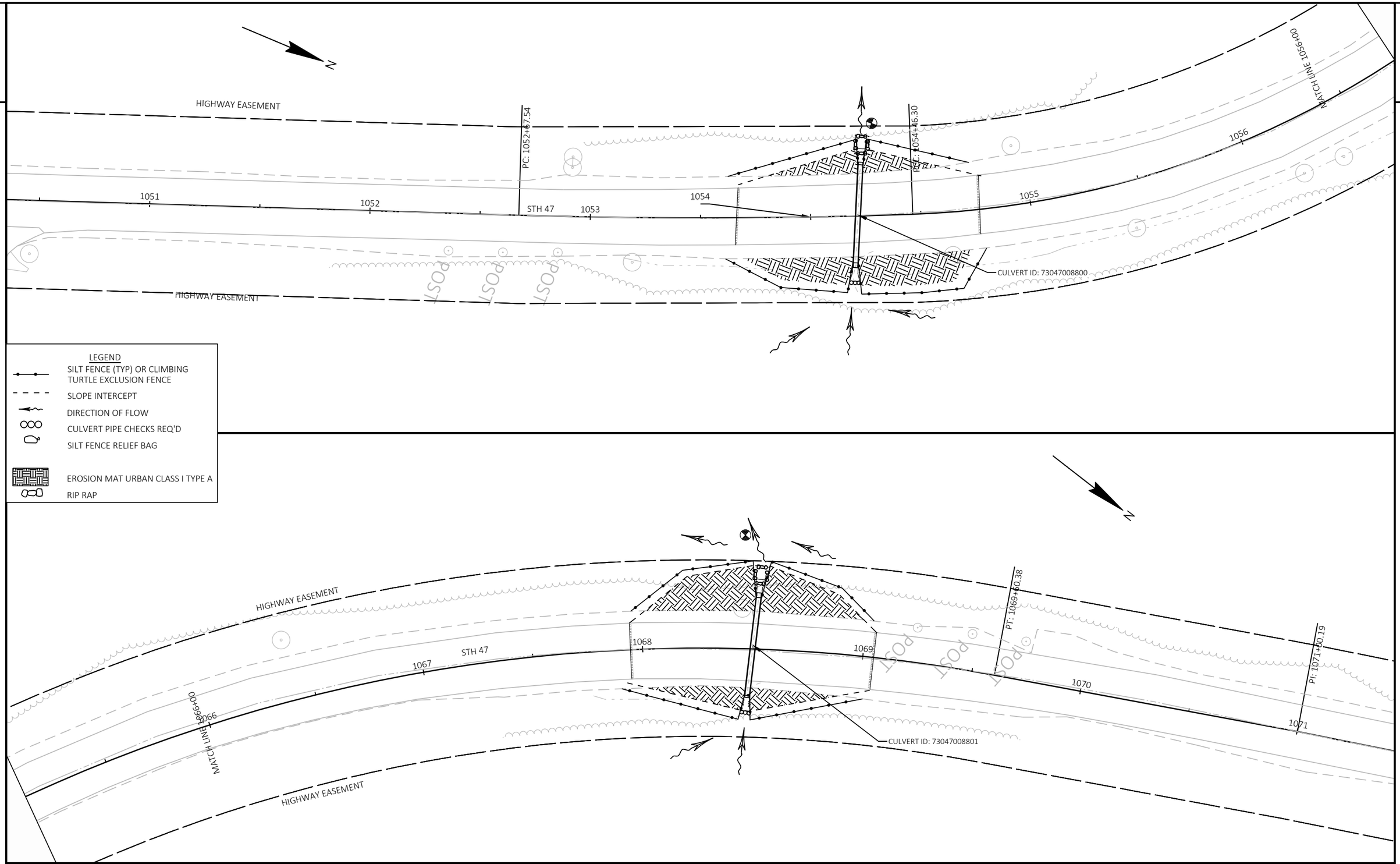
LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQ'D
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP

2

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 18	E

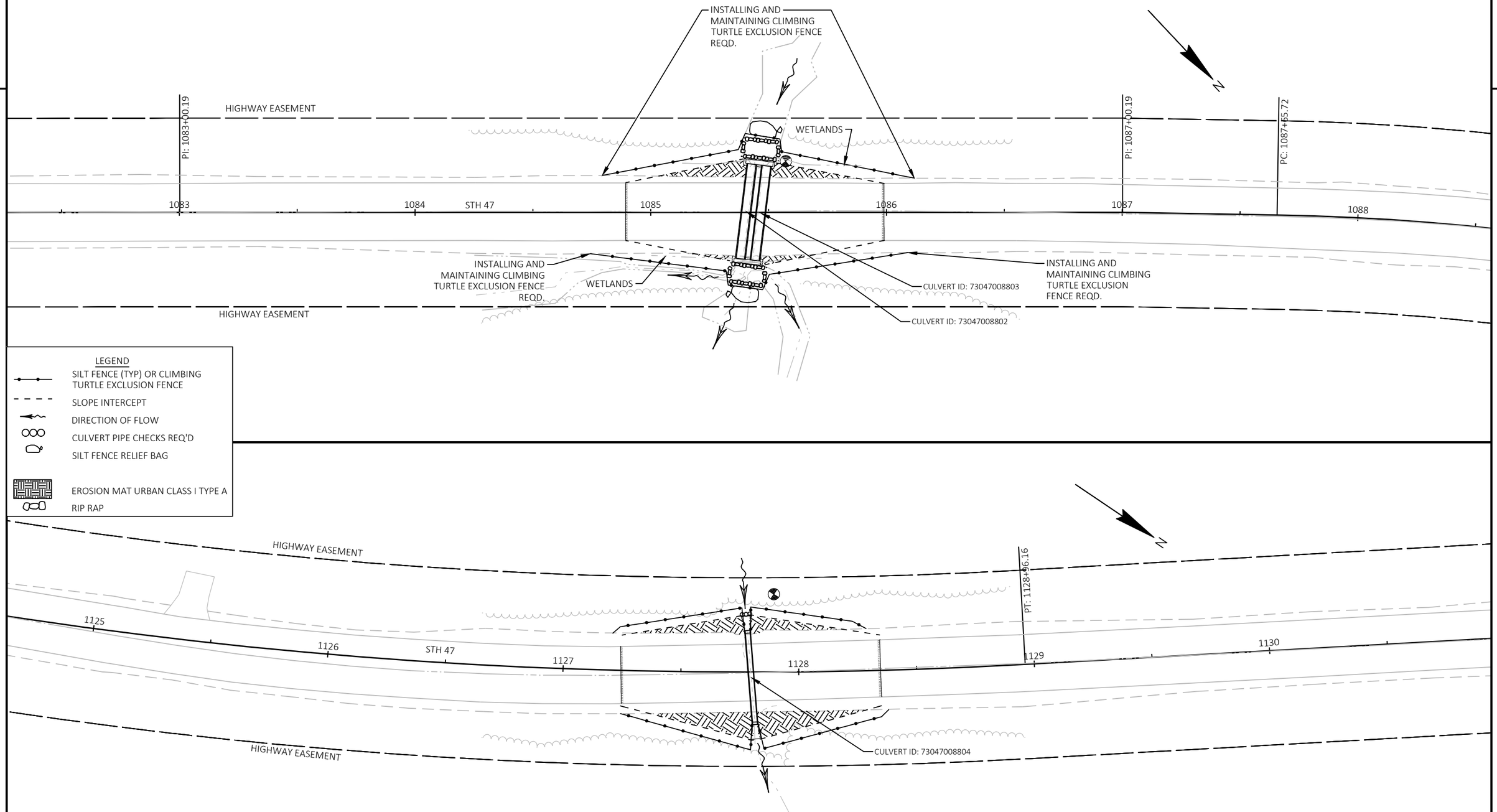
2



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 19	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-16-02.DWG
LAYOUT NAME - 85
PLOT DATE : 12/17/2025 6:58 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

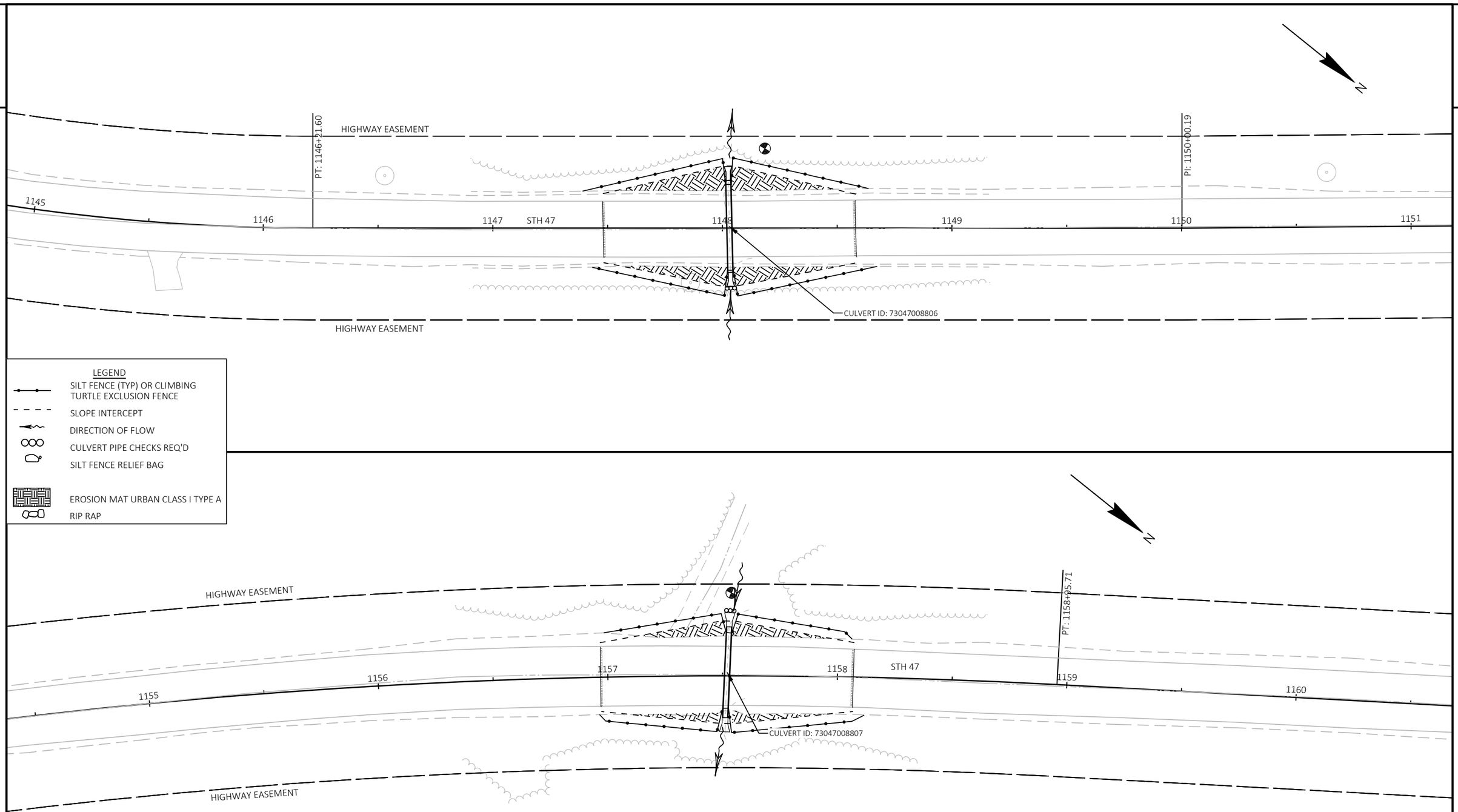


2

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 20	E

2

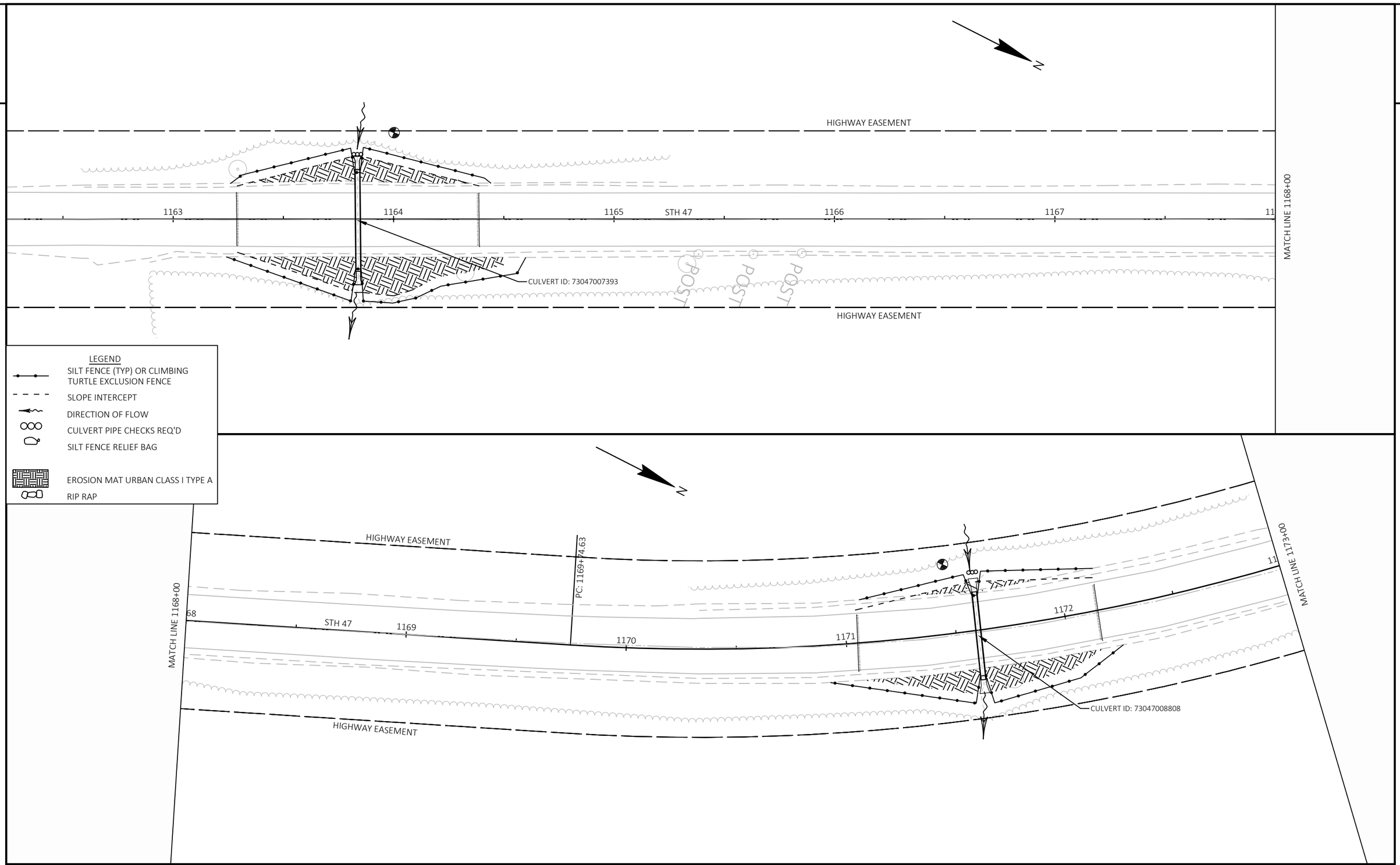
2



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 21	E

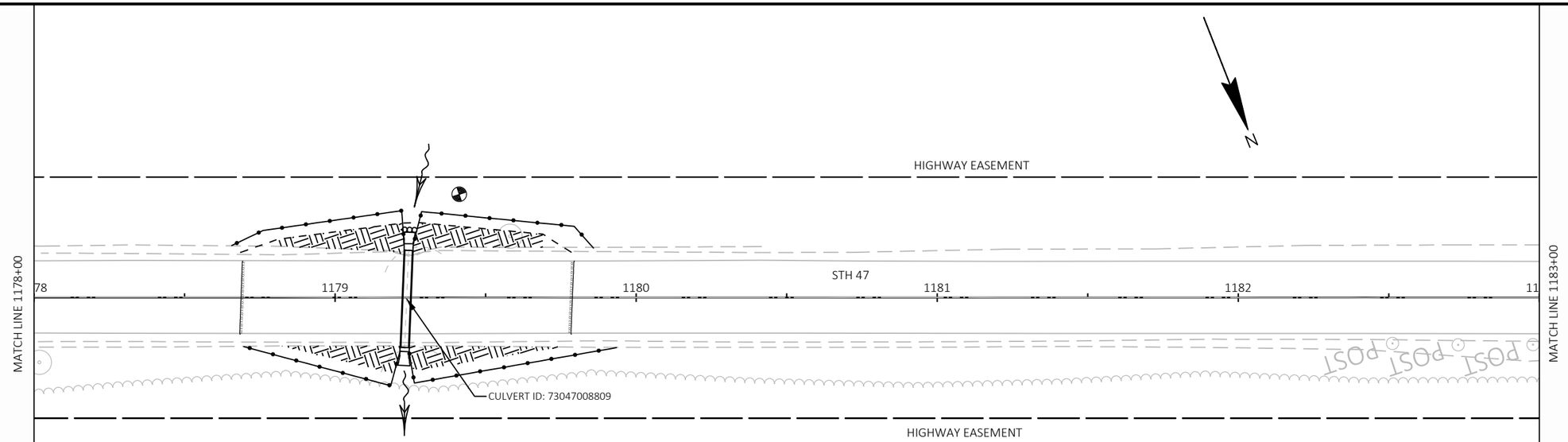
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-16-02.DWG
LAYOUT NAME - 87
PLOT DATE : 12/17/2025 7:00 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



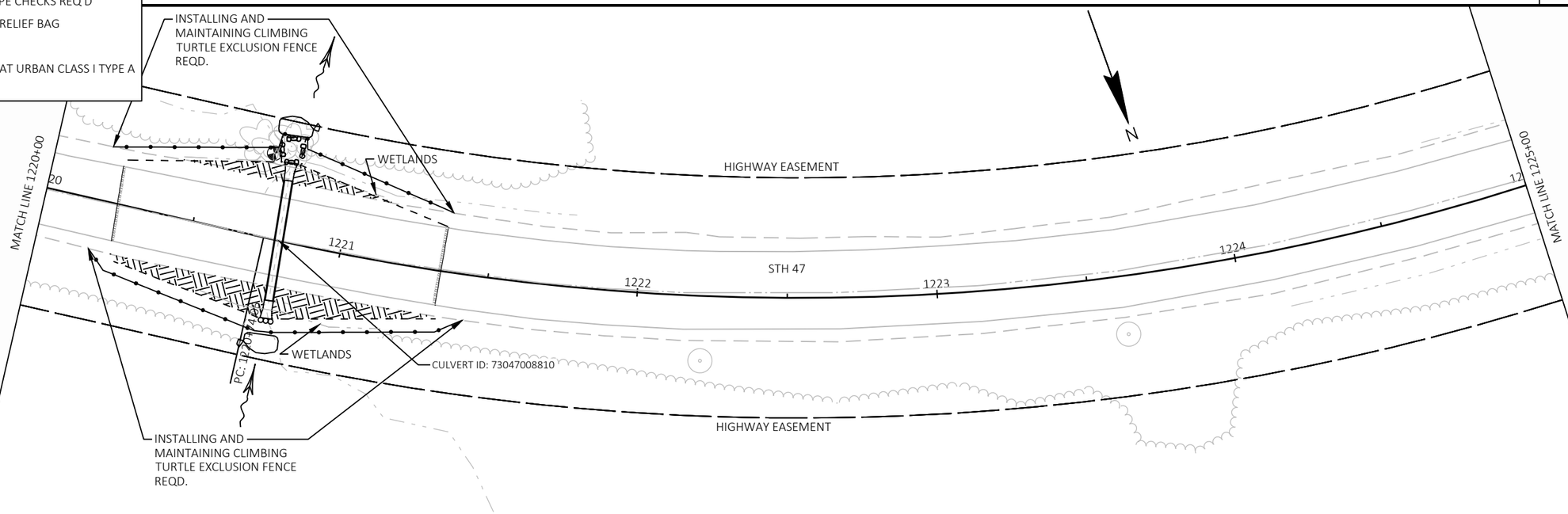
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 22	E

2



LEGEND

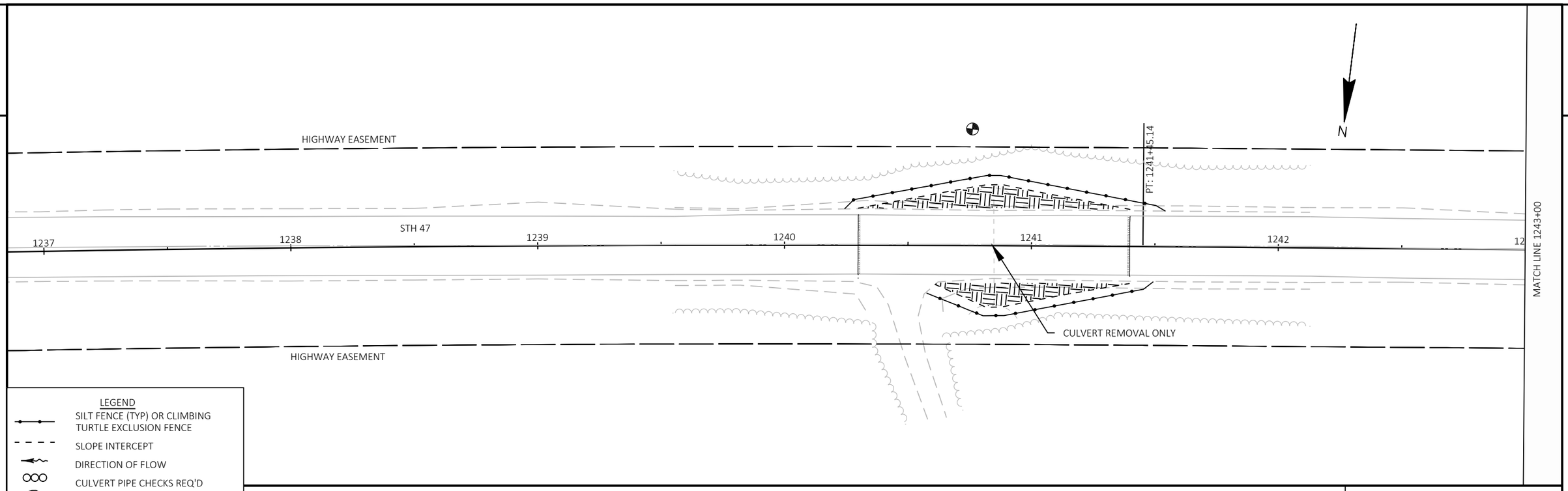
- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQ'D
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 23	E

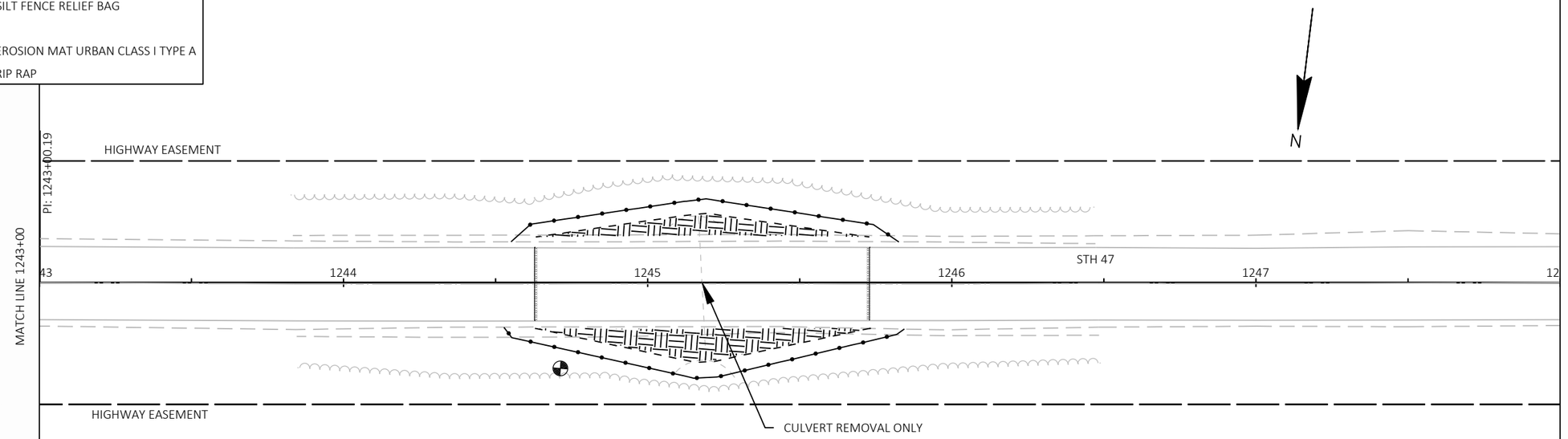
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-16-02.DWG
LAYOUT NAME - 89
PLOT DATE : 12/17/2025 7:02 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQ'D
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 24	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-16-02.DWG
LAYOUT NAME - 90

PLOT DATE : 12/17/2025 7:03 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 1248+00

PI: 1248+00.19

HIGHWAY EASEMENT

N

STH 47

1248 1249 1250 1251 1252 1253

CULVERT REMOVAL ONLY

HIGHWAY EASEMENT

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQ'D
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

WETLANDS

PT: 1277+03.90

HIGHWAY EASEMENT

N

1276 1277 1278 STH 47 1279

PC: 1273+16.48

1275 1274

CULVERT ID: 73047008816

CULVERT ID: 73047008815

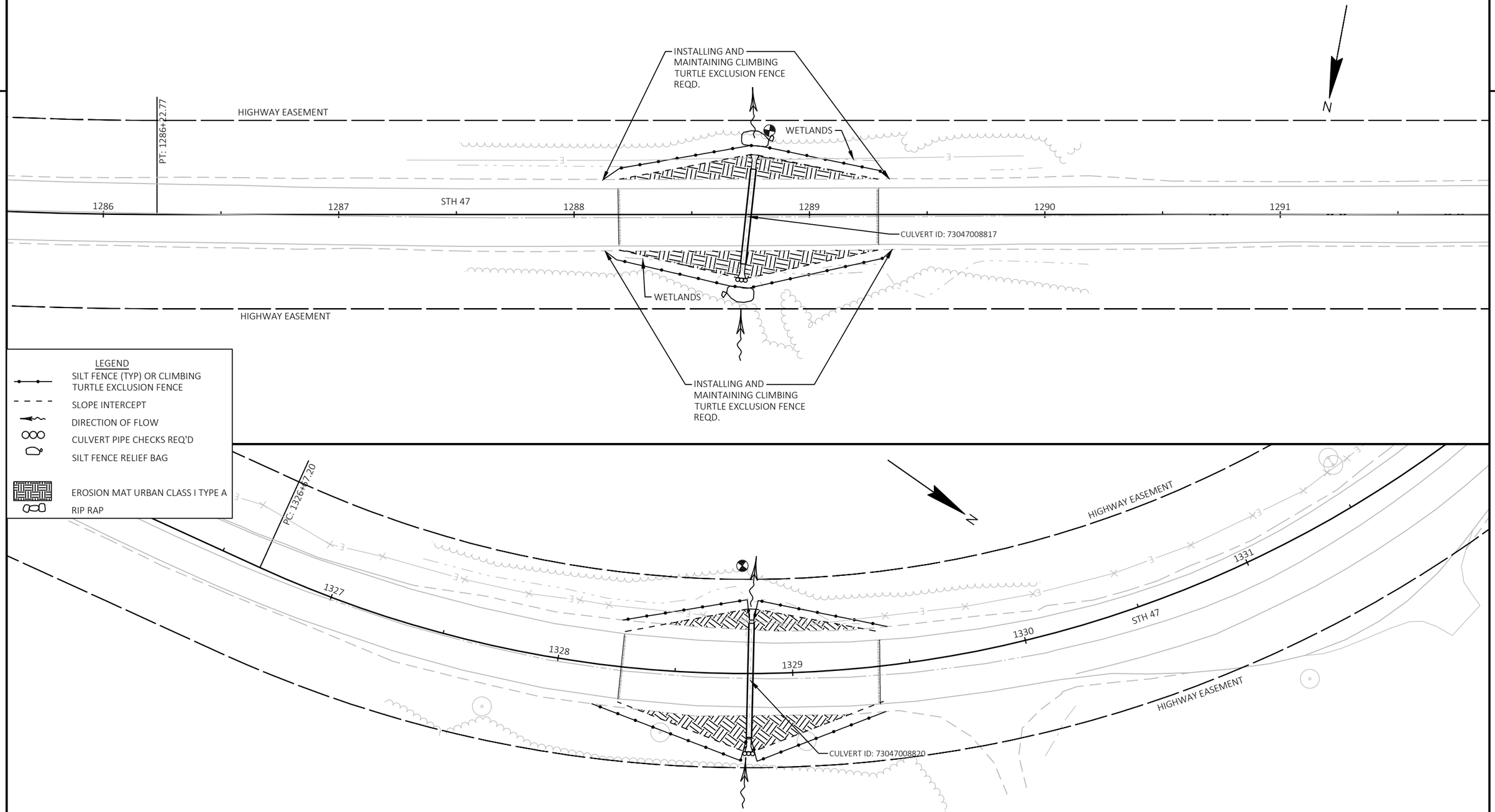
WETLANDS

HIGHWAY EASEMENT

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 25	E

2



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 26	E

Note: Slope Intercepts are approximate, grubbing limits are exact.

2

2

HIGHWAY EASEMENT

FRONTIER COMMUNICATION

CULVERT ID: 73047007392

PC: 883+38.00

880 881 882 883 884

STH 47

STA 880+63.10, 34.48' RT

SI

STA 881+78.99, 33.29' RT

STA 881+75, 47.79' RT

STA 881+45.77, 53.31' RT

STA 880+70, 69.92' RT

FRONTIER COMMUNICATION

STA 884+69.38, 25.97' RT

STA 884+02.14, 26.35' RT

MATCH LINE 879+34.90

MATCH LINE 885+00

HIGHWAY EASEMENT

STA 884+00.48, 107.55' RT

STA 884+72.41, 104.46' RT

N

LEGEND

- SLOPE INTERCEPT (APPROX)
- RIP RAP
- WETLAND
- GRUBBING (ID)
- GRUBBING (STA)

886 887 888

STH 47

STA 886+56.31, 36.24' RT

STA 887+90.30, 33.60' RT

STA 885+82.93, 34.33' RT

STA 885+41.55, 33.45' RT

FRONTIER COMMUNICATION

SI

MATCH LINE 885+00

CULVERT PIPE REMOVAL

STA 886+60, 74.23' RT

STA 887+85.92, 79.48' RT

STA 885+49.54, 89.07' RT

STA 885+79.42, 88.64' RT

STA 887+01.98, 89.29' RT

STA 887+70.81, 82.16' RT

STA 886+67.22, 87.58' RT

HIGHWAY EASEMENT

N

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	GRUBBING	SHEET 27	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 34

PLOT DATE : 12/17/2025 7:10 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 44

Note: Slope Intercepts are approximate, grubbing limits are exact.

FRONTIER COMMUNICATION

FRONTIER COMMUNICATION

STA 893+16.09 STH 47
STA 10+00.00 WHEELOCK RD

BP: 10+00.00

STH 47

SI

STA 889+08.39, 27.80' RT

STA 889+68.99, 30.73' RT

MATCH LINE 889+17.98

STA 889+59.76, 98.86' RT

STA 889+26.96, 109.22' RT

HIGHWAY EASEMENT

STA 892+57.91, 23.68' RT
STA 892+56.06, 25.23' RT
STA 892+64.42, 28.91' RT
STA 892+71.26, 34.57' RT
STA 892+74.64, 43.67' RT
STA 892+77.53, 45.55' RT
STA 892+83.31, 32.72' RT
PC: 894+33.89
STA 892+99.29, 48.69' RT
STA 892+83.60, 53.66' RT
STA 892+84.66, 63.56' RT
STA 892+69.72, 74.83' RT

CULVERT PIPE REMOVAL

STA 892+48.52, 105.06' RT

STA 892+99.99, 102.79' RT
STA 892+47.22, 110.45' RT

WHEELOCK ROAD

CULVERT PIPE REMOVAL

LEGEND

- SLOPE INTERCEPT (APPROX)
- RIP RAP
- WETLAND
- GRUBBING (ID)
- GRUBBING (STA)

PT: 898+85.50

STH 47

MATCH LINE 895+00

MATCH LINE 895+00

MATCH LINE 900+17.98

HIGHWAY EASEMENT

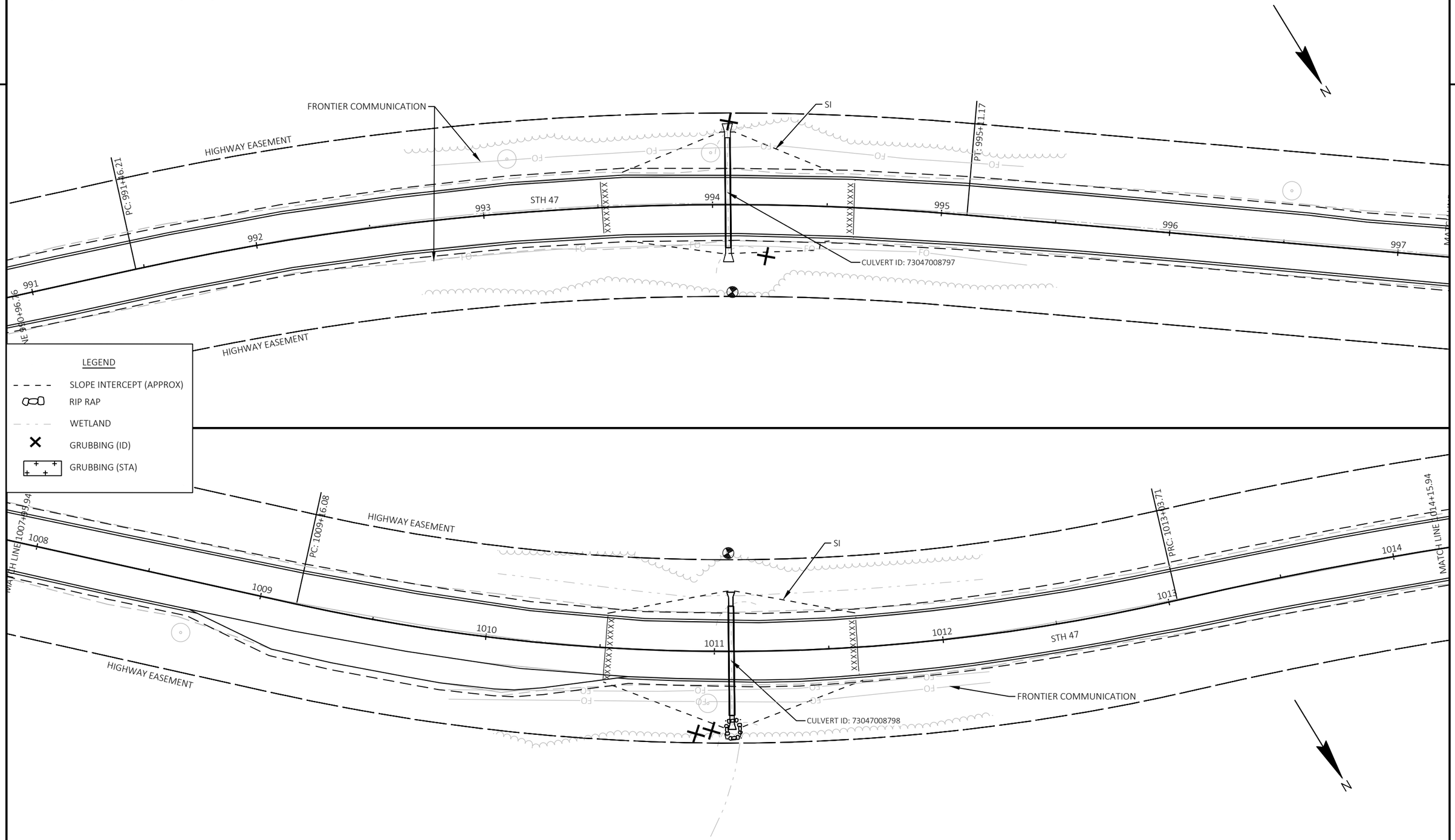
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	GRUBBING	SHEET 28	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 35

PLOT DATE : 12/17/2025 7:11 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

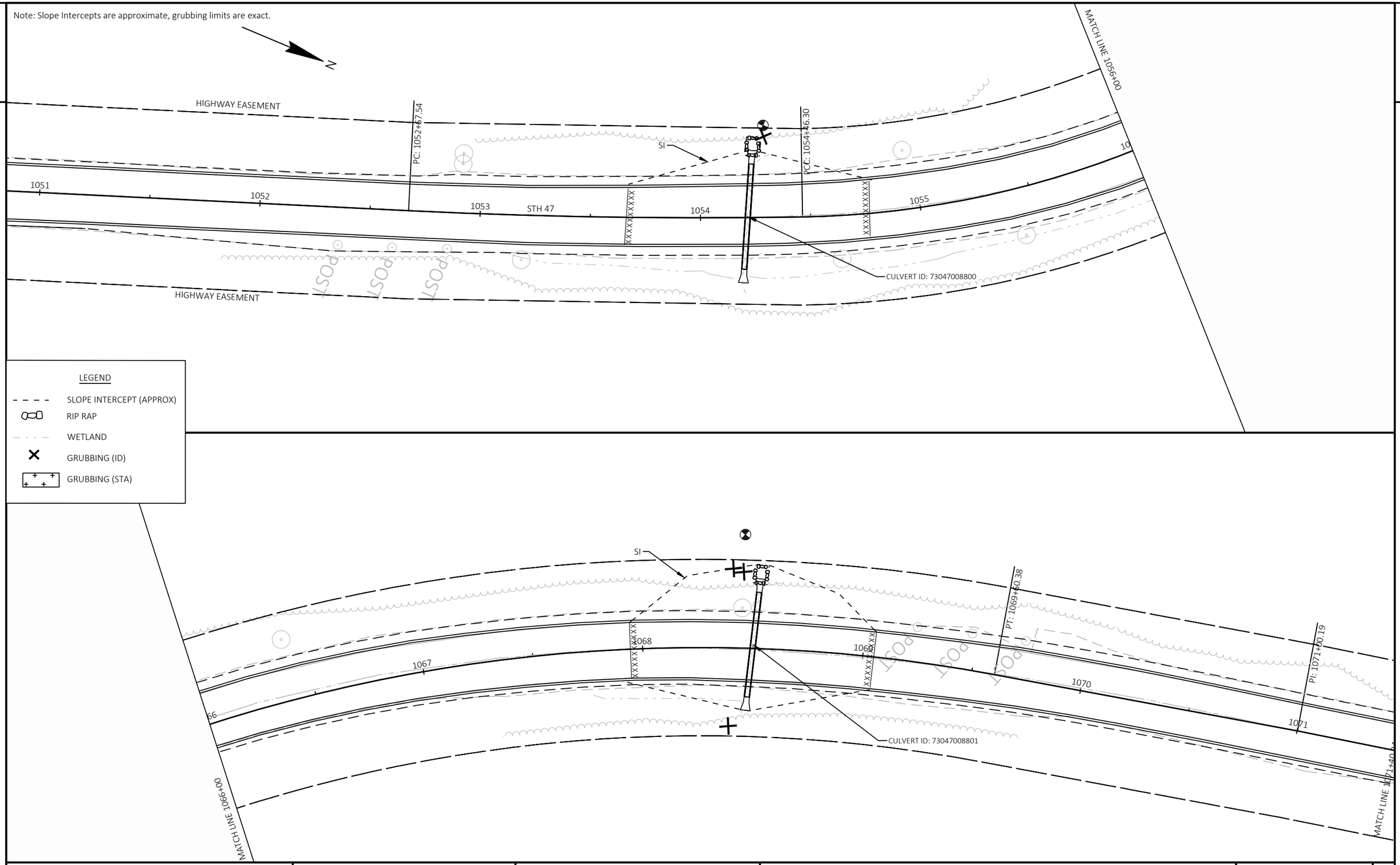
WISDOT/CADDS SHEET 44

Note: Slope Intercepts are approximate, grubbing limits are exact.



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	GRUBBING	SHEET 29	E

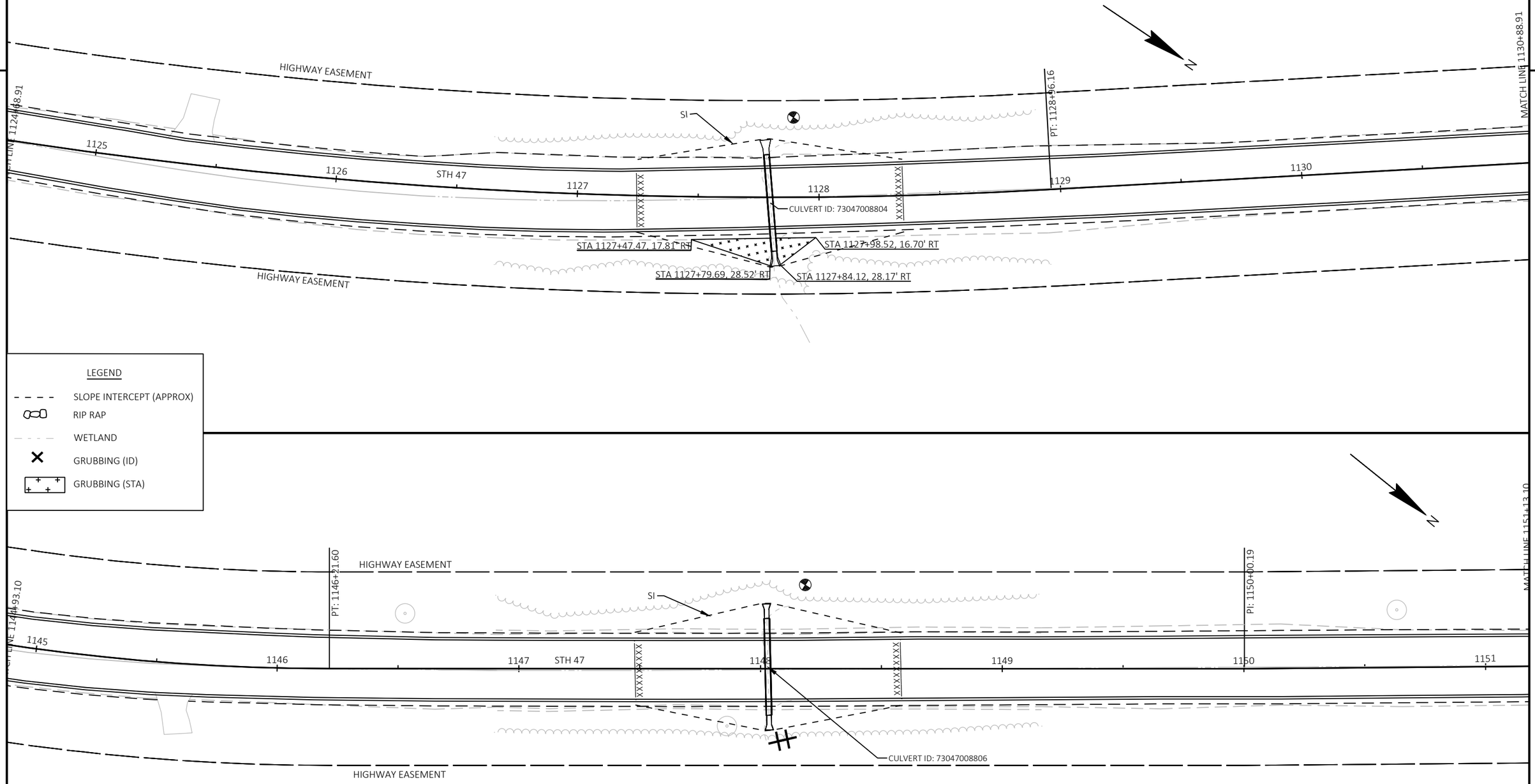
Note: Slope Intercepts are approximate, grubbing limits are exact.



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	GRUBBING	SHEET 30	E

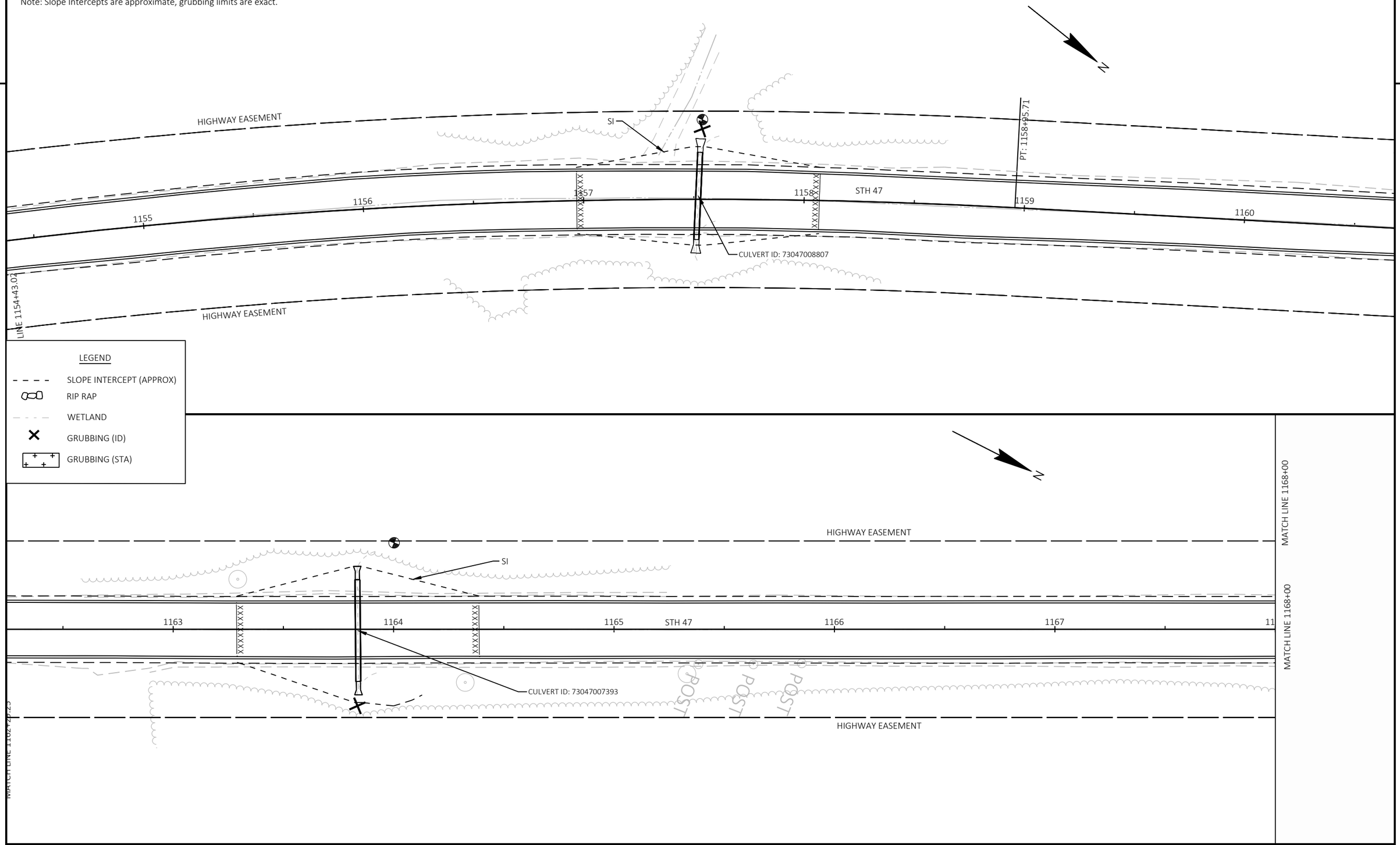
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 37
PLOT DATE : 12/17/2025 7:12 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

Note: Slope Intercepts are approximate, grubbing limits are exact.



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	GRUBBING	SHEET 31	E

Note: Slope Intercepts are approximate, grubbing limits are exact.



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	GRUBBING	SHEET 32	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 39
PLOT DATE : 12/17/2025 7:14 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

STA 1220+74.06, -37.83' LT

STA 1220+80.97, -37.48' LT

STA 1220+89.25, -37.41' LT

STA 1220+41.83, -19.20' LT

PC: 1220+74.06

MATCH LINE 1225+00

STA 1221+16.04, -19.68' LT

20

1221

1222

1223

1224

SI

CULVERT ID: 73047008810

MATCH LINE 1220+00

N

LEGEND

- SLOPE INTERCEPT (APPROX)
- RIP RAP
- WETLAND
- GRUBBING (ID)
- GRUBBING (STA)

STA 1275+99.92, -33.39' LT

WETLANDS

STA 1276+37.76, -37.85' LT

PT: 1277+03.90

HIGHWAY EASEMENT

STA 1275+90.37, -25.48' LT

STA 1276+81.76, -23.79' LT

UNDERGROUND ELECTRIC

STA 1275+84.49, -17.78' LT

STA 1276+87.35, -15.14' LT

1276

1277

1275

1278

STH 47

1279

PC: 1274+16.48

1274

CULVERT ID: 73047008816

CULVERT ID: 73047008815

SI

WETLANDS

HIGHWAY EASEMENT

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	GRUBBING	SHEET 33	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 40

PLOT DATE : 12/17/2025 7:16 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

SEE SDD (BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C)

SEE SDD (BARRICADES AND SIGNS FOR SIDEROAD CLOSURES DETAIL 4)

SEE SDD (BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C)

DETAIL A

DETAIL C

DETAIL D

DETAIL B

LEGEND:

- WORK ZONE
- DETOUR ROUTE
- TRAFFIC CONTROL DETOUR SIGN ON WOOD OR STEEL POST

* PLACE SIGN ASSEMBLY IN MEDIAN AND ON RIGHT SHOULDER

ROLLINS
Elmhurst
Langlade
ANIWA
HUTCHINS
Phlox
Neopit
Nanaweyah
Omaehekan
BIRNAMWOOD
ALMON
BARTELME
RED SPRINGS
Morgan
Keshena
WESCOTT
Shepley
Lyndhurst
Red River
RICHMOND
SENECA
Tilleda
HERMAN
Thornton
Shawano
WITTENBERG
MORRIS
Leopolis
Pella
BELLE PLAINE
WASHINGTON
GRANT

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	DETOUR	SHEET 34	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9650-16-02).DWG
LAYOUT NAME - 01

PLOT DATE : 10/22/2025 7:29 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN: 2.5 MI

WISDOT/CADDS SHEET 42



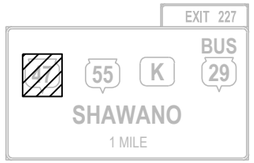
M3-1 36"X18"
M1-6 36"X36"

1



M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"

2



COVER SIGN TYPE I
AS DONE UNDER
PROJECT 1009-43-69

3



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

4



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

5



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

6



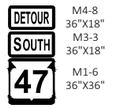
M4-8A 24"X18"

7



M3-3 24"X12"
M1-6 24"X24"

8



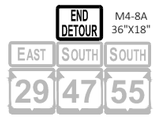
M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"

9



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

10



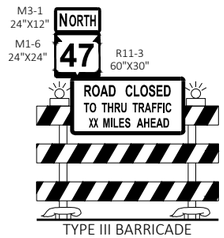
M4-8A 36"X18"

11



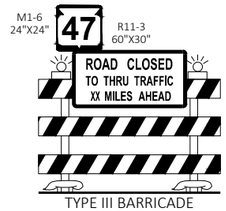
R11-3 60"X30"
TYPE III BARRICADE

12X



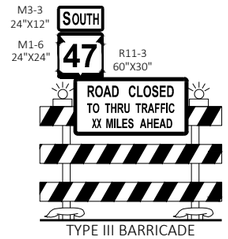
M3-1 24"X12"
M1-6 24"X24"
R11-3 60"X30"
TYPE III BARRICADE

12E



M1-6 24"X24"
R11-3 60"X30"
TYPE III BARRICADE

12F 12G



M3-3 24"X12"
M1-6 24"X24"
R11-3 60"X30"
TYPE III BARRICADE

12H

12X MILEAGES:

12A: 8 1/2 MILES
12B: 7 1/2 MILES
12C: 5 1/2 MILES
12D: 1 MILES
12E: 5 3/4 MILES
12F: 4 MILES
12G: 11 3/4 MILES
12H: 2 MILES
12I: 1 MILES
12J: 1 3/4 MILES
12K: 6 1/4 MILES
12L: 6 3/4 MILES



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

13



M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

14



M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

15



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

16



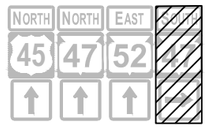
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
M5-1R 21"X21"

17



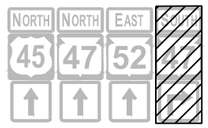
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

18



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

19



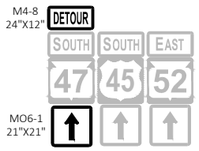
COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

20



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

21



M4-8 24"X12"
MO6-1 21"X21"

22



ARROW PER SIGN
A4-12 9.5"X9.5"

23

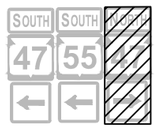

COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

24



M3-1 24"X12"
M1-6 24"X24"

25



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

26

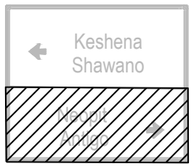


COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

27

NOTES:

ALL DETOUR AHEAD SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

28

HWY 47
ROAD CLOSED
BEGINS XX-XX-XX

G20-57C
72"X36"

INSTALL G20-57C SIGNS 7 DAYS PRIOR TO CLOSURE AND REMOVE WHEN CLOSURE BEGINS.

PLACE SIGN AT NORTH AND SOUTH PROJECT LIMITS.

IF ROADWAY CLOSURE FOR THIS PROJECT IS AFTER AND CONTINUOUS WITH OTHER PROJECT(S) IN THIS CONTRACT, THIS SIGN SHALL BE OMITTED.

NOTES:

ALL DETOUR AHEAD SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

DETAIL A

2

N

45

29

W GRAND AVE

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

M4-8 36"x18"
M3-1 36"x18"
M1-6 36"x36"
MO6-2 30"x30"

M4-8 36"x18"
M3-1 36"x18"
M1-6 36"x36"
MO5-2R 30"x30"

M4-8 36"X18"
M3-3 36"x18"
M1-6 36"x36"

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"x36"

M4-8 36"X18"
M3-3 36"x18"
M1-6 36"x36"

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

M4-8 36"X18"
M3-3 36"x18"
M1-6 36"x36"

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	DETOUR	SHEET 37	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9650-16-02).DWG
LAYOUT NAME - DETAIL A
PLOT DATE : 10/22/2025 7:31 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : Custom
WISDOT/CADDS SHEET 42

DETAIL B

2

2

N

47

B

29

K

EXIT 227
NORTH
55 K
SHAWANO
1 MILE

COVER SIGN TYPE I
AS DONE UNDER
PROJECT 1009-43-69

DETOUR M4-8 36"X18"
NORTH M3-1 36"X18"
47 M1-6 36"X36"

WEST 29

DETOUR M4-8 36"X18"
SOUTH M3-3 36"X18"
47 M1-6 36"X36"
MO6-1 30"X30"

EXIT 227
NORTH
55 K
SHAWANO

COVER SIGN TYPE I
AS DONE UNDER
PROJECT 1009-43-69

NORTH BUSINESS
55 29

EAST SOUTH SOUTH
29 47 55

DETOUR M4-8 24"X12"
WEST NORTH NORTH BUSINESS
29 47 55 29
MO6-1 21"X21"

DETOUR M4-8 24"X12"
NORTH NORTH BUSINESS
K 47 55 29
MO6-1 21"X21"

DETOUR M4-8 24"X12"
NORTH NORTH BUSINESS
47 55 29
MO6-1 21"X21"

EXIT 227
BUS
55 K 29
COVER
SHAWANO

COVER SIGN TYPE I
AS DONE UNDER
PROJECT 1009-43-69

DETOUR M4-8 36"X18"
NORTH M3-1 36"X18"
47 M1-6 36"X36"
MO6-1 30"X30"

NORTH M3-1 36"X18"
47 M1-6 36"X36"
DETOUR AHEAD W20-2A

END DETOUR M4-8A 36"X18"
EAST SOUTH SOUTH
29 47 55

DETOUR M4-8 36"X18"
NORTH M3-1 36"X18"
47 M1-6 36"X36"
MO6-1 30"X30"

DETOUR M4-8 24"X12"
WEST NORTH NORTH BUSINESS
29 47 55 29
MO5-1L 21"X21"

EAST SOUTH SOUTH
29 47 55

EAST SOUTH SOUTH
29 47 55

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	DETOUR	SHEET 38	E

DETAIL C

2

2

N

47 55

R11-3
60"X30"
ROAD CLOSED
TO THRU TRAFFIC
8 1/2 MILES AHEAD

NORTH
55

NORTH
55

NORTH
55

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO5-1L
21"X21"

NORTH
47
M3-1
24"X12"
M1-6
24"X24"

DETOUR
AHEAD
W20-2A

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO6-1
21"X21"

MMM

47 55
22

MM

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"

ANDREWS ST

SAWYER ST

55

22

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO6-1
21"X21"

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO5-1R
21"X21"

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	DETOUR	SHEET 39	E

DETAIL D

2

2

N

M

29

22

B

CC

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"
DETOUR SOUTH 47

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
DETOUR NORTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
DETOUR NORTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
DETOUR SOUTH NORTH 47 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR NORTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR NORTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
MO5-1R 21"X21"
DETOUR NORTH SOUTH 47 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
DETOUR NORTH 47

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"
DETOUR NORTH 47

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
DETOUR SOUTH 47

47 M1-6 24"X24"

DETOUR AHEAD W20-2A

NOTES:

ALL M SIGNS SHOWN SHALL BE MO.

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	DETOUR	SHEET 40	E

9650-16-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	12.000	12.000
0004	201.0220	Grubbing	ID	98.000	98.000
0006	203.0100	Removing Small Pipe Culverts	EACH	27.000	27.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	250.000	250.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	153,000.000	153,000.000
0016	204.0165	Removing Guardrail	LF	1,620.000	1,620.000
0018	205.0100	Excavation Common	CY	4,903.000	4,903.000
0020	208.0100	Borrow	CY	160.000	160.000
0022	211.0101	Prepare Foundation for Asphaltic Paving (project) 02. 9650-06-72	EACH	1.000	1.000
0028	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1,032.000	1,032.000
0032	213.0100	Finishing Roadway (project) 02. 9650-16-72	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,475.000	6,475.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,260.000	5,260.000
0042	305.0504.S	Hauling Excess Shoulder Material	CY	250.000	250.000
0044	450.4000	HMA Cold Weather Paving	TON	32,745.000	32,745.000
0046	455.0605	Tack Coat	GAL	23,420.000	23,420.000
0048	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0050	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0052	460.2005	Incentive Density PWL HMA Pavement	DOL	25,860.000	25,860.000
0054	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	21,060.000	21,060.000
0056	460.2010	Incentive Air Voids HMA Pavement	DOL	32,745.000	32,745.000
0058	460.5224	HMA Pavement 4 LT 58-28 S	TON	32,745.000	32,745.000
0060	465.0105	Asphaltic Surface	TON	1,085.000	1,085.000
0062	465.0110	Asphaltic Surface Patching	TON	2,000.000	2,000.000
0066	465.0560	Asphaltic Rumble Strips, Centerline	LF	129,182.000	129,182.000
0070	504.0900	Concrete Masonry Endwalls	CY	9.000	9.000
0072	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	10.000	10.000
0078	520.3624	Culvert Pipe Class III-B Non-metal 24-Inch	LF	280.000	280.000
0092	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	336.000	336.000
0098	522.0442	Culvert Pipe Reinforced Concrete Class IV 42-Inch	LF	192.000	192.000
0102	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	16.000	16.000
0110	522.2319	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	72.000	72.000
0120	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	4.000	4.000
0130	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	1,330.000	1,330.000
0132	602.3010	Concrete Surface Drains	CY	5.000	5.000
0134	606.0200	Riprap Medium	CY	143.000	143.000
0136	614.0305	Steel Plate Beam Guard Class A	LF	75.000	75.000
0138	614.0345	Steel Plate Beam Guard Short Radius	LF	162.500	162.500
0140	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000
0142	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	4,770.000	4,770.000
0144	614.0400	Adjusting Steel Plate Beam Guard	LF	3,485.000	3,485.000
0146	614.0510	Guardrail Stiffened NW	LF	1,313.000	1,313.000
0148	614.0515	Guardrail Stiffened LHW	LF	1,313.000	1,313.000
0150	614.0950	Replacing Guardrail Posts and Blocks	EACH	430.000	430.000
0158	618.0100	Maintenance and Repair of Haul Roads (project) 02. 9650-16-72	EACH	1.000	1.000
0164	619.1000	Mobilization	EACH	0.250	0.250
0166	624.0100	Water	MGAL	255.000	255.000
0168	625.0100	Topsoil	SY	6,340.000	6,340.000
0170	628.1504	Silt Fence	LF	4,690.000	4,690.000

9650-16-72

Line	Item	Item Description	Unit	Total	Qty
0172	628.1520	Silt Fence Maintenance	LF	9,390.000	9,390.000
0174	628.1905	Mobilizations Erosion Control	EACH	9.000	9.000
0176	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0178	628.2006	Erosion Mat Urban Class I Type A	SY	6,340.000	6,340.000
0180	628.7504	Temporary Ditch Checks	LF	264.000	264.000
0182	628.7555	Culvert Pipe Checks	EACH	50.000	50.000
0184	628.7570	Rock Bags	EACH	470.000	470.000
0186	629.0210	Fertilizer Type B	CWT	4.100	4.100
0190	630.0170	Seeding Mixture No. 70	LB	36.000	36.000
0192	630.0400	Seeding Nurse Crop	LB	56.000	56.000
0194	630.0500	Seed Water	MGAL	160.000	160.000
0196	633.5200	Markers Culvert End	EACH	38.000	38.000
0198	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	8.000	8.000
0204	638.2102	Moving Signs Type II	EACH	39.000	39.000
0210	638.4000	Moving Small Sign Supports	EACH	40.000	40.000
0212	642.5401	Field Office Type D	EACH	0.250	0.250
0214	643.0300	Traffic Control Drums	DAY	3,440.000	3,440.000
0216	643.0420	Traffic Control Barricades Type III	DAY	1,385.000	1,385.000
0218	643.0705	Traffic Control Warning Lights Type A	DAY	2,530.000	2,530.000
0220	643.0900	Traffic Control Signs	DAY	14,980.000	14,980.000
0222	643.0910	Traffic Control Covering Signs Type I	EACH	4.000	4.000
0224	643.0920	Traffic Control Covering Signs Type II	EACH	19.000	19.000
0226	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0228	643.3165	Temporary Marking Line Paint 6-Inch	LF	206,060.000	206,060.000
0230	643.5000	Traffic Control	EACH	0.250	0.250
0232	645.0120	Geotextile Type HR	SY	433.000	433.000
0236	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	208,460.000	208,460.000
0238	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	2,597.000	2,597.000
0242	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	208,460.000	208,460.000
0244	648.0100	Locating No-Passing Zones	MI	9.980	9.980
0246	650.4500	Construction Staking Subgrade	LF	2,314.000	2,314.000
0248	650.5000	Construction Staking Base	LF	2,314.000	2,314.000
0250	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,330.000	1,330.000
0252	650.6000	Construction Staking Pipe Culverts	EACH	19.000	19.000
0254	650.8000	Construction Staking Resurfacing Reference	LF	50,156.000	50,156.000
0258	650.9911	Construction Staking Supplemental Control (project) 02. 9650-16-72	EACH	1.000	1.000
0264	650.9920	Construction Staking Slope Stakes	LF	3,935.000	3,935.000
0266	690.0150	Sawing Asphalt	LF	2,580.000	2,580.000
0268	740.0440	Incentive IRI Ride	DOL	19,960.000	19,960.000
0270	999.2100.S	Installing and Maintaining Climbing Turtle Exclusion Fence	LF	4,190.000	4,190.000
0280	SPV.0060	Special 01. Sand Bags	EACH	200.000	200.000
0282	SPV.0060	Special 02. Adjusting EATs	EACH	12.000	12.000
0284	SPV.0090	Special 01. Grading and Shaping Ditch	LF	660.000	660.000
0286	SPV.0090	Special 02. Remove, Salvage, and Reinstall Guardrail	LF	3,875.000	3,875.000
0290	SPV.0180	Special 02. Removing Distressed Asphaltic Surface Milling	SY	6,000.000	6,000.000

GRUBBING SUMMARY

STATION	TO	STATION	LOCATION	201.2050 GRUBBING STA	201.0220 GRUBBING ID	REMARKS
880+00	-	882+00	STH 47 RT	2	-	-
882+00	-	882+50	STH 47 RT	-	12	5" & 7" TREES
884+00	-	885+00	STH 47 RT	1	-	-
885+00	-	886+00	STH 47 RT	1	-	-
886+00	-	888+00	STH 47 RT	2	-	Fill Slope
889+00	-	890+00	STH 47 RT	1	-	-
890+15	-	890+15	STH 47 RT	-	4	-
892+00	-	893+00	STH 47 RT	1	-	-
894+20	-	894+20	STH 47 RT	-	13	10" & 3"
994+06	-	994+06	STH 47 LT	-	6	-
994+20	-	994+20	STH 47 RT	-	5	-
1010+95	-	1010+95	STH 47 RT	-	9	4" & 5" TREES
1054+23	-	1054+23	STH 47 LT	-	9	-
1068+52	-	1068+52	STH 47 LT	-	7	3.5" & 3.5" TREES
1068+52	-	1068+52	STH 47 RT	-	12	-
1127+00	-	1128+00	STH 47 RT	1	-	-
1148+03	-	1148+03	STH 47 RT	-	11	3" & 8" TREES
1157+53	-	1157+53	STH 47 LT	-	3	-
1163+84	-	1163+84	STH 47 RT	-	7	-
1220+00	-	1221+00	STH 47 LT	1	-	-
1275+00	-	1277+00	STH 47 LT	2	-	-
			TOTALS	12	98	

REMOVING ASPHALTIC SURFACE MILLING

STA	TO	STA	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	SPV.0180.02 REMOVING DISTRESSED ASPHALTIC SURFACE MILLING SY	REMARKS
807+12	-	1334+18	STH 47	76	151,940	-	MAINLINE
859+66		861+17	STH 47, LT		130		CAMP 33 RD
887+07	-	888+50	STH 47, LT	-	382	-	CAMP26 RD
892+86	-	893+55	STH 47, RT	26	372	-	WHEELOCK RD
1044+43	-	1045+29	STH 47, RT	35	111	-	ZOAR SIDE RD
1049+81	-	1050+53	STH 47, RT	33	65	-	ZOAR SIDE RD
1213+25.94	;	1213+35.94	STH 47	40			MAINLINE
1213+88.44	-	1213+98.44	STH 47	40	-	-	MAINLINE
UNDISTRIBUTED			STH 47	-	-	6,000	
			TOTALS	250	153,000	6,000	

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	REMARKS
880+94	STH 47	1	30" CMCP 38 LF
885+61	STH 47	1	18" CPRC 39 LF
889+34	STH 47	1	18" CMCP 60 LF
892+70	STH 47	1	12" CMCP 30 LF
894+05	STH 47	1	12" CPRC 84 LF
939+20	STH 47	1	24" CPRC 43 LF
971+36	STH 47	1	19"X30" CPRCHE 38 LF
994+07	STH 47	1	24" CPRC 49 LF
1011+07	STH 47	1	24" CULVERT PIPE NONMETAL 53 LF
1054+21	STH 47	1	24" CULVERT PIPE NONMETAL 48 LF
1068+50	STH 47	1	24" CULVERT PIPE NONMETAL 48 LF
1085+42	STH 47	1	30" CPRC 42 LF
1085+46	STH 47	1	30" CPRC 42 LF
1127+80	STH 47	1	24" CPRC 39 LF
1148+03	STH 47	1	24" CPRC 39 LF
1157+52	STH 47	1	24" CPRC 41 LF
1163+84	STH 47	1	24" CULVERT PIPE NONMETAL 55 LF
1171+60	STH 47	1	24" CPRC 45 LF
1179+24	STH 47	1	19"X30" CPRCHE 41 LF
1220+79	STH 47	1	19"X30" CPRCHE 42 LF
1240+85	STH 47	1	24" CPRC 43 LF
1245+18	STH 47	1	24" CULVERT PIPE NON-METAL 43 LF
1250+80	STH 47	1	19"X30" CPRCHE 35 LF
1276+25	STH 47	1	36" CPRC 53 LF
1276+32	STH 47	1	36" CPRC 53 LF
1288+74	STH 47	1	24" CPRC 44 LF
1328+82	STH 47	1	24" CPRC 50 LF
TOTAL		27	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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EARTHWORK

DIVISION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
CULVERT PIPE TRANSITION AT STA. 880+94	333	0	26	307	125	156	151	151	0	
BEAMGUARD 881+95 TO 892+13	350	0	0	350	221	276	74	74	0	
BEAMGUARD 893+44 TO 897+82	169	0	0	169	324	405	-236	-236	160	
WHEELOCK ROAD STA 10+20 TO 10+90	39	0	0	39	29	36	3	3	0	
CULVERT PIPE TRANSITION AT STA. 939+20	209	0	26	183	25	31	152	152	0	
CULVERT PIPE TRANSITION AT STA. 971+36	106	0	26	80	0	0	80	80	0	
CULVERT PIPE TRANSITION AT STA. 994+07	152	0	26	126	0	0	126	126	0	
CULVERT PIPE TRANSITION AT STA. 1011+07	177	0	26	151	0	0	151	151	0	
CULVERT PIPE TRANSITION AT STA. 1054+21	292	0	26	266	108	135	131	131	0	
CULVERT PIPE TRANSITION AT STA. 1068+50	368	0	26	342	183	229	113	113	0	
CULVERT PIPE TRANSITION AT STA 1085+42	110	0	26	84	0	0	84	84	0	
CULVERT PIPE TRANSITION AT STA. 1127+80	203	0	26	177	18	23	155	155	0	
CULVERT PIPE TRANSITION AT STA. 1148+03	158	0	26	132	0	0	132	132	0	
CULVERT PIPE TRANSITION AT STA. 1157+52	190	0	26	164	6	8	157	157	0	
CULVERT PIPE TRANSITION AT STA. 1163+84	463	0	26	437	279	349	88	88	0	
CULVERT PIPE TRANSITION AT STA. 1171+60	228	0	26	202	43	54	148	148	0	
CULVERT PIPE TRANSITION AT STA. 1179+24	150	0	26	124	0	0	124	124	0	
CULVERT PIPE TRANSITION AT STA. 1220+79	125	0	26	99	0	0	99	99	0	
CULVERT PIPE TRANSITION AT STA. 1240+85	152	0	26	126	0	0	126	126	0	
CULVERT PIPE TRANSITION AT STA. 1245+18	203	0	26	177	19	24	153	153	0	
CULVERT PIPE TRANSITION AT STA. 1250+80	144	0	26	118	0	0	118	118	0	
CULVERT PIPE TRANSITION AT STA 1276+30	195	0	26	169	11	14	155	155	0	
CULVERT PIPE TRANSITION AT STA. 1288+74	184	0	26	158	0	0	158	158	0	
CULVERT PIPE TRANSITION AT STA. 1328+82	203	0	26	177	18	23	155	155	0	
GRAND TOTAL	4,903	0	546	4,357	1,409	1,761	2,596	2,596	160	
TOTAL COMMON EXC	4,903									

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25X
(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.

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

BASE AGGREGATE DENSE

STA	TO	STA	LOCATION	305.0110 3/4 INCH TON	305.0120 1 1/4 INCH TON	624.0100 WATER MGAL	REMARKS
880+39	-	881+19	STH 47	16	279	6	CULVERT TRANSITION
938+65	-	939+75	STH 47	16	249	6	CULVERT TRANSITION
970+81	-	971+91	STH 47	16	249	6	CULVERT TRANSITION
993+52	-	994+62	STH 47	16	249	6	CULVERT TRANSITION
1010+52	-	1011+62	STH 47	16	249	6	CULVERT TRANSITION
1053+66	-	1054+76	STH 47	16	249	6	CULVERT TRANSITION
1067+95	-	1069+05	STH 47	16	249	6	CULVERT TRANSITION
1084+87	-	1086+01	STH 47	16	249	6	CULVERT TRANSITION
1127+25	-	1128+35	STH 47	16	249	6	CULVERT TRANSITION
1147+48	-	1148+58	STH 47	16	249	6	CULVERT TRANSITION
1156+97	-	1158+07	STH 47	16	249	6	CULVERT TRANSITION
1163+29	-	1164+39	STH 47	16	249	6	CULVERT TRANSITION
1171+05	-	1172+15	STH 47	16	249	6	CULVERT TRANSITION
1178+69	-	1179+79	STH 47	16	249	6	CULVERT TRANSITION
1220+24	-	1221+34	STH 47	16	249	6	CULVERT TRANSITION
1240+30	-	1241+40	STH 47	16	249	6	CULVERT TRANSITION
1244+63	-	1245+73	STH 47	16	249	6	CULVERT TRANSITION
1250+25	-	1251+35	STH 47	16	249	6	CULVERT TRANSITION
1275+75	-	1276+85	STH 47	16	249	6	CULVERT TRANSITION
1288+19	-	1289+29	STH 47	16	249	6	CULVERT TRANSITION
1328+27	-	1329+37	STH 47	16	250	6	CULVERT TRANSITION
807+12	-	878+50	STH 47	657	0	14	SHOULDERS
878+00	-	897+59	STH 47	757	0	16	SHOULDERS
897+59	-	922+50	STH 47	981	0	20	SHOULDERS
922+50	-	1209+50	STH 47	2561	0	52	SHOULDERS
1209+50	-	1217+00	STH 47	164	0	5	SHOULDERS
1217+00	-	1333+82	STH 47	1019	0	22	SHOULDERS
			TOTALS	6,475	5,260	255	

HAULING EXCESS SHOULDER MATERIAL

STA	TO	STA	LOCATION	305.0504.S HAULING EXCESS SHOULDER MATERIAL CY
807+57	-	812+87	LT	14
811+03	-	812+21	LT	5
859+75	-	868+13	RT	21
881+98	-	893+21	RT	28
888+02	-	892+77	LT	13
893+08	-	896+05	LT	9
893+45	-	897+59	RT	12
1052+39	-	1057+68	RT	14
1063+26	-	1069+81	LT	17
1165+40	-	1183+19	RT	43
1212+16	-	1213+17	RT	6
1212+19	-	1213+26	LT	6
1213+99	-	1215+07	RT	6
1213+78	-	1215+09	LT	7
1217+64	-	1230+94	RT	33
1302+71	-	1309+08	LT	17
			Total	250

PREPARE SHOULDER SUMMARY

STA	TO	STA	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
808+50	-	880+00	STH 47	144
880+00	-	936+00	STH 47	112
936+00	-	1324+00	STH 47	776
			TOTAL	1,032

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

HMA PAVEMENT SUMMARY

STA	TO	STA	LOCATION	AREA HMA SY	4 LT 58-28 S UPPER IN	4 LT 58-26 S MIDDLE IN	ASPHALTIC SURFACE LOWER IN	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.0105.S HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PAVEMENT PWL TEST STRIP DENSITY EACH	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
807+12	-	1333+82	STH 47	149124	1.75	1.75	---	---	20,433	1	2	28,603	---	---	MAINLINE
808+50	-	880+00	STH 47	1589	1.75	1.75	---	---	224	---	---	312	---	---	SHOULDER WIDENING
859+66	-	861+17	STH 47	131	1.75	1.75	---	---	20	---	---	26	---	---	SIDE ROAD
880+00	-	936+00	STH 47	3733	1.75	1.75	--	---	524	---	---	732	--	---	SHOULDER WIDENING
880+39	-	881+49	STH 47	294	---	1.75	3	---	21	---	---	29	50	---	CULVERT PATCH
887+07	-	888+50	STH 47	383	1.75	1.75	---	---	54	---	---	76	---	---	SIDE ROAD
892+86	-	893+55	STH 47	399	1.75	1.75	---	---	56	---	---	79	---	---	SIDE ROAD
936+00	-	1324+00	STH 47	8622	1.75	1.75	--	---	1,208	---	---	1,690	--	---	SHOULDER WIDENING
938+65	-	939+75	STH 47	311	---	1.75	3	---	22	---	---	30	53	---	CULVERT PATCH
970+81	-	971+91	STH 47	298	---	1.75	3	---	21	---	---	29	51	---	CULVERT PATCH
978+11	-	980+62	STH 47	183	1.75	1.75	---	---	26	---	---	36	---	---	EMERGENCY LN
993+52	-	994+62	STH 47	305	---	1.75	3	---	21	---	---	30	52	---	CULVERT PATCH
1008+71	-	1010+63	STH 47	180	1.75	1.75	---	---	26	---	---	36	---	---	EMERGENCY LN
1010+52	-	1011+62	STH 47	321	---	1.75	3	---	22	---	---	31	54	---	CULVERT PATCH
1032+53	-	1034+64	STH 47	212	1.75	1.75	---	---	30	---	---	42	---	---	EMERGENCY LN
1044+43	-	1045+29	STH 47	147	1.75	1.75	---	---	22	---	---	29	---	---	SIDE ROAD
1047+02	-	1049+03	STH 47	186	1.75	1.75	---	---	28	---	---	37	---	---	EMERGENCY LN
1049+81	-	1050+53	STH 47	99	1.75	1.75	---	---	14	---	---	20	---	---	SIDE ROAD
1053+66	-	1054+76	STH 47	319	---	1.75	3	---	22	---	---	31	54	---	CULVERT PATCH
1067+95	-	1069+05	STH 47	312	---	1.75	3	---	22	---	---	31	53	---	CULVERT PATCH
1079+26	-	1081+28	STH 47	204	1.75	1.75	---	---	30	---	---	21	---	---	EMERGENCY LN
1084+89	-	1085+99	STH 47	297	---	1.75	3	---	21	---	---	29	50	---	CULVERT PATCH
1127+25	-	1128+35	STH 47	294	---	1.75	3	---	21	---	---	29	50	---	CULVERT PATCH
1113+36	-	1115+26	STH 47	183	1.75	1.75	---	---	26	---	---	36	---	---	EMERGENCY LN
1133+64	-	1135+59	STH 47	190	1.75	1.75	---	---	28	---	---	38	---	---	EMERGENCY LN
1147+48	-	1148+58	STH 47	298	---	1.75	3	---	21	---	---	29	51	---	CULVERT PATCH
1156+97	-	1158+07	STH 47	312	---	1.75	3	---	22	---	---	31	53	---	CULVERT PATCH
1163+29	-	1164+39	STH 47	296	---	1.75	3	---	21	---	---	29	50	---	CULVERT PATCH
1171+05	-	1172+15	STH 47	314	---	1.75	3	---	22	---	---	31	53	---	CULVERT PATCH
1178+69	-	1179+79	STH 47	295	---	1.75	3	---	21	---	---	29	50	---	CULVERT PATCH
1187+43	-	1189+68	STH 47	175	1.75	1.75	---	---	26	---	---	35	---	---	EMERGENCY LN
1199+19	-	1201+37	STH 47	185	1.75	1.75	---	---	26	---	---	37	---	---	EMERGENCY LN
1220+24	-	1221+34	STH 47	309	---	1.75	3	---	22	---	---	30	52	---	CULVERT PATCH
1233+25	-	1235+33	STH 47	177	1.75	1.75	---	---	26	---	---	35	---	---	EMERGENCY LN
1240+30	-	1241+40	STH 47	296	---	1.75	3	---	21	---	---	29	50	---	CULVERT PATCH
1244+63	-	1245+73	STH 47	294	---	1.75	3	---	21	---	---	29	50	---	CULVERT PATCH
1250+25	-	1251+35	STH 47	293	---	1.75	3	---	20	---	---	29	50	---	CULVERT PATCH
1255+23	-	1257+31	STH 47	192	1.75	1.75	---	---	28	---	---	38	---	---	EMERGENCY LN
1275+75	-	1276+85	STH 47	313	---	1.75	3	---	22	---	---	31	53	---	CULVERT PATCH
1281+84	-	1283+79	STH 47	152	1.75	1.75	---	---	22	---	---	30	---	---	EMERGENCY LN
1288+19	-	1289+29	STH 47	292	---	1.75	3	---	20	---	---	29	50	---	CULVERT PATCH
1308+95	-	1311+09	STH 47	206	1.75	1.75	---	---	30	---	---	41	---	---	EMERGENCY LN
1329+94	-	1333+19	STH 47	456	1.75	1.75	---	---	64	---	---	90	---	---	EMERGENCY LN
1328+27	-	1329+37	STH 47	330	---	1.75	3	---	23	---	---	32	56	---	CULVERT PATCH
UNDISTRIBUTED			STH 47		---	---	---	32,745	---	---	---	---	---	2,000	
			TOTALS					32,745	23,420	1	2	32,745	1,085	2,000	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

PWL MIXTURE USAGE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
11' DRIVING LANES (NB/SB)	807+12 - 1333+82	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	12,625	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANES (NB/SB)	807+12 - 1333+82	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	4 LT 58-28 S	12,625	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
SHOULDER (NB/SB)	807+12 - 1333+82	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	3,051	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER (NB/SB)	807+12 - 1333+82	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	4 LT 58-28 S	3,052	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EMERGENCY LANES	807+12 - 1333+82	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	276	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EMERGENCY LANES	807+12 - 1333+82	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	4 LT 58-28 S	276	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SIDE ROADS	VARIOUS	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	115	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SIDE ROADS	VARIOUS	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	4 LT 58-28 S	115	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
CULVERT PATCHES	VARIOUS	LOWER LAYER	BASE AGGREGATE	ASPHALTIC SURFACE	1,085	3"	(SS 465)	ORDINARY COMPACTION (SS 450.3.2.6.2)
PASSING LANE WHEELOCK RD	897+59 - 922+50	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	305	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PASSING LANE WHEELOCK RD	897+59 - 922+50	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	4 LT 58-28 S	305	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005

CENTERLINE RUMBLE STRIPS

			465.0560
			ASPHALTIC RUMBLE STRIPS, CENTERLINE
STATION	TO	STATION	LF
808+76	-	858+39	4,963
862+39	-	885+74	2,335
889+74	-	891+18	144
895+18	-	1042+91	14,773
1046+91	-	1048+17	126
1052+17	-	1087+22	3,505
1091+22	-	1999+15	90,793
1203+15	-	1213+00	985
1214+24	-	1271+16	5,692
1275+16	-	1333+82	5,866
		TOTAL	129,182

CAST-IN-PLACE ENDWALL SUMMARY

		504.0900
		CONCRETE MASONRY ENDWALLS
STA		CY
1085+44	RT	2.00
1085+44	LT	2.50
1276+30	LT	2.00
1276+30	RT	2.50
TOTAL		9.00

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CULVERT PIPE SUMMARY

STATION	LOCATION	520.3624 CULVERT PIPE NON-METAL CLASS III-B 24-INCH LF	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0442 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.2319 CULVERT PIPE REINFORCED CONCRETE HE CLASS III 19X30-INCH LF	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HE 19X30-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	INLET INVERT OFFSET	INLET INVERT ELEV.	OUTLET INVERT OFFSET	OUTLET INVERT ELEV.
880+94	STH 47	88	2						2	1	36.75' LT	1068.15	50.96' RT	1060.75
939+20	STH 47			40		2			2	1	17.41' LT	1150.74	22.08' RT	1149.85
994+07	STH 47			48		2			2	1	29.21' LT	1207.53	18.76' RT	1207.41
1011+07	STH 47	48	2						2	1	19.76' LT	1196.80	27.94' RT	1195.82
1054+21	STH 47	48	2						2	1	23.42' RT	1199.44	24.30' LT	1198.69
1068+50	STH 47	48	2						2	1	22.07' RT	1189.65	25.51' LT	1187.24
1085+42	STH 47				40				2	1	20.80' RT	1174.33	21.63' LT	1174.33
1085+46	STH 47				40				2	1	21.49' RT	1174.33	20.87' LT	1174.33
1127+80	STH 47			40		2			2	1	17.65' LT	1213.14	22.24' RT	1212.43
1148+03	STH 47			40		2			2	1	19.27' RT	1224.25	20.73' LT	1223.40
1157+52	STH 47			40		2			2	1	21.31' LT	1233.67	18.26' RT	1232.78
1163+84	STH 47	48	2						2	1	22.43' LT	1242.63	23.66' RT	1240.50
1171+60	STH 47			40		2			2	1	19.46' LT	1231.57	24.57' RT	1229.60
1179+24	STH 47						32	2	2	1	15.69' LT	1247.89	16.54' RT	1247.04
1220+79	STH 47						40	2	2	1	20.15' RT	1228.23	20.27' LT	1228.09
1276+27	STH 47				56				2	1	26.49' RT	1246.80	26.51' LT	1246.80
1276+32	STH 47				56				2	1	26.49' RT	1246.80	26.51' LT	1246.80
1288+74	STH 47			40		2			2	1	20.95' RT	1260.75	19.29' LT	1260.51
1328+82	STH 47			48		2			2	1	27.12' RT	1279.71	21.31' LT	1278.70
	TOTALS	280	10	336	192	16	72	4	38	19				

NOTE: OFFSET & ELEVATION REFERENCED TO THE END OF PIPE

SURFACE DRAIN SUMMARY

STATION	LOCATION	602.3010 CONCRETE SURFACE DRAINS CY
884+30	STH 47 RT	1.0
885+60	STH 47 RT	1.0
886+85	STH 47 RT	1.0
889+35	STH 47 RT	1.0
894+05	STH 47 RT	1.0
	TOTALS	5.0

CURB AND GUTTER SUMMARY

STATION	TO	STATION	LOCATION	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB AND GUTTER LF
882+45	-	892+52	STH 47 RT	1007	1007
893+80	-	896+98	STH 47 RT	318	318
			TOTAL	1330	1,330

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

				GUARDRAIL									
				204.0165	614.0305	614.0345	614.0370	614.0400	614.0510	614.0515	614.0950	SPV.0090.02	SPV.0060.02
				REMOVING GUARDRAIL	STEEL PLATE BEAM GUARD CLASS A	STEEL PLATE BEAM GUARD SHORT RADIUS	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	ADJUSTING STEEL PLATE BEAM GUARD	GUARDRAIL STIFFENED NW	GUARDRAIL STIFFENED LHW	REPLACING GUARDRAIL POSTS AND BLOCKS	REMOVE, SALVAGE, AND REINSTALL GUARDRAIL	ADJUSTING EATS
STATION	TO	STATION	LOCATION	LF	LF	LF	EACH	LF	LF	LF	EACH	LF	EACH
807+57	-	812+87	STH 47, RT	-	-	-	-	75	-	-	83	375	-
811+03	-	812+21	STH 47, LT	-	-	-	-	95	-	-	8	25	-
859+75	-	868+13	STH 47, RT	-	-	-	-	500	-	-	61	325	2
881+95	-	893+19	STH 47, RT & WHEELOCK RD*	1160	50	87.5	1	-	1000	1000	-	-	-
888+02	-	892+77	STH 47, LT	-	-	-	-	275	-	-	61	200	-
893+44	-	897+52	STH 47, RT & WHEELOCK RD*	460	25	75	1	-	312.5	312.5	-	-	-
893+08	-	896+05	STH 47, LT	-	-	-	-	150	-	-	8	125	1
1052+39	-	1057+68	STH 47, RT	-	-	-	-	300	-	-	32	225	2
1063+26	-	1069+81	STH 47, LT	-	-	-	-	330	-	-	16	325	2
1165+40	-	1183+19	STH 47, RT	-	-	-	-	650	-	-	76	1125	1
1212+16	-	1215+09	STH 47, RT&LT	-	-	-	-	268	-	-	9	25	2
1217+64	-	1230+94	STH 47, RT	-	-	-	-	630	-	-	61	700	1
1302+71	-	1309+08	STH 47, LT	-	-	-	-	212	-	-	15	425	1
			TOTALS	1,620	75	162.5	2	3,485	1,313	1,313	430	3,875	12

* THE GUARDRAIL REMOVAL NOTED ABOVE INCLUDES ANY BURIED RAIL NEAR THE BASE OF THE POST

GUARDRAIL MOW STRIP EMULSIFIED ASPHALT

STA	TO	STA	LOCATION	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	REMARKS
807+57	-	812+87	RT	251	
811+03	-	812+21	LT	83	
859+75	-	868+13	RT	376	
868+13	-	871+37	RT	167	SHOULDER WITHOUT GUARDRAIL
873+00	-	875+00	LT	116	SHOULDER WITHOUT GUARDRAIL
881+98	-	893+21	RT	492	
888+02	-	892+77	LT	228	
893+08	-	896+05	LT	156	
893+45	-	897+59	RT	203	
1052+39	-	1057+68	RT	250	
1063+26	-	1069+81	LT	302	
1094+00		1098+00	LT	198	SHOULDER WITHOUT GUARDRAIL
1165+40	-	1183+19	RT	760	
1212+16	-	1213+17	RT	76	
1212+19	-	1213+26	LT	78	
1213+99	-	1215+07	RT	78	
1213+78	-	1215+09	LT	88	
1217+64	-	1230+94	RT	577	
1302+71	-	1309+08	LT	294	
			TOTAL	4,770	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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FINISHING

LOCATION	625.0100 TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0170 SEEDING MIXTURE NO. 70 LB	630.0400 SEEDING NURSE CROP LB	630.0500 SEED WATER MGAL	REMARKS
BEAM GUARD STA 880+70 - 893+16	2,445	2,445	1.55	9	18	56	
CULVERT PIPE AT STA. 880+94	310	310	0.20	2	3	7	
BEAM GUARD STA 893+16 898+75 RT	865	865	0.55	4	7	21	
CULVERT PIPE AT STA. 939+20	195	195	0.13	1	2	5	
CULVERT PIPE AT STA. 971+36	120	120	0.08	1	1	3	
CULVERT PIPE AT STA. 994+07	100	100	0.07	1	1	3	
CULVERT PIPE AT STA. 1011+07	160	160	0.11	1	2	4	
CULVERT PIPE AT STA. 1054+21	170	170	0.11	1	2	4	
CULVERT PIPE AT STA. 1068+50	195	195	0.13	1	2	5	
TWIN CULVERT PIPES AT STA. 1085+44	35	35	0.03	1	1	1	TWIN PIPES
CULVERT PIPE AT STA. 1127+80	90	90	0.06	1	1	3	
CULVERT PIPE AT STA. 1148+03	95	95	0.06	1	1	3	
CULVERT PIPE AT STA. 1157+52	45	45	0.03	1	1	2	
CULVERT PIPE AT STA. 1163+84	185	185	0.12	1	2	5	
CULVERT PIPE AT STA. 1171+60	85	85	0.06	1	1	2	
CULVERT PIPE AT STA. 1179+24	105	105	0.07	1	1	3	
CULVERT PIPE AT STA. 1220+79	95	95	0.06	1	1	3	
CULVERT PIPE AT STA. 1240+85	105	105	0.07	1	1	3	
CULVERT PIPE AT STA. 1245+18	110	110	0.07	1	1	3	
CULVERT PIPE AT STA. 1250+80	50	50	0.04	1	1	2	
TWIN CULVERT PIPES AT STA. 1276+30	235	235	0.15	1	2	6	TWIN PIPES
CULVERT PIPE AT STA. 1288+74	130	130	0.09	1	1	3	
CULVERT PIPE AT STA. 1328+82	115	115	0.08	1	1	3	
UNDISTRIBUTED	300	300	0.18	1	2	10	
TOTALS	6,340	6,340	4.1	36	56	160	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

EROSION CONTROL

LOCATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EA	628.7570 ROCK BAGS EA	SPV.0060.01 SAND BAGS EA	645.0120 GEOTEXTILE TYPE HR SY	999.2100.S INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE LF	REMARKS
BEAM GUARD STA 880+70 - 893+16	74	---	---			40	---	160	---	215	1,900	
CULVERT PIPE AT STA. 880+94	3	---	---			---	3	20	---	11	140	
BEAM GUARD STA 893+16 - 898+75 RT	24	---	---			40	---	60	---	73	770	
CULVERT PIPE AT STA. 939+20	---	320	640			20	3	---	---	---	---	
CULVERT PIPE AT STA. 971+76	---	250	500			---	---	---	---	---	---	REMOVAL ONLY
CULVERT PIPE AT STA. 994+07	---	250	500			20	3	---	---	---	---	
CULVERT PIPE AT STA. 1011+07	3	300	600			---	3	---	---	11	---	
CULVERT PIPE AT STA. 1054+21	3	290	580			---	3	---	---	11	---	
CULVERT PIPE AT STA. 1068+50	3	290	580			---	3	---	---	11	---	
TWIN PIPES AT STA. 1085+44	14	---	---			---	---	80	50	44	290	TWIN PIPES
CULVERT PIPE AT STA. 1127+80	---	270	540			---	3	---	---	---	---	
CULVERT PIPE AT STA. 1148+03	---	300	600	9	3	---	3	---	---	---	---	
CULVERT PIPE AT STA. 1157+52	---	260	520			---	3	---	---	---	---	
CULVERT PIPE AT STA. 1163+84	---	320	640			40	3	---	---	---	---	
CULVERT PIPE AT STA. 1171+60	---	290	580			---	3	---	---	---	---	
CULVERT PIPE AT STA. 1179+24	---	290	580			---	5	---	---	---	---	
CULVERT PIPE AT STA. 1220+79	4	---	---			40	5	20	---	13	290	
CULVERT PIPE AT STA. 1240+85	---	230	460			---	---	---	---	---	---	REMOVAL ONLY
CULVERT PIPE AT STA. 1245+18	---	270	540			---	---	---	---	---	---	REMOVAL ONLY
CULVERT PIPE AT STA. 1250+80	---	260	520			---	---	---	---	---	---	REMOVAL ONLY
TWIN PIPES AT STA. 1276+30	14	---	---			40	---	80	50	44	310	TWIN PIPES
CULVERT PIPE AT STA. 1288+74	---	---	---			---	3	20	---	---	290	
CULVERT PIPE AT STA. 1328+82	---	280	560			---	3	---	---	---	---	
UNDISTRIBUTED	---	224	447			24	5	25	100	---	200	
TOTALS	143	4,690	9,390	9	3	264	50	470	200	433	4,190	

GRADING AND SHAPING DITCH

SPV.0090.01

STA	TO	STA	LOCATION	LF	REMARKS
939+00	-	939+30	STH 47, LT	110	EACH DIRECTION FROM ENDWALLS
994+07	-	994+62	STH 47, RT	55	UPSTATION FROM ENDWALL
1163+28		1164+38	STH 47, LT	110	
1179+10		1179+35	STH 47, RT	110	EACH DIRECTION FROM ENDWALLS
1220+46		1220+78	STH 47, LT	55	DOWNSTATION FROM ENDWALL
1276+00	-	1276+60	STH 47, RT	220	EACH DIRECTION FROM ENDWALLS
			TOTAL	660	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

PERMANENT SIGNING SUMMARY

STATION	TO	STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
807+57	-	812+87	STH 47 RT	-	1	1
811+03	-	812+21	STH 47 LT	-	1	2
881+98	-	893+21	STH 47 RT	-	4	4
888+02	-	892+77	STH 47 LT	-	2	2
893+08	-	896+05	STH 47 LT	-	1	1
893+45	-	897+59	STH 47 RT	-	2	2
938+65	-	939+75	STH 47 RT	-	1	1
993+52	-	994+62	STH 47 LT	-	1	1
1010+52	-	1011+62	STH 47 RT	-	1	1
1052+39	-	1057+68	STH 47 RT	-	6	6
1053+66	-	1054+76	STH 47 RT	-	1	1
1063+26	-	1069+81	STH 47 LT	-	2	2
1067+95	-	1069+05	STH 47 RT	-	1	1
1147+48	-	1148+58	STH 47 RT	-	1	1
1165+40	-	1183+19	STH 47 RT	-	4	4
1171+05	-	1172+15	STH 47 RT	-	1	1
1178+69	-	1179+79	STH 47 LT	-	1	1
1217+64	-	1230+94	STH 47 RT	-	3	3
1302+71	-	1309+08	STH 47 LT	-	2	2
1328+27	-	1329+37	STH 47 RT	-	2	2
UNDISTRIBUTED				8	1	1
			TOTALS	8	39	40

NOTE: SIGNING QUANTITIES ABOVE ARE FOR POTENTIAL PASSING ZONE CHANGES

LOCATING NO PASSING ZONES

STATION	TO	STATION	LOCATION	648.0100 MI
807+12	-	1334+18	STH 47	9.98
			TOTAL	9.98

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

TRAFFIC CONTROL SUMMARY

LOCATION	APPROX. SERVICE DAYS	643.0300 DRUMS NO IN SERVICE	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO IN SERVICE	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO IN SERVICE	643.0900 SIGNS DAYS	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	643.1000 FIXED MESSAGE SIGNS SF
ADVANCED CLOSURE WARNING	7	---	---	---	---	---	---	---	---	---	---	36.00
MAINLINE DETOUR	30	---	---	18	540	28	840	310	9,300	4	15	---
MAINLINE CLOSURE	30	---	---	8	240	16	480	12	360	---	---	---
SIDEROADS	30			2	60	4	120	6	180	---	---	---
FLAGGING	61	50	3050	5	305	10	610	40	2,440	---	---	---
UNDISTRIBUTED	30	13	390	8	240	16	480	90	2,700	---	4	---
TOTALS			3,440		1,385		2,530		14,980	4	19	36.00

PAVEMENT MARKING SUMMARY

STATION	TO	STATION	LOCATION	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW) LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW) LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE) LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) LF	646.6465 COLD WEATHER MARKING EPOXY 6-INCH LF	REMARKS
807+12		898+50	STH 47	36,600	18,300	18,300		36,600	DBL YLW
898+60	-	915+00	STH 47	6,560	3,280	3,690	-	6,970	DBL YLW W/ CLIMBING LANE
915+00	-	1045+35	STH 47	52,140	26,070	25,880	-	51,950	DBL YLW
978+12		980+62	STH 47			30	221	30	
1008+71	-	1010+63	STH 47	-	-	30	162	30	
1032+53	-	1034+64	STH 47	-	-	30	181	30	
1045+35		1194+50	STH 47	59,660	29,830	29,430		59,260	DBL YLW
1047+20	-	1049+03	STH 47	-	-	30	153	30	
1079+26	-	1081+28	STH 47	-	-	30	172	30	
1113+36	-	1115+26	STH 47	-	-	30	160	30	
1133+64	-	1135+59	STH 47	-	-	30	165	30	
1187+43	-	1189+68	STH 47	-	-	30	195	30	
1194+50	-	1205+60	STH 47	2,780	1,390	2,140	-	3,530	SGL YLW W/ SKIPS
1199+19	-	1201+37	STH 47	-	-	30	188	30	
1205+60	-	1210+60	STH 47	260	130	1,000	-	1,130	SKIPS
1210+60	-	1220+70	STH 47	2,540	1,270	2,020	-	3,290	SGL YLW W/ SKIPS
1220+70	-	1273+50	STH 47	21,120	10,560	10,500	-	21,060	DBL YLW
1233+25	-	1235+33	STH 47	-	-	30	178	30	
1255+23	-	1257+31	STH 47	-	-	30	178	30	
1273+50	-	1334+50	STH 47	24,400	12,200	12,050	-	24,250	DBL YLW
1281+84	-	1283+79	STH 47	-	-	30	165	30	
1308+95	-	1311+09	STH 47	-	-	30	184	30	
1329+94	-	1333+19	STH 47	-	-	30	295	30	
			SUBTOTALS		103,030	105,430			
			TOTALS	206,060	208,460		2,597	208,460	

CONSTRUCTION STAKING SUMMARY

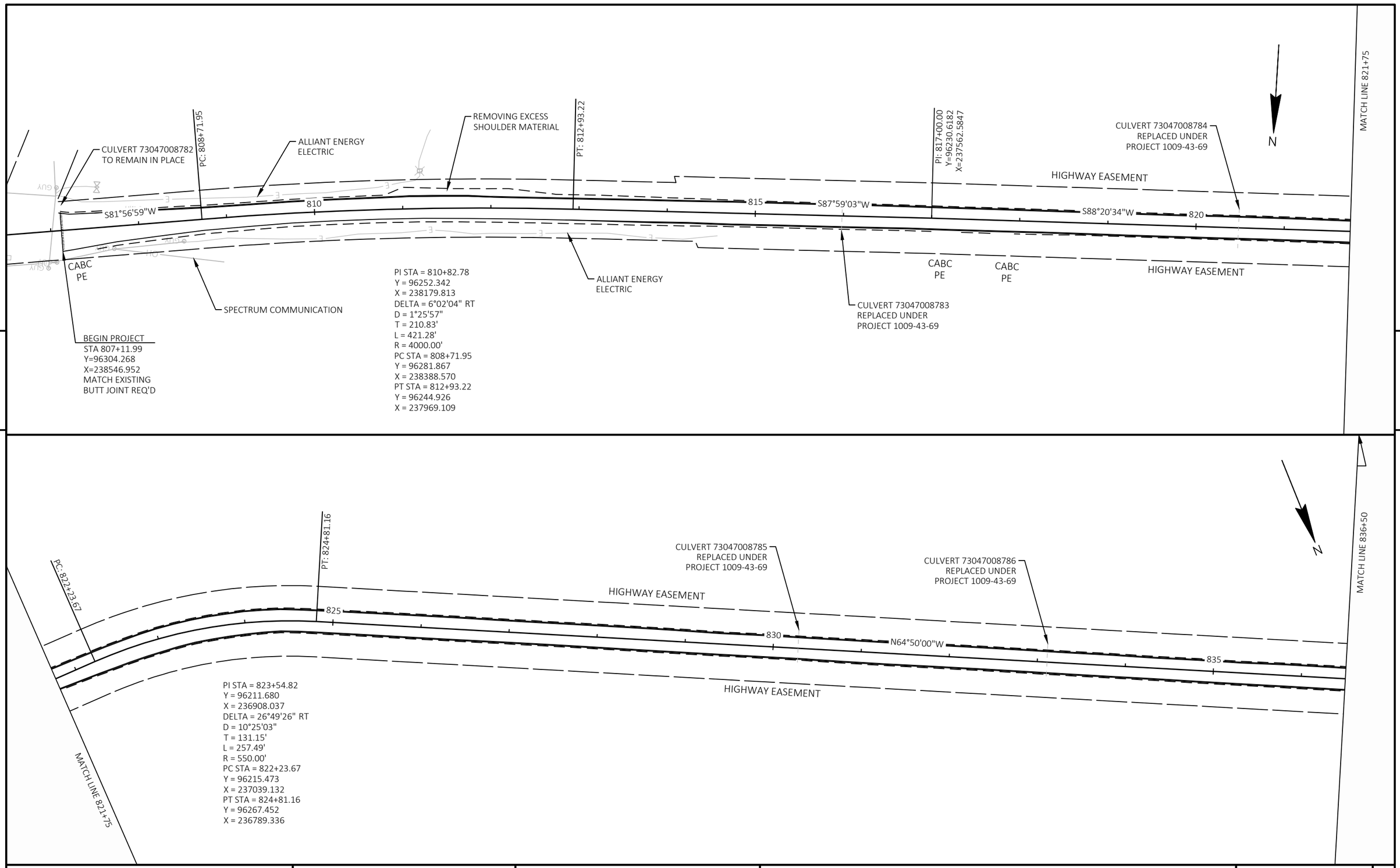
STA	TO	STA	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.8000 RESURFACING REFERENCE LF	650.9920 SLOPE STAKES LF
807+12	-	880+39	STH 47	---	---	7,327	---
880+39	-	881+49	STH 47	110	110	---	110
881+49	-	897+52	STH 47	---	---	1,603	1,621
897+52	-	938+65	STH 47	---	---	4,113	---
938+65	-	939+75	STH 47	110	110	---	110
939+75	-	970+81	STH 47	---	---	3,106	---
970+81	-	971+91	STH 47	110	110	---	110
971+91	-	993+52	STH 47	---	---	2,161	---
993+52	-	994+62	STH 47	110	110	---	110
994+62	-	1010+52	STH 47	---	---	1,590	---
1010+52	-	1011+62	STH 47	110	110	---	110
1011+62	-	1053+66	STH 47	---	---	4,204	---
1053+66	-	1054+76	STH 47	110	110	---	110
1054+76	-	1067+95	STH 47	---	---	1,319	---
1067+95	-	1069+05	STH 47	110	110	---	110
1069+05	-	1084+87	STH 47	---	---	1,582	---
1084+87	-	1086+01	STH 47	114	114	---	114
1086+01	-	1127+25	STH 47	---	---	4,124	---
1127+25	-	1128+35	STH 47	110	110	---	110
1128+35	-	1147+48	STH 47	---	---	1,913	---
1147+48	-	1148+58	STH 47	110	110	---	110
1148+58	-	1154+97	STH 47	---	---	639	---
1156+97	-	1158+07	STH 47	110	110	---	110
1158+07	-	1163+29	STH 47	---	---	522	---
1163+29	-	1164+39	STH 47	110	110	---	110
1164+39	-	1171+05	STH 47	---	---	666	---
1171+05	-	1172+15	STH 47	110	110	---	110
1172+15	-	1178+69	STH 47	---	---	654	---
1178+69	-	1179+79	STH 47	110	110	---	110
1179+79	-	1220+24	STH 47	---	---	4,045	---
1220+24	-	1221+34	STH 47	110	110	---	110
1221+34	-	1240+30	STH 47	---	---	1,896	---
1240+30	-	1241+40	STH 47	110	110	---	110
1241+40	-	1244+63	STH 47	---	---	323	---
1244+63	-	1245+73	STH 47	110	110	---	110
1245+73	-	1250+25	STH 47	---	---	452	---
1250+25	-	1251+35	STH 47	110	110	---	110
1251+35	-	1275+75	STH 47	---	---	2,440	---
1275+75	-	1276+85	STH 47	110	110	---	110
1276+85	-	1288+19	STH 47	---	---	1,134	---
1288+19	-	1289+29	STH 47	110	110	---	110
1289+29	-	1328+27	STH 47	---	---	3,898	---
1328+27	-	1329+37	STH 47	110	110	---	110
1329+37	-	1333+82	STH 47	---	---	445	---
			TOTALS	2,314	2,314	50,156	3,935

NOTE: CONSTRUCTION STAKING PIPE CULVERTS ITEM SHOWN ELSEWHERE

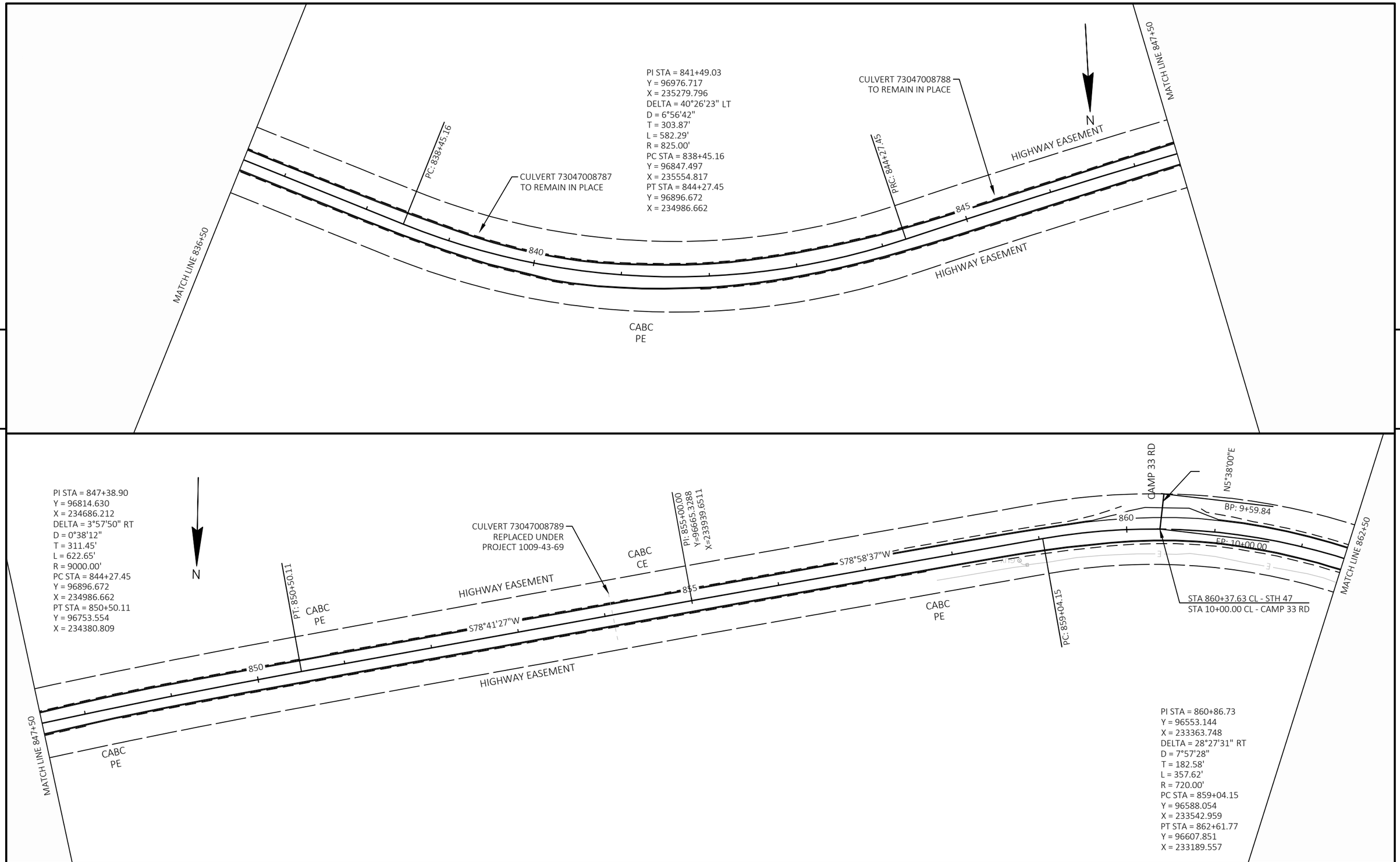
ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

SAWING SUMMARY

STA	LOCATION	690.0150 ASPHALT LF	REMARKS
807+12	STH 47	42	BEGIN LIMIT
880+39	STH 47	25	CUT AT END OF CULVERT
881+49	STH 47	25	CUT AT END OF CULVERT
881+98	STH 47	998	GUARDRAIL REPLACEMENT
893+45	STH 47	317	GUARDRAIL REPLACEMENT
9+45	CAMP 26 RD	25	PROJECT LIMIT
938+65	STH 47	26	CUT AT END OF CULVERT
939+75	STH 47	26	CUT AT END OF CULVERT
970+81	STH 47	25	CUT AT END OF CULVERT
971+91	STH 47	25	CUT AT END OF CULVERT
993+52	STH 47	25	CUT AT END OF CULVERT
994+62	STH 47	25	CUT AT END OF CULVERT
1010+52	STH 47	28	CUT AT END OF CULVERT
1011+62	STH 47	25	CUT AT END OF CULVERT
1044+90	PLACE TO CUT WOOD	33	PROJECT LIMIT
1050+17	PA YAE WA SAY	31	PROJECT LIMIT
1053+66	STH 47	26	CUT AT END OF CULVERT
1054+77	STH 47	27	CUT AT END OF CULVERT
1067+94	STH 47	26	CUT AT END OF CULVERT
1069+05	STH 47	26	CUT AT END OF CULVERT
1084+89	STH 47	25	CUT AT END OF CULVERT
1085+99	STH 47	25	CUT AT END OF CULVERT
1147+48	STH 47	25	CUT AT END OF CULVERT
1148+58	STH 47	25	CUT AT END OF CULVERT
1156+97	STH 47	26	CUT AT END OF CULVERT
1158+07	STH 47	26	CUT AT END OF CULVERT
1163+29	STH 47	25	CUT AT END OF CULVERT
1164+39	STH 47	25	CUT AT END OF CULVERT
1171+05	STH 47	26	CUT AT END OF CULVERT
1172+15	STH 47	26	CUT AT END OF CULVERT
1178+69	STH 47	25	CUT AT END OF CULVERT
1179+79	STH 47	25	CUT AT END OF CULVERT
1213+36	STH 47	42	CUT AT BRIDGE APPROACH
1213+89	STH 47	42	CUT AT BRIDGE APPROACH
1220+24	STH 47	26	CUT AT END OF CULVERT
1221+34	STH 47	26	CUT AT END OF CULVERT
1240+30	STH 47	25	CUT AT END OF CULVERT
1241+40	STH 47	25	CUT AT END OF CULVERT
1244+63	STH 47	25	CUT AT END OF CULVERT
1245+73	STH 47	25	CUT AT END OF CULVERT
1250+25	STH 47	24	CUT AT END OF CULVERT
1251+35	STH 47	24	CUT AT END OF CULVERT
1275+75	STH 47	26	CUT AT END OF CULVERT
1276+85	STH 47	26	CUT AT END OF CULVERT
1288+19	STH 47	24	CUT AT END OF CULVERT
1289+29	STH 47	24	CUT AT END OF CULVERT
1328+27	STH 47	28	CUT AT END OF CULVERT
1329+37	STH 47	28	CUT AT END OF CULVERT
1333+82	STH 47	30	PROJECT LIMIT
	TOTAL	2,580	

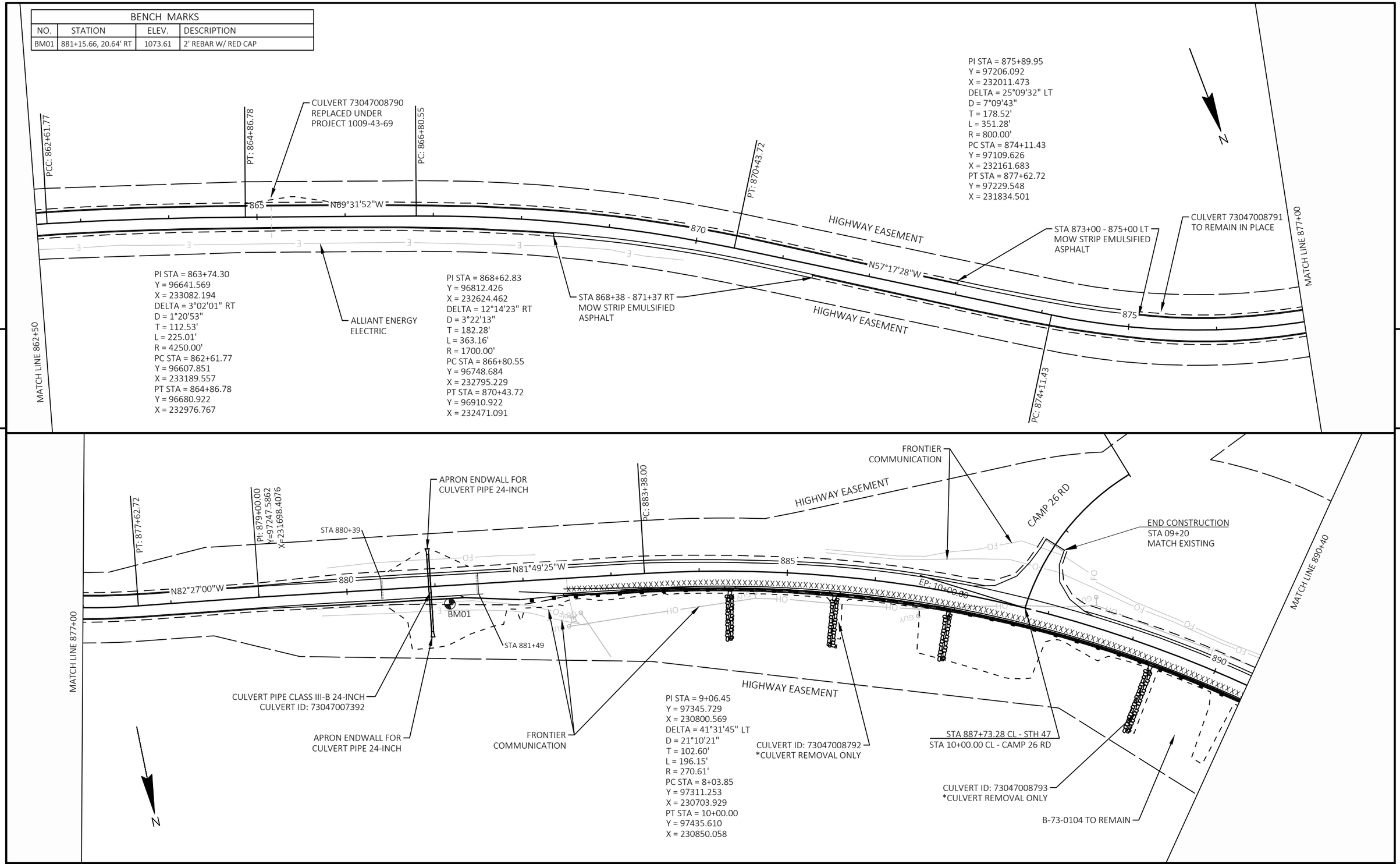


PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 55	E



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 56	E

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM01	881+15.66, 20.64' RT	1073.61	2' REBAR W/ RED CAP



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 57	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 21
PLOT DATE : 12/17/2025 7:20 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM02	894+20.49, 25.99' RT	1101.90	2' REBAR W/ RED CAP

PI STA = 891+96.62
Y = 97431.990
X = 230414.970
DELTA = 61°47'16" RT
D = 3°59'34"
T = 858.62'
L = 1547.50'
R = 1435.00'
PC STA = 883+38.00
Y = 97309.878
X = 231264.863
PT STA = 898+85.50
Y = 98238.645
X = 230120.797

PI STA = 11+01.86
Y = 97835.553
X = 230478.941
DELTA = 3°53'34" LT
D = 2°51'53"
T = 67.97'
L = 135.88'
R = 2000.00'
PC STA = 10+33.89
Y = 97782.344
X = 230436.652
PT STA = 11+69.77
Y = 97891.511
X = 230517.519

PI STA = 13+79.32
Y = 98064.031
X = 230636.459
DELTA = 3°56'21" RT
D = 11°27'33"
T = 17.19'
L = 34.38'
R = 500.00'
PC STA = 13+62.13
Y = 98049.875
X = 230626.699
PT STA = 13+96.50
Y = 98077.483
X = 230647.168

HIGHWAY EASEMENT
FRONTIER COMMUNICATION
CABC
PE
STA 893+16.07 CL - STH 47
STA 10+00.00 CL - WHEELOCK RD
BP: 10+00.00
895
900
PT: 898+85.50
HIGHWAY EASEMENT
N20°02'10"W
MATCH LINE 903+50
BM02
CULVERT ID: 73047008794
*CULVERT REMOVAL ONLY
NO CULVERT ID
*CULVERT REMOVAL ONLY
N38°28'34"E
STA 10+87
WHEELOCK RD
END CONSTRUCTION
STA 10+87
MATCH EXISTING
HIGHWAY EASEMENT
HIGHWAY EASEMENT
MATCH LINE 890+40
PT: 11+69.77
N

5

5

N

PI: 904+00.00
Y=98722.0063
X=229944.5235

PI: 910+00.00
Y=99286.2994
X=229740.6282

HIGHWAY EASEMENT
905
N19°51'58"W
910
915
MATCH LINE 903+50
MATCH LINE 918+70
HIGHWAY EASEMENT

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 58	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 22
PLOT DATE : 12/17/2025 7:22 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM03	939+15.17, 40.18' RT	1152.56	2' REBAR W/ RED CAP

MATCH LINE 918+70

MATCH LINE 934+00

HIGHWAY EASEMENT

920

N19°50'14"W

925

930

STA 922+20

HIGHWAY EASEMENT

5

5

N

CABC
PE

PI: 935+00.00
Y=101637.9491
X=228892.2509

PC: 936+66.25

MATCH LINE 934+00

935

N19°53'59"W

APRON ENDWALLS FOR CPRC 24-INCH

PT: 940+55.62

PC: 943+78.73

STA 938+66

HIGHWAY EASEMENT

940

N35°36'37"W

945

PI STA = 938+62.17
Y = 101978.491
X = 228768.979
DELTA = 15°42'39" LT
D = 4°02'06"
T = 195.91'
L = 389.37'
R = 1420.00'
PC STA = 936+66.25
Y = 101794.275
X = 228835.663
PT STA = 940+55.62
Y = 102137.769
X = 228654.904

BM03

STA 939+76

CABC
PE

CPRC CLASS IV 24-INCH
CULVERT ID: 73047008795

APRON ENDWALLS FOR CPRC 24-INCH

PI STA = 947+68.48
Y = 102717.316
X = 228239.831
DELTA = 1°51'11" RT
D = 0°14'16"
T = 389.75'
L = 779.43'
R = 24100.00'
PC STA = 943+78.73
Y = 102400.452
X = 228466.770
PT STA = 951+58.16
Y = 103041.353
X = 228023.256

MATCH LINE 949+30

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 59	E

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM04	971+46.45, 31.60' LT	1184.27	2' REBAR W/ RED CAP

MATCH LINE 949+30

CABC
PE

PRC: 951+58.16

PI STA = 953+41.06
Y = 103193.414
X = 227921.624
DELTA = 6°09'30" LT
D = 1°41'07"
T = 182.90'
L = 365.44'
R = 3400.00'
PC STA = 951+58.16
Y = 103041.353
X = 228023.256
PT STA = 955+23.60
Y = 103333.695
X = 227804.266

PT: 955+23.60

PC: 962+38.42

HIGHWAY EASEMENT

950

955

N39°54'56"W

960

HIGHWAY EASEMENT

N

MATCH LINE 964+50

5

5

PI STA = 965+19.96
Y = 104097.889
X = 227164.946
DELTA = 27°03'34" LT
D = 4°53'49"
T = 281.53'
L = 552.56'
R = 1170.00'
PC STA = 962+38.42
Y = 103881.955
X = 227345.595
PT STA = 967+90.99
Y = 104208.006
X = 226905.840

PT: 967+90.99

PI: 970+00.00
Y=104289.7572
X=226713.4772

FRONTIER
COMMUNICATION

PI: 973+00.00
Y=104404.6587
X=226436.3533

PC: 976+40.13

MILL AND RESURFACE
EMERGENCY PARKING AREA

HIGHWAY EASEMENT

N

MATCH LINE 964+50

965

N66°58'31"W

970

BM04

N67°28'48"W

N67°21'28"W

975

HIGHWAY EASEMENT

MATCH LINE 979+60

STA 970+81

STA 971+91

FRONTIER
COMMUNICATION

CULVERT ID: 73047008796
*CULVERT REMOVAL ONLY

PI STA = 978+24.32
Y = 104606.512
X = 225952.441
DELTA = 9°34'19" RT
D = 2°36'16"
T = 184.19'
L = 367.53'
R = 2200.00'
PC STA = 976+40.13
Y = 104535.601
X = 226122.438
PT STA = 980+07.66
Y = 104704.703
X = 225796.601

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 60	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 24

PLOT DATE : 12/17/2025 7:23 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM05	994+08.75, 38.16' RT	1212.50	2' REBAR W/ RED CAP

MATCH LINE 979+60

PT: 980+07.66

980

N57°47'09"W

PC: 983+78.00

985

PT: 987+70.29

HIGHWAY EASEMENT

N68°14'24"W

990

PC: 991+46.21

APRON ENDWALLS FOR CPRC 24-INCH

FRONTIER COMMUNICATION

STA 993+51

BM05

FRONTIER COMMUNICATION

CPRC CLASS IV 24-INCH
CULVERT ID: 73047008797

APRON ENDWALLS FOR CPRC 24-INCH

STA 994+62

MATCH LINE 995+00

HIGHWAY EASEMENT

PI STA = 985+74.69
Y = 105006.977
X = 225316.859
DELTA = 10°27'14" LT
D = 2°39'54"
T = 196.69'
L = 392.28'
R = 2150.00'
PC STA = 983+78.00
Y = 104902.127
X = 225483.268
PT STA = 987+70.29
Y = 105079.893
X = 225134.187

PI STA = 993+30.11
Y = 105287.431
X = 224614.258
DELTA = 17°25'32" RT
D = 4°46'29"
T = 183.90'
L = 364.96'
R = 1200.00'
PC STA = 991+46.21
Y = 105219.255
X = 224785.053
PT STA = 995+11.17
Y = 105403.625
X = 224471.717

5

5

PI STA = 1000+83.37
Y = 105765.160
X = 224028.203
DELTA = 1°09'49" RT
D = 2°51'53"
T = 20.31'
L = 40.61'
R = 2000.00'
PC STA = 1000+63.06
Y = 105752.330
X = 224043.943
PT STA = 1001+03.67
Y = 105778.308
X = 224012.727

PI STA = 1011+13.17
Y = 106434.308
X = 223245.435
DELTA = 25°31'43" LT
D = 6°35'09"
T = 197.09'
L = 387.64'
R = 870.00'
PC STA = 1009+16.08
Y = 106305.929
X = 223394.978
PT STA = 1013+03.71
Y = 106485.706
X = 223055.166

PT: 995+11.17

HIGHWAY EASEMENT

PC: 1000+63.06

PT: 1001+03.67

N50°48'52"W

1000

N49°39'03"W

PI: 1005+00.19
Y=106035.0292
X=223710.5371

1005

N49°21'17"W

PC: 1009+16.08

MATCH LINE 995+00

994+62

MATCH LINE 1009+70

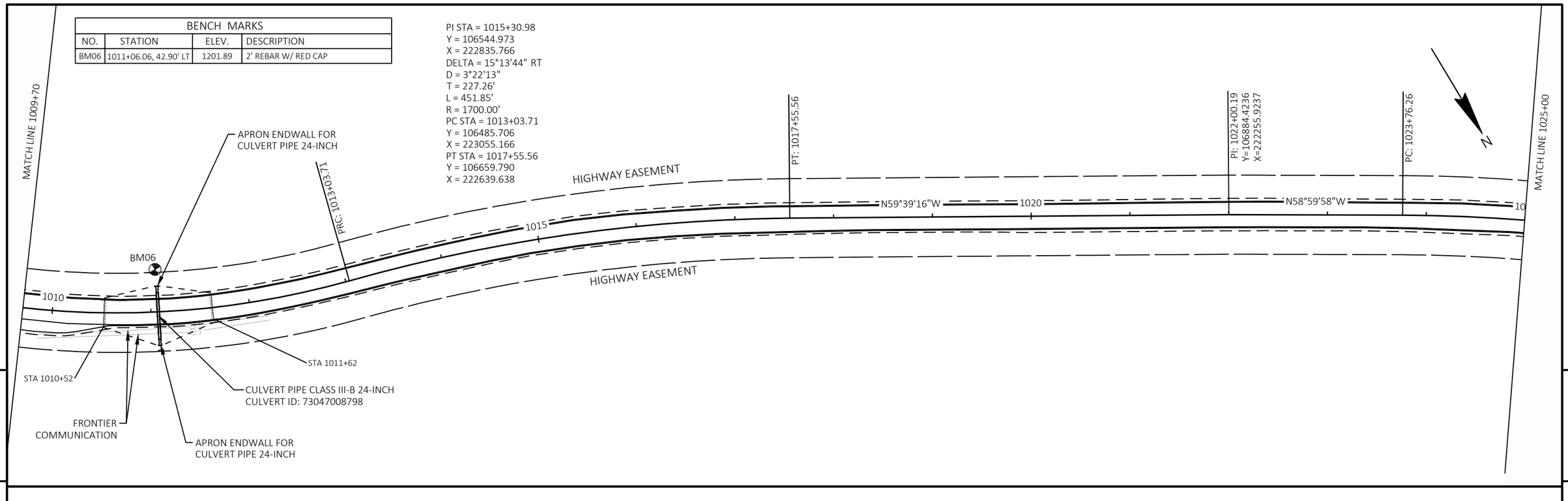
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 61	E

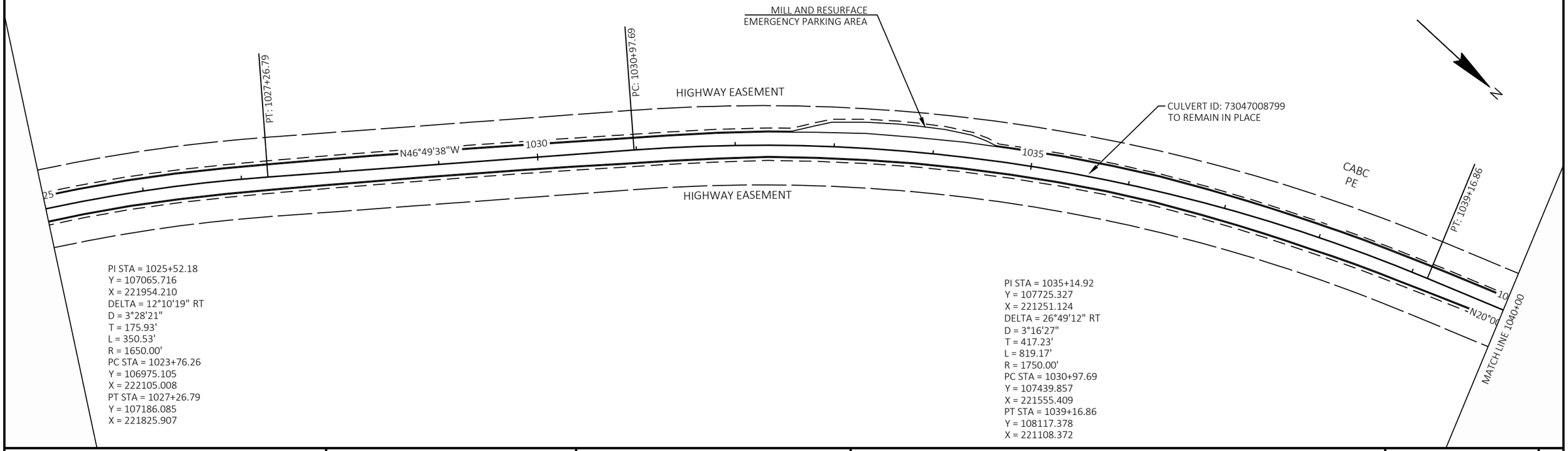
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 25

PLOT DATE : 12/17/2025 7:31 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM06	1011+06.06, 42.90' LT	1201.89	2' REBAR W/ RED CAP

PI STA = 1015+30.98
Y = 106544.973
X = 222835.766
DELTA = 15°13'44" RT
D = 3°22'13"
T = 227.26'
L = 451.85'
R = 1700.00'
PC STA = 1013+03.71
Y = 106485.706
X = 223055.166
PT STA = 1017+55.56
Y = 106659.790
X = 222639.638



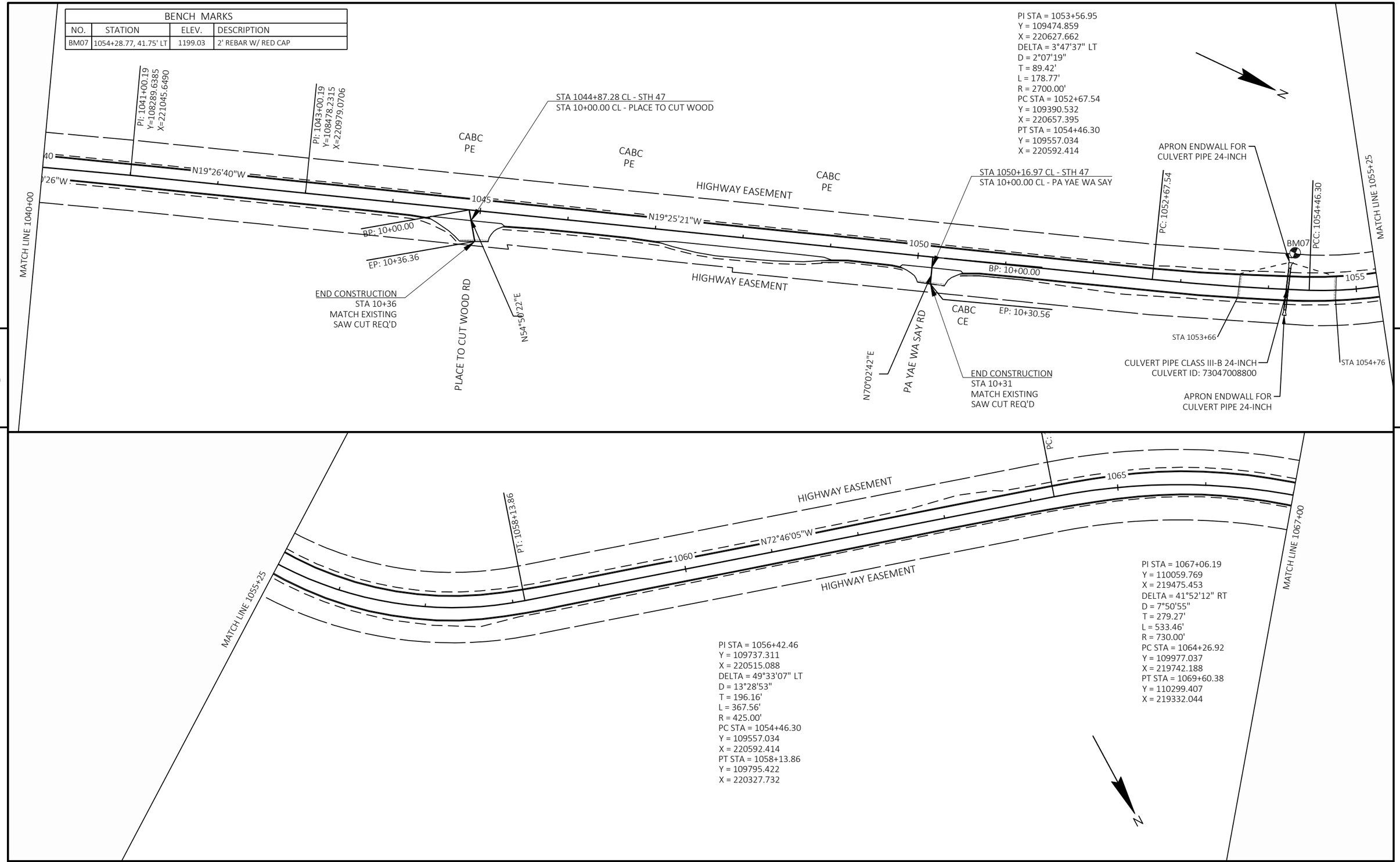


PI STA = 1025+52.18
Y = 107065.716
X = 221954.210
DELTA = 12°10'19" RT
D = 3°28'21"
T = 175.93'
L = 350.53'
R = 1650.00'
PC STA = 1023+76.26
Y = 106975.105
X = 222105.008
PT STA = 1027+26.79
Y = 107186.085
X = 221825.907

PI STA = 1035+14.92
Y = 107725.327
X = 221251.124
DELTA = 26°49'12" RT
D = 3°16'27"
T = 417.23'
L = 819.17'
R = 1750.00'
PC STA = 1030+97.69
Y = 107439.857
X = 221555.409
PT STA = 1039+16.86
Y = 108117.378
X = 221108.372

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 62	E

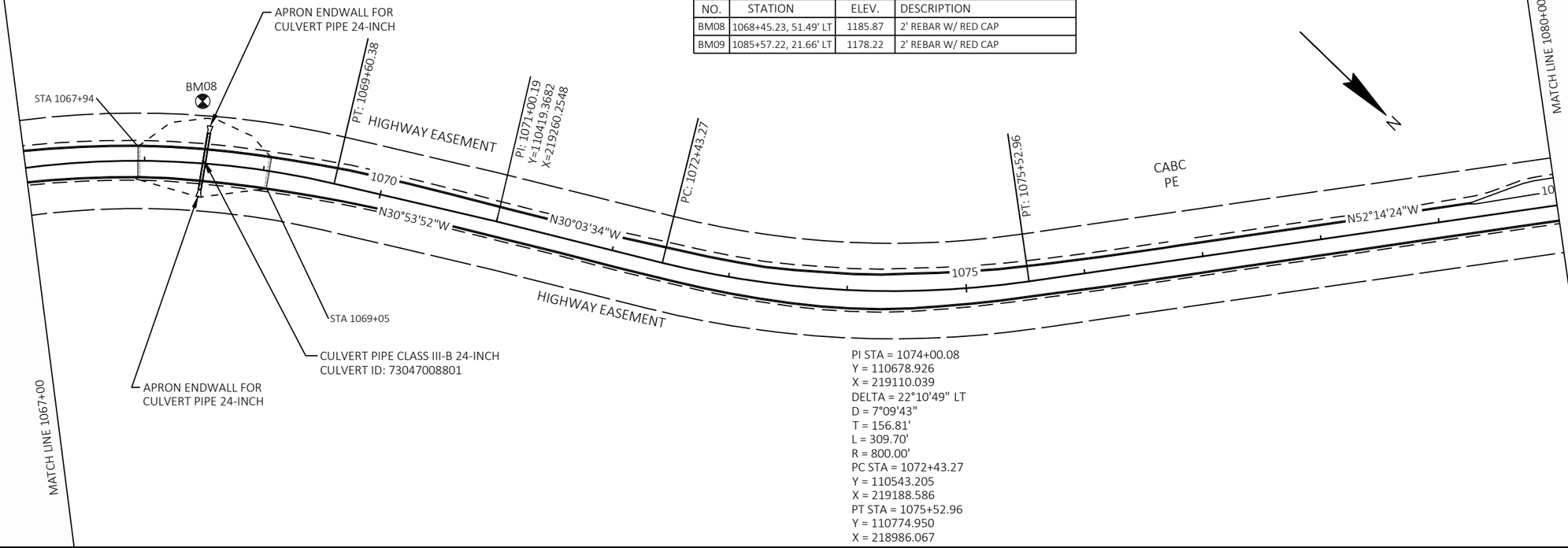
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM07	1054+28.77, 41.75' LT	1199.03	2' REBAR W/ RED CAP

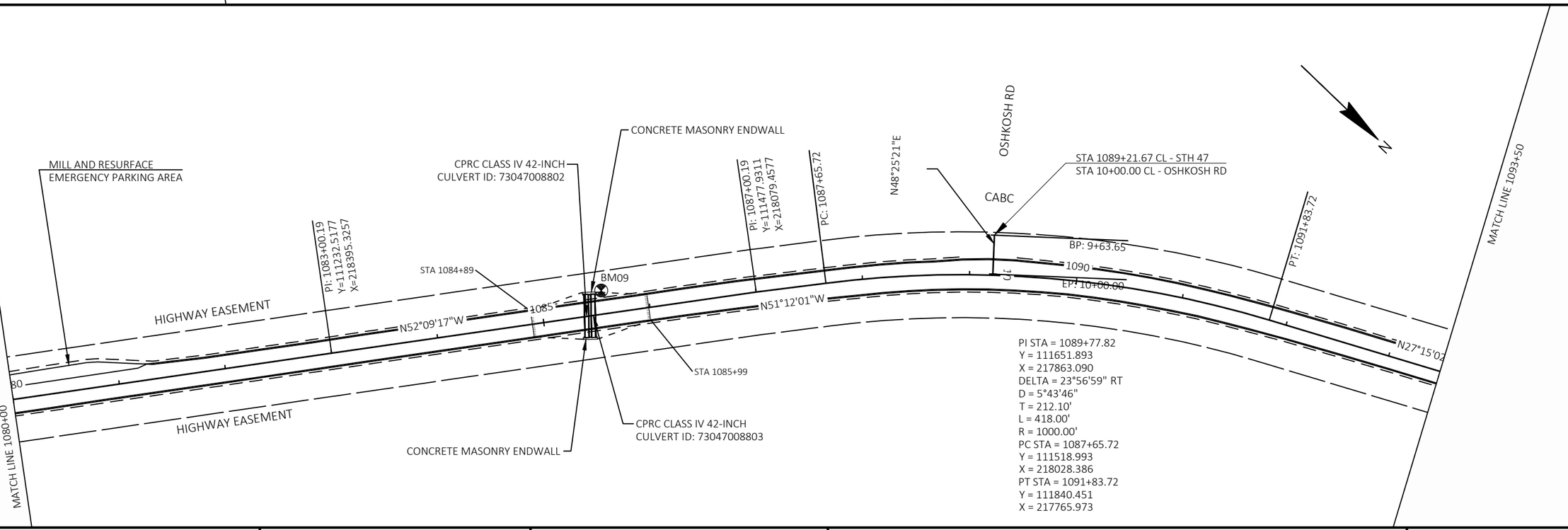


PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 63	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 27
PLOT DATE : 12/17/2025 7:32 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

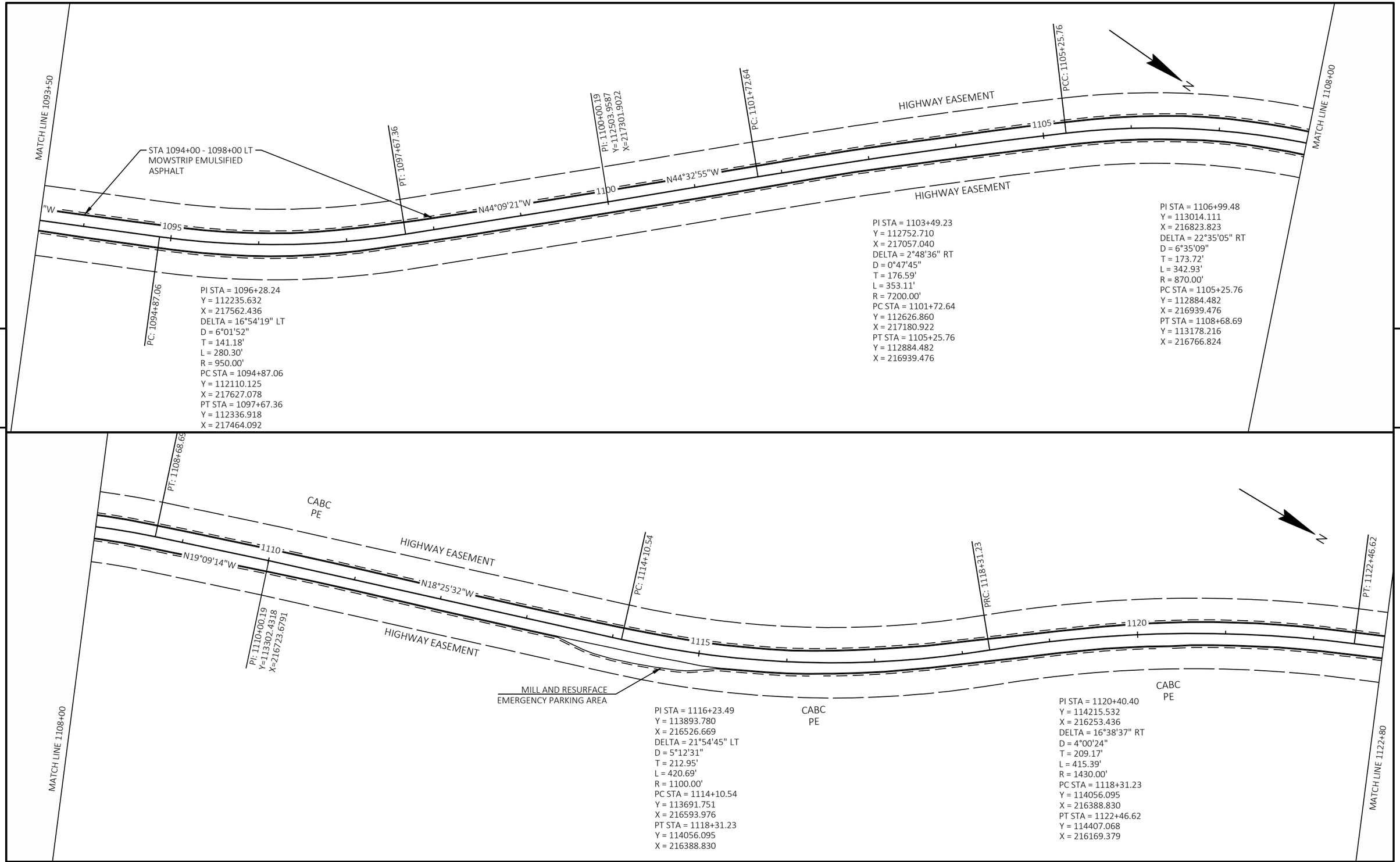
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM08	1068+45.23, 51.49' LT	1185.87	2' REBAR W/ RED CAP
BM09	1085+57.22, 21.66' LT	1178.22	2' REBAR W/ RED CAP





PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 64	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 28
PLOT DATE : 12/17/2025 7:33 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



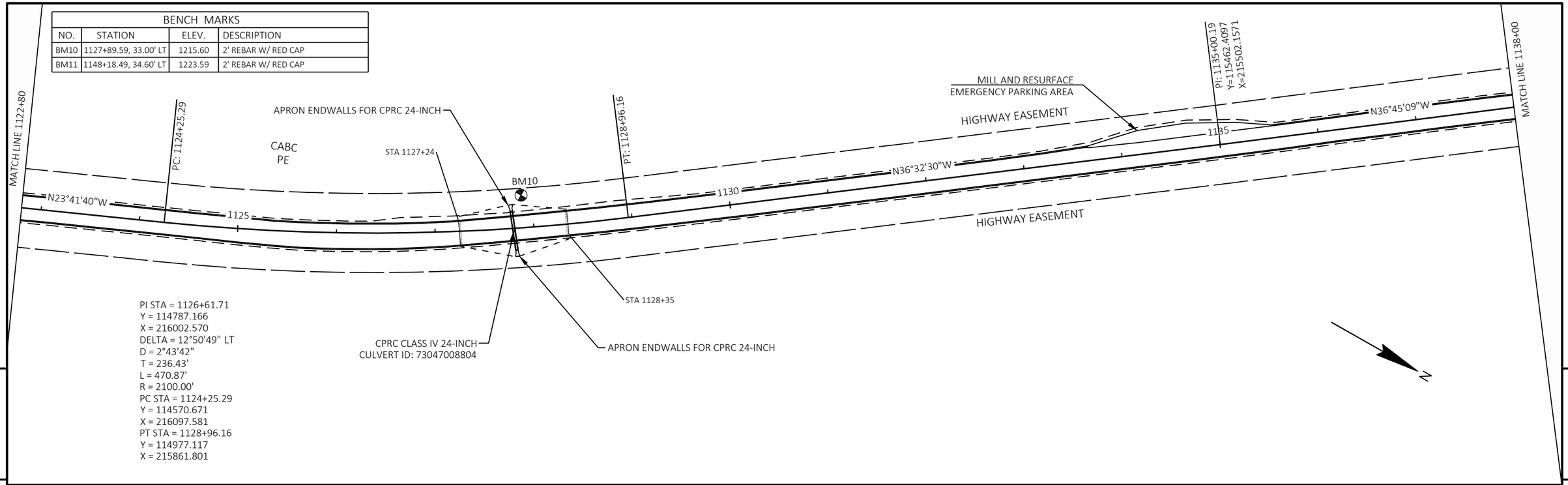
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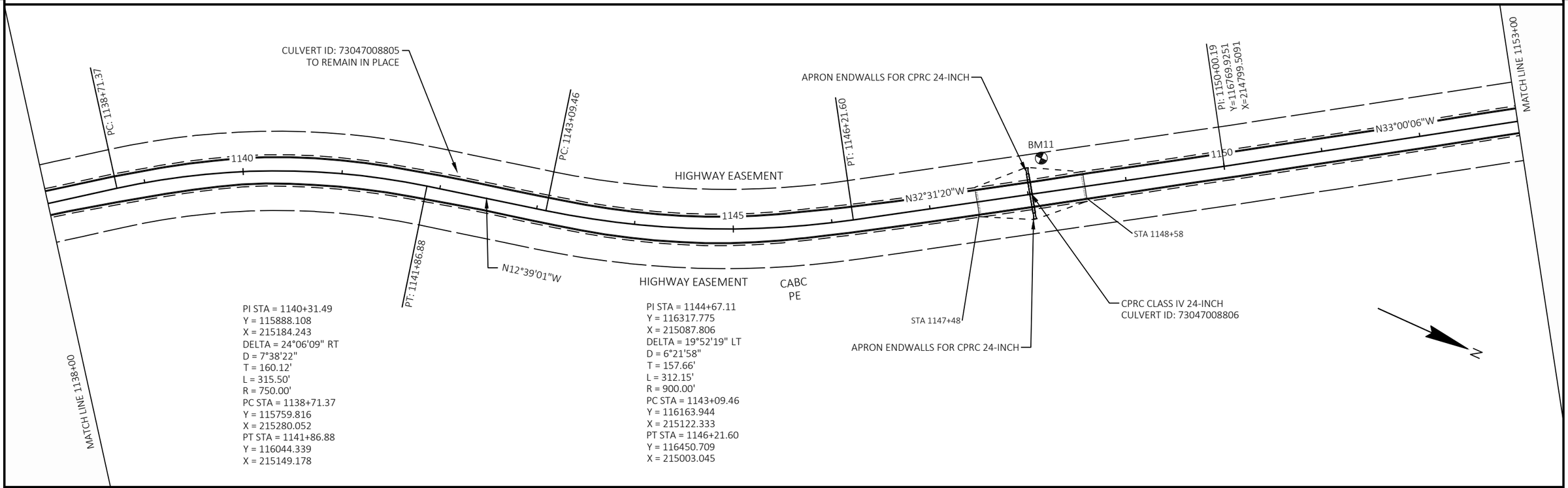
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 65	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 29
PLOT DATE : 12/17/2025 7:33 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM10	1127+89.59, 33.00' LT	1215.60	2' REBAR W/ RED CAP
BM11	1148+18.49, 34.60' LT	1223.59	2' REBAR W/ RED CAP

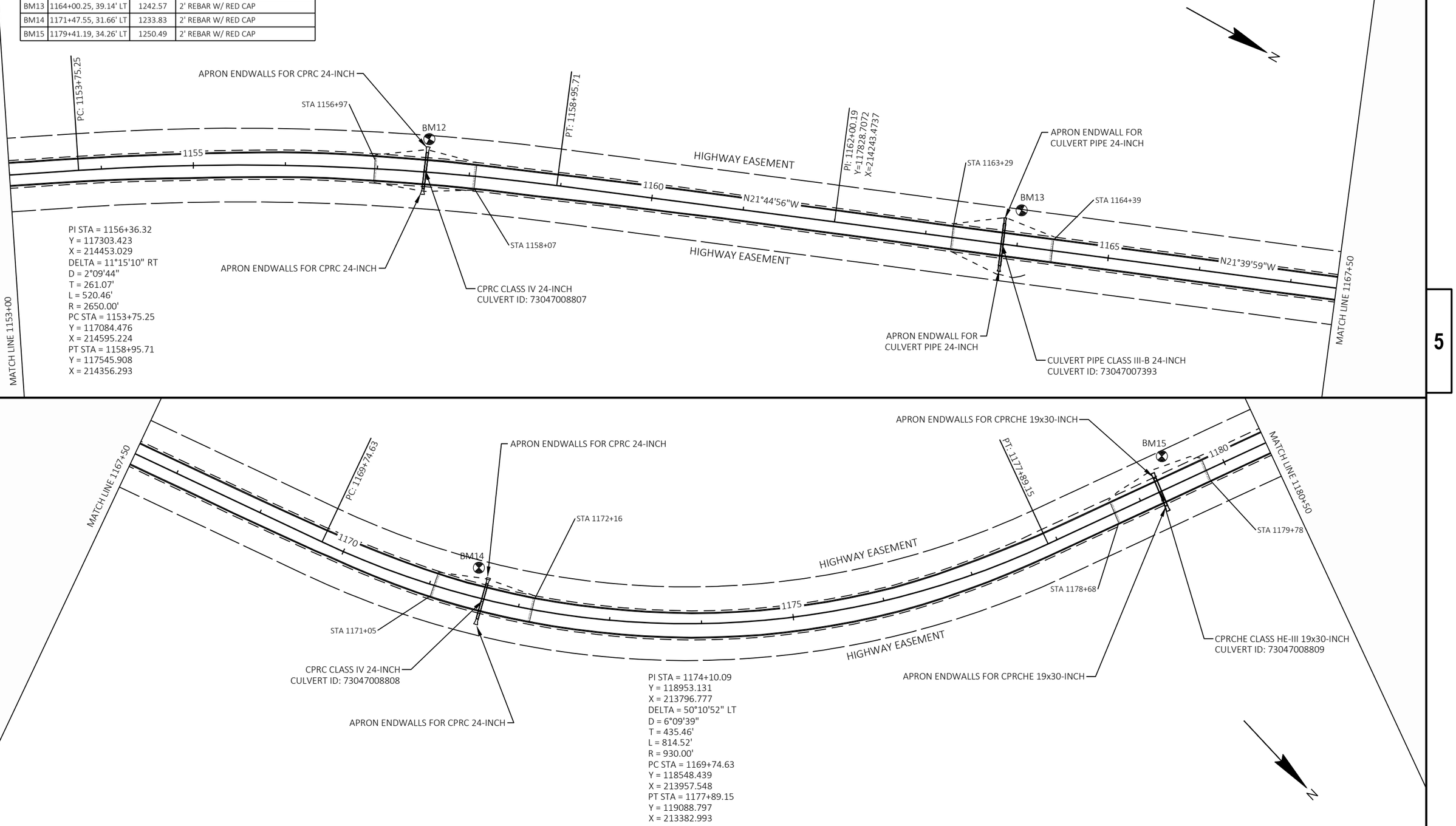




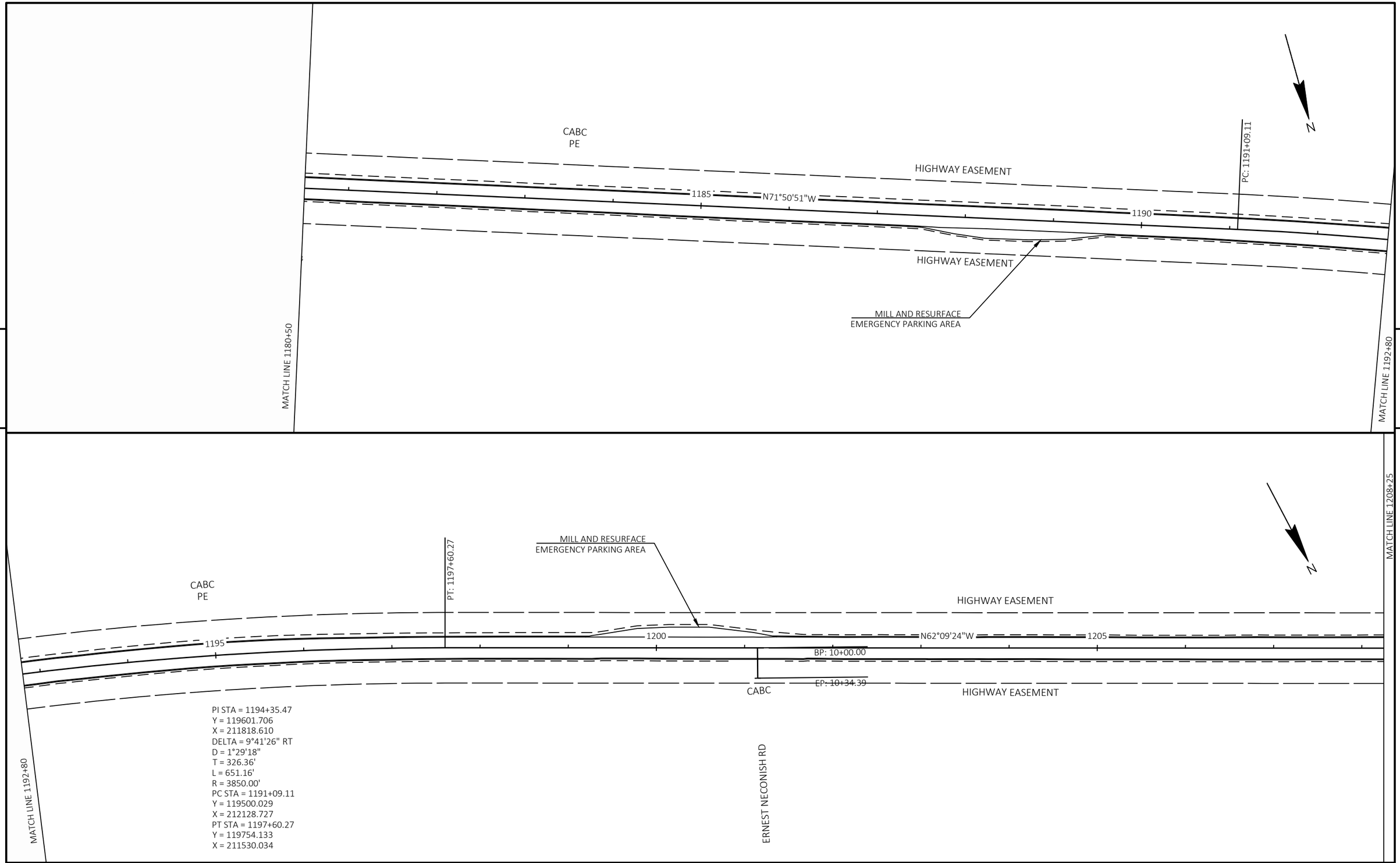
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 66	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 30
PLOT DATE : 12/17/2025 7:33 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM12	1157+53.87, 36.11' LT	1237.04	2' REBAR W/ RED CAP
BM13	1164+00.25, 39.14' LT	1242.57	2' REBAR W/ RED CAP
BM14	1171+47.55, 31.66' LT	1233.83	2' REBAR W/ RED CAP
BM15	1179+41.19, 34.26' LT	1250.49	2' REBAR W/ RED CAP



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 67	E

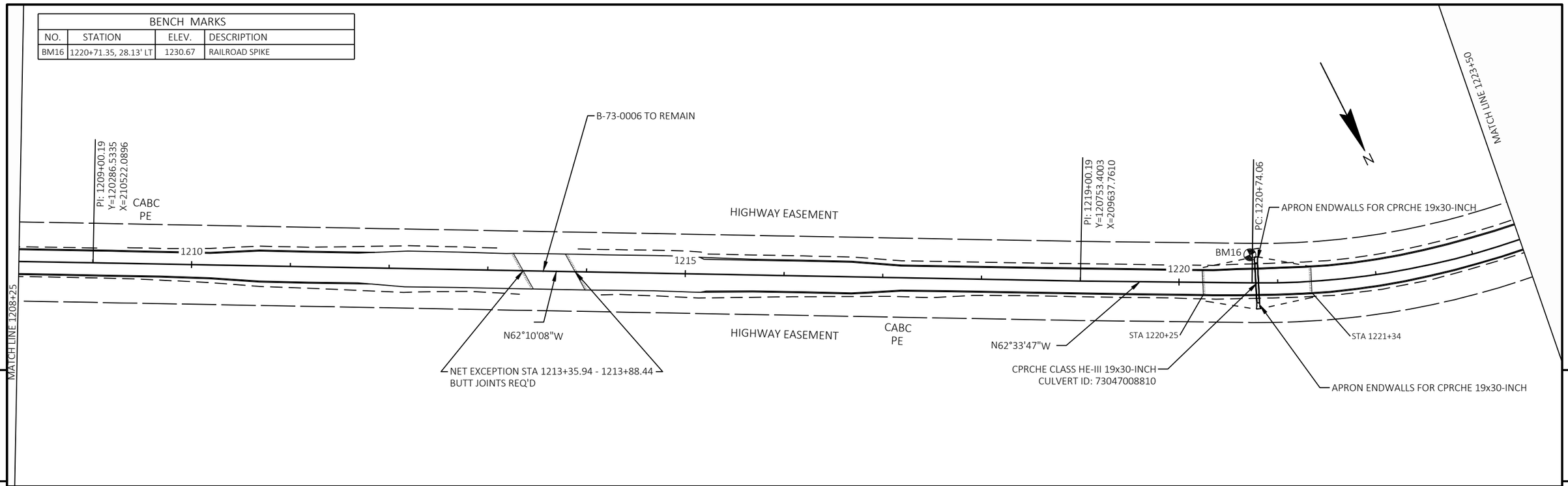


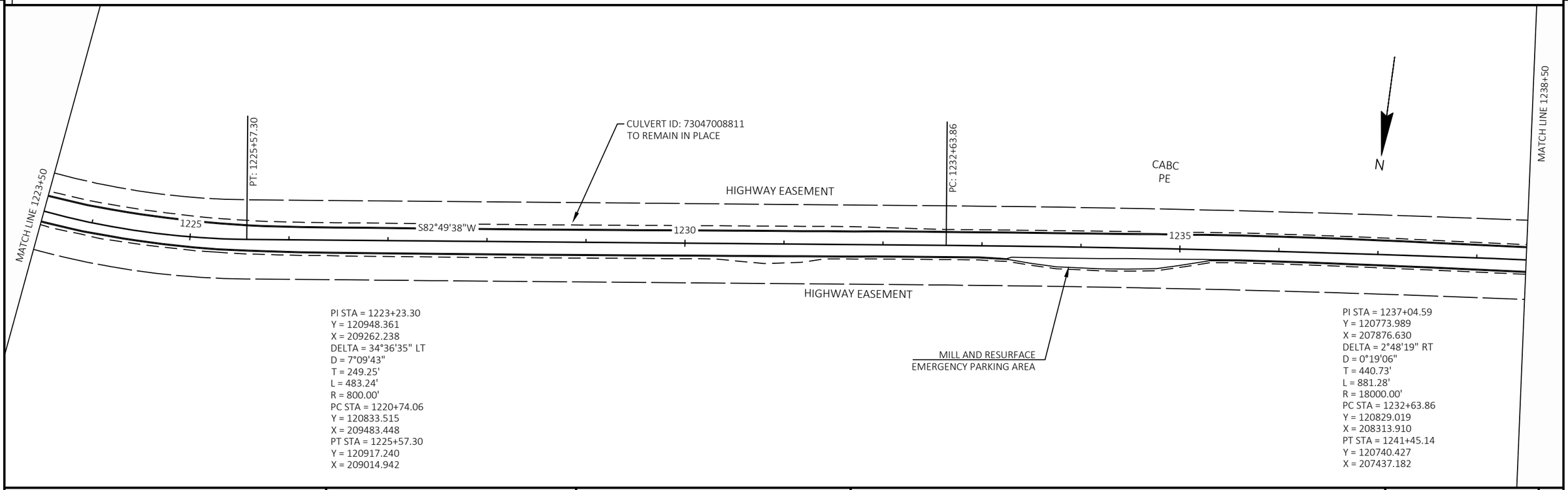
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5

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 68	E

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM16	1220+71.35, 28.13' LT	1230.67	RAILROAD SPIKE

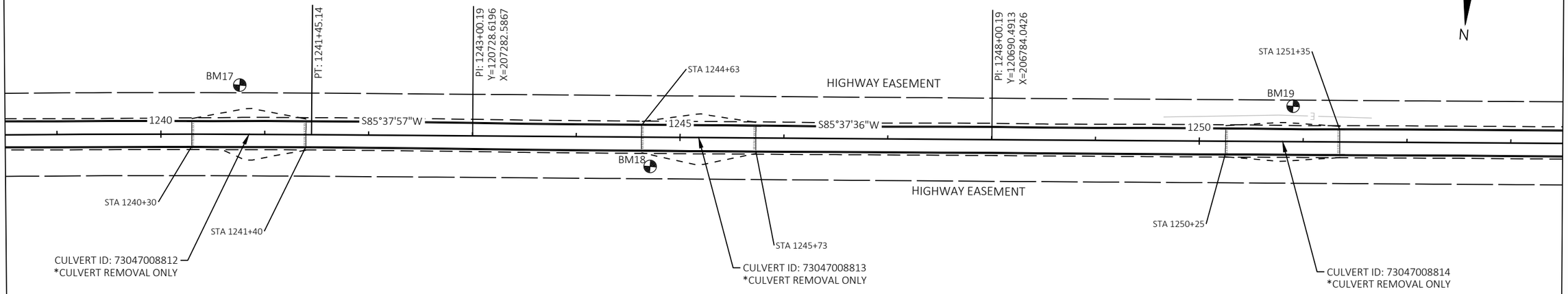


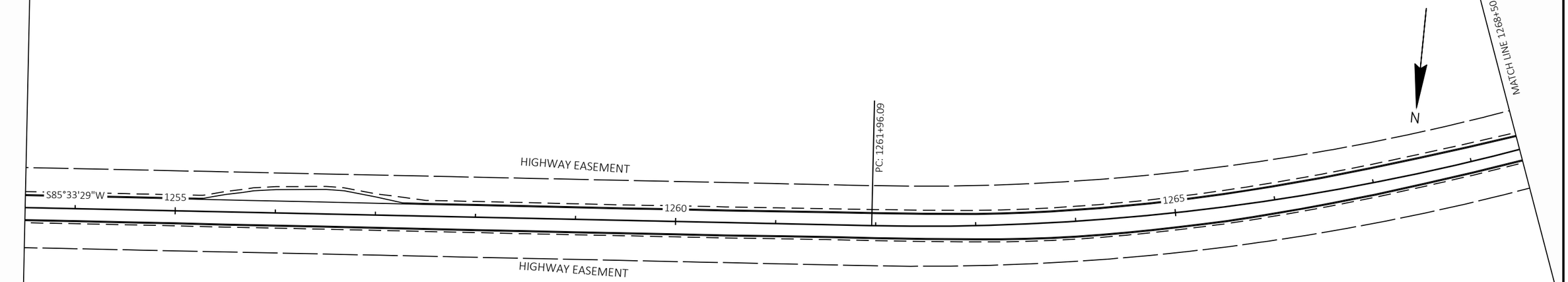


PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 69	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 33
PLOT DATE : 12/17/2025 7:36 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM17	1240+75.89, 46.77' LT	1263.84	RAILROAD SPIKE
BM18	1244+71.29, 28.19' RT	1266.02	RAILROAD SPIKE
BM19	1250+90.07, 34.06' LT	1262.09	RAILROAD SPIKE



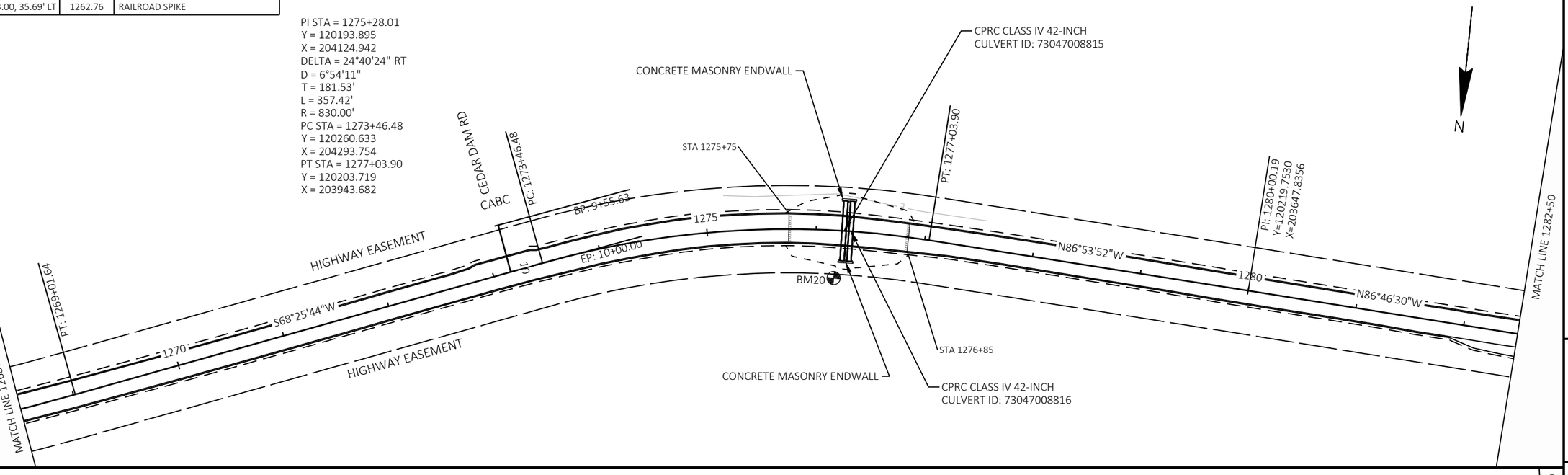


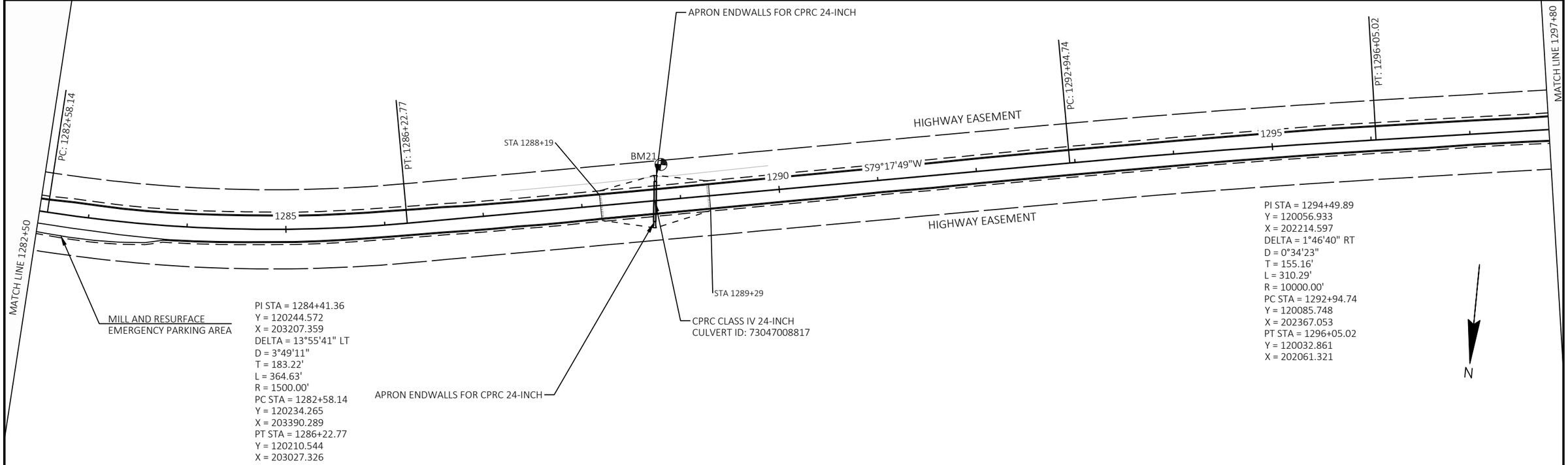
PI STA = 1265+51.51
Y = 120554.856
X = 205037.974
DELTA = 17°07'45" LT
D = 2°25'40"
T = 355.42'
L = 705.55'
R = 2360.00'
PC STA = 1261+96.09
Y = 120582.382
X = 205392.331
PT STA = 1269+01.64
Y = 120424.182
X = 204707.442

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 70	E

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM20	1276+17.54, 40.78' RT	1251.27	RAILROAD SPIKE
BM21	1288+83.00, 35.69' LT	1262.76	RAILROAD SPIKE

PI STA = 1275+28.01
Y = 120193.895
X = 204124.942
DELTA = 24°40'24" RT
D = 6°54'11"
T = 181.53'
L = 357.42'
R = 830.00'
PC STA = 1273+46.48
Y = 120260.633
X = 204293.754
PT STA = 1277+03.90
Y = 120203.719
X = 203943.682

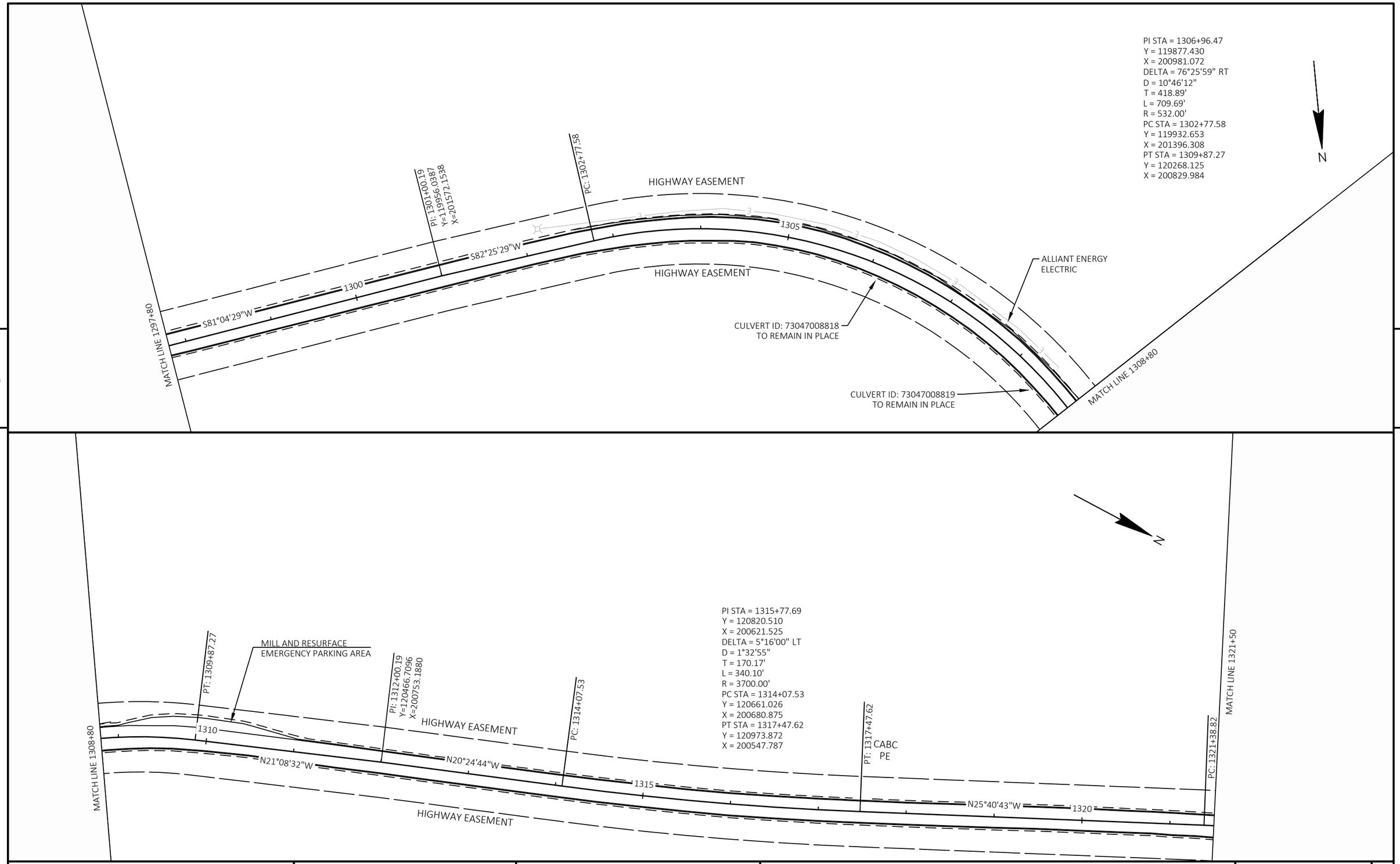




PI STA = 1284+41.36
Y = 120244.572
X = 203207.359
DELTA = 13°55'41" LT
D = 3°49'11"
T = 183.22'
L = 364.63'
R = 1500.00'
PC STA = 1282+58.14
Y = 120234.265
X = 203390.289
PT STA = 1286+22.77
Y = 120210.544
X = 203027.326

PI STA = 1294+49.89
Y = 120056.933
X = 202214.597
DELTA = 1°46'40" RT
D = 0°34'23"
T = 155.16'
L = 310.29'
R = 10000.00'
PC STA = 1292+94.74
Y = 120085.748
X = 202367.053
PT STA = 1296+05.02
Y = 120032.861
X = 202061.321

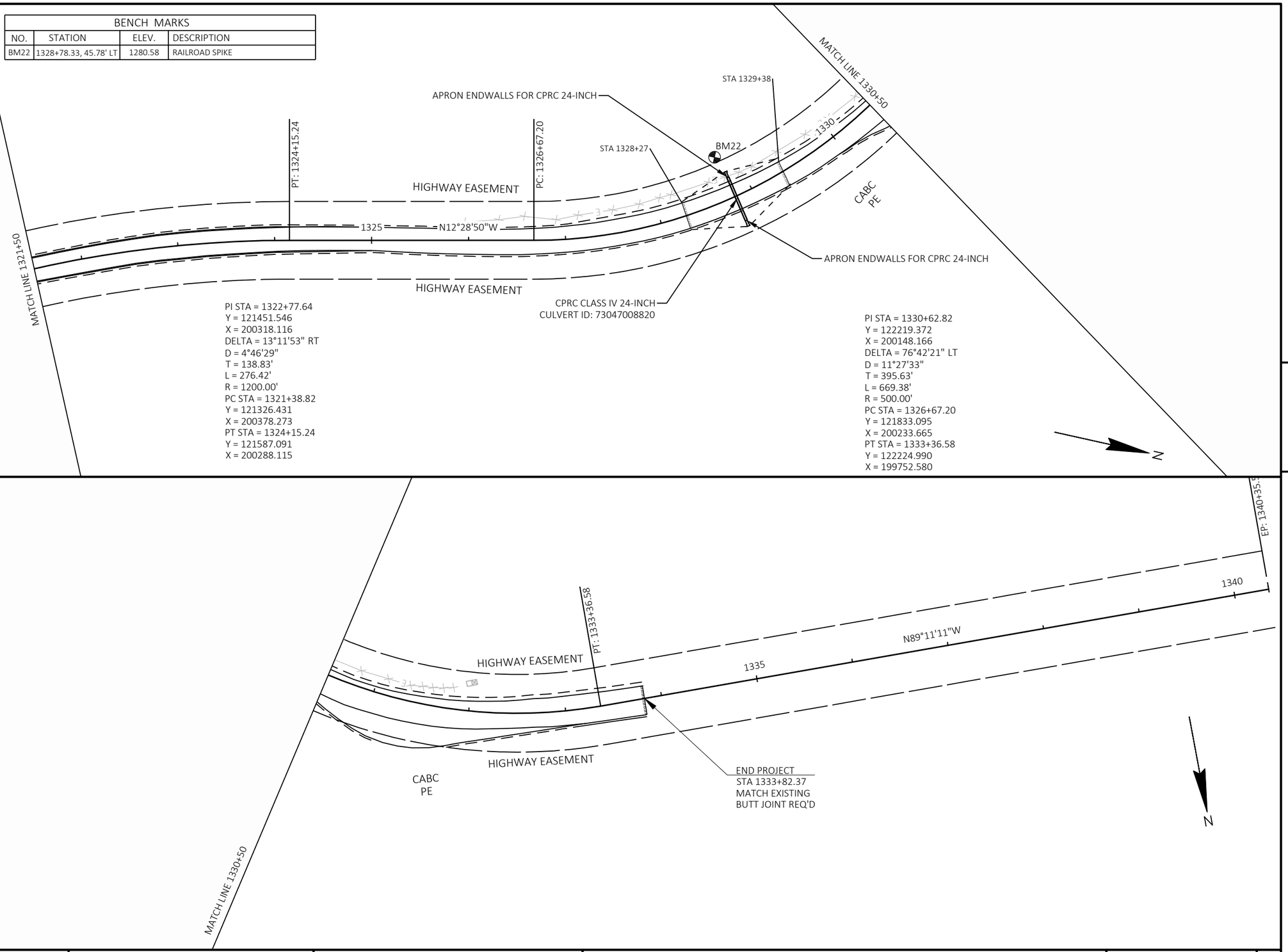
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 71	E



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 72	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 36
PLOT DATE : 12/17/2025 7:37 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

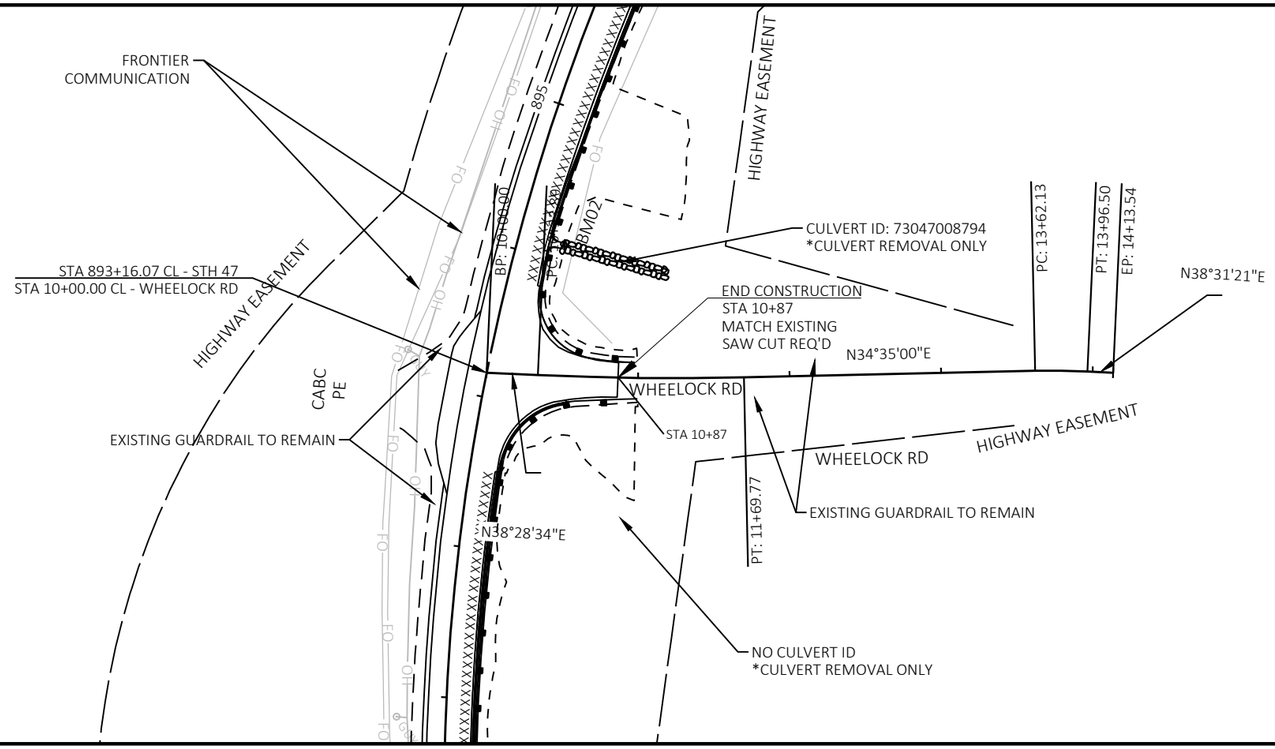
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM22	1328+78.33, 45.78' LT	1280.58	RAILROAD SPIKE



5

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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 73	E



PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	PLAN	SHEET 74	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 38

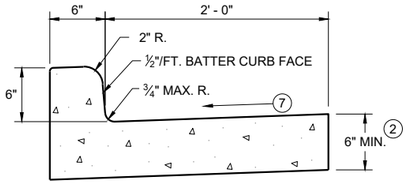
PLOT DATE : 12/17/2025 7:39 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

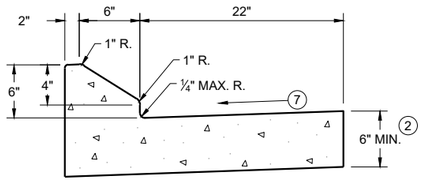
Standard Detail Drawing List

08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-02	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14D01-01	TURTLE EXCLUSION FENCE CLIMBING TURTLE
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
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
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
15C19-10A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

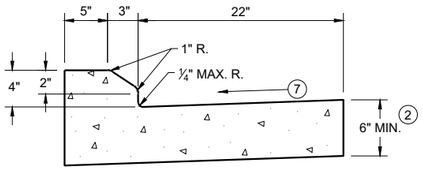
6



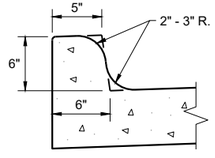
TYPES A (1) & D



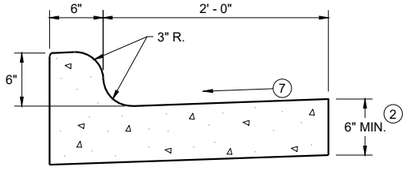
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

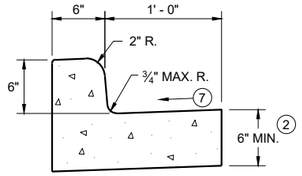


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



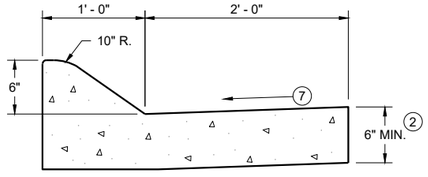
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

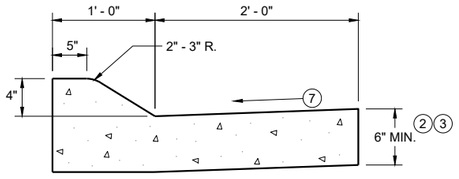


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

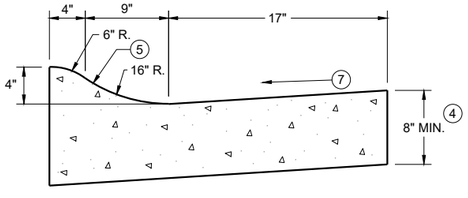


6" SLOPED CURB TYPES A (1) & D



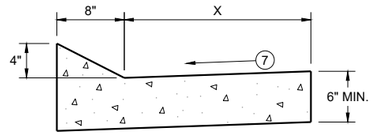
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T
CONCRETE CURB AND GUTTER 30"

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

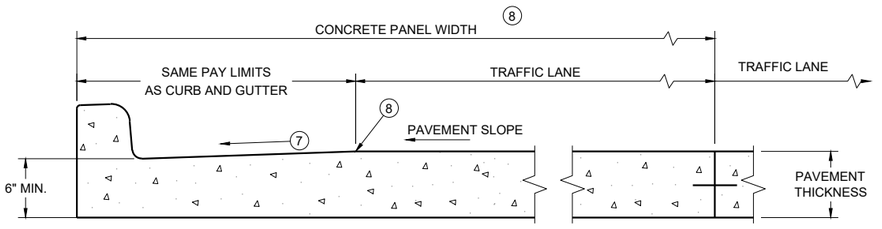


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

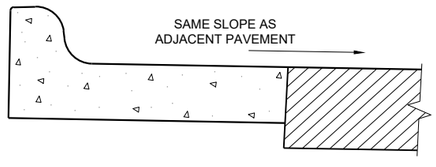
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

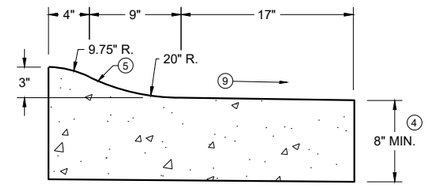
(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

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

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

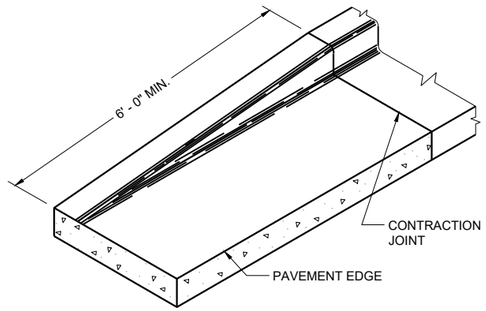
(9) SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



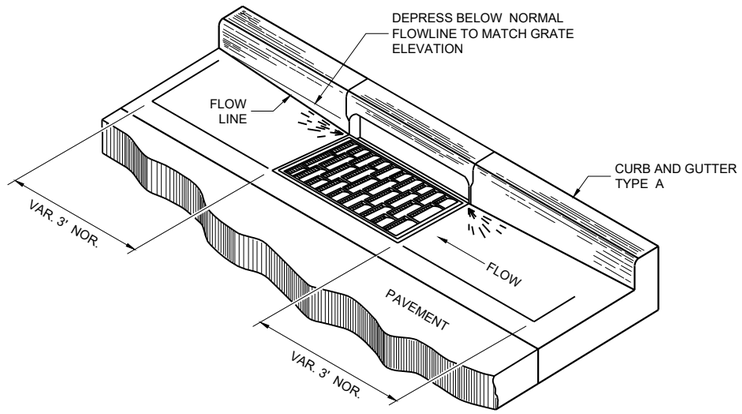
3" SLOPED CURB TYPES R (1) & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

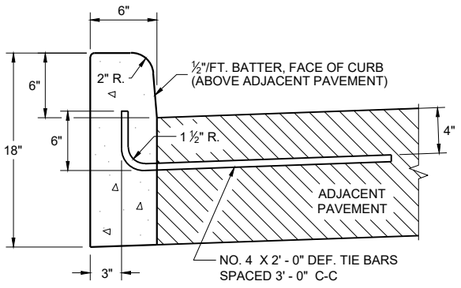
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

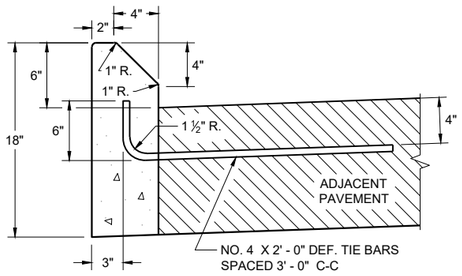
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

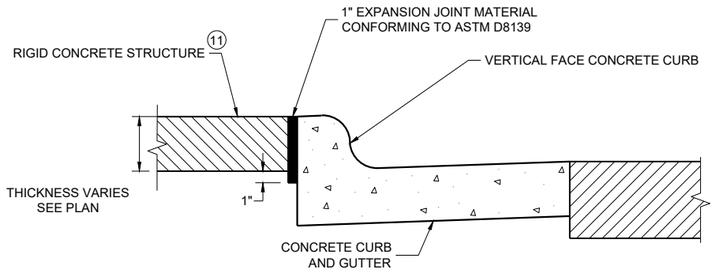


TYPES A (1) & D

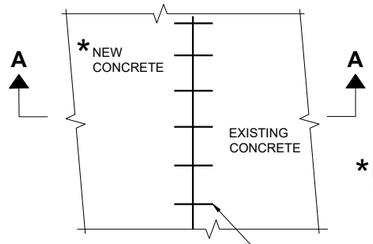


TYPES G (1) & J

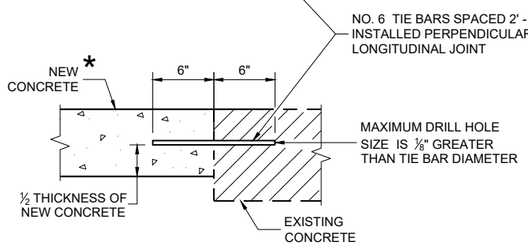
CONCRETE CURB



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)

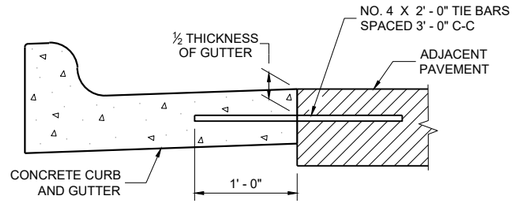


PLAN VIEW

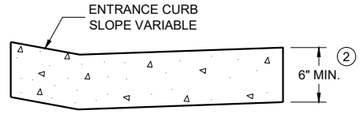


SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

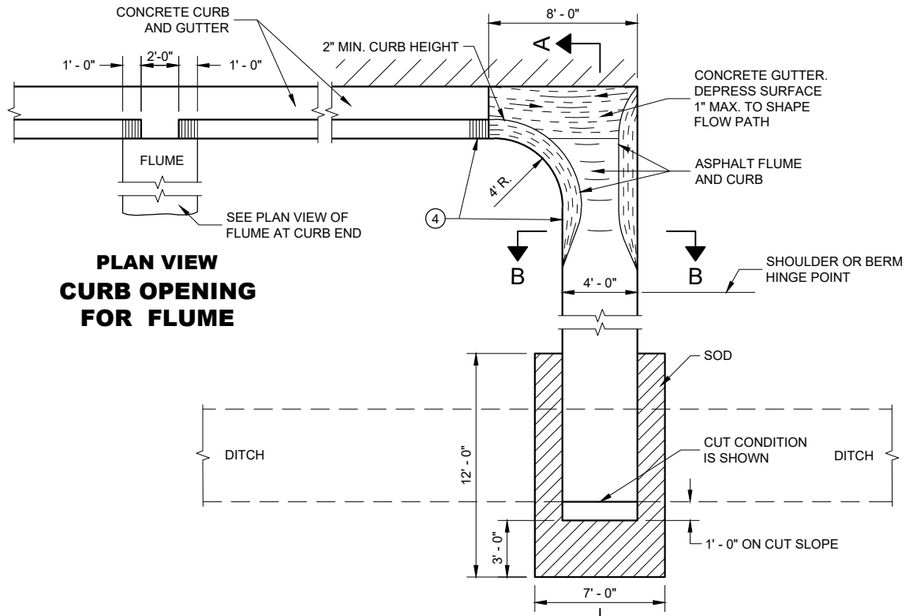
SDD 08D01-24b

6

SDD 08D01-24b

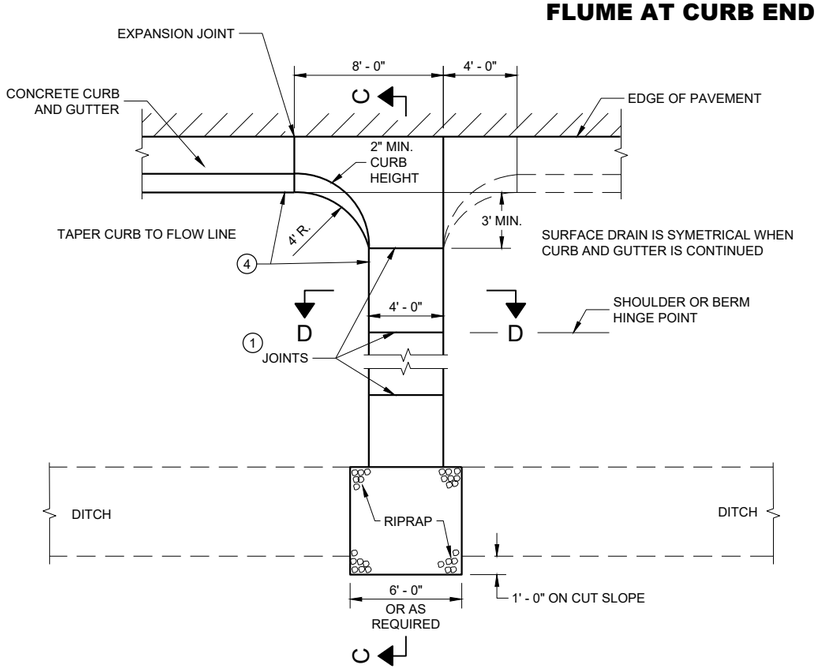
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



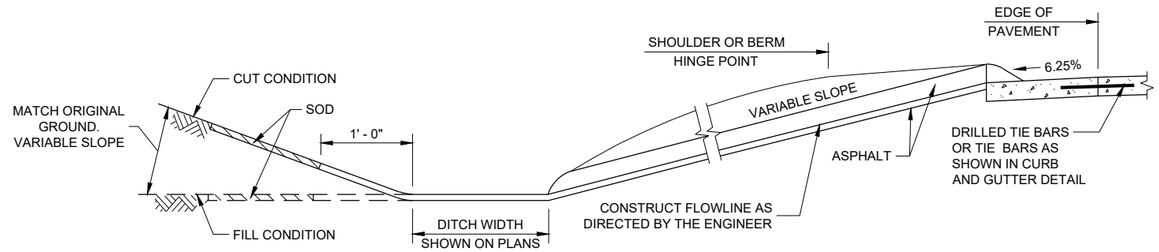
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

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

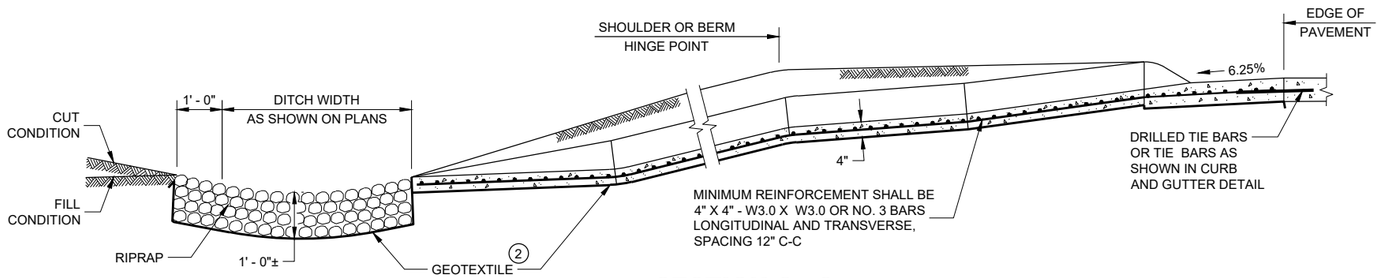
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

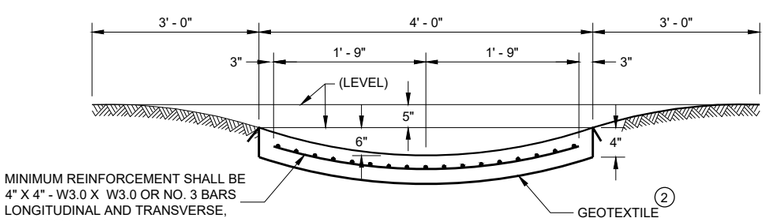


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

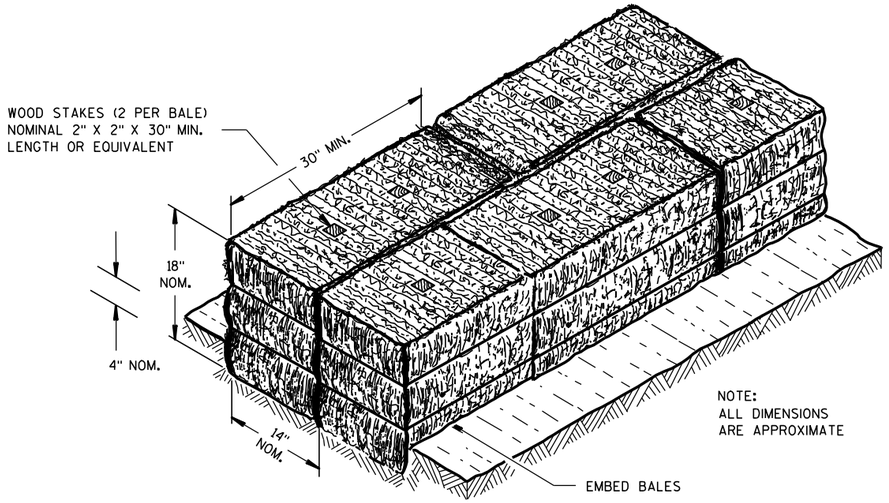
FHWA

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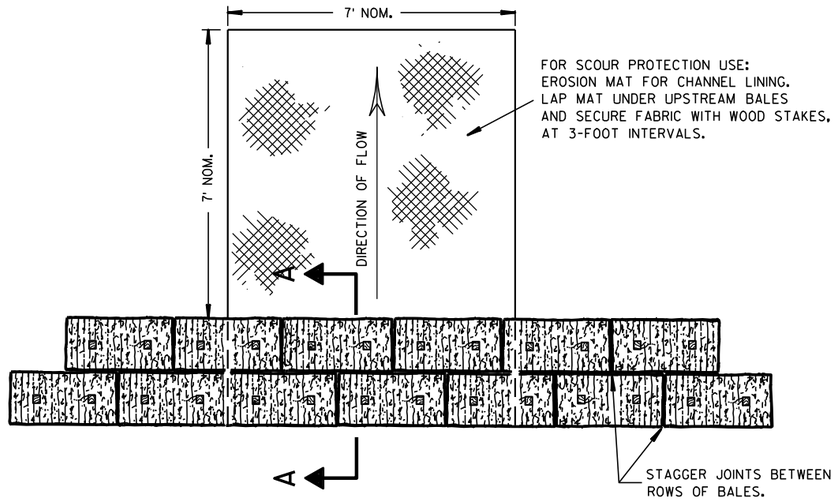
SDD 08D04 - 07

6

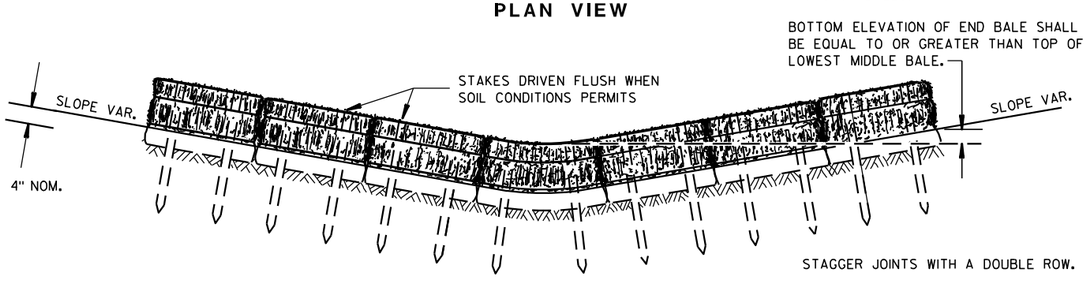
SDD 08D04 - 07



SECTION A-A



PLAN VIEW



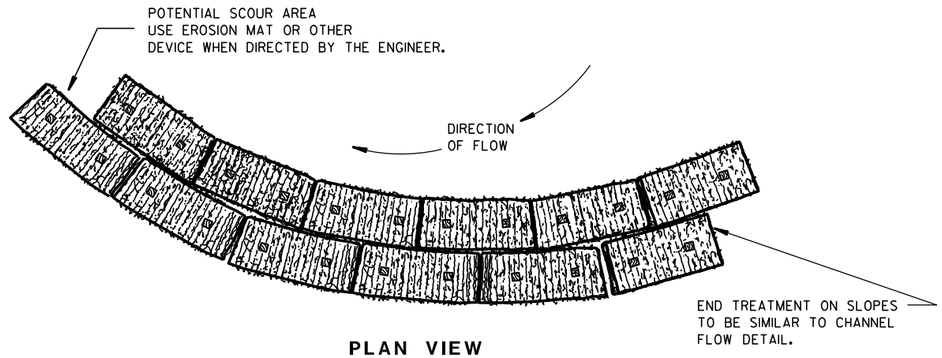
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

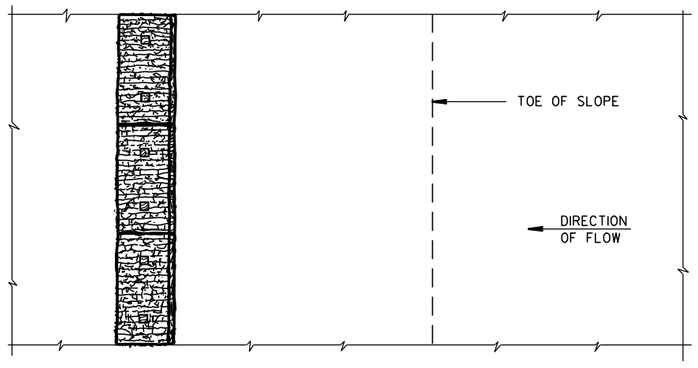
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

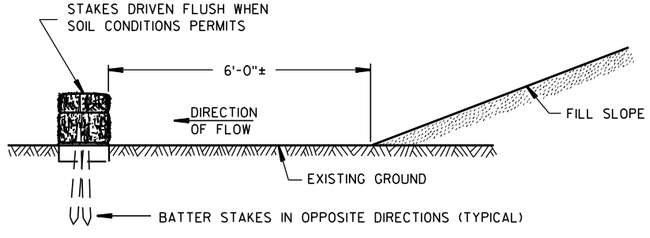


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

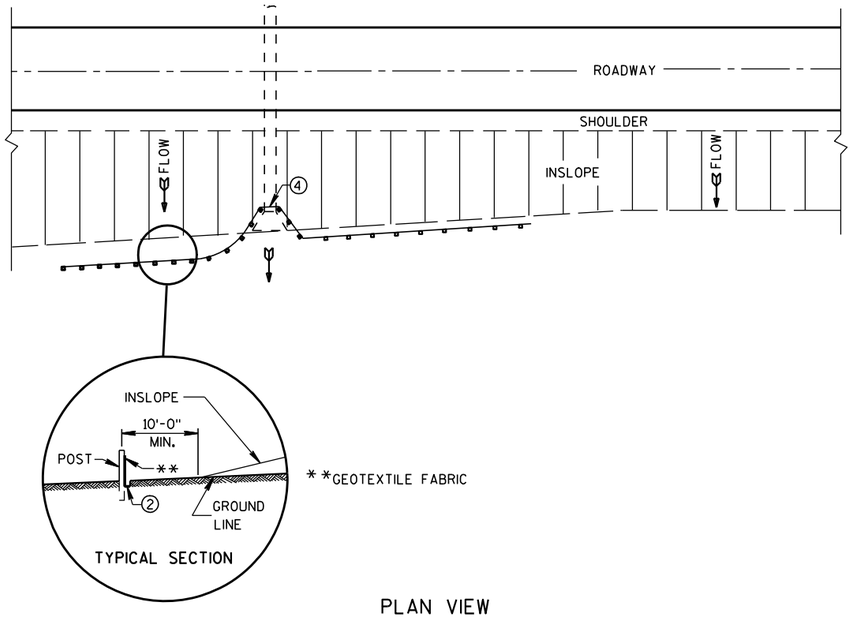
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

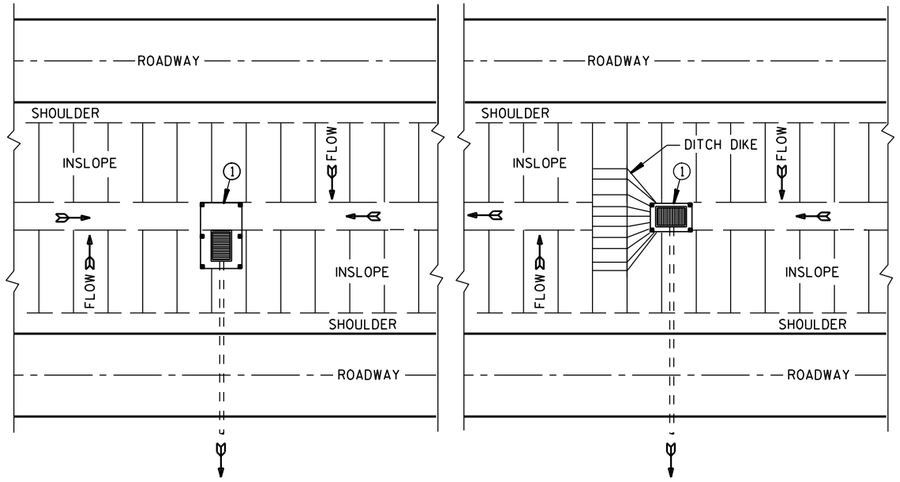
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

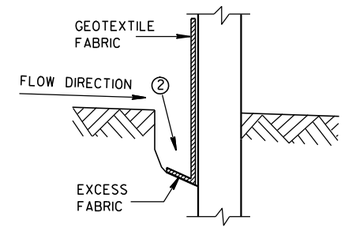
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

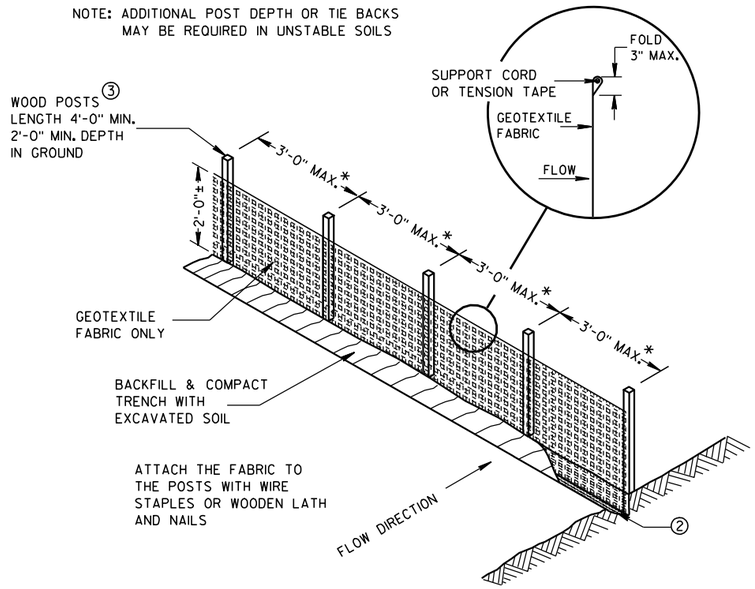
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

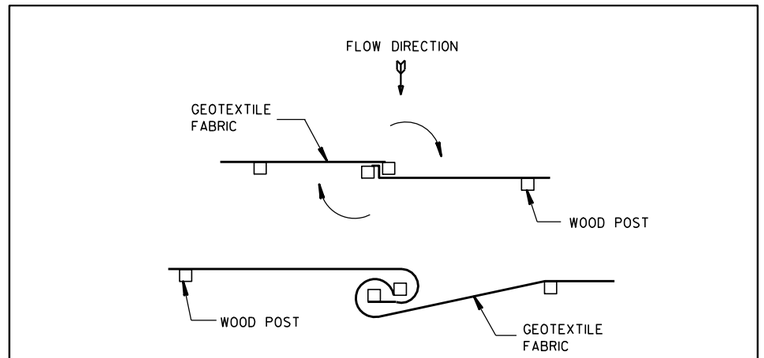
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



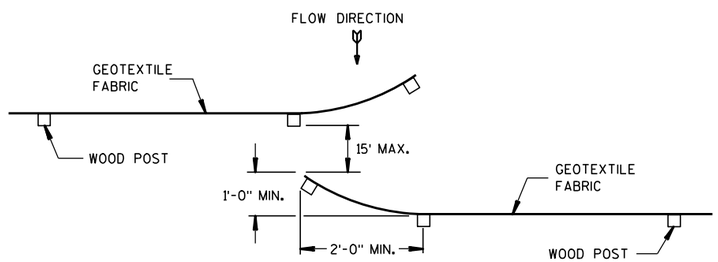
TRENCH DETAIL



SILT FENCE

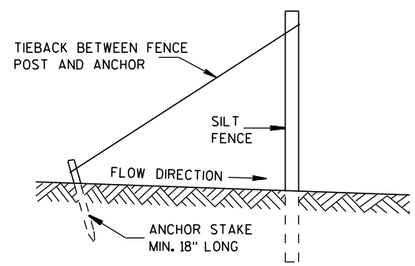


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

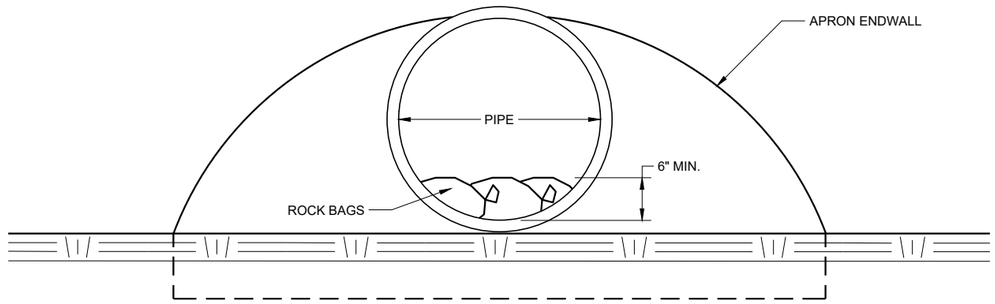
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

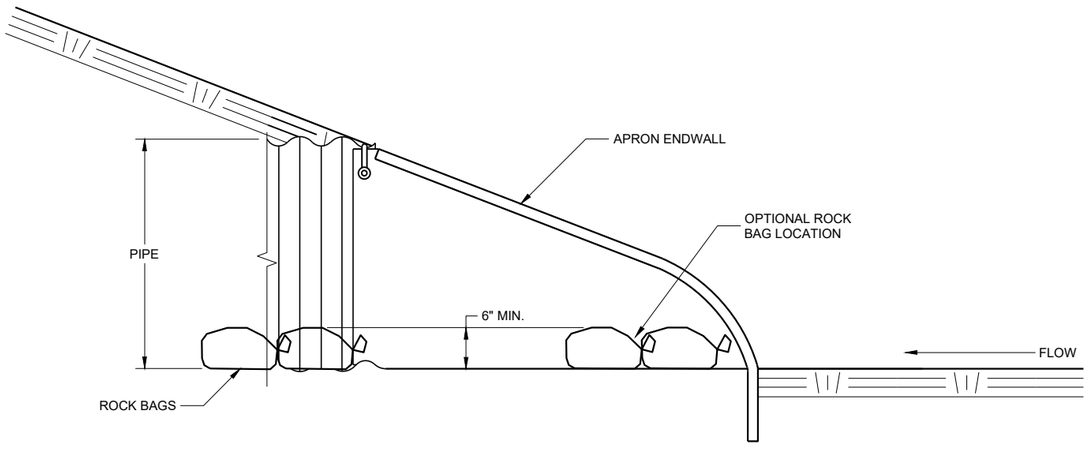
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

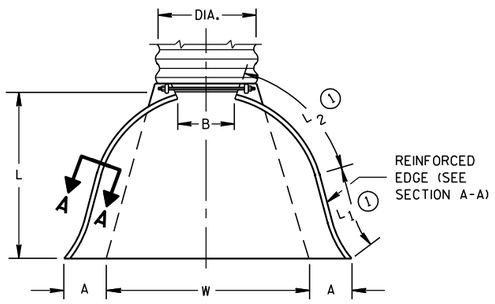
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

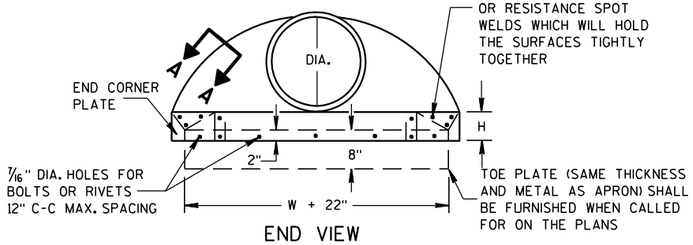
REINFORCED CONCRETE APRON ENDWALLS

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

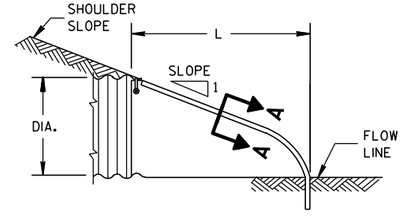
*MINIMUM
**MAXIMUM



PLAN VIEW

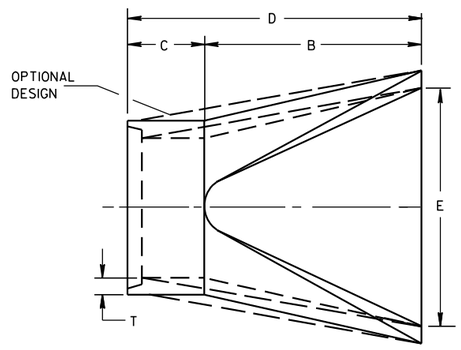


END VIEW

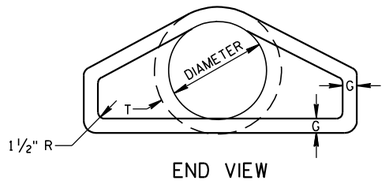


SIDE ELEVATION

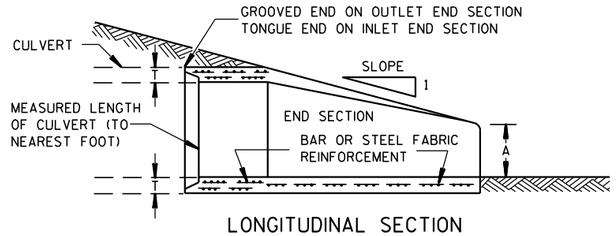
METAL ENDWALLS



PLAN

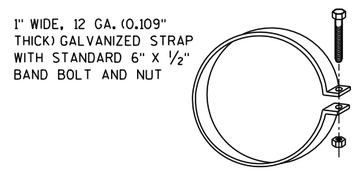


END VIEW



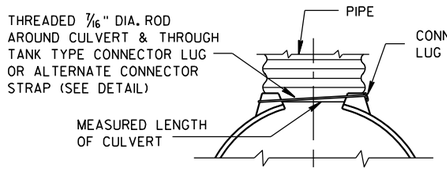
LONGITUDINAL SECTION

CONCRETE ENDWALLS

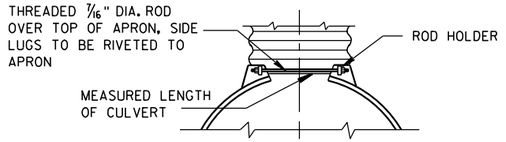


ALTERNATE FOR TYPE 1 CONNECTION

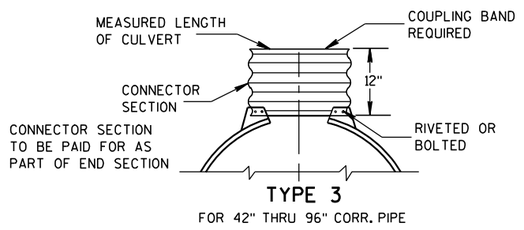
END SECTION CONNECTOR STRAP



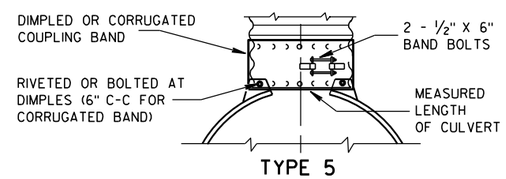
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

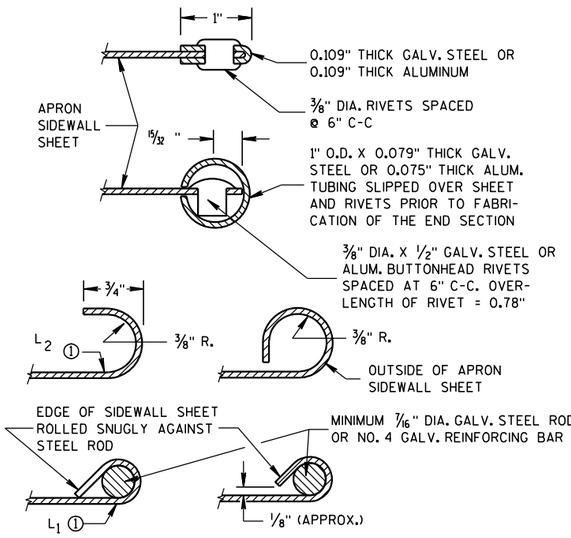
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

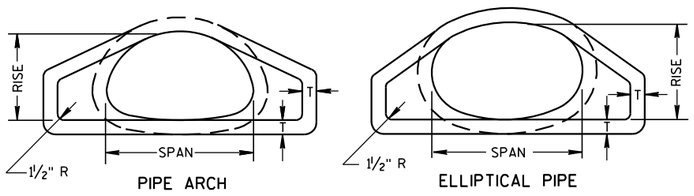
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

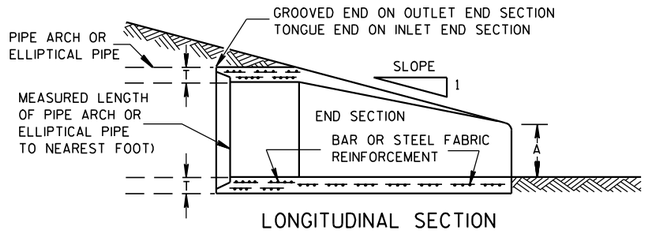
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

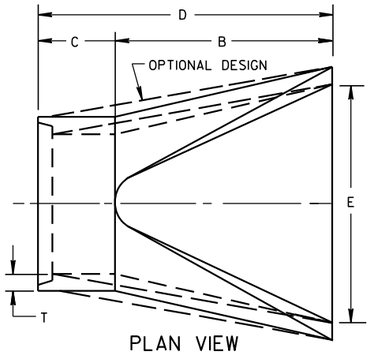
6
S.D.D. 8 F 1-11



END VIEW

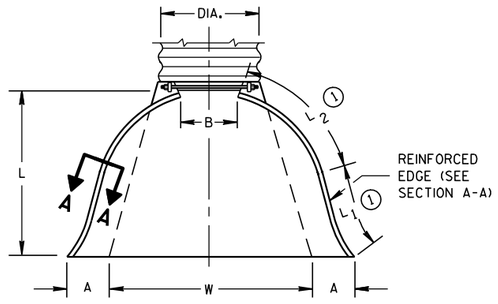


LONGITUDINAL SECTION

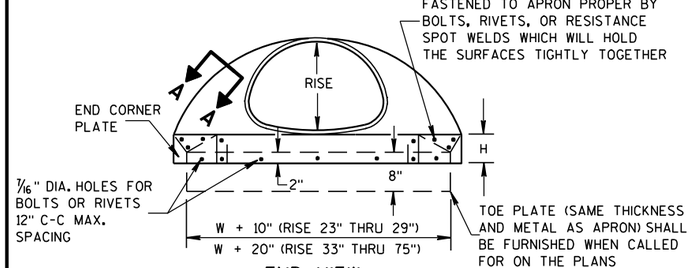


PLAN VIEW

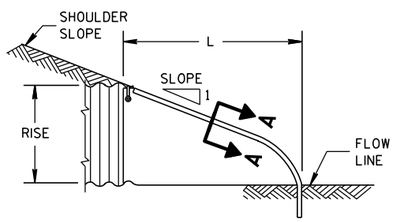
CONCRETE ENDWALLS



PLAN VIEW

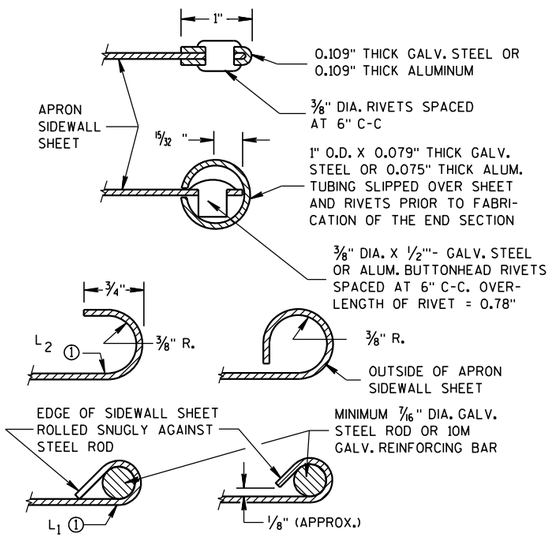


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ 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) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ 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	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

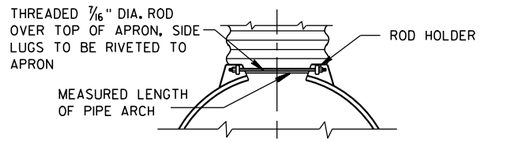
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	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	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

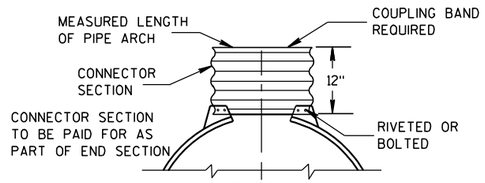
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



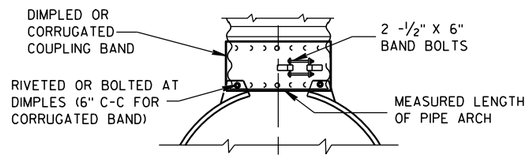
TYPE 2

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

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

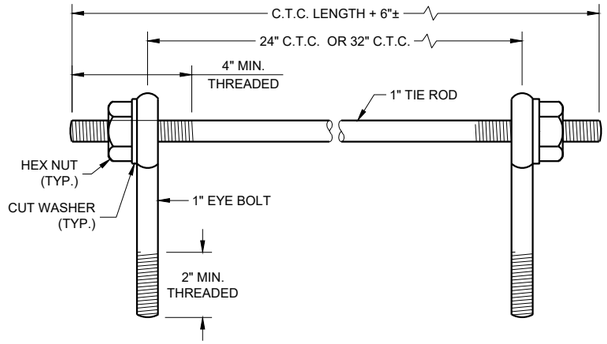
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

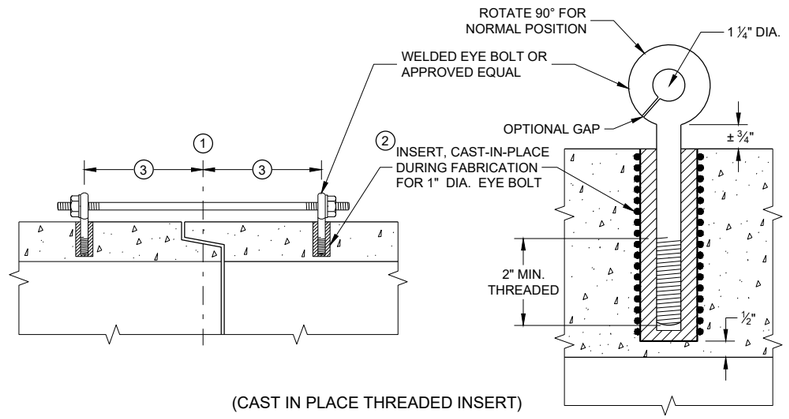
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

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

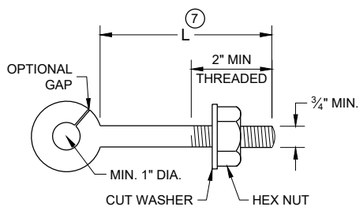
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

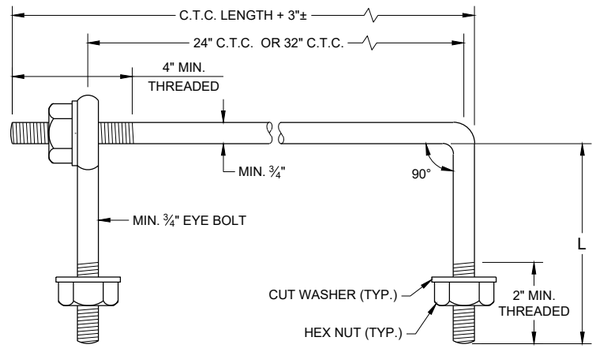
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

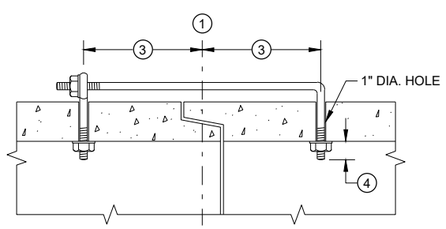


EYE BOLT (7)

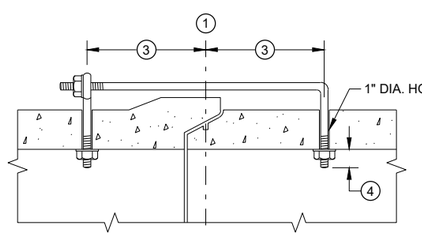
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

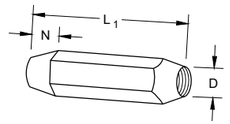
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

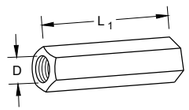
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



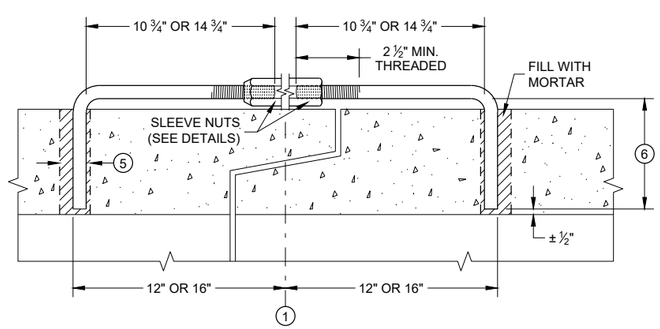
TAPERED



PLAIN

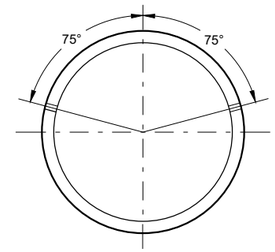
RIGHT AND LEFT THREADS

SLEEVE NUTS



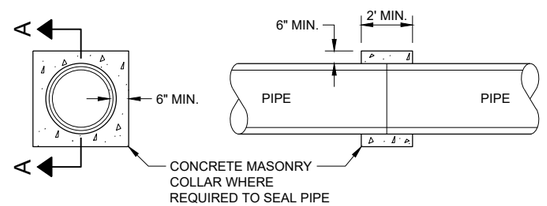
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 08F04 - 08

SDD 08F04 - 08

GENERAL NOTES

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

FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

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

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2' - 0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3' - 0"

(3) LIMITS OF TRENCH BACKFILL

(4) LIMITS OF FOUNDATION BACKFILL

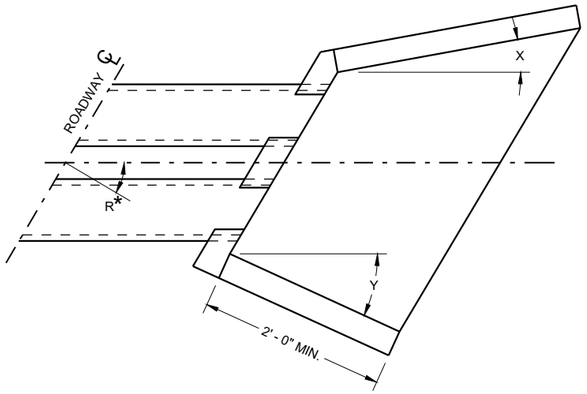
(5) FOUNDATION AND TRENCH BACKFILL ARE MATERIALS INCLUDED IN PAYMENT FOR CULVERT PIPE, PIPE ARCH, CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPSE OR CONCRETE MASONRY ENDWALLS.

(6) DO NOT PLACE FOUNDATION BACK FILL OR ANY OTHER GRANULAR BACKFILL AROUND OR BELOW CUT OFF WALL. POUR CUT OFF WALL AGAINST NATIVE SOIL

(7) MINIMUM HEIGHT SHALL BE THE GREATER OF 1'- 0" OR ¼ HEIGHT OF CULVERT PIPE.

TRENCH BACKFILL

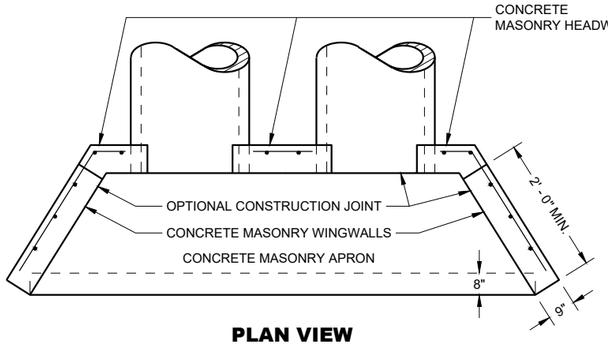
FOUNDATION BACKFILL



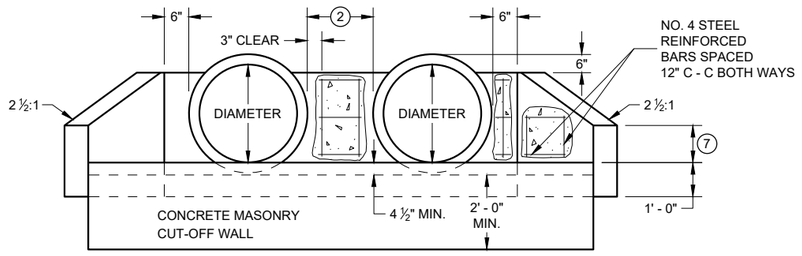
WINGWALL ANGLE DETAILS

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

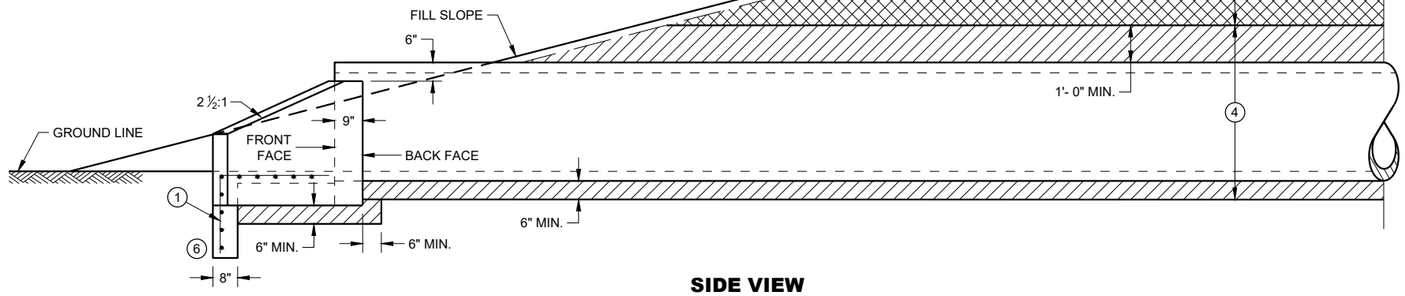
R* = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD



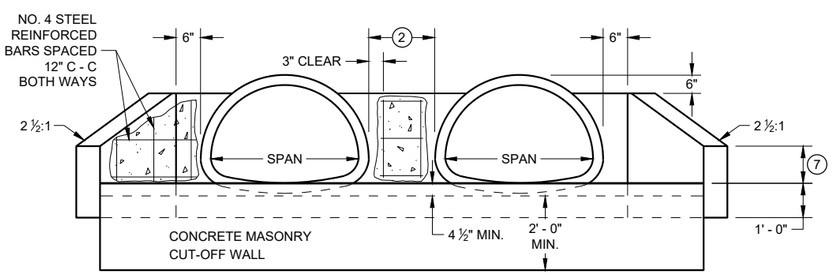
PLAN VIEW



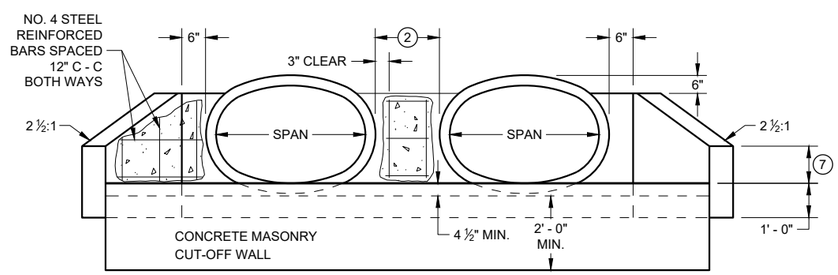
END VIEW
CIRCULAR PIPE



SIDE VIEW
CIRCULAR PIPE, PIPE ARCH OR HORIZONTAL ELLIPSE



END VIEW
PIPE ARCH



END VIEW
HORIZONTAL ELLIPSE

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

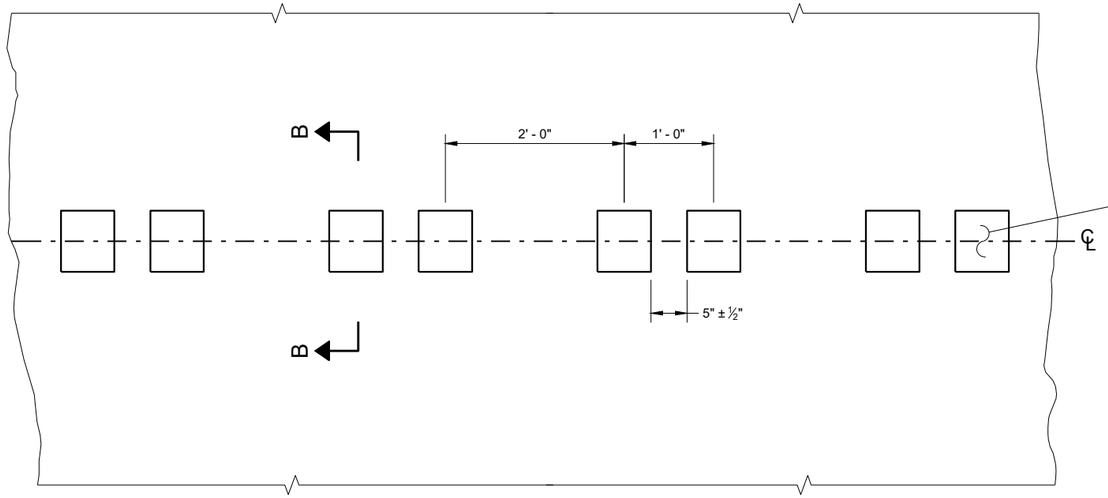
FHWA

6
SDD 08F10 - 02

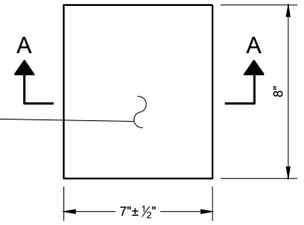
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

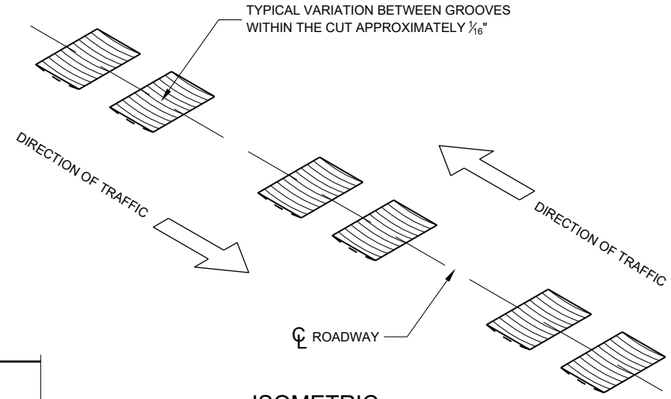
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



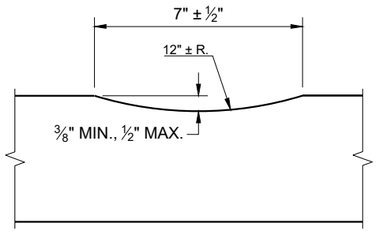
PLAN DETAIL VIEW



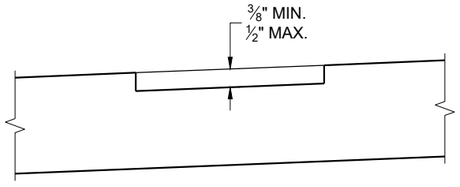
PLAN VIEW (SINGLE GROOVE)



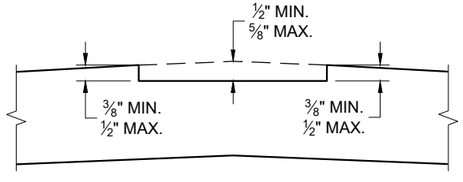
ISOMETRIC



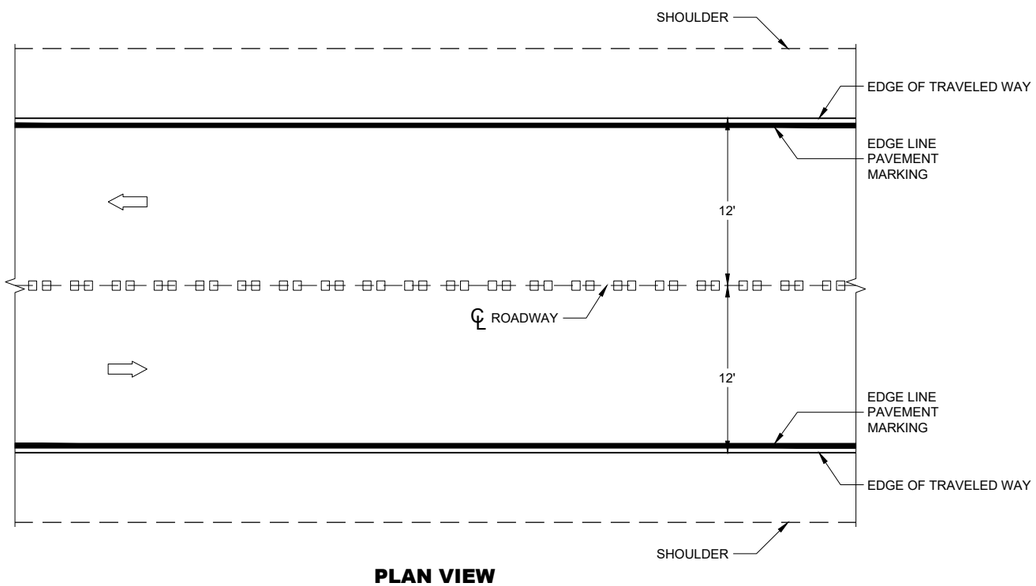
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

CENTERLINE RUMBLE STRIPS - ASPHALT

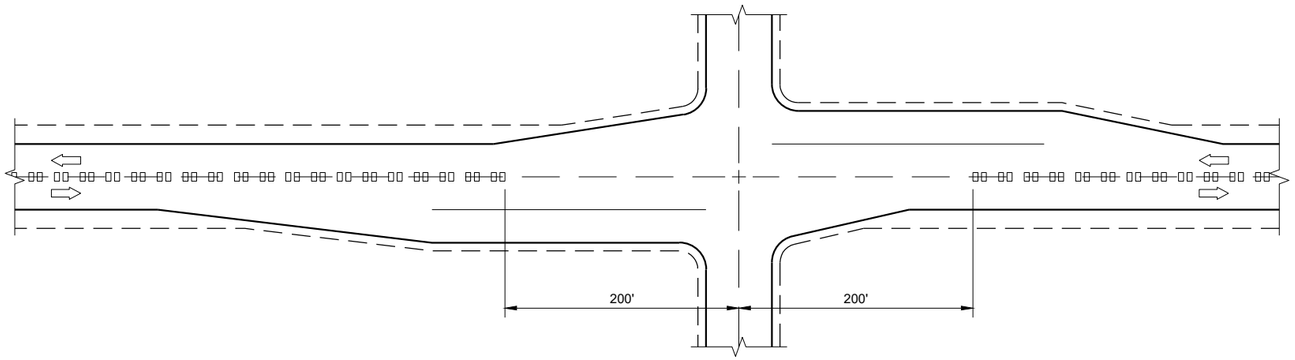
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

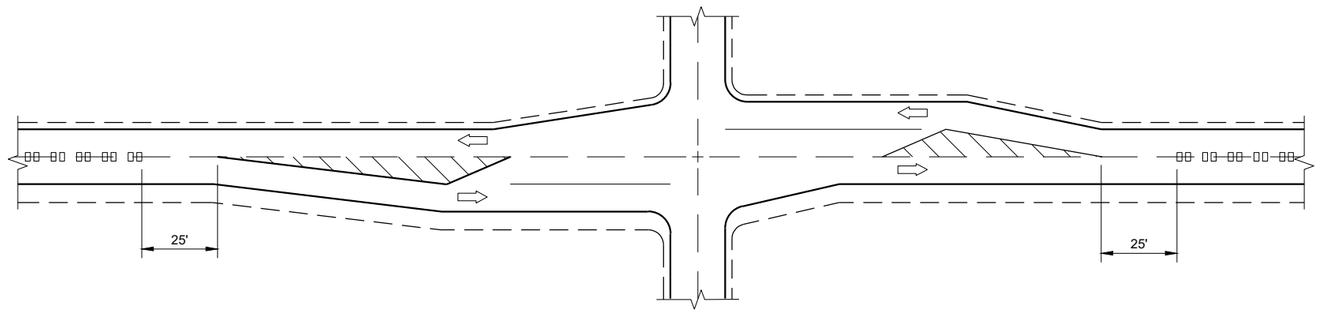
SDD 13A11 - 04a

6

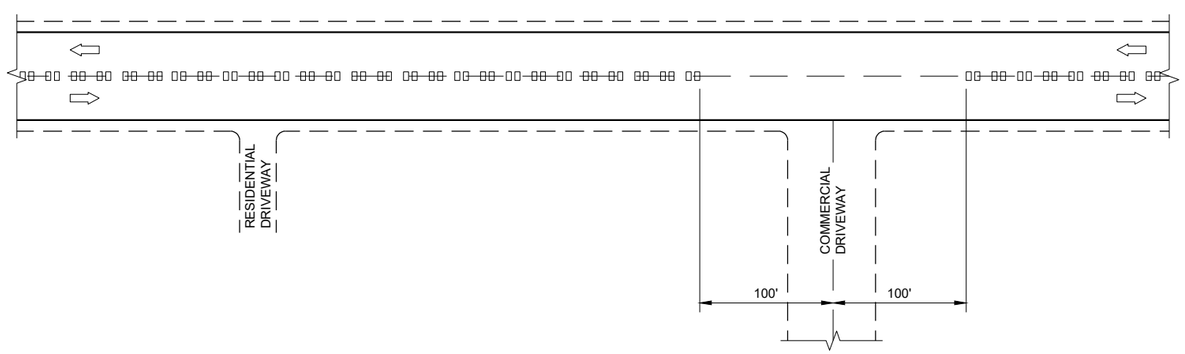
SDD 13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS



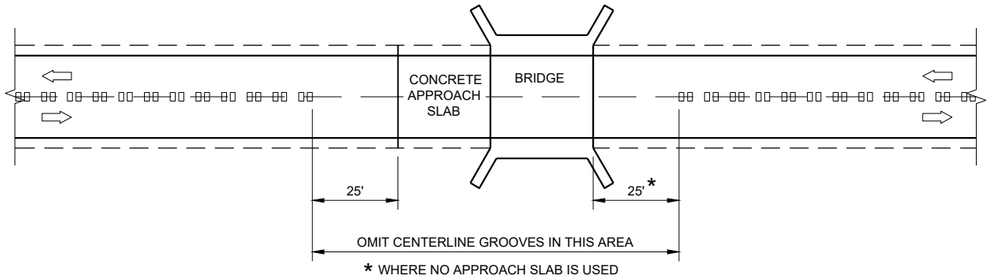
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



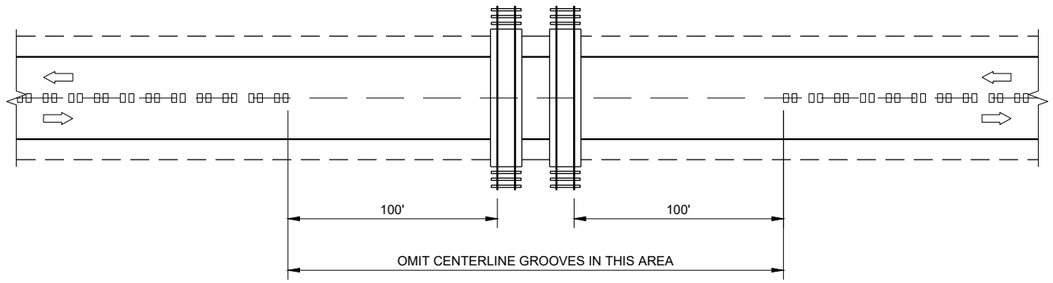
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

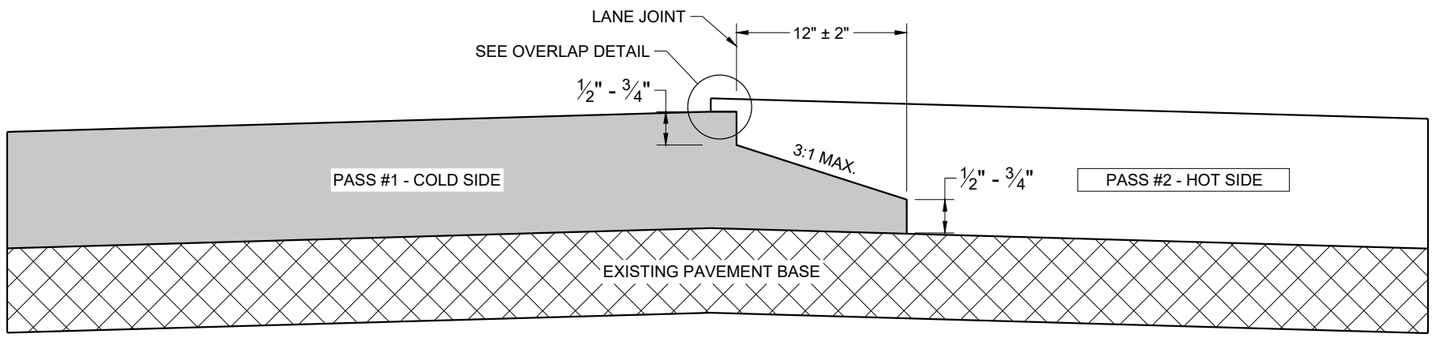
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

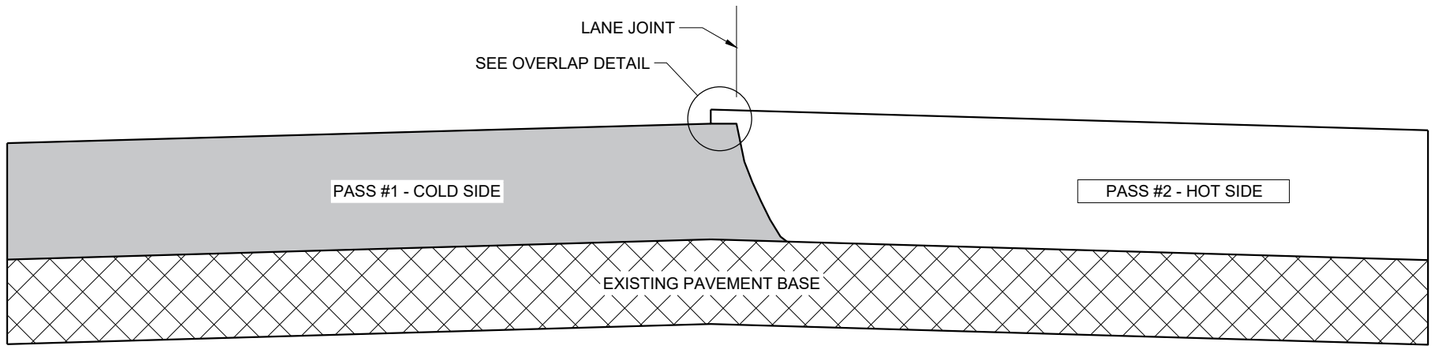
FHWA

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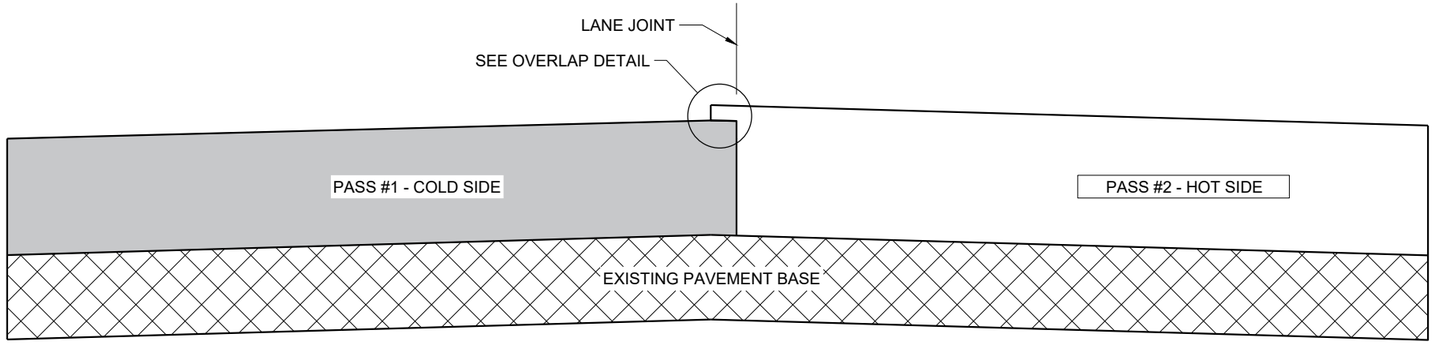
SDD 13A11 - 04d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

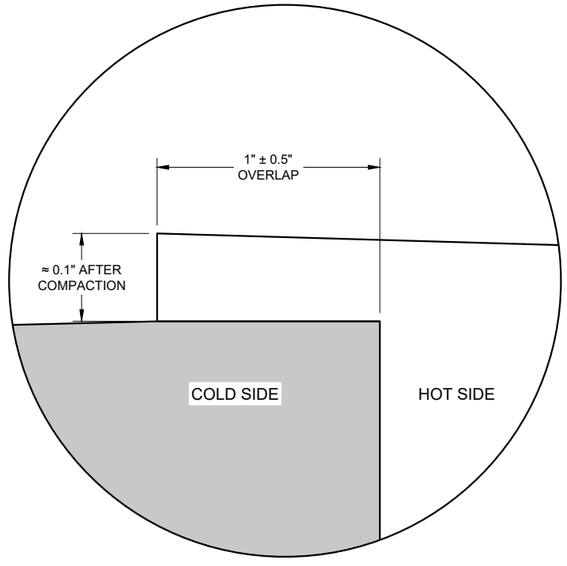
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"X8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.

2. USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPELTER COATING ON GALVANIZED POSTS.

3. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

4. USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

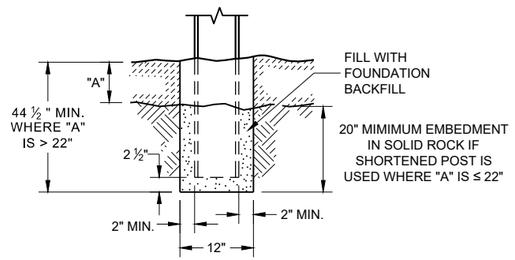
5. IF THE DISTACE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

6. IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.

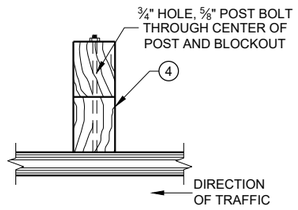
7. WHEN USING STEEL POSTS AND WOOD BLOCKOUTS, INSTALL FOUR 16d GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

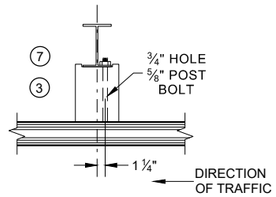
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



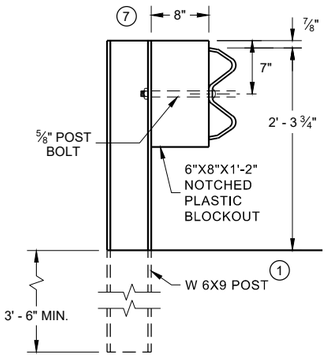
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



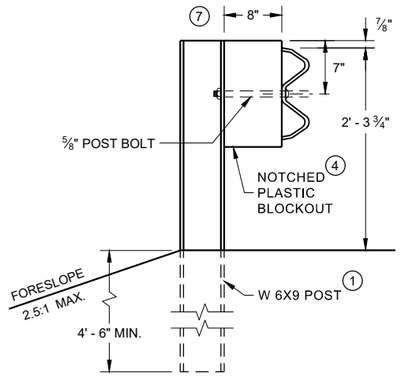
PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM



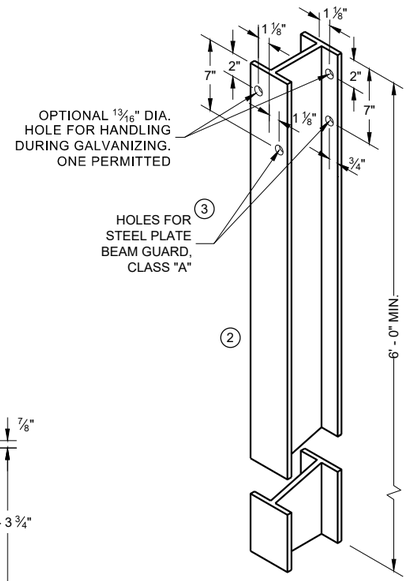
PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM



END VIEW
STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION

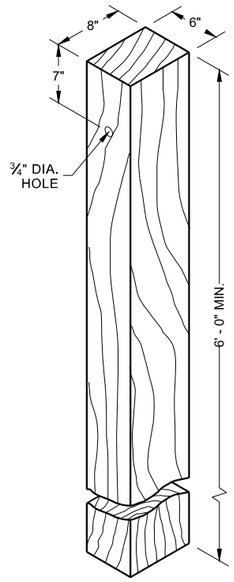


END VIEW
LONGER POST AT HALF POST SPACING W BEAM (LHW)

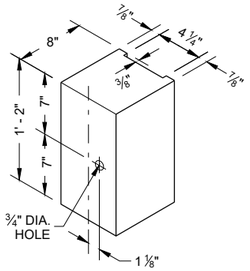


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)

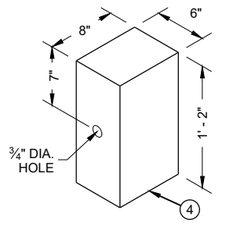
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



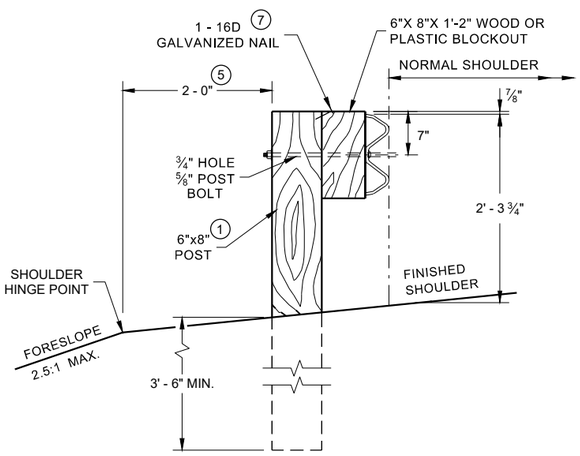
WOOD POST (6" X 8") NOMINAL (1)



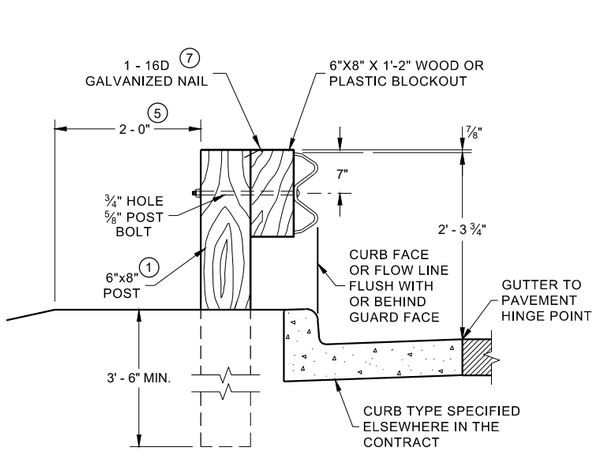
TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS



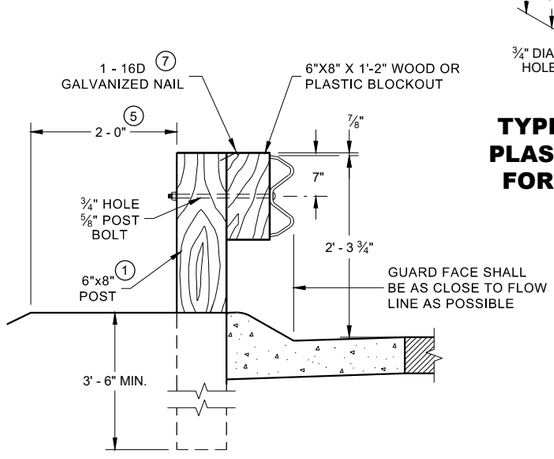
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



END VIEW
LOCATED ALONG A CURBED ROADWAY

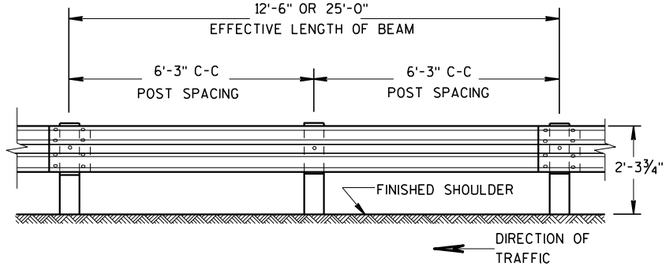


END VIEW
LOCATED ALONG A MOUNTABLE CURBED ROADWAY

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

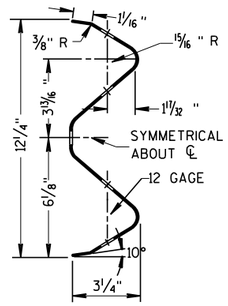
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B15 -11a

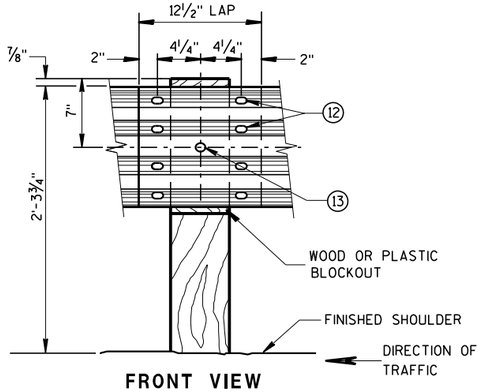


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

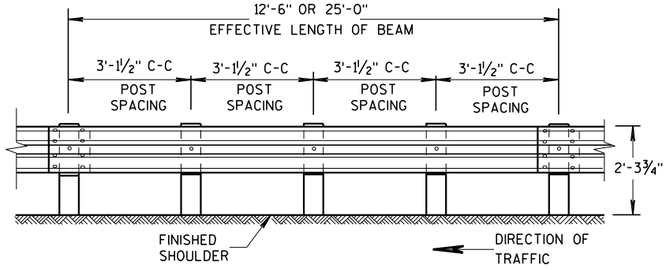
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

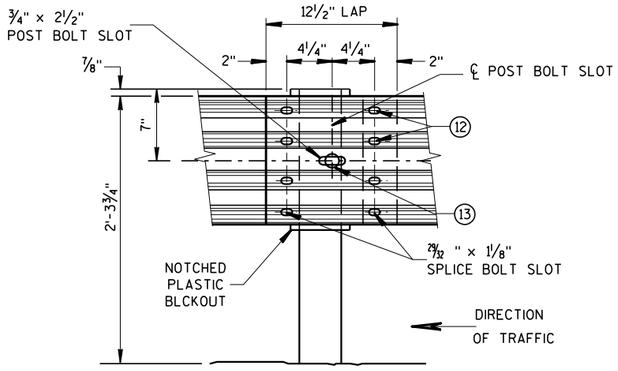
(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

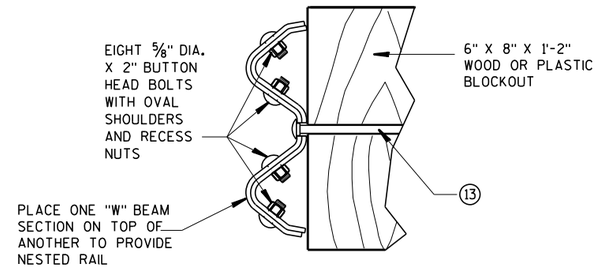
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

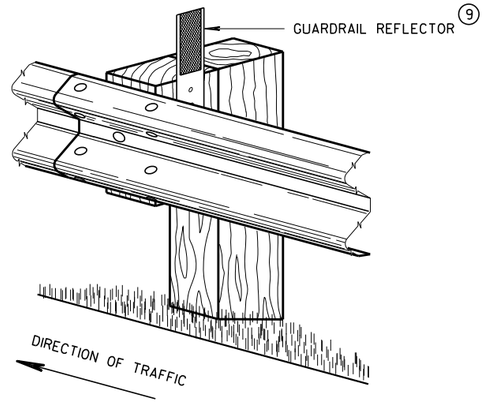
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



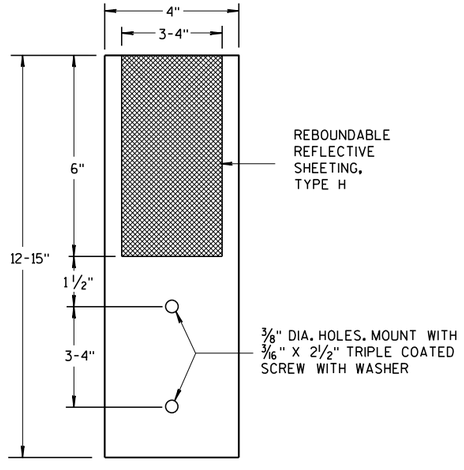
NESTED W BEAM (NW)

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

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

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

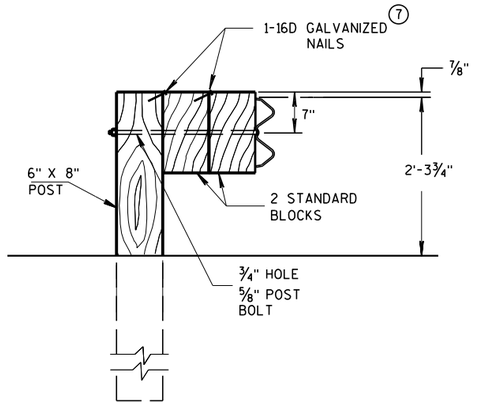
STATE OF WISCO 90
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 15-11b

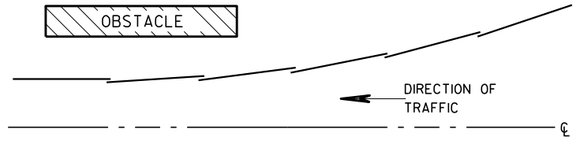
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S.D.D. 14 B 15-11b

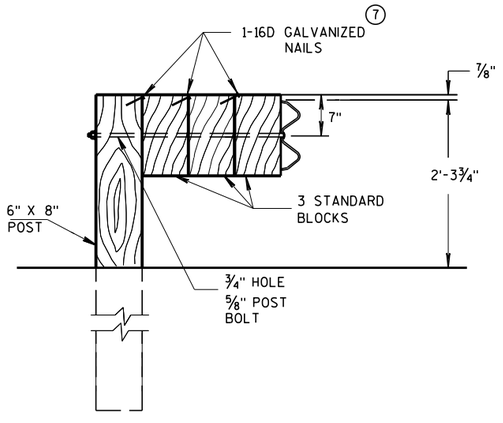


DETAIL FOR DOUBLE BLOCKS

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

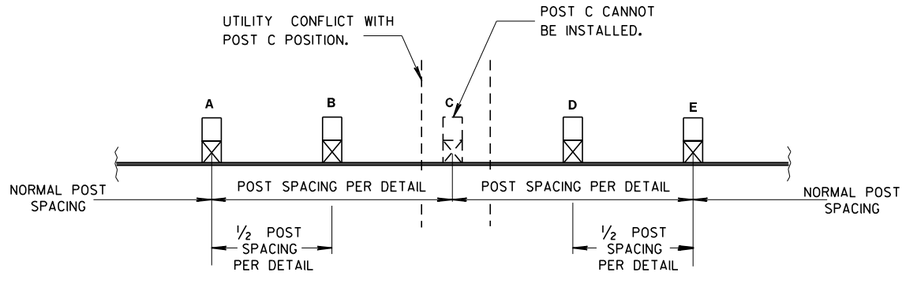


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

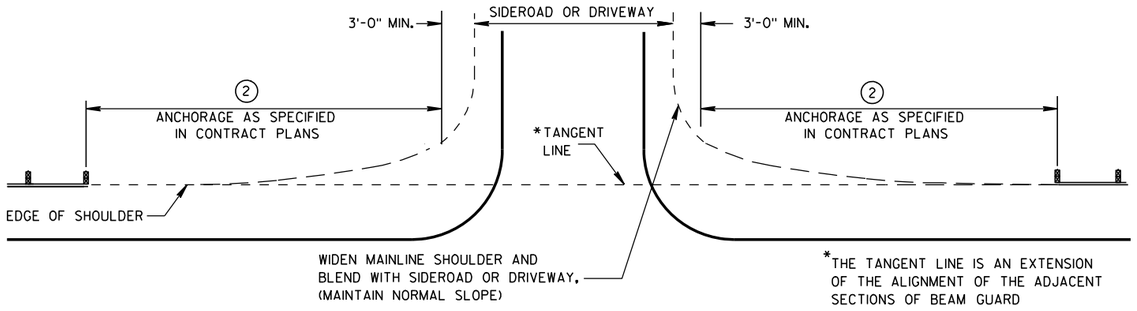
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

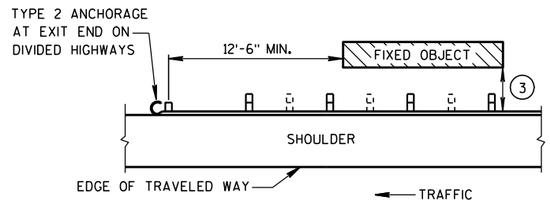
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

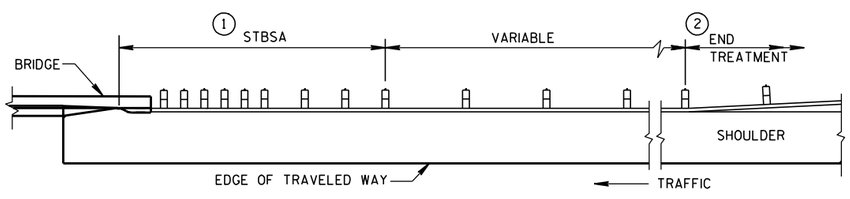
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S.D.D. 14 B 15-11c



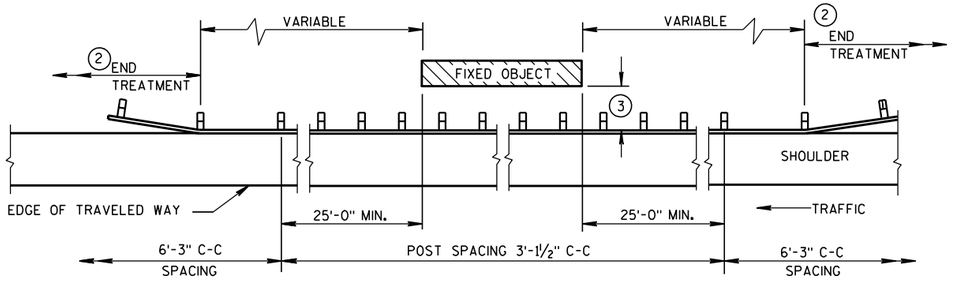
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

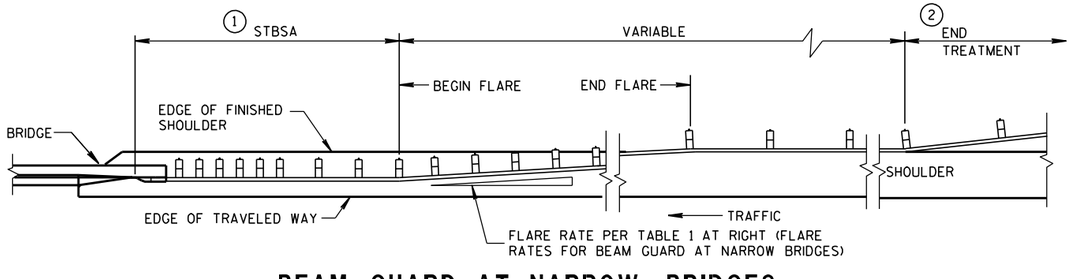


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



BEAM GUARD AT NARROW BRIDGES

(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

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

GENERAL NOTES

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

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

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

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-21-07 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 18-6a

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

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

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

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

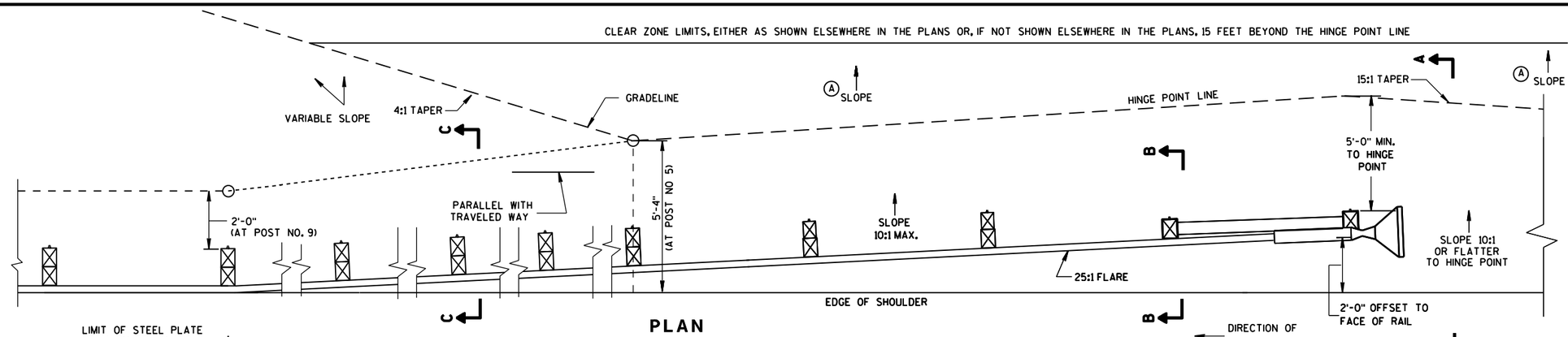
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

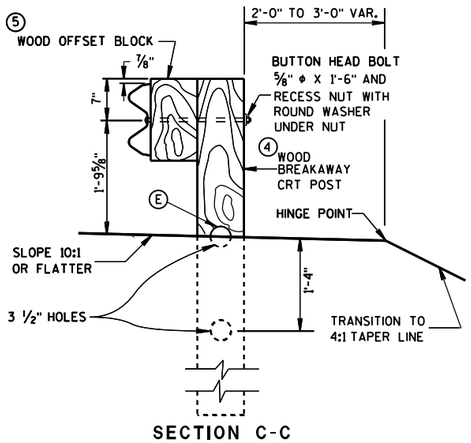
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

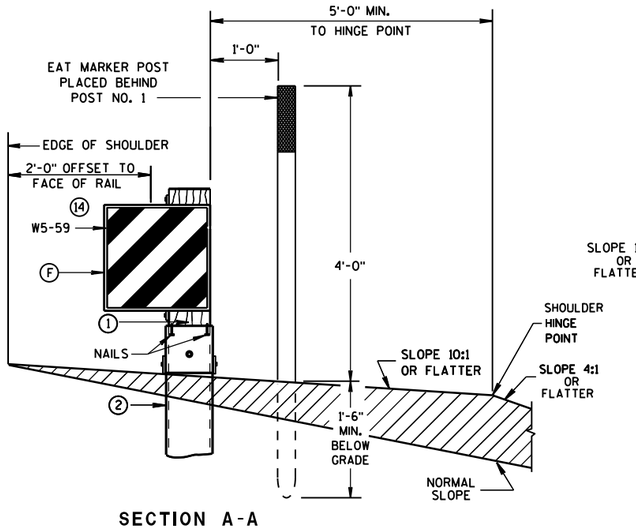
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

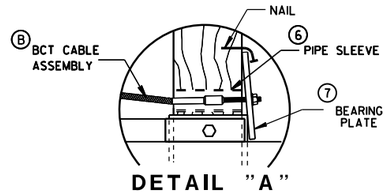
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

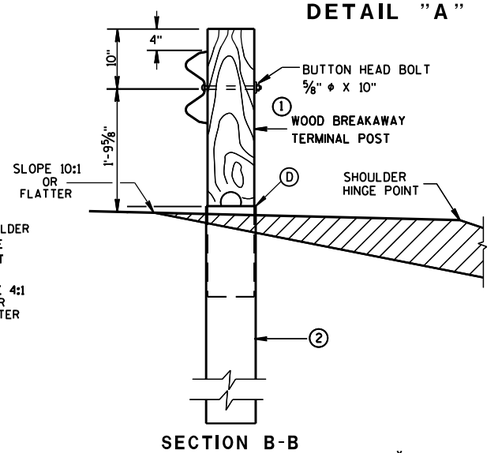
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

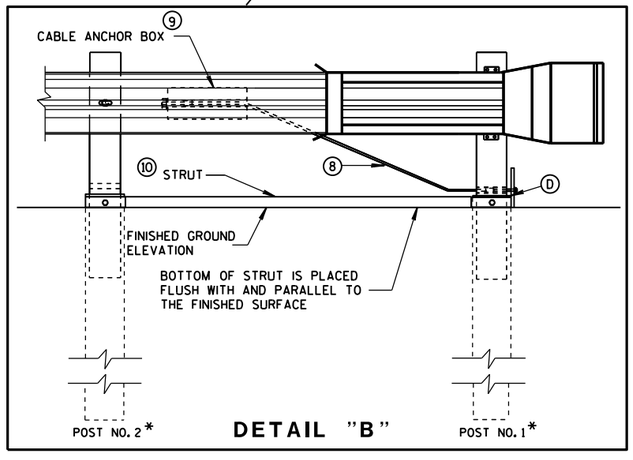










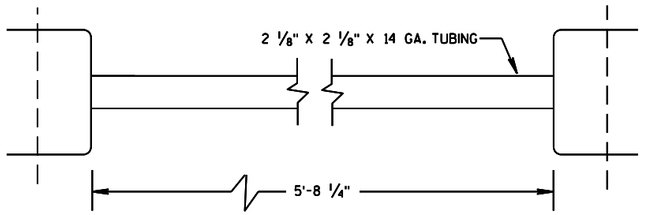


STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

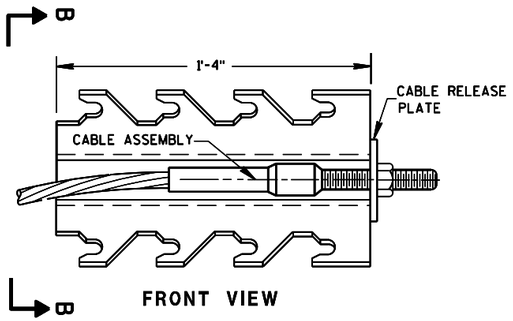
STATE OF WISCONSIN
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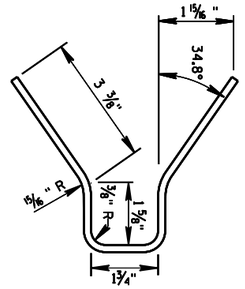
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

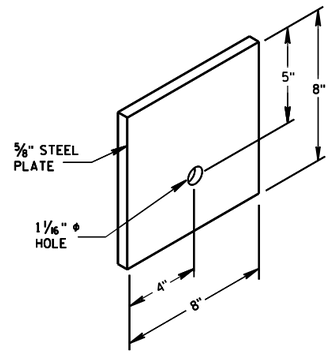


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

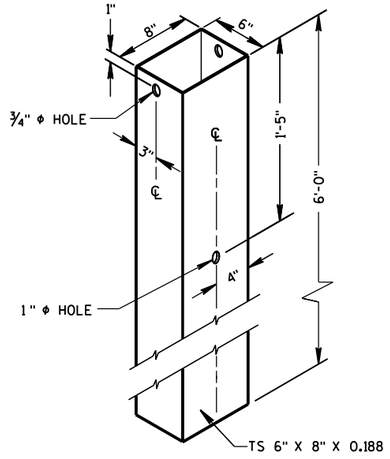
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S.D.D. 14 B 24-9b

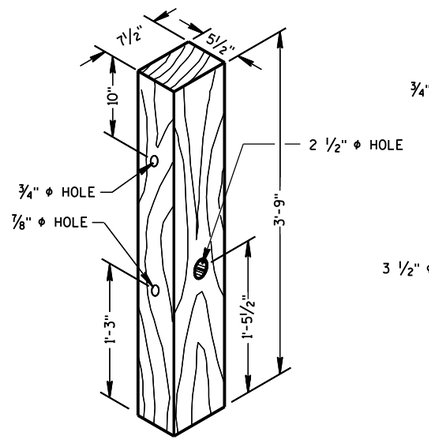
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

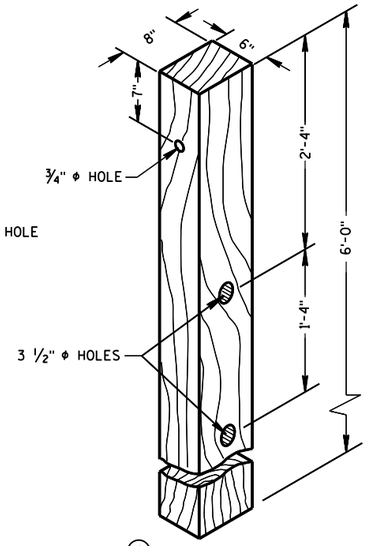
STATE OF WISCONSIN
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② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

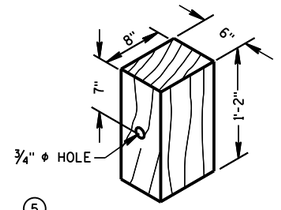


④ CRT POST
(POSTS NO'S 5-8

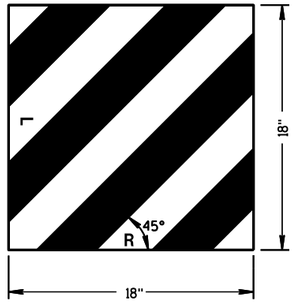
WOOD BREAKAWAY POSTS

GENERAL NOTES

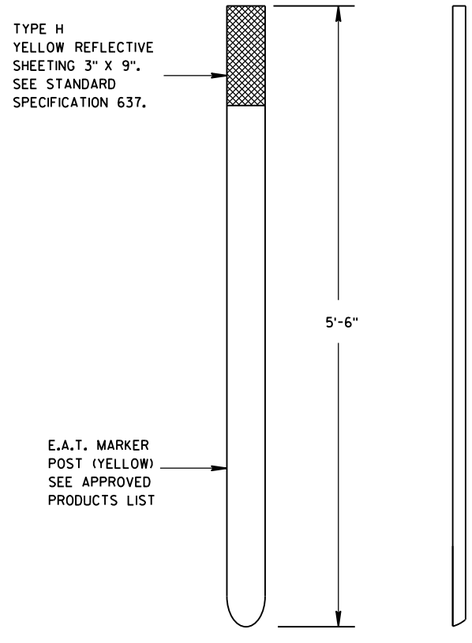
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH,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



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



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

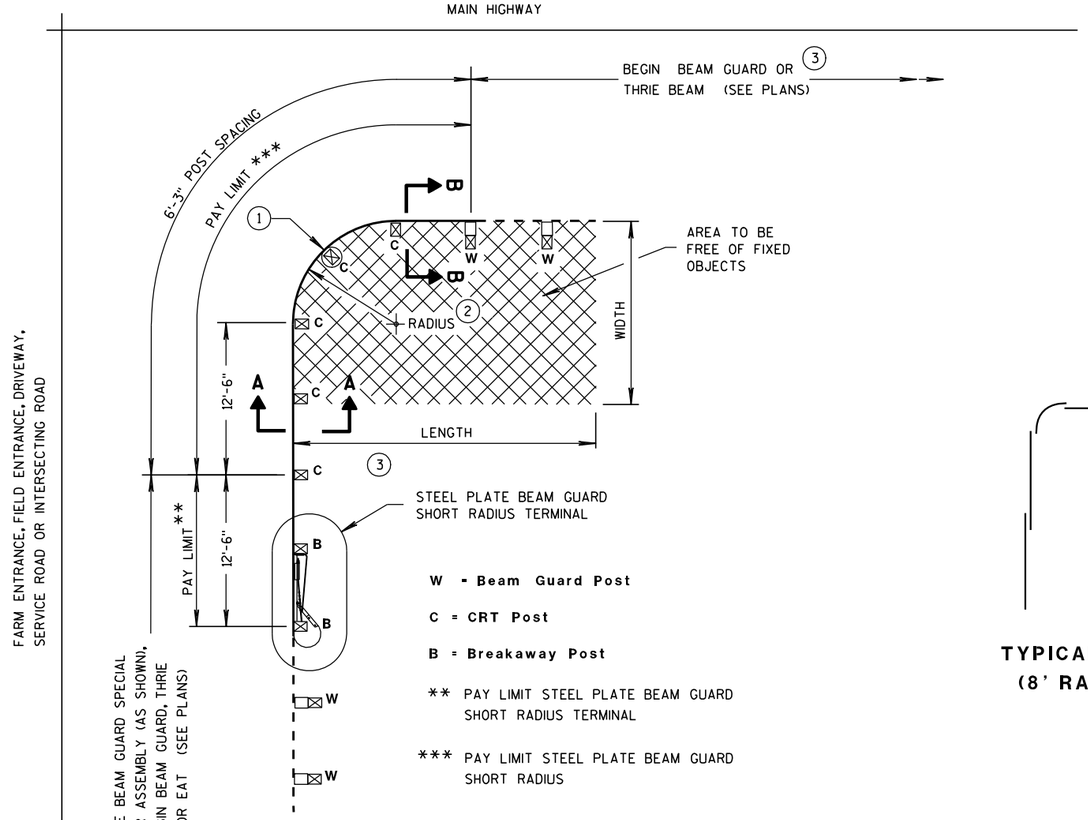
APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS 95 ENT
UNIT SUPERV...
FHWA

6

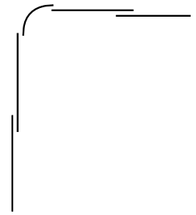
S.D.D. 14 B 24-9c

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S.D.D. 14 B 24-9c



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

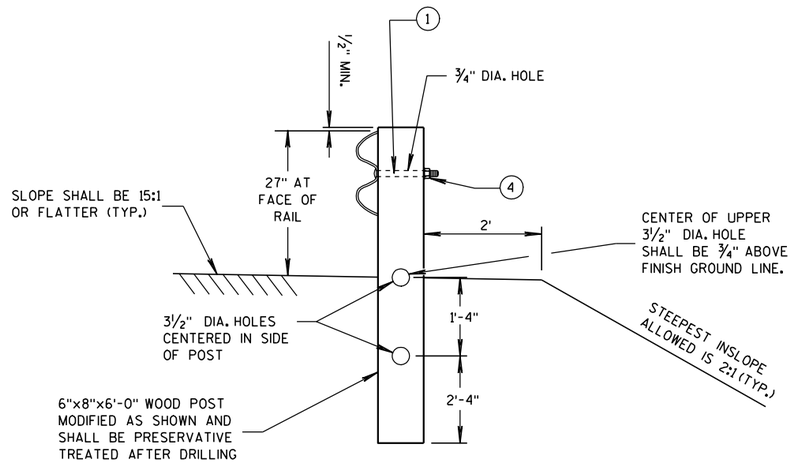
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

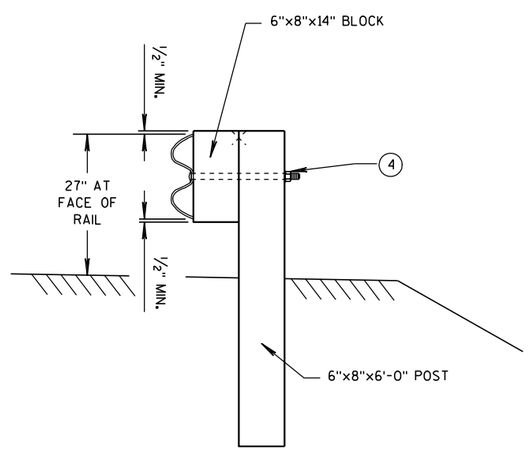
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

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

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



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

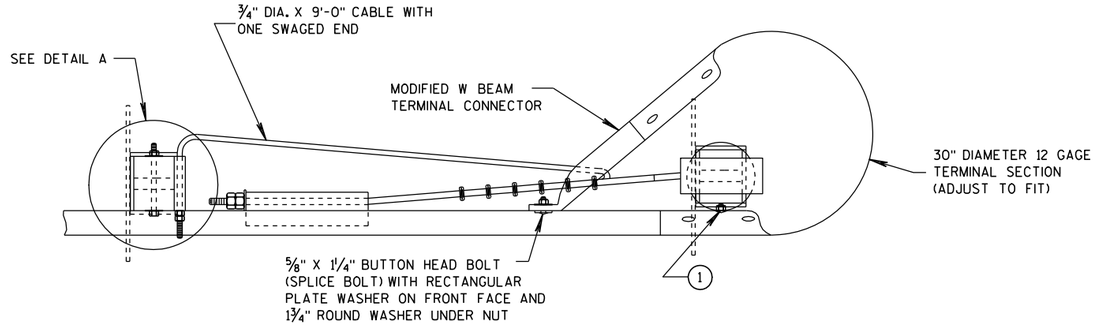
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

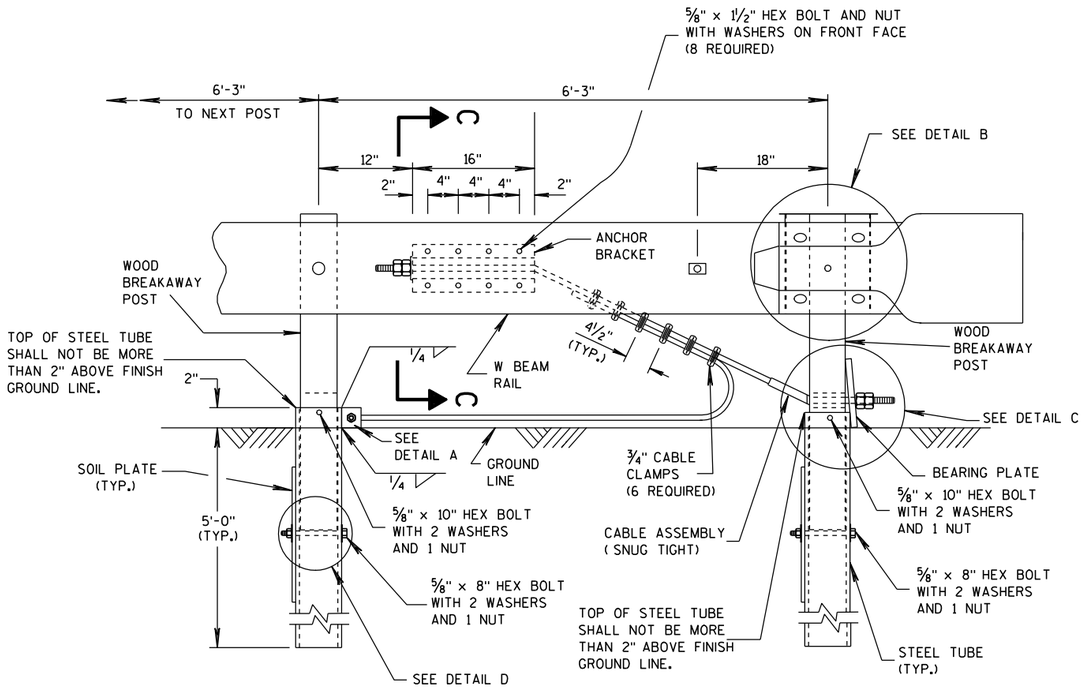
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



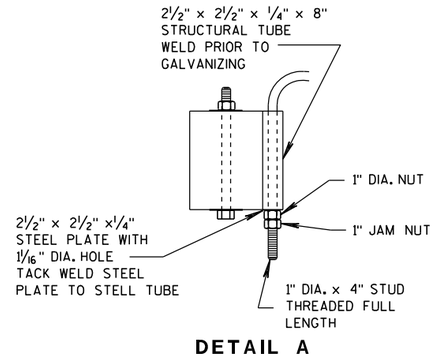
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

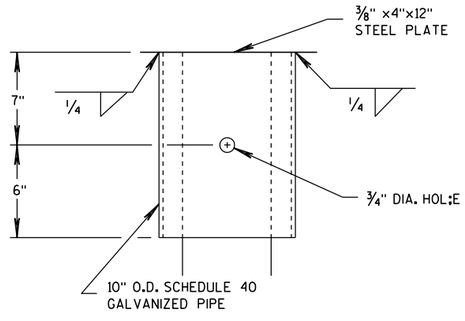
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

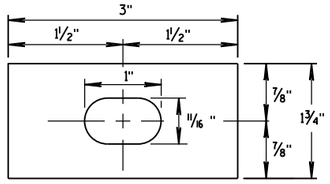
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

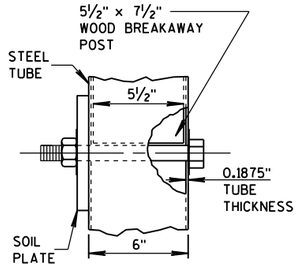
S.D.D. 14 B 27-1b

6

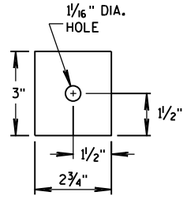
S.D.D. 14 B 27-1b



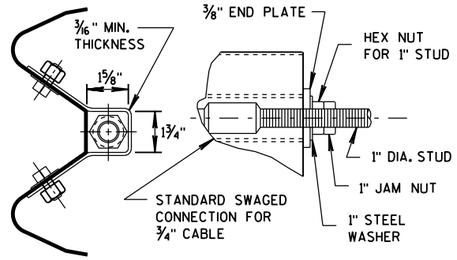
RECTANGULAR PLATE WASHER



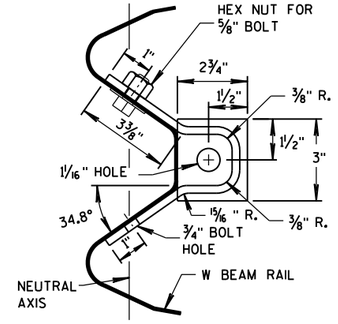
DETAIL D



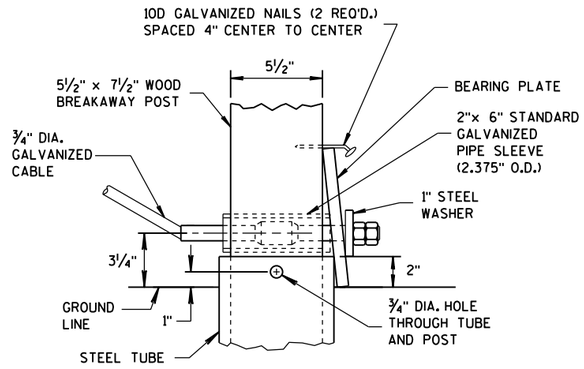
END PLATE



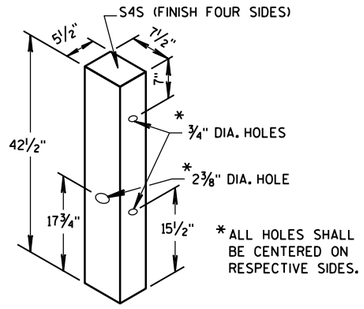
SECTION C-C
(END PLATE REMOVED)



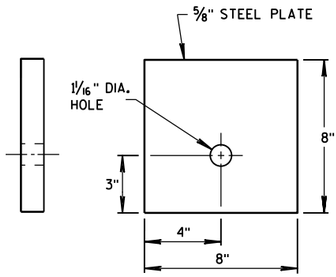
ANCHOR BRACKET



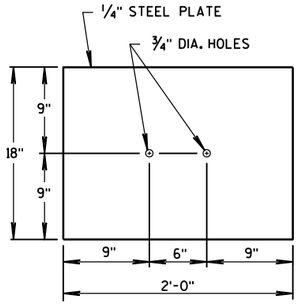
DETAIL C



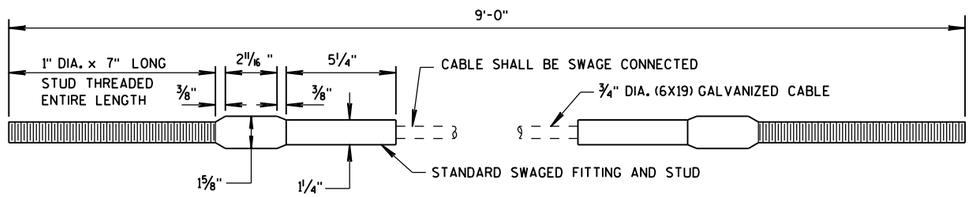
WOOD BREAKAWAY POST



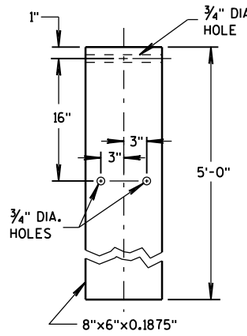
BEARING PLATE



SOIL PLATE



CABLE ASSEMBLY



STEEL TUBE

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

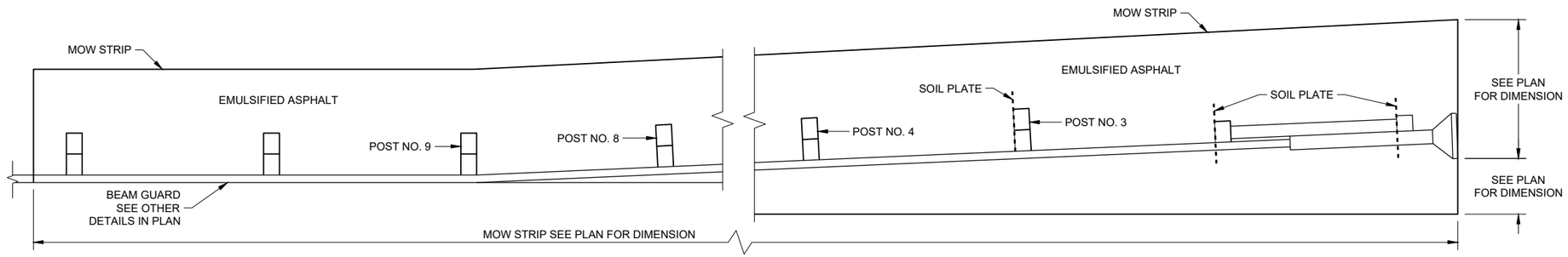
APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

6

S.D.D. 14 B 27-1c



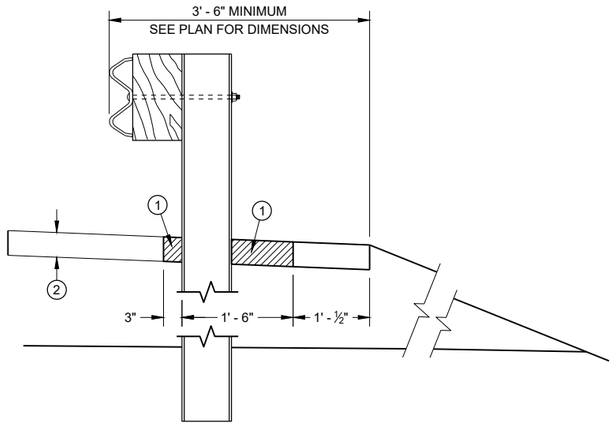
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

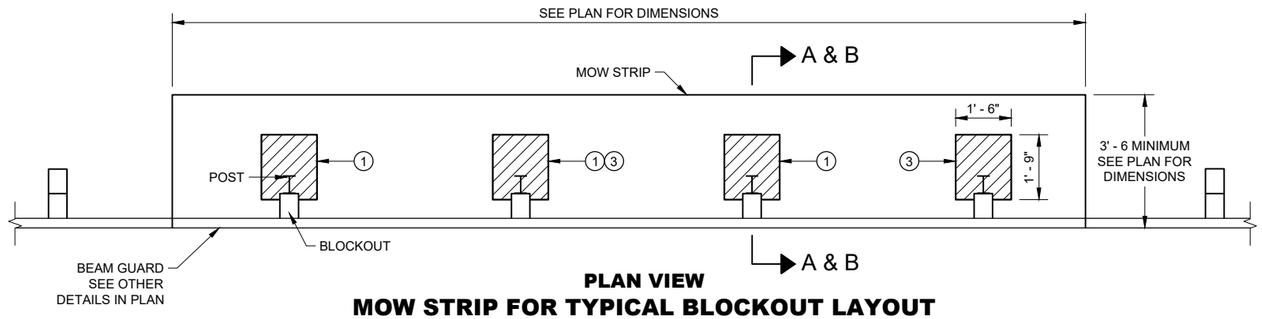
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

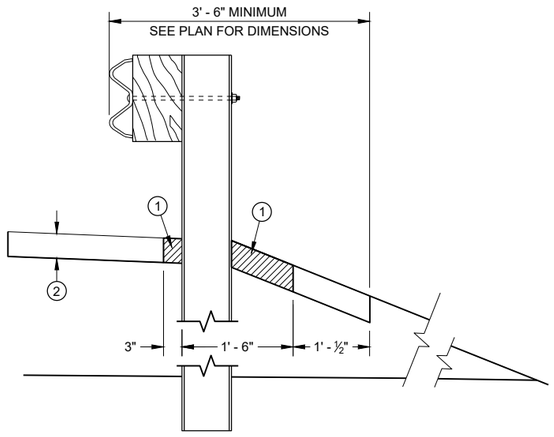


SECTION A - A

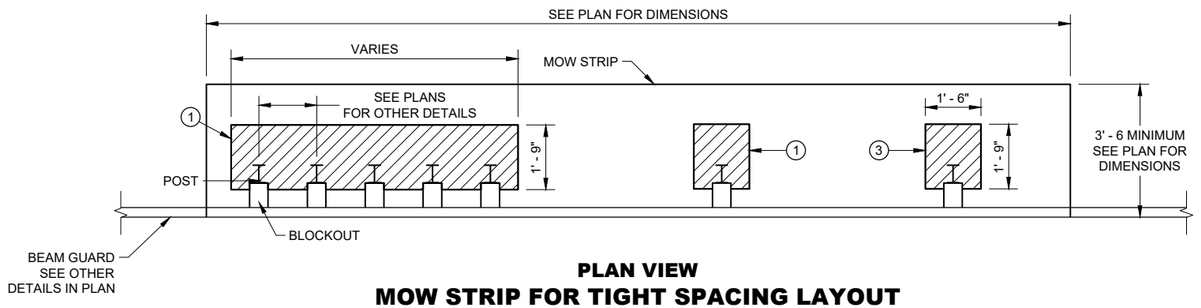


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

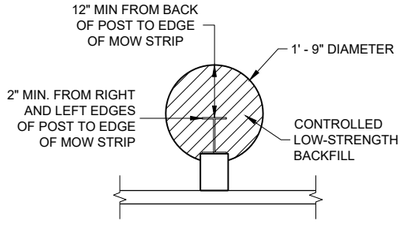


SECTION B - B

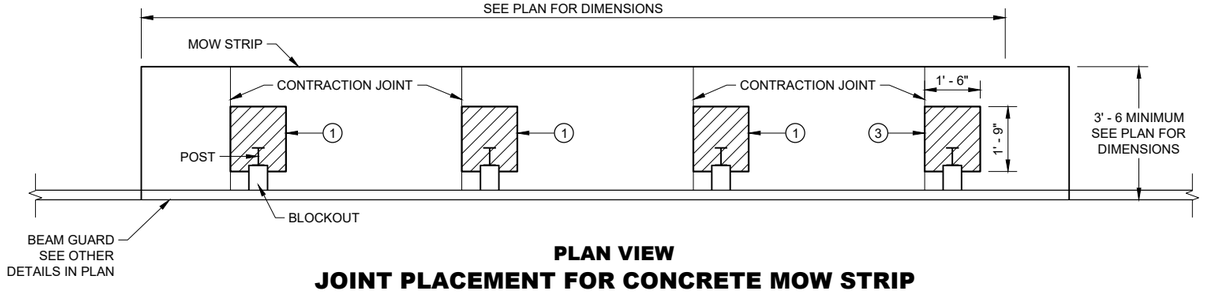


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B28 - 04a

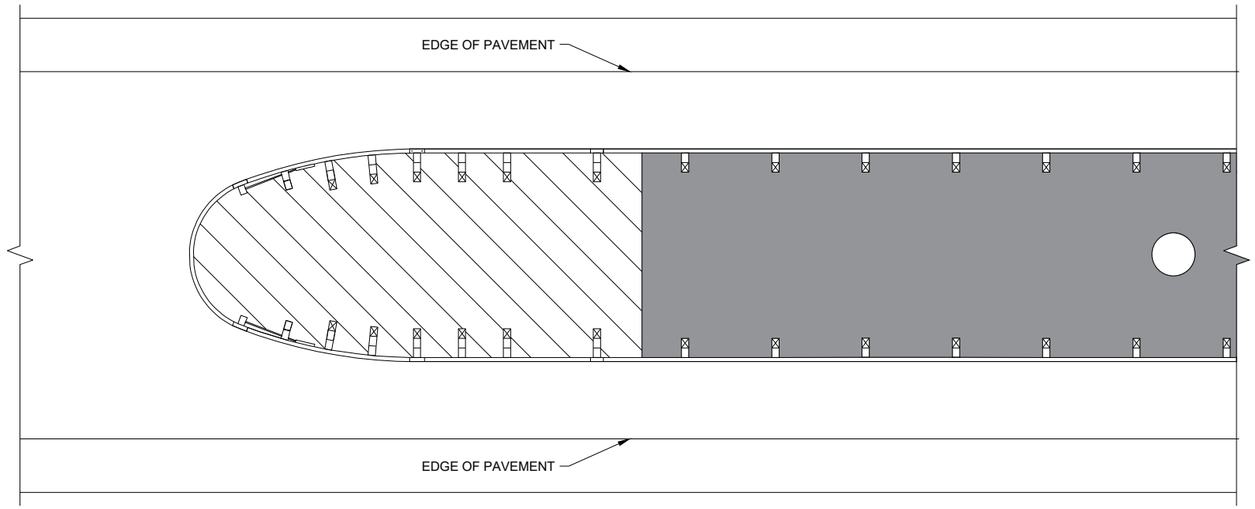
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

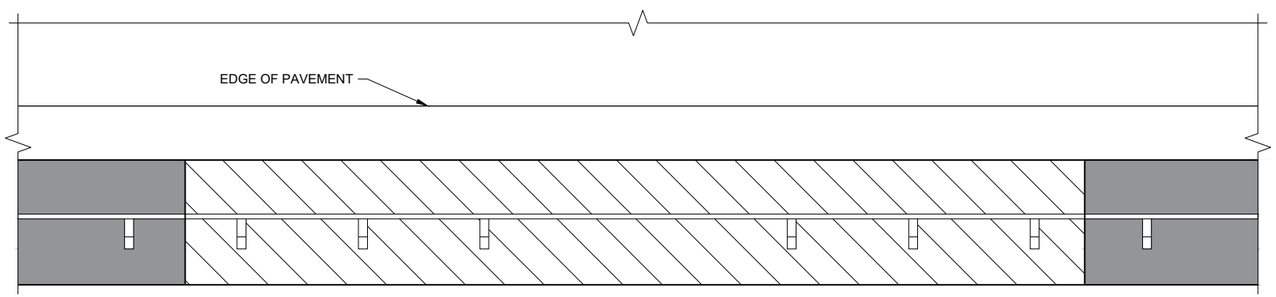
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

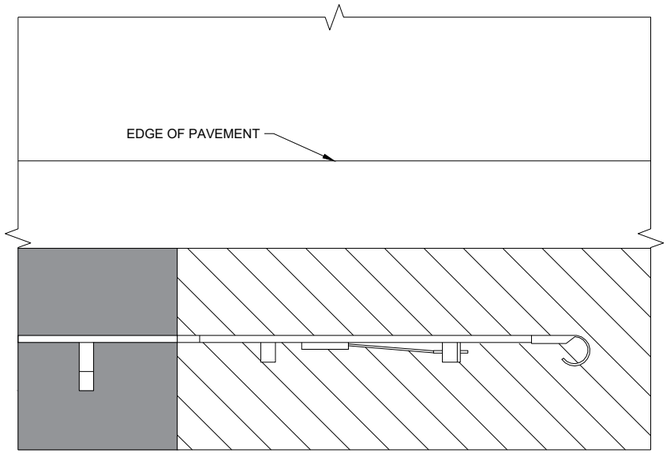
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



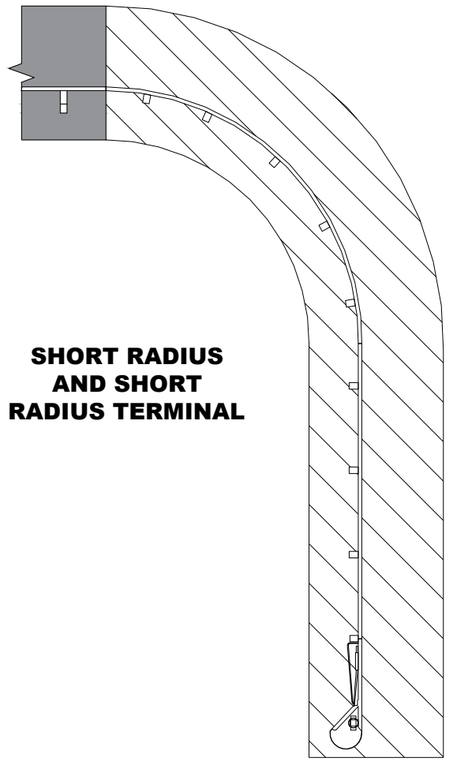
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

6

SDD 14B28 - 04b

6

SDD 14B28 - 04b

GUARDRAIL MOW STRIP

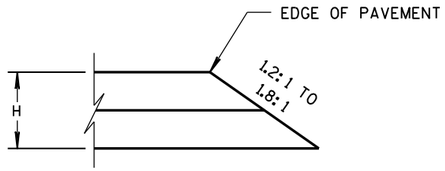
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

August 2020
DATE

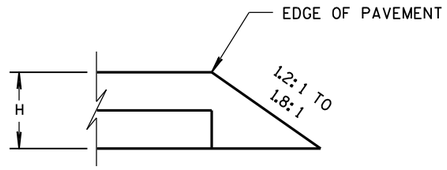
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

FHWA



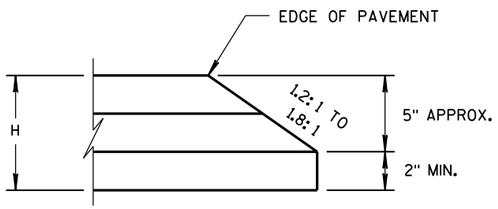
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



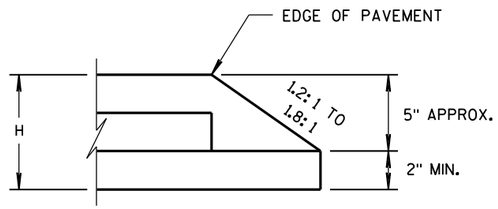
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

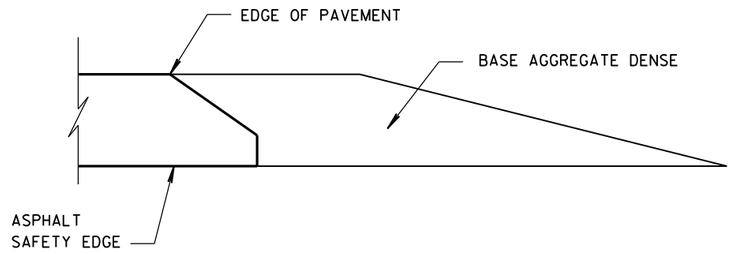
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

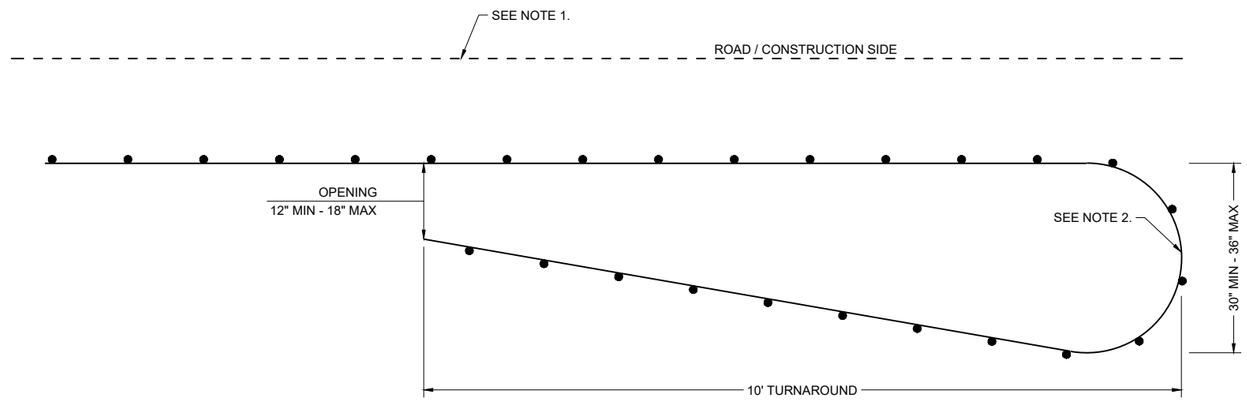
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES:

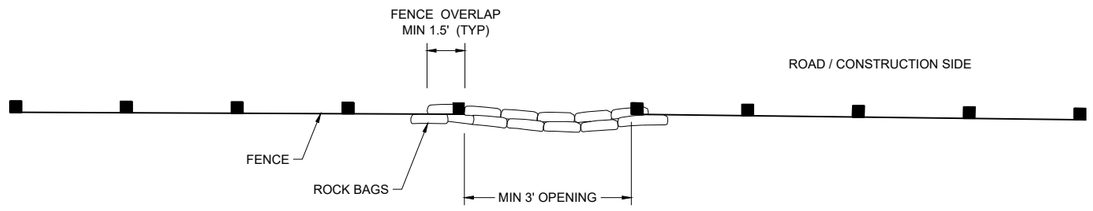
1. WHERE SILT FENCE IS REQUIRED, IT SHALL BE PLACED ON THE CONSTRUCTION SIDE OF THE EXCLUSION FENCING, OR COMBINED WITH THE EXCLUSION FENCING AS ALLOWED IN THE SPECIFICATIONS. STAKES ON THIS DETAIL ARE OPPOSITE OF STANDARD SILT FENCE FOR SEDIMENT CONTROL.
2. PLACE TURNAROUNDS AT ALL TERMINI ENDS OF THE EXCLUSION FENCING.
3. IF TEMPORARY ACCESS POINTS ARE NEEDED DURING CONSTRUCTION THAT REQUIRE OPENINGS IN THE EXCLUSION FENCING, ACCESS OPENINGS SHOULD BE TIGHTLY SECURED WITH BALES OF HAY OR STRAW WHENEVER CONSTRUCTION RELATED ACTIVITIES ARE NOT OCCURRING. REINSTALL EXCLUSION FENCING WHEN THE WORK REQUIRING THE TEMPORARY ACCESS OPENING IS COMPLETED.
4. THE FENCE CAP MAY BE A 6" UNDER DRAIN PIPE, SLIT DOWN THE CENTER AND PLACED OVER THE FENCE. COMMERCIALLY AVAILABLE SAFETY CAPS WITH A LIP MAY BE USED. OTHER DNR APPROVED METHODS TO PREVENT TURTLES FROM PASSING OVER THE TOP OF THE FENCE MAY BE USED.

   SECURELY FASTEN THE CAP TO PREVENT IT FROM BEING DISLODGED.

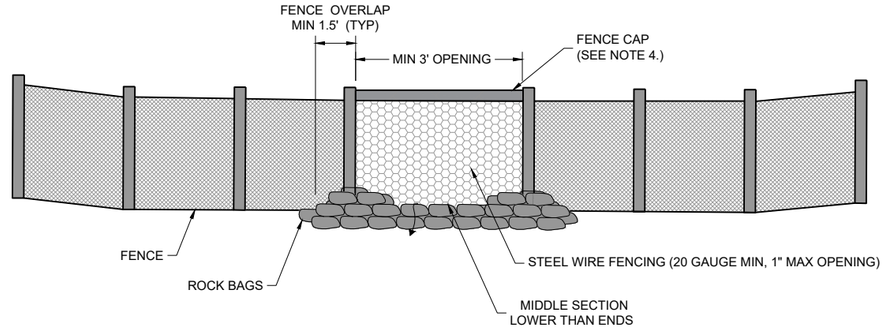


PLAN VIEW

CLIMBING TURTLE EXCLUSION FENCE DETAIL



PLAN VIEW



FRONT VIEW

CLIMBING TURTLE FENCE RELIEF DETAIL

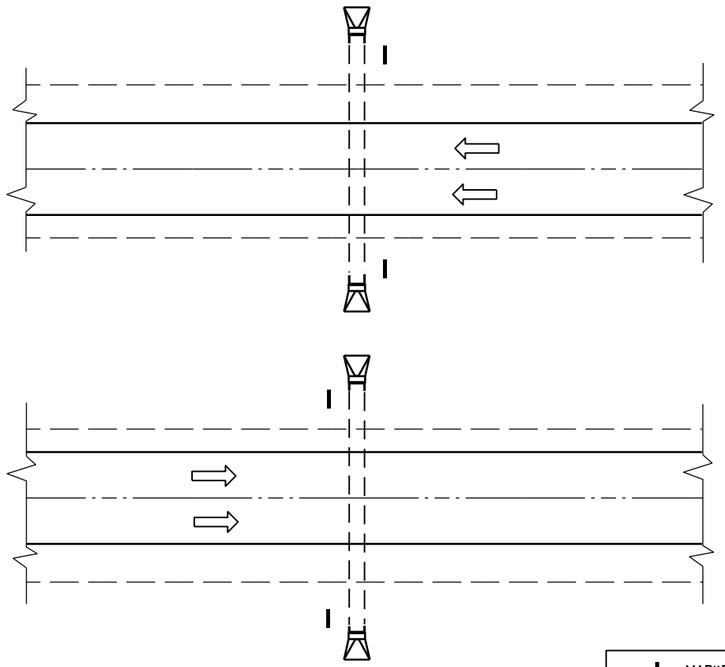
TURTLE EXCLUSION FENCE
CLIMBING TURTLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2025
DATE

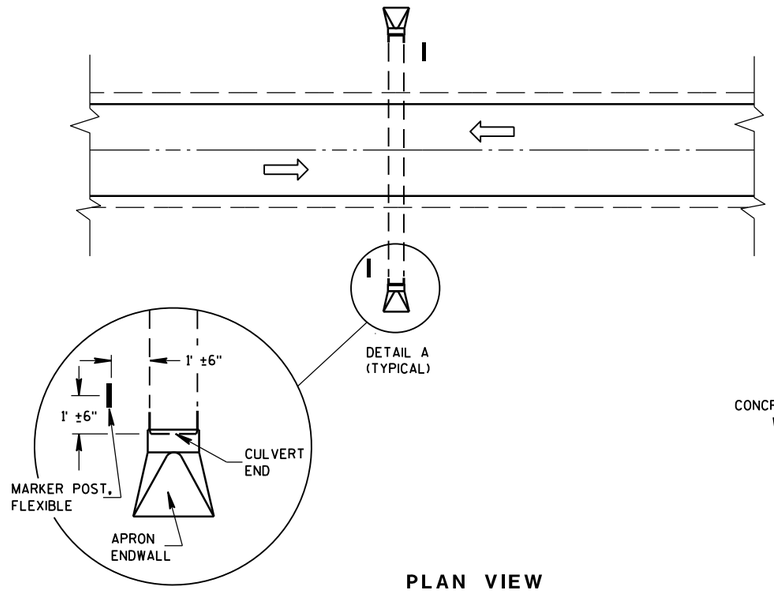
/S/ ALYSSA BARRETTE
CHIEF STATEWIDE ENVIRONMENTAL SERVICES
BUREAU OF TECHNICAL SER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

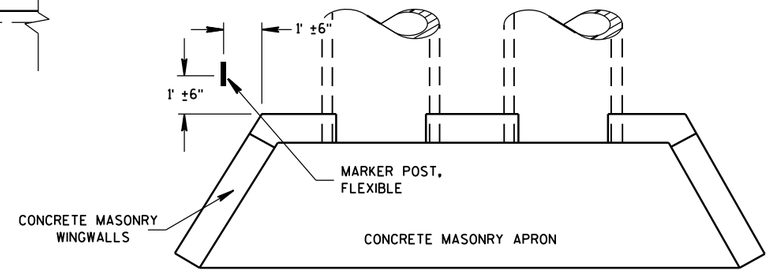
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

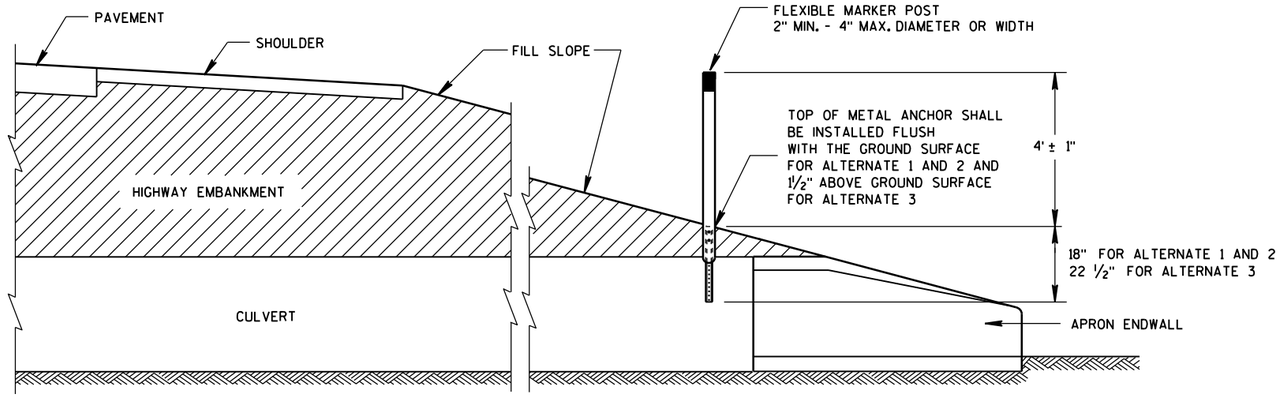
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

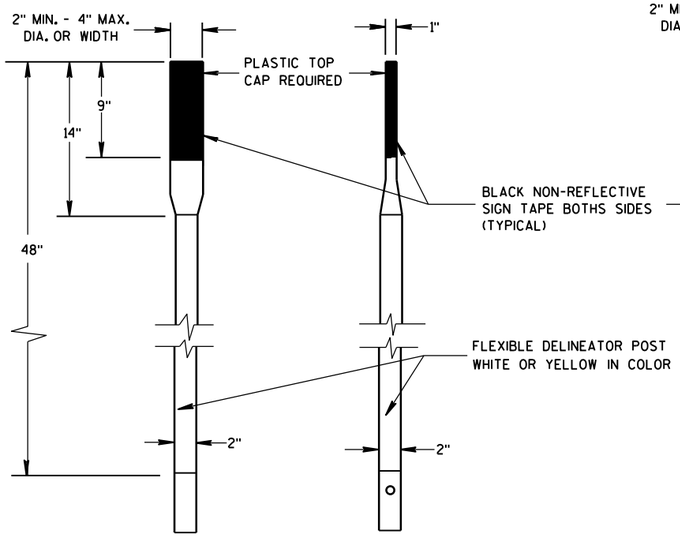
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

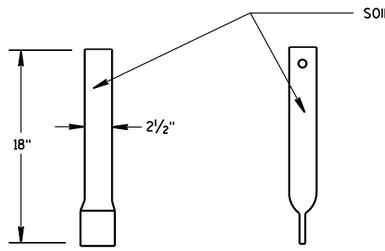
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S.D.D. 15 A 3-2a

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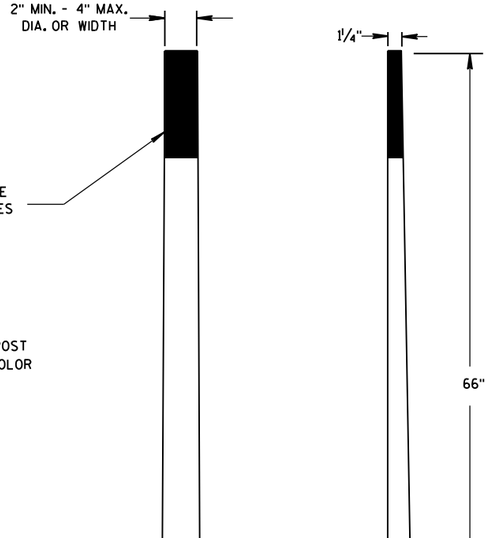
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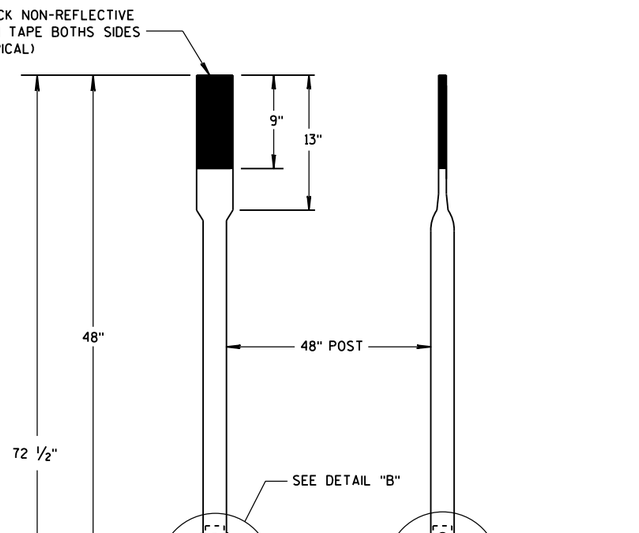
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

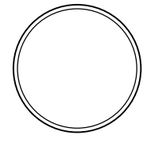
ALTERNATE 2



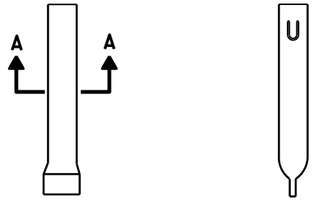
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

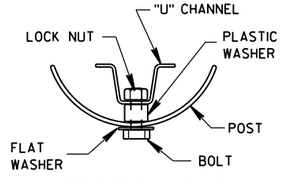


SECTION A-A

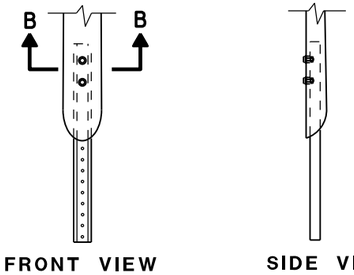


FRONT VIEW SIDE VIEW

ALTERNATE 1

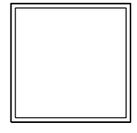


SECTION B-B

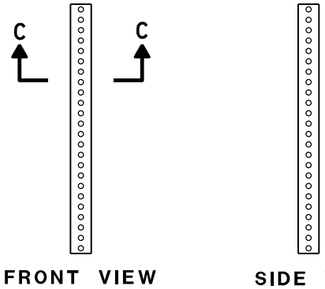


FRONT VIEW SIDE VIEW

ALTERNATE 2



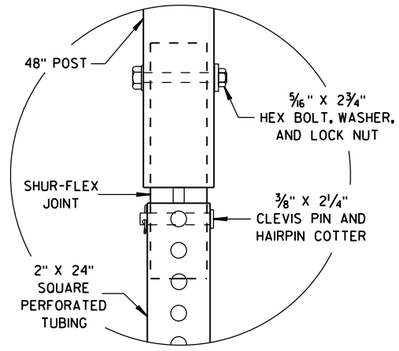
SECTION C-C



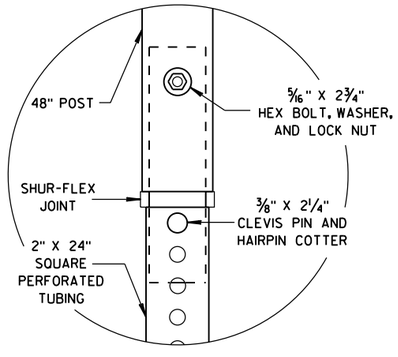
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

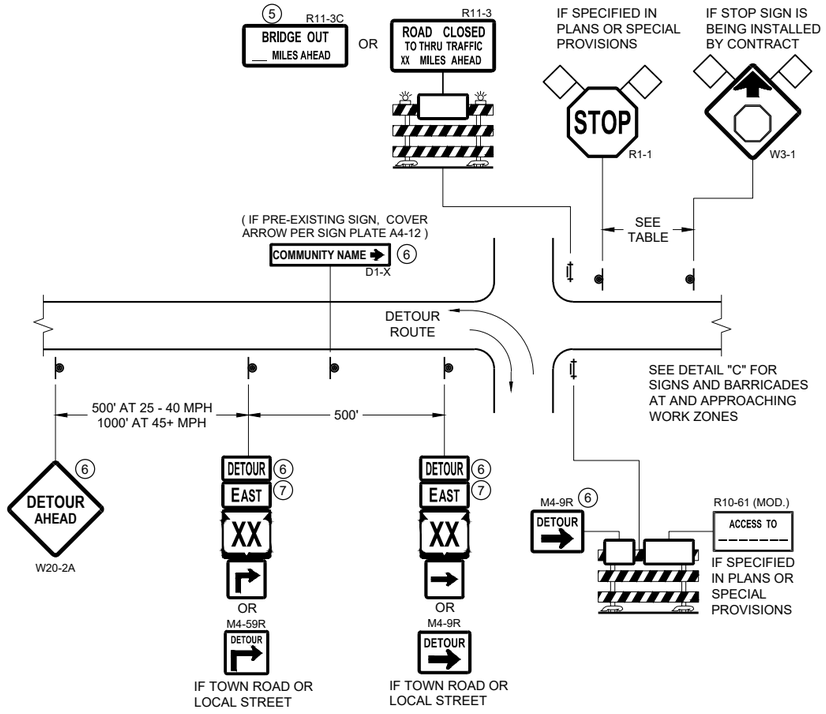
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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

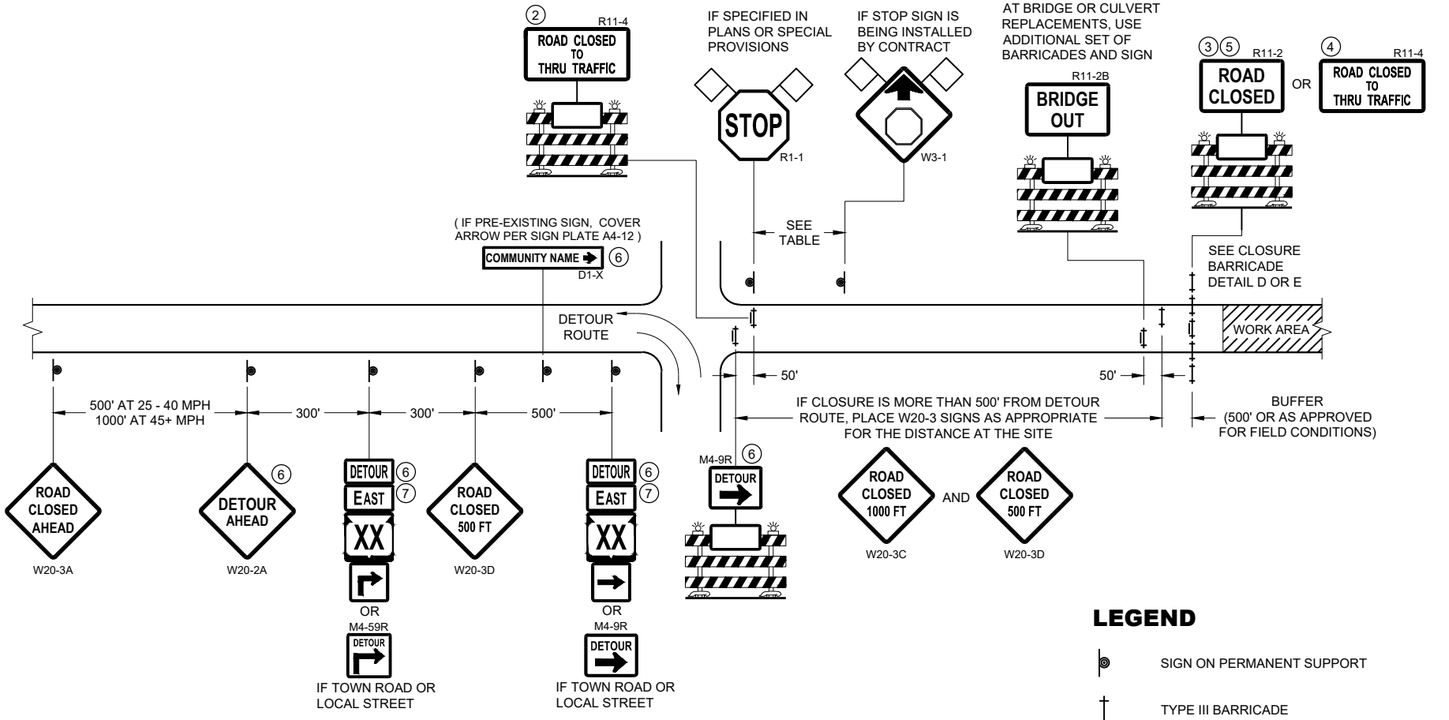
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S.D.D. 15 A 3-2b



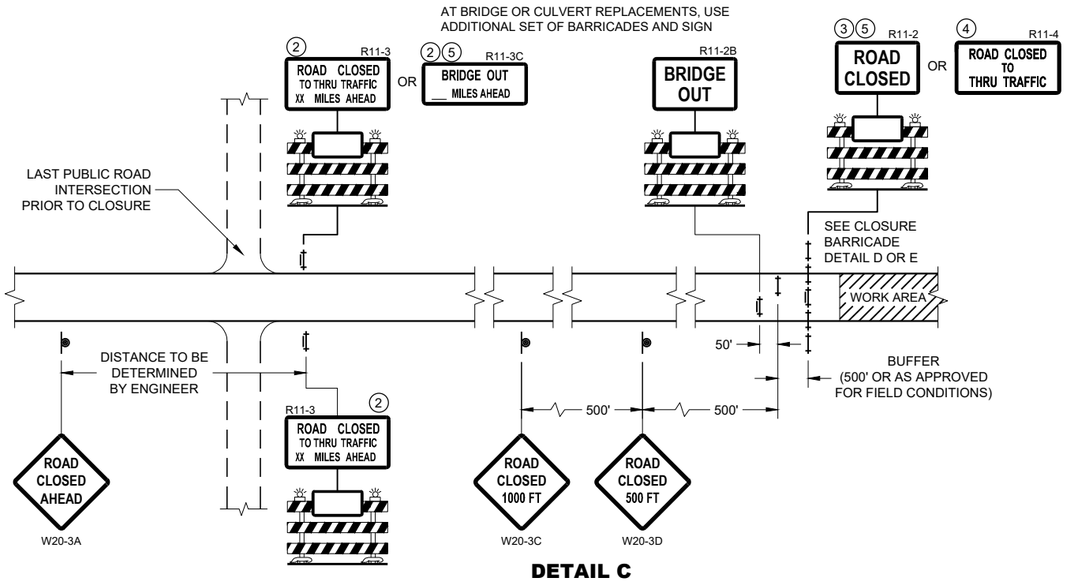
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

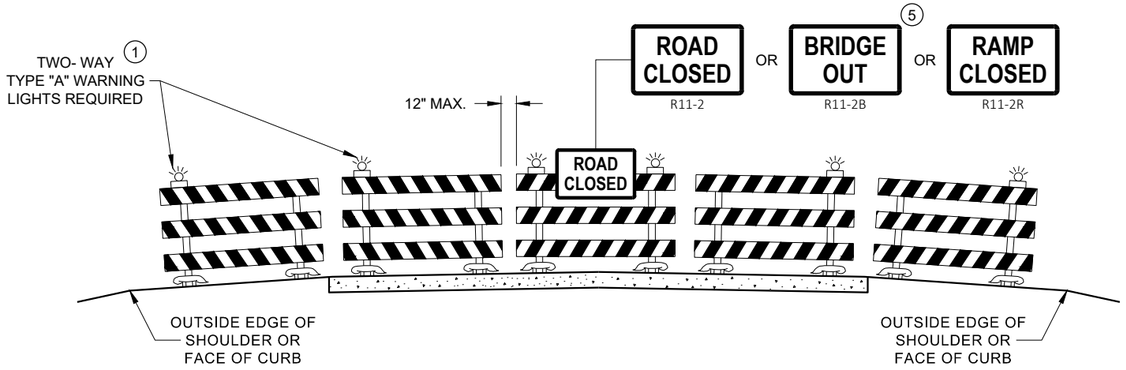
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

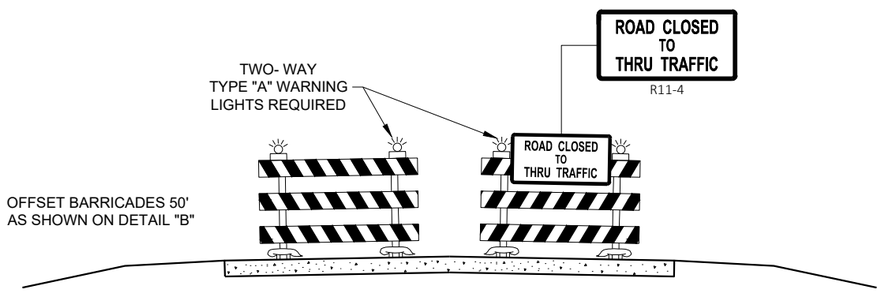
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SDD 15C02 - 09a

SDD 15C02 - 09a



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
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

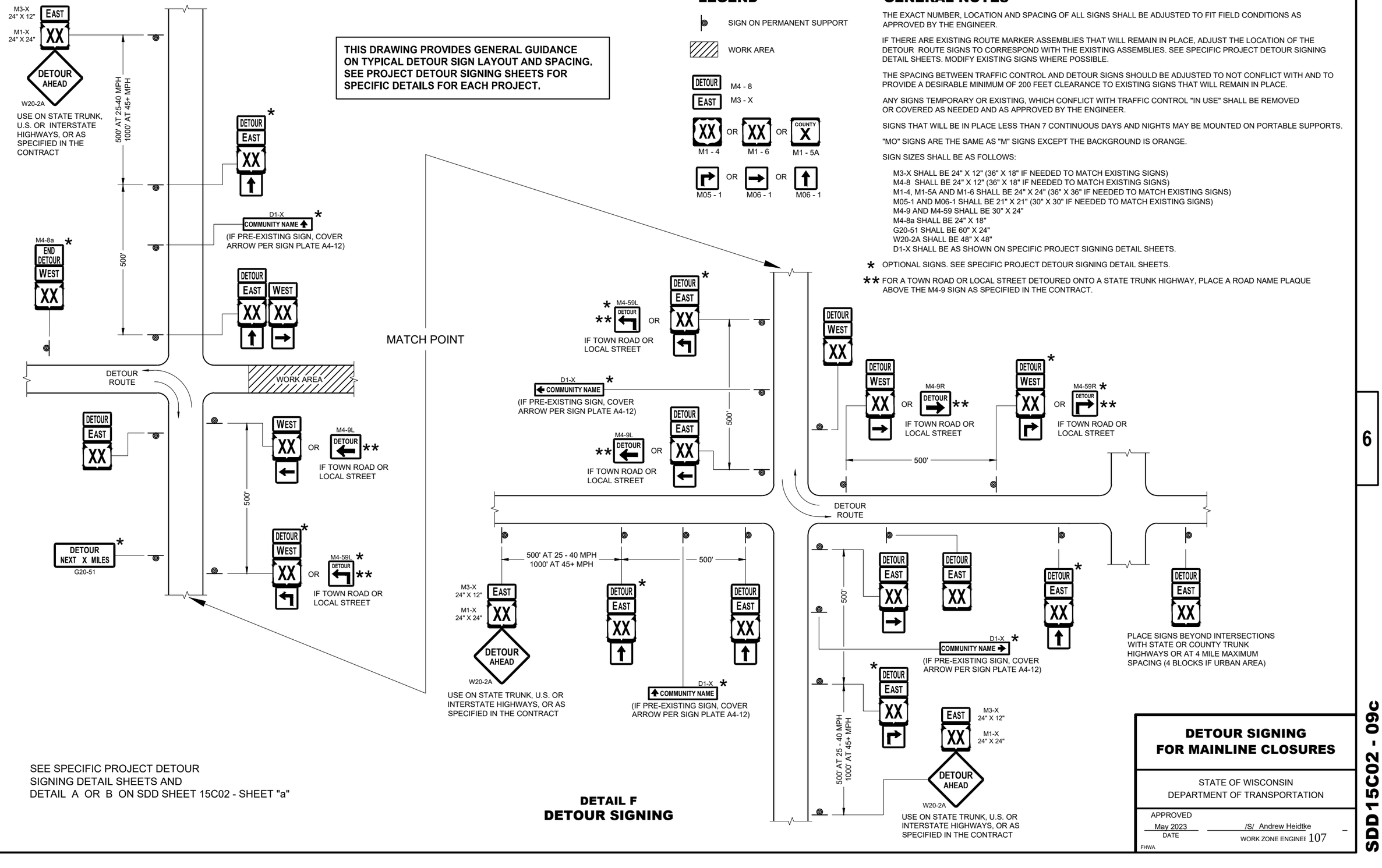
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

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

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

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



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

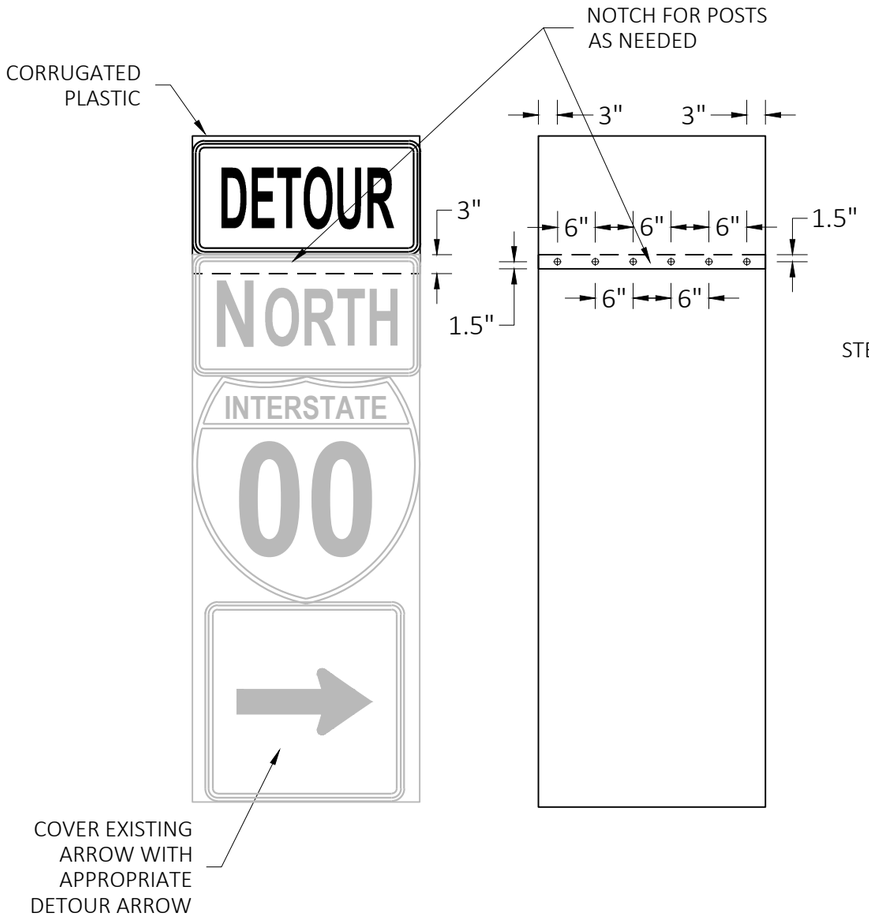
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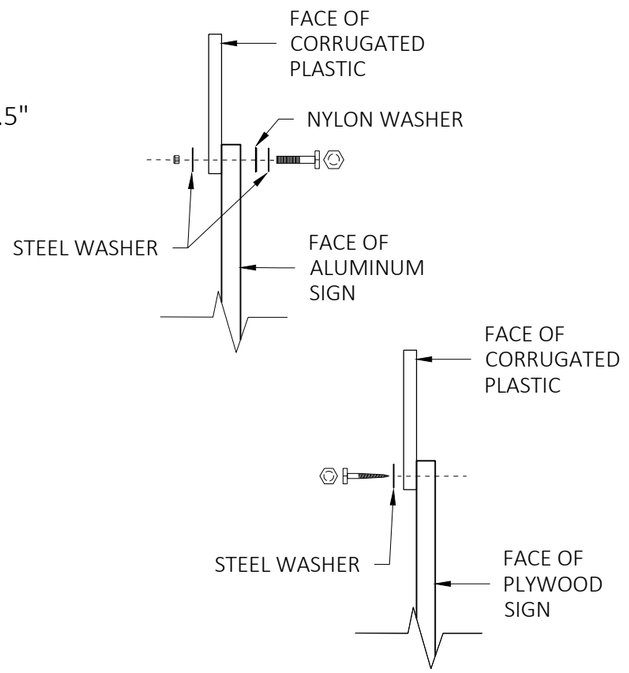
SDD 15C02 - 09c

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

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

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC3

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

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
1-1/4" O.D. x 3/8" I.D. x .080 NYLON

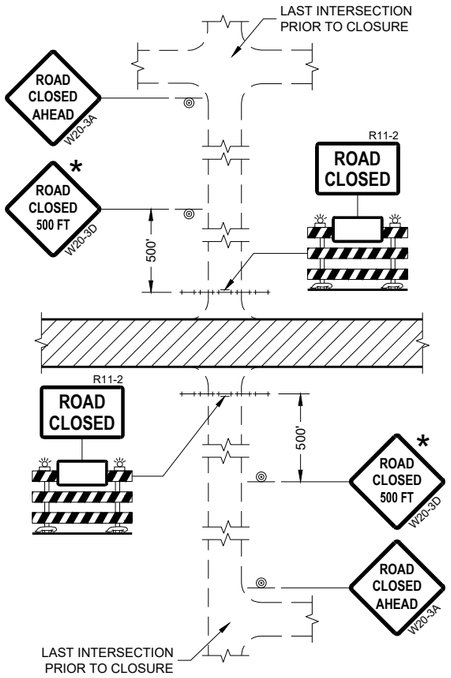
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

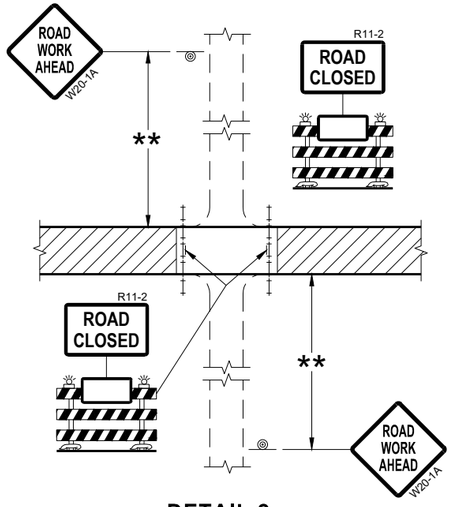
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
SDD 15C02-09h



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

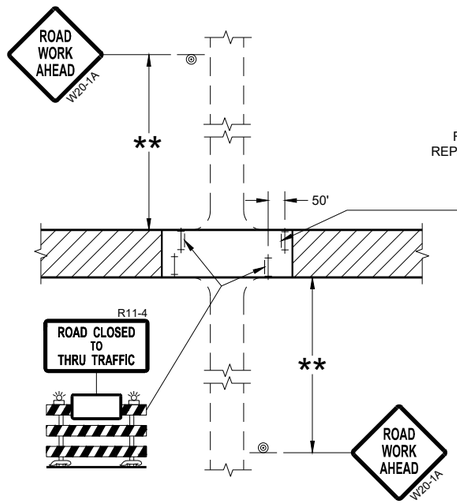
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

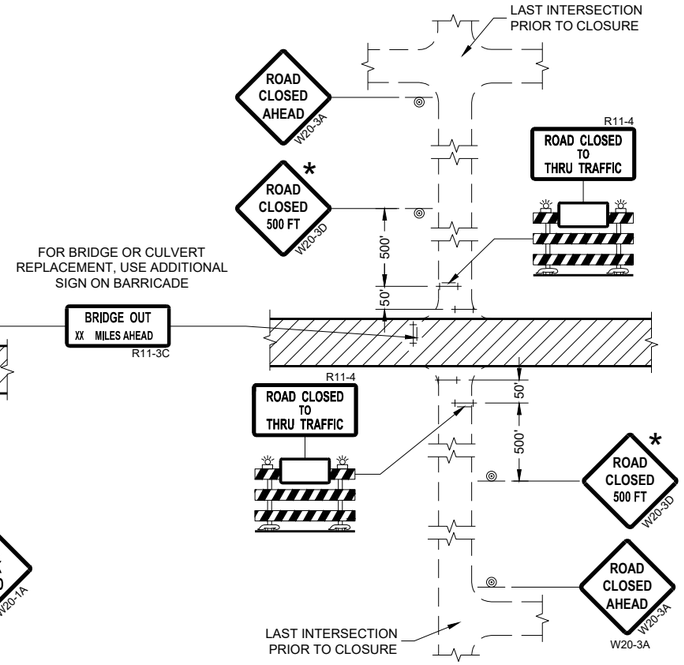
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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



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



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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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

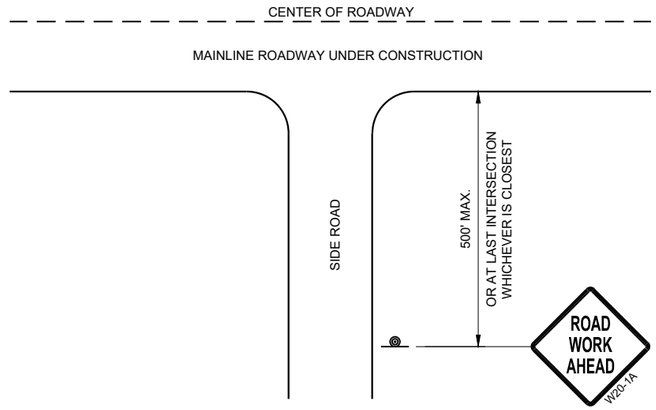
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

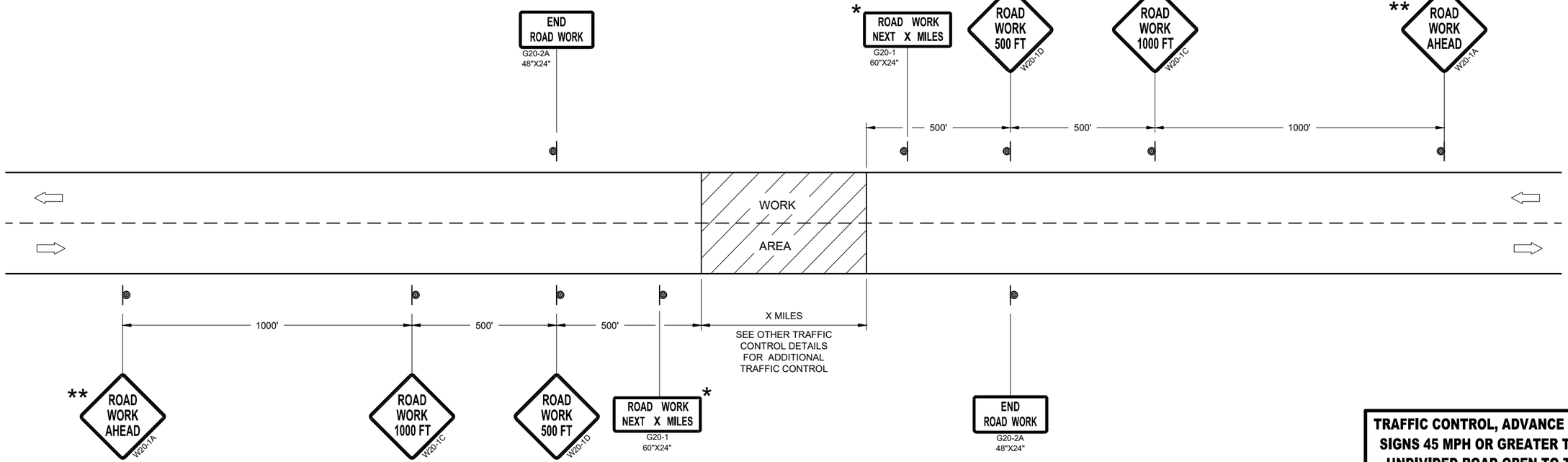
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

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.

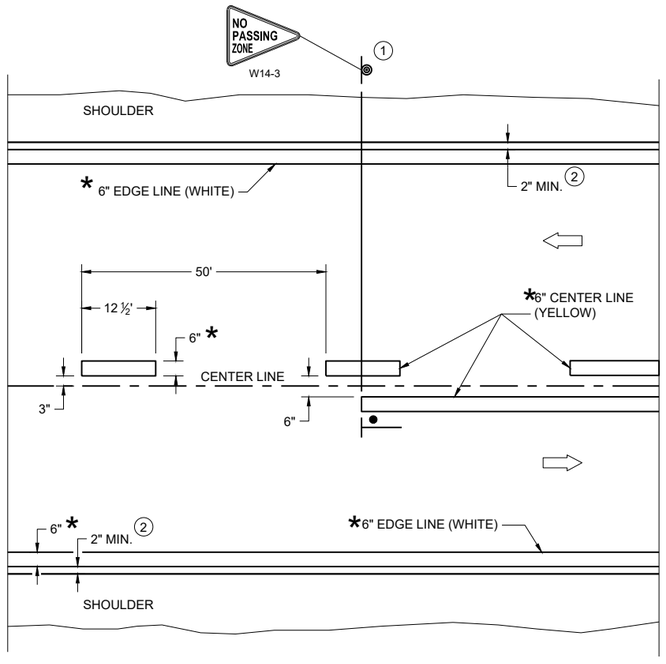
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

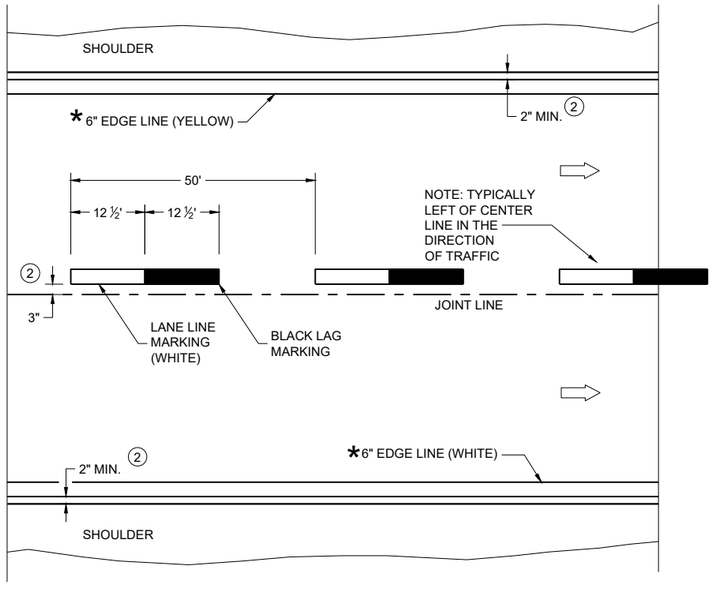
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

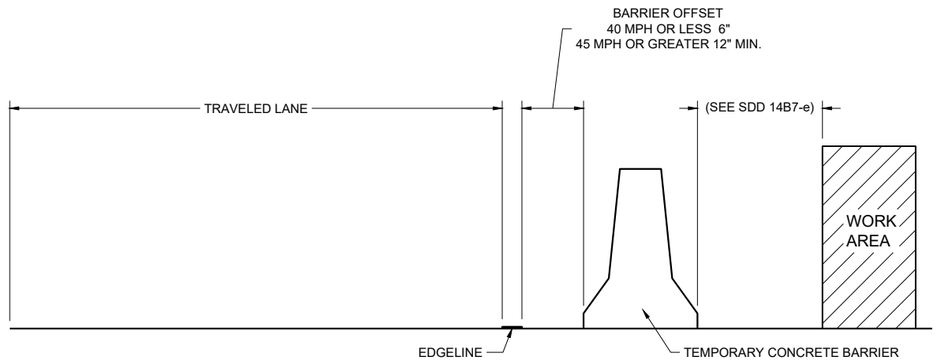
APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-24a

SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

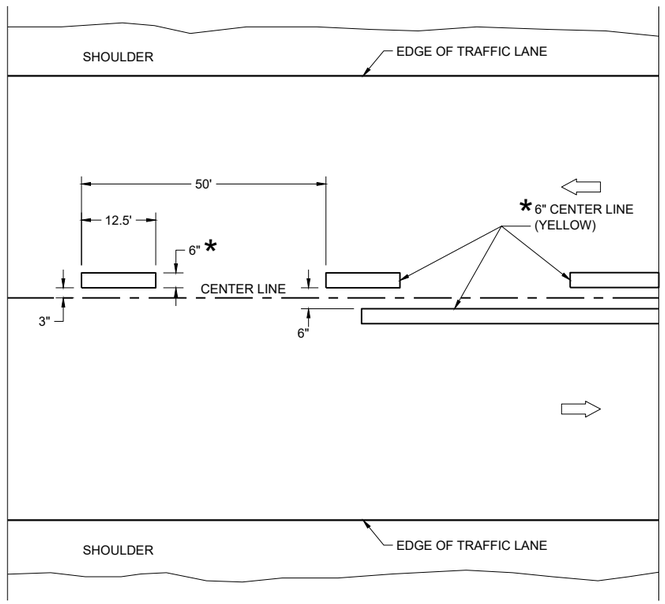
GENERAL NOTES

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

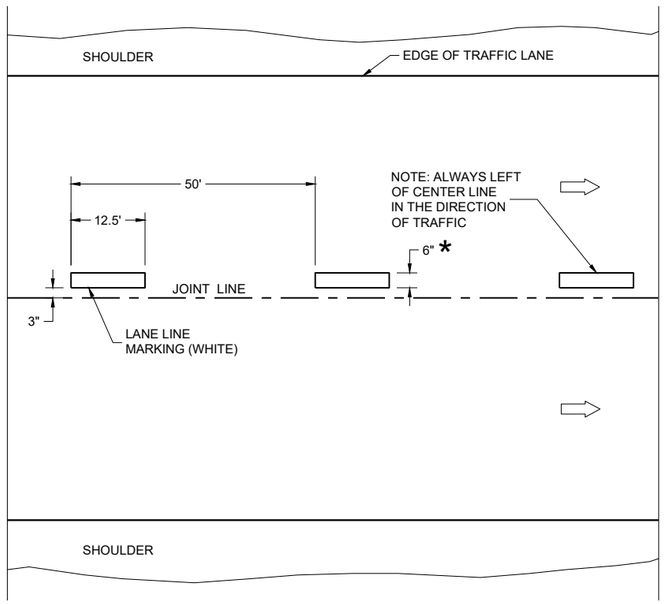
LEGEND

DIRECTION OF TRAFFIC

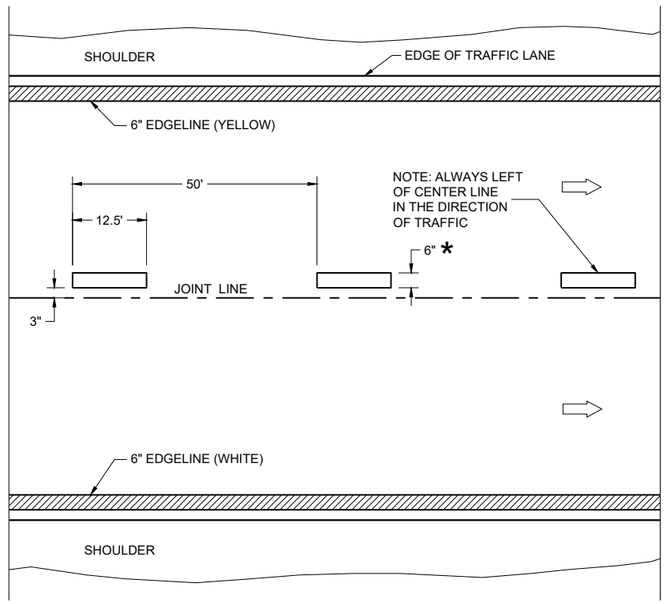
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6

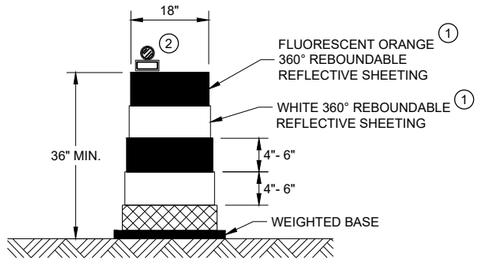
SDD 15C08-24b

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SDD 15C08-24b

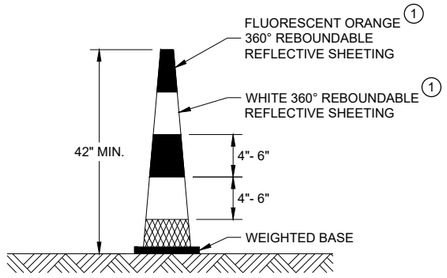
GENERAL NOTES

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



DRUM

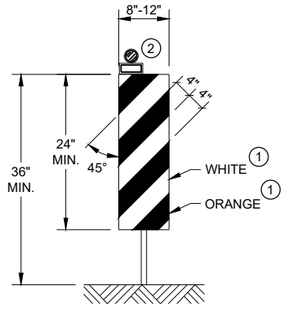
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

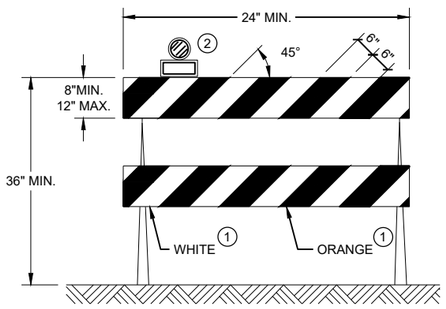
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



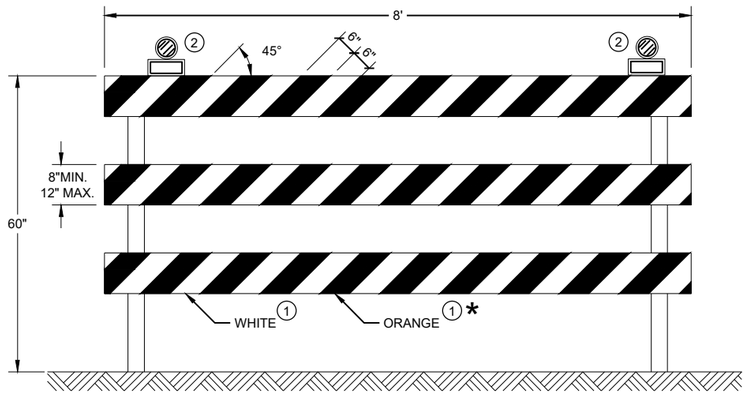
VERTICAL PANEL

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



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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

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.

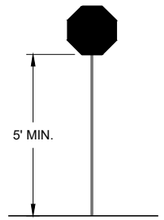
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

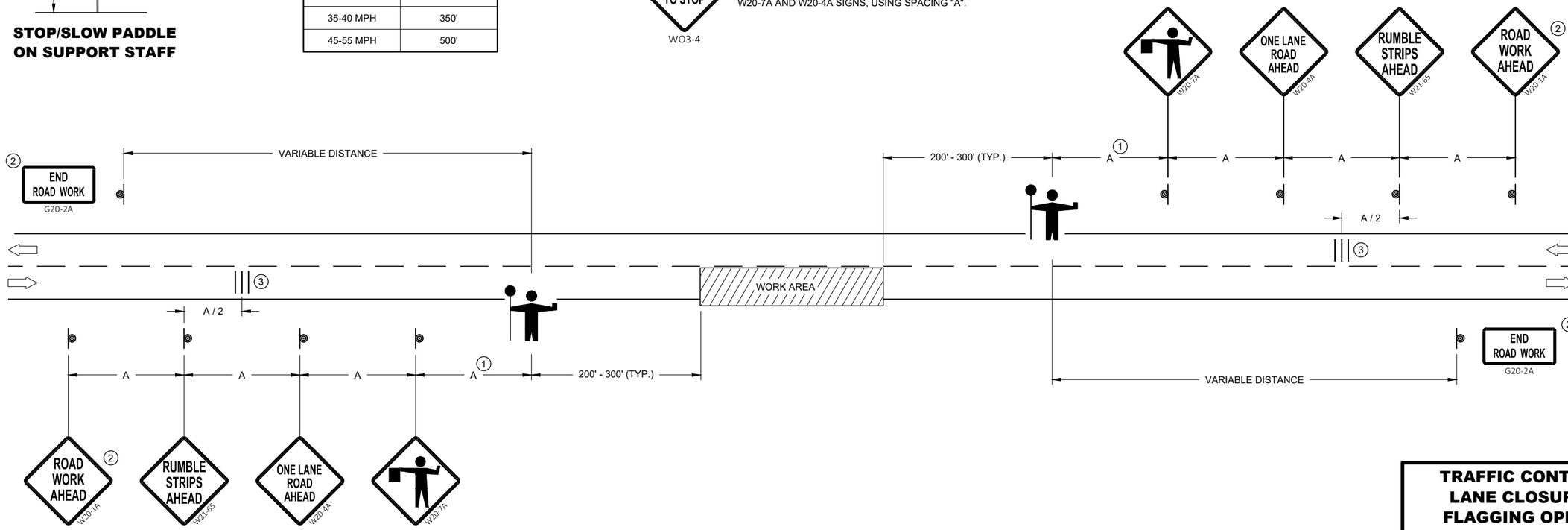
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 09a

6

SDD 15C12 - 09a

GENERAL NOTES

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL CONE 42-INCH

TRAFFIC CONTROL DRUM

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

AFAD — 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

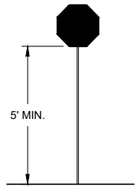
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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.

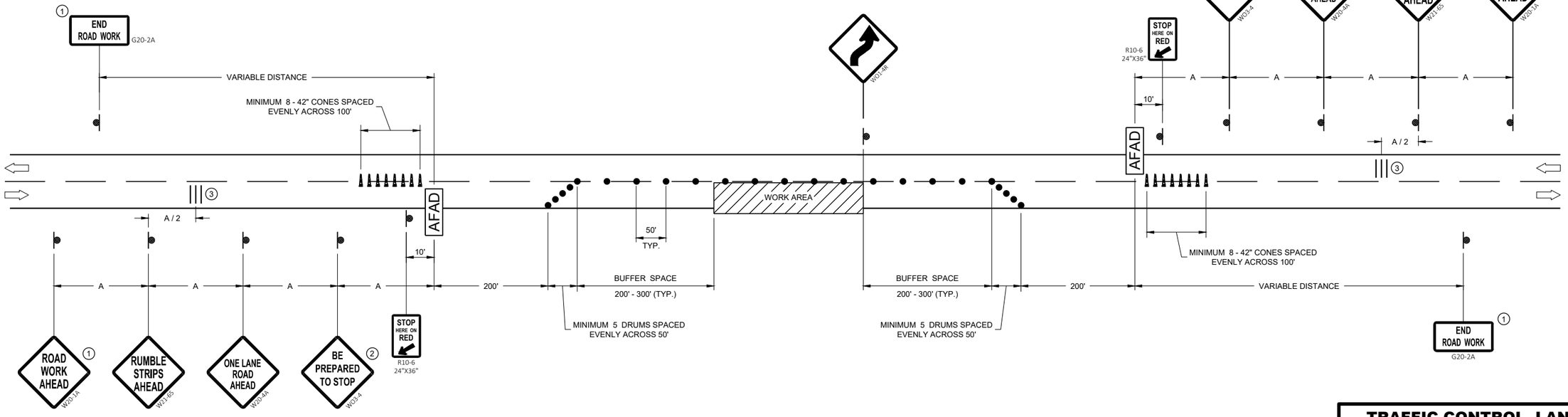
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



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'



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C12 - 09b

SDD 15C12 - 09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

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

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

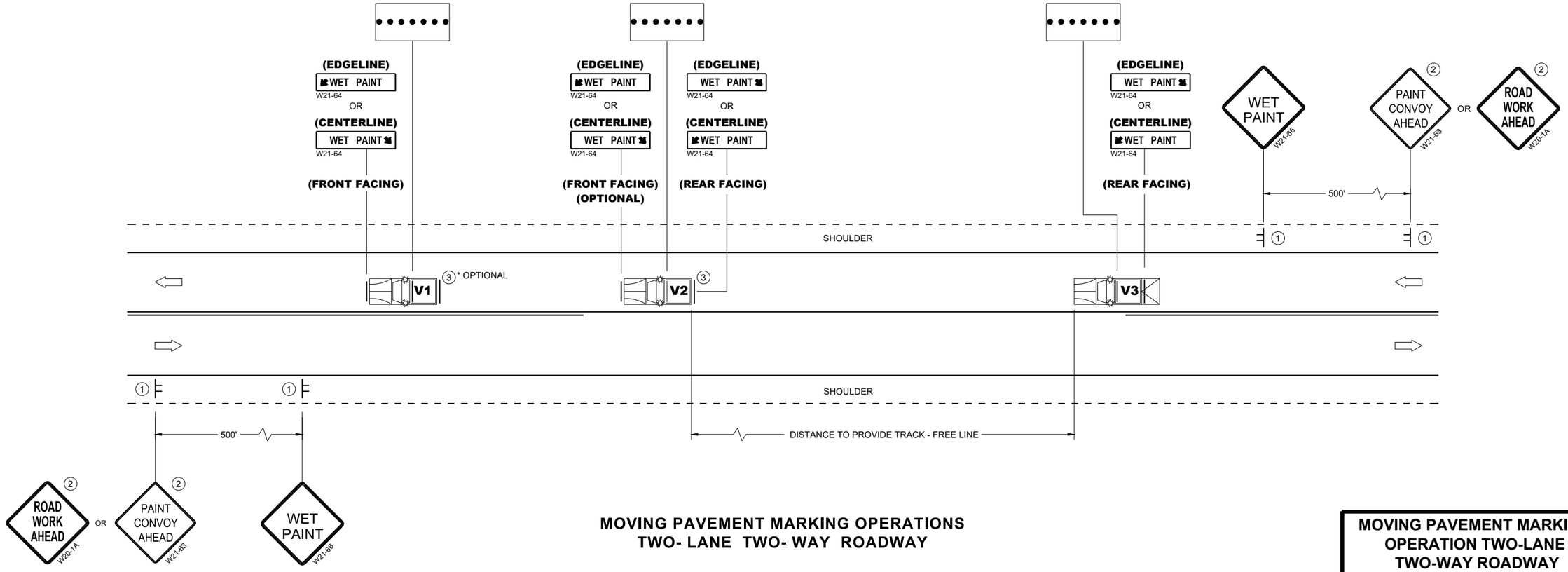
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(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.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

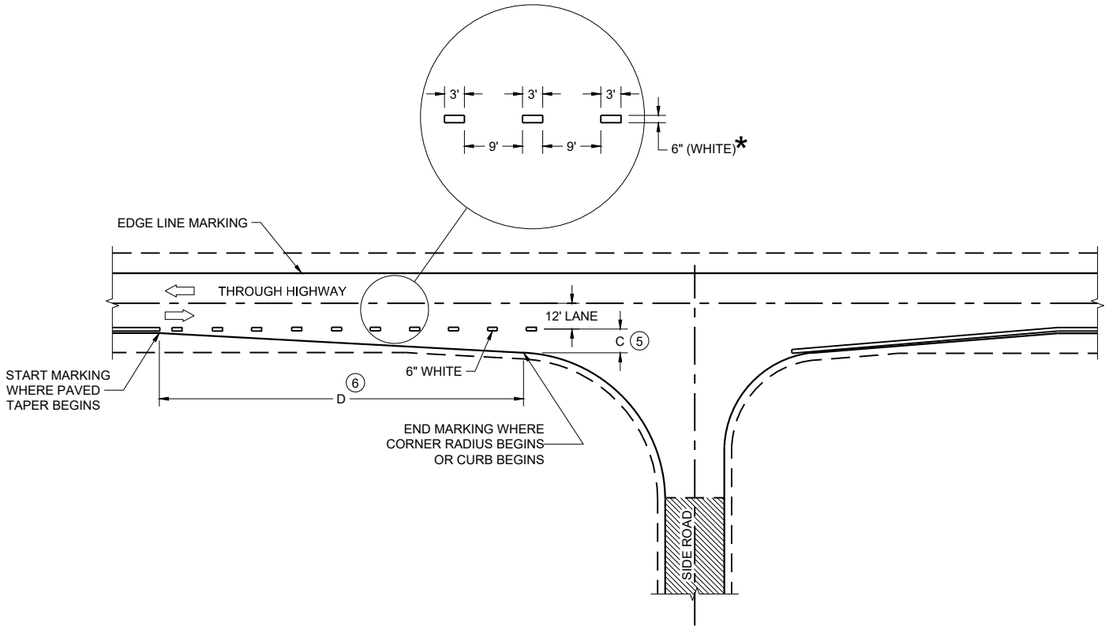
APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — STATE ELECTRICAL ENGINEER

FHWA

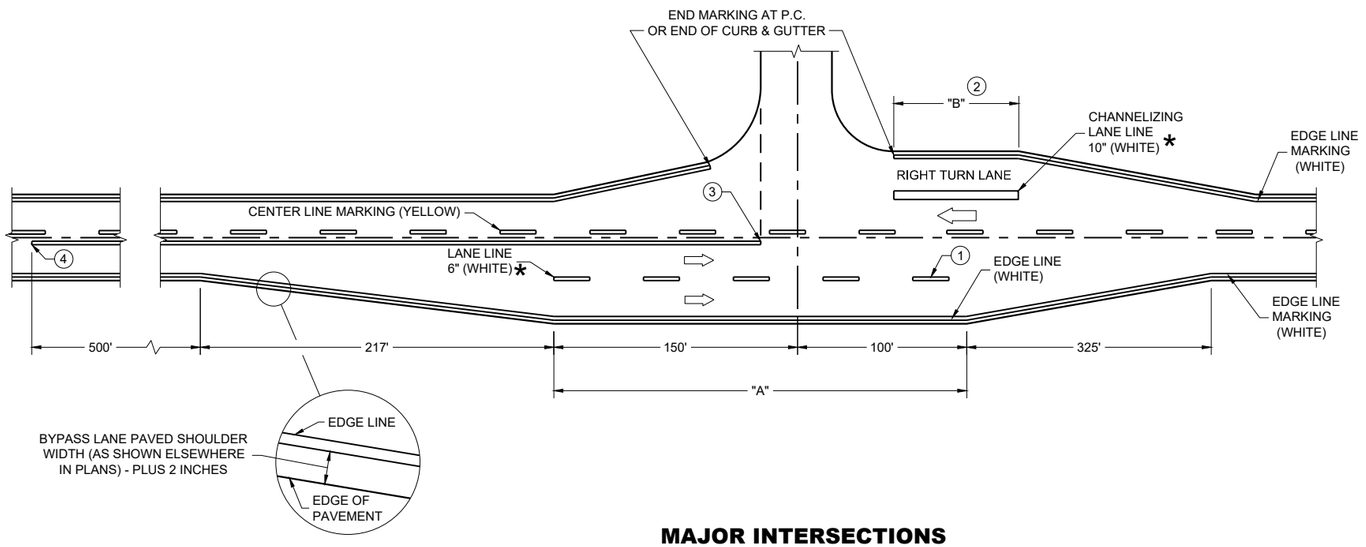
6

SDD 15C19-11a

SDD 15C19-11a



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

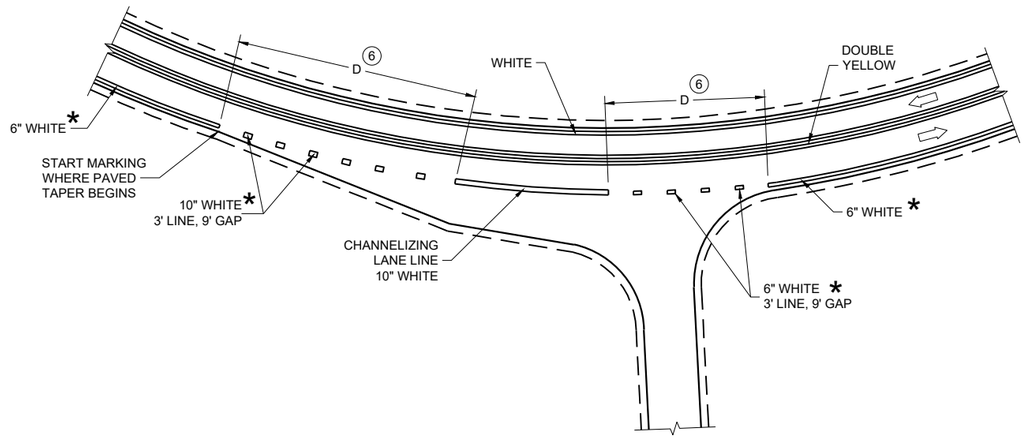
GENERAL NOTES

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

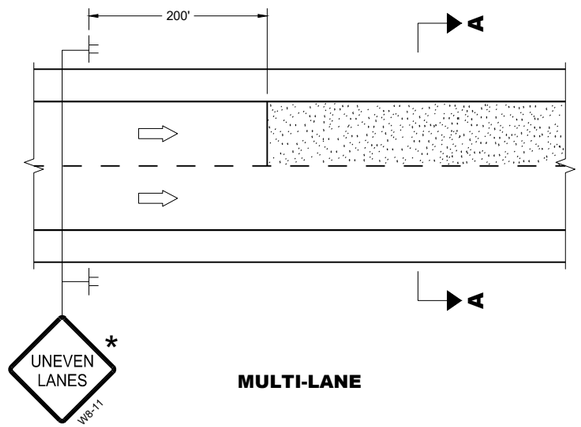
DIRECTION OF TRAVEL



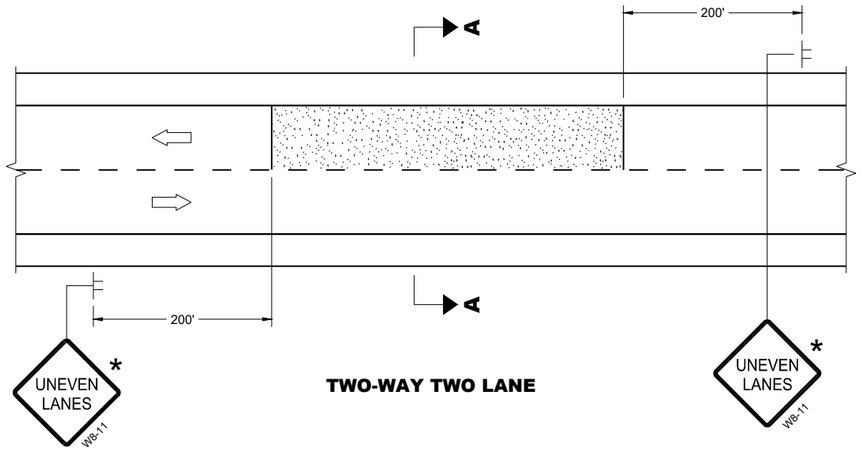
INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

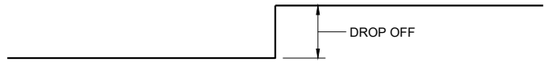
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MULTI-LANE

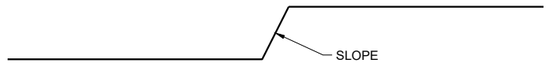


TWO-WAY TWO LANE

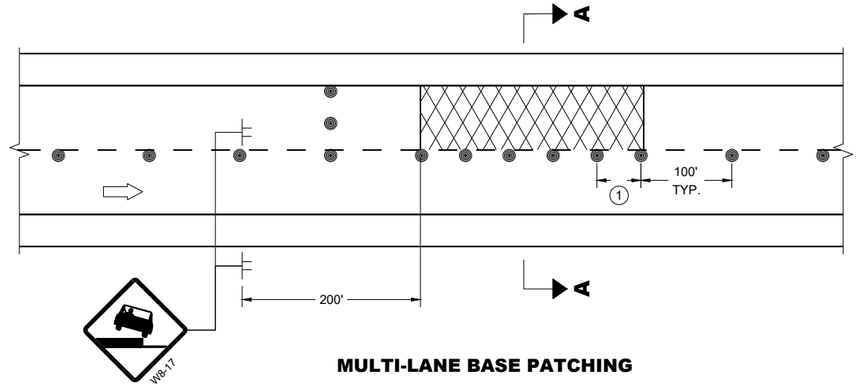


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

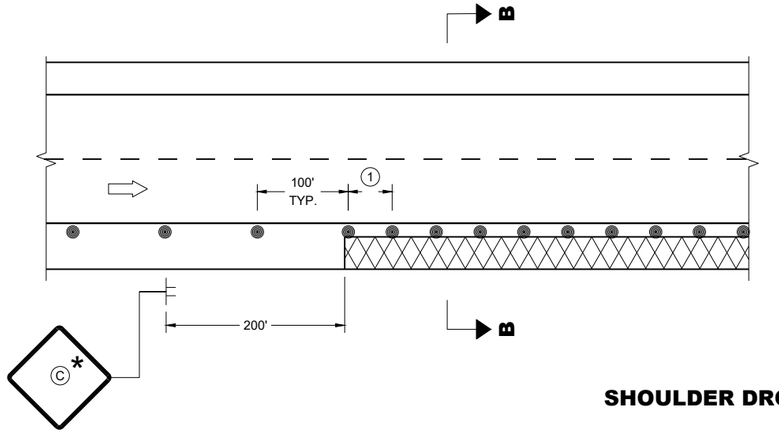
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

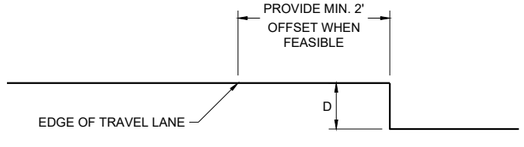
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15D39-03

GENERAL NOTES

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

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

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

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

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

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

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

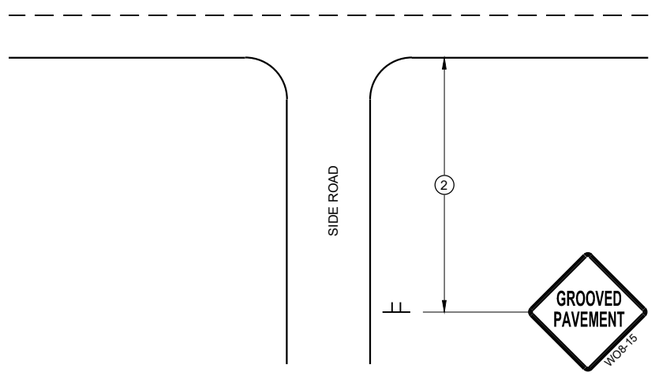
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

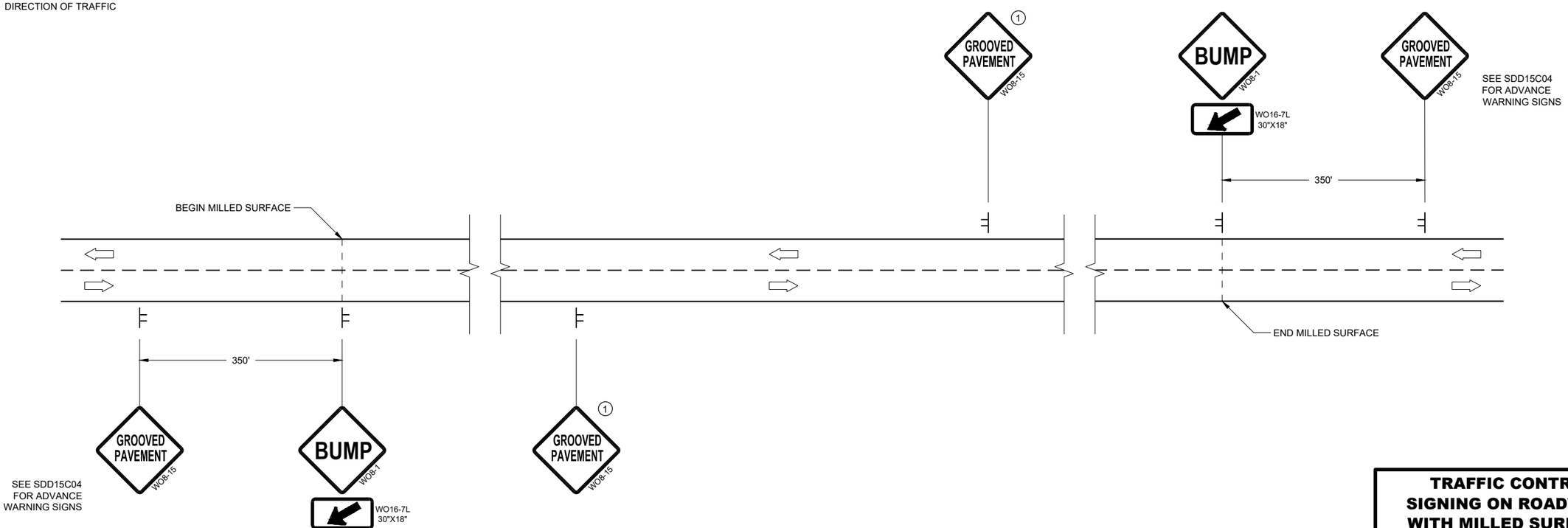
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D44 - 02

GENERAL NOTES

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

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

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

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

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

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

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

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

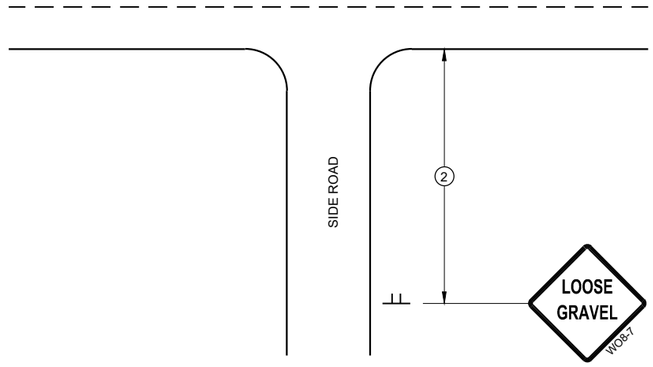
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

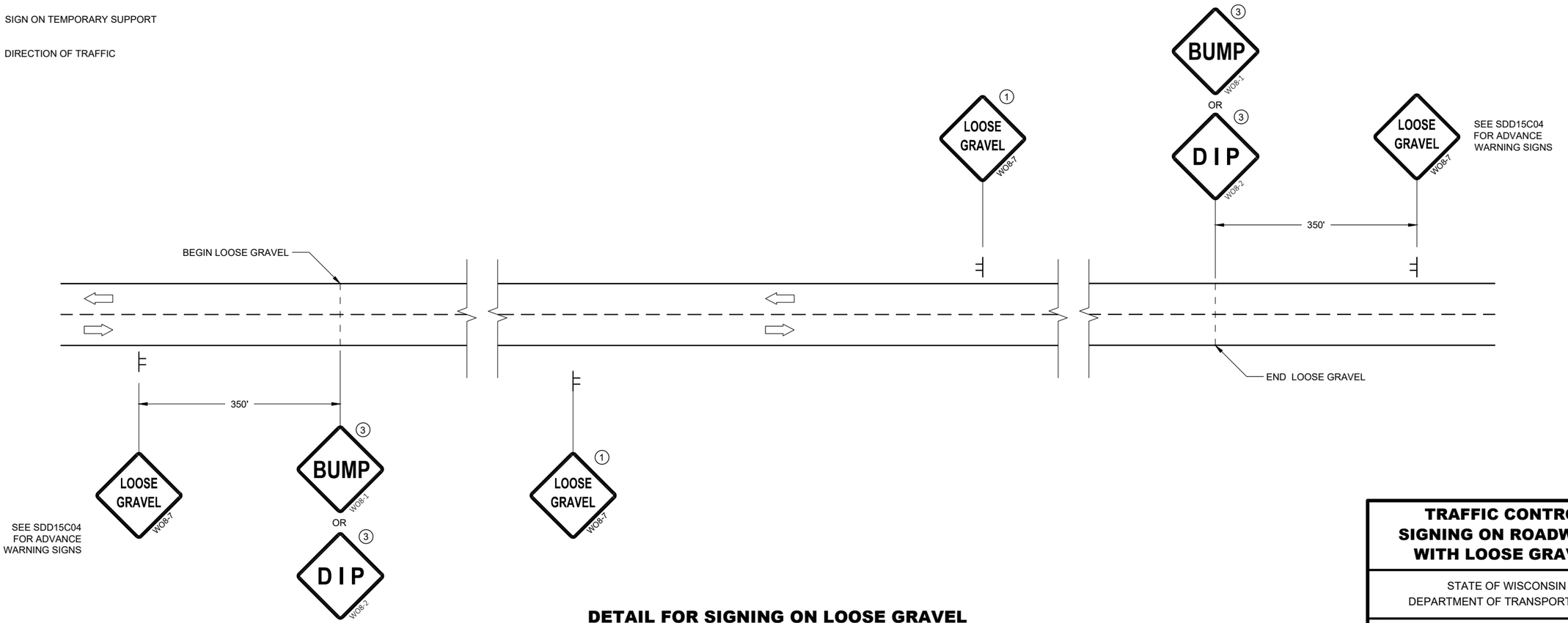
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D45 - 03

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

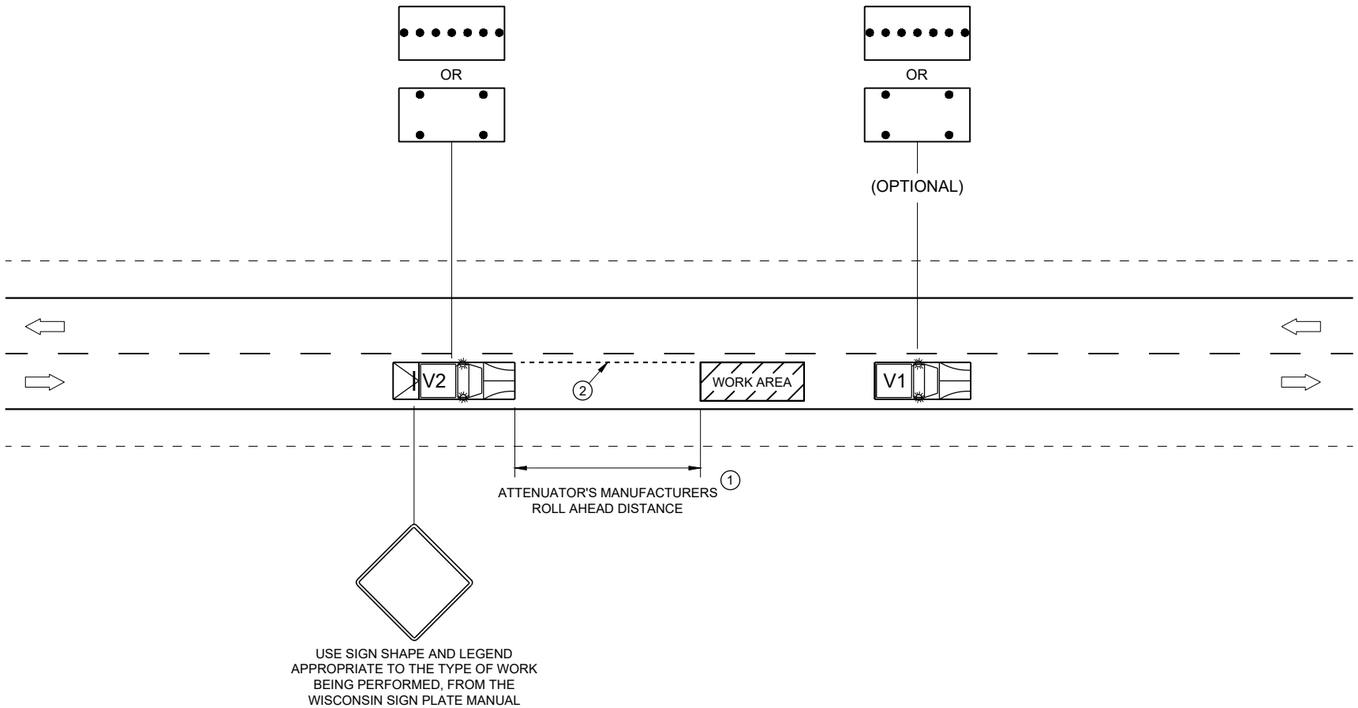
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

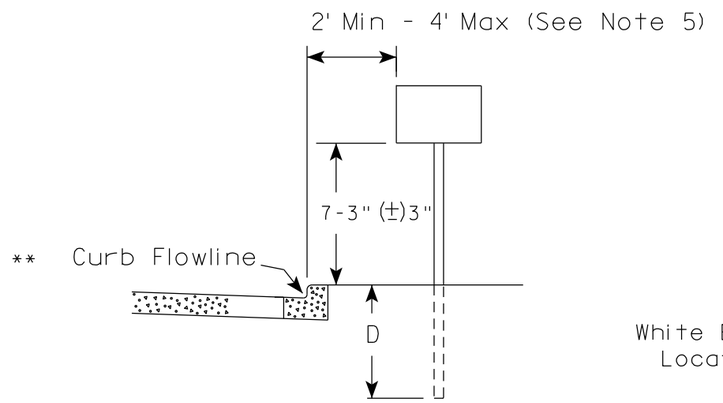
APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

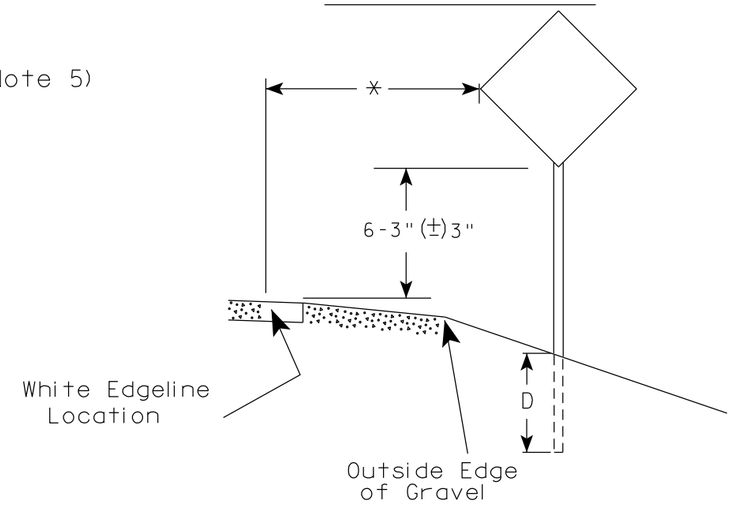
6

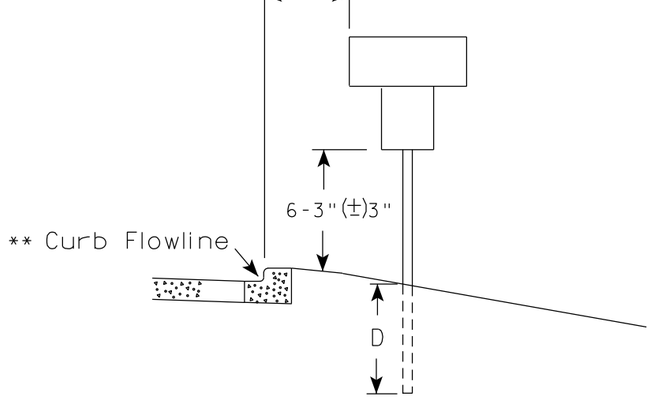
SDD 15D51 - 01

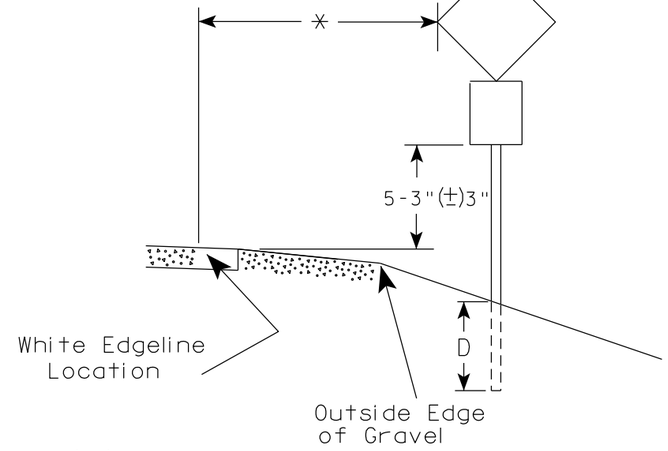
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

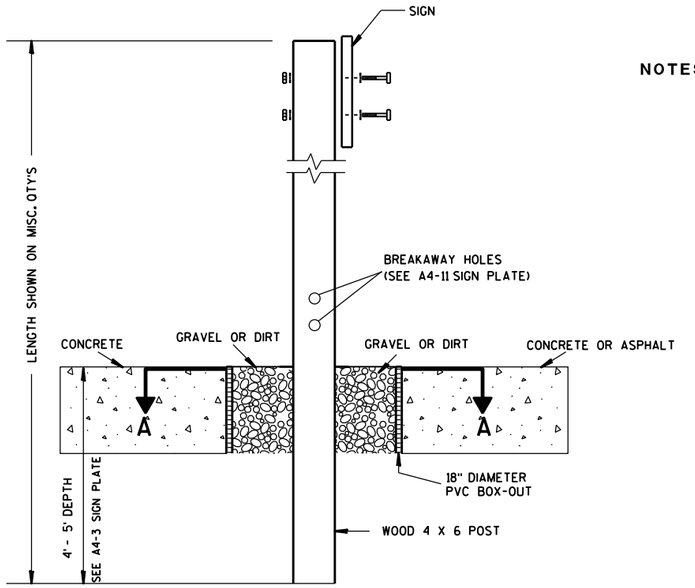
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

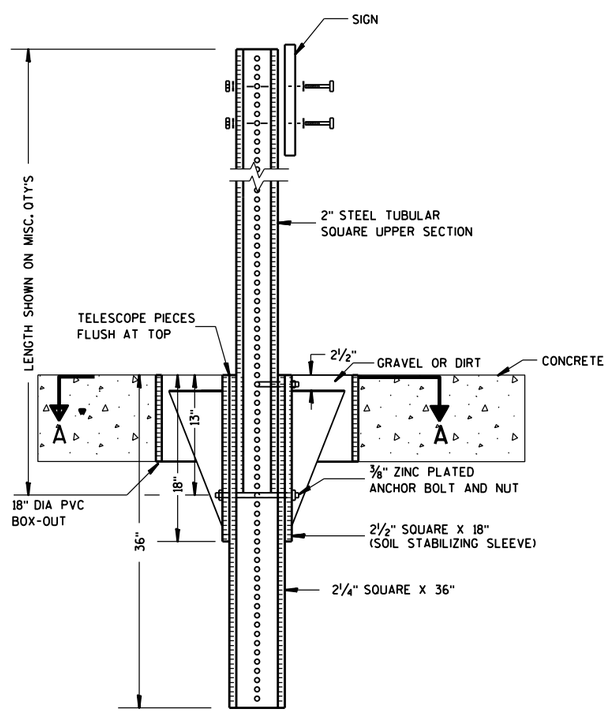
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 122	E



ELEVATION VIEW

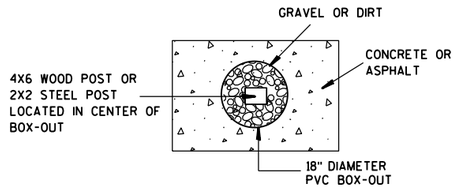
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

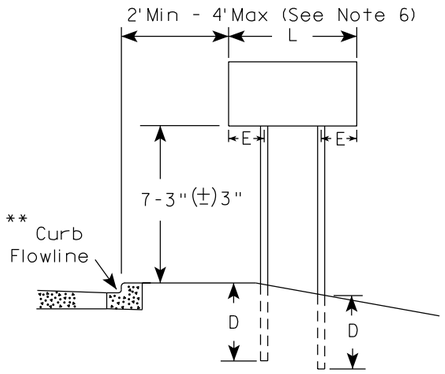
APPROVED Matthew R Rauch
for State Traffic Engineer

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

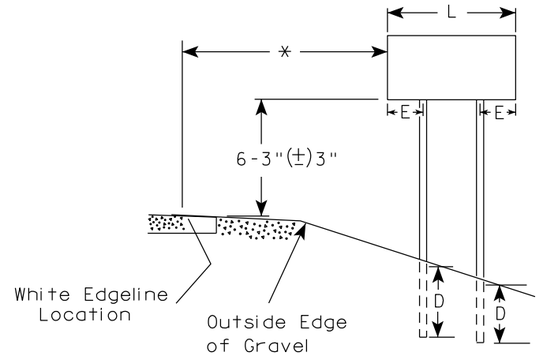
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

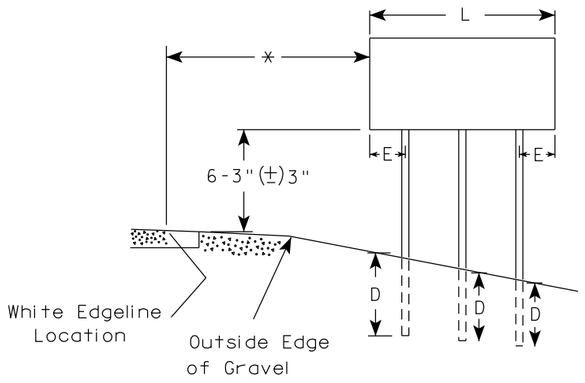
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

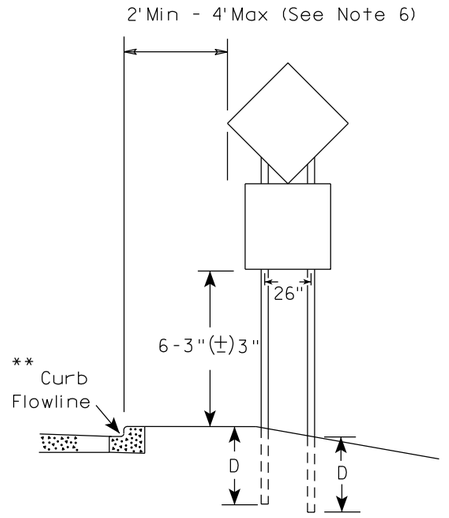
URBAN AREA



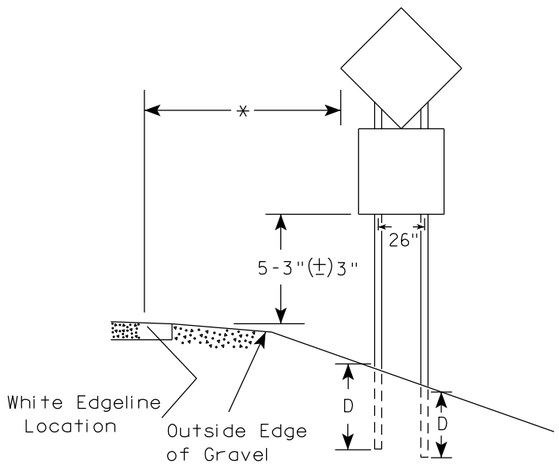
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

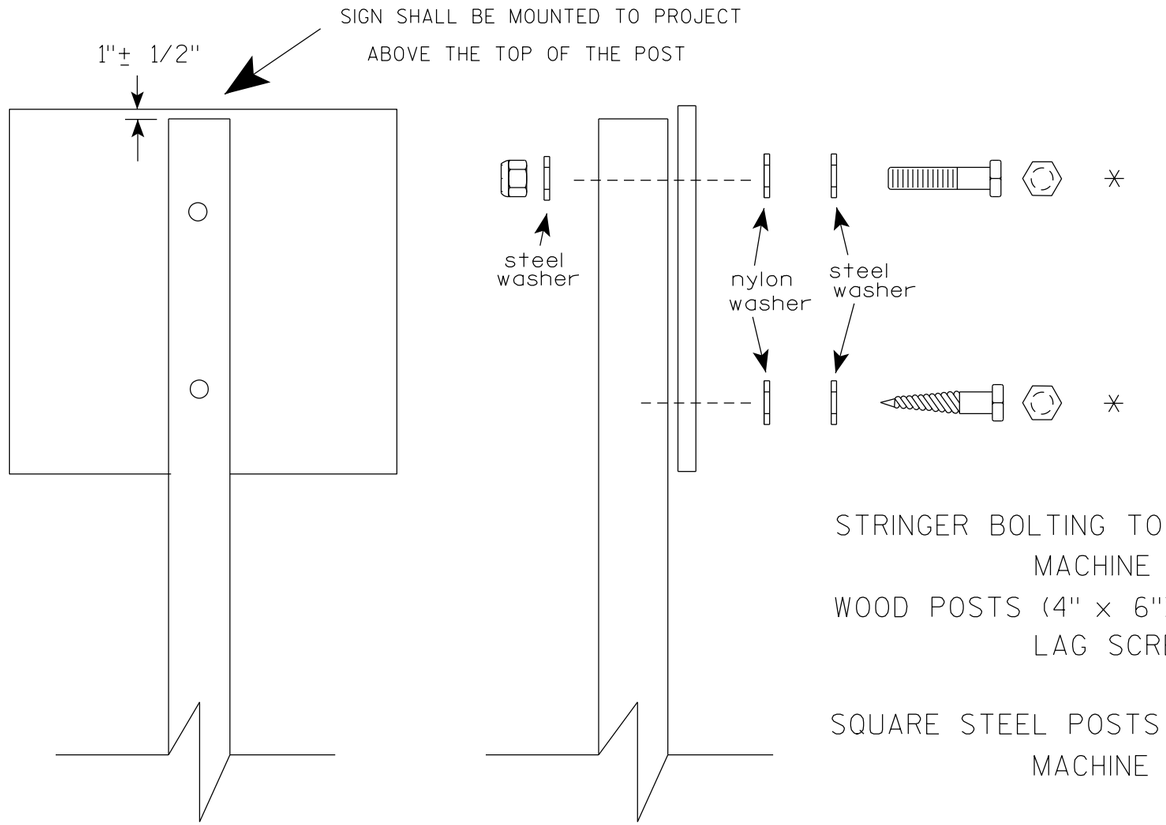
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 124	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

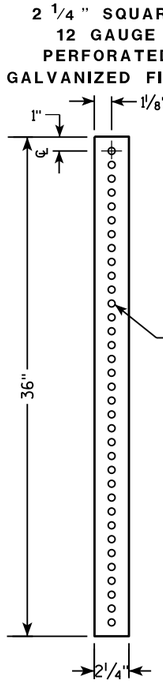
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

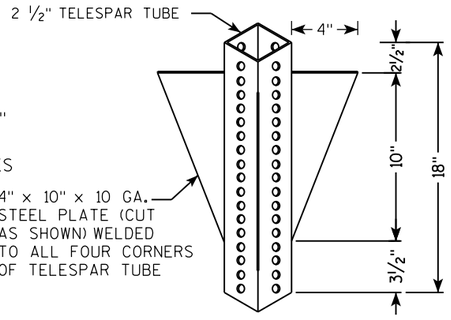
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

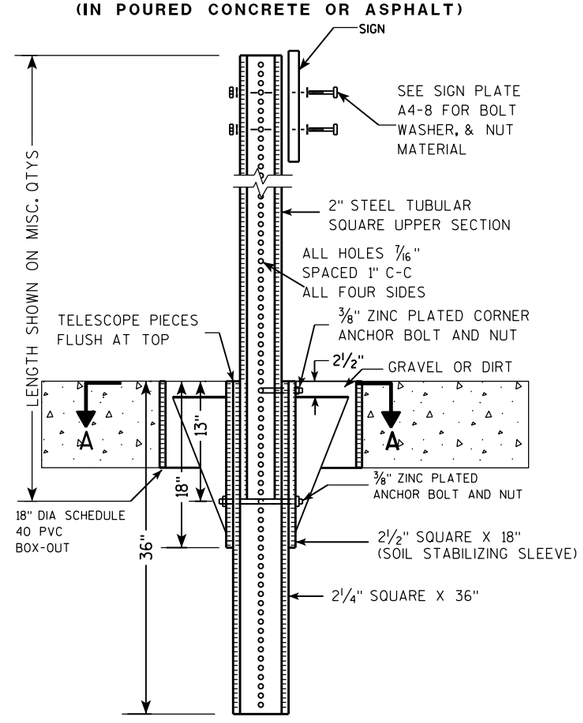
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



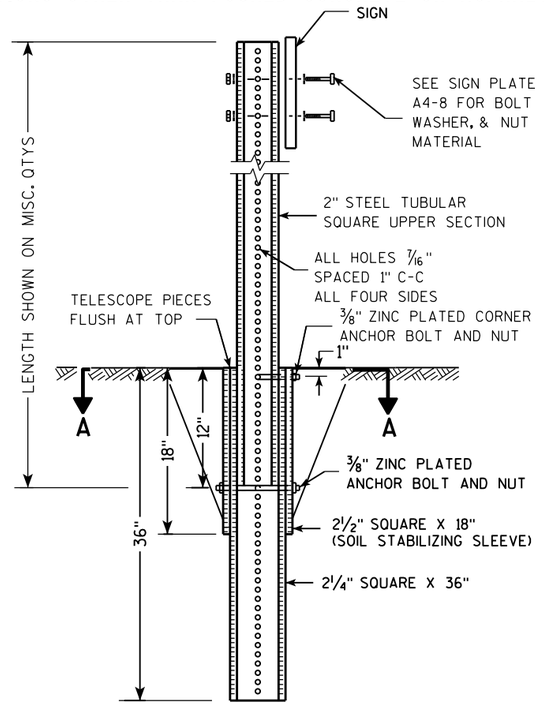
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

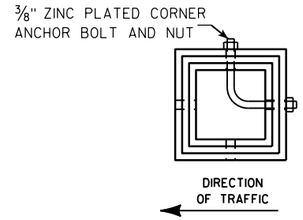


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

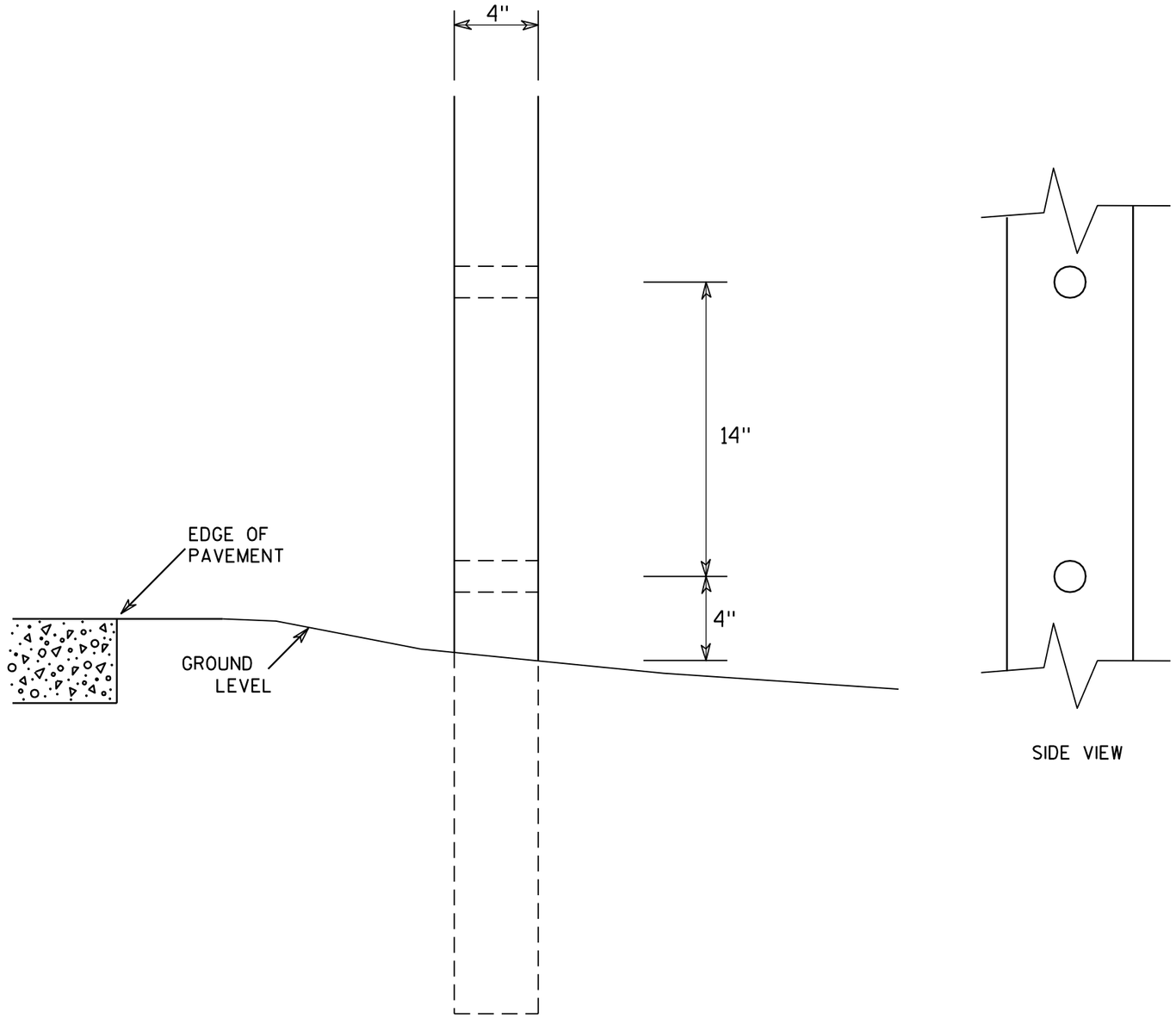
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

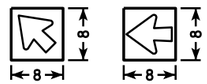
APPROVED Chester J Spang
for State Traffic Engineer

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

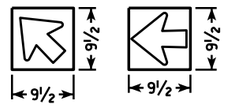
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 127	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

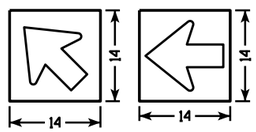




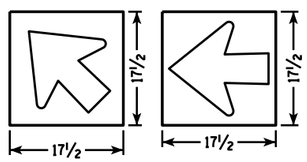










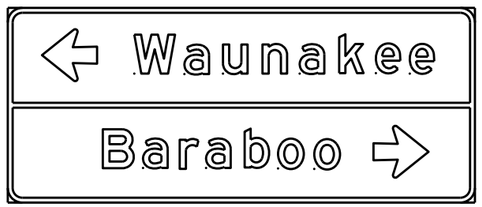


GENERAL NOTES

1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

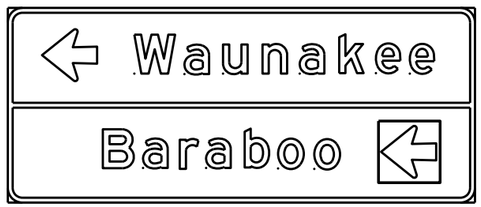
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

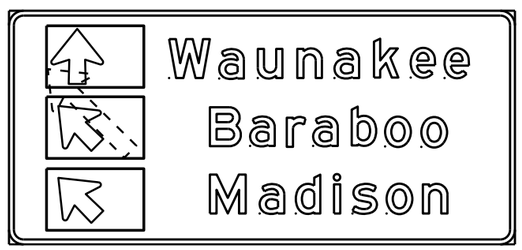
BEFORE





AFTER





DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

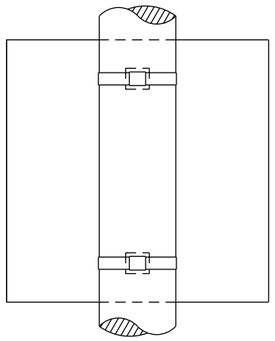
A4-12.2

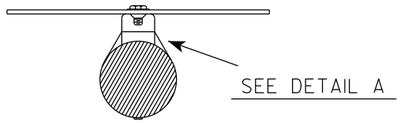
PROJECT NO:

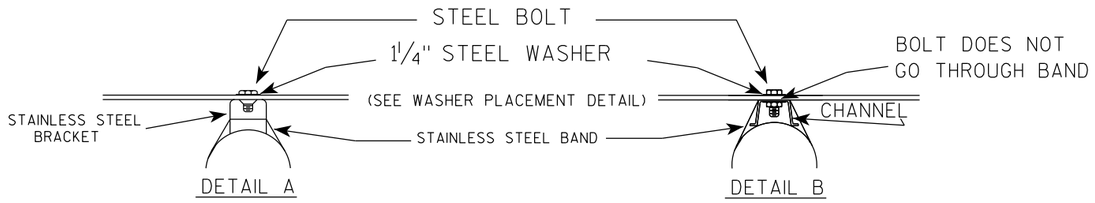
SHEET NO: E

BANDING

SINGLE SIGN



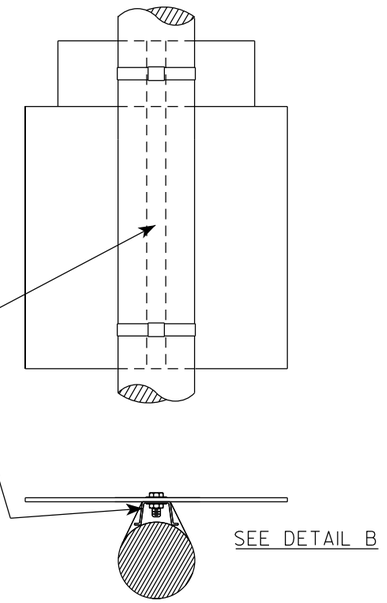




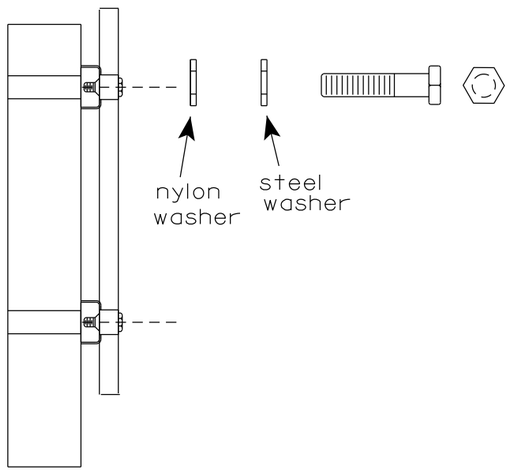
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

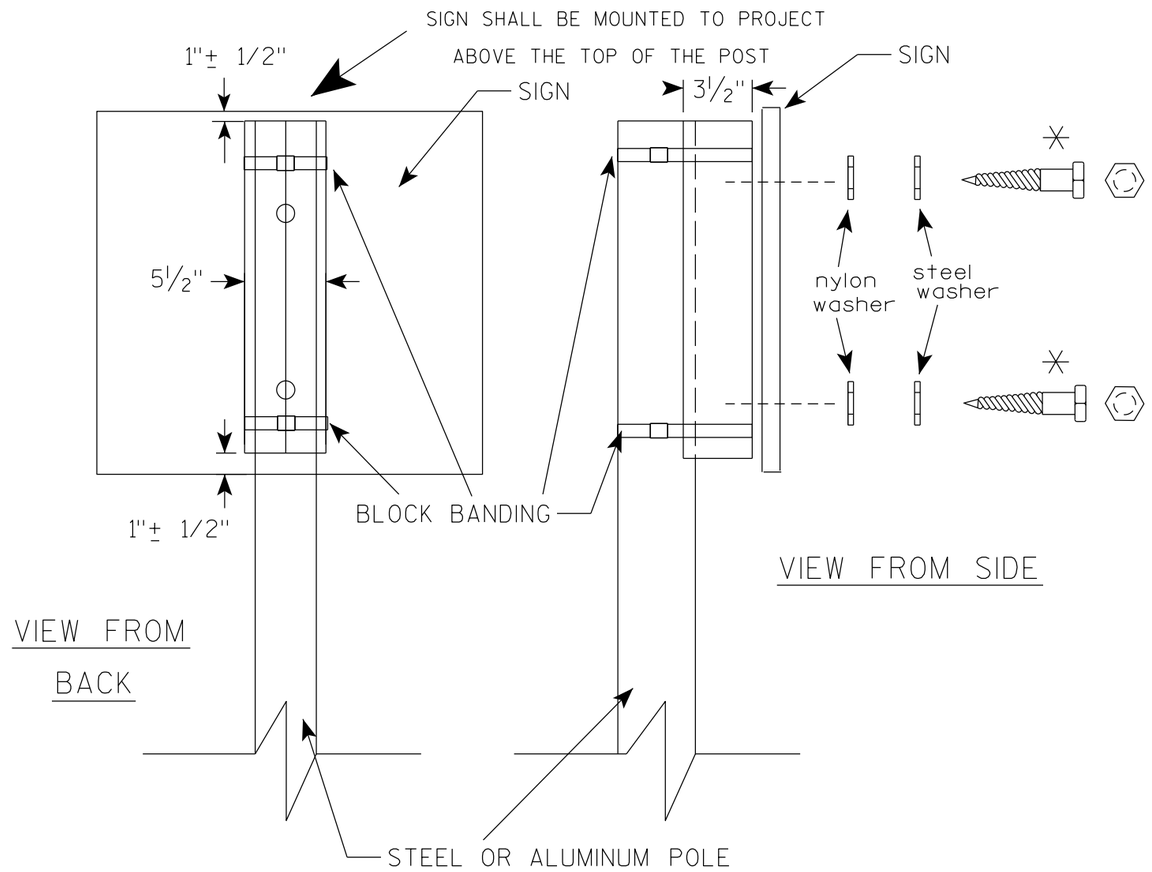
WISCONSIN DEPT OF TRANSPORTATION

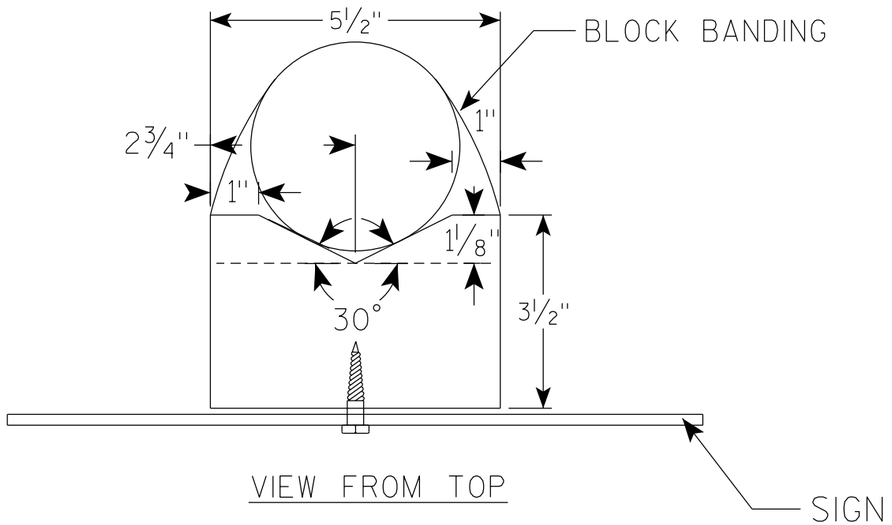
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 129	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

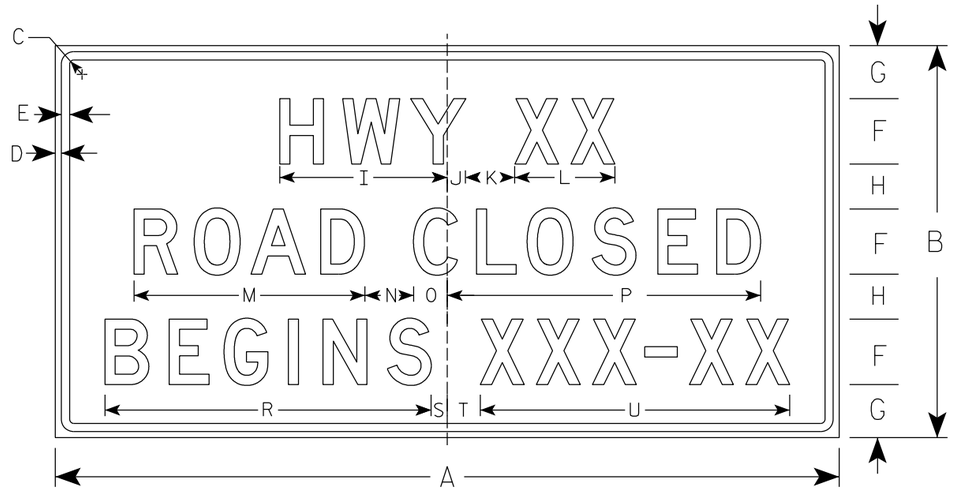
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

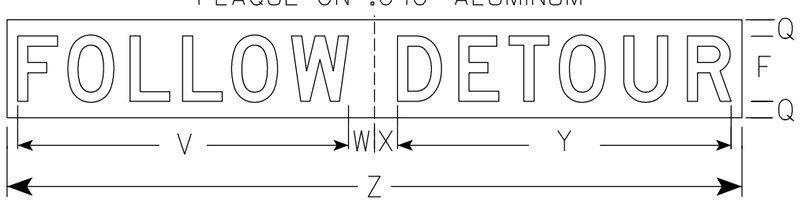
PROJECT NO:

SHEET NO: 130 E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

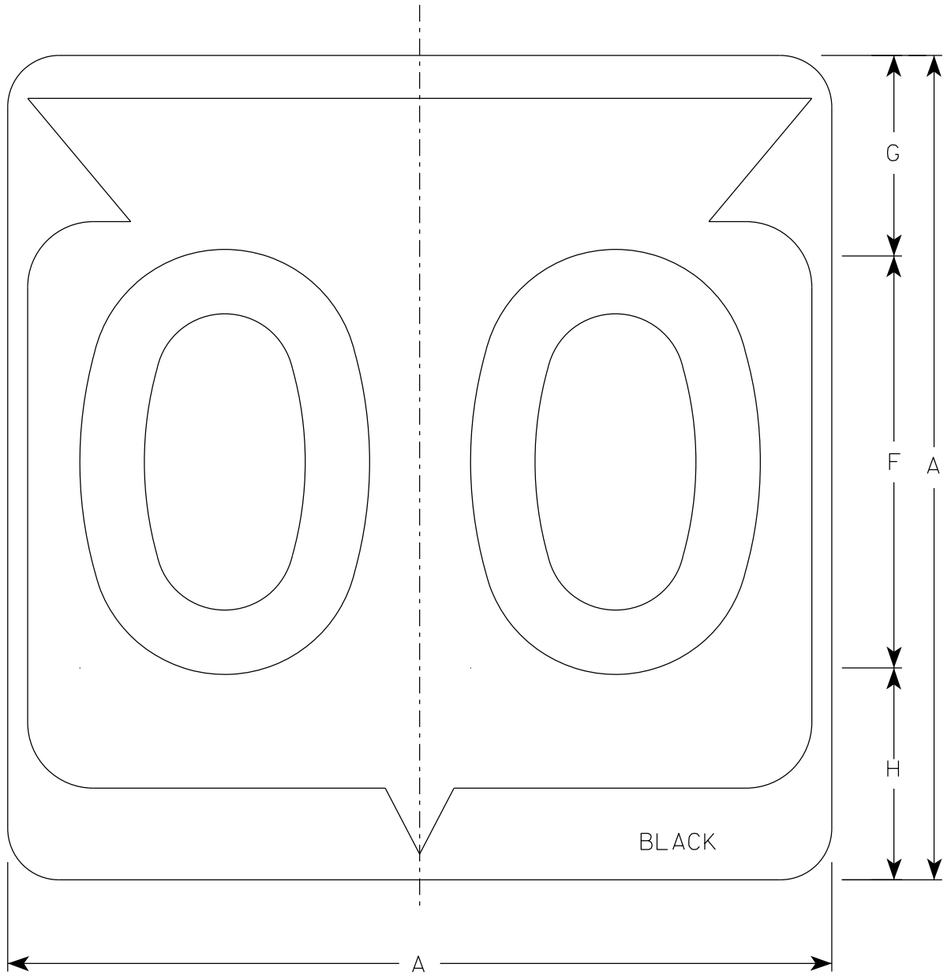
STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

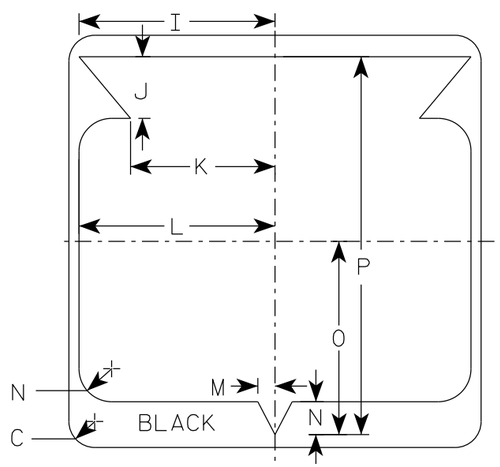
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 131 E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C



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

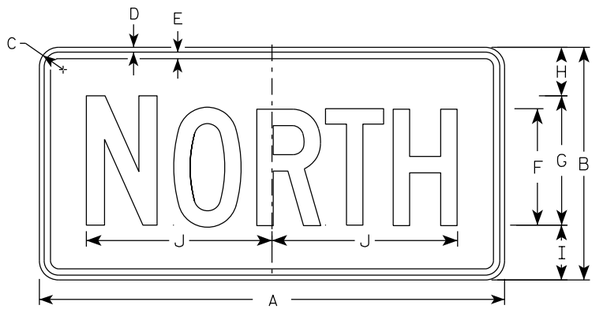
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

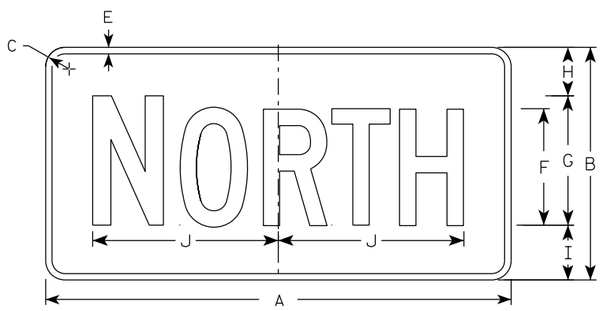
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

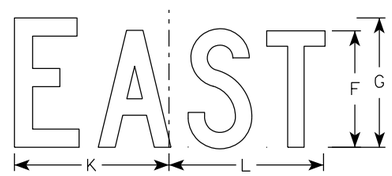
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 132	E



M3-1
MM3-1
MP3-1



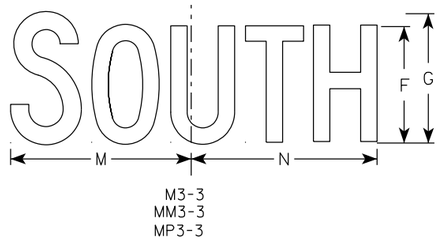
MB3-1
MK3-1
MN3-1



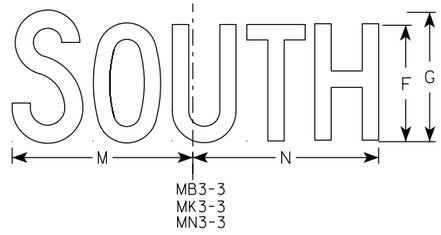
M3-2
MM3-2
MP3-2



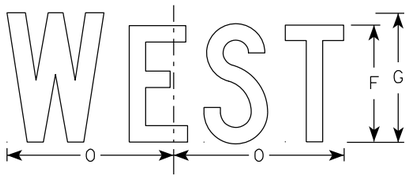
MB3-2
MK3-2
MN3-2



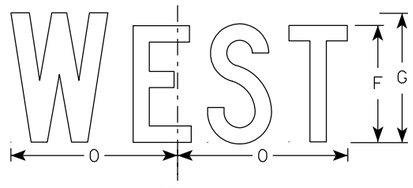
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

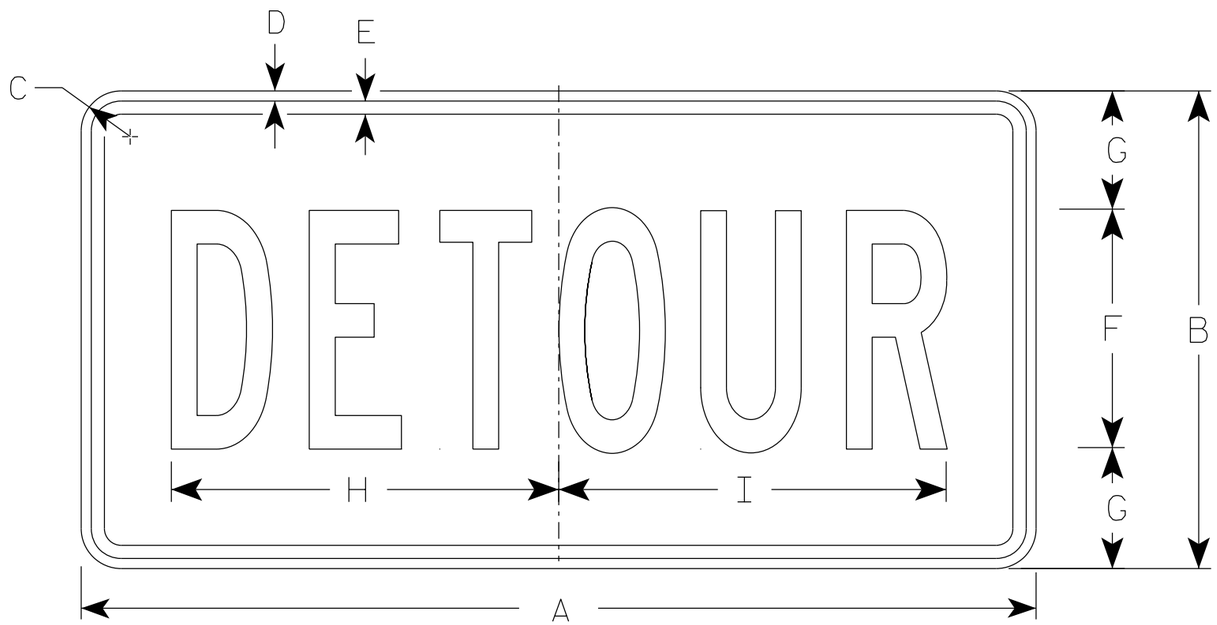
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 133 | E

NOTES

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



M4-8

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

STANDARD SIGN
M4-8

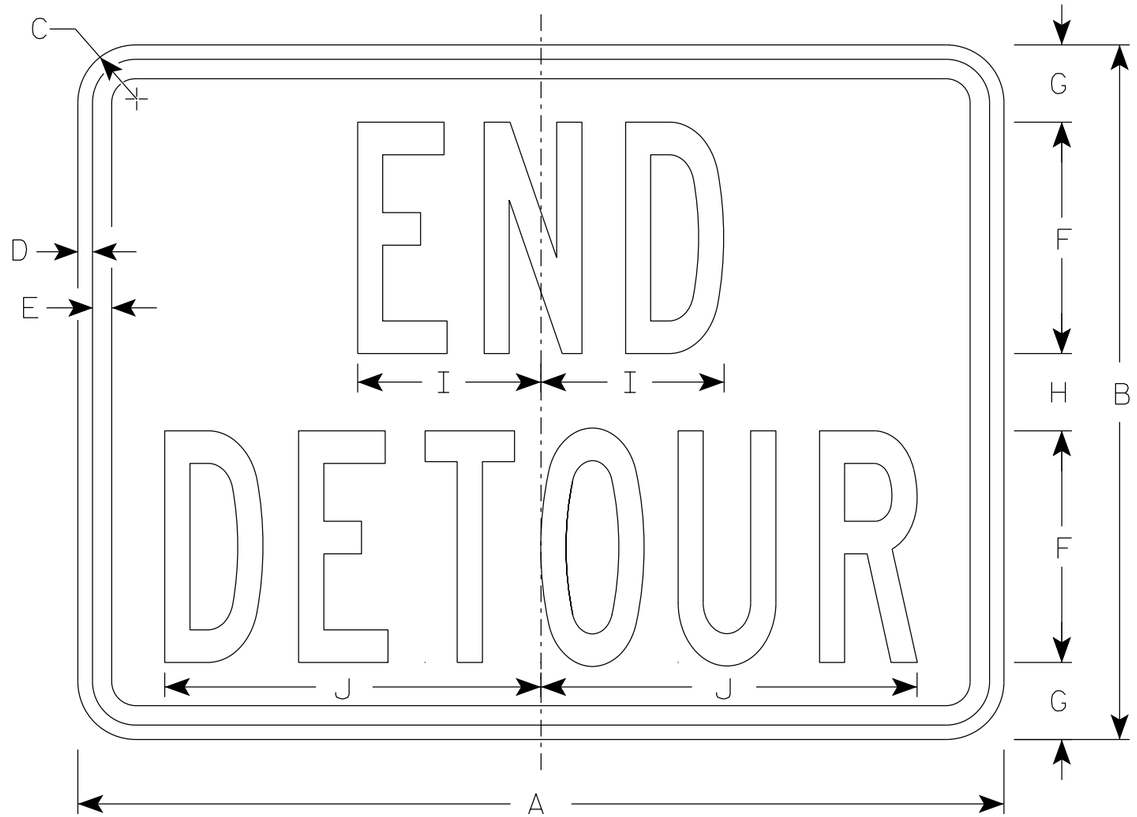
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48.dgn PLOT DATE : 9-FEB 2023 7:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

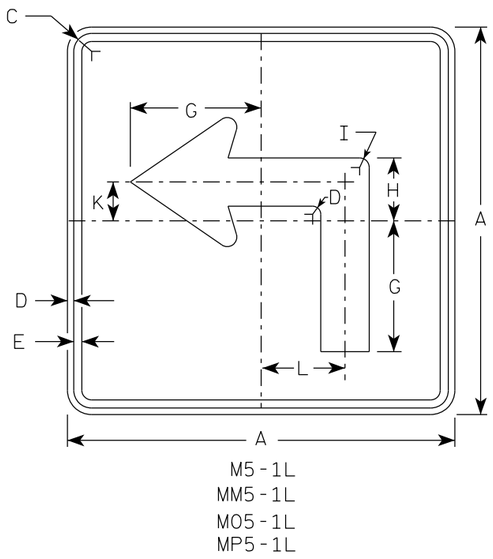
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

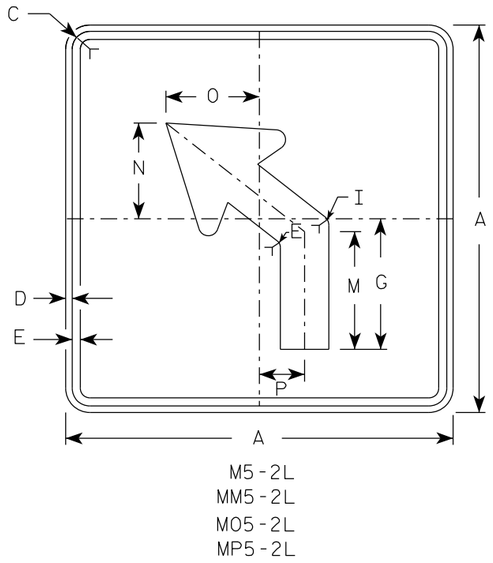
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

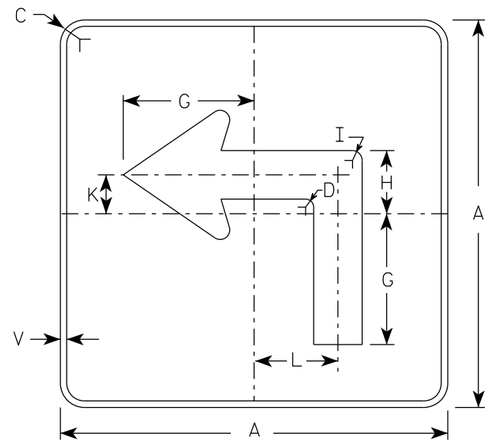
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 135 | E



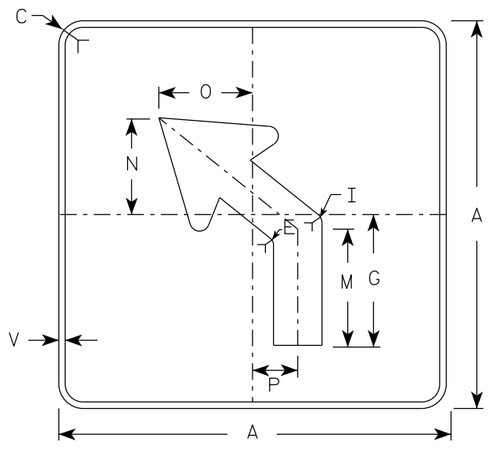
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



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

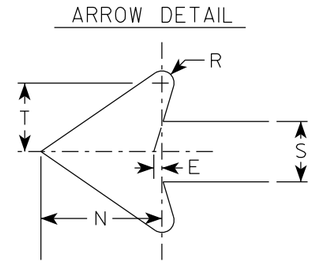


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



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

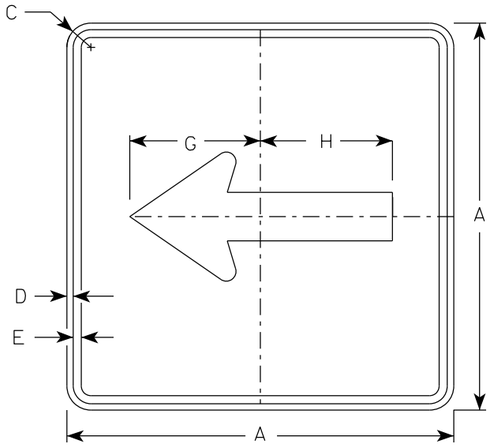
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

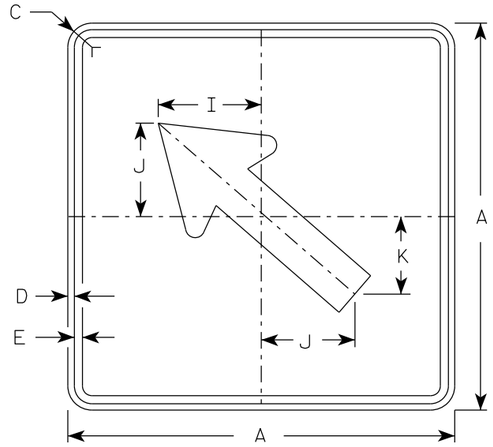
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

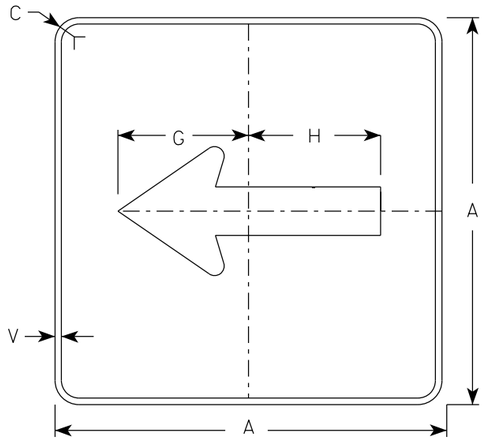
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 136 | E



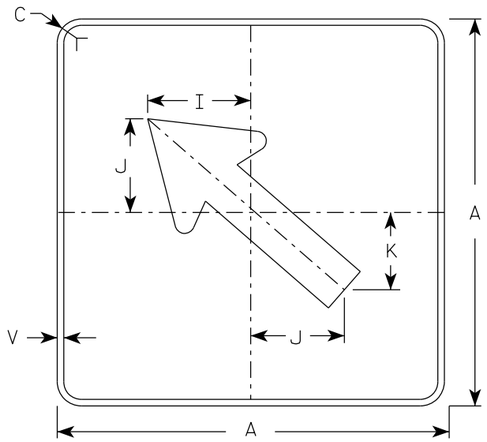
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

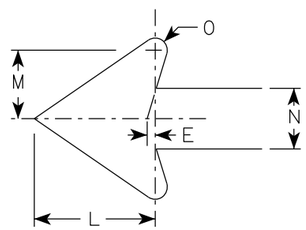


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



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

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

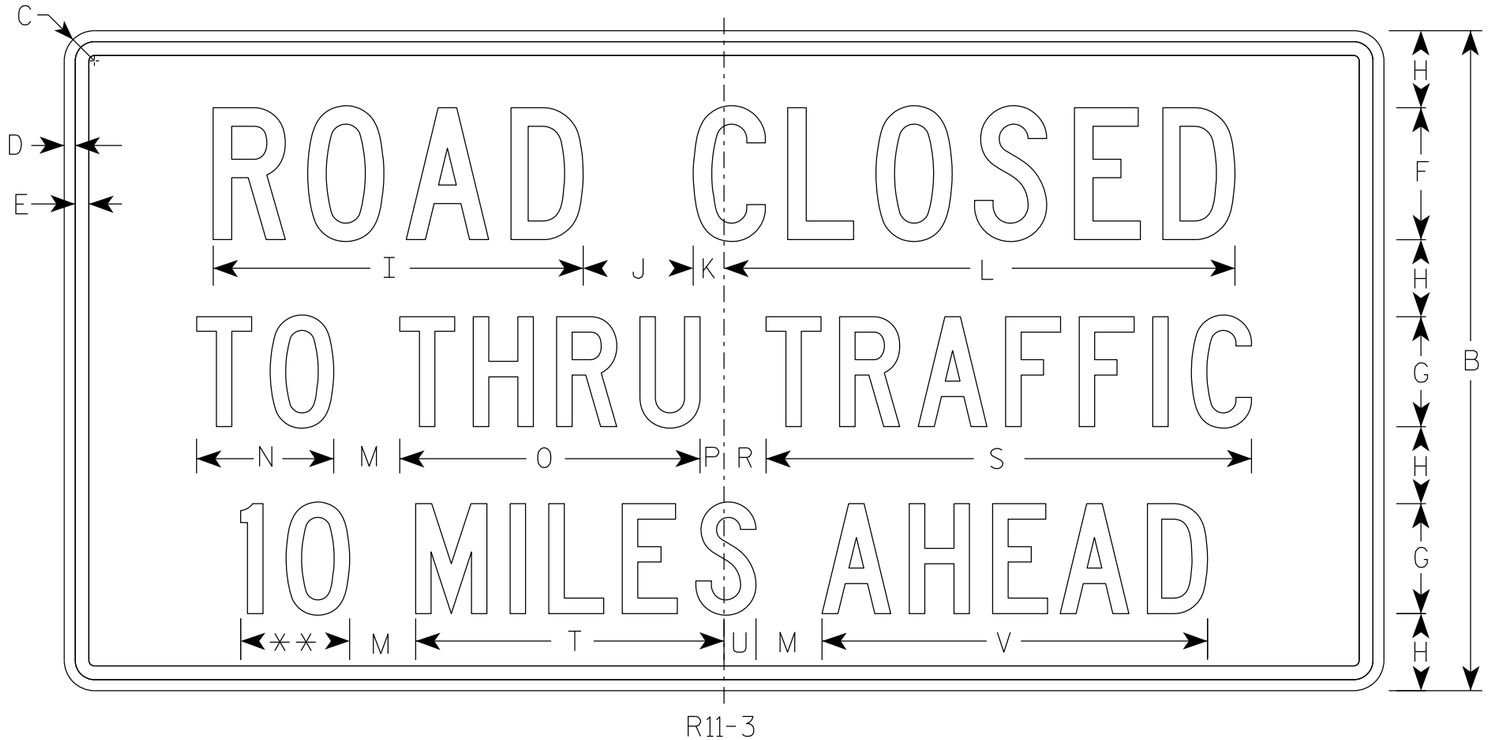
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 137 | E

7

7

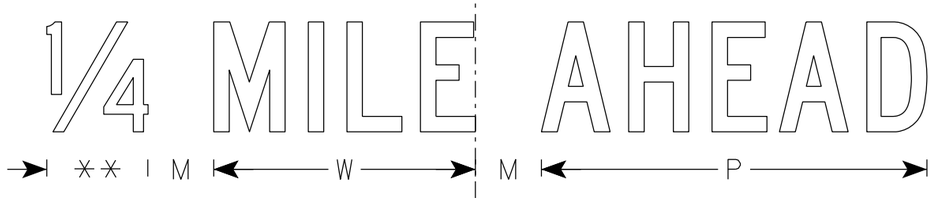
NOTES

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



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

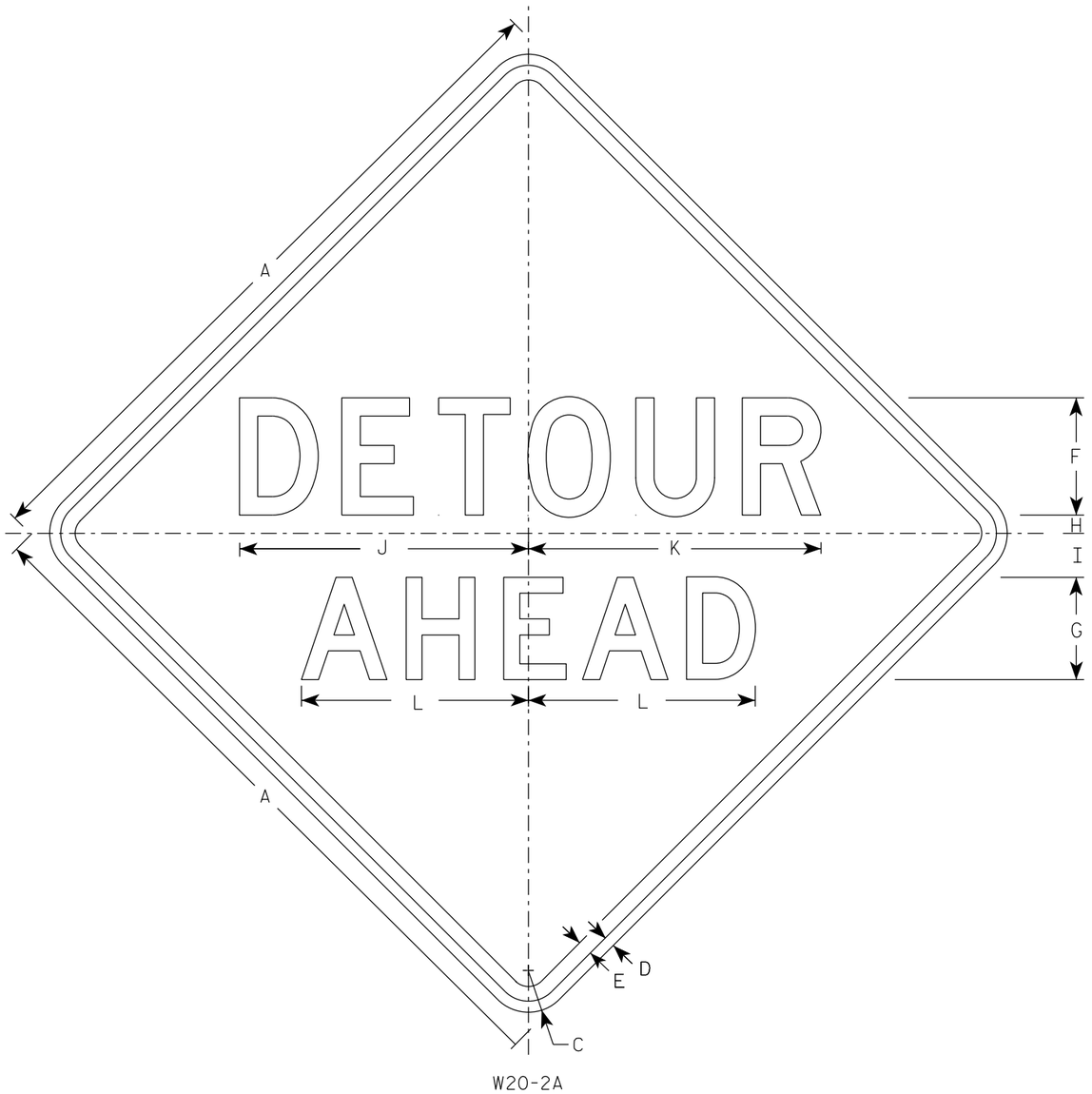
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

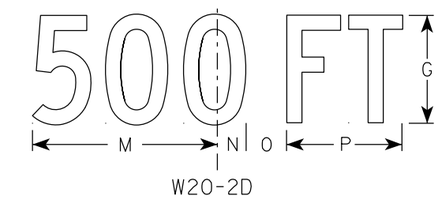
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

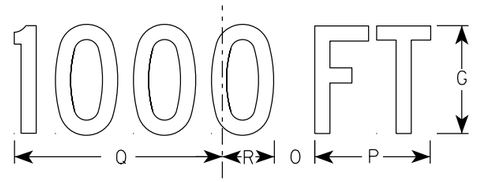
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 138 E



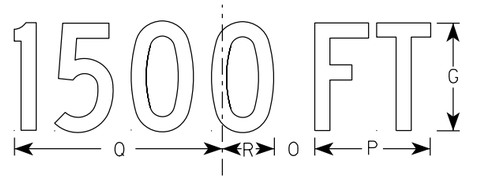
W20-2A



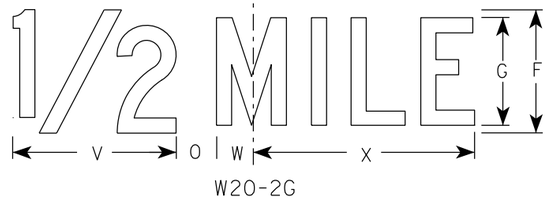
W20-2D



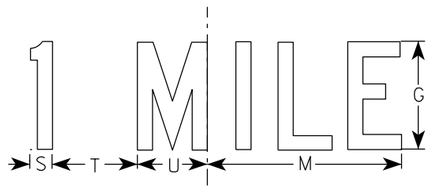
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

BEAMGUARD 881+95 TO 892+13

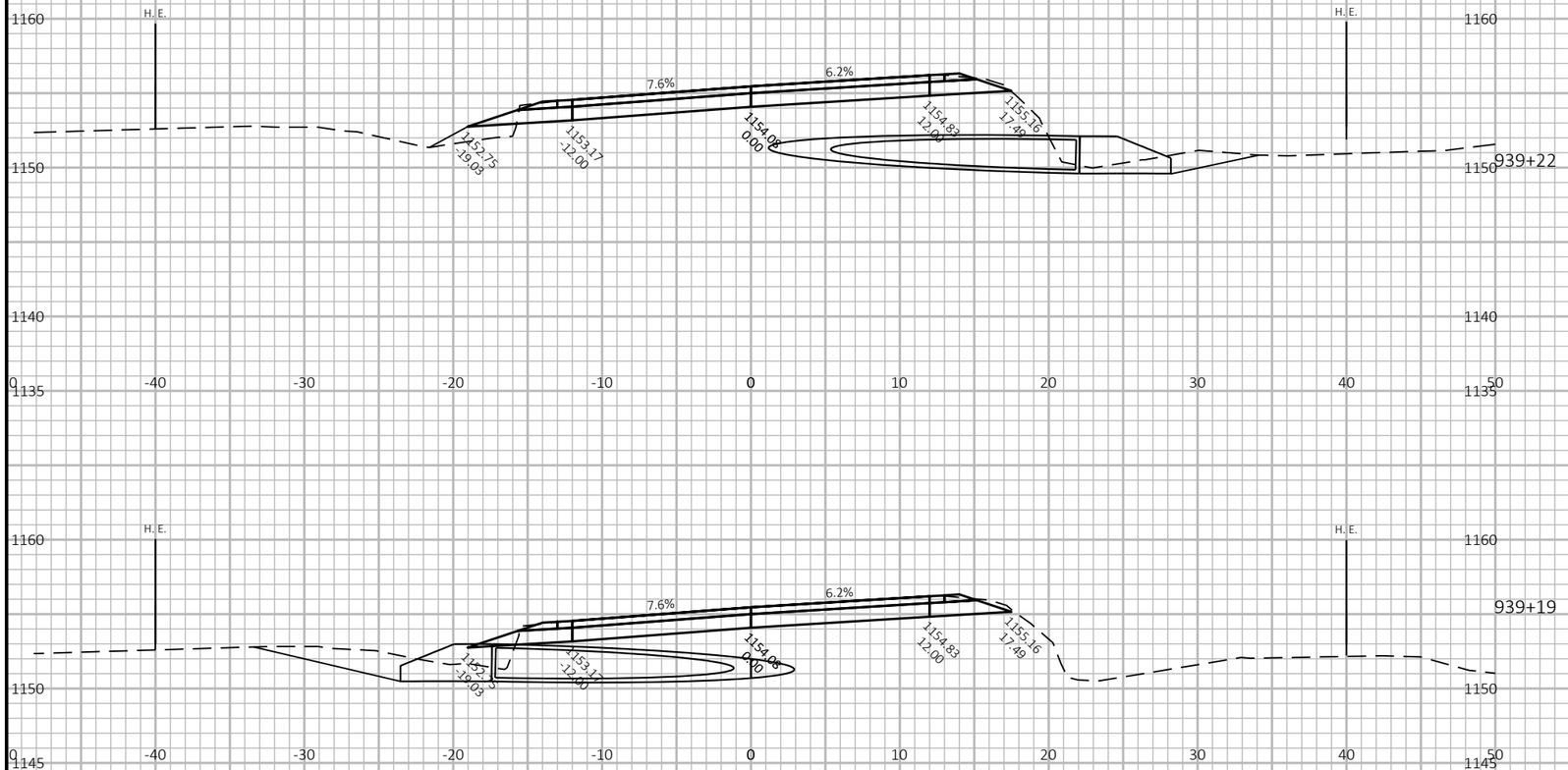
STATION	REAL STATION	DISTANCE	AREA (SF)					INCREMENTAL VOL (CY) (UNADJUSTED)					CUMULATIVE VOL (CY)					
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXPANDED FILL 1.25	EXPANDED MARSH BACKFILL 1.00	EXPANDED ROCK 1.00	REDUCED MARSH IN FILL 1.00	MASS ORDINATE
								NOTE 1	NOTE 2	NOTE 3			NOTE 1		NOTE 4		NOTE 6	NOTE 8
881+33.00	88133.00	0.00	9.10	0.00	25.53	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
881+50.00	88150.00	17.00	10.93	0.00	17.33	0.00	0.00	6	0	13	0	0	6	16	0	0	0	-10
882+00.00	88200.00	50.00	13.74	0.00	0.00	0.00	0.00	23	0	16	0	0	29	36	0	0	0	-7
882+50.00	88250.00	50.00	7.22	0.00	0.00	0.00	0.00	19	0	0	0	0	48	36	0	0	0	12
883+00.00	88300.00	50.00	4.27	0.00	2.01	0.00	0.00	11	0	2	0	0	59	39	0	0	0	20
883+50.00	88350.00	50.00	5.72	0.00	0.08	0.00	0.00	9	0	2	0	0	68	41	0	0	0	27
884+00.00	88400.00	50.00	8.49	0.00	0.00	0.00	0.00	13	0	0	0	0	81	41	0	0	0	40
884+50.00	88450.00	50.00	9.43	0.00	0.00	0.00	0.00	17	0	0	0	0	98	41	0	0	0	57
885+00.00	88500.00	50.00	8.60	0.00	0.00	0.00	0.00	17	0	0	0	0	115	41	0	0	0	74
885+50.00	88550.00	50.00	9.25	0.00	0.00	0.00	0.00	17	0	0	0	0	132	41	0	0	0	91
886+00.00	88600.00	50.00	8.16	0.00	0.00	0.00	0.00	16	0	0	0	0	148	41	0	0	0	107
886+50.00	88650.00	50.00	8.36	0.00	0.00	0.00	0.00	15	0	0	0	0	163	41	0	0	0	122
887+00.00	88700.00	50.00	7.96	0.00	42.09	0.00	0.00	15	0	39	0	0	178	90	0	0	0	88
887+50.00	88750.00	50.00	7.74	0.00	43.96	0.00	0.00	15	0	80	0	0	193	190	0	0	0	3
888+00.00	88800.00	50.00	8.11	0.00	10.81	0.00	0.00	15	0	51	0	0	208	254	0	0	0	-46
888+50.00	88850.00	50.00	6.71	0.00	0.87	0.00	0.00	14	0	11	0	0	222	268	0	0	0	-46
889+00.00	88900.00	50.00	6.65	0.00	0.37	0.00	0.00	12	0	1	0	0	234	269	0	0	0	-35
889+50.00	88950.00	50.00	8.07	0.00	0.00	0.00	0.00	14	0	0	0	0	248	269	0	0	0	-21
890+00.00	89000.00	50.00	8.10	0.00	0.00	0.00	0.00	15	0	0	0	0	263	269	0	0	0	-6
890+50.00	89050.00	50.00	7.69	0.00	0.15	0.00	0.00	15	0	0	0	0	278	269	0	0	0	9
891+00.00	89100.00	50.00	7.40	0.00	0.73	0.00	0.00	14	0	1	0	0	292	270	0	0	0	22
891+50.00	89150.00	50.00	7.19	0.00	1.08	0.00	0.00	14	0	2	0	0	306	273	0	0	0	34
892+00.00	89200.00	50.00	7.43	0.00	0.12	0.00	0.00	14	0	1	0	0	320	274	0	0	0	46
892+50.00	89250.00	50.00	7.02	0.00	0.07	0.00	0.00	13	0	0	0	0	333	274	0	0	0	59
892+60.00	89260.00	10.00	8.98	0.00	0.31	0.00	0.00	3	0	0	0	0	336	274	0	0	0	62
892+70.00	89270.00	10.00	10.50	0.00	0.73	0.00	0.00	4	0	0	0	0	340	274	0	0	0	66
892+80.00	89280.00	10.00	11.22	0.00	5.14	0.00	0.00	4	0	1	0	0	344	275	0	0	0	69
892+90.00	89290.00	10.00	9.68	0.00	0.00	0.00	0.00	4	0	1	0	0	348	276	0	0	0	72
893+00.00	89300.00	10.00	1.73	0.00	0.00	0.00	0.00	2	0	0	0	0	350	276	0	0	0	74

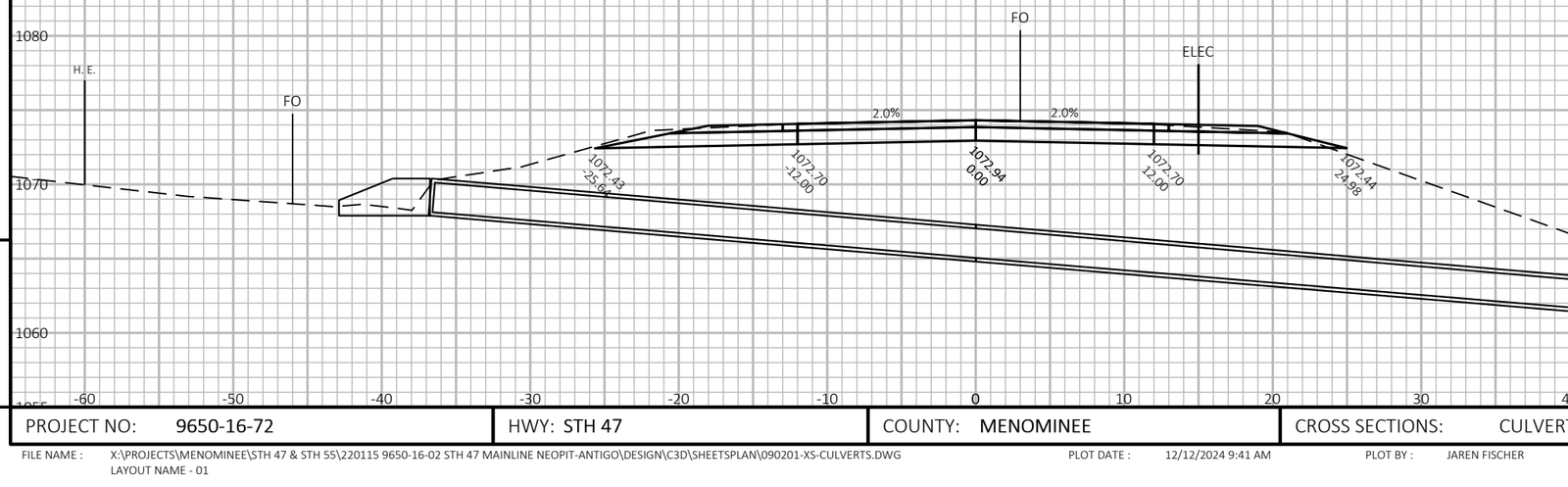
BEAMGUARD 893+44 TO 897+52

STATION	REAL STATION	DISTANCE	AREA (SF)					INCREMENTAL VOL (CY) (UNADJUSTED)					CUMULATIVE VOL (CY)					
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXPANDED FILL 1.25	EXPANDED MARSH BACKFILL 1.00	EXPANDED ROCK 1.00	REDUCED MARSH IN FILL 1.00	MASS ORDINATE
								NOTE 1	NOTE 2	NOTE 3			NOTE 1		NOTE 4		NOTE 6	NOTE 8
893+40.00	89340.00	0.00	1.95	0.00	0.55	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
893+50.00	89350.00	10.00	1.02	0.00	1.26	0.00	0.00	1	0	0	0	0	1	0	0	0	0	1
893+60.00	89360.00	10.00	0.01	0.00	1.69	0.00	0.00	0	0	1	0	0	1	1	0	0	0	0
893+70.00	89370.00	10.00	0.51	0.00	0.00	0.00	0.00	0	0	0	0	0	1	1	0	0	0	0
893+80.00	89380.00	10.00	0.69	0.00	0.56	0.00	0.00	0	0	0	0	0	1	1	0	0	0	0
893+90.00	89390.00	10.00	0.58	0.00	1.07	0.00	0.00	0	0	0	0	0	1	1	0	0	0	0
894+00.00	89400.00	10.00	0.15	0.00	1.83	0.00	0.00	0	0	1	0	0	1	3	0	0	0	-2
894+50.00	89450.00	50.00	8.75	0.00	38.83	0.00	0.00	8	0	38	0	0	9	50	0	0	0	-41
895+00.00	89500.00	50.00	9.31	0.00	133.20	0.00	0.00	17	0	159	0	0	26	249	0	0	0	-223
895+50.00	89550.00	50.00	9.79	0.00	0.01	0.00	0.00	18	0	123	0	0	44	403	0	0	0	-359
896+00.00	89600.00	50.00	9.05	0.00	0.86	0.00	0.00	17	0	1	0	0	61	404	0	0	0	-343
896+50.00	89650.00	50.00	9.54	0.00	0.03	0.00	0.00	17	0	1	0	0	78	405	0	0	0	-327
897+00.00	89700.00	50.00	18.38	0.00	0.00	0.00	0.00	26	0	0	0	0	104	405	0	0	0	-301
897+50.00	89750.00	50.00	17.42	0.00	0.15	0.00	0.00	33	0	0	0	0	137	405	0	0	0	-268
897+95.00	89795.00	45.00	20.60	0.00	0.00	0.00	0.00	32	0	0	0	0	169	405	0	0	0	-236

BEAMGUARD WHEELOCK RD

STATION	REAL STATION	DISTANCE	AREA (SF)					INCREMENTAL VOL (CY) (UNADJUSTED)					CUMULATIVE VOL (CY)					
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXPANDED FILL 1.25	EXPANDED MARSH BACKFILL 1.00	EXPANDED ROCK 1.00	REDUCED MARSH IN FILL 1.00	MASS ORDINATE
								NOTE 1	NOTE 2	NOTE 3			NOTE 1		NOTE 4		NOTE 6	NOTE 8
10+20.00	1020.00	0.00	10.65	0.00	0.15	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
10+30.00	1030.00	10.00	18.80	0.00	0.94	0.00	0.00	5	0	0	0	0	5	0	0	0	0	5
10+40.00	1040.00	10.00	13.11	0.00	9.18	0.00	0.00	6	0	2	0	0	11	3	0	0	0	9
10+50.00	1050.00	10.00	17.15	0.00	9.50	0.00	0.00	6	0	3	0	0	17	6	0	0	0	11
10+60.00	1060.00	10.00	14.37	0.00	13.32	0.00	0.00	6	0	4	0	0	23	11	0	0	0	12
10+70.00	1070.00	10.00	15.52	0.00	20.33	0.00	0.00	6	0	6	0	0	29	19	0	0	0	10
10+80.00	1080.00	10.00	13.94	0.00	20.86	0.00	0.00	5	0	8	0	0	34	29	0	0	0	5
10+90.00	1090.00	10.00	14.72	0.00	13.70	0.00	0.00	5	0	6	0	0	39	36	0	0	0	3





9

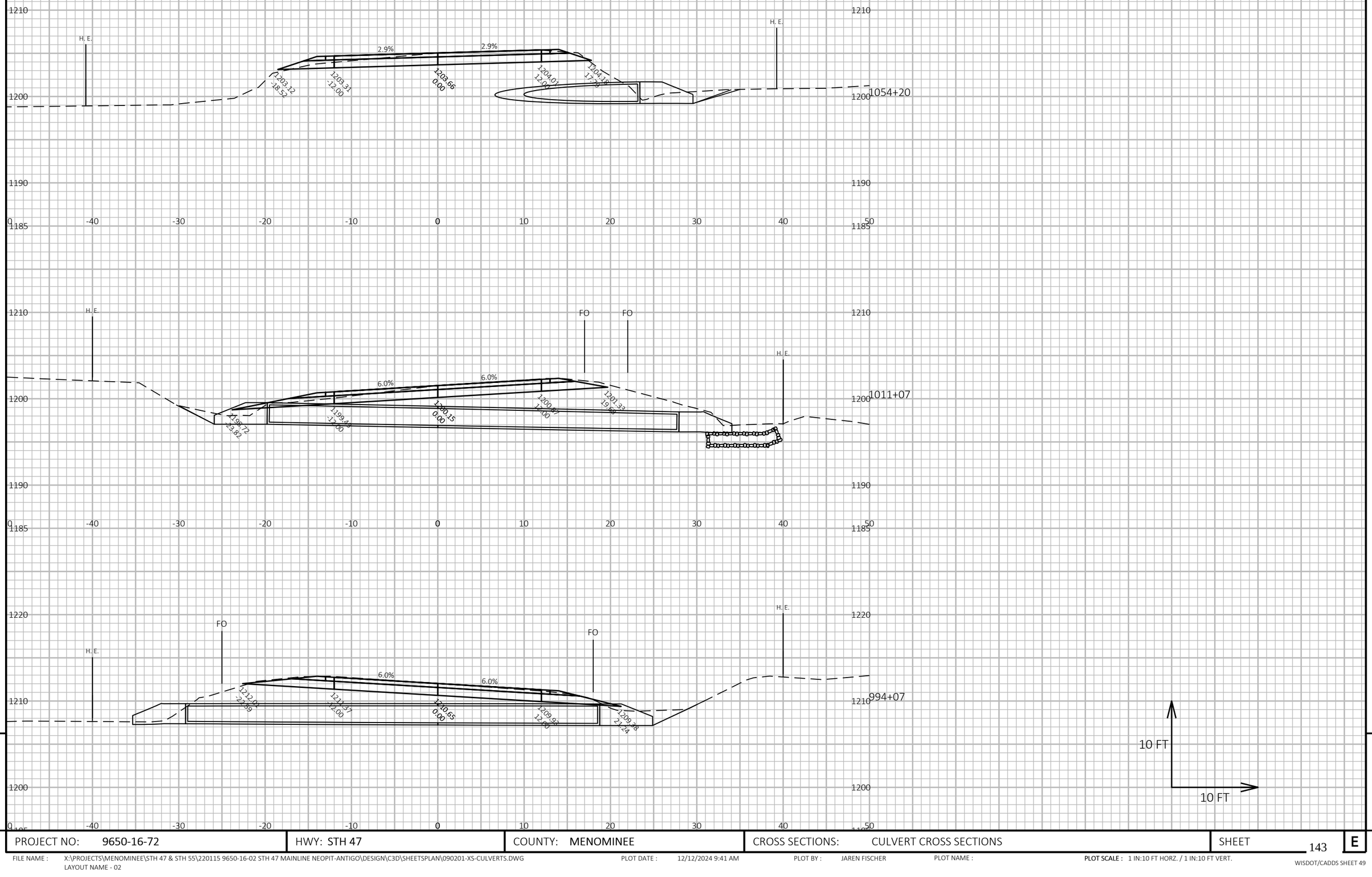
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 142	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 01

PLOT DATE : 12/12/2024 9:41 AM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

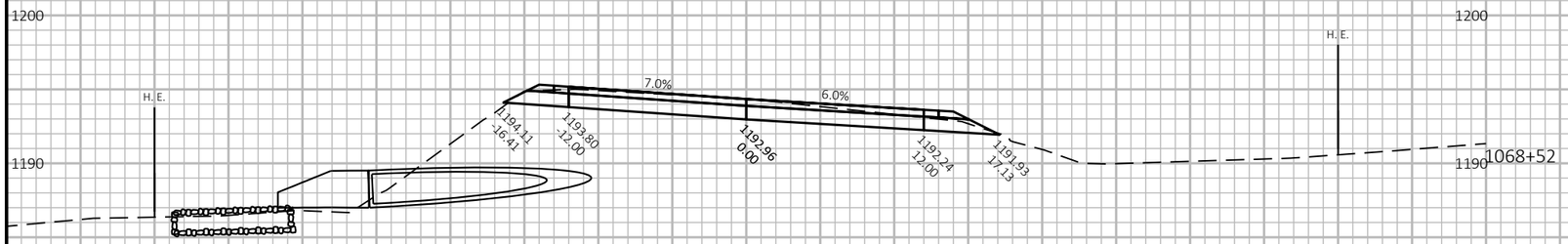


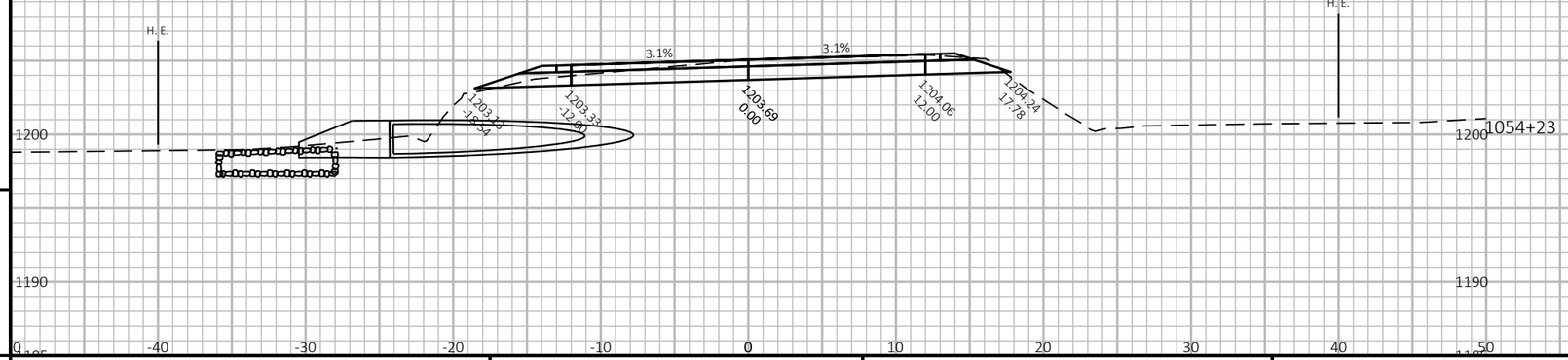
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 143	E

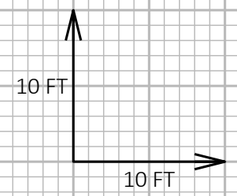
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LAYOUT NAME - 02

PLOT DATE : 12/12/2024 9:41 AM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







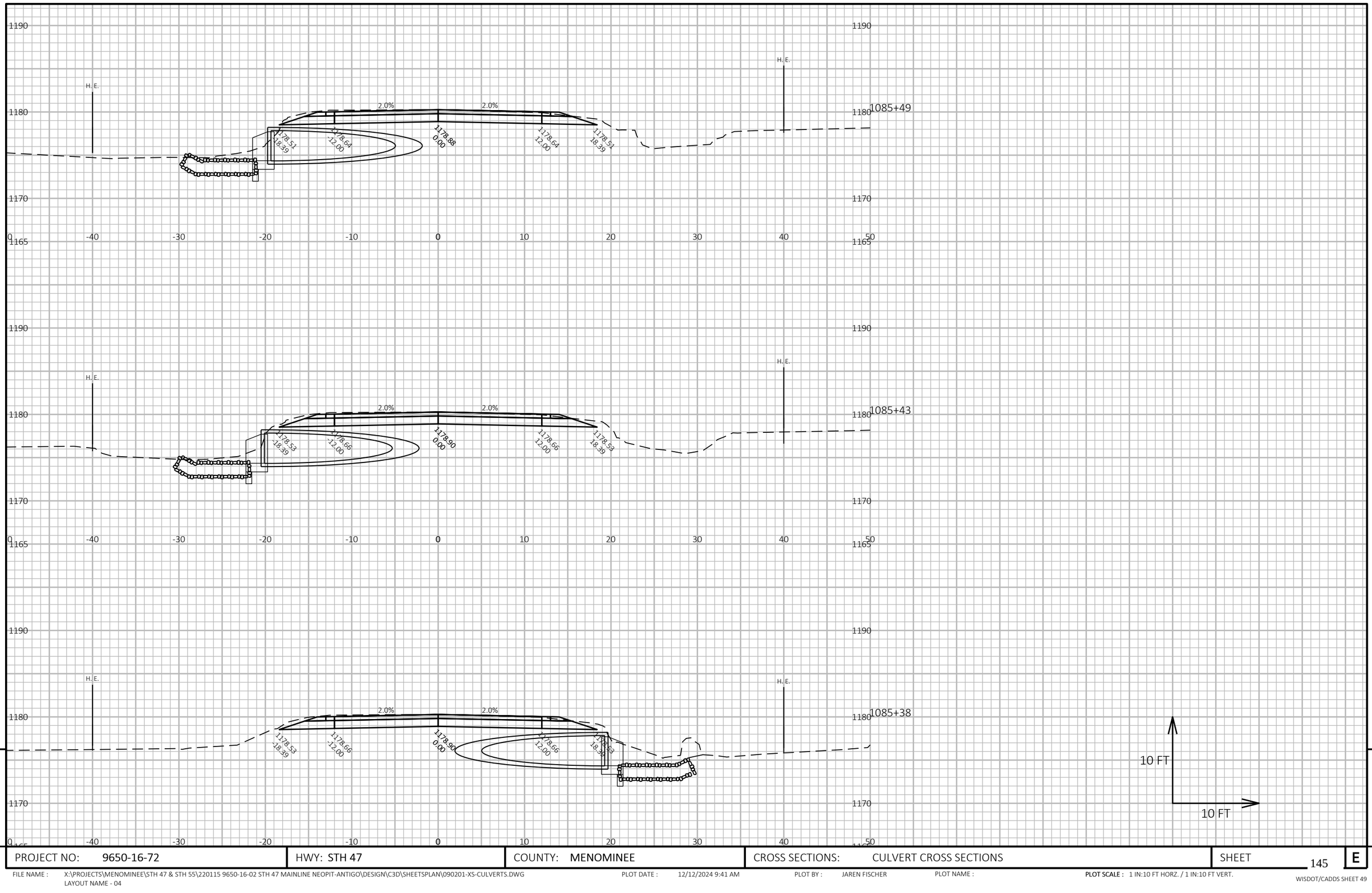
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 144	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 03

PLOT DATE : 12/12/2024 9:41 AM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

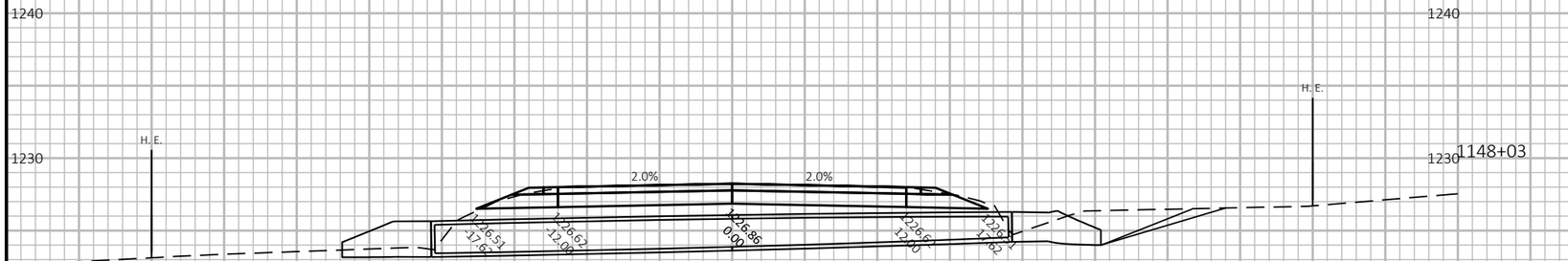
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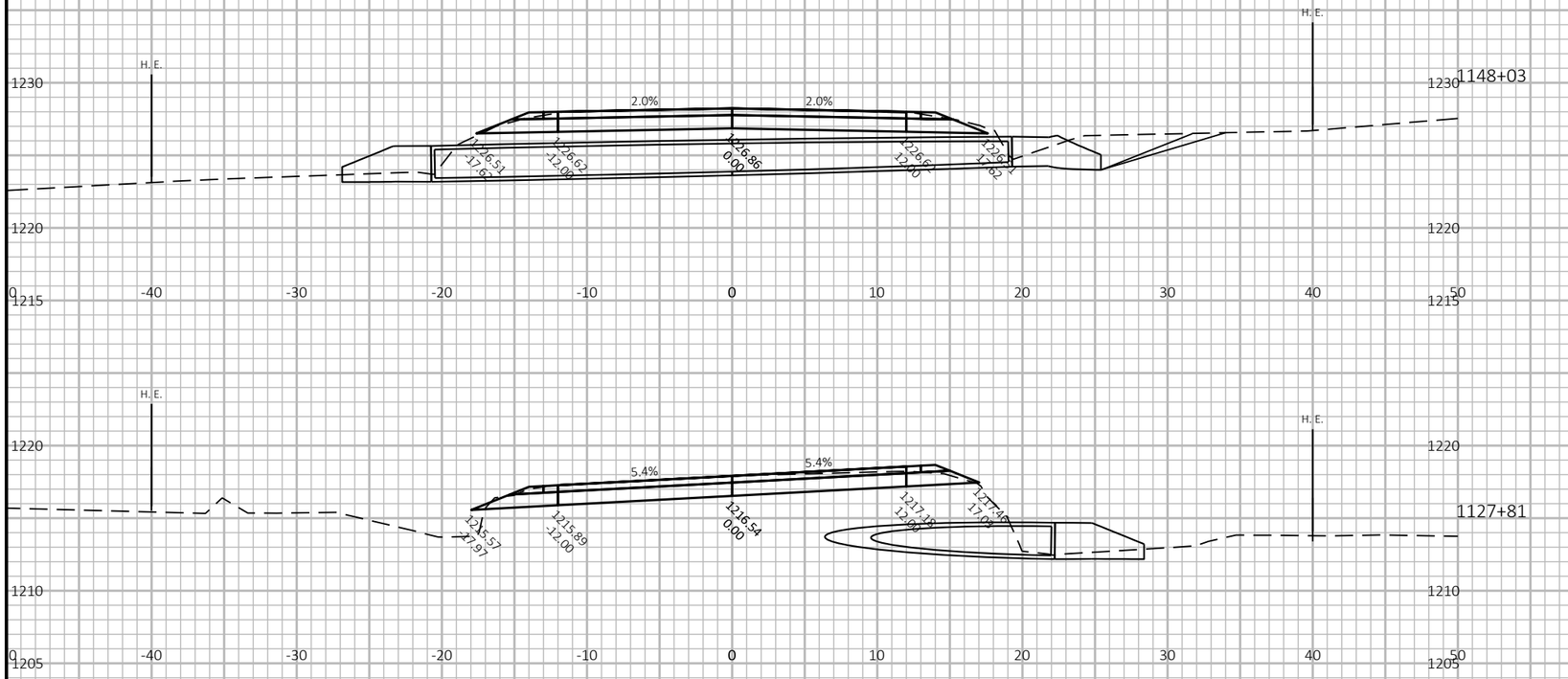
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 145	E

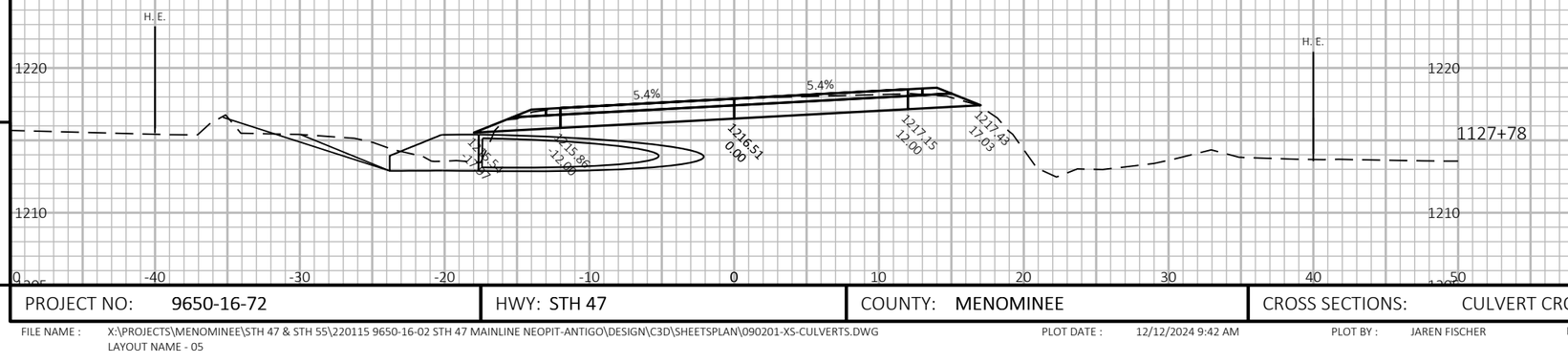
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 04

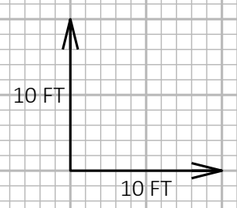
PLOT DATE : 12/12/2024 9:41 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









9

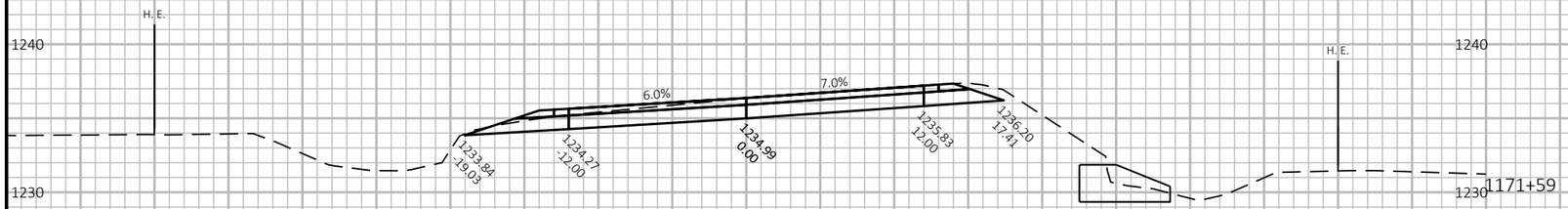
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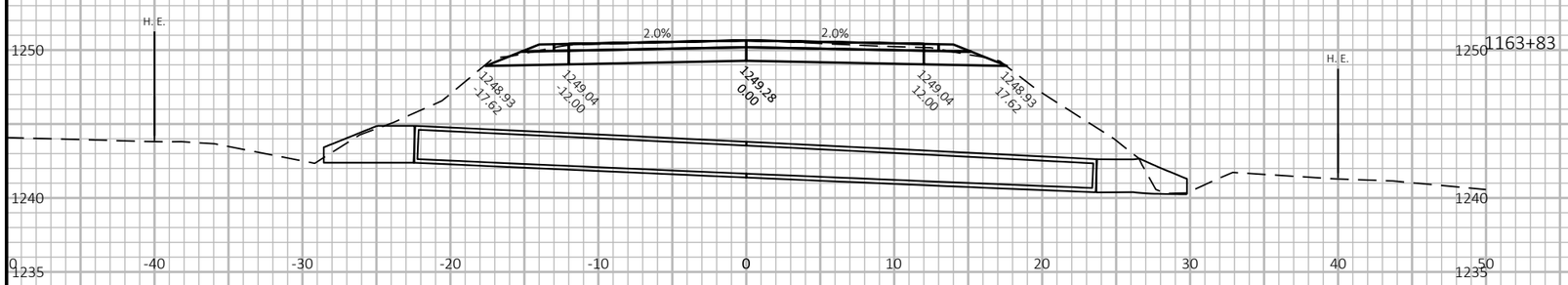
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 146	E

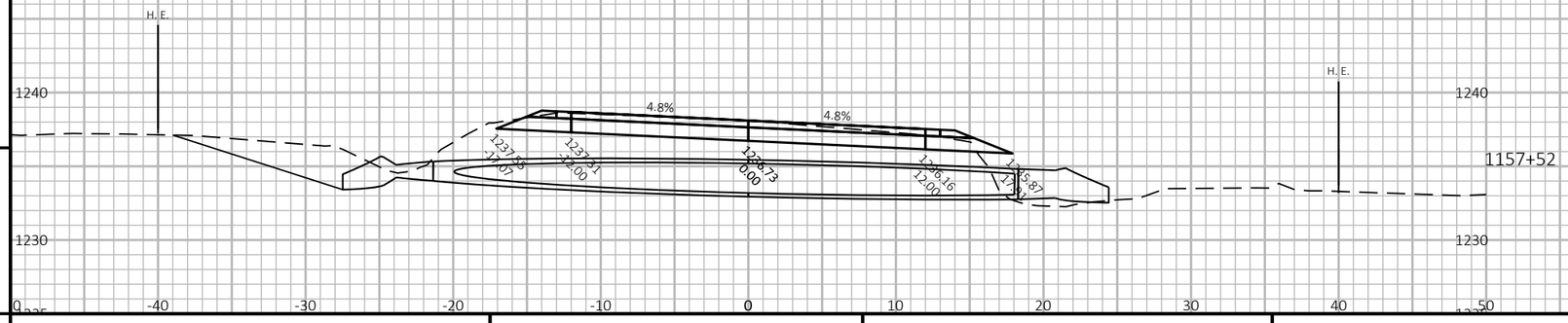
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 05

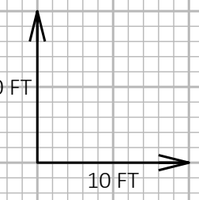
PLOT DATE : 12/12/2024 9:42 AM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









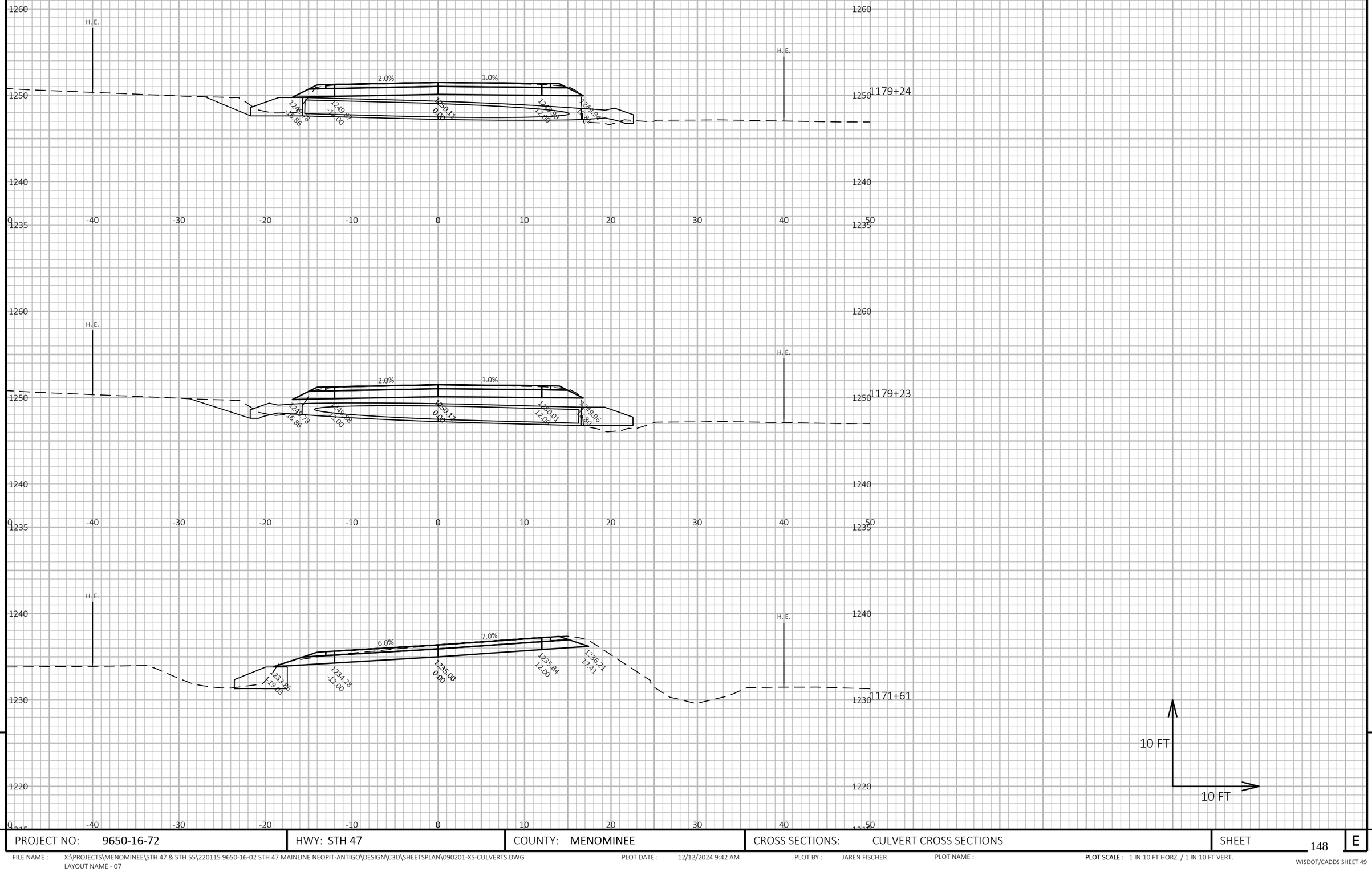
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 147	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 06

PLOT DATE : 12/12/2024 9:42 AM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



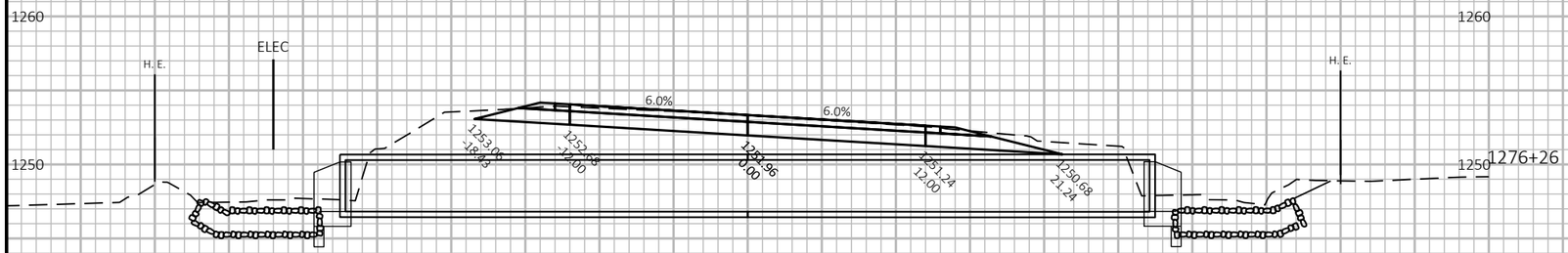
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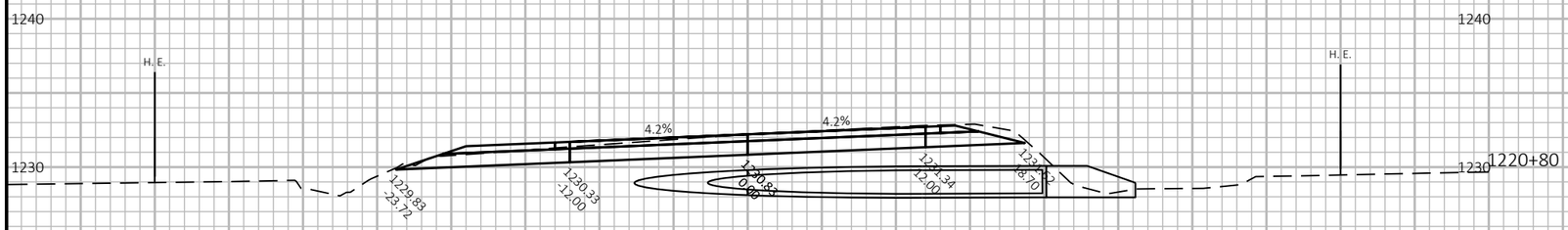
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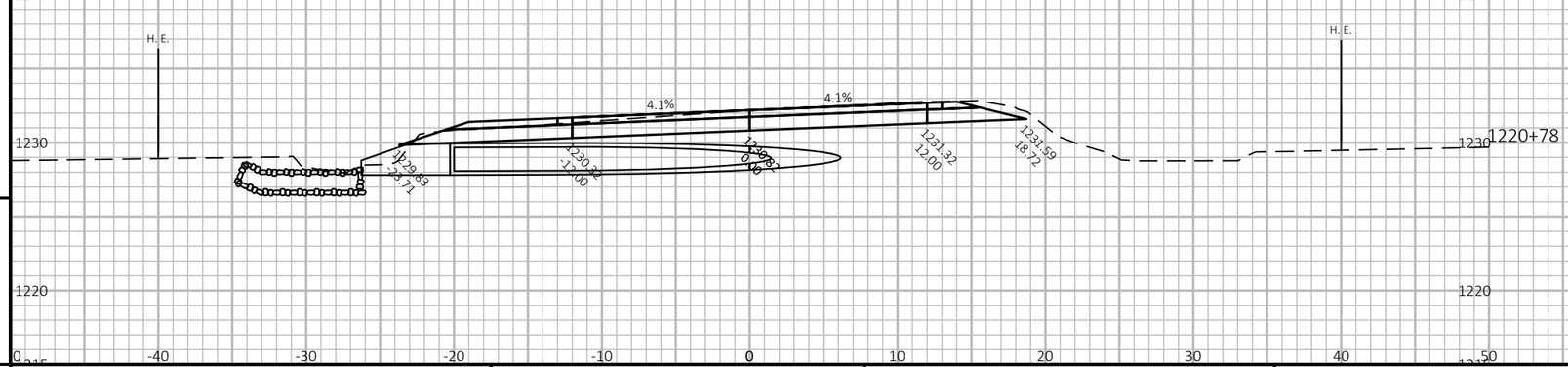
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 148	E

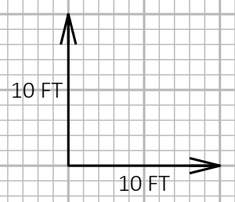
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 07

PLOT DATE : 12/12/2024 9:42 AM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.









9

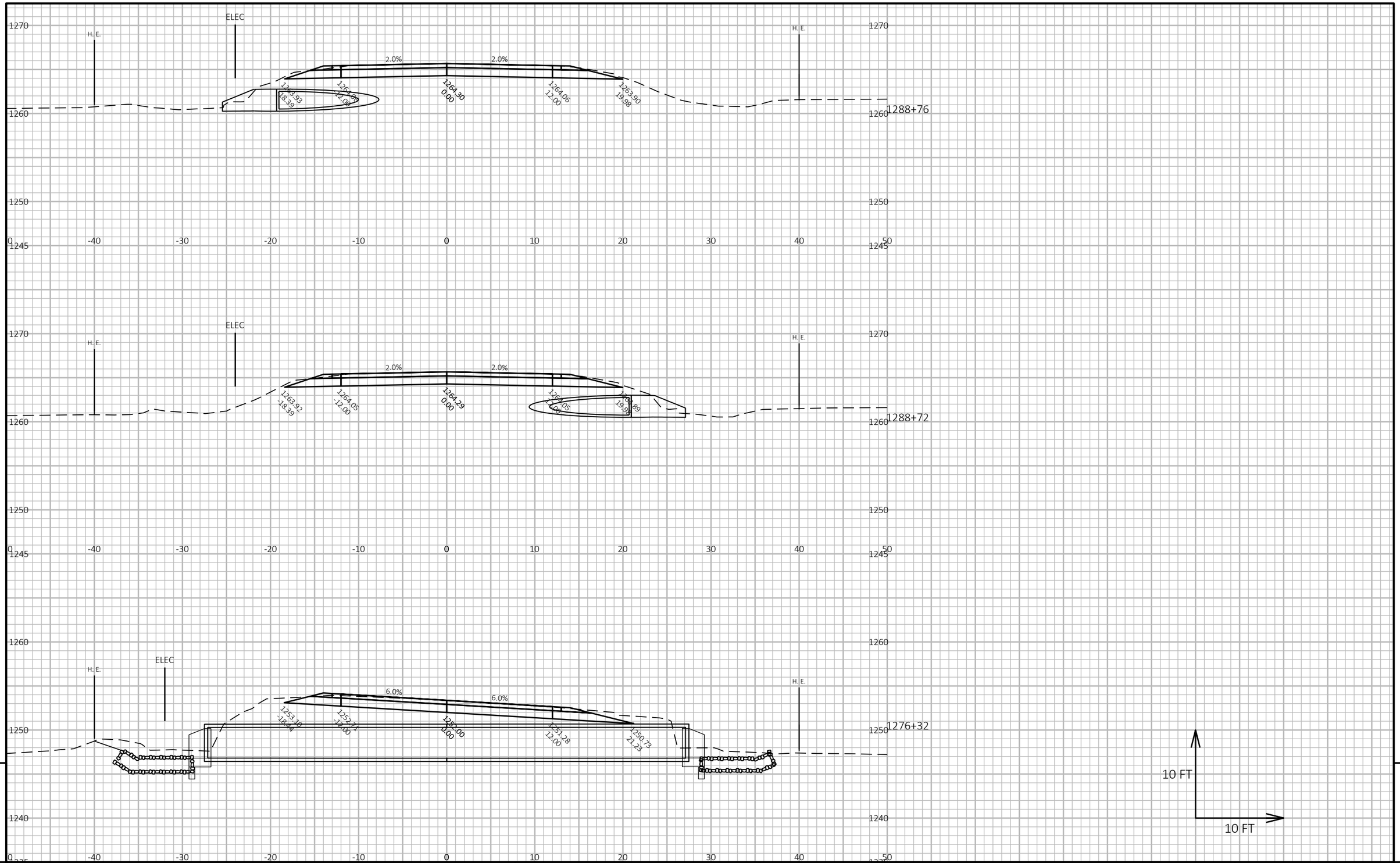
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 149	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 08

PLOT DATE : 12/12/2024 9:42 AM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

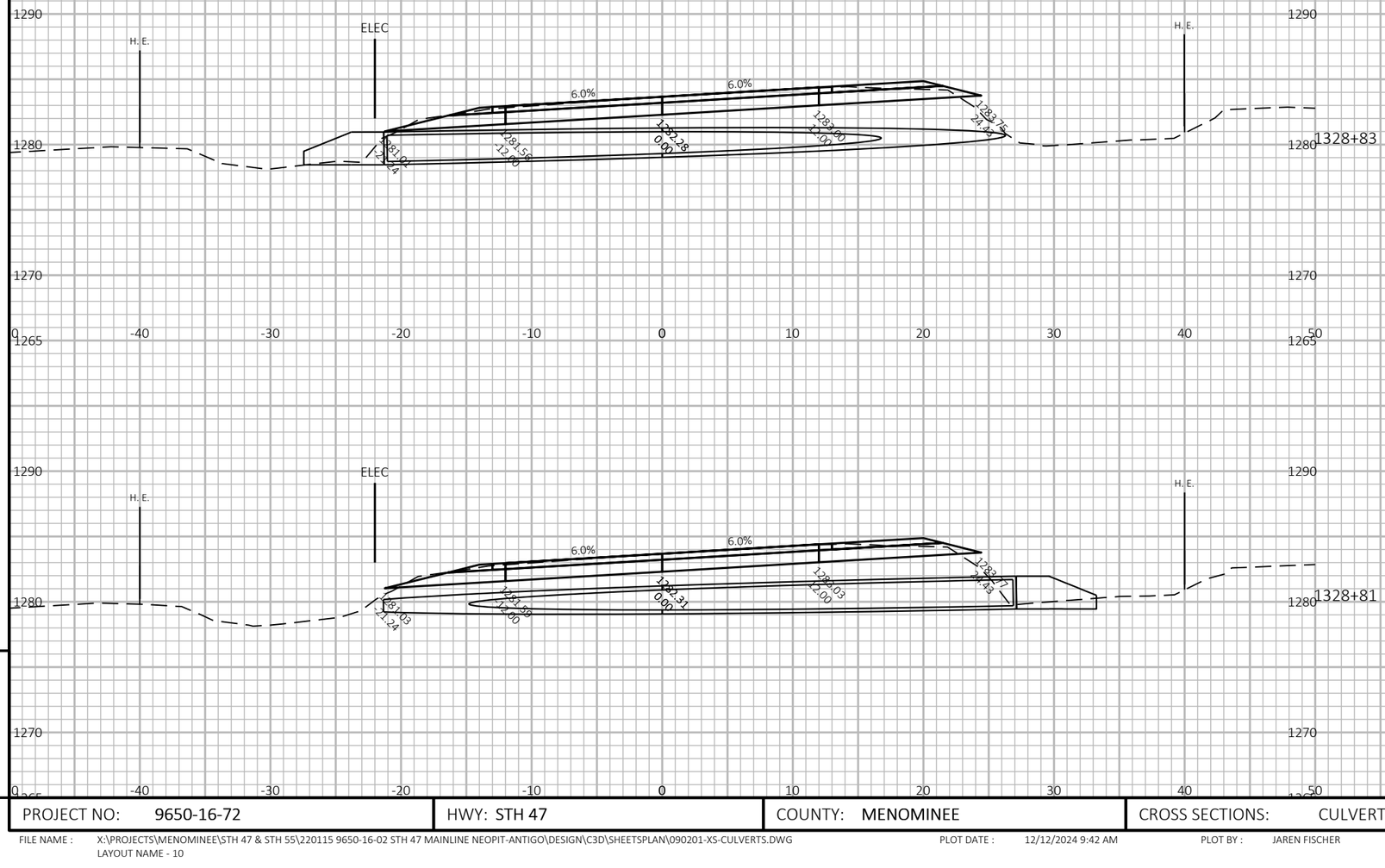


9

9

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 150	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 09
PLOT DATE : 12/12/2024 9:42 AM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

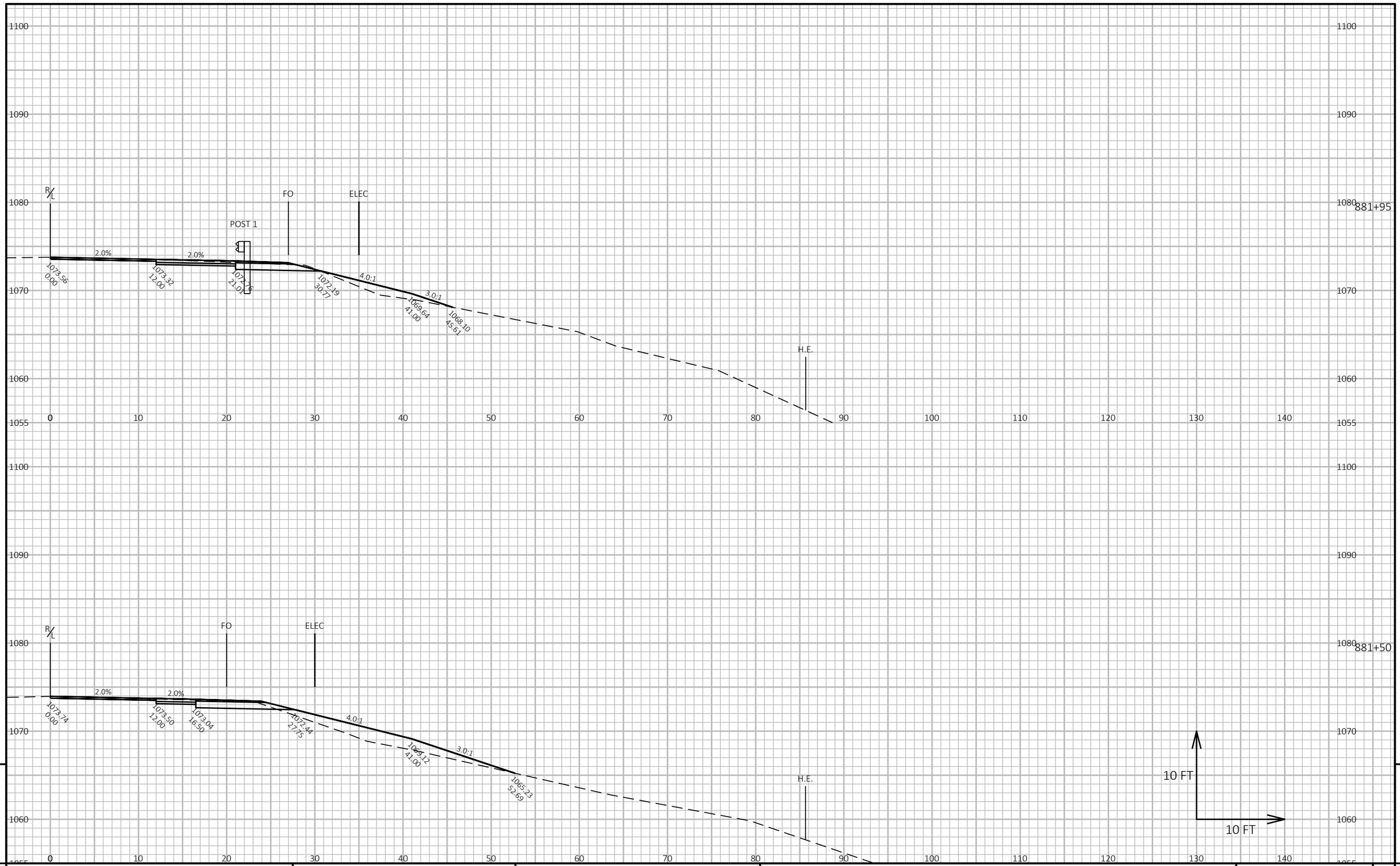


PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERT CROSS SECTIONS	SHEET 151 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERTS.DWG
LAYOUT NAME - 10

PLOT DATE : 12/12/2024 9:42 AM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

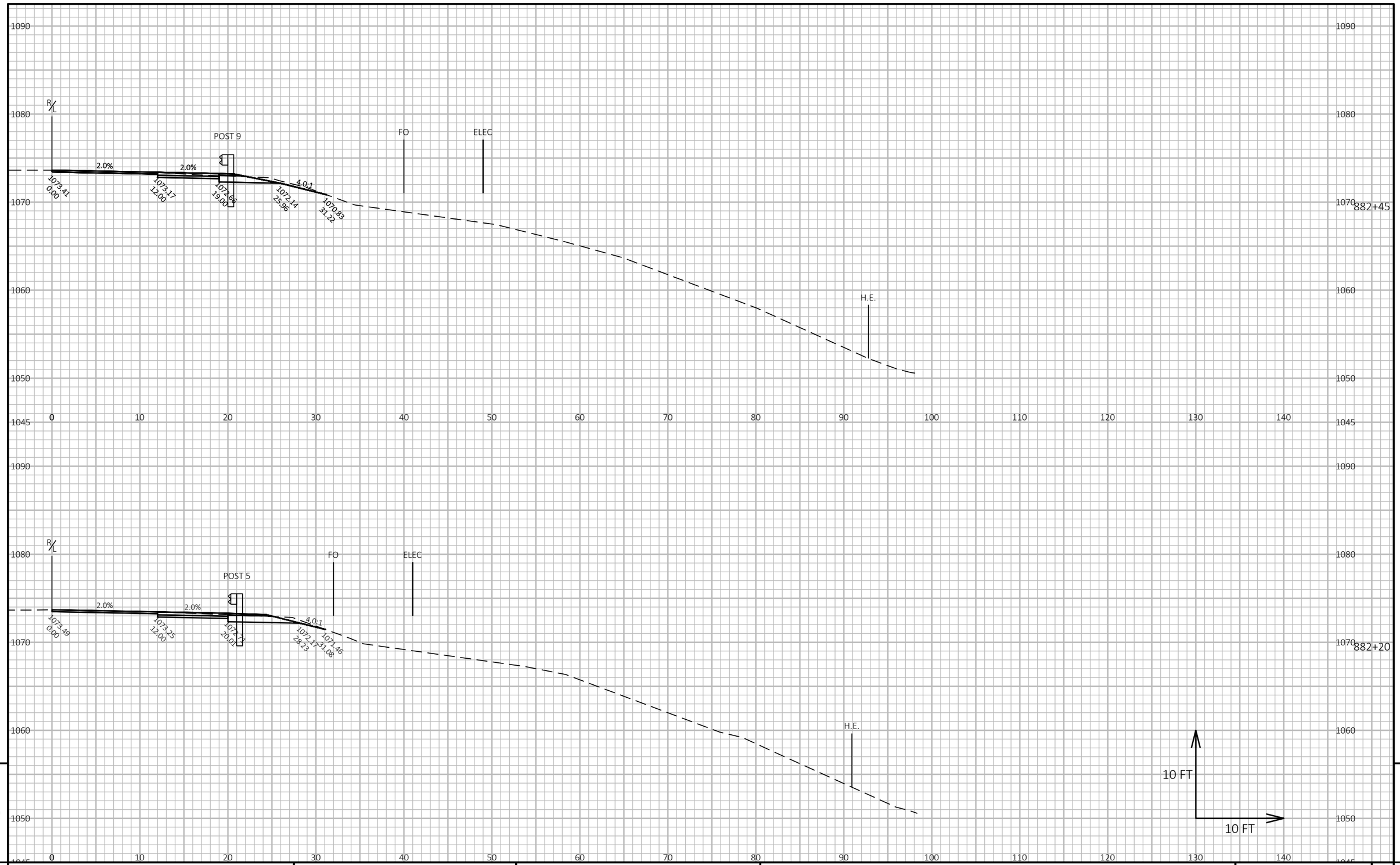
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 152	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 59

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

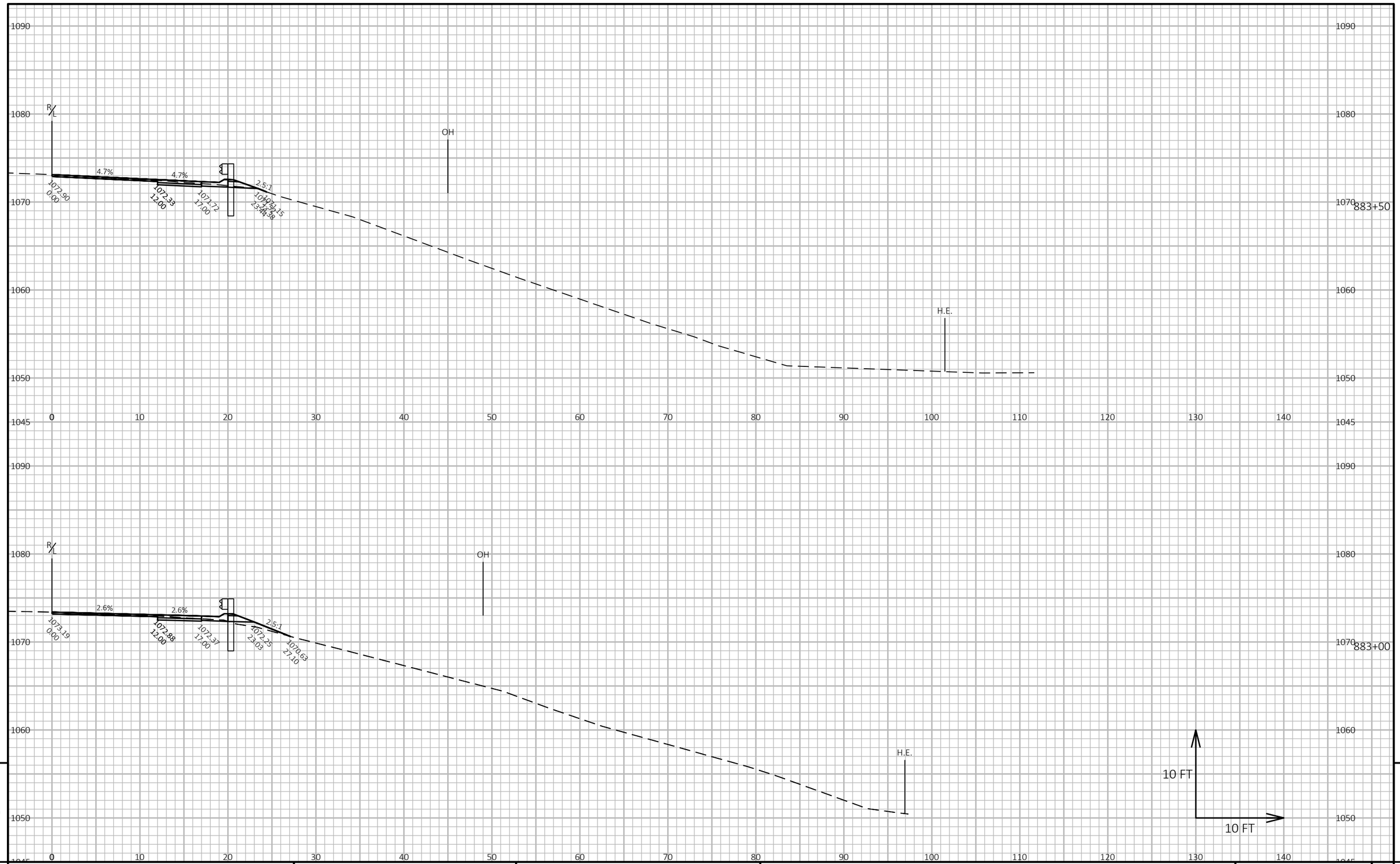
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 153	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 60

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

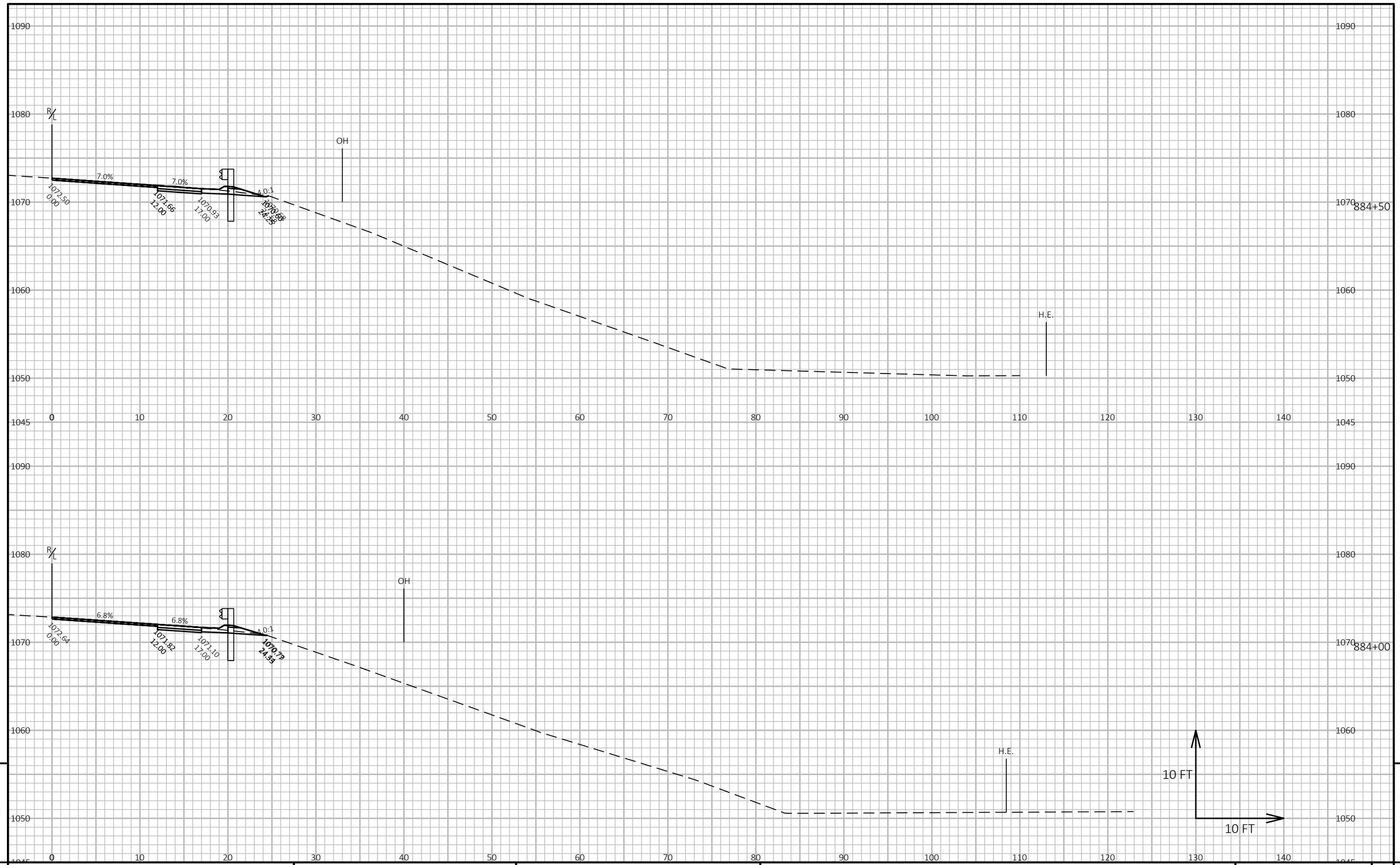
PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 154	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 61

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

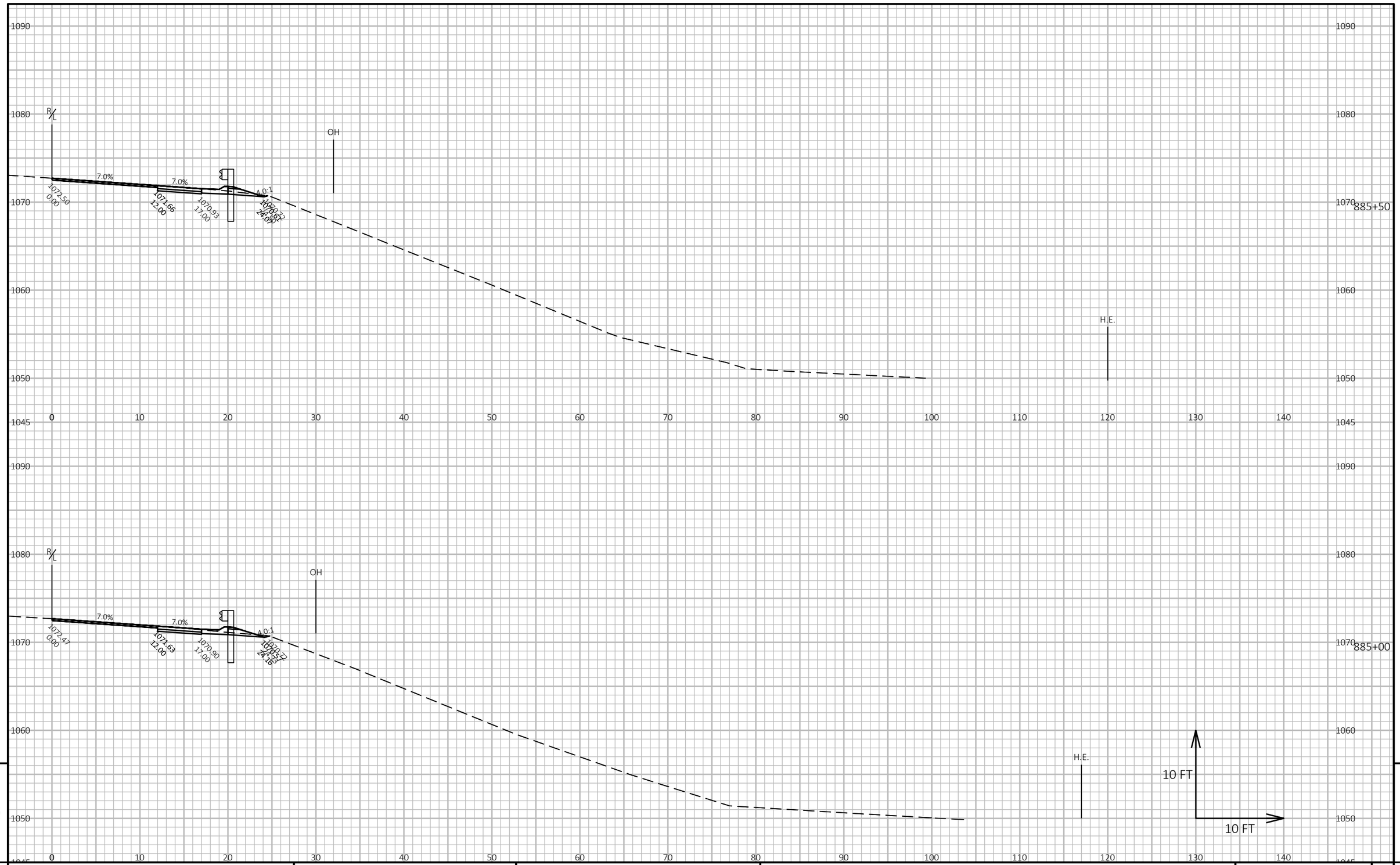
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 155	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 62

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

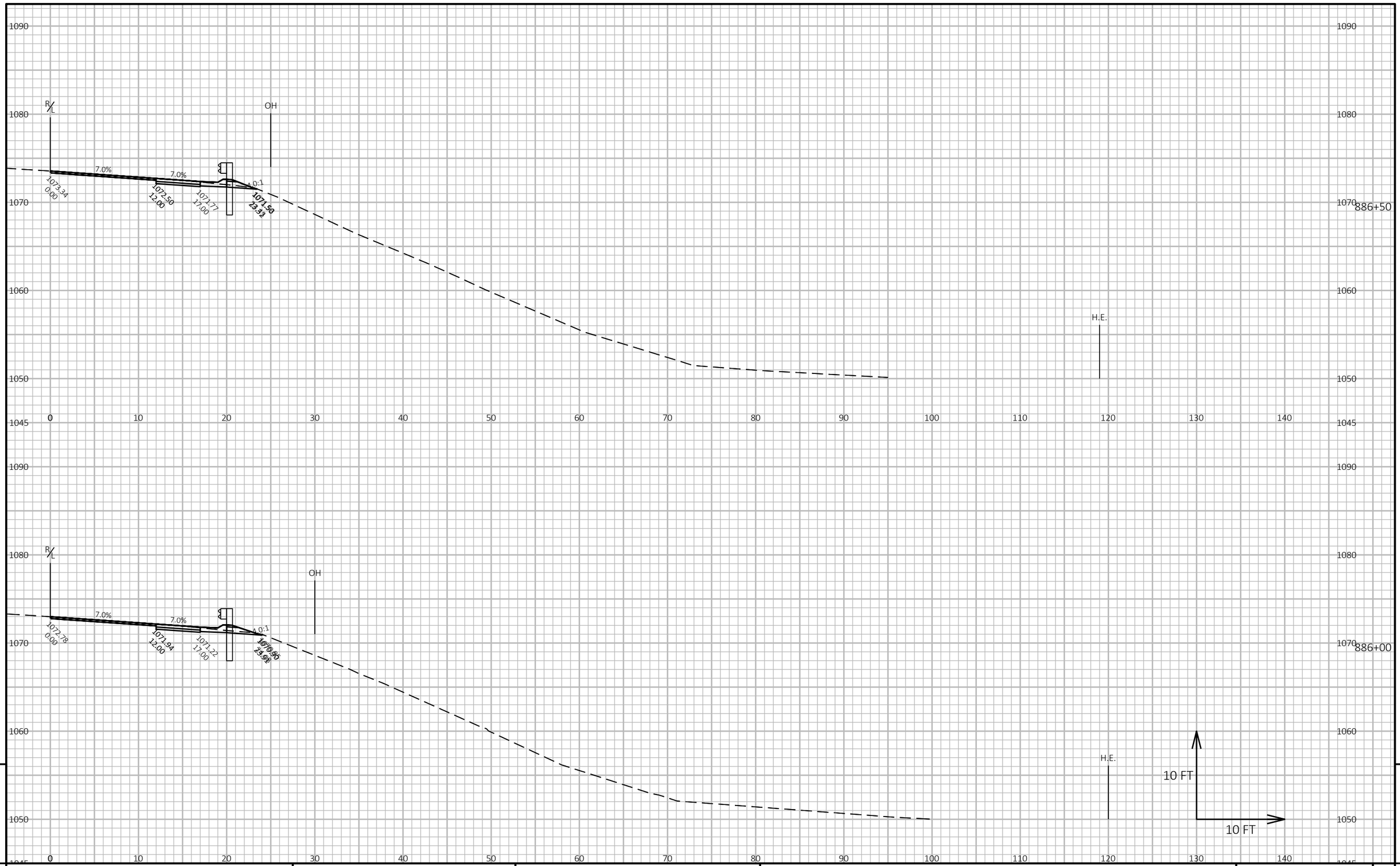
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 156	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 63

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

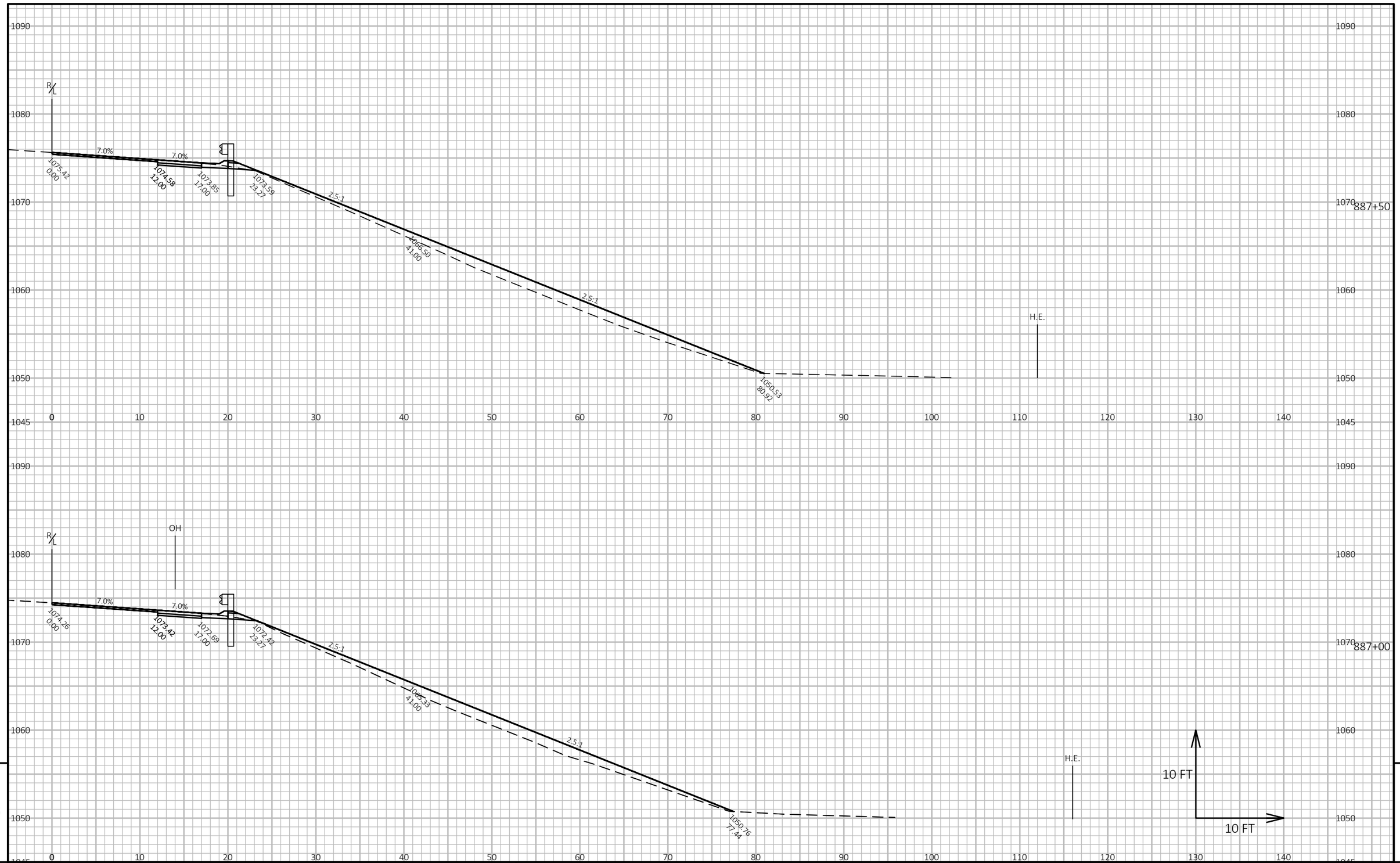
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 157	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 64

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

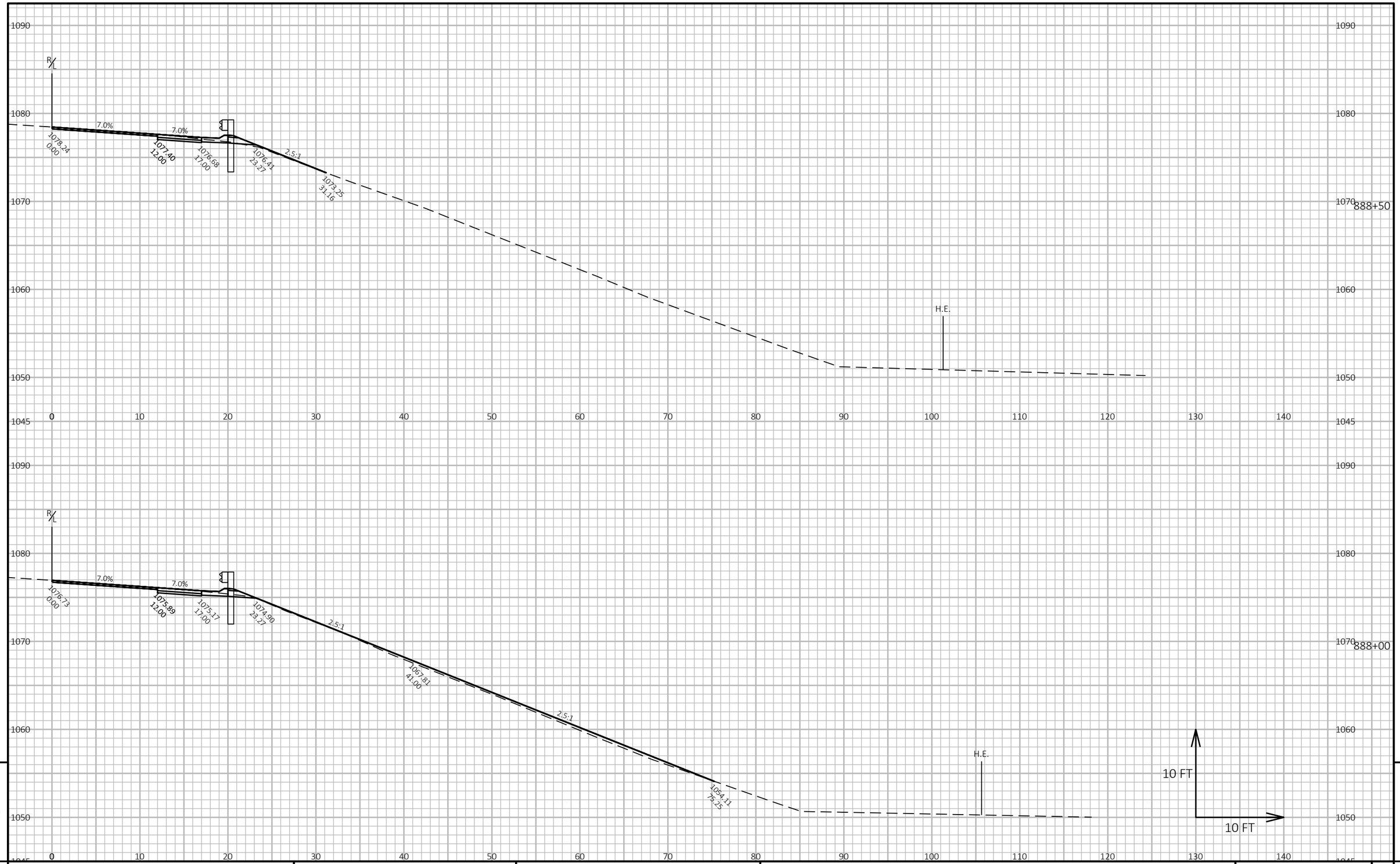
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 158	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 65

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

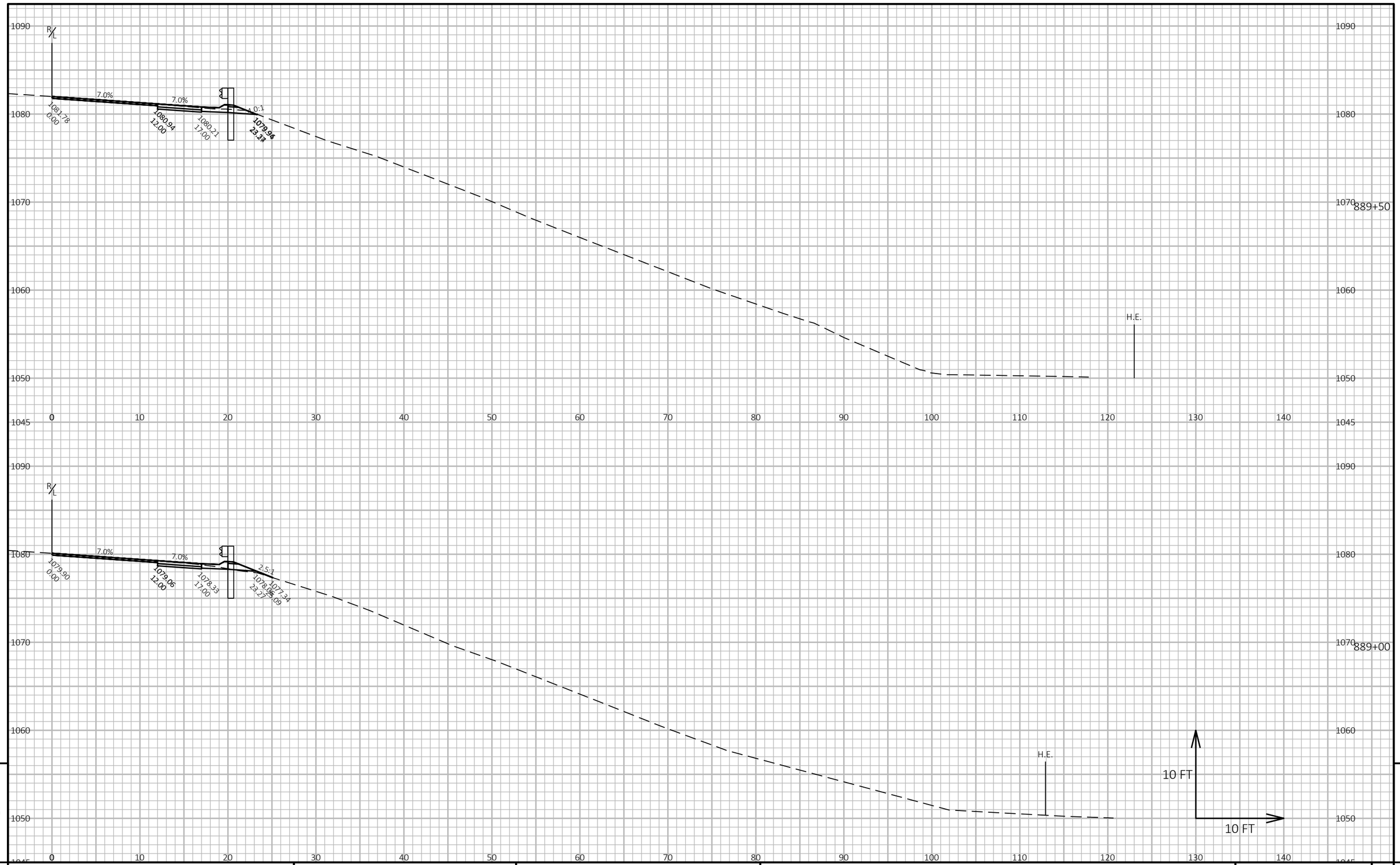
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 159	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 66

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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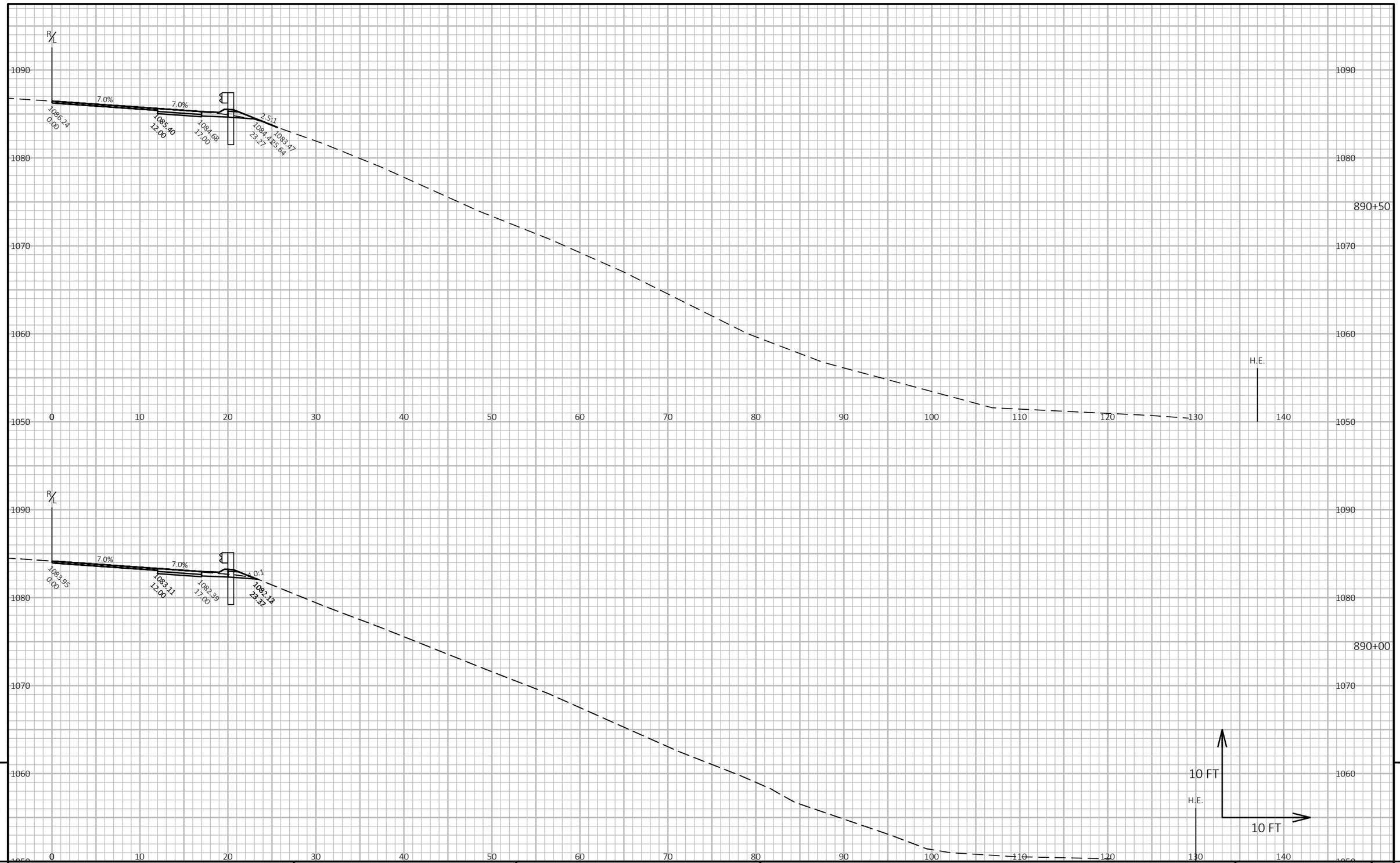
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 160	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 67

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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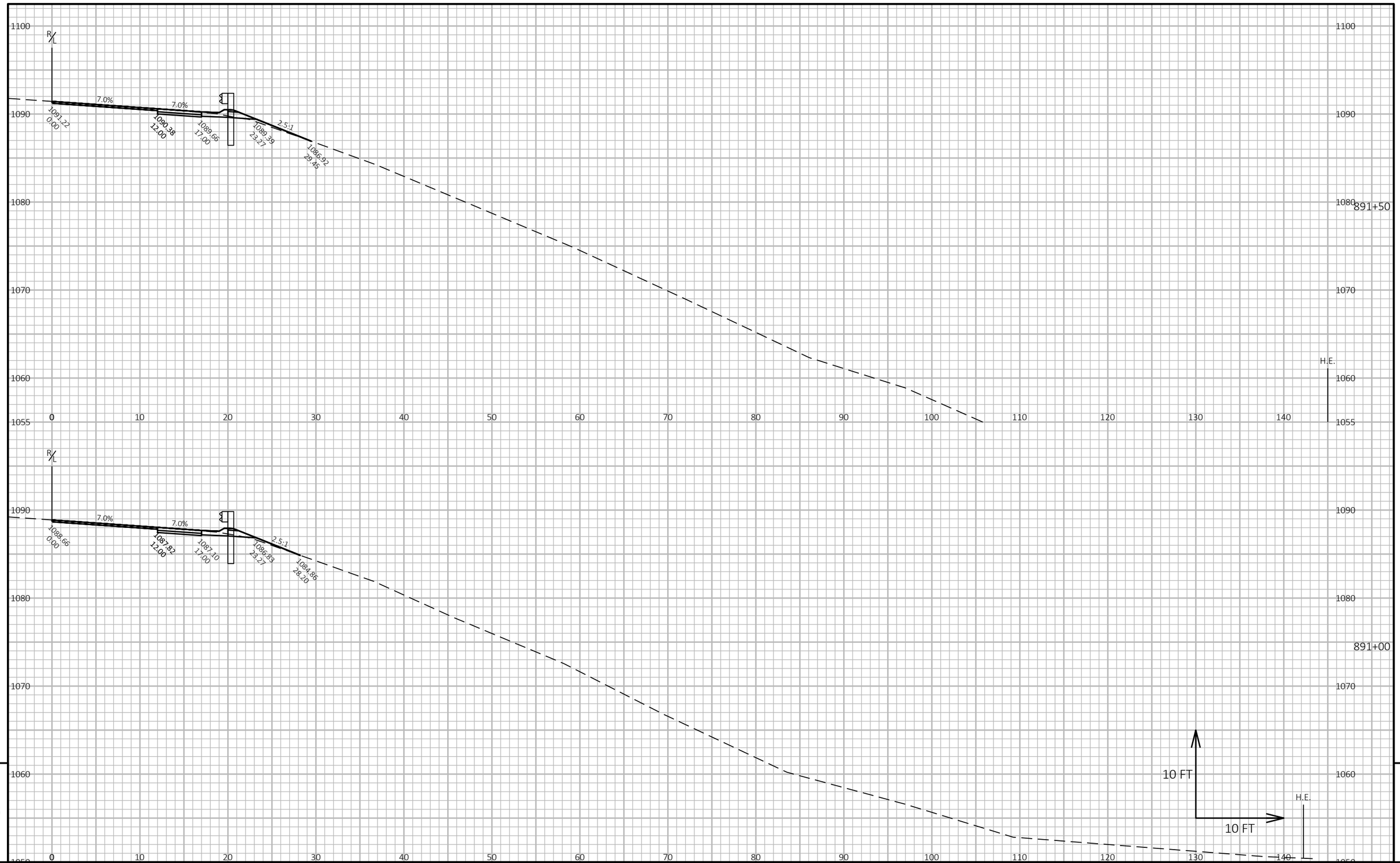
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 161	E

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LAYOUT NAME - 68

PLOT DATE : 12/12/2024 1:33 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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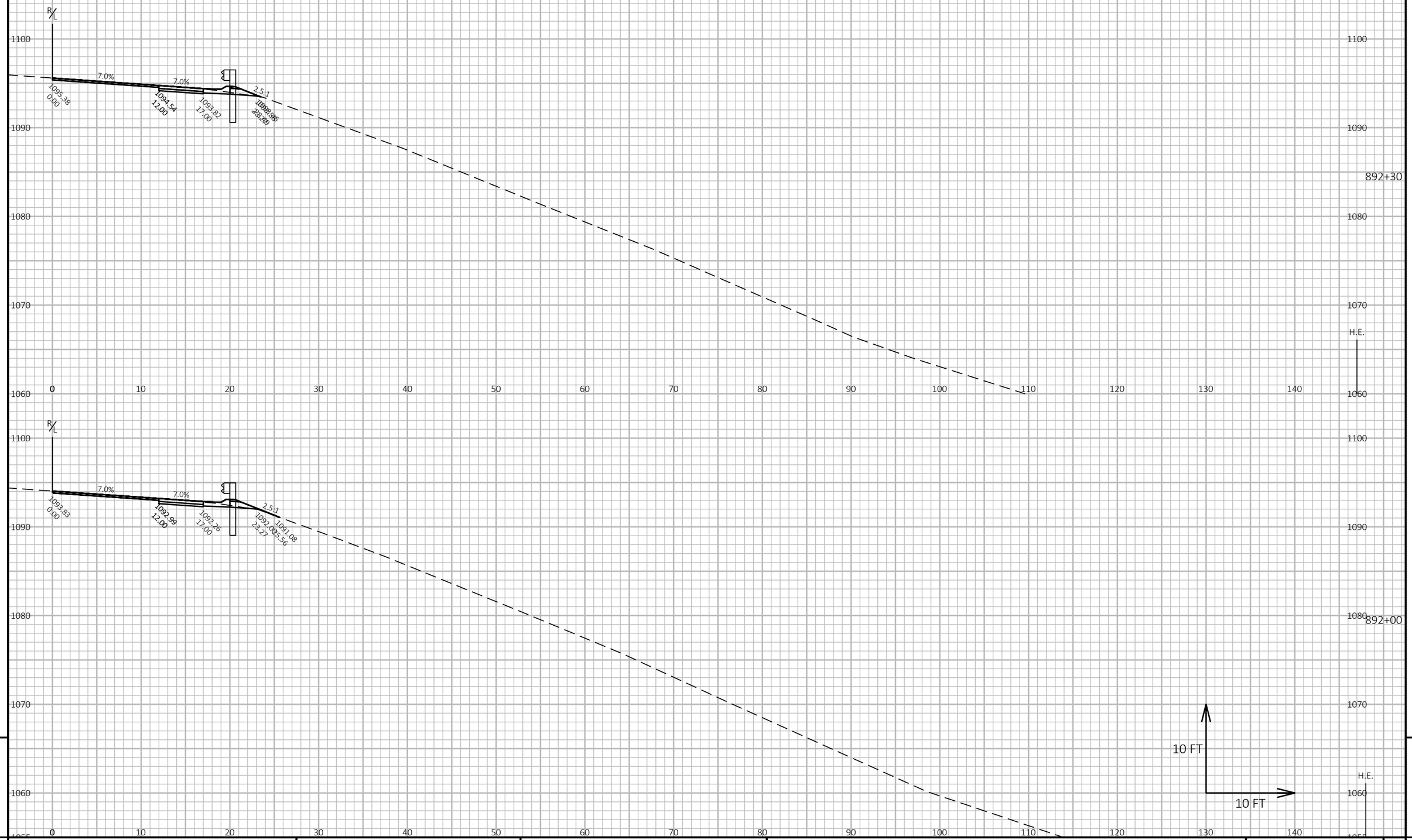
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 162	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 69

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

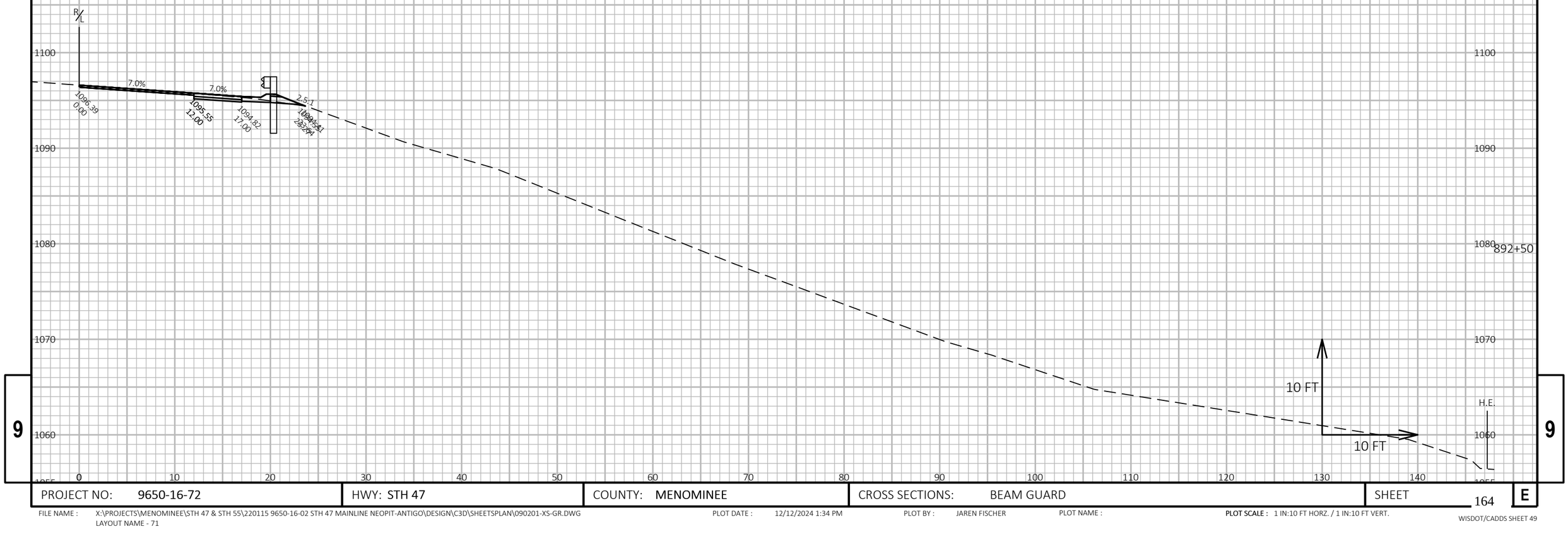


PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 163 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 70

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

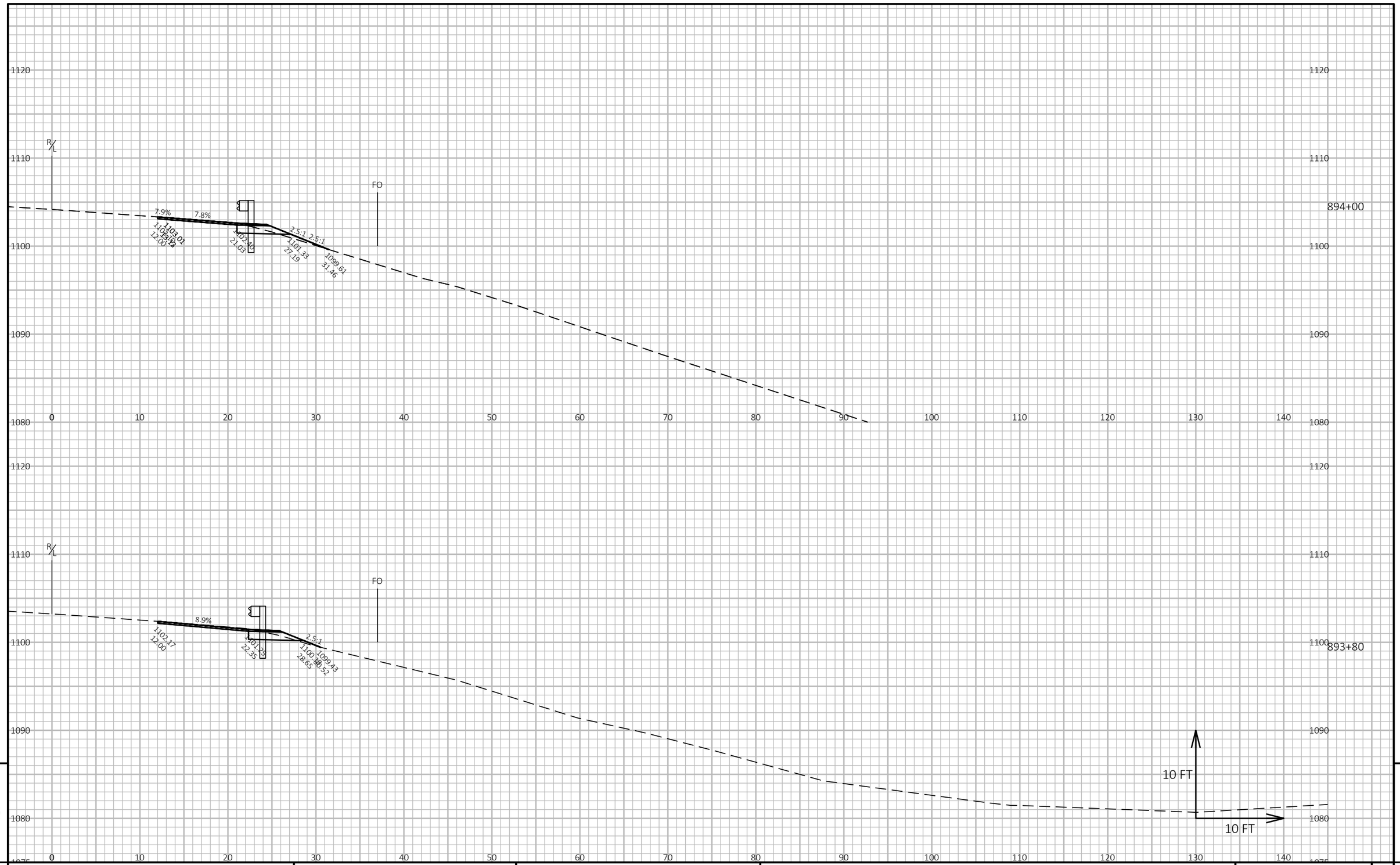
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 164	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 71

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

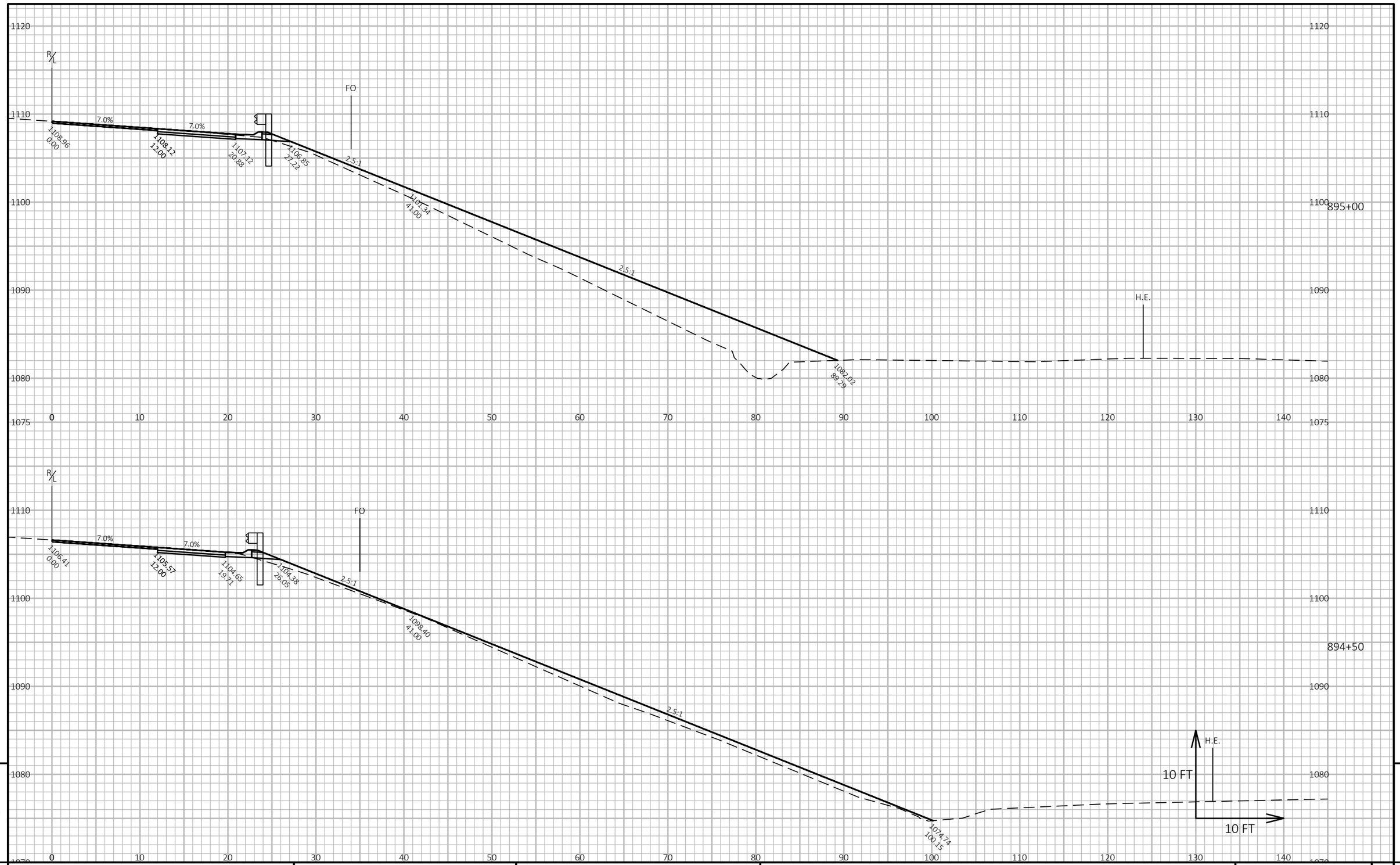
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 165	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 28

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

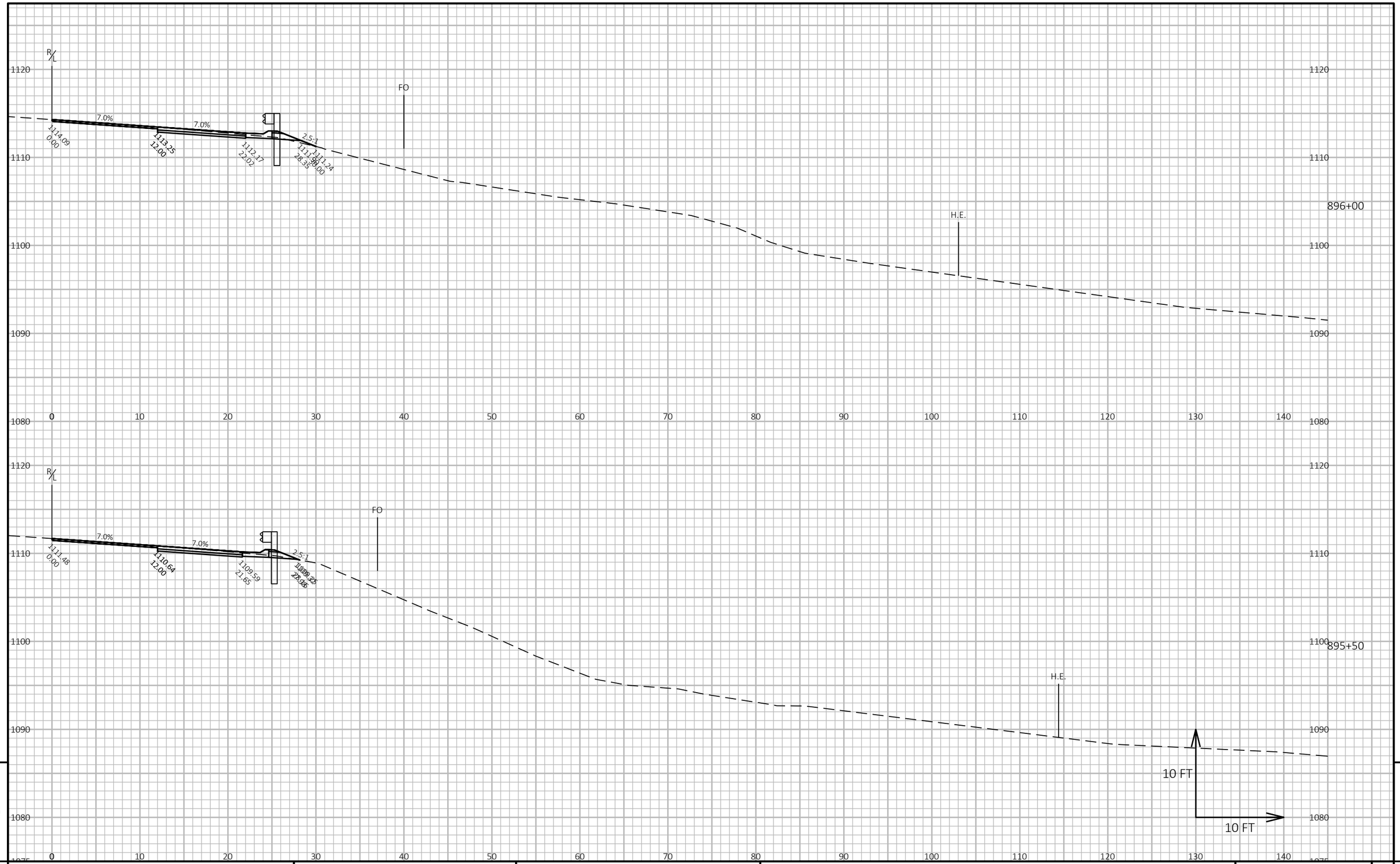


PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 166	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 29

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

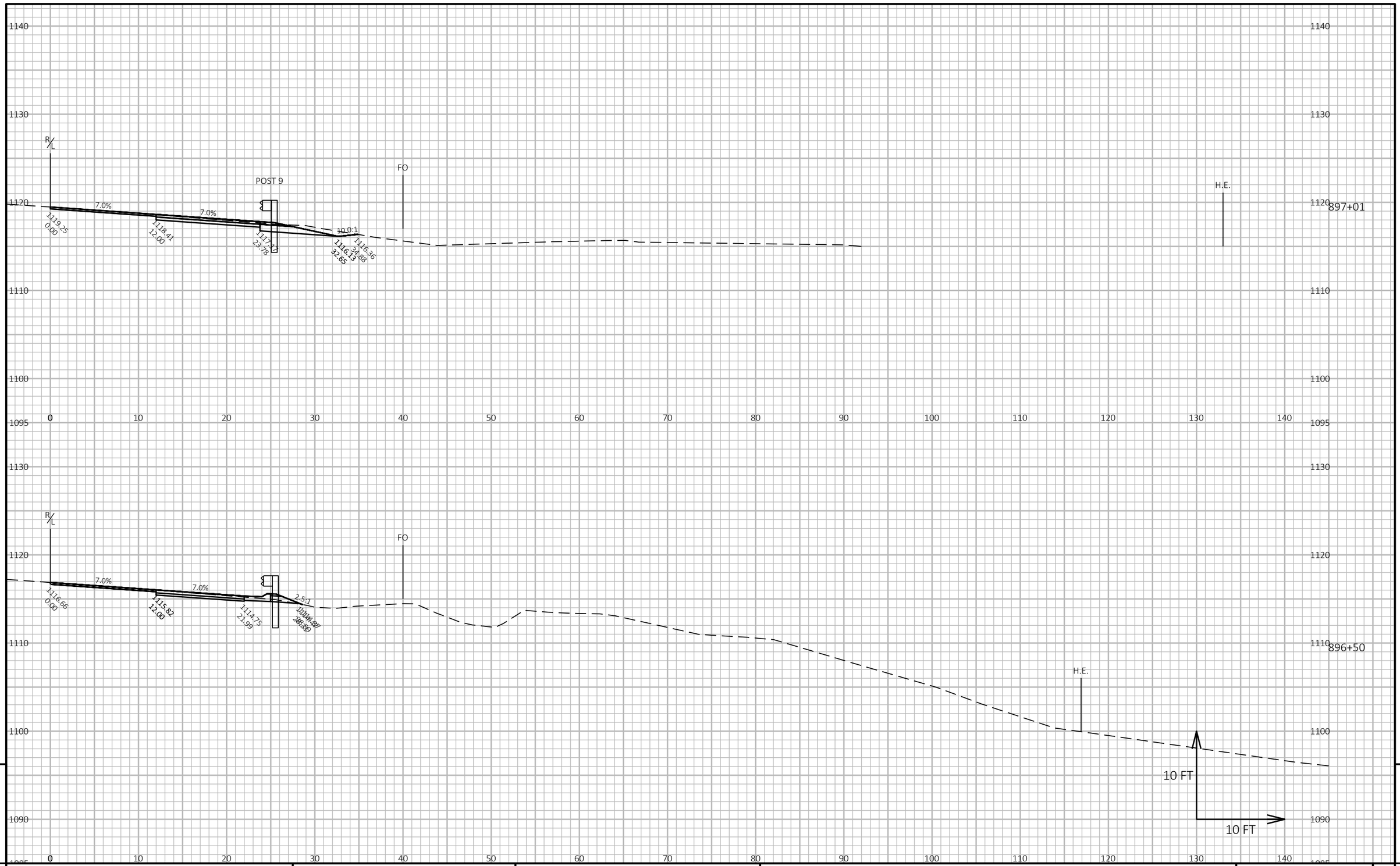
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 167	E

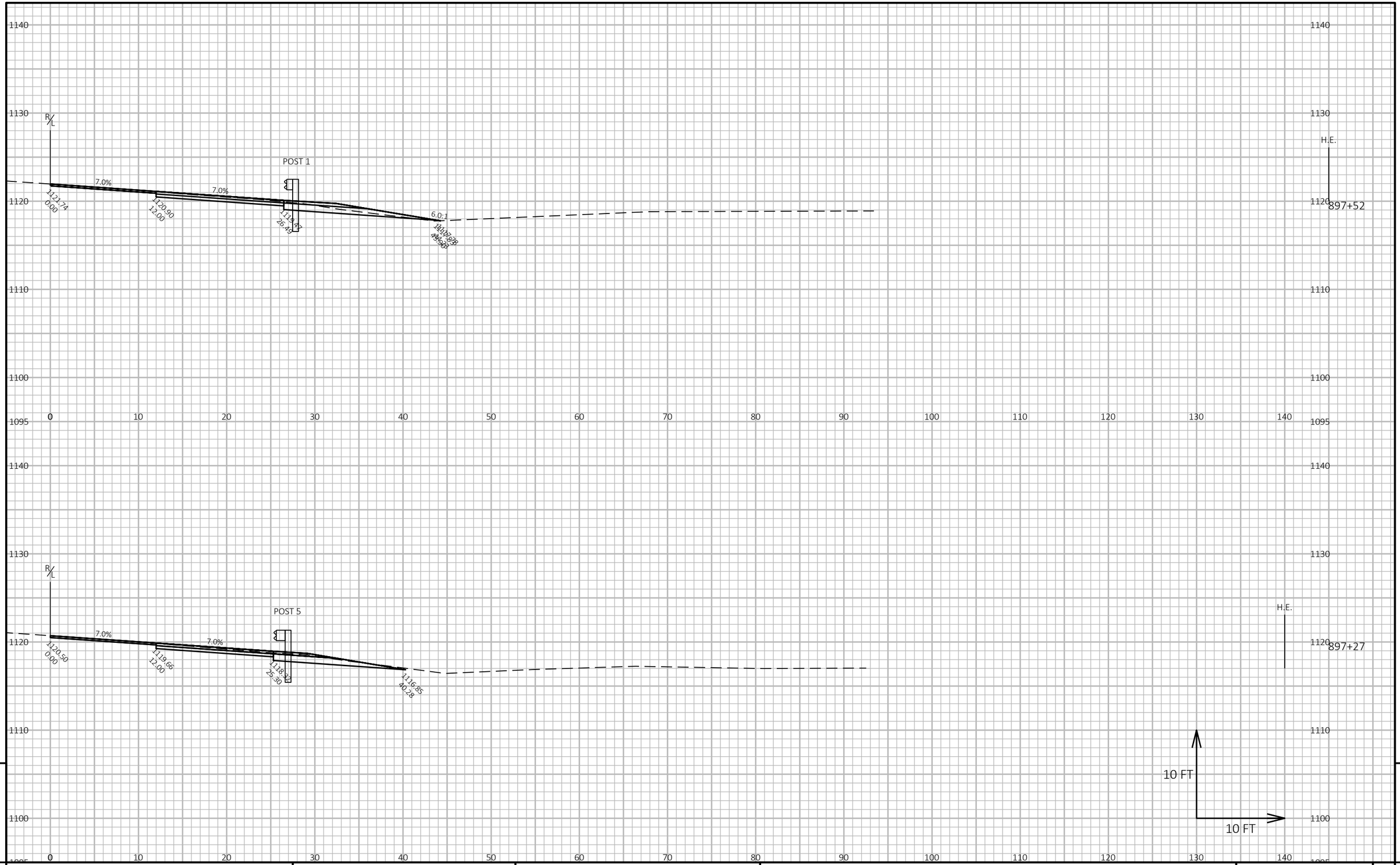
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LAYOUT NAME - 30

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9	PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 168 E



9

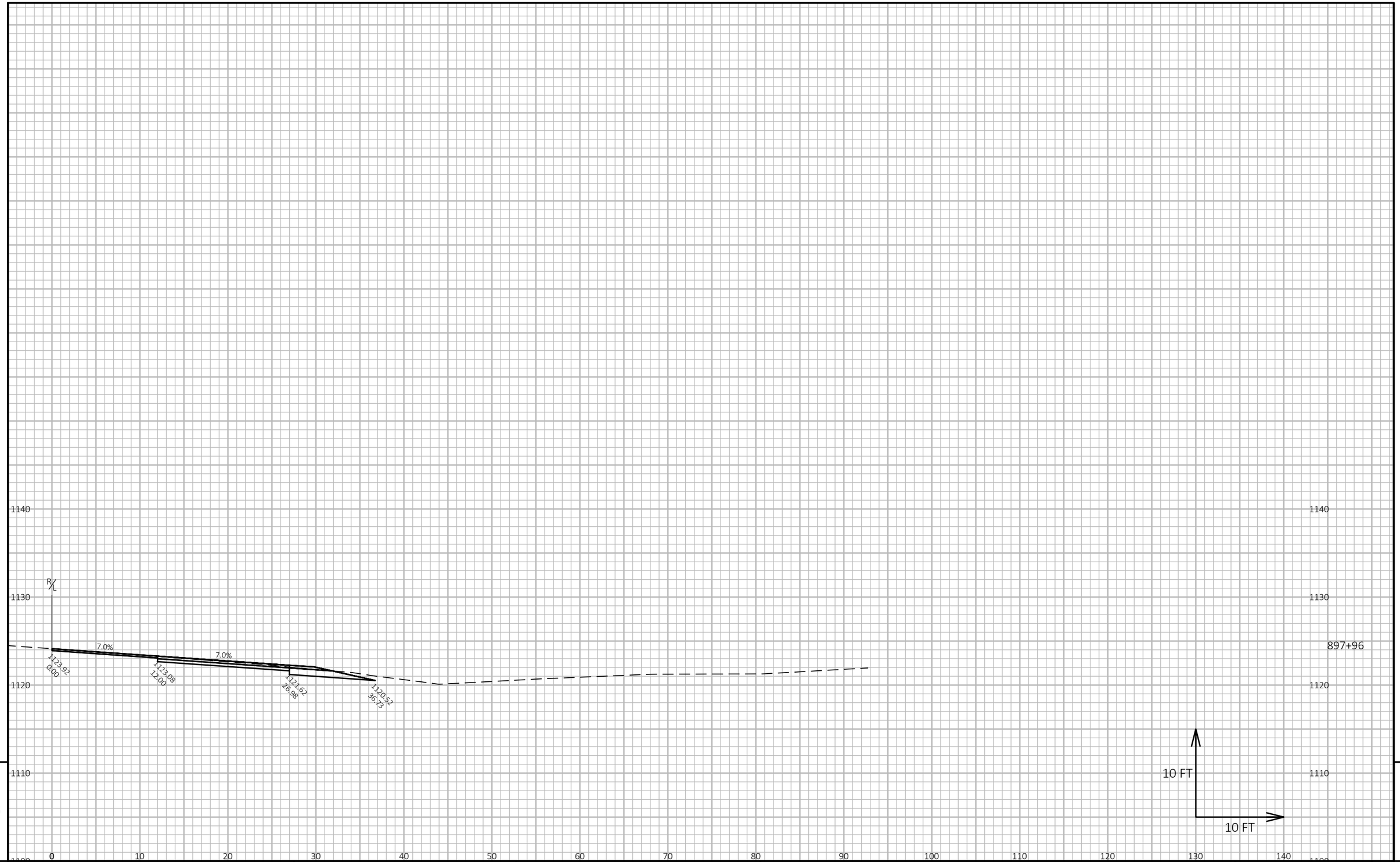
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PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 169	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 32

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 9650-16-72	HWY: STH 47	COUNTY: MENOMINEE	CROSS SECTIONS: BEAM GUARD	SHEET 170	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220115 9650-16-02 STH 47 MAINLINE NEOPIT-ANTIGO\DESIGN\C3D\SHEETSPLAN\090201-XS-GR.DWG
LAYOUT NAME - 33

PLOT DATE : 12/12/2024 1:34 PM PLOT BY : JAREN FISCHER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

RHI

PROJECT ID: 9650-17-73

WITH: 1009-43-69/9650-16-72/9660-09-70

COUNTY: MENOMINEE/SHAWANO

FEBRUARY 2026

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.	5	Plan
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 142



N

30

DESIGN DESIGNATION 9650-17-73

A.A.D.T.	2025	=	2025
A.A.D.T.	2045	=	2025
D.H.V.		=	9.7
D.D.		=	60/40
T.		=	11.4
DESIGN SPEED		=	60 MPH
ESALS		=	250,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHAWANO - NEOPIT

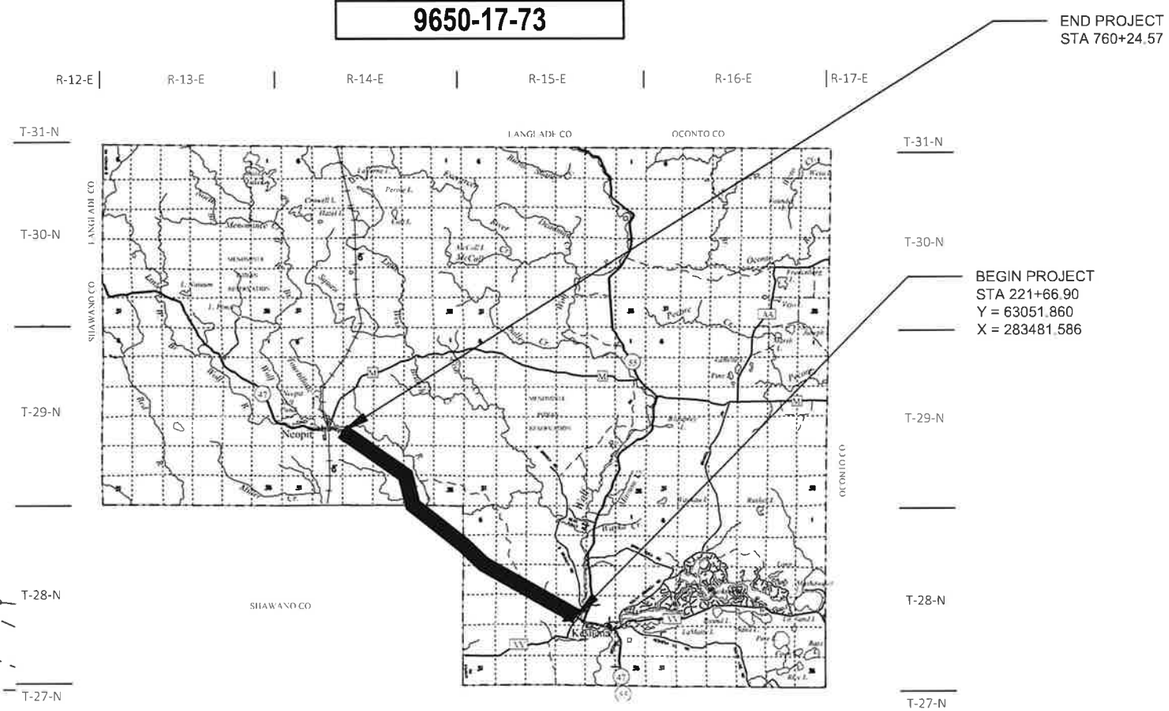
CTH VV TO FEATHER LANE

STH 47

MENOMINEE & SHAWANO COUNTY

STATE PROJECT NUMBER
9650-17-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9650-17-73	WISC 202624A	1



CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

LAYOUT

SCALE 0 4MI

TOTAL NET LENGTH OF CENTERLINE = 10.199 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MENOMINEE 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

ORIGINAL PLANS PREPARED BY

JT ENGINEERING WISCONSIN

ANDREW W. BLOCK E-41224-6 APPLETON WI. PROFESSIONAL ENGINEER

DATE: 10/7/25 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COLEMAN ENGINEERING COMPANY
Designer	JT ENGINEERING
Project Manager	STACY HAGENBUCHER, P.E.
Regional Examiner	FRED SCHUNKE, P.E.
Regional Supervisor	KAI KILEN, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 10/20/2025 (Signature)

E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\010101_TI.DWG PLOT DATE : 9/11/2025 5:58 AM PLOT BY : ANDY BLOCK PLOT NAME :

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
STUMP GRUBBING
DETOUR

GENERAL NOTES

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

ALL SLOPE INTERCEPTS SHOWN IN THE PLAN ARE APPROXIMATE.

SUPER ELEVATION R.O. AND S.T. INFORMATION IN THE PLANS IS FOR INFORMATION ONLY, MATCH THE EXISTING CONDITIONS.

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 58.48 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.10 ACRES

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

UTILITY CONTACTS

ELECTRICITY

ALLIANT ENERGY
BILL BASTIAN
880 W SCOTT ST
FOND DU LAC, WI 54937
(920) 322-6716
WILLIAMBASTIAN@ALLIANTENERGY.COM

COMMUNICATIONS

FRONTIER COMMUNICATIONS OF WI LLC
CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
(715) 847-1240
CHRISTOPHER.POLLACK@FTR.COM

COMMUNICATIONS

SPECTRUM
SCOTT KAISER
5024 HEFFRON ST
STEVENS POINT, WI 54481
(715) 382-3493
SCOTT.KAISER@CHARTER.COM

WATER UTILITIES

MENOMINEE TRIBAL UTILITIES
DARRYL PYAWASAY
PO BOX 250
KESHENA, WI 54135
(715) 799-5177 (OFFICE)
(715) 853-4897 (CELL)
DPYAWASAY@MITW.ORG

TRIBAL/ENVIRONMENTAL CONTACT

JEREMY PYATSKOWIT
PO BOX 910
KESHENA, WI 54135
(715) 799-6150
JPYATSKOWIT@MITW.COM

DNR LIAISON

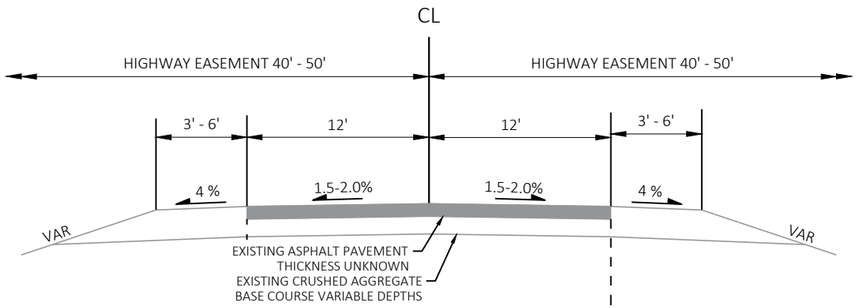
JAMES DOPERALSKI, JR.
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 412-0165
JAMES.DOPERALSKI@WISCONSIN.GOV

STANDARD ABBREVIATIONS

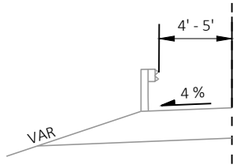
ADT	AVERAGE DAILY TRAFFIC
AC	ASPHALT CEMENT
AGG	AGGREGATE
ASPH	ASPHALT
BM	BENCHMARK
C/L	CENTERLINE
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CR	CREEK
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
ESALS	EQUIVALENT SINGLE AXIS LOADS
EXIST	EXISTING
FE	FIELD ENTRANCE
HYD	HYDRANT
IP	IRON PIPE
L	LENGTH OF CURVE
LC	LONG CHORD OF CURVE
LR	LENGTH OF RUN OFF
MH	MANHOLE
NC	NORMAL CROWN
PT	POINT OF TANGENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PE	PRIVATE ENTRANCE
R	RADIUS
REM	REMOVE
R/L OR RL	REFERENCE LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RCPSS	REINFORCED CONCRETE STORM SEWER
RO	RUNOUT
R/W	RIGHT OF WAY
STA	STATION
SE	SUPER ELEVATION
SS	STORM SEWER
T	TANGENT
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
T	TRUCKS
VC	VERTICAL CURVE
W	WELL

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE - SHAWANO	PROJECT OVERVIEW	SHEET 3	E

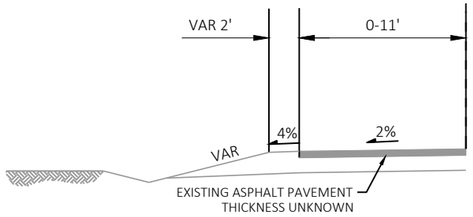
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\020201_PO.DWG
LAYOUT NAME - 01
PLOT DATE : 10/9/2024 11:42 AM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:2 MI
WISDOT/CADDS SHEET 42



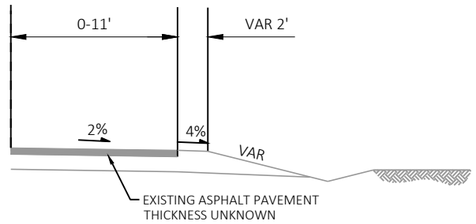
EXISTING TYPICAL SECTION
STA 221+67 - 760+24



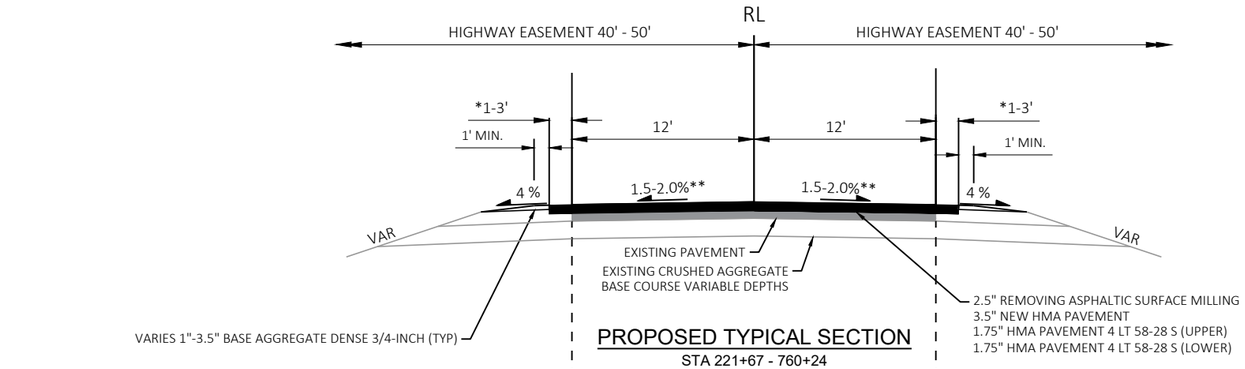
EXISTING BEAM GUARD
STA 403+53 - 412+02 LT



EXISTING TYPICAL SECTION PASSING LANES
STA 508+60 - 515+26 LT
STA 717+56 - 719+69 LT



EXISTING TYPICAL SECTION PASSING LANES
STA 506+40 - 513+75 RT
STA 696+04 - 697+91 RT

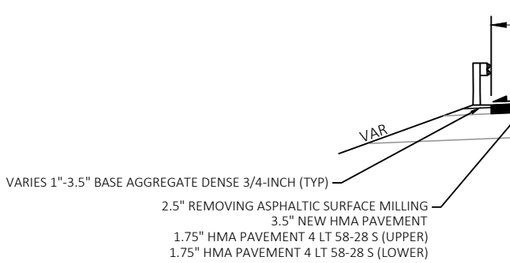


PROPOSED TYPICAL SECTION
STA 221+67 - 760+24

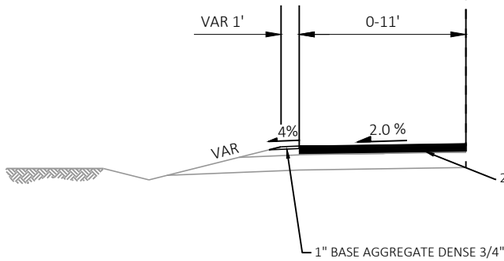
*PROPOSED MAINLINE PAVED SHOULDERS

STA 221+67 - 506+40	2'
STA 515+26 - 630+00	3'
STA 630+00 - 661+00	2'
STA 661+00 - 760+20	1'

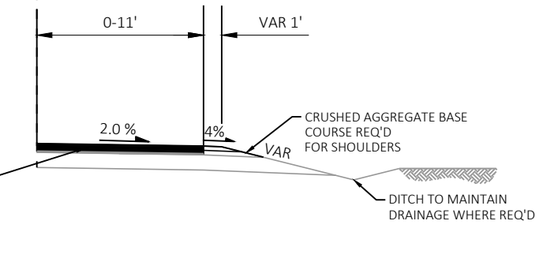
**MATCH EXISTING



PROPOSED BEAM GUARD RUNS
STA 403+53 - 412+02 LT

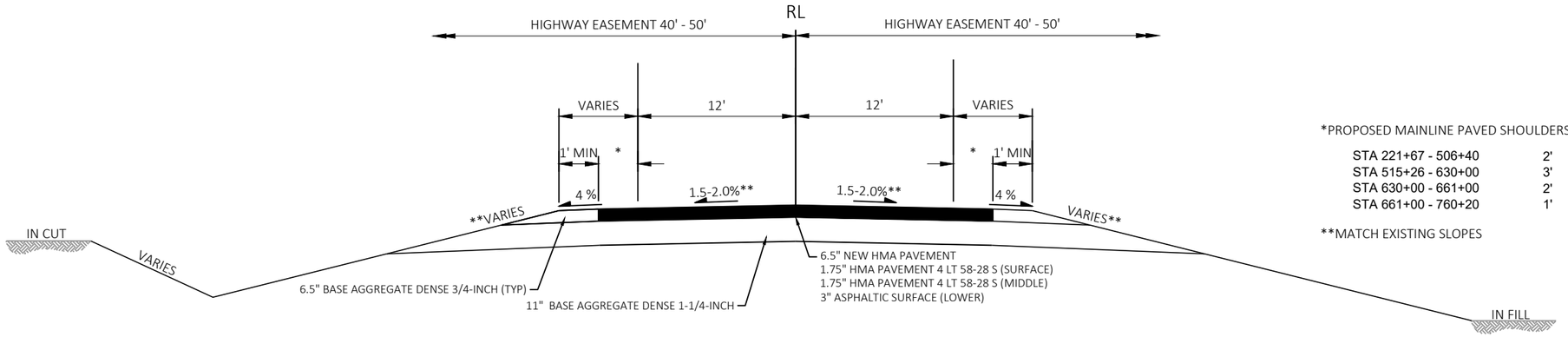


PROPOSED TURN LANE AND EMERGENCY PULL-OUT TYPICAL SECTION
STA 508+60 - 515+26 LT
STA 717+56 - 719+69 LT



PROPOSED TURN LANE AND EMERGENCY PULL-OUT TYPICAL SECTION
STA 506+40 - 513+75 RT
STA 696+04 - 697+91 RT

2



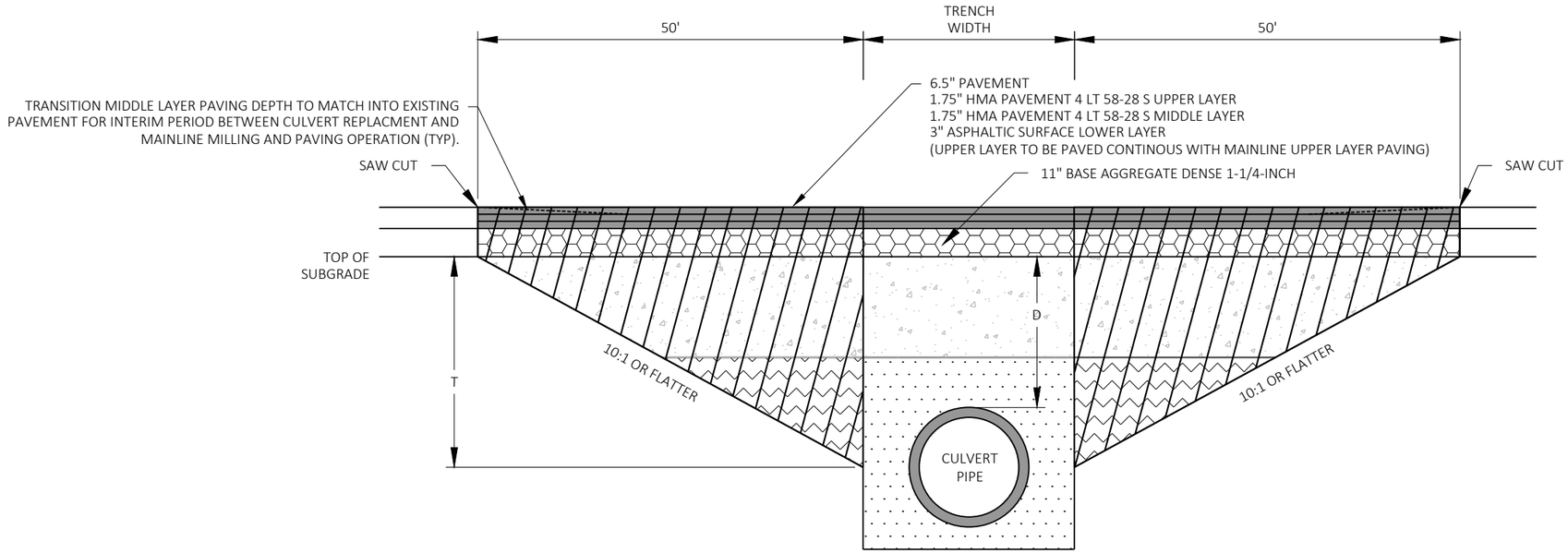
*PROPOSED MAINLINE PAVED SHOULDERS

STA 221+67 - 506+40	2'
STA 515+26 - 630+00	3'
STA 630+00 - 661+00	2'
STA 661+00 - 760+20	1'

**MATCH EXISTING SLOPES

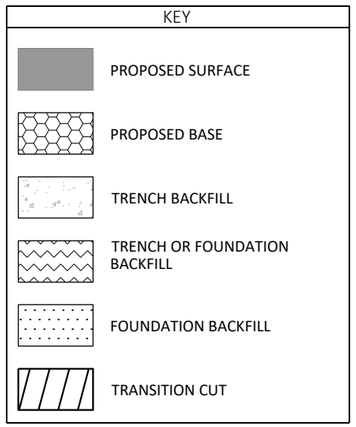
PROPOSED TYPICAL SECTION

CULVERT PATCHES
STA 254+16 - 255+26
STA 270+18 - 271+29
STA 279+20 - 280+30
STA 294+93 - 296+03
STA 358+66 - 359+76
STA 419+93 - 421+03
STA 437+13 - 438+23
STA 452+59 - 453+69
STA 570+04 - 571+14
STA 590+25 - 591+35
STA 609+01 - 610+11
STA 633+52 - 634+62
STA 683+24 - 684+34
STA 735+60 - 736+70
STA 744+24 - 745+34
STA 756+98 - 758+08



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 PAID AS EXCAVATION COMMON.

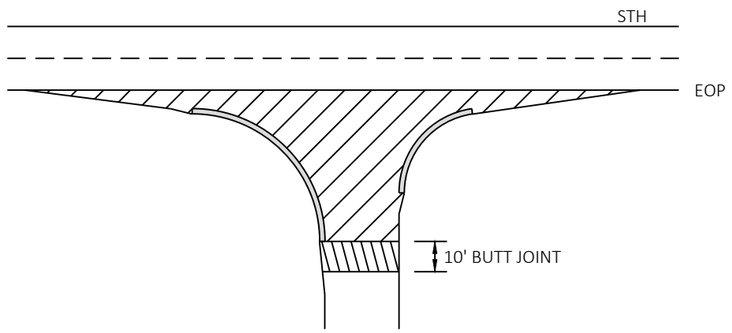
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.

BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.

PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING OPERATIONS.

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 47	254+71	2.0	24	---
STH 47	270+74	1.0	24	---
STH 47	279+75	2.8	24	---
STH 47	295+48	1.5	72	TWIN PIPES
STH 47	359+21	2.7	30	---
STH 47	420+48	3.8	24	---
STH 47	437+68	1.2	24	---
STH 47	453+14	3.0	30	---
STH 47	570+59	3.5	24	---
STH 47	590+80	5.0	30	---
STH 47	609+56	3.5	24	---
STH 47	634+07	3.5	24	---
STH 47	683+79	1.0	24	---
STH 47	736+15	3.0	43X68	---
STH 47	744+79	1.0	24	---
STH 47	757+53	1.0	24	---



REMOVING ASPHALTIC SURFACE MILLING*

REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

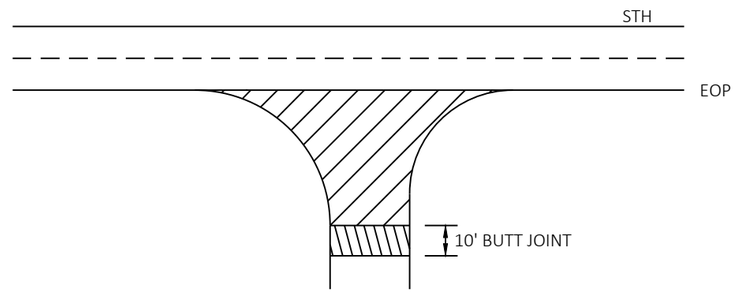
NOTE: WHEN MATCHING TO AN UNPAVED SURFACE
BUTT JOINT IS NOT REQUIRED

SIDE ROADS

WITH CURB AND GUTTER

CTH G
WHITE CEDAR ROAD

* PROPOSED HMA SURFACE LAYER TO MATCH MILLING DEPTH ON SIDE ROADS WITH CURB AND GUTTER



REMOVING ASPHALTIC SURFACE MILLING

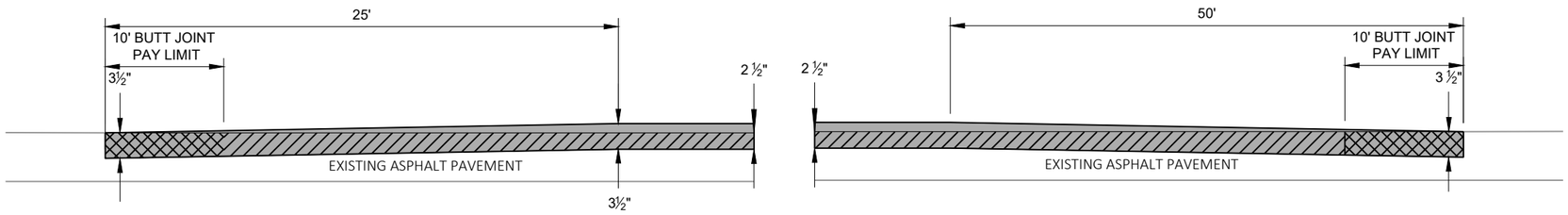
REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE
BUTT JOINT IS NOT REQUIRED

SIDE ROADS

WITHOUT CURB AND GUTTER

KESHENA FALLS ROAD
CROW SETTLEMENT ROAD
MIDWAY ROAD
TOWER ROAD
CAMP ONE ROAD



SIDE ROAD BUTT JOINT

MAINLINE BUTT JOINT

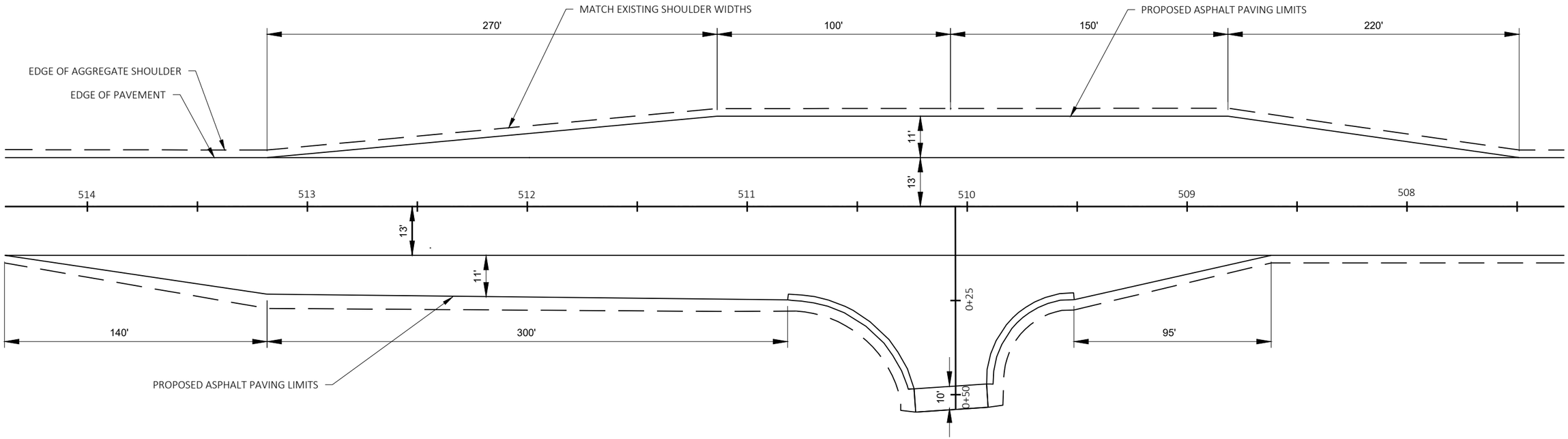
REMOVING ASPHALTIC SURFACE BUTT JOINTS
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT

BUTT JOINT - WITH PAVEMENT ELEVATION CHANGE

STA 221+66.90
STA 760+24.57

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CONSTRUCTION DETAILS	SHEET 8	E

2

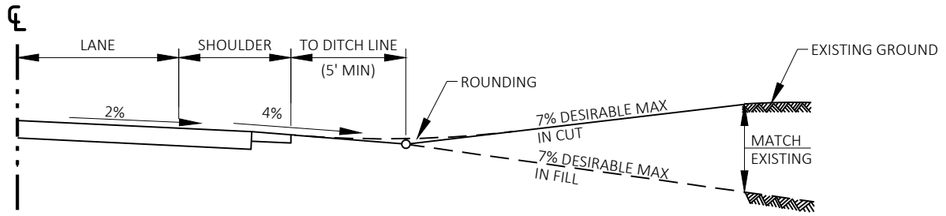


CTH G INTERSECTION PAVING DETAIL

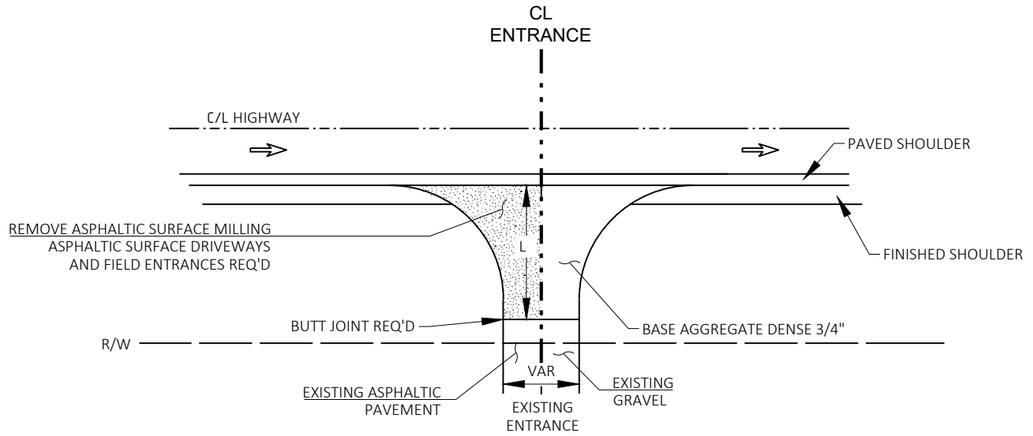
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CONSTRUCTION DETAILS	SHEET 9	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\021001-CD.DWG PLOT DATE : 10/24/2025 7:25 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1:10
LAYOUT NAME - 03
WISDOT/CADDS SHEET 42

2



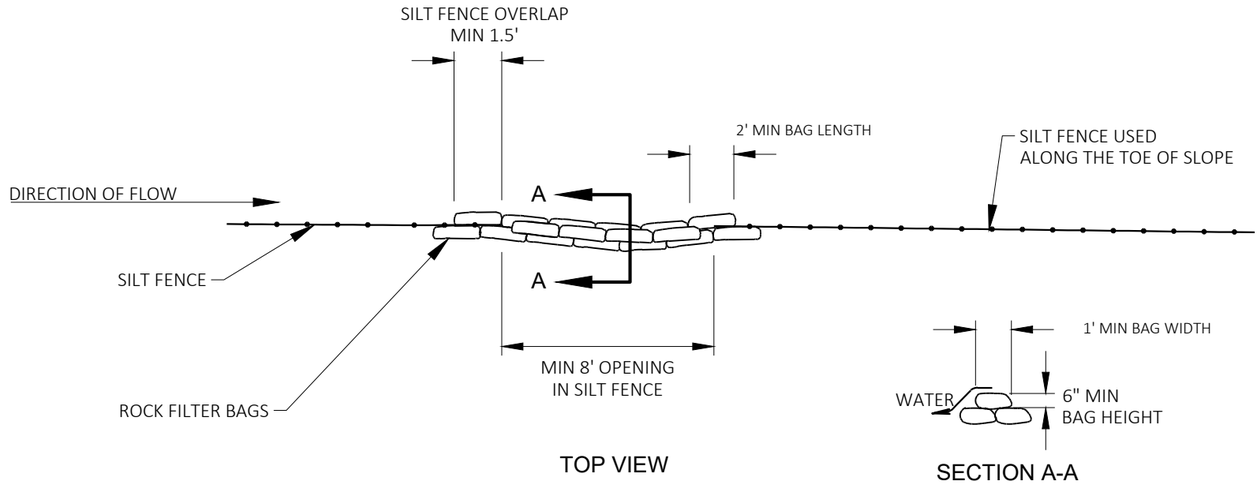
TYPICAL PROFILE VIEW



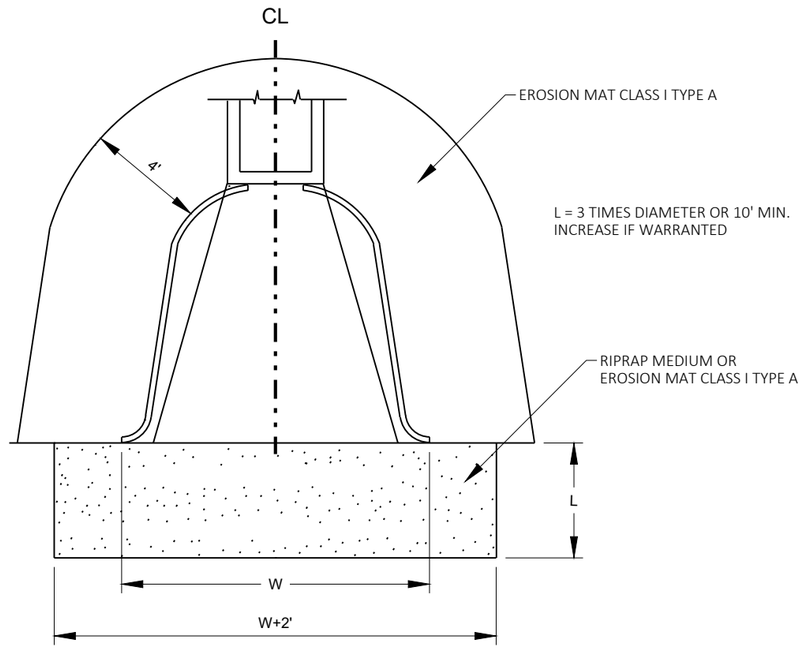
L=10' TYP, EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER

PLAN VIEW

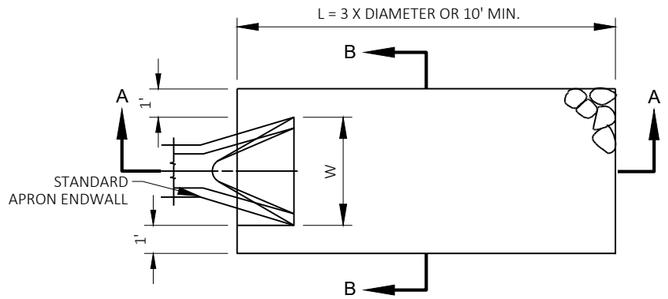
RURAL DRIVEWAY INTERSECTION (PE, FE & CE)

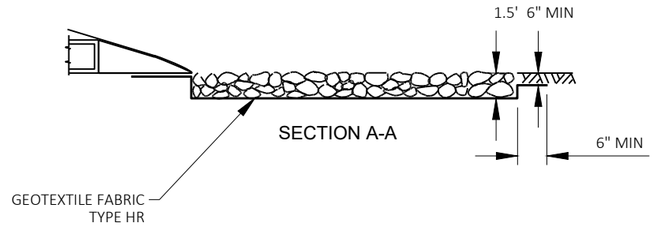


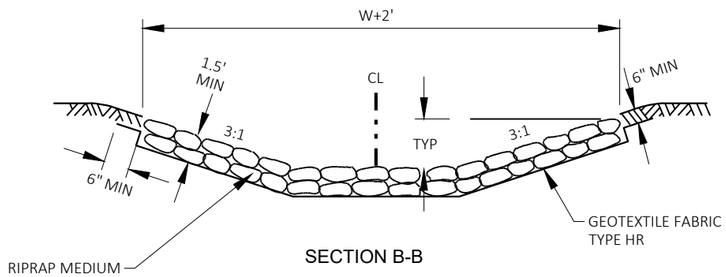
ROCK BAGS USED FOR SILT FENCE RELIEF



EROSION CONTROL AT PIPE ENDS







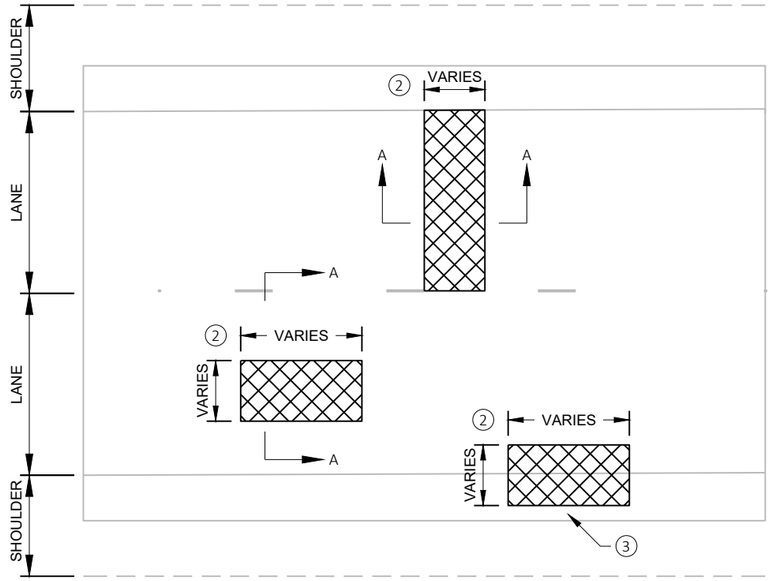
RIP RAP AND GEOTEXTILE

2

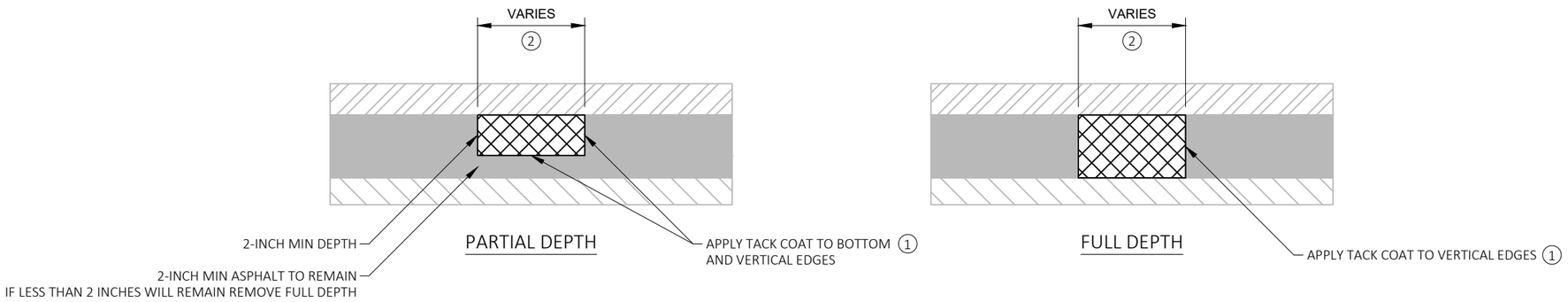
NOTES:

PERFORM REMOVING ASPHALTIC SURFACE MILLING PRIOR TO REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

1. MILLED VERTICAL EDGES ARE ACCEPTABLE, SAW CUTS ARE NOT REQUIRED.
2. THE SMALLEST DIMENSION OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS 4 FEET IN ANY DIRECTION.
3. WHEN THE DISTANCE FROM THE EDGE OF PAVEMENT TO EDGE OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS LESS THAN 1-FOOT, EXTEND THE REMOVING DISTRESSED ASPHALTIC SURFACE MILLING TO THE EDGE OF PAVEMENT.



PLAN VIEW



SECTION A-A

REMOVING ASPHALTIC SURFACE MILLING

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING
ASPHALTIC SURFACE PATCHING

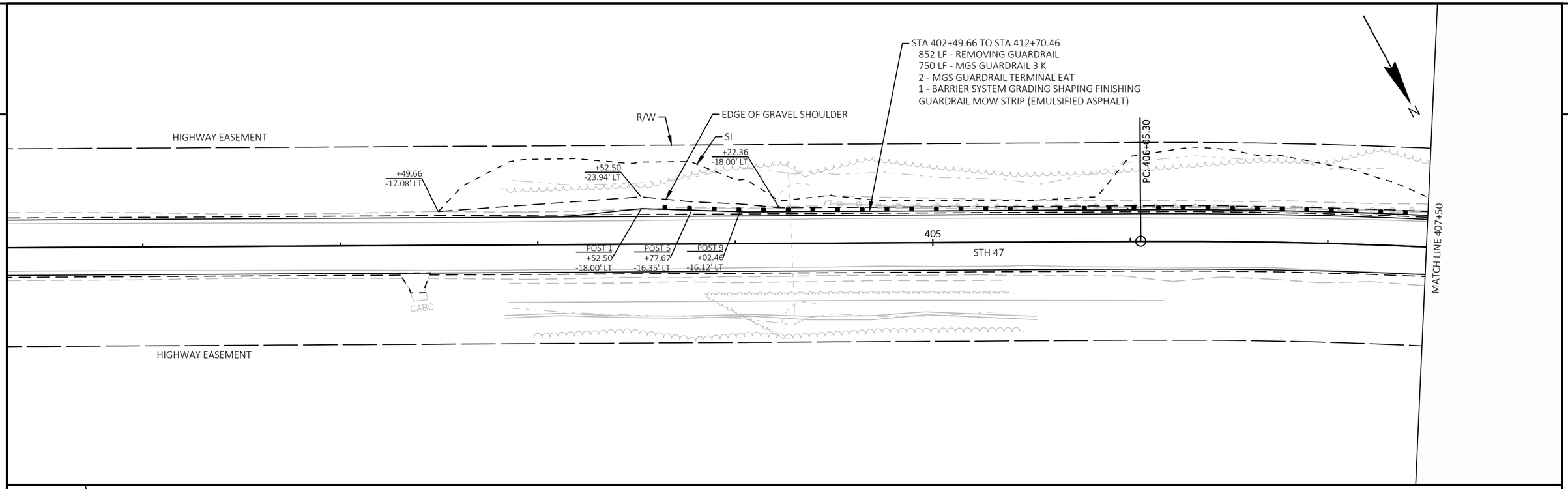
EXISTING ASPHALT

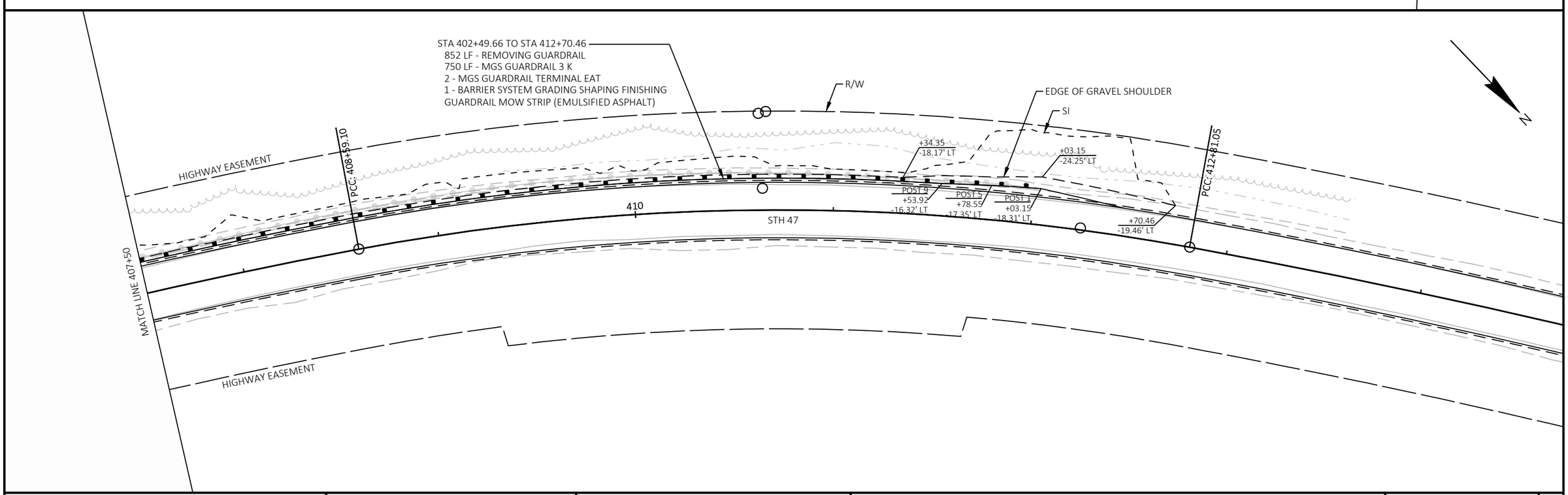
EXISTING BASE COURSE

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

LOCATIONS AND LIMITS DETERMINED BY THE ENGINEER IN THE FIELD

2

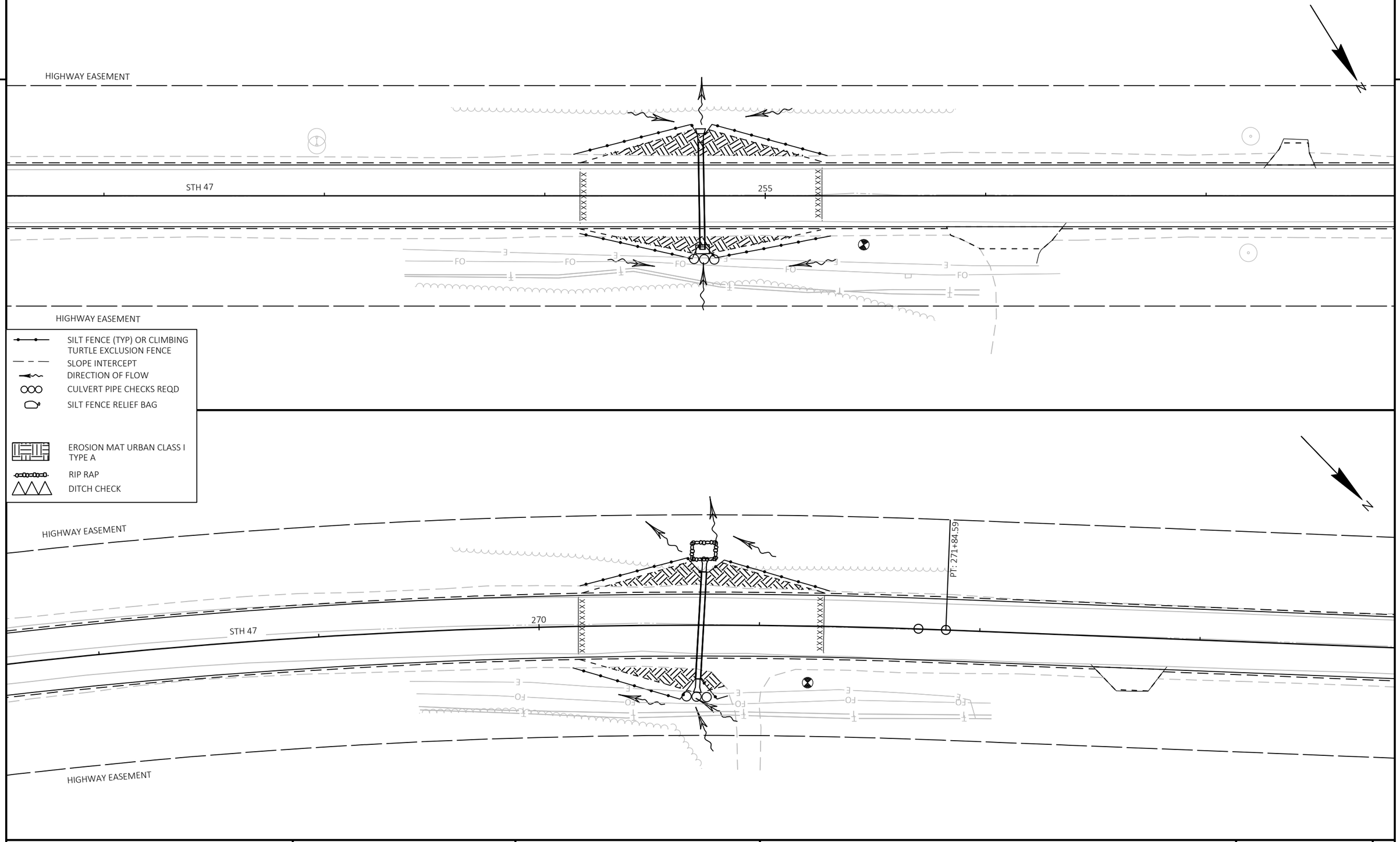




PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN DETAILS - GUARDRAIL	SHEET 13	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\021220-PD-GR.DWG
LAYOUT NAME - 01
PLOT DATE : 10/9/2024 12:11 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

NOTE: SLOPE INTERCEPTS ARE APPROXIMATE



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 14	E

2

2

HIGHWAY EASEMENT

STH 47

280

STA 78+99.87 / STA 79+27.13

HIGHWAY EASEMENT

SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE

SLOPE INTERCEPT

DIRECTION OF FLOW

CULVERT PIPE CHECKS REQD

SILT FENCE RELIEF BAG

EROSION MAT URBAN CLASS I TYPE A

RIP RAP

DITCH CHECK

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

WETLANDS

HIGHWAY EASEMENT

STH 47

295

HIGHWAY EASEMENT

WETLANDS

MAINTAIN CLIMBING TURTLE EXCLUSION FENCE INSTALLED BY OTHERS

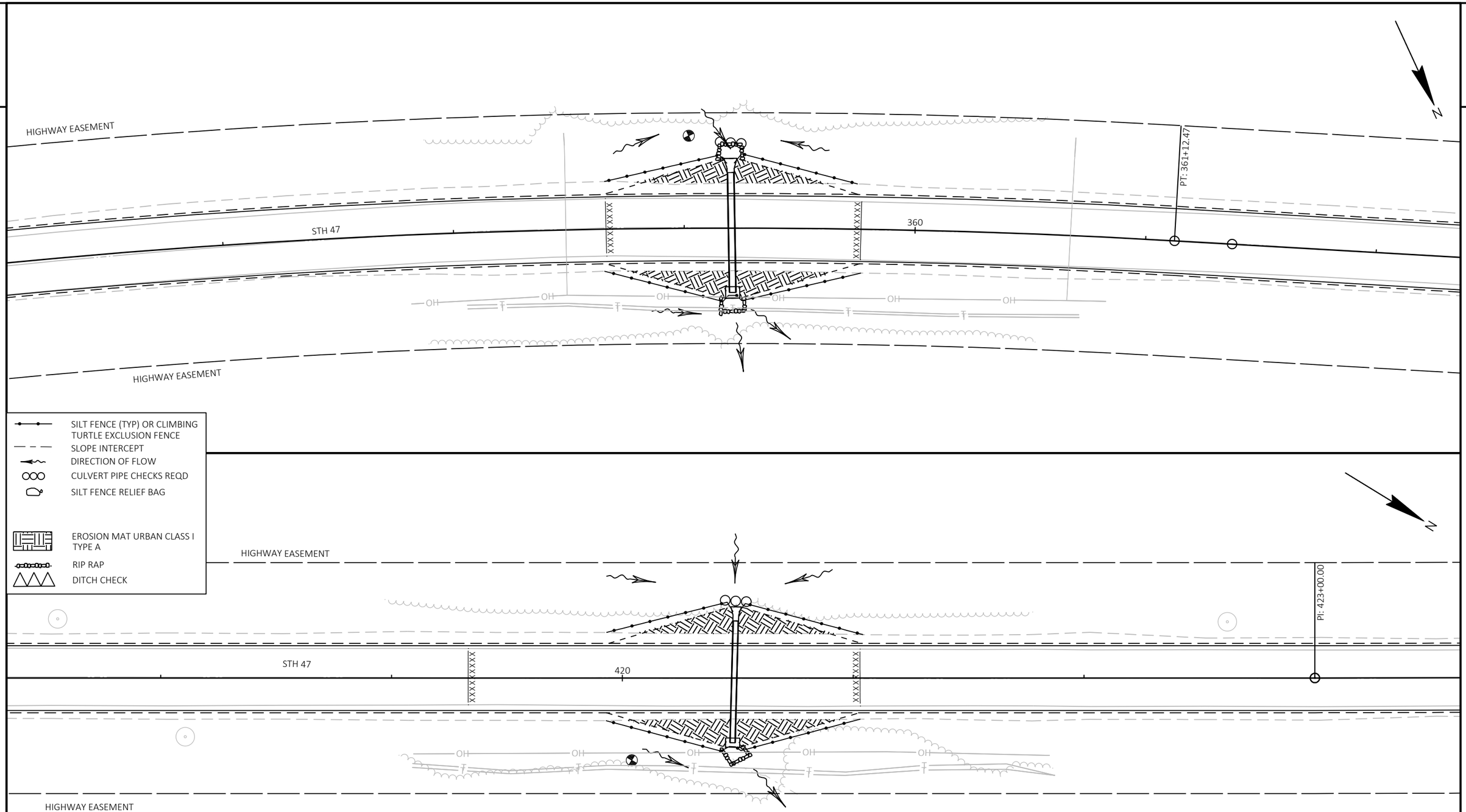
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 15	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-17-03.DWG
LAYOUT NAME - 02

PLOT DATE : 12/17/2025 2:00 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 16	E

2

HIGHWAY EASEMENT

STH 47

405

PCC: 408+59.10

MATCH LINE 408+75

2

STRUCTURE ID: 73047008764
CONSTRUCTED UNDER PROJECT 1009-43-39
SHOWN ONLY FOR INFORMATIONAL PURPOSES

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

HIGHWAY EASEMENT

410

STH 47

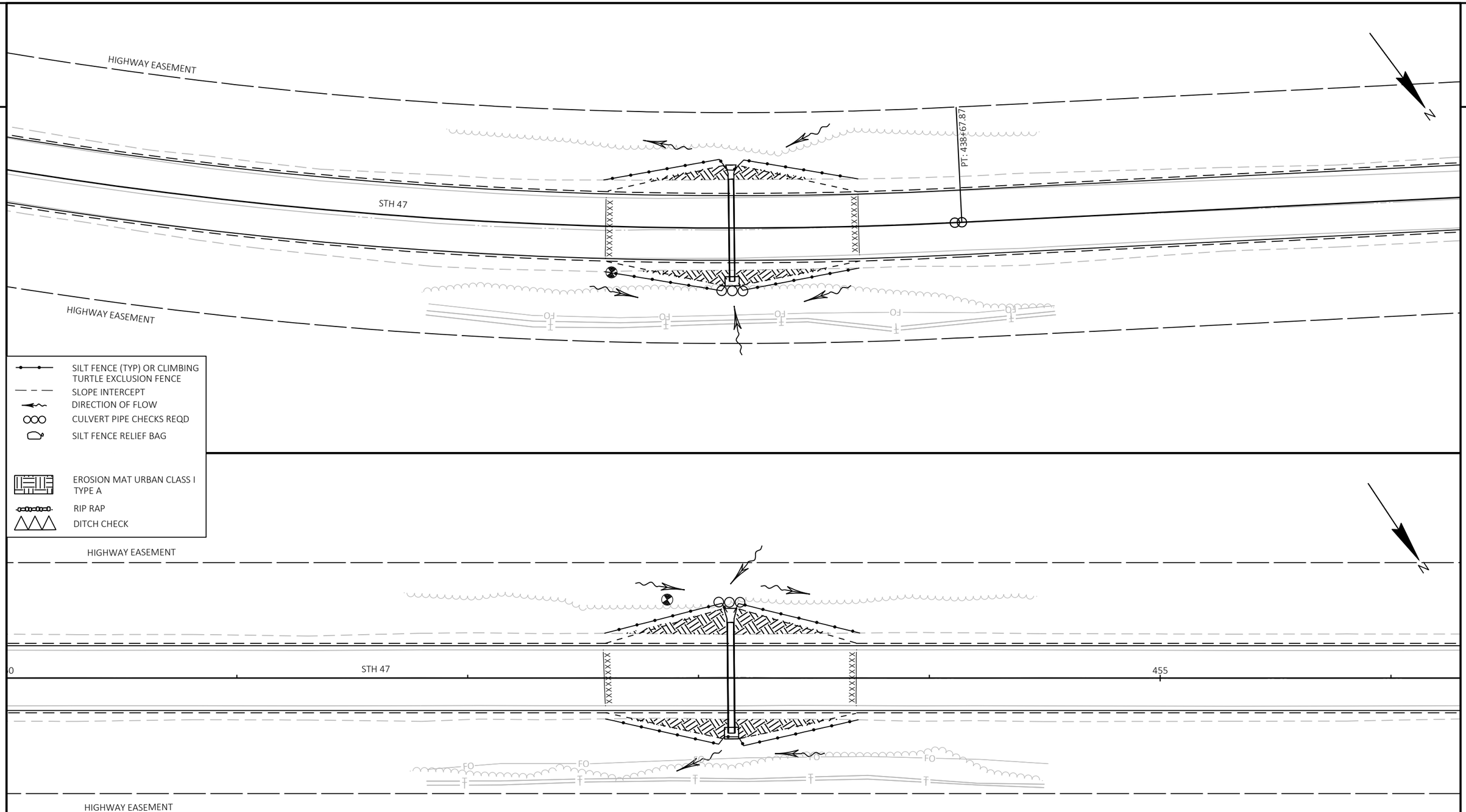
PCC: 412+81.05

MATCH LINE 408+75

HIGHWAY EASEMENT

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 17	E

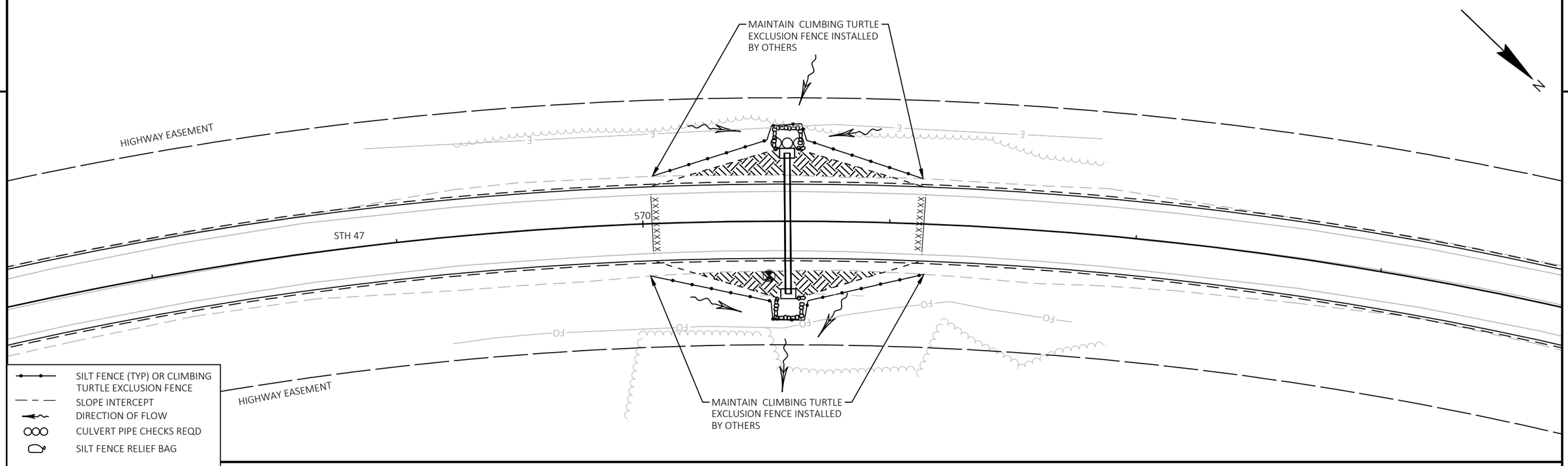
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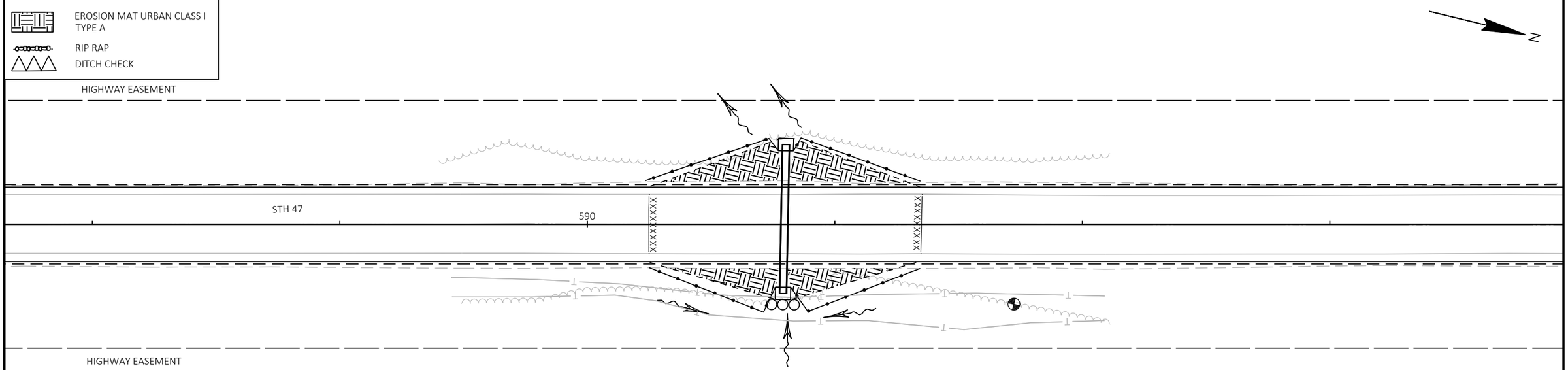
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PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 18	E

2



SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
SLOPE INTERCEPT
DIRECTION OF FLOW
CULVERT PIPE CHECKS REQD
SILT FENCE RELIEF BAG
EROSION MAT URBAN CLASS I TYPE A
RIP RAP
DITCH CHECK



2

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 19	E

2

2

HIGHWAY EASEMENT

STH 47

610

HIGHWAY EASEMENT

SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE

SLOPE INTERCEPT

DIRECTION OF FLOW

CULVERT PIPE CHECKS REQD

SILT FENCE RELIEF BAG

EROSION MAT URBAN CLASS I TYPE A

RIP RAP

DITCH CHECK

HIGHWAY EASEMENT

STH 47

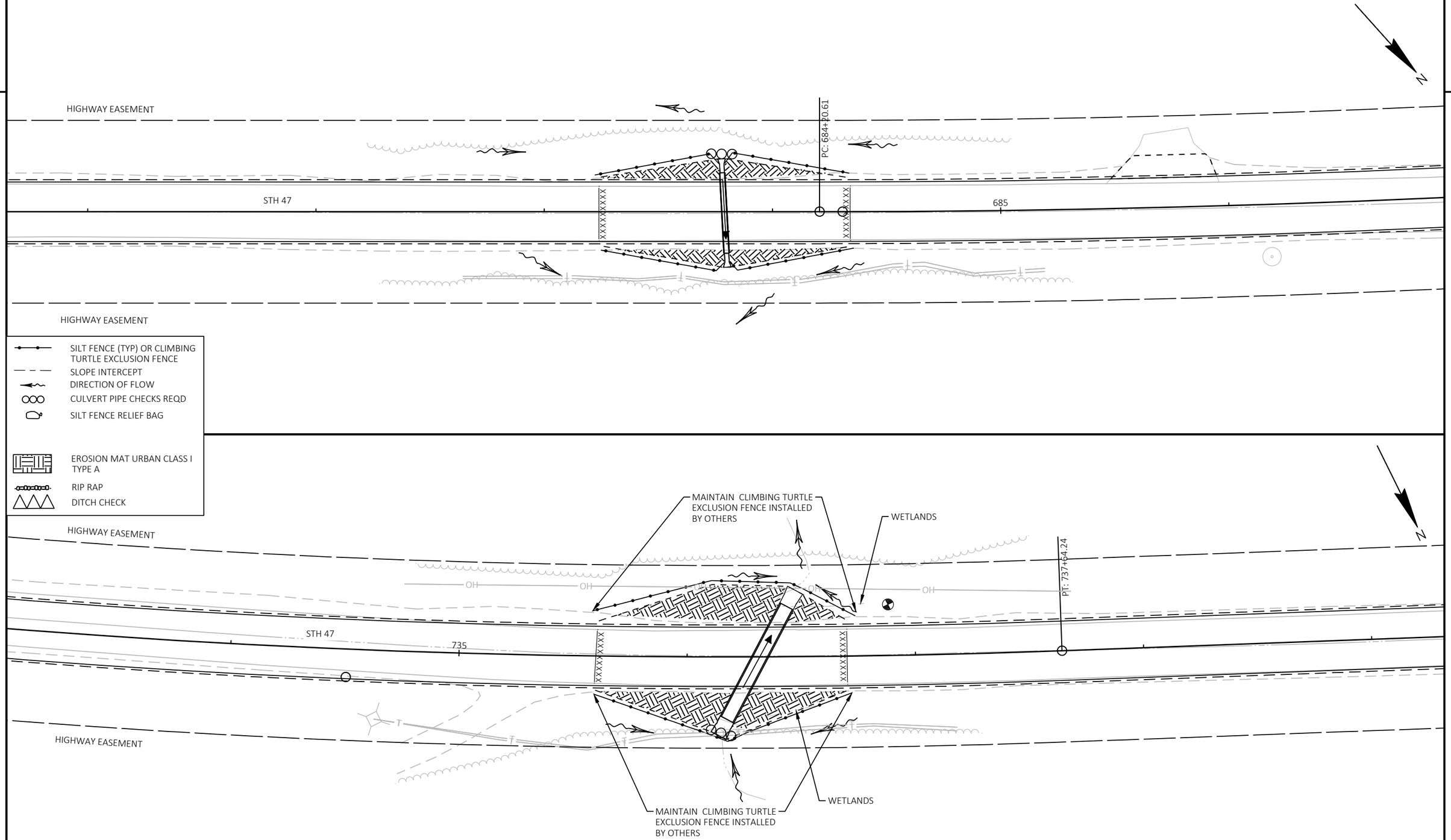
635

HIGHWAY EASEMENT

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 20	E

2

2



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 21	E

2

2

HIGHWAY EASEMENT

STH 47

745

PC: 747+17.42

OH

HIGHWAY EASEMENT

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

N

HIGHWAY EASEMENT

PI: 755+00

755

STH 47

760

HO

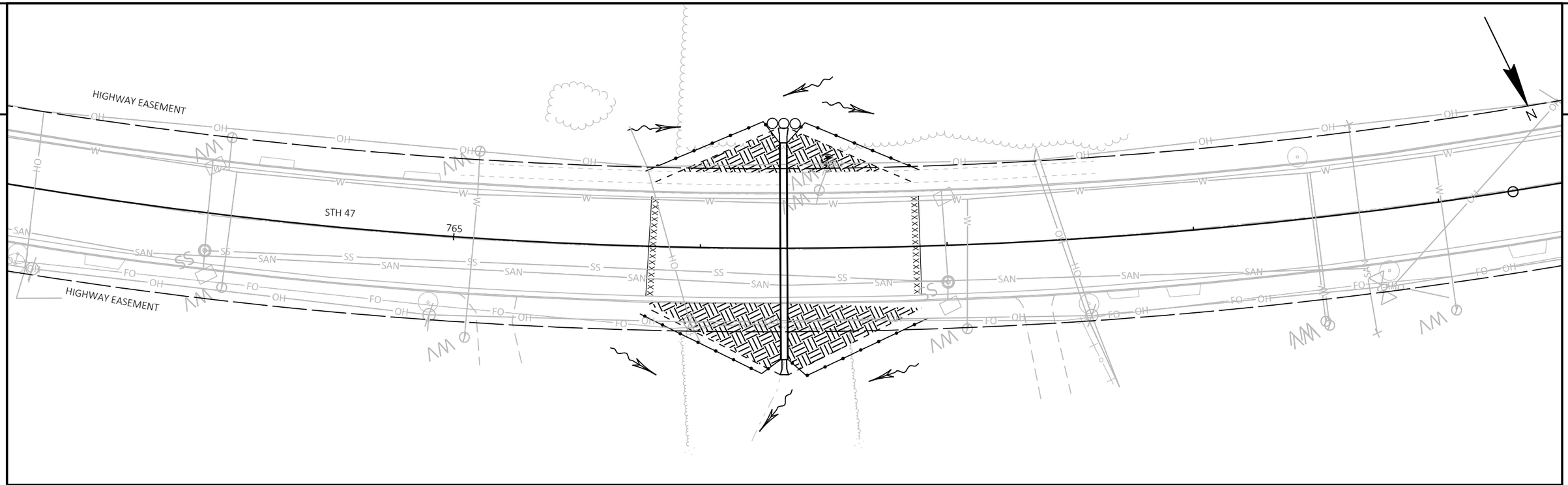
OH

HIGHWAY EASEMENT

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	EROSION CONTROL	SHEET 22	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-17-03.DWG
LAYOUT NAME - 09

PLOT DATE : 12/17/2025 2:01 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT



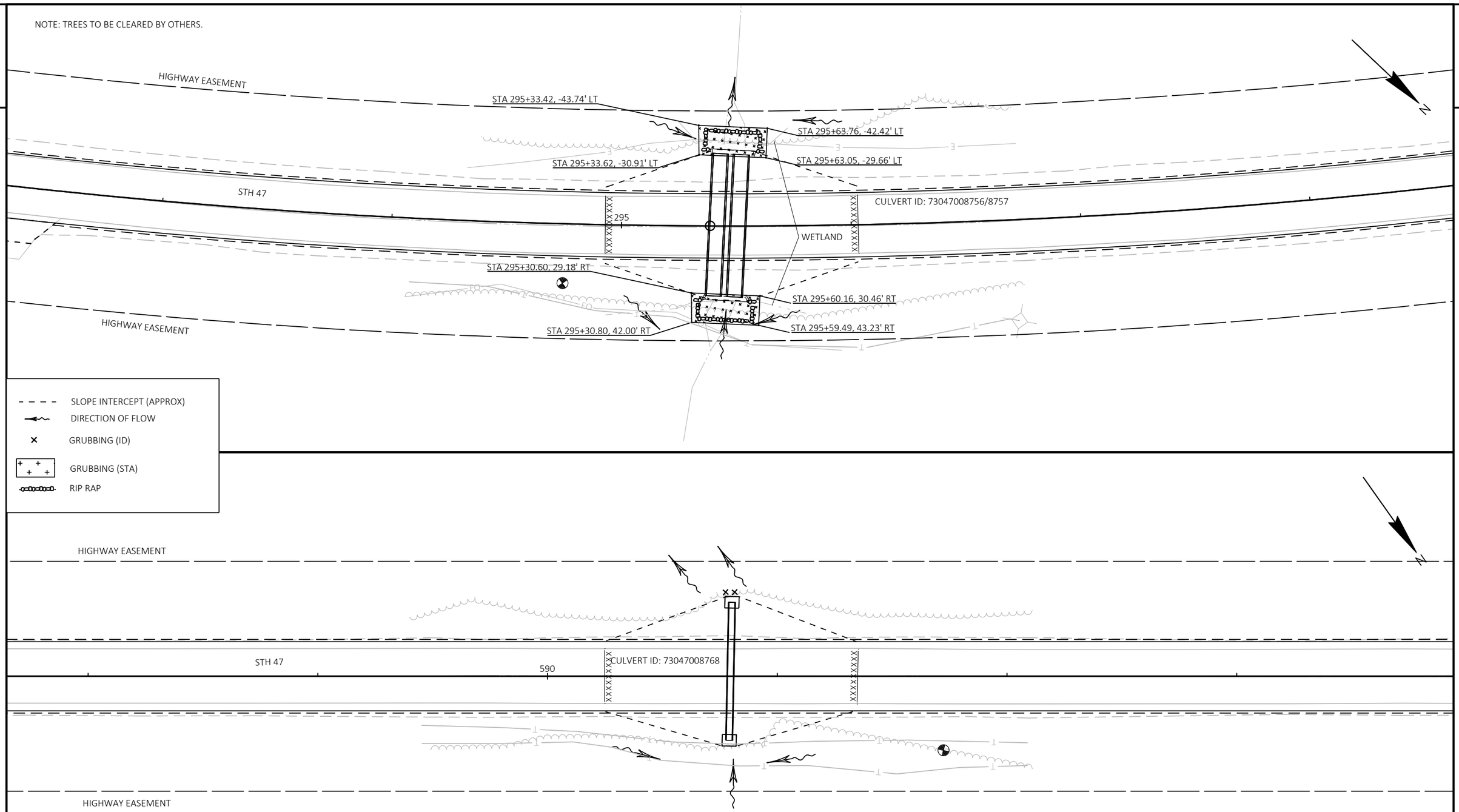
2

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 23	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9650-17-03.DWG
LAYOUT NAME - 10
PLOT DATE : 12/17/2025 2:02 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

NOTE: TREES TO BE CLEARED BY OTHERS.



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	STUMP GRUBBING	SHEET 24	E

NOTE: TREES TO BE CLEARED BY OTHERS.

2

2

STA 403+00, -43.23' LT
STA 403+18.92, -43.46' LT
STA 403+47.35, -40.83' LT
STA 403+77.50, -41.59' LT
STA 403+01.02, -27.76' LT
STA 404+26.97, -38.87' LT
STA 404+72.50, -26.89' LT
HIGHWAY EASEMENT
STA 406+00.19, -43.02' LT
STA 406+00.93, -35.68' LT
STA 406+64.90, -43.53' LT
STA 406+49.92, -46.50' LT
STA 406+75.13, -43.87' LT
STA 406+32.48, -47.61' LT
STA 406+93.24, -40.83' LT
PC: 406+45.30
PCC: 408+59.10
STH 47
405
MATCH LINE 408+75

SLOPE INTERCEPT (APPROX)
DIRECTION OF FLOW
GRUBBING (ID)
GRUBBING (STA)
RIP RAP

STA 412+03.15, -46.76' LT
STA 411+94.95, -47.53' LT
STA 411+78.54, -45.01' LT
STA 411+75, -42.39' LT
STA 411+66.40, -28.49' LT
STA 412+33.10, -48.99' LT
STA 412+43.47, -49.16' LT
STA 412+50, -29.54' LT
PCC: 412+81.05
HIGHWAY EASEMENT
STH 47
410
MATCH LINE 408+75
HIGHWAY EASEMENT

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE - SHAWANO	STUMP GRUBBING	SHEET 25	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 02
PLOT DATE : 12/20/2025 9:58 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

SEE SDD (BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C)

SEE SDD (BARRICADES AND SIGNS FOR SIDEROAD CLOSURES DETAIL 4)

DETAIL A

DETAIL B

DETAIL C

DETAIL D

SEE SDD (BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C)

LEGEND:

- WORK ZONE
- DETOUR ROUTE
- TRAFFIC CONTROL DETOUR SIGN ON WOOD OR STEEL POST

* PLACE SIGN ASSEMBLY IN MEDIAN AND ON RIGHT SHOULDER

ROLLINS
Elmhurst
Langlade
ANIWA
HUTCHINS
BIRNAMWOOD
ALMON
BARTELME
RED SPRINGS
Morgan
Phlox
Neopit
Nanaweyah
Omaehekan
Keshena
WESCOTT
Shepley
Lyndhurst
Red River
RICHMOND
SENECA
Tilleda
HERMAN
Thornton
Leopolis
Pella
WITTENBERG
MORRIS
GRANT
BELLE PLAINE
WASHINGTON
Shawano

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 26	E



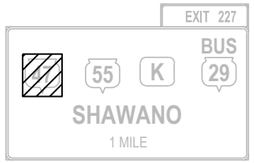
M3-1 36"X18"
M1-6 36"X36"

1



M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"

2



COVER SIGN TYPE I
AS DONE UNDER
PROJECT 1009-43-69

3



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

4



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

5



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

6



M4-8A 24"X18"

7



M3-3 24"X12"
M1-6 24"X24"

8



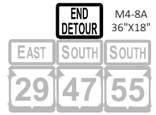
M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"

9



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

10



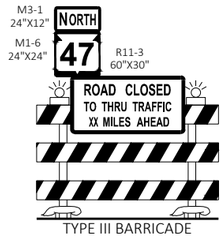
M4-8A 36"X18"

11



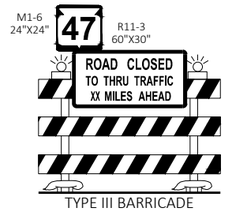
TYPE III BARRICADE

12X



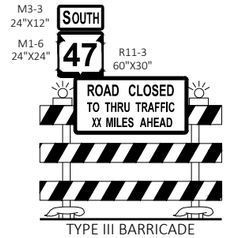
TYPE III BARRICADE

12E



TYPE III BARRICADE

12F 12G



TYPE III BARRICADE

12H

12X MILEAGES:

12A: 8 1/2 MILES
12B: 7 1/2 MILES
12C: 5 1/2 MILES
12D: 1 MILES
12E: 5 3/4 MILES
12F: 4 MILES
12G: 11 3/4 MILES
12H: 2 MILES
12I: 1 MILES
12J: 1 3/4 MILES
12K: 6 1/4 MILES
12L: 6 3/4 MILES



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

13



M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

14



M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

15



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

16



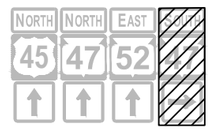
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
M5-1R 21"X21"

17



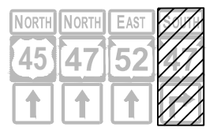
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

18



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

19



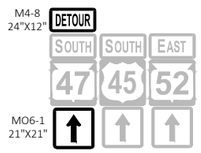
COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

20



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

21



22



ARROW PER SIGN
A4-12 9.5"X9.5"

23

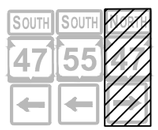


COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

24



25



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

26



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

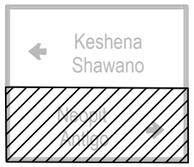
27

NOTES:

ALL DETOUR AHEAD SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 27	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9650-17-03).DWG
LAYOUT NAME - 02
PLOT DATE : 10/22/2025 7:44 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



COVER SIGN TYPE II
AS DONE UNDER
PROJECT
1009-43-69

28

HWY 47
ROAD CLOSED
BEGINS XX-XX-XX

G20-57C
72"X36"

INSTALL G20-57C SIGNS 7 DAYS PRIOR TO CLOSURE AND REMOVE WHEN CLOSURE BEGINS.

PLACE SIGN AT NORTH AND SOUTH PROJECT LIMITS.

IF ROADWAY CLOSURE FOR THIS PROJECT IS AFTER AND CONTINUOUS WITH OTHER PROJECT(S) IN THIS CONTRACT, THIS SIGN SHALL BE OMITTED.

NOTES:

ALL DETOUR AHEAD SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9650-17-03).DWG
LAYOUT NAME - 03
PLOT DATE : 10/22/2025 7:45 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

DETAIL A

2

2

N

45

29

W GRAND AVE

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR NORTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR NORTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"
DETOUR NORTH 47

M4-8 36"x18"
M3-1 36"x18"
M1-6 36"x36"
MO6-2 30"x30"
DETOUR NORTH 47

M4-8 36"x18"
M3-1 36"x18"
M1-6 36"x36"
MO5-2R 30"x30"
DETOUR NORTH 47

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"
DETOUR NORTH 47

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"x36"
DETOUR NORTH 47

M4-8 36"X18"
M3-3 36"x18"
M1-6 36"x36"
SOUTH EAST 45 29
DETOUR SOUTH 47

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"
DETOUR SOUTH 47

M4-8 36"X18"
M3-3 36"x18"
M1-6 36"x36"
SOUTH EAST 45 29
DETOUR SOUTH 47

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
DETOUR SOUTH 47

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 29	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9650-17-03).DWG
LAYOUT NAME - DETAIL A

PLOT DATE : 10/22/2025 7:45 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : Custom

DETAIL B

2

2

N

47

B

29

K

EXIT 227
NORTH
55 K
SHAWANO
1 MILE

COVER SIGN TYPE I
AS DONE UNDER
PROJECT 1009-43-69

DETOUR M4-8 36"X18"
NORTH M3-1 36"X18"
47 M1-6 36"X36"

WEST 29

DETOUR M4-8 36"X18"
SOUTH M3-3 36"X18"
47 M1-6 36"X36"
MO6-1 30"X30"

EXIT 227
NORTH
55 K
SHAWANO

COVER SIGN TYPE I
AS DONE UNDER
PROJECT 1009-43-69

EAST SOUTH SOUTH
29 47 55

NORTH BUSINESS
55 29

NORTH BUSINESS
55 29 K

DETOUR M4-8 24"X12"
WEST NORTH NORTH BUSINESS
29 47 55 29
MO6-1 21"X21"

DETOUR M4-8 24"X12"
NORTH NORTH BUSINESS
K 47 55 29
MO6-1 21"X21"

DETOUR M4-8 24"X12"
NORTH NORTH BUSINESS
47 55 29
MO6-1 21"X21"

EXIT 227
BUS
55 K 29
COVER
SHAWANO

COVER SIGN TYPE I
AS DONE UNDER
PROJECT
1009-43-69

DETOUR M4-8 36"X18"
NORTH M3-1 36"X18"
47 M1-6 36"X36"
MO6-1 30"X30"

DETOUR M4-8 36"X18"
NORTH M3-1 36"X18"
47 M1-6 36"X36"
MO6-1 30"X30"

DETOUR M4-8 24"X12"
WEST NORTH NORTH BUSINESS
29 47 55 29
MO5-1L 21"X21"

NORTH M3-1 36"X18"
47 M1-6 36"X36"
DETOUR AHEAD W20-2A

END DETOUR M4-8A 36"X18"
EAST SOUTH SOUTH
29 47 55

EAST SOUTH SOUTH
29 47 55

EAST SOUTH SOUTH
29 47 55

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 30	E

DETAIL C

2

2

N

47 55

R11-3
60"X30"
ROAD CLOSED
TO THRU TRAFFIC
8 1/2 MILES AHEAD

NORTH
55

NORTH
55

NORTH
55

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO5-1L
21"X21"

NORTH
47
M3-1
24"X12"
M1-6
24"X24"

DETOUR
AHEAD
W20-2A

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO6-1
21"X21"

MMM

47 55
22

MM

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"

ANDREWS ST

SAWYER ST

22

55

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO6-1
21"X21"

DETOUR
NORTH
47
M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
MO5-1R
21"X21"

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 31	E

DETAIL D

2

2

N

M

29

22

B

CC

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
MO6-1 30"X30"
DETOUR SOUTH 47

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
DETOUR NORTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
DETOUR NORTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"
DETOUR NORTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR NORTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
DETOUR SOUTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
MO5-1R 21"X21"
DETOUR NORTH SOUTH 47 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
DETOUR NORTH 47

M4-8 36"X18"
M3-1 36"X18"
M1-6 36"X36"
MO6-1 30"X30"
DETOUR NORTH 47

M4-8 36"X18"
M3-3 36"X18"
M1-6 36"X36"
DETOUR SOUTH 47

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"
DETOUR NORTH 47

47 M1-6 24"X24"

DETOUR AHEAD W20-2A

NOTES:

ALL M SIGNS SHOWN SHALL BE MO.

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	DETOUR	SHEET 32	E

9650-17-73

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	6.000	6.000
0004	201.0220	Grubbing	ID	10.000	10.000
0006	203.0100	Removing Small Pipe Culverts	EACH	15.000	15.000
0008	203.0220	Removing Structure (structure) 01. STA 295+42 (60" CMCP)	EACH	1.000	1.000
0010	203.0220	Removing Structure (structure) 02. STA 295+52 (60" CMCP)	EACH	1.000	1.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	422.000	422.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	144,049.000	144,049.000
0016	204.0165	Removing Guardrail	LF	852.000	852.000
0018	205.0100	Excavation Common	CY	5,770.000	5,770.000
0020	208.0100	Borrow	CY	166.000	166.000
0024	211.0101	Prepare Foundation for Asphaltic Paving (project) 03. 9650-17-73	EACH	1.000	1.000
0028	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1,080.000	1,080.000
0034	213.0100	Finishing Roadway (project) 03. 9650-17-73	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	4,470.000	4,470.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,910.000	5,910.000
0046	455.0605	Tack Coat	GAL	23,257.000	23,257.000
0048	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0050	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0052	460.2005	Incentive Density PWL HMA Pavement	DOL	28,800.000	28,800.000
0054	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	21,550.000	21,550.000
0056	460.2010	Incentive Air Voids HMA Pavement	DOL	33,983.000	33,983.000
0058	460.5224	HMA Pavement 4 LT 58-28 S	TON	33,983.000	33,983.000
0060	465.0105	Asphaltic Surface	TON	795.000	795.000
0062	465.0110	Asphaltic Surface Patching	TON	1,800.000	1,800.000
0064	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	35.000	35.000
0066	465.0560	Asphaltic Rumble Strips, Centerline	LF	50,455.000	50,455.000
0070	504.0900	Concrete Masonry Endwalls	CY	8.000	8.000
0072	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	10.000	10.000
0074	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	6.000	6.000
0078	520.3624	Culvert Pipe Class III-B Non-metal 24-Inch	LF	276.000	276.000
0080	520.3630	Culvert Pipe Class III-B Non-metal 30-Inch	LF	160.000	160.000
0092	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	248.000	248.000
0100	522.0472	Culvert Pipe Reinforced Concrete Class IV 72-Inch	LF	124.000	124.000
0102	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	12.000	12.000
0114	522.2343	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 43x68-Inch	LF	56.000	56.000
0124	522.2643	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 43x68-Inch	EACH	2.000	2.000
0134	606.0200	Riprap Medium	CY	68.000	68.000
0142	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	304.000	304.000
0152	614.2330	MGS Guardrail 3 K	LF	750.000	750.000
0154	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0160	618.0100	Maintenance and Repair of Haul Roads (project) 03. 9650-17-73	EACH	1.000	1.000
0164	619.1000	Mobilization	EACH	0.250	0.250
0166	624.0100	Water	MGAL	202.000	202.000
0168	625.0100	Topsoil	SY	7,255.000	7,255.000
0170	628.1504	Silt Fence	LF	4,135.000	4,135.000
0172	628.1520	Silt Fence Maintenance	LF	8,270.000	8,270.000
0174	628.1905	Mobilizations Erosion Control	EACH	7.000	7.000
0176	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0178	628.2006	Erosion Mat Urban Class I Type A	SY	7,255.000	7,255.000

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Line	Item	Item Description	Unit	Total	Qty
0180	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0182	628.7555	Culvert Pipe Checks	EACH	200.000	200.000
0184	628.7570	Rock Bags	EACH	80.000	80.000
0186	629.0210	Fertilizer Type B	CWT	4.550	4.550
0190	630.0170	Seeding Mixture No. 70	LB	36.000	36.000
0192	630.0400	Seeding Nurse Crop	LB	61.000	61.000
0194	630.0500	Seed Water	MGAL	164.000	164.000
0196	633.5200	Markers Culvert End	EACH	34.000	34.000
0198	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	5.000	5.000
0204	638.2102	Moving Signs Type II	EACH	24.000	24.000
0210	638.4000	Moving Small Sign Supports	EACH	21.000	21.000
0212	642.5401	Field Office Type D	EACH	0.250	0.250
0214	643.0300	Traffic Control Drums	DAY	934.000	934.000
0216	643.0420	Traffic Control Barricades Type III	DAY	718.000	718.000
0218	643.0705	Traffic Control Warning Lights Type A	DAY	1,292.000	1,292.000
0220	643.0900	Traffic Control Signs	DAY	8,102.000	8,102.000
0222	643.0910	Traffic Control Covering Signs Type I	EACH	4.000	4.000
0224	643.0920	Traffic Control Covering Signs Type II	EACH	19.000	19.000
0226	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0228	643.3165	Temporary Marking Line Paint 6-Inch	LF	262,178.000	262,178.000
0230	643.5000	Traffic Control	EACH	0.250	0.250
0232	645.0120	Geotextile Type HR	SY	224.000	224.000
0236	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	195,243.000	195,243.000
0238	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	225.000	225.000
0244	648.0100	Locating No-Passing Zones	MI	10.200	10.200
0246	650.4500	Construction Staking Subgrade	LF	1,726.000	1,726.000
0248	650.5000	Construction Staking Base	LF	1,726.000	1,726.000
0252	650.6000	Construction Staking Pipe Culverts	EACH	17.000	17.000
0254	650.8000	Construction Staking Resurfacing Reference	LF	52,132.000	52,132.000
0260	650.9911	Construction Staking Supplemental Control (project) 03. 9650-17-73	EACH	1.000	1.000
0264	650.9920	Construction Staking Slope Stakes	LF	1,726.000	1,726.000
0266	690.0150	Sawing Asphalt	LF	1,665.000	1,665.000
0268	740.0440	Incentive IRI Ride	DOL	20,400.000	20,400.000
0272	999.2105.S	Maintaining Climbing Turtle Exclusion Fence	LF	1,460.000	1,460.000
0280	SPV.0060	Special 01. Sand Bags	EACH	100.000	100.000
0284	SPV.0090	Special 01. Grading and Shaping Ditch	LF	500.000	500.000
0290	SPV.0180	Special 02. Removing Distressed Asphaltic Surface Milling	SY	5,400.000	5,400.000

EARTHWORK

DIVISION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
CULVERT PIPE TRANSITION AT STA. 254+71	299	0	33	266	98	123	144	144	0	
CULVERT PIPE TRANSITION AT STA. 270+74	237	0	33	204	34	43	162	162	0	
CULVERT PIPE TRANSITION AT STA. 279+75	373	0	33	340	172	215	125	125	0	
CULVERT PIPE TRANSITION AT STA. 295+48	441	0	33	408	240	300	108	108	0	
CULVERT PIPE TRANSITION AT STA. 359+21	377	0	33	344	176	220	124	124	0	
GUARDRAIL REPLACEMENT STA. 402+50 TO 412+20	402	0	0	402	454	568	-166	-166	166	
CULVERT PIPE TRANSITION AT STA. 420+48	419	0	33	386	218	273	114	114	0	
CULVERT PIPE TRANSITION AT STA. 437+68	257	0	33	224	56	70	154	154	0	
CULVERT PIPE TRANSITION AT STA. 453+14	387	0	33	354	186	233	122	122	0	
CULVERT PIPE TRANSITION AT STA. 570+59	423	0	33	390	210	263	128	128	0	
CULVERT PIPE TRANSITION AT STA. 590+80	407	0	33	374	194	243	132	132	0	
CULVERT PIPE TRANSITION AT STA. 609+56	412	0	33	379	199	249	130	130	0	
CULVERT PIPE TRANSITION AT STA. 634+07	412	0	33	379	211	264	115	115	0	
CULVERT PIPE TRANSITION AT STA. 683+79	199	0	33	166	10	13	154	154	0	
CULVERT PIPE TRANSITION AT STA. 736+15	351	0	33	318	162	203	116	116	0	
CULVERT PIPE TRANSITION AT STA. 744+79	187	0	33	154	0	0	154	154	0	
CULVERT PIPE TRANSITION AT STA. 757+53	187	0	33	154	0	0	154	154	0	
GRAND TOTAL	5,770	0	528	5,242	2,620	3,275	1,967	1,967	166	
TOTAL COMMON EXC	5,770									

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25X
(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.

MILLING

CATEGORY	STA	TO	STA	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	SPV.0180.02 REMOVING DISTRESSED ASPHALTIC SURFACE MILLING SY	REMARKS
0010	221+67		760+25	STH 47	35	142,251		MAINLINE
0011	224+94	-	225+15	STH 47, RT	20	7	---	COMMERCIAL ENTRANCE
0010	228+44	-	230+18	STH 47, LT	31	107	---	COMMERCIAL ENTRANCE
0010	242+22	-	243+22	STH 47, RT	7	---	---	DRIVEWAY
0010	246+90	-	249+33	STH 47, RT	55	277	---	KESHENA FALLS RD
0010	336+70	-	338+63	STH 47, RT	72	154	---	CROW SETTLEMENT RD
0010	432+41		433+77	STH 47, RT	49	177		MIDWAY RD
0010	472+92	-	474+22	STH 47, LT	38	173	---	SIDEROAD / DRIVEWAY
0010	508+56	-	515+31	STH 47, LT	40	227	---	CTH G
0010	530+38	-	533+84	STH 47, LT	39	441	---	KESAEHTAHTER RD
0010	578+23	-	579+50	STH 47, LT	36	235	---	CAMP 1 RD
0010	UNDISTRIBUTED			STH 47	---	---	5,400	
				TOTAL:	422	144,049	5,400	

REMOVING STRUCTURE

CATEGORY	LOCATION	203.0220 01. STA 295+42 EACH	203.0220 02. STA 295+52 EACH	REMARKS
0010	STH 47	1	1	60" CMCP 64 LF AT EACH LOCATION
	TOTAL:	1	1	

GRUBBING

CATEGORY	STATION			LOCATION	201.0205 GRUBBING STA	201.0220 GRUBBING ID
0010	295+00	-	296+00	STH 47	1	---
0010	402+00	-	404+00	STH 47 LT	2	---
0010	405+00	-	406+00	STH 47 LT	1	---
0010	411+00	-	413+00	STH 47 LT	2	---
0010	590+77	-	590+77	STH 47	---	6
0010	590+81	-	590+81	STH 47	---	4
				TOTAL:	6	10

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

3

CULVERT PIPE SUMMARY

CATEGORY	STATION	LOCATION	520.3624 CULVERT PIPE CLASS III-B NON-METAL 24-INCH LF	520.3630 CULVERT PIPE CLASS III-B NON-METAL 30-INCH LF	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.1030 APRON ENDWALLS FOR CULVERT PIPE 30-INCH EACH	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0472 CULVERT PIPE REINFORCED CONCRETE CLASS IV 72-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.2343 CULVERT PIPE REINFORCED CONCRETE CLASS HE-III 43X68-INCH LF	522.2643 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 43X68-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
0010	254+71	STH 47	---	---	---	---	48	---	2	---	---	2	1
0010	270+72	STH 47	---	---	---	---	48	---	2	---	---	2	1
0010	279+72	STH 47	56	---	2	---		---	---	---	---	2	1
0010	295+42	STH 47	---	---	---	---	---	62	---	---	---	2	1
0010	295+51	STH 47	---	---	---	---	---	62	---	---	---	2	1
0010	359+21	STH 47	---	52	---	2	---	---	---	---	---	2	1
0010	420+48	STH 47	52	---	2	---	---	---	---	---	---	2	1
0010	437+68	STH 47	---	---	---	---	44	---	2	---	---	2	1
0010	453+14	STH 47	---	48	---	2	---	---	---	---	---	2	1
0010	570+59	STH 47	56	---	2	---	---	---	---	---	---	2	1
0010	590+80	STH 47	---	60	---	2	---	---	---	---	---	2	1
0010	609+56	STH 47	56	---	2	---	---	---	---	---	---	2	1
0010	634+07	STH 47	56	---	2	---	---	---	---	---	---	2	1
0010	683+79	STH 47	---	---	---	---	36	---	2	---	---	2	1
0010	736+25	STH 47	---	---	---	---	---	---	---	56	2	2	1
0010	744+78	STH 47	---	---	---	---	36	---	2	---	---	2	1
0010	757+53	STH 47	---	---	---	---	36	---	2	---	---	2	1
		TOTALS:	276	160	10	6	248	124	12	56	2	34	17

3

INLET INVERT**			OUTLET INVERT**		
STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
254+71.5	24.3' RT	856.31	254+70.7	24.3'LT	855.99
270+72.2	24.4' RT	863.87	270+74.9	24.1' LT	863.53
279+72.8	25.7' RT	875.74	279+72.1	30.2' LT	872.28
295+40.0	30.4' RT	865.40	295+43.0	31.5' LT	865.40
295+49.1	30.9' RT	865.40	295+52.3	31.0' LT	865.40
359+20.1	24.1' LT	938.00	359+21.0	27.9' RT	935.00
420+49.1	24.7' LT	1023.40	420+47.7	28.0' RT	1018.90
437+68.3	23.1' RT	1027.36	437+67.8	21.2' LT	1027.13
453+14.3	23.8' RT	1017.60	453+13.8	24.1' LT	1017.55
570+58.4	27.5' LT	974.70	570+58.9	29.4' RT	974.24
590+79.1	27.9' RT	987.28	590+80.3	32.2' LT	987.01
609+55.8	24.9' RT	1000.16	609+57.3	30.8' LT	999.87
634+06.5	26.3' RT	1010.42	634+06.7	28.8' LT	1009.38
683+78.0	17.1' LT	1093.37	683+80.0	18.2' RT	1093.04
736+16.6	28.9' RT	1044.10	736+46.6	27.5' LT	1044.10
744+78.6	19.1' LT	1063.07	744+78.4	17.6' RT	1062.30
757+54.1	17.6' LT	1055.59	757+51.9	17.6' RT	1054.43

**OFFSET AND ELEVATION SHOWN FOR END OF PIPE

GUARDRAIL MOW STRIP EMULSIFIED ASPAHLT

CATEGORY	STA	TO	STA	LOCATION	614.0397 EMULSIFIED ASPHALT SY	REMARKS
0010	403+52.50	-	412+03.15	LT	304	
				TOTAL:	304	

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS
0010	254+71	STH 47	1	24" CMCP 57 LF
0010	270+74	STH 47	1	24" CMCP 49 LF
0010	279+75	STH 47	1	24" CMCP 60 LF
0010	359+21	STH 47	1	30" CMCP 60 LF
0010	420+48	STH 47	1	24" CMCP 63 LF
0010	437+68	STH 47	1	24" CMCP 54 LF
0010	453+14	STH 47	1	30" CMCP 58 LF
0010	570+59	STH 47	1	24" CMCP 60 LF
0010	590+80	STH 47	1	30" CMCP 60 LF
0010	609+56	STH 47	1	24" CMCP 63 LF
0010	634+07	STH 47	1	24" CMCP 56 LF
0010	683+79	STH 47	1	18" CMCP 40 LF
0010	736+15	STH 47	1	24" CMCP 56 LF
0010	744+79	STH 47	1	18" CMCP 37 LF
0010	757+53	STH 47	1	18" CMCP 41 LF
		TOTAL:	15	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

TRAFFIC CONTROL SUMMARY

CATEGORY	LOCATION	APPROX. SERVICE DAYS	643.0300 DRUMS NO IN SERVICE	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO IN SERVICE	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO IN SERVICE	643.0900 SIGNS DAYS	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	643.1000 FIXED MESSAGE SIGNS SF
0010	MAINLINE DETOUR	18	---	---	18	324	28	504	310	5,580	4	15	36.00
0010	MAINLINE CLOSURE	18	---	---	8	144	16	288	12	216	---	---	---
0010	SIDEROADS	18	---	---	2	36	4	72	6	108	---	---	---
0010	FLAGGING	14	50	700	5	70	10	140	40	560	---	---	---
0010	UNDISTRIBUTED	18	13	234	8	144	16	288	91	1,638	---	4	---
0010	ADVANCED CLOSURE WARNING	7			---	---	---	---	---	---	---	---	---
	TOTAL:			934		718		1,292		8,102	4	19	36.00

BASE AGGREGATE DENSE

CATEGORY	STA		STA	LOCATION	211.0400 PREPARE FOUNDATION FOR ASHPAITIC SHOULDERS STA	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	254+19	-	255+23	STH 47	---	12	270	6	
0010	270+22	-	271+26	STH 47	---	12	270	6	
0010	279+23	-	280+27	STH 47	---	12	310	6	
0010	294+87	-	296+07	STH 47	---	14	335	6	
0010	358+68	-	359+74	STH 47	---	12	295	6	
0010	402+50	-	412+71	STH 47	---	285	---	6	BEAM GUARD AREA
0010	419+96	-	421+00	STH 47	---	12	285	6	
0010	437+16	-	438+20	STH 47	---	12	315	6	
0010	452+61	-	453+67	STH 47	---	12	310	6	
0010	570+07	-	571+11	STH 47	---	12	330	6	
0010	590+27		591+33	STH 47		12	305	6	
0010	609+04	-	610+08	STH 47	---	12	305	6	
0010	633+55	-	634+59	STH 47	---	20	305	6	
0010	683+27		684+31	STH 47		26	280	6	
0010	735+61	-	736+69	STH 47	---	28	260	6	
0010	744+27	-	745+31	STH 47	---	26	275	6	
0010	757+01		758+05	STH 47		26	275	6	
0010	221+67	-	760+25	STH 47	1080	2515	---	50	MILL/FILL SECTION
0010	DRIVEWAYS			STH 47	---	340	---	6	
0010	SIDEROADS			STH 47	---	175	---	4	
0010	UNDISTRIBUTED			STH 47	---	895	1185	40	
	TOTAL:				1080	4,470	5,910	202	

RIPRAP SUMMARY

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
0010	270+74	STH 47	5	18
0010	279+75	STH 47	5	18
0010	295+42	STH 47	12	48
0010	295+52	STH 47	12	48
0010	359+21	STH 47	10	18
0010	420+48	STH 47	5	18
0010	570+59	STH 47	10	20
0010	609+56	STH 47	5	20
0010	757+53	STH 47	4	16
	TOTAL:		68	224

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

3

HMA PAVEMENT SUMMARY

					455.0605	465.0105	460.5224	
CATEGORY	STA		STA	LOCATION	TACK COAT GAL	ASPHALTIC SURFACE TON	HMA PAVEMENT 4 LT 58-28 S TON	REMARKS
0010	221+67	-	760+25	STH 47	20,566	---	27,897	MAINLINE RDWY
0010	254+19	-	255+23	STH 47	40	48	55	CULVERT TRANSITION
0010	270+22	-	271+26	STH 47	42	51	58	CULVERT TRANSITION
0010	279+23	-	280+27	STH 47	40	48	55	CULVERT TRANSITION
0010	294+87	-	296+07	STH 47	48	59	67	CULVERT TRANSITION
0010	358+68	-	359+74	STH 47	42	51	58	CULVERT TRANSITION
0010	419+96	-	421+00	STH 47	40	49	56	CULVERT TRANSITION
0010	437+16	-	438+20	STH 47	43	52	59	CULVERT TRANSITION
0010	452+61	-	453+67	STH 47	40	49	56	CULVERT TRANSITION
0010	570+07	-	571+11	STH 47	40	48	55	CULVERT TRANSITION
0010	590+27	-	591+33	STH 47	40	49	55	CULVERT TRANSITION
0010	609+04	-	610+08	STH 47	40	48	55	CULVERT TRANSITION
0010	633+55	-	634+59	STH 47	39	47	53	CULVERT TRANSITION
0010	683+27	-	684+31	STH 47	39	48	54	CULVERT TRANSITION
0010	735+61	-	736+69	STH 47	41	49	56	CULVERT TRANSITION
0010	744+27	-	745+31	STH 47	40	50	55	CULVERT TRANSITION
0010	757+01	-	758+05	STH 47	41	49	56	CULVERT TRANSITION
0010			KESHENA FALLS RD		41	---	56	SIDE ROAD
0010			CROW SETTLEMENT RD		24	---	33	SIDE ROAD
0010			MIDWAY RD		26	---	36	SIDE ROAD
0010			SIDEROAD		30	---	41	SIDE ROAD
0010			CTH G		145	---	202	SIDE ROAD
0010			KESAEHKAHTEK RD		62	---	87	SIDE ROAD
0010			CAMP 1 RD		34	---	47	SIDE ROAD
0010	221+67	-	506+42	STH 47	886	---	2,480	SHOULDER WIDENING
0010	515+25	-	630+00	STH 47	536	---	1,499	SHOULDER WIDENING
0010	630+00	-	661+00	STH 47	97	---	270	SHOULDER WIDENING
0010	661+00	-	760+25	STH 47	155	---	432	SHOULDER WIDENING
				TOTAL:	23,257	795	33,983	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\030201_MQ.DWG PLOT DATE : 12/20/2025 6:47 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1" = 1'
LAYOUT NAME - 04
WISDOT/CADDS SHEET 42

PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12' DRIVING LANE (NB/SB)	221+67 - 760+20	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	14,400	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12' DRIVING LANE (NB/SB)	221+67 - 760+20	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 S	14,400	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
SHOULDER (NB/SB)	221+67 - 760+20	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	2,341	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGLIBLE FOR INCENTIVE
SHOULDER (NB/SB)	221+67 - 760+20	LOWER LAYER	BASE AGGREGATE	4 LT 58-28 S	2,341	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGLIBLE FOR INCENTIVE
SIDEROADS	VARIOUS	UPPER LAYER	4 LT 58-28 S	4 LT 58-28 S	251	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGLIBLE FOR INCENTIVE
SIDEROADS	VARIOUS	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 S	251	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGLIBLE FOR INCENTIVE
(NB/SB) @ CULVERT TRANSITIONS	VARIOUS	LOWER LAYER	BASE AGGREGATE	ASPHALTIC SURFACE	795	3"	SS 465	ORDINARY COMPACTION SS 450.3.2.6.2

ASPHALTIC SURFACE PATCHING

CATEGORY		465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
0010	UNDISTRIBUTED	1,800	AS NEEDED FOR FULL DEPTH PAVEMENT REPAIRS
	TOTAL:	1,800	

RUMBLE STRIP SUMMARY

CATEGORY	STA		STA	LOCATION	465.0560 ASPHALTIC RUMBLE STRIPS CENTERLINE LF	REMARKS
0010	221+67	-	760+25	STH 47	50,455	
				TOTAL:	50,455	

HMA PERCENT WITHIN LIMITS (PWL) TEST STRIPS

LOCATION	4 LT 58-28 S 460.0105.S TEST STRIP VOLUMETRICS EACH	460.0110.S TEST STRIP DENSITY EACH
STH 47 (LOWER)	1	1
STH 47 (UPPER)		1
TOTAL:	1	2

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY		465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	225+00, RT	6
0010	229+25, LT	29
	TOTAL:	35

STEEL PLATE BEAM GUARD

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	614.2330 MGS GUARDRAIL 3 K LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	403+52.50	-	412+03.15	STH 47, LT	852	750	2
				TOTAL:	852	750	2

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

FINISHING

CATEGORY	LOCATION	625.0100 TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0170 SEEDING MIXTURE NO. 70 LB	630.0400 SEEDING NURSE CROP LB	630.0500 SEED WATER MGAL	REMARKS
0010	CULVERT PIPE TRANSITION AT STA. 254+71	295	295	0.19	2.0	3.0	7.0	
0010	CULVERT PIPE TRANSITION AT STA. 270+74	340	340	0.21	2.0	3.0	8.0	
0010	CULVERT PIPE TRANSITION AT STA. 279+75	430	430	0.27	2.0	4.0	10.0	
0010	CULVERT PIPE TRANSITION AT STA. 295+48	340	340	0.21	2.0	3.0	8.0	TWIN PIPES
0010	CULVERT PIPE TRANSITION AT STA. 359+21	415	415	0.26	2.0	3.0	9.0	
0010	GUARDRAIL REPLACEMENT STA. 402+50 TO 412+70	1,325	1,325	0.83	5.0	10.0	30.0	GUARDRAIL REPLACEMENT
0010	CULVERT PIPE TRANSITION AT STA. 420+48	365	365	0.23	2.0	3.0	8.0	
0010	CULVERT PIPE TRANSITION AT STA. 437+68	230	230	0.14	1.0	2.0	5.0	
0010	CULVERT PIPE TRANSITION AT STA. 453+14	320	320	0.20	2.0	3.0	7.0	
0010	CULVERT PIPE TRANSITION AT STA. 570+59	450	450	0.28	2.0	4.0	10.0	
0010	CULVERT PIPE TRANSITION AT STA. 590+80	465	465	0.29	2.0	4.0	10.0	
0010	CULVERT PIPE TRANSITION AT STA. 609+56	380	380	0.24	2.0	3.0	9.0	
0010	CULVERT PIPE TRANSITION AT STA. 634+07	380	380	0.24	2.0	3.0	9.0	
0010	CULVERT PIPE TRANSITION AT STA. 683+79	195	195	0.12	1.0	2.0	4.0	
0010	CULVERT PIPE TRANSITION AT STA. 736+15	500	500	0.32	2.0	4.0	11.0	
0010	CULVERT PIPE TRANSITION AT STA. 744+79	210	210	0.13	1.0	2.0	5.0	
0010	CULVERT PIPE TRANSITION AT STA. 757+53	270	270	0.17	1.0	2.0	6.0	
0010	UNDISTRIBUTED	345	345	0.22	3.0	3.0	8.0	
	TOTAL:	7,255	7,255	4.55	36	61	164	

EROSION CONTROL

CATEGORY	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EA	628.7570 ROCK BAGS EA	SPV.0060.01 SAND BAGS EA	999.2105.S MAINTAINING CLIMBING TURTLE EXCLUSION FENCE LF	REMARKS
0010	CULVERT PIPE TRANSITION AT STA. 254+71	245	490			---	6	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 270+74	200	400			---	6	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 279+75	220	440			---	6	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 295+48	---	---			---	64	---	50	460	
0010	CULVERT PIPE TRANSITION AT STA. 359+21	230	460			---	10	---	---	---	
0010	GUARDRAIL REPLACEMENT STA. 402+50 TO 412+70	970	1,940			40	---	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 420+48	230	460			---	6	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 437+68	225	450				6				
0010	CULVERT PIPE TRANSITION AT STA. 453+14	230	460	7	3	---	10	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 570+59	---	---			---	6	---	---	460	
0010	CULVERT PIPE TRANSITION AT STA. 590+80	240	480				10				
0010	CULVERT PIPE TRANSITION AT STA. 609+56	225	450			---	6	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 634+07	235	470			---	6	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 683+79	230	460				6				
0010	CULVERT PIPE TRANSITION AT STA. 736+15	---	---			---	30	---	50	470	
0010	CULVERT PIPE TRANSITION AT STA. 744+79	240	480			---	6	---	---	---	
0010	CULVERT PIPE TRANSITION AT STA. 757+53	215	430				6				
0010	UNDISTRIBUTED	200	400			10	10	80	---	70	
	TOTAL:	4,135	8,270	7	3	50	200	80	100	1,460	

PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	646.3165 TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW) LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6 INCH (YELLOW) LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6 INCH (WHITE) LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) LF	REMARKS
0010	221+00	-	248+20	STH 47	16,320	5,440	5,440	---	DBL YLW
0010	248+20	-	268+00	STH 47	7,425	2,475	3,960	---	SINGLE YLW W/ SKIPS
0010	268+00	-	328+50	STH 47	36,300	12,100	12,100	---	DBL YLW
0010	328+50	-	339+50	STH 47	4,125	1,375	2,200	---	SINGLE YLW W/ SKIPS
0010	339+50	-	347+00	STH 47	563	188	1,500	---	CL SKIPS
0010	347+00	-	367+80	STH 47	7,800	2,600	4,160	---	SINGLE YLW W/ SKIPS
0010	367+80	-	371+00	STH 47	1,920	640	640	---	DBL YLW
0010	371+00	-	400+50	STH 47	11,063	3,688	5,900	---	SINGLE YLW W/ SKIPS
0010	400+50	-	437+00	STH 47	21,900	7,300	7,300	---	DBL YLW
0010	437+00	-	446+50	STH 47	3,563	1,188	1,900	---	SINGLE YLW W/ SKIPS
0010	446+50	-	457+20	STH 47	803	268	2,140	---	CL SKIPS
0010	457+20	-	468+00	STH 47	4,050	1,350	2,160	---	SINGLE YLW W/ SKIPS
0010	468+00	-	525+50	STH 47	34,500	11,500	11,500	---	DBL YLW
0010	525+50	-	536+80	STH 47	4,238	1,413	2,260	---	SINGLE YLW W/ SKIPS
0010	536+80	-	558+00	STH 47	1,590	530	4,240	---	CL SKIPS
0010	558+00	-	569+00	STH 47	4,125	1,375	2,200	---	SINGLE YLW W/ SKIPS
0010	569+00	-	586+20	STH 47	10,320	3,440	3,440	---	DBL YLW
0010	586+20	-	597+00	STH 47	4,050	1,350	2,160	---	SINGLE YLW W/ SKIPS
0010	597+00	-	602+50	STH 47	413	138	1,100	---	CL SKIPS
0010	602+50	-	614+00	STH 47	4,313	1,438	2,300	---	SINGLE YLW W/ SKIPS
0010	614+00	-	641+00	STH 47	16,200	5,400	5,400	---	DBL YLW
0010	641+00	-	663+00	STH 47	8,250	2,750	4,400	---	SINGLE YLW W/ SKIPS
0010	663+00	-	760+25	STH 47	58,350	19,450	19,450	---	DBL YLW
0010	696+04	-	697+91	STH 47	---	---	---	110	EMERGENCY LANE
0010	717+56	-	719+56	STH 47				115	EMERGENCY LANE
				SUBTOTAL		87,393	107,850		
				TOTAL:	262,178		195,243	225	

LOCATING NO PASSING ZONES

CATEGORY	STATION	TO	STATION	LOCATION	648.0100 MI	REMARKS
0010	221+67	-	760+25	STH 47	10.20	
				TOTAL	10.20	

SAWING SUMMARY

CATEGORY	STA	LOCATION	690.0150 ASPHALT LF	REMARKS
0010	254+19	STH 47	25	
0010	255+26	STH 47	25	
0010	270+22	STH 47	26	
0010	271+29	STH 47	26	
0010	279+23	STH 47	25	
0010	280+30	STH 47	25	
0010	294+87	STH 47	26	
0010	296+03	STH 47	26	
0010	358+68	STH 47	25	
0010	359+76	STH 47	26	
0010	402+50	STH 47	865	GUARDRAIL SHOULDER
0010	419+96	STH 47	25	
0010	421+03	STH 47	25	
0010	437+16	STH 47	27	
0010	438+23	STH 47	27	
0010	452+61	STH 47	24	
0010	453+69	STH 47	25	
0010	570+07	STH 47	24	
0010	571+14	STH 47	25	
0010	590+27	STH 47	24	
0010	591+35	STH 47	24	
0010	609+04	STH 47	24	
0010	610+11	STH 47	24	
0010	633+55	STH 47	24	
0010	634+62	STH 47	24	
0010	683+27	STH 47	24	
0010	684+34	STH 47	24	
0010	735+61	STH 47	24	
0010	736+70	STH 47	25	
0010	744+27	STH 47	25	
0010	745+34	STH 47	25	
0010	757+01	STH 47	26	
0010	758+08	STH 47	26	
		TOTAL:	1,665	

3

CONSTRUCTION STAKING SUMMARY

CATEGORY	STA		STA	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.8000 RESURFACING REFERENCE LF	650.9920 SLOPE STAKES LF
0010	221+67	-	254+19	STH 47	---	---	3,252	---
0010	254+19	-	255+26	STH 47	107	107	---	107
0010	255+26	-	270+22	STH 47	---	---	1,496	---
0010	270+22	-	271+29	STH 47	107	107	---	107
0010	271+29	-	279+23	STH 47	---	---	794	---
0010	279+23	-	280+30	STH 47	107	107	---	107
0010	280+30	-	294+87	STH 47	---	---	1,457	---
0010	294+87	-	296+03	STH 47	116	116		116
0010	296+03	-	358+68	STH 47			6,265	
0010	358+68	-	359+76	STH 47	108	108	---	108
0010	359+76	-	419+96	STH 47	---	---	6,020	---
0010	419+96	-	421+03	STH 47	107	107	---	107
0010	421+03	-	437+16	STH 47	---	---	1,613	---
0010	437+16	-	438+23	STH 47	107	107	---	107
0010	438+23	-	452+61	STH 47	---	---	1,438	---
0010	452+61	-	453+69	STH 47	108	108	---	108
0010	453+69	-	570+07	STH 47	---	---	11,638	---
0010	570+07	-	571+14	STH 47	107	107	---	107
0010	571+14	-	590+27	STH 47	---	---	1,913	---
0010	590+27	-	591+35	STH 47	108	108	---	108
0010	591+35	-	609+04	STH 47	---	---	1,769	
0010	609+04	-	610+11	STH 47	107	107	---	107
0010	610+11	-	633+55	STH 47	---	---	2,344	
0010	633+55	-	634+62	STH 47	107	107	---	107
0010	634+62	-	683+27	STH 47	---	---	4,865	
0010	683+27	-	684+34	STH 47	107	107	---	107
0010	684+34	-	735+61	STH 47	---	---	5,127	
0010	735+61	-	736+70	STH 47	109	109	---	109
0010	736+70	-	744+27	STH 47	---	---	757	
0010	744+27	-	745+34	STH 47	107	107	---	107
0010	745+34	-	757+01	STH 47	---	---	1,167	
0010	757+01	-	758+08	STH 47	107	107	---	107
0010	758+08	-	760+25	STH 47	---	---	217	
				TOTAL:	1,726	1,726	52,132	1,726

NOTE: CONSTRUCTION STAKING PIPE CULVERTS ITEM SHOWN ELSEWHERE

PERMANENT SIGNING SUMMARY

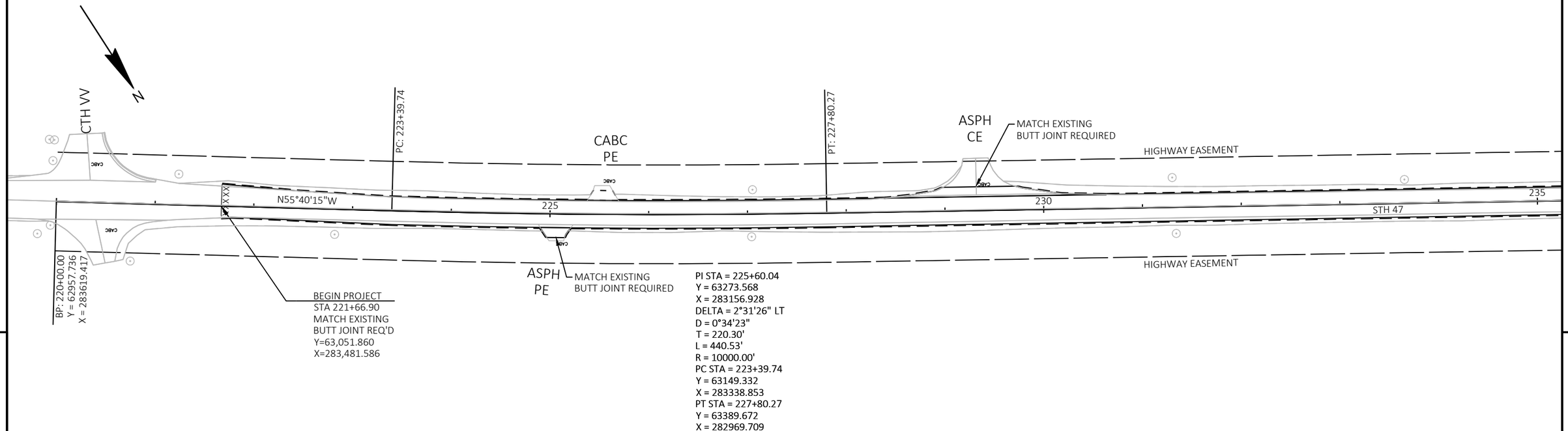
CATEGORY	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	UNDISTRIBUTED	2	16	16	NO PASSING ZONE SIGNS
0010	UNDISTRIBUTED	3	8	5	CULVERT PATCHES
	TOTAL:	5	24	21	

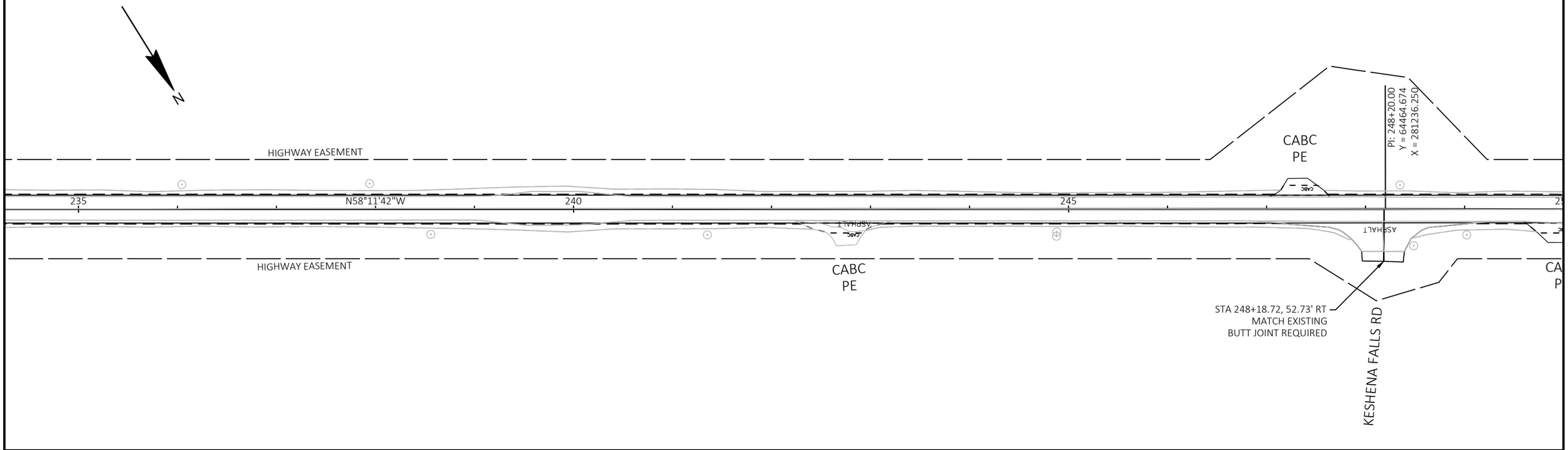
CAST-IN-PLACE ENDWALL SUMMARY

CATEGORY	STA		504.0900 CONCRETE MASONRY ENDWALLS CY	REMARKS
0010	295+49	LT	4.0	
0010	295+46	RT	4.0	
	TOTALS		8.0	

GRADING & SHAPING DITCH

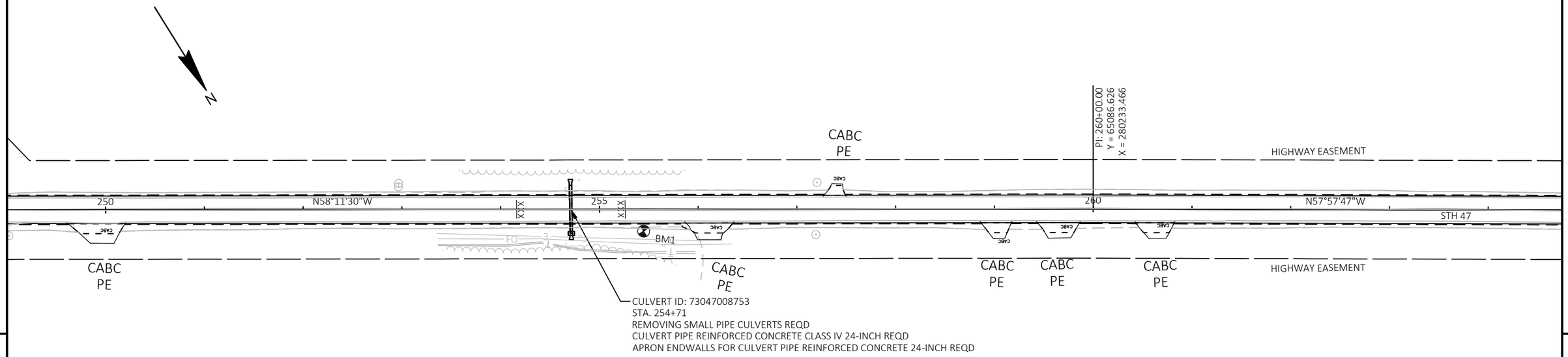
CATEGORY	STATION	TO	STATION	LOCATION	SPV.0090.01 SPECIAL 01. GRADING AND SHAPING DITCH LF	REMARKS
0010	279+25	-	280+25	STH 47	100	NORTH & SOUTH OF NEW AEW (LT)
0010	570+09	-	571+09	STH 47	100	NORTH & SOUTH OF NEW AEW (LT)
0010	683+29	-	684+29	STH 47	100	NORTH & SOUTH OF NEW AEW (LT)
0010	743+79	-	745+79	STH 47	200	NORTH & SOUTH OF NEW AEW (LT/RT)
			TOTAL:		500	



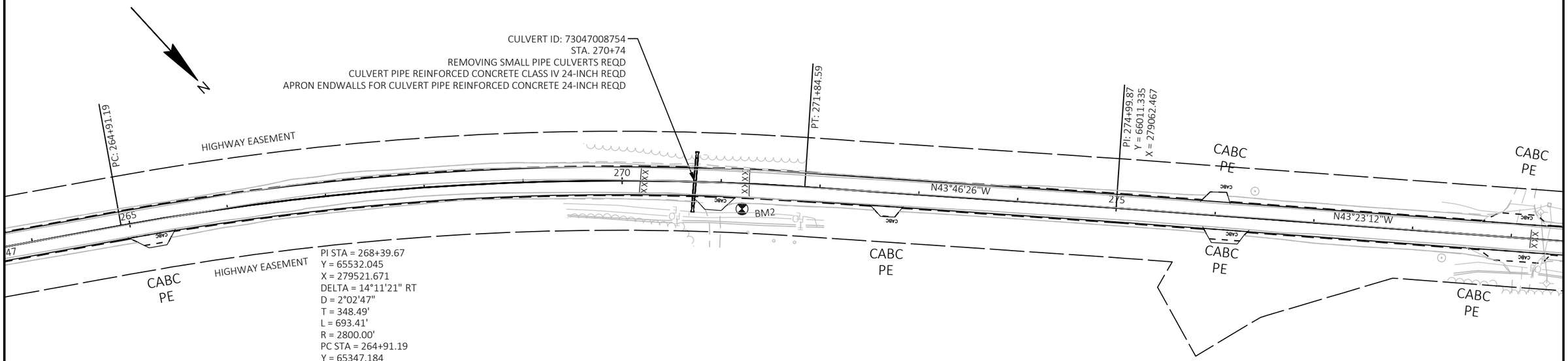


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 43	E

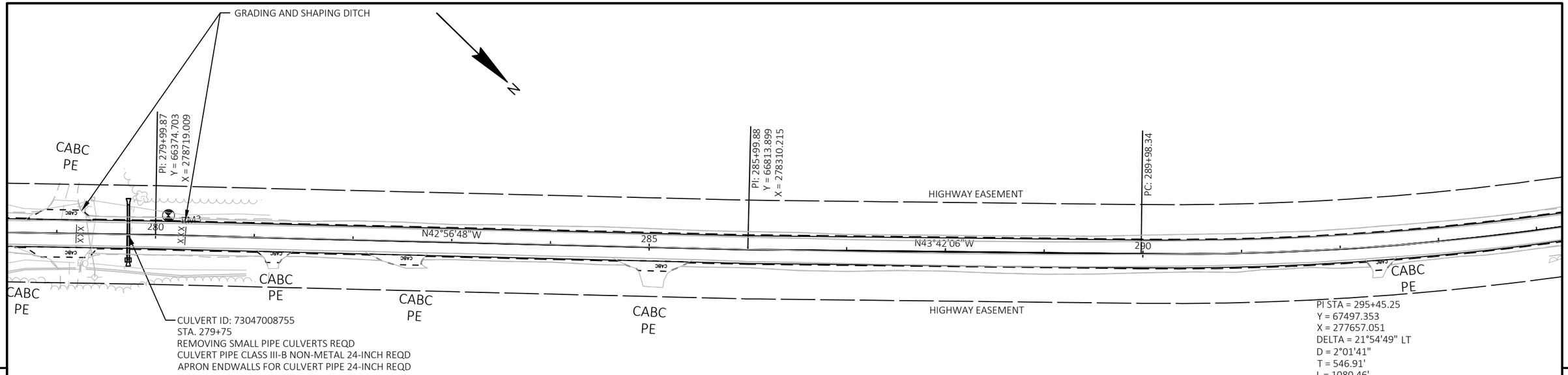
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\050201-PN.DWG PLOT DATE : 12/20/2025 10:08 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 19



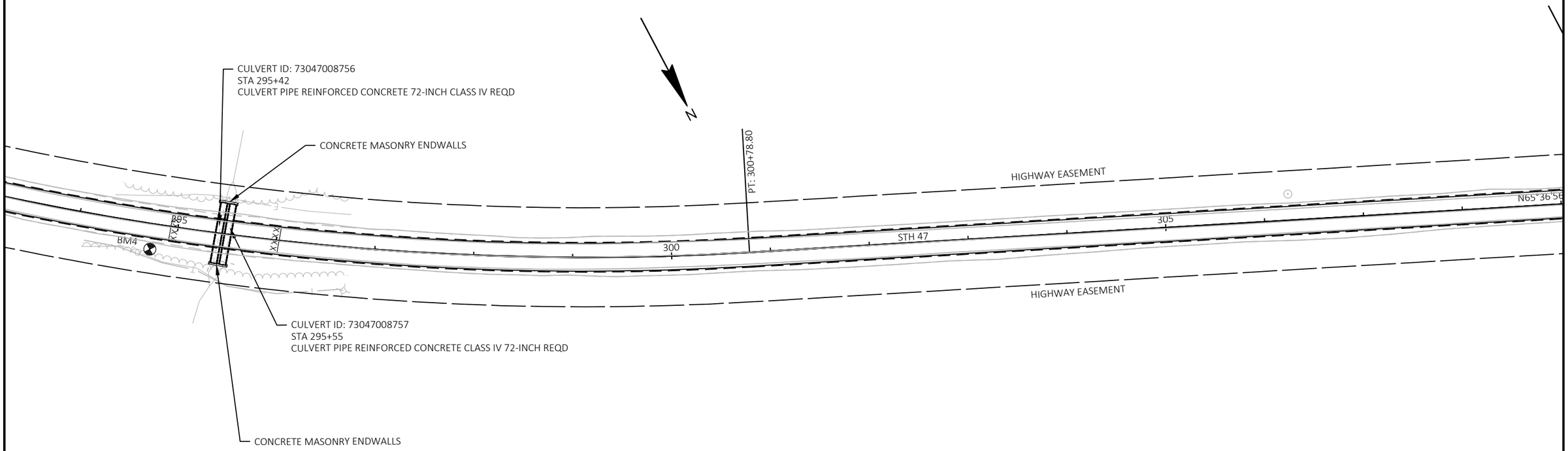
NO.	STATION	ELEV.	DESCRIPTION
BM1	255+44.68, 22.23' RT	859.97	2' REBAR W/ RED CAP
BM2	271+22.26, 25.72' RT	866.11	2' REBAR W/ RED CAP



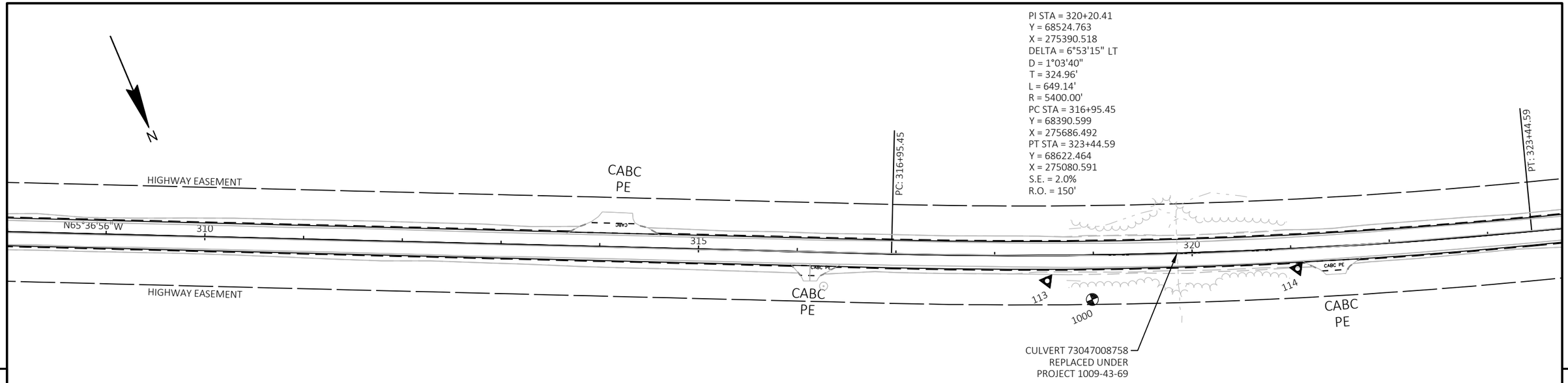
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 44	E

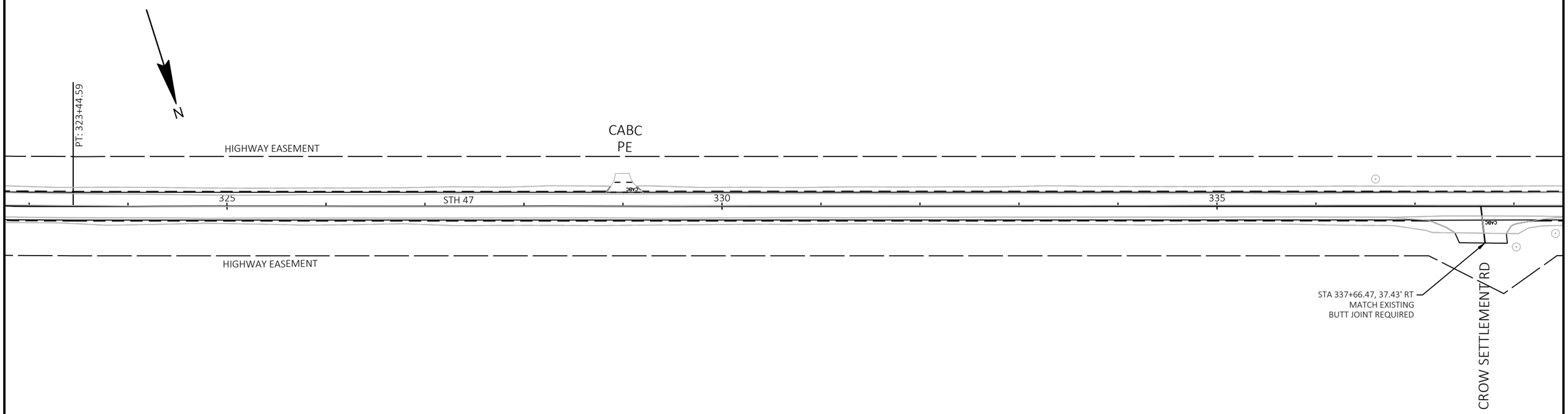


NO.	STATION	ELEV.	DESCRIPTION
BM3	280+12.54, 20.00' LT	879.16	2' REBAR W/ RED CAP
BM4	294+74.93, 25.84' RT	873.59	2' REBAR W/ RED CAP

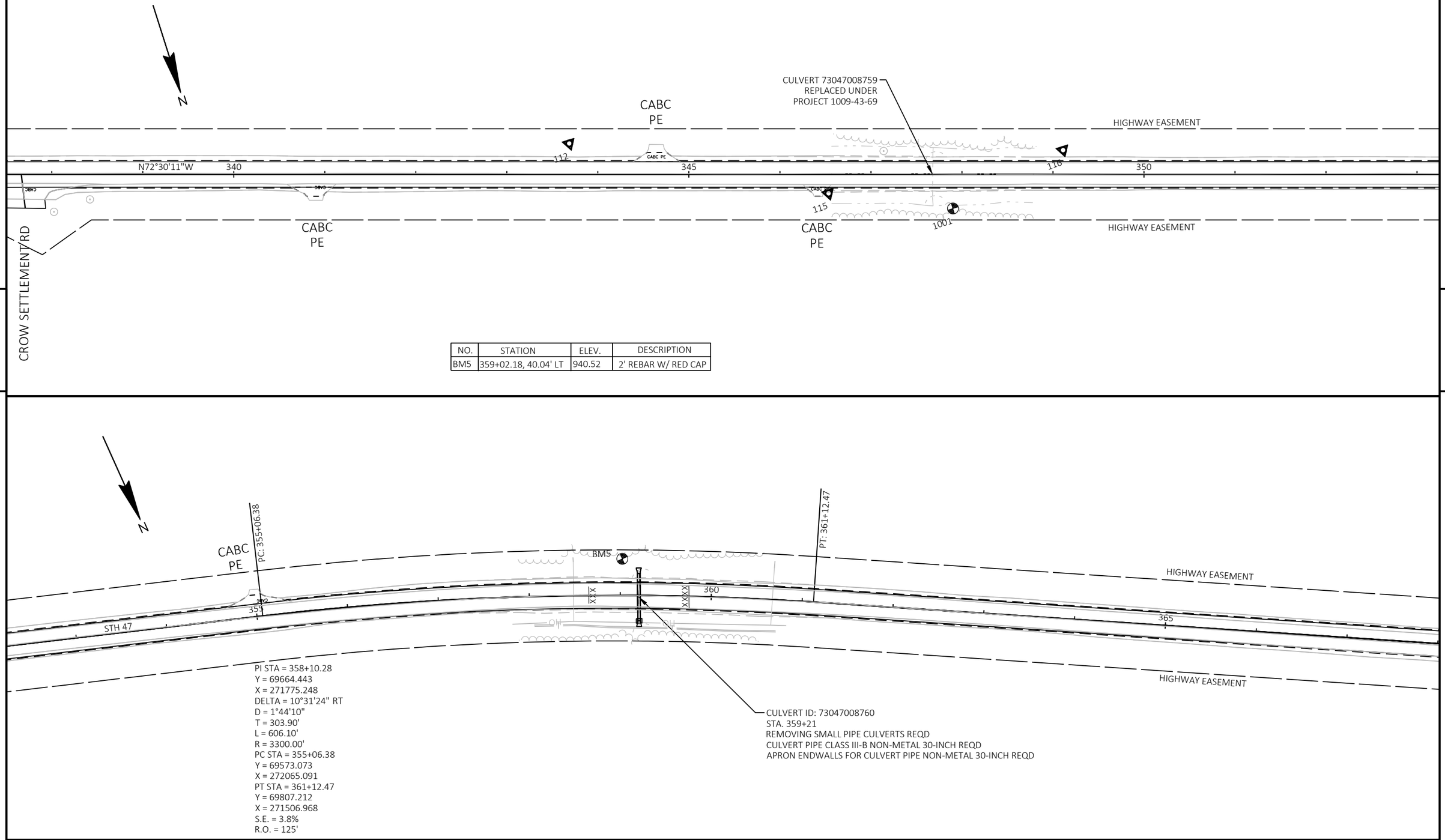


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 45	E

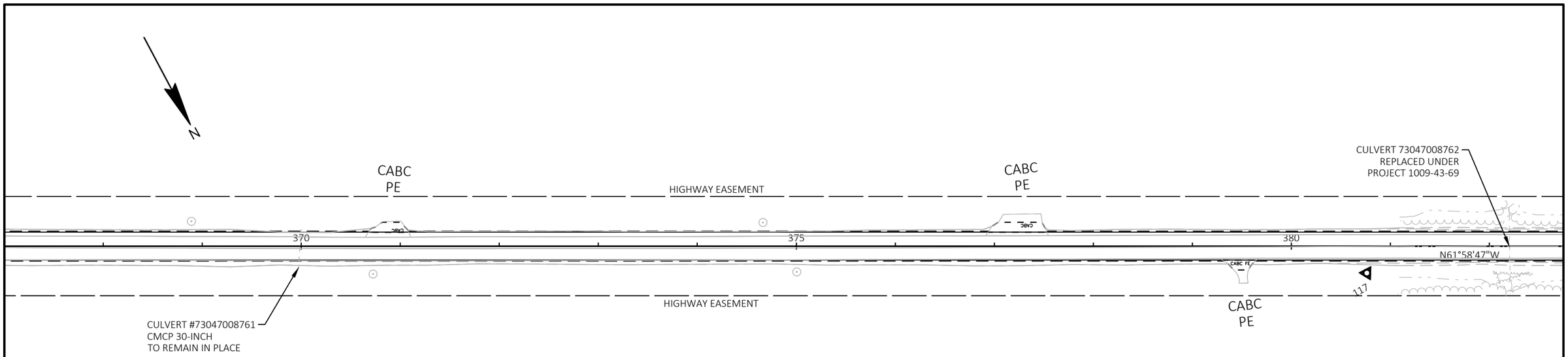




PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 46	E

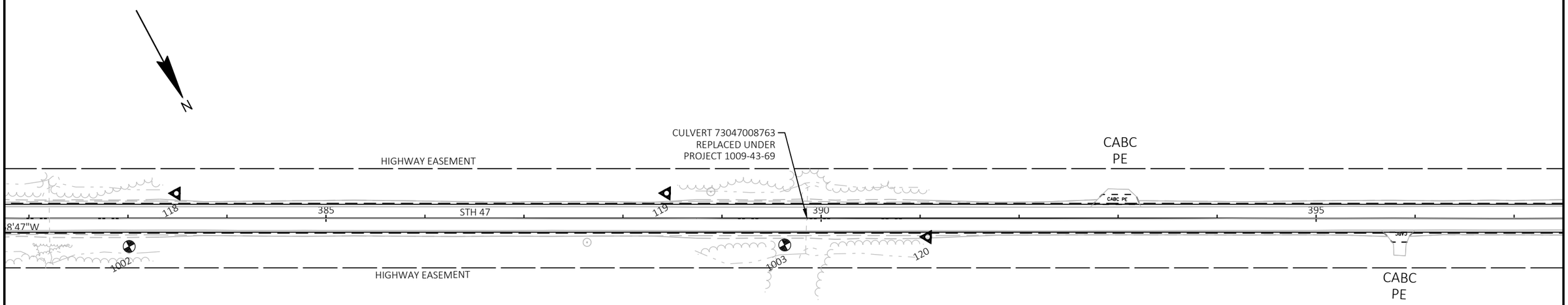


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 47	E

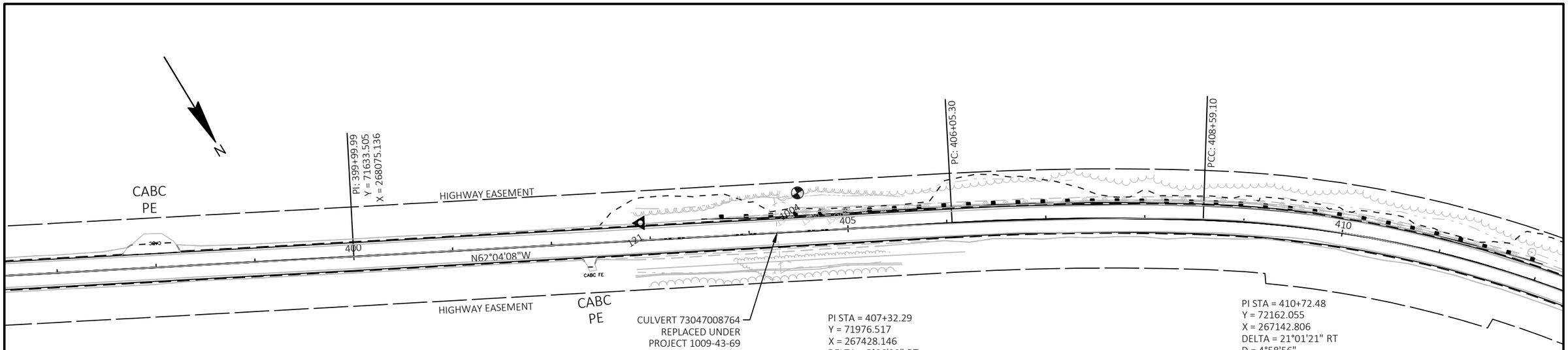


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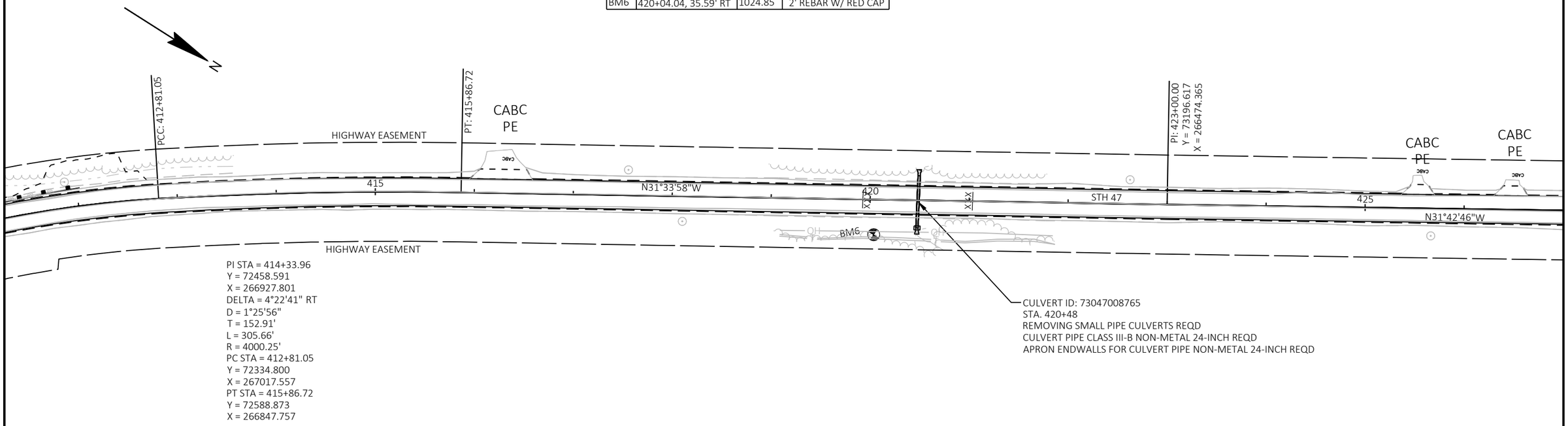
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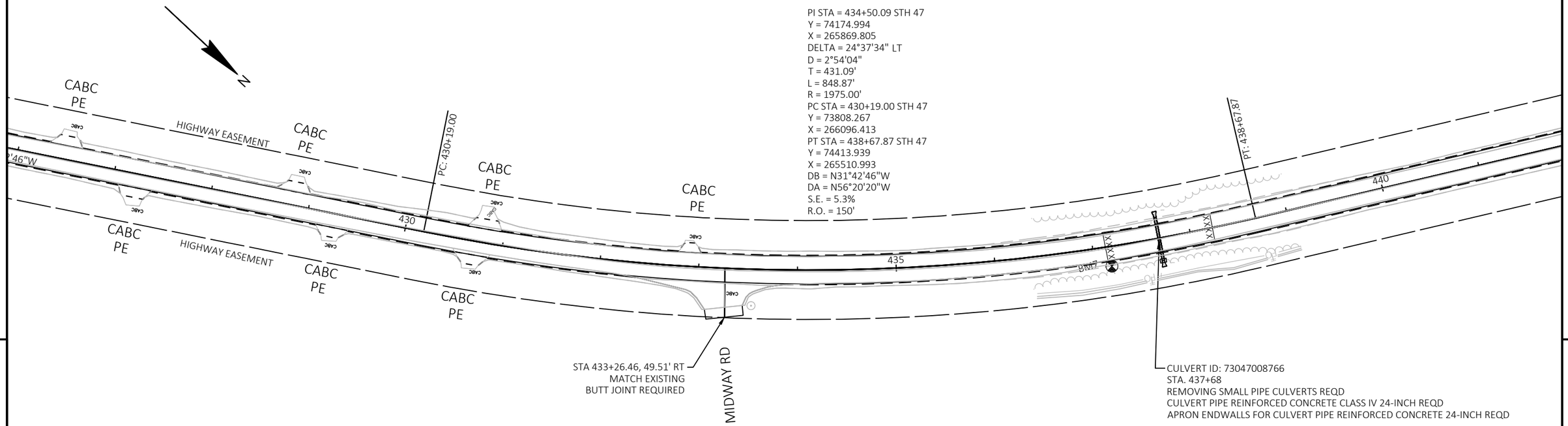
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 48	E



NO.	STATION	ELEV.	DESCRIPTION
BM6	420+04.04, 35.59' RT	1024.85	2' REBAR W/ RED CAP



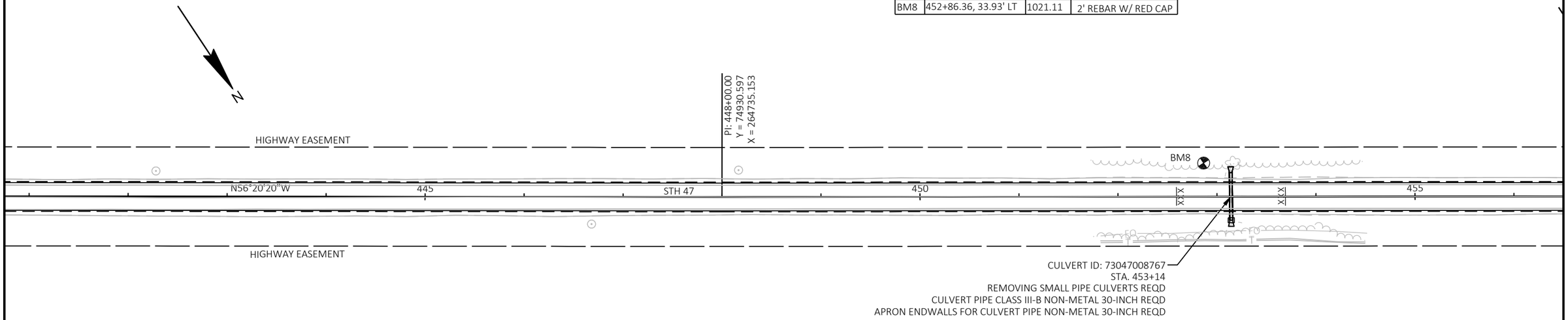
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 49	E



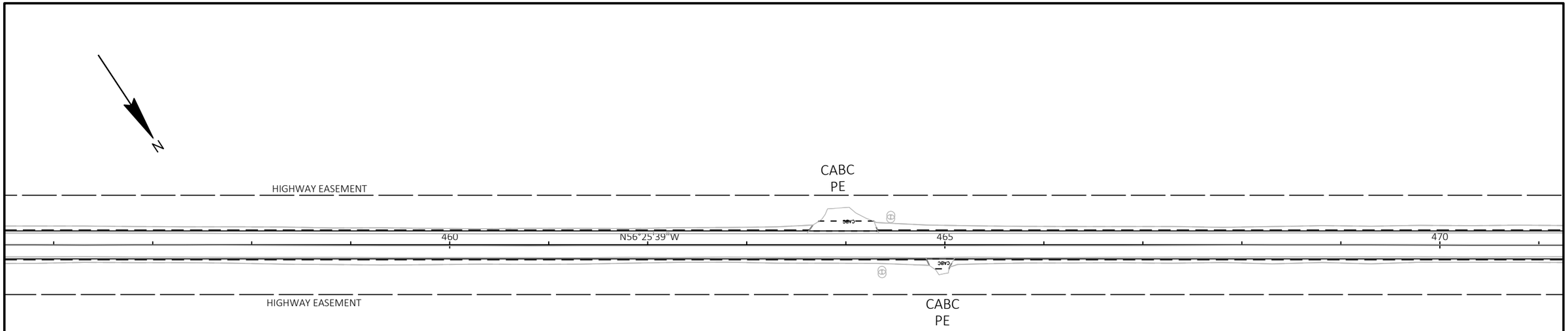
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5

NO.	STATION	ELEV.	DESCRIPTION
BM7	473+16.53, 19.95' RT	1031.97	2' REBAR W/ RED CAP
BM8	452+86.36, 33.93' LT	1021.11	2' REBAR W/ RED CAP

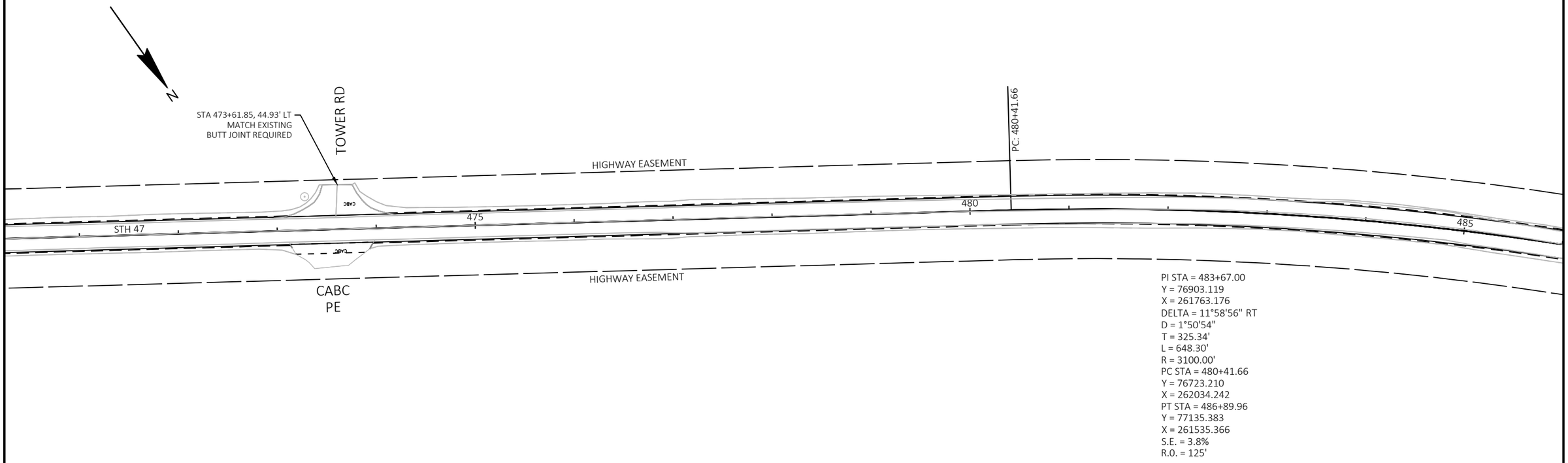


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 50	E



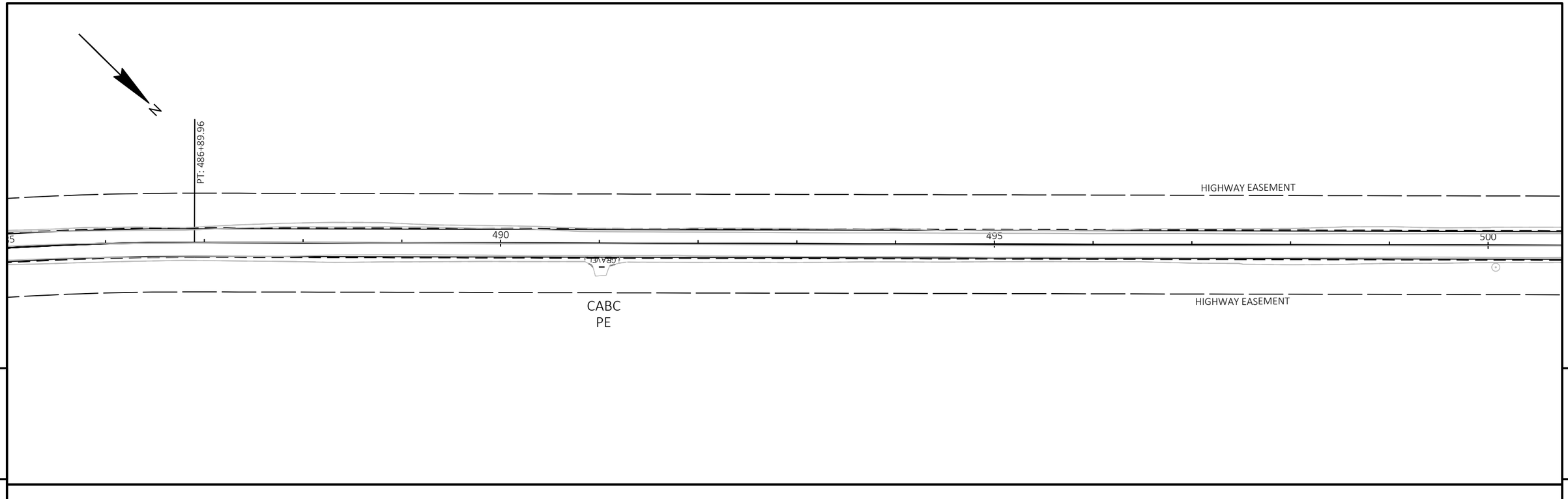
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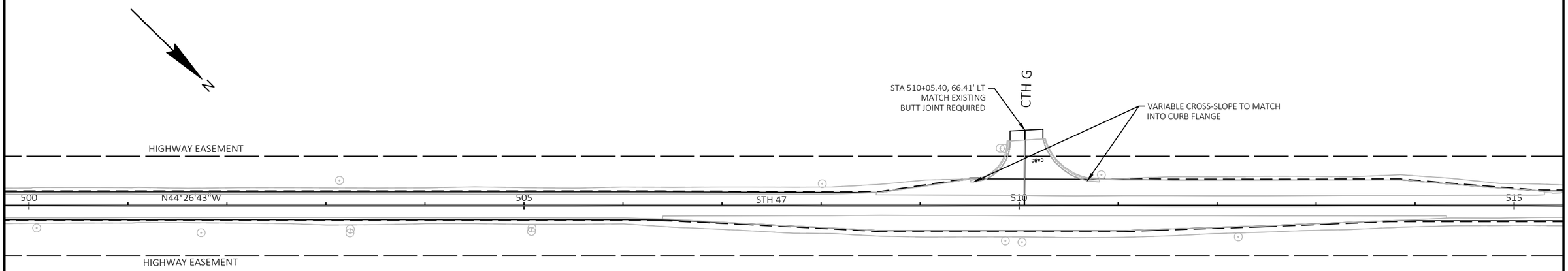
5



PI STA = 483+67.00
Y = 76903.119
X = 261763.176
DELTA = 11°58'56" RT
D = 1°50'54"
T = 325.34'
L = 648.30'
R = 3100.00'
PC STA = 480+41.66
Y = 76723.210
X = 262034.242
PT STA = 486+89.96
Y = 77135.383
X = 261535.366
S.E. = 3.8%
R.0. = 125'

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 51	E





PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 52	E

PI STA = 523+93.72
Y = 79779.570
X = 258941.890
DELTA = 15°21'51" LT
D = 1°01'23"
T = 755.37'
L = 1501.68'
R = 5600.00'
PC STA = 516+38.35
Y = 79240.295
X = 259470.823
PT STA = 531+40.03
Y = 80159.428
X = 258288.978
S.E. = 2.5%
R.O. = 150'

N

PC: 516+38.35

HIGHWAY EASEMENT

515 520 525 530

CABC
PE

CABC
PE

HIGHWAY EASEMENT

5

5

STA 531+81.35, 61.62' LT
MATCH EXISTING
BUTT JOINT REQUIRED

WHITE CEDAR RD

VARIABLE CROSS-SLOPE TO MATCH
INTO CURB FLANGE

N

HIGHWAY EASEMENT

530 535 STH 47 540 N59°48'34"W

PT: 531+40.03
Y = 80159.428
X = 258288.978

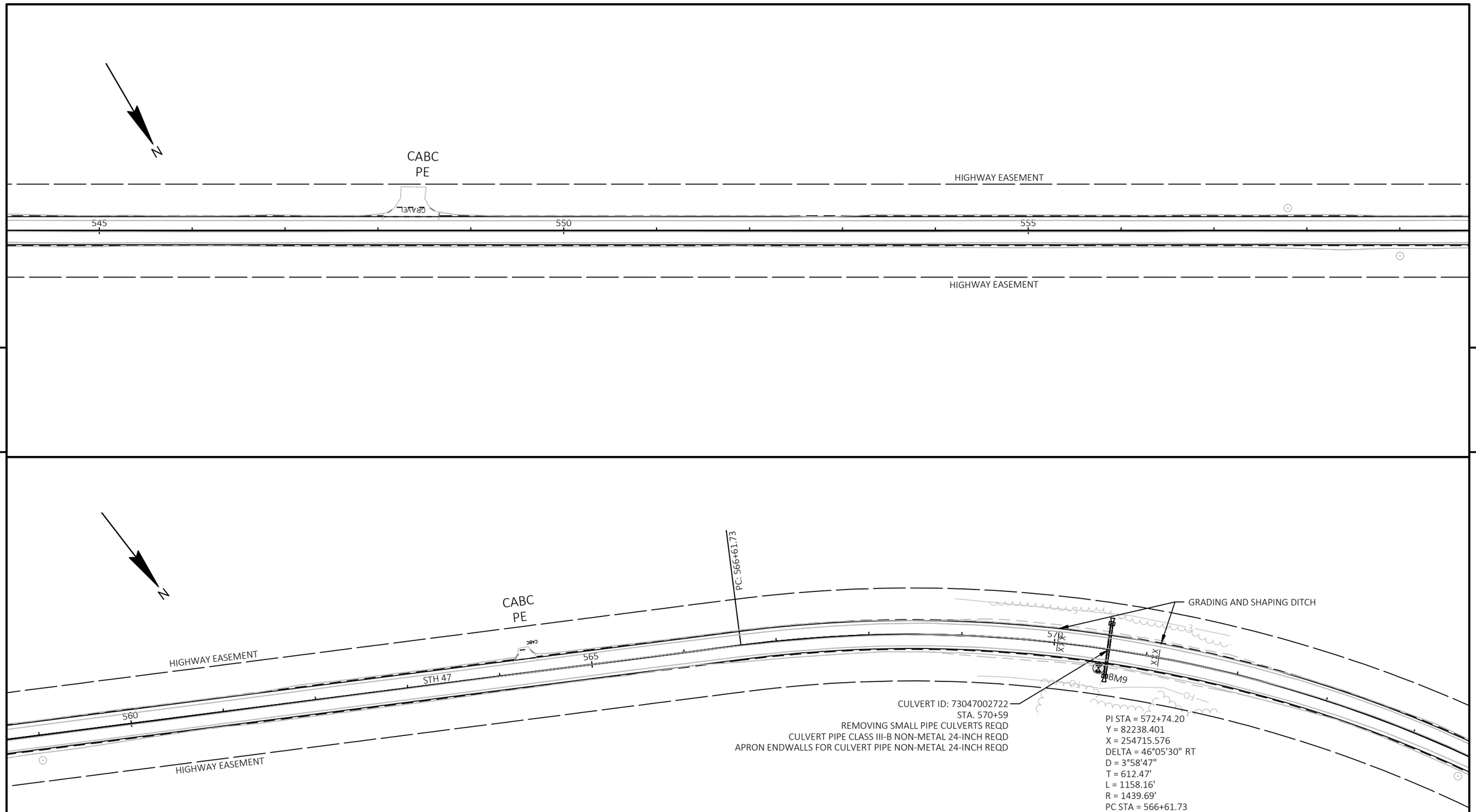
CULVERT #58047005945
CMCP 42-INCH
TO REMAIN IN PLACE

CULVERT #58047005946
CMCP 42-INCH
TO REMAIN IN PLACE

HIGHWAY EASEMENT

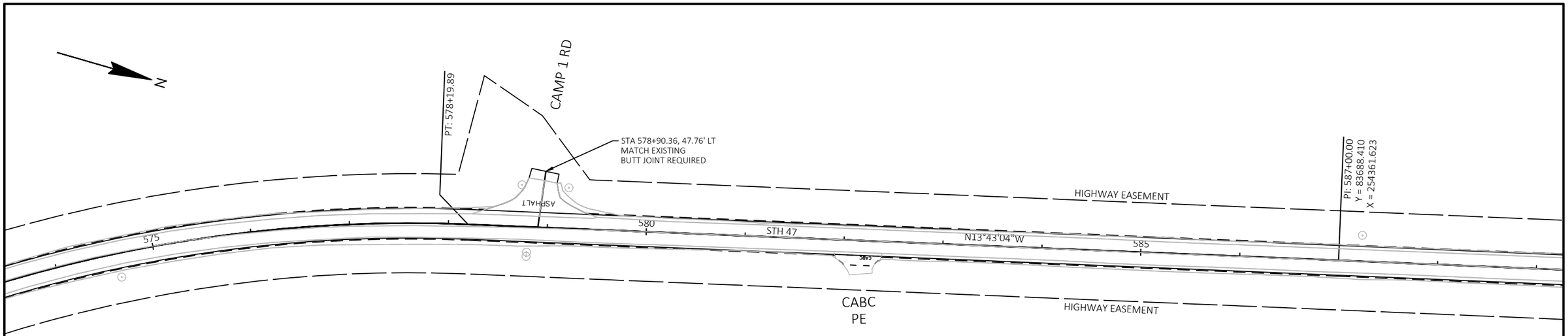
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 53	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 29
PLOT DATE : 12/20/2025 10:18 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



NO.	STATION	ELEV.	DESCRIPTION
BM9	570+50.95, 22.12' RT	979.37	2' REBAR W/ RED CAP

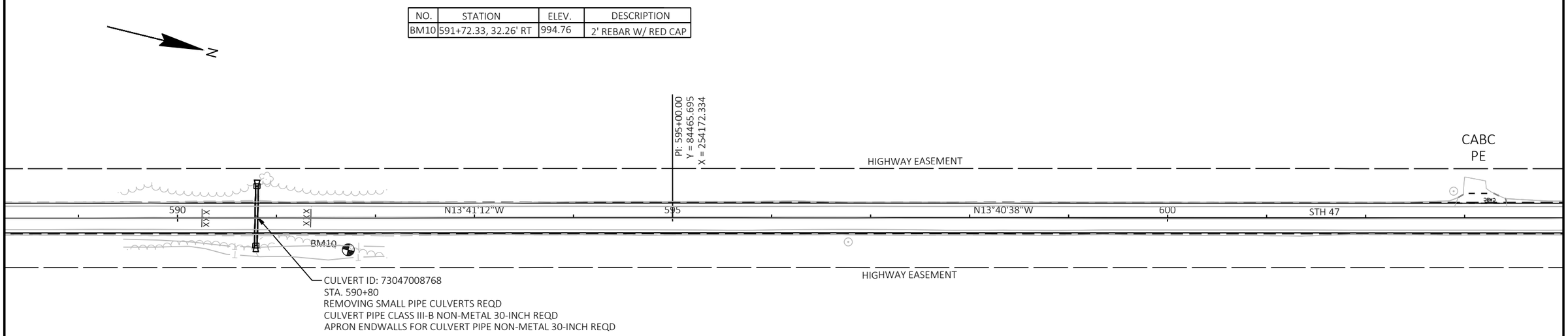
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 54	E



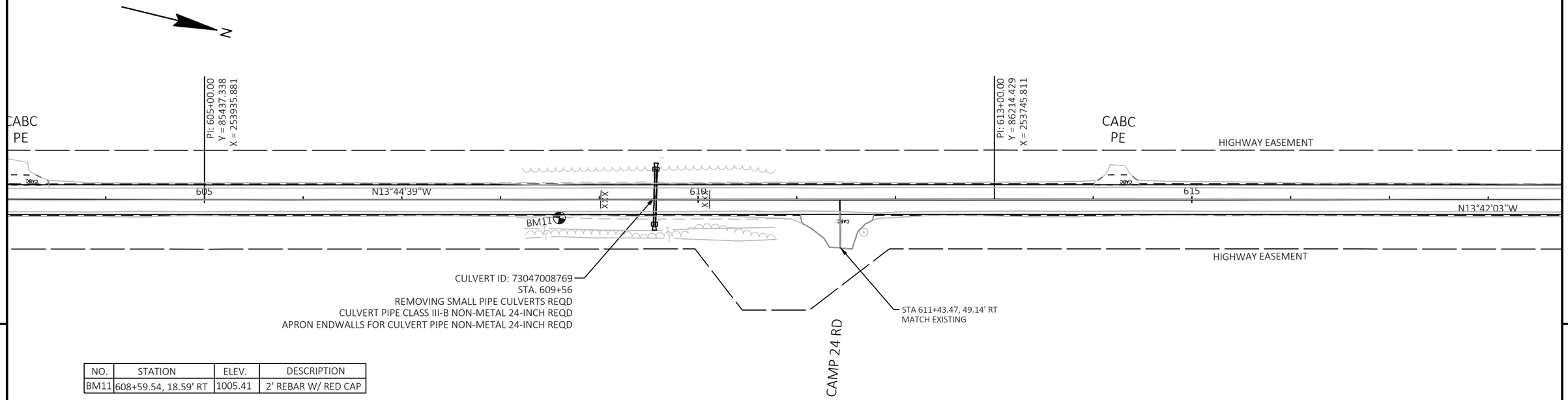
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5

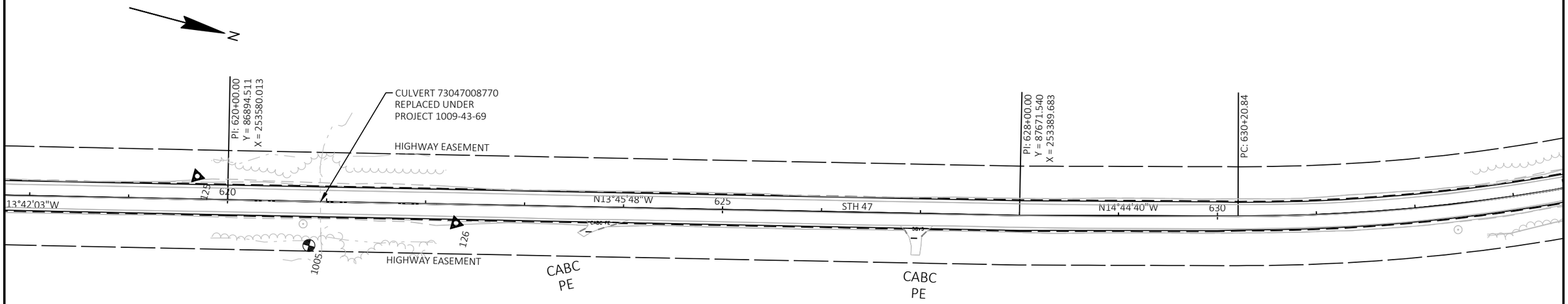
NO.	STATION	ELEV.	DESCRIPTION
BM10	591+72.33, 32.26' RT	994.76	2' REBAR W/ RED CAP



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 55	E



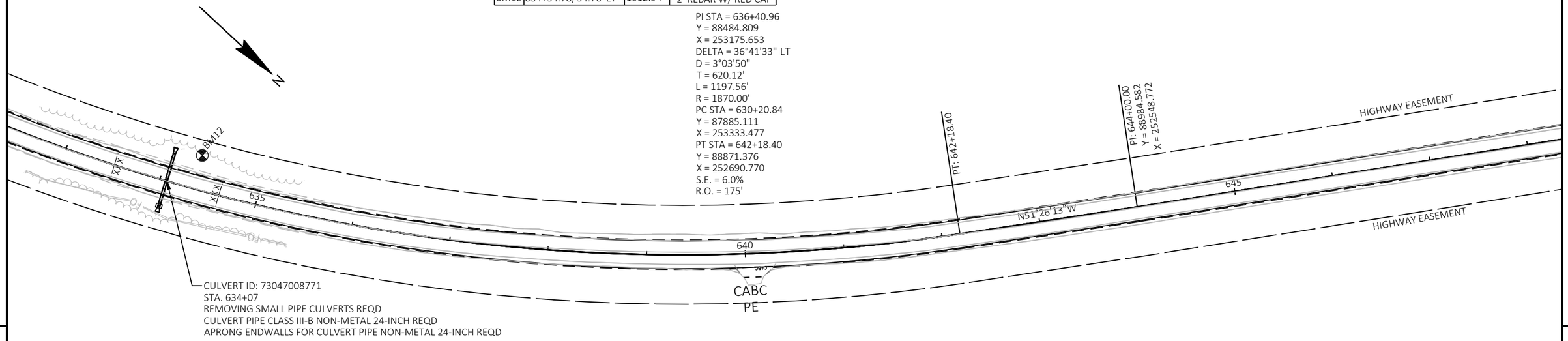
NO.	STATION	ELEV.	DESCRIPTION
BM11	608+59.54, 18.59' RT	1005.41	2' REBAR W/ RED CAP

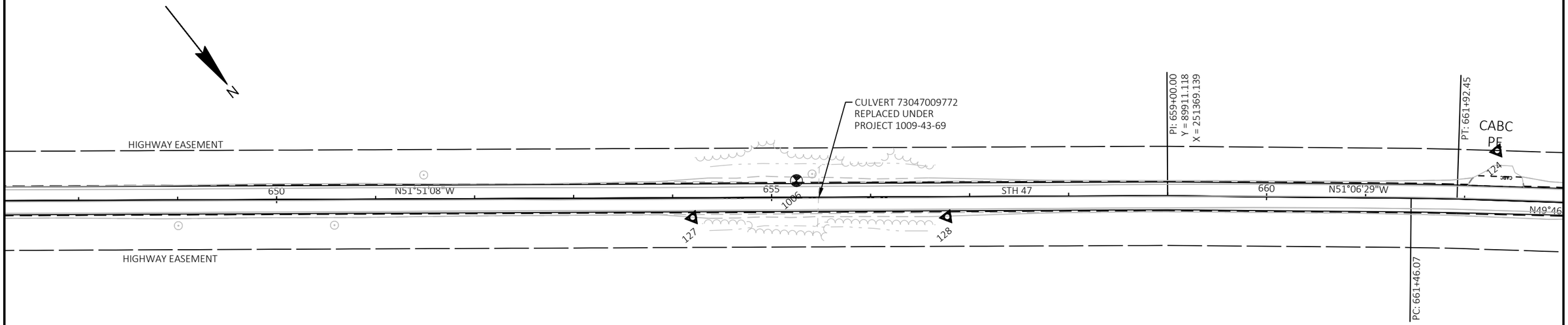


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 56	E

NO.	STATION	ELEV.	DESCRIPTION
BM12	634+34.78, 34.76' LT	1012.94	2' REBAR W/ RED CAP

PI STA = 636+40.96
Y = 88484.809
X = 253175.653
DELTA = 36°41'33" LT
D = 3°03'50"
T = 620.12'
L = 1197.56'
R = 1870.00'
PC STA = 630+20.84
Y = 87885.111
X = 253333.477
PT STA = 642+18.40
Y = 88871.376
X = 252690.770
S.E. = 6.0%
R.O. = 175'



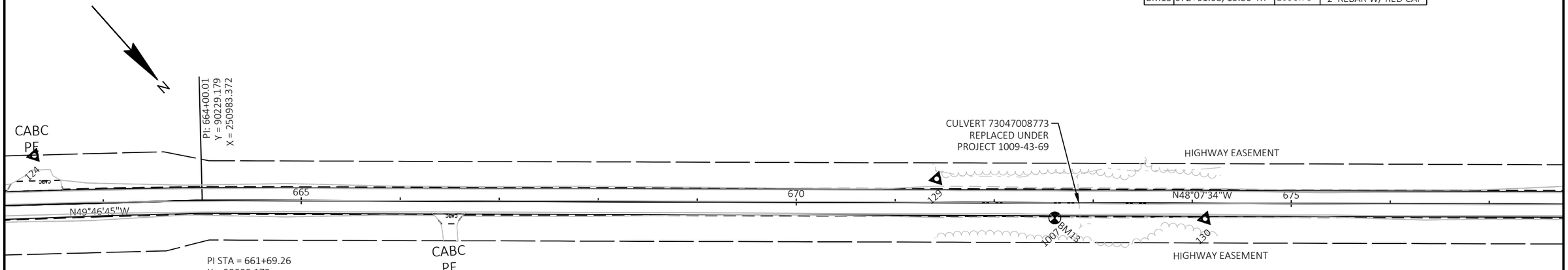


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 57	E

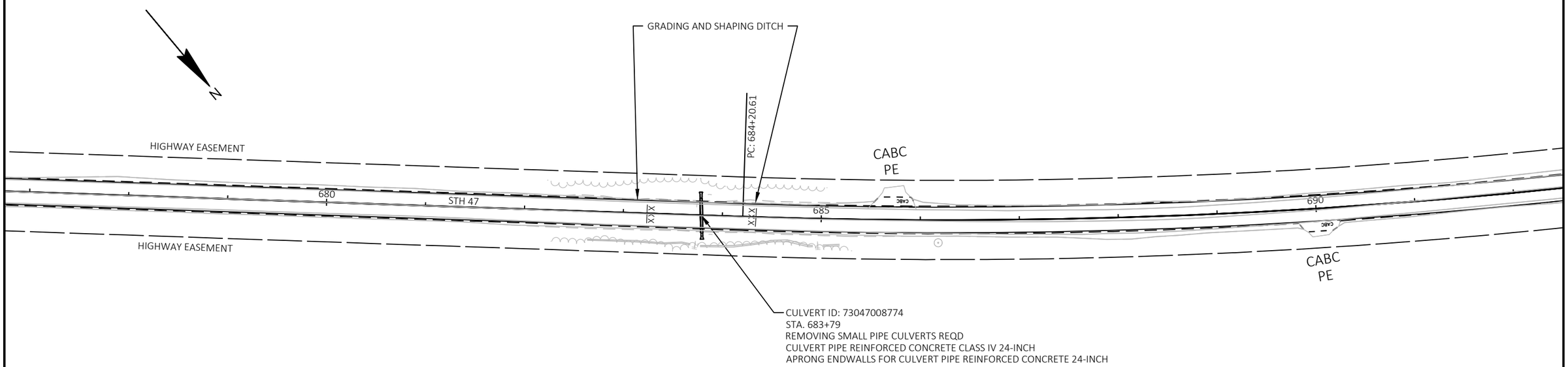
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\050201-PN.DWG PLOT DATE : 12/20/2025 10:19 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 33

WISDOT/CADDS SHEET 44

NO.	STATION	ELEV.	DESCRIPTION
BM13	672+61.08, 15.30' RT	1038.73	2' REBAR W/ RED CAP

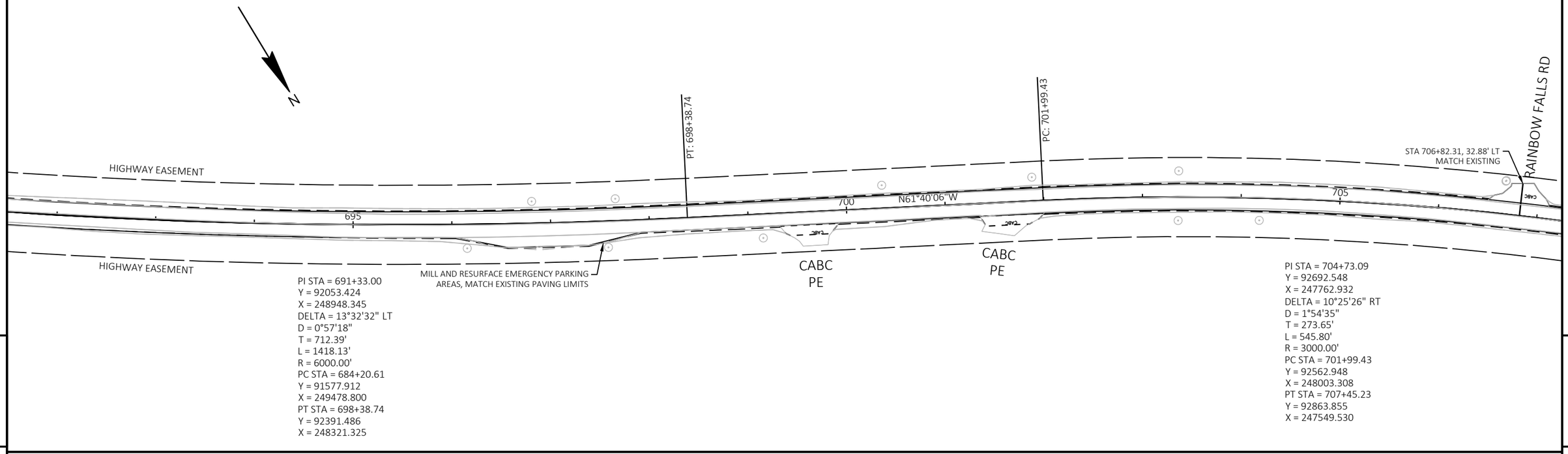


PI STA = 661+69.26
Y = 90080.173
X = 251159.566
DELTA = 1°19'44" RT
D = 2°51'53"
T = 23.19'
L = 46.39'
R = 2000.00'
PC STA = 661+46.07
Y = 90065.610
X = 251177.619
PT STA = 661+92.45
Y = 90095.562
X = 251142.202



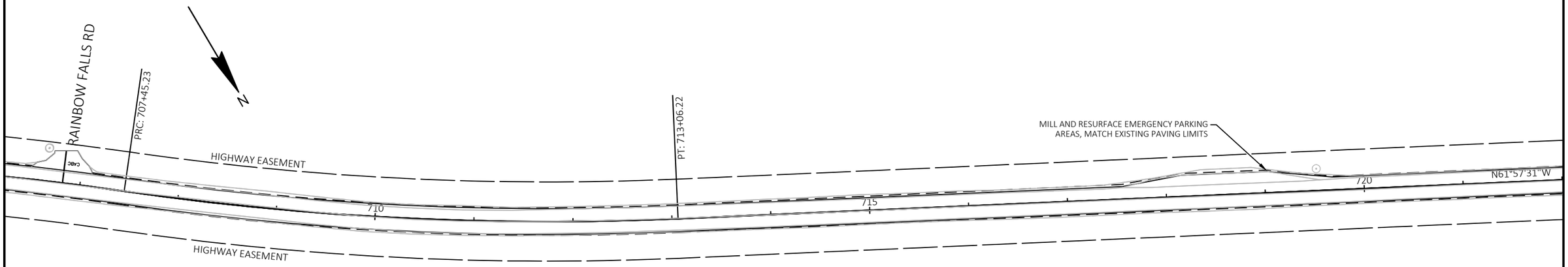
CULVERT ID: 73047008774
STA. 683+79
REMOVING SMALL PIPE CULVERTS REQD
CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH
APRONG ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 58	E



PI STA = 691+33.00
Y = 92053.424
X = 248948.345
DELTA = 13°32'32" LT
D = 0°57'18"
T = 712.39'
L = 1418.13'
R = 6000.00'
PC STA = 684+20.61
Y = 91577.912
X = 249478.800
PT STA = 698+38.74
Y = 92391.486
X = 248321.325

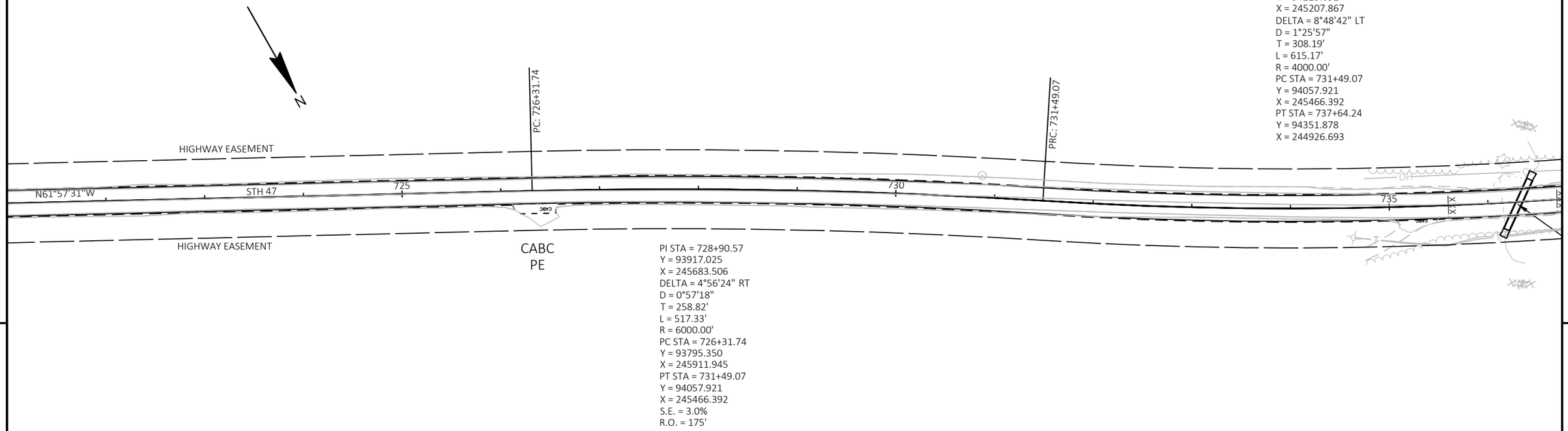
PI STA = 704+73.09
Y = 92692.548
X = 247762.932
DELTA = 10°25'26" RT
D = 1°54'35"
T = 273.65'
L = 545.80'
R = 3000.00'
PC STA = 701+99.43
Y = 92562.948
X = 248003.308
PT STA = 707+45.23
Y = 92863.855
X = 247549.530



PI STA = 710+26.55
Y = 93039.959
X = 247330.153
DELTA = 10°42'51" LT
D = 1°54'35"
T = 281.32'
L = 560.99'
R = 3000.00'
PC STA = 707+45.23
Y = 92863.855
X = 247549.530
PT STA = 713+06.22
Y = 93172.209
X = 247081.861

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 59	E

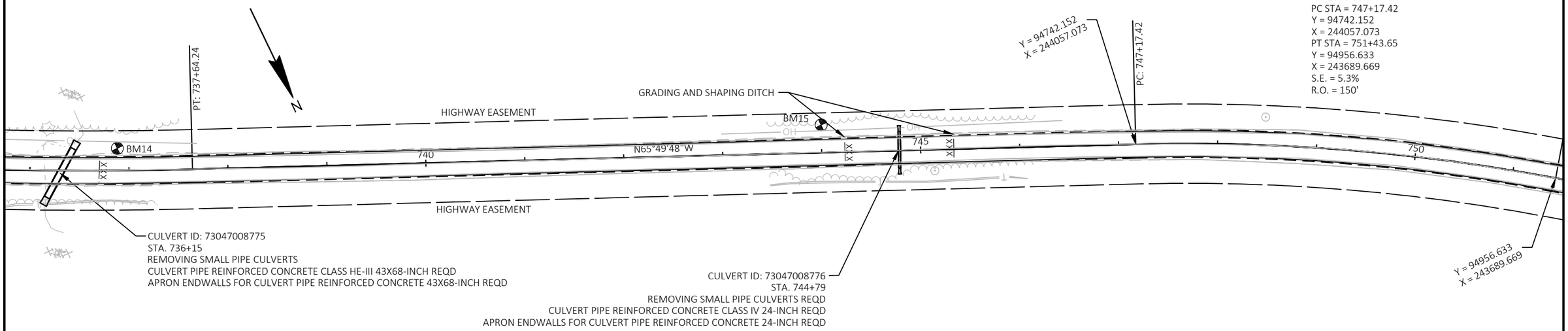
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\050201-PN.DWG PLOT DATE : 12/20/2025 10:20 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 35



5

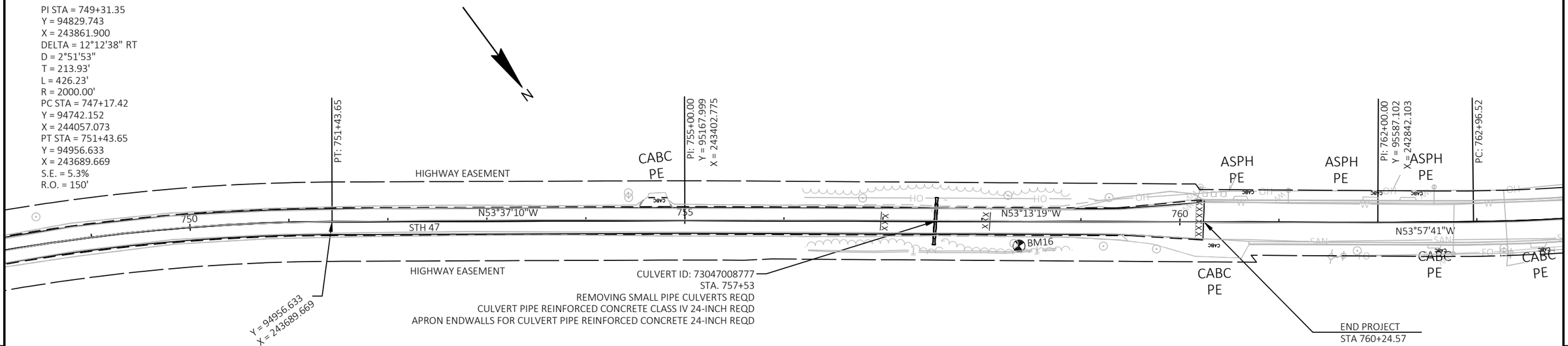
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NO.	STATION	ELEV.	DESCRIPTION
BM14	736+88.32, 22.34' LT	1049.92	2' REBAR W/ RED CAP
BM15	744+00.12, 27.84' LT	1064.34	2' REBAR W/ RED CAP



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 60	E

PI STA = 749+31.35
Y = 94829.743
X = 243861.900
DELTA = 12°12'38" RT
D = 2°51'53"
T = 213.93'
L = 426.23'
R = 2000.00'
PC STA = 747+17.42
Y = 94742.152
X = 244057.073
PT STA = 751+43.65
Y = 94956.633
X = 243689.669
S.E. = 5.3%
R.O. = 150'



NO.	STATION	ELEV.	DESCRIPTION
BM16	758+37.50, 24.77' RT	1057.12	2' REBAR W/ RED CAP

5

5

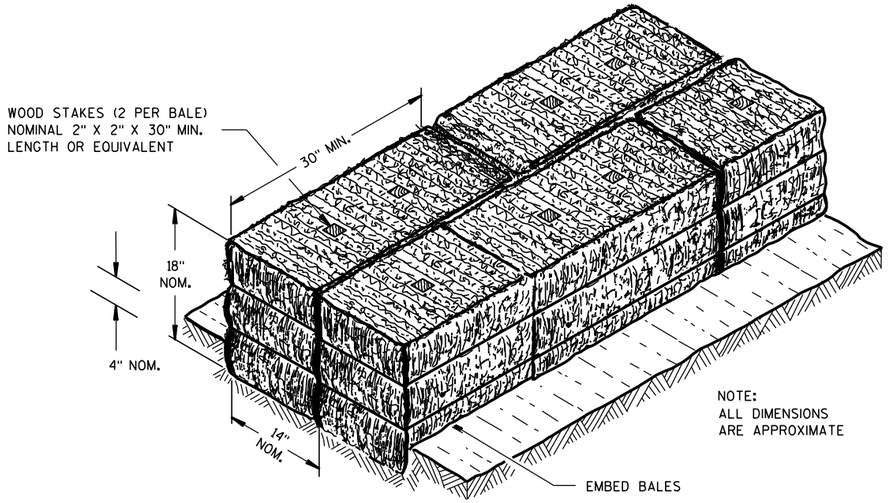
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PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	PLAN	SHEET 61	E

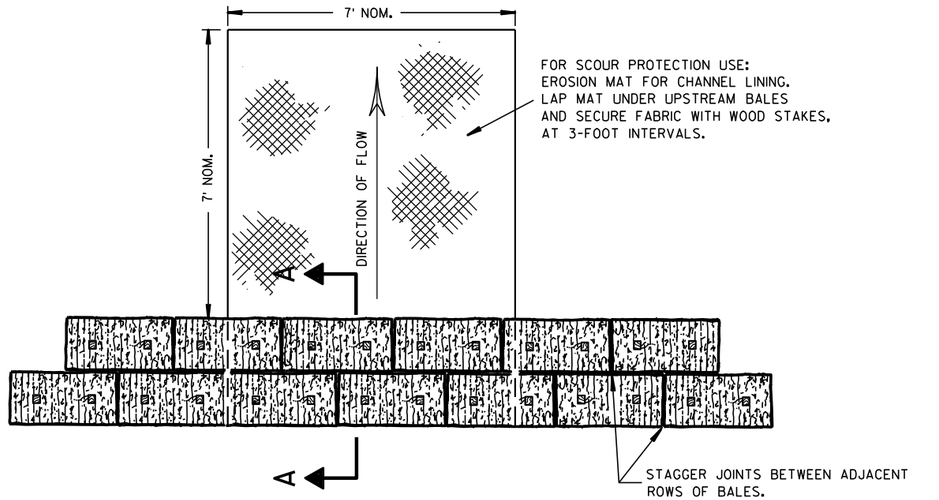
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-02	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
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
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)
14D01-01	TURTLE EXCLUSION FENCE CLIMBING TURTLE
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
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
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
15C19-10A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

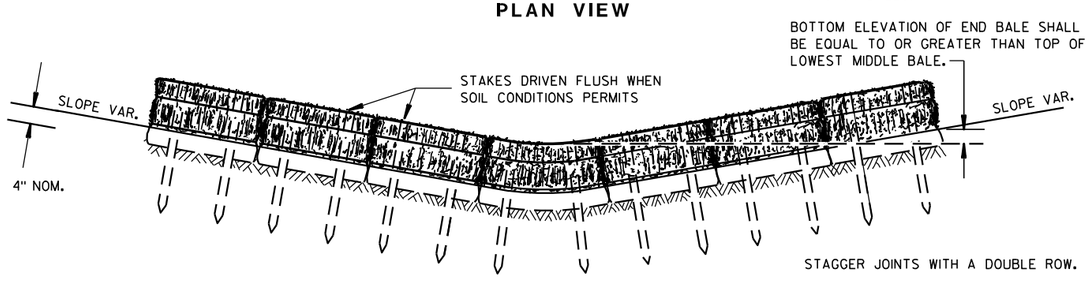
6



SECTION A-A



PLAN VIEW



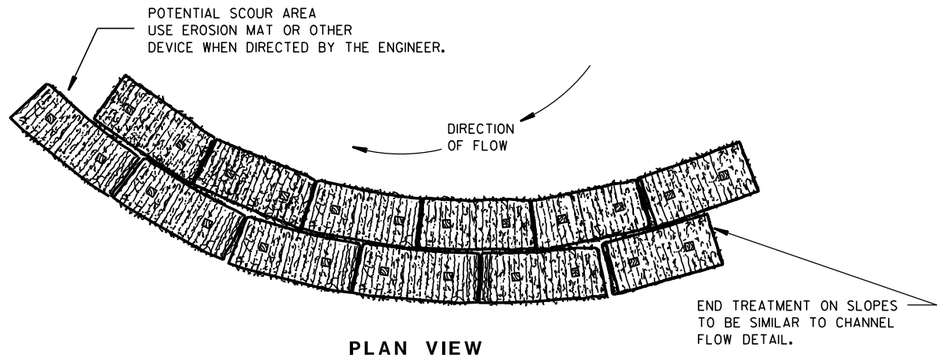
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

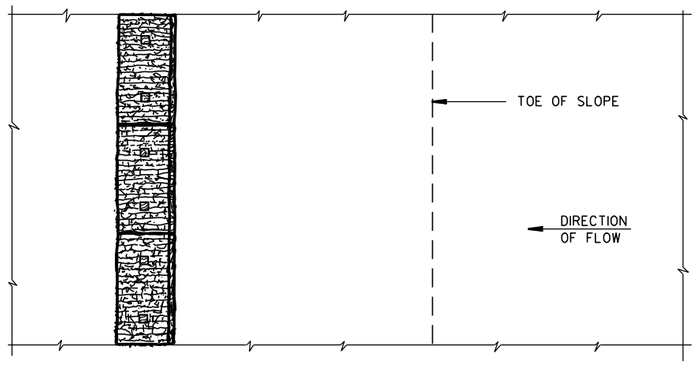
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

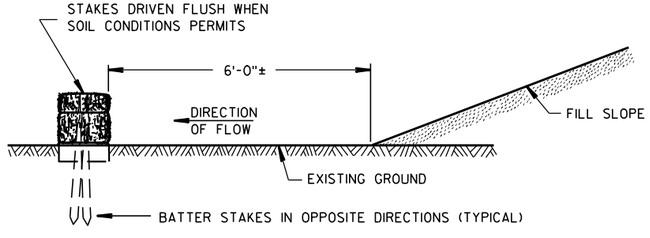


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

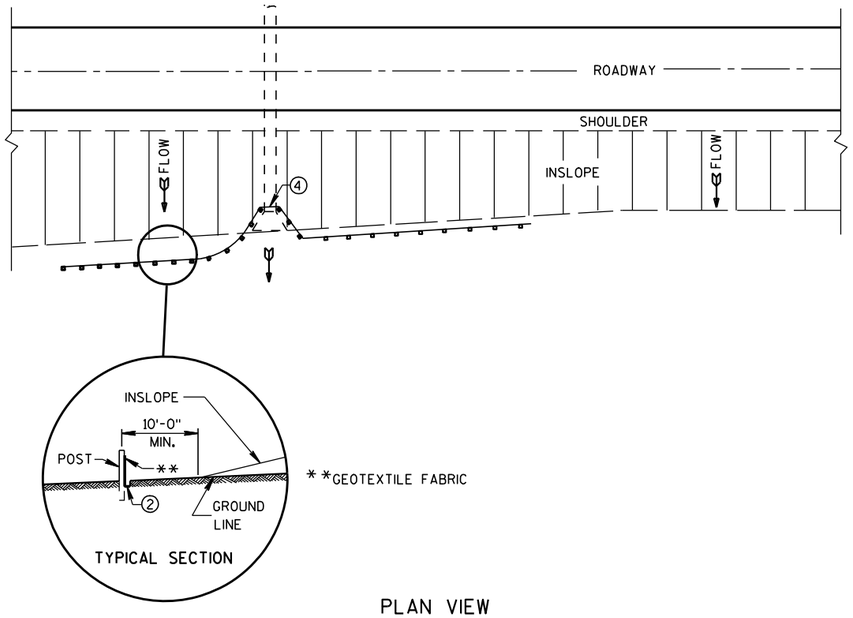
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

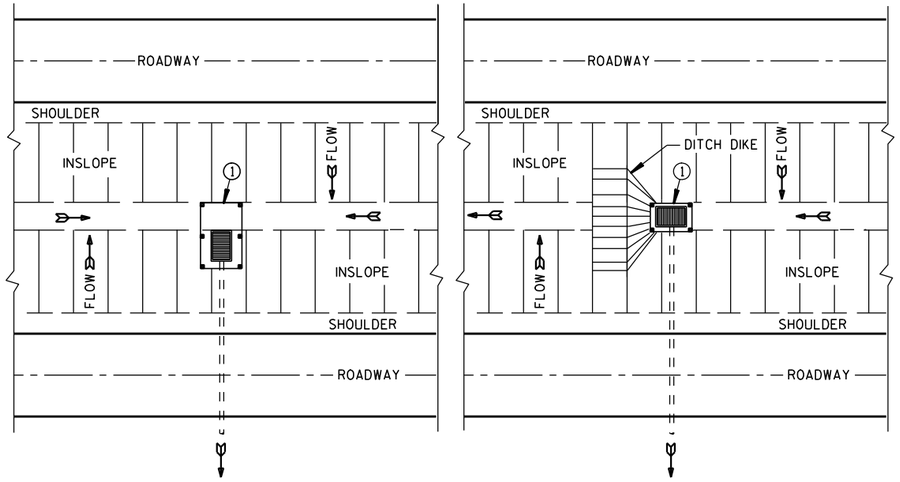
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



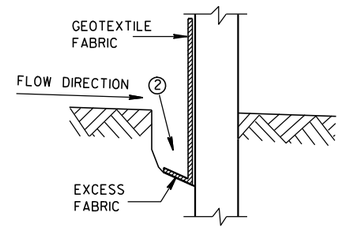
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

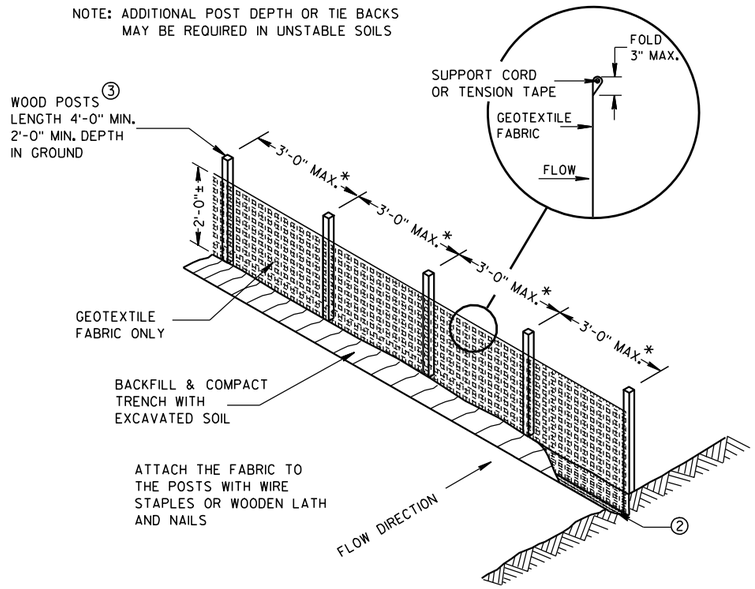
GENERAL NOTES

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

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

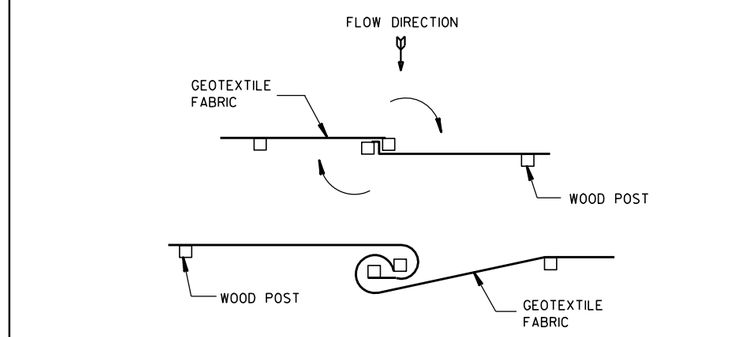


TRENCH DETAIL

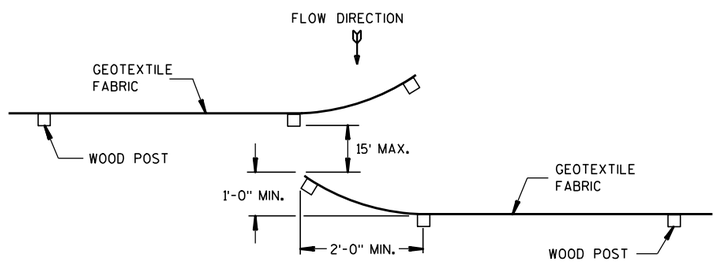


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

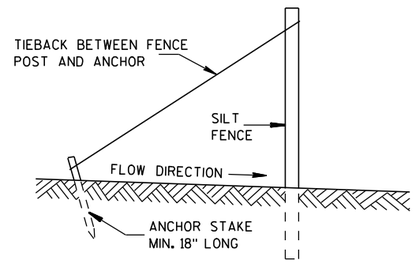


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

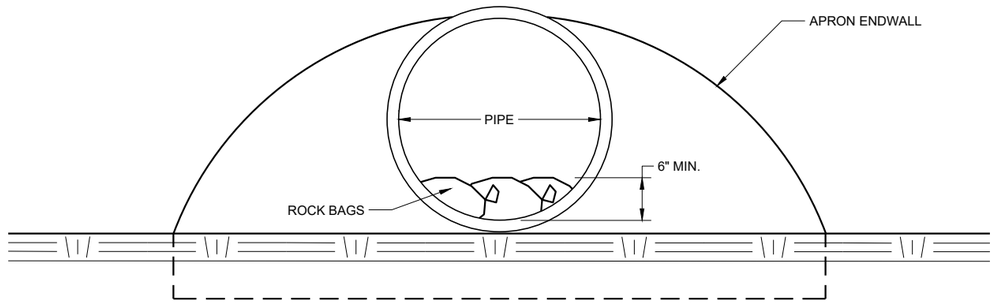
APPROVED
4-29-05
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

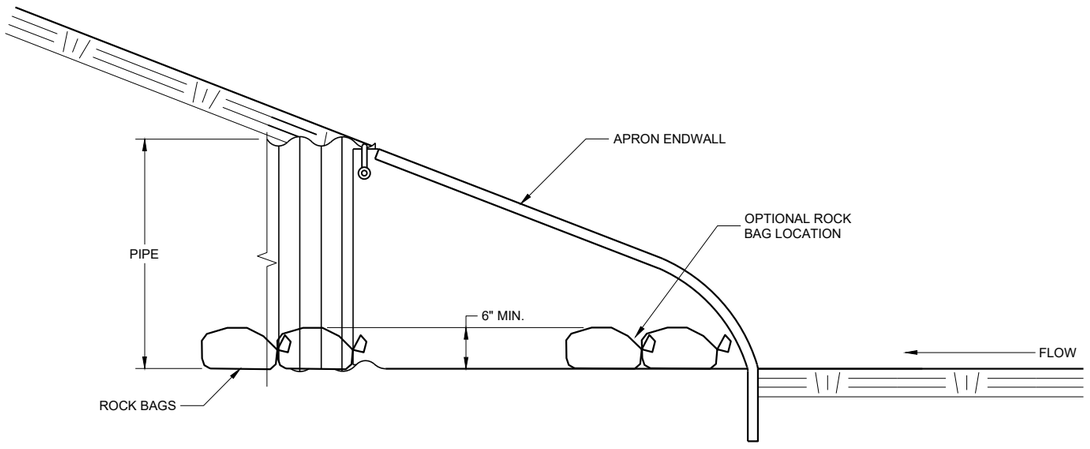
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

SDD 08E15 - 01

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SDD 08E15 - 01

METAL APRON ENDWALLS

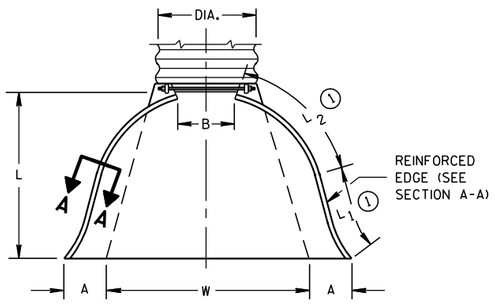
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

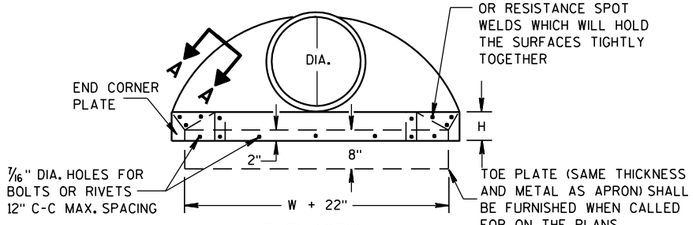
REINFORCED CONCRETE APRON ENDWALLS

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

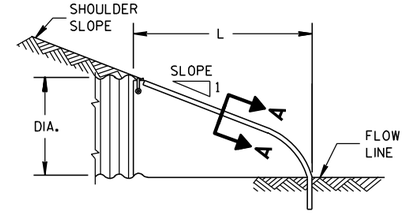
*MINIMUM
**MAXIMUM



PLAN VIEW

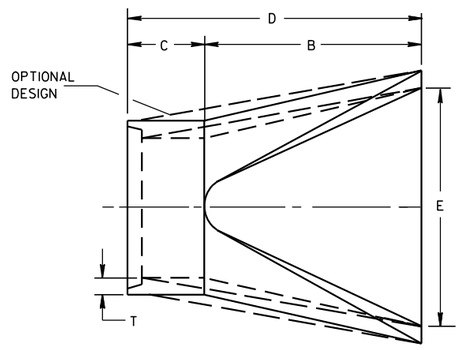


END VIEW

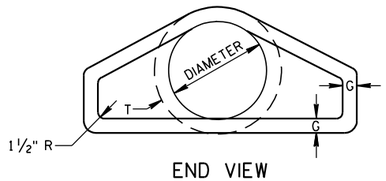


SIDE ELEVATION

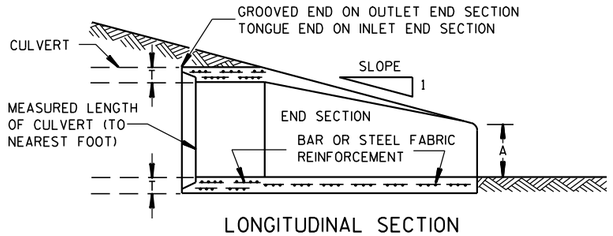
METAL ENDWALLS



PLAN

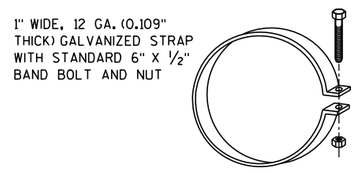


END VIEW



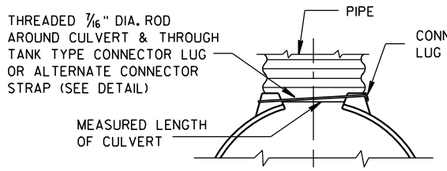
LONGITUDINAL SECTION

CONCRETE ENDWALLS

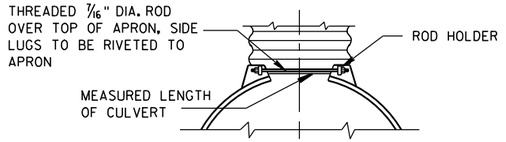


ALTERNATE FOR TYPE 1 CONNECTION

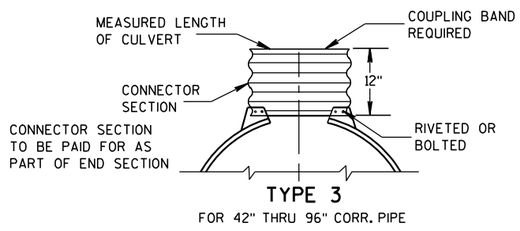
END SECTION CONNECTOR STRAP



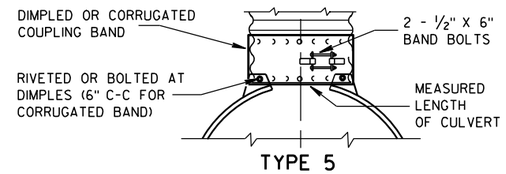
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

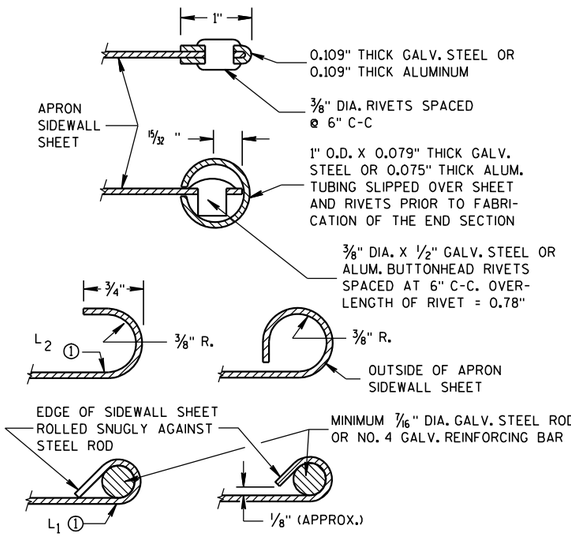
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

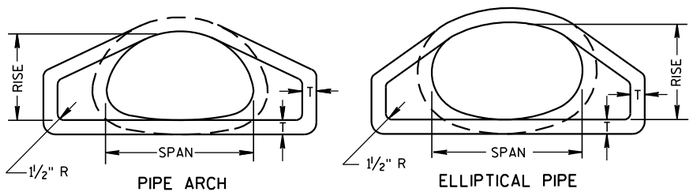
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

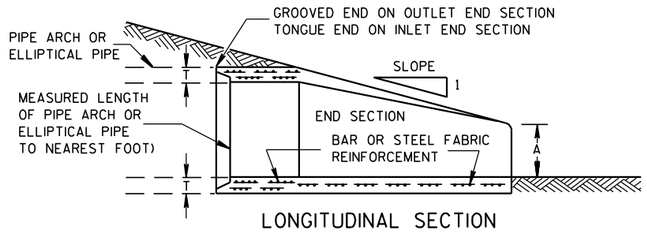
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

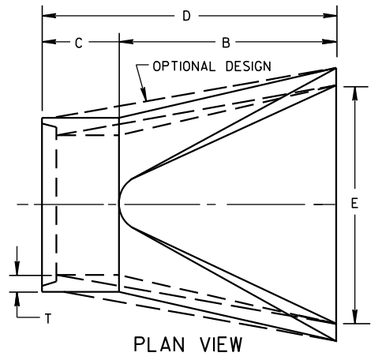
6
S.D.D. 8 F 1-11



END VIEW

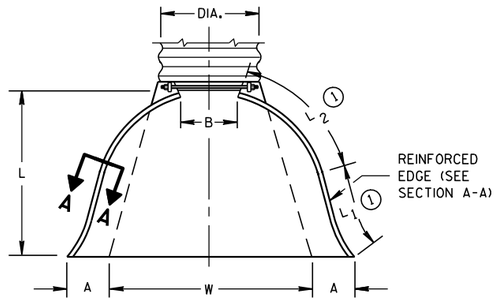


LONGITUDINAL SECTION

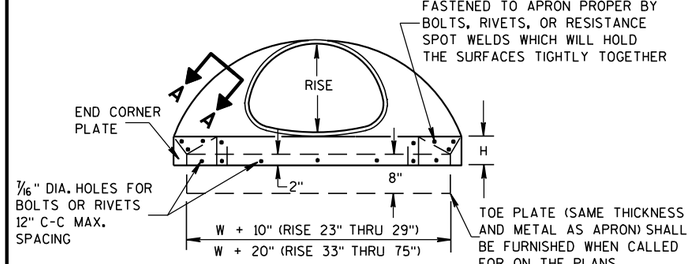


PLAN VIEW

CONCRETE ENDWALLS

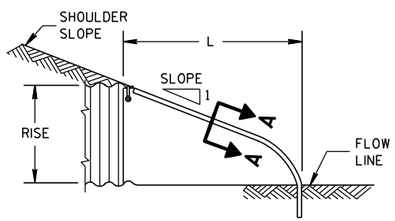


PLAN VIEW



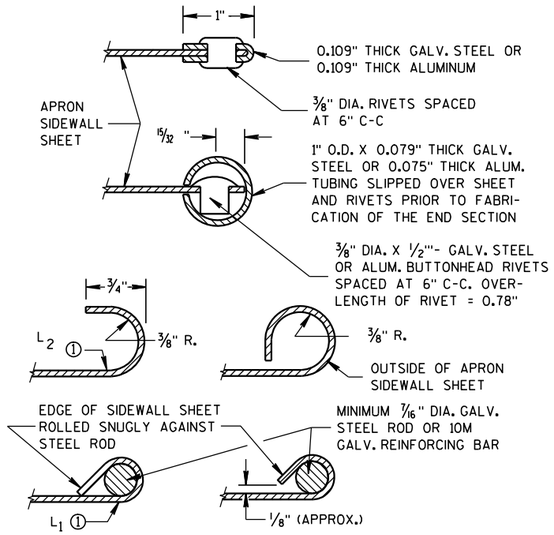
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ 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) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ 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	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

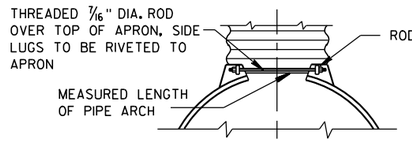
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	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	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

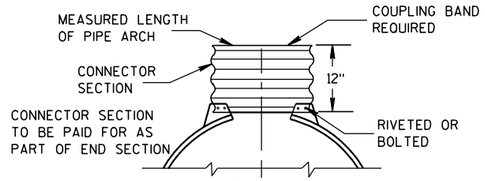
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



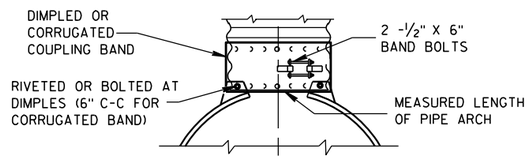
TYPE 2

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

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

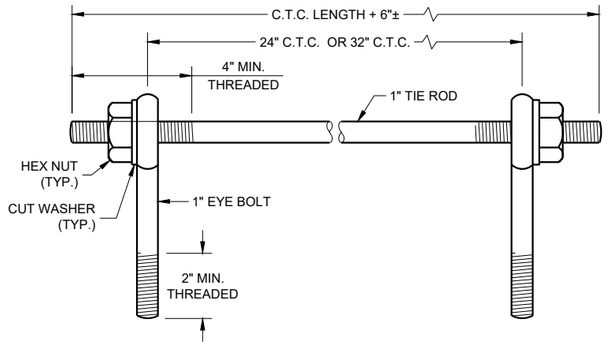
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

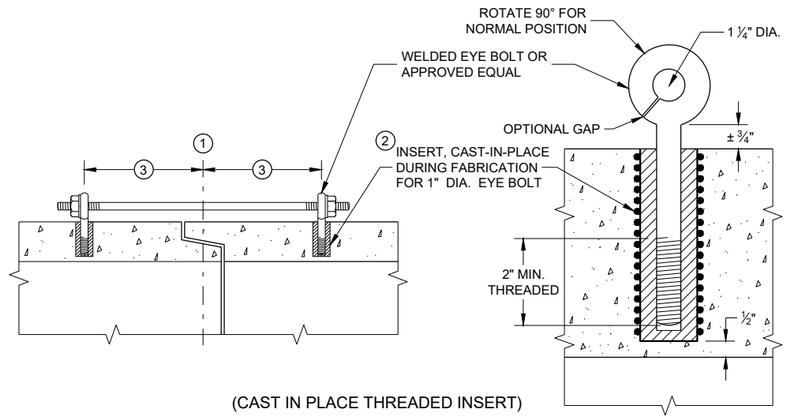
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

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

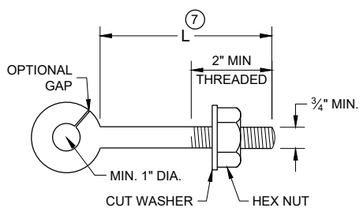
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

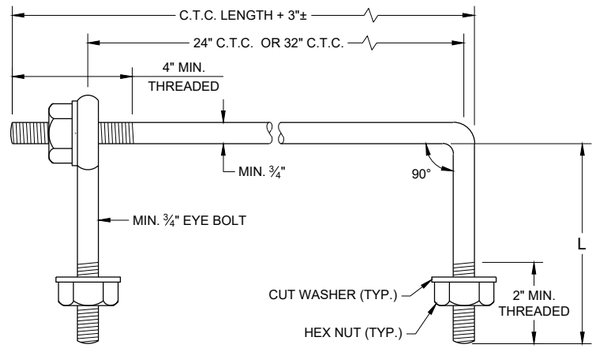
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

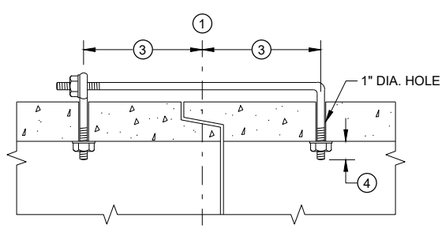


EYE BOLT (7)

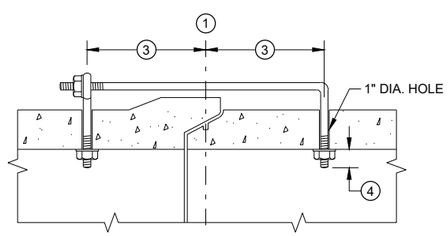
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

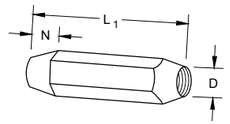
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

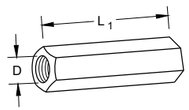
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



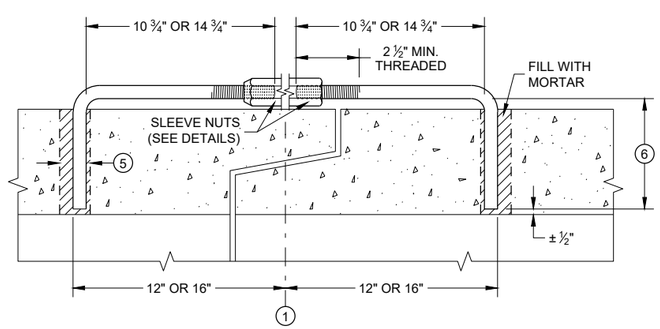
TAPERED



PLAIN

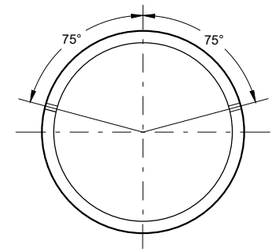
RIGHT AND LEFT THREADS

SLEEVE NUTS



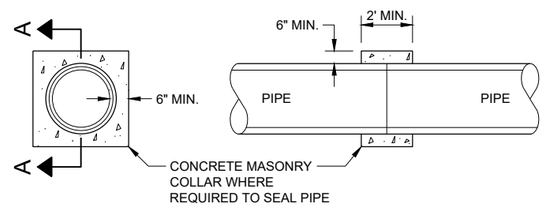
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 08F04 - 08

SDD 08F04 - 08

GENERAL NOTES

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

FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

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

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2' - 0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3' - 0"

(3) LIMITS OF TRENCH BACKFILL

(4) LIMITS OF FOUNDATION BACKFILL

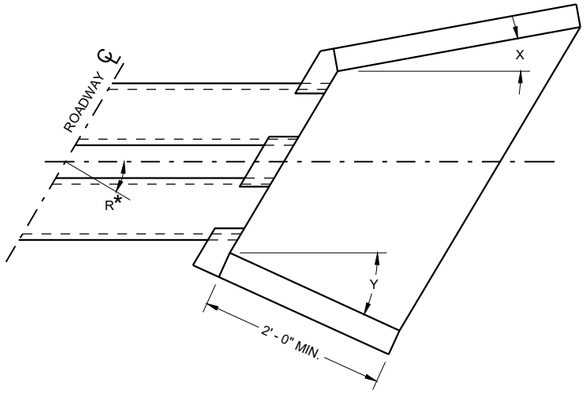
(5) FOUNDATION AND TRENCH BACKFILL ARE MATERIALS INCLUDED IN PAYMENT FOR CULVERT PIPE, PIPE ARCH, CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPSE OR CONCRETE MASONRY ENDWALLS.

(6) DO NOT PLACE FOUNDATION BACK FILL OR ANY OTHER GRANULAR BACKFILL AROUND OR BELOW CUT OFF WALL. POUR CUT OFF WALL AGAINST NATIVE SOIL

(7) MINIMUM HEIGHT SHALL BE THE GREATER OF 1'- 0" OR ¼ HEIGHT OF CULVERT PIPE.

TRENCH BACKFILL

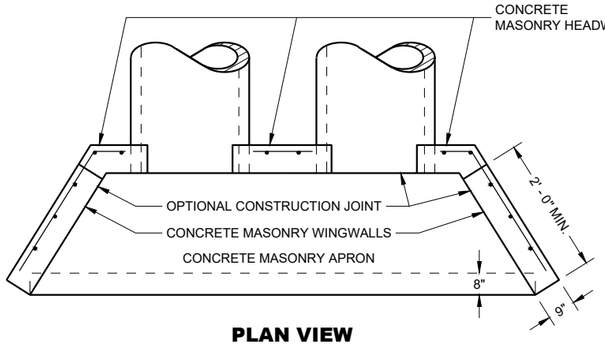
FOUNDATION BACKFILL



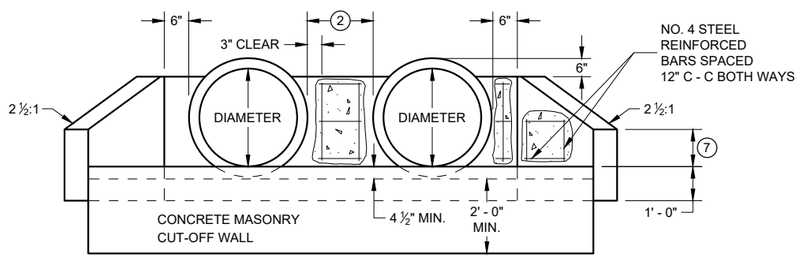
WINGWALL ANGLE DETAILS

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

R* = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

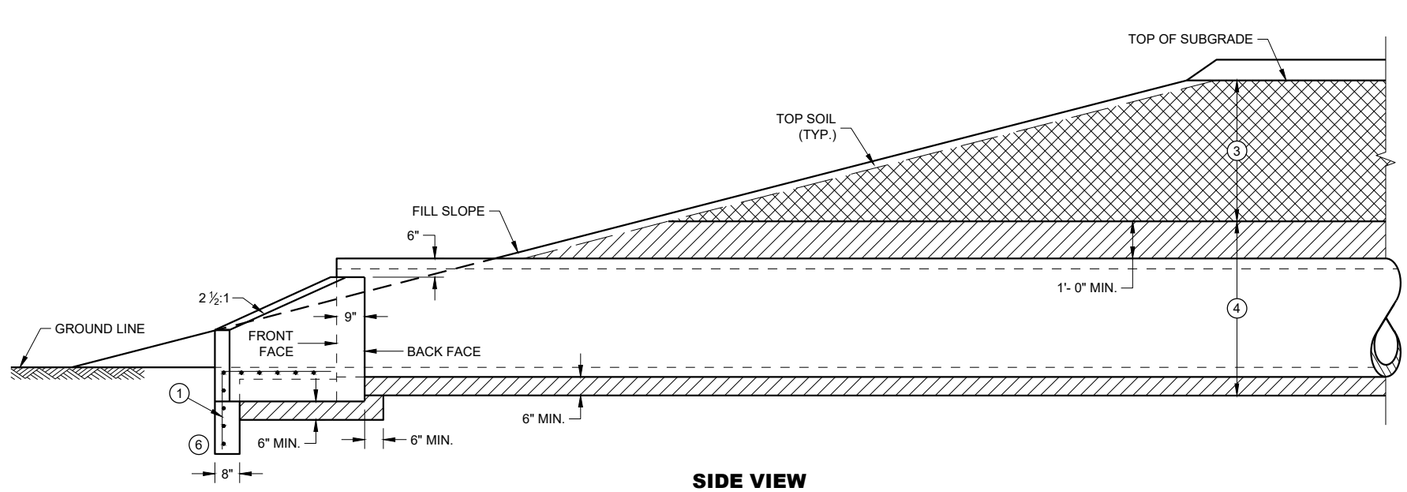


PLAN VIEW



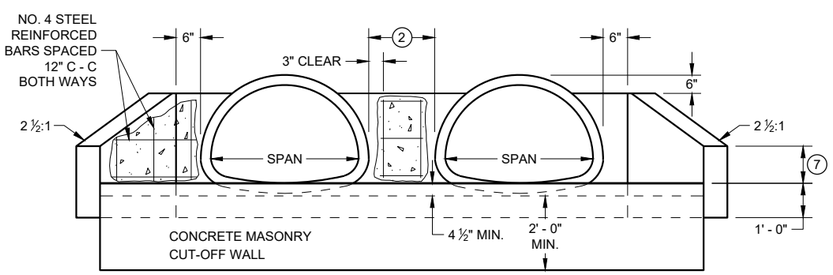
END VIEW

CIRCULAR PIPE



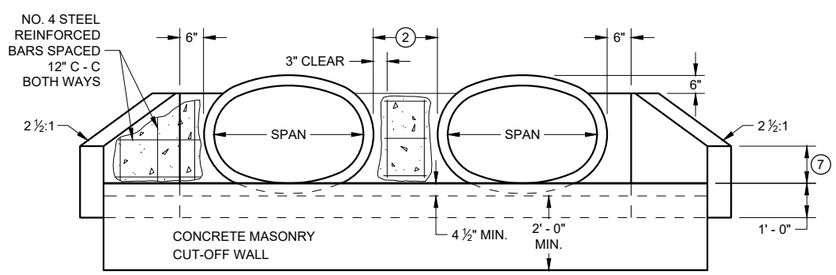
SIDE VIEW

CIRCULAR PIPE, PIPE ARCH OR HORIZONTAL ELLIPSE



END VIEW

PIPE ARCH



END VIEW

HORIZONTAL ELLIPSE

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

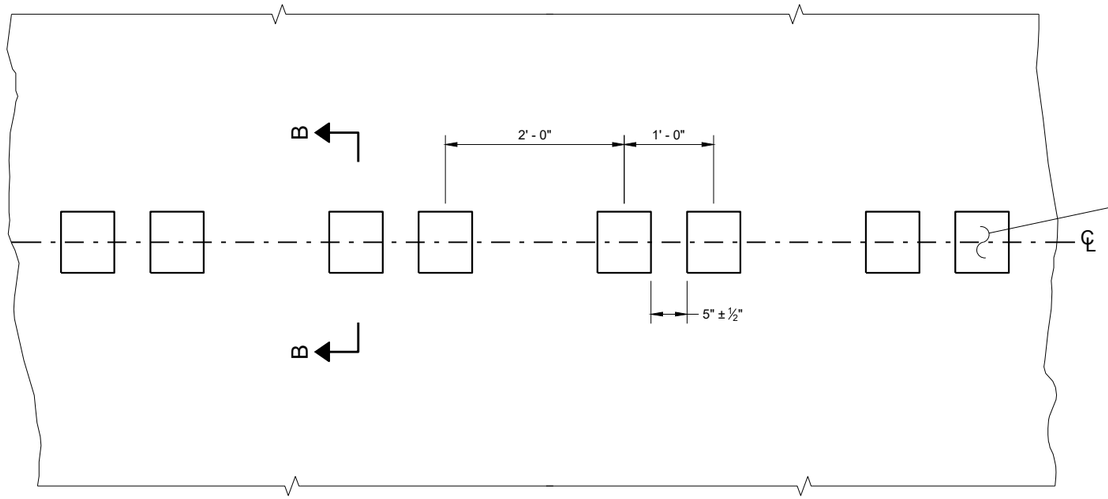
FHWA

6
SDD 08F10 - 02

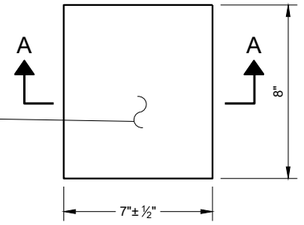
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

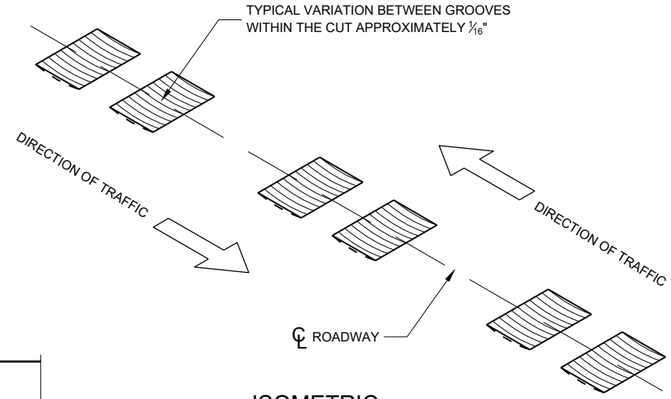
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



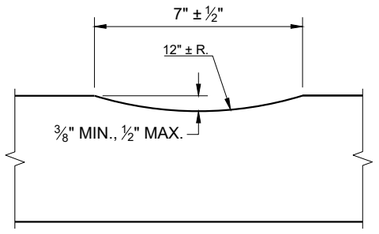
PLAN DETAIL VIEW



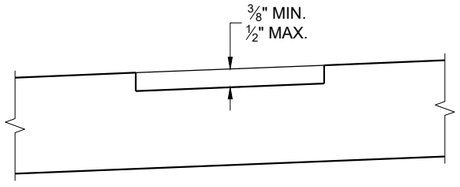
PLAN VIEW
(SINGLE GROOVE)



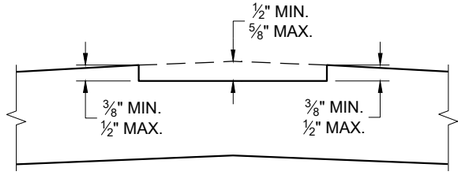
ISOMETRIC



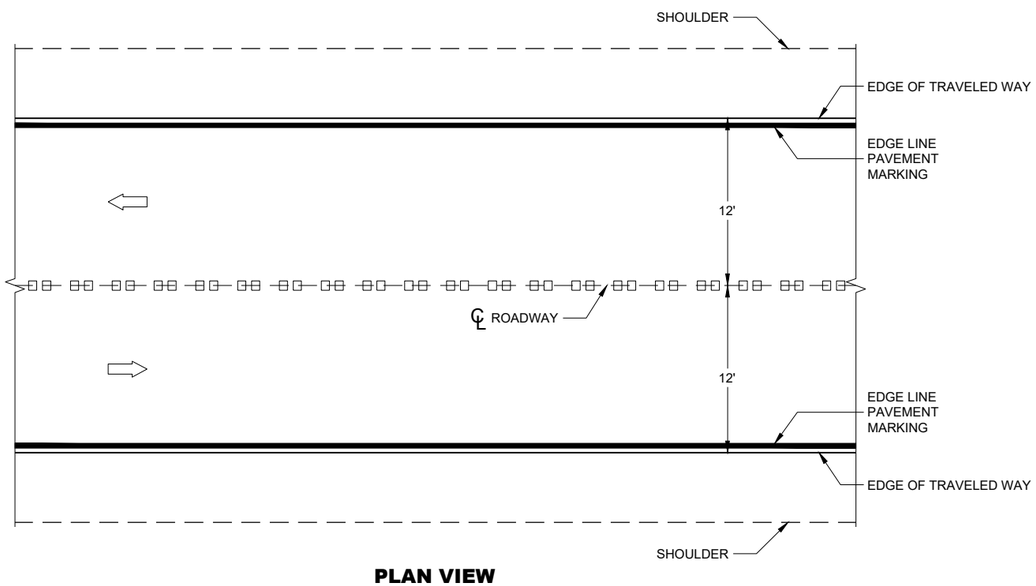
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

6

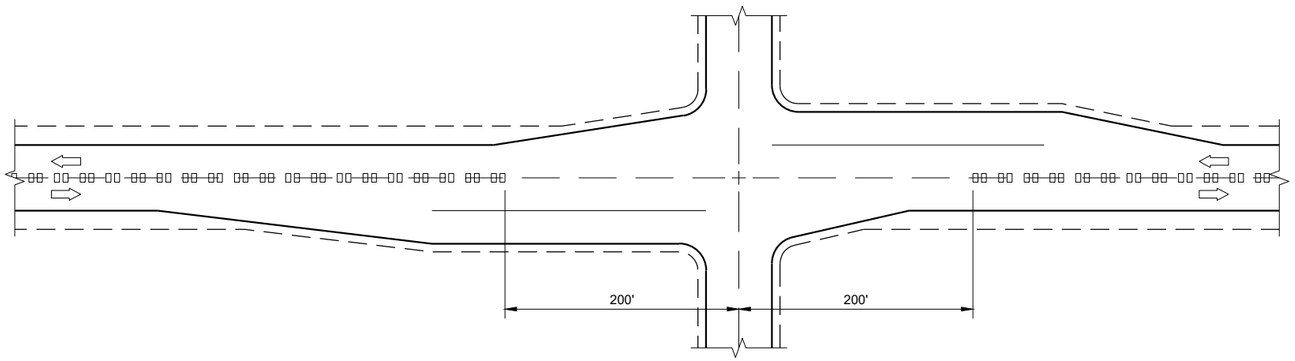
SDD 13A11 - 04a

CENTERLINE RUMBLE STRIPS - ASPHALT

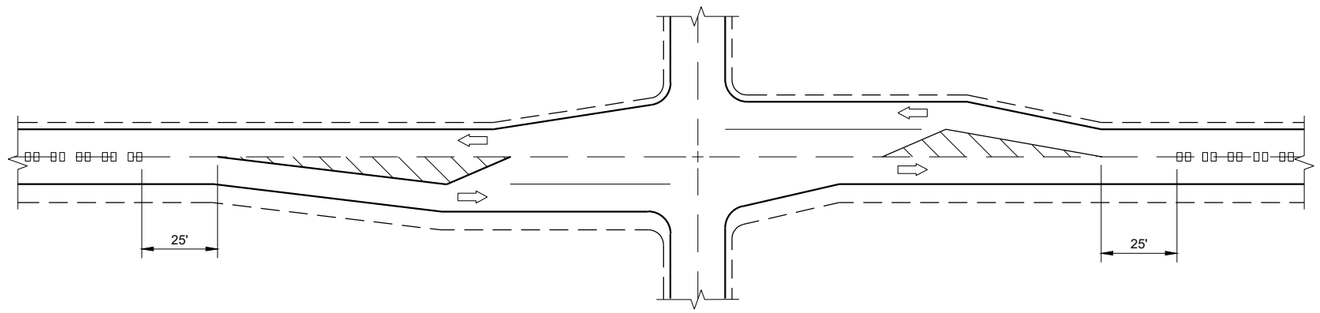
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

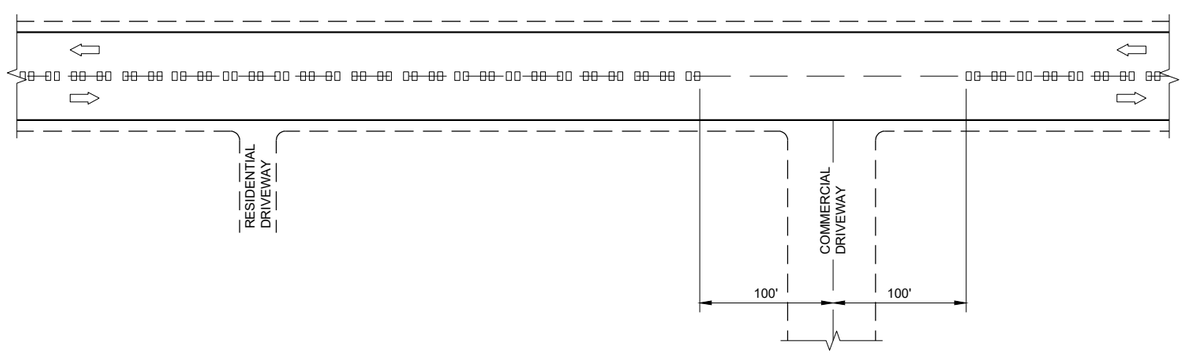
SDD13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS



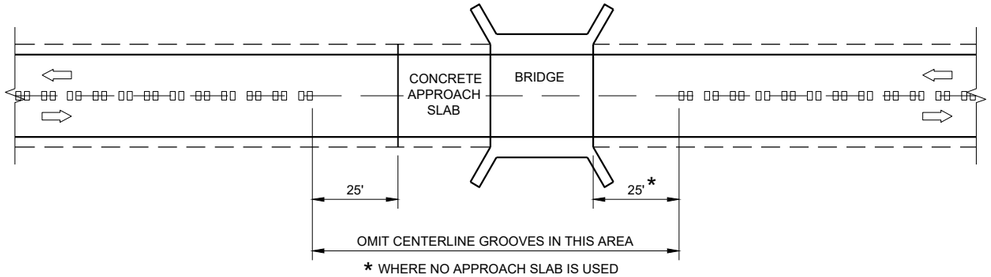
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



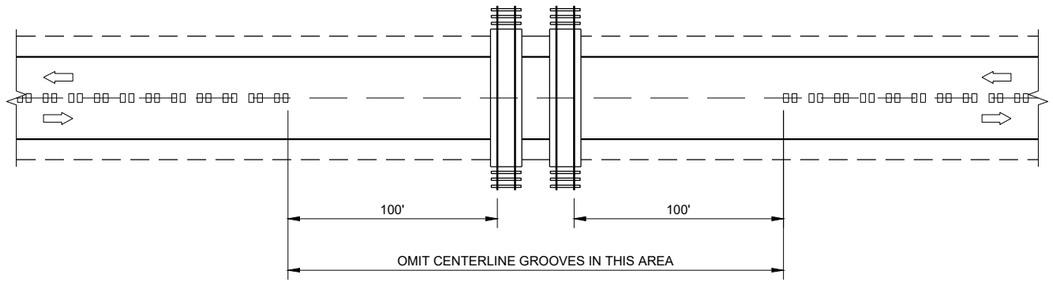
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

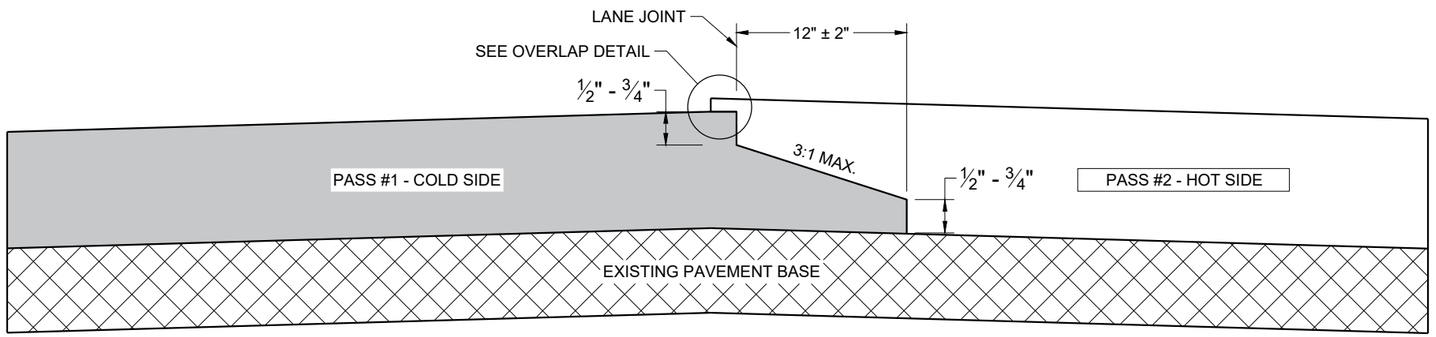
FHWA

6

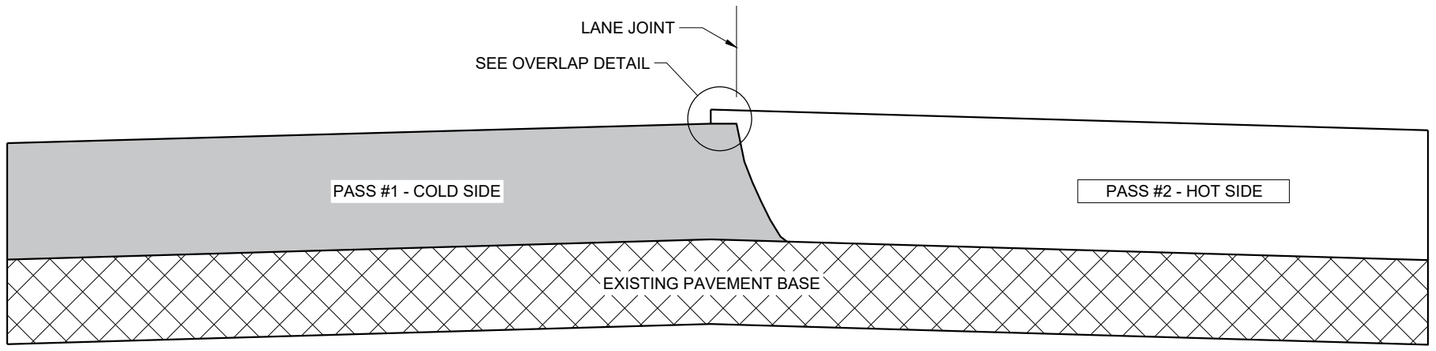
SDD 13A11 - 04d

6

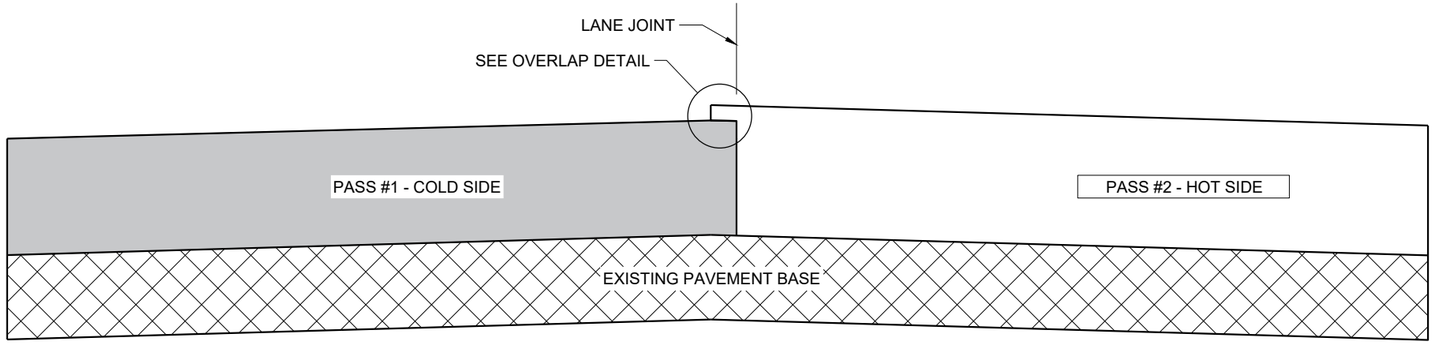
SDD 13A11 - 04d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

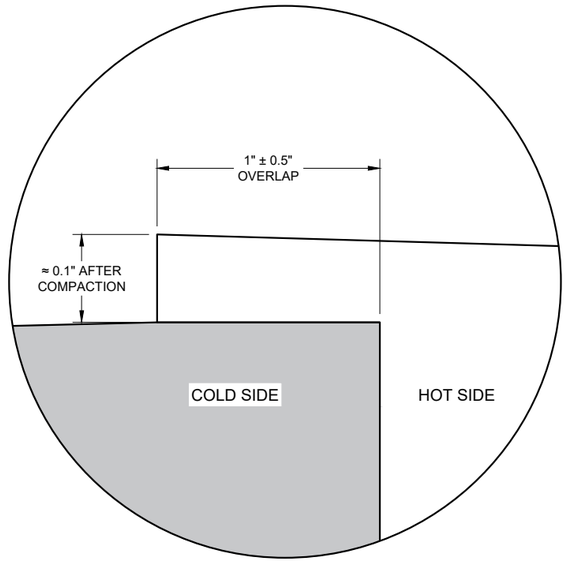
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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

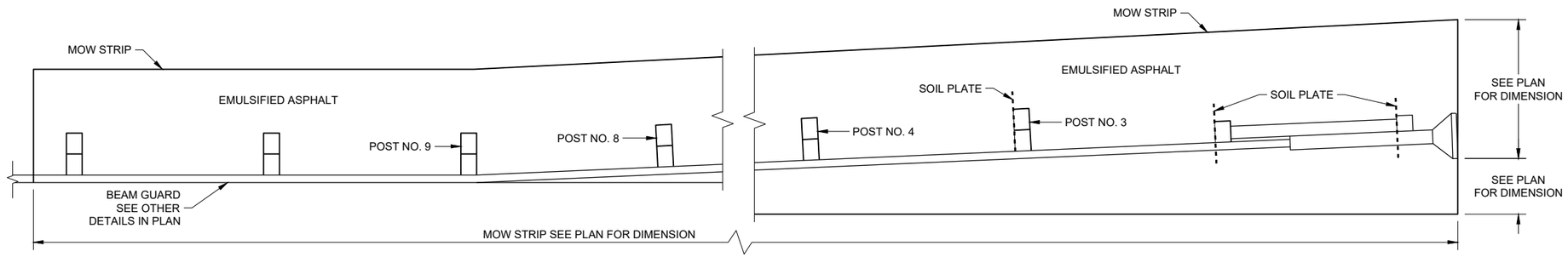
FHWA

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SDD 13C19 - 03

6

SDD 13C19 - 03



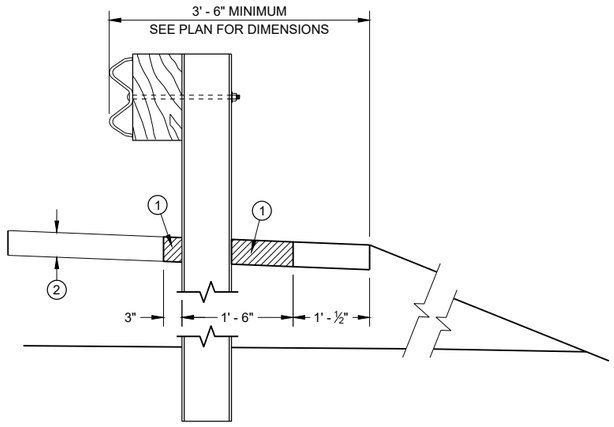
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

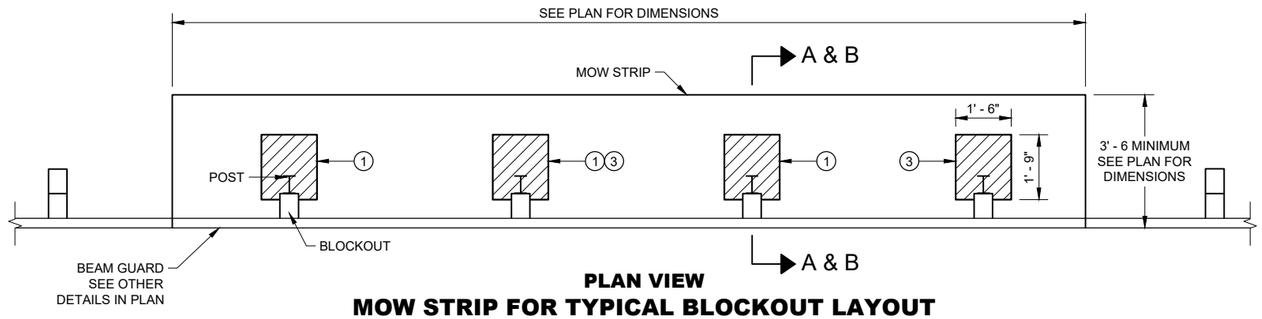
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

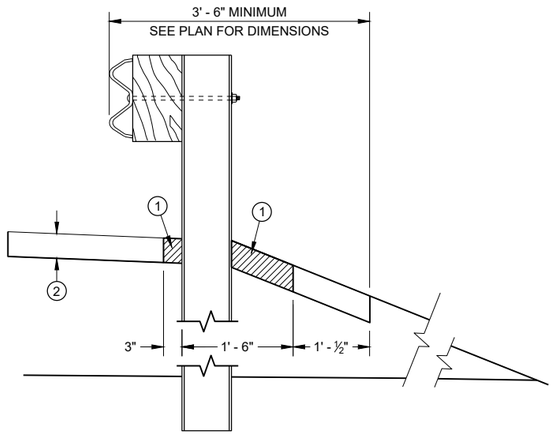


SECTION A - A

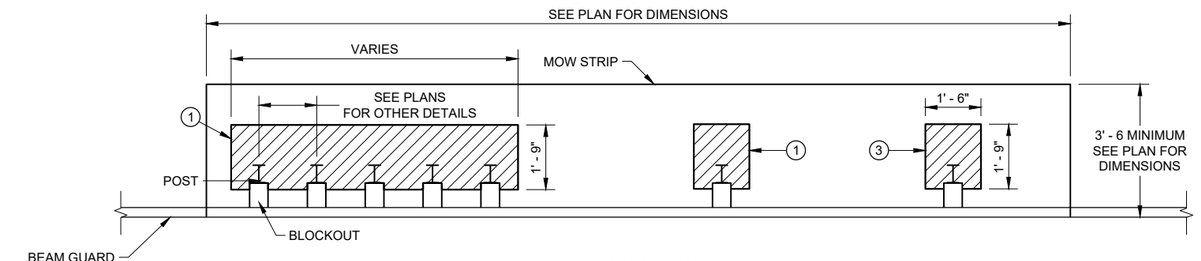


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

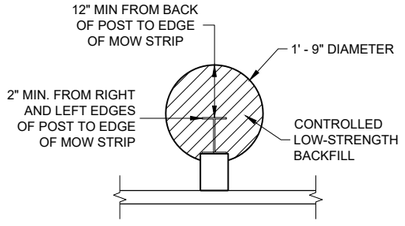


SECTION B - B

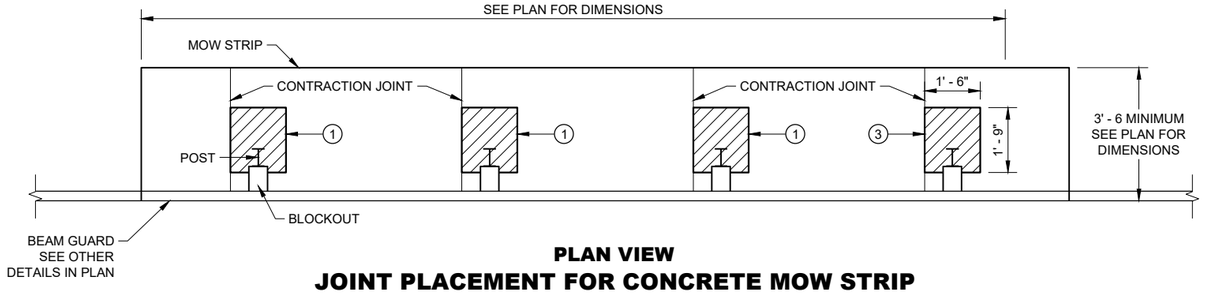


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B28 - 04a
SDD 14B28 - 04a

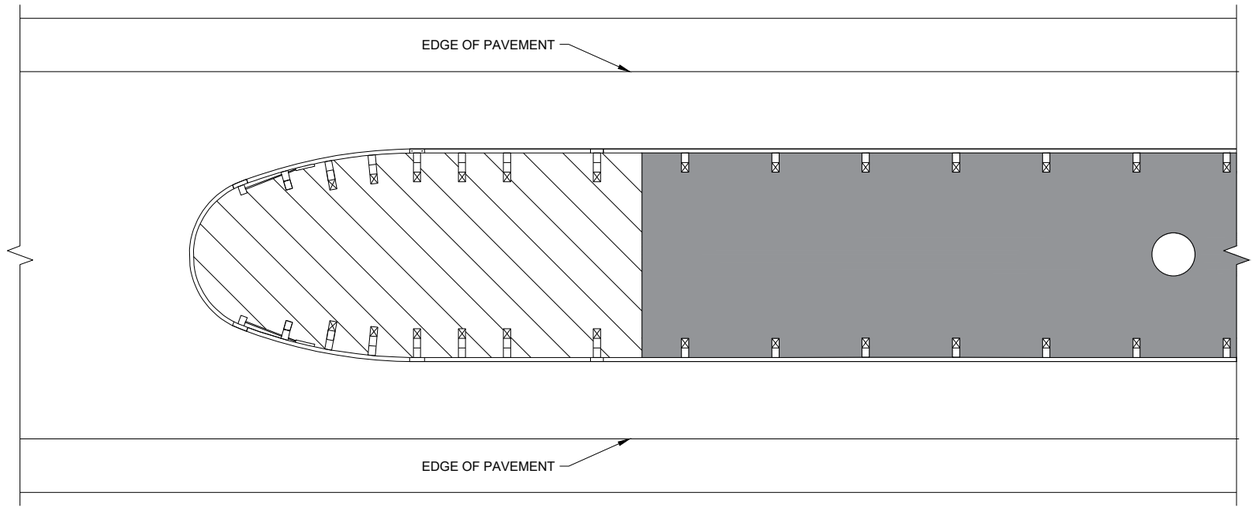
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

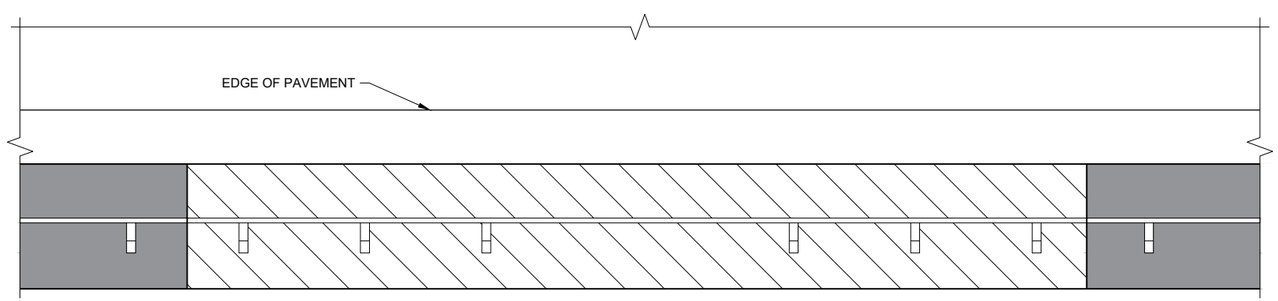
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

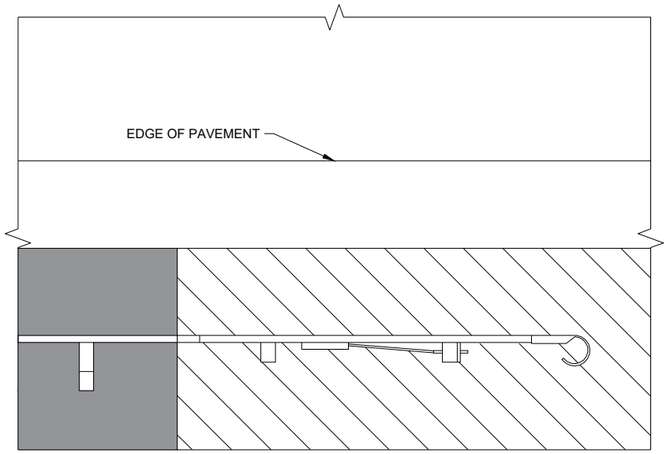
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



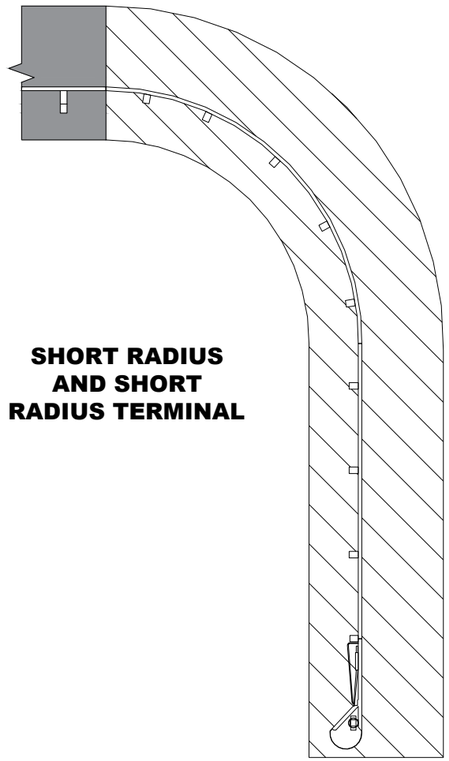
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

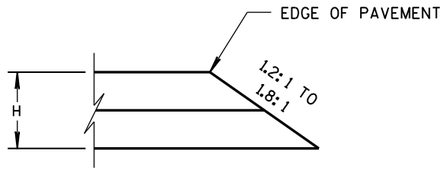
FHWA

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SDD 14B28 - 04b

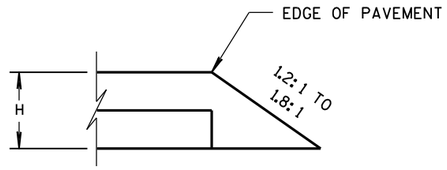
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SDD 14B28 - 04b



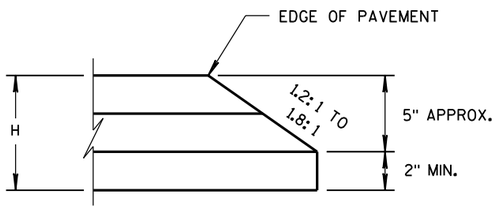
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



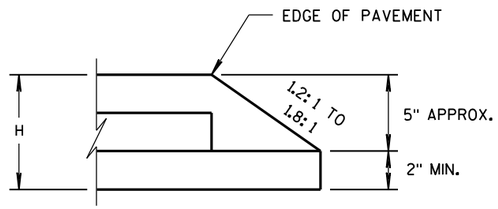
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

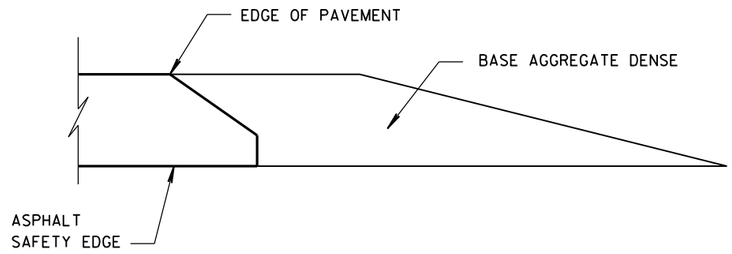
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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

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

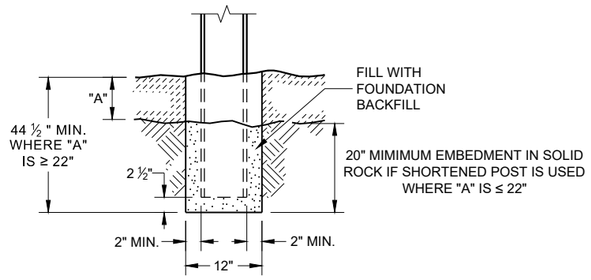
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

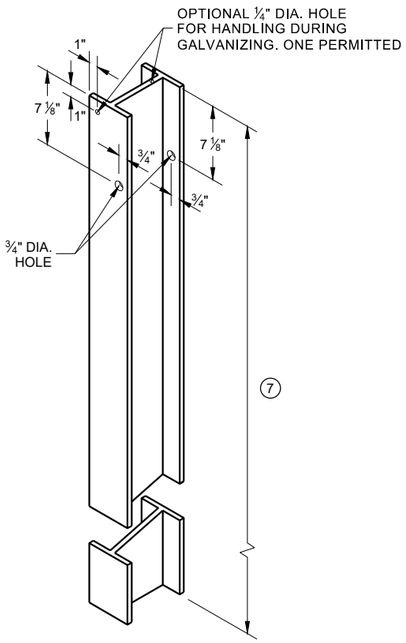
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

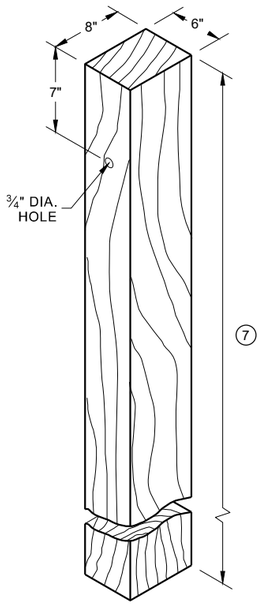
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



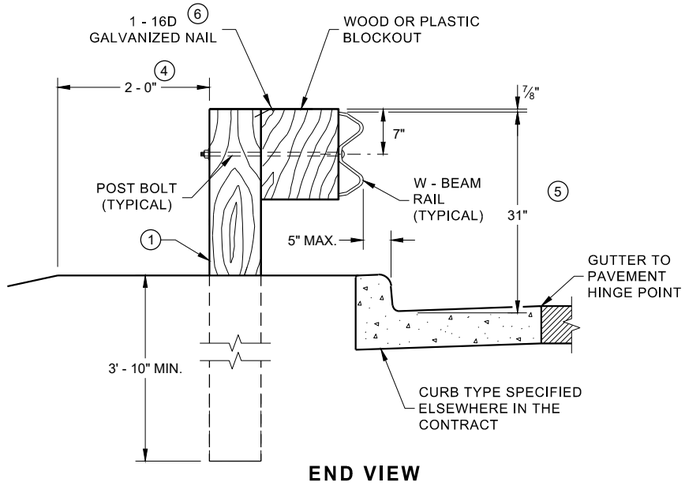
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



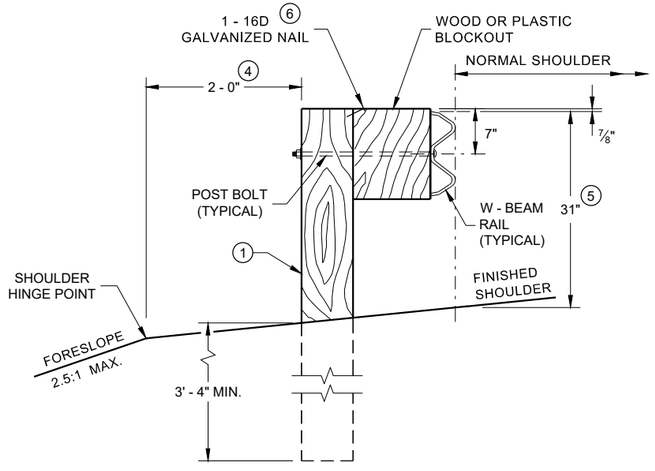
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



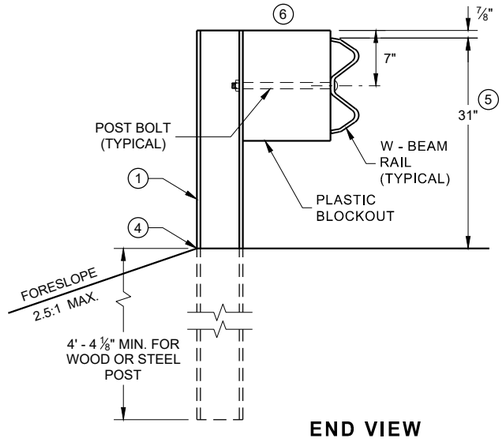
WOOD POST (6" X 8") NOMINAL (1)



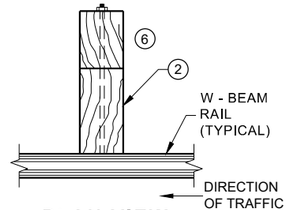
END VIEW
LOCATED ALONG A CURBED ROADWAY



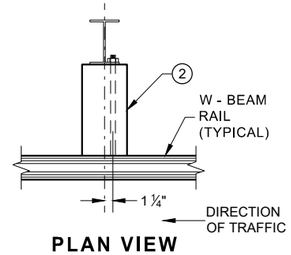
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



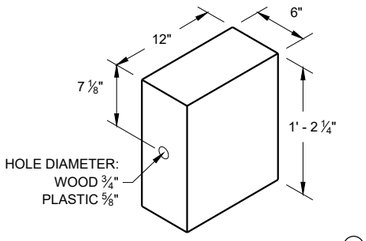
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



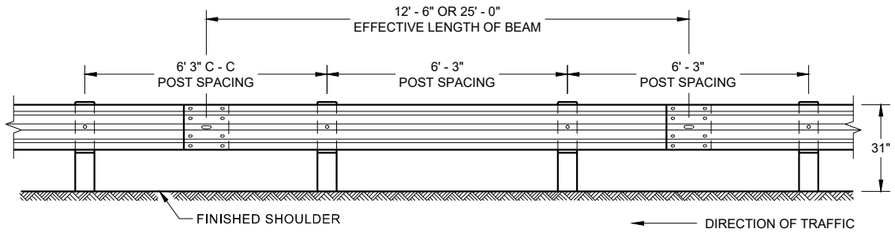
PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



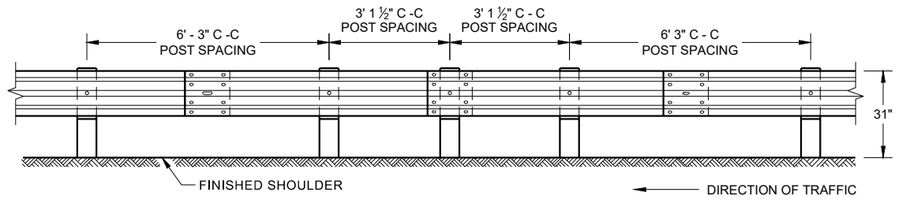
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

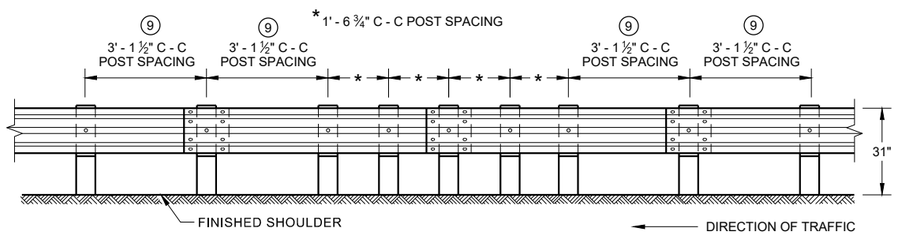
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



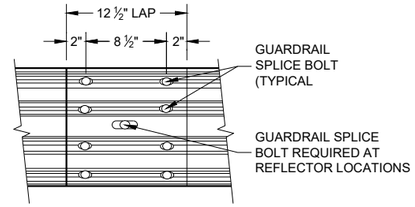
FRONT VIEW
POST SPACING STANDARD INSTALLATION



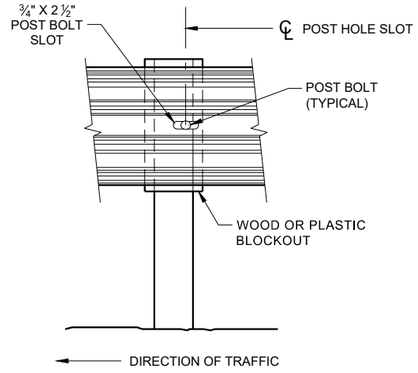
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



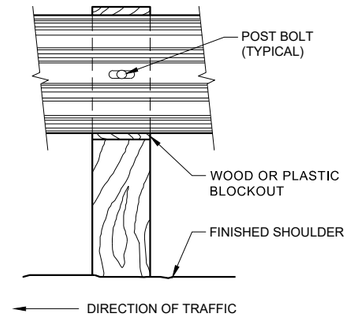
FRONT VIEW
QUARTER POST SPACING (QS)



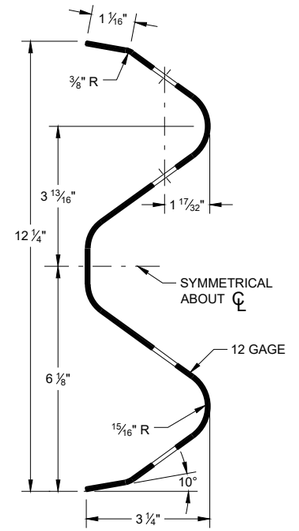
FRONT VIEW
MID-SPAN BEAM SPLICE



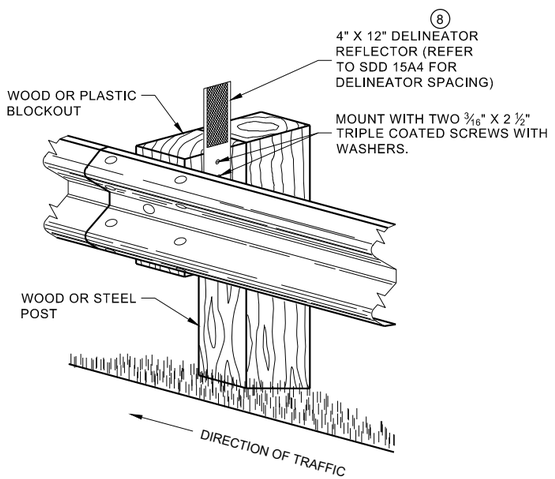
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

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

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

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

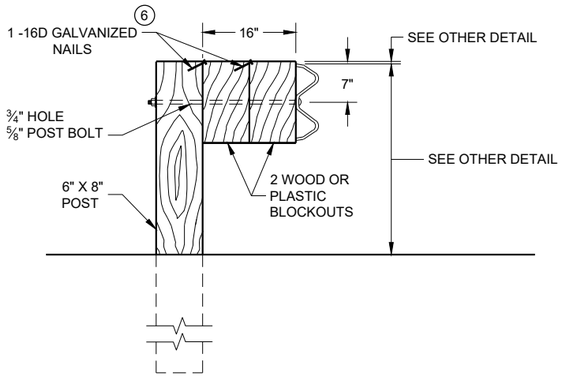
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b
SDD 14B42 - 07b

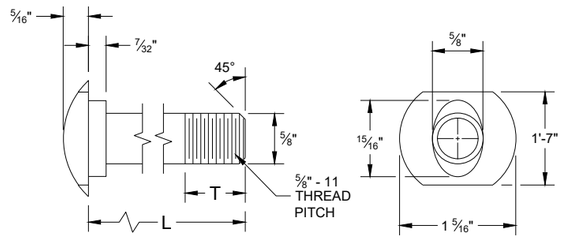


DETAIL FOR 16" BLOCKOUT DEPTH

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.

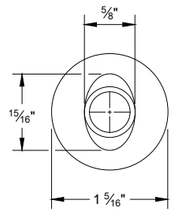
NOTE:

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

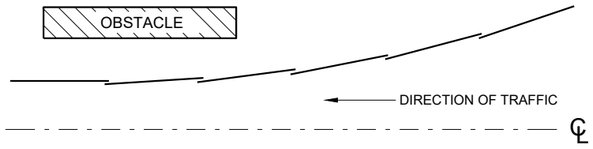


POST BOLT TABLE

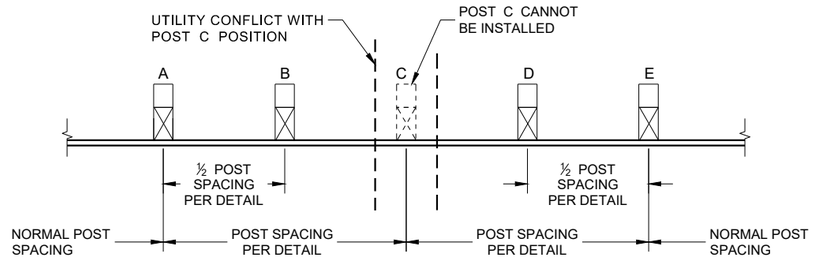
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



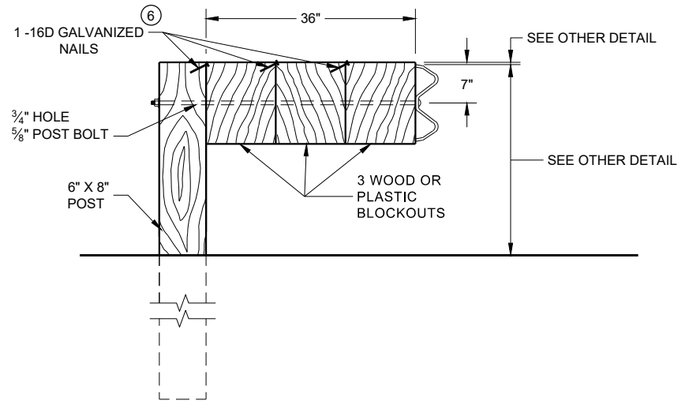
ALTERNATE BOLT HEAD



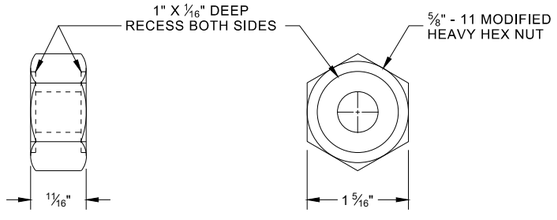
PLAN VIEW
BEAM LAPPING DETAIL



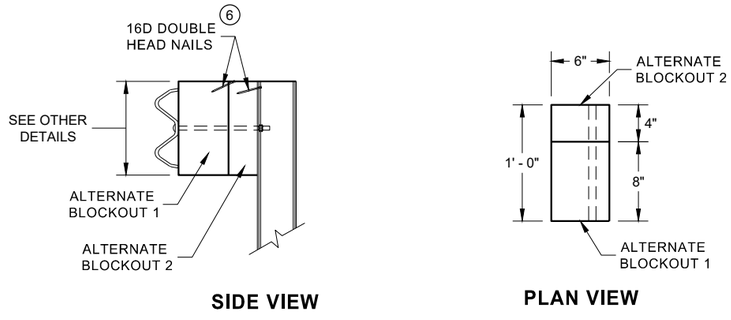
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW

PLAN VIEW

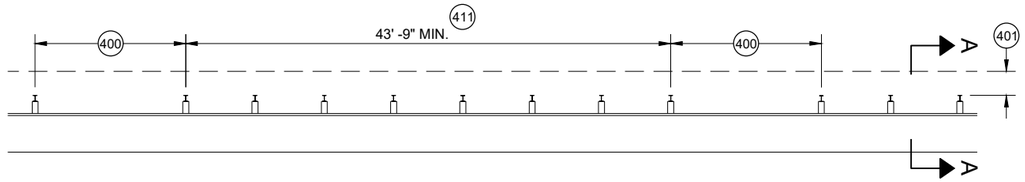
ALTERNATE WOOD BLOCKOUT DETAIL

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

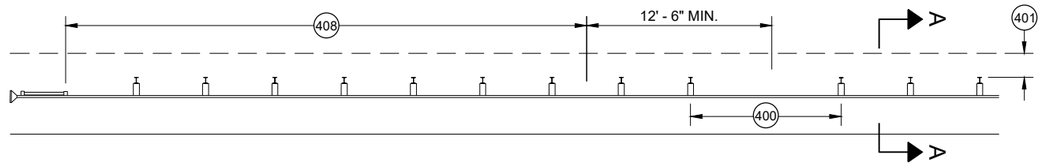
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

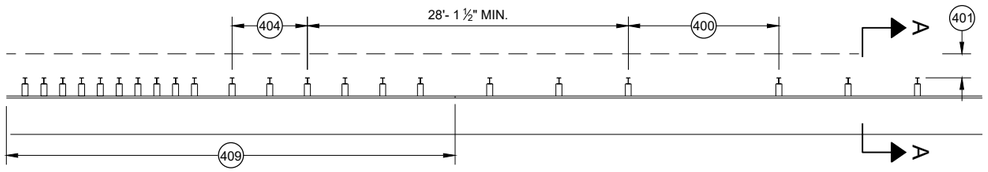
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



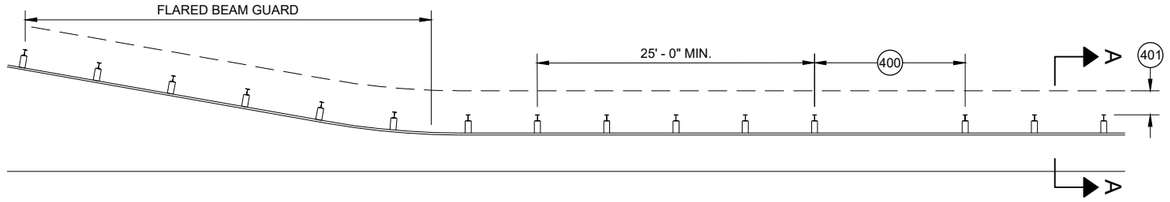
MISSING POST IN MGS GUARDRAIL



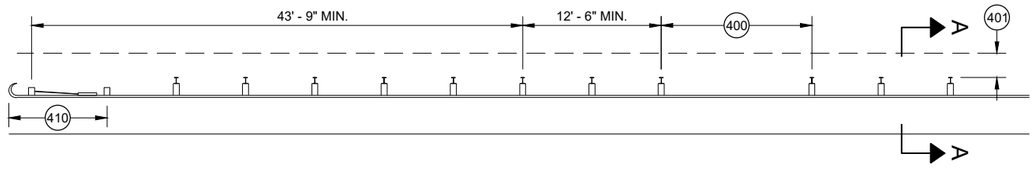
MISSING POST IN MGS GUARDRAIL NEAR EAT



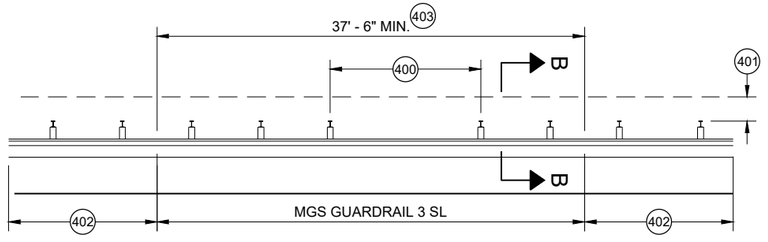
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

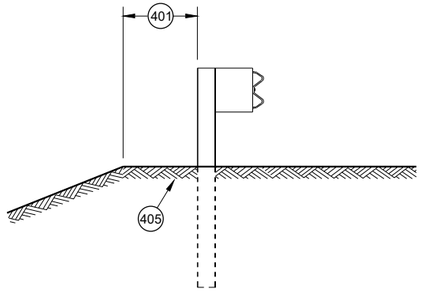


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

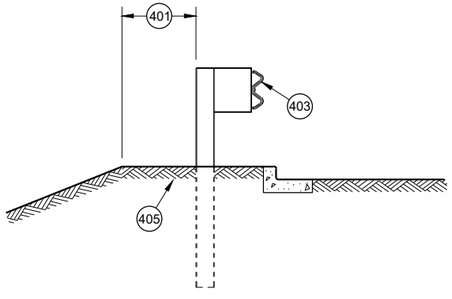


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

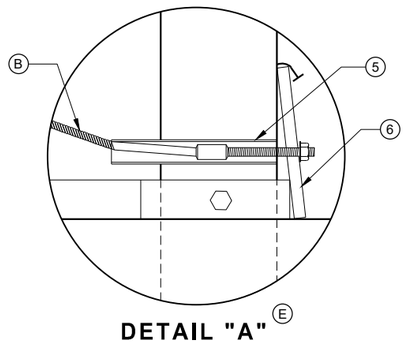
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

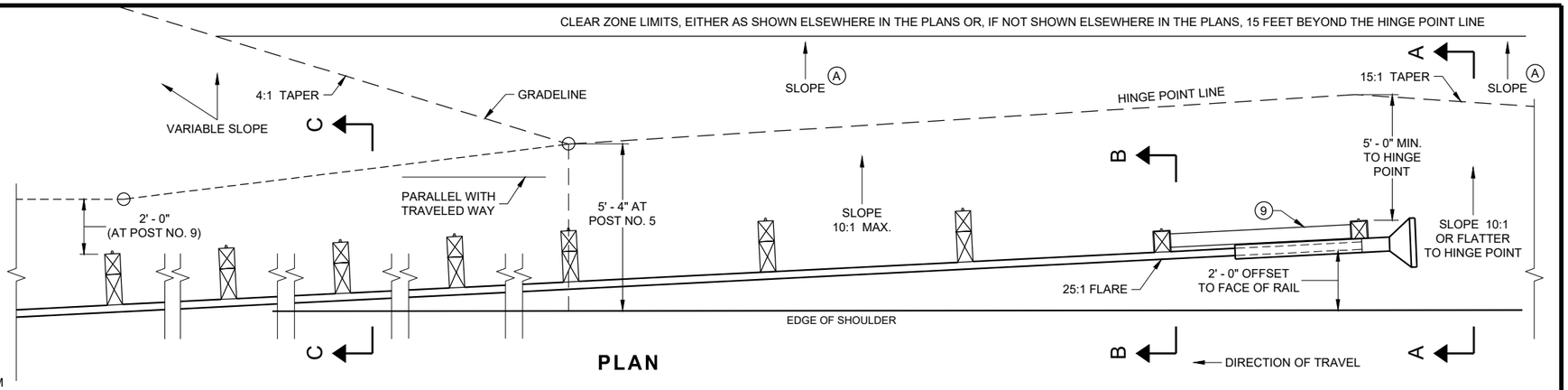
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

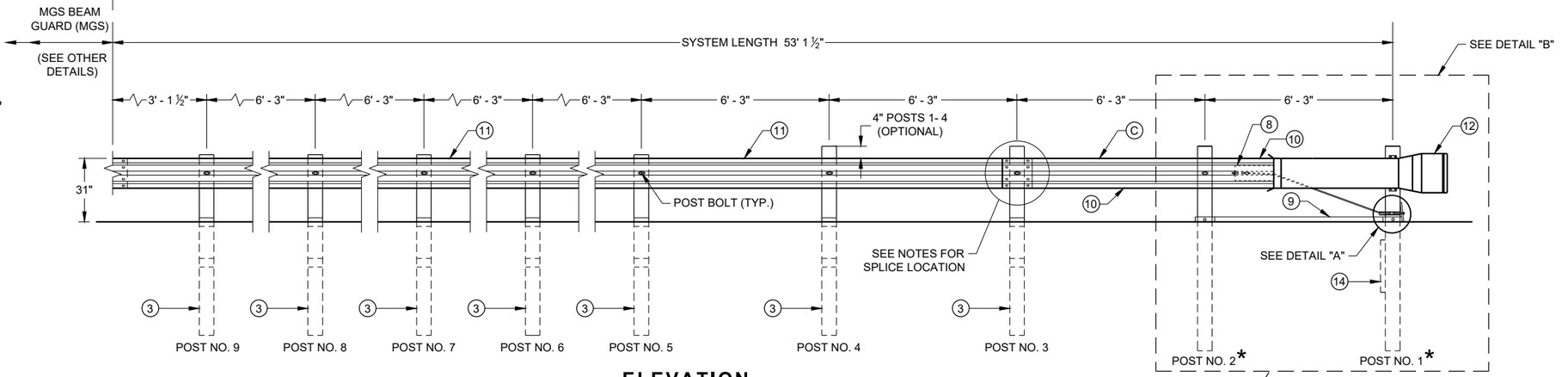
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



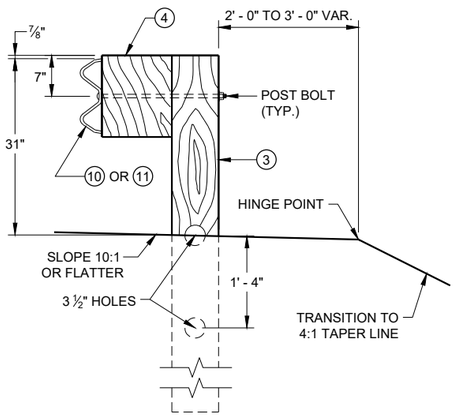
DETAIL "A" (E)



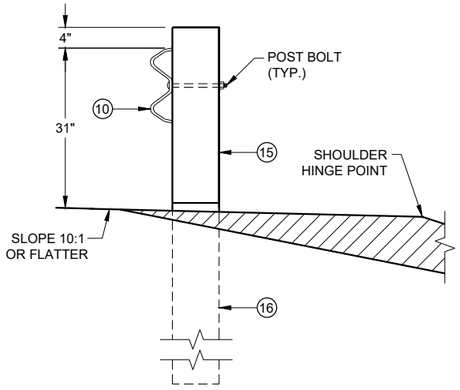
PLAN



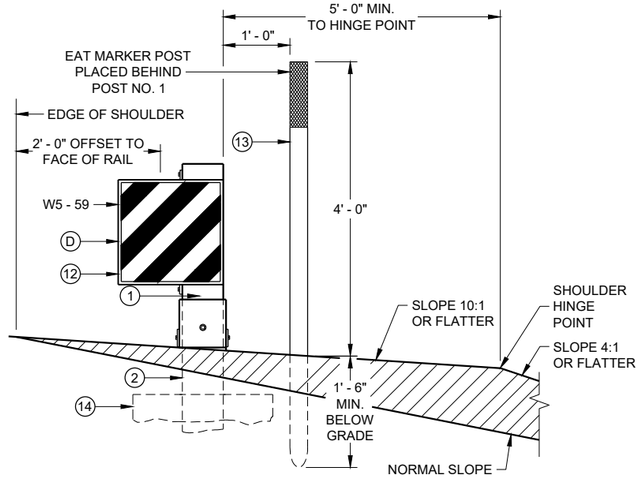
ELEVATION



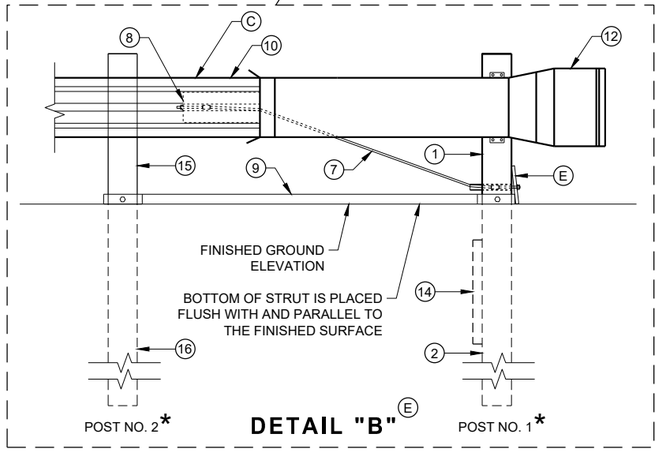
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



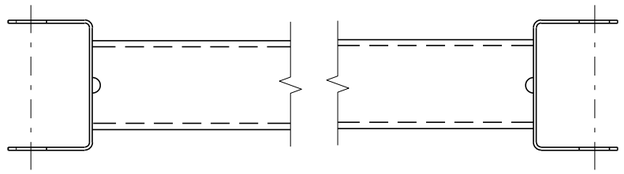
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

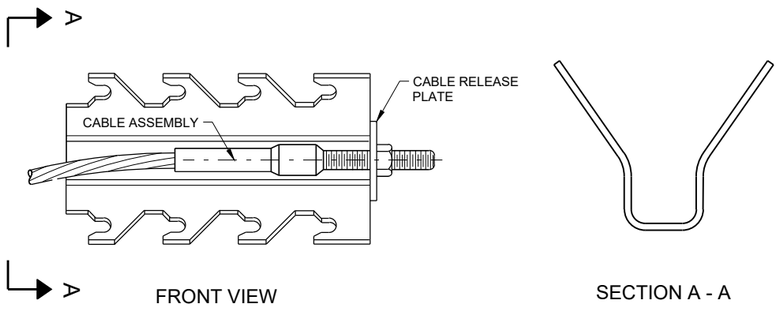
SDD 14B44 - 04a



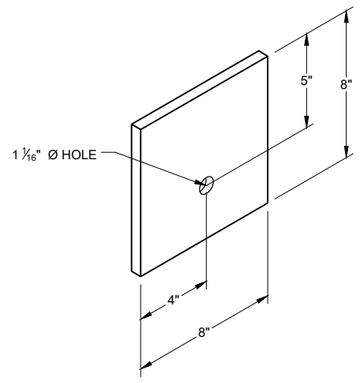
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

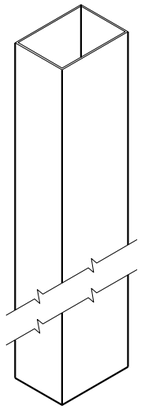
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SDD 14B44 - 04b

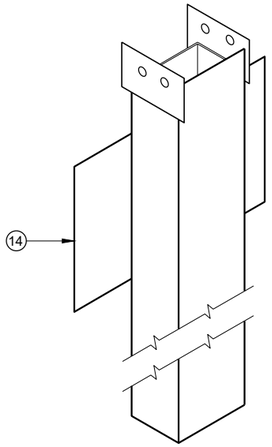
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

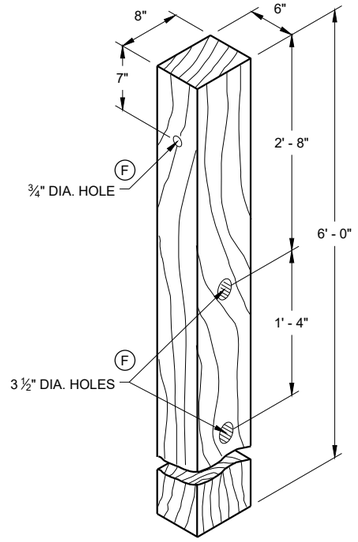
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



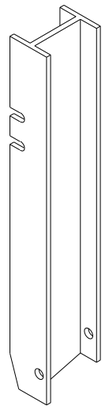
UPPER POST NO. 1 (1) (E)



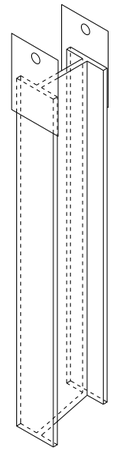
LOWER POST NO. 1 (2) (E)



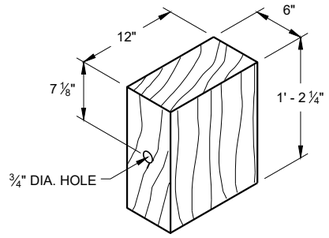
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



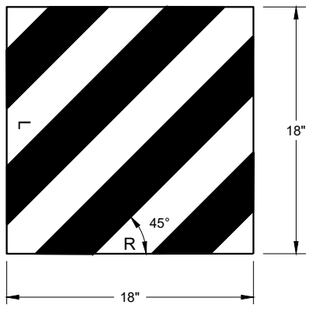
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

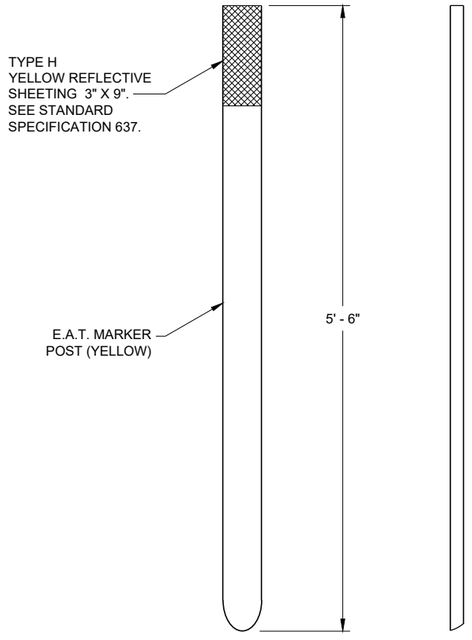


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



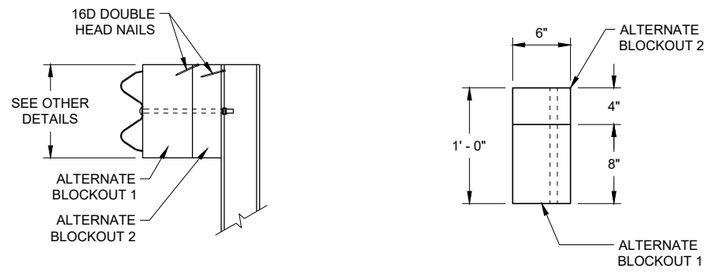
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

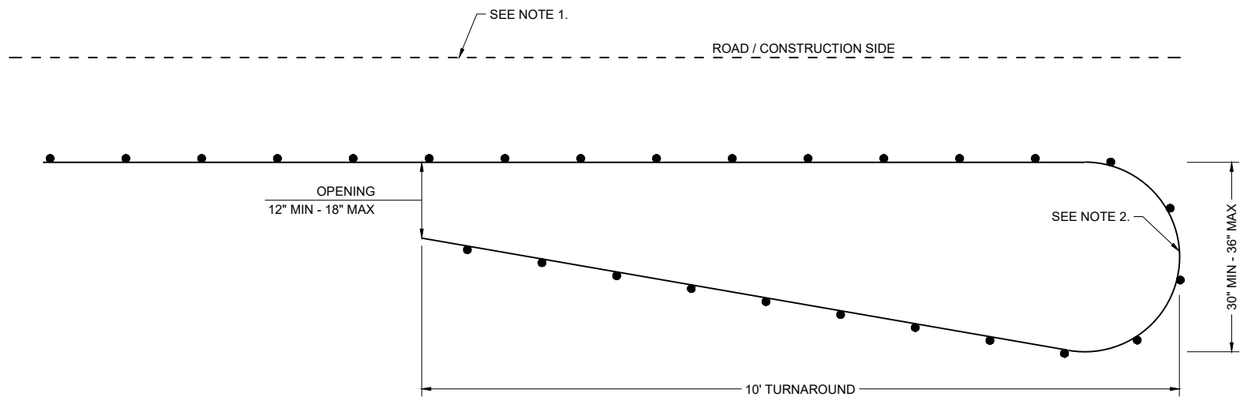
6

SDD 14B44 - 04c
SDD 14B44 - 04c

GENERAL NOTES:

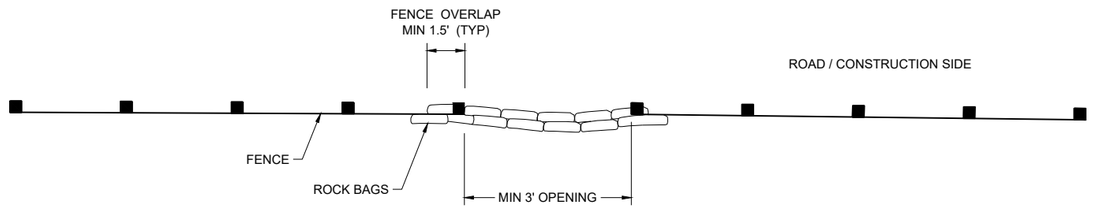
1. WHERE SILT FENCE IS REQUIRED, IT SHALL BE PLACED ON THE CONSTRUCTION SIDE OF THE EXCLUSION FENCING, OR COMBINED WITH THE EXCLUSION FENCING AS ALLOWED IN THE SPECIFICATIONS. STAKES ON THIS DETAIL ARE OPPOSITE OF STANDARD SILT FENCE FOR SEDIMENT CONTROL.
2. PLACE TURNAROUNDS AT ALL TERMINI ENDS OF THE EXCLUSION FENCING.
3. IF TEMPORARY ACCESS POINTS ARE NEEDED DURING CONSTRUCTION THAT REQUIRE OPENINGS IN THE EXCLUSION FENCING, ACCESS OPENINGS SHOULD BE TIGHTLY SECURED WITH BALES OF HAY OR STRAW WHENEVER CONSTRUCTION RELATED ACTIVITIES ARE NOT OCCURRING. REINSTALL EXCLUSION FENCING WHEN THE WORK REQUIRING THE TEMPORARY ACCESS OPENING IS COMPLETED.
4. THE FENCE CAP MAY BE A 6" UNDER DRAIN PIPE, SLIT DOWN THE CENTER AND PLACED OVER THE FENCE. COMMERCIALLY AVAILABLE SAFETY CAPS WITH A LIP MAY BE USED. OTHER DNR APPROVED METHODS TO PREVENT TURTLES FROM PASSING OVER THE TOP OF THE FENCE MAY BE USED.

   SECURELY FASTEN THE CAP TO PREVENT IT FROM BEING DISLODGED.

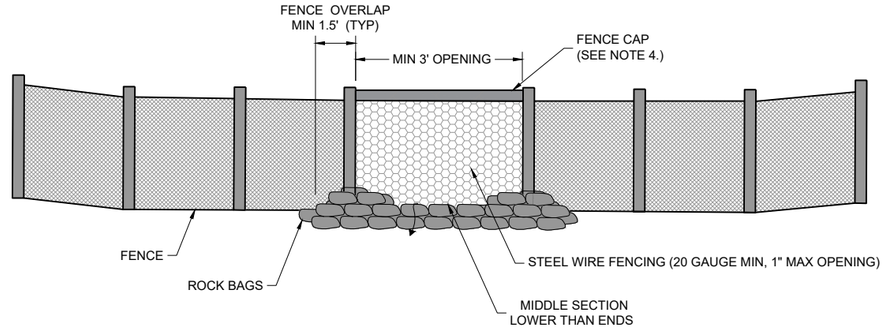


PLAN VIEW

CLIMBING TURTLE EXCLUSION FENCE DETAIL



PLAN VIEW



FRONT VIEW

CLIMBING TURTLE FENCE RELIEF DETAIL

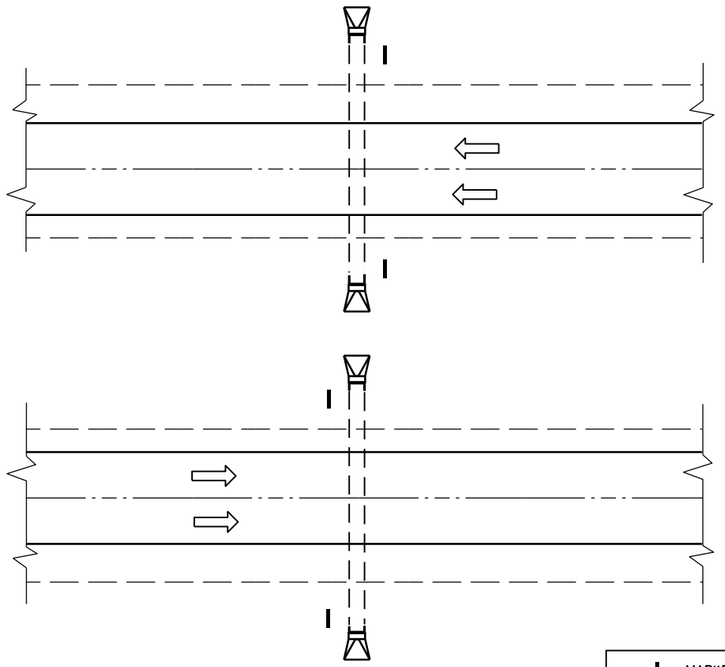
TURTLE EXCLUSION FENCE
CLIMBING TURTLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2025
DATE

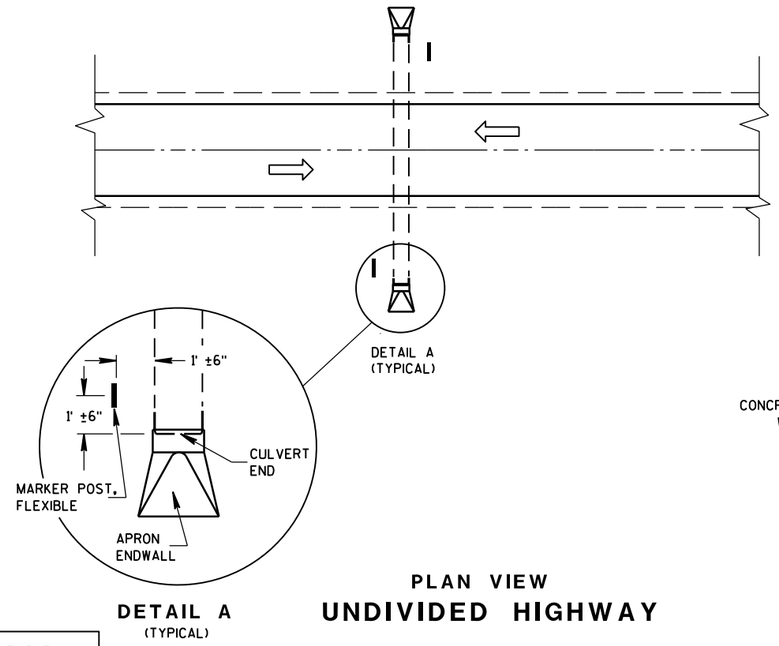
/S/ ALYSSA BARRETTE
CHIEF STATEWIDE ENVIRONMENTAL SERVICES
BUREAU OF TECHNICAL SER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

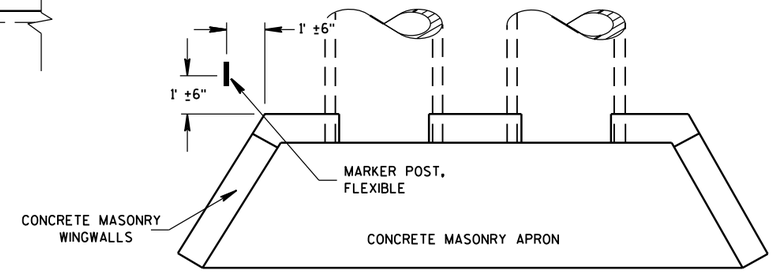
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

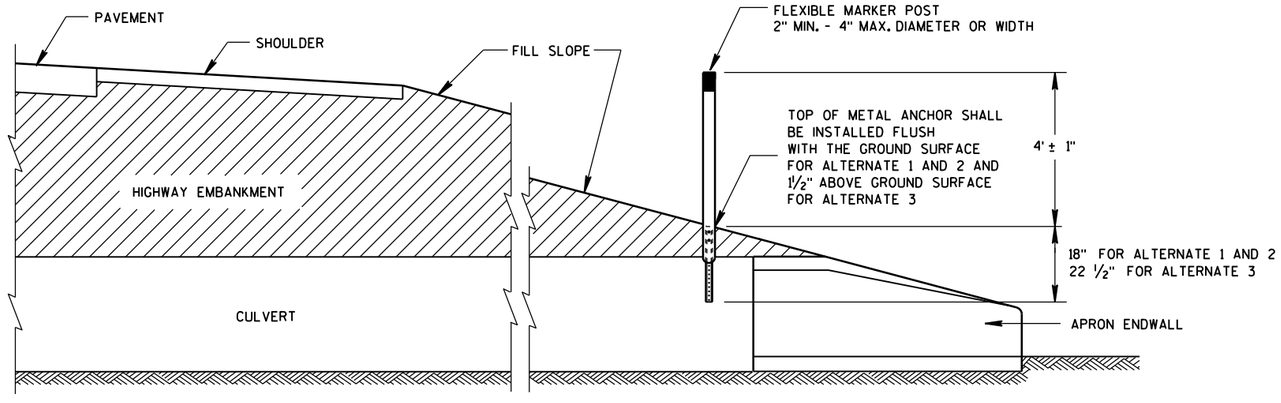
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

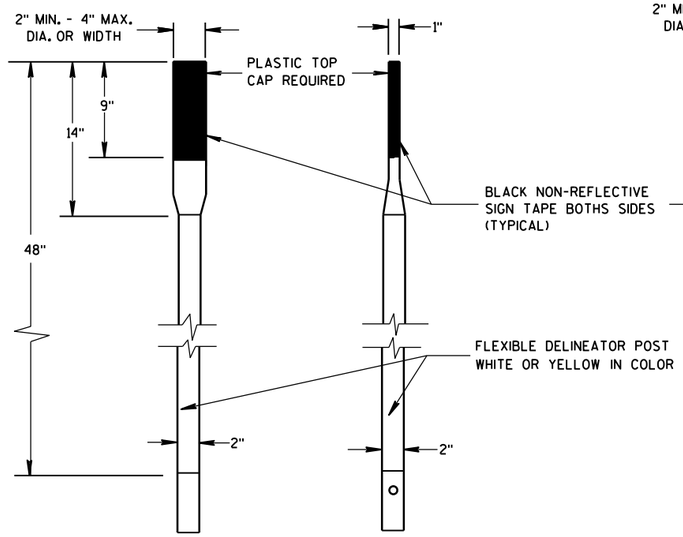
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

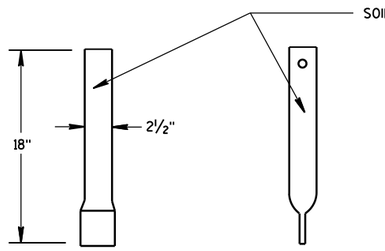
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S.D.D. 15 A 3-2a

6

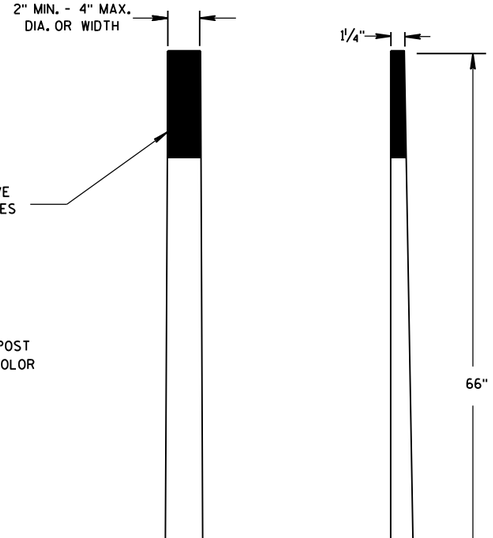
S.D.D. 15 A 3-2a





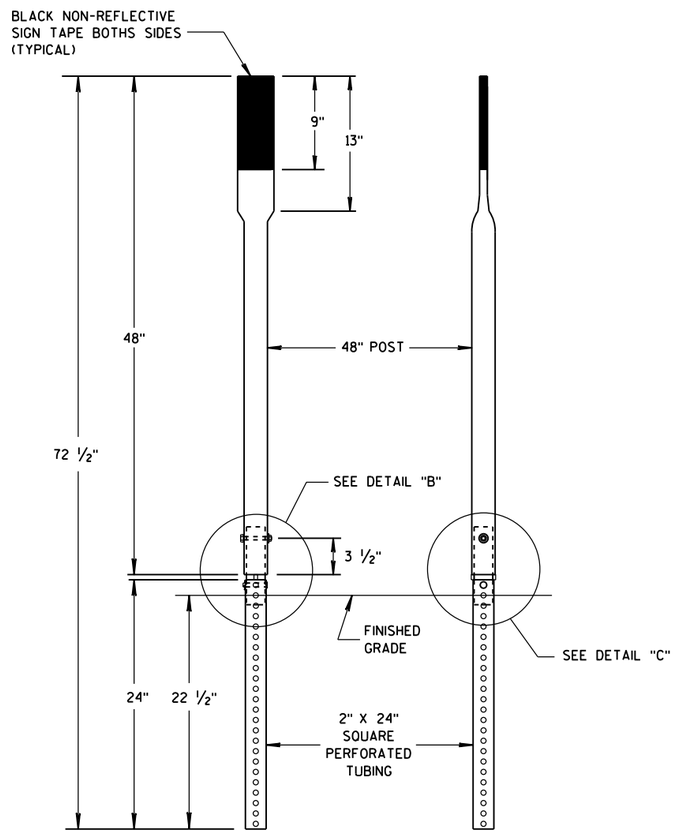
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

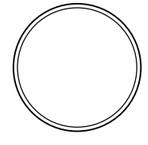
ALTERNATE 2



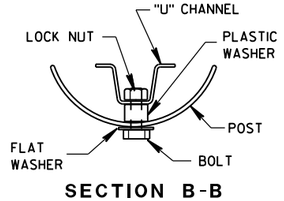
FRONT VIEW SIDE VIEW

ALTERNATE 3

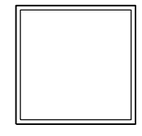
FLEXIBLE MARKER POSTS



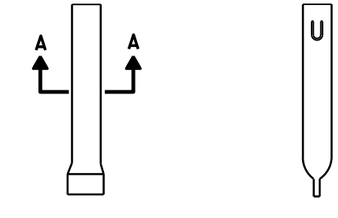
SECTION A-A



SECTION B-B

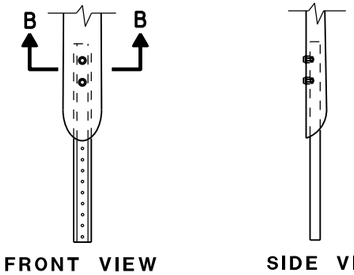


SECTION C-C



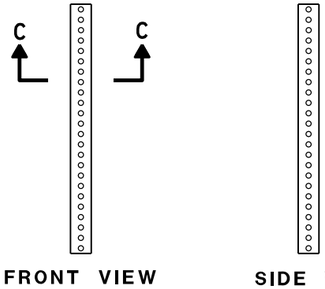
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

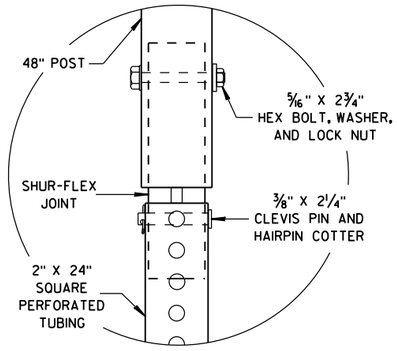
ALTERNATE 2



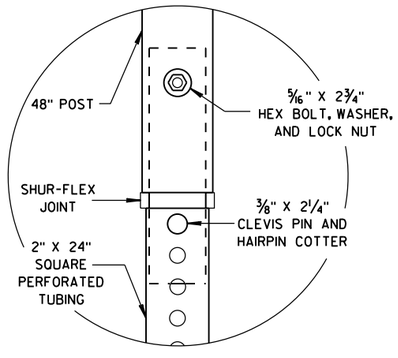
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

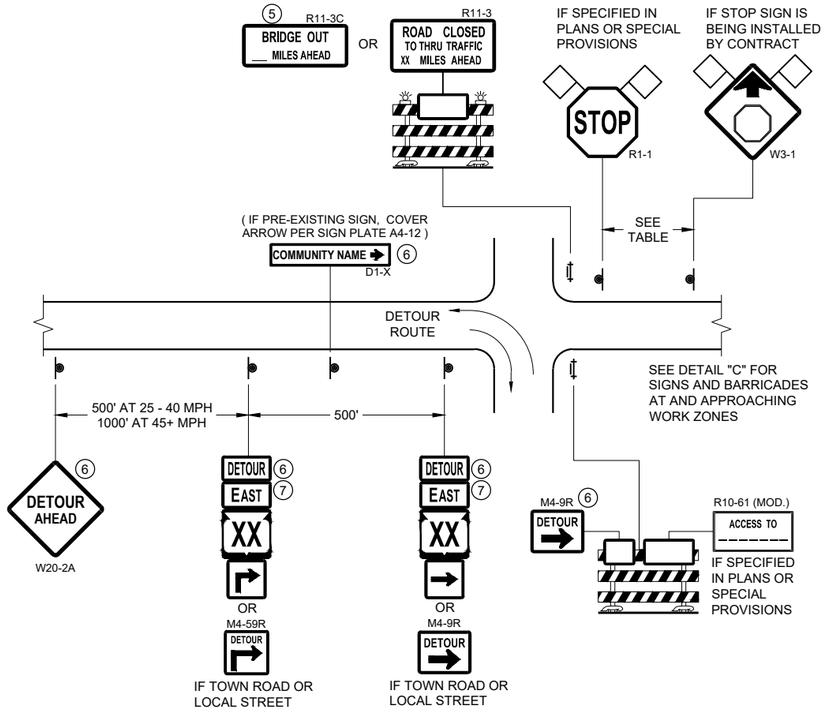
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

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

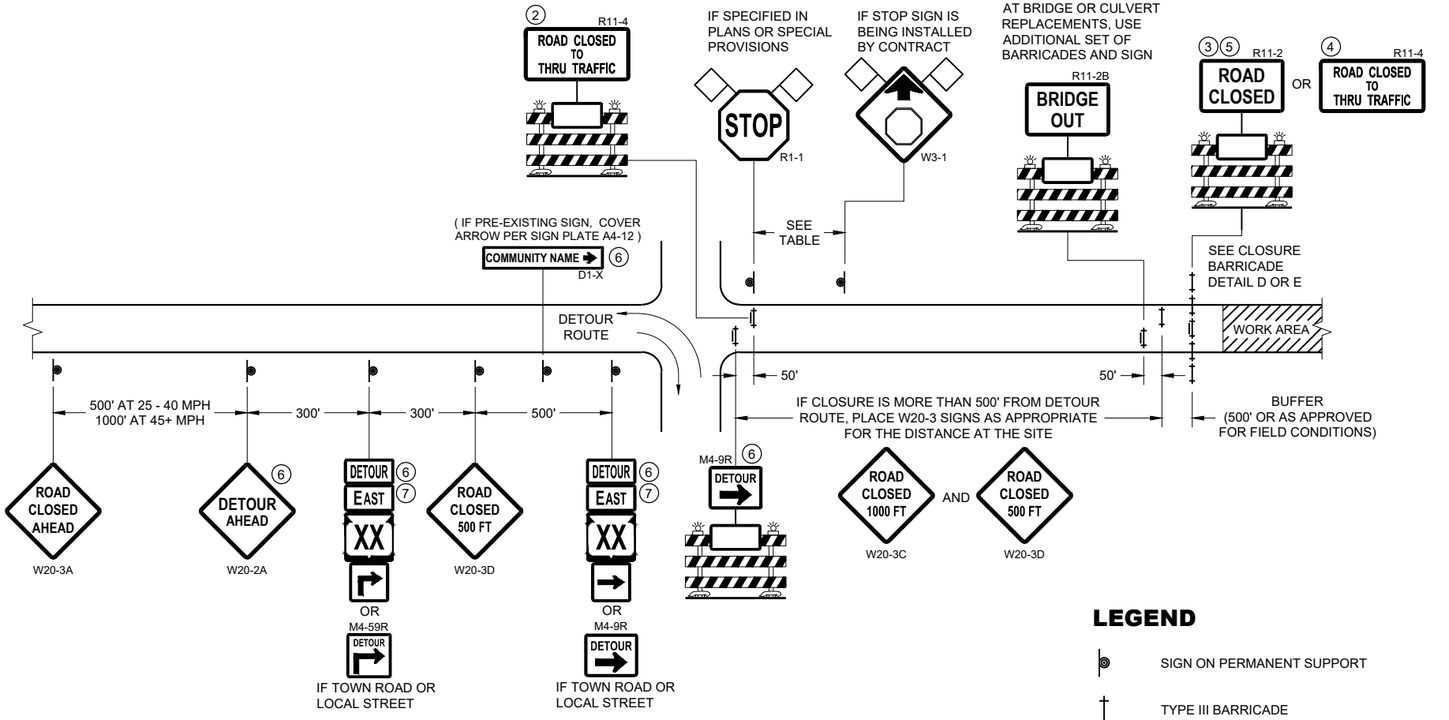
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S.D.D. 15 A 3-2b



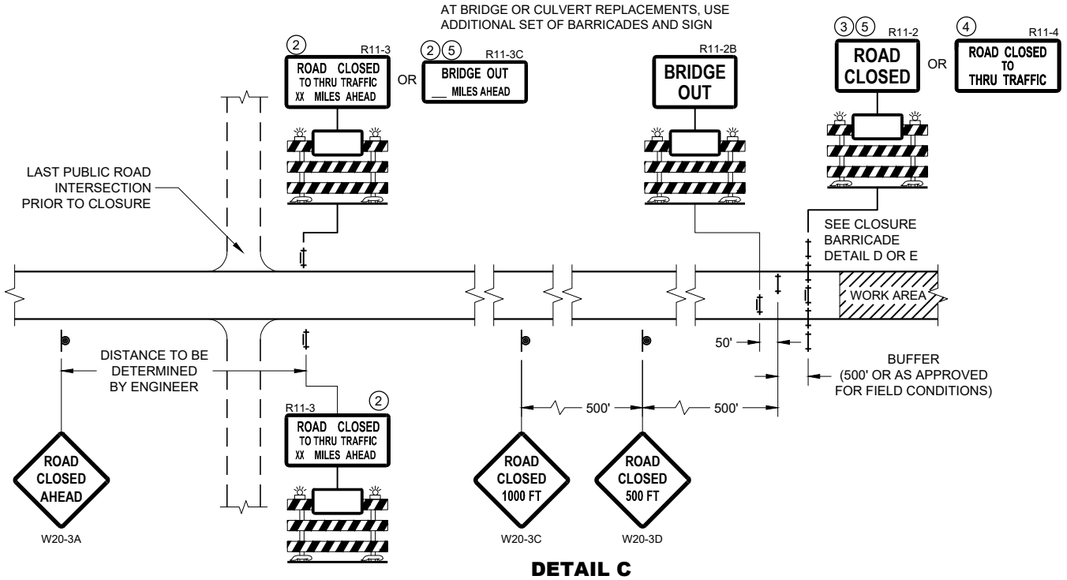
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

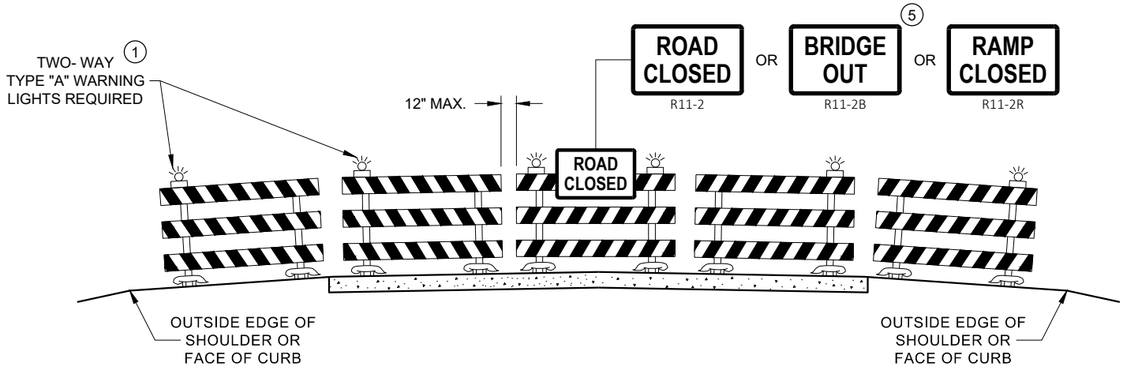
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

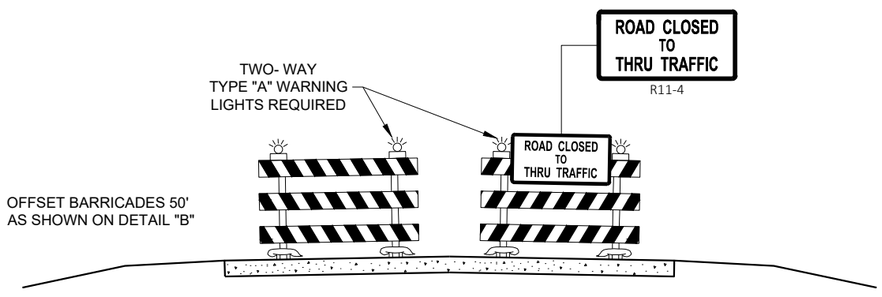
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SDD 15C02 - 09a

SDD 15C02 - 09a



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 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

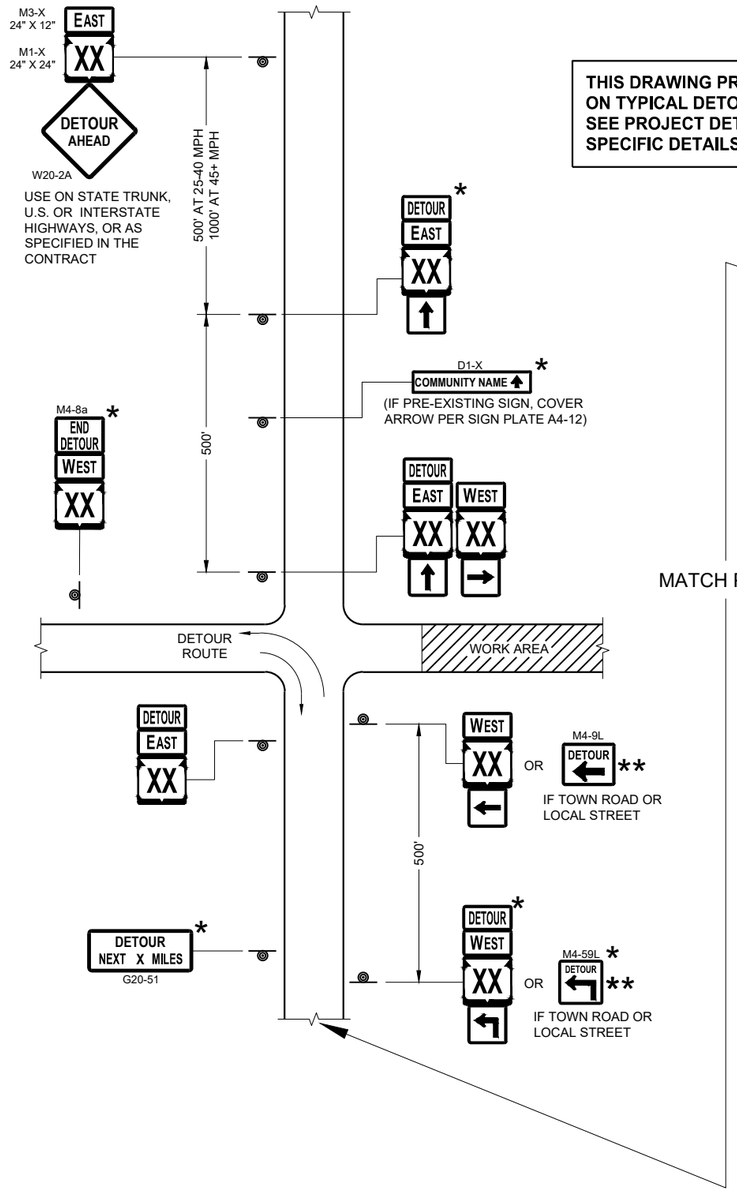
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

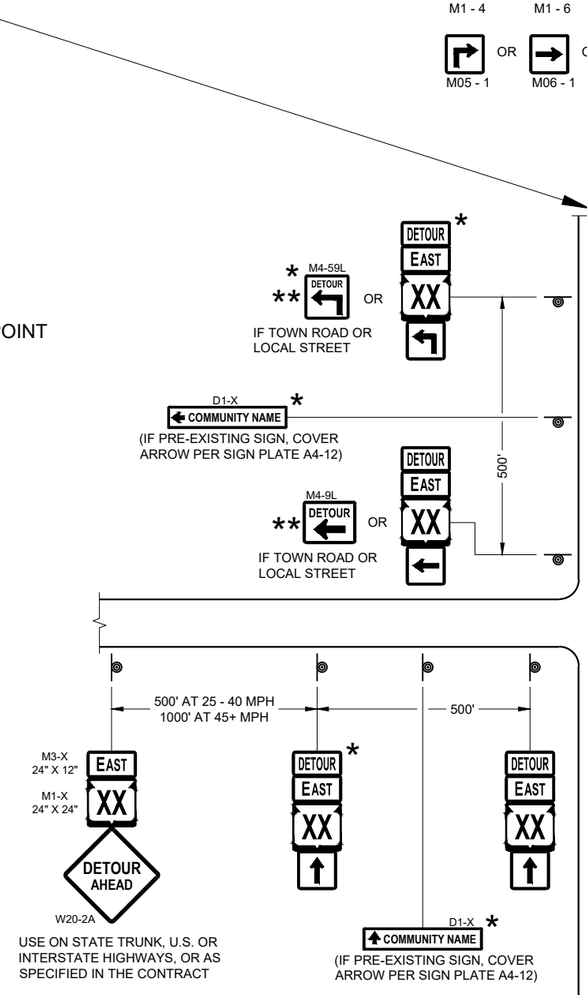
SIGN SIZES SHALL BE AS FOLLOWS:

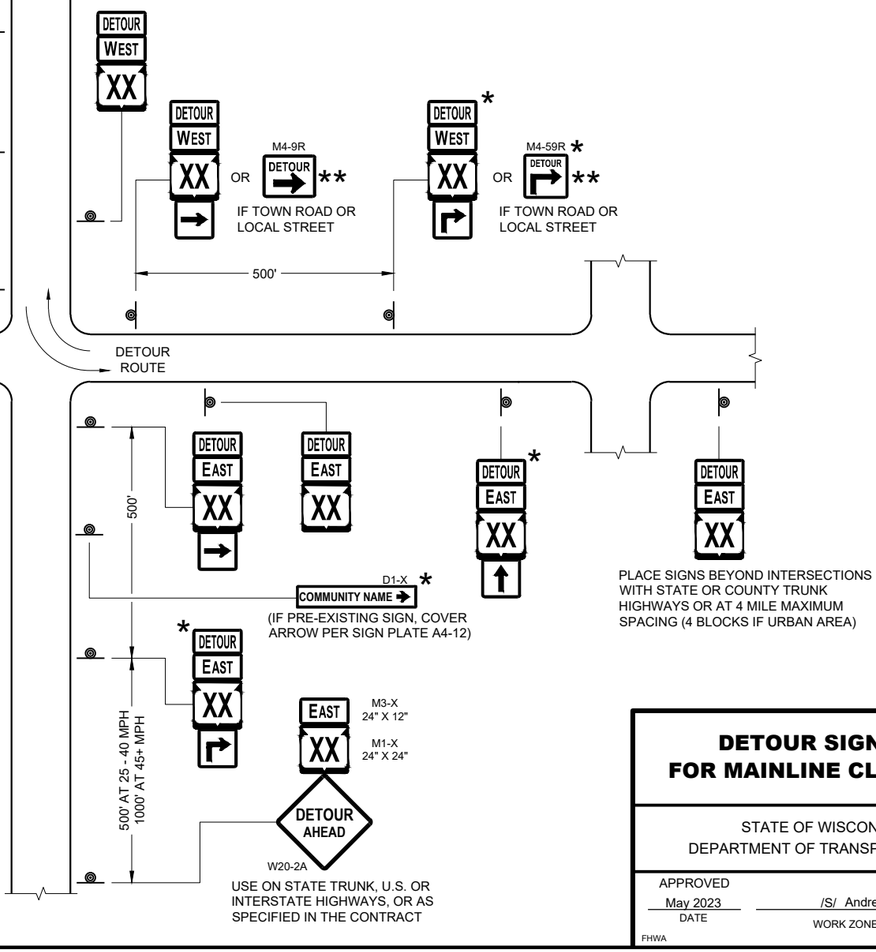
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING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

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

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







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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

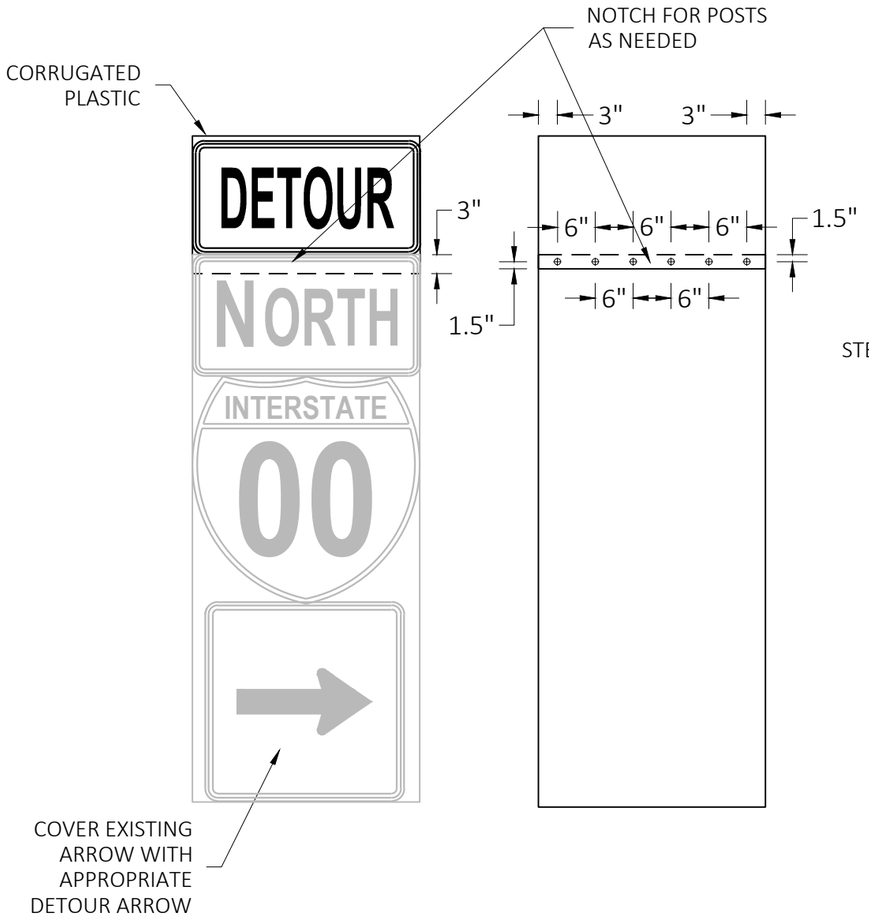
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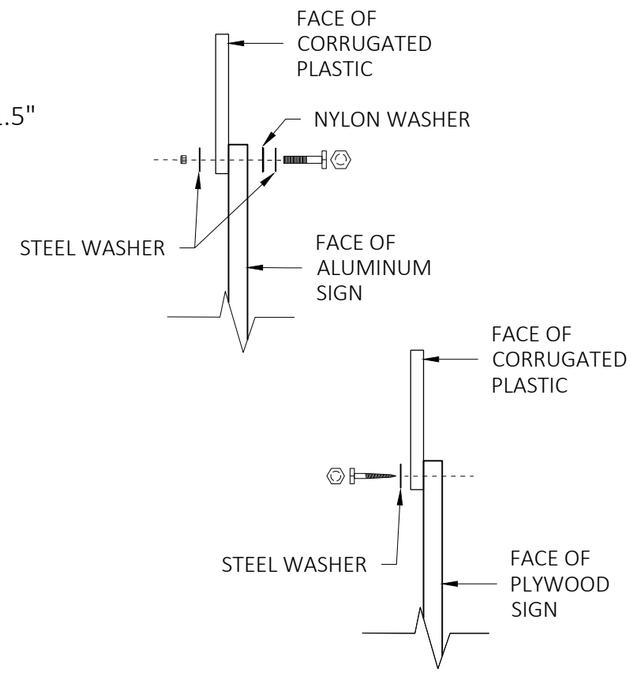
SDD 15C02 - 09c

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

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

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC3

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

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
1-1/4" O.D. x 3/8" I.D. x .080 NYLON

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

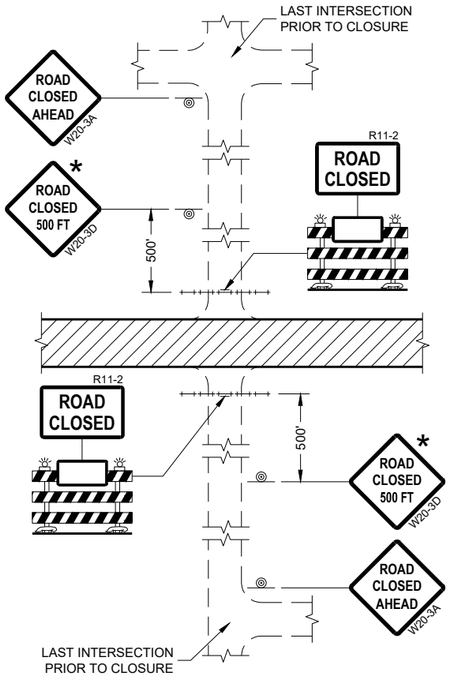
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVEL ENGINEER
FHWA

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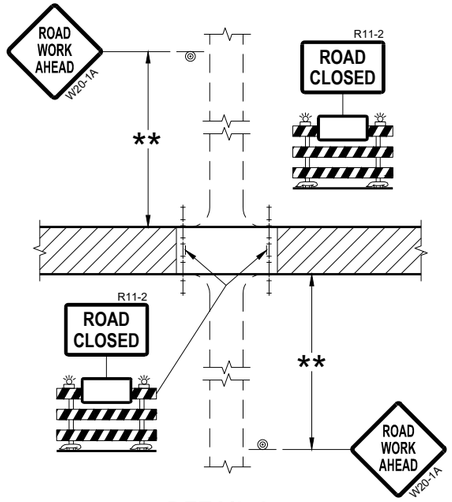
SDD 15C02-09h

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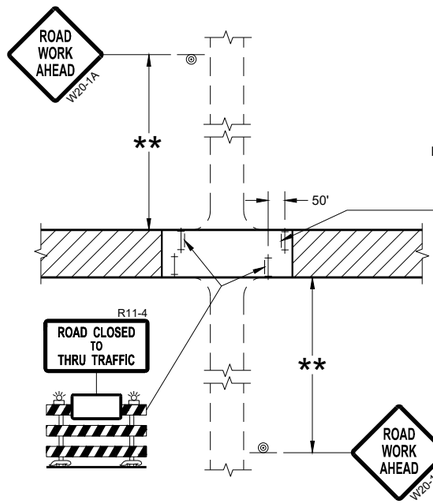
SDD 15C02-09h



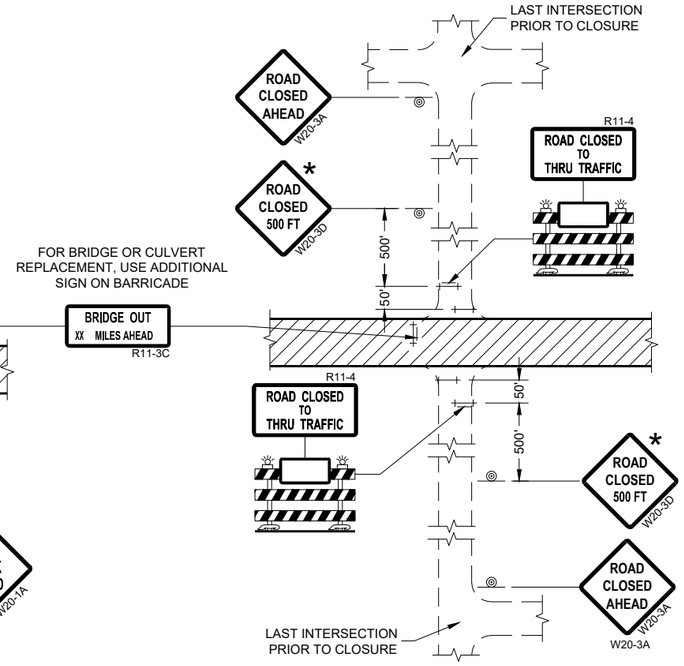
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

GENERAL NOTES

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

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

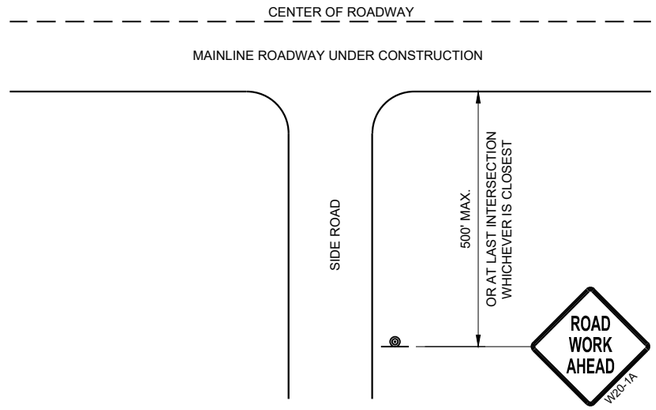
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

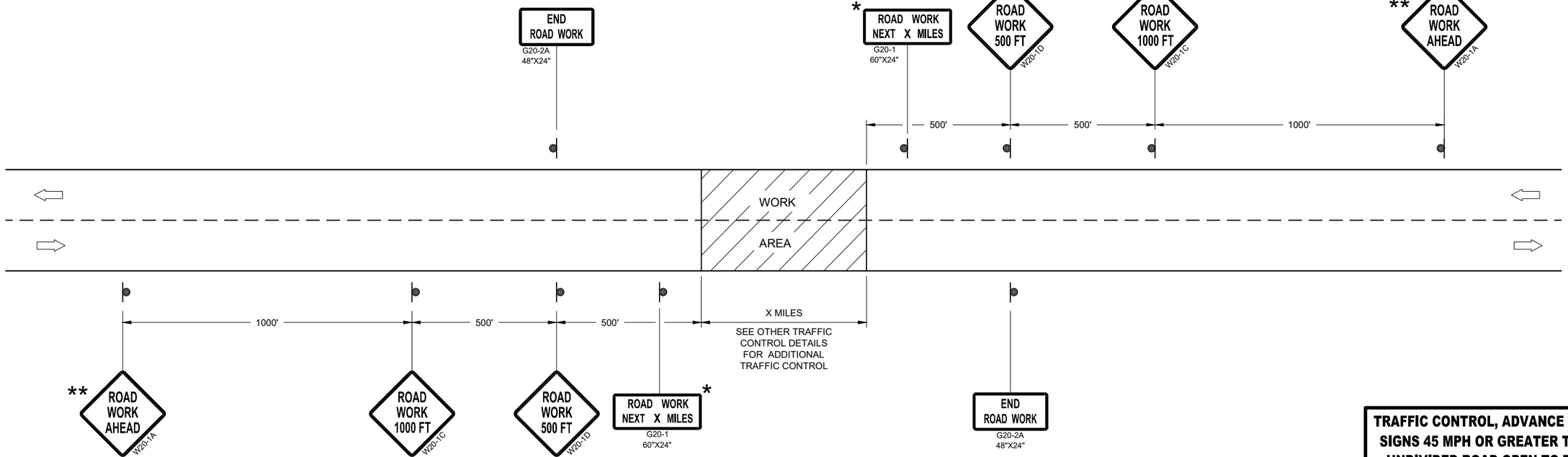
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

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.

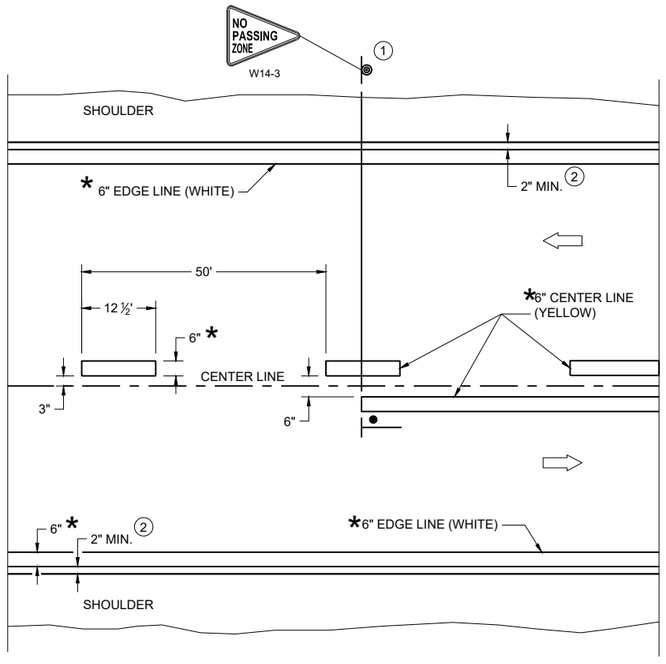
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

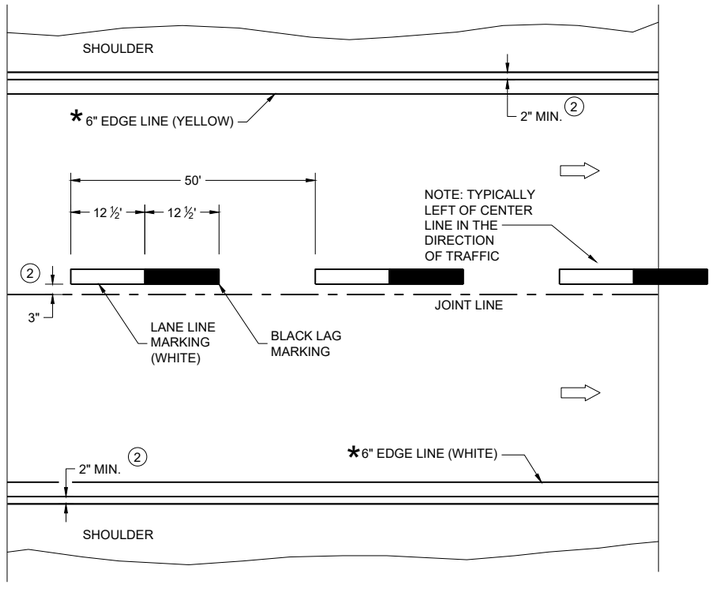
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

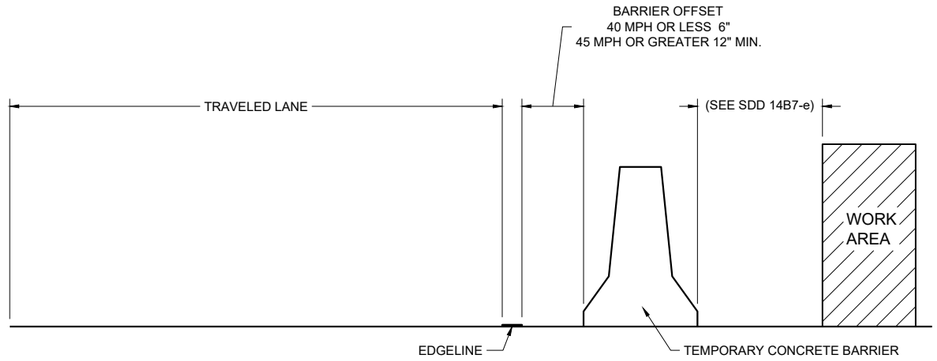
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6

SDD 15C08-24a

SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

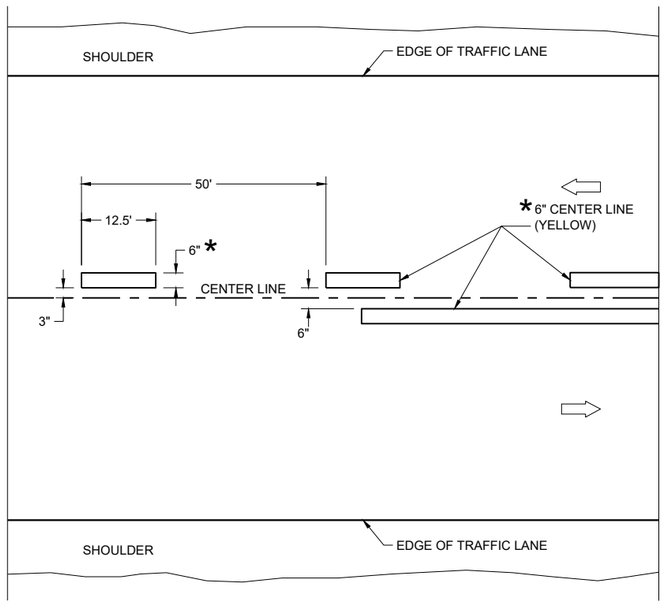
GENERAL NOTES

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

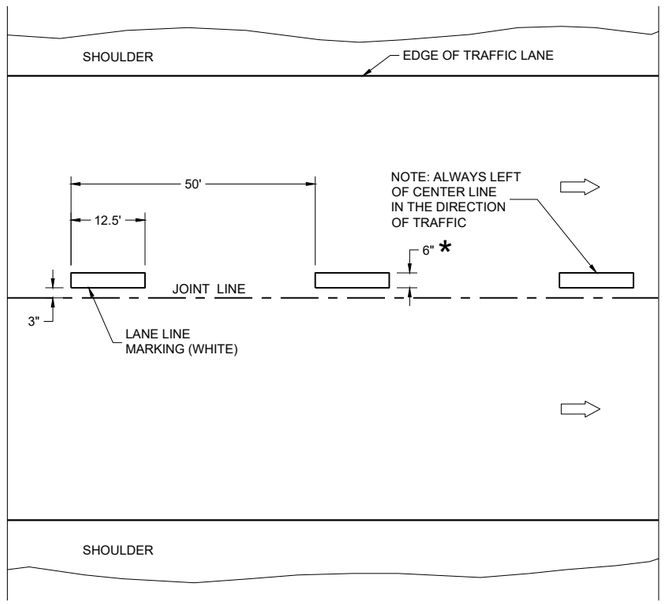
LEGEND

DIRECTION OF TRAFFIC

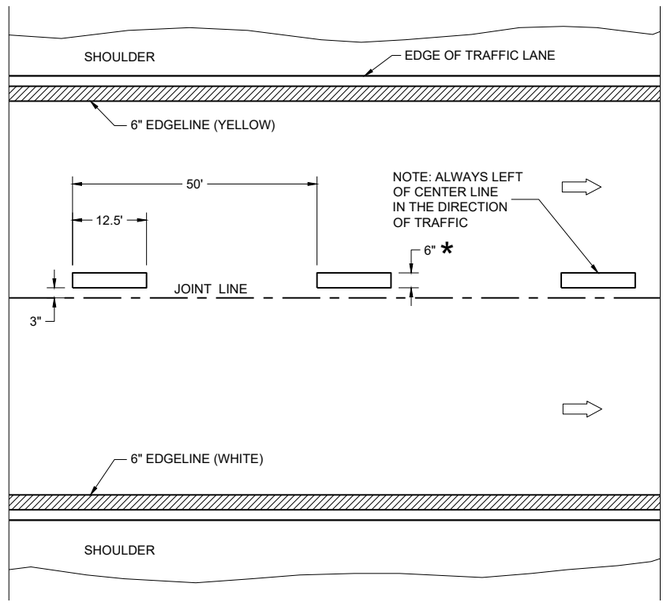
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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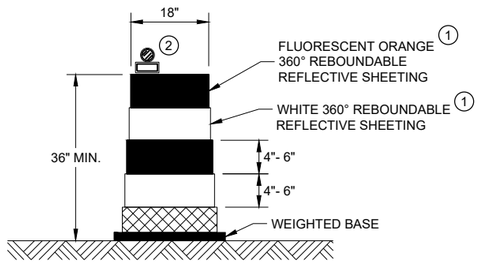
SDD 15C08-24b

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SDD 15C08-24b

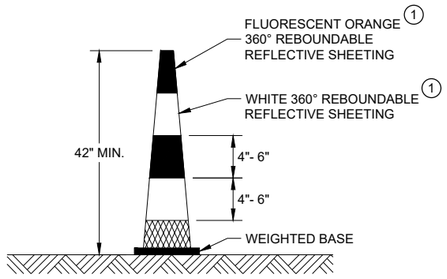
GENERAL NOTES

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



DRUM

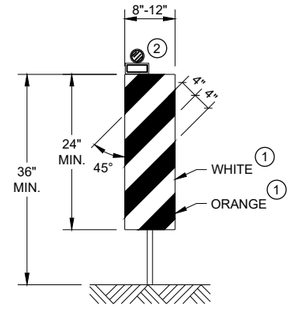
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

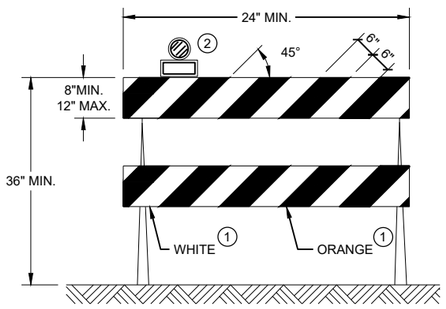
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



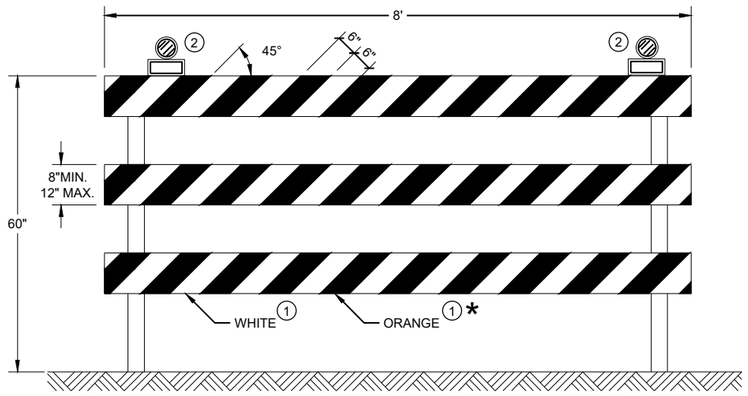
VERTICAL PANEL

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



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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

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.

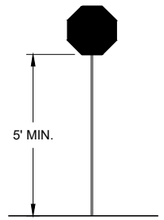
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

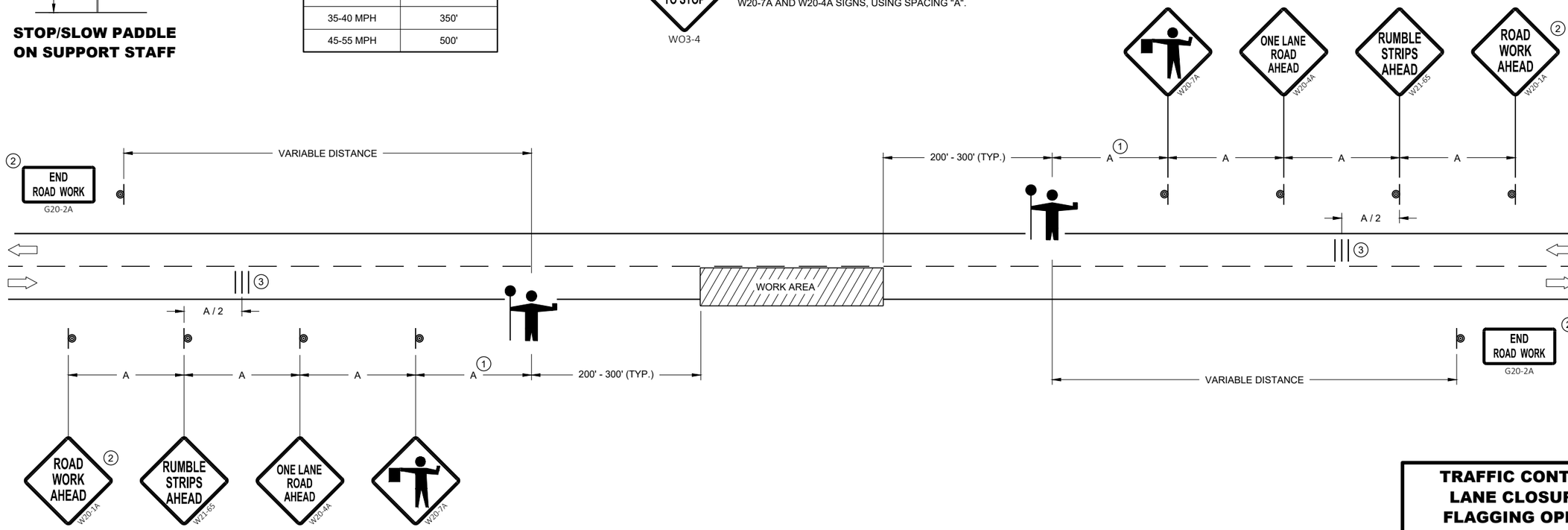
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C12 - 09a

6

SDD 15C12 - 09a

GENERAL NOTES

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- TRAFFIC CONTROL DRUM
- TEMPORARY PORTABLE RUMBLE STRIP ARRAY
- DIRECTION OF TRAFFIC
- WORK AREA
- AFAD — 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

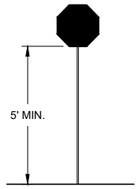
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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.

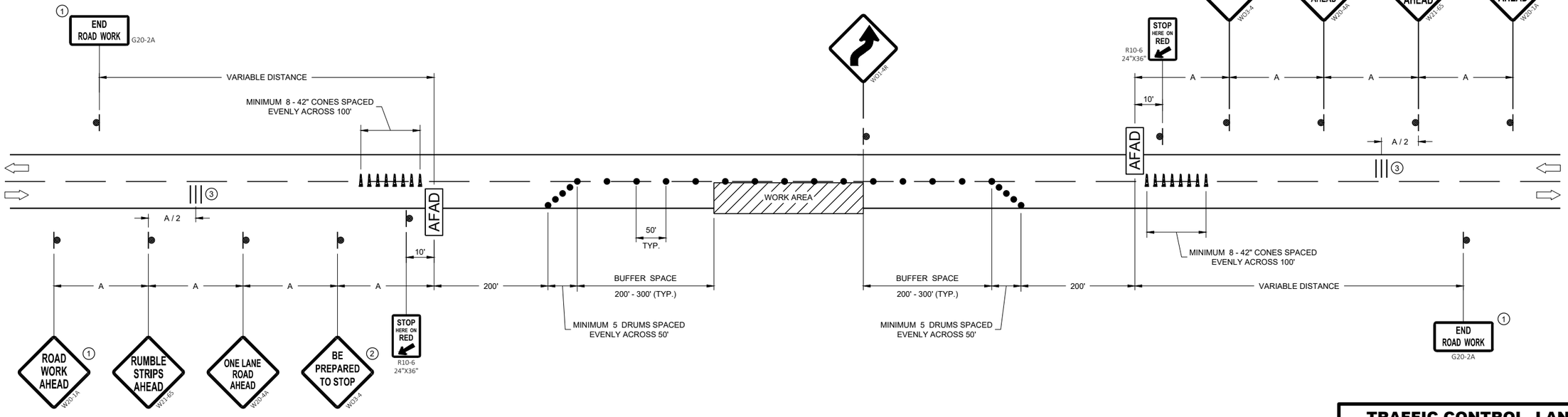
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



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'



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15C12 - 09b

SDD 15C12 - 09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

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

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

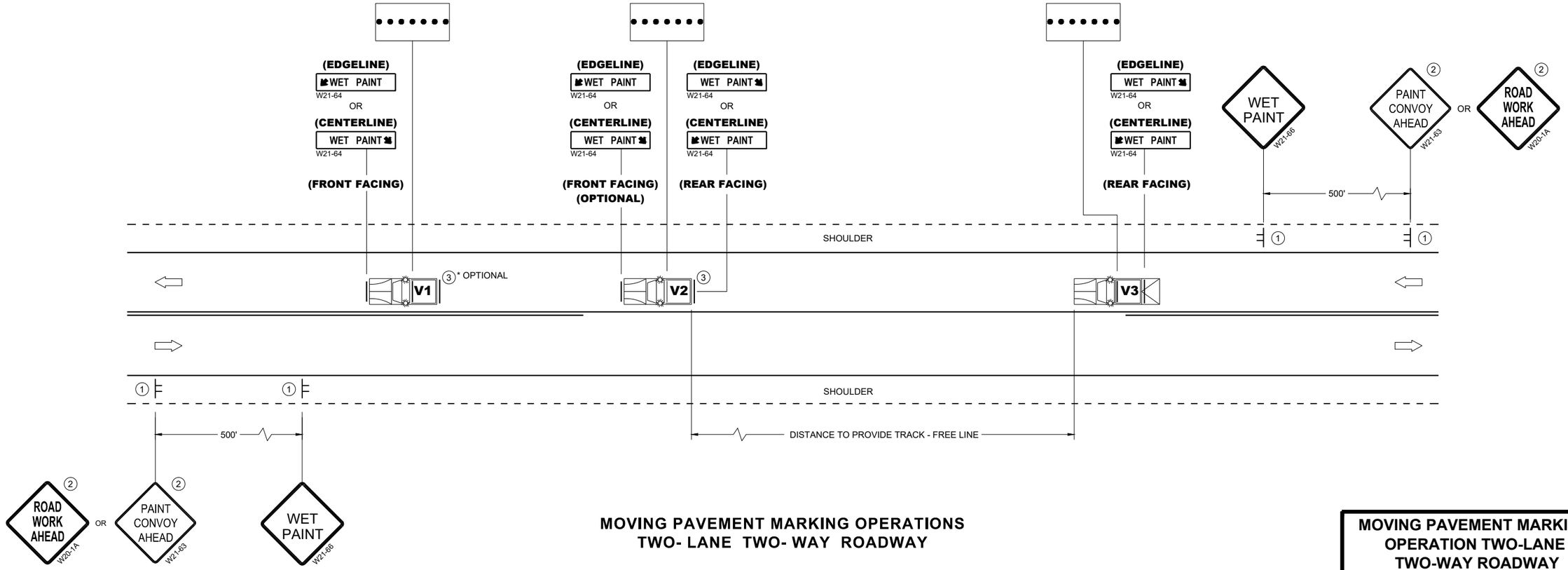
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(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.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

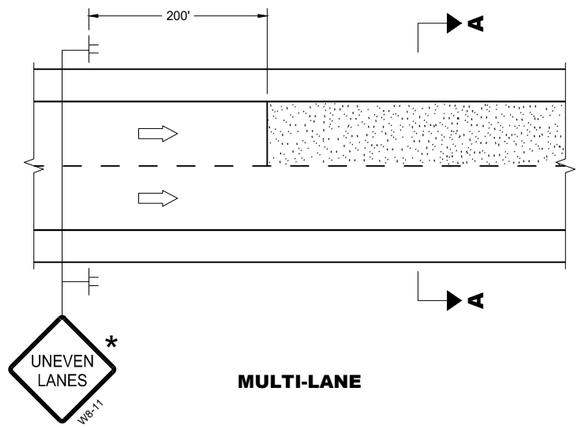
APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — STATE ELECTRICAL ENGINEER

FHWA

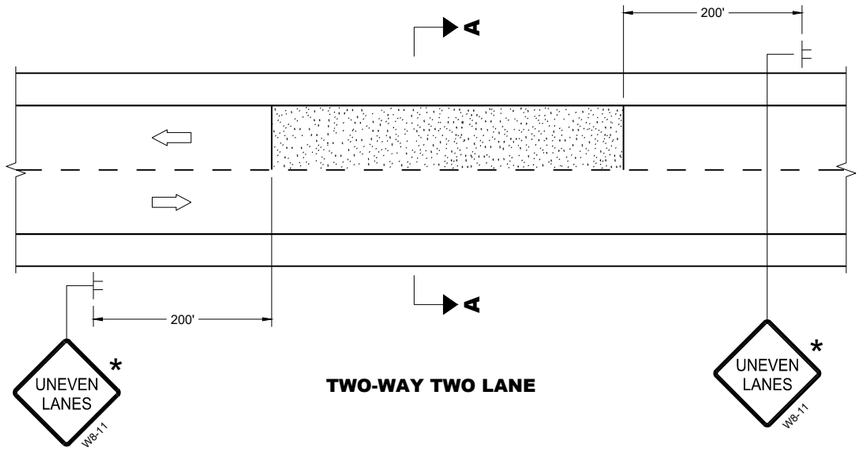
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SDD 15C19-11a

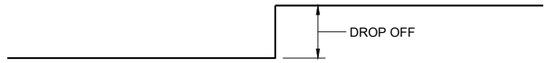
SDD 15C19-11a



MULTI-LANE

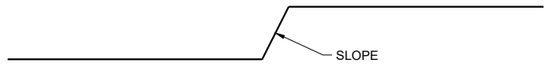


TWO-WAY TWO LANE

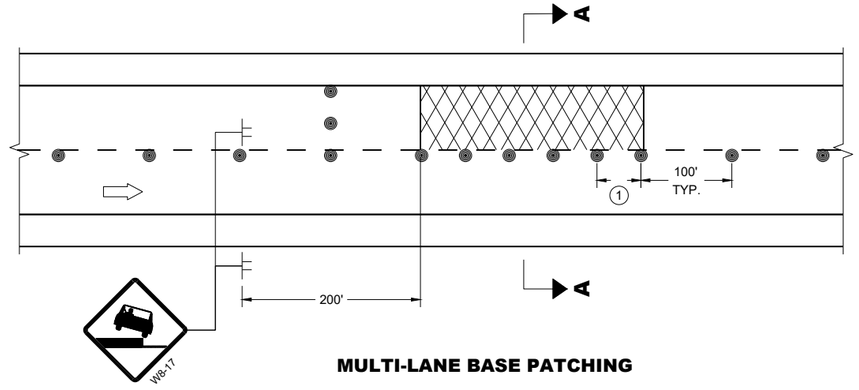


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

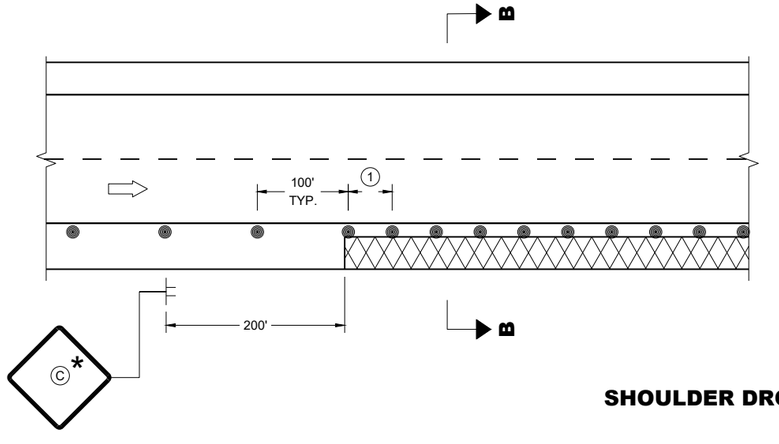
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

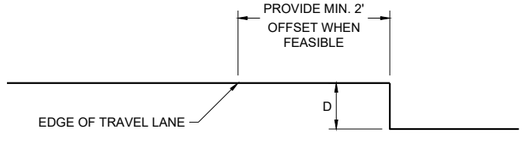
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15D39-03

6

SDD 15D39-03

GENERAL NOTES

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

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

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

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

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

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

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

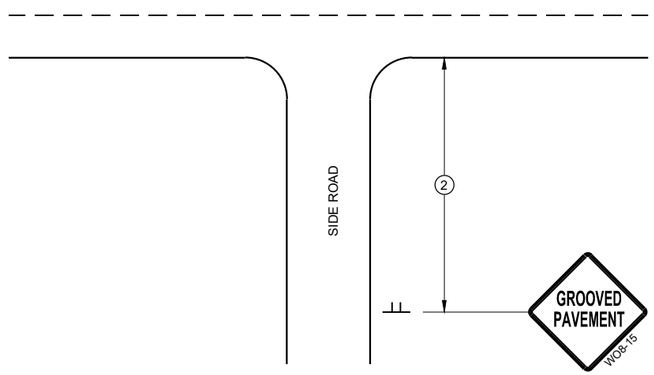
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

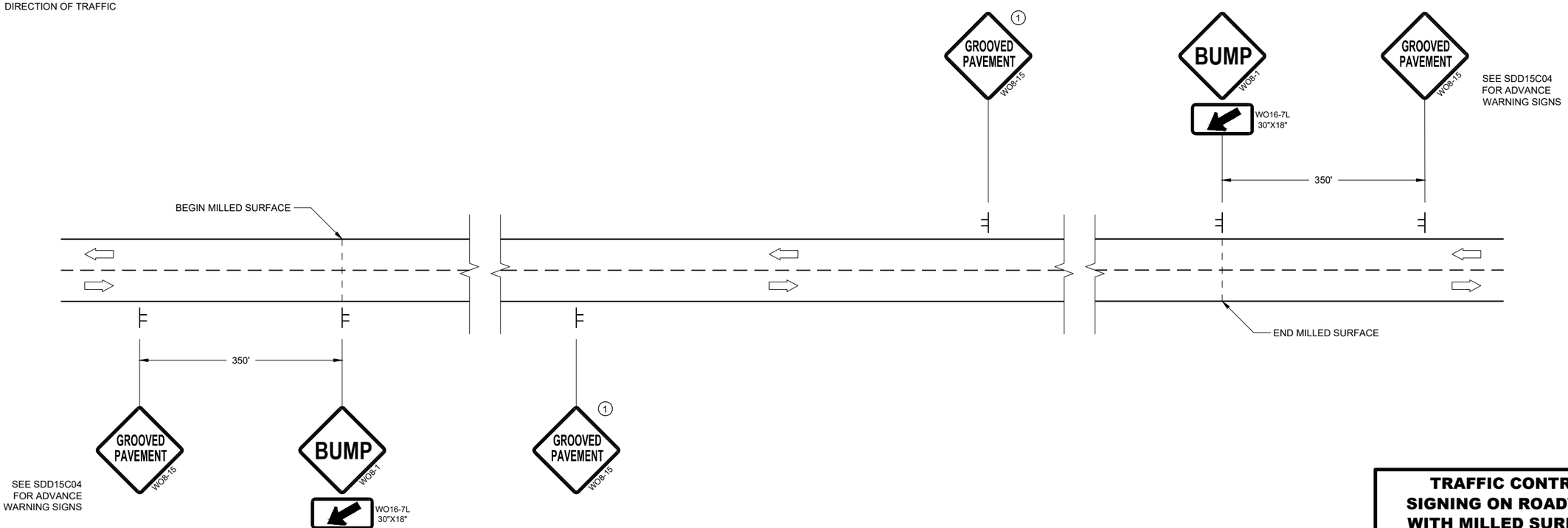
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15D44 - 02

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 CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

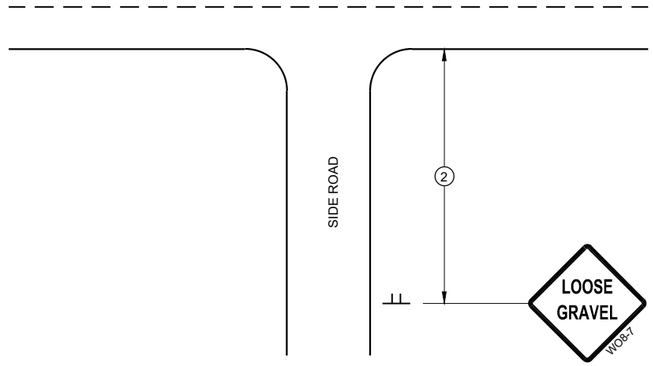
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

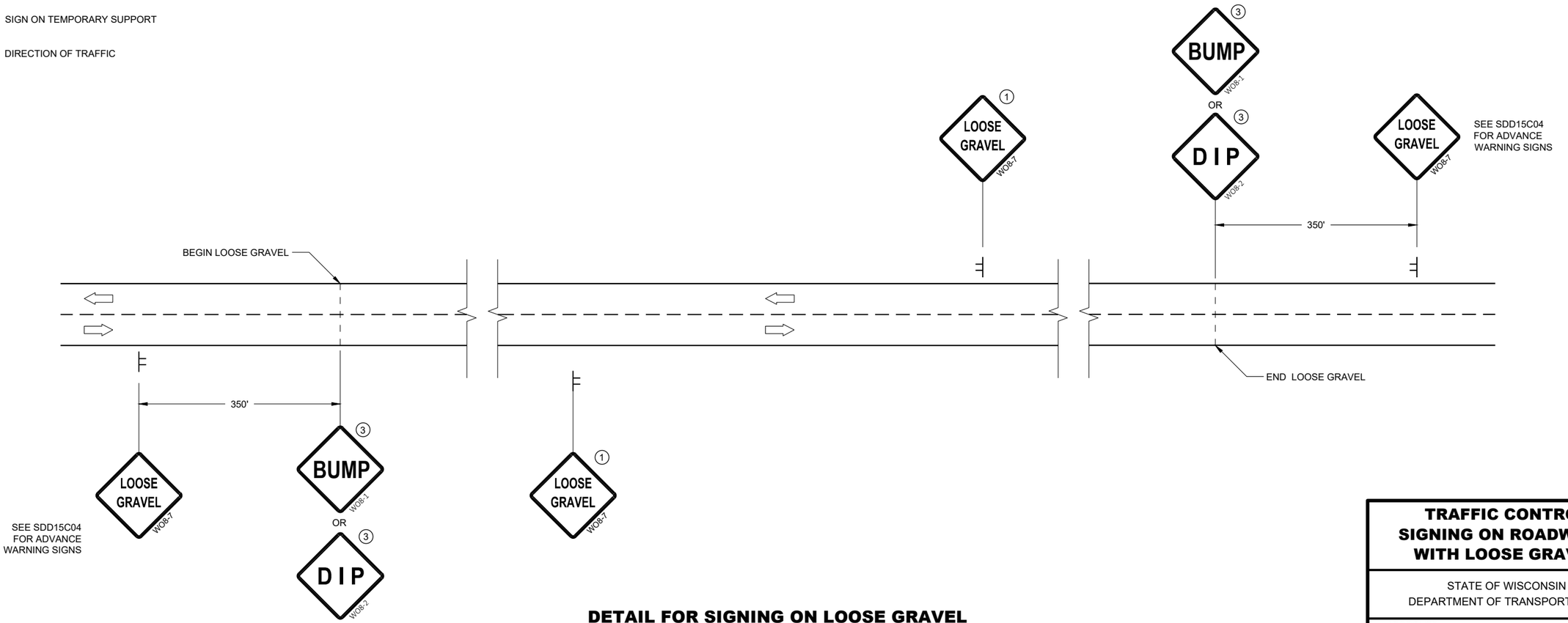
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D45 - 03

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

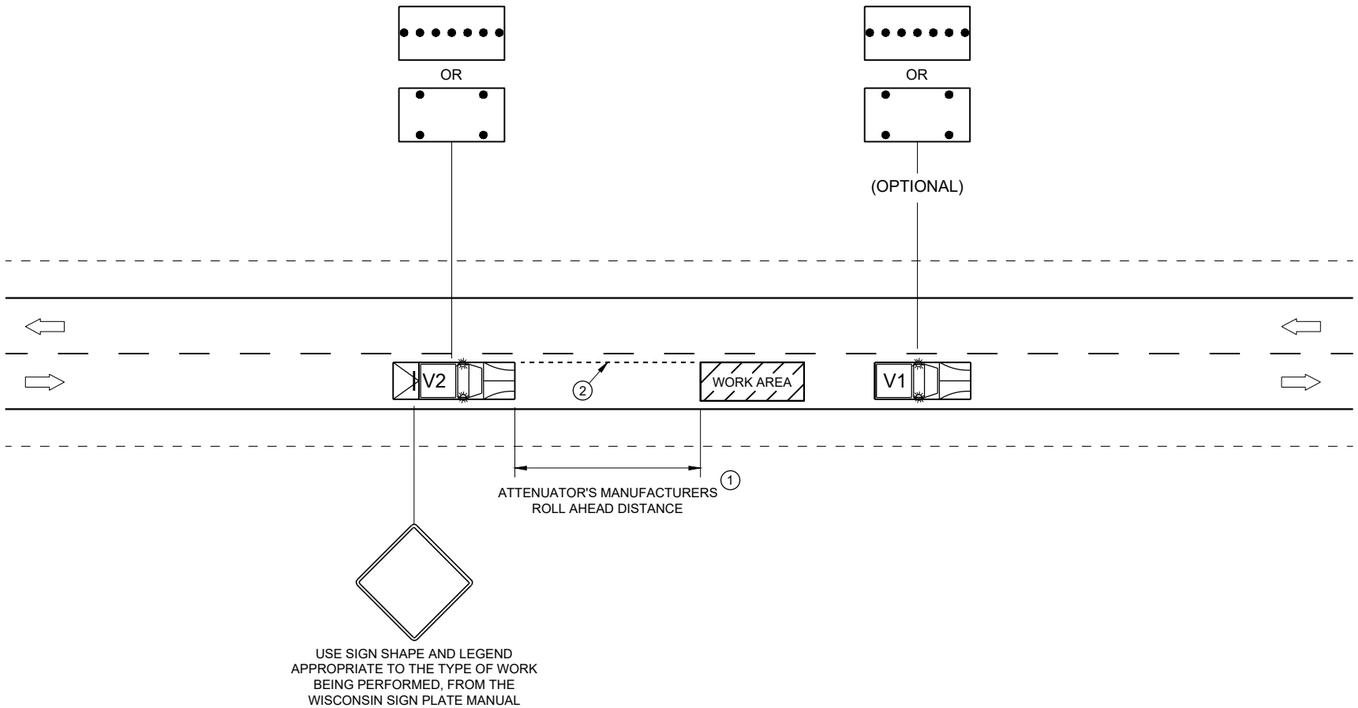
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

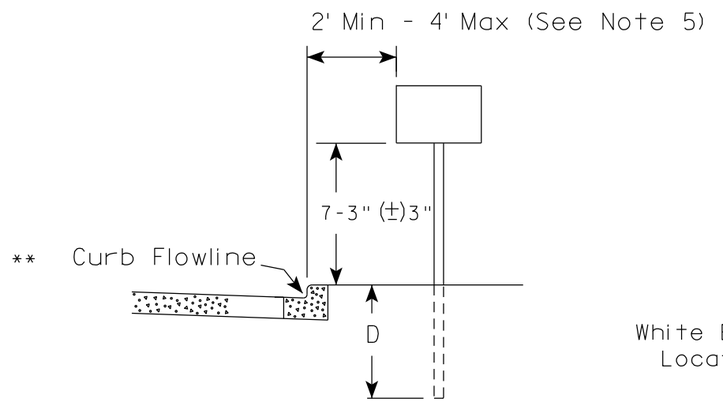
APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

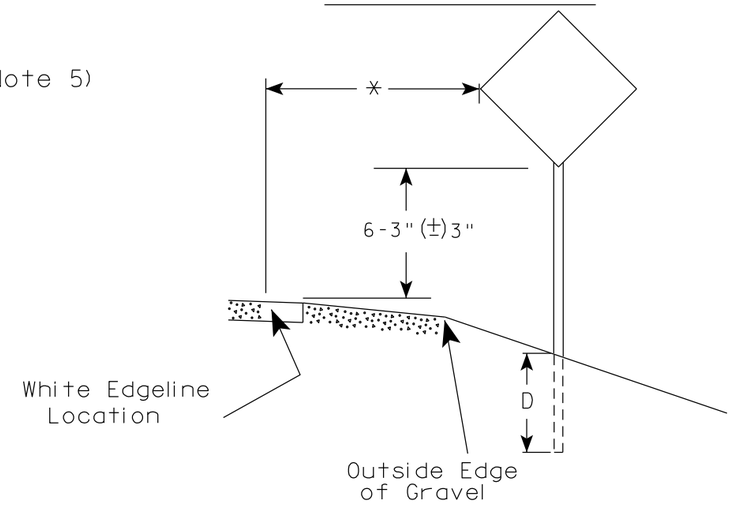
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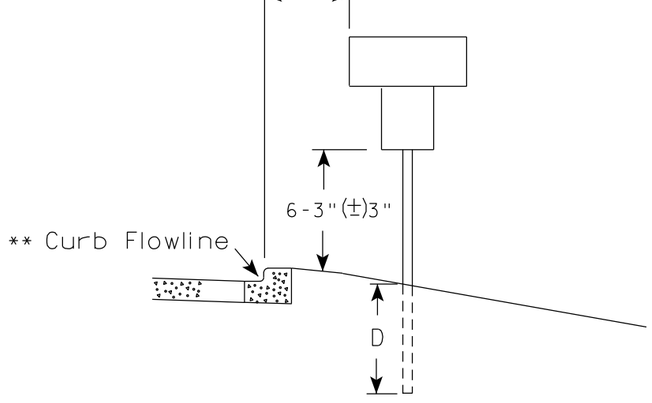
SDD 15D51 - 01
SDD 15D51 - 01

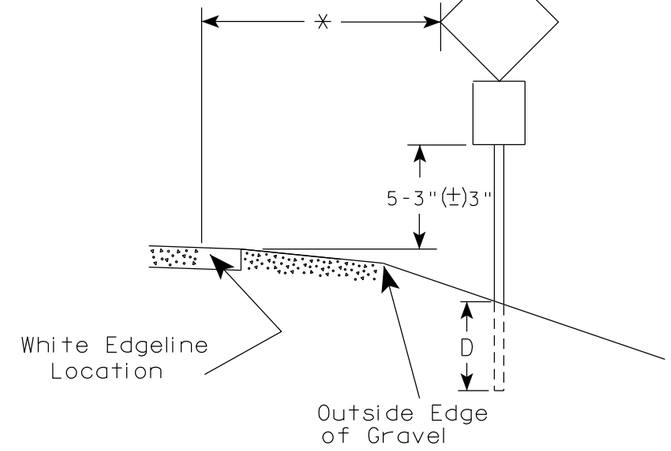
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

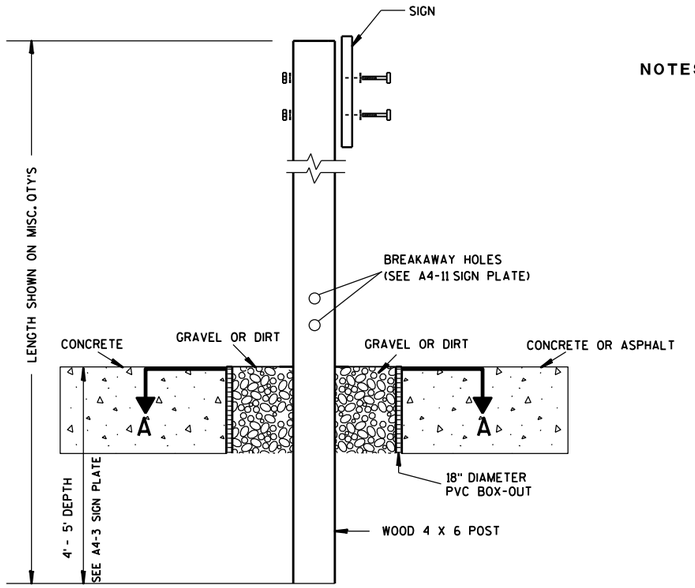
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

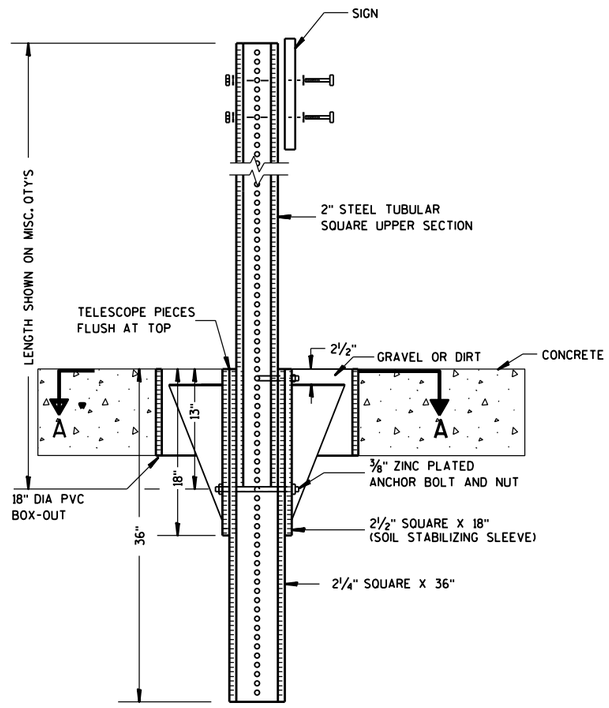
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E



ELEVATION VIEW

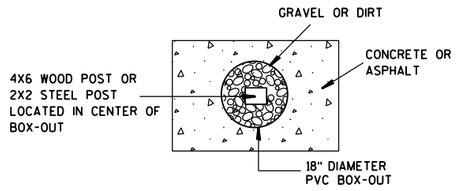
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

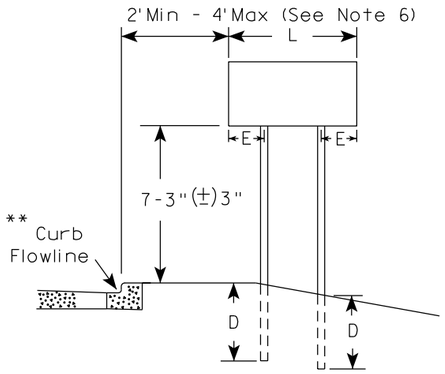
APPROVED Matthew R Rauch
for State Traffic Engineer

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

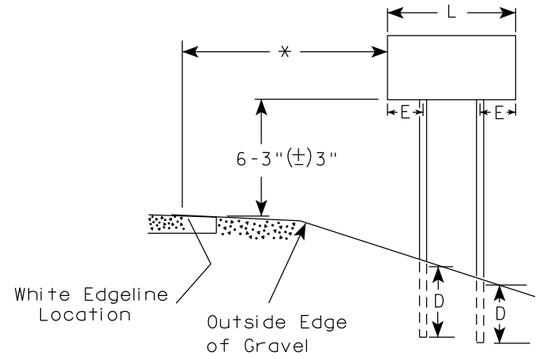
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

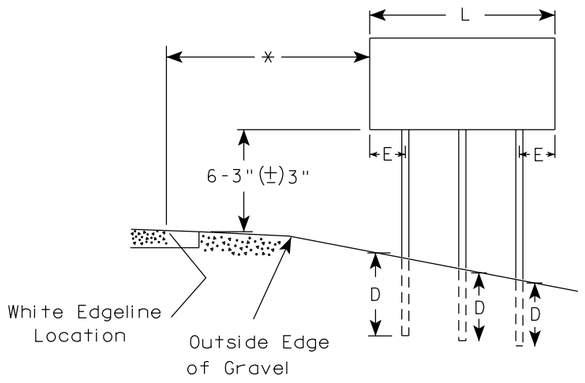
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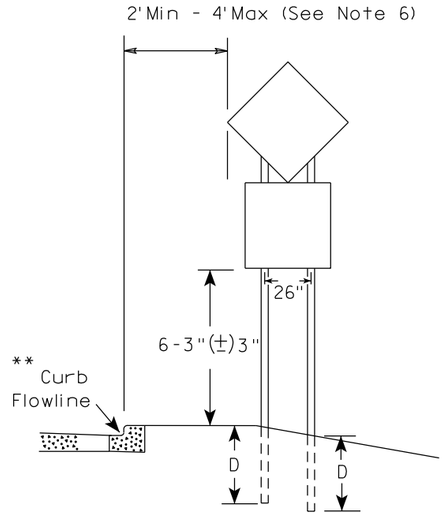
URBAN AREA



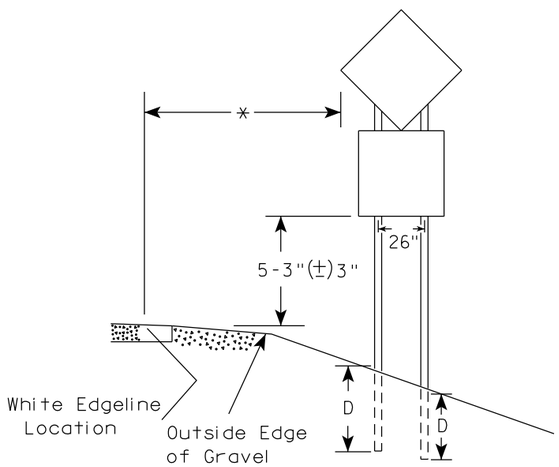
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

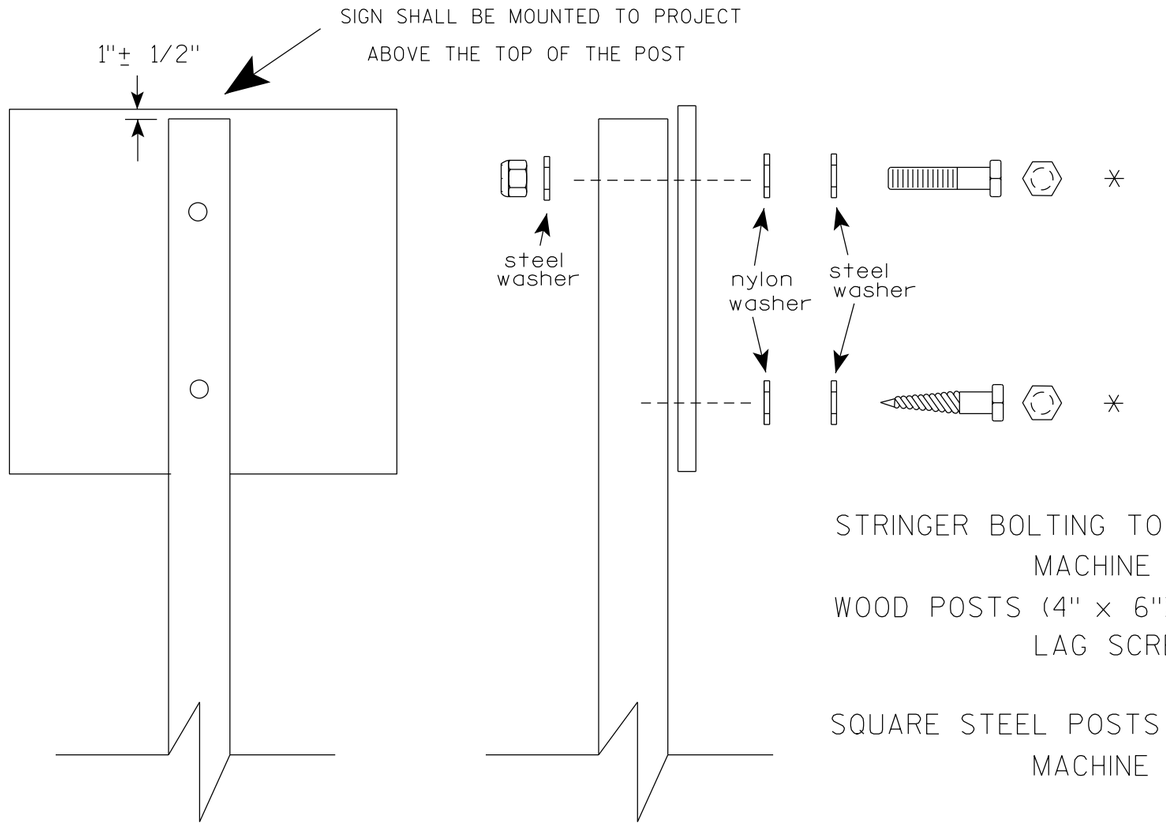
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

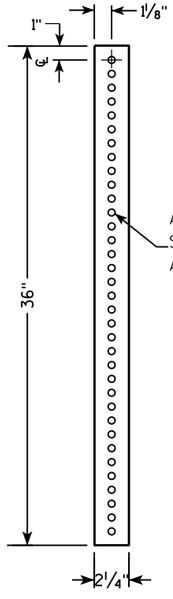
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

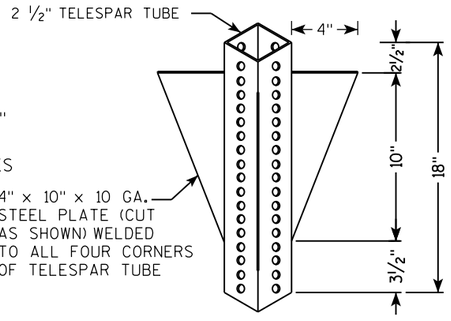
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

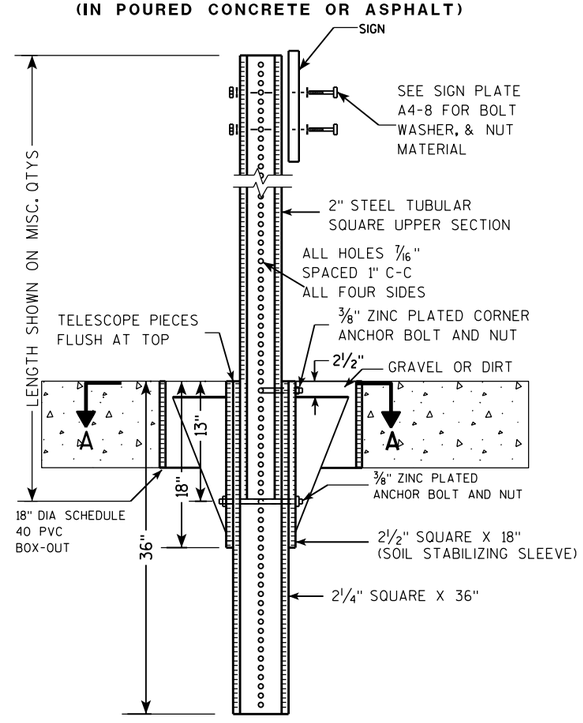
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



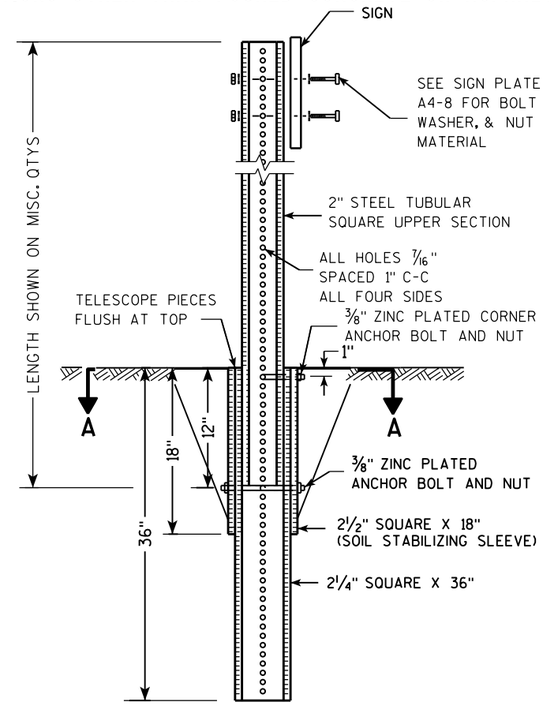
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

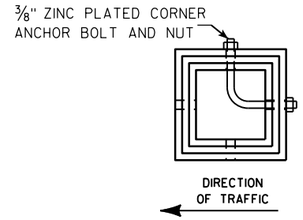


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

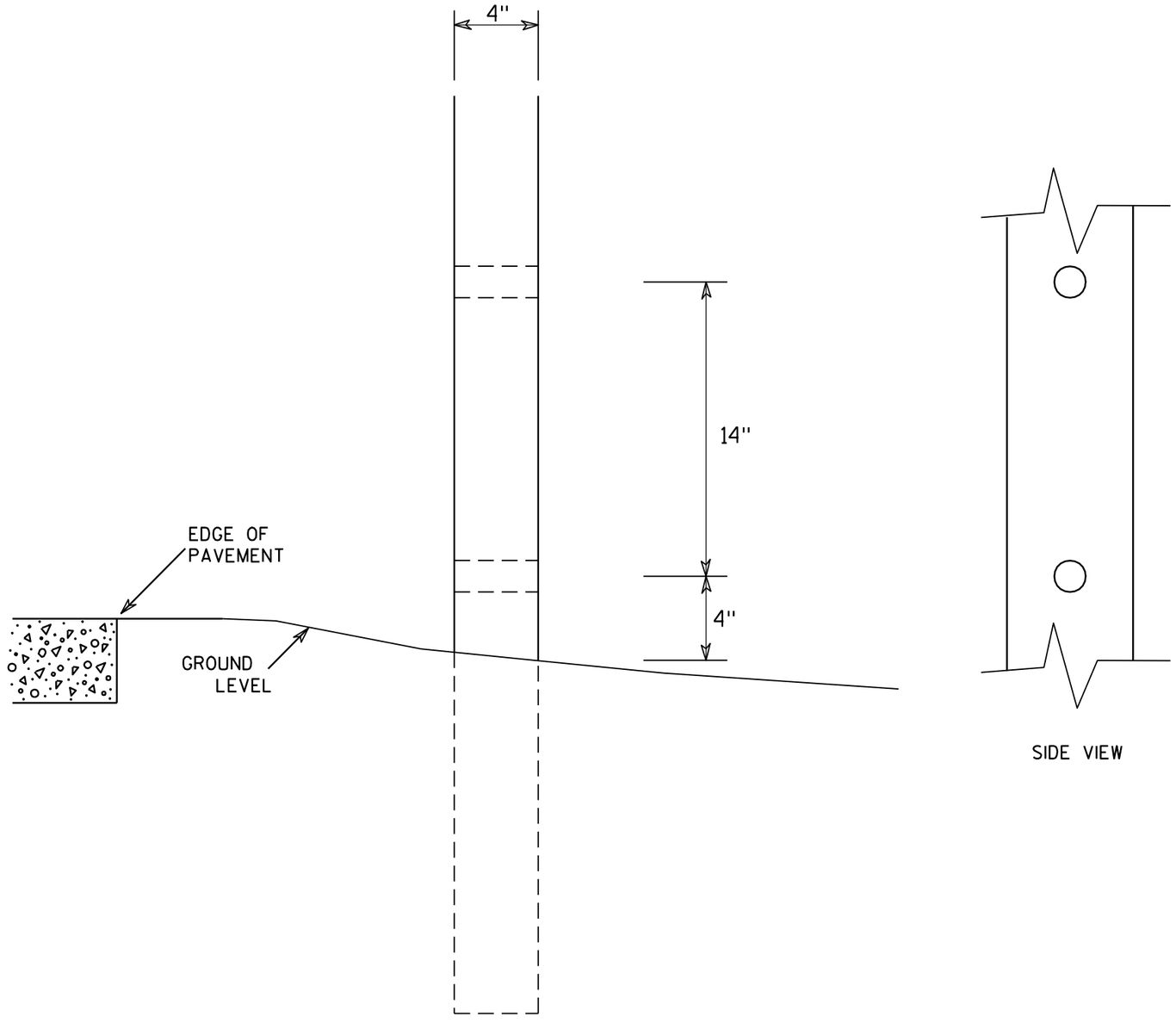
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

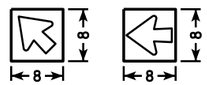
APPROVED Chester J Spang for State Traffic Engineer

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

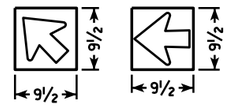
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

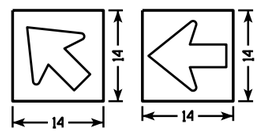




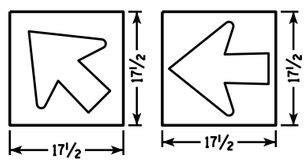










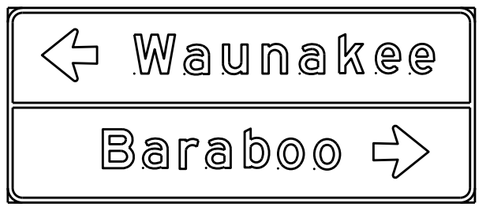


GENERAL NOTES

1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

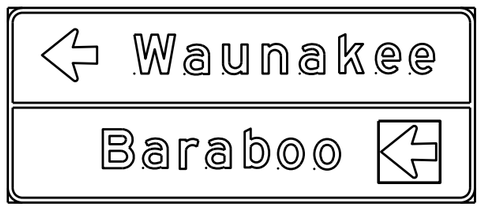
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

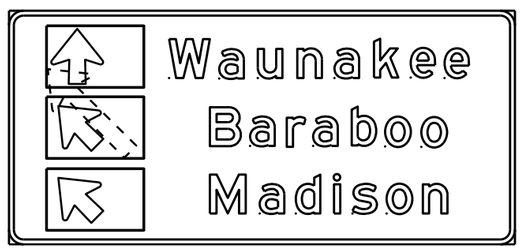
BEFORE





AFTER





DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

A4-12.2

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A412.DGN PLOT DATE : 08-OCT-2014 11:50 PLOT BY : mscsja

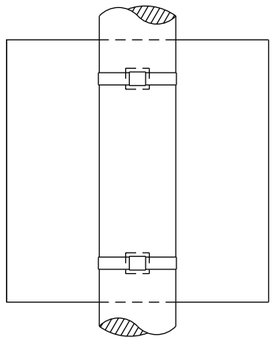
WISDOT/CADDS SHEET 42

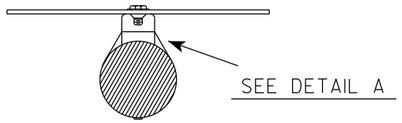
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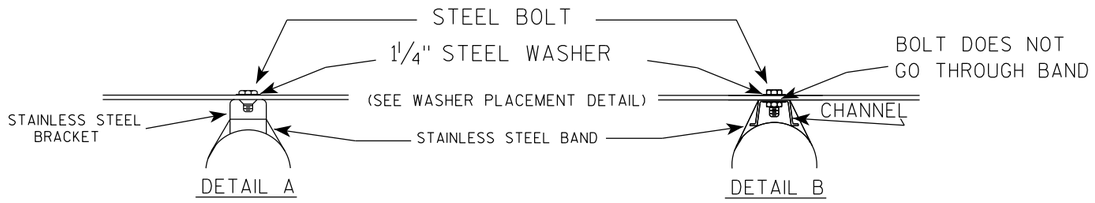
7

BANDING

SINGLE SIGN



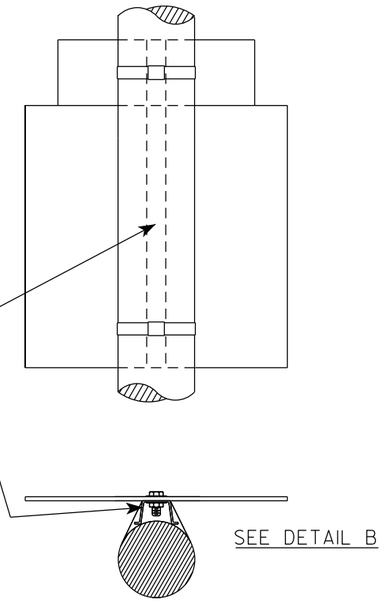




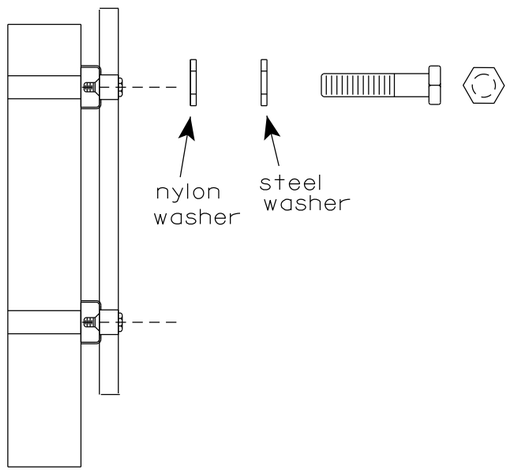
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

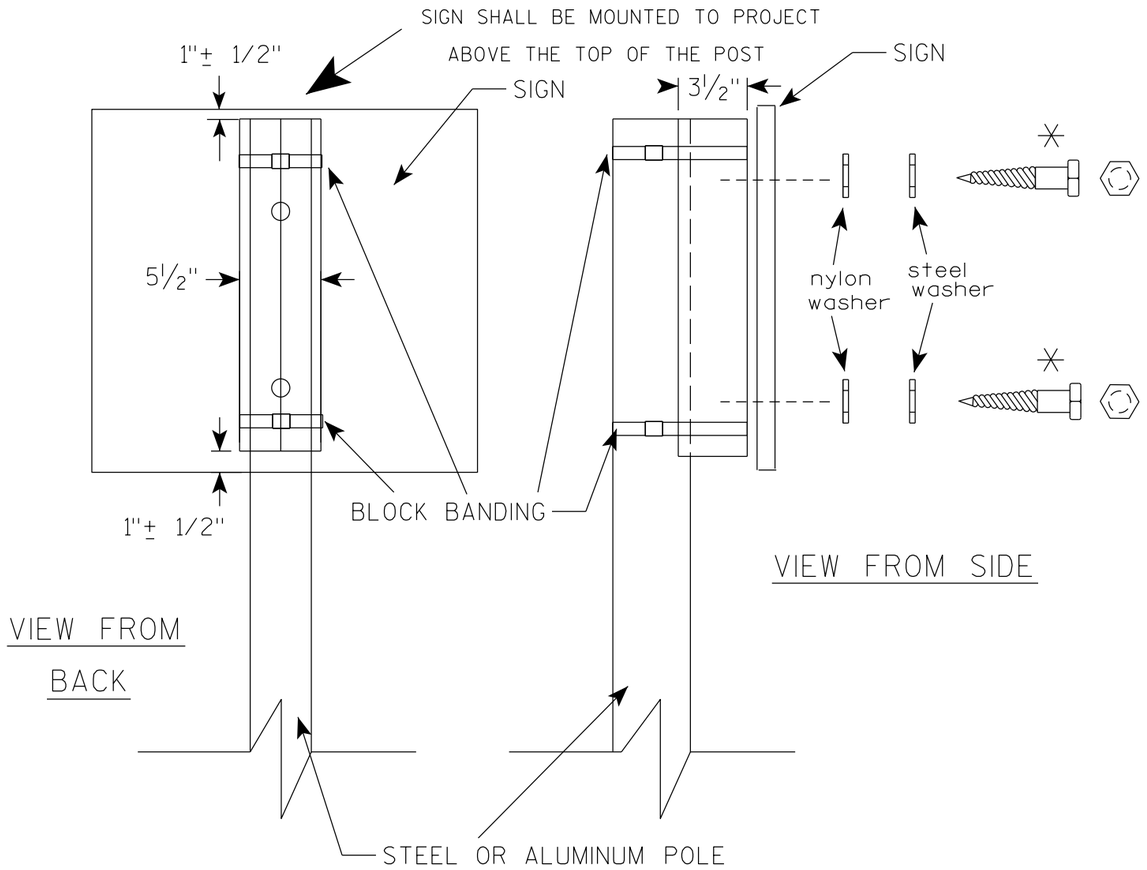
WISCONSIN DEPT OF TRANSPORTATION

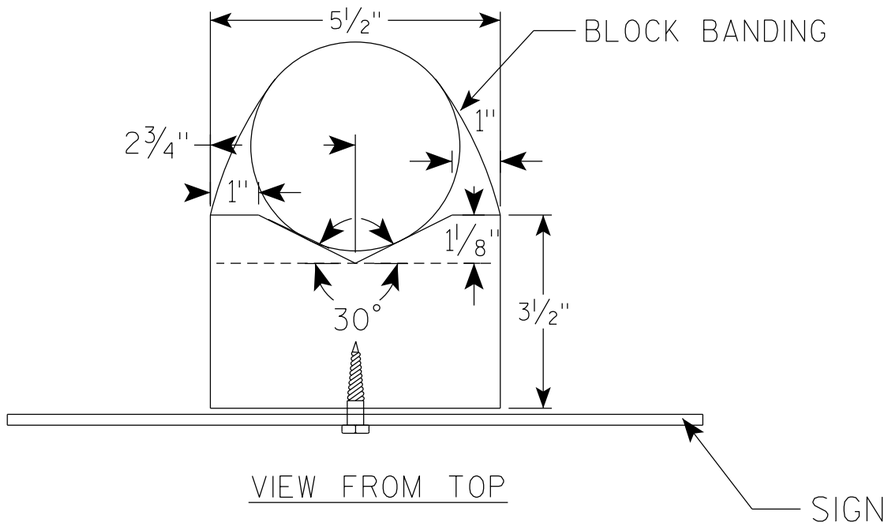
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

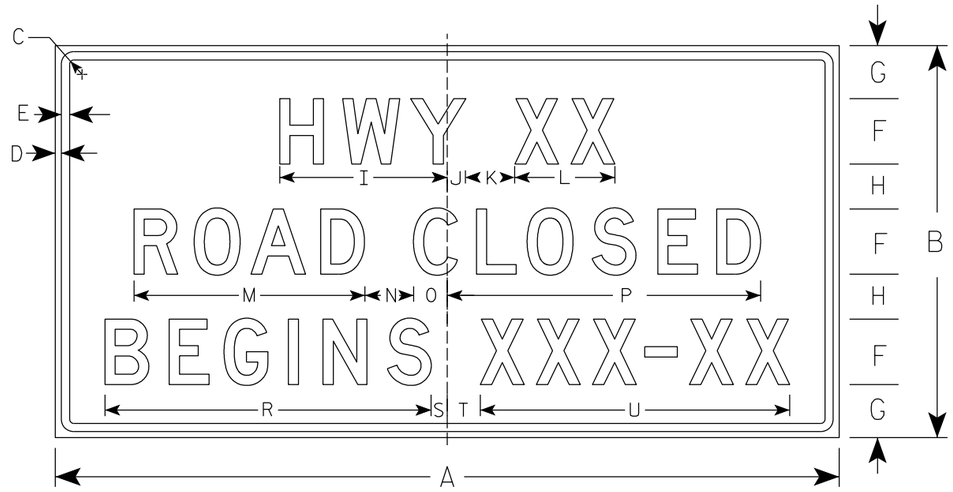
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

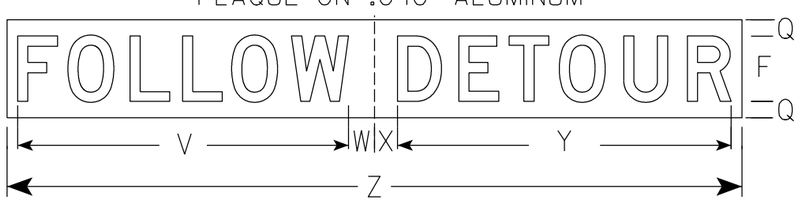
PROJECT NO:

SHEET NO: 110 E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

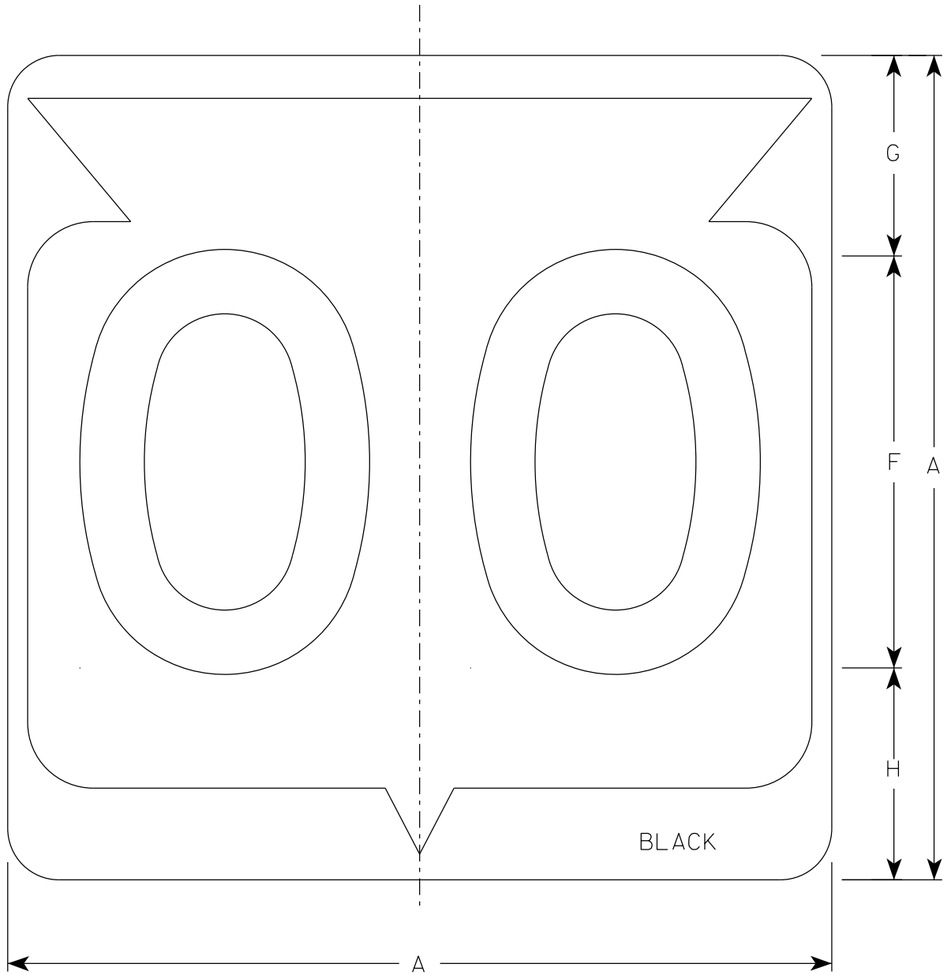
STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

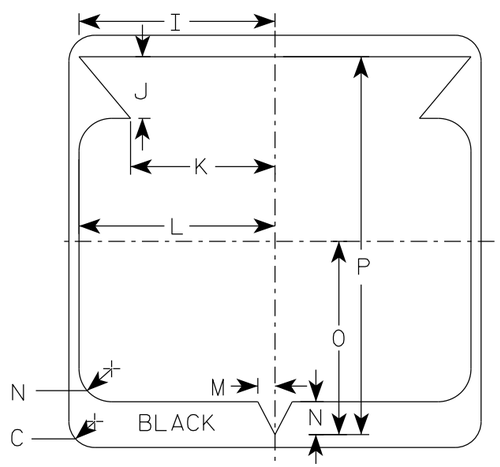
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C



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

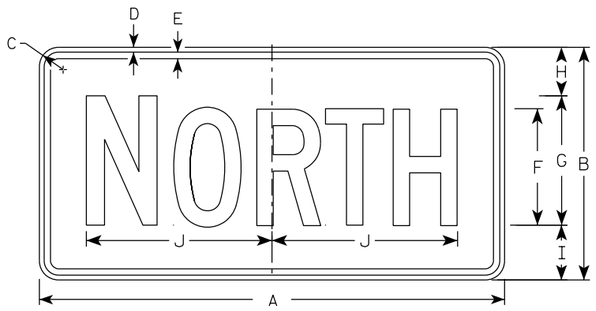
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

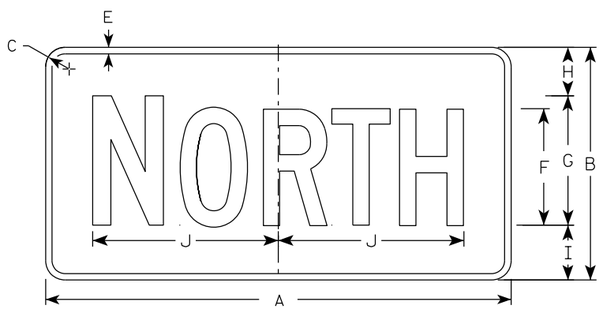
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

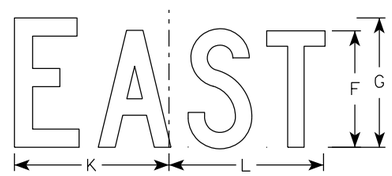
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 112	E



M3-1
MM3-1
MP3-1



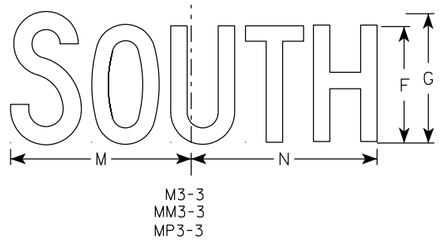
MB3-1
MK3-1
MN3-1



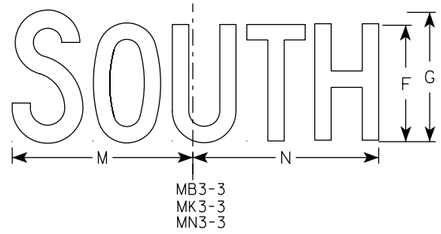
M3-2
MM3-2
MP3-2



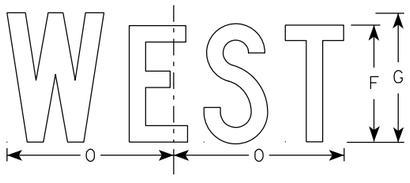
MB3-2
MK3-2
MN3-2



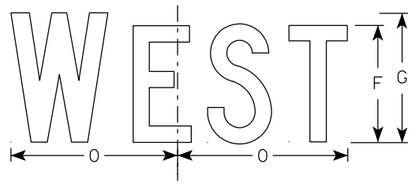
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

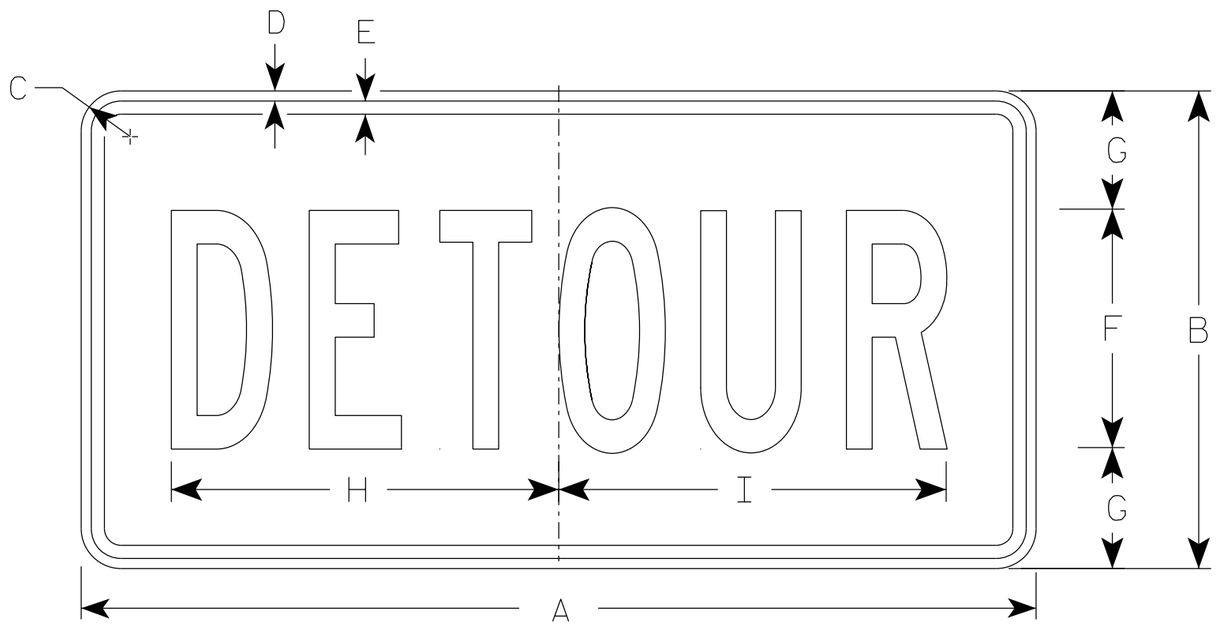
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 113 | E

NOTES

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



M4-8

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

STANDARD SIGN
M4-8

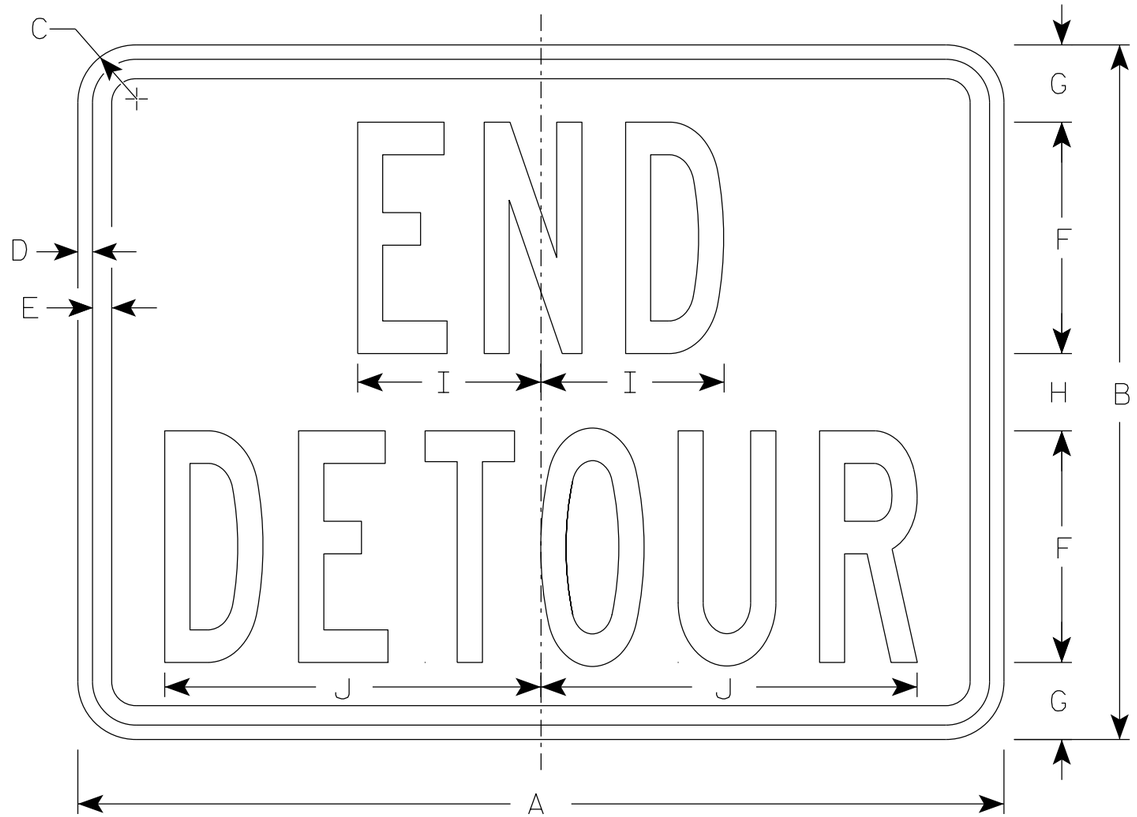
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48.dgn PLOT DATE : 9-FEB 2023 7:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

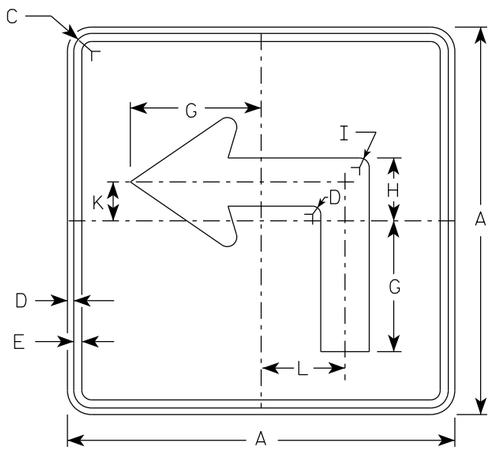
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

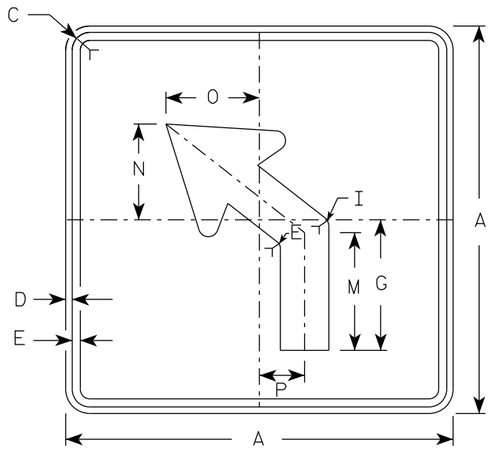
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

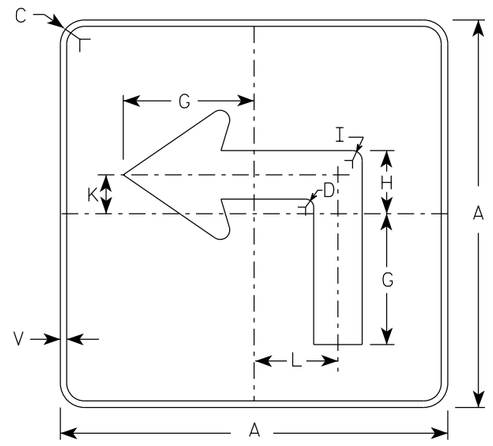
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 115 | E



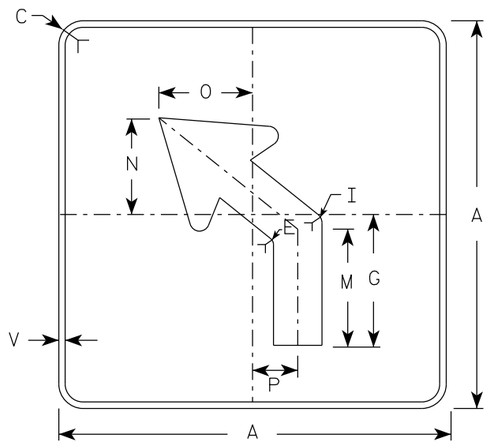
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



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

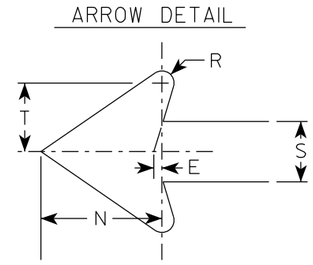


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



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

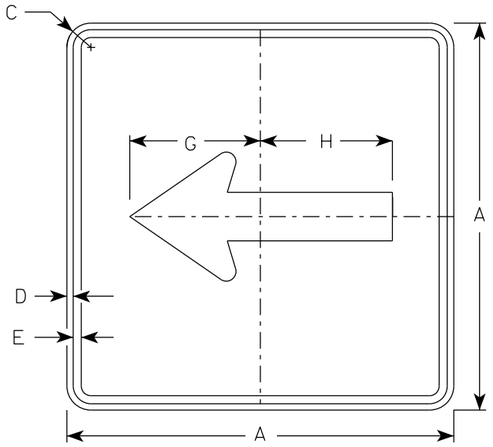
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

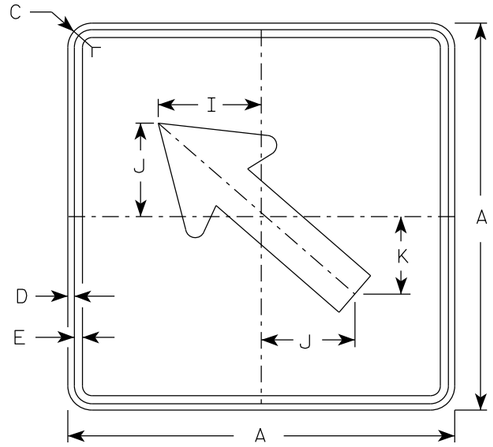
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

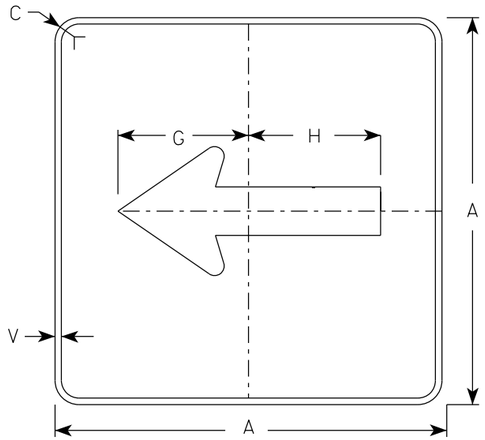
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 116 | E



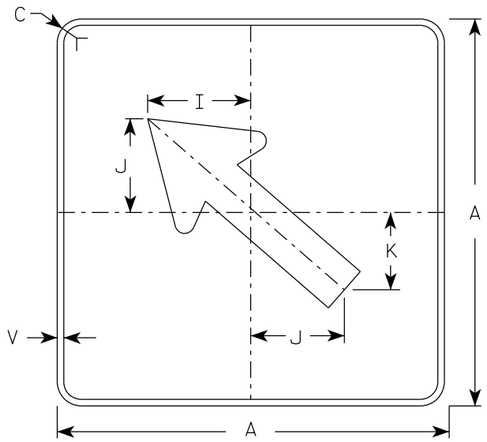
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

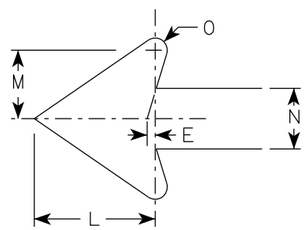


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



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

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

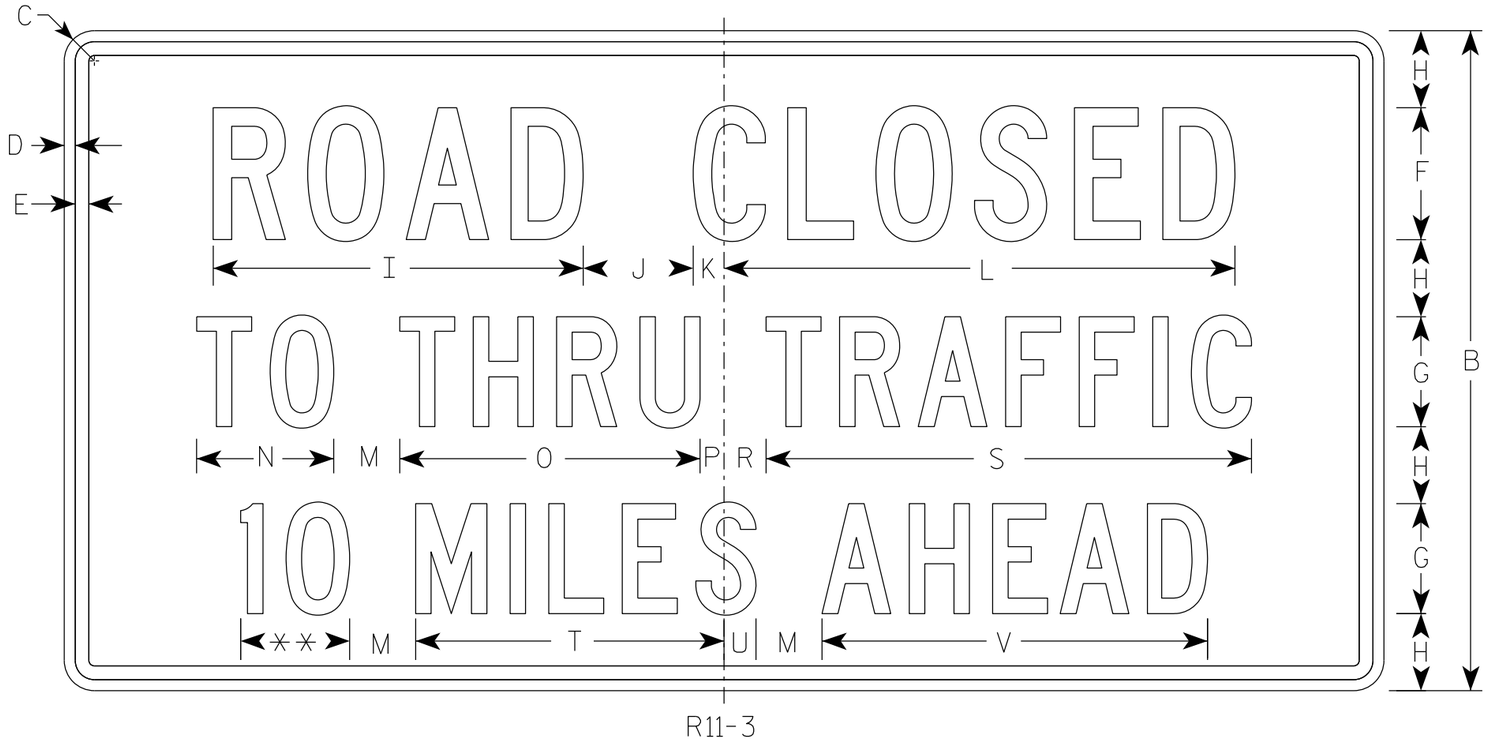
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E

7

7

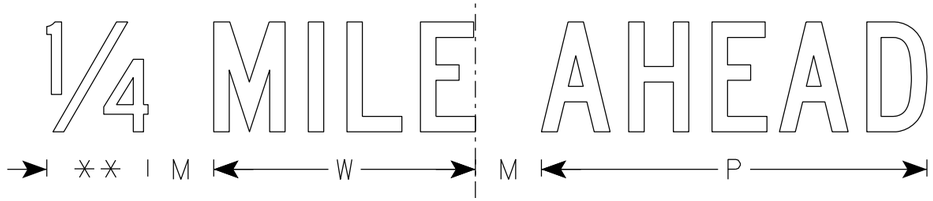
NOTES

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



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

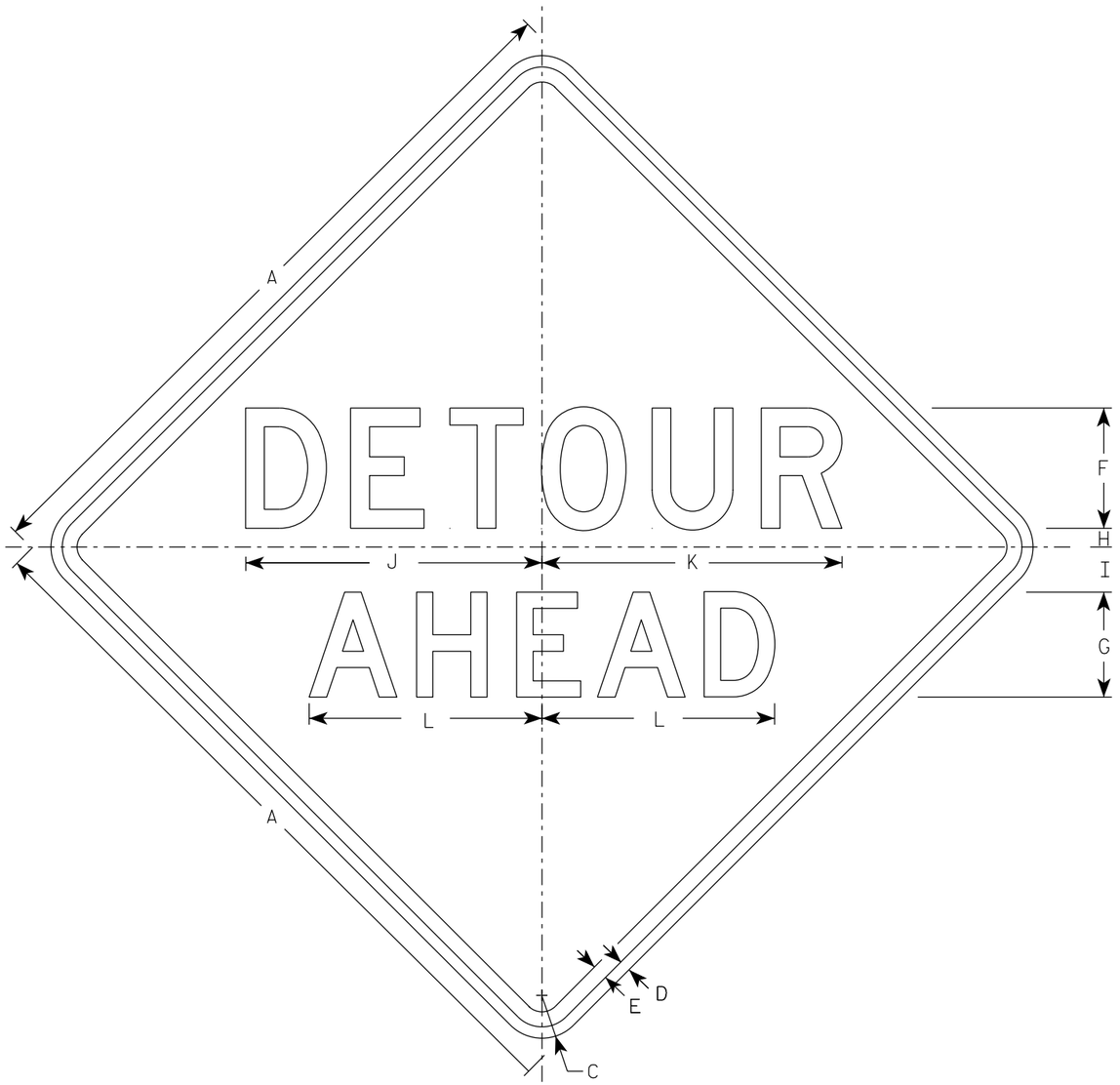
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

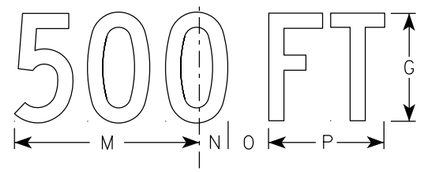
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

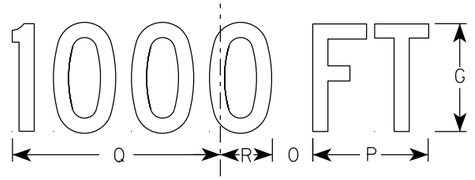
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 118	E



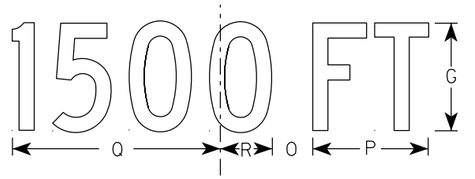
W20-2A



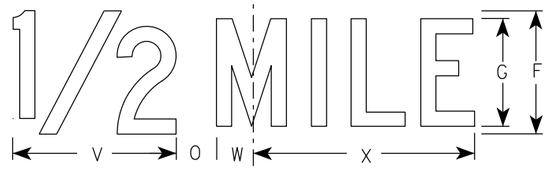
W20-2D



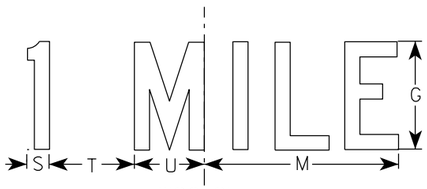
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

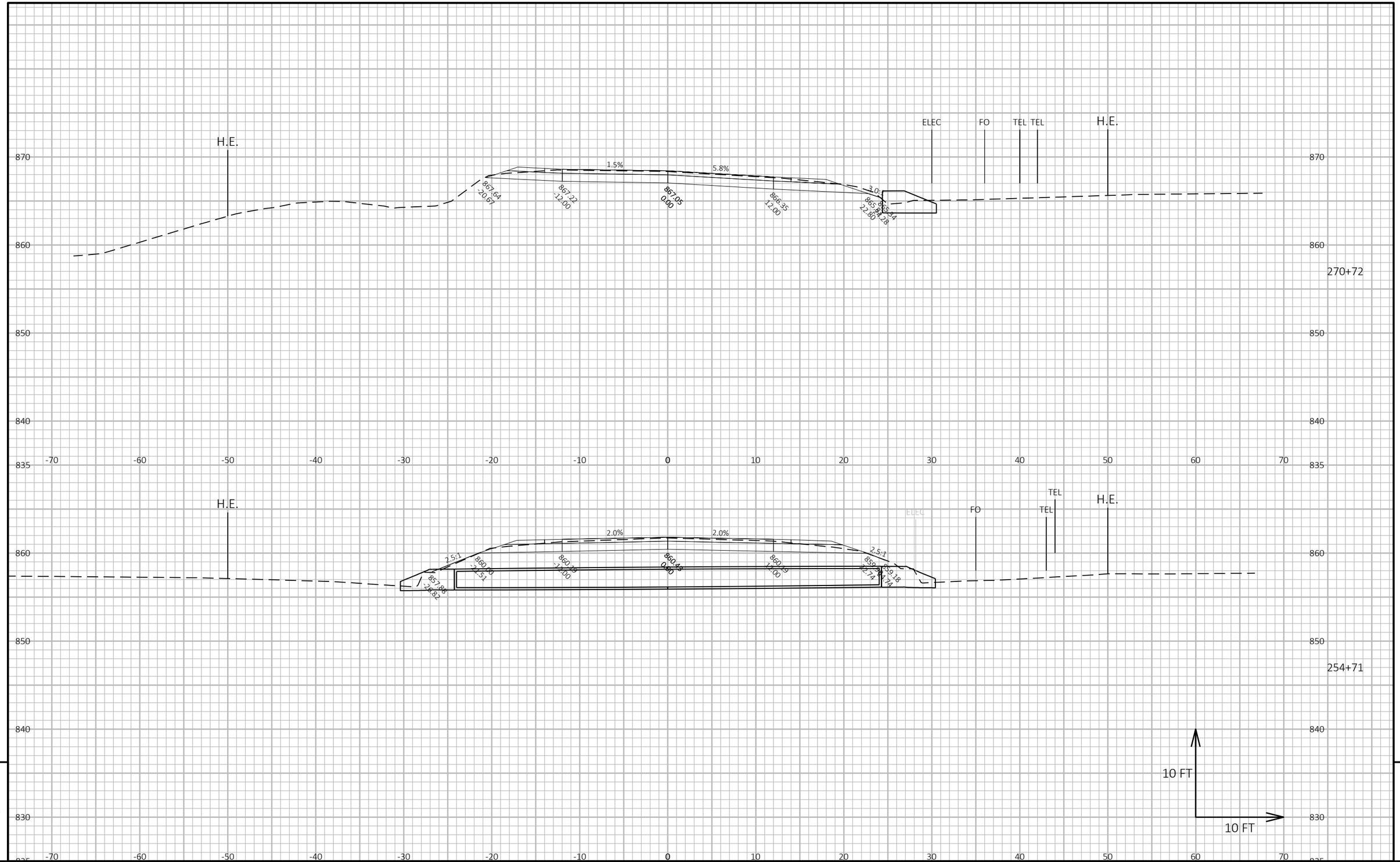
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

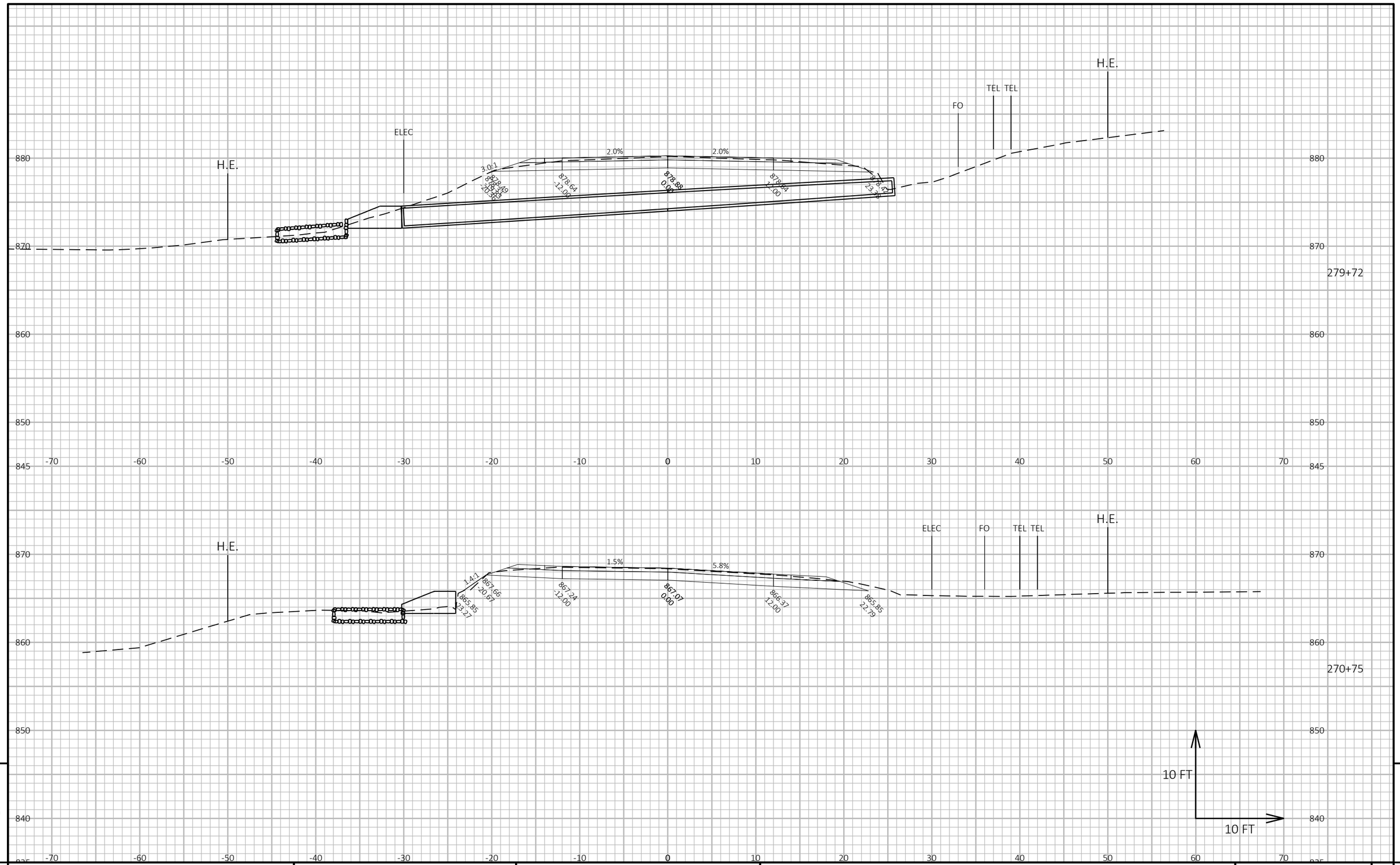
STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)							
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
														1.00	1.25	1.00	1.00	1.00	1.00	1.00	
								NOTE 1	NOTE 2	NOTE 3				NOTE 1		NOTE 4		NOTE 5	NOTE 6	NOTE 7	NOTE 8
402+50.06	0.00	0.00	0.00	27.74	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
403+50.00	99.94	0.38	0.00	40.13	0.00	0.00	0.00	1	0	126	0	0	0	1	158	0	0	0	0	0	-157
404+00.00	50.00	0.19	0.00	9.33	0.00	0.00	0.00	1	0	46	0	0	0	2	215	0	0	0	0	0	-213
404+50.00	50.00	4.08	0.00	0.07	0.00	0.00	0.00	4	0	9	0	0	0	6	226	0	0	0	0	0	-220
405+00.00	50.00	5.08	0.00	0.09	0.00	0.00	0.00	8	0	0	0	0	0	14	226	0	0	0	0	0	-212
405+50.00	50.00	35.35	0.00	0.02	0.00	0.00	0.00	37	0	0	0	0	0	51	226	0	0	0	0	0	-175
406+00.00	50.00	2.74	0.00	30.02	0.00	0.00	0.00	35	0	28	0	0	0	86	261	0	0	0	0	0	-175
406+05.30	5.30	2.72	0.00	32.04	0.00	0.00	0.00	1	0	6	0	0	0	87	269	0	0	0	0	0	-182
406+50.00	44.70	2.04	0.00	43.48	0.00	0.00	0.00	4	0	63	0	0	0	91	348	0	0	0	0	0	-257
406+50.00	0.00	2.04	0.00	43.48	0.00	0.00	0.00	0	0	0	0	0	0	91	348	0	0	0	0	0	-257
407+00.00	50.00	1.16	0.00	17.60	0.00	0.00	0.00	3	0	57	0	0	0	94	419	0	0	0	0	0	-325
407+32.20	32.20	2.78	0.00	2.06	0.00	0.00	0.00	2	0	12	0	0	0	96	434	0	0	0	0	0	-338
407+50.00	17.80	6.03	0.00	0.55	0.00	0.00	0.00	3	0	1	0	0	0	99	435	0	0	0	0	0	-336
408+00.00	50.00	3.00	0.00	2.33	0.00	0.00	0.00	8	0	3	0	0	0	107	439	0	0	0	0	0	-332
408+50.00	50.00	3.83	0.00	0.26	0.00	0.00	0.00	6	0	2	0	0	0	113	441	0	0	0	0	0	-328
408+59.10	9.10	3.87	0.00	0.07	0.00	0.00	0.00	1	0	0	0	0	0	114	441	0	0	0	0	0	-327
409+00.00	40.90	3.20	0.00	0.61	0.00	0.00	0.00	5	0	1	0	0	0	119	443	0	0	0	0	0	-324
409+50.00	50.00	3.20	0.00	1.41	0.00	0.00	0.00	6	0	2	0	0	0	125	445	0	0	0	0	0	-320
410+00.00	50.00	3.72	0.00	0.37	0.00	0.00	0.00	6	0	2	0	0	0	131	448	0	0	0	0	0	-317
410+50.00	50.00	3.44	0.00	1.15	0.00	0.00	0.00	7	0	1	0	0	0	138	449	0	0	0	0	0	-311
410+70.08	20.08	3.47	0.00	1.18	0.00	0.00	0.00	3	0	1	0	0	0	141	450	0	0	0	0	0	-309
411+00.00	29.92	3.50	0.00	12.78	0.00	0.00	0.00	4	0	8	0	0	0	145	460	0	0	0	0	0	-315
411+50.00	50.00	3.16	0.00	29.98	0.00	0.00	0.00	6	0	40	0	0	0	151	510	0	0	0	0	0	-359
411+50.00	0.00	3.16	0.00	29.98	0.00	0.00	0.00	0	0	0	0	0	0	151	510	0	0	0	0	0	-359
412+00.00	50.00	25.08	0.00	4.73	0.00	0.00	0.00	26	0	32	0	0	0	177	550	0	0	0	0	0	-373
412+50.00	50.00	31.90	0.00	6.02	0.00	0.00	0.00	53	0	10	0	0	0	230	563	0	0	0	0	0	-333
412+81.05	31.05	61.79	0.00	0.65	0.00	0.00	0.00	54	0	4	0	0	0	284	568	0	0	0	0	0	-284
413+00.00	18.95	66.15	0.00	0.03	0.00	0.00	0.00	45	0	0	0	0	0	329	568	0	0	0	0	0	-239
413+55.66	55.66	4.48	0.00	0.19	0.00	0.00	0.00	73	0	0	0	0	0	402	568	0	0	0	0	0	-166



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 121 E

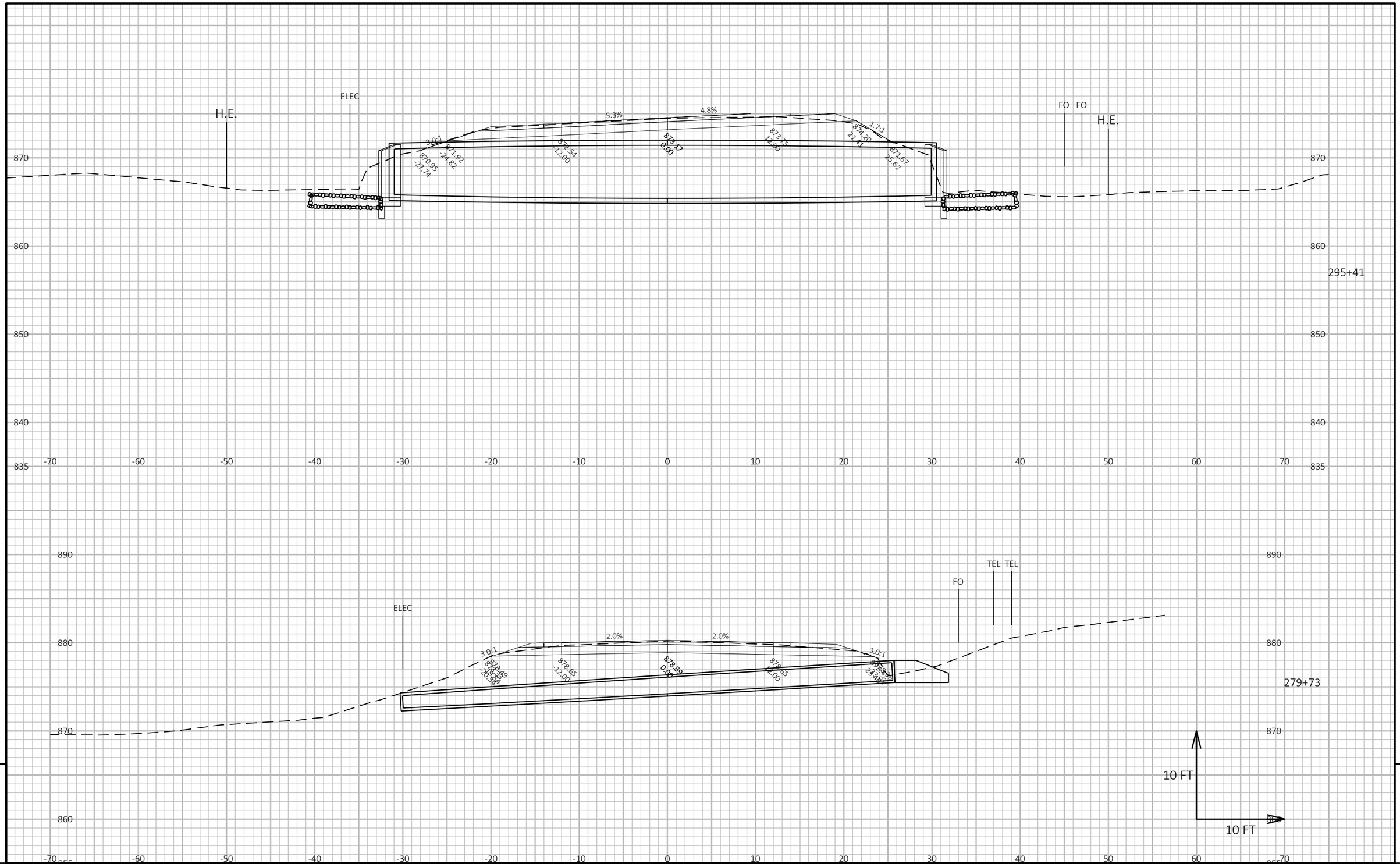
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 23
PLOT DATE : 10/11/2024 1:29 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



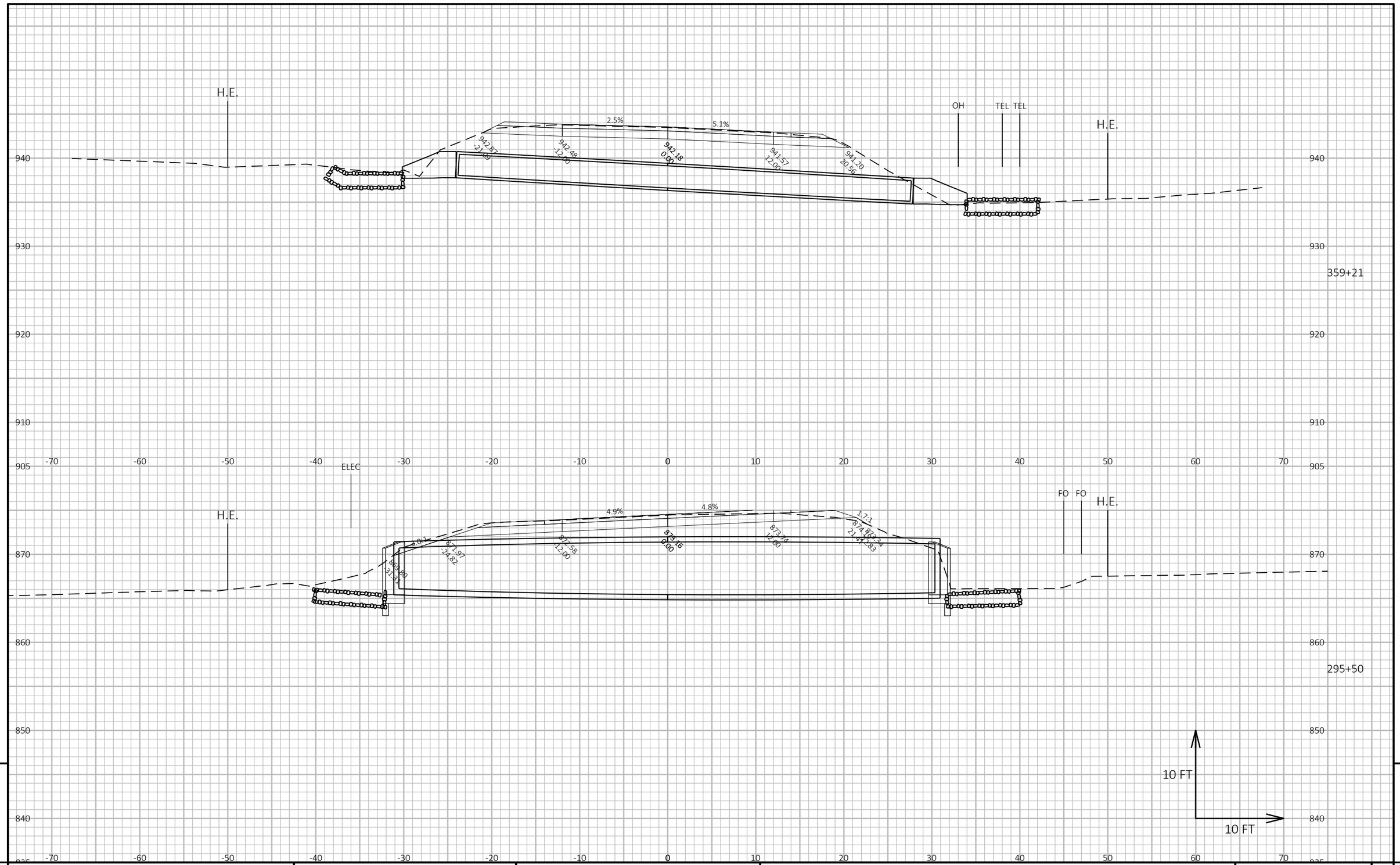
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 122 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 24
PLOT DATE : 10/11/2024 1:29 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



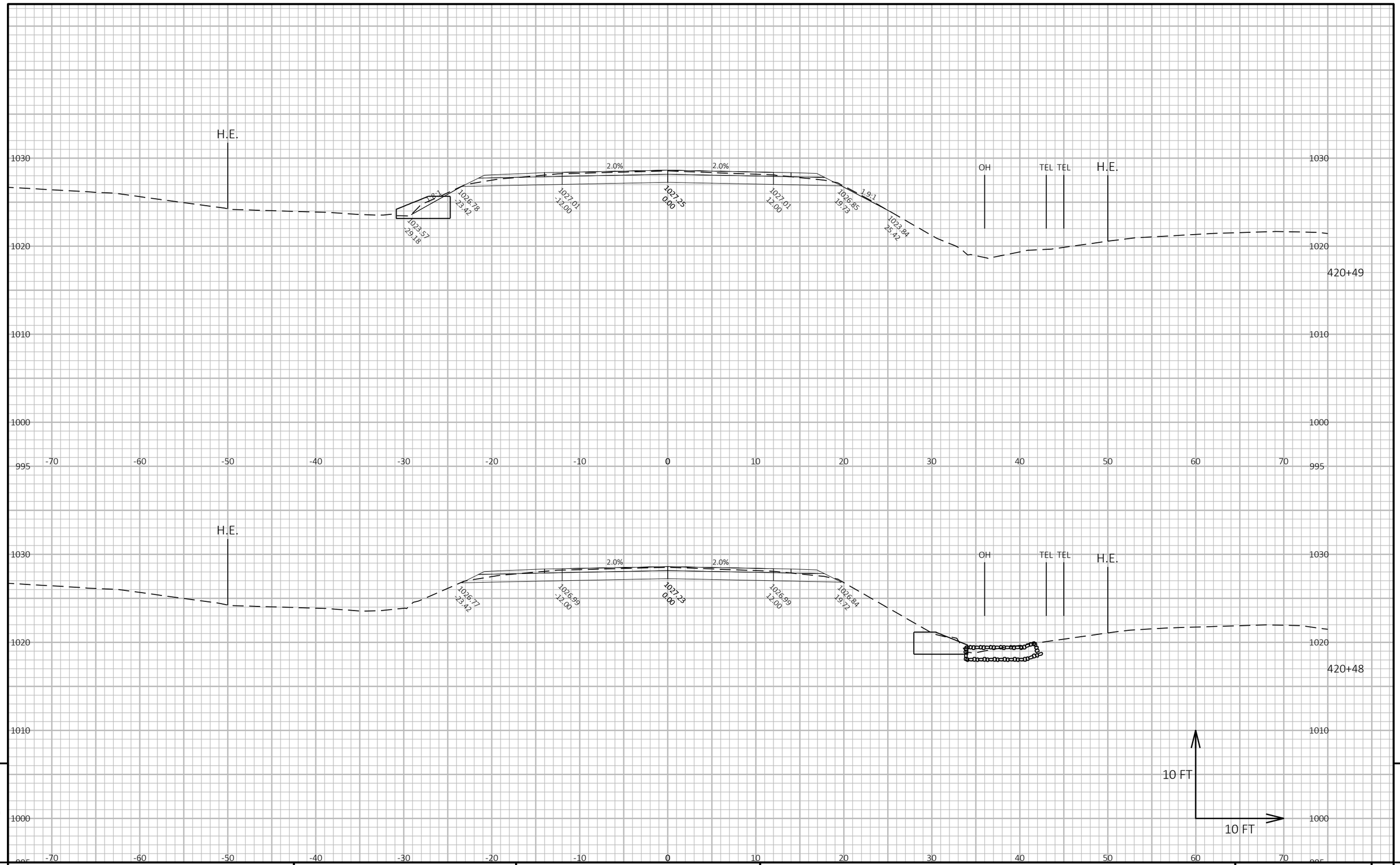
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 123 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT DWG
LAYOUT NAME - 25
PLOT DATE : 10/11/2024 1:30 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 124	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 26
PLOT DATE : 10/11/2024 1:30 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

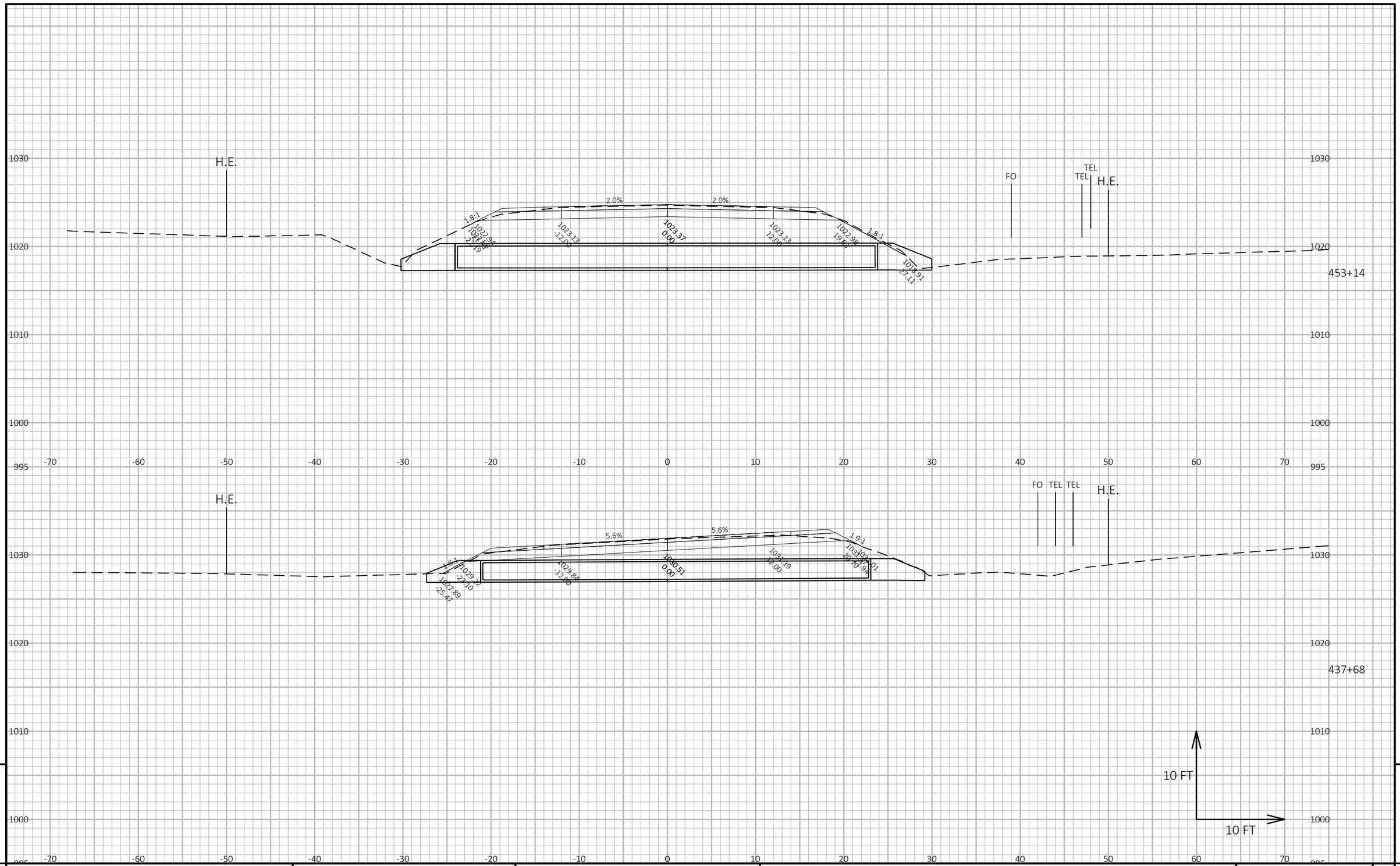


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 125 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 27

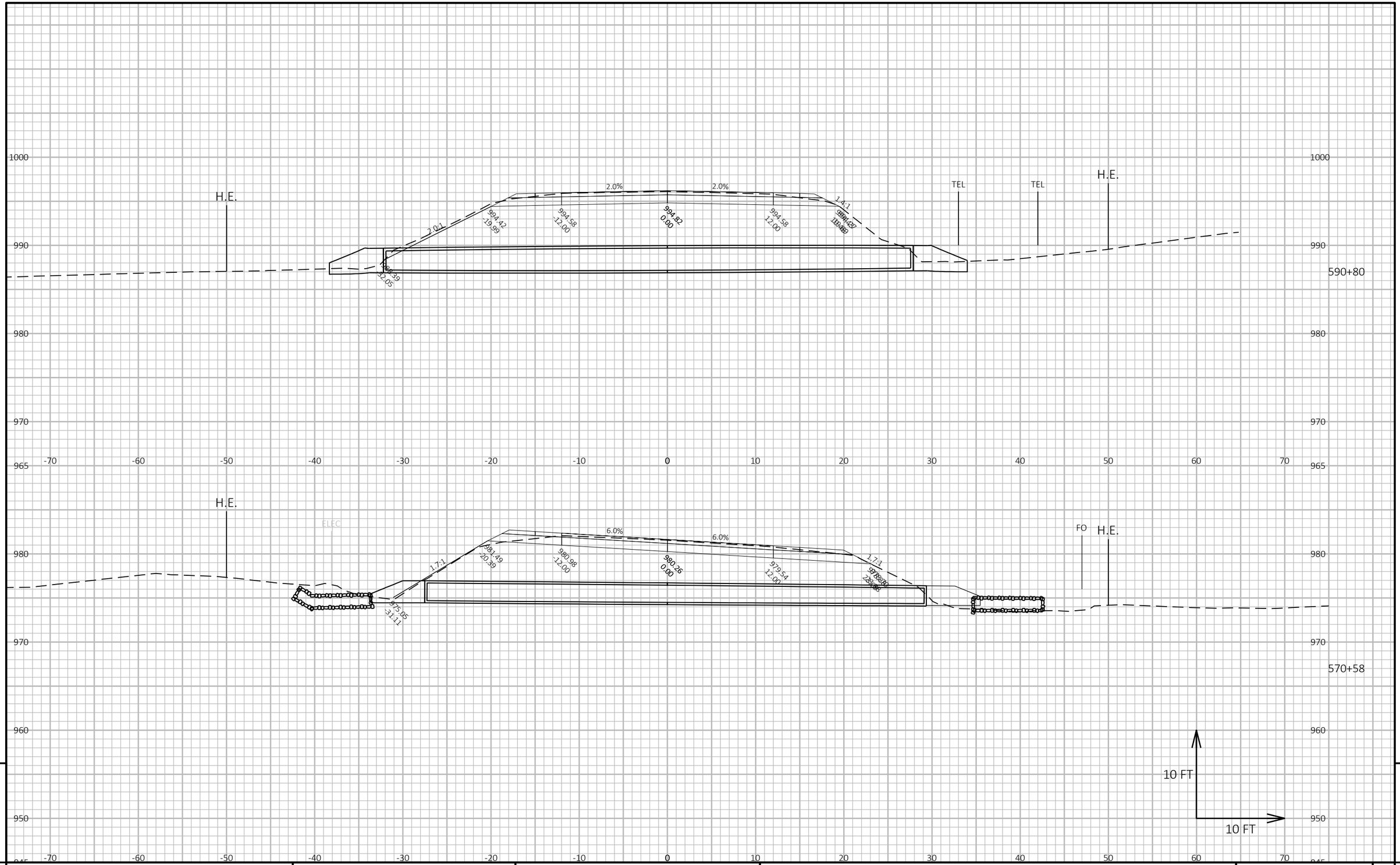
PLOT DATE : 10/11/2024 1:30 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



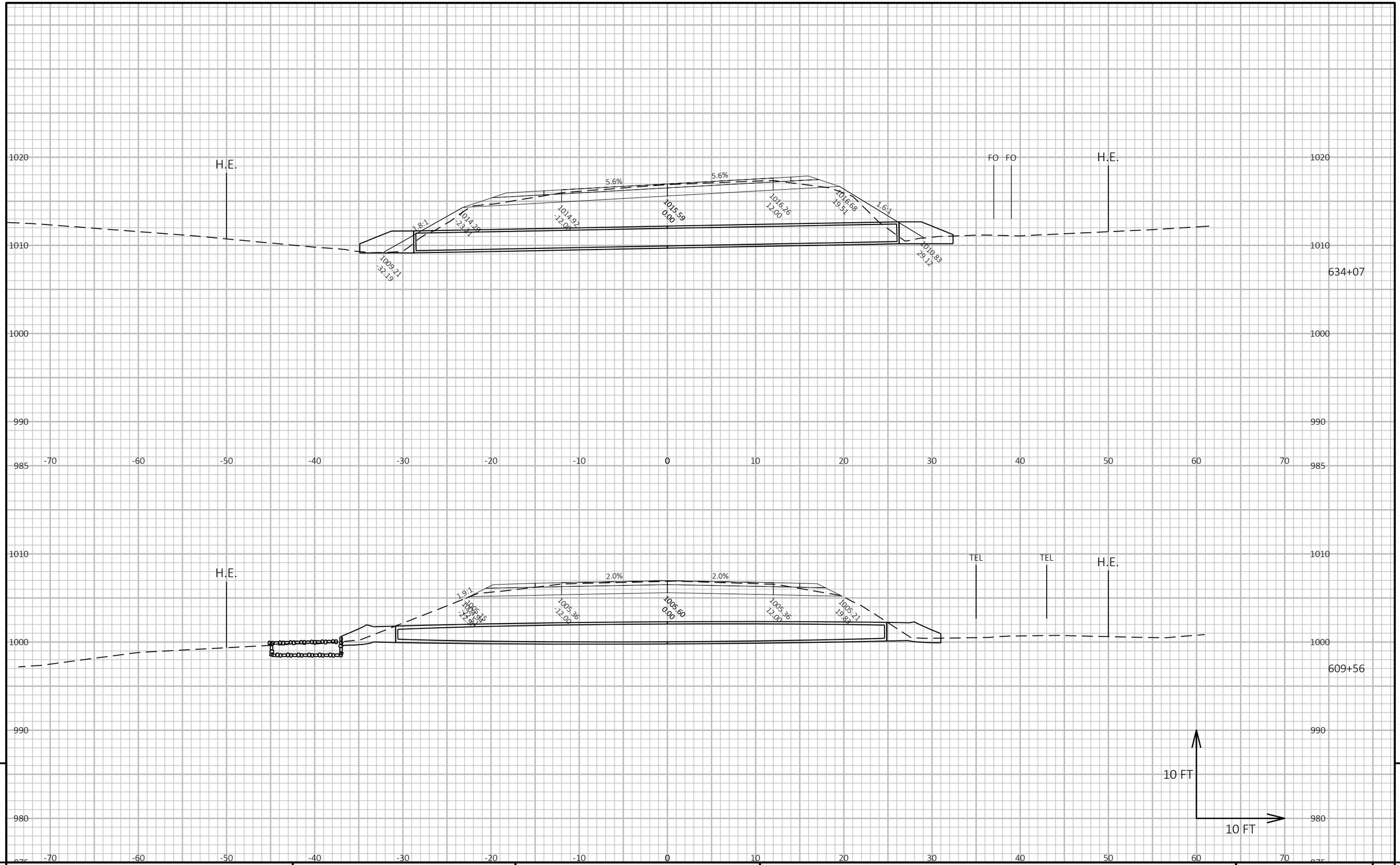
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 126	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 28
PLOT DATE : 10/11/2024 1:30 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 127 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 29
PLOT DATE : 10/11/2024 1:30 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



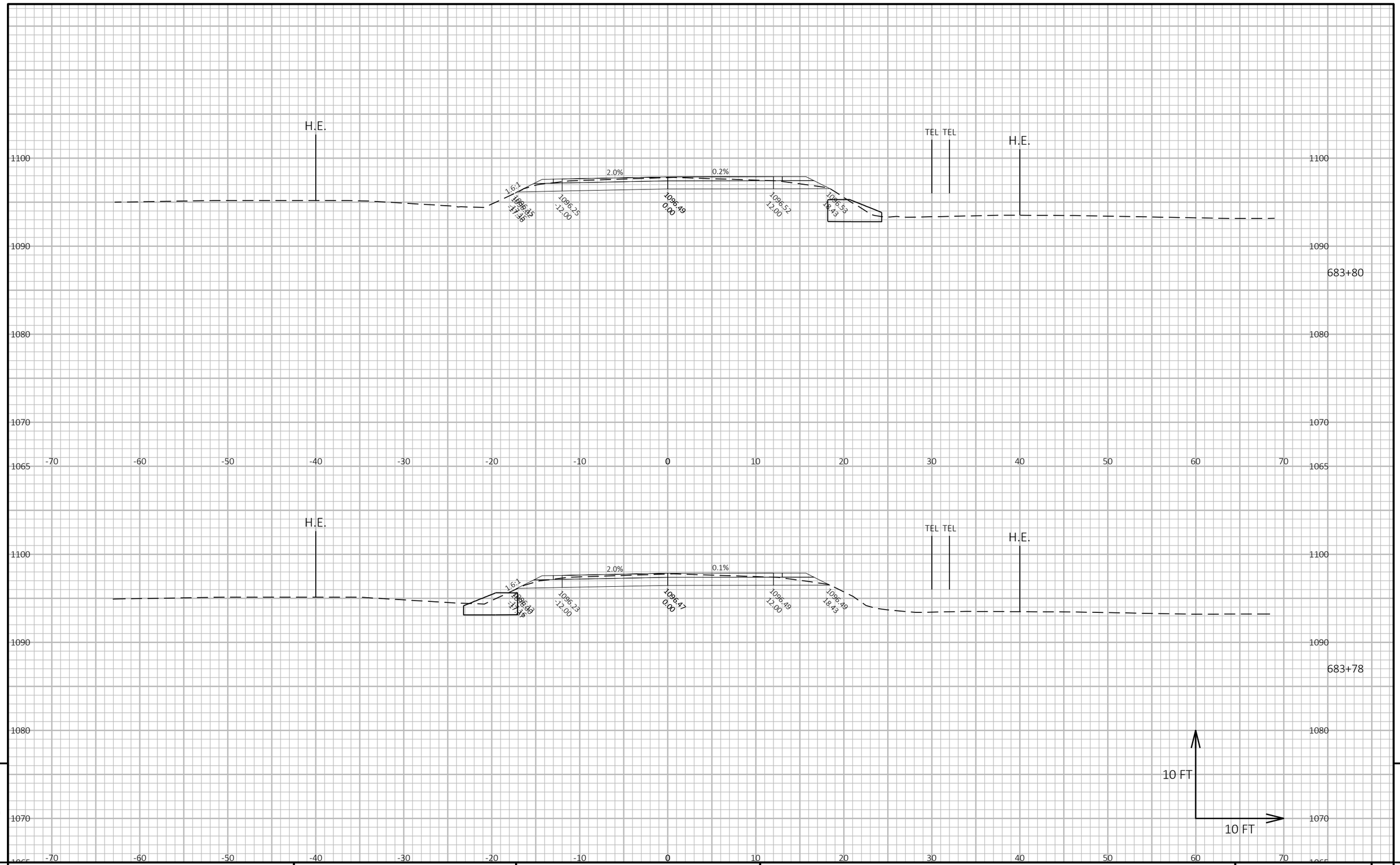
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9

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 128	E

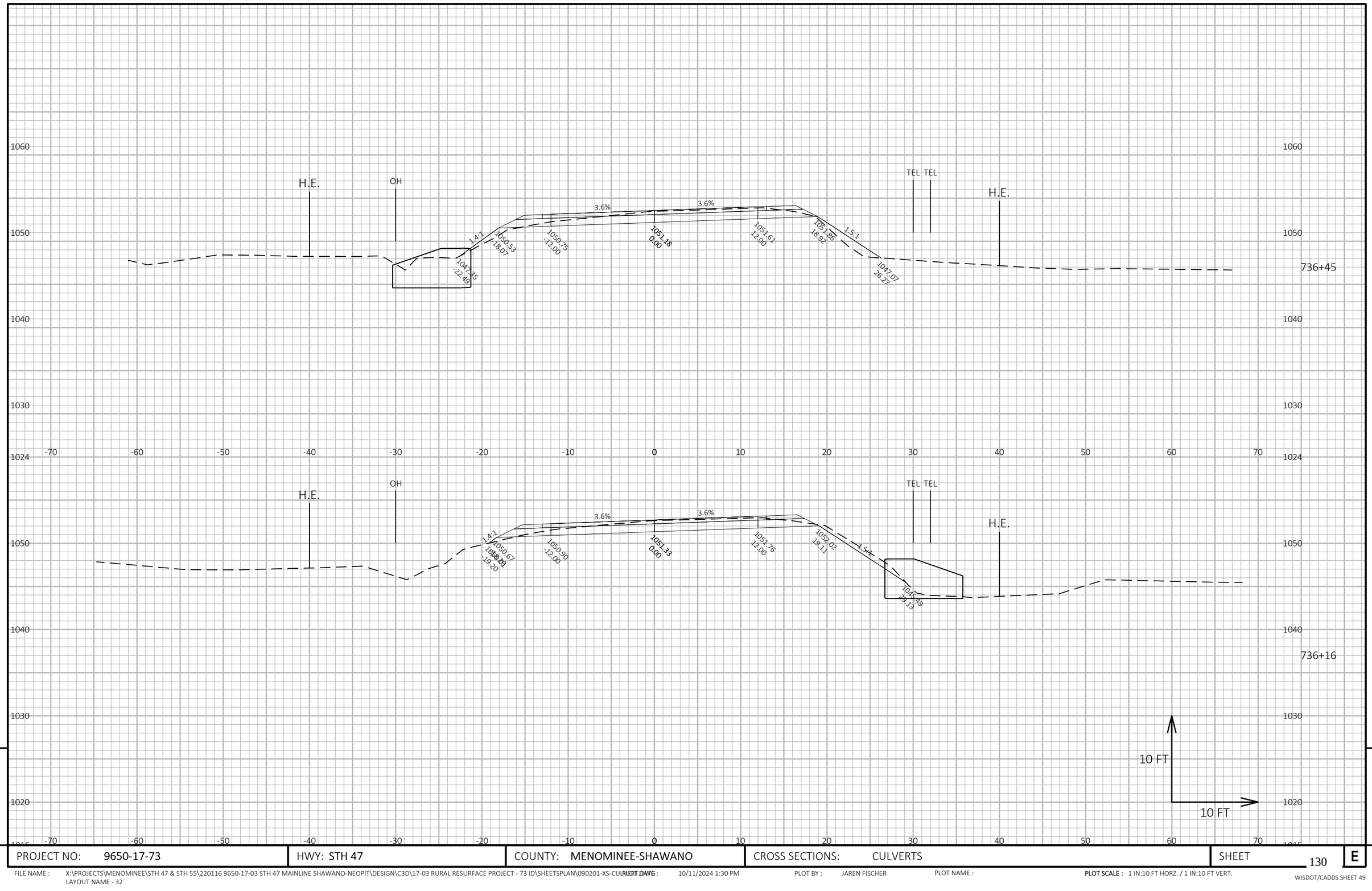
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 30
PLOT DATE : 10/11/2024 1:30 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 129	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 31
PLOT DATE : 10/11/2024 1:30 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 130	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 32

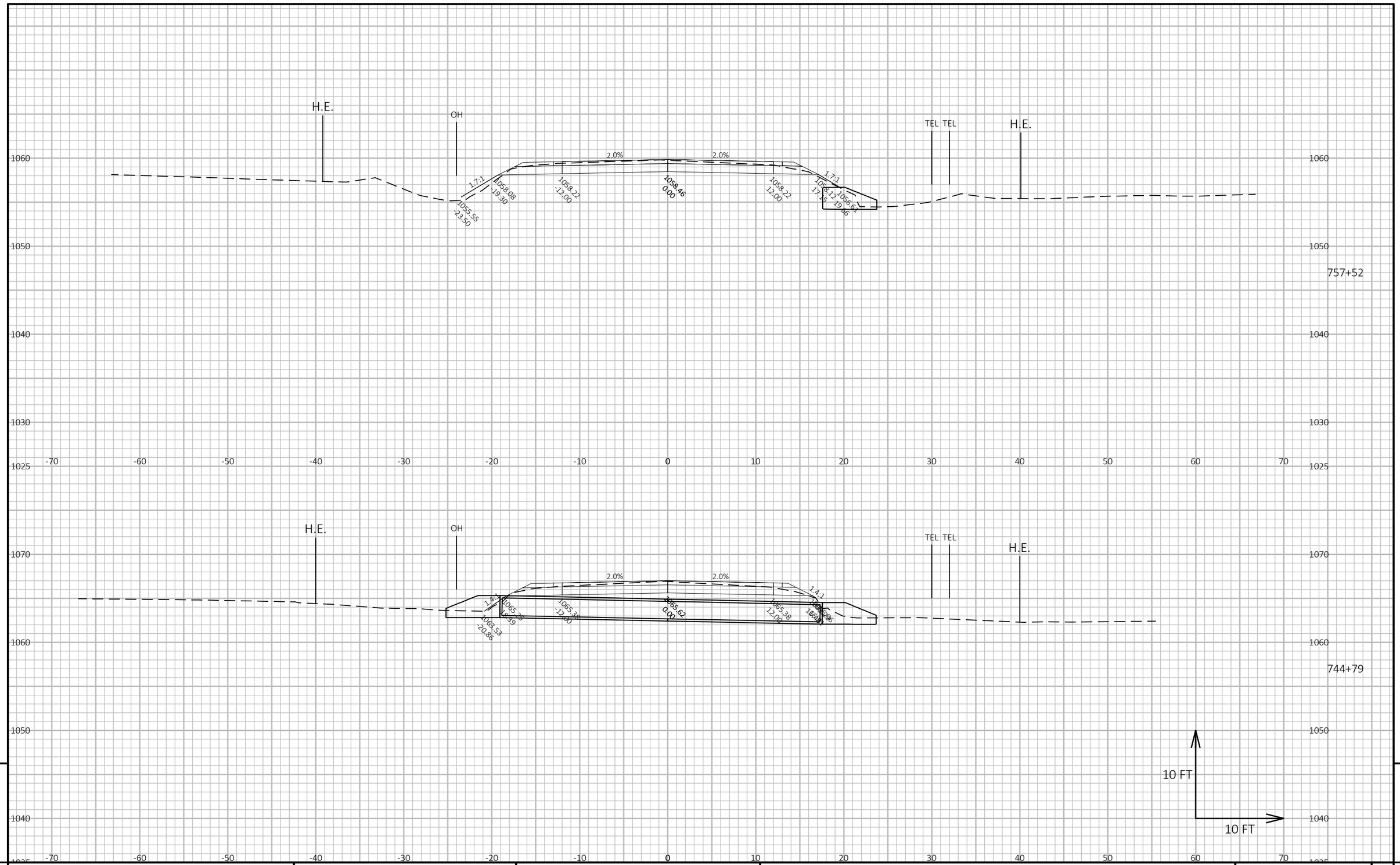
PLOT DATE : 10/11/2024 1:30 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



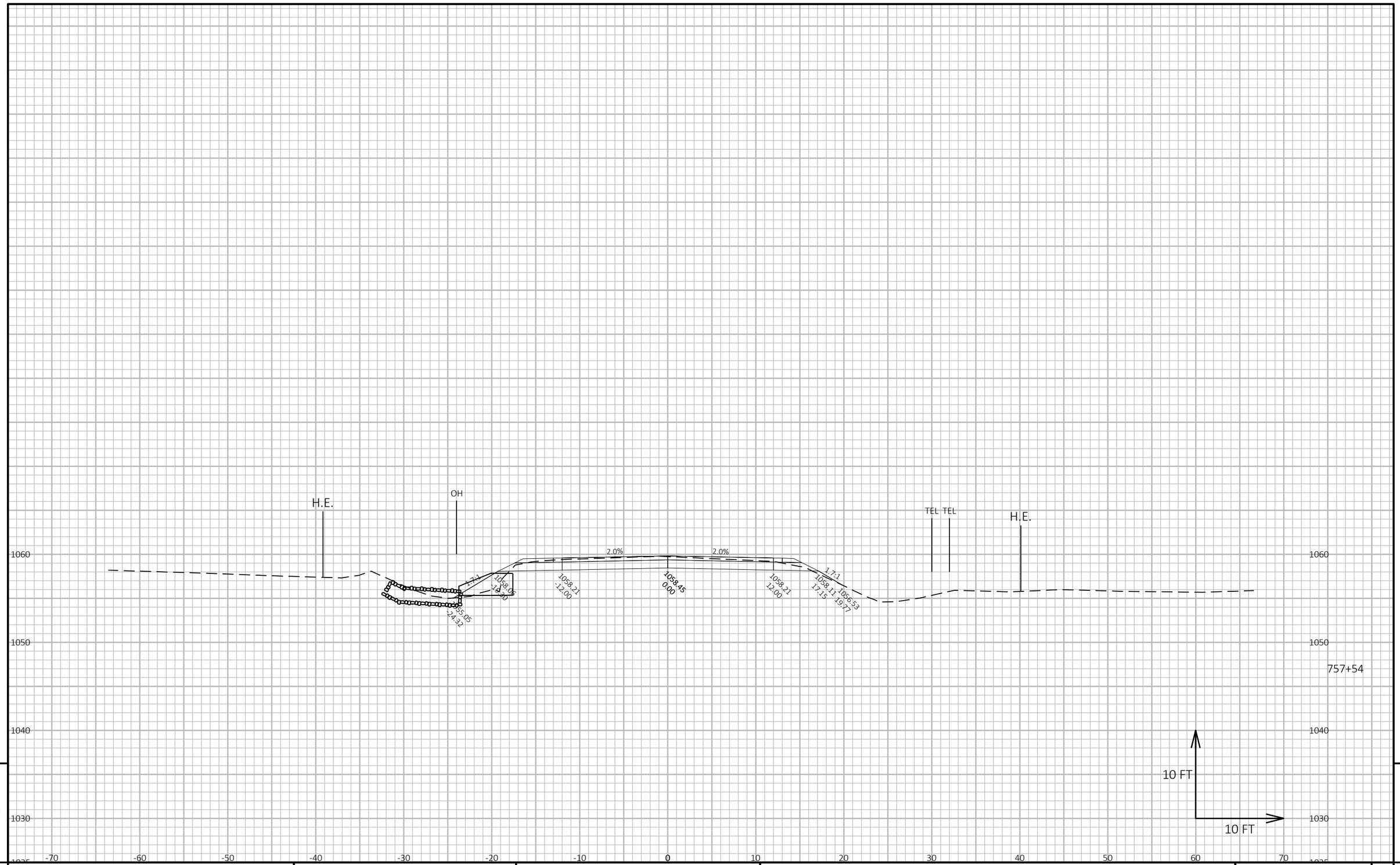
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PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 131	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 33
PLOT DATE : 10/11/2024 1:30 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: CULVERTS	SHEET 132	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 34

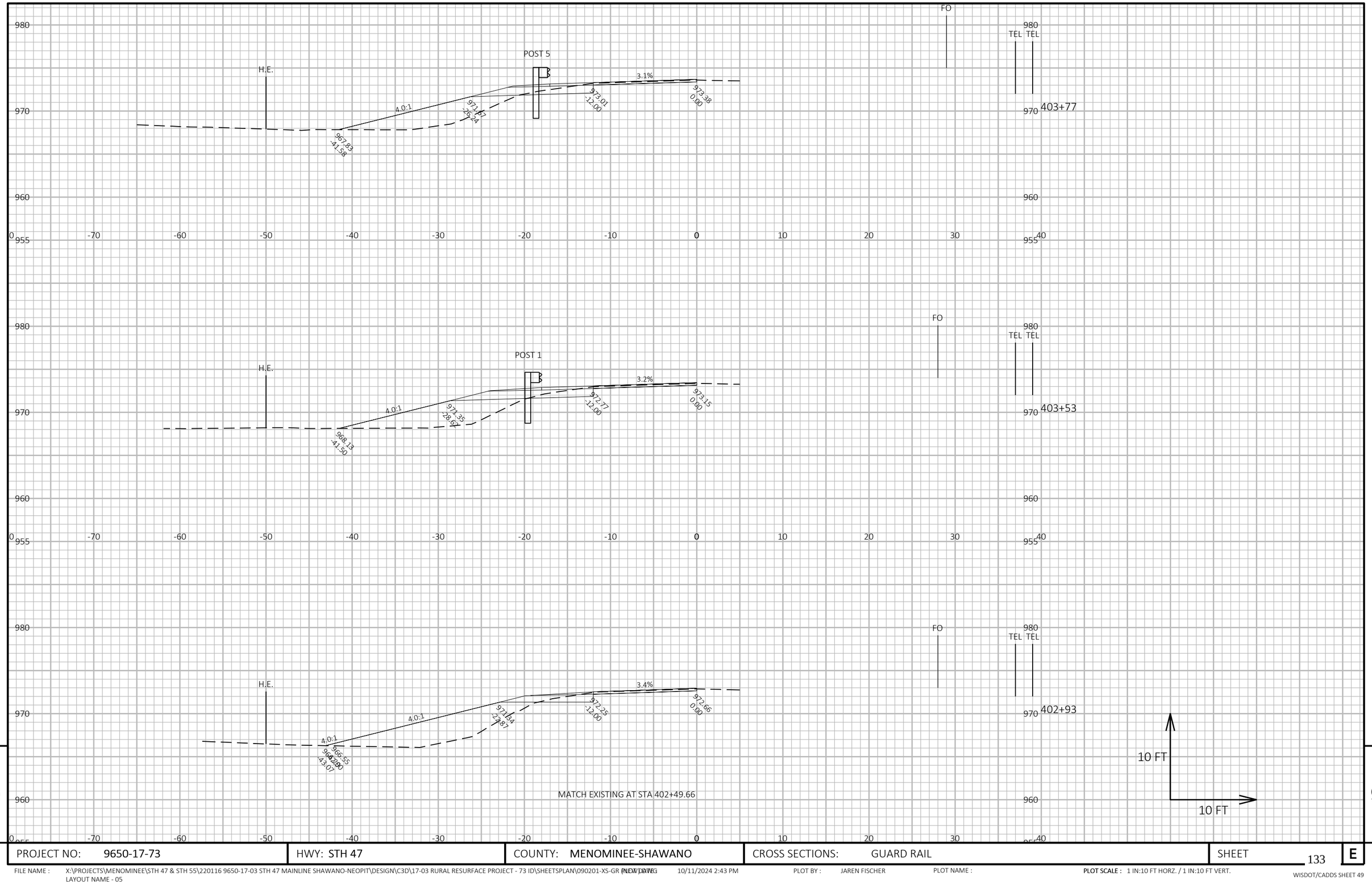
PLOT DATE : 10/11/2024 1:30 PM

PLOT BY : JAREN FISCHER

PLOT NAME :

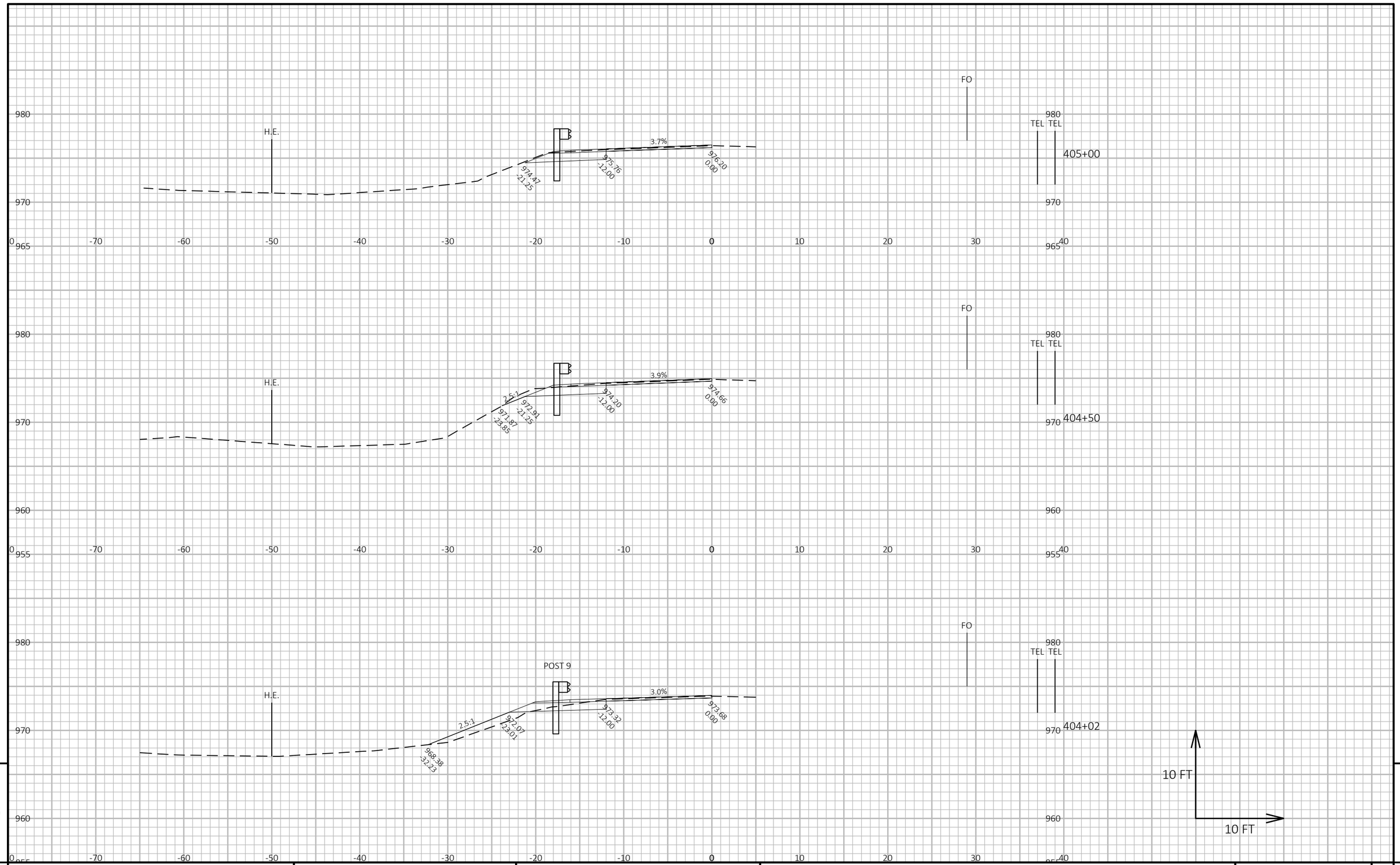
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 133	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR (NEW).DWG
LAYOUT NAME - 05
PLOTTED : 10/11/2024 2:43 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

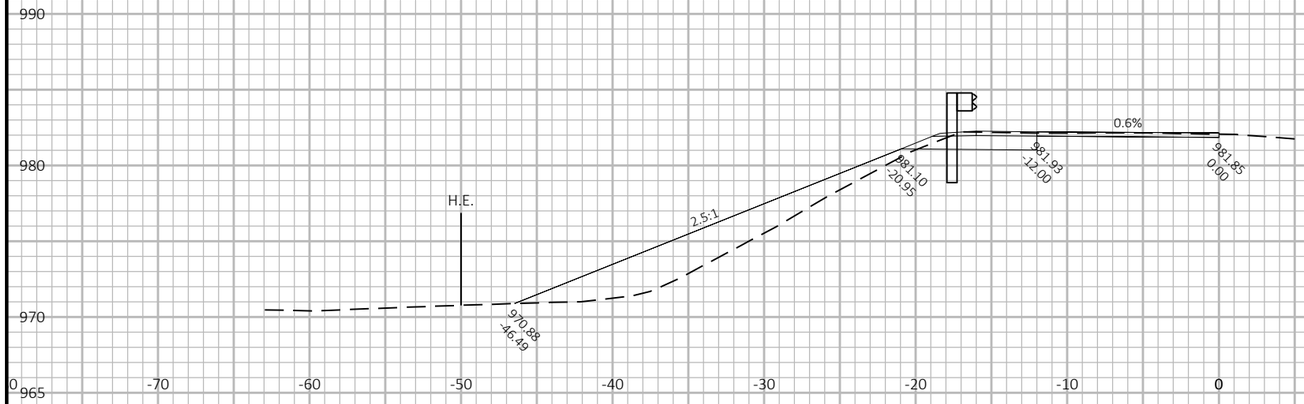


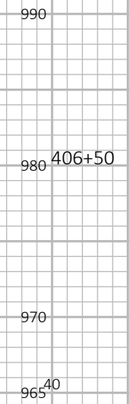
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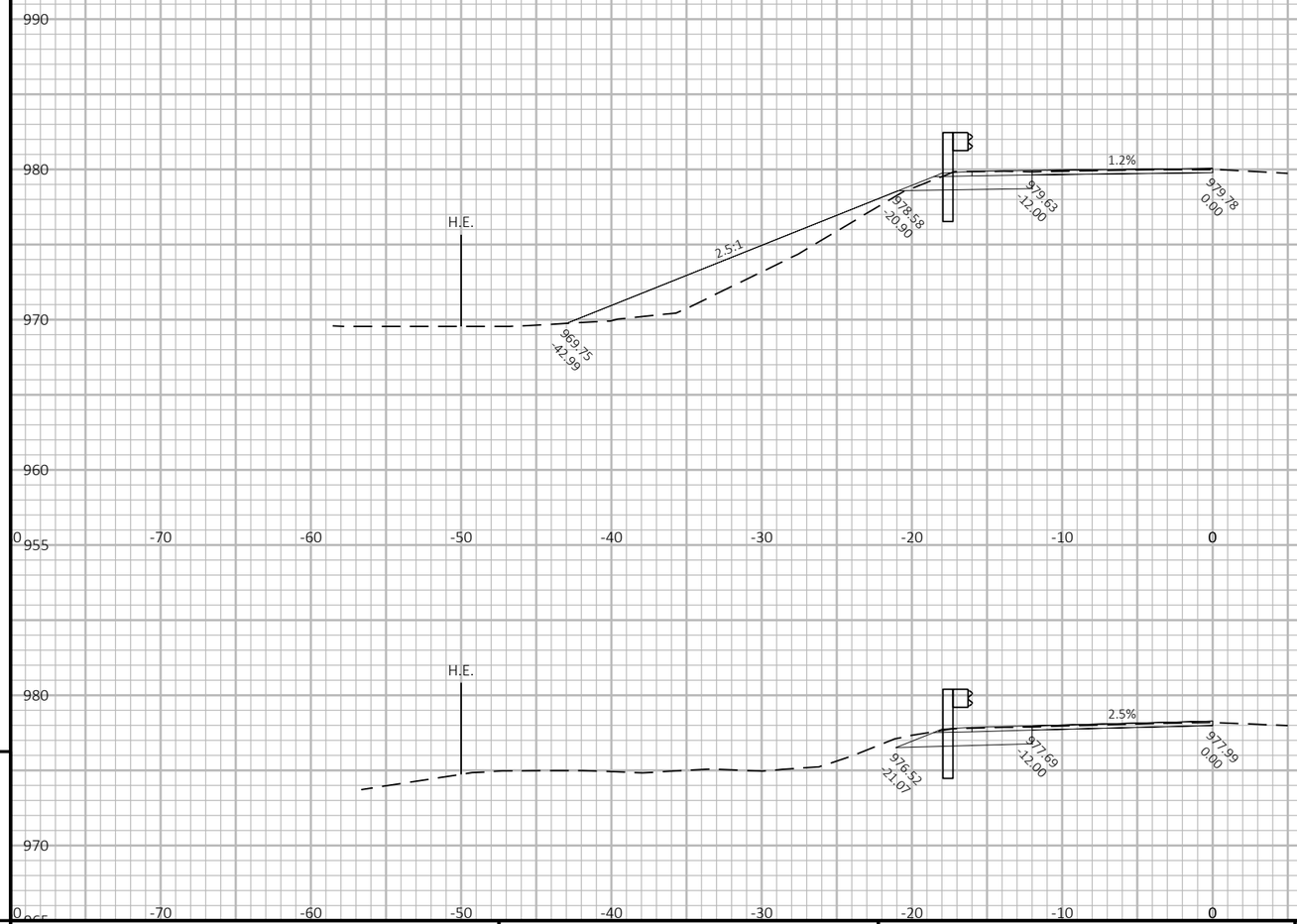
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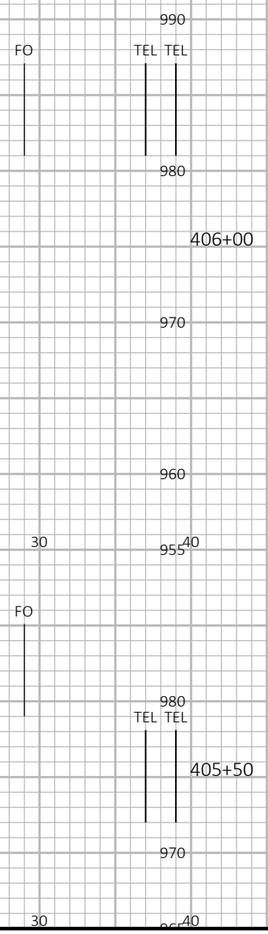
PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 134	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR PLOT.DWG
LAYOUT NAME - 06
PLOT DATE : 10/11/2024 2:45 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49







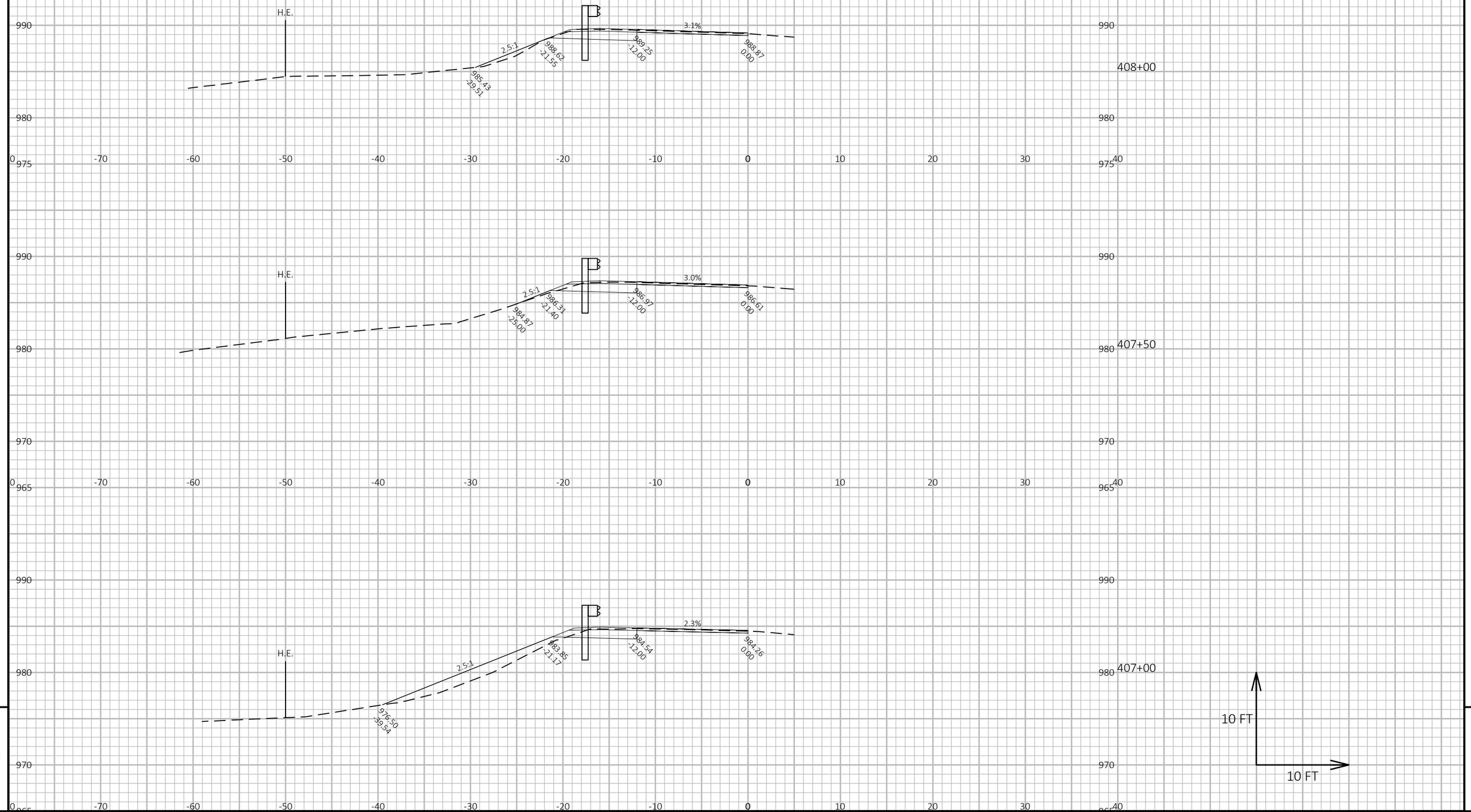


9

9

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 135	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR PLOT.DWG
LAYOUT NAME - 07
PLOT DATE : 10/11/2024 2:47 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

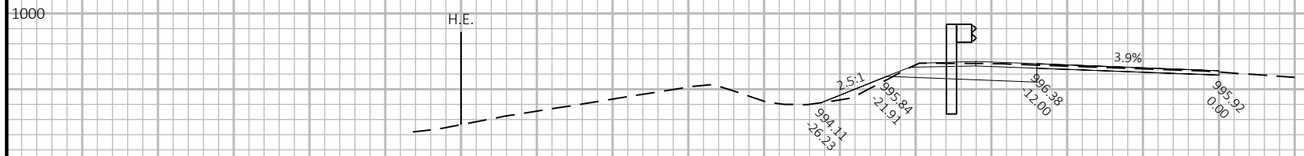


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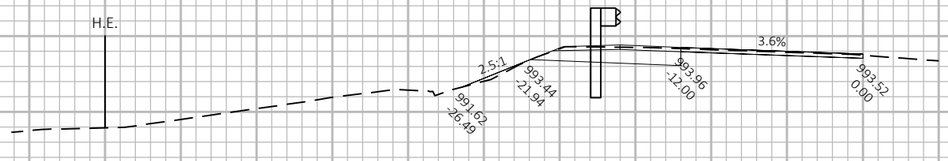
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PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 136	E

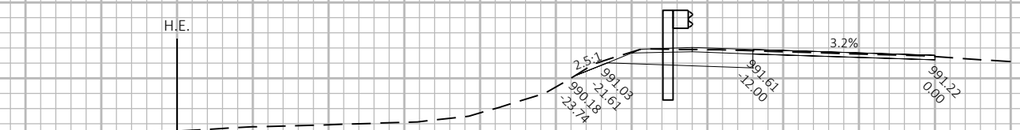
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR RAIL.DWG
LAYOUT NAME - 08
PLOT DATE : 10/11/2024 2:50 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



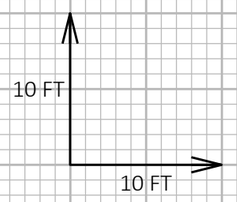
409+50



409+00



408+50



9

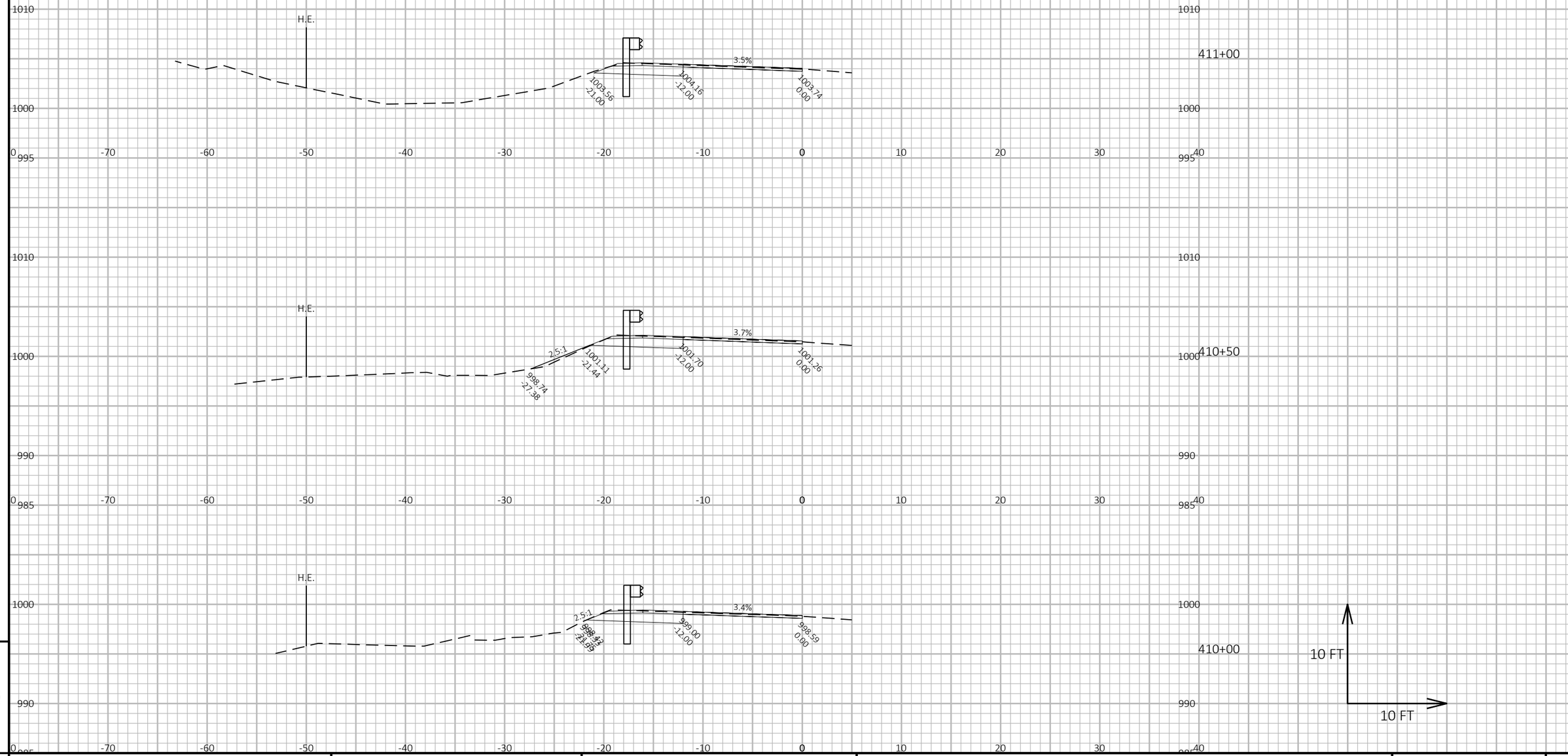
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PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 137	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR PLOT.DWG
LAYOUT NAME - 09

PLOT DATE : 10/11/2024 2:52 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

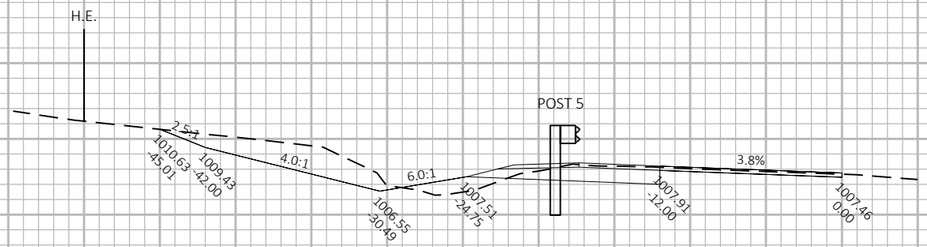


PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 138	E

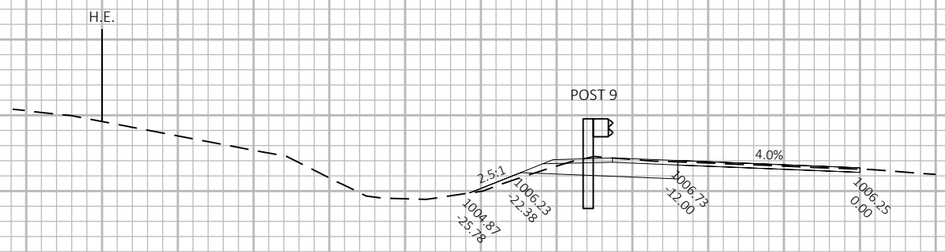
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR PLOT.DWG
LAYOUT NAME - 10
PLOT DATE : 10/11/2024 2:54 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



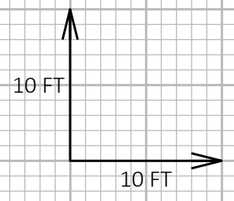
412+03



411+79



411+54

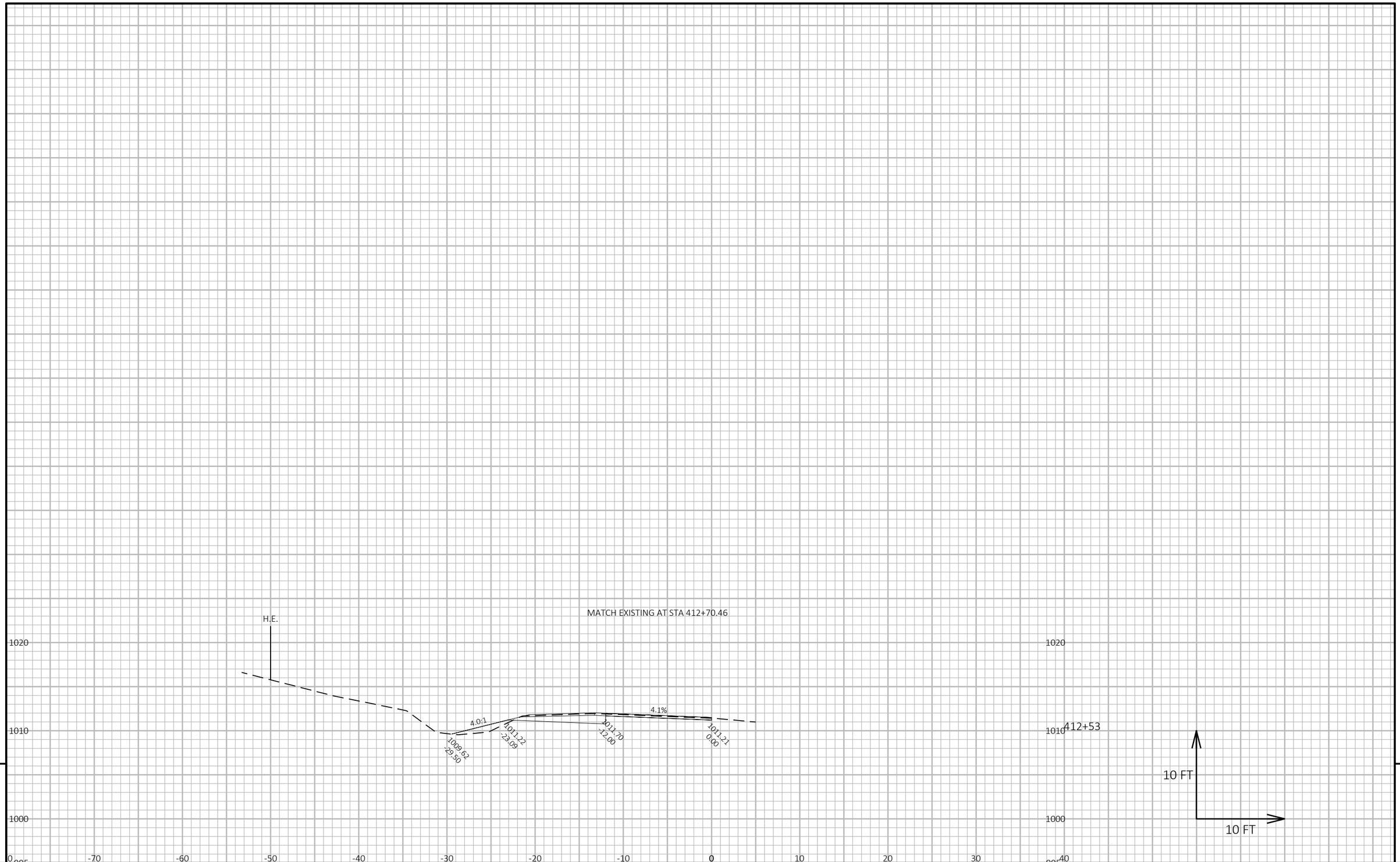


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9

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 139	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR PLOT DWG
LAYOUT NAME - 11
PLOT DATE : 10/11/2024 2:56 PM
PLOT BY : JAREN FISCHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 9650-17-73	HWY: STH 47	COUNTY: MENOMINEE-SHAWANO	CROSS SECTIONS: GUARD RAIL	SHEET 140	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220116 9650-17-03 STH 47 MAINLINE SHAWANO-NEOPIT\DESIGN\C3D\17-03 RURAL RESURFACE PROJECT - 73 ID\SHEETSPLAN\090201-XS-GR PLOT.DWG PLOT DATE : 10/11/2024 2:58 PM PLOT BY : JAREN FISCHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 12

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

RHI

PROJECT ID: 9660-09-70

WITH: 1009-43-69/9650-16-72/9650-17-73

COUNTY: MENOMINEE

FEBRUARY 2026

ORDER OF SHEETS

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

TOTAL SHEETS = 222



30

DESIGN DESIGNATION 9660-09-00

A.A.D.T.	2025	=	630
A.A.D.T.	2045	=	630
D.H.V.		=	20.4
D.D.		=	61/39
T.		=	20.4
DESIGN SPEED		=	60 MPH
ESALS		=	140,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHAWANO – LANGLADE

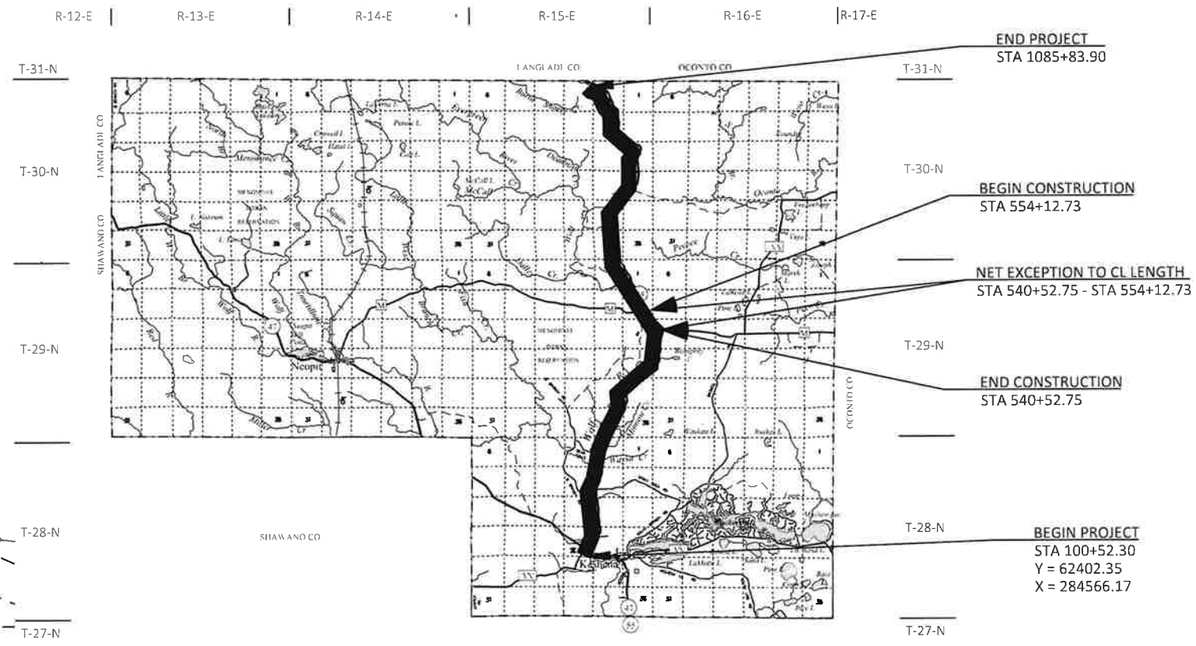
STH 47 TO LANGLADE COUNTY LINE

STH 55

MENOMINEE COUNTY

STATE PROJECT NUMBER
9660-09-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9660-09-70	WISC 202624C	1



N

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

LAYOUT SCALE 0 4MI

TOTAL NET LENGTH OF CENTERLINE = 18.404 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MENOMINEE 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

ORIGINAL PLANS PREPARED BY

JT ENGINEERING WISCONSIN

ANDREW W. BLOCK E-41224-6 APPLETON WI. PROFESSIONAL ENGINEER

DATE: 10/7/25 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COLEMAN ENGINEERING COMPANY
Designer	JT ENGINEERING
Project Manager	STACY HAGENBUCHER, P.E.
Regional Examiner	FRED SCHUNKE, P.E.
Regional Supervisor	KAI KILEN, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 10/20/2025 (Signature)

E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO LANGLADE\DESIGN\C3D\SHEETSPLAN\010101_TI.DWG

PLOT DATE : 9/11/2025 6:28 AM

PLOT BY : ANDY BLOCK

PLOT NAME :

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
GRUBBING
EROSION CONTROL
PERMANENT SIGNING
DETOUR

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

GENERAL NOTES

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

ALL SLOPE INTERCEPTS SHOWN IN THE PLAN ARE APPROXIMATE.

ON MILLED SURFACES, APPLY TACK COAT AT 0.07 GAL/SY APPLICATION RATE.

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 226.20 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.87 ACRES

DNR LIAISON

JAMES DOPERALSKI, JR.
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 412-0165
JAMES.DOPERALSKI@WISCONSIN.GOV

TRIBAL/ENVIRONMENTAL CONTACT

JEREMY PYATSKOWIT
PO BOX 910
KESHENA, WI 54135
(715) 799-6150
JPYATSKOWIT@MITW.COM

UTILITY CONTACTS

ELECTRICITY

ALLIANT ENERGY
BILL BASTIAN
880 W SCOTT ST
FOND DU LAC, WI 54937
(920) 322-6716
WILLIAMBASTIAN@ALLIANTENERGY.COM

COMMUNICATIONS

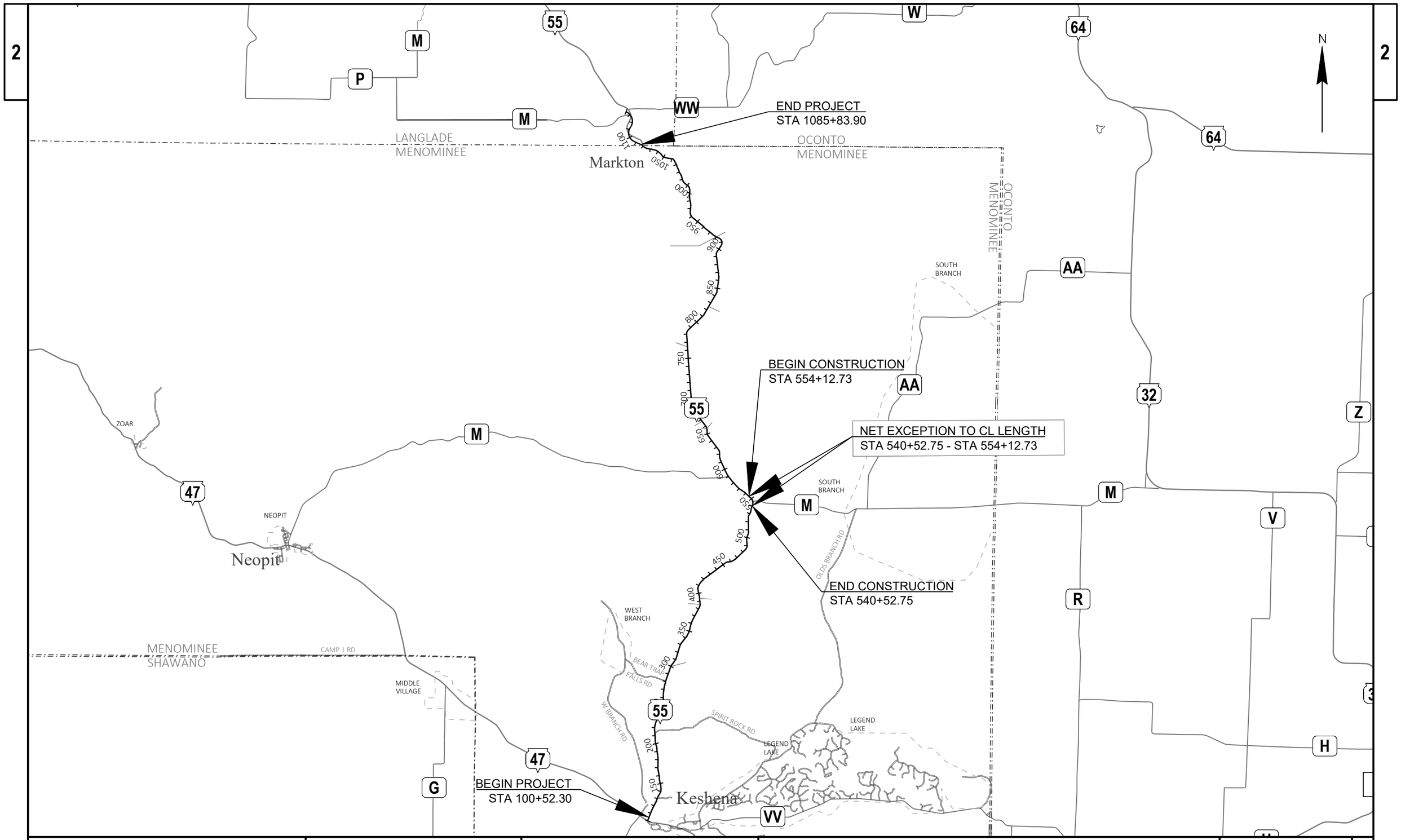
FRONTIER COMMUNICATIONS OF WI LLC
CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
(715) 847-1240
CHRISTOPHER.POLLACK@FTR.COM

COMMUNICATIONS

SPECTRUM
SCOTT KAISER
5024 HEFFRON ST.
STEVENS POINT WI 54481
(715) 382-3493
SCOTT.KAISER@CHARTER.COM

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC
AC	ASPHALT CEMENT
AGG	AGGREGATE
ASPH	ASPHALT
BM	BENCHMARK
C/L	CENTERLINE
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CR	CREEK
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
ESALS	EQUIVALENT SINGLE AXIS LOADS
EXIST	EXISTING
FE	FIELD ENTRANCE
HYD	HYDRANT
IP	IRON PIPE
L	LENGTH OF CURVE
LC	LONG CHORD OF CURVE
LR	LENGTH OF RUN OFF
MH	MANHOLE
NC	NORMAL CROWN
PT	POINT OF TANGENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PE	PRIVATE ENTRANCE
R	RADIUS
REM	REMOVE
R/L OR RL	REFERENCE LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RCPSS	REINFORCED CONCRETE STORM SEWER
RO	RUNOUT
R/W	RIGHT OF WAY
STA	STATION
SE	SUPER ELEVATION
SS	STORM SEWER
T	TANGENT
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
T	TRUCKS
VC	VERTICAL CURVE
W	WELL

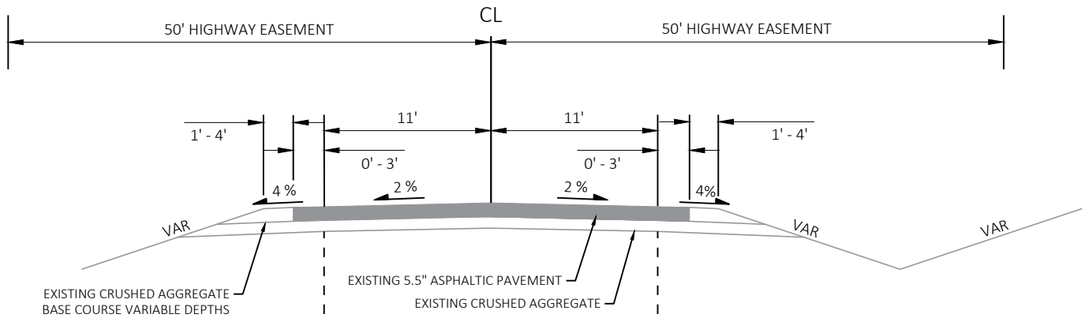


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\020201_PO.DWG
LAYOUT NAME - 01

PLOT DATE : 5/21/2025 9:13 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:2 MI

WISDOT/CADDS SHEET 42

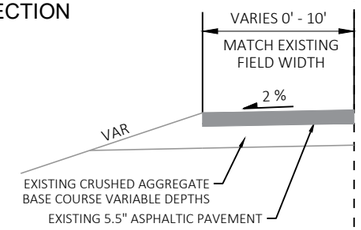


EXISTING TYPICAL SECTION

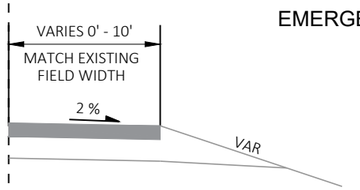
STA 100+52.30 - 540+52.75
STA 554+12.73 - 1085+83.90

EMERGENCY PULL-OUT TYPICAL SECTION

STA 154+80 - 156+94
STA 203+36 - 205+75
STA 261+09 - 262+93
STA 285+12 - 286+94
STA 336+77 - 338+77
STA 409+70 - 411+70
STA 462+57 - 464+71
STA 572+48 - 572+03
STA 668+77 - 671+00
STA 727+09 - 729+08
STA 791+07 - 793+11
STA 895+06 - 897+08
STA 945+68 - 947+68
STA 1064+30 - 1066+35

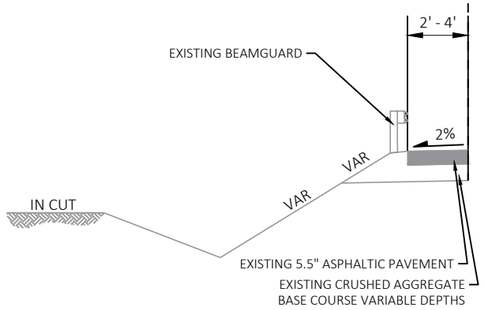


HALF TYPICAL SECTION AT
EMERGENCY PULL-OUT



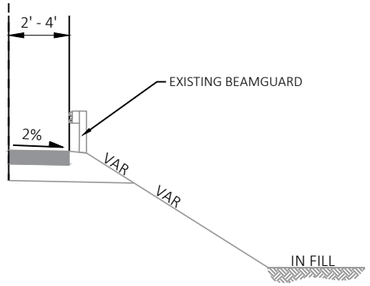
EMERGENCY PULL-OUT TYPICAL SECTION

STA 175+50 - 177+95
STA 230+51 - 232+51
STA 309+50 - 311+50
STA 374+23 - 375+95
STA 434+39 - 436+39
STA 488+11 - 490+14
STA 623+90 - 626+00
STA 701+13 - 703+16
STA 757+60 - 758+60
STA 817+04 - 819+07
STA 869+05 - 871+01
STA 921+17 - 923+07
STA 1036+75 - 1038+95



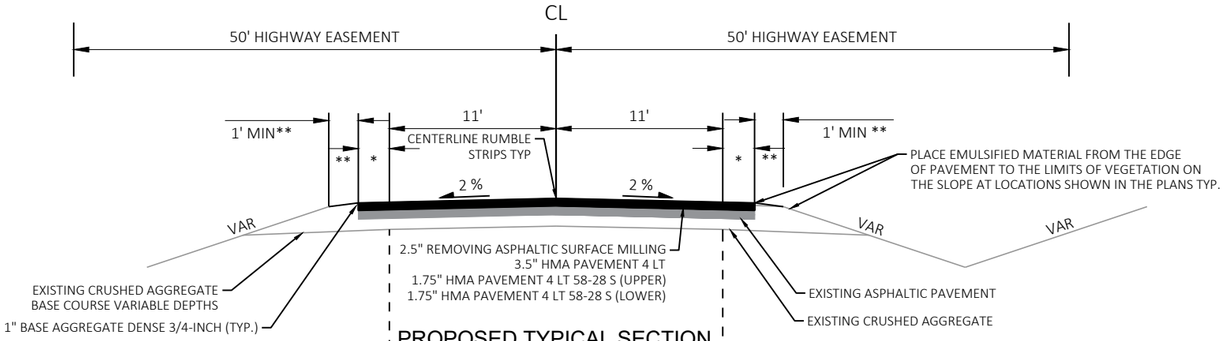
EXISTING TYPICAL SECTION

STA 107+69 - 112+36
STA 417+72 - 421+98
STA 532+73 - 537+76
STA 653+00 - 656+44
STA 690+48 - 694+44
STA 783+94 - 788+45
STA 958+31 - 968+05
STA 968+25 - 972+12
STA 983+12 - 988+99
STA 1003+91 - 1008+24
STA 1035+03 - 1041+07
STA 1052+89 - 1058+47



EXISTING TYPICAL SECTION

STA 653+75 - 656+32
STA 908+33 - 910+83
STA 963+67 - 972+11
STA 983+24 - 988+95
STA 994+05 - 996+64
STA 996+83 - 999+17



PROPOSED TYPICAL SECTION
STA 100+52.30 - 540+52.75
STA 554+12.73 - 1085+83.90

*PROPOSED MAINLINE PAVED SHOULDERS

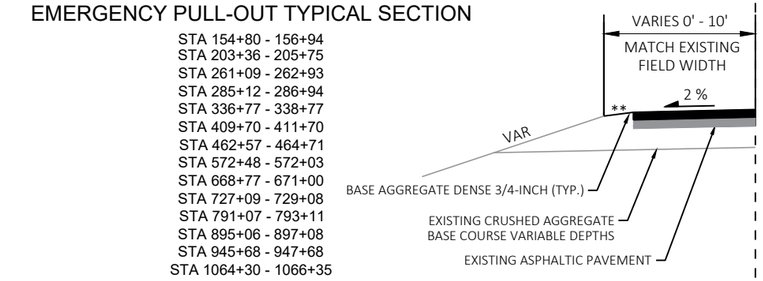
STA 100+50 - 118+00 LT	3'
STA 100+50 - 122+00 RT	3'
STA 122+00 - 507+00	1'
STA 507+00 - 525+00	2'
STA 525+00 - 540+52.75	1'
STA 554+12.73 - 1080+00	1'
STA 1080+00 - 1085+84	3'

**SLOPE VARIES (4% TYP.)

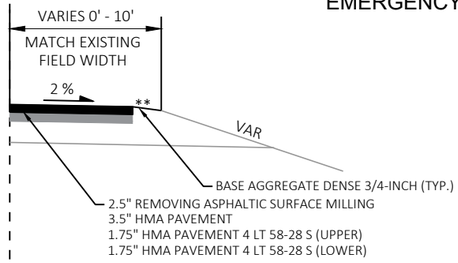
NOTE: SEE CONSTRUCTION DETAIL FOR PAVED SHOULDERS IN HORIZONTAL CURVES.

EMERGENCY PULL-OUT TYPICAL SECTION

STA 154+80 - 156+94
STA 203+36 - 205+75
STA 261+09 - 262+93
STA 285+12 - 286+94
STA 336+77 - 338+77
STA 409+70 - 411+70
STA 462+57 - 464+71
STA 572+48 - 572+03
STA 668+77 - 671+00
STA 727+09 - 729+08
STA 791+07 - 793+11
STA 895+06 - 897+08
STA 945+68 - 947+68
STA 1064+30 - 1066+35



HALF TYPICAL SECTION AT EMERGENCY PULL-OUTS



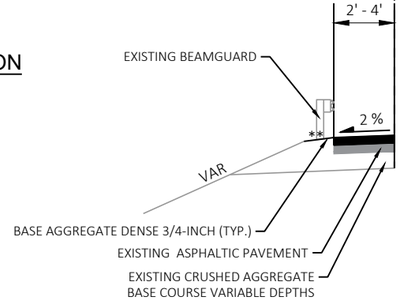
EMERGENCY PULL-OUT TYPICAL SECTION

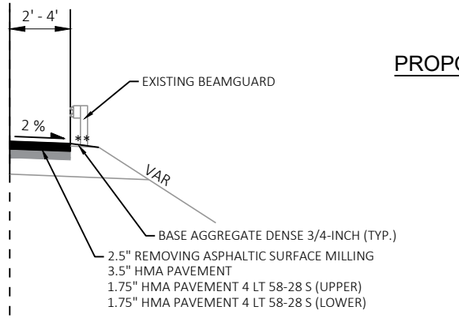
STA 175+50 - 177+95

STA 230+51 - 232+51
STA 309+50 - 311+50
STA 374+23 - 375+95
STA 434+39 - 436+39
STA 488+11 - 490+14
STA 623+90 - 626+00
STA 701+13 - 703+16
STA 757+60 - 758+60
STA 817+04 - 819+07
STA 869+05 - 871+01
STA 921+17 - 923+07

PROPOSED TYPICAL SECTION

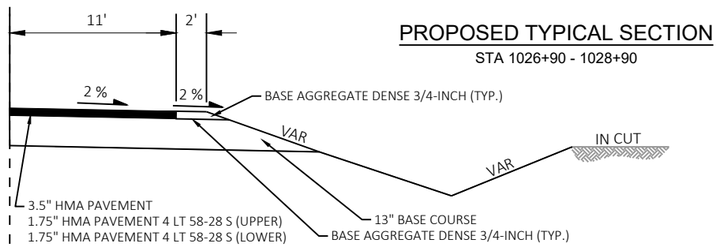
STA 107+69 - 112+36
STA 417+72 - 421+98
STA 532+73 - 537+76
STA 653+00 - 656+44
STA 690+48 - 694+44
STA 783+94 - 788+45
STA 958+31 - 968+05
STA 968+25 - 972+12
STA 983+12 - 988+99
STA 1003+91 - 1008+24
STA 1035+03 - 1041+07
STA 1052+89 - 1058+47





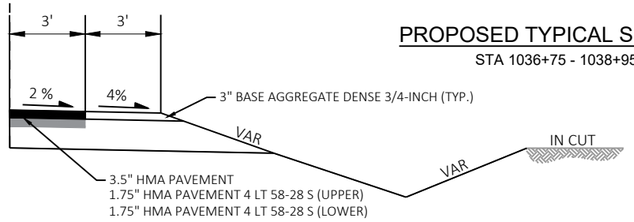
PROPOSED TYPICAL SECTION

STA 653+75 - 656+32
STA 908+33 - 910+83
STA 963+67 - 972+11
STA 983+24 - 988+95
STA 994+05 - 996+64
STA 996+83 - 999+17



PROPOSED TYPICAL SECTION

STA 1026+90 - 1028+90

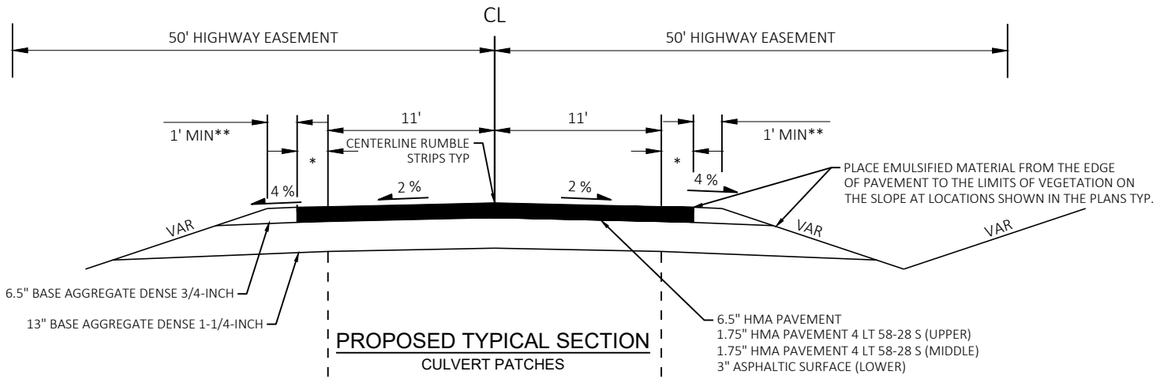


PROPOSED TYPICAL SECTION

STA 1036+75 - 1038+95

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	TYPICAL SECTION	SHEET 5	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02-10ft
PLOT DATE : 5/22/2025 9:51 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



PROPOSED TYPICAL SECTION
CULVERT PATCHES

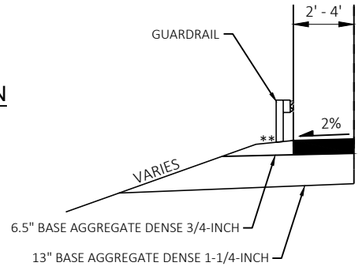
*PROPOSED MAINLINE PAVED SHOULDERS

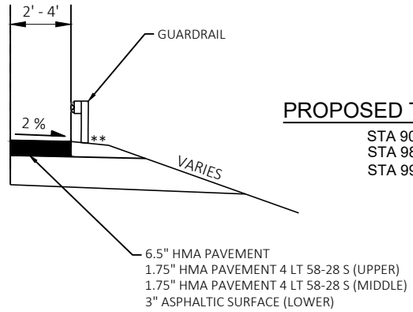
STA 100+50 - 118+00 LT	3'
STA 100+50 - 122+00 RT	3'
STA 122+00 - 507+00	1'
STA 507+00 - 525+00	2'
STA 525+00 - 540+52.75	1'
STA 554+12.73 - 1080+00	1'
STA 1080+00 - 1085+84	3'

**SLOPE VARIES

NOTE: SEE CONSTRUCTION DETAIL FOR PAVED SHOULDERS IN HORIZONTAL CURVES.

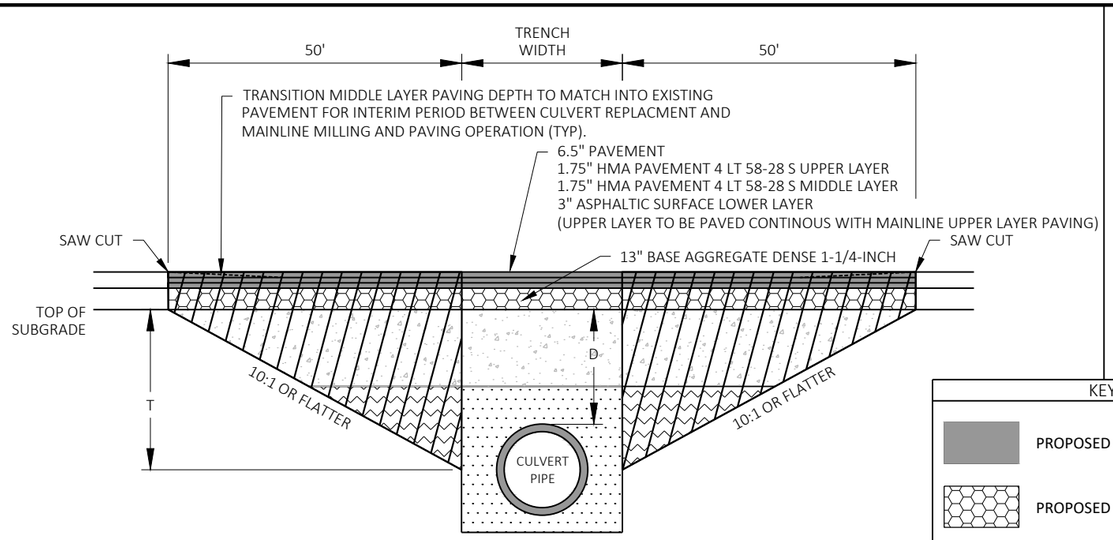
PROPOSED TYPICAL SECTION
STA 786+95 - 788+05
STA 986+74 - 987+84





PROPOSED TYPICAL SECTION
STA 909+04 - 910+15
STA 986+74 - 987+84
STA 997+81 - 998+92

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	TYPICAL SECTION	SHEET 6	E

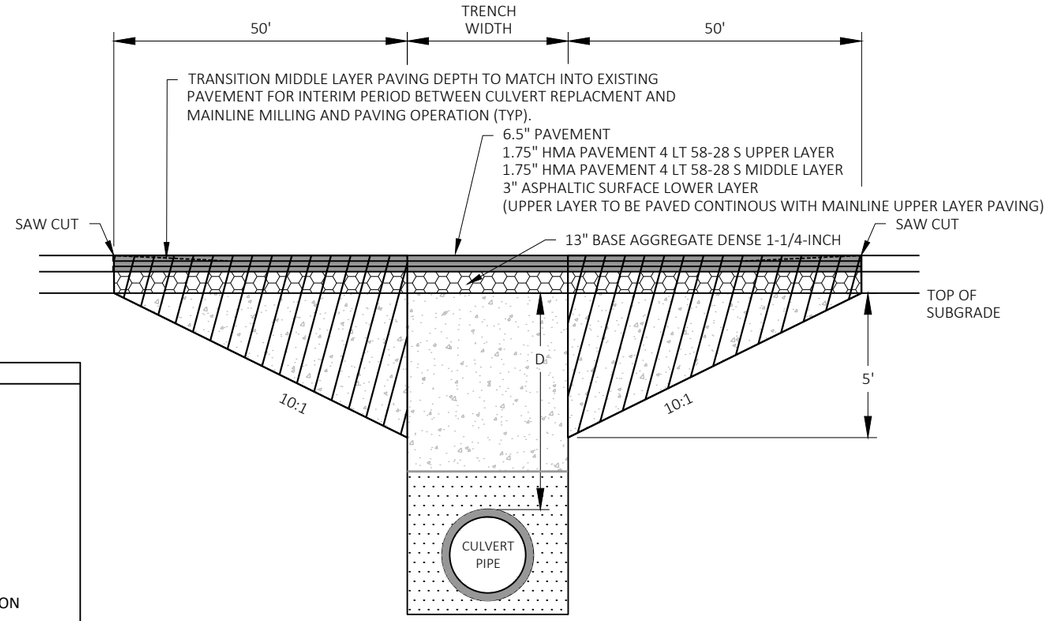


DEPTH D < 6 FT

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.

KEY

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT



DEPTH D ≥ 6 FT

NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.
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.

CULVERT PIPE TRANSITION

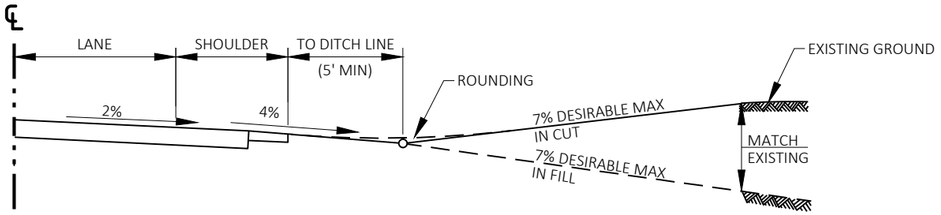
ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 55	114+02	2.01	19X30	
STH 55	143+01	0.50	19X30	
STH 55	146+42	0.31	19X30	
STH 55	153+01	0.89	19X30	
STH 55	165+39	0.41	19X30	
STH 55	182+21	1.30	24	
STH 55	188+27		24	Removal Only
STH 55	207+62	0.50	24	
STH 55	216+49	0.49	19X30	
STH 55	219+85	0.39	19X30	
STH 55	237+83	0.93	19X30	
STH 55	251+05	0.41	19X30	
STH 55	269+19	2.23	36	
STH 55	279+12	0.63	19X30	
STH 55	299+39	0.71	19X30	
STH 55	338+55	0.61	19X30	
STH 55	355+28	0.46	19X30	
STH 55	392+75	0.21	19X30	
STH 55	401+51	0.35	19X30	
STH 55	423+12	0.47	19X30	
STH 55	438+91	0.38	24	
STH 55	448+26		24	Removal Only

CULVERT PIPE TRANSITION

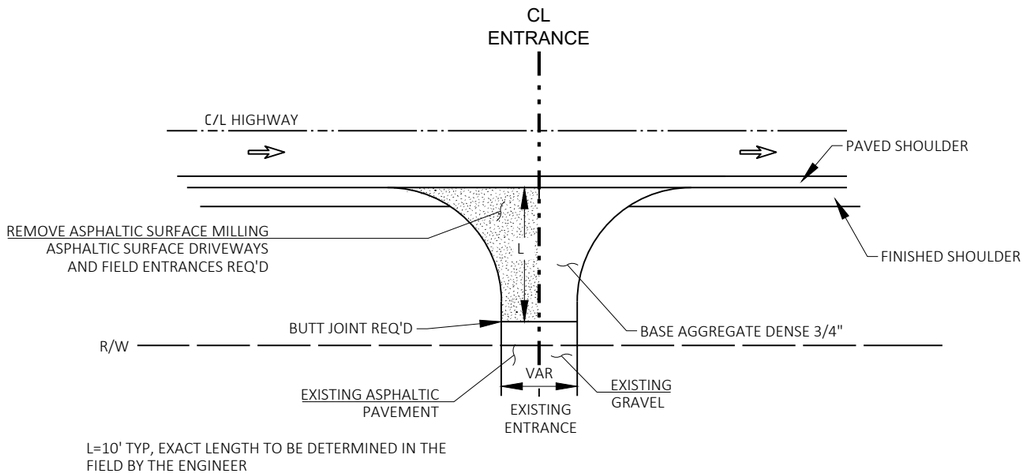
ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 55	452+47		24	Removal Only
STH 55	461+58	0.64	19X30	
STH 55	471+59	0.23	19X30	
STH 55	530+53	0.56	19X30	
STH 55	553+14	0.14	24	
STH 55	582+31		15	Removal Only
STH 55	595+65	0.87	19X30	
STH 55	610+99	0.26	15	
STH 55	626+82	0.45	19X30	
STH 55	634+79	0.37	24	
STH 55	673+17	0.25	12	
STH 55	687+24	0.48	24	
STH 55	708+44	0.41	19X30	
STH 55	787+50	3.76	24	
STH 55	794+08	0.35	19X30	
STH 55	804+17	0.43	19X30	
STH 55	841+36	0.31	24	
STH 55	847+69	0.47	15	
STH 55	853+61		12	Removal Only
STH 55	909+60	4.91	24	
STH 55	955+69	1.88	24	
STH 55	987+32	6.39	24	

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 55	998+39	0.42	36	
STH 55	1003+33	1.10	24	
STH 55	1055+53	0.12	36	
STH 55	1074+38	0.95	24	

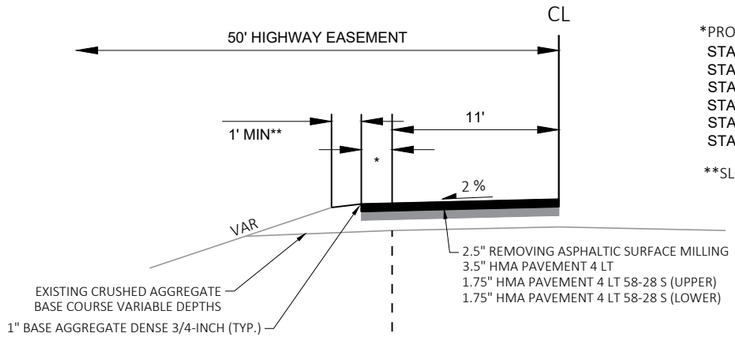


TYPICAL PROFILE VIEW



PLAN VIEW

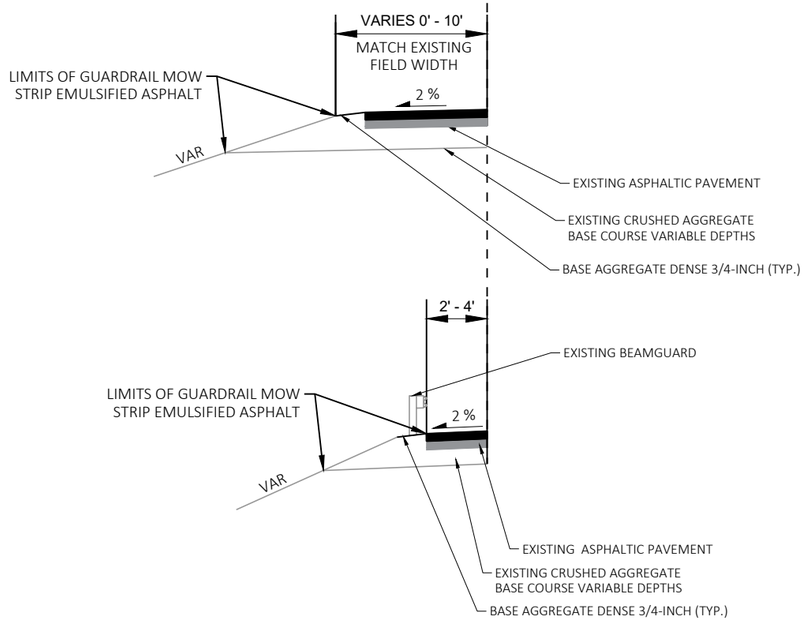
RURAL DRIVEWAY INTERSECTION (PE, FE & CE)



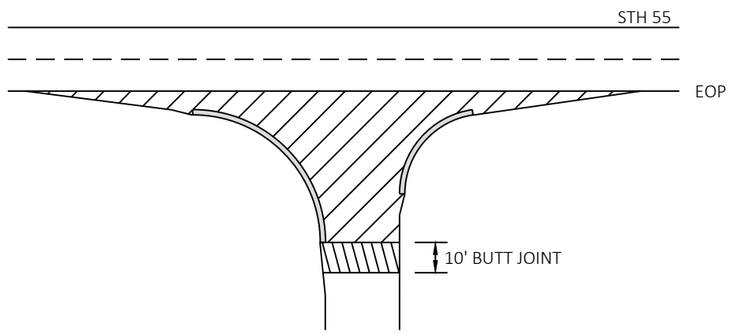
*PROPOSED MAINLINE PAVED SHOULDERS

STA 100+50 - 118+00 LT	3'
STA 100+50 - 122+00 RT	3'
STA 122+00 - 507+00	1'
STA 507+00 - 525+00	2'
STA 525+00 - 1080+00	1'
STA 1080+00 - 1085+84	3'

**SLOPE VARIES (4% TYP.)



GUARDRAIL MOW STRIP
EMULSIFIED ASPHALT DETAIL



REMOVING ASPHALTIC SURFACE MILLING

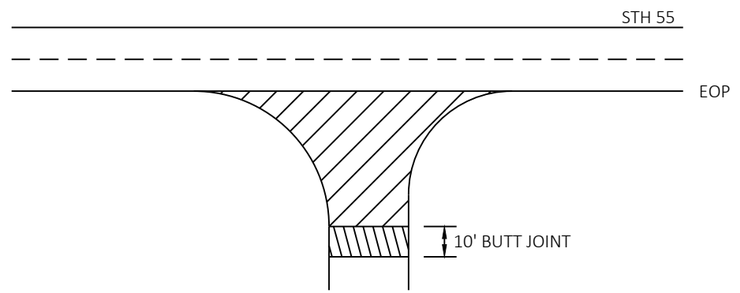
REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE
BUTT JOINT IS NOT REQUIRED

SIDE ROADS

WITH CURB AND GUTTER

KESHENA FALLS RD
BEAR TRAP FALLS RD



REMOVING ASPHALTIC SURFACE MILLING

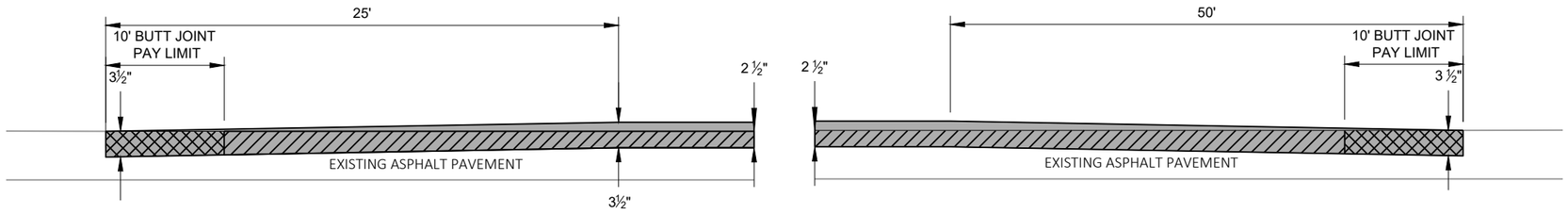
REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE
BUTT JOINT IS NOT REQUIRED

SIDE ROADS

WITHOUT CURB AND GUTTER

ASKANETTE CORNERS RD
LOUIE TOWN RD
SPIRIT ROCK RD
MINNOW CREEK RD
DICKIE RD
CTH M
SANAPAW FIELDS RD?
DELLS RD
SULLIVAN FALLS RD
CTH B
CAMP 23 RD
CTH WW



SIDE ROAD BUTT JOINT

MAINLINE BUTT JOINT

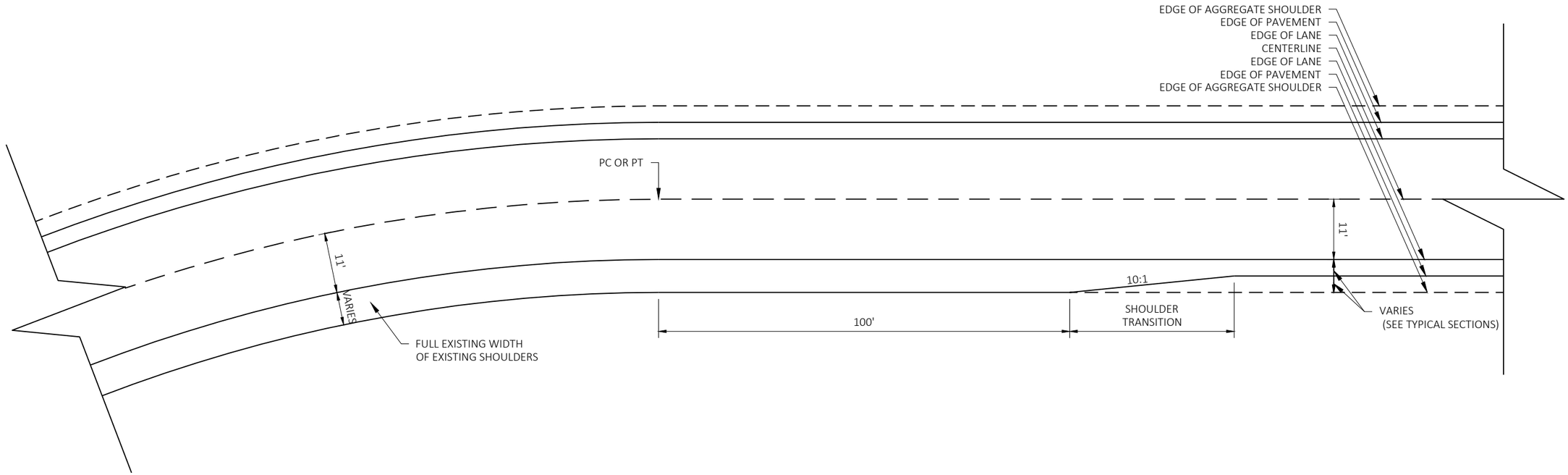
REMOVING ASPHALTIC SURFACE BUTT JOINTS
REMOVING ASPHALTIC SURFACE MILLING
HMA PAVEMENT

BUTT JOINT - WITH PAVEMENT ELEVATION CHANGE

STA 100+52.30
STA 540+52.75
STA 554+12.73
STA 1085+83.90

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CONSTRUCTION DETAILS	SHEET 9	E

2

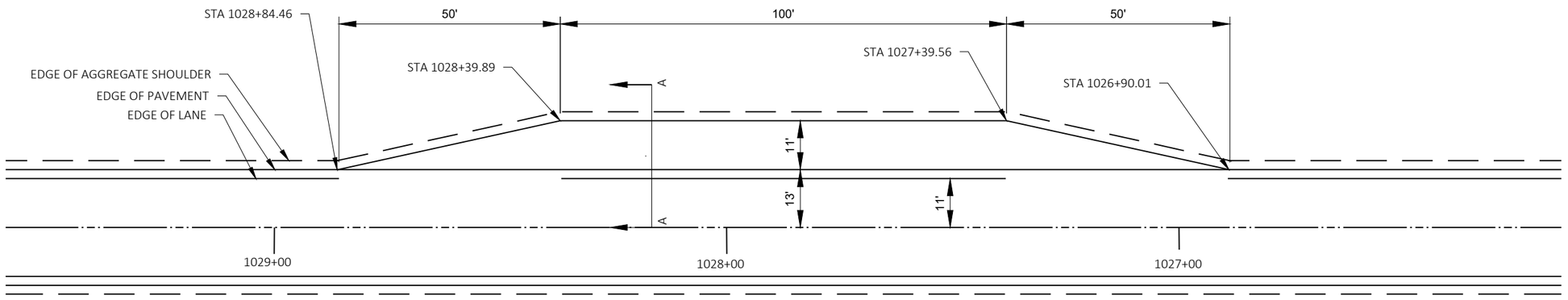


DETAIL FOR FULL WIDTH SHOULDER PAVING

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CONSTRUCTION DETAILS	SHEET 10	E

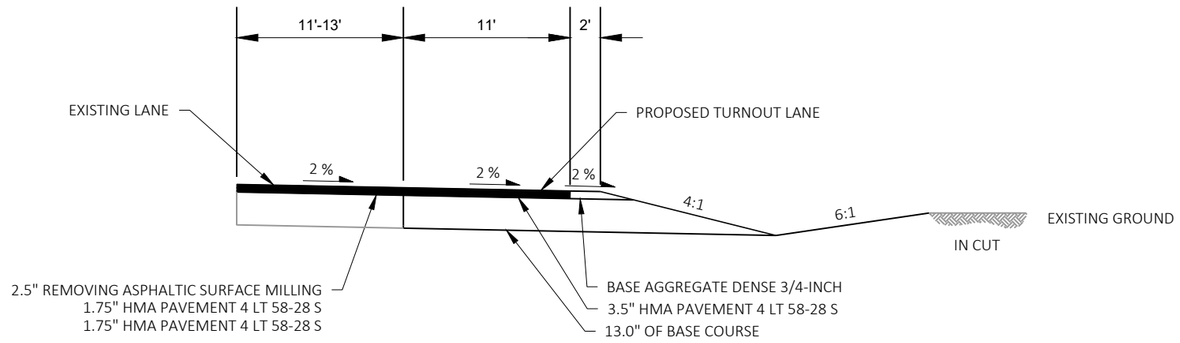
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 04
PLOT DATE : 10/24/2025 8:20 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1:10
WISDOT/CADDS SHEET 42

2



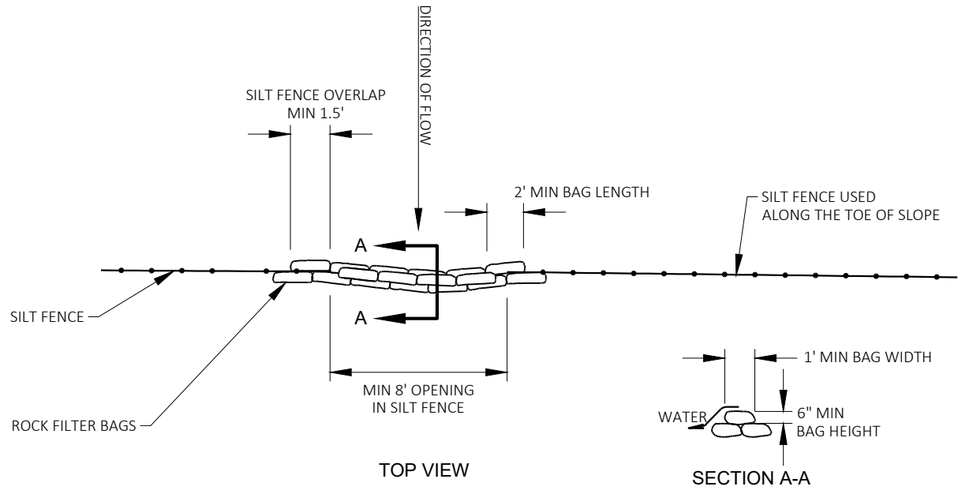
PROPOSED EMERGENCY PULL-OUT

STA 1026+90.01 - 1028+84.46

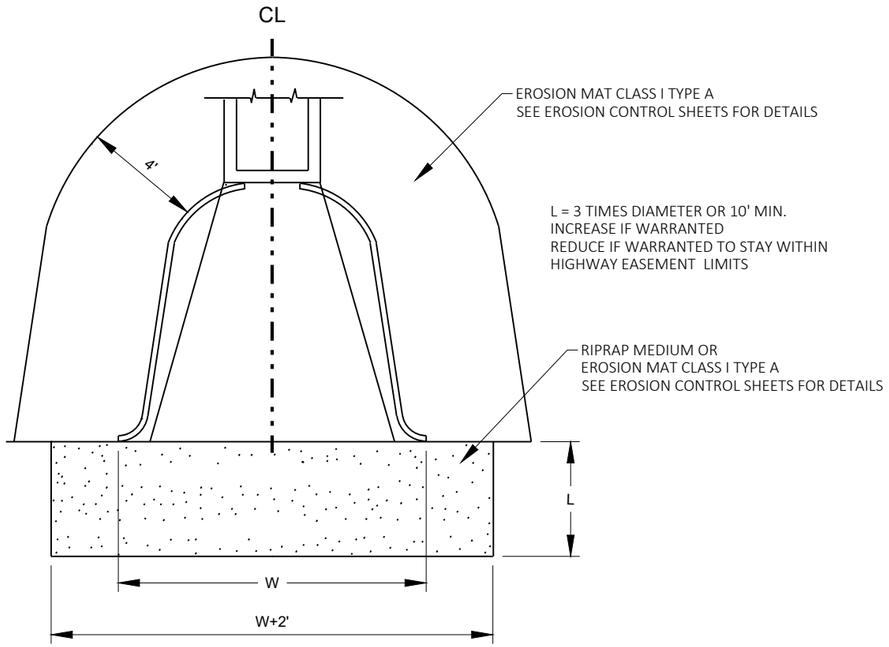


SECTION A-A

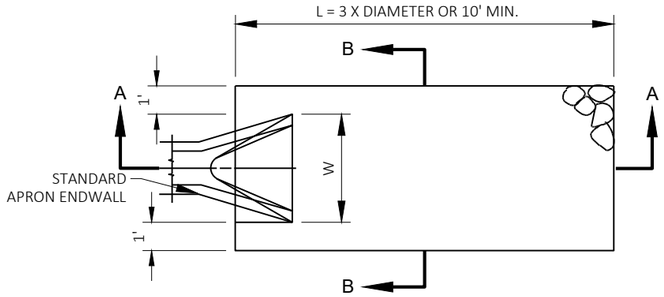
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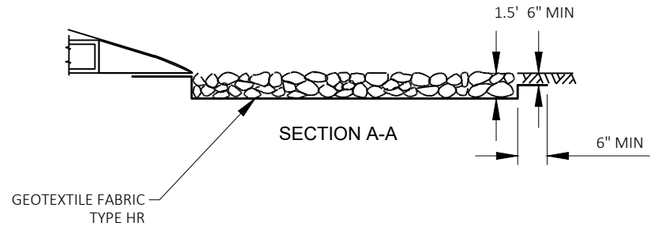


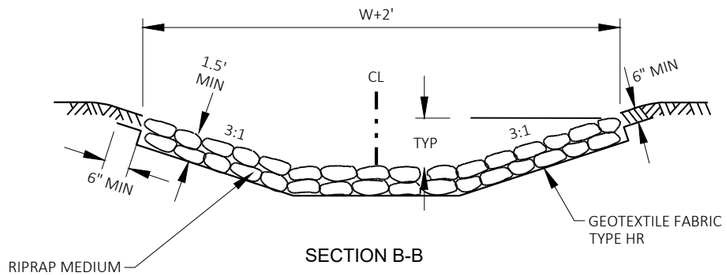
ROCK BAGS USED FOR SILT FENCE RELIEF



EROSION CONTROL AT PIPE ENDS





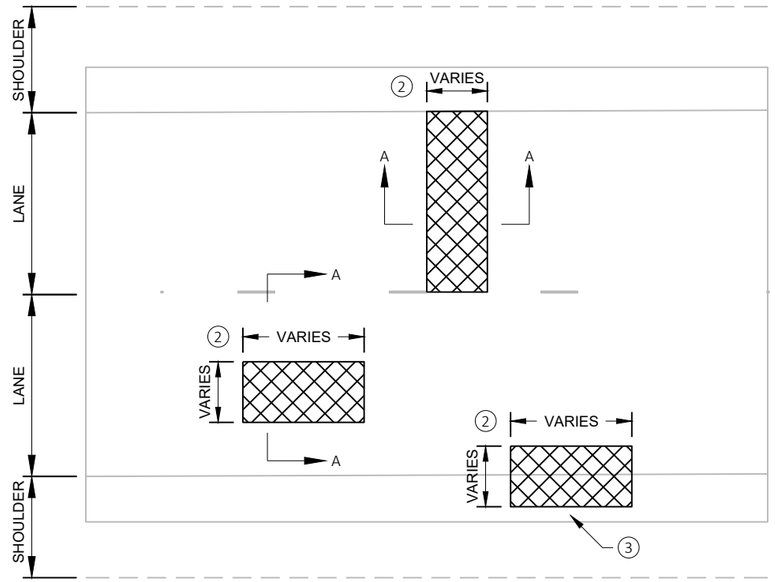


RIP RAP AND GEOTEXTILE

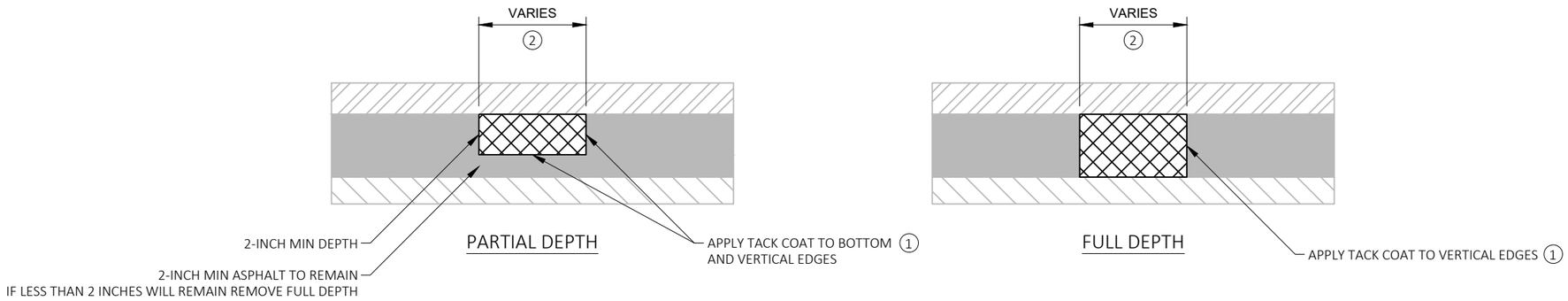
NOTES:

PERFORM REMOVING ASPHALTIC SURFACE MILLING PRIOR TO REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

1. MILLED VERTICAL EDGES ARE ACCEPTABLE, SAW CUTS ARE NOT REQUIRED.
2. THE SMALLEST DIMENSION OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS 4 FEET IN ANY DIRECTION.
3. WHEN THE DISTANCE FROM THE EDGE OF PAVEMENT TO EDGE OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS LESS THAN 1-FOOT, EXTEND THE REMOVING DISTRESSED ASPHALTIC SURFACE MILLING TO THE EDGE OF PAVEMENT.



PLAN VIEW



SECTION A-A

REMOVING ASPHALTIC SURFACE MILLING

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING
ASPHALTIC SURFACE PATCHING

EXISTING ASPHALT

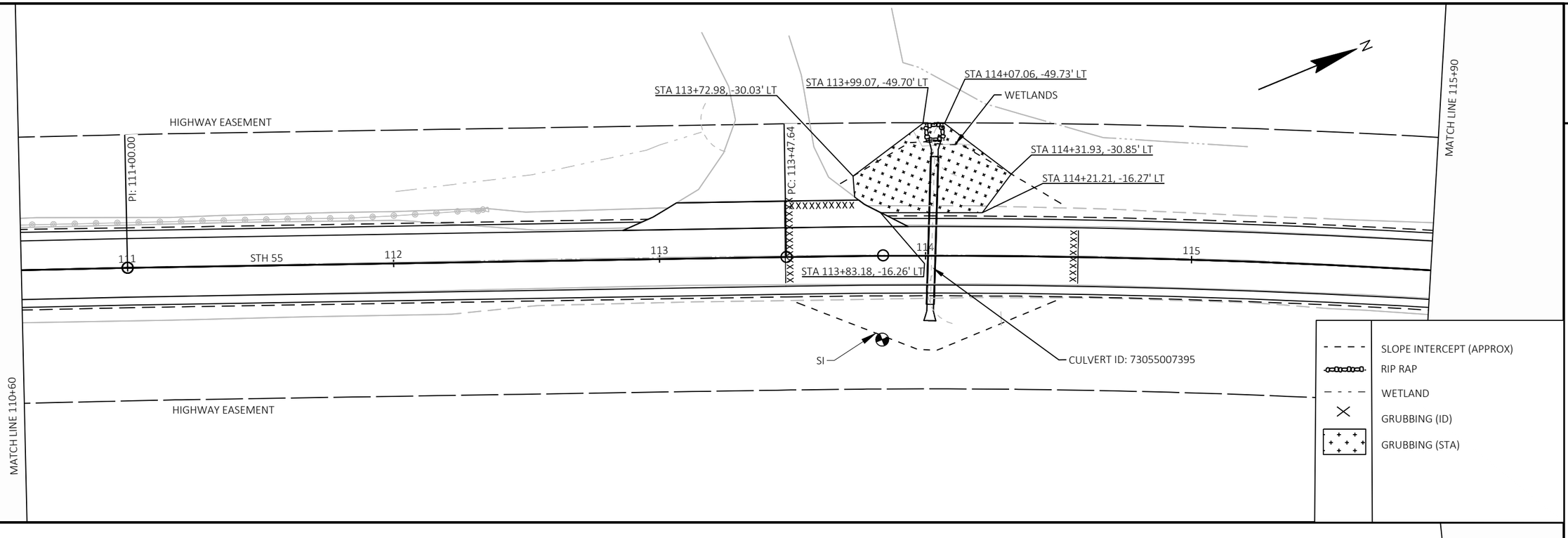
EXISTING BASE COURSE

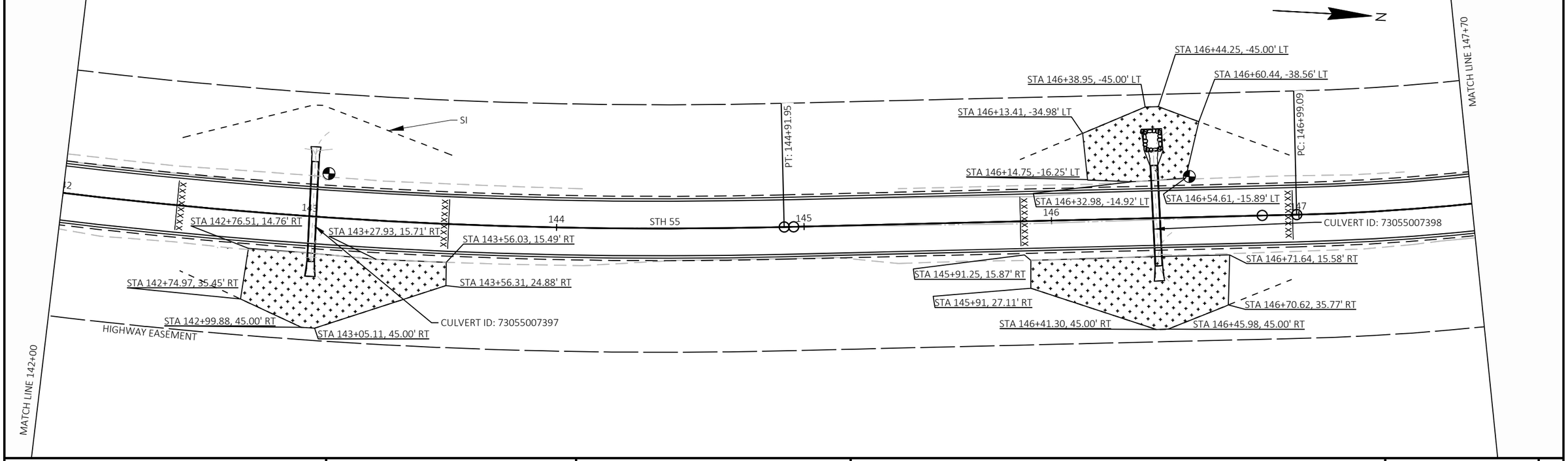
REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

LOCATIONS AND LIMITS DETERMINED BY THE ENGINEER IN THE FIELD

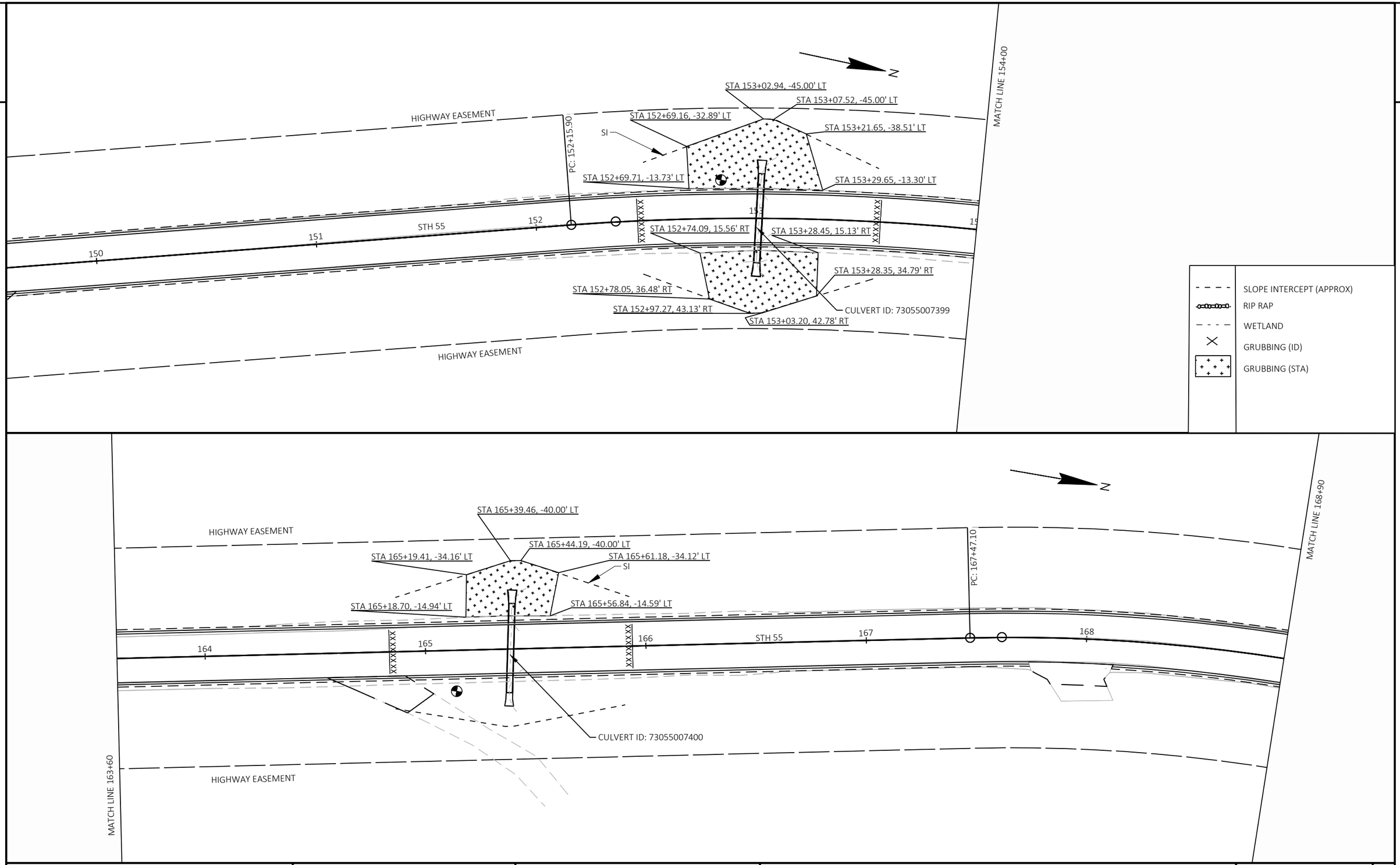
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CONSTRUCTION DETAILS	SHEET 14	E

2





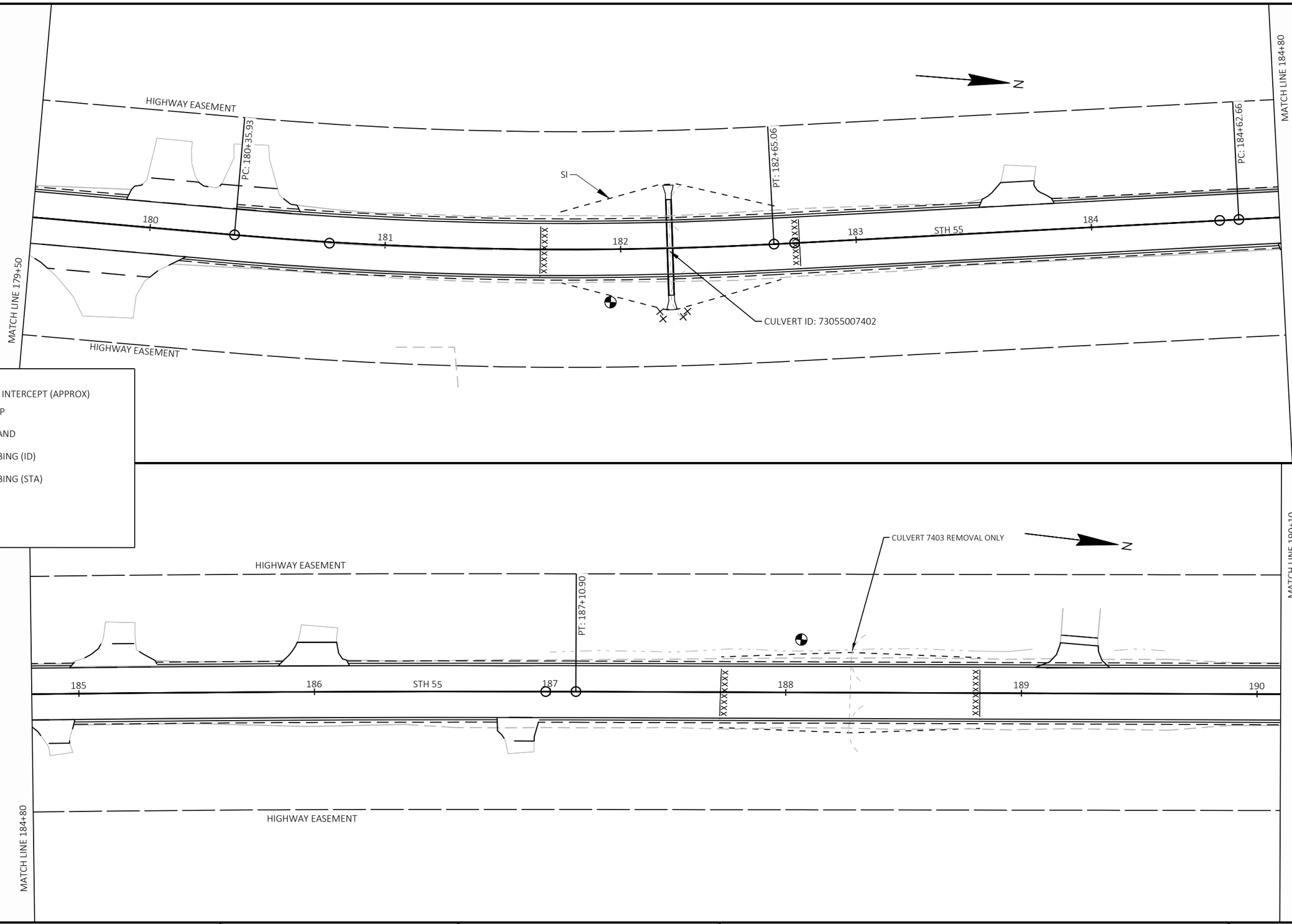
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 15	E



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 16	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 2
PLOT DATE : 5/21/2025 12:40 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 17	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 3
PLOT DATE : 5/21/2025 12:41 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

2

N

HIGHWAY EASEMENT

PI: 206+00.00

PI: 209+00.00

SI

SIGN

MATCH LINE 205+11.24

MATCH LINE 210+00

206

207

208

STH 55

209

CULVERT ID: 73055007405

HIGHWAY EASEMENT

SLOPE INTERCEPT (APPROX)

RIP RAP

WETLAND

GRUBBING (ID)

GRUBBING (STA)

N

HIGHWAY EASEMENT

SI

PC: 218+20.65

STA 219+82.78, -27.38' LT

STA 219+88.01, -27.41' LT

STA 219+39.71, -15.64' LT

STA 220+15.02, -19.38' LT

STA 219+39.81, -13.14' LT

MATCH LINE 221+00

MATCH LINE 215+60

216

217

STH 55

218

219

220

CULVERT ID: 73055007406

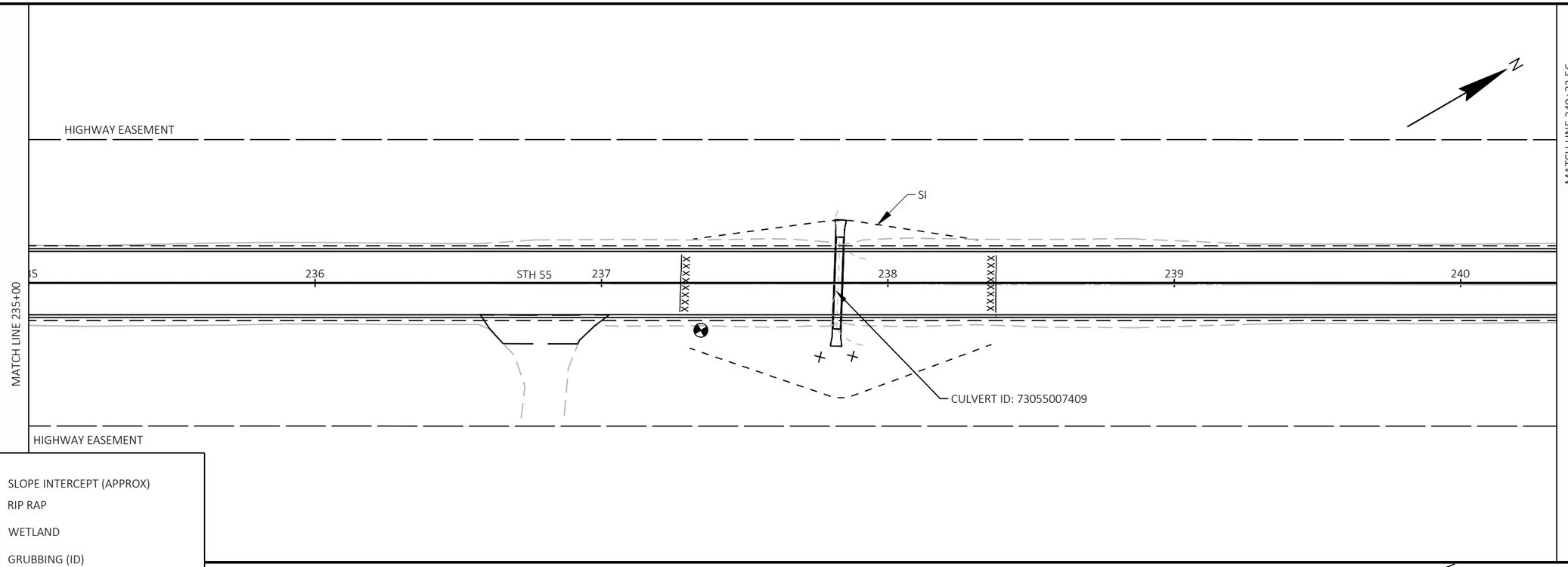
CULVERT ID: 73055007407

HIGHWAY EASEMENT

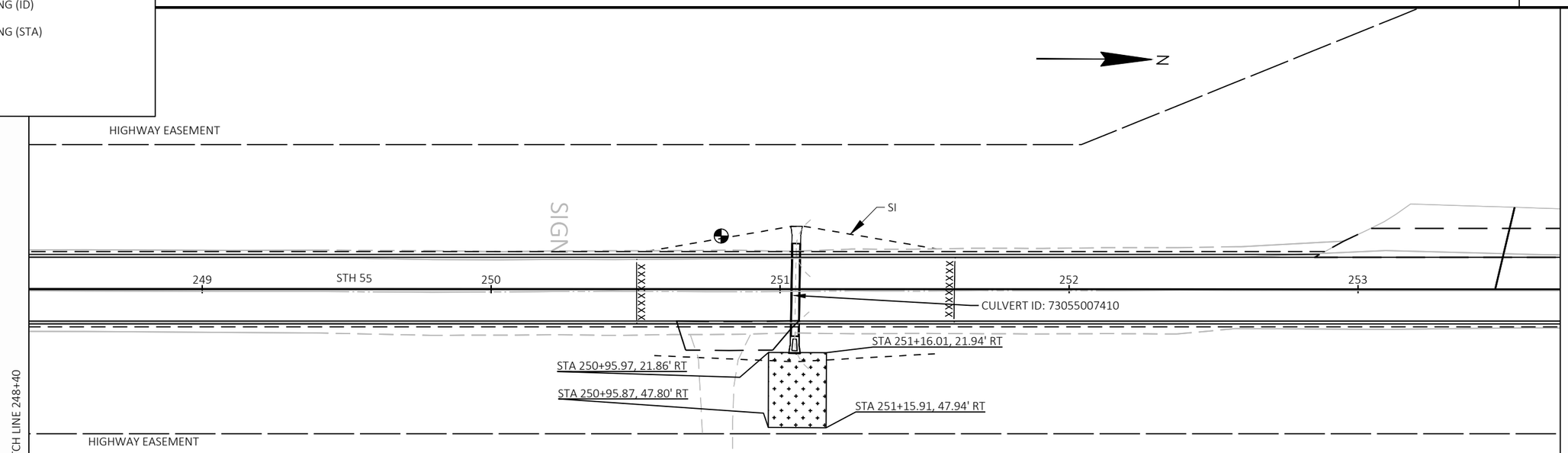
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 18	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 4
PLOT DATE : 5/21/2025 12:42 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

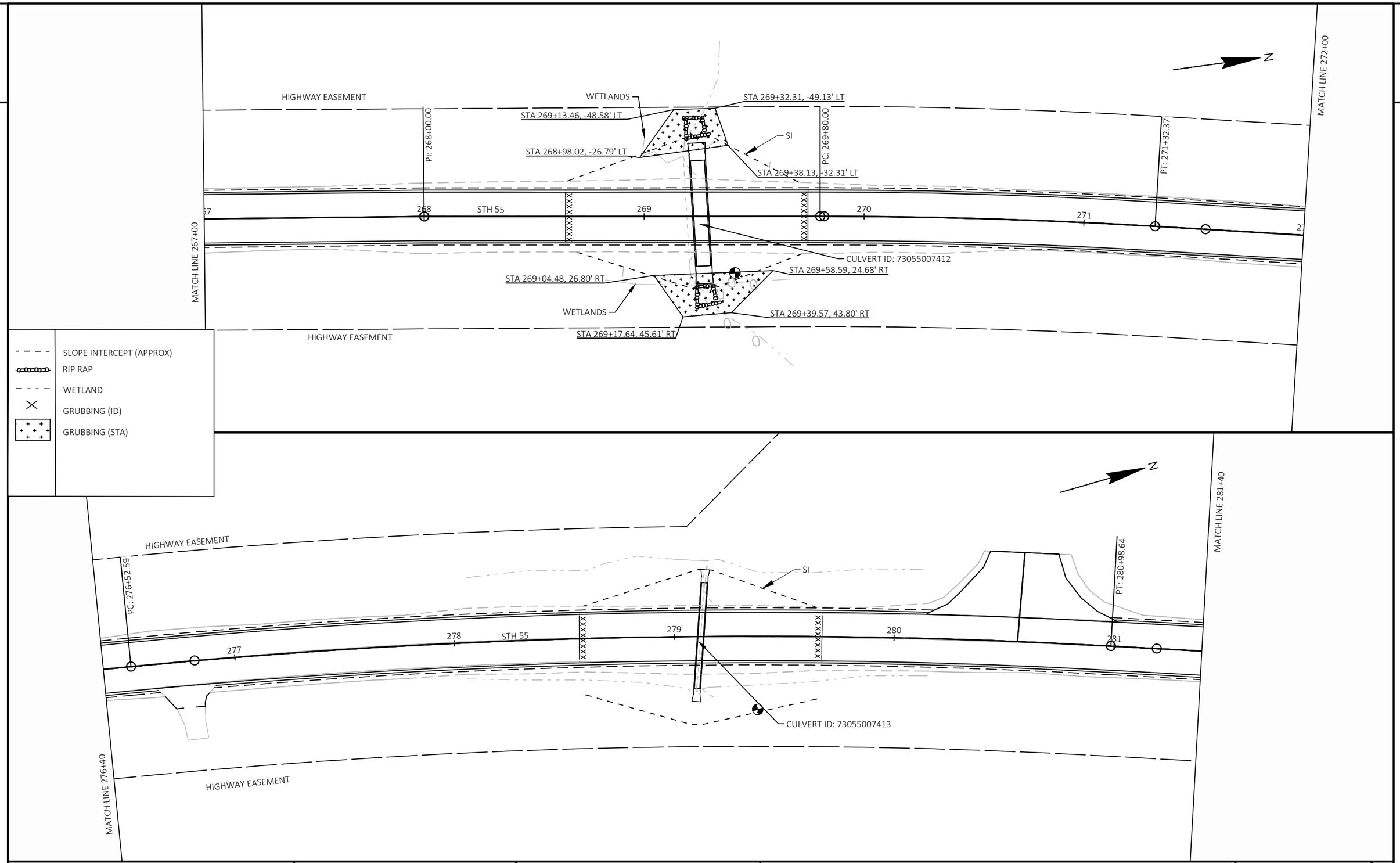


SLOPE INTERCEPT (APPROX)
RIP RAP
WETLAND
GRUBBING (ID)
GRUBBING (STA)



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 19	E

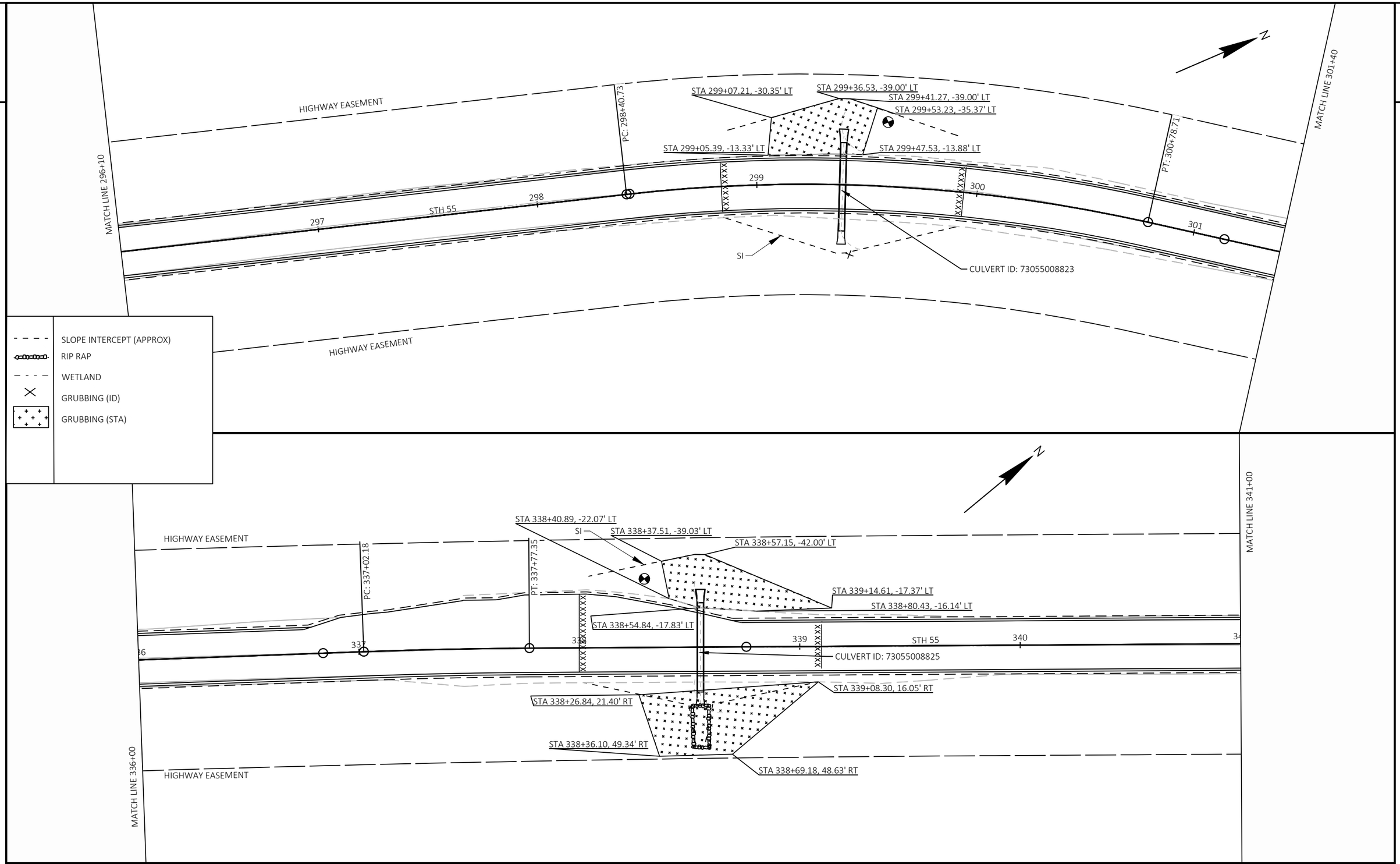
FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 5
PLOT DATE : 5/21/2025 12:43 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 20	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 6
PLOT DATE : 5/21/2025 12:45 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

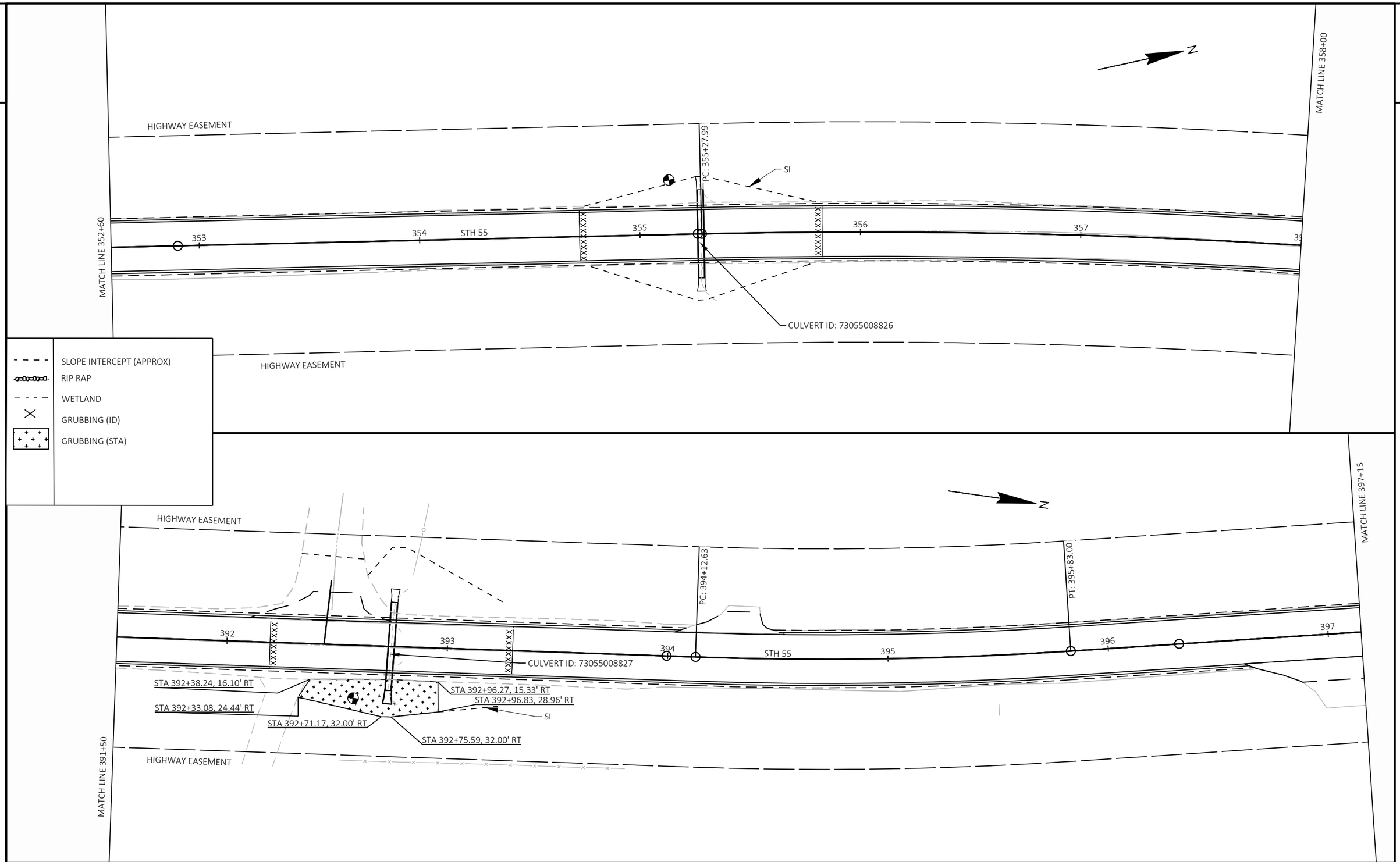
2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 21	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 7
PLOT DATE : 5/21/2025 12:46 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 22	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 8
PLOT DATE : 5/21/2025 12:48 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

2

HIGHWAY EASEMENT

SI

WETLANDS

399

400

STH 55

401

402

403

MATCH LINE 403+45

CULVERT ID: 73055008828

WETLANDS

HIGHWAY EASEMENT

SLOPE INTERCEPT (APPROX)

RIP RAP

WETLAND

GRUBBING (ID)

GRUBBING (STA)

STA 422+67.49, -22.96' LT

STA 423+13.13, -35.01' LT

STA 423+19.05, -34.90' LT

STA 423+25.44, -32.70' LT

STA 423+28.15, -12.65' LT

PT: 422+41.08

PC: 422+79.78

PT: 425+01.69

MATCH LINE 425+60

HIGHWAY EASEMENT

STA 422+66.95, -13.32' LT

PC: 420+30.39

422

423

424

425

STH 55

CULVERT ID: 73055008830

421

SI

STA 423+31.19, 12.39' RT

STA 422+83.60, 12.66' RT

STA 423+35.12, 30.35' RT

STA 422+86.81, 30.43' RT

STA 423+12.28, 39.93' RT

STA 423+07.60, 39.78' RT

420

MATCH LINE 419+91.92

HIGHWAY EASEMENT

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 23	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 9

PLOT DATE : 5/21/2025 12:49 PM PLOT BY : BRETT DESTACHE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

HIGHWAY EASEMENT

SI

438 439 440 STH 55 441 442

CULVERT ID: 73055008831

HIGHWAY EASEMENT

MATCH LINE 437+15

SLOPE INTERCEPT (APPROX)

RIP RAP

WETLAND

GRUBBING (ID)

GRUBBING (STA)

CULVERT 8833 REMOVAL ONLY

HIGHWAY EASEMENT

4 445 446 STH 55 447 448 449

HIGHWAY EASEMENT

MATCH LINE 449+50

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 24	E

2

2

CULVERT 8834 REMOVAL ONLY

HIGHWAY EASEMENT

PC: 453+59.47

450

451

STH 55

452

453

454

455

MATCH LINE 455+10

HIGHWAY EASEMENT

NE 449+50

SLOPE INTERCEPT (APPROX)

RIP RAP

WETLAND

GRUBBING (ID)

GRUBBING (STA)

HIGHWAY EASEMENT

WETLANDS

PT: 461+97.67

SI

PC: 464+20.29

461

462

463

STH 55

464

STA 461+26.43, 14.35' RT

STA 461+94.49, 14.71' RT

CULVERT ID: 73055008836

STA 461+65.44, 28.25' RT

STA 461+27.13, 19.90' RT

STA 461+57.63, 28.83' RT

WETLANDS

HIGHWAY EASEMENT

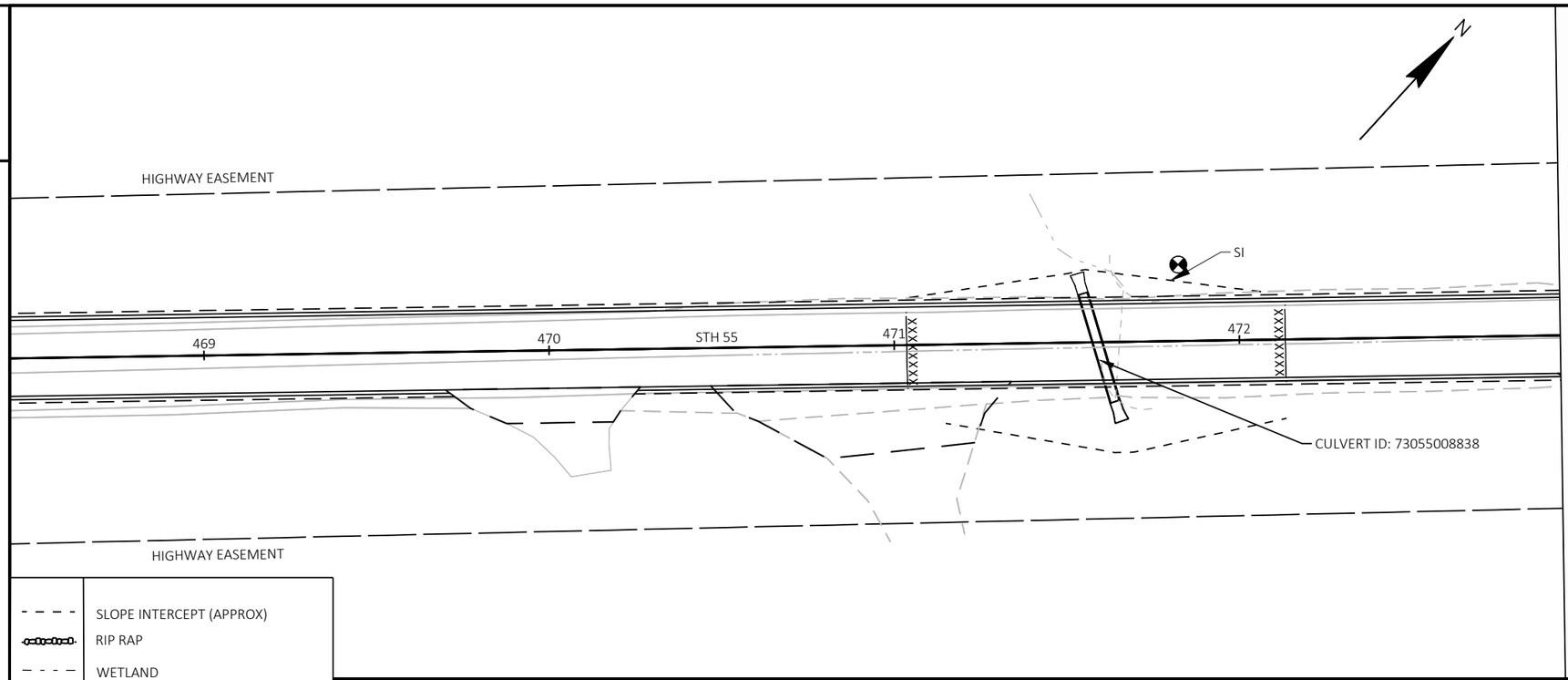
MATCH LINE 460+38

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 25	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 11

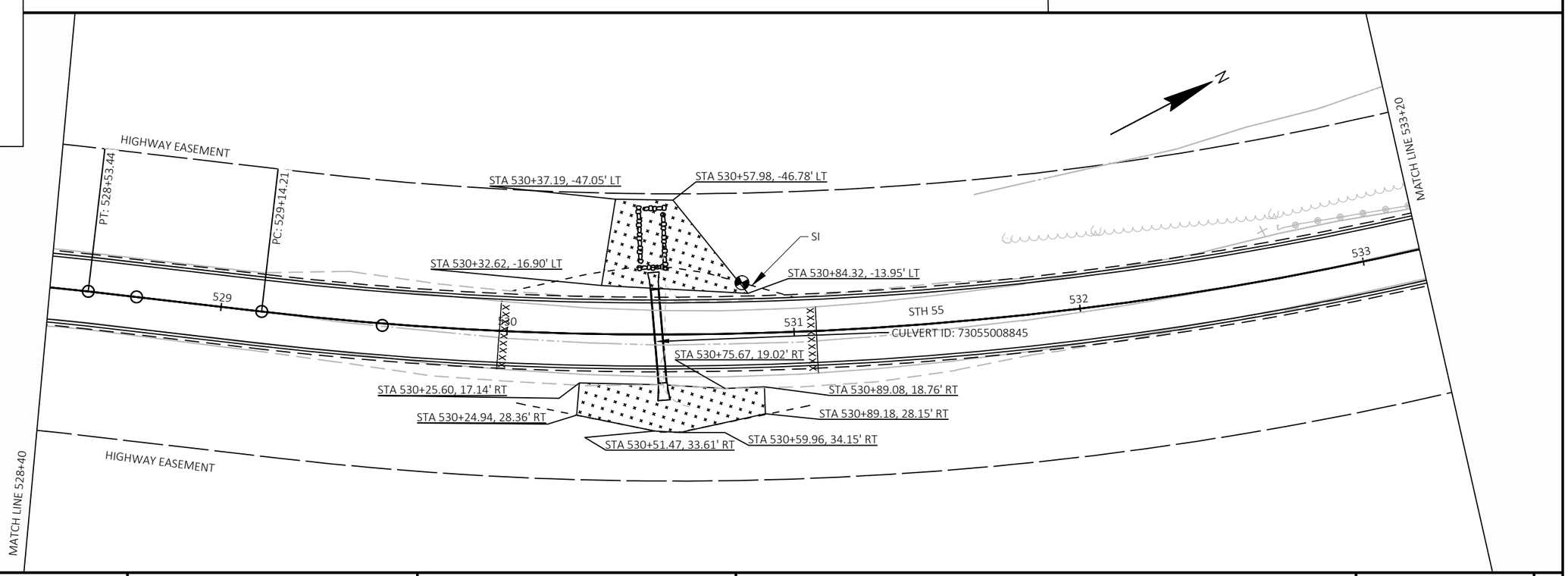
PLOT DATE : 5/21/2025 12:53 PM PLOT BY : BRETT DESTACHE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



2

SLOPE INTERCEPT (APPROX)
RIP RAP
WETLAND
GRUBBING (ID)
GRUBBING (STA)

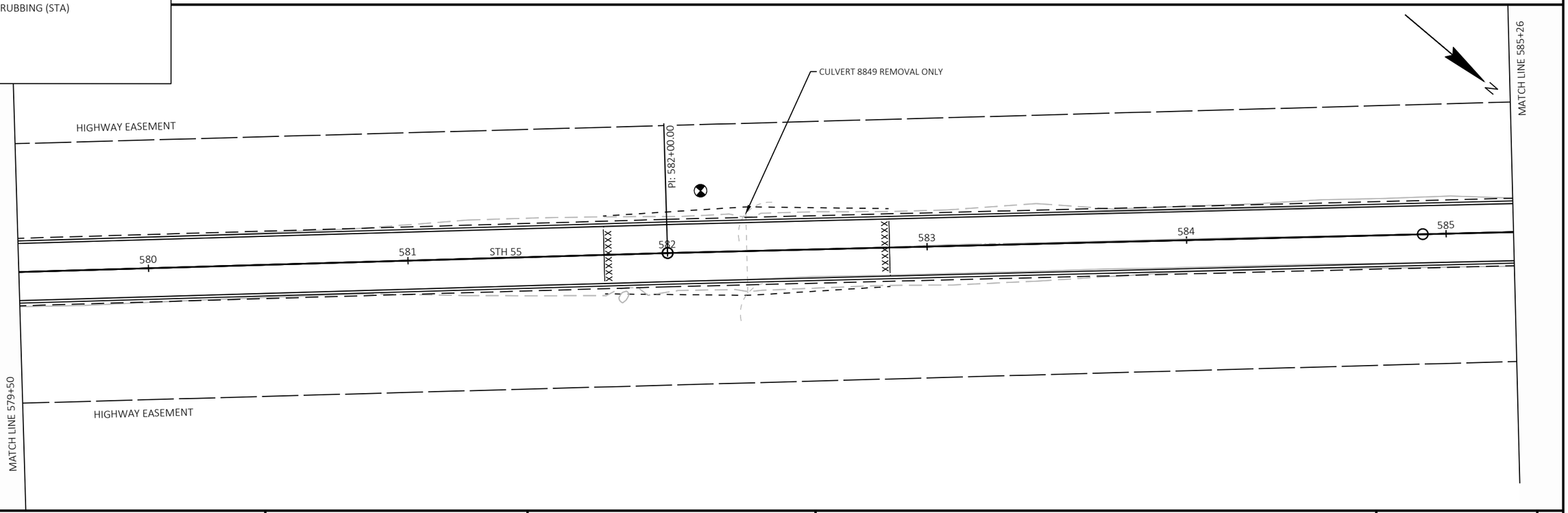


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 26	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 12
PLOT DATE : 5/21/2025 12:54 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

THIS VIEW INTENTIONALLY LEFT BLANK

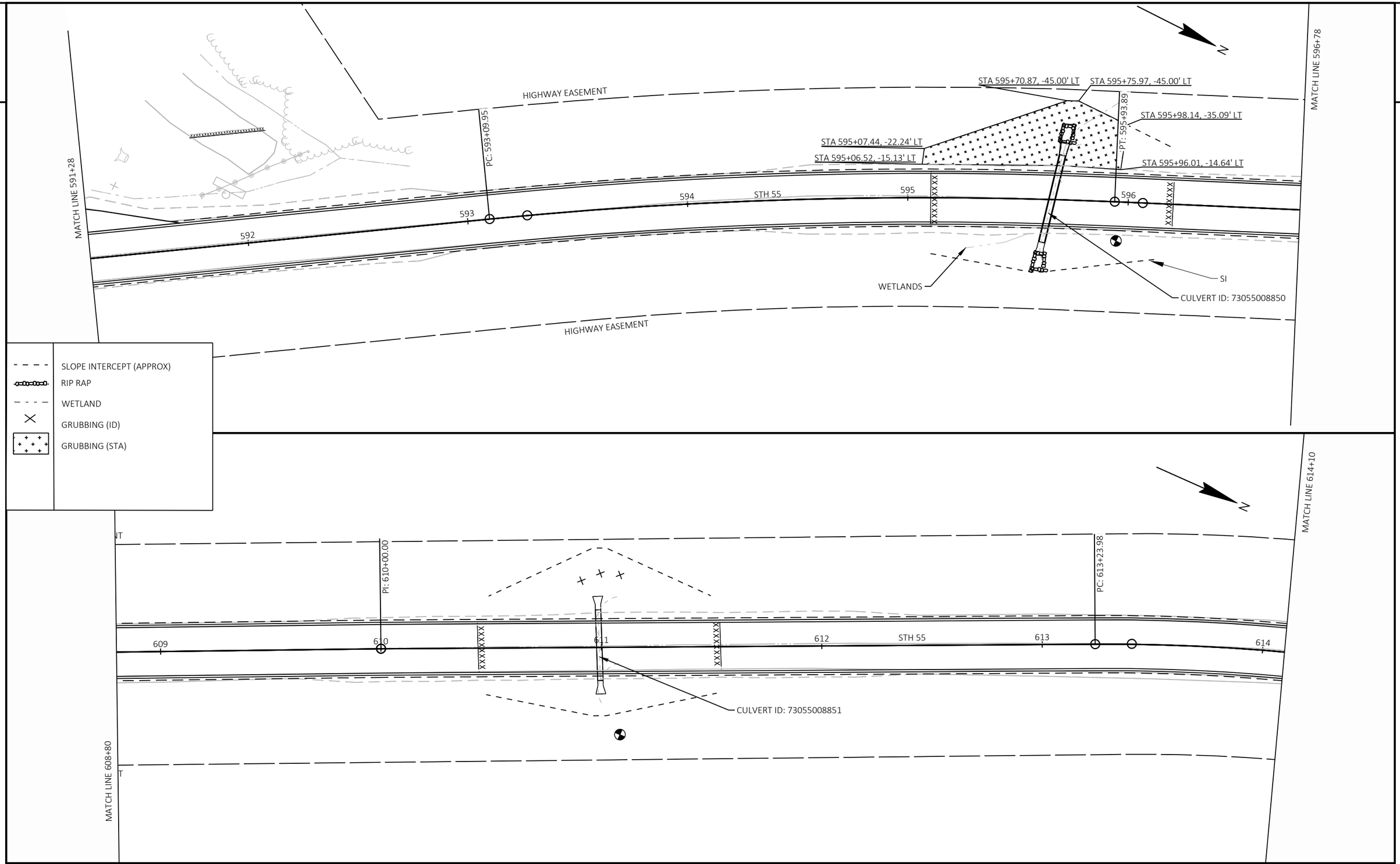
SLOPE INTERCEPT (APPROX)
RIP RAP
WETLAND
GRUBBING (ID)
GRUBBING (STA)



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 27	E

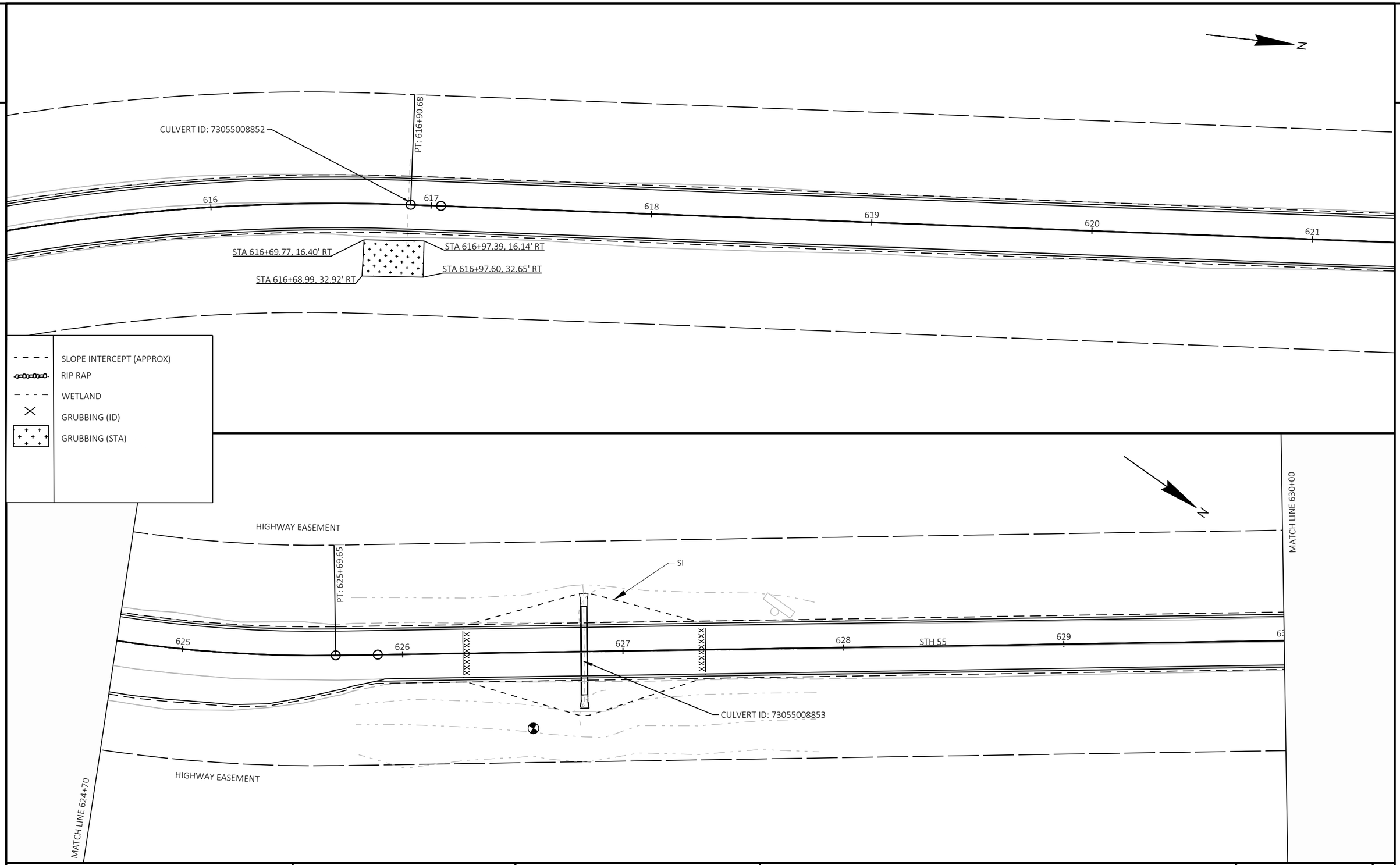
FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 13
PLOT DATE : 5/21/2025 12:55 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 28	E

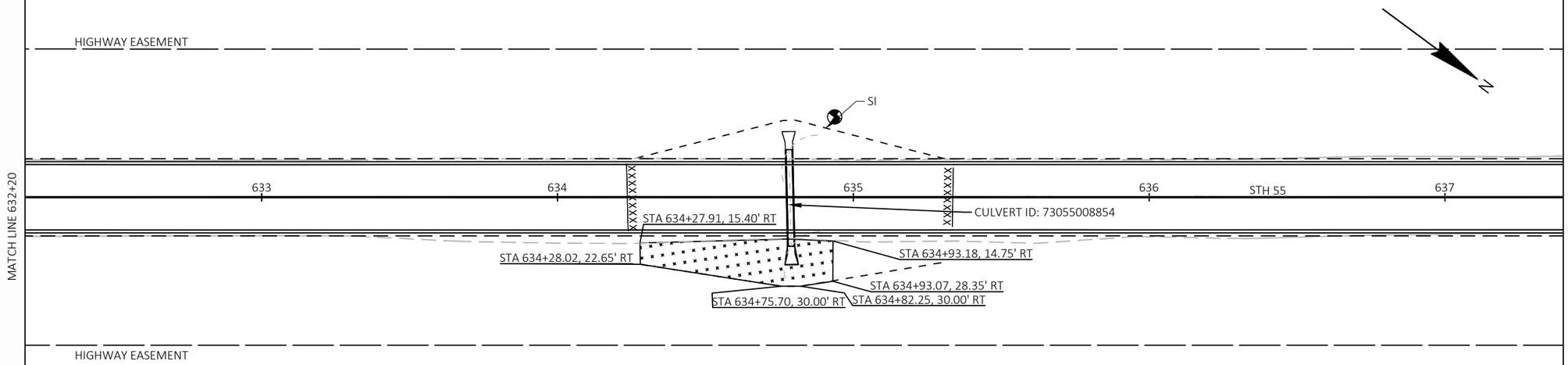
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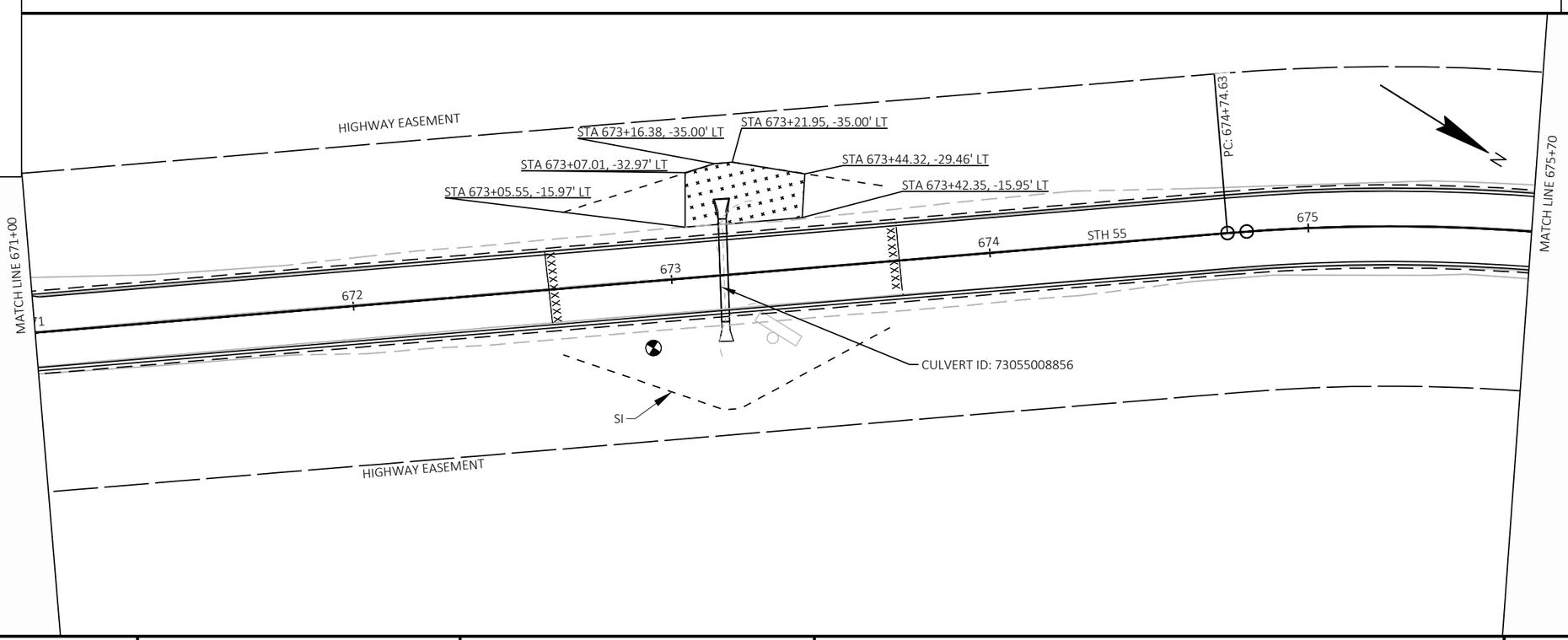
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 29	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 15
PLOT DATE : 5/21/2025 12:57 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2

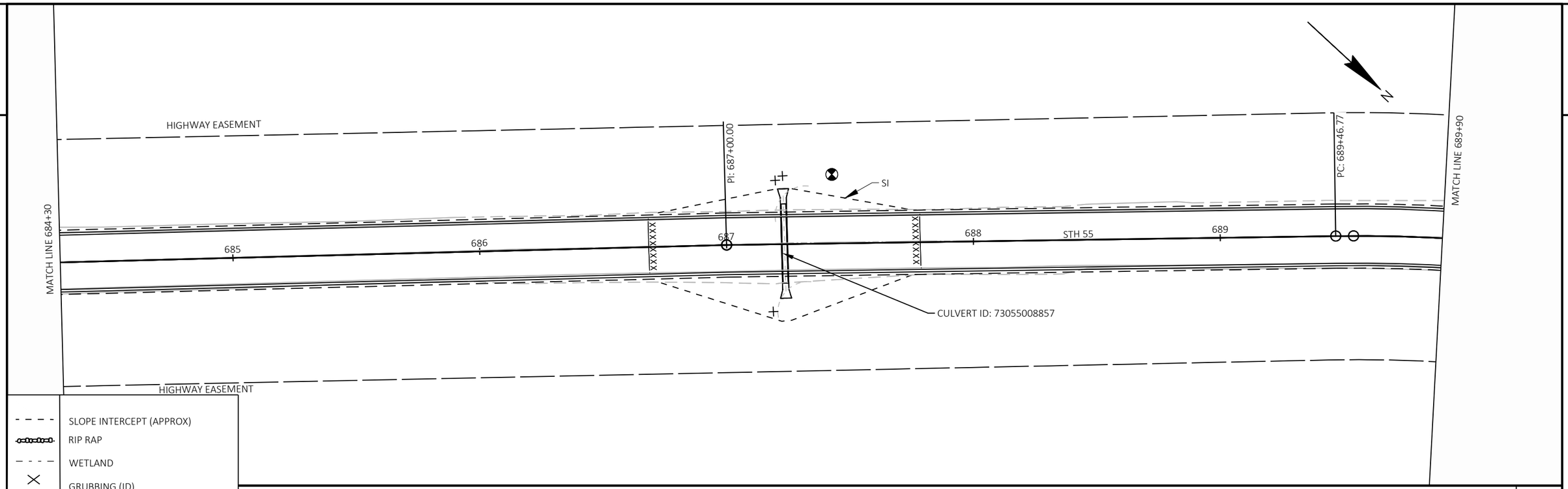


- SLOPE INTERCEPT (APPROX)
- RIP RAP
- WETLAND
- GRUBBING (ID)
- GRUBBING (STA)

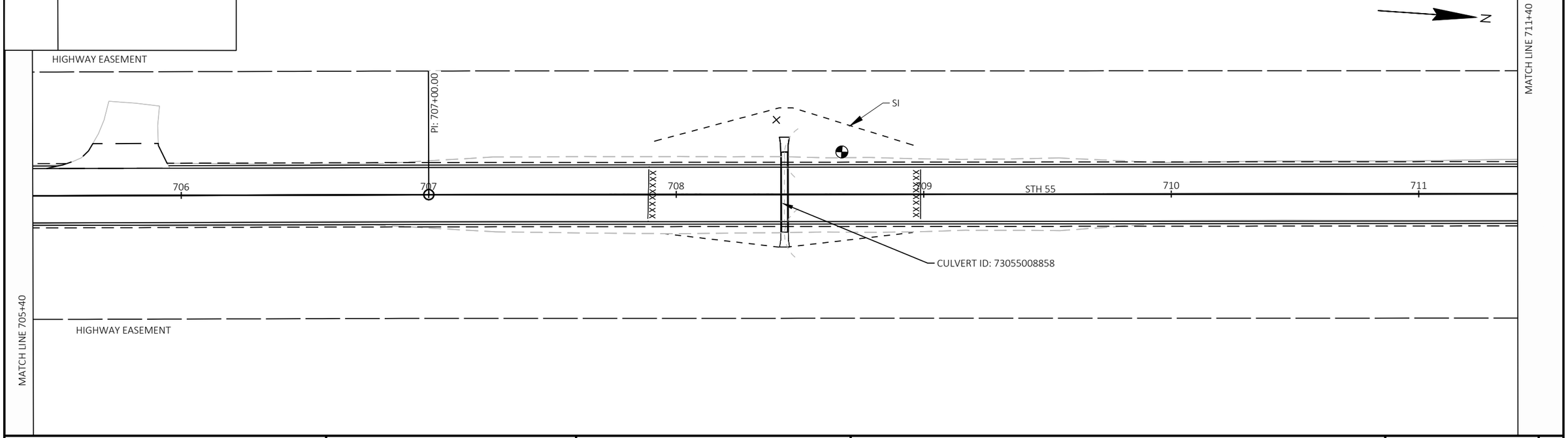


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 30	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 16
PLOT DATE : 5/21/2025 12:58 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44



SLOPE INTERCEPT (APPROX)
RIP RAP
WETLAND
GRUBBING (ID)
GRUBBING (STA)



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 31	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 17
PLOT DATE : 5/21/2025 1:00 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2

2

HIGHWAY EASEMENT

PCC: 784+40.12

PT: 785+84.16

MATCH LINE 783+70

784

785

786

787

788

STH 55

789

STA 787+41.47, -46.64' LT

STA 787+63.75, -46.64' LT

STA 787+30.29, -27.26' LT

STA 787+30.05, -19.04' LT

STA 787+79.88, -24.22' LT

STA 787+89.26, -21.25' LT

STA 787+89.34, -17.32' LT

CULVERT ID: 73055008859

SI

HIGHWAY EASEMENT

MATCH LINE 789+50

SLOPE INTERCEPT (APPROX)

RIP RAP

WETLAND

GRUBBING (ID)

GRUBBING (STA)

HIGHWAY EASEMENT

PI: 791+00.00

791

792

793

794

795

STH 55

SI

CULVERT ID: 73055008860

HIGHWAY EASEMENT

MATCH LINE 795+80

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 32	E

2

HIGHWAY EASEMENT

STA 804+14.03, -45.00' LT

STA 804+20.66, -45.00' LT

STA 804+38.49, -35.72' LT

STA 803+86.72, -31.06' LT

STA 803+85.63, -13.57' LT

STA 804+37.61, -13.78' LT

800 801 802 STH 55 803 804 805

CULVERT ID: 73055008861

SI

HIGHWAY EASEMENT

MATCH LINE 805+90

2

SLOPE INTERCEPT (APPROX)

RIP RAP

WETLAND

GRUBBING (ID)

GRUBBING (STA)

HIGHWAY EASEMENT

STA 841+31.95, -45.00' LT

STA 841+39.04, -45.00' LT

STA 840+85.13, -21.78' LT

STA 840+85.02, -14.00' LT

STA 841+87.65, -21.78' LT

STA 841+87.65, -13.47' LT

PC: 843+14.26

840 841 842 STH 55 843 844

CULVERT ID: 73055008862

SI

MATCH LINE 839+04

MATCH LINE 844+60

HIGHWAY EASEMENT

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 33	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 19

PLOT DATE : 5/21/2025 1:02 PM PLOT BY : BRETT DESTACHE PLOT NAME : PLOT SCALE : ##########

2

2

MATCH LINE 844+60

MATCH LINE 850+03

HIGHWAY EASEMENT

PT: 846+15.72

STA 847+65.32, -38.00' LT

STA 847+70.94, -38.00' LT

STA 847+84.68, -33.41' LT

STA 847+47, -31.75' LT

STA 847+48.91, -15.85' LT

STA 847+82.68, -15.89' LT

845 846 STH 55 847 848 849 850

SI

CULVERT ID: 73055008863

HIGHWAY EASEMENT

- SLOPE INTERCEPT (APPROX)
- RIP RAP
- WETLAND
- GRUBBING (ID)
- GRUBBING (STA)

CULVERT 8864 REMOVAL ONLY

HIGHWAY EASEMENT

MATCH LINE 850+03

851 852 STH 55 853 854 855 856

HIGHWAY EASEMENT

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 34	E

2

MATCH LINE 906+34

MATCH LINE 912+38

HIGHWAY EASEMENT

N

907

908

909

910

911

912

STH 55

WETLANDS

SI

CULVERT ID: 73055008867

WETLANDS

HIGHWAY EASEMENT

- SLOPE INTERCEPT (APPROX)
- RIP RAP
- WETLAND
- GRUBBING (ID)
- GRUBBING (STA)

HIGHWAY EASEMENT

PI: 954+00.00

STA 955+67.84, -32.38' LT

STA 955+72.34, -32.18' LT

STA 955+57.11, -28.16' LT

STA 955+95.07, -24.24' LT

STA 955+49.44, -15.42' LT

SI

STA 955+94.96, -15.84' LT

PC: 957+95.58

MATCH LINE 958+60

954

955

956

STH 55

957

958

CULVERT ID: 73055008870

STA 955+46.31, 12.33' RT

STA 955+87.73, 11.95' RT

STA 955+43.30, 31.70' RT

STA 955+82.80, 33.13' RT

STA 955+70.34, 35.00' RT

STA 955+64.44, 35.00' RT

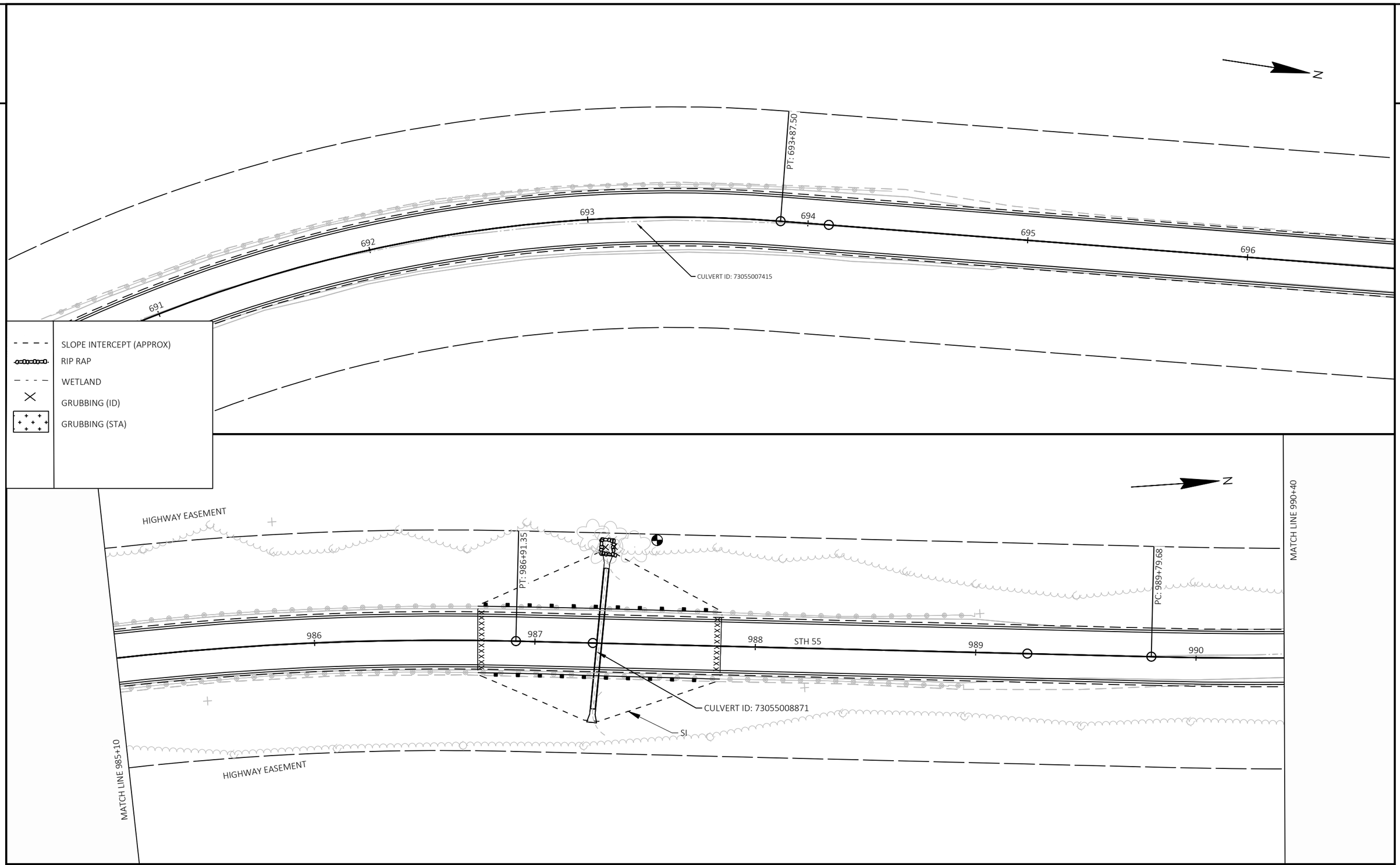
MATCH LINE 953+30

HIGHWAY EASEMENT

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 35	E

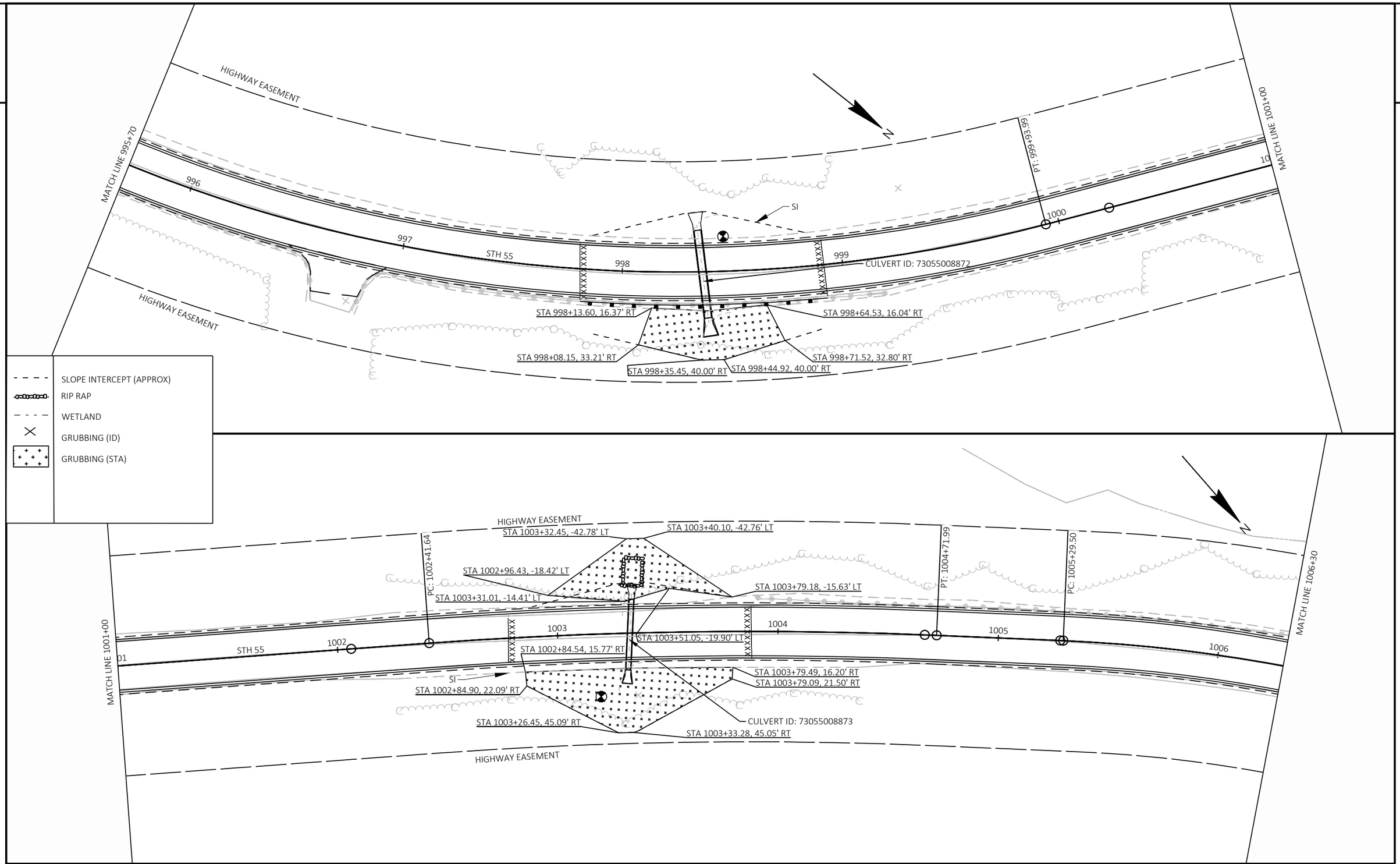
FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 21
PLOT DATE : 5/21/2025 1:04 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 36	E

2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 37	E

2

2

HIGHWAY EASEMENT

PC: 1027+23.51

1026 1027 1028 STH 55 1029 1030 1031

STA 1026+89.79, 13.00' RT

STA 1026+60, 15.21' RT

STA 1028+84.69, 13.00' RT

STA 1029+06.89, 15.18' RT

STA 1026+70, 27.46' RT

STA 1026+90, 21.52' RT

STA 1027+00, 20.41' RT

STA 1027+10, 24.13' RT

STA 1027+40, 30.49' RT

STA 1028+40, 31.00' RT

STA 1028+90, 26.33' RT

STA 1029+00, 24.47' RT

HIGHWAY EASEMENT

SLOPE INTERCEPT (APPROX)

RIP RAP

WETLAND

GRUBBING (ID)

GRUBBING (STA)

N

HIGHWAY EASEMENT

PT: 1056+64.85

PC: 1059+01.31

SI

MATCH LINE 1054+00

54

1055

1056

1057

STH 55

1058

1059

MATCH LINE 1059+30

CULVERT ID: 73055008876

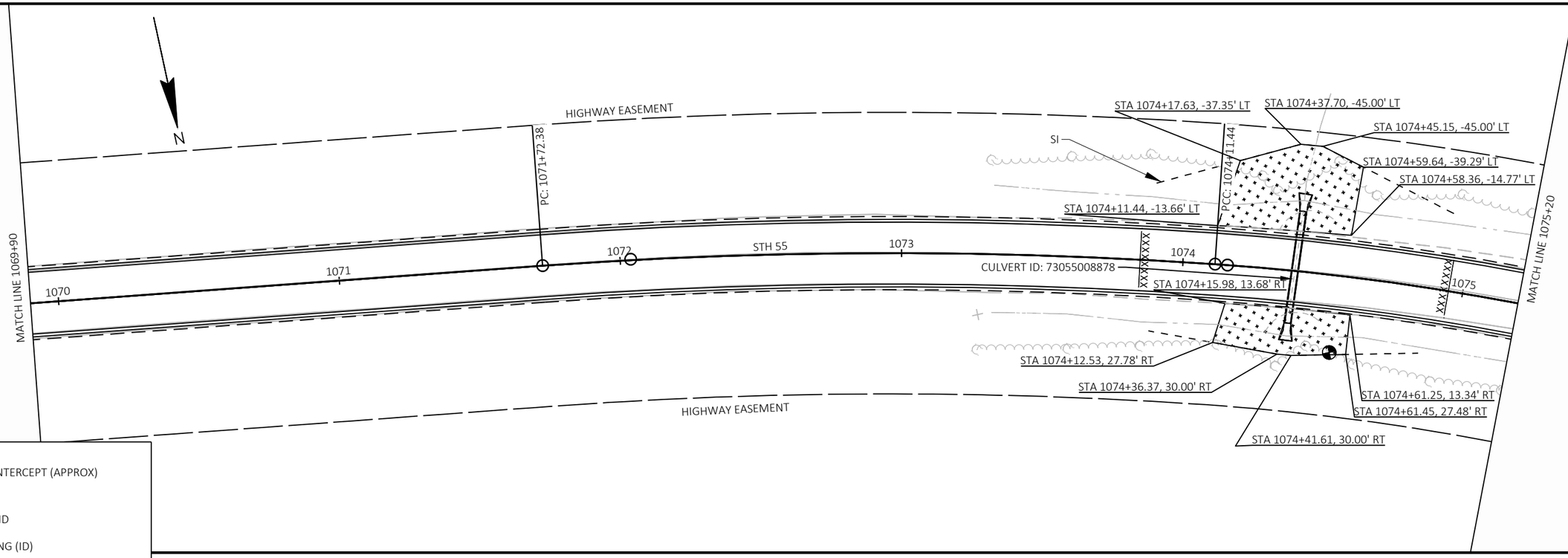
HIGHWAY EASEMENT

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 38	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG PLOT DATE : 5/21/2025 1:07 PM PLOT BY : BRETT DESTACHE PLOT NAME : PLOT SCALE : ########## WISDOT/CADDS SHEET 44

LAYOUT NAME - 24

2



- SLOPE INTERCEPT (APPROX)
- RIP RAP
- WETLAND
- GRUBBING (ID)
- GRUBBING (STA)

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	GRUBBING	SHEET 39	E

FILE NAME : Z:\SHARED\DESIGNS\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\022001-GRUBBING.DWG
LAYOUT NAME - 25
PLOT DATE : 5/21/2025 1:08 PM
PLOT BY : BRETT DESTACHE
PLOT NAME :
PLOT SCALE : ##########

2

2

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

WETLAND BOUNDARY

ASPH
PE

HIGHWAY EASEMENT

PI: 111+00.00

PC: 113+47.64

MATCH LINE 115+90

STH 55

111 112 113 114 115

MATCH LINE 110+60

HIGHWAY EASEMENT

CULVERT ID: 73055007395

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

GUY

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

MATCH LINE 147+70

PT: 144+91.95

PC: 146+99.09

142 143 144 145 146 147

STH 55

CULVERT ID: 73055007397

CULVERT ID: 73055007398

MATCH LINE 142+00

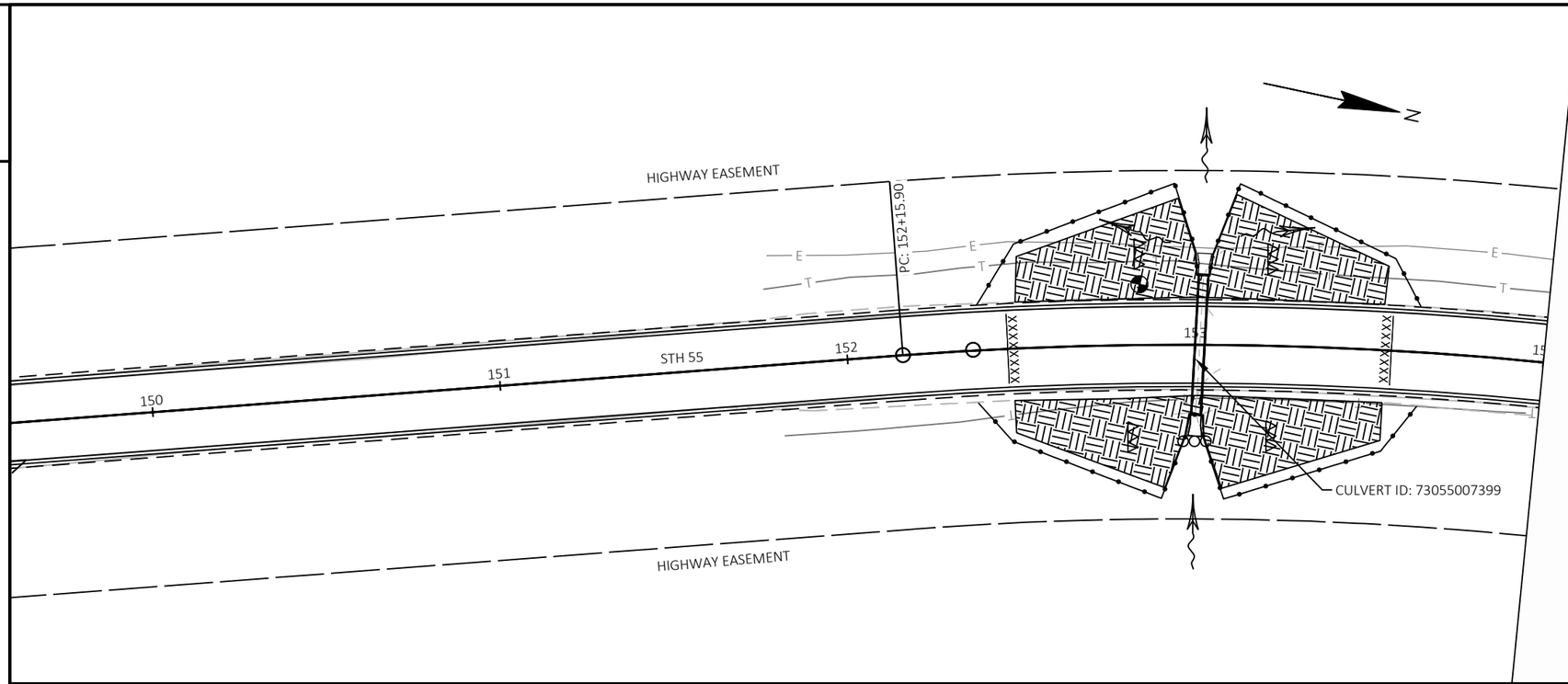
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 40	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 29

PLOT DATE : 10/22/2025 9:04 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

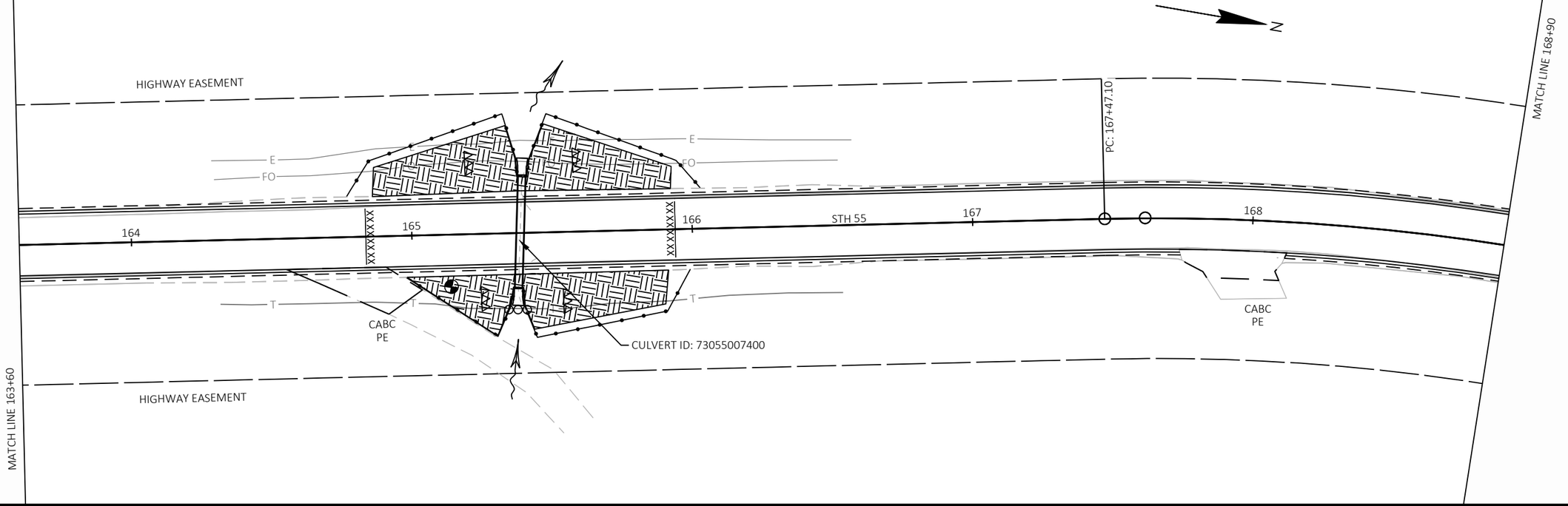
WISDOT/CADDS SHEET 44

2



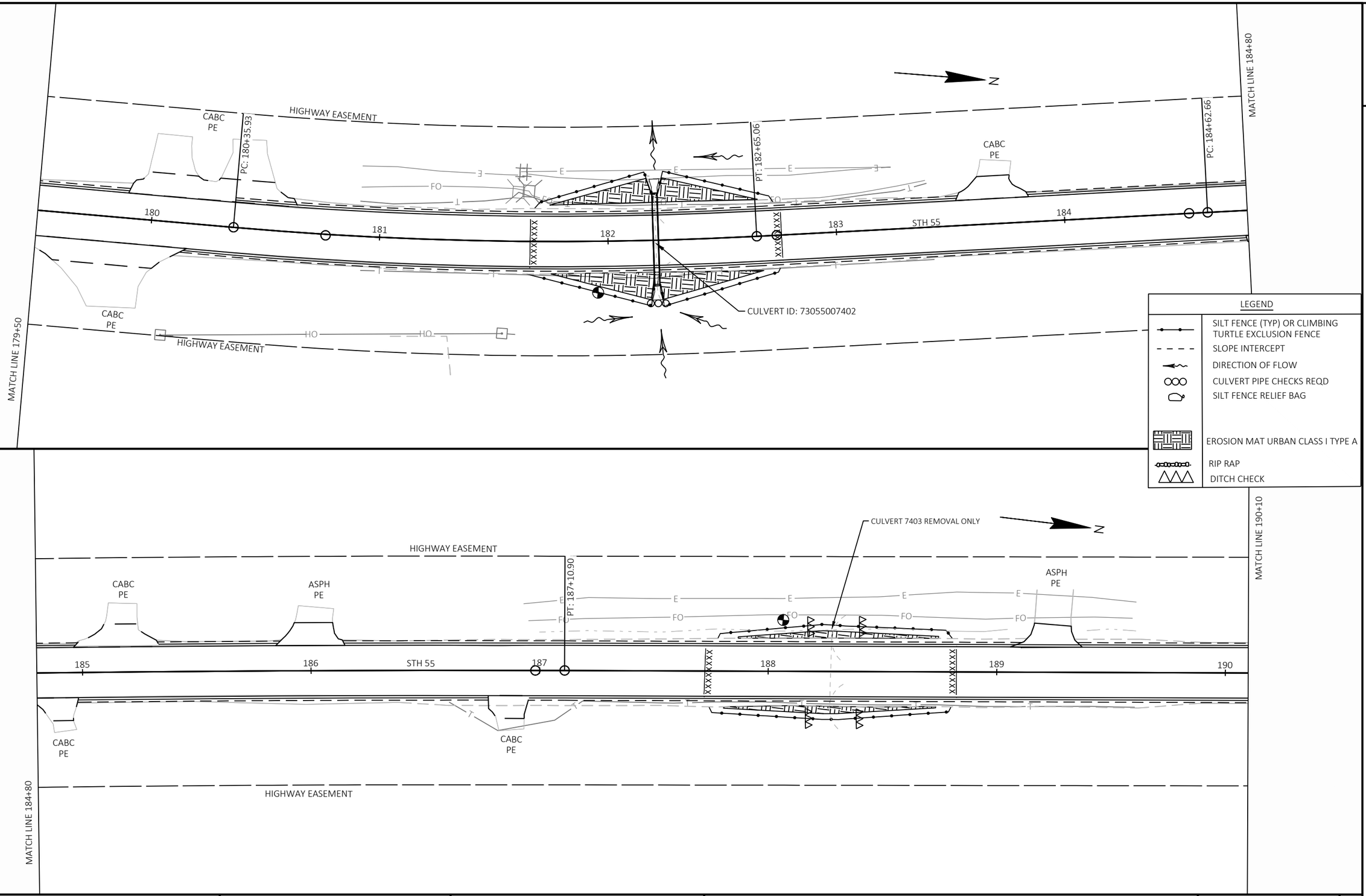
LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 41	E

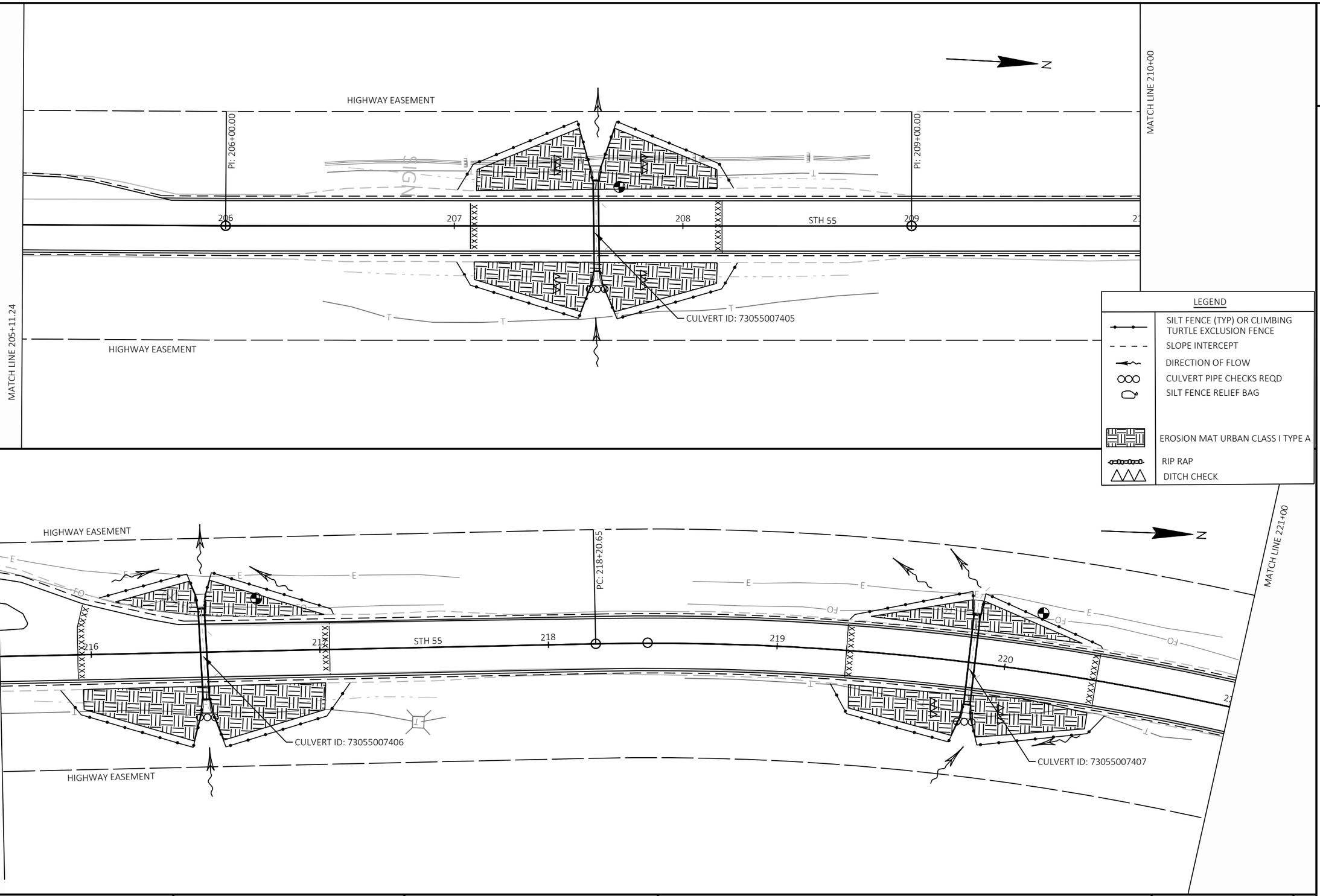
2



2

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 42	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 31
PLOT DATE : 10/22/2025 9:05 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT



2

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 43	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 32
PLOT DATE : 10/22/2025 9:06 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

HIGHWAY EASEMENT

E E E E

FO FO FO FO

T T T

235 236 STH 55 237 238 239 240

MATCH LINE 235+00

MATCH LINE 240+33.56

CULVERT ID: 73055007409

CABC
PE

HIGHWAY EASEMENT

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

FANNY LAMAY RD

MATCH LINE 253+70

HIGHWAY EASEMENT

E E E E E

FO FO FO FO

T T T

249 STH 55 250 251 252 253

CABC
PE

CULVERT ID: 73055007410

HIGHWAY EASEMENT

CABC
PE

MATCH LINE 248+40

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 44	E

2

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

WETLAND BOUNDARY

HIGHWAY EASEMENT

PI: 268+00.00

PC: 269+80.00

PT: 271+32.37

MATCH LINE 272+00

N

E

FO

T

STH 55

268

269

270

271

CULVERT ID: 73055007412

MATCH LINE 267+00

HIGHWAY EASEMENT

WETLAND BOUNDARY

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

N

HIGHWAY EASEMENT

PC: 276+52.59

ASPH

PT: 280+98.64

MATCH LINE 281+40

277

278

STH 55

279

280

281

CULVERT ID: 73055007413

CABC

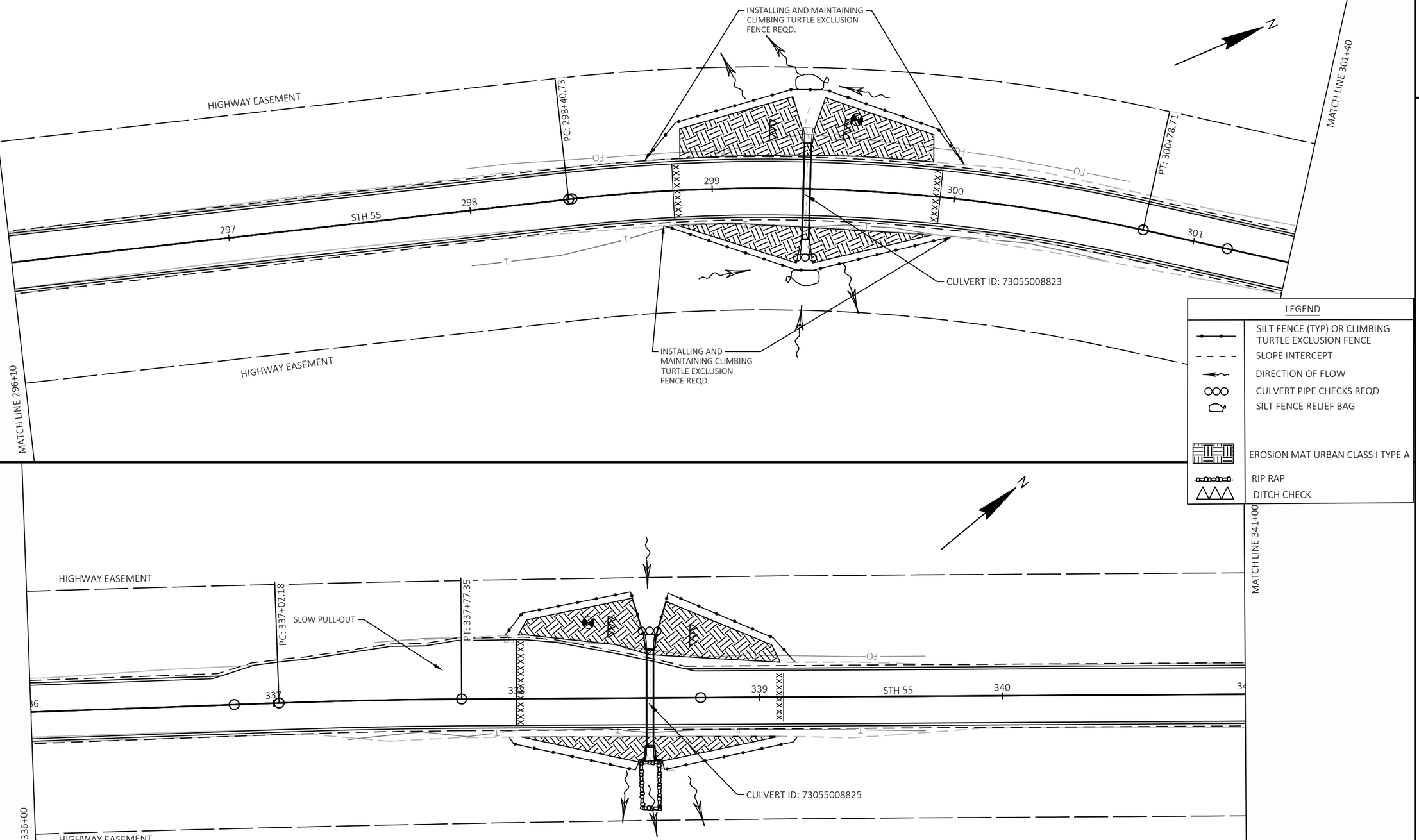
PE

HIGHWAY EASEMENT

MATCH LINE 276+40

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 45	E

2



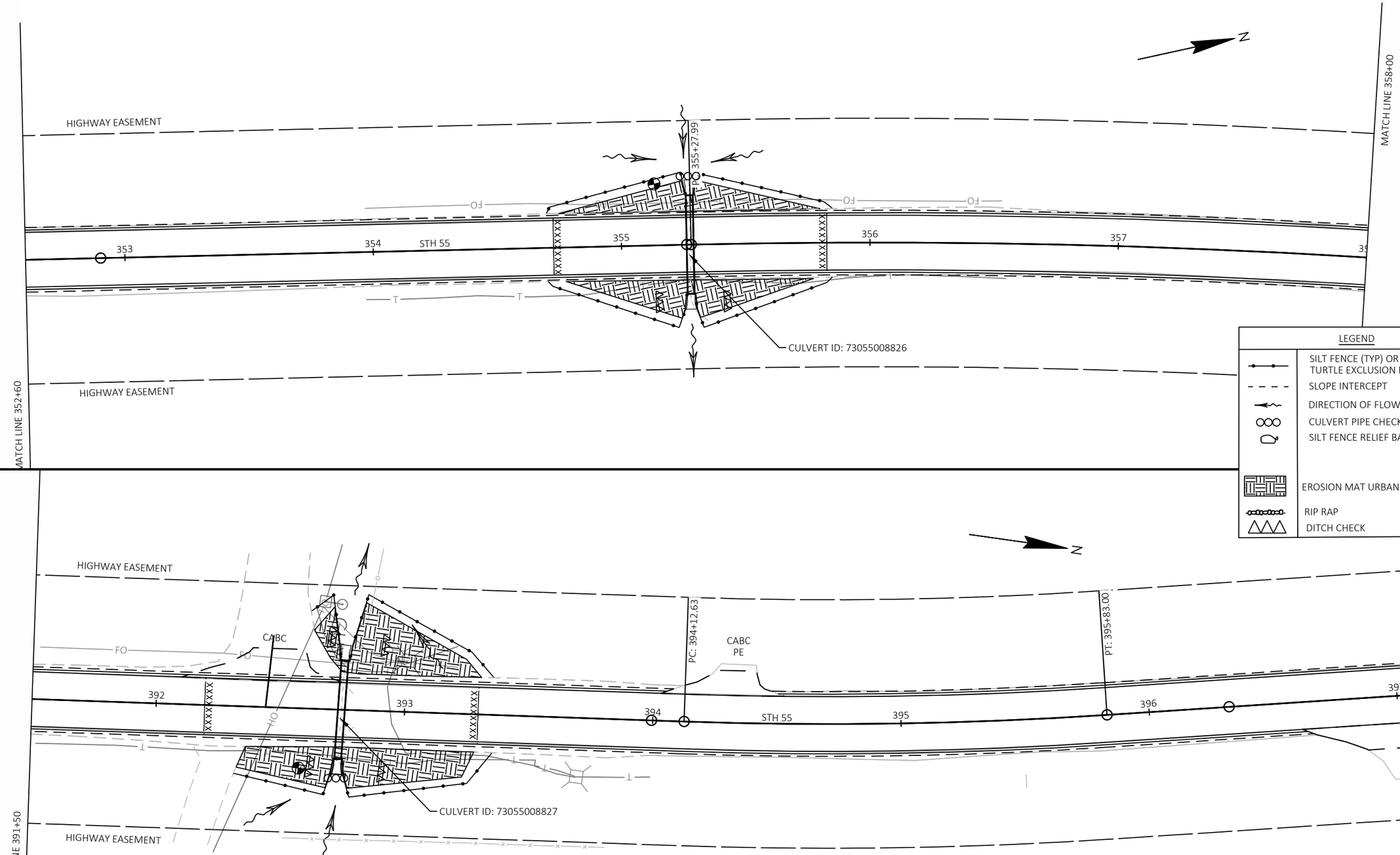
LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 46	E

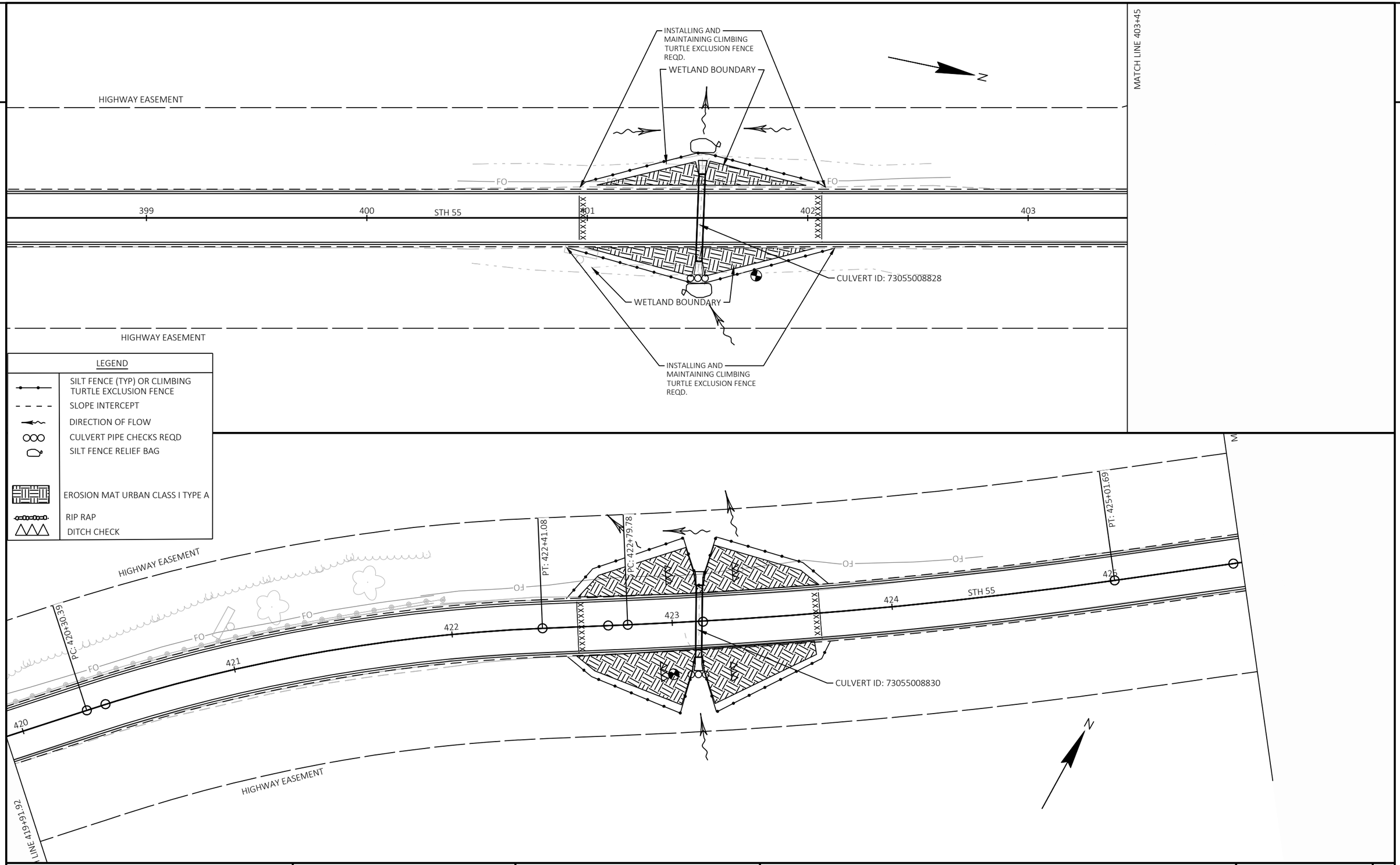
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 35
PLOT DATE : 10/22/2025 9:08 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 47	E

2



2

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 48	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 37
PLOT DATE : 10/22/2025 9:09 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

HIGHWAY EASEMENT

438 439 440 STH 55 441 442

FO FO

T T T

OH OH OH OH

HIGHWAY EASEMENT

CULVERT ID: 73055008831

MATCH LINE 437+15

N

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

N

CULVERT 8833 REMOVAL ONLY

HIGHWAY EASEMENT

CABC

PE

FO FO FO

4 445 446 STH 55 447 448 449

T T T T

HO HO HO HO

HIGHWAY EASEMENT

MATCH LINE 449+50

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 49	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 38

PLOT DATE : 10/22/2025 9:09 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

CULVERT 8834 REMOVAL ONLY

HIGHWAY EASEMENT

PC: 453+59.47

MATCH LINE 455+10

450 451 STH 55 452 453 454 455

GUY

HIGHWAY EASEMENT

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

WETLAND BOUNDARY

HIGHWAY EASEMENT

PT: 461+97.67

PC: 464+20.29

461 462 463 STH 55 464

CULVERT ID: 73055008836

MATCH LINE 460+38

WETLAND BOUNDARY

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

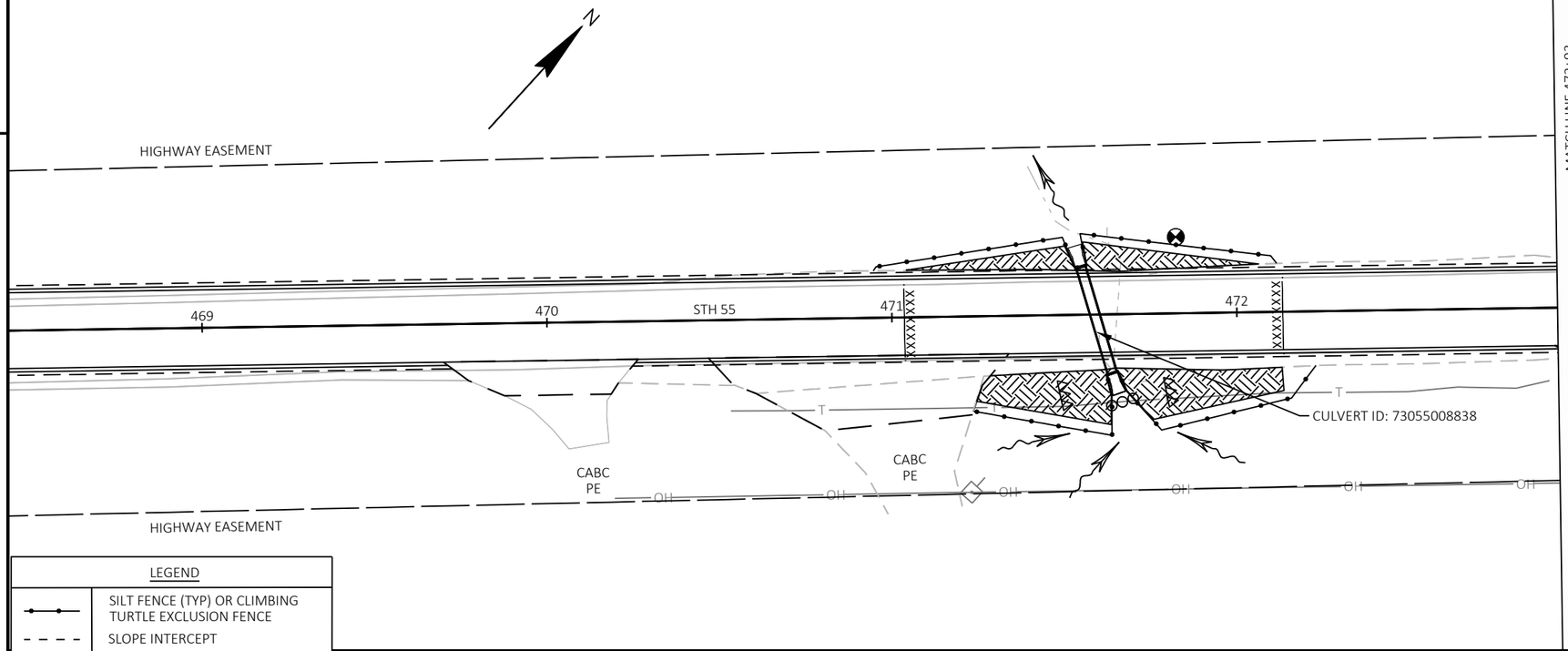
HIGHWAY EASEMENT

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 50	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 39

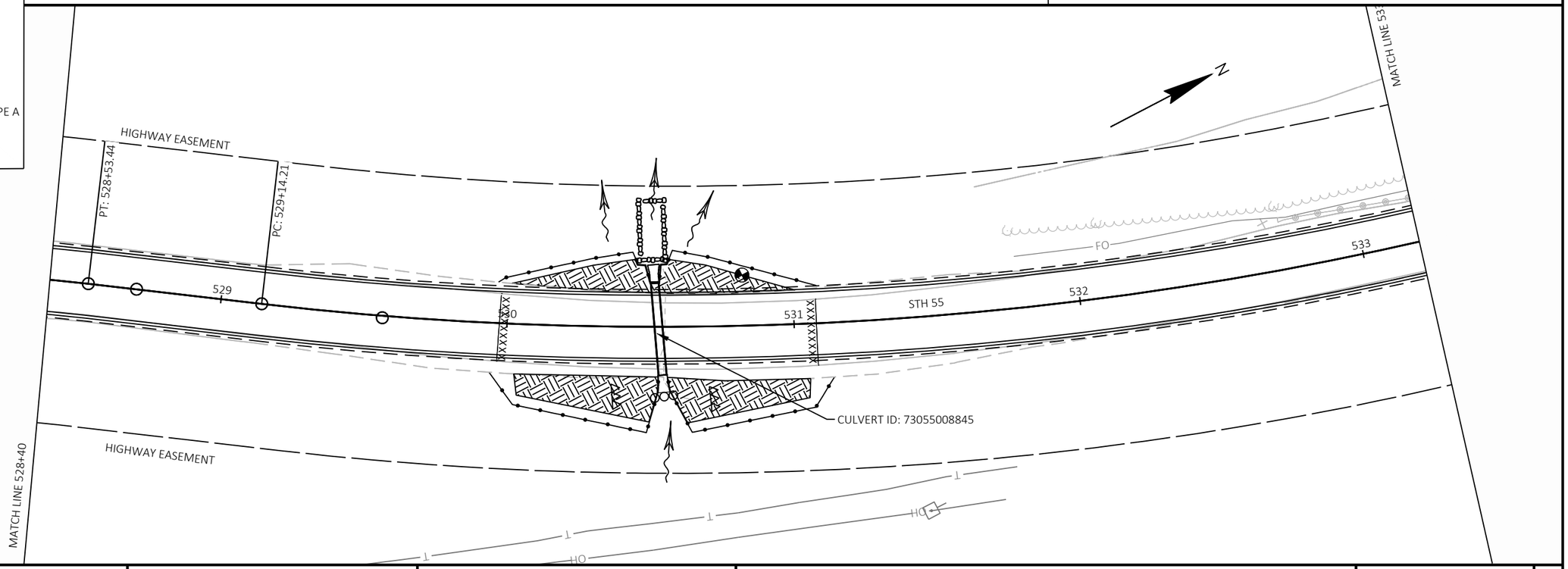
PLOT DATE : 10/22/2025 9:10 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

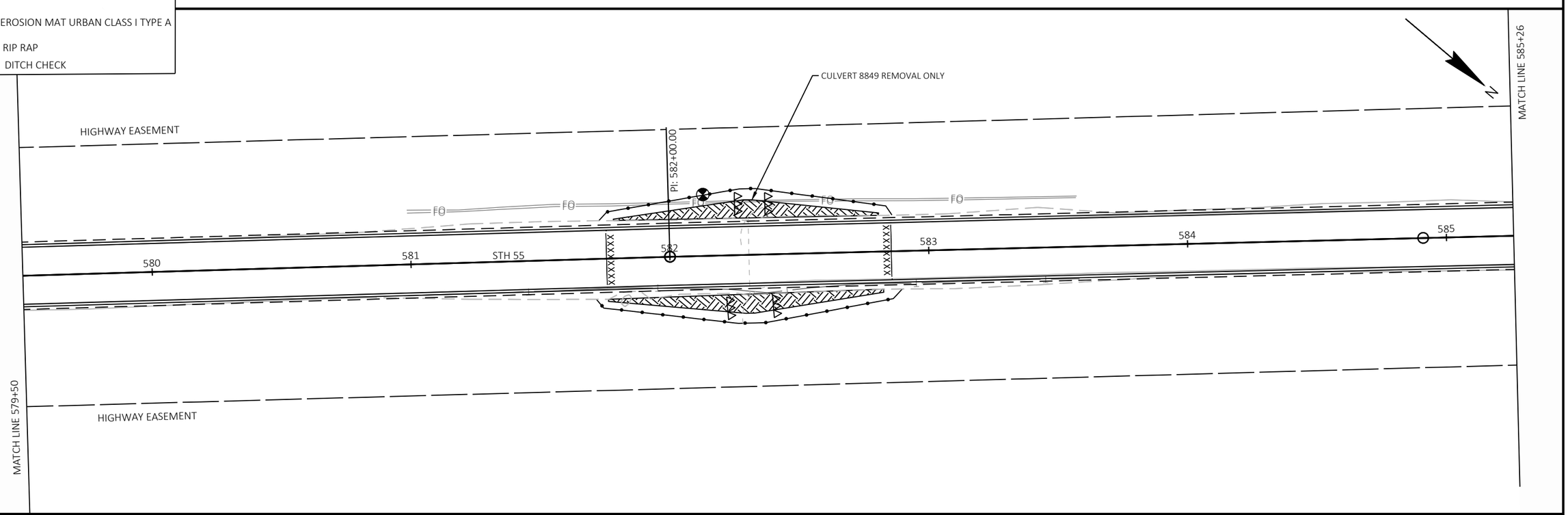


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 51	E

THIS VIEW INTENTIONALLY LEFT BLANK

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 52	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 41

PLOT DATE : 10/22/2025 9:11 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

HIGHWAY EASEMENT

PC: 593+09.95

592 593 594 STH 55 595 596

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

PT: 595+93.89

MATCH LINE 596+78

CULVERT ID: 73055008850

WETLAND BOUNDARY

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

HIGHWAY EASEMENT

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

PI: 610+00.00

PC: 613+23.98

609 610 611 612 STH 55 613 614

MATCH LINE 608+80

MATCH LINE 614+10

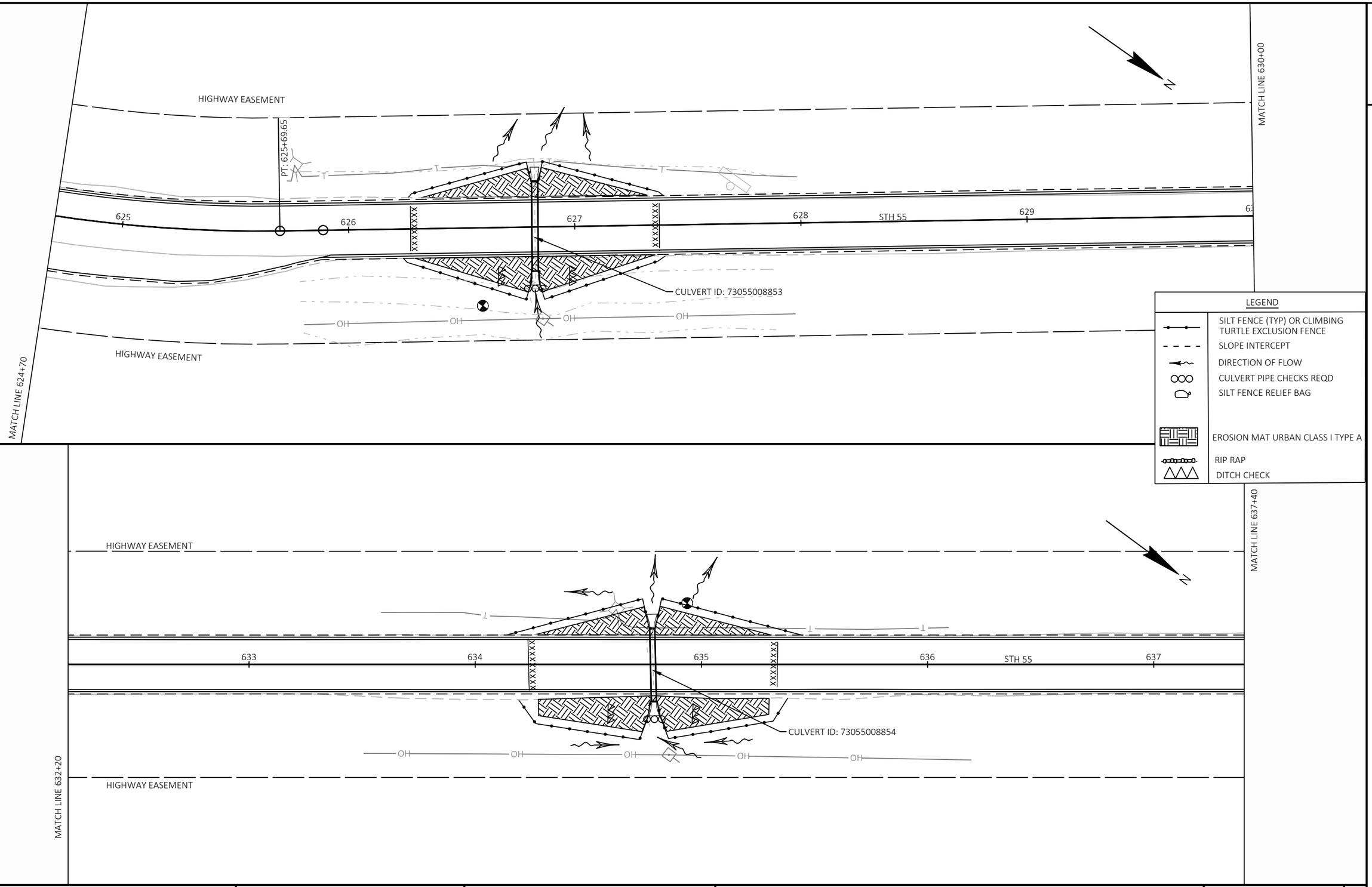
CULVERT ID: 73055008851

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 53	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 42

PLOT DATE : 10/22/2025 9:11 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

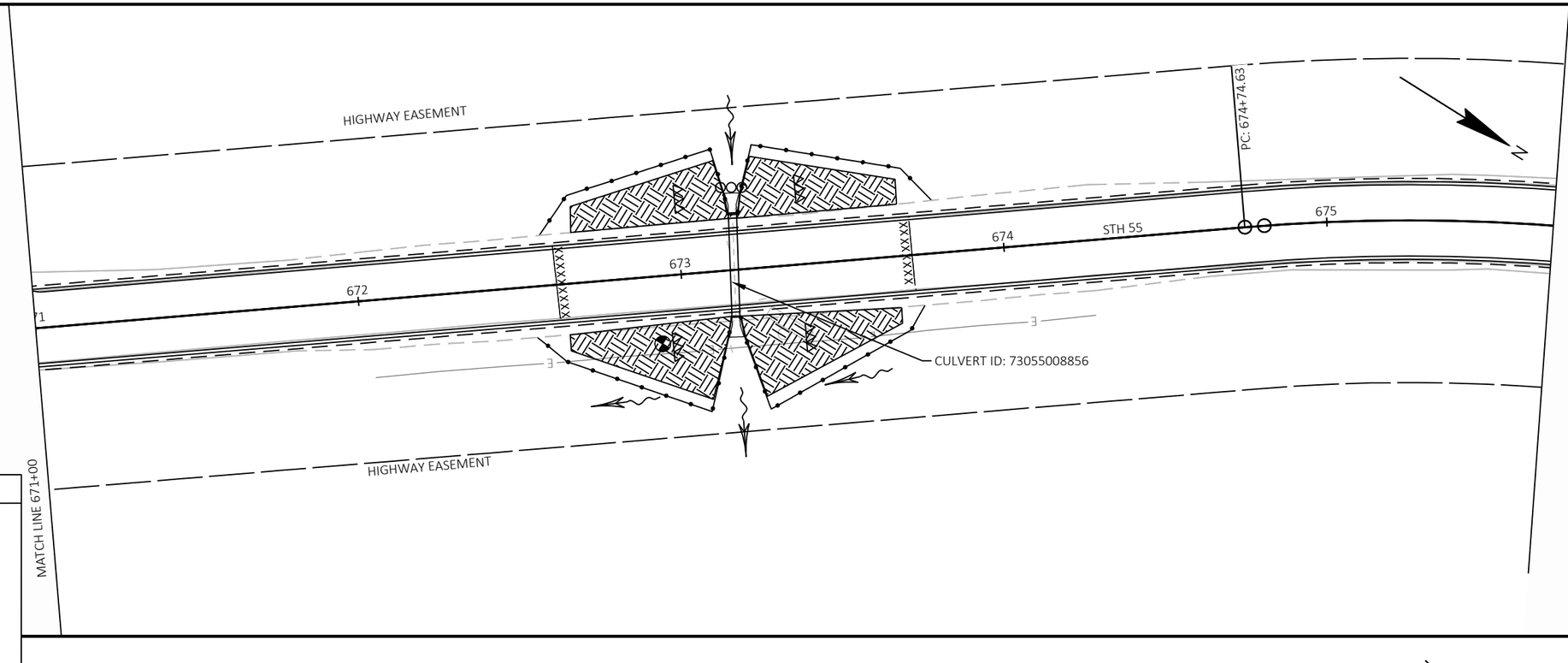


2

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 54	E

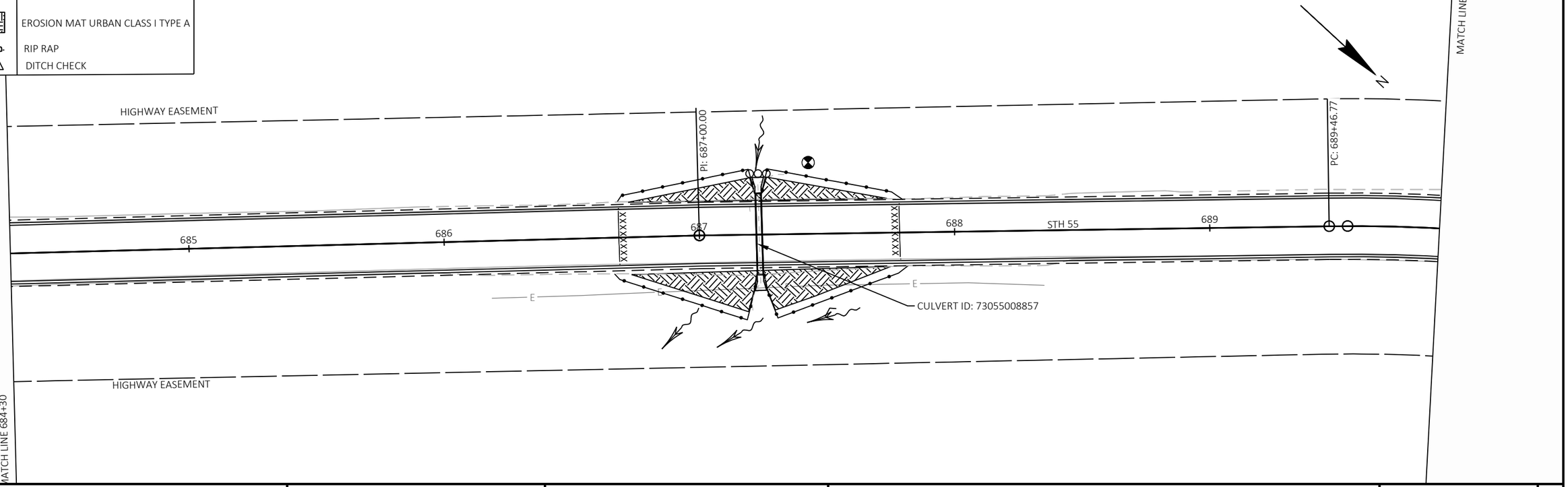
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 43
PLOT DATE : 10/22/2025 9:12 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2



LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

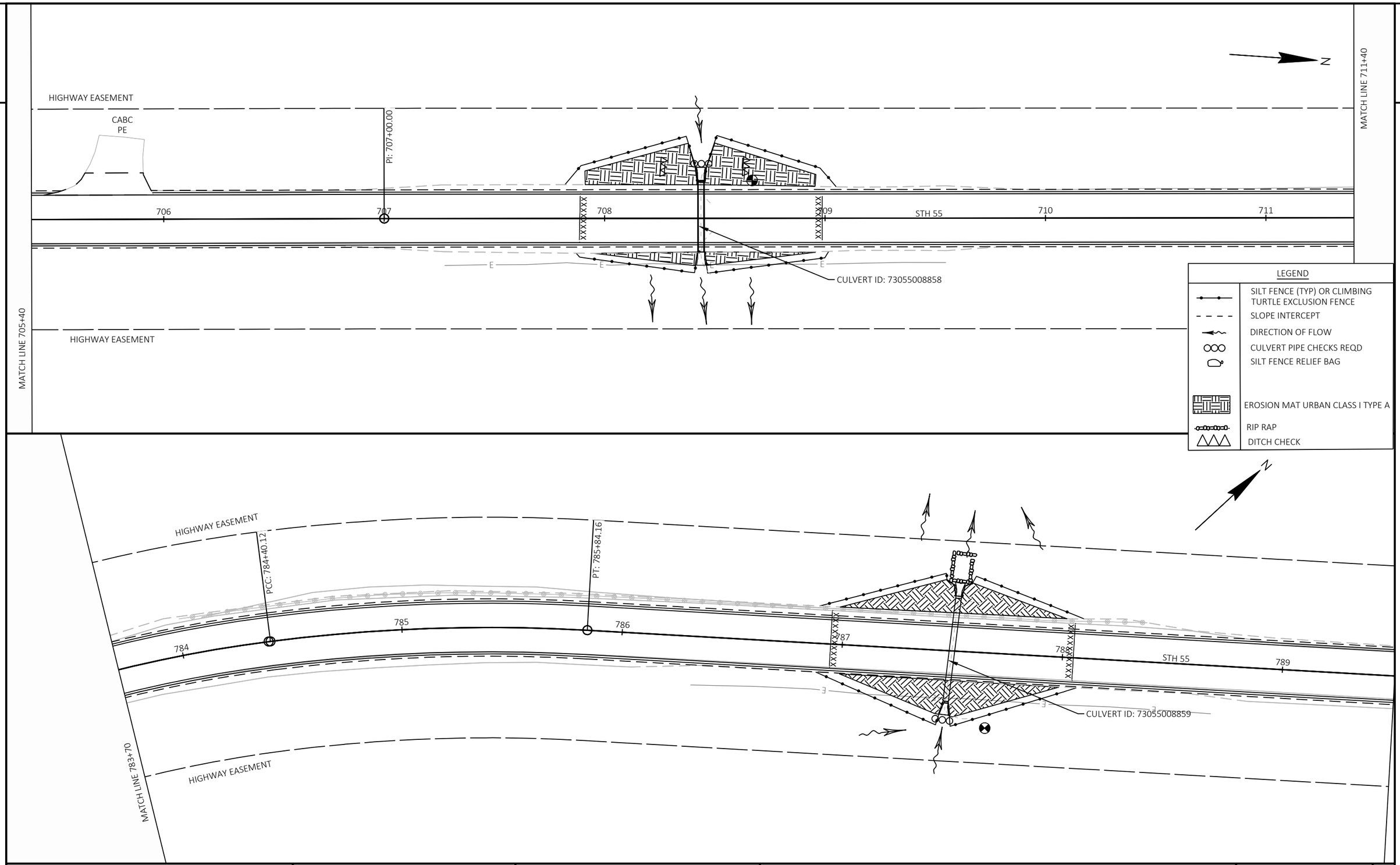


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 55	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 44

PLOT DATE : 10/22/2025 9:12 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

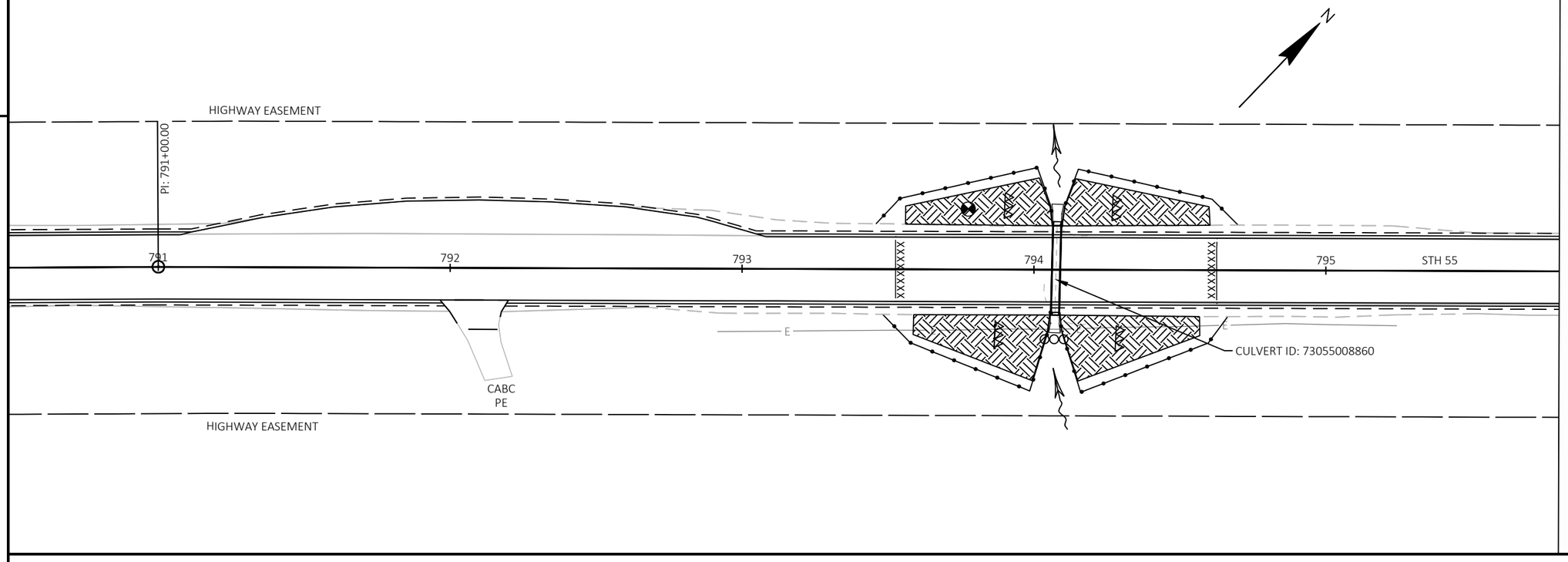
WISDOT/CADDS SHEET 44



2

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 56	E

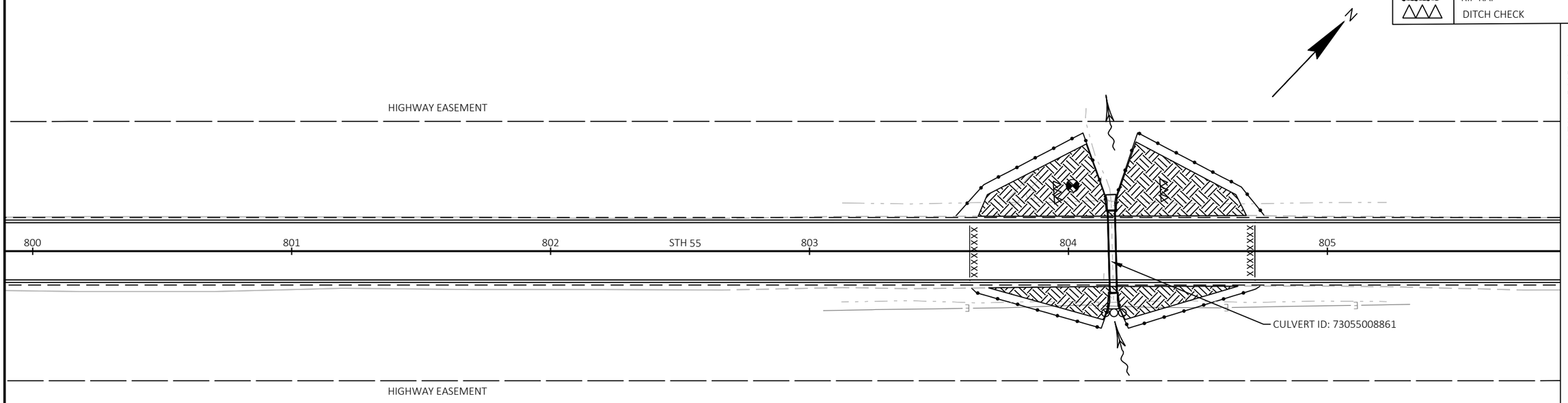
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 45
PLOT DATE : 10/22/2025 9:13 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



2

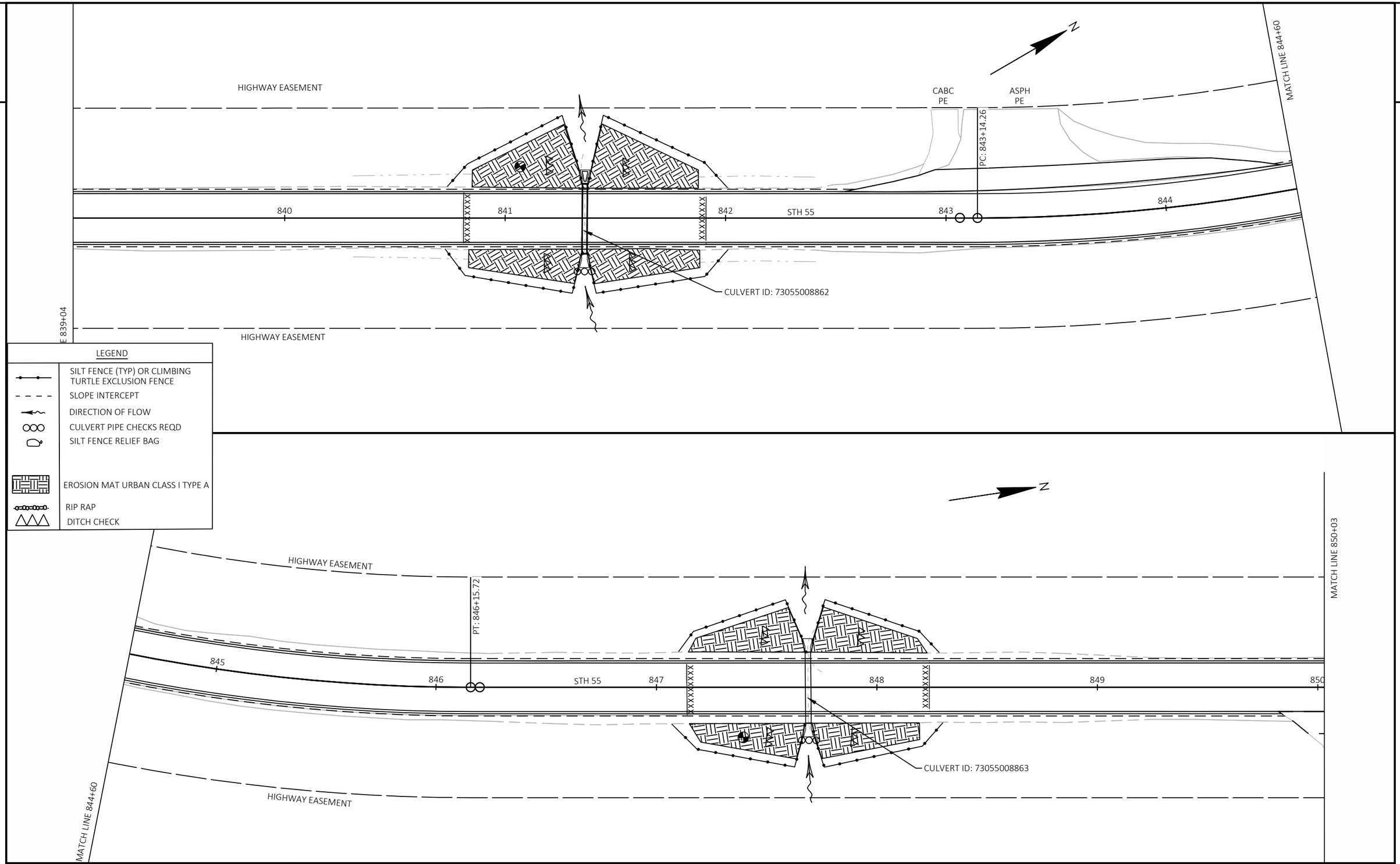
LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 57	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 46
PLOT DATE : 10/22/2025 9:13 AM
PLOT BY : AIDEN STROESSENREUTHER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



2

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 58	E

2

2

N

CULVERT 8864 REMOVAL ONLY

HIGHWAY EASEMENT

CABC
PE

851 852 STH 55 853 854 855 856

CABC
PE

HIGHWAY EASEMENT

MATCH LINE 850+03

LEGEND

- SILT FENCE (TYP) OR CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- DIRECTION OF FLOW
- CULVERT PIPE CHECKS REQD
- SILT FENCE RELIEF BAG
- EROSION MAT URBAN CLASS I TYPE A
- RIP RAP
- DITCH CHECK

MATCH LINE 912+38

HIGHWAY EASEMENT

907 908 909 910 911 912

STH 55

N

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

WETLAND BOUNDARY

CABC
PE

HIGHWAY EASEMENT

CULVERT ID: 73055008867

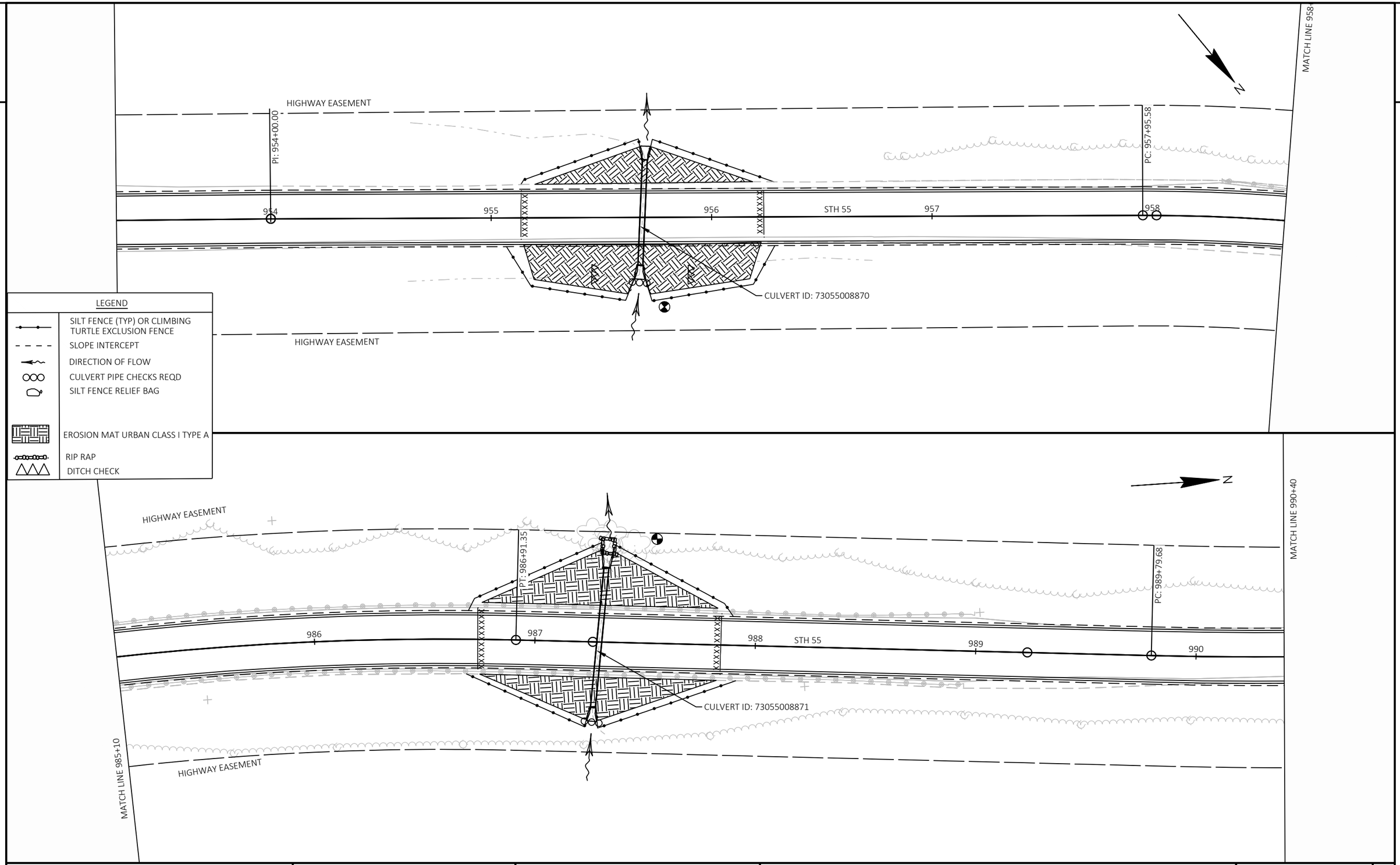
INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE REQD.

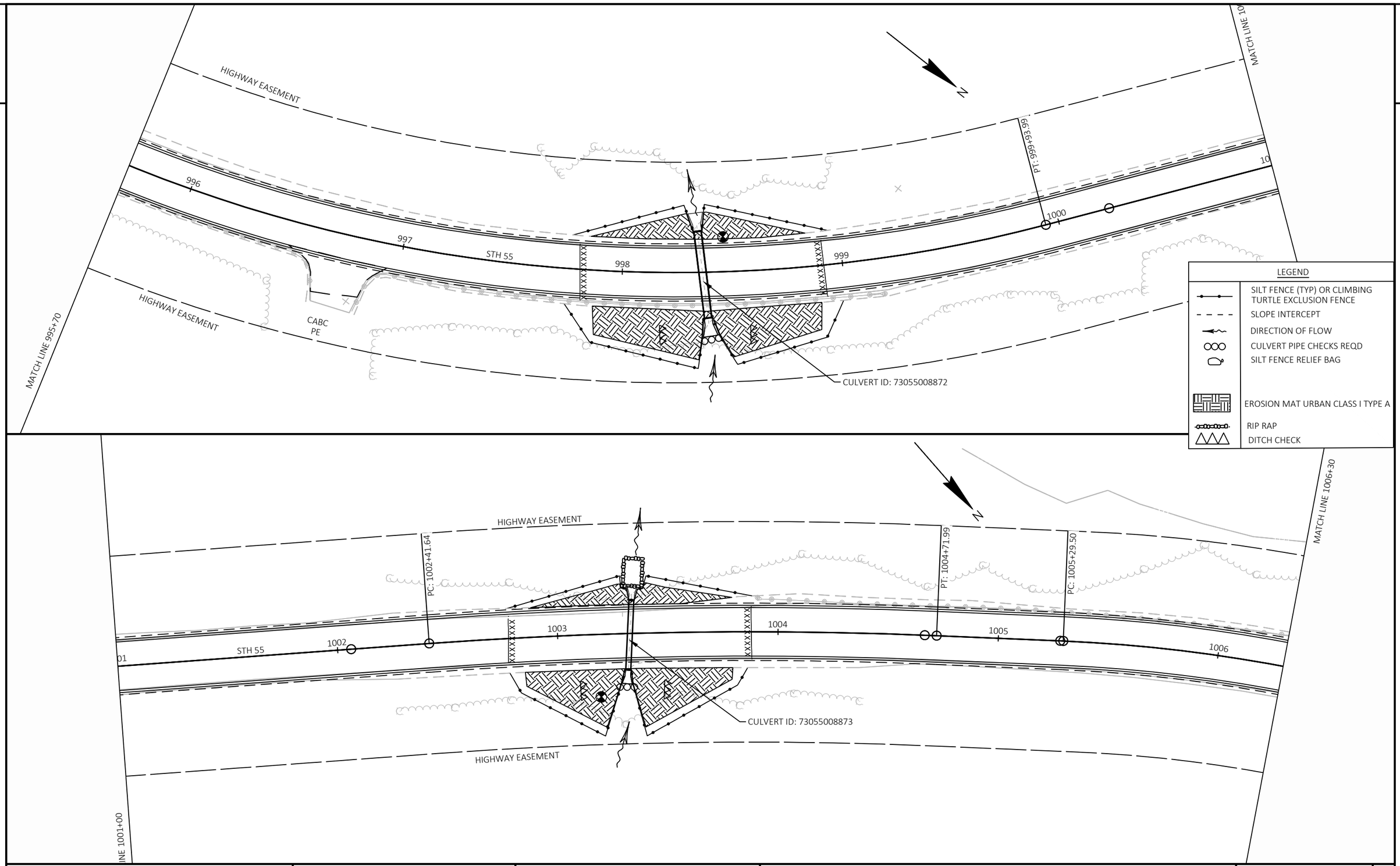
WETLAND BOUNDARY

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 59	E

2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 60	E



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 61	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 50
PLOT DATE : 10/22/2025 9:16 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

HIGHWAY EASEMENT

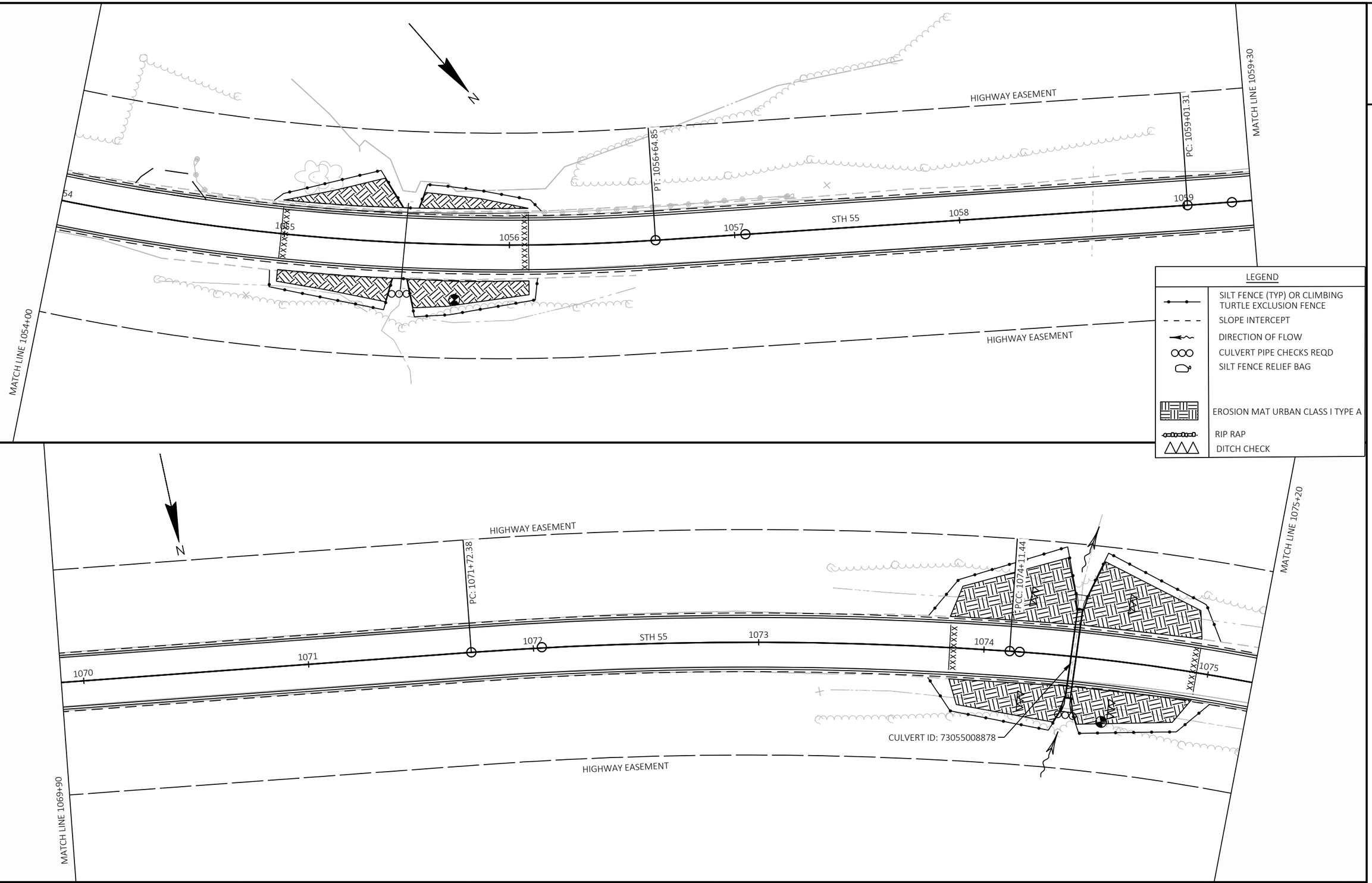
PC: 1027+23.51

MATCH LINE 1031+29

1026 1027 1028 STH 55 1029 1030 1031

XXXX

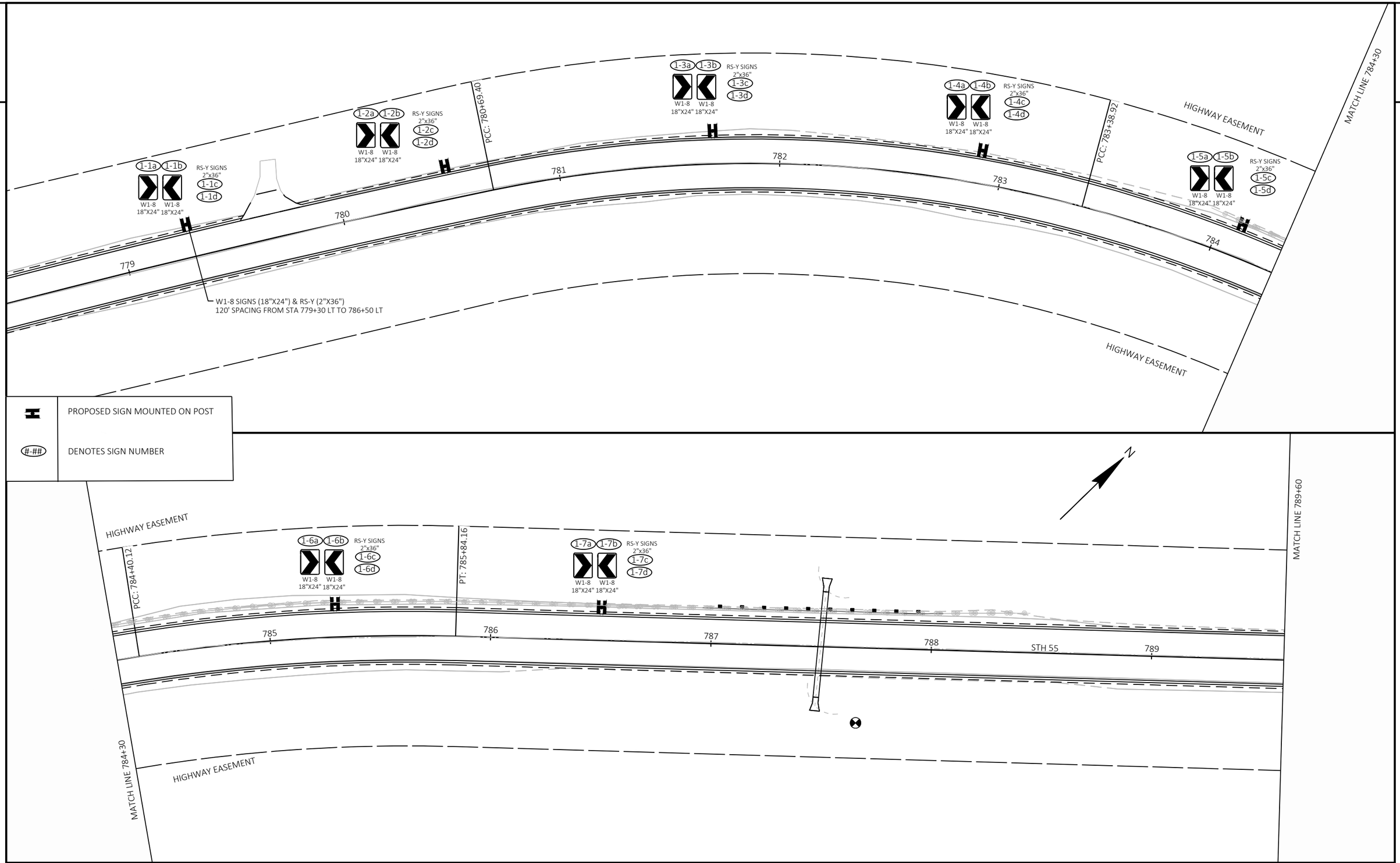
2



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	EROSION CONTROL	SHEET 63	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\022001-EC ACTUAL PLAN 9660-09-00.DWG
LAYOUT NAME - 52

PLOT DATE : 10/22/2025 9:17 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PERMANENT SIGNING	SHEET 64	E

2

2

HIGHWAY EASEMENT

PI: 901+00.00

W1-8 SIGNS (18"X24") & RS-Y (2"X36")
120' SPACING FROM STA 902+40 RT TO 918+00 RT

PC: 905+15.51

MATCH LINE 906+20

901 902 903 904 905 906

W1-8 18"X24" (2-1a) W1-8 18"X24" (2-1b) RS-Y SIGNS 2"x36" (2-1c) (2-1d)

W1-8 18"X24" (2-2a) W1-8 18"X24" (2-2b) RS-Y SIGNS 2"x36" (2-2c) (2-2d)

W1-8 18"X24" (2-3a) W1-8 18"X24" (2-3b) RS-Y SIGNS 2"x36" (2-3c) (2-3d)

W1-8 18"X24" (2-4a) W1-8 18"X24" (2-4b) RS-Y SIGNS 2"x36" (2-4c) (2-4d)

HIGHWAY EASEMENT

MATCH LINE 900+90

PROPOSED SIGN MOUNTED ON POST

#-## DENOTES SIGN NUMBER

N

MATCH LINE 911+50

HIGHWAY EASEMENT

907 908 909 910 911

STH 55

W1-8 18"X24" (2-5a) W1-8 18"X24" (2-5b) RS-Y SIGNS 2"x36" (2-5c) (2-5d)

W1-8 18"X24" (2-6a) W1-8 18"X24" (2-6b) RS-Y SIGNS 2"x36" (2-6c) (2-6d)

W1-8 18"X24" (2-7a) W1-8 18"X24" (2-7b) RS-Y SIGNS 2"x36" (2-7c) (2-7d)

W1-8 18"X24" (2-8a) W1-8 18"X24" (2-8b) RS-Y SIGNS 2"x36" (2-8c) (2-8d)

MATCH LINE 906+20

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PERMANENT SIGNING	SHEET 65	E

2

2

MATCH LINE 911+50

HIGHWAY EASEMENT

912

913

914

915

916

PT: 916+42.30

MATCH LINE 916+80

W1-8 18"X24" 2-9a
W1-8 18"X24" 2-9b
RS-Y SIGNS 2"x36" 2-9c 2-9d

W1-8 18"X24" 2-10a
W1-8 18"X24" 2-10b
RS-Y SIGNS 2"x36" 2-10c 2-10d

W1-8 18"X24" 2-11a
W1-8 18"X24" 2-11b
RS-Y SIGNS 2"x36" 2-11c 2-11d

W1-8 18"X24" 2-12a
W1-8 18"X24" 2-12b
RS-Y SIGNS 2"x36" 2-12c 2-12d

HIGHWAY EASEMENT

H	PROPOSED SIGN MOUNTED ON POST
#-##	DENOTES SIGN NUMBER

HIGHWAY EASEMENT

MATCH LINE 922+10

PC: 918+81.56

W1-8 SIGNS (18"X24") & RS-Y (2"X36")
120' SPACING FROM STA 902+40 RT TO 918+00 RT

917

918

919

920

921

922

W1-8 18"X24" 2-13a
W1-8 18"X24" 2-13b
RS-Y SIGNS 2"x36" 2-13c 2-13d

W1-8 18"X24" 2-14a
W1-8 18"X24" 2-14b
RS-Y SIGNS 2"x36" 2-14c 2-14d

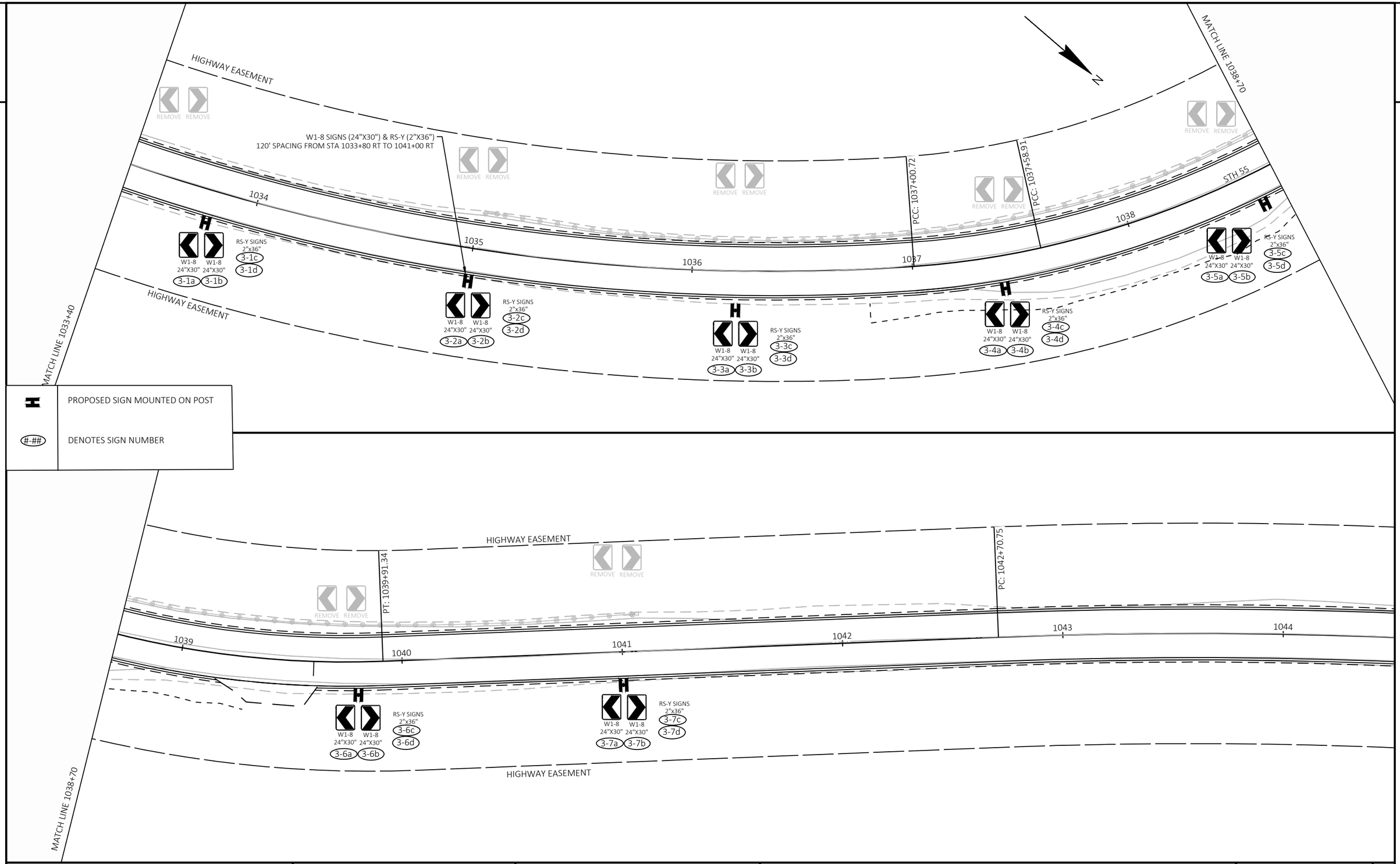
HIGHWAY EASEMENT

916+80

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PERMANENT SIGNING	SHEET 66	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 59

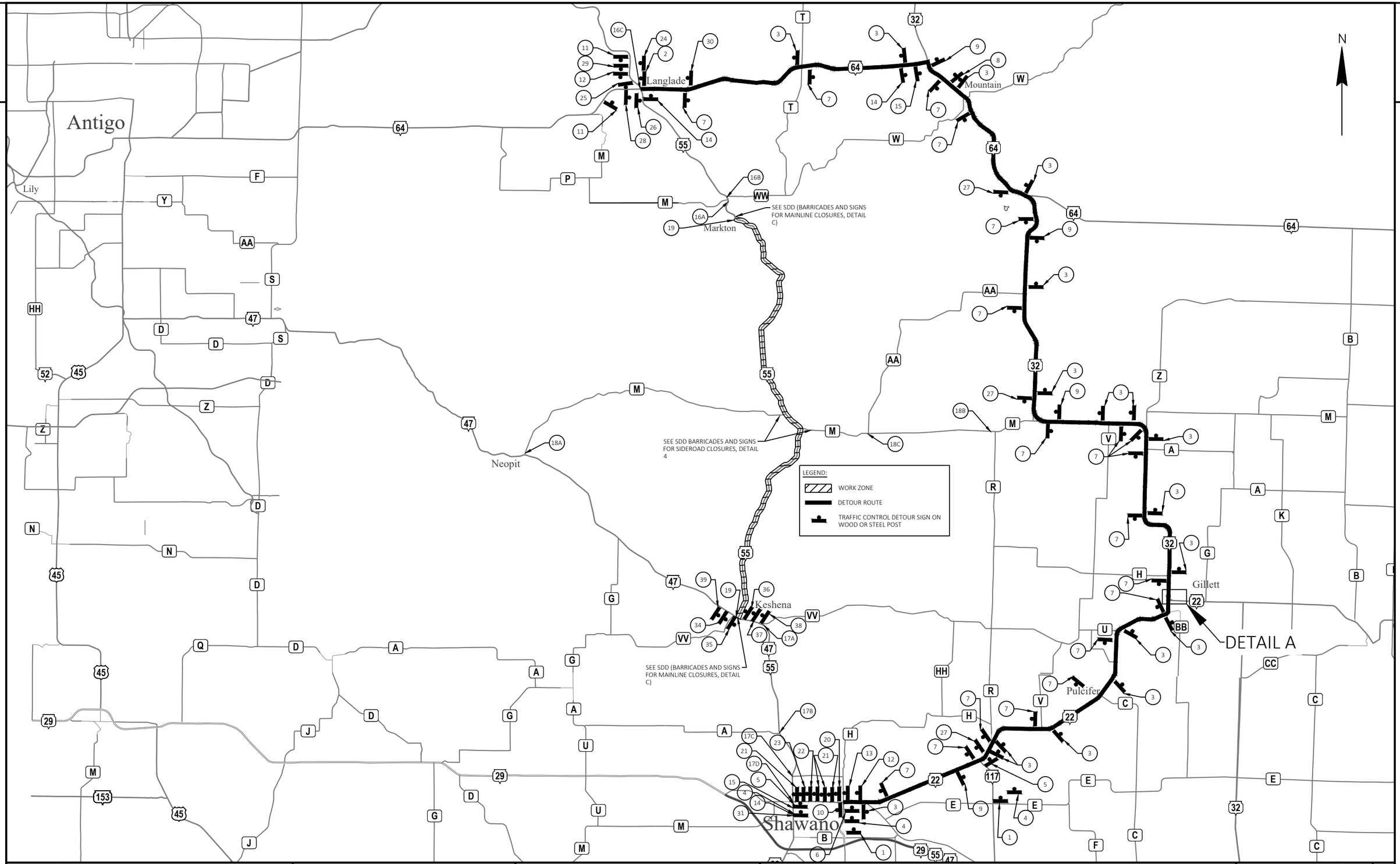
PLOT DATE : 5/13/2025 10:47 AM PLOT BY : GRACE MAYES PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PERMANENT SIGNING	SHEET 67	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 60

PLOT DATE : 5/13/2025 10:49 AM PLOT BY : GRACE MAYES PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	DETOUR - STH 55	SHEET 68	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9660-09-00).DWG
LAYOUT NAME - 01

PLOT DATE : 10/28/2025 8:19 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN: 3.5 MI

WISDOT/CADDS SHEET 42



M3-1 24"X12"
M1-6 24"X24"

1



M4-8A 24"X18"
M3-1 24"X12"
M1-6 24"X24"

2



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

3



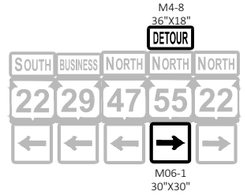
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

4



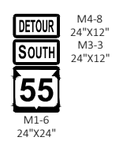
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
M06-1 21"X21"

5



M4-8 36"X18"
M06-1 30"X30"

6



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

7



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

8



M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

9



M4-8A 24"X18"
M3-3 24"X12"
M1-6 24"X24"

10



M3-3 24"X12"
M1-6 24"X24"

11



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

12



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

13



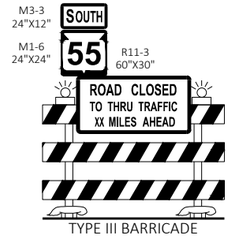
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO5-1R 21"X21"

14



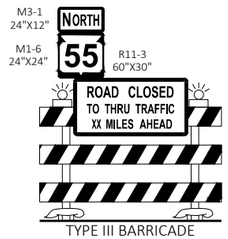
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
M06-1 21"X21"

15



M3-3 24"X12"
M1-6 24"X24"
TYPE III BARRICADE

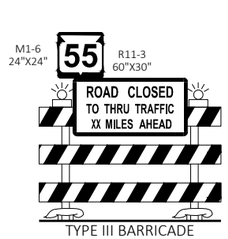
16X



M3-1 24"X12"
M1-6 24"X24"
TYPE III BARRICADE

17X

XX MILES AHEAD	
17A	1
17B	5 1/2
17C	7 1/2
17D	8 1/2



M1-6 24"X24"
TYPE III BARRICADE

18X

XX MILES AHEAD	
18A	11 3/4
18B	7 3/4
18C	2 1/4



G20-57C 72"X36"

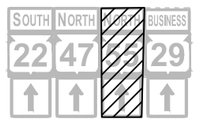
INSTALL G20-57C SIGNS 7 DAYS PRIOR TO CLOSURE AND REMOVE WHEN CLOSURE BEGINS.

19



COVER SIGN TYPE II

24



COVER SIGN TYPE II

20



COVER SIGN TYPE II

21



COVER SIGN TYPE II

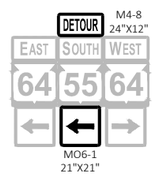
22



COVER SIGN TYPE II

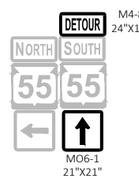
23

XX MILES AHEAD	
16A	3/4
16B	1
16C	6 1/2



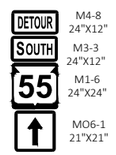
M4-8 24"X12"
MO6-1 21"X21"

25



M4-8 24"X12"
MO6-1 21"X21"

26



M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

27



ARROW PER SIGN
A4-12 9.5"X9.5"

28

*ALL WORK ZONE SIGNS SHALL BE 48"x48" UNLESS OTHERWISE NOTED.

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	DETOUR	SHEET 69	E

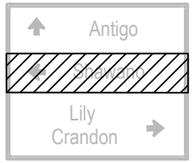
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9660-09-00).DWG
LAYOUT NAME - 02
PLOT DATE : 10/22/2025 7:55 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



ARROW PER SIGN
A4-12 9.5"X9.5"

29



COVER SIGN TYPE II

30



COVER SIGN TYPE II

31



M4-8A
24"X18"
M3-1
24"X12"
M1-6
24"X24"

32



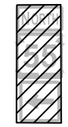
M4-8A
24"X18"
M3-3
24"X12"
M1-6
24"X24"

33



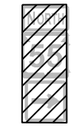
COVER SIGN TYPE II

34



COVER SIGN TYPE II

35



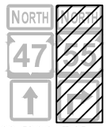
COVER SIGN TYPE II

36



COVER SIGN TYPE II

37



COVER SIGN TYPE II

38



COVER SIGN TYPE II

39

*ALL WORK ZONE SIGNS SHALL BE 48"x48" UNLESS OTHERWISE NOTED.

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	DETOUR	SHEET 70	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9660-09-00).DWG
LAYOUT NAME - 03
PLOT DATE : 10/22/2025 7:56 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

DETAIL A

N

32

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

22

22 32

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	DETOUR	SHEET 71	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220114 1009-43-39 STH 47 CULVERTS\PSE\COMBINED IDS\ACTUAL PLAN SHEETS\027001-DT (9660-09-00).DWG
LAYOUT NAME - DETAIL A
PLOT DATE : 10/22/2025 7:56 AM PLOT BY : AIDEN STROESSENREUTHER PLOT NAME : PLOT SCALE : Custom
WISDOT/CADDS SHEET 42

9660-09-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	42.000	42.000
0004	201.0220	Grubbing	ID	154.000	154.000
0006	203.0100	Removing Small Pipe Culverts	EACH	46.000	46.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,060.000	1,060.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	256,024.000	256,024.000
0016	204.0165	Removing Guardrail	LF	3,000.000	3,000.000
0018	205.0100	Excavation Common	CY	16,287.000	16,287.000
0026	211.0101	Prepare Foundation for Asphaltic Paving (project) 04. 9660-09-70	EACH	1.000	1.000
0028	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	2,062.000	2,062.000
0036	213.0100	Finishing Roadway (project) 04. 9660-09-70	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	11,676.000	11,676.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	18,812.000	18,812.000
0042	305.0504.S	Hauling Excess Shoulder Material	CY	231.000	231.000
0046	455.0605	Tack Coat	GAL	39,758.000	39,758.000
0048	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0050	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0052	460.2005	Incentive Density PWL HMA Pavement	DOL	46,560.000	46,560.000
0054	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	19,890.000	19,890.000
0056	460.2010	Incentive Air Voids HMA Pavement	DOL	52,826.000	52,826.000
0058	460.5224	HMA Pavement 4 LT 58-28 S	TON	52,826.000	52,826.000
0060	465.0105	Asphaltic Surface	TON	2,358.000	2,358.000
0062	465.0110	Asphaltic Surface Patching	TON	4,000.000	4,000.000
0064	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	35.000	35.000
0066	465.0560	Asphaltic Rumble Strips, Centerline	LF	91,957.000	91,957.000
0068	465.0580	Asphaltic Rumble Strips, Transverse	SY	69.000	69.000
0084	520.8700	Cleaning Culvert Pipes	EACH	2.000	2.000
0086	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	240.000	240.000
0088	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	40.000	40.000
0092	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	352.000	352.000
0102	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	30.000	30.000
0106	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0110	522.2319	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	64.000	64.000
0116	522.2348	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 48x76-Inch	LF	48.000	48.000
0118	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	856.000	856.000
0120	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	48.000	48.000
0126	522.2648	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 48x76-Inch	EACH	2.000	2.000
0128	524.0136	Culvert Pipe Salvaged 36-Inch	LF	52.000	52.000
0134	606.0200	Riprap Medium	CY	160.000	160.000
0136	614.0305	Steel Plate Beam Guard Class A	LF	2,400.000	2,400.000
0142	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	4,592.000	4,592.000
0144	614.0400	Adjusting Steel Plate Beam Guard	LF	3,428.000	3,428.000
0150	614.0950	Replacing Guardrail Posts and Blocks	EACH	2,022.000	2,022.000
0162	618.0100	Maintenance and Repair of Haul Roads (project) 04. 9660-09-70	EACH	1.000	1.000
0164	619.1000	Mobilization	EACH	0.450	0.450
0166	624.0100	Water	MGAL	698.000	698.000
0168	625.0100	Topsoil	SY	12,705.000	12,705.000
0170	628.1504	Silt Fence	LF	13,500.000	13,500.000
0172	628.1520	Silt Fence Maintenance	LF	27,000.000	27,000.000
0174	628.1905	Mobilizations Erosion Control	EACH	15.000	15.000

9660-09-70

Line	Item	Item Description	Unit	Total	Qty
0176	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0178	628.2006	Erosion Mat Urban Class I Type A	SY	12,705.000	12,705.000
0180	628.7504	Temporary Ditch Checks	LF	1,220.000	1,220.000
0182	628.7555	Culvert Pipe Checks	EACH	220.000	220.000
0184	628.7570	Rock Bags	EACH	150.000	150.000
0186	629.0210	Fertilizer Type B	CWT	8.000	8.000
0188	630.0140	Seeding Mixture No. 40	LB	10.000	10.000
0190	630.0170	Seeding Mixture No. 70	LB	70.000	70.000
0192	630.0400	Seeding Nurse Crop	LB	120.000	120.000
0194	630.0500	Seed Water	MGAL	285.000	285.000
0196	633.5200	Markers Culvert End	EACH	82.000	82.000
0200	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	48.000	48.000
0202	637.2230	Signs Type II Reflective F	SF	224.000	224.000
0204	638.2102	Moving Signs Type II	EACH	34.000	34.000
0206	638.2602	Removing Signs Type II	EACH	14.000	14.000
0208	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0210	638.4000	Moving Small Sign Supports	EACH	34.000	34.000
0212	642.5401	Field Office Type D	EACH	0.450	0.450
0214	643.0300	Traffic Control Drums	DAY	3,820.000	3,820.000
0216	643.0420	Traffic Control Barricades Type III	DAY	1,571.000	1,571.000
0218	643.0705	Traffic Control Warning Lights Type A	DAY	2,910.000	2,910.000
0220	643.0900	Traffic Control Signs	DAY	23,414.000	23,414.000
0224	643.0920	Traffic Control Covering Signs Type II	EACH	40.000	40.000
0226	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0228	643.3165	Temporary Marking Line Paint 6-Inch	LF	516,993.000	516,993.000
0230	643.5000	Traffic Control	EACH	0.450	0.450
0232	645.0120	Geotextile Type HR	SY	265.000	265.000
0236	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	363,547.000	363,547.000
0238	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	2,875.000	2,875.000
0240	646.6120	Marking Stop Line Epoxy 18-Inch	LF	60.000	60.000
0244	648.0100	Locating No-Passing Zones	MI	18.660	18.660
0246	650.4500	Construction Staking Subgrade	LF	5,175.000	5,175.000
0248	650.5000	Construction Staking Base	LF	5,175.000	5,175.000
0252	650.6000	Construction Staking Pipe Culverts	EACH	41.000	41.000
0254	650.8000	Construction Staking Resurfacing Reference	LF	92,007.000	92,007.000
0262	650.9911	Construction Staking Supplemental Control (project) 04. 9660-09-70	EACH	1.000	1.000
0264	650.9920	Construction Staking Slope Stakes	LF	5,175.000	5,175.000
0266	690.0150	Sawing Asphalt	LF	2,687.000	2,687.000
0268	740.0440	Incentive IRI Ride	DOL	49,266.000	49,266.000
0270	999.2100.S	Installing and Maintaining Climbing Turtle Exclusion Fence	LF	2,330.000	2,330.000
0278	SPV.0035	Special 01. Slurry Pipe	CY	14.000	14.000
0280	SPV.0060	Special 01. Sand Bags	EACH	200.000	200.000
0282	SPV.0060	Special 02. Adjusting EATs	EACH	18.000	18.000
0284	SPV.0090	Special 01. Grading and Shaping Ditch	LF	6,200.000	6,200.000
0286	SPV.0090	Special 02. Remove, Salvage, and Reinstall Guardrail	LF	100.000	100.000
0288	SPV.0180	Special 01. Resin Binder High Friction Surface Treatment	SY	7,089.000	7,089.000
0290	SPV.0180	Special 02. Removing Distressed Asphaltic Surface Milling	SY	11,900.000	11,900.000

3

GRUBBING SUMMARY

STATION	TO	STATION	LOCATION	201.0205 GRUBBING STA	201.0120 GRUBBING ID	REMARKS
113+00	-	115+00	STH 55	2	---	
142+00		144+00	STH 55	2		
145+00	-	147+00	STH 55	2	---	
152+00	-	154+00	STH 55	2	---	
165+00		166+00	STH 55	1		
182+21	-	182+21	STH 55 RT	---	15	3",3",4",5" TREES
219+00	-	221+00	STH 55	2	---	
237+77		237+88	STH 55 RT		20	17" & 3" TREES
250+00	-	252+00	STH 55	2	---	SEVERAL DEADFALL
268+00	-	270+00	STH 55	2	---	SEVERAL DEADFALL
299+00		300+00	STH 55	1		
338+00	-	340+00	STH 55	2	---	
392+00	-	393+00	STH 55	1	---	
401+51		401+51	STH 55 LT		6	
422+00	-	424+00	STH 55	2	---	
438+91	-	438+91	STH 55 LT	---	14	
461+00		462+00	STH 55	1		
530+00	-	531+00	STH 55	1	---	
595+00	-	596+00	STH 55	1	---	
610+90		611+10	STH 55		25	3", 10", 12" TREES
616+00	-	617+00	STH 55	1	---	
634+00	-	635+00	STH 55	1	---	
673+00		674+00	STH 55	1		
687+24	-	687+24	STH 55 LT	---	19	16" & 3" TREES
687+24		687+24	STH 55 RT	---	8	
708+44		708+44	STH 55 LT		6	
787+00	-	788+00	STH 55	1	---	
794+08	-	794+08	STH 55 RT	---	25	16",3",3",3" TREES
803+00	-	805+00	STH 55	2	---	
840+00	-	842+00	STH 55	2	---	
847+00	-	848+00	STH 55	1	---	
909+40	-	909+50	STH 55 LT	---	10	5" & 5" TREES
955+00	-	956+00	STH 55	1	---	
987+29	-	987+29	STH 55 LT	---	6	3" & 3" TREES
998+00	-	999+00	STH 55	1	---	
1002+00	-	1004+00	STH 55	2	---	
1026+00	-	1030+00	STH 55	4	---	FUTURE PULL-OUT
1074+00	-	1075+00	STH 55	1	---	
			TOTAL:	42	154	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

REMOVING ASPHALTIC SURFACE BUTT JOINTS

204.0115
BUTT JOINTS

STA	TO	STA	LOCATION	SY	REMARKS
	100+52		STH 55	52	BEGIN PROJECT
104+04		104+75	STH 55	30	ASKENETTE CORNERS RD
112+86	-	113+94	STH 55	96	PRIVATE ENTRANCE
118+62	-	119+84	STH 55	36	KESHENA FALLS RD
176+48		176+76	STH 55	26	PRIVATE ENTRANCE
185+84	-	185+15	STH 55	25	PRIVATE ENTRANCE
189+06	-	189+37	STH 55	23	PRIVATE ENTRANCE
280+14	-	281+02	STH 55	39	BLAR TRAP FALLS RD
538+74	-	540+32	STH 55	142	SCENIC OUTLOOK
	540+52.75		STH 55	30	END CONSTRUCTION
	554+12.73		STH 55	25	BEGIN CONSTRUCTION
589+02	-	591+59	STH 55	73	CTH M
842+51		844+53	STH 55	168	SCENIC OUTLOOK
931+84	-	932+95	STH 55	70	PRIVATE ENTRANCE
967+97	-	968+35	STH 55	19	PRIVATE ENTRANCE
1013+85		1015+87	STH 55	175	SCENIC OUTLOOK
	1085+84		STH 55	31	END PROJECT
			TOTAL:	1,060	

REMOVING SMALL PIPE CULVERTS

203.0100
REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	EACH	REMARKS
114+02	STH 55	1	24" CMCP 56 LF
143+01	STH 55	1	15"X21" CMCP 40 LF
146+42	STH 55	1	18" CMCP 41 LF
153+01	STH 55	1	15" CMCP 35 LF
165+39	STH 55	1	15"X21" CMCP 37 LF
182+21	STH 55	1	18" CMCP 37 LF
188+27	STH 55	1	15"X21" CMCP 30 LF
207+62	STH 55	1	15"X21" CMCP 37 LF
216+49	STH 55	1	15"X21" CMCP 36 LF
219+85	STH 55	1	18" CMCP 39 LF
237+83	STH 55	1	18" CMCP 30 LF
251+05	STH 55	1	15" CMCP 32 LF
269+19	STH 55	1	34"X53" CMCP 53 LF
279+12	STH 55	1	18" CMCP 41 LF
299+39	STH 55	1	18" CMCP 44 LF
338+55	STH 55	1	14"X23" CMCP 45 LF
355+28	STH 55	1	18" CMCP 44 LF
392+75	STH 55	1	15"X21" CMCP 33 LF
401+51	STH 55	1	24" CMCP 41 LF
423+12	STH 55	1	15"X21" CMCP 30 LF
438+91	STH 55	1	15"X21" CMCP 30 LF
448+26	STH 55	1	15"X21" CMCP 30 LF
452+47	STH 55	1	15"X21" CMCP 30 LF
461+58	STH 55	1	18" CMCP 43 LF
471+65	STH 55	1	15" CMCP 31 LF
530+55	STH 55	1	18" CMCP 36 LF
582+31	STH 55	1	15"X21" CMCP 31 LF
595+55	STH 55	1	18" CMCP 37 LF
610+99	STH 55	1	15"X21" CMCP 30 LF
626+82	STH 55	1	18" CMCP 46 LF
634+79	STH 55	1	18" CMCP 33 LF
673+16	STH 55	1	24" CMCP 32 LF
687+24	STH 55	1	24" CMCP 39 LF
708+44	STH 55	1	18" CMCP 32 LF
787+50	STH 55	1	24" CMCP 53 LF
794+08	STH 55	1	15"X21" CMCP 30 LF
804+17	STH 55	1	18" CMCP 37 LF
841+36	STH 55	1	18" CMCP 33 LF
847+69	STH 55	1	18" CMCP 32 LF
853+61	STH 55	1	15"X21" CMCP 30 LF
909+60	STH 55	1	24" CMCP 59 LF
955+69	STH 55	1	24" CMCP 49 LF
987+29	STH 55	1	24" CMCP 71 LF
998+36	STH 55	1	24" CMCP 45 LF
1003+33	STH 55	1	18" CMCP 34 LF
1074+39	STH 55	1	24" CMCP 37 LF
	TOTAL:	46	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

EARTHWORK

DIVISION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	COMMENT
CATEGORY 0010									
CULVERT PIPE TRANSITION AT STA. 114+02	410	0	52	358	209	261	97	97	
CULVERT PIPE TRANSITION AT STA. 143+01	312	0	45	267	135	169	98	98	
CULVERT PIPE TRANSITION AT STA. 146+42	300	0	45	255	123	154	101	101	
CULVERT PIPE TRANSITION AT STA. 153+01	337	0	45	292	160	200	92	92	
CULVERT PIPE TRANSITION AT STA. 165+39	306	0	45	261	129	161	100	100	
CULVERT PIPE TRANSITION AT STA. 182+21	376	0	45	331	199	249	82	82	
CULVERT PIPE TRANSITION AT STA. 188+27	292	0	45	247	115	144	103	103	
CULVERT PIPE TRANSITION AT STA. 207+62	292	0	45	247	115	144	103	103	
CULVERT PIPE TRANSITION AT STA. 216+49	311	0	45	266	134	168	99	99	
CULVERT PIPE TRANSITION AT STA. 219+85	305	0	45	260	128	160	100	100	
CULVERT PIPE TRANSITION AT STA. 237+83	340	0	45	295	163	204	91	91	
CULVERT PIPE TRANSITION AT STA. 251+85	306	0	45	261	129	161	100	100	
CULVERT PIPE TRANSITION AT STA. 269+19	474	0	45	429	297	371	58	58	
CULVERT PIPE TRANSITION AT STA. 279+12	320	0	45	275	143	179	96	96	
CULVERT PIPE TRANSITION AT STA. 299+39	326	0	45	281	149	186	95	95	
CULVERT PIPE TRANSITION AT STA. 338+55	319	0	45	274	142	178	97	97	
CULVERT PIPE TRANSITION AT STA. 355+28	309	0	45	264	132	165	99	99	
CULVERT PIPE TRANSITION AT STA. 392+75	293	0	45	248	116	145	103	103	
CULVERT PIPE TRANSITION AT STA. 401+51	302	0	45	257	125	156	101	101	
CULVERT PIPE TRANSITION AT STA. 423+12	310	0	45	265	133	166	99	99	
CULVERT PIPE TRANSITION AT STA. 438+91	316	0	45	271	139	174	97	97	
CULVERT PIPE TRANSITION AT STA. 448+26	292	0	45	247	115	144	103	103	
CULVERT PIPE TRANSITION AT STA. 452+47	292	0	45	247	115	144	103	103	
CULVERT PIPE TRANSITION AT STA. 461+58	321	0	45	276	144	180	96	96	
CULVERT PIPE TRANSITION AT STA. 471+59	294	0	45	249	117	146	103	103	
CULVERT PIPE TRANSITION AT STA. 530+53	316	0	45	271	139	174	97	97	
CULVERT PIPE TRANSITION AT STA. 582+31	263	0	45	218	86	108	111	111	
CULVERT PIPE TRANSITION AT STA. 595+65	336	0	45	291	159	199	92	92	
CULVERT PIPE TRANSITION AT STA. 610+99	280	0	45	235	103	129	106	106	
CULVERT PIPE TRANSITION AT STA. 626+82	309	0	45	264	132	165	99	99	
CULVERT PIPE TRANSITION AT STA. 634+79	316	0	45	271	139	174	97	97	
CULVERT PIPE TRANSITION AT STA. 673+17	270	0	45	225	93	116	109	109	
CULVERT PIPE TRANSITION AT STA. 687+24	323	0	45	278	146	183	96	96	
CULVERT PIPE TRANSITION AT STA. 708+44	306	0	45	261	129	161	100	100	
CULVERT PIPE TRANSITION AT STA. 787+50	535	0	45	490	358	448	43	43	
CULVERT PIPE TRANSITION AT STA. 794+08	302	0	45	257	125	156	101	101	
CULVERT PIPE TRANSITION AT STA. 804+17	377	0	45	332	200	250	82	82	
CULVERT PIPE TRANSITION AT STA. 841+36	312	0	45	267	135	169	98	98	
CULVERT PIPE TRANSITION AT STA. 847+69	294	0	45	249	117	146	103	103	
CULVERT PIPE TRANSITION AT STA. 853+61	254	0	45	209	77	96	113	113	
CULVERT PIPE TRANSITION AT STA. 909+60	610	0	45	565	433	541	24	24	
CULVERT PIPE TRANSITION AT STA. 955+69	414	0	45	369	237	296	73	73	
CULVERT PIPE TRANSITION AT STA. 987+29	706	0	45	661	529	661	0	0	
CULVERT PIPE TRANSITION AT STA. 998+36	357	0	45	312	180	225	87	87	
CULVERT PIPE TRANSITION AT STA. 1003+33	363	0	45	318	186	233	86	86	
CULVERT PIPE TRANSITION AT STA. 1055+53	337	0	45	292	160	200	92	92	
CULVERT PIPE TRANSITION AT STA. 1074+39	354	0	45	309	177	221	88	88	
CATEGORY 0010 TOTAL	15,989	0	2,122	13,867	7,646	9,558	4,310	4,310	

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EARTHWORK

DIVISION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	COMMENT
	CUT (2)	EBS EXCAVATION (3)							
CATEGORY 0020									
PROPOSED EMERGENCY PULL-OUT 1026+90 - 1029+20	137	0	39	98	0	0	98	98	
TURNOUT REMOVAL 1037+25 - 1039+00	161	0	98	63	0	0	63	63	
CATEGORY 0020 SUBTOTAL	298	0	137	161	0	0	161	161	
GRAND TOTAL	16,287	0	2,259	14,028	7,646	9,558	4,471	4,471	
TOTAL COMMON EXC	16,287								

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25X
(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.

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MILLING

				204.0120	SPV.0180.02	
				REMOVING ASPHALTIC SURFACE MILLING	REMOVING DISTRESSED ASPHALTIC SURFACE MILLING	
STA	TO	STA	LOCATION	SY	SY	REMARKS
100+52	-	1085+84	STH 55	250,610	---	MAINLINE
104+04	-	104+75	STH 55	91	---	ASKENETTE CORNERS RD
118+62	-	119+84	STH 55	241	---	KESHENA FALLS RD
154+79	-	156+93	STH 55	268	---	EMERGENCY PULL-OUT
175+49	-	177+51	STH 55	267	---	EMERGENCY PULL-OUT
203+86	-	205+75	STH 55	269	---	EMERGENCY PULL-OUT
230+53	-	232+53	STH 55	283	---	EMERGENCY PULL-OUT
261+10	-	262+92	STH 55	256	---	EMERGENCY PULL-OUT
280+14		281+01	STH 55	128		BEAR TRAP FALLS RD
285+14	-	286+91	STH 55	278	---	EMERGENCY PULL-OUT
309+47	-	311+47	STH 55	201	---	EMERGENCY PULL-OUT
374+27	-	375+96	STH 55	157	---	EMERGENCY PULL-OUT
409+74	-	411+66	STH 55	266	---	EMERGENCY PULL-OUT
434+41	-	436+38	STH 55	292	---	EMERGENCY PULL-OUT
462+58	-	464+71	STH 55	203	---	EMERGENCY PULL-OUT
488+15	-	490+15	STH 55	218	---	EMERGENCY PULL-OUT
572+44	-	574+54	STH 55	294	---	EMERGENCY PULL-OUT
589+02	-	591+59	STH 55	372	---	CTH M
623+88		625+91	STH 55	202		EMERGENCY PULL OUT
656+01		656+74	STH 55	85		SANAPAW FIELDS RD
668+80	-	671+00	STH 55	288	---	EMERGENCY PULL-OUT
701+14	-	703+18	STH 55	293	---	EMERGENCY PULL-OUT
727+09	-	729+09	STH 55	267	---	EMERGENCY PULL-OUT
756+61	-	758+60	STH 55	292	---	EMERGENCY PULL-OUT
791+08	-	793+07	STH 55	277	---	EMERGENCY PULL-OUT
817+07	-	819+09	STH 55	274	---	EMERGENCY PULL-OUT
869+05	-	871+01	STH 55	291	---	EMERGENCY PULL-OUT
895+04	-	897+06	STH 55	295	---	EMERGENCY PULL-OUT
921+16	-	923+04	STH 55	235	---	EMERGENCY PULL-OUT
945+70		947+72	STH 55	239		EMERGENCY PULL OUT
1064+31	-	1066+36	STH 55	292	---	EMERGENCY PULL-OUT
UNDISTRIBUTED			STH 55	---	11,900	
			TOTAL:	256,024	11,900	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

BASE AGGREGATE DENSE

CATEGORY	STA		STA	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	113+47	-	114+57	STH 55	22	356	8	CULVERT PATCH
0010	142+46	-	143+56	STH 55	22	321	7	CULVERT PATCH
0010	145+87	-	146+97	STH 55	22	321	7	CULVERT PATCH
0010	152+46	-	153+56	STH 55	22	321	7	CULVERT PATCH
0010	164+84	-	165+94	STH 55	22	321	7	CULVERT PATCH
0010	181+66	-	182+76	STH 55	22	321	7	CULVERT PATCH
0010	187+72	-	188+82	STH 55	22	321	7	CULVERT PATCH
0010	207+07	-	208+17	STH 55	22	321	7	CULVERT PATCH
0010	215+94	-	217+04	STH 55	22	321	7	CULVERT PATCH
0010	219+30	-	220+40	STH 55	22	321	7	CULVERT PATCH
0010	237+28	-	238+38	STH 55	22	321	7	CULVERT PATCH
0010	250+50	-	251+60	STH 55	22	321	7	CULVERT PATCH
0010	268+64	-	269+74	STH 55	22	321	7	CULVERT PATCH
0010	278+57	-	279+67	STH 55	22	321	7	CULVERT PATCH
0010	298+84	-	299+94	STH 55	22	321	7	CULVERT PATCH
0010	338+00	-	339+10	STH 55	22	321	7	CULVERT PATCH
0010	354+73	-	355+83	STH 55	22	321	7	CULVERT PATCH
0010	392+20	-	393+30	STH 55	22	321	7	CULVERT PATCH
0010	400+96	-	402+06	STH 55	22	321	7	CULVERT PATCH
0010	422+57	-	423+67	STH 55	22	321	7	CULVERT PATCH
0010	438+36	-	439+46	STH 55	22	321	7	CULVERT PATCH
0010	447+71	-	448+81	STH 55	22	321	7	CULVERT PATCH
0010	451+92	-	453+02	STH 55	22	321	7	CULVERT PATCH
0010	461+03	-	462+13	STH 55	22	321	7	CULVERT PATCH
0010	471+04	-	472+14	STH 55	22	321	7	CULVERT PATCH
0010	529+98	-	531+08	STH 55	22	321	7	CULVERT PATCH
0010	581+76	-	582+86	STH 55	22	321	7	CULVERT PATCH
0010	595+10	-	596+20	STH 55	22	321	7	CULVERT PATCH
0010	610+44	-	611+54	STH 55	22	321	7	CULVERT PATCH
0010	626+27	-	627+37	STH 55	22	321	7	CULVERT PATCH
0010	634+24	-	635+34	STH 55	22	321	7	CULVERT PATCH
0010	672+62	-	673+72	STH 55	22	321	7	CULVERT PATCH
0010	686+69	-	687+79	STH 55	22	321	7	CULVERT PATCH
0010	707+89	-	708+99	STH 55	22	321	7	CULVERT PATCH
0010	786+95	-	788+05	STH 55	22	321	7	CULVERT PATCH
0010	793+53	-	794+63	STH 55	22	321	7	CULVERT PATCH
0010	803+62	-	804+72	STH 55	22	321	7	CULVERT PATCH
0010	840+81	-	841+91	STH 55	22	321	7	CULVERT PATCH
0010	847+24	-	848+24	STH 55	22	321	7	CULVERT PATCH
0010	853+06	-	854+16	STH 55	22	321	7	CULVERT PATCH
0010	909+05	-	910+15	STH 55	22	321	7	CULVERT PATCH
0010	955+14	-	956+24	STH 55	22	321	7	CULVERT PATCH
0010	986+74	-	987+84	STH 55	22	321	7	CULVERT PATCH
0010	997+81	-	998+91	STH 55	22	321	7	CULVERT PATCH
0010	1002+78	-	1003+88	STH 55	22	321	7	CULVERT PATCH
0010	1054+99	-	1056+09	STH 55	22	321	7	CULVERT PATCH
0010	1073+84	-	1074+94	STH 55	22	321	7	CULVERT PATCH
0010	100+50	-	118+00	STH 55	73	---	2	MILLING LT LN
0010	100+50	-	122+00	STH 55	102	---	2	MILLING RT LN
0010	122+00	-	507+00	STH 55	3153	---	64	SHOULDERING
0010	507+00	-	525+00	STH 55	171	---	4	SHOULDERING
0010	525+00	-	1080+00	STH 55	4808	---	97	SHOULDERING
0010			UNDISTRIBUTED		2335	---	125	
0020			UNDISTRIBUTED		---	3690	74	
				CAT 0010 TOTAL:	11,676	15,122	624	
				CAT 0020 TOTAL:	0	3,690	74	
				TOTAL:	11,676	18,812	698	

HAULING EXCESS SHOULDER MATERIAL

STA	TO	STA	LOCATION	305.0504.S HAULING EXCESS SHOULDER MATERIAL CY
107+69	-	112+36	LT	13
417+72	-	421+98	LT	12
532+73	-	537+76	LT	14
653+00	-	656+44	LT	10
653+75	-	656+32	RT	8
690+48	-	694+44	LT	11
783+94		788+45	LT	13
908+33	-	910+83	RT	8
958+31	-	968+05	LT	24
963+67		972+11	RT	22
968+25	-	972+12	LT	11
983+12	-	988+99	LT	16
983+24		988+95	RT	15
994+05	-	996+64	RT	9
996+83	-	999+17	RT	8
1003+91		1008+24	LT	12
1035+03	-	1041+07	LT	16
1054+56	-	1057+28	LT	9
			TOTAL:	231

RUMBLE STRIP SUMMARY

STA		STA	LOCATION	465.0560 ASPHALTIC RUMBLE STRIPS CENTERLINE LF	465.0580 ASPHALTIC RUMBLE STRIPS TRANSVERSE SY	REMARKS
100+52	-	1085+84	STH 55	91957	---	
103+99	-	110+00	STH 55	---	69	STH 47 INTERSECTION, SEE SDD TRANSVERSE RUMBLE STRIPS, ASPHALTIC
			TOTAL:	91,957	69	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

ASPHALT SUMMARY - MAINLINE

CATEGORY	STA		STA	DEPTH HMA PAVEMENT 4 LT 58-28 S UPPER IN	DEPTH HMA PAVEMENT 4 LT 58-28 S MIDDLE IN	DEPTH ASPHALTIC SURFACE LOWER IN	455.0605 TACK COAT GAL	460.0105.S HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PAVEMENT PWL TEST STRIP DENSITY EACH	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
0010	100+52	-	540+53	1.75	1.75	---	15,039	1	2	22,085	---	---	---	MAINLINE
0010	554+13	-	1085+84	1.75	1.75	---	18,197			25,475	---	---	---	MAINLINE
0010	104+04	-	104+75	1.75	1.75		17	---	---	24	---	---	---	ASKENETTE CORNERS RD
0010	112+86	-	113+94	---	---	3	14	---	---	---	17	---	---	PRIVATE ENTRANCE
0010	113+47	-	114+57	---	---	3	48	---	---	---	---	58	---	CULVERT PATCH
0010	118+62	-	119+64	1.75	1.75	---	39	---	---	55	---	---	---	KESHENA FALLS RD
0010	130+15	-	131+15	1.75	1.75	---	14	---	---	19	---	---	---	LOUIE TOMOW RD
0010	142+46		143+56			3	42					50		CULVERT PATCH
0010	145+87		146+97			3	42					50		CULVERT PATCH
0010	152+46	-	153+56	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	154+79	-	156+93	1.75	1.75	---	28	---	---	39	---	---	---	EMERGENCY PULL-OUT
0010	164+84	-	165+94	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	175+49	-	177+51	1.75	1.75	---	24	---	---	33	---	---	---	EMERGENCY PULL-OUT
0010	176+48	-	176+76	---	---	3	4	---	---	---	5	---	---	PRIVATE ENTRANCE
0010	181+66	-	182+76	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	185+84	-	186+15	---	---	3	4	---	---	---	5	---	---	PRIVATE ENTRANCE
0010	187+72	-	188+82	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	189+06	-	189+37	---	---	3	4	---	---	---	4	---	---	PRIVATE ENTRANCE
0010	203+86	-	205+75	1.75	1.75	---	24	---	---	33	---	---	---	EMERGENCY PULL-OUT
0010	207+07	-	208+17	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	210+36	-	212+18	1.75	1.75	---	54	---	---	75	---	---	---	SPIRIT ROCK RD
0010	214+54		215+36	1.75	1.75		29			40				HISTORICAL MARKER
0010	215+94	-	217+04	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	219+30	-	220+40	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	230+53	-	232+53	1.75	1.75	---	29	---	---	40	---	---	---	EMERGENCY PULL-OUT
0010	237+28	-	238+38	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	250+50	-	251+60	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	261+10	-	262+92	1.75	1.75	---	25	---	---	35	---	---	---	EMERGENCY PULL-OUT
0010	268+62	-	269+74	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	278+57	-	279+67	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	280+14	-	281+01	1.75	1.75	---	24	---	---	33	---	---	---	BEAR TRAP FALLS RD
0010	285+14	-	286+91	1.75	1.75	---	25	---	---	35	---	---	---	EMERGENCY PULL-OUT
0010	298+84	-	299+94	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	309+47	-	311+47	1.75	1.75	---	29	---	---	40	---	---	---	EMERGENCY PULL-OUT
0010	336+76		338+73	1.75	1.75		27			37				EMERGENCY PULL OUT
0010	338+00		339+10			3	42					50		CULVERT PATCH
0010	354+73	-	355+83	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	374+27	-	375+96	1.75	1.75	---	24	---	---	33	---	---	---	EMERGENCY PULL-OUT
0010	392+20	-	393+30	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	400+95	-	402+06	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	409+74	-	411+66	1.75	1.75	---	25	---	---	35	---	---	---	EMERGENCY PULL-OUT
0010	422+57	-	423+67	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	434+41	-	436+38	1.75	1.75	---	30	---	---	42	---	---	---	EMERGENCY PULL-OUT
0010	438+36	-	439+46	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	447+71	-	448+81	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	451+92	-	453+02	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	461+03	-	462+13	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	462+58		464+71	1.75	1.75		29			40				EMERGENCY PULL OUT
0010	471+04		472+14			3	42					50		CULVERT PATCH
0010	488+15	-	490+15	1.75	1.75	---	31	---	---	44	---	---	---	EMERGENCY PULL-OUT
0010	529+98	-	531+08	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	572+44	-	574+54	1.75	1.75	---	28	---	---	40	---	---	---	EMERGENCY PULL-OUT
0010	581+76	-	582+86	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	589+02	-	592+59	1.75	1.75	---	63	---	---	88	---	---	---	CTH M
0010	595+10	-	596+20	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

3

HMA PAVEMENT SUMMARY - MAINLINE CONT.

	STA		STA	DEPTH HMA PAVEMENT 4 LT 58-28 S UPPER IN	DEPTH HMA PAVEMENT 4 LT 58-28 S MIDDLE IN	DEPTH ASPHALTIC SURFACE LOWER IN	455.0605 TACK COAT GAL	460.0105.S HMA PAVEMENT PWI TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PAVEMENT PWI TEST STRIP DENSITY EACH	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING	REMARKS
0010	610+44	-	611+54	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	623+88	-	625+91	1.75	1.75	---	29	---	---	40	---	---	---	EMERGENCY PULL-OUT
0010	626+27	-	627+37	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	634+24	-	635+34	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	656+01	-	656+74	1.75	1.75	---	12	---	---	17	---	---	---	SANAPAW FIELDS RD
0010	668+80		671+00	1.75	1.75		30			42				EMERGENCY PULL OUT
0010	672+62	-	673+72	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	686+69	-	687+79	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	701+14	-	703+18	1.75	1.75	---	27	---	---	38	---	---	---	EMERGENCY PULL-OUT
0010	707+89	-	708+99	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	727+09	-	729+09	1.75	1.75	---	24	---	---	33	---	---	---	EMERGENCY PULL-OUT
0010	756+61	-	758+60	1.75	1.75	---	28	---	---	39	---	---	---	EMERGENCY PULL-OUT
0010	786+95	-	788+05	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	791+08	-	793+07	1.75	1.75	---	27	---	---	38	---	---	---	EMERGENCY PULL-OUT
0010	793+53	-	794+63	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	803+62	-	804+72	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	817+07	-	819+09	1.75	1.75	---	26	---	---	36	---	---	---	EMERGENCY PULL-OUT
0010	840+81		841+91			3	42					50		CULVERT PATCH
0010	842+51	-	844+53	1.75	1.75	---	24	---	---	33	---	---	---	SCENIC OUTLOOK
0010	847+14	-	848+24	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	853+06	-	854+16	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	869+05	-	871+01	1.75	1.75	---	28	---	---	38	---	---	---	EMERGENCY PULL-OUT
0010	895+04		897+06	1.75	1.75		29			40				EMERGENCY PULL OUT
0010	909+05		910+15			3	42					50		CULVERT PATCH
0010	921+16	-	923+04	1.75	1.75	---	19	---	---	27	---	---	---	EMERGENCY PULL-OUT
0010	931+92	-	932+60	1.75	1.75	---	10	---	---	14	---	---	---	CAMP 23 RD
0010	945+70	-	947+72	1.75	1.75	---	23	---	---	33	---	---	---	EMERGENCY PULL-OUT
0010	955+14	-	956+24	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	967+97	-	968+35	---	---	3	3	---	---	---	4	---	---	PRIVATE ENTRANCE
0010	981+16	-	983+76	1.75	1.75	---	25	---	---	35	---	---	---	EMERGENCY PULL-OUT
0010	986+74	-	987+84	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	997+81	-	998+91	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	1002+78	-	1003+88	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	1013+86	-	1015+90	1.75	1.75	---	25	---	---	35	---	---	---	SCENIC OUTLOOK
0020	1027+00		1028+78	1.75	1.75		24			34				EMERGENCY PULL OUT
0020	1037+25		1039+00	1.75	1.75		6			8				REMOVED PULL OUT SHOULDER
0010	1064+31	-	1066+36	1.75	1.75	---	27	---	---	38	---	---	---	EMERGENCY PULL-OUT
0010	1054+99	-	1056+09	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	1073+84	-	1074+94	---	---	3	42	---	---	---	---	50	---	CULVERT PATCH
0010	UNDISTRIBUTED			---	---	---	---	---	---	---	---	---	4,000	
						0010 SUBTOTAL:	36,316	1	2	48,024	35	2,358	4,000	
						0020 SUBTOTAL:	30	0	0	42	0	0	0	
						TOTAL:	36,346	1	2	48,066	35	2,358	4,000	
* ADDITIONAL QUANTITY ELSEWEHERE IN PLAN							*			*				

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
11' DRIVING LANE (NB)	100+52 - 540+52.75	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	5,270	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANE (NB)	554+12.73 - 1085+84	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	6,370	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANE (NB)	100+52 - 540+52.75	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	5,270	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANE (NB)	554+12.73 - 1085+84	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	6,370	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANE (SB)	100+52 - 540+52.75	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	5,270	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANE (SB)	554+12.73 - 1085+84	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	6,370	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANE (SB)	100+52 - 540+52.75	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	5,270	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
11' DRIVING LANE (SB)	554+12.73 - 1085+84	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	6,370	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
SHOULDER WIDENING (NB/SB)	100+52 - 1080+00	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	2,380	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING (NB/SB)	100+52 - 1080+00	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	2,380	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EMERGENCY PULL-OUTS	100+52 - 1085+84	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	522	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EMERGENCY PULL-OUTS	100+52 - 1085+84	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	523	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SCENIC OVERLOOK & HISTORICAL MARKER	100+52 - 1085+84	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	68	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SCENIC OVERLOOK & HISTORICAL MARKER	100+52 - 1085+84	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	68	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SIDE ROAD	100+52 - 1085+84	UPPER LAYER	4 LT 58-28 S	460.5224 - HMA PAVEMENT 4 LT 58-28 S	162	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SIDE ROAD	100+52 - 1085+84	LOWER LAYER	EXISTING ASPHALTIC PAVEMENT	460.5224 - HMA PAVEMENT 4 LT 58-28 S	163	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
DRIVEWAYS & FIELD ENTRANCES	VARIOUS	UPPER LAYER	VARIOUS	465.0120 - ASPH SURF DWY AND FLD ENT	35	3"	(SS 465)	ORDINARY COMPACTION (SS 450.3.2.6.2)
CULVERT PATCHES	VARIOUS	PATCH	BASE AGGREGATE	465.0105 - ASPHALTIC SURFACE	2,358	5.5"	(SS 465)	ORDINARY COMPACTION (SS 450.3.2.6.2)

SHOULDER WIDENING SUMMARY

CATEGORY	STA		STA	LOCATION	DEPTH HMA PAVEMENT 4 LT 58-28 S UPPER IN	DEPTH HMA PAVEMENT 4 LT 58-28 S LOWER IN	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
0020	100+50.00	-	118+00.00	LT	1.75	1.75	84	116	18
0020	100+50.00	-	122+00.00	RT	1.75	1.75	102	143	22
0020	122+00.00	-	507+00.00	LT	1.75	1.75	600	840	385
0020	122+00.00	-	507+00.00	RT	1.75	1.75	600	840	385
0020	507+00.00	-	525+00.00	LT	1.75	1.75	58	79	18
0020	507+00.00	-	525+00.00	RT	1.75	1.75	58	79	18
0020	525+00.00		1080+00.00	LT	1.75	1.75	844	1,182	556
0020	525+00.00		1080+00.00	RT	1.75	1.75	844	1,182	556
0020	1080+00.00	-	1085+83.90	LT	1.75	1.75	28	39	6
0020	1080+00.00		1085+83.90	RT	1.75	1.75	28	39	6
0020	225+89.40	-	228+40.26	RT	1.75	1.75	5	8	4
0020	262+54.17	-	265+01.88	RT	1.75	1.75	5	8	4
0020	276+52.59	-	280+98.64	RT	1.75	1.75	10	13	5
0020	309+45.12	-	312+03.46	LT	1.75	1.75	5	8	4
0020	453+59.47	-	457+01.77	RT	1.75	1.75	8	10	5
0020	484+04.92	-	490+10.25	RT	1.75	1.75	12	16	7
0020	496+50.85	-	500+96.83	RT	1.75	1.75	6	6	5
0020	525+15.03		528+53.44	RT	1.75	1.75	8	10	4
0020	568+59.89		571+76.12	RT	1.75	1.75	8	10	4
0020	613+23.98	-	616+90.68	RT	1.75	1.75	8	11	4
0020	621+97.35	-	625+68.65	LT	1.75	1.75	8	11	5
0020	647+12.86	-	652+03.99	RT	1.75	1.75	10	13	6
0020	778+06.56	-	785+84.16	RT	1.75	1.75	28	39	8
0020	892+05.37	-	896+01.89	RT	1.75	1.75	8	11	5
0020	1002+41.64	-	1009+05.16	RT	1.75	1.75	12	17	8
0020	1059+01.31	-	1065+86.38	LT	1.75	1.75	10	14	7
0020	1071+72.38	-	1077+73.86	RT	1.75	1.75	12	16	7
				TOTAL:			3,412	4,760	2,062
							*	*	

* ADDITIONAL QUANTITY ELSEWEHERE IN PLAN

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CULVERT PIPE SUMMARY

STATION	LOCATION	520.8700 CLEANING CULVERT PIPES EACH	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24 INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36 INCH LF	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24 INCH LF	522.2319 CULVERT PIPE REINFORCED CONCRETE CLASS HE-III 19X30 INCH LF	522.2348 CULVERT PIPE REINFORCED CONCRETE CLASS HE-III 48X76 INCH LF	522.2419 CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30 INCH LF	524.0136 CULVERT PIPE SALVAGED 36 INCH LF	SPV.0035.01 SLURRY PIPE CY	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	INLET INVERT OFFSET	INLET INVERT ELEV.	OUTLET INVERT OFFSET	OUTLET INVERT ELEV.
114+02	STH 55	---	---	---	---	---	---	56	---	---	2	1	18.3' RT	842.94	37.3' LT	840.17
143+01	STH 55							40			2	1	18.2' RT	868.35	22.2' LT	866.82
146+42	STH 55	---	---	---	---	---	---	40	---	---	2	1	19.3' RT	867.73	21.3' LT	866.85
153+01	STH 55	---	---	---	---	---	---	40	---	---	2	1	20.2' LT	865.95	20.2' RT	865.75
166+39	STH 55	---	---	---	---	---	---	40	---	---	2	1	19.8' RT	861.96	20.7' LT	861.81
182+21	STH 55	---	---	---	40	---	---	---	---	---	2	1	19.9' RT	864.22	20.6' LT	862.94
207+62	STH 55	---	---	---	40	---	---	---	---	---	2	1	20.0' RT	859.60	20.1' LT	859.32
216+49	STH 55	---	---	---	---	---	---	40	---	---	2	1	20.9' RT	865.04	19.4' LT	864.86
219+85	STH 55	---	---	---	---	---	---	40	---	---	2	1	18.6' RT	867.02	21.4' LT	866.82
237+83	STH 55	---	---	---	---	---	---	32	---	---	2	1	16.0' RT	896.65	16.0' LT	896.37
251+06	STH 55	---	---	---	---	---	---	32	---	---	2	1	16.3' RT	890.50	15.8' LT	890.34
269+19	STH 55	---	---	---	---	---	48	---	---	---	2	1	22.5' RT	871.20	25.4' LT	871.20
279+12	STH 55	---	---	---	---	---	---	48	---	---	2	1	24.4' LT	884.97	23.5' RT	884.68
299+39	STH 55	---	---	---	---	---	---	40	---	---	2	1	21.0' RT	875.26	19.1' LT	875.02
338+55	STH 55	---	---	---	---	---	---	40	---	---	2	1	20.1' LT	922.62	20.3' RT	920.71
355+28	STH 55	---	---	---	---	---	---	40	---	---	2	1	19.9' RT	891.94	20.0' LT	891.71
392+75	STH 55	---	---	---	---	---	---	40	---	---	2	1	20.0' RT	901.48	20.0' LT	901.28
401+51	STH 55							40			2	1	20.0' LT	893.60	19.8' RT	893.39
423+12	STH 55	---	---	---	---	---	---	32	---	---	2	1	16.3' RT	900.35	16.5' LT	900.07
438+91	STH 55	---	---	---	32	---	---	---	---	---	2	1	15.9' RT	885.83	16.1' LT	885.63
461+58	STH 55							40			2	1	20.4' RT	899.04	19.1' LT	897.81
471+59	STH 55	---	---	---	---	32	---	---	---	---	2	1	18.3' RT	900.65	15.1' LT	900.47
530+53	STH 55	---	---	---	---	32	---	---	---	---	2	1	16.8' RT	900.62	15.6' LT	899.96
595+65	STH 55							40			2	1	19.5' RT	909.21	20.1' LT	909.00
610+99	STH 55	---	---	---	32	---	---	---	---	---	2	1	15.0' RT	917.10	17.0'LT	916.92
629+50	STH 55	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
626+82	STH 55	---	---	---	---	---	---	40	---	---	2	1	19.6' RT	929.95	20.4' LT	928.89
634+79	STH 55	---	---	---	32	---	---	---	---	---	2	1	16.5' RT	979.48	16.1' LT	937.05
673+17	STH 55	---	---	---	32	---	---	---	---	---	2	1	16.5' RT	937.48	16.7' LT	937.05
687+24	STH 55	---	---	---	32	---	---	---	---	---	2	1	20.1' RT	1006.60	20.7' LT	1006.34
708+44	STH 55	---	---	---	---	---	---	32	---	---	2	1	17.1' LT	1045.40	15.3' RT	1044.92
787+50	STH 55	---	---	---	48	---	---	---	---	---	2	1	24.0' RT	988.49	23.9' LT	987.91
794+08	STH 55	---	---	---	---	---	---	32	---	---	2	1	18.3' RT	988.00	17.7' LT	987.79
804+17	STH 55	---	---	---	---	---	---	32	---	---	2	1	16.2' RT	988.83	15.8' LT	988.6
841+36	STH 55	---	---	---	32	---	---	---	---	---	2	1	16.3' RT	989.71	15.7' LT	989.44
847+69	STH 55	---	---	---	32	---	---	---	---	---	2	1	16.3' RT	995.07	16.0' LT	994.52
909+60	STH 55	---	56	---	---	---	---	---	---	---	2	1	30.5' LT	993.21	27.4' RT	992.72
955+69	STH 55	---	48	---	---	---	---	---	---	---	2	1	21.9' RT	1042.87	26.2' LT	1042.02
953+20	STH 55	---	---	---	---	---	---	---	---	14	---	---	---	---	---	---
987+29	STH 55	---	64	---	---	---	---	---	---	---	2	1	38.9' LT	1088.30	32.9' RT	1087.30
998+36	STH 55	---	---	40	---	---	---	---	---	---	2	1	2.9' RT	1056.53	18.8' LT	1055.25
1003+33	STH 55	---	32	---	---	---	---	---	---	---	2	1	15.4' LT	1052.50	16.6' RT	1052.80
1055+54	STH 55								52							
1058+58	STH 55	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1074+39	STH 55	---	40	---	---	---	---	---	---	---	2	1	21.3' LT	1066.79	18.7' RT	1067.40
	TOTAL:	2	240	40	352	64	48	856	52	14	82	41				

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

APRON ENDWALL SUMMARY

STATION	LOCATION	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HE 19X30-INCH EACH	522.2648 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HE 48X76-INCH EACH
114+02	STH 55	---	---	2	---
143+01	STH 55	---	---	2	---
146+42	STH 55	---	---	2	---
153+01	STH 55	---	---	2	---
165+39	STH 55			2	
182+21	STH 55	2	---	---	---
207+62	STH 55	2	---	---	---
216+49	STH 55			2	
229+85	STH 55	---	---	2	---
237+83	STH 55	---	---	2	---
251+05	STH 55	---	---	2	---
269+19	STH 55	---	---	---	2
279+12	STH 55	---	---	2	---
299+39	STH 55	---	---	2	---
338+55	STH 55	---	---	2	---
355+28	STH 55	---	---	2	---
392+75	STH 55	---	---	2	---
401+51	STH 55	---	---	2	---
423+12	STH 55	---	---	2	---
438+91	STH 55	2	---	---	---
461+58	STH 55			2	
471+59	STH 55	---	---	2	---
530+53	STH 55	---	---	2	---
595+65	STH 55	---	---	2	---
610+99	STH 55	2	---	---	---
626+82	STH 55	---	---	2	---
634+79	STH 55	2	---	---	---
673+17	STH 55	2	---	---	---
687+24	STH 55	2	---	---	---
708+44	STH 55	---	---	2	---
787+50	STH 55	2	---	---	---
794+08	STH 55	---	---	2	---
804+17	STH 55	---	---	2	---
841+36	STH 55	2			
847+69	STH 55	2	---	---	---
909+60	STH 55	2	---	---	---
955+69	STH 55	2			
963+20	STH 55	---	---	---	---
987+29	STH 55	2	---	---	---
998+36	STH 55	---	2	---	---
1003+33	STH 55	2	---	---	---
1055+54	STH 55	---	---	---	---
1074+39	STH 55	2	---	---	---
	TOTAL:	30	2	48	2

GUARDRAIL MOW STRIP EMULSIFIED ASPAHLT

STA	TO	STA	LOCATION	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	REMARKS
107+69	-	112+36	LT	158	EMULSIFIED GUARDRAIL
264+00	-	272+00	RT	178	EMULSIFIED SHOULDER
292+00	-	296+00	RT	89	EMULSIFIED SHOULDER
341+00	-	345+00	LT	89	EMULSIFIED SHOULDER
344+00	-	349+00	RT	112	EMULSIFIED SHOULDER
417+72	-	421+98	LT	149	EMULSIFIED GUARDRAIL
477+00	-	483+00	RT	134	EMULSIFIED SHOULDER
500+00		505+00	RT	112	EMULSIFIED SHOULDER
511+00	-	519+00	RT	178	EMULSIFIED SHOULDER
532+73	-	537+76	LT	166	EMULSIFIED GUARDRAIL
535+00	-	538+00	RT	67	EMULSIFIED SHOULDER
540+00	-	540+53	LT	12	EMULSIFIED SHOULDER
653+00	-	656+44	LT	131	EMULSIFIED GUARDRAIL
653+75	-	656+32	RT	111	EMULSIFIED GUARDRAIL
680+00	-	686+00	LT	134	EMULSIFIED SHOULDER
690+48	-	694+44	LT	142	EMULSIFIED GUARDRAIL
783+94	-	788+45	LT	154	EMULSIFIED GUARDRAIL
908+33		910+83	RT	110	EMULSIFIED GUARDRAIL
933+00	-	940+00	RT	156	EMULSIFIED SHOULDER
934+00	-	943+00	LT	200	EMULSIFIED SHOULDER
958+31	-	968+05	LT	271	EMULSIFIED GUARDRAIL
963+67	-	972+11	RT	242	EMULSIFIED GUARDRAIL
968+25	-	972+12	LT	140	EMULSIFIED GUARDRAIL
983+12	-	988+99	LT	185	EMULSIFIED GUARDRAIL
983+24	-	988+95	RT	181	EMULSIFIED GUARDRAIL
994+05	-	996+64	RT	115	EMULSIFIED GUARDRAIL
996+83	-	999+17	RT	110	EMULSIFIED GUARDRAIL
1003+91		1008+24	LT	150	EMULSIFIED GUARDRAIL
1035+03	-	1041+07	LT	188	EMULSIFIED GUARDRAIL
1040+00	-	1054+00	RT	312	EMULSIFIED SHOULDER
1054+56		1057+28	LT	116	EMULSIFIED GUARDRAIL
			TOTAL:	4,592	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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STEEL PLATE BEAM GUARD

STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EACH	SPV.0090.02 REMOVE, SALVAGE, AND REINSTALL GUARDRAIL LF	SPV.0060.02 ADJUSTING EATS EACH	REMARKS
107+69		112+36	STH 55, LT			363	155		2	
417+72	-	421+98	STH 55, LT	---	---	50	142	---	---	
532+73	-	537+76	STH 55, LT	150	150	250	118	---	2	
591+71		592+23	STH 55, LT				9	50		AT INTERSECTION OF CTH M
653+00	-	656+44	STH 55, LT	100	100	150	79	---	2	
653+75	-	656+32	STH 55, RT	75	75	75	63	---	1	
690+48		694+44	STH 55, LT	150	150	100	83		1	
783+94	-	788+45	STH 55, LT	350	350	---	---	---	---	CULVERT PRESENT
908+33	-	910+83	STH 55, RT	150	150	---	---	---	1	CULVERT PRESENT
958+31		968+05	STH 55, LT	350	350	250	218		2	
962+94	-	963+45	STH 55, LT	---	---	---	9	50	---	REMOVED AND REPLACED FOR ACCESS TO SLURRY CULVERT PIPE
963+67	-	972+11	STH 55, RT	300	300	450	180	---	---	
968+25		972+12	STH 55, LT	50	50	113	117		1	
983+12	-	988+99	STH 55, LT	100	100	300	164	---	---	CULVERT PRESENT
983+24	-	988+95	STH 55, RT	100	100	375	156	---	1	CULVERT PRESENT
994+05		996+64	STH 55, RT			163	92		1	
996+83	-	999+17	STH 55, RT	100	100	38	150	---	1	
1003+91	-	1008+24	STH 55, LT	75	75	263	122	---	1	
1035+03		1041+07	STH 55, LT	150	150	350	146		2	
1052+95	-	1057+28	STH 55, LT	200	200	138	19	---	---	CULVERT PRESENT
UNDISTRIBUTED			STH 55	600	---	---	---	---	---	BURIED IN SHOULDER GRAVEL
			TOTAL:	3,000	2,400	3,428	2,022	100	18	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

	EROSION CONTROL							
LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA	628.7555 CULVERT PIPE CHECKS EA	628.7570 ROCK BAGS EA	999.2100.S INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE LF	SPV.0060.01 SAND BAGS EA
CULVERT PIPE TRANSITION AT STA. 114+02	---	---	---	---	5	20	280	---
CULVERT PIPE TRANSITION AT STA. 143+01	380	760	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 146+42	380	760	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 153+01	380	760	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 165+39	330	660	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 182+21	260	520	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 188+27	220	440	---	---	---	---	---	---
CULVERT PIPE TRANSITION AT STA. 207+62	350	700	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 216+49	310	620	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 219+85	300	600	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 237+83	310	620	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 251+85	250	500	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 269+19	---	---	---	---	18	20	300	50
CULVERT PIPE TRANSITION AT STA. 279+12	320	640	---	---	5	---		---
CULVERT PIPE TRANSITION AT STA. 299+39	---	---			5	20	330	50
CULVERT PIPE TRANSITION AT STA. 338+55	310	620	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 355+28	280	560			5	---	---	---
CULVERT PIPE TRANSITION AT STA. 392+75	270	540	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 401+51	---	---			5	20	280	---
CULVERT PIPE TRANSITION AT STA. 423+12	330	660	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 438+91	330	660			3	---	---	---
CULVERT PIPE TRANSITION AT STA. 448+26	240	480	---	---				
CULVERT PIPE TRANSITION AT STA. 452+47	240	480			---	---	---	---
CULVERT PIPE TRANSITION AT STA. 461+58	---	---			5	20	330	---
CULVERT PIPE TRANSITION AT STA. 471+59	280	560	---	---	5			
CULVERT PIPE TRANSITION AT STA. 530+53	300	600	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 582+31	240	480	---	---				
ASPHALT REMOVAL AT STA. 592+00 LT	120	240	---	---	---	---	---	---
CULVERT PIPE TRANSITION AT STA. 595+65			---	---	5	20	370	
CULVERT PIPE TRANSITION AT STA. 610+99	360	720	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 626+82	280	560	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 634+79	320	640	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 673+17	350	700	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 687+24	280	560	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 708+44	310	620	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 787+50	290	580	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 794+08	340	680	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 804+17	330	660	---	---	5	---	---	---
CULVERT PIPE TRANSITION AT STA. 841+36	370	740	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 847+69	340	680	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 853+61	240	480	---	---	---	---	---	---
CULVERT PIPE TRANSITION AT STA. 909+60	---	---	---	---	3	20	310	---
CULVERT PIPE TRANSITION AT STA. 935+69	310	620	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 987+29	310	620	---	---	3	---	---	---
CULVERT PIPE TRANSITION AT STA. 998+36	330	660	---	---	7	---	---	---
CULVERT PIPE TRANSITION AT STA. 1003+33	310	620	---	---	3	---	---	---
EMERGENCY PULL-OUT AT STA. 1028+00	280	560	---	---	---	---	---	---
CULVERT PIPE TRANSITION AT STA. 1055+53	310	620	---	---	7	---	---	---
CULVERT PIPE TRANSITION AT STA. 1074+39	360	720	---	---	3	---	---	---
UNDISTRIBUTED	750	1,500	15	6	23	10	130	100
TOTAL:	13,500	27,000	15	6	220	150	2,330	200

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

DITCHING SUMMARY

STATION	LOCATION	SPV.0090.01 GRADING AND SHAPING DITCH LF	628.7504 TEMPORARY DITCH CHECKS LF
114+02	RT	100	20
143+01	LT & RT	200	40
146+42	LT & RT	200	40
153+01	LT & RT	200	40
165+39	LT & RT	200	40
188+27	LT & RT	220	40
207+62	LT & RT	200	40
216+49	RT	100	---
219+85	RT	100	20
237+83	RT	100	20
251+05	RT	100	20
269+19	RT	100	20
279+12	RT	100	20
299+39	LT	100	20
338+55	LT	100	20
355+28	RT	100	20
392+75	LT & RT	200	40
423+12	LT & RT	200	40
438+91	LT & RT	200	40
448+26	LT & RT	220	40
452+47	LT & RT	220	40
461+58	LT	100	20
471+59	RT	100	20
530+53	RT	100	20
582+31	LT & RT	220	40
595+65	LT & RT	200	40
610+99	LT & RT	200	40
626+82	RT	100	20
634+79	RT	100	20
673+17	LT & RT	200	40
708+44	LT	100	20
794+08	LT & RT	200	40
804+17	LT	100	20
841+36	LT & RT	200	40
847+69	LT & RT	200	40
853+61	LT & RT	220	40
909+60	RT	100	20
955+69	RT	100	20
998+36	RT	100	20
1003+33	RT	100	20
1038+00	RT	---	20
1074+39	LT & RT	200	40
	TOTAL:	6,200	1,220

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

LANDSCAPING

LOCATION	625.0100 TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0170 SEEDING MIXTURE NO. 70 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0400 SEEDING NURSE CROP LB	630.0500 SEED WATER MGAL
CULVERT PIPE TRANSITION AT STA. 114+02	226	226	0.14	1	---	2	5
CULVERT PIPE TRANSITION AT STA. 143+01	440	440	0.28	2	---	4	10
CULVERT PIPE TRANSITION AT STA. 146+42	434	434	0.27	2	---	4	10
CULVERT PIPE TRANSITION AT STA. 153+01	442	442	0.28	2	---	4	10
CULVERT PIPE TRANSITION AT STA. 165+39	328	328	0.21	2		3	7
CULVERT PIPE TRANSITION AT STA. 182+21	116	116	0.07	1	---	1	3
CULVERT PIPE TRANSITION AT STA. 188+27	40	40	0.03	1		1	1
CULVERT PIPE TRANSITION AT STA. 207+62	413	413	0.26	2	---	3	9
CULVERT PIPE TRANSITION AT STA. 216+49	274	274	0.17	1		2	6
CULVERT PIPE TRANSITION AT STA. 219+85	222	222	0.14	1	---	2	5
CULVERT PIPE TRANSITION AT STA. 237+83	205	205	0.13	1	---	2	5
CULVERT PIPE TRANSITION AT STA. 251+85	106	106	0.07	1	---	1	2
CULVERT PIPE TRANSITION AT STA. 269+19	200	200	0.13	1	---	2	4
CULVERT PIPE TRANSITION AT STA. 279+12	290	290	0.18	2	---	3	6
CULVERT PIPE TRANSITION AT STA. 299+39	288	288	0.18	2	---	3	6
CULVERT PIPE TRANSITION AT STA. 338+55	215	215	0.14	1	---	2	5
CULVERT PIPE TRANSITION AT STA. 355+28	153	153	0.10	1	---	2	3
CULVERT PIPE TRANSITION AT STA. 392+75	240	240	0.15	1	---	2	5
CULVERT PIPE TRANSITION AT STA. 401+51	132	132	0.08	1	---	1	3
CULVERT PIPE TRANSITION AT STA. 423+12	327	327	0.21	2	---	3	7
CULVERT PIPE TRANSITION AT STA. 438+91	280	280	0.18	2	---	3	6
CULVERT PIPE TRANSITION AT STA. 448+26	125	125	0.08	1	---	1	3
CULVERT PIPE TRANSITION AT STA. 452+47	100	100	0.06	1	---	1	2
CULVERT PIPE TRANSITION AT STA. 461+58	251	251	0.16	1	---	2	6
CULVERT PIPE TRANSITION AT STA. 471+59	146	146	0.09	---	7	2	3
CULVERT PIPE TRANSITION AT STA. 530+53	192	192	0.12	1	---	2	4
CULVERT PIPE TRANSITION AT STA. 582+31	97	97	0.06	1	---	1	2
GUARDRAIL AT STA. 592+00	115	115	0.07	1		1	3
CULVERT PIPE TRANSITION AT STA. 595+65	360	360	0.23	2	---	3	8
CULVERT PIPE TRANSITION AT STA. 610+99	320	320	0.20	2		3	7
CULVERT PIPE TRANSITION AT STA. 626+82	165	165	0.10	1	---	2	4
CULVERT PIPE TRANSITION AT STA. 634+79	196	196	0.12	1		2	4
CULVERT PIPE TRANSITION AT STA. 673+17	305	305	0.19	2	---	3	7
CULVERT PIPE TRANSITION AT STA. 687+24	140	140	0.09	1	---	2	3
CULVERT PIPE TRANSITION AT STA. 708+44	172	172	0.11	1	---	2	4
CULVERT PIPE TRANSITION AT STA. 787+50	181	181	0.11	1	---	2	4
CULVERT PIPE TRANSITION AT STA. 794+08	276	276	0.17	1	---	2	6
CULVERT PIPE TRANSITION AT STA. 804+17	258	258	0.16	1	---	2	6
CULVERT PIPE TRANSITION AT STA. 841+36	336	336	0.21	2	---	3	8
CULVERT PIPE TRANSITION AT STA. 847+69	273	273	0.17	1	---	2	6
CULVERT PIPE TRANSITION AT STA. 853+61	65	65	0.04	1	---	1	1
CULVERT PIPE TRANSITION AT STA. 909+60	256	256	0.16	1	---	2	6
CULVERT PIPE TRANSITION AT STA. 955+69	305	305	0.19	2	---	3	7
CULVERT PIPE TRANSITION AT STA. 987+29	271	271	0.17	1	---	2	6
CULVERT PIPE TRANSITION AT STA. 998+36	256	256	0.16	1	---	2	6
CULVERT PIPE TRANSITION AT STA. 1003+33	210	210	0.13	1	---	2	5
EMERGENCY PULL-OUT AT STA. 1028+00	220	220	0.14	1	---	2	5
EMERGENCY PULL-OUT AT STA. 1038+00	363	363	0.23	2	---	3	8
CULVERT PIPE TRANSITION AT STA. 1055+00	158	158	0.10	1		2	4
CULVERT PIPE TRANSITION AT STA. 1074+39	393	393	0.25	2	---	3	9
1027+00 TURNOUT	220	220	0.14	1		2	5
UNDISTRIBUTED	609	609	0.39	4	3	8	15
TOTAL:	12,705	12,705	8.00	70	10	120	285

PERMANENT SIGNING SUMMARY

CATEGORY	LOCATION	SIGN NUMBERS	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	UNDISTRIBUTED	--	10	--	22	--	--	22	SIGNS WITHIN CULVERT PATCHES
0010	UNDISTRIBUTED	--	10	--	10	--	--	10	NO-PASSING ZONES SIGNS
0010	1027+16	--	--	--	1	--	--	1	SLOW VEHICLE TURNOUT 1000 FT
0010	1037+00	--	--	--	1	--	--	1	SLOW VEHICLE TURNOUT ARROW
0020	779+30	1-1a, 1-1b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		1-1c, 1-1d		1	--	--	--	--	(2) RS-Y
0020	780+50	1-2a, 1-2b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		1-2c, 1-2d		1	--	--	--	--	(2) RS-Y
0020	781+70	1-3a, 1-3b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		1-3c, 1-3d		1	--	--	--	--	(2) RS-Y
0020	782+90	1-4a, 1-4b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		1-4c, 1-4d		1	--	--	--	--	(2) RS-Y
0020	784+10	1-5a, 1-5b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		1-5c, 1-5d		1	--	--	--	--	(2) RS-Y
0020	785+30	1-6a, 1-6b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		1-6c, 1-6d		1	--	--	--	--	(2) RS-Y
0020	786+50	1-7a, 1-7b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		1-7c, 1-7d		1	--	--	--	--	(2) RS-Y
0020	902+40	2-1a, 2-1b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-1c, 2-1d		1	--	--	--	--	(2) RS-Y
0020	903+60	2-2a, 2-2b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-2c, 2-2d		1	--	--	--	--	(2) RS-Y
0020	904+80	2-3a, 2-3b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-3c, 2-3d		1	--	--	--	--	(2) RS-Y
0020	906+00	2-4a, 2-4b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-4c, 2-4d		1	--	--	--	--	(2) RS-Y
0020	907+20	2-5a, 2-5b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-5c, 2-5d		1	--	--	--	--	(2) RS-Y
0020	908+40	2-6a, 2-6b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-6c, 2-6d		1	--	--	--	--	(2) RS-Y
0020	909+60	2-7a, 2-7b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-7c, 2-7d		1	--	--	--	--	(2) RS-Y
0020	910+80	2-8a, 2-8b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-8c, 2-8d		1	--	--	--	--	(2) RS-Y
0020	912+00	2-9a, 2-9b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-9c, 2-9d		1	--	--	--	--	(2) RS-Y
0020	913+20	2-10c, 2-10d	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-10a, 2-10b		1	--	--	--	--	(2) RS-Y
0020	914+40	2-11a, 2-11b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-11c, 2-11d		1	--	--	--	--	(2) RS-Y
0020	915+60	2-12a, 2-12b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-12c, 2-12d		1	--	--	--	--	(2) RS-Y
0020	916+80	2-13a, 2-13b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-13c, 2-13d		1	--	--	--	--	(2) RS-Y
0020	918+00	2-14a, 2-14b	1	6	--	--	--	--	(2) W1-8 CHEVRON
		2-14c, 2-14d		1	--	--	--	--	(2) RS-Y
0020	1033+80	3-1a, 3-1b	1	10	--	2		--	(2) W1-8 CHEVRON
		3-1c, 3-1d		1	--	--	1	--	(2) RS-Y
0020	1035+00	3-2a, 3-2b	1	10	--	2		--	(2) W1-8 CHEVRON
		3-2c, 3-2d		1	--	--	1	--	(2) RS-Y
0020	1036+20	3-3a, 3-3b	1	10	--	2		--	(2) W1-8 CHEVRON
		3-3c, 3-3d		1	--	--	1	--	(2) RS-Y
0020	1037+40	3-4a, 3-4b	1	10	--	2		--	(2) W1-8 CHEVRON
		3-4c, 3-4d		1	--	--	1	--	(2) RS-Y
0020	1038+60	3-5a, 3-5b	1	10	--	2		--	(2) W1-8 CHEVRON
		3-5c, 3-5d		1	--	--	1	--	(2) RS-Y
0020	1039+80	3-6a, 3-6b	1	10	--	2		--	(2) W1-8 CHEVRON
		3-6c, 3-6d		1	--	--	1		(2) RS-Y
0020	1041+00	3-7a, 3-7b	1	10	--	2		--	(2) W1-8 CHEVRON
		3-7c, 3-7d		1	--	--	1	--	(2) RS-Y
		CAT 0010 TOTALS:	20	0	34	0	0	34	
		CAT 0020 TOTALS:	28	224	0	14	7	0	
		TOTALS:	48	224	34	14	7	34	

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

TRAFFIC CONTROL SUMMARY

LOCATION	APPROX. SERVICE DAYS	643.0300 DRUMS NO IN SERVICE	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO IN SERVICE	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO IN SERVICE	643.0900 SIGNS DAYS	643.0920 COVERING SIGNS TYPE II NO IN SERVICE	643.0920 COVERING SIGNS TYPE II CYCLES	643.0920 COVERING SIGNS TYPE II EACH	643.1000 FIXED MESSAGE SIGNS SF
DETOUR ROUTE	58	---	---	7	406	10	580	265	15370	16	2	32	---
MAINLINE CLOSURE	58	---	---	8	464	16	928	12	696	---	---	---	---
SIDEROADS	58			2	116	4	232	6	348	---	---	---	---
FLAGGING	59	50	2950	5	295	10	590	40	2360	---	---	---	---
UNDISTRIBUTED	58	15	870	5	290	10	580	80	4640	4	2	8	---
ADVANCED CLOSURE WARNING	7												36.00
TOTAL:			3,820		1,571		2,910		23,414			40	36.00

LOCATING NO PASSING ZONES

STATION	TO	STATION	LOCATION	648.0100 LOCATING NO PASSING ZONES MI
100+52	-	1085+84	STH 55	18.66
			TOTAL:	18.66

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

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RIPRAP SUMMARY

STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
114+02	LT	3	10
146+42	LT	4	13
269+19	LT	7	20
269+19	RT	7	20
338+55	RT	8	24
530+53	LT	8	24
595+65	LT	4	13
595+65	RT	4	13
787+50	LT	4	13
909+60	LT	4	13
987+32	LT	4	13
1003+33	LT	4	13
UNDISTRIBUTED		99	76
TOTAL:		160	265

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

PAVEMENT MARKING SUMMARY

STATION	TO	STATION	LOCATION	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW) LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW) LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE) LF	646.4040 MARKING LINE GROOVED WET REFEPOXY 10-INCH (WHITE) LF	646.6120 MARKING STOP LINE EPOXY 18-INCH (WHITE) LF	REMARKS
100+40	-	119+40	STH 55	11,400	3,800	3,690	---	---	DBL YLW
119+40	-	200+20	STH 55	48,480	16,160	16,160	---	---	DBL YLW
200+20	-	209+10	STH 55	3,339	1,113	1,780	---	---	SGL YWL W/ SKIPS
209+10	-	216+30	STH 55	2,700	900	1,215	---	---	SGL YWL W/ SKIPS
216+30	-	253+75	STH 55	22,134	7,378	7,403	---	---	DBL YLW & SGL W/ SKIPS
253+75	-	281+00	STH 55	15,360	5,120	5,364	---	---	DBL YLW & SGL W/ SKIPS
281+00	-	291+80	STH 55	4,050	1,350	2,009	---	---	SGL YWL W/ SKIPS
291+80	-	447+10	STH 55	80,199	26,733	30,732	---	---	DBL YLW & SGL W/ SKIPS
447+10	-	540+53	STH 55	56,058	18,686	18,318	---	---	DBL YLW
554+13	-	591+15	STH 55	22,212	7,404	7,297	---	---	DBL YLW
591+15	-	609+70	STH 55	7,260	2,420	3,710	---	---	DBL YLW & SGL W/ SKIPS
609+70	-	699+40	STH 55	53,820	17,940	17,829	---	---	DBL YLW
699+40	-	735+00	STH 55	7,290	2,430	6,999	---	---	SKIPS & SGL W/SKIPS
735+00	-	749+10	STH 55	8,460	2,820	2,773	---	---	DBL YWL
749+10	-	783+80	STH 55	20,820	6,940	6,831	---	---	DBL YLW
783+80	-	822+70	STH 55	14,589	4,863	7,573	---	---	SGL YWL W/ SKIPS
822+70	-	833+90	STH 55	840	280	2,264	---	---	SKIPS
833+90		873+80	STH 55	21,579	7,193	7,776			DBL YLW & SGL W/ SKIPS
873+80	-	882+90	STH 55	3,414	1,138	1,820	---	---	SGL YWL W/ SKIPS
882+90		893+50	STH 55	2,865	955	2,120			SKIPS & SGL W/SKIPS
893+50	-	932+90	STH 55	21,054	7,018	7,485	---	---	DBL YLW & SGL W/ SKIPS
932+90		1083+00	STH 55	89,070	29,690	29,688			DBL YLW & SGL W/ SKIPS
154+79	-	156+93	STH 55	---	---	---	95	---	EMERGENCY PULL-OUT
175+49	-	177+51	STH 55	---	---	---	95	---	EMERGENCY PULL-OUT
203+85	-	205+75	STH 55	---	---	---	110	---	EMERGENCY PULL-OUT
230+53	-	232+53	STH 55	---	---	---	90	---	EMERGENCY PULL-OUT
261+10	-	262+92	STH 55	---	---	---	80	---	EMERGENCY PULL-OUT
285+14	-	286+91	STH 55	---	---	---	105	---	EMERGENCY PULL-OUT
309+47	-	311+47	STH 55	---	---	---	225	---	EMERGENCY PULL-OUT
337+16	-	338+95	STH 55	---	---	---	75	---	EMERGENCY PULL-OUT
374+27	-	375+96	STH 55	---	---	---	80	---	EMERGENCY PULL-OUT
409+74	-	411+66	STH 55	---	---	---	85	---	EMERGENCY PULL-OUT
434+41	-	436+38	STH 55	---	---	---	115	---	EMERGENCY PULL-OUT
462+58	-	464+71	STH 55	---	---	---	130	---	EMERGENCY PULL-OUT
488+15	-	490+15	STH 55	---	---	---	120	---	EMERGENCY PULL-OUT
572+44	-	574+54	STH 55	---	---	---	115	---	EMERGENCY PULL-OUT
623+88	-	625+91	STH 55	---	---	---	110	---	EMERGENCY PULL-OUT
668+80	-	671+00	STH 55	---	---	---	125	---	EMERGENCY PULL-OUT
701+14	-	703+18	STH 55	---	---	---	110	---	EMERGENCY PULL-OUT
727+09	-	729+09	STH 55	---	---	---	85	---	EMERGENCY PULL-OUT
756+61	-	758+60	STH 55	---	---	---	115	---	EMERGENCY PULL-OUT
791+08		793+07	STH 55				90		EMERGENCY PULL OUT
817+07	-	819+09	STH 55	---	---	---	110	---	EMERGENCY PULL-OUT
869+05		871+01	STH 55				110		EMERGENCY PULL OUT
895+04	-	897+06	STH 55	---	---	---	120	---	EMERGENCY PULL-OUT
921+15		923+04	STH 55				105		EMERGENCY PULL OUT
945+70	-	947+72	STH 55	---	---	---	130	---	EMERGENCY PULL-OUT
1027+00	-	1028+78	STH 55	---	---	---	115	---	EMERGENCY PULL-OUT
1064+31	-	1066+36	STH 55	---	---	---	110	---	EMERGENCY PULL-OUT
280+57	-	---	STH 55	---	---	---	---	25	BEAR TRAP FALLS RD
544+66	-	---	STH 55	---	150	---	---	25	CTH M EAST
547+84	-	---	STH 55	---	180	---	---	25	CTH M EAST
590+78	-	---	STH 55	---	150	---	---	25	CTH M WEST
			CAT 0010 TOTALS:	516,993	---	---	2,875	60	
			CAT 0020 TOTALS:	---	172,812	190,736	---	---	
			TOTAL:	516,993	363,547		2,875	60	

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CONSTRUCTION STAKING SUMMARY

STA		STA	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
100+52		113+47	STH 55			1,295	
113+47	-	114+57	STH 55	110	110	---	110
114+57	-	142+46	STH 55	---	---	2,789	---
142+46	-	143+56	STH 55	110	110	---	110
143+56	-	145+87	STH 55	---	---	231	---
145+87	-	146+97	STH 55	110	110	---	110
146+97	-	152+46	STH 55	---	---	549	---
152+46	-	153+56	STH 55	110	110	---	110
153+56	-	164+84	STH 55	---	---	1,128	---
164+84	-	165+94	STH 55	110	110	---	110
165+94	-	181+66	STH 55	---	---	1,572	---
181+66	-	182+76	STH 55	110	110	---	110
182+76		187+72	STH 55			496	
187+72		188+82	STH 55	110	110		110
188+82	-	207+07	STH 55	---	---	1,825	---
207+07	-	208+17	STH 55	110	110	---	110
208+17	-	215+94	STH 55	---	---	777	---
215+94	-	217+04	STH 55	110	110	---	110
217+04	-	219+30	STH 55	---	---	226	---
219+30	-	220+40	STH 55	110	110	---	110
220+40	-	237+28	STH 55	---	---	1,688	---
237+28	-	238+38	STH 55	110	110	---	110
238+38	-	250+50	STH 55	---	---	1,212	---
250+50	-	251+60	STH 55	110	110	---	110
251+60		268+64	STH 55			1,704	
268+64		269+74	STH 55	110	110		110
269+74	-	278+57	STH 55	---	---	883	---
278+57	-	279+67	STH 55	110	110	---	110
279+67	-	298+84	STH 55	---	---	1,917	---
298+84	-	299+94	STH 55	110	110	---	110
299+94	-	338+00	STH 55	---	---	3,806	---
338+00	-	339+10	STH 55	110	110	---	110
339+10	-	354+73	STH 55	---	---	1,563	---
354+73	-	355+83	STH 55	110	110	---	110
355+83	-	392+20	STH 55	---	---	3,637	---
392+20	-	393+30	STH 55	110	110	---	110
393+30	-	400+96	STH 55	---	---	766	---
400+96		402+06	STH 55	110	110		110
402+06	-	422+57	STH 55	---	---	2,051	---
422+57	-	423+67	STH 55	110	110	---	110
423+67	-	438+36	STH 55	---	---	1,469	---
438+36	-	439+46	STH 55	110	110	---	110
439+36	-	447+71	STH 55	---	---	835	---
447+71	-	448+81	STH 55	110	110	---	110
448+81	-	451+92	STH 55	---	---	311	---
451+92	-	453+02	STH 55	110	110	---	110
453+02	-	461+03	STH 55	---	---	801	---
461+03	-	462+13	STH 55	110	110	---	110
462+13	-	471+04	STH 55	---	---	891	---
471+04		472+14	STH 55	110	110		110
472+14	-	529+97	STH 55	---	---	5,783	---
529+97	-	531+08	STH 55	111	111	---	111
531+08	-	540+53	STH 55	---	---	945	---
554+13	-	581+76	STH 55	---	---	2,763	---
581+76	-	582+86	STH 55	110	110	---	110
582+86	-	595+10	STH 55	---	---	1,224	---
595+10	-	596+20	STH 55	110	110	---	110
596+20	-	610+44	STH 55	---	---	1,424	---

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

CONSTRUCTION STAKING SUMMARY - CONT.

STA		STA	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
610+44		611+54	STH 55	110	110		110
611+54		626+27	STH 55			1,473	
626+27	-	627+37	STH 55	110	110	---	110
627+37	-	634+24	STH 55	---	---	687	---
634+24	-	635+34	STH 55	110	110	---	110
635+34	-	672+61	STH 55	---	---	3,727	---
672+61	-	673+72	STH 55	111	111	---	111
673+72	-	686+68	STH 55	---	---	1,296	---
686+68	-	687+79	STH 55	111	111	---	111
687+79	-	707+89	STH 55	---	---	2,010	---
707+89	-	708+99	STH 55	110	110	---	110
708+99	-	786+95	STH 55	---	---	7,796	---
786+95		788+05	STH 55	110	110		110
788+05	-	793+53	STH 55	---	---	548	---
793+53	-	794+63	STH 55	110	110	---	110
794+63	-	803+62	STH 55	---	---	899	---
803+62	-	804+72	STH 55	110	110	---	110
804+72	-	840+81	STH 55	---	---	3,609	---
840+81	-	841+91	STH 55	110	110	---	110
841+91	-	847+14	STH 55	---	---	523	---
847+14	-	848+24	STH 55	110	110	---	110
848+24	-	853+06	STH 55	---	---	482	---
853+06	-	854+16	STH 55	110	110	---	110
854+16		909+04	STH 55			5,488	
909+04		910+15	STH 55	111	111		111
910+15	-	955+14	STH 55	---	---	4,499	---
955+14	-	956+24	STH 55	110	110	---	110
956+24	-	986+74	STH 55	---	---	3,050	---
986+74	-	987+84	STH 55	110	110	---	110
987+84	-	997+81	STH 55	---	---	997	---
997+81	-	998+92	STH 55	111	111	---	111
998+92	-	1002+78	STH 55	---	---	386	---
1002+78	-	1003+88	STH 55	110	110	---	110
1003+88	-	1054+99	STH 55	---	---	5,111	---
1054+99	-	1056+09	STH 55	110	110	---	110
1056+09		1073+84	STH 55			1,775	
1073+84	-	1074+94	STH 55	110	110	---	110
1074+94	-	1085+84	STH 55	---	---	1,090	---
			TOTAL:	5,175	5,175	92,007	5,175

NOTE: CONSTRUCTION STAKING PIPE CULVERTS ITEM SHOWN ELSEWHERE

SAWING SUMMARY

690.0150
SAWING ASPHALT

STA	LOCATION	LF	REMARKS
113+47	STH 55	60	CUT AT END OF CULVERT
114+57	STH 55	22	CUT AT END OF CULVERT
142+46	STH 55	24	CUT AT END OF CULVERT
143+56	STH 55	24	CUT AT END OF CULVERT
145+87	STH 55	22	CUT AT END OF CULVERT
146+97	STH 55	22	CUT AT END OF CULVERT
152+46	STH 55	24	CUT AT END OF CULVERT
153+56	STH 55	25	CUT AT END OF CULVERT
164+84	STH 55	22	CUT AT END OF CULVERT
165+94	STH 55	23	CUT AT END OF CULVERT
181+66	STH 55	23	CUT AT END OF CULVERT
182+76	STH 55	22	CUT AT END OF CULVERT
187+72	STH 55	23	CUT AT END OF CULVERT
188+82	STH 55	23	CUT AT END OF CULVERT
207+07	STH 55	23	CUT AT END OF CULVERT
208+17	STH 55	23	CUT AT END OF CULVERT
215+94	STH 55	34	CUT AT END OF CULVERT
217+04	STH 55	23	CUT AT END OF CULVERT
219+30	STH 55	23	CUT AT END OF CULVERT
220+40	STH 55	23	CUT AT END OF CULVERT
237+28	STH 55	23	CUT AT END OF CULVERT
238+38	STH 55	23	CUT AT END OF CULVERT
250+50	STH 55	23	CUT AT END OF CULVERT
251+60	STH 55	23	CUT AT END OF CULVERT
268+64	STH 55	24	CUT AT END OF CULVERT
269+74	STH 55	24	CUT AT END OF CULVERT
278+57	STH 55	23	CUT AT END OF CULVERT
279+67	STH 55	23	CUT AT END OF CULVERT
298+84	STH 55	23	CUT AT END OF CULVERT
299+94	STH 55	25	CUT AT END OF CULVERT
338+00	STH 55	35	CUT AT END OF CULVERT
339+10	STH 55	23	CUT AT END OF CULVERT
354+73	STH 55	23	CUT AT END OF CULVERT
355+83	STH 55	23	CUT AT END OF CULVERT
392+20	STH 55	23	CUT AT END OF CULVERT
393+30	STH 55	23	CUT AT END OF CULVERT
400+96	STH 55	23	CUT AT END OF CULVERT
402+06	STH 55	23	CUT AT END OF CULVERT
422+57	STH 55	24	CUT AT END OF CULVERT
423+67	STH 55	23	CUT AT END OF CULVERT
438+36	STH 55	23	CUT AT END OF CULVERT
439+46	STH 55	23	CUT AT END OF CULVERT
447+71	STH 55	23	CUT AT END OF CULVERT
448+81	STH 55	23	CUT AT END OF CULVERT
451+92	STH 55	23	CUT AT END OF CULVERT
453+02	STH 55	23	CUT AT END OF CULVERT
461+03	STH 55	24	CUT AT END OF CULVERT
462+13	STH 55	23	CUT AT END OF CULVERT
471+04	STH 55	22	CUT AT END OF CULVERT
472+14	STH 55	22	CUT AT END OF CULVERT
529+98	STH 55	24	CUT AT END OF CULVERT
531+08	STH 55	24	CUT AT END OF CULVERT
552+59	STH 55	22	CUT AT END OF CULVERT
581+76	STH 55	22	CUT AT END OF CULVERT
582+86	STH 55	22	CUT AT END OF CULVERT
597+00	STH 55	34	GUARDRAIL
595+10	STH 55	25	CUT AT END OF CULVERT
596+20	STH 55	24	CUT AT END OF CULVERT

SAWING SUMMARY - CONT.

690.0150
SAWING ASPHALT

STA	LOCATION	LF	REMARKS
610+44	STH 55	22	CUT AT END OF CULVERT
621+54	STH 55	23	CUT AT END OF CULVERT
626+27	STH 55	23	CUT AT END OF CULVERT
627+37	STH 55	22	CUT AT END OF CULVERT
634+24	STH 55	22	CUT AT END OF CULVERT
635+34	STH 55	22	CUT AT END OF CULVERT
672+62	STH 55	23	CUT AT END OF CULVERT
673+72	STH 55	23	CUT AT END OF CULVERT
686+69	STH 55	22	CUT AT END OF CULVERT
687+79	STH 55	22	CUT AT END OF CULVERT
707+89	STH 55	22	CUT AT END OF CULVERT
708+99	STH 55	22	CUT AT END OF CULVERT
786+95	STH 55	26	CUT AT END OF CULVERT
788+05	STH 55	26	CUT AT END OF CULVERT
793+53	STH 55	23	CUT AT END OF CULVERT
794+63	STH 55	23	CUT AT END OF CULVERT
803+62	STH 55	23	CUT AT END OF CULVERT
804+72	STH 55	23	CUT AT END OF CULVERT
840+81	STH 55	23	CUT AT END OF CULVERT
841+91	STH 55	23	CUT AT END OF CULVERT
847+14	STH 55	24	CUT AT END OF CULVERT
848+24	STH 55	23	CUT AT END OF CULVERT
853+06	STH 55	23	CUT AT END OF CULVERT
854+16	STH 55	23	CUT AT END OF CULVERT
909+05	STH 55	26	CUT AT END OF CULVERT
910+15	STH 55	26	CUT AT END OF CULVERT
955+14	STH 55	23	CUT AT END OF CULVERT
956+24	STH 55	23	CUT AT END OF CULVERT
986+74	STH 55	28	CUT AT END OF CULVERT
987+84	STH 55	28	CUT AT END OF CULVERT
997+81	STH 55	26	CUT AT END OF CULVERT
998+91	STH 55	26	CUT AT END OF CULVERT
1002+78	STH 55	22	CUT AT END OF CULVERT
1003+88	STH 55	24	CUT AT END OF CULVERT
1026+93	STH 55	194	EMERGENCY PULL-OUT
1037+00	STH 55	184	EMERGENCY PULL-OUT
1054+99	STH 55	25	CUT AT END OF CULVERT
1056+09	STH 55	26	CUT AT END OF CULVERT
1073+84	STH 55	22	CUT AT END OF CULVERT
1074+94	STH 55	22	CUT AT END OF CULVERT
TOTAL:		2,687	

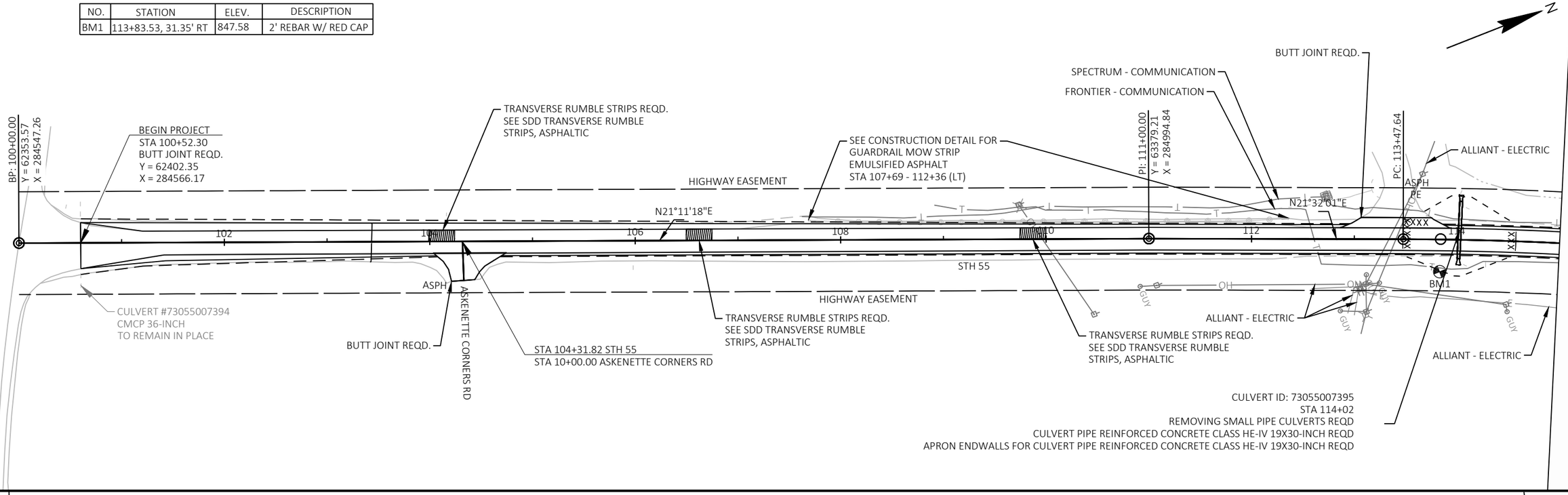
HIGH FRICTION SURFACE TREATMENT

SPV.0180.01
RESIN BINDER HIGH FRICTION
SURFACE TREATMENT

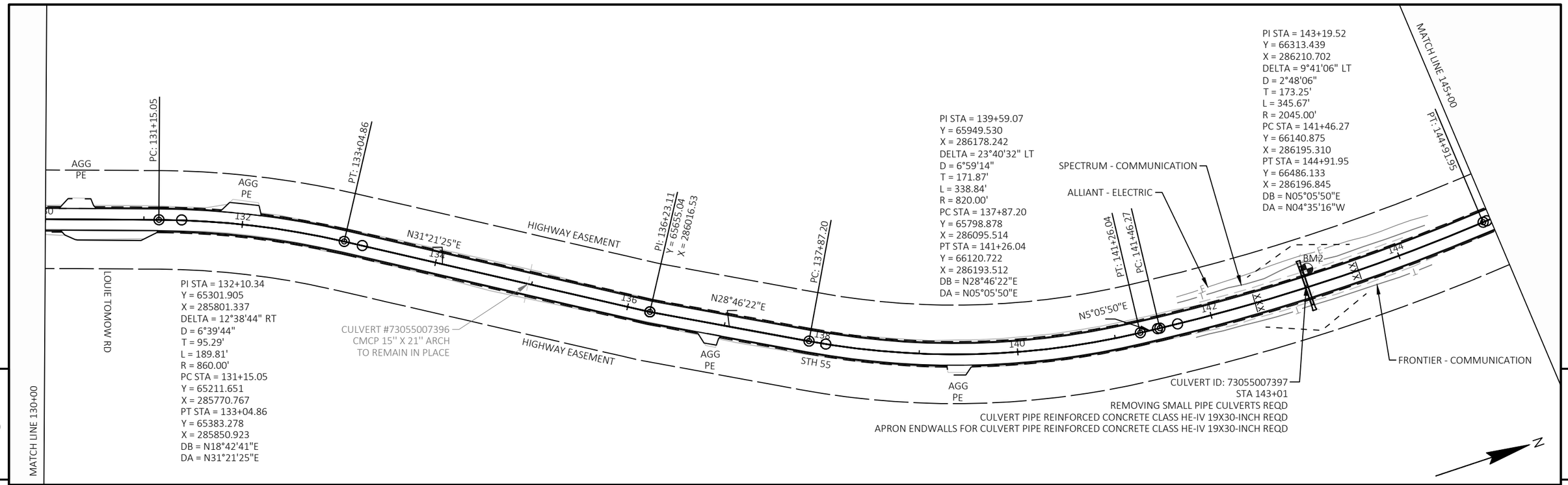
CATEGORY	STA	TO	STA	LOCATION	SY
0020	780+00	-	786+50	STH 55	1,589
0020	902+50	-	918+00	STH 55	3,789
0020	1034+00	-	1041+00	STH 55	1,711
			TOTAL:		7,089

ALL ITEMS 0010 CATEGORY UNLESS OTHERWISE LISTED

NO.	STATION	ELEV.	DESCRIPTION
BM1	113+83.53, 31.35' RT	847.58	2' REBAR W/ RED CAP



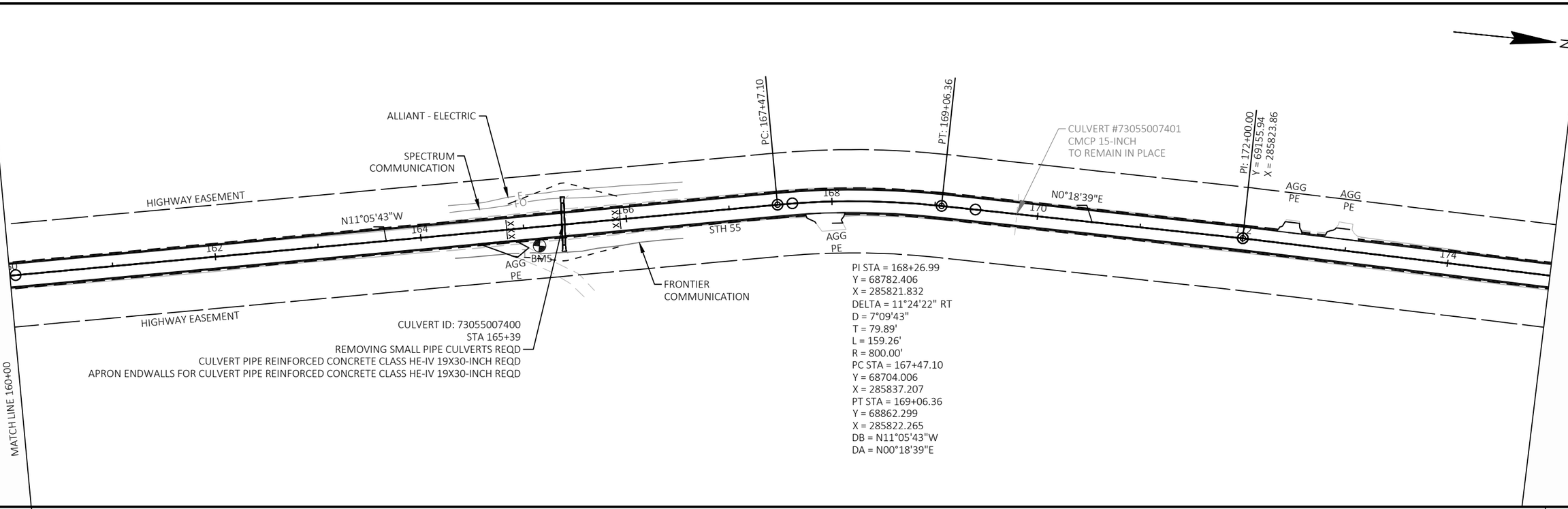
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 94	E



NO.	STATION	ELEV.	DESCRIPTION
BM2	143+06.78, 17.76' LT	870.14	2' REBAR W/ RED CAP
BM3	146+56.10, 16.44' LT	870.31	2' REBAR W/ RED CAP
BM4	152+84.03, 17.35' LT	868.83	2' REBAR W/ RED CAP

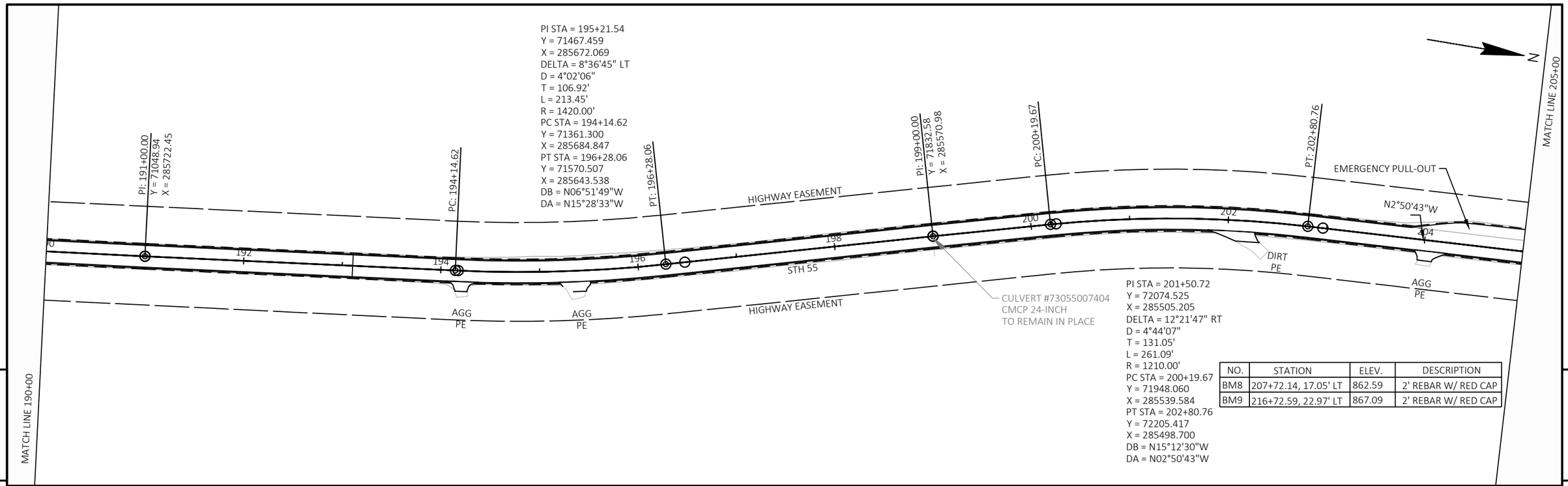
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 95	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 18
PLOT DATE : 12/20/2025 10:36 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

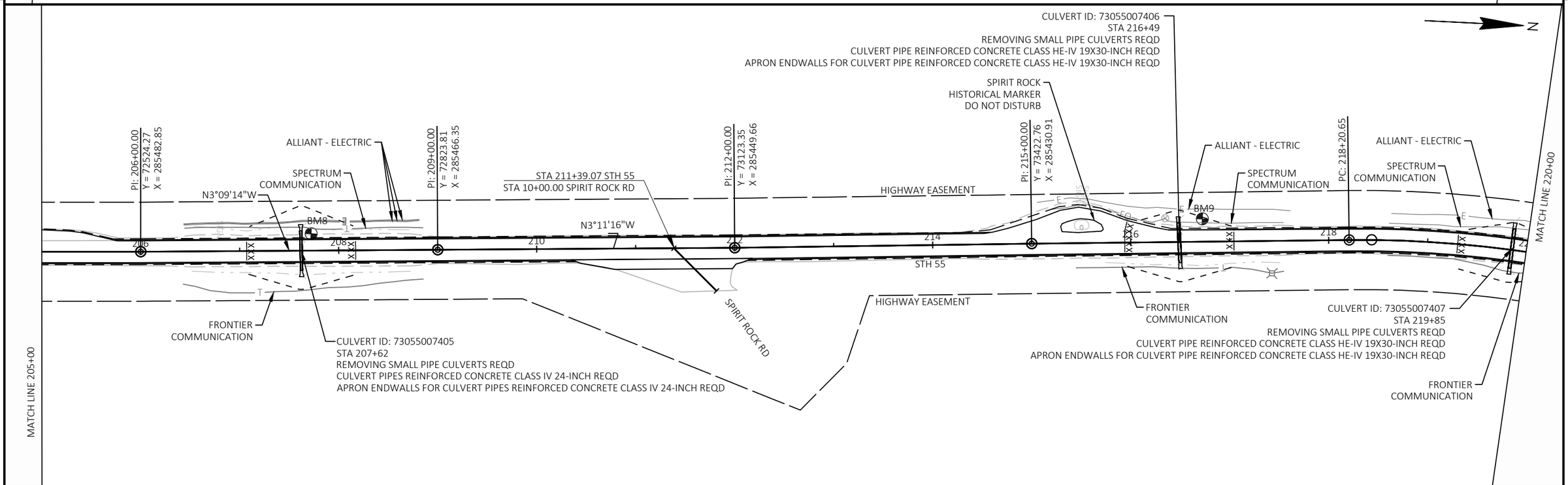


NO.	STATION	ELEV.	DESCRIPTION
BM5	165+13.73, 18.52' RT	865.44	2' REBAR W/ RED CAP
BM6	181+95.35, 22.50' RT	865.63	2' REBAR W/ RED CAP
BM7	188+06.47, 22.41' LT	870.42	2' REBAR W/ RED CAP
BM8	207+72.14, 17.05' LT	862.59	2' REBAR W/ RED CAP
BM9	216+72.59, 22.97' LT	867.09	2' REBAR W/ RED CAP
BM10	220+13.42, 25.49' LT	870.73	2' REBAR W/ RED CAP

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 96	E

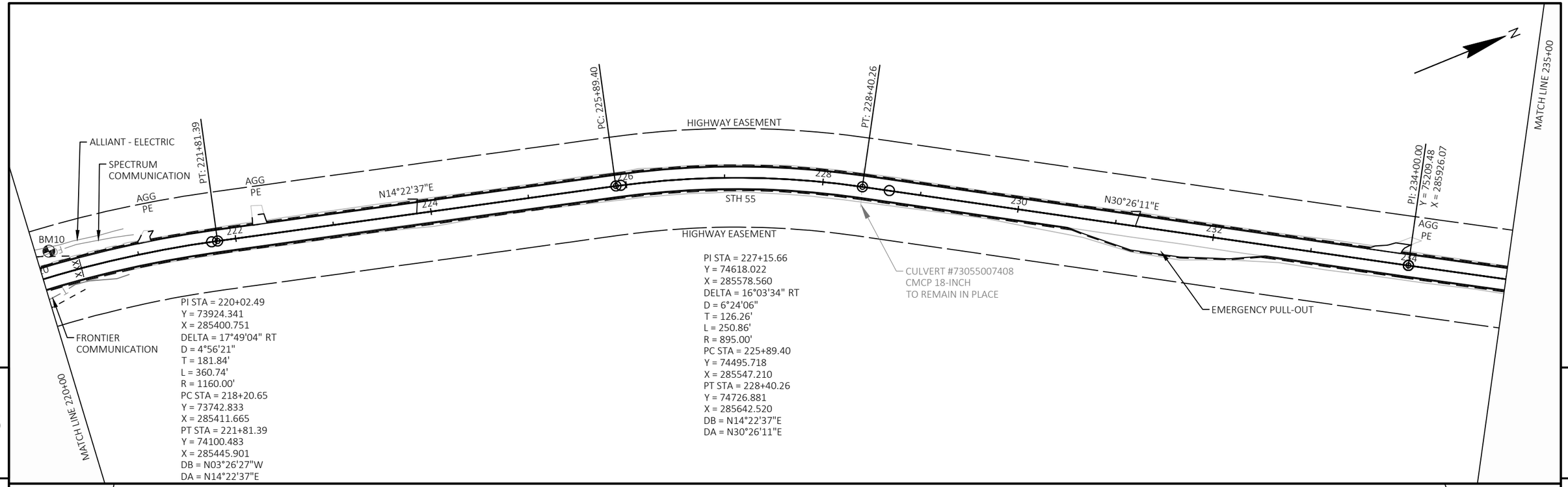


NO.	STATION	ELEV.	DESCRIPTION
BM8	207+72.14, 17.05' LT	862.59	2' REBAR W/ RED CAP
BM9	216+72.59, 22.97' LT	867.09	2' REBAR W/ RED CAP

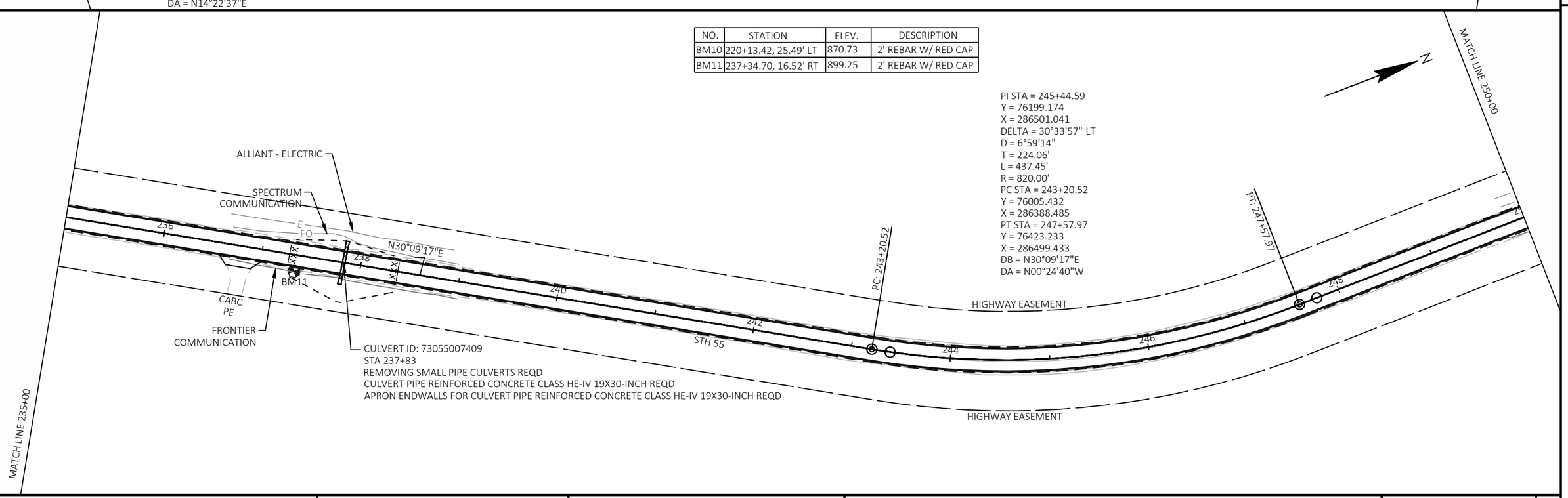


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 97	E

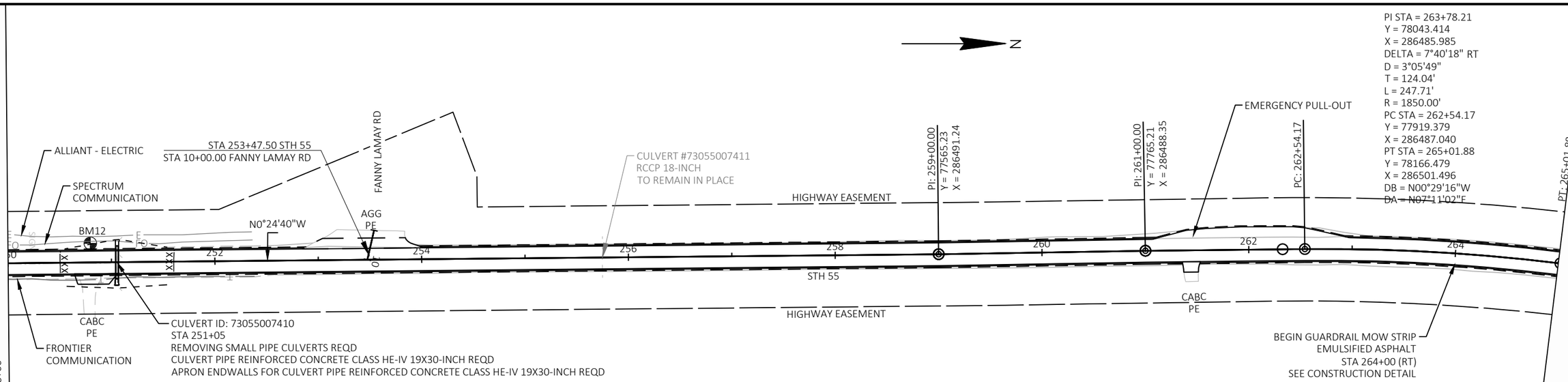
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 20
PLOT DATE : 12/20/2025 9:29 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



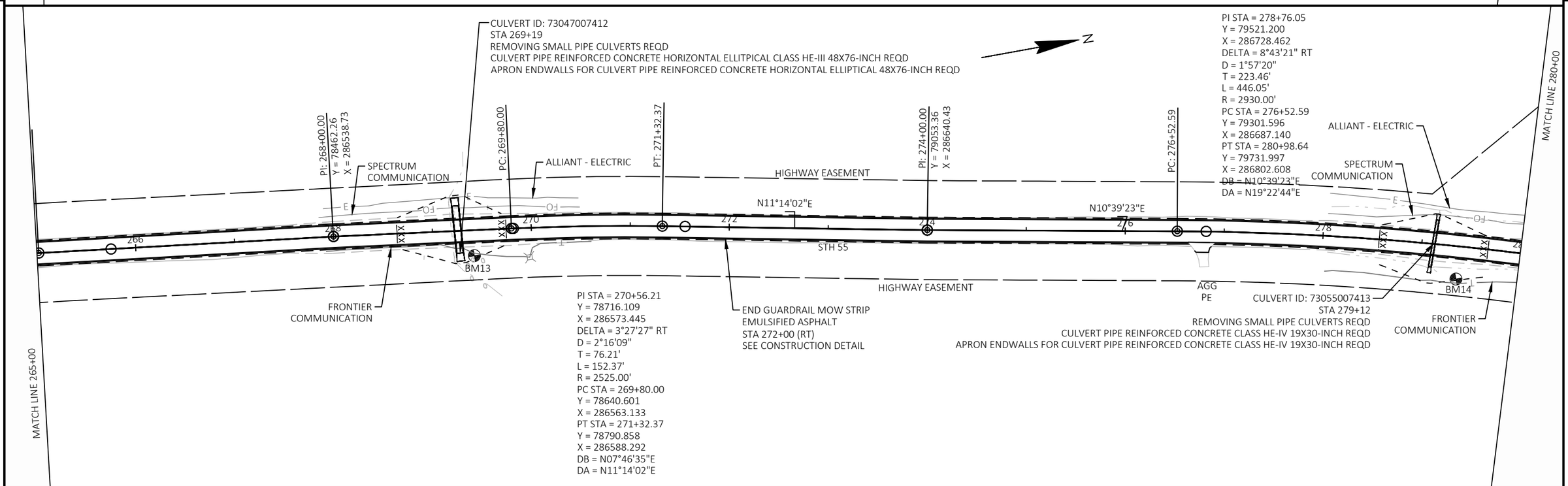
NO.	STATION	ELEV.	DESCRIPTION
BM10	220+13.42, 25.49' LT	870.73	2' REBAR W/ RED CAP
BM11	237+34.70, 16.52' RT	899.25	2' REBAR W/ RED CAP



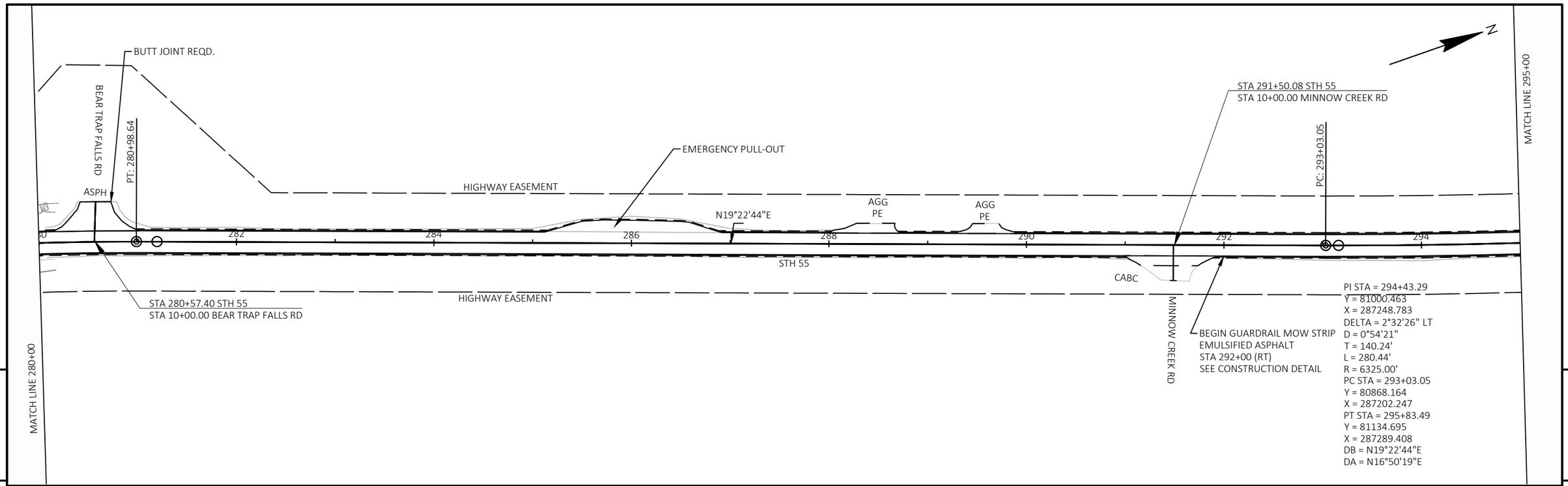
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 98	E

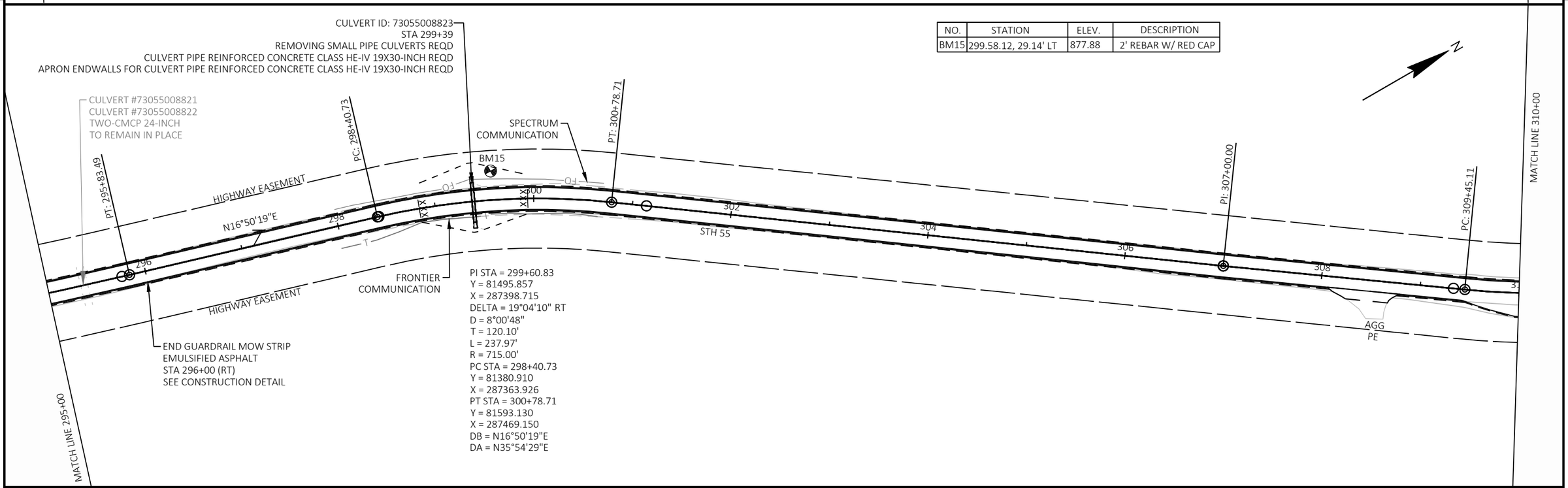


NO.	STATION	ELEV.	DESCRIPTION
BM12	250+79.56, 18.40' LT	891.94	2' REBAR W/ RED CAP
BM13	269+41.29, 25.71' RT	876.27	2' REBAR W/ RED CAP
BM14	279+37.97, 33.25' RT	889.86	2' REBAR W/ RED CAP



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 99	E



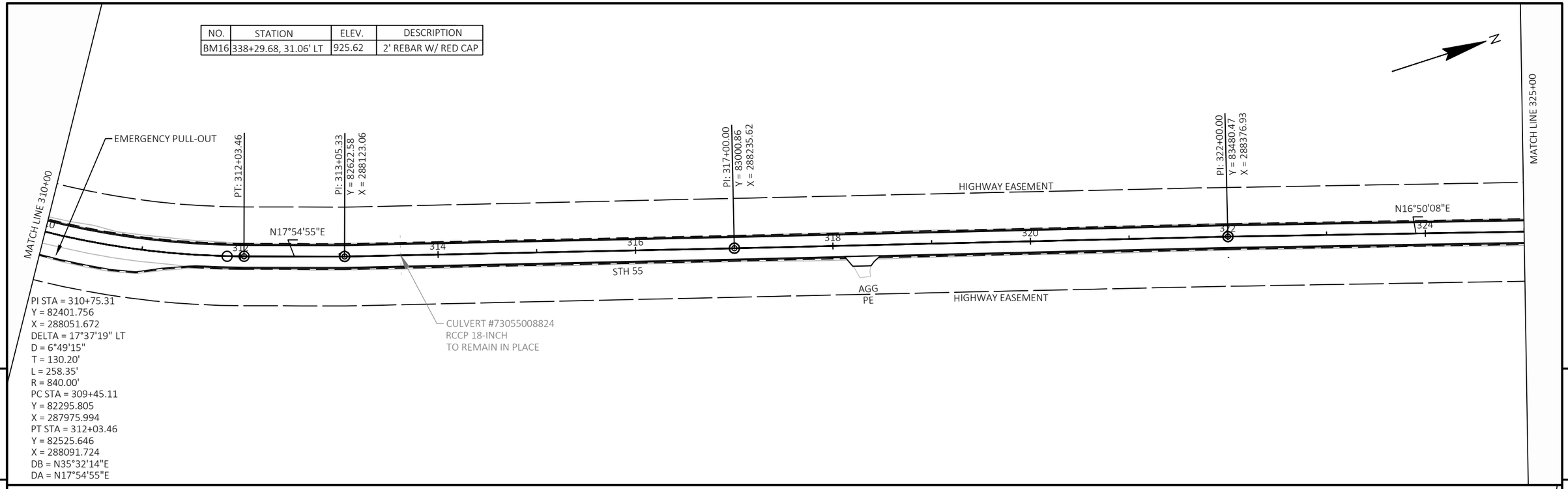


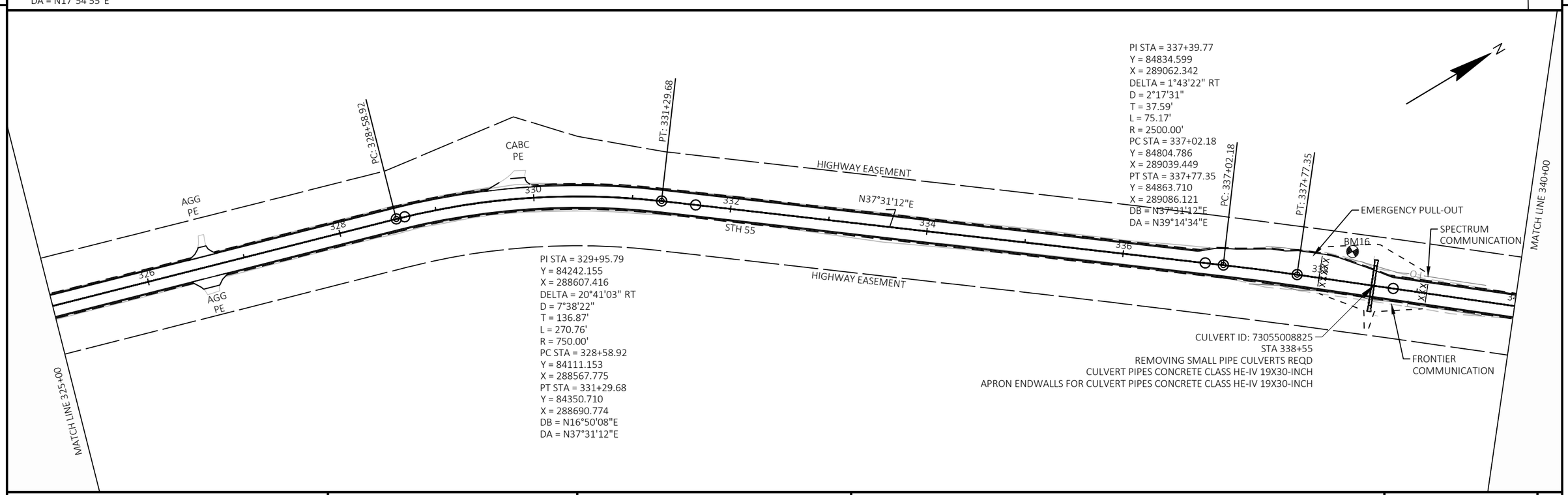
NO.	STATION	ELEV.	DESCRIPTION
BM15	299.58.12, 29.14' LT	877.88	2' REBAR W/ RED CAP

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 100	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 23
PLOT DATE : 12/20/2025 9:32 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

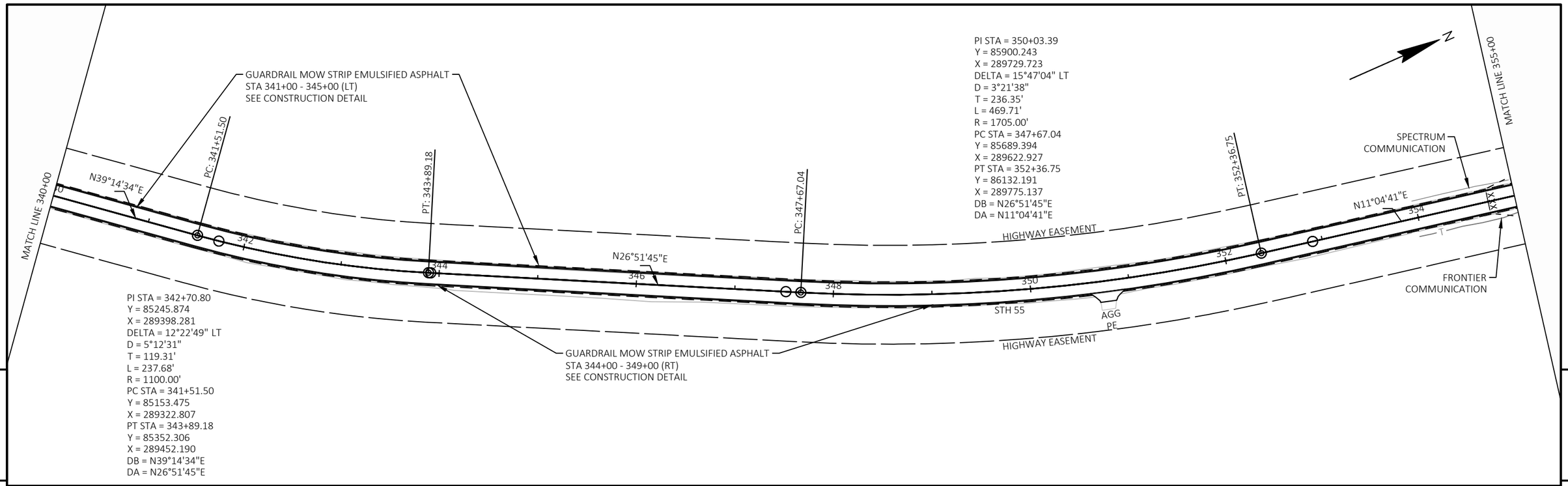
NO.	STATION	ELEV.	DESCRIPTION
BM16	338+29.68, 31.06' LT	925.62	2' REBAR W/ RED CAP



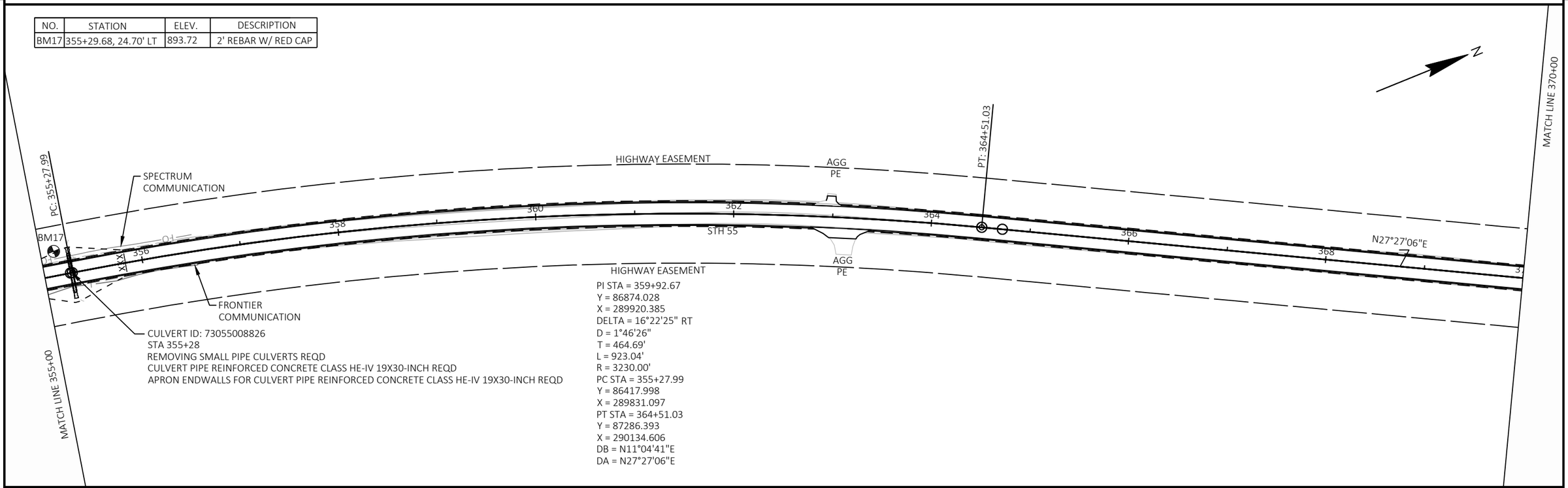


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 101	E

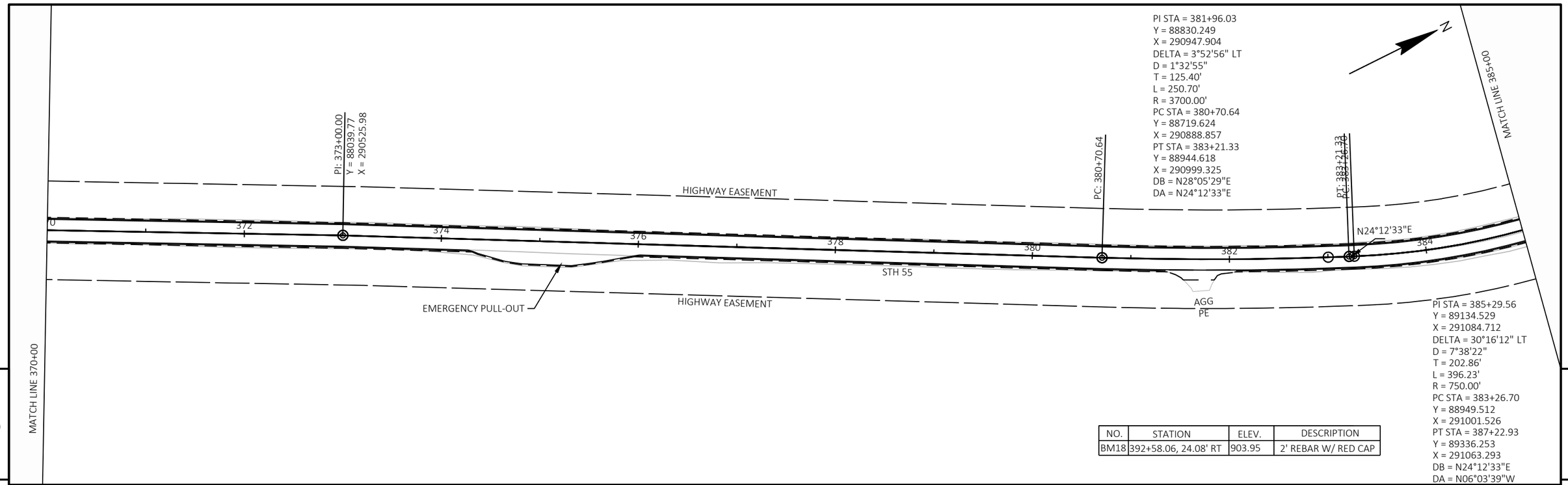
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 24
PLOT DATE : 12/20/2025 9:32 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT



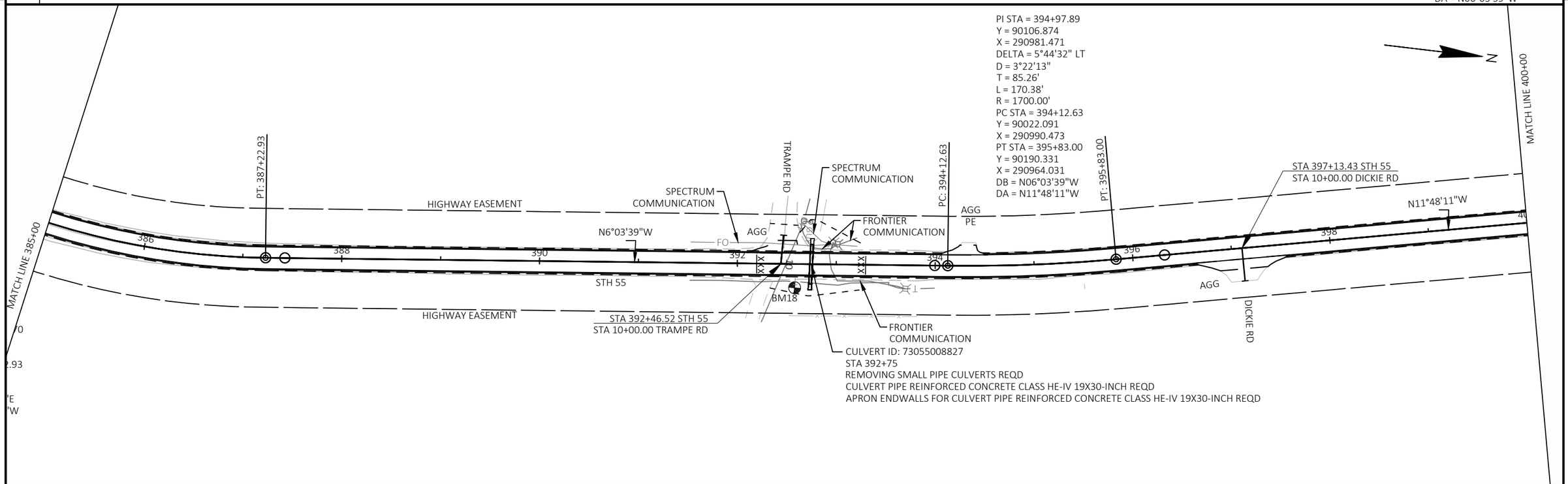
NO.	STATION	ELEV.	DESCRIPTION
BM17	355+29.68, 24.70' LT	893.72	2' REBAR W/ RED CAP



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 102	E



NO.	STATION	ELEV.	DESCRIPTION
BM18	392+58.06, 24.08' RT	903.95	2' REBAR W/ RED CAP



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 103	E

NO.	STATION	ELEV.	DESCRIPTION
BM19	401+76.62, 26.23' RT	894.11	2' REBAR W/ RED CAP
BM20	422+99.50, 23.34' RT	905.22	2' REBAR W/ RED CAP

N

HIGHWAY EASEMENT

PC: 403+81.44

AGG PE

406

408

PT: 409+45.30

EMERGENCY PULL-OUT

PC: 412+19.13

STH 55

410

CHARTER COMMUNICATION

404

HIGHWAY EASEMENT

N26°53'17"E

412

PT: 414+21.62

414

BM19

CULVERT ID: 73055008828
STA 401+51
REMOVING SMALL PIPE CULVERTS REQD
CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30-INCH REQD
APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30-INCH REQD

PI STA = 406+74.60
Y = 91258.841
X = 290740.749
DELTA = 38°41'28" RT
D = 6°51'42"
T = 293.16'
L = 563.87'
R = 835.00'
PC STA = 403+81.44
Y = 90971.881
X = 290800.714
PT STA = 409+45.30
Y = 91520.307
X = 290873.330
DB = N11°48'11"W
DA = N26°53'17"E

CULVERT #73055008829
RCCP 15" X 21"
TO REMAIN IN PLACE

PI STA = 413+21.09
Y = 91855.468
X = 291043.279
DELTA = 16°34'26" RT
D = 8°11'06"
T = 101.96'
L = 202.49'
R = 700.00'
PC STA = 412+19.13
Y = 91764.535
X = 290997.170
PT STA = 414+21.62
Y = 91929.470
X = 291113.411
DB = N26°53'17"E
DA = N43°27'43"E

MATCH LINE 400+00

MATCH LINE 415+00

5

5

PI STA = 423+90.83
Y = 92581.814
X = 291822.682
DELTA = 5°41'20" LT
D = 2°33'49"
T = 111.05'
L = 221.91'
R = 2235.00'
PC STA = 422+79.78
Y = 92524.346
X = 291727.663
PT STA = 425+01.69
Y = 92648.417
X = 291911.536
DB = N58°50'03"E
DA = N53°08'44"E

GUARDRAIL MOW STRIP EMULSIFIED ASPHALT
STA 417+72 - 421+98 (LT)
SEE CONSTRUCTION DETAIL

PI: 418+14.07
Y = 77565.23
X = 286491.24

SPECTRUM COMMUNICATION

PC: 420+30.39

PT: 422+41.08

PC: 422+79.78

PT: 425+01.69

MATCH LINE 430+00

HIGHWAY EASEMENT

FO

418

420

422

424

426

428

STH 55

N58°50'03"E

N43°09'24"E

N53°08'44"E

BM20

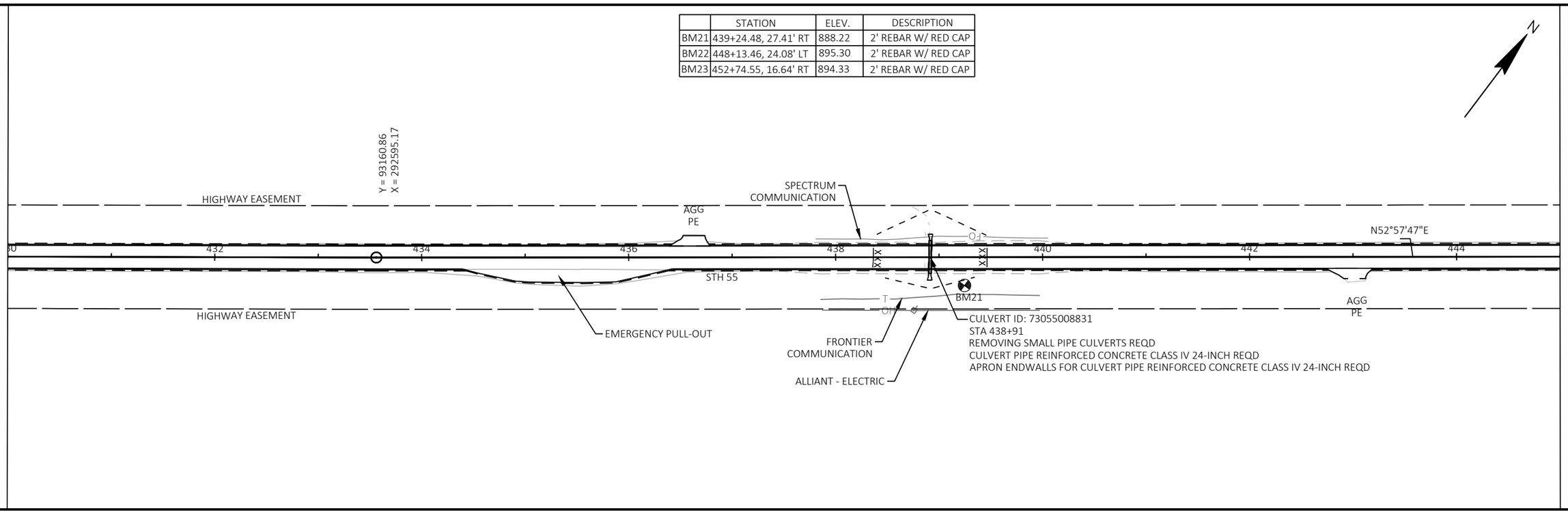
HIGHWAY EASEMENT
PI STA = 421+36.40
Y = 92449.455
X = 291603.836
DELTA = 15°40'39" RT
D = 7°26'28"
T = 106.01'
L = 210.69'
R = 770.00'
PC STA = 420+30.39
Y = 92372.124
X = 291531.328
PT STA = 422+41.08
Y = 92504.315
X = 291694.544
DB = N43°09'24"E
DA = N58°50'03"E

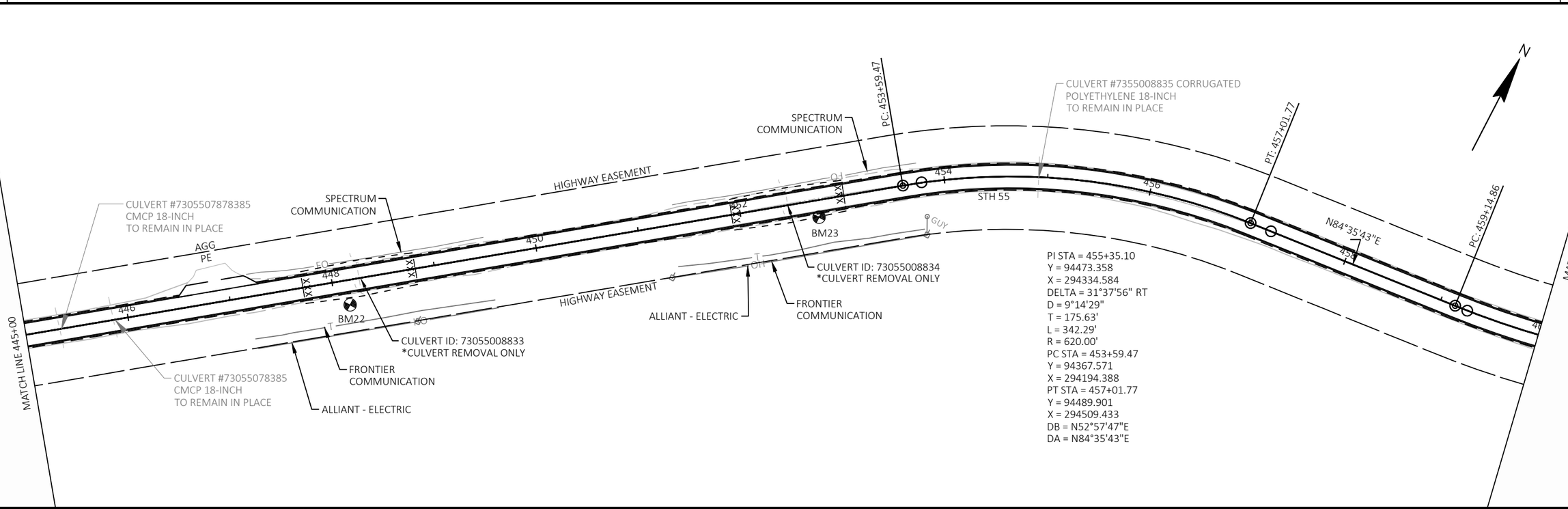
CULVERT ID: 73055008830
STA 423+12
REMOVING SMALL PIPE CULVERTS REQD
CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30-INCH REQD
APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30-INCH REQD

MATCH LINE 415+00

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 104	E

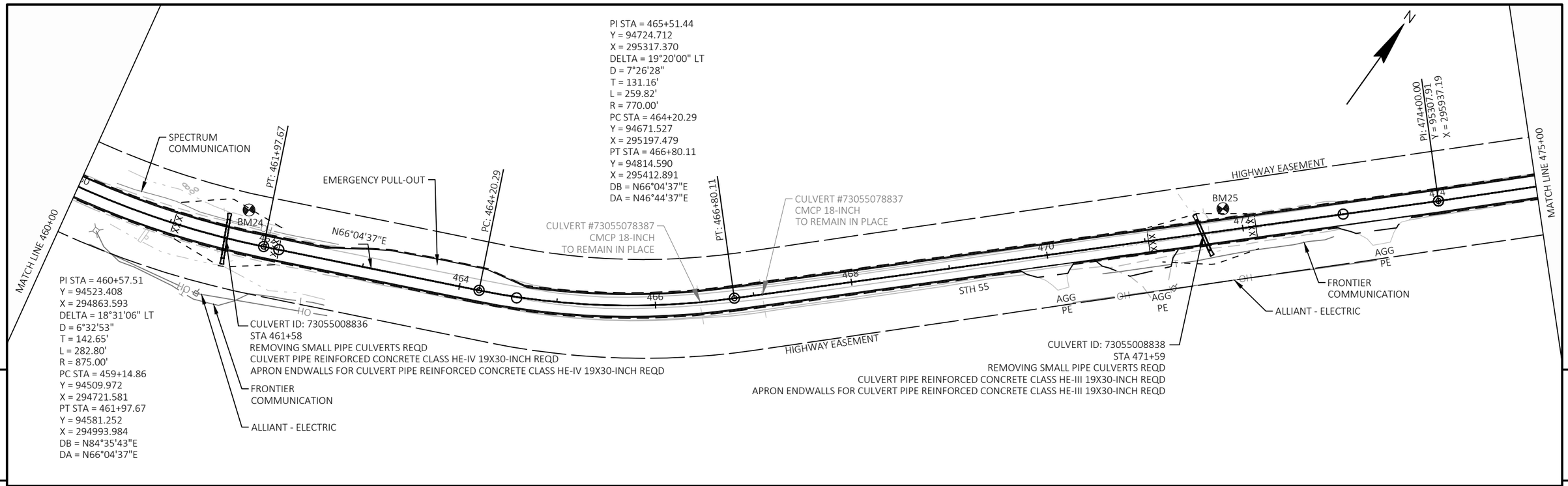
	STATION	ELEV.	DESCRIPTION
BM21	439+24.48, 27.41' RT	888.22	2' REBAR W/ RED CAP
BM22	448+13.46, 24.08' LT	895.30	2' REBAR W/ RED CAP
BM23	452+74.55, 16.64' RT	894.33	2' REBAR W/ RED CAP

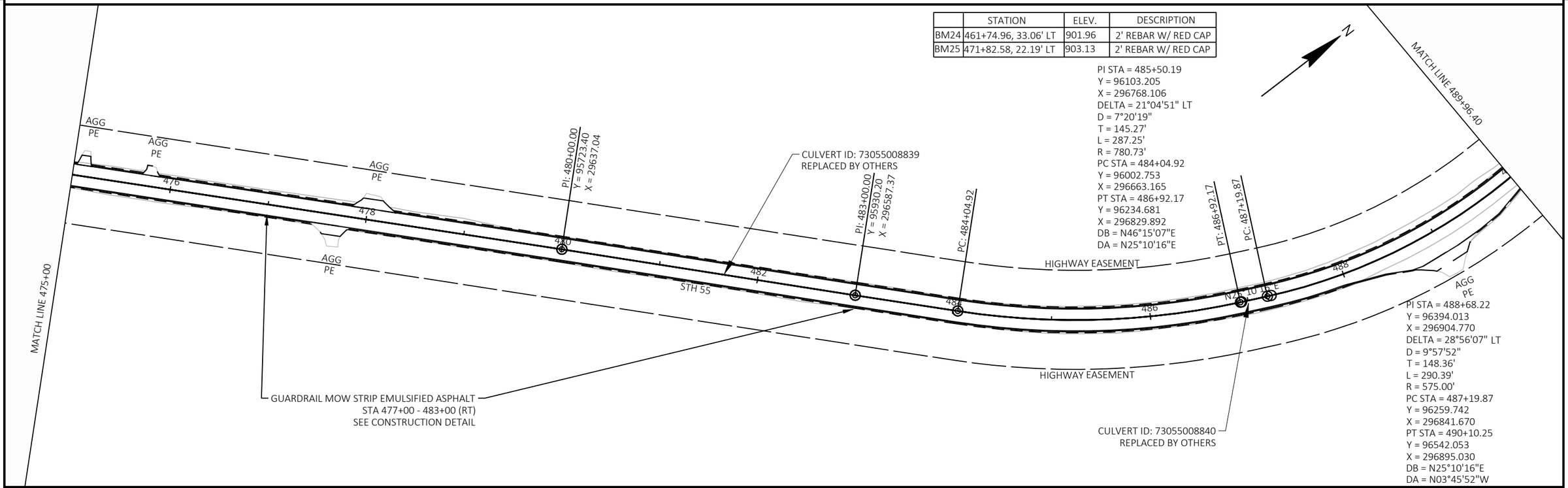




PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 105 E

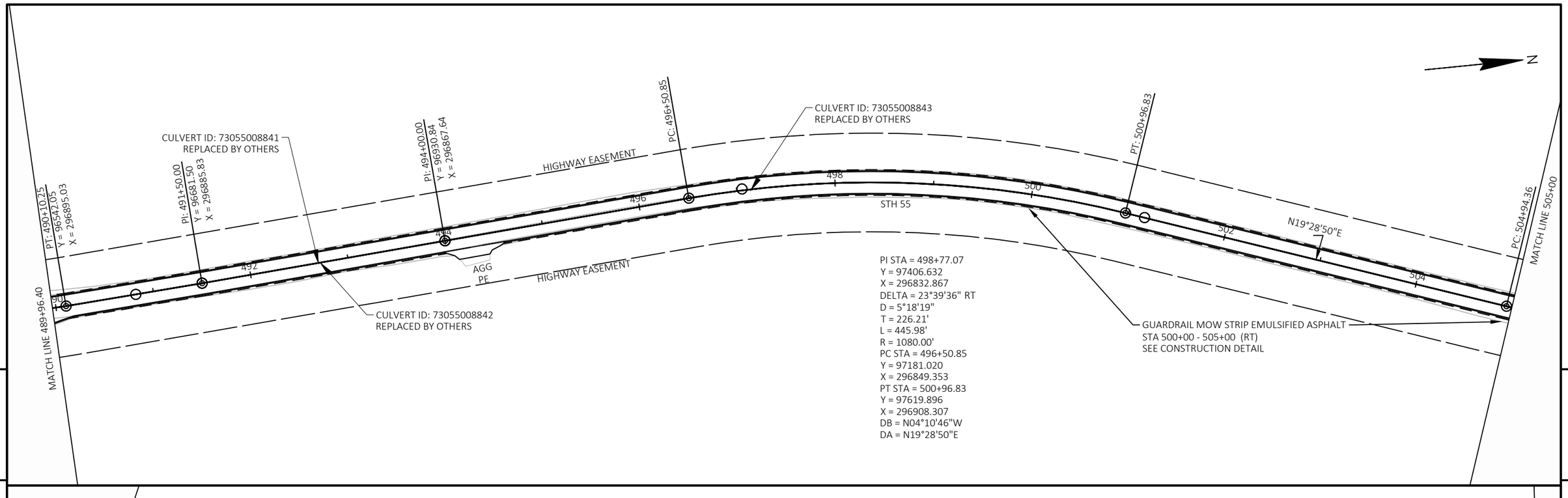
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 28
PLOT DATE : 12/20/2025 9:34 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 106	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 29
PLOT DATE : 12/20/2025 9:34 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

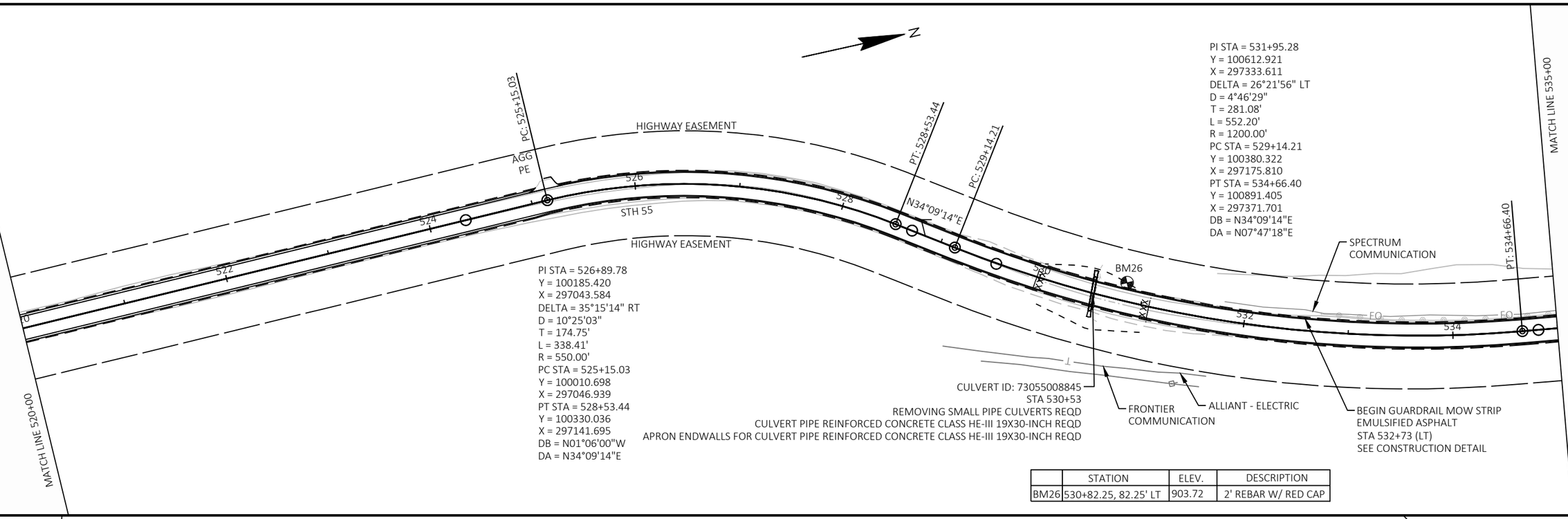


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 107	E

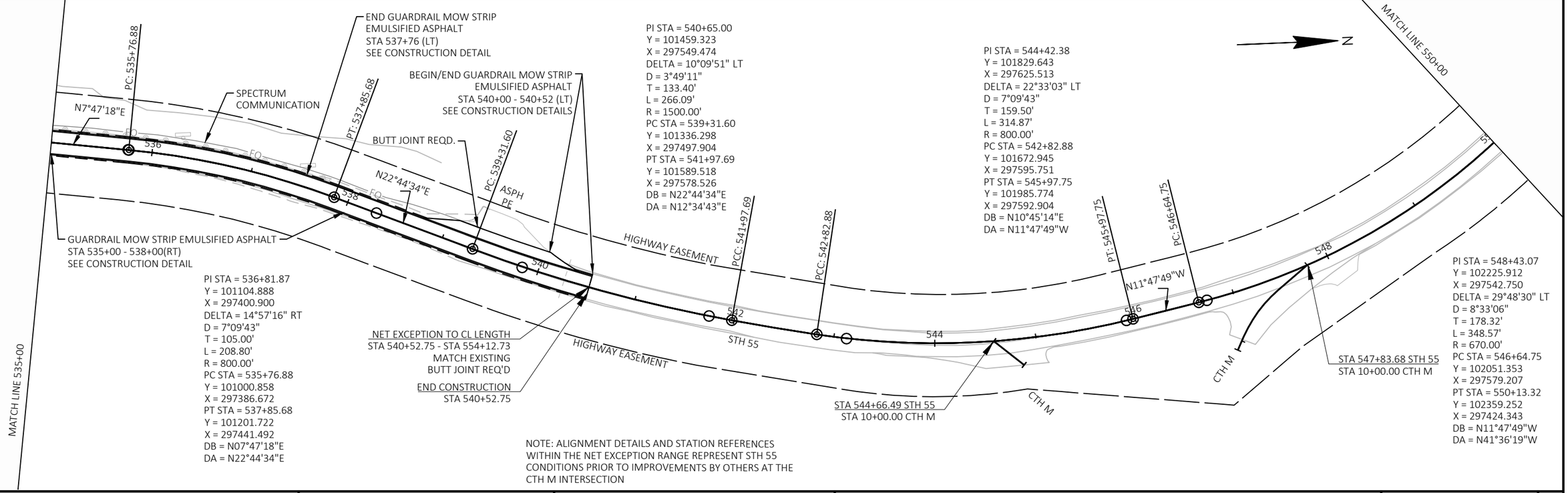
FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 30

PLOT DATE : 12/20/2025 9:35 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

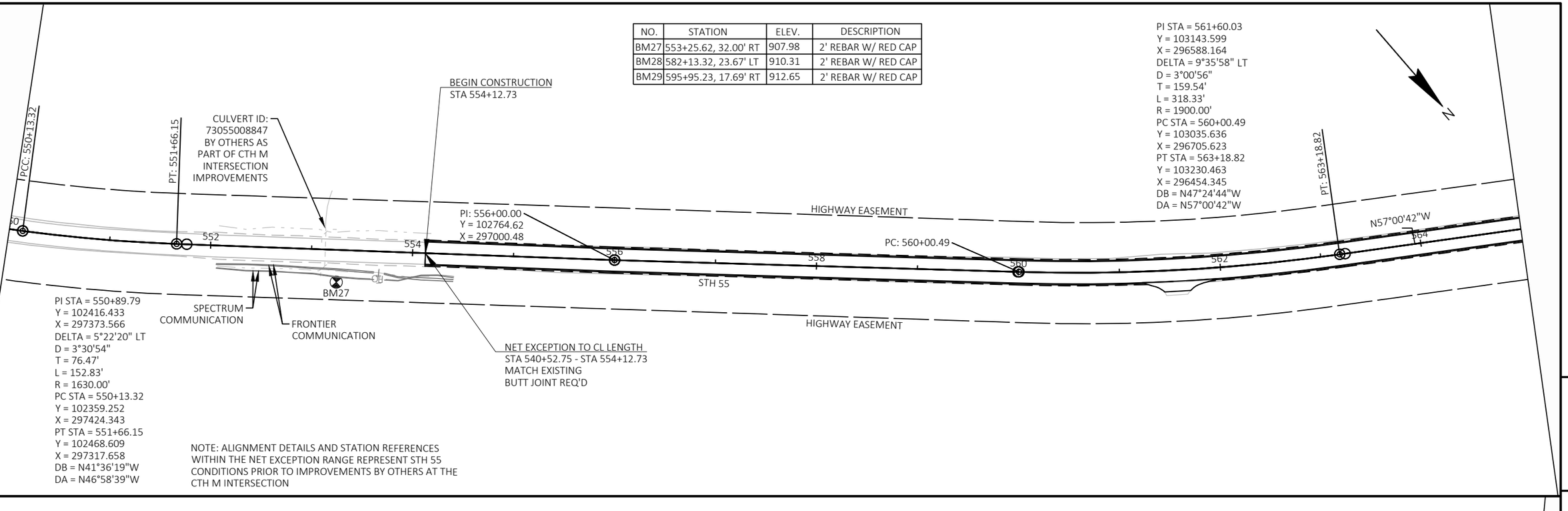


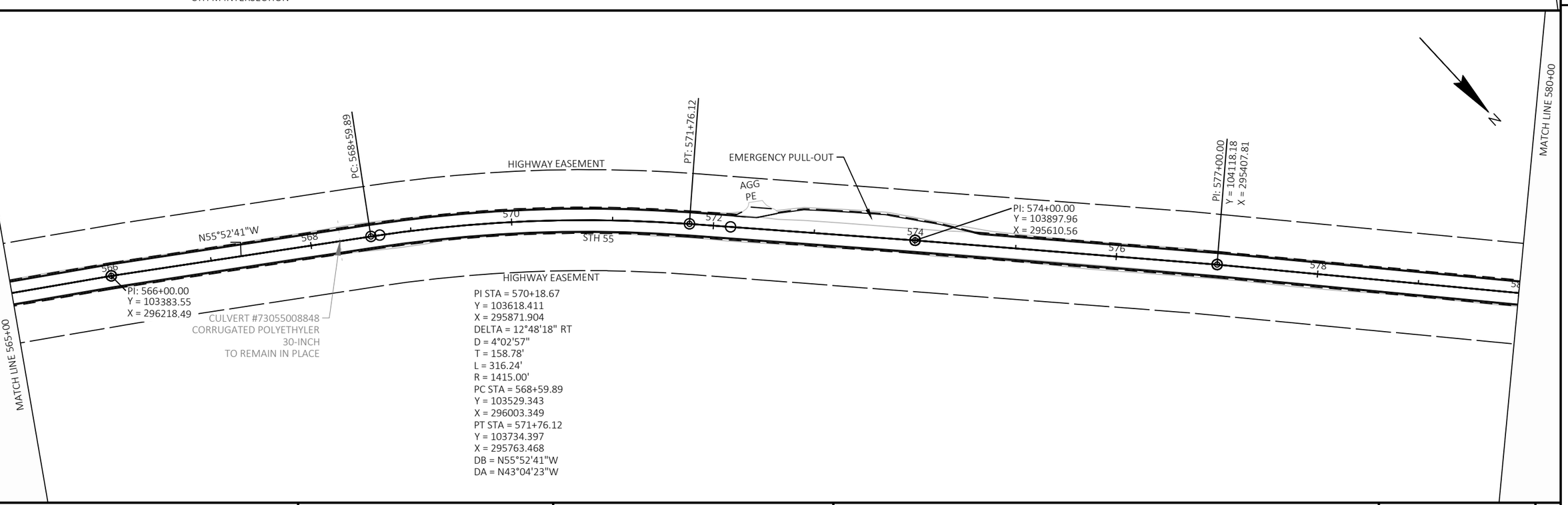
	STATION	ELEV.	DESCRIPTION
BM26	530+82.25, 82.25' LT	903.72	2' REBAR W/ RED CAP



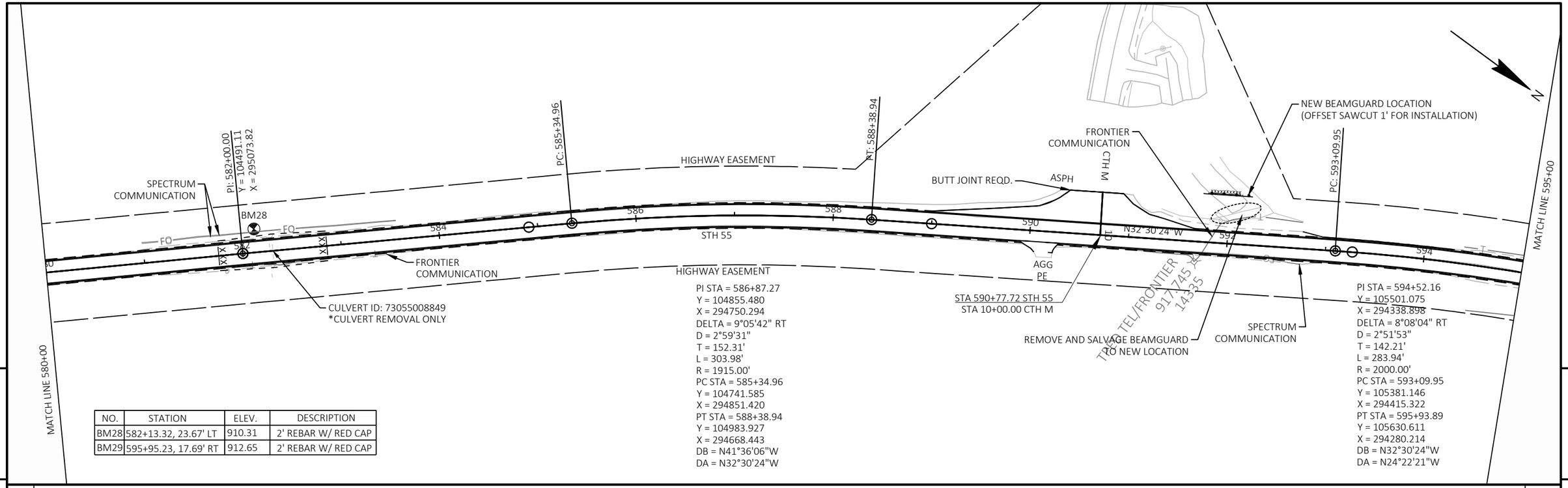
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 108	E

NO.	STATION	ELEV.	DESCRIPTION
BM27	553+25.62, 32.00' RT	907.98	2' REBAR W/ RED CAP
BM28	582+13.32, 23.67' LT	910.31	2' REBAR W/ RED CAP
BM29	595+95.23, 17.69' RT	912.65	2' REBAR W/ RED CAP

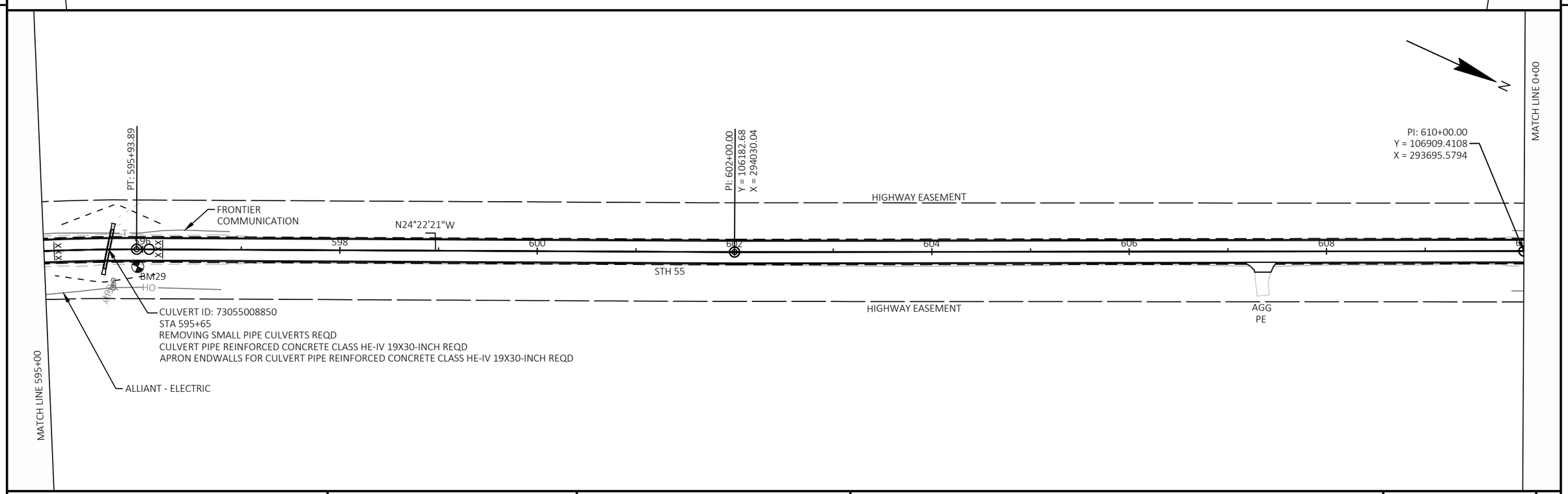




PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 109	E



NO.	STATION	ELEV.	DESCRIPTION
BM28	582+13.32, 23.67' LT	910.31	2' REBAR W/ RED CAP
BM29	595+95.23, 17.69' RT	912.65	2' REBAR W/ RED CAP



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 110	E

NO.	STATION	ELEV.	DESCRIPTION
BM30	611+08.25, 39.62' RT	922.82	2' REBAR W/ RED CAP
BM31	626+58.59, 34.53' RT	933.49	2' REBAR W/ RED CAP
BM32	634+93.82, 27.09' LT	937.46	2' REBAR W/ RED CAP

N

PC: 613+23.98

PT: 616+90.68

HIGHWAY EASEMENT

FRONTIER COMMUNICATION

CULVERT #73055008852
RCCP HE- 14'' X 23''
CULVERT PIPE CLEANING REQUIRED

PI STA = 623+89.61
Y = 108258.648
X = 293469.607
DELTA = 35°15'31" LT
D = 9°28'13"
T = 192.26'
L = 372.30'
R = 605.00'
PC STA = 621+97.35
Y = 108066.420
X = 293473.010
PT STA = 625+69.65
Y = 108413.648
X = 293355.862
DB = N01°00'51"W
DA = N36°16'21"W

PC: 621+97.35

N1°00'51"W

612 614 616 618 620 622 624

STH 55

HIGHWAY EASEMENT

BM30

CULVERT ID: 73055008851
STA 610+99
REMOVING SMALL PIPE CULVERTS REQD
CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH REQD
APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH REQD

ALLIANT - ELECTRIC

PI STA = 615+09.91
Y = 107373.926
X = 293485.267
DELTA = 23°20'41" RT
D = 6°21'58"
T = 185.93'
L = 366.70'
R = 900.00'
PC STA = 613+23.98
Y = 107204.548
X = 293561.954
PT STA = 616+90.68
Y = 107559.826
X = 293481.977
DB = N24°21'32"W
DA = N01°00'51"W

EMERGENCY PULL-OUT

MATCH LINE 0+00

MATCH LINE 625+00

5

5

N

PT: 625+69.65

PI: 631+00.00
Y = 108841.06
X = 293041.88

FRONTIER COMMUNICATION

HIGHWAY EASEMENT

N36°16'21"W

626 628 630 632 634 636 638

STH 55

BM31

BM32

FRONTIER COMMUNICATION

N36°30'48"W

HIGHWAY EASEMENT

ALLIANT - ELECTRIC

CULVERT ID: 73055008853
STA 626+82
REMOVING SMALL PIPE CULVERTS REQD
CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30-INCH REQD
APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE CLASS HE-IV 19X30-INCH REQD

ALLIANT - ELECTRIC

CULVERT ID: 73055008854
STA 634+79
REMOVING SMALL PIPE CULVERTS REQD
CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH REQD
APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH REQD

MATCH LINE 625+00

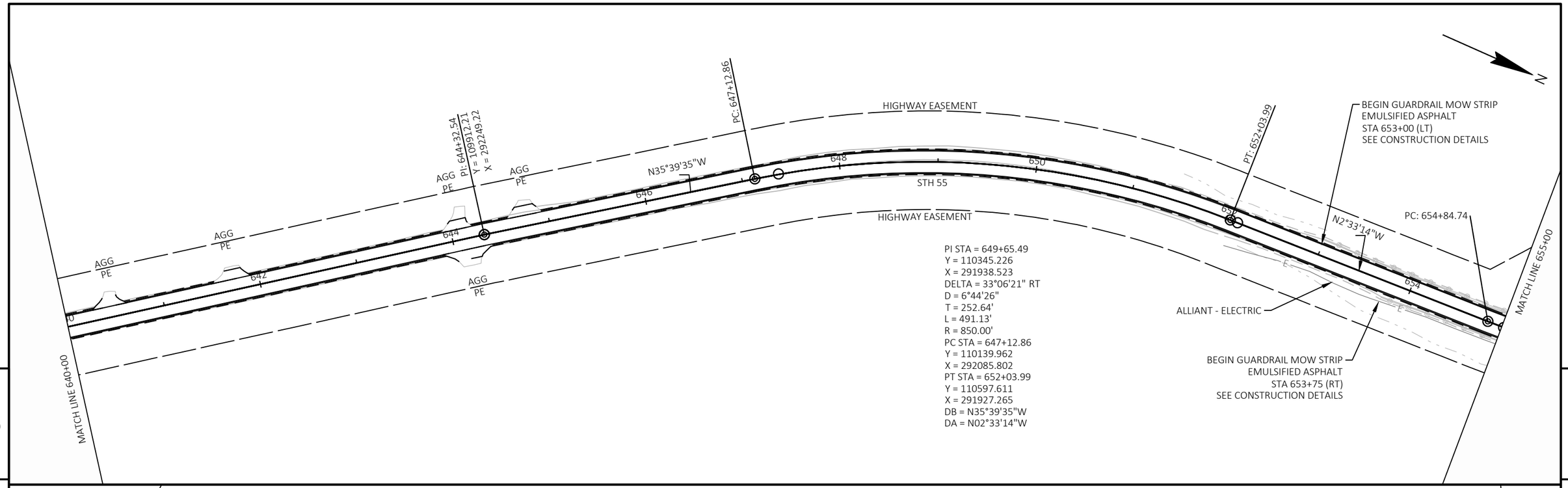
MATCH LINE 640+00

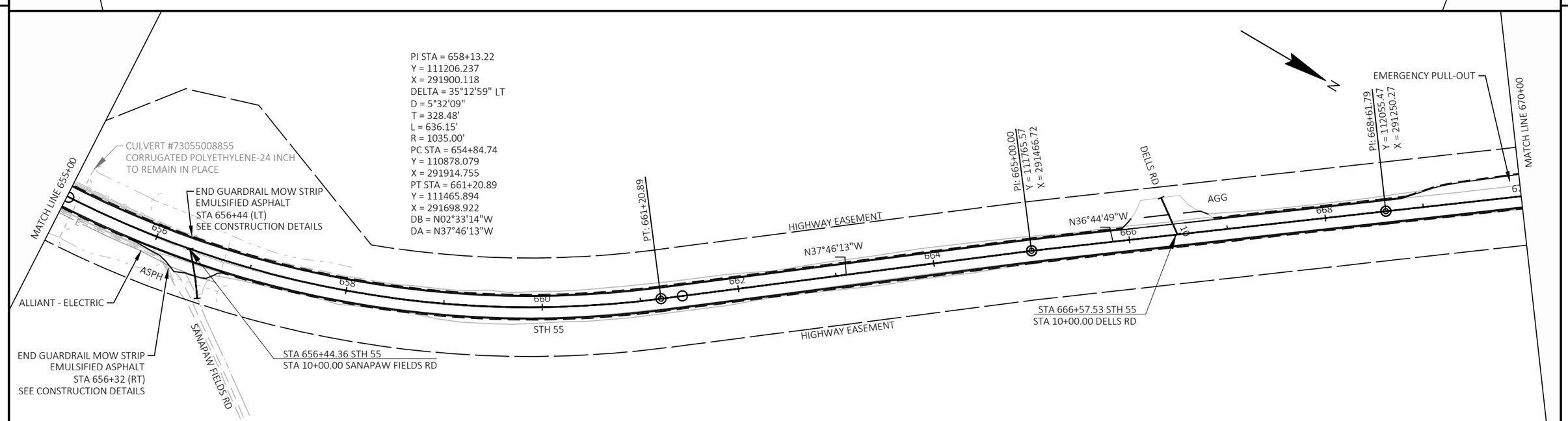
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 111	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 34

PLOT DATE : 12/20/2025 9:36 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

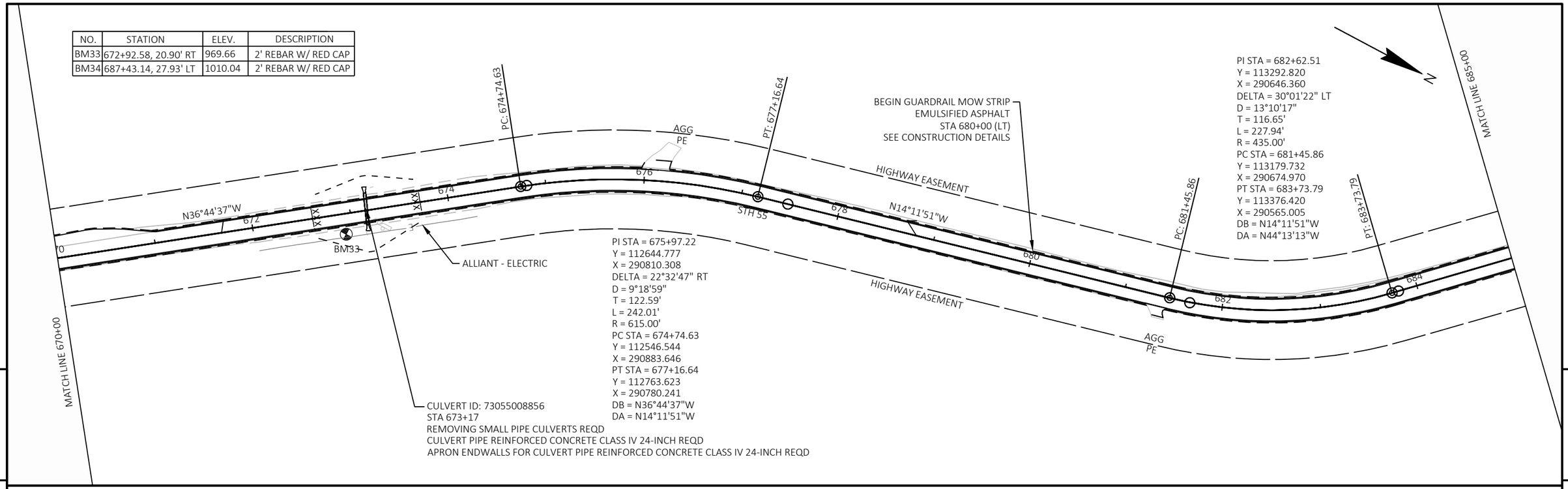
WISDOT/CADDS SHEET 44

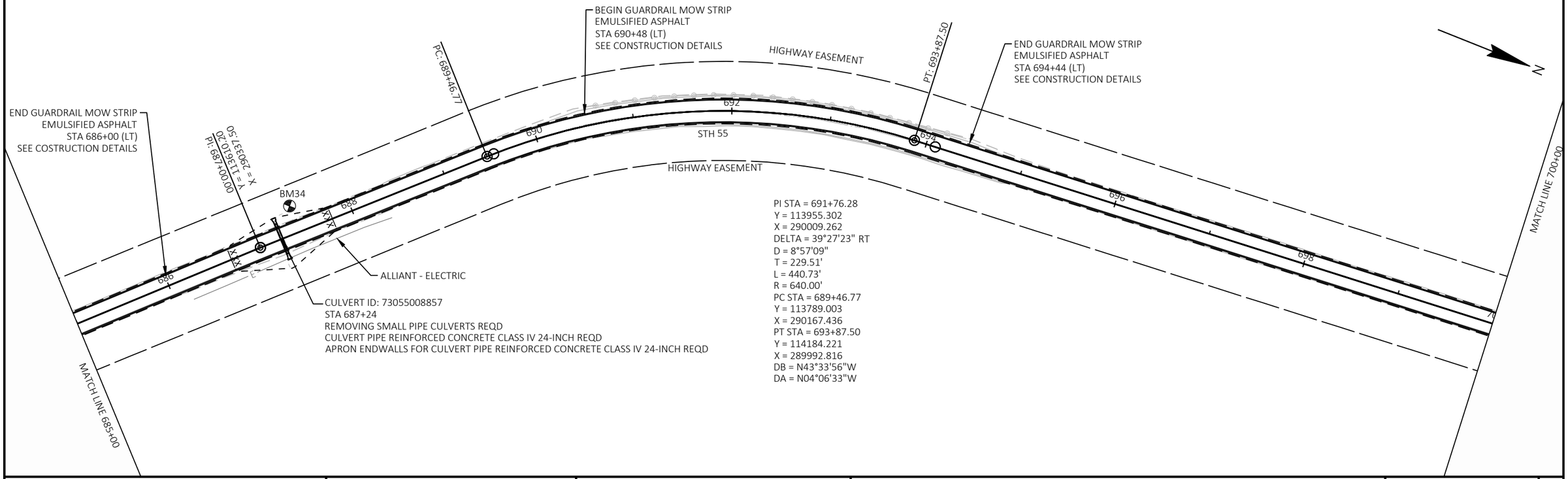




PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 112	E

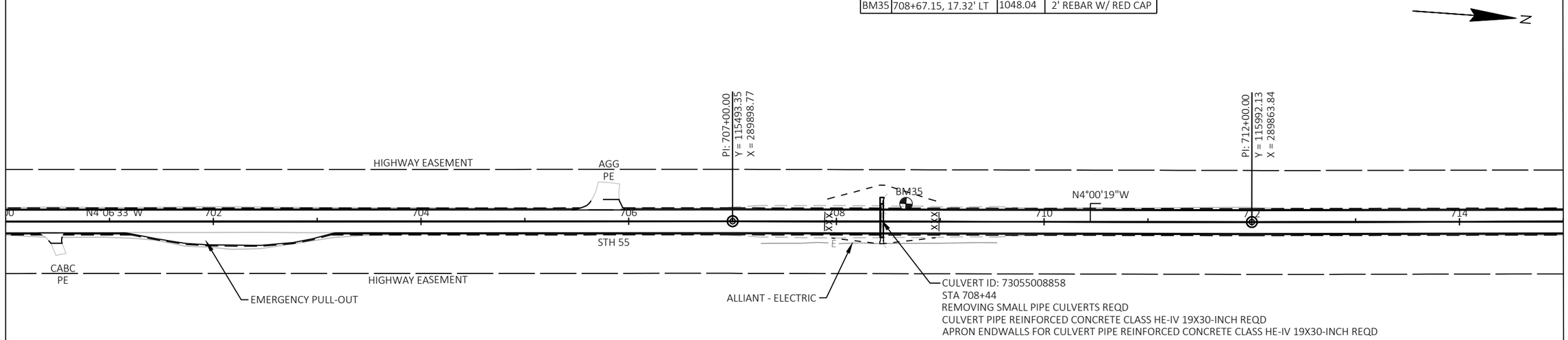
NO.	STATION	ELEV.	DESCRIPTION
BM33	672+92.58, 20.90' RT	969.66	2' REBAR W/ RED CAP
BM34	687+43.14, 27.93' LT	1010.04	2' REBAR W/ RED CAP

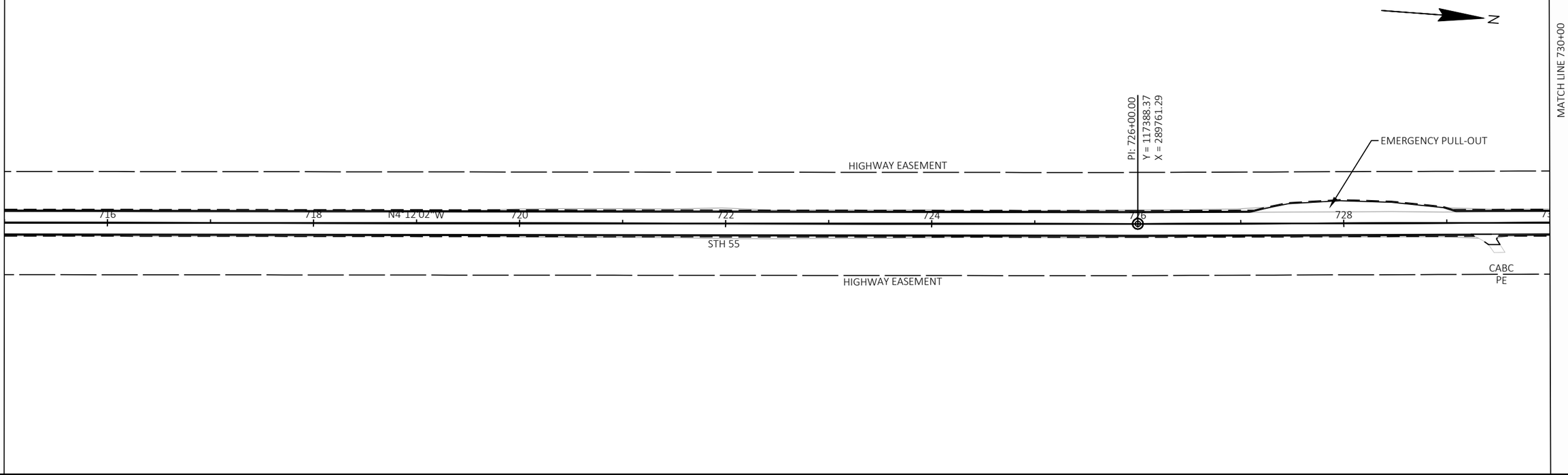




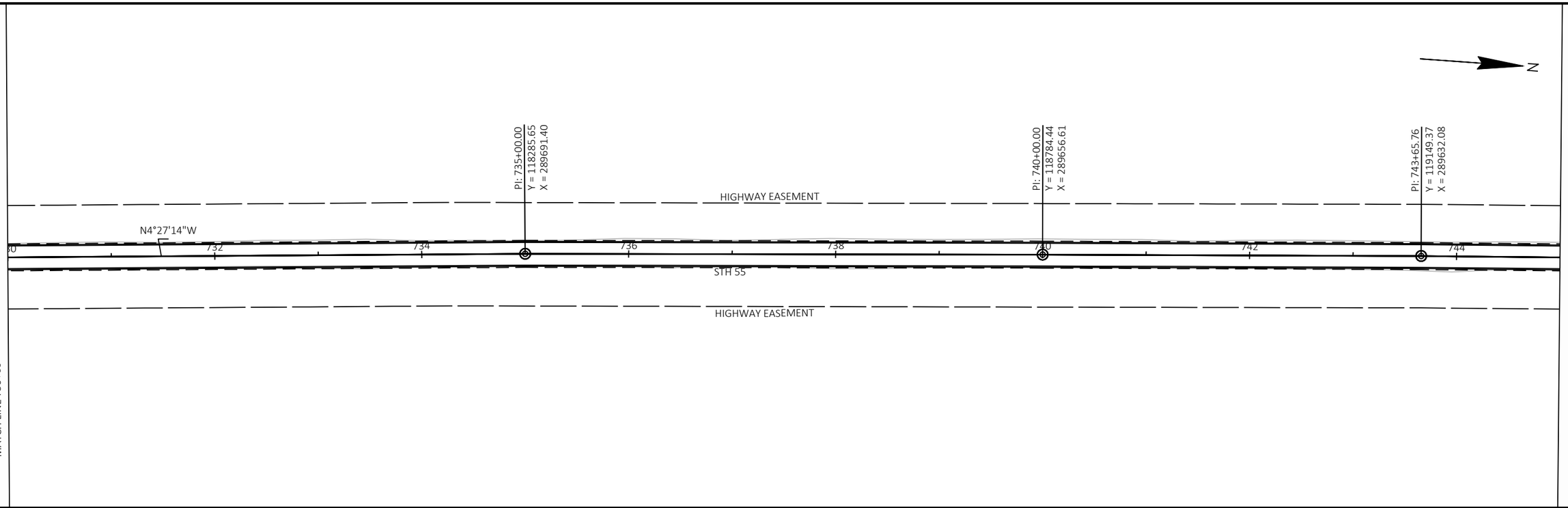
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 113	E

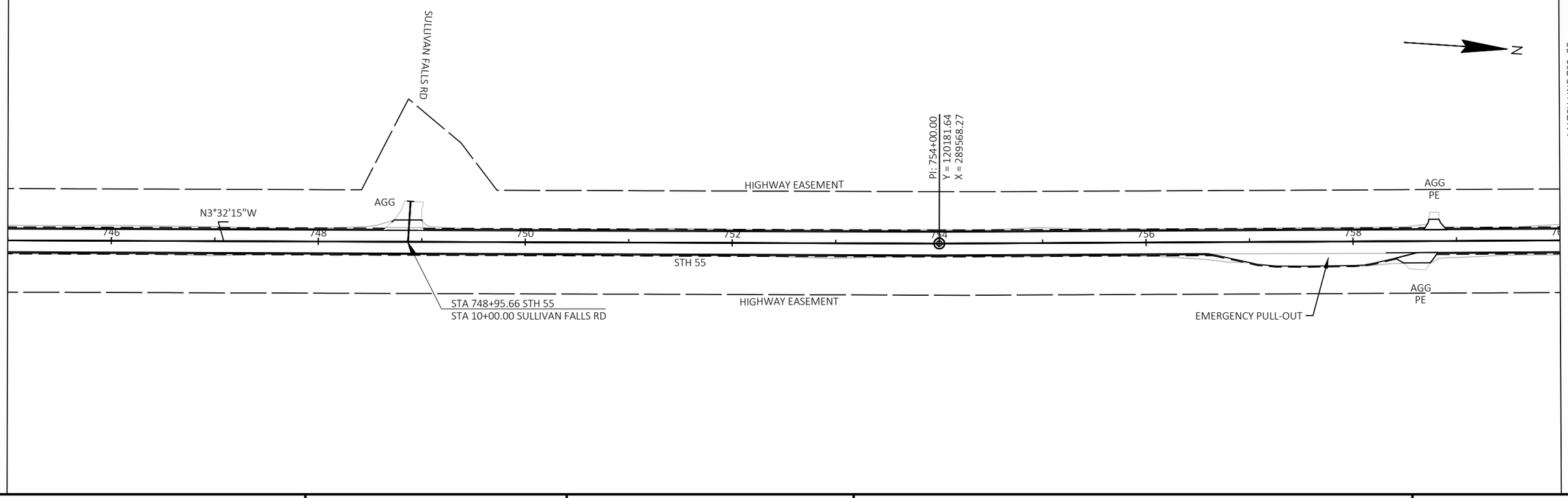
NO.	STATION	ELEV.	DESCRIPTION
BM35	708+67.15, 17.32' LT	1048.04	2' REBAR W/ RED CAP





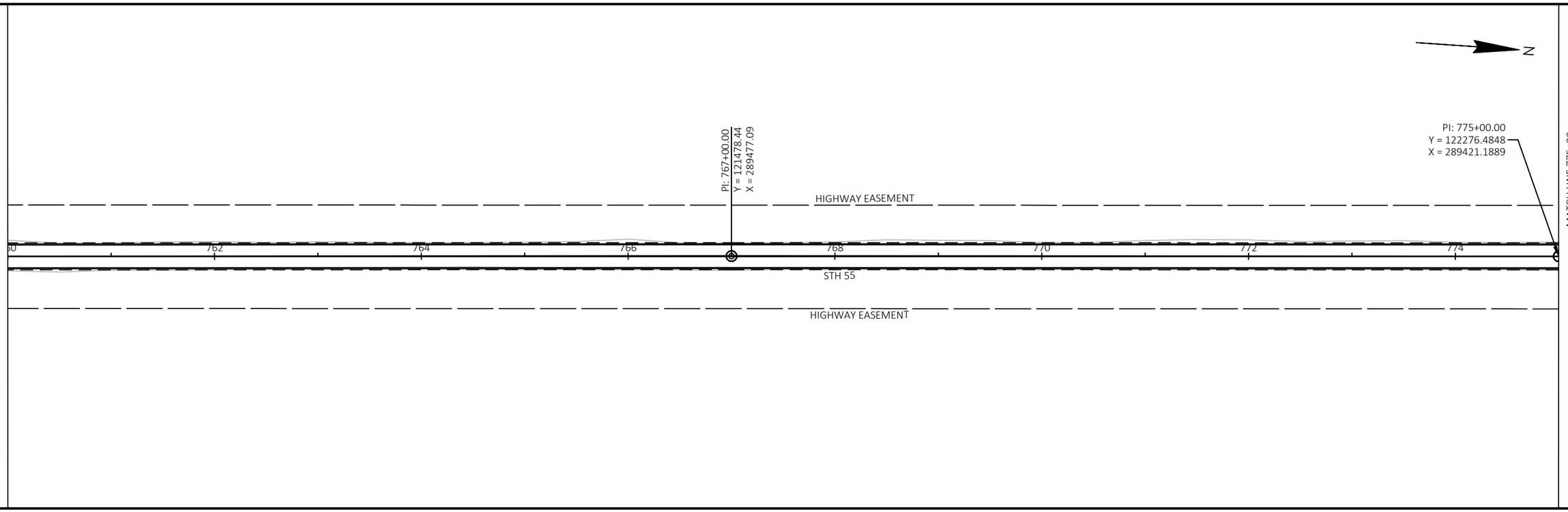
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 114	E

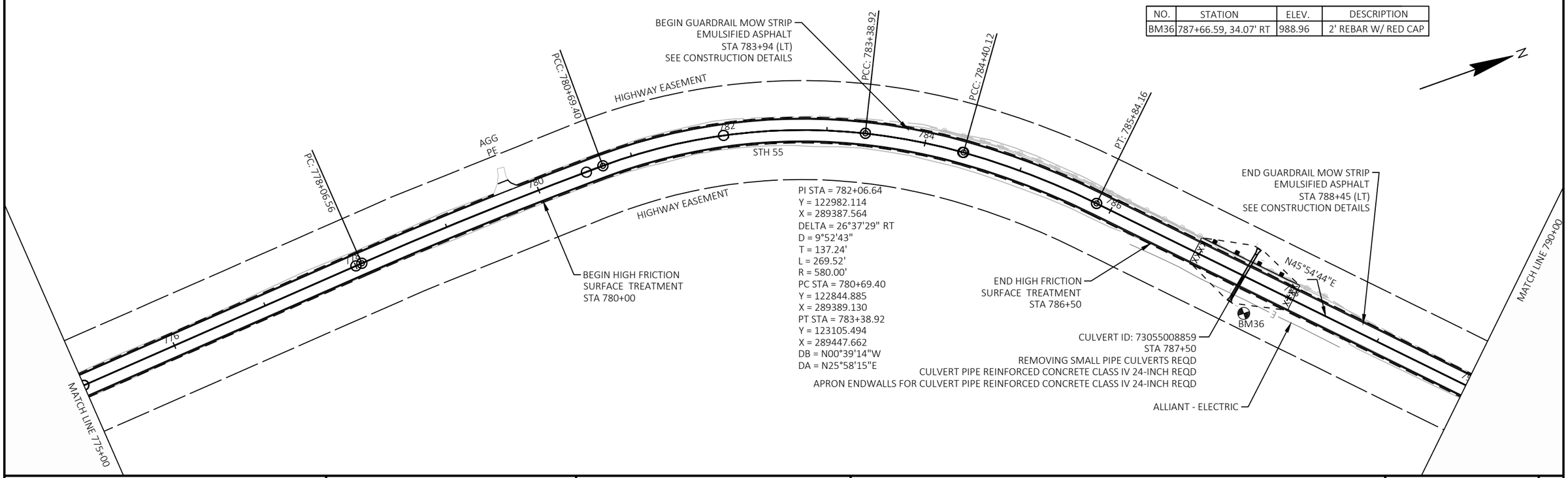




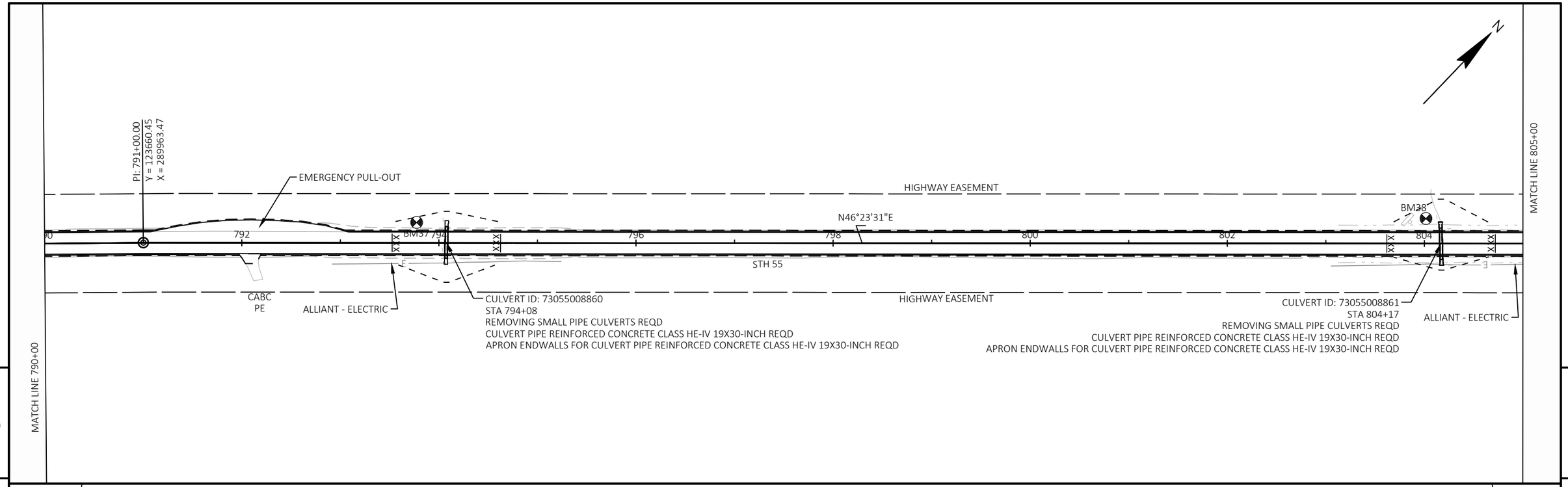
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 115 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 38
PLOT DATE : 12/20/2025 9:38 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 116	E

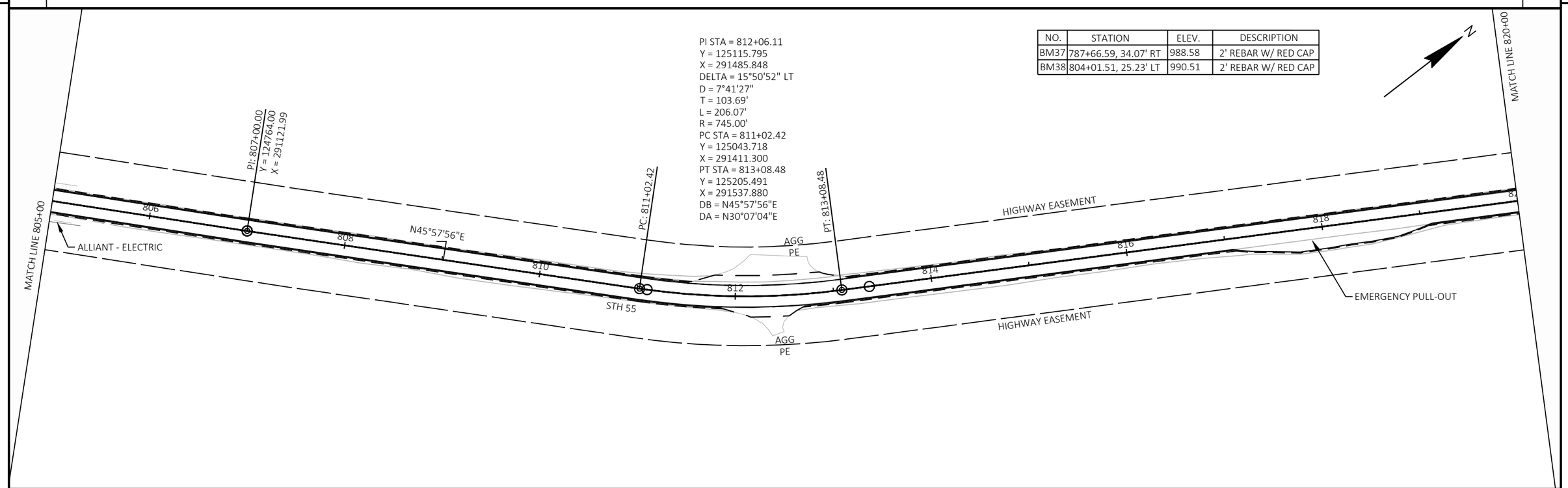


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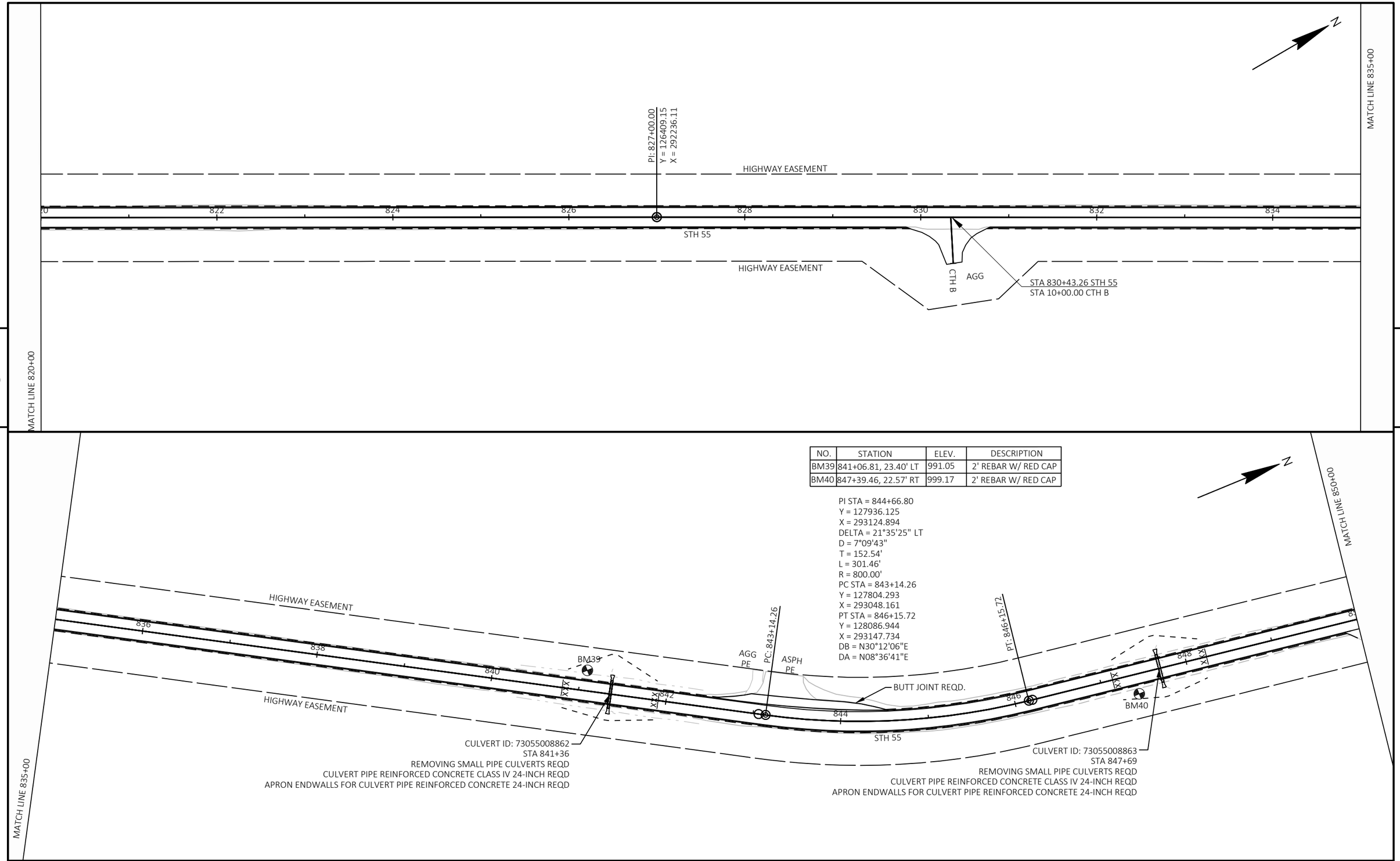
PI STA = 812+06.11
Y = 125115.795
X = 291485.848
DELTA = 15°50'52" LT
D = 7°41'27"
T = 103.69'
L = 206.07'
R = 745.00'
PC STA = 811+02.42
Y = 125043.718
X = 291411.300
PT STA = 813+08.48
Y = 125205.491
X = 291537.880
DB = N45°57'56"E
DA = N30°07'04"E

NO.	STATION	ELEV.	DESCRIPTION
BM37	787+66.59, 34.07' RT	988.58	2' REBAR W/ RED CAP
BM38	804+01.51, 25.23' LT	990.51	2' REBAR W/ RED CAP

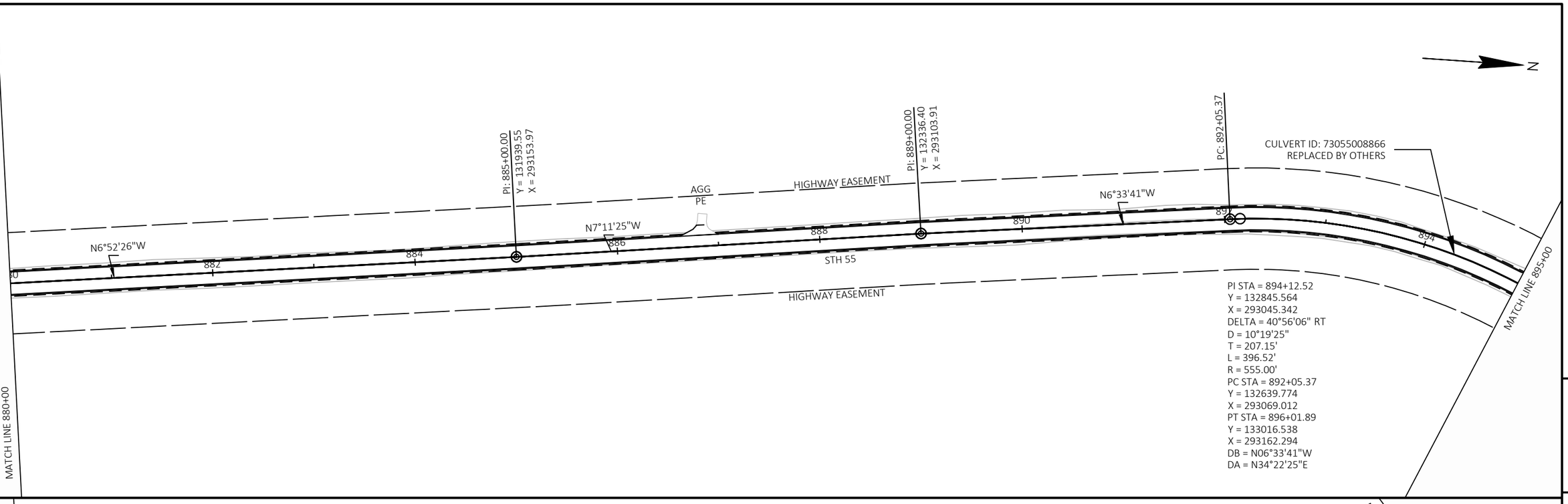


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 117	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 40
PLOT DATE : 12/20/2025 9:39 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



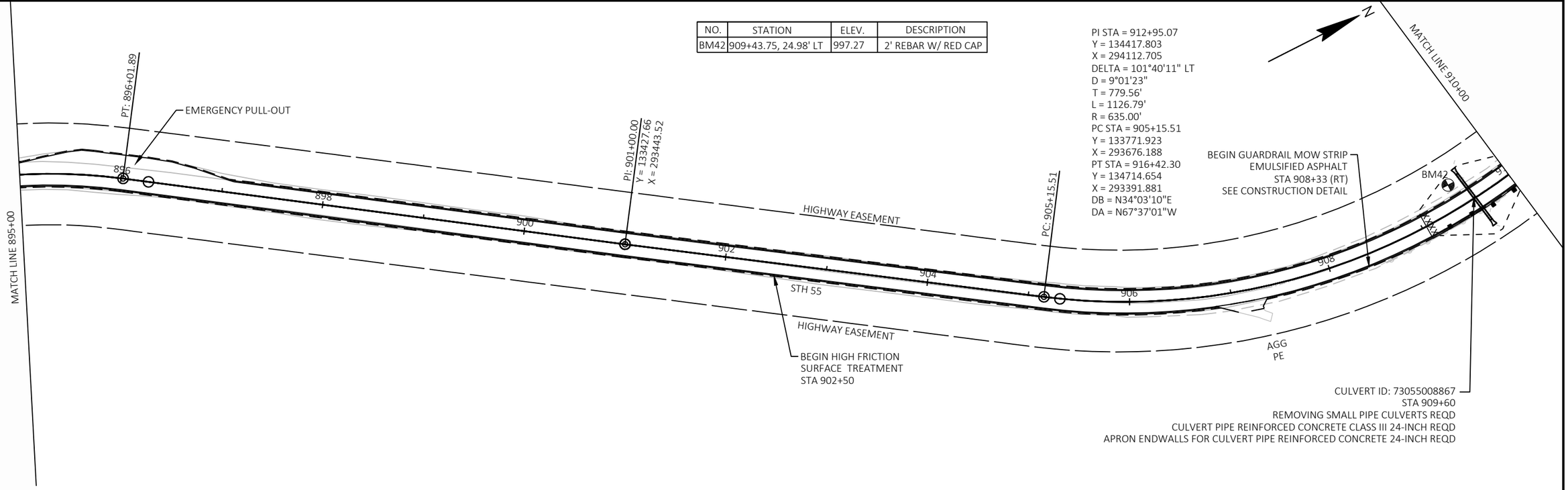
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 118	E



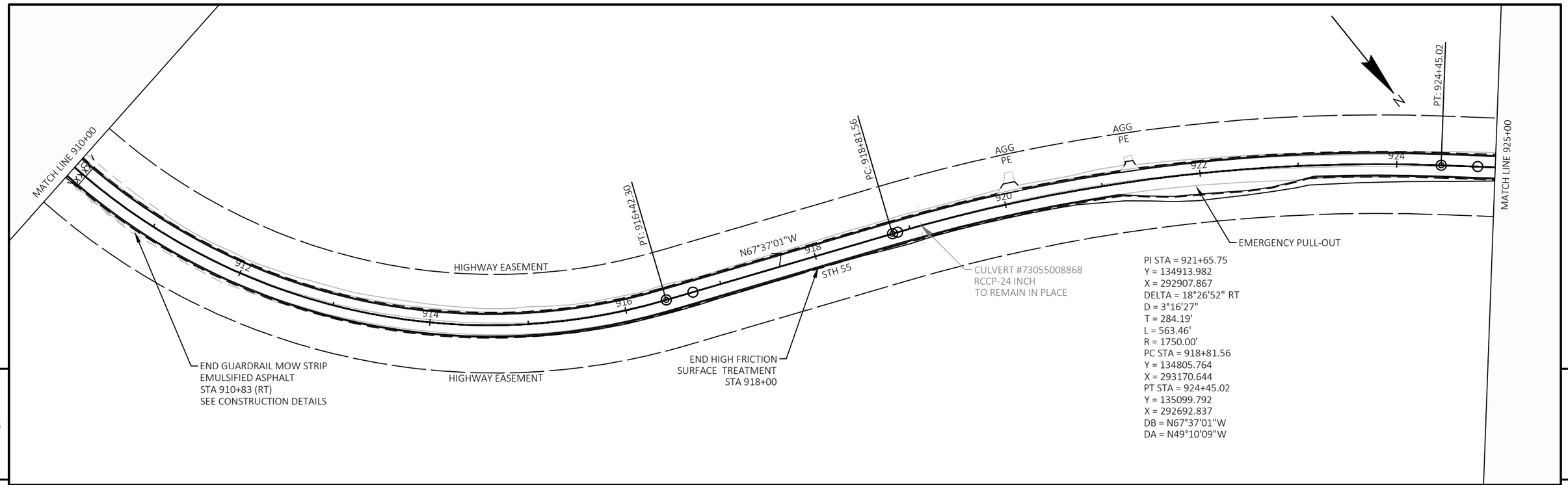
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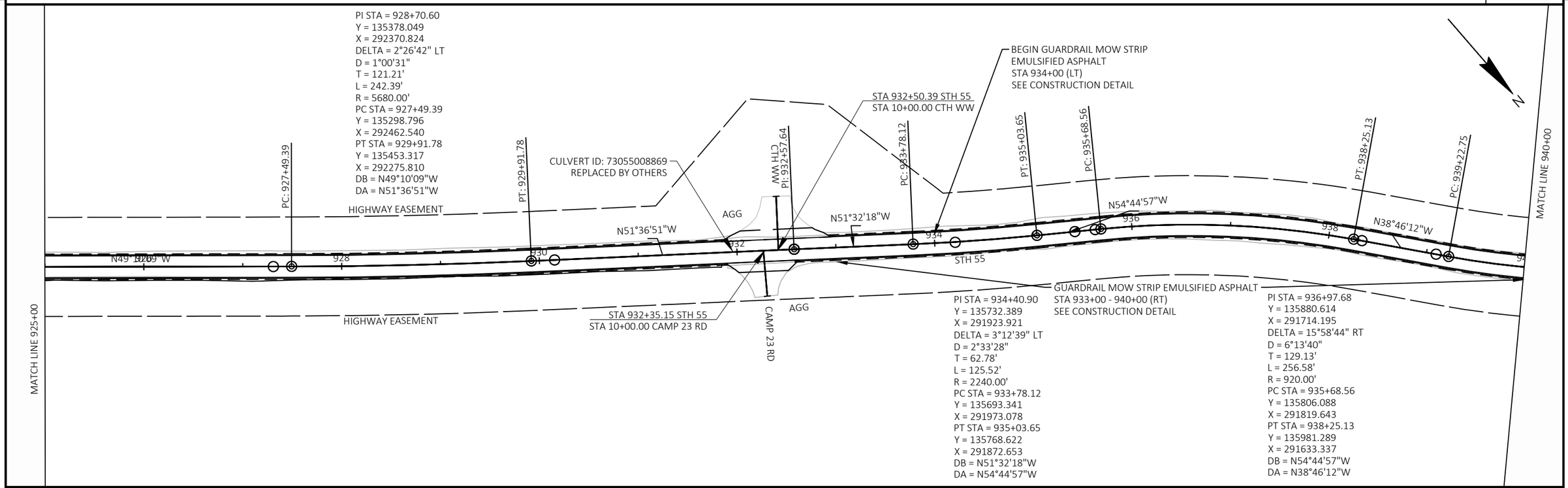
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NO.	STATION	ELEV.	DESCRIPTION
BM42	909+43.75, 24.98' LT	997.27	2' REBAR W/ RED CAP



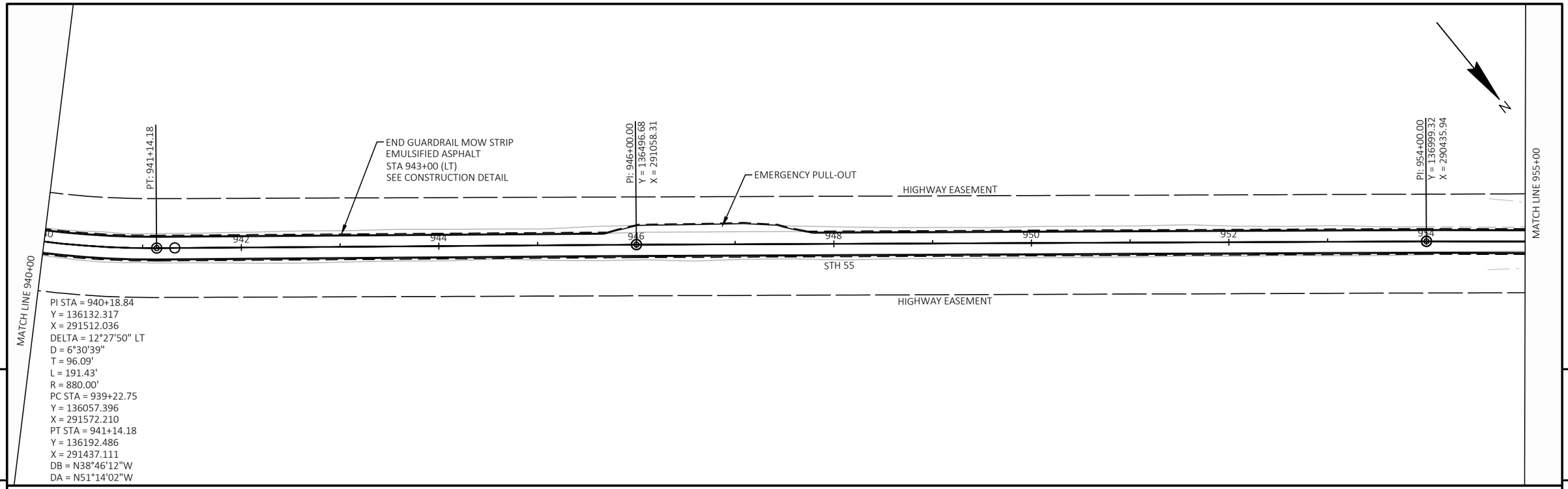
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 119	E





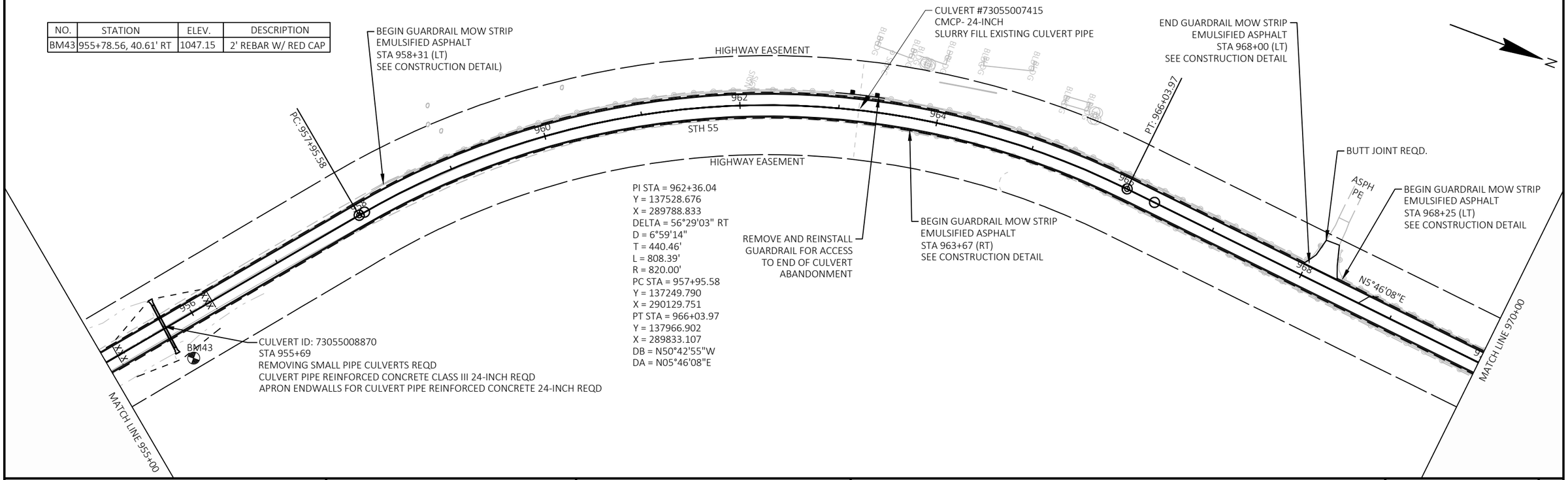
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 120	E

5

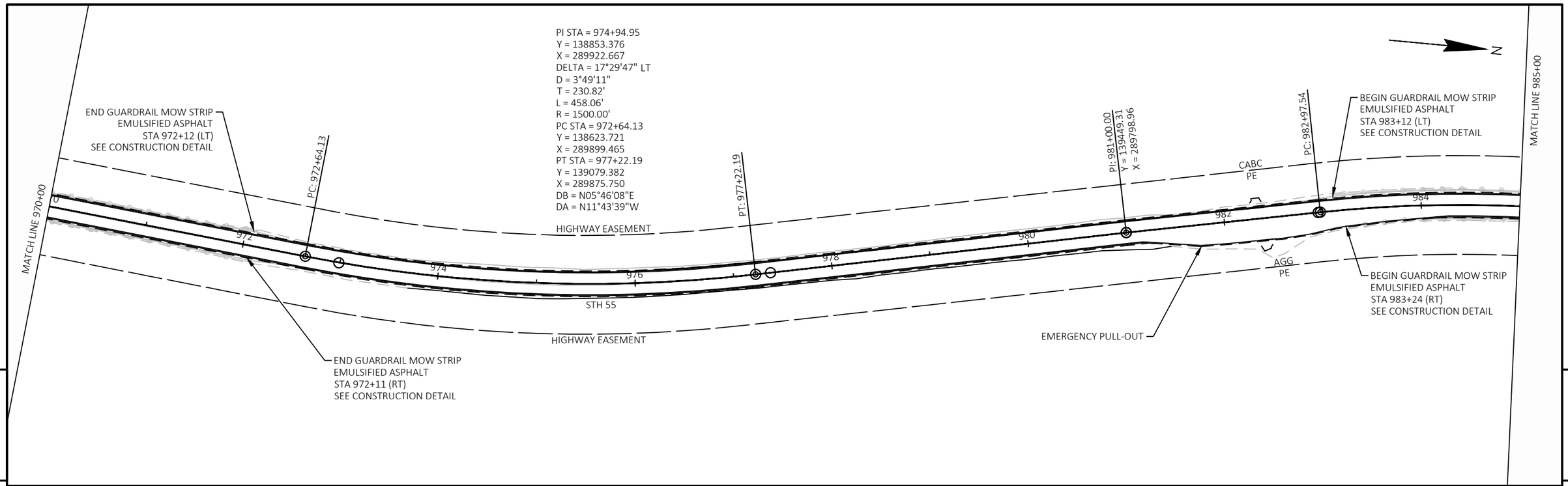


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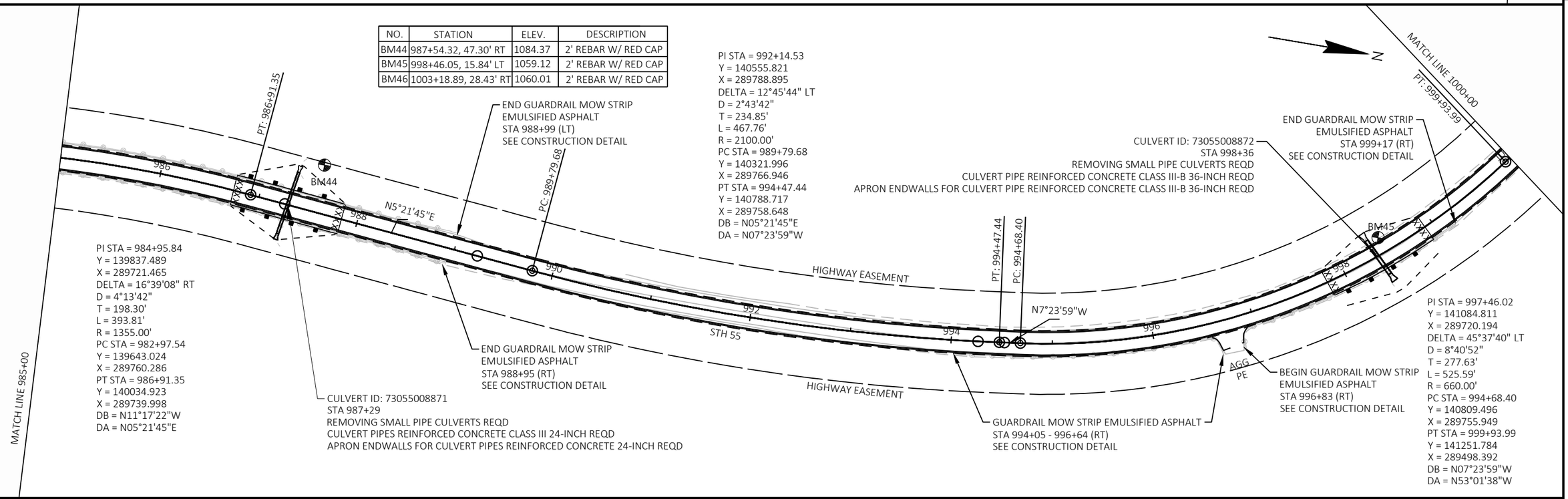
NO.	STATION	ELEV.	DESCRIPTION
BM43	955+78.56, 40.61' RT	1047.15	2' REBAR W/ RED CAP



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 121	E



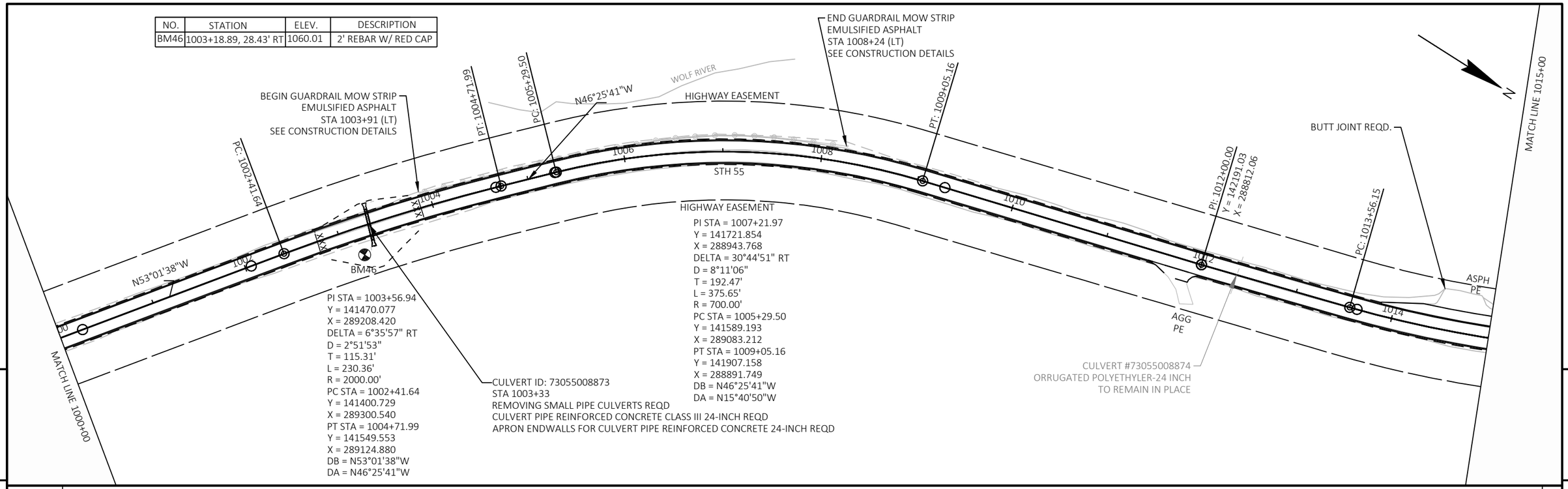
NO.	STATION	ELEV.	DESCRIPTION
BM44	987+54.32, 47.30' RT	1084.37	2' REBAR W/ RED CAP
BM45	998+46.05, 15.84' LT	1059.12	2' REBAR W/ RED CAP
BM46	1003+18.89, 28.43' RT	1060.01	2' REBAR W/ RED CAP



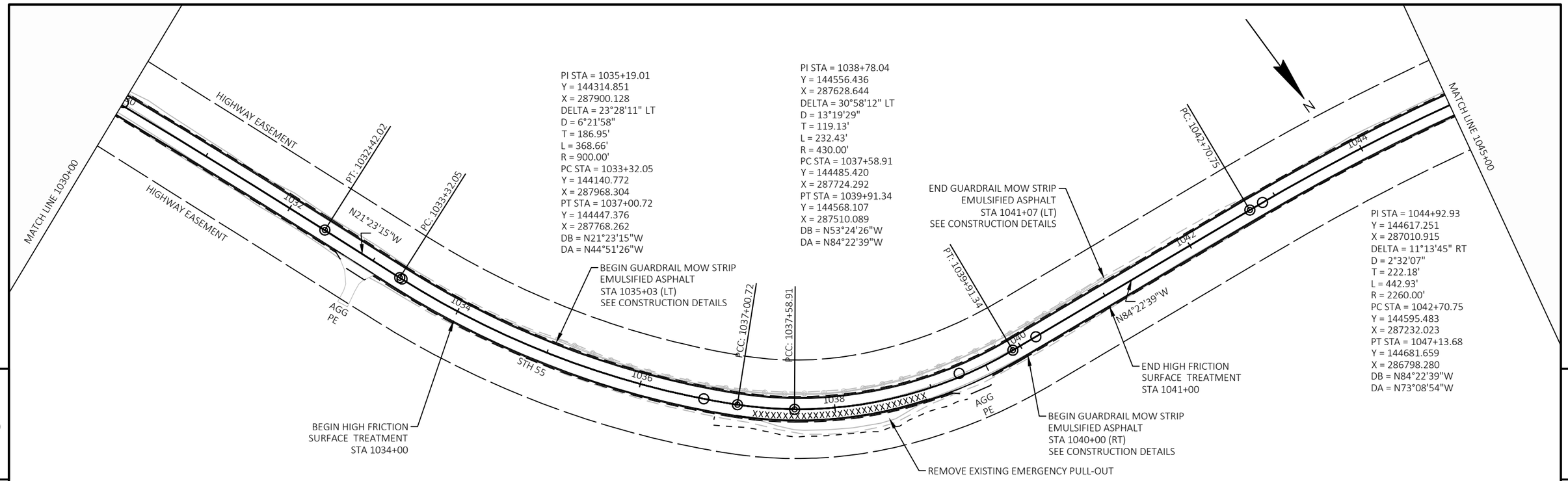
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 122	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 46
PLOT DATE : 12/16/2025 9:31 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

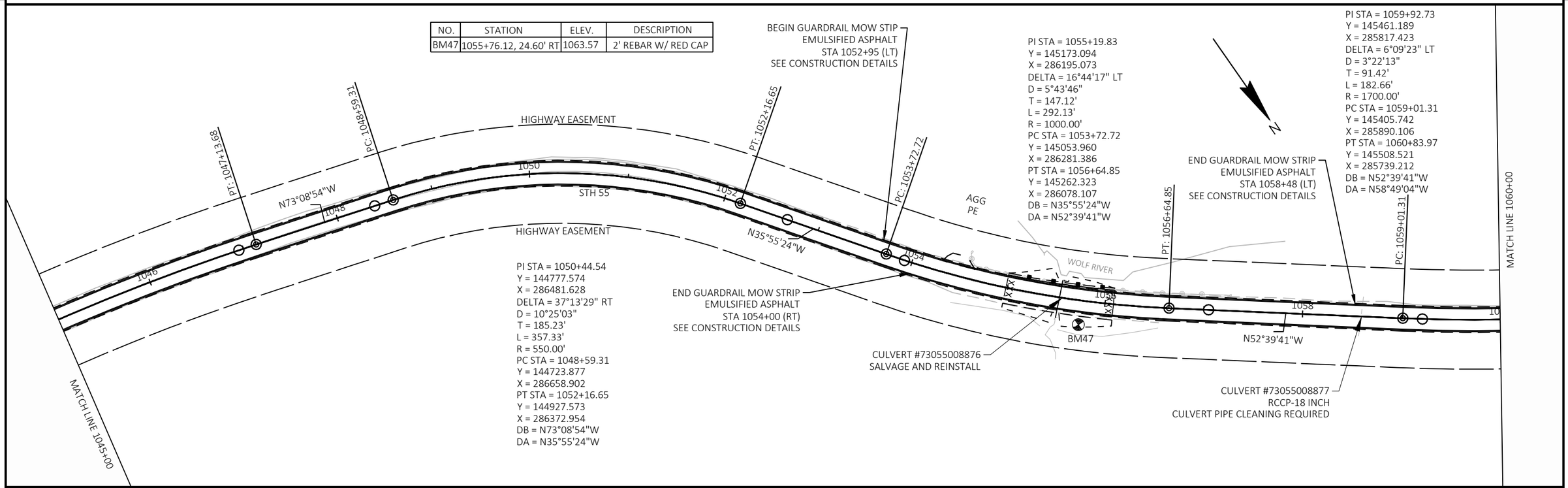
NO.	STATION	ELEV.	DESCRIPTION
BM46	1003+18.89, 28.43' RT	1060.01	2' REBAR W/ RED CAP



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 123	E



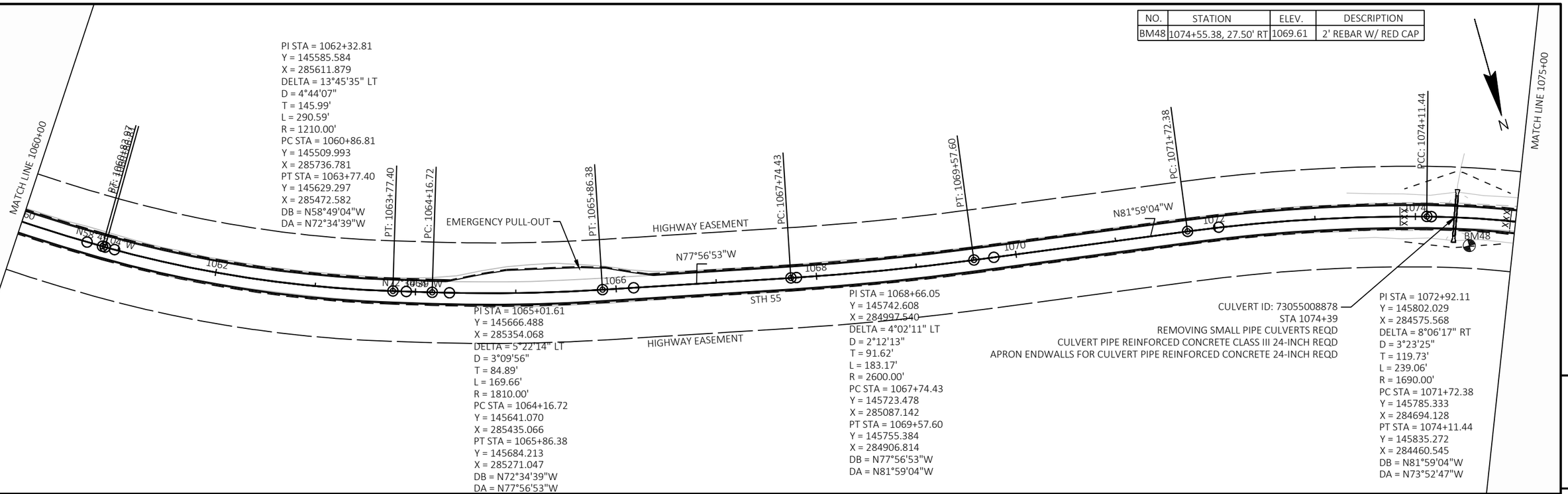
NO.	STATION	ELEV.	DESCRIPTION
BM47	1055+76.12, 24.60' RT	1063.57	2' REBAR W/ RED CAP

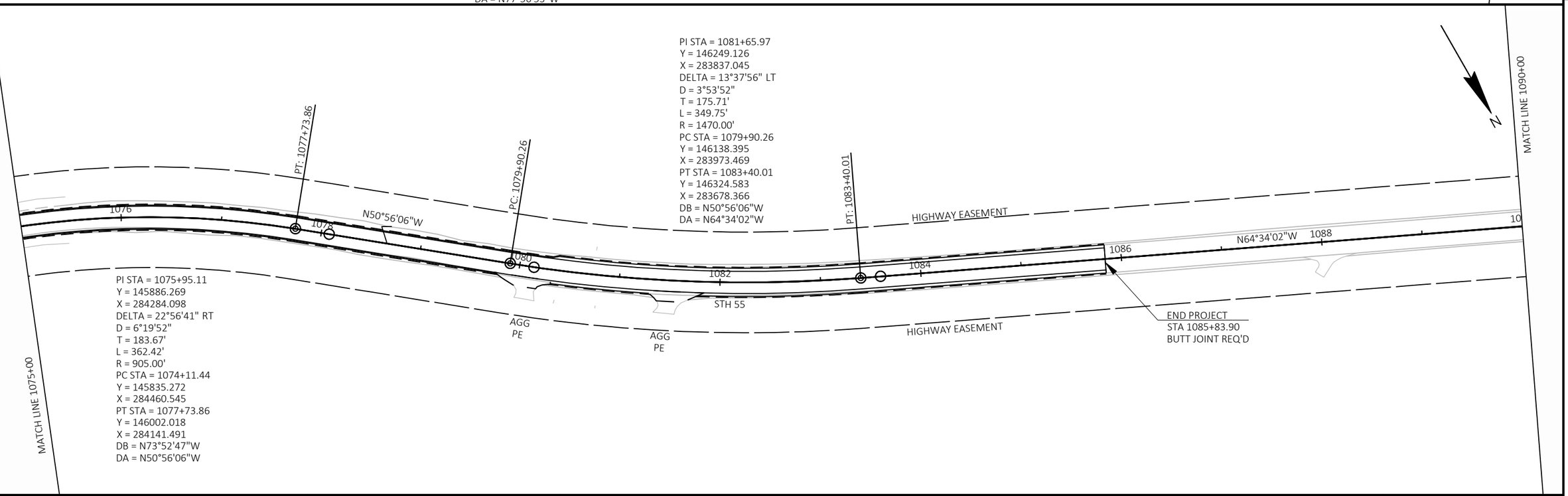


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	PLAN	SHEET 124	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 48
PLOT DATE : 12/20/2025 9:47 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

NO.	STATION	ELEV.	DESCRIPTION
BM48	1074+55.38, 27.50' RT	1069.61	2' REBAR W/ RED CAP





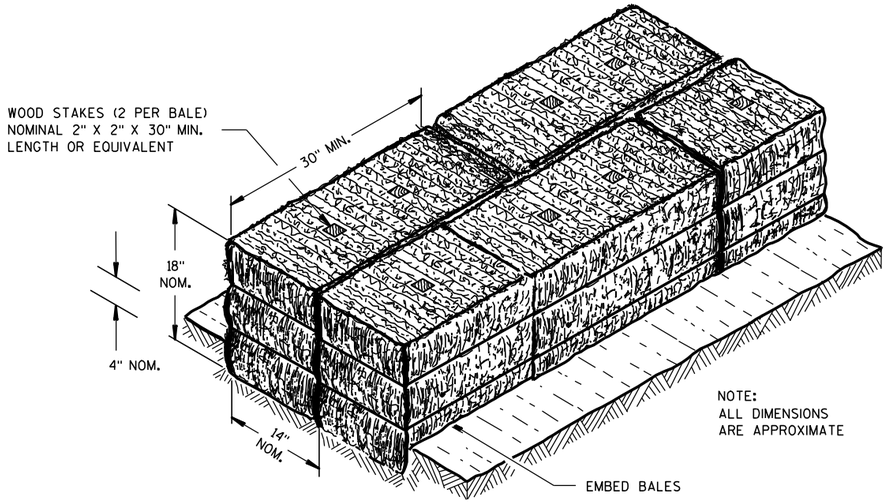
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE & LANGLADE	PLAN	SHEET 125	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 49
PLOT DATE : 12/16/2025 9:32 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

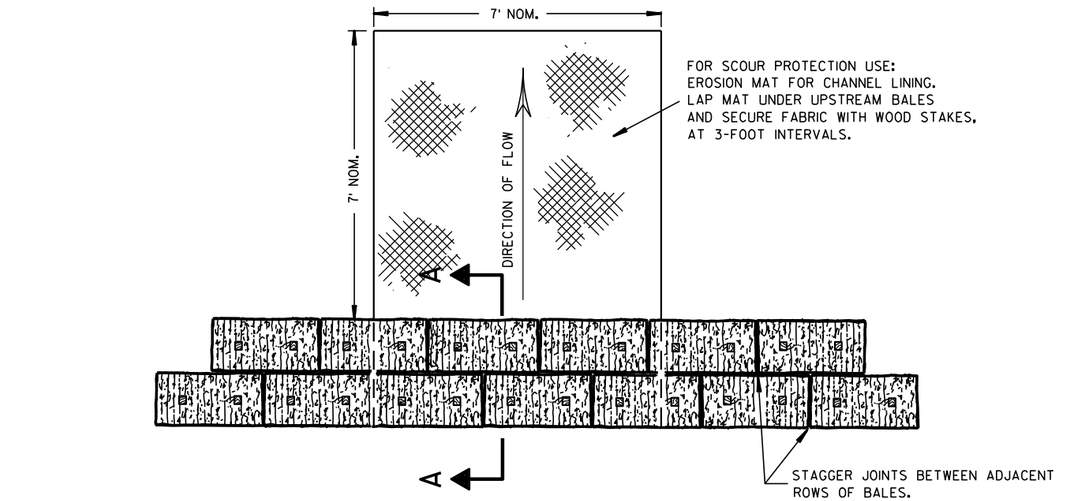
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A08-02	TRANSVERSE RUMBLE STRIPS, ASPHALTIC
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14D01-01	TURTLE EXCLUSION FENCE CLIMBING TURTLE
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
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
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
15C19-10A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

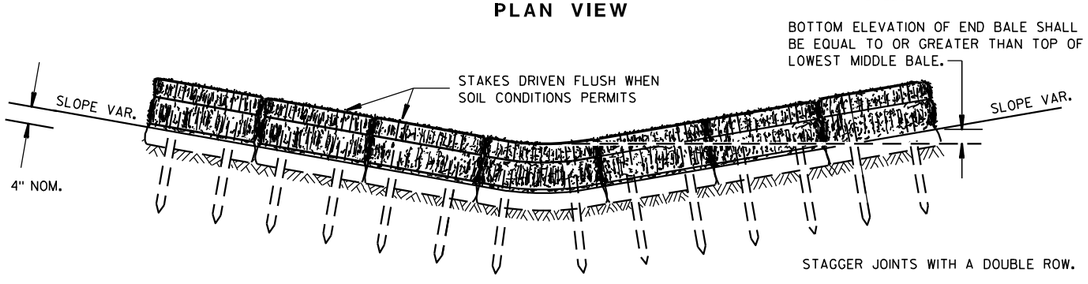
6



SECTION A-A



PLAN VIEW



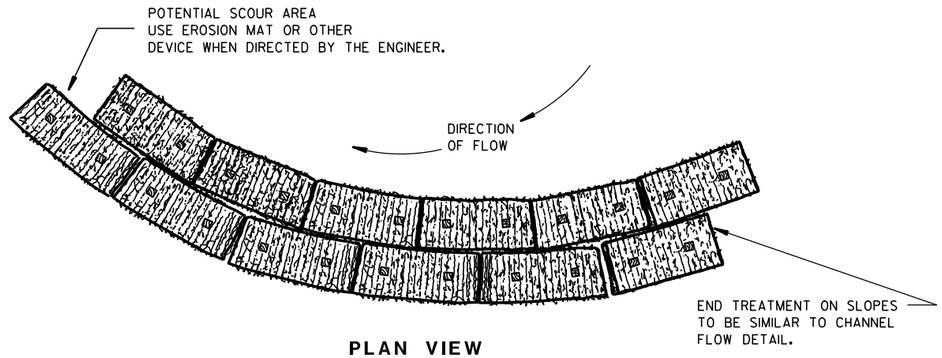
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

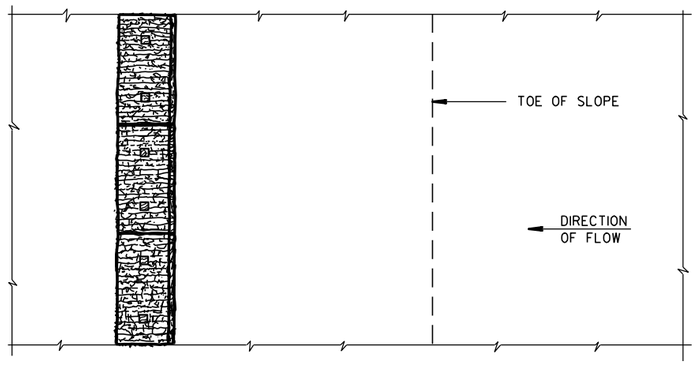
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

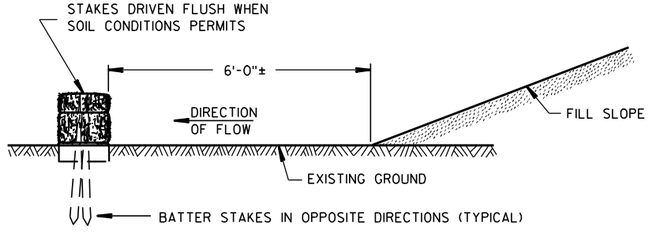


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

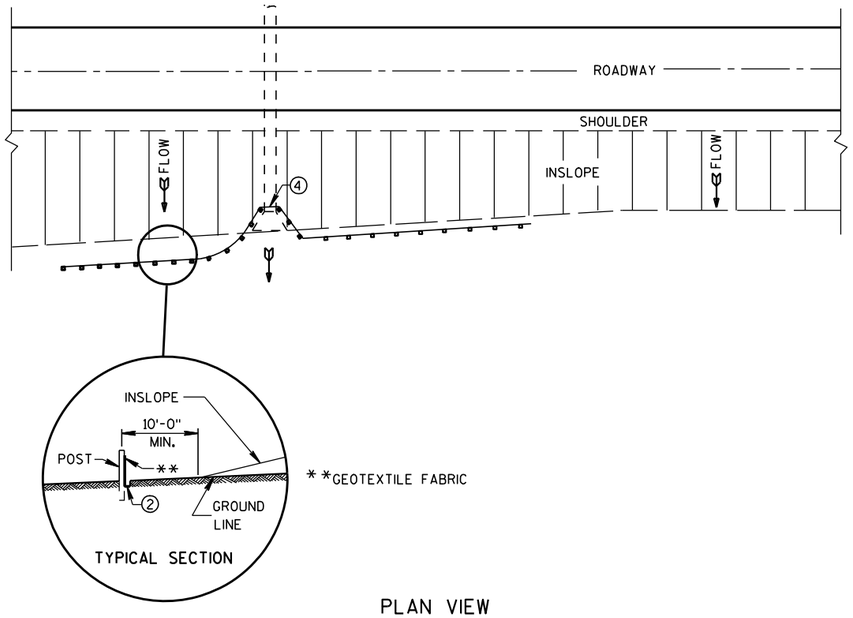
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

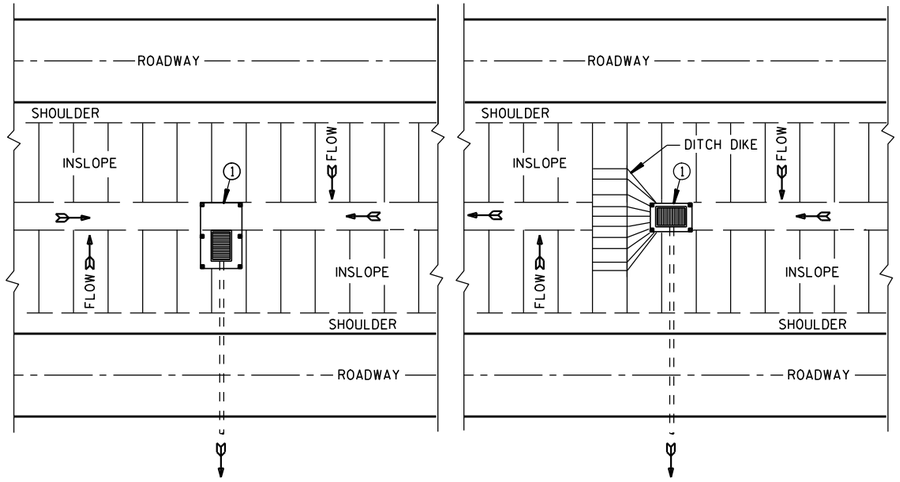
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

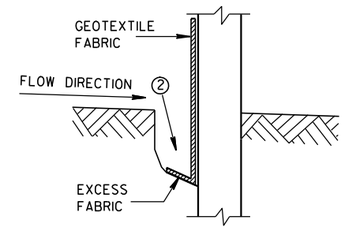
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

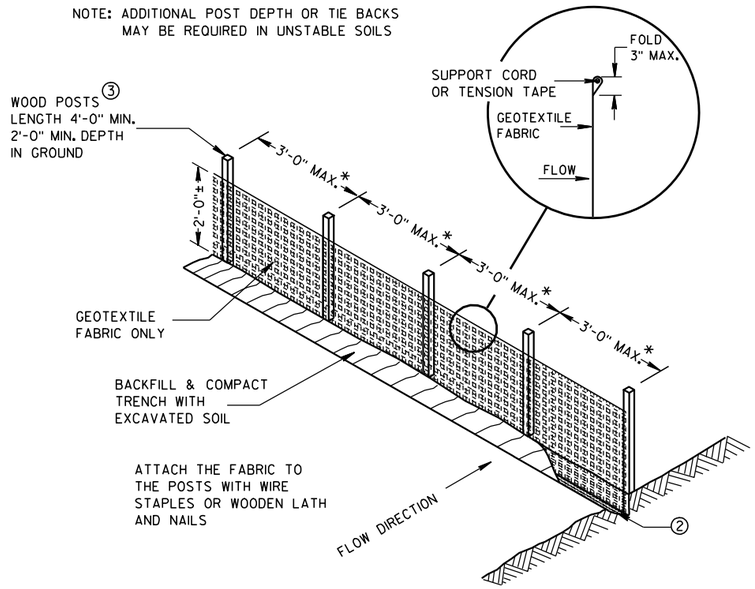
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

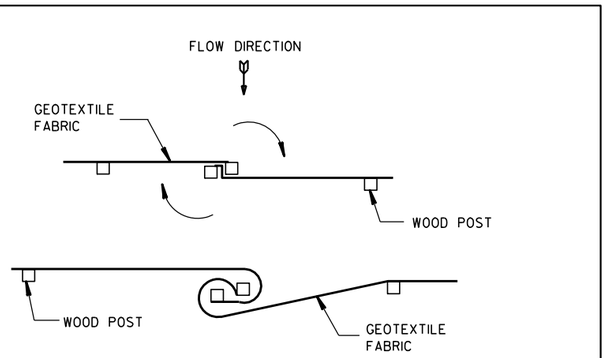
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



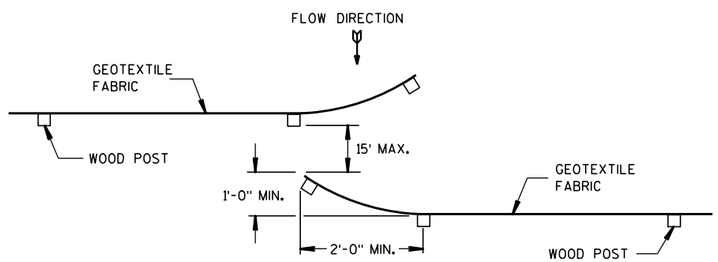
TRENCH DETAIL



SILT FENCE

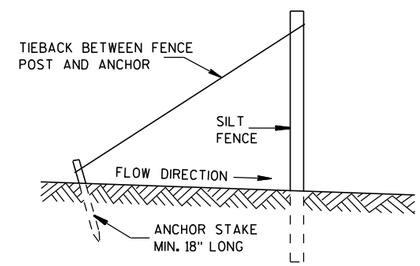


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

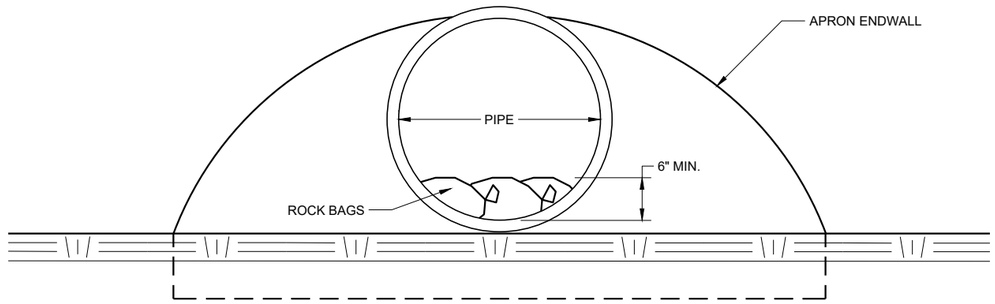
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

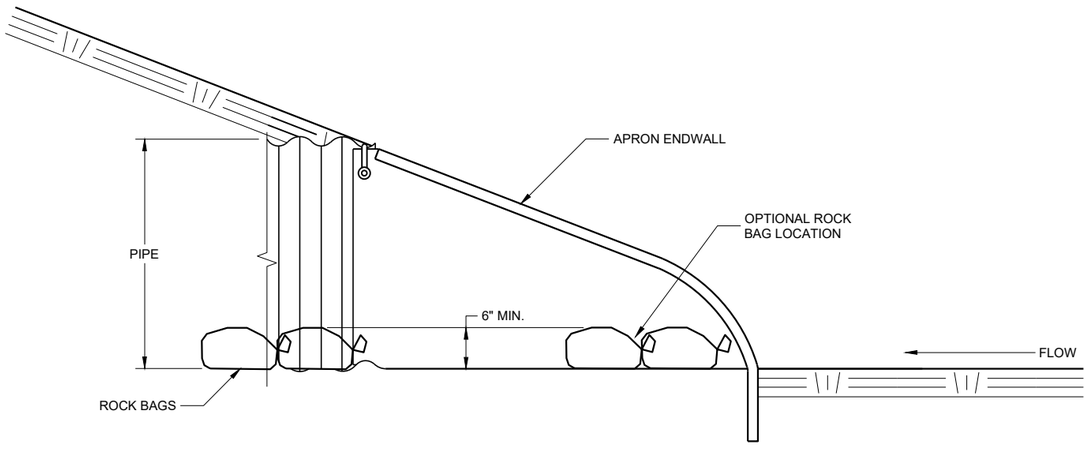
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

SDD 08E15 - 01

METAL APRON ENDWALLS

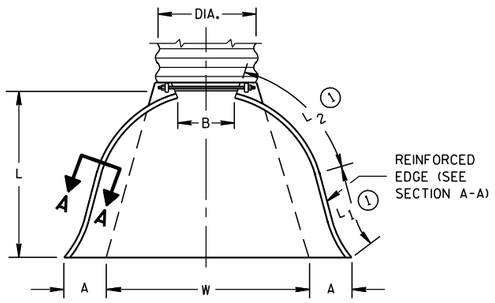
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

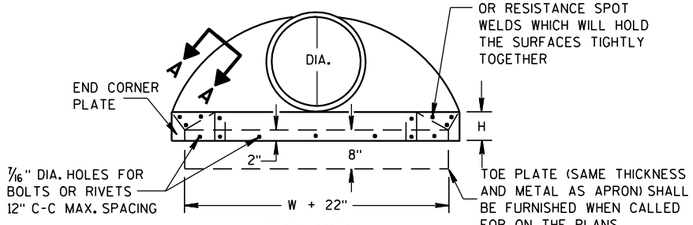
REINFORCED CONCRETE APRON ENDWALLS

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

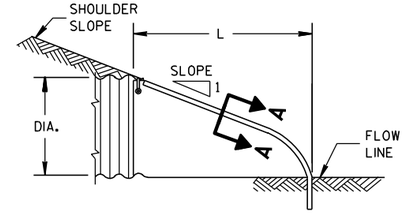
*MINIMUM
**MAXIMUM



PLAN VIEW

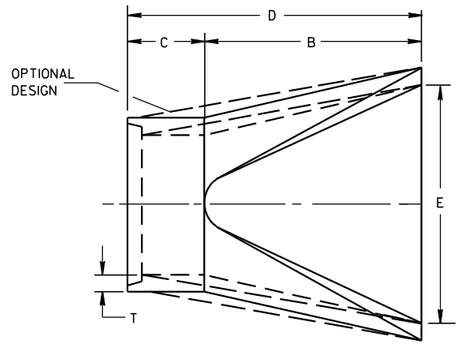


END VIEW

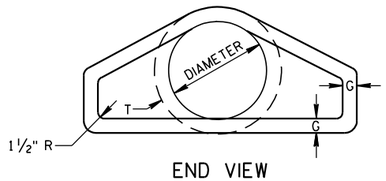


SIDE ELEVATION

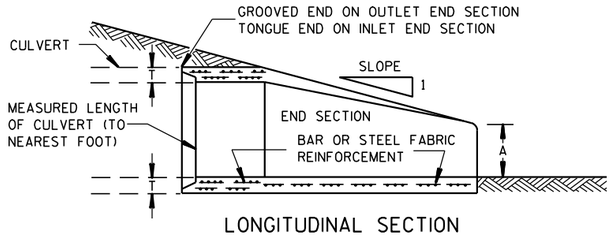
METAL ENDWALLS



PLAN

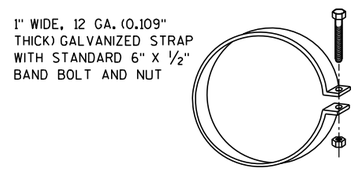


END VIEW



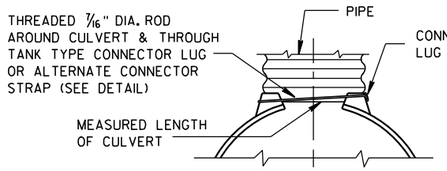
LONGITUDINAL SECTION

CONCRETE ENDWALLS

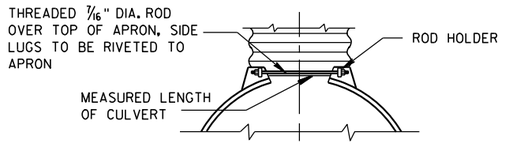


ALTERNATE FOR TYPE 1 CONNECTION

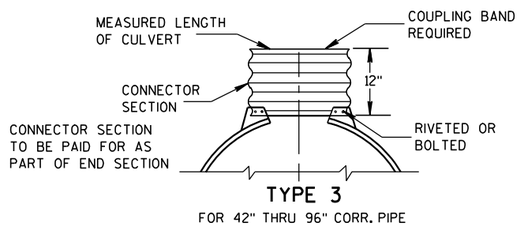
END SECTION CONNECTOR STRAP



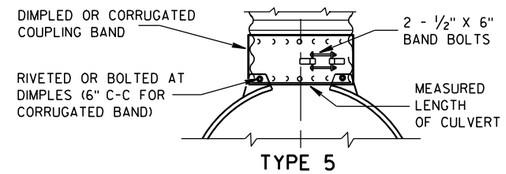
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

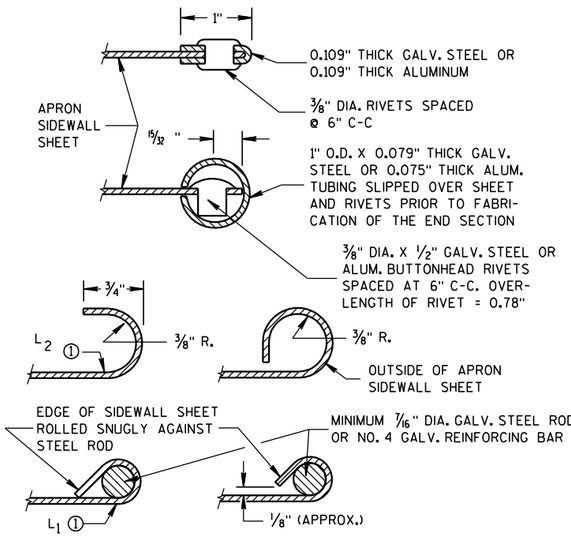
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

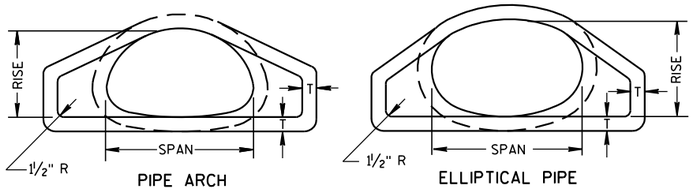
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

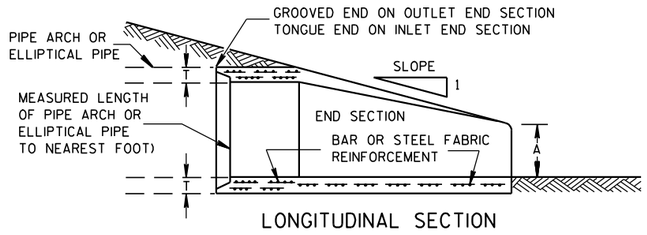
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



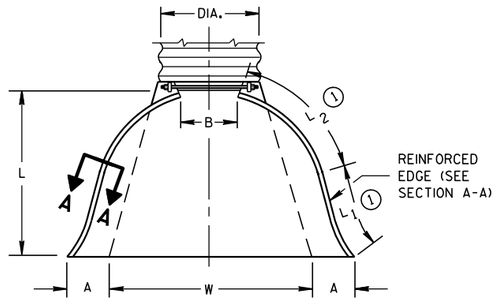
END VIEW



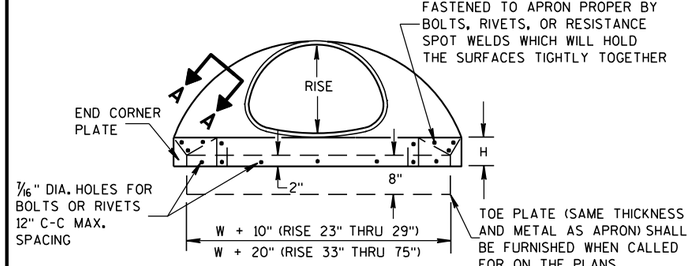
LONGITUDINAL SECTION

PLAN VIEW

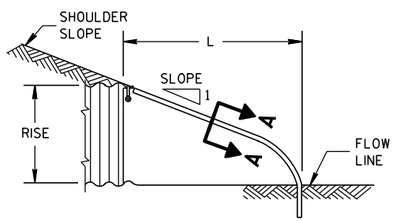
CONCRETE ENDWALLS



PLAN VIEW

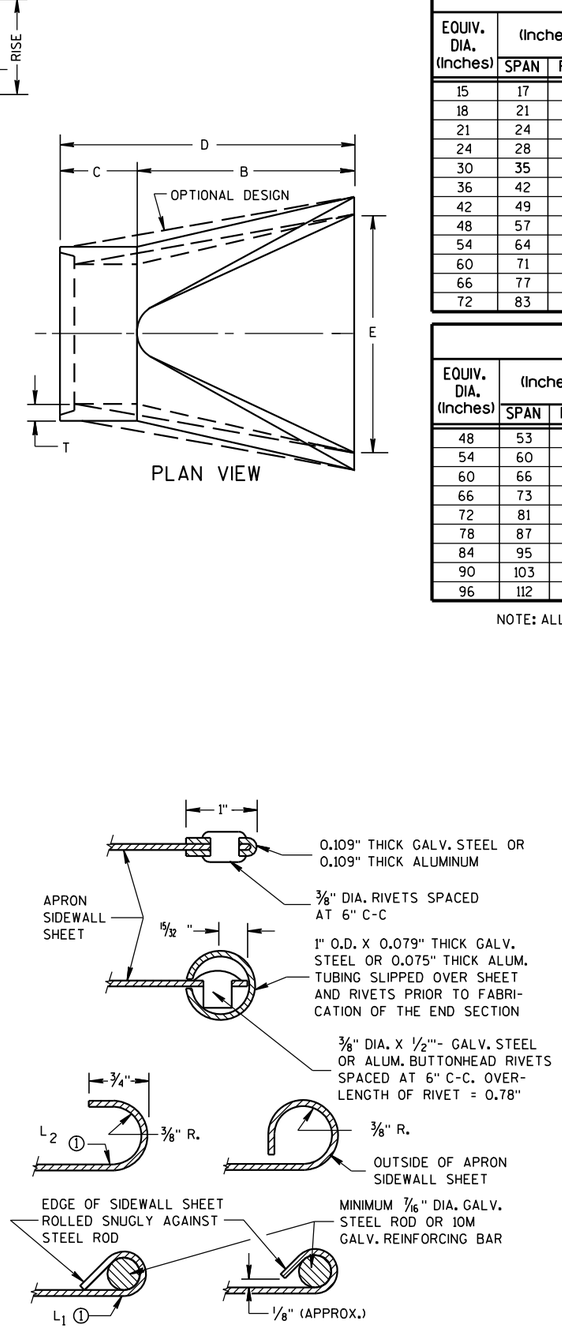


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ 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) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ 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	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ 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) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	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	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE

GENERAL NOTES

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

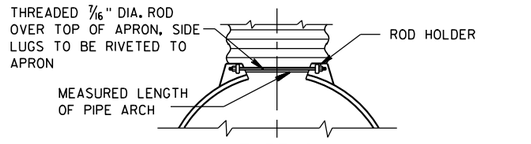
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

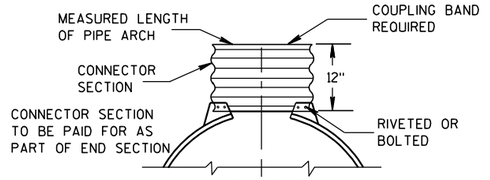
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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



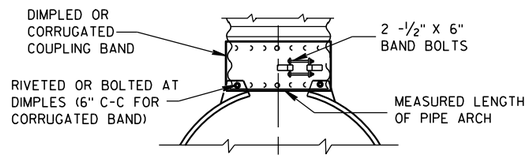
TYPE 2

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 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

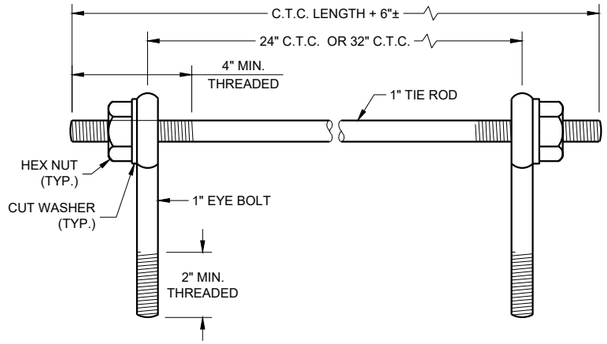
FHWA

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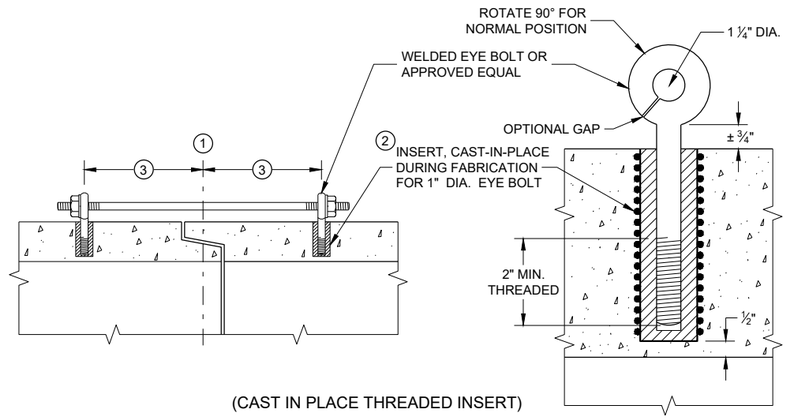
S.D.D. 8 F 2-1

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

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

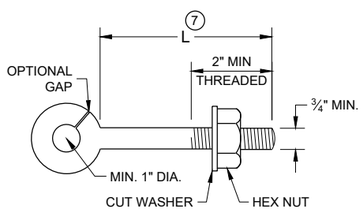
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

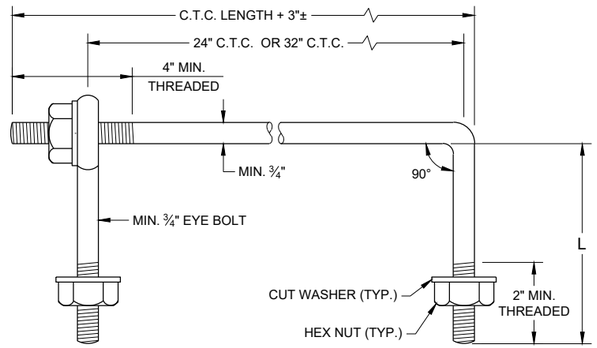
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

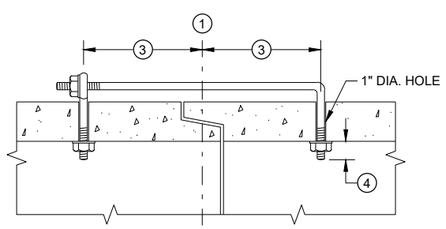


EYE BOLT (7)

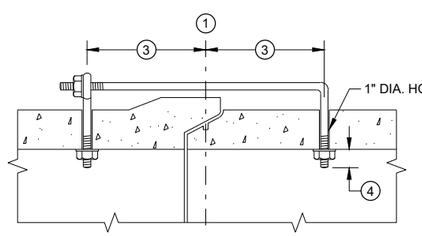
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

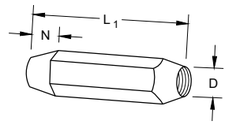
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

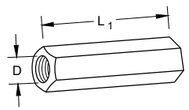
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



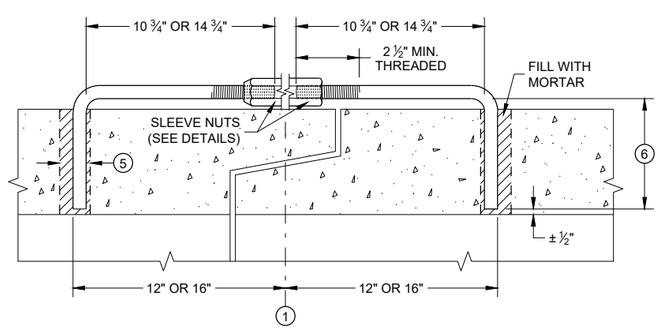
TAPERED



PLAIN

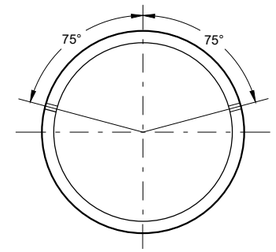
RIGHT AND LEFT THREADS

SLEEVE NUTS



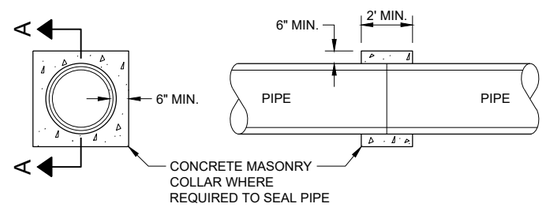
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

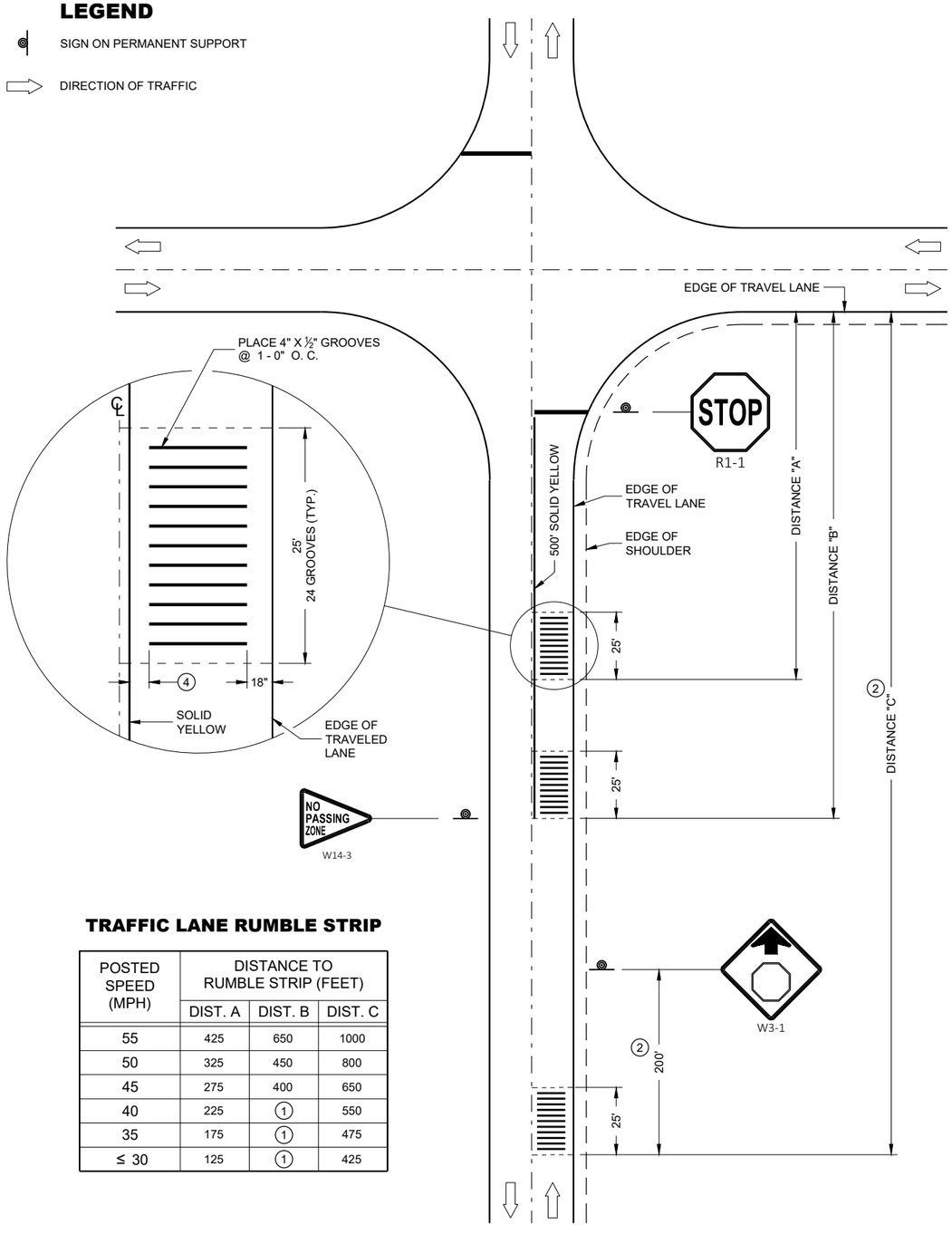
FHWA

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SDD 08F04 - 08

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TRAFFIC LANE RUMBLE STRIP

POSTED SPEED (MPH)	DISTANCE TO RUMBLE STRIP (FEET)		
	DIST. A	DIST. B	DIST. C
55	425	650	1000
50	325	450	800
45	275	400	650
40	225	(1)	550
35	175	(1)	475
≤ 30	125	(1)	425

RUMBLE STRIP LOCATION

GENERAL NOTES

CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA, THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

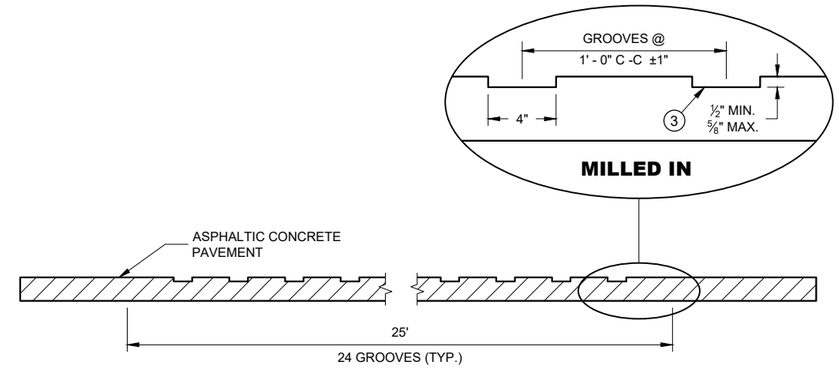
PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDE ELSEWHERE IN THE CONTRACT.

(1) ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.

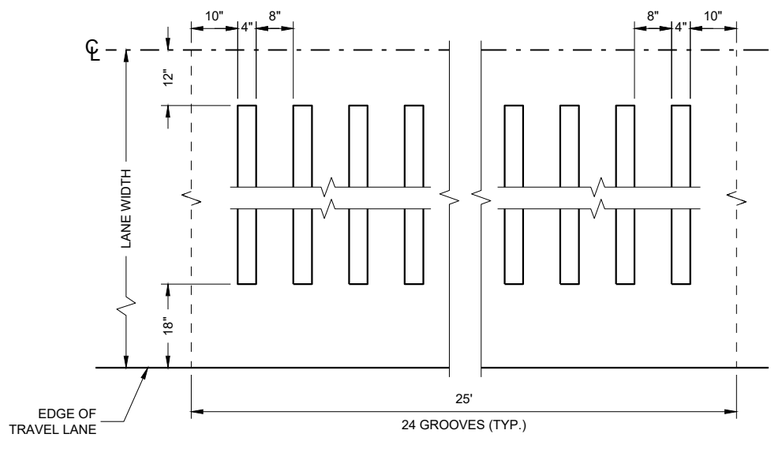
(2) LOCATE RUMBLE STRIP 200 FEET IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE "C".

(3) TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY $\frac{1}{16}$".

(4) 12 INCH CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.



ELEVATION VIEW



PLAN VIEW

ASPHALTIC PAVEMENT MILLED IN

TRANSVERSE RUMBLE STRIPS, ASPHALTIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY DESIGN STANDARDS AND
UNIT SUPERVISOR

FHWA

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SDD 13A08 - 02

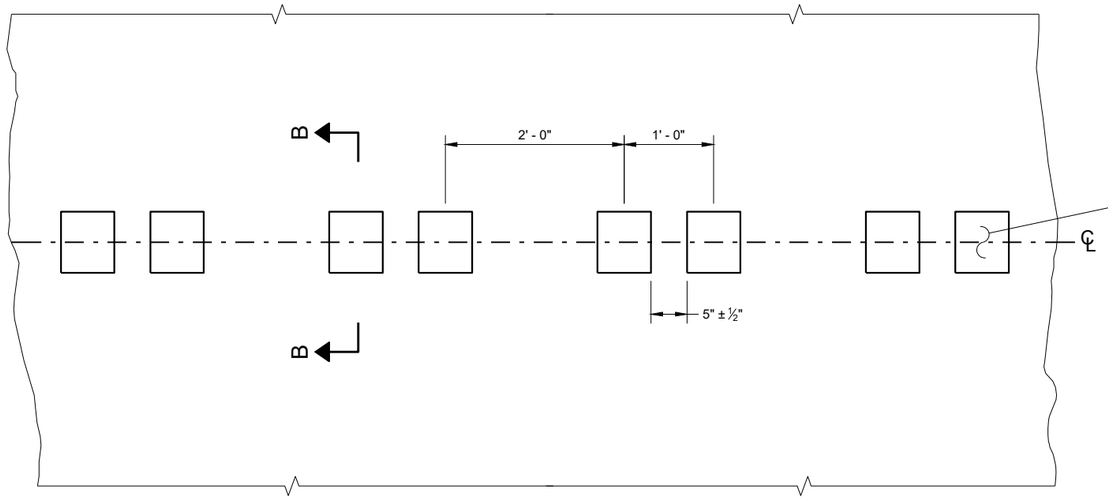
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SDD 13A08 - 02

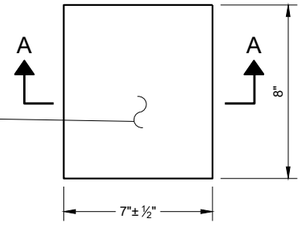
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

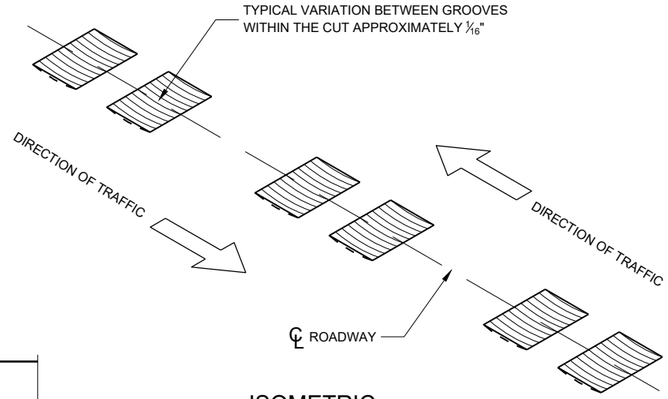
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



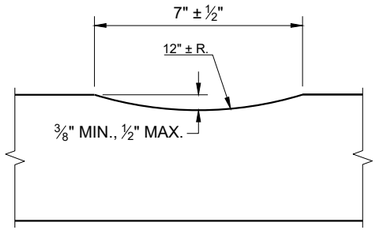
PLAN DETAIL VIEW



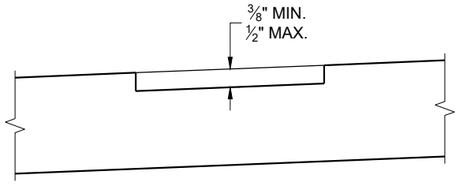
PLAN VIEW
(SINGLE GROOVE)



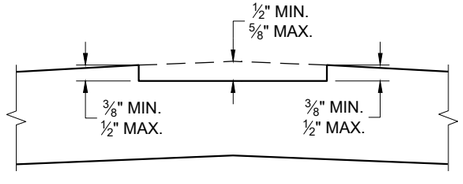
ISOMETRIC



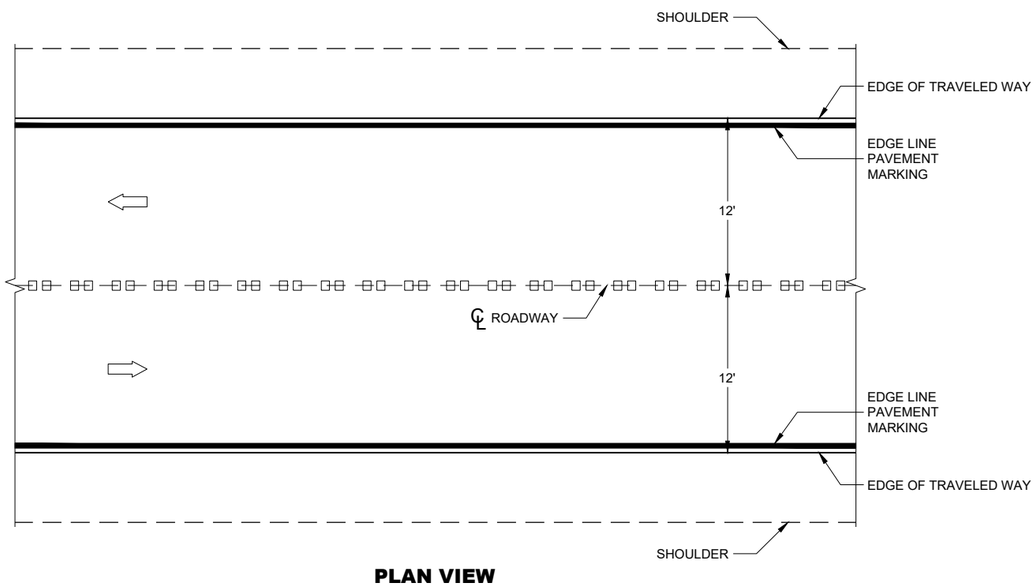
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

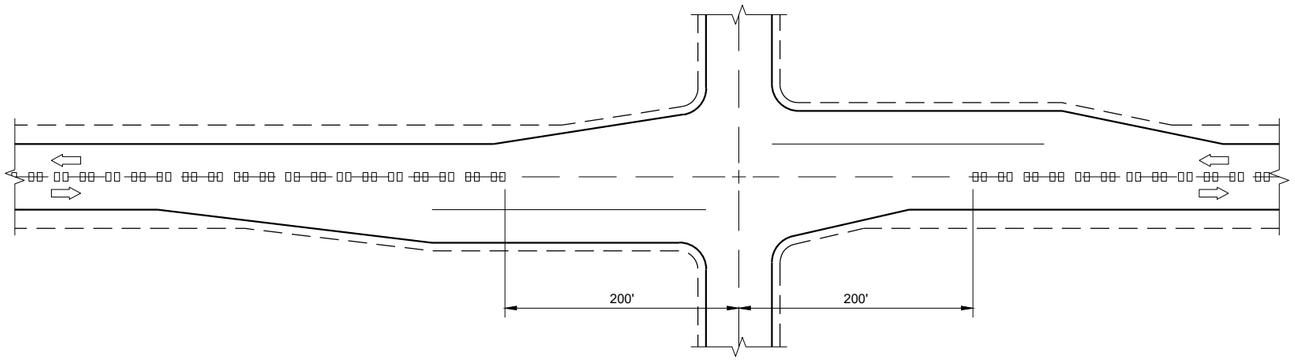
CENTERLINE RUMBLE STRIPS - ASPHALT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTA	134

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SDD 13A11 - 04a

6

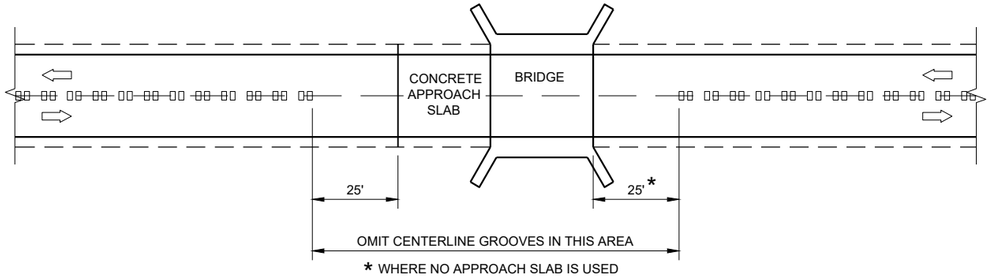
SDD 13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS

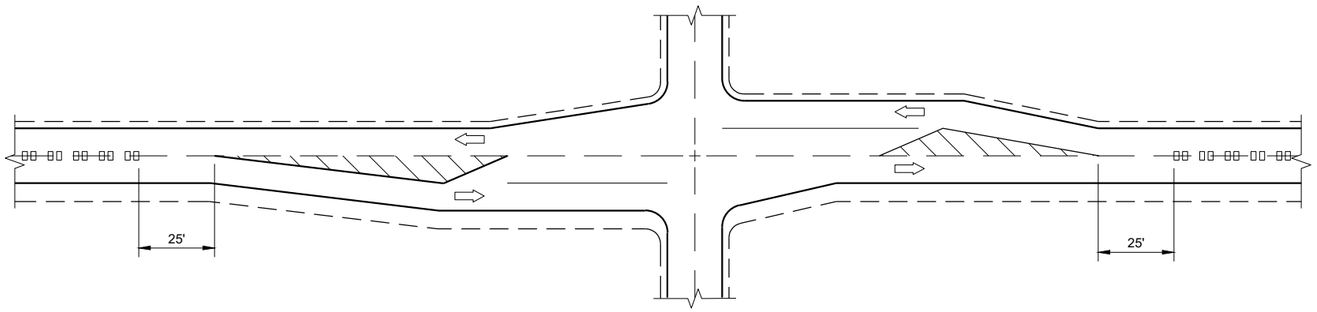
GENERAL NOTES

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

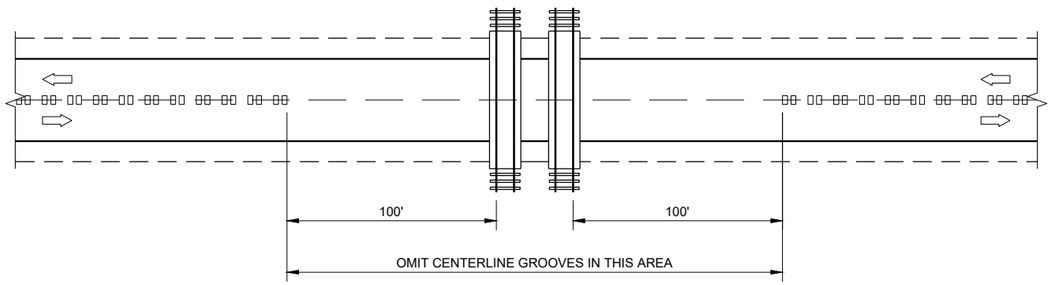


* WHERE NO APPROACH SLAB IS USED

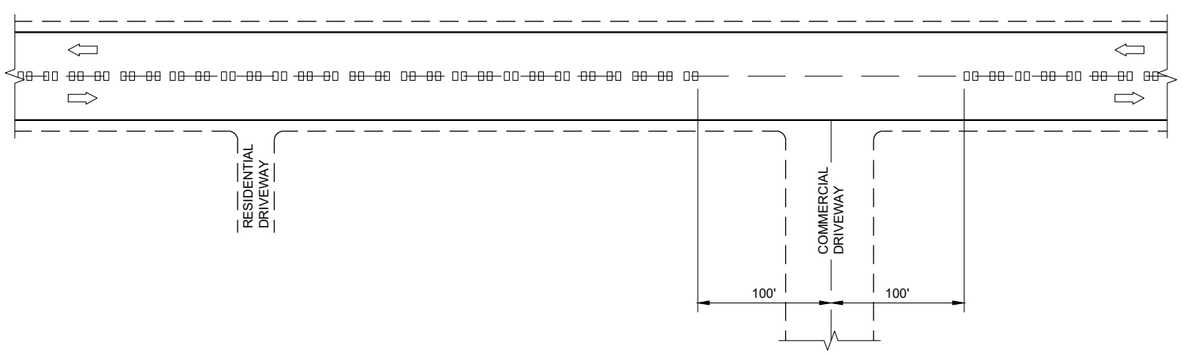
CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



CENTERLINE GROOVES AT RAILROADS



CENTERLINE GROOVES AT DRIVEWAYS (1)

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

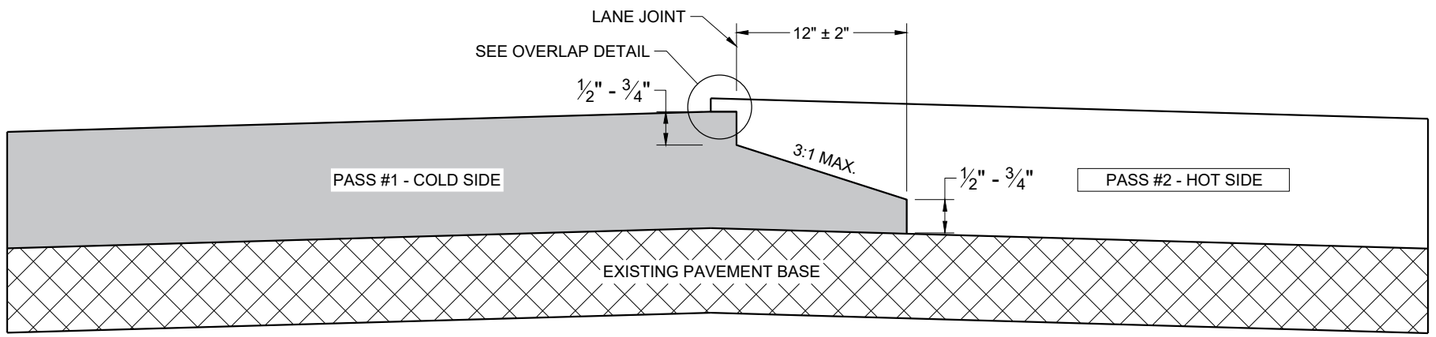
APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

FHWA

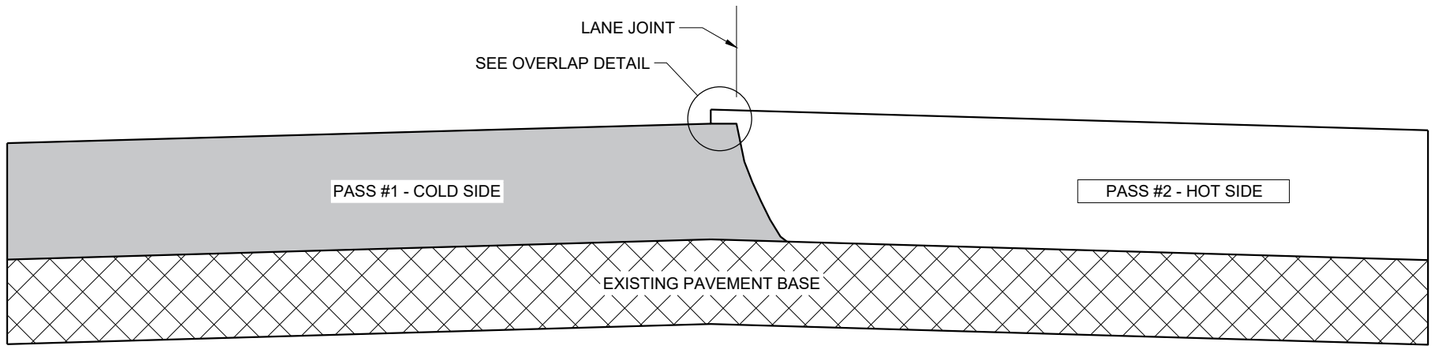
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SDD 13A11 - 04d

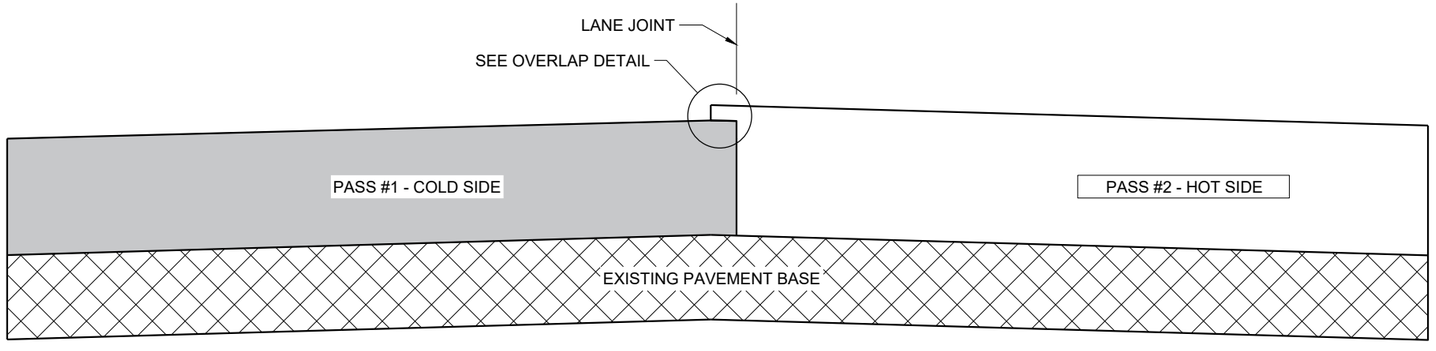
SDD 13A11 - 04d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

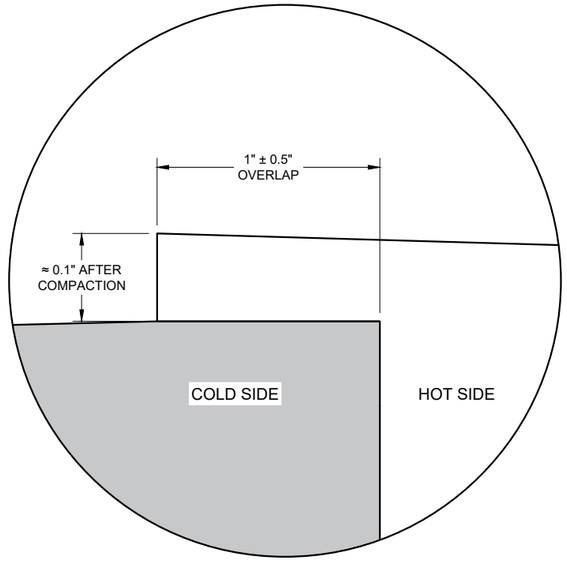
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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

FHWA

6

SDD 13C19 - 03

6

SDD 13C19 - 03

SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"X8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.

2. USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPELTER COATING ON GALVANIZED POSTS.

3. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

4. USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

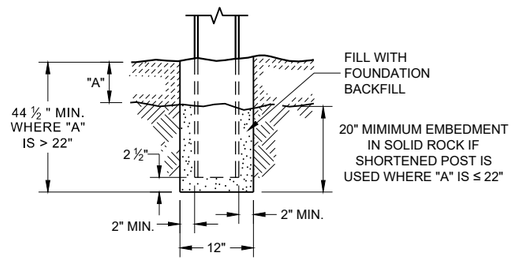
5. IF THE DISTACE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

6. IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.

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

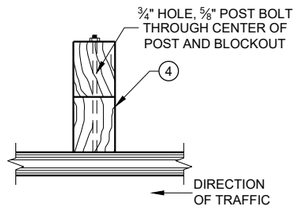
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



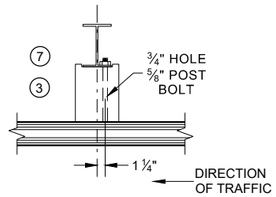
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (6)



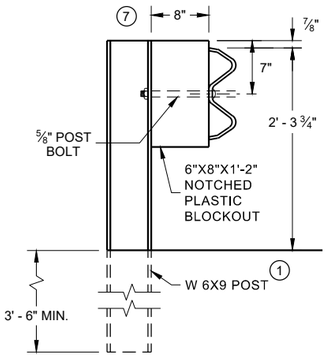
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



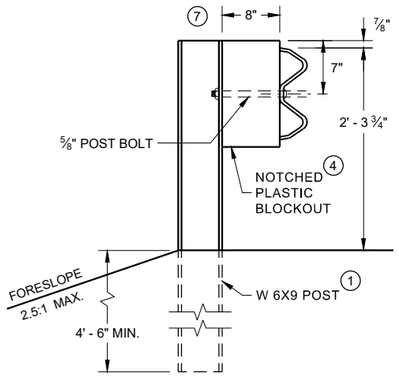
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



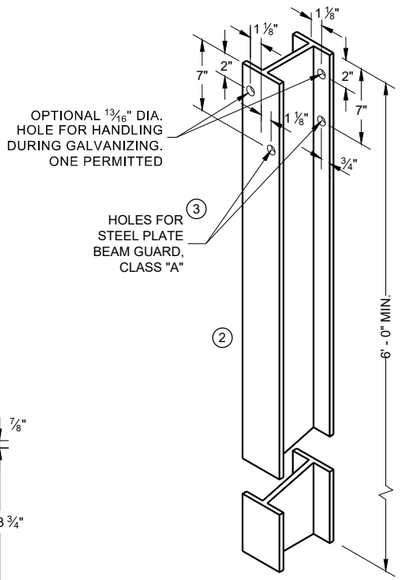
END VIEW

STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



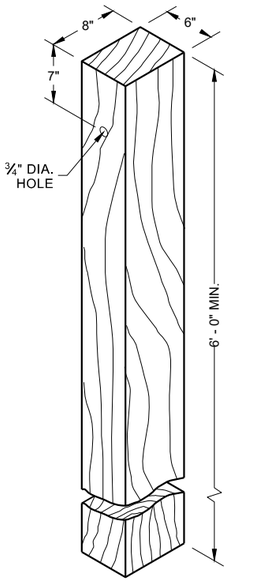
END VIEW

LONGER POST AT HALF POST SPACING W BEAM (LHW)

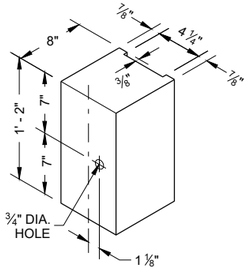


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)

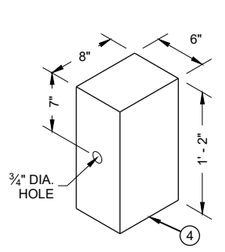
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



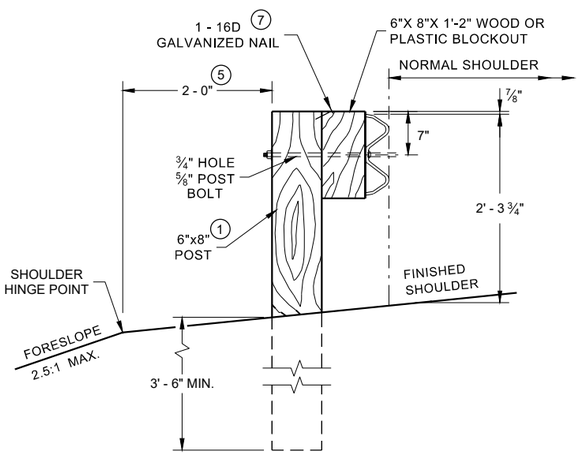
WOOD POST (6" X 8") NOMINAL (1)



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS

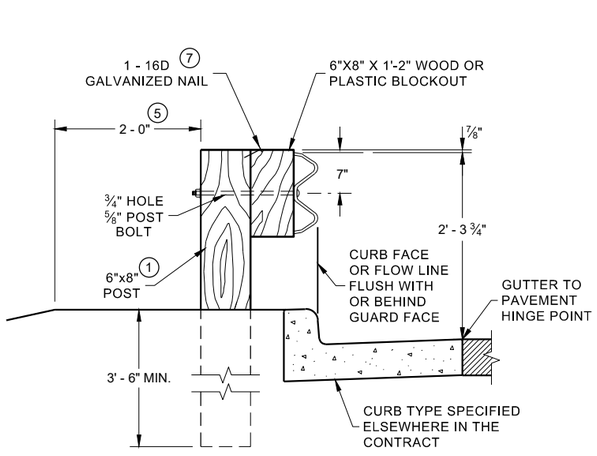


WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



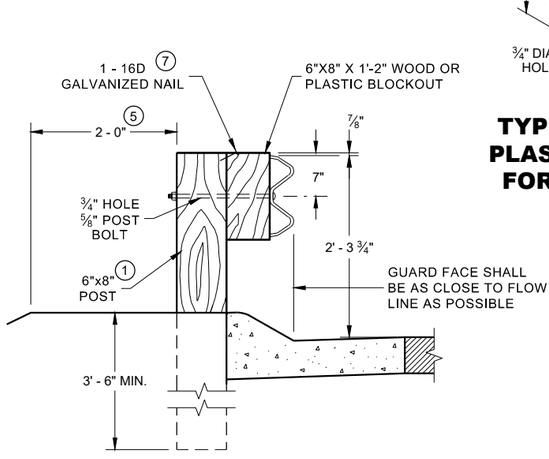
END VIEW

LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



END VIEW

LOCATED ALONG A CURBED ROADWAY



END VIEW

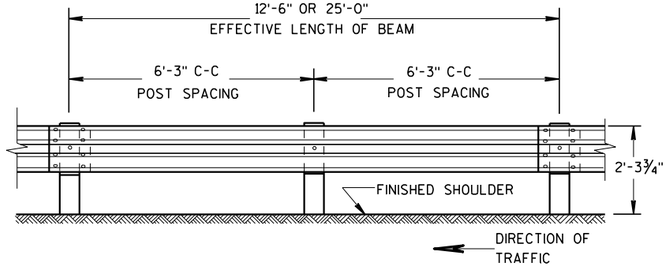
LOCATED ALONG A MOUNTABLE CURBED ROADWAY

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

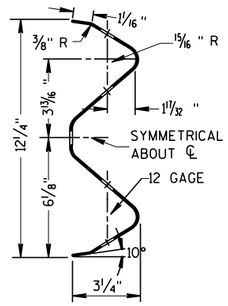
6

SDD 14B15 -11a

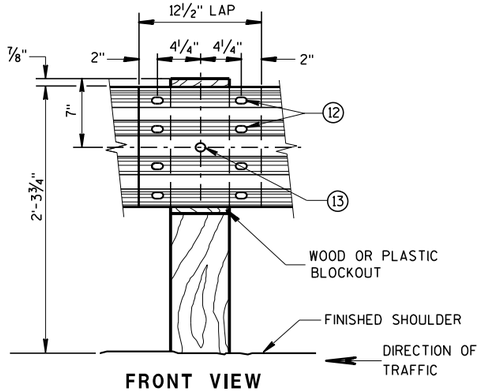


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

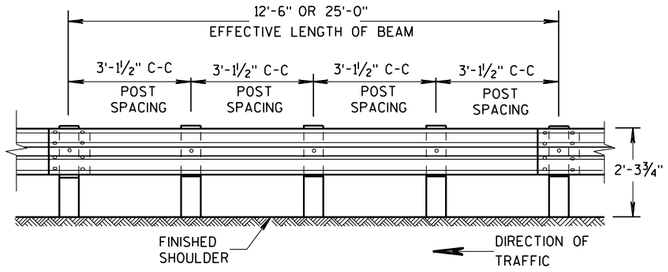
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

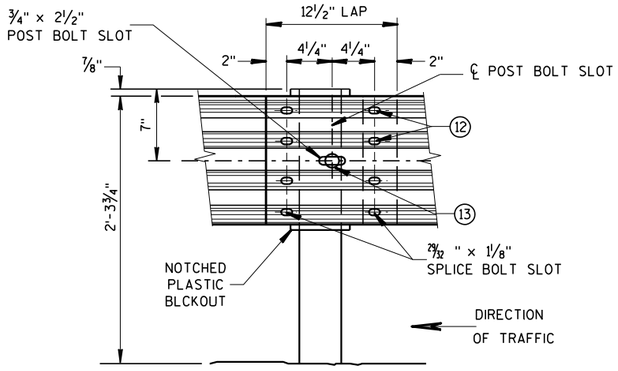
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

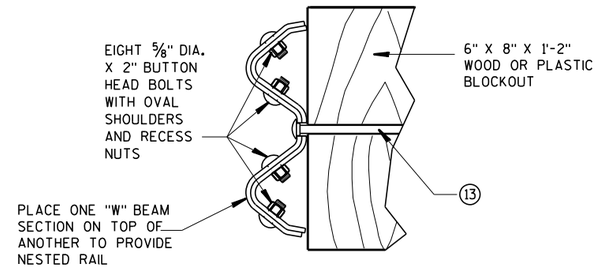
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

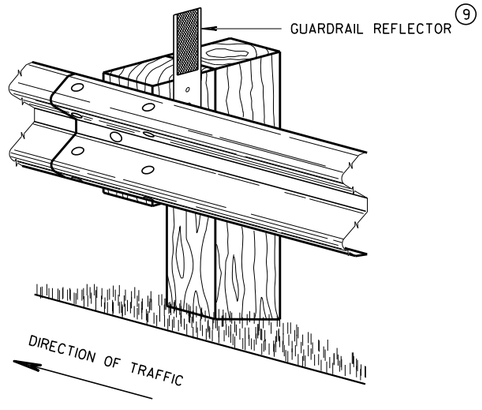
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



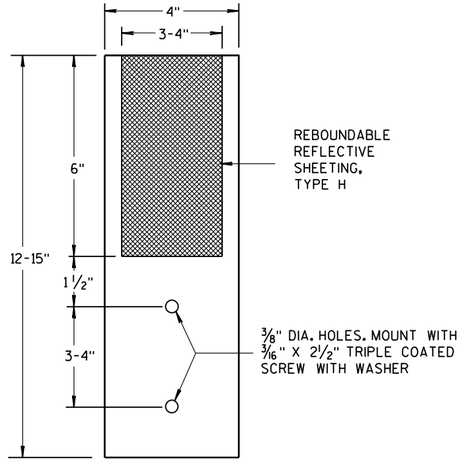
NESTED W BEAM (NW)

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

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

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

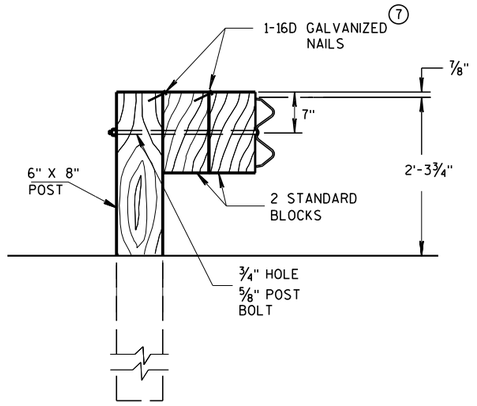
STATE OF WISCO 138
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

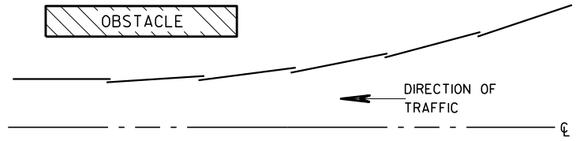
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S.D.D. 14 B 15-11b

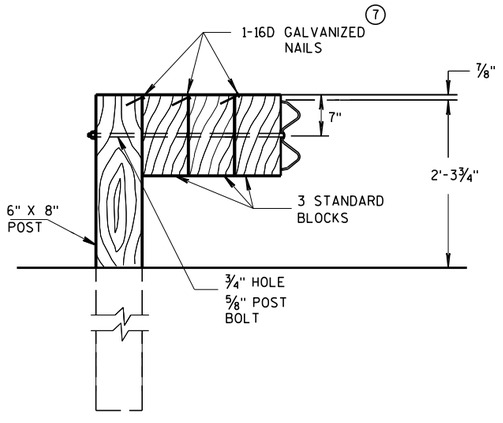


DETAIL FOR DOUBLE BLOCKS

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

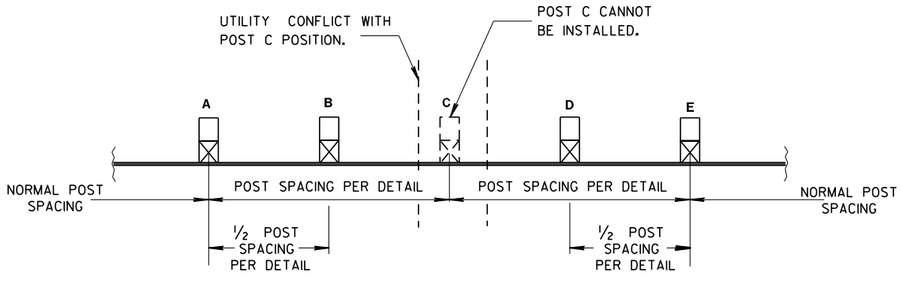


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

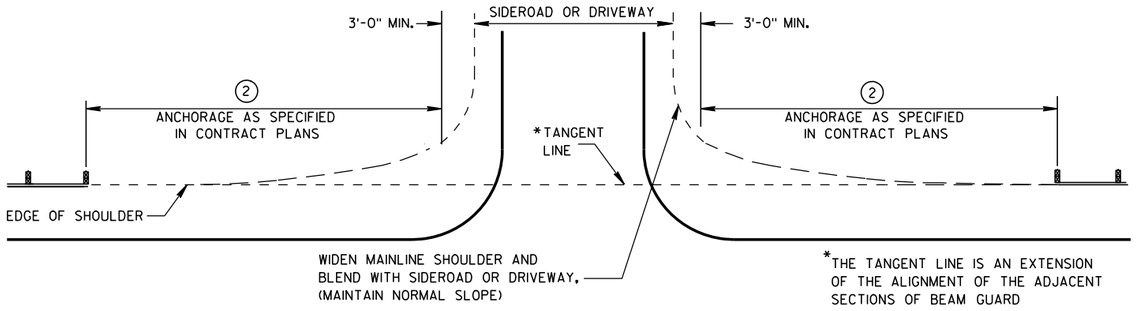
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

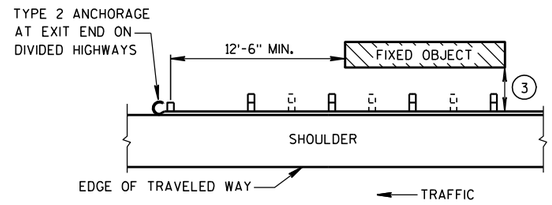
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

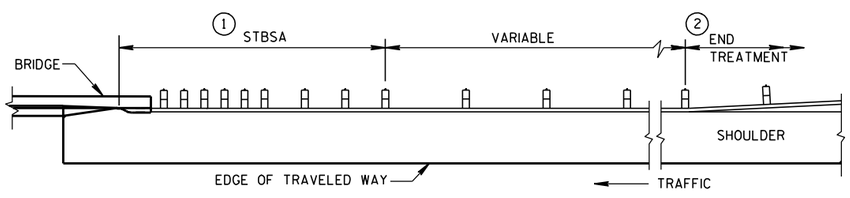
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S.D.D. 14 B 15-11c



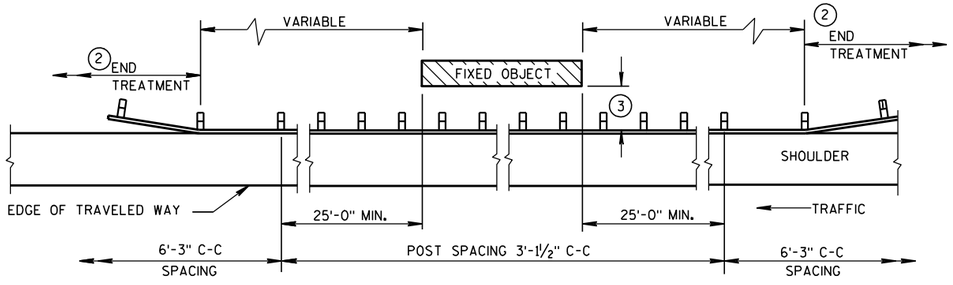
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

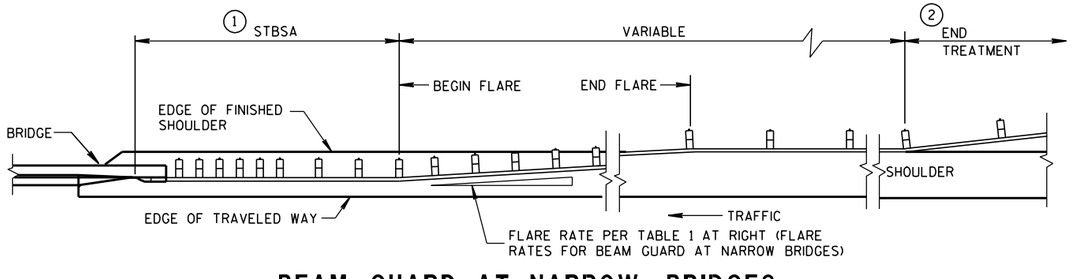


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



BEAM GUARD AT NARROW BRIDGES

(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

GENERAL NOTES

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

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

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

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 18-6a

6

S.D.D. 14 B 18-6a

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

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

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

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

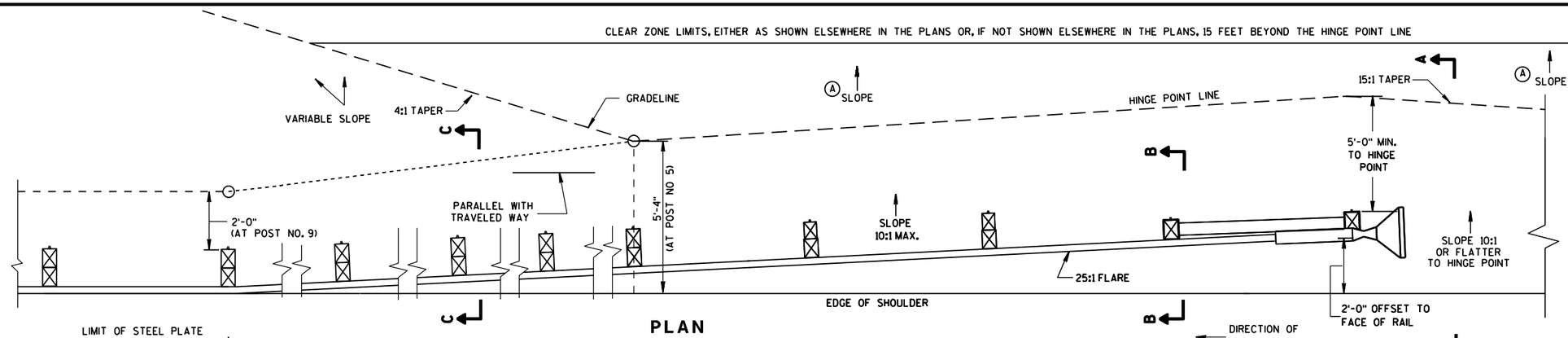
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

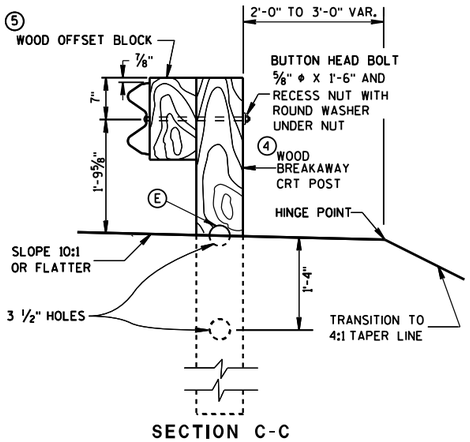
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

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

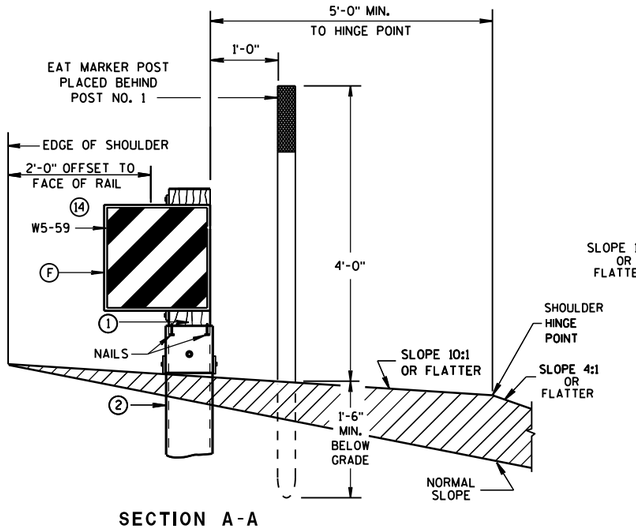
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

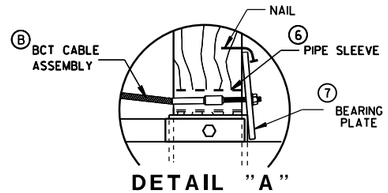




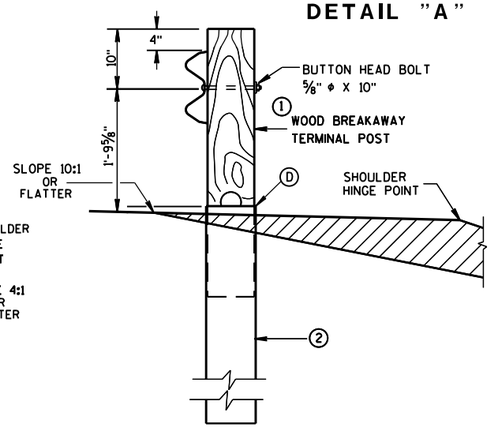
SECTION C-C
TYPICAL AT POST NOS. 6, 8



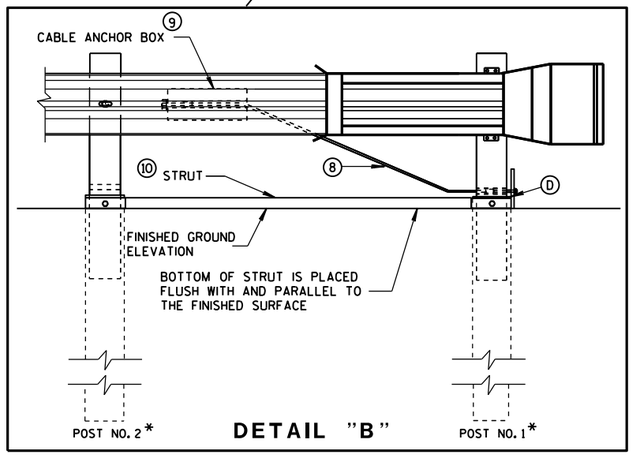
SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



SECTION B-B
TYPICAL AT POST NO. 2*



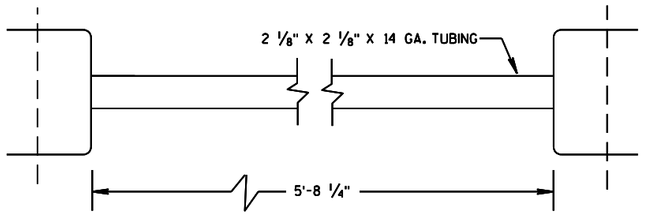
DETAIL "B"

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

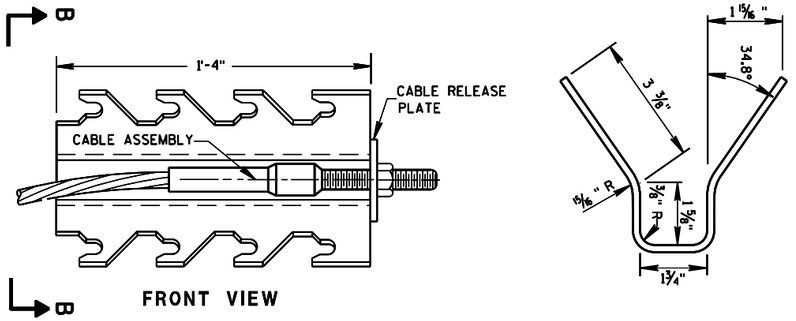
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

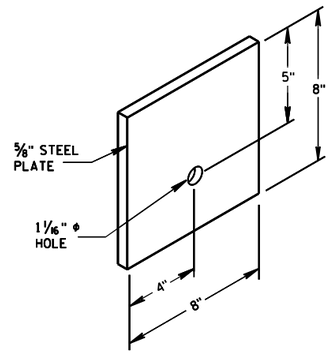
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL



⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

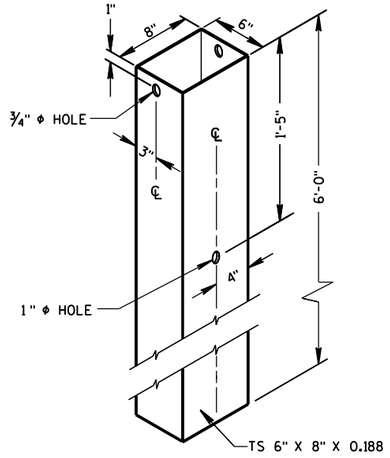
6

S.D.D. 14 B 24-9b

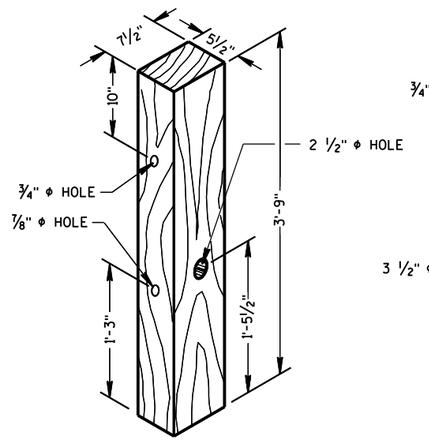
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

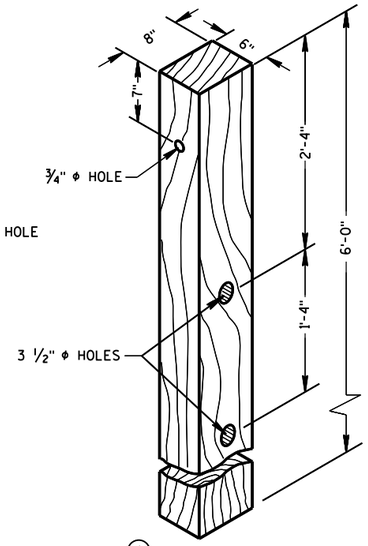
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

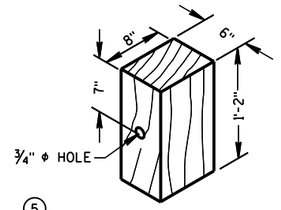


④ CRT POST
(POSTS NO'S 5-8

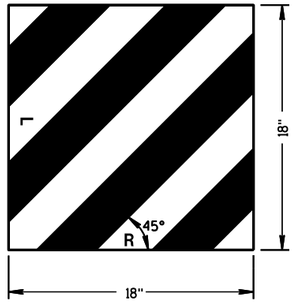
WOOD BREAKAWAY POSTS

GENERAL NOTES

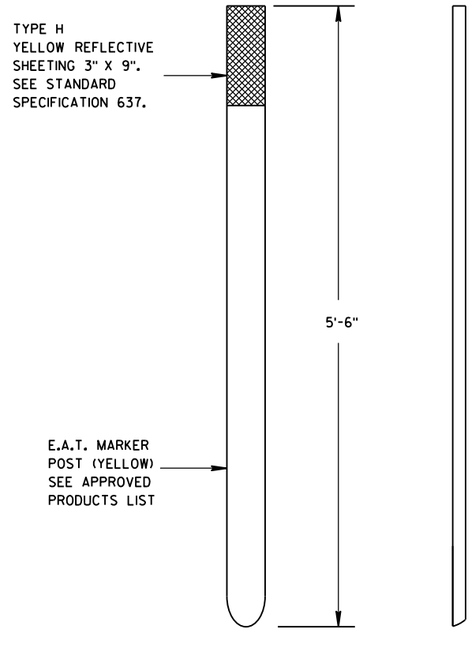
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH,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



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



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

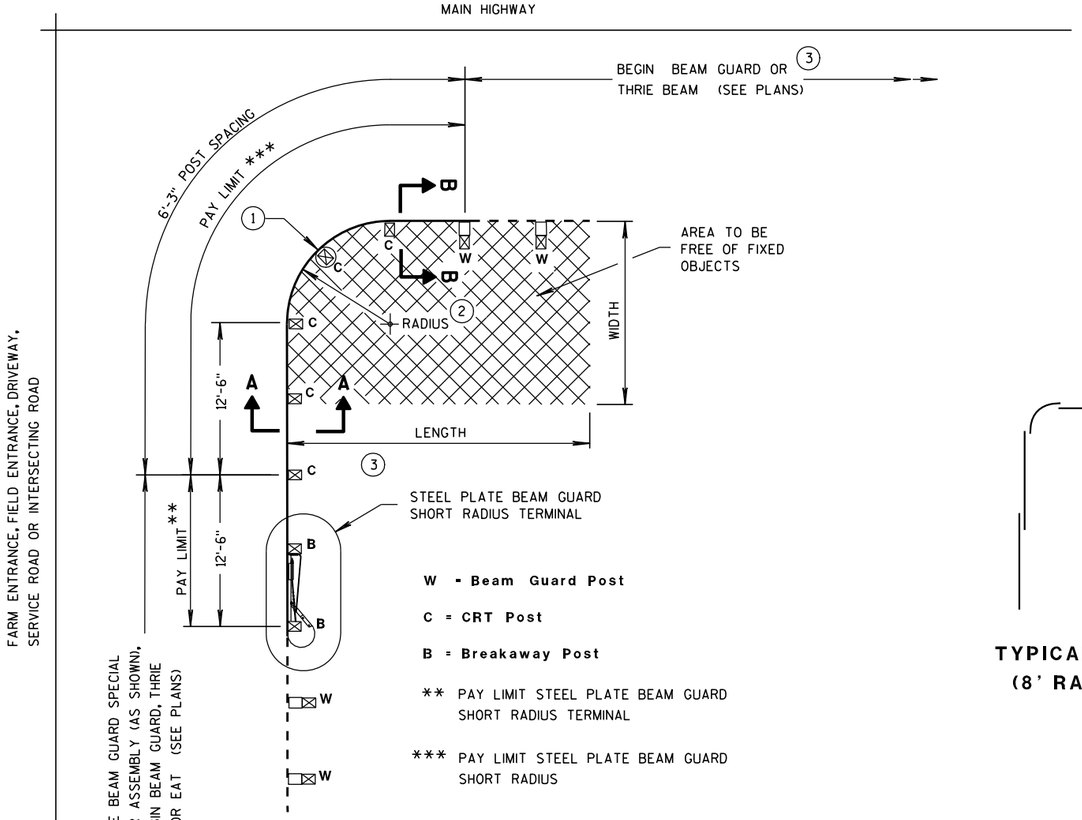
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV.
ENT

6

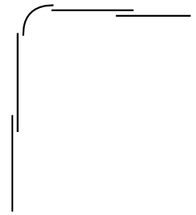
S.D.D. 14 B 24-9c

6

S.D.D. 14 B 24-9c



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

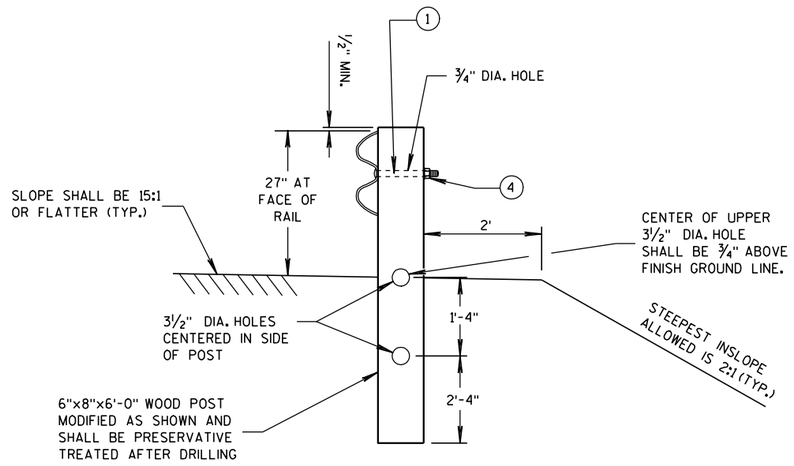
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

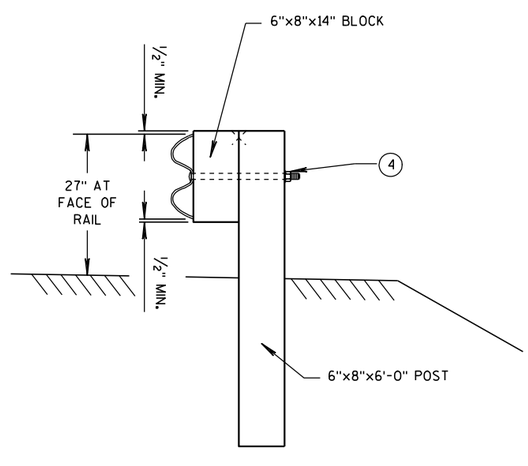
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

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

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



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

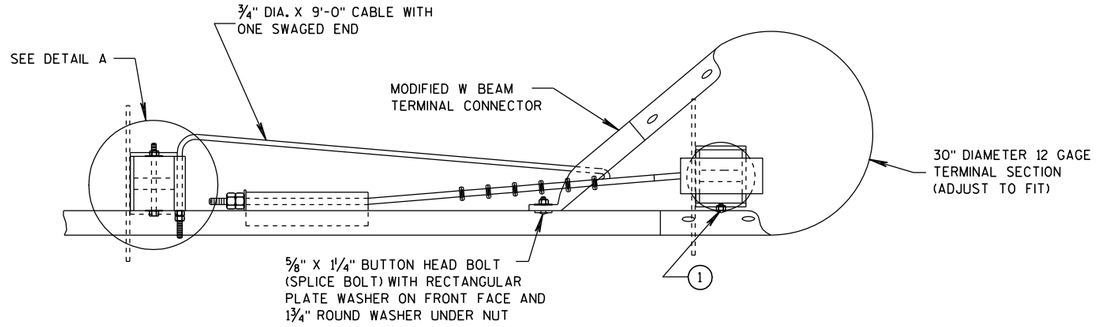
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	

6

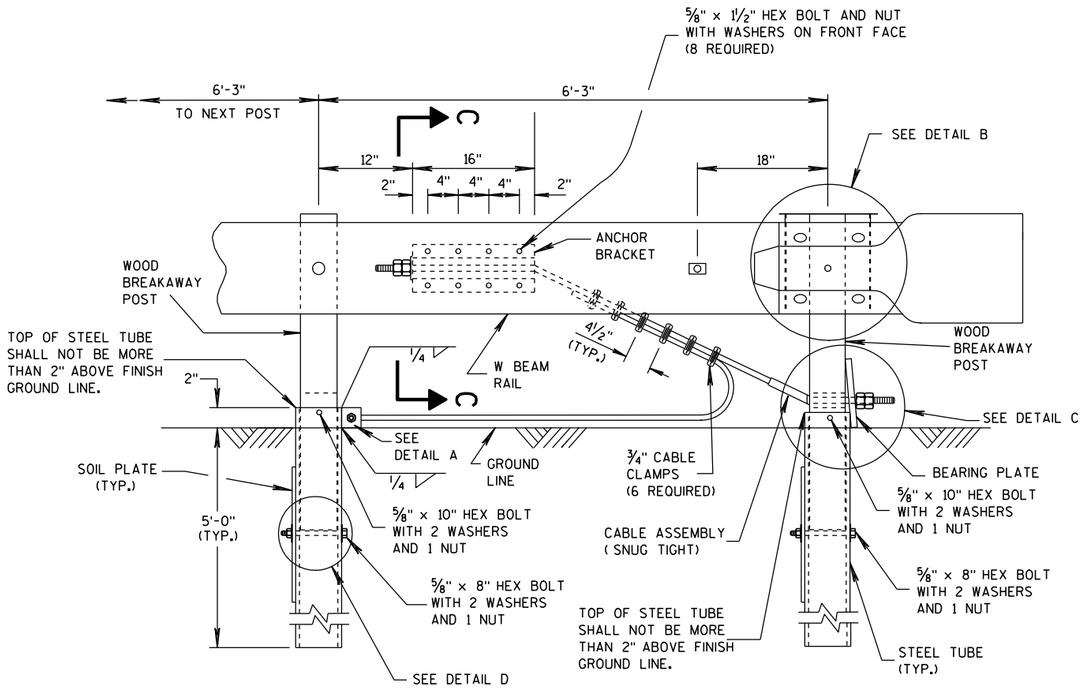
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



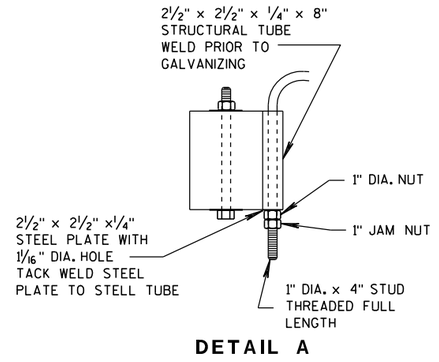
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

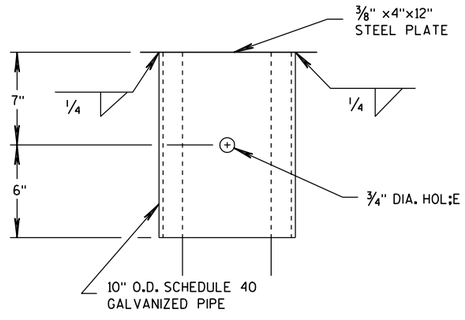
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

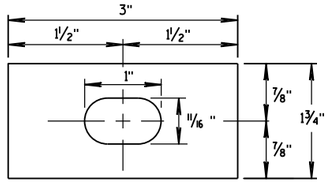
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

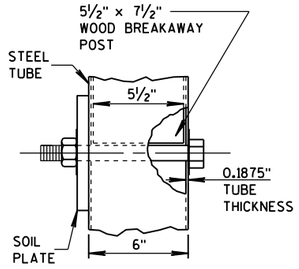
S.D.D. 14 B 27-1b

6

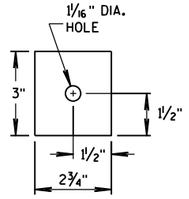
S.D.D. 14 B 27-1b



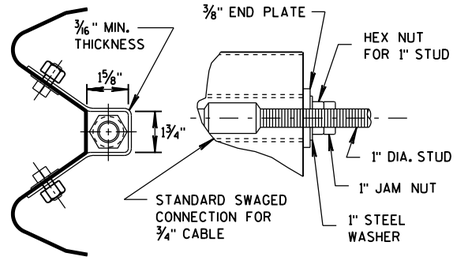
RECTANGULAR PLATE WASHER



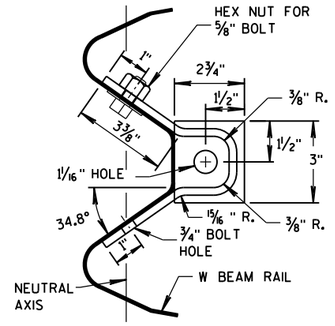
DETAIL D



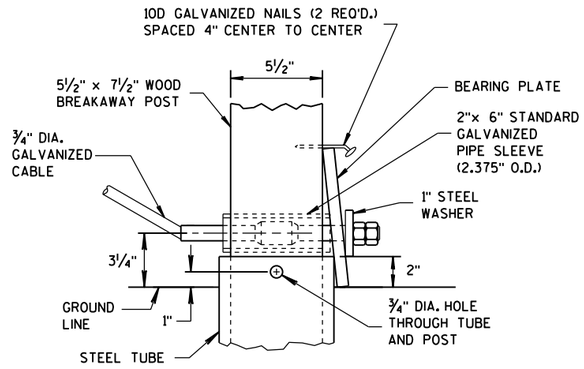
END PLATE



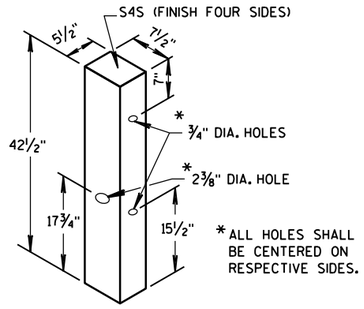
SECTION C-C
(END PLATE REMOVED)



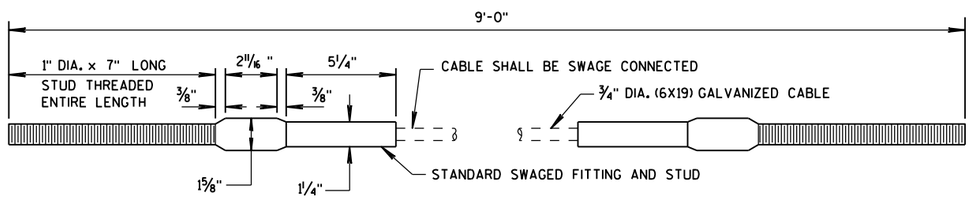
ANCHOR BRACKET



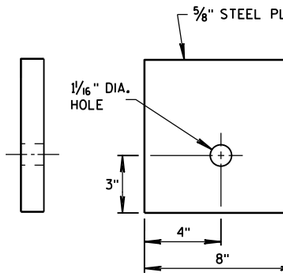
DETAIL C



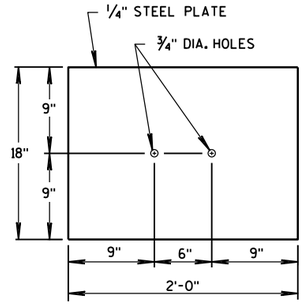
WOOD BREAKAWAY POST



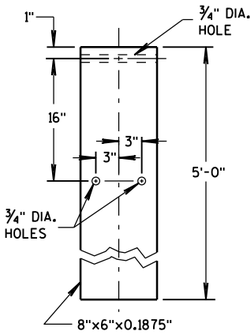
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

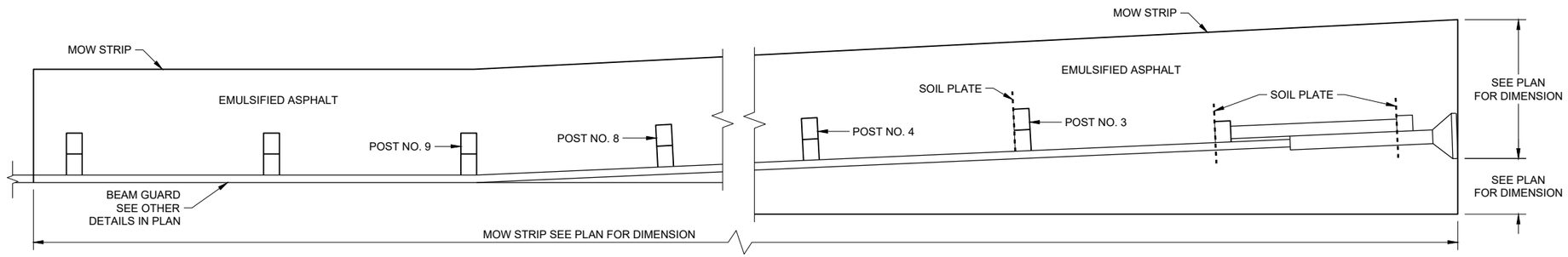
APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

6

S.D.D. 14 B 27-1c



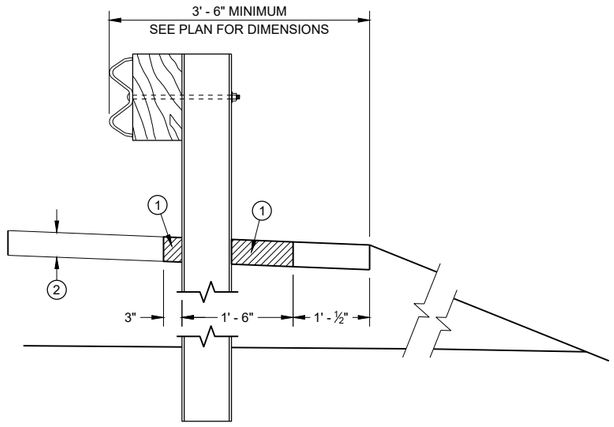
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

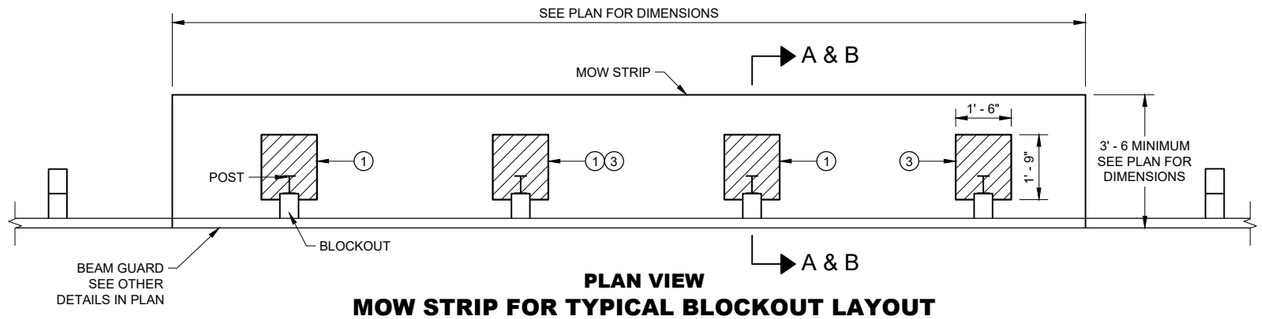
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

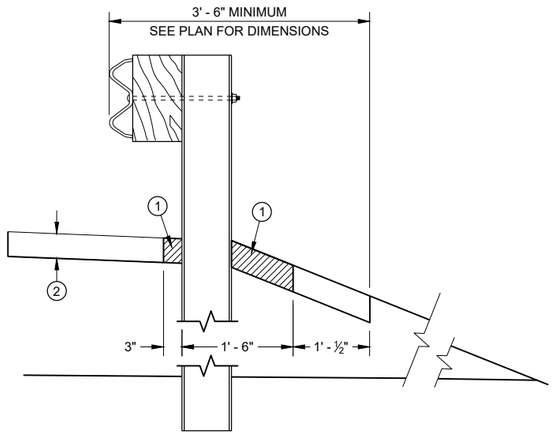


SECTION A - A

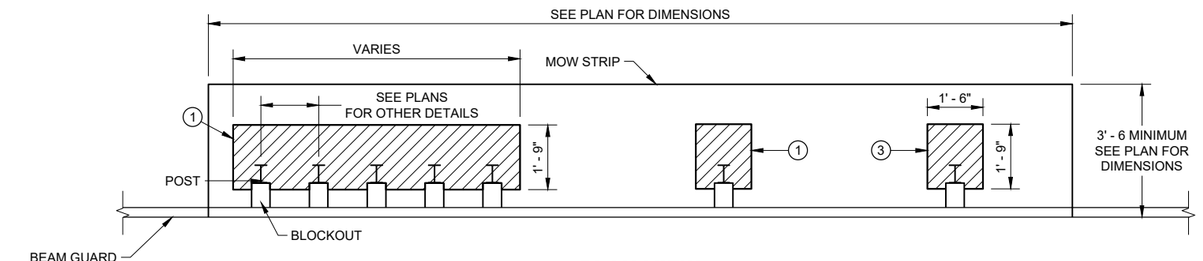


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

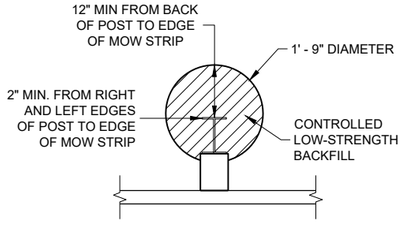


SECTION B - B

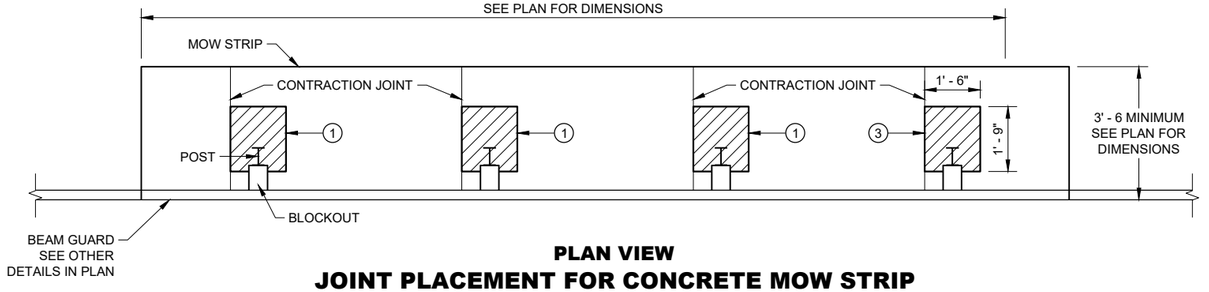


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B28 - 04a

SDD 14B28 - 04a

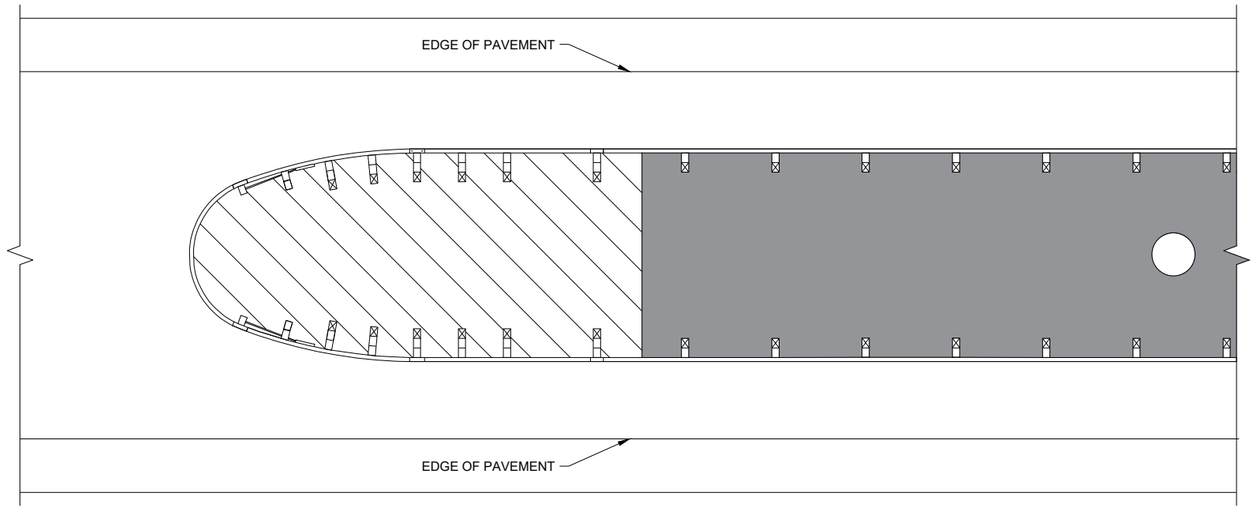
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

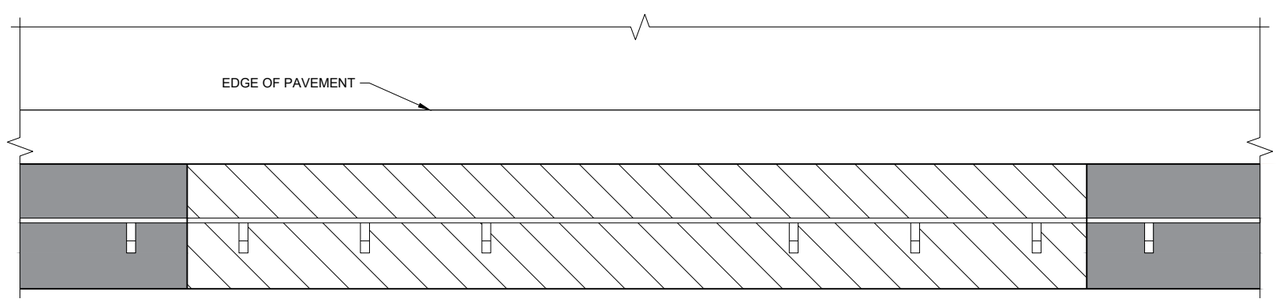
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

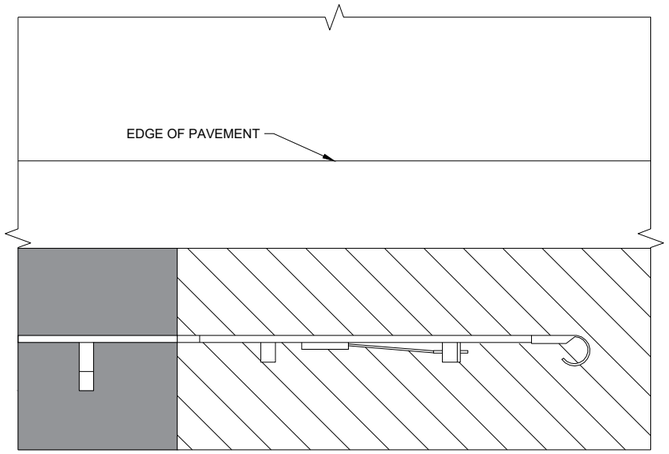
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



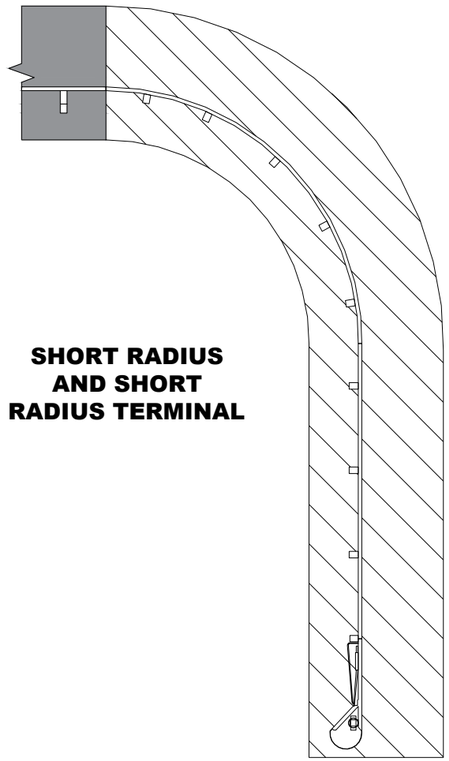
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

6

SDD 14B28 - 04b

6

SDD 14B28 - 04b

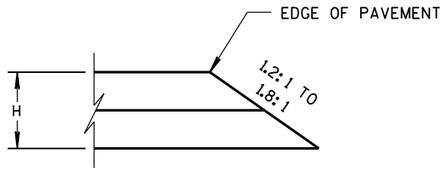
GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

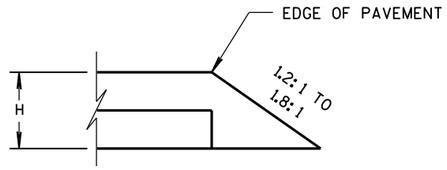
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

FHWA



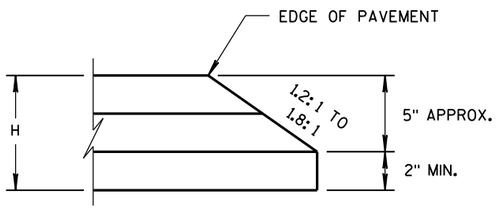
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



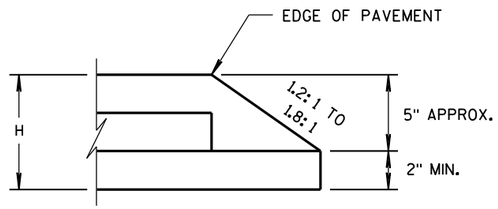
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

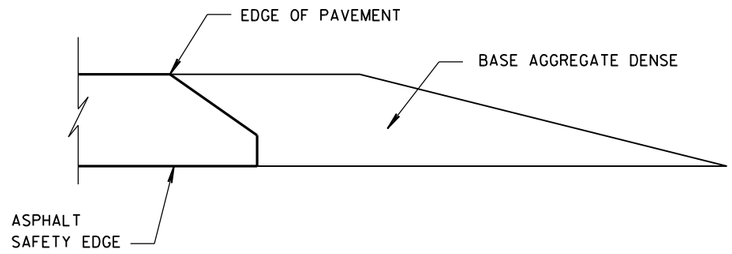
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

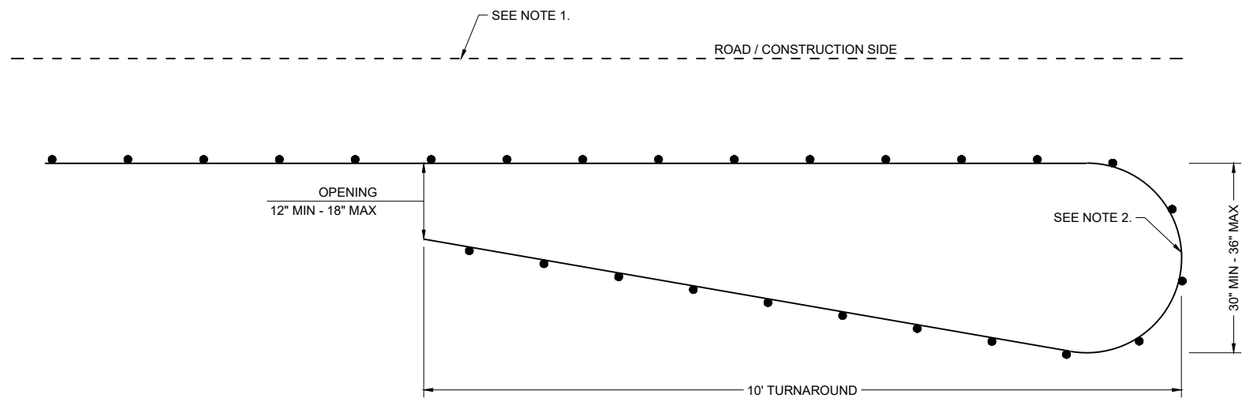
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES:

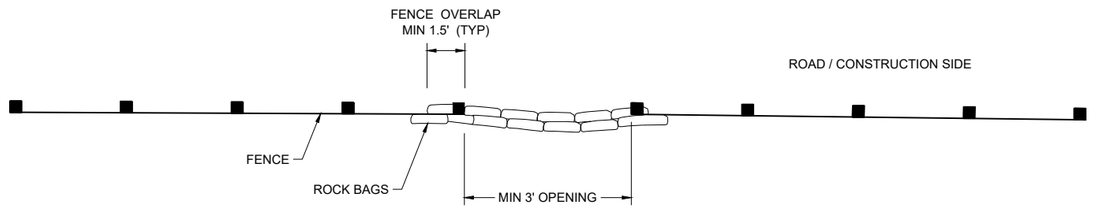
1. WHERE SILT FENCE IS REQUIRED, IT SHALL BE PLACED ON THE CONSTRUCTION SIDE OF THE EXCLUSION FENCING, OR COMBINED WITH THE EXCLUSION FENCING AS ALLOWED IN THE SPECIFICATIONS. STAKES ON THIS DETAIL ARE OPPOSITE OF STANDARD SILT FENCE FOR SEDIMENT CONTROL.
2. PLACE TURNAROUNDS AT ALL TERMINI ENDS OF THE EXCLUSION FENCING.
3. IF TEMPORARY ACCESS POINTS ARE NEEDED DURING CONSTRUCTION THAT REQUIRE OPENINGS IN THE EXCLUSION FENCING, ACCESS OPENINGS SHOULD BE TIGHTLY SECURED WITH BALES OF HAY OR STRAW WHENEVER CONSTRUCTION RELATED ACTIVITIES ARE NOT OCCURRING. REINSTALL EXCLUSION FENCING WHEN THE WORK REQUIRING THE TEMPORARY ACCESS OPENING IS COMPLETED.
4. THE FENCE CAP MAY BE A 6" UNDER DRAIN PIPE, SLIT DOWN THE CENTER AND PLACED OVER THE FENCE. COMMERCIALLY AVAILABLE SAFETY CAPS WITH A LIP MAY BE USED. OTHER DNR APPROVED METHODS TO PREVENT TURTLES FROM PASSING OVER THE TOP OF THE FENCE MAY BE USED.

   SECURELY FASTEN THE CAP TO PREVENT IT FROM BEING DISLODGED.

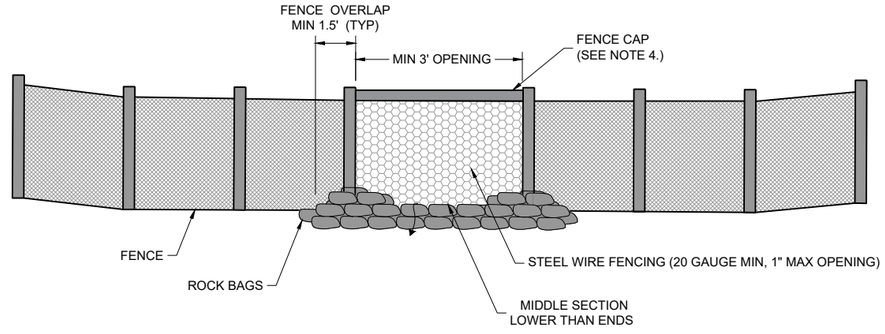


PLAN VIEW

CLIMBING TURTLE EXCLUSION FENCE DETAIL



PLAN VIEW



FRONT VIEW

CLIMBING TURTLE FENCE RELIEF DETAIL

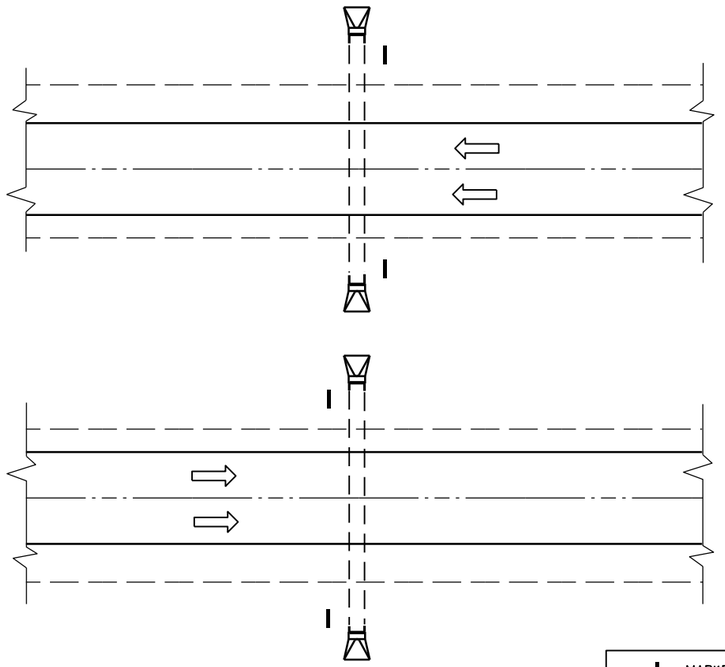
TURTLE EXCLUSION FENCE
CLIMBING TURTLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2025
DATE

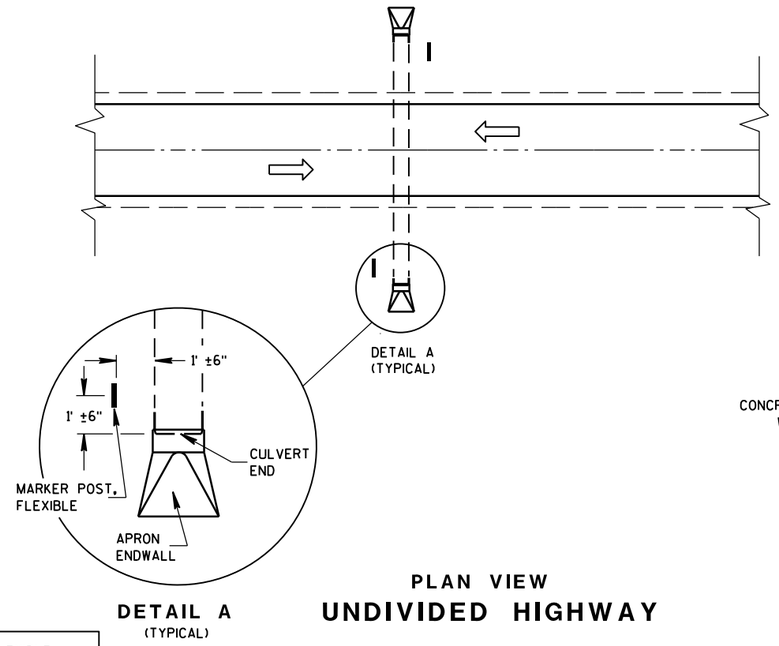
/S/ ALYSSA BARRETTE
CHIEF STATEWIDE ENVIRONMENTAL SERVICES
BUREAU OF TECHNICAL SER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

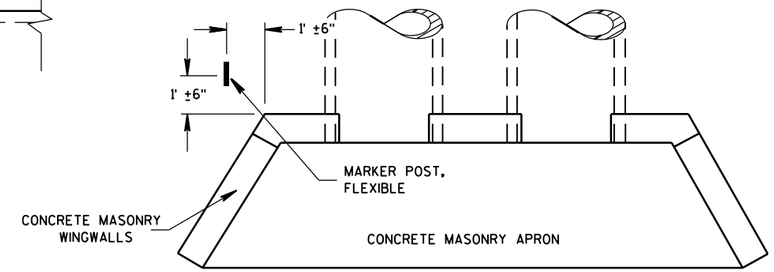
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

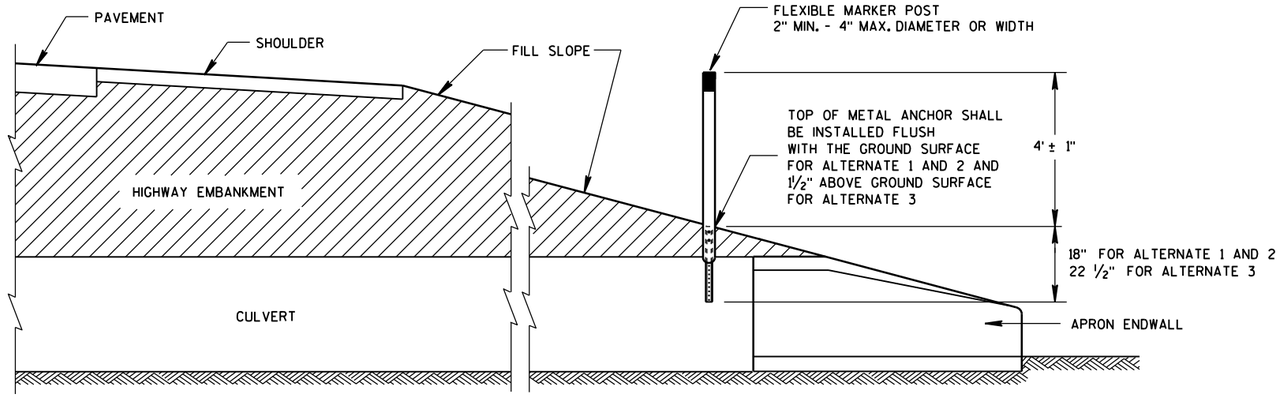
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

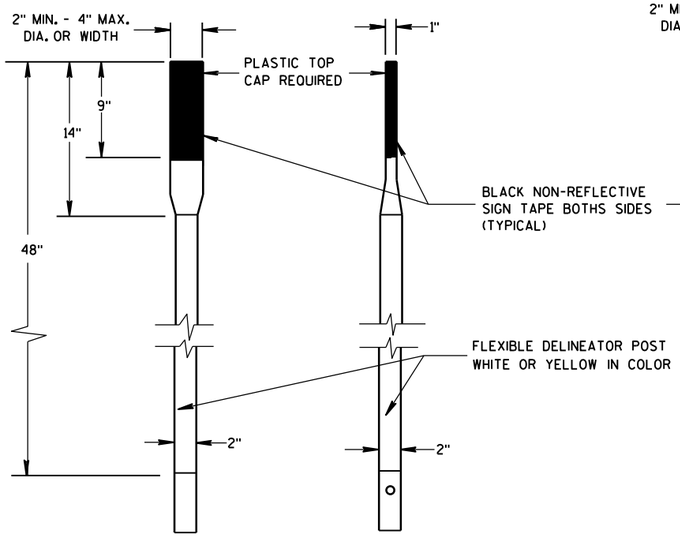
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

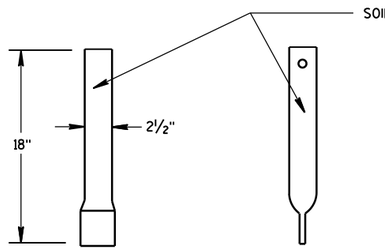
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S.D.D. 15 A 3-2a

6

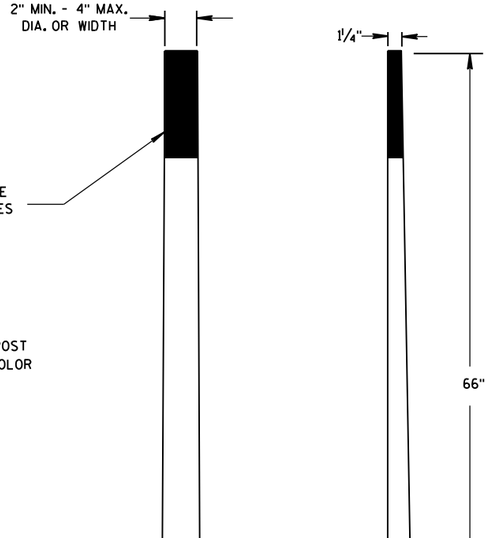
S.D.D. 15 A 3-2a





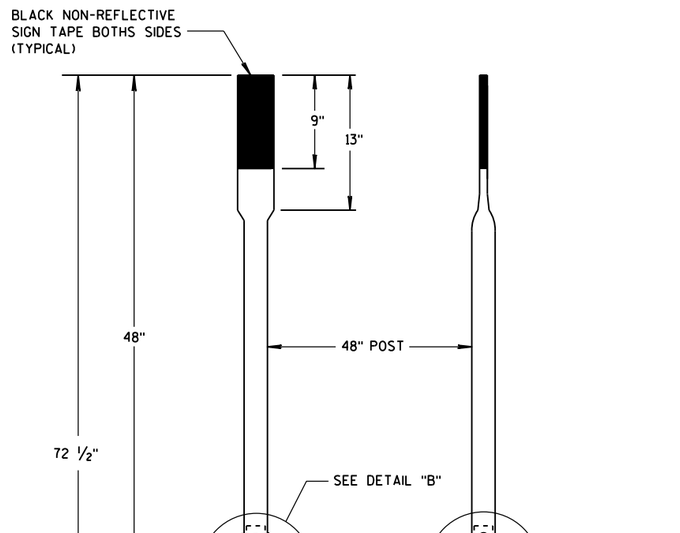
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

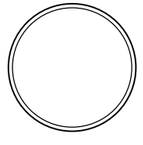
ALTERNATE 2



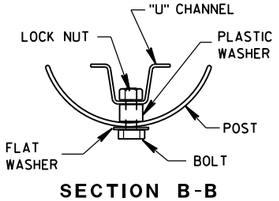
FRONT VIEW SIDE VIEW

ALTERNATE 3

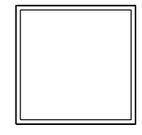
FLEXIBLE MARKER POSTS



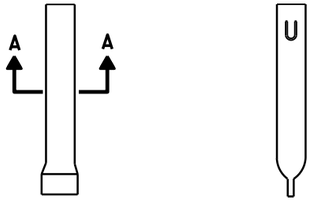
SECTION A-A



SECTION B-B

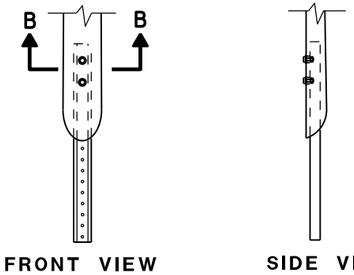


SECTION C-C



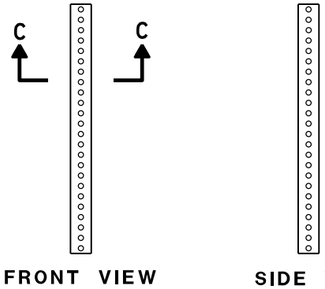
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

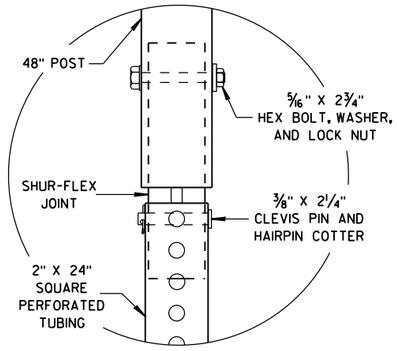
ALTERNATE 2



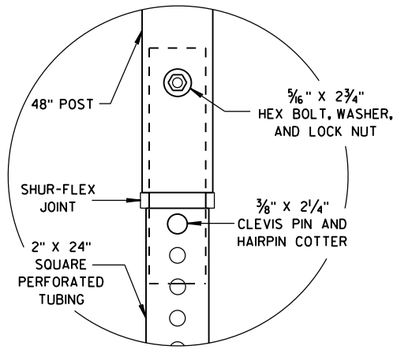
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

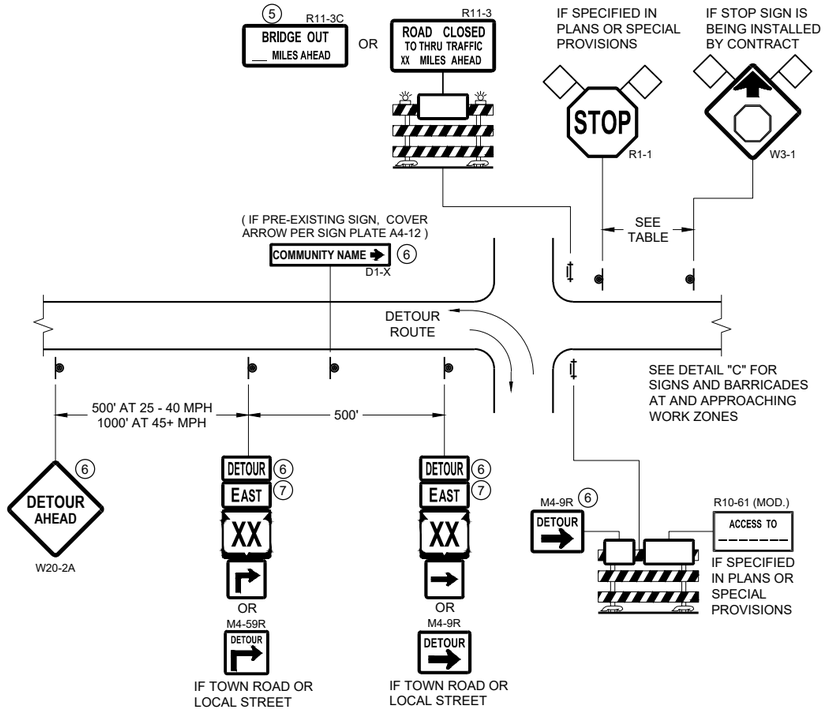
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

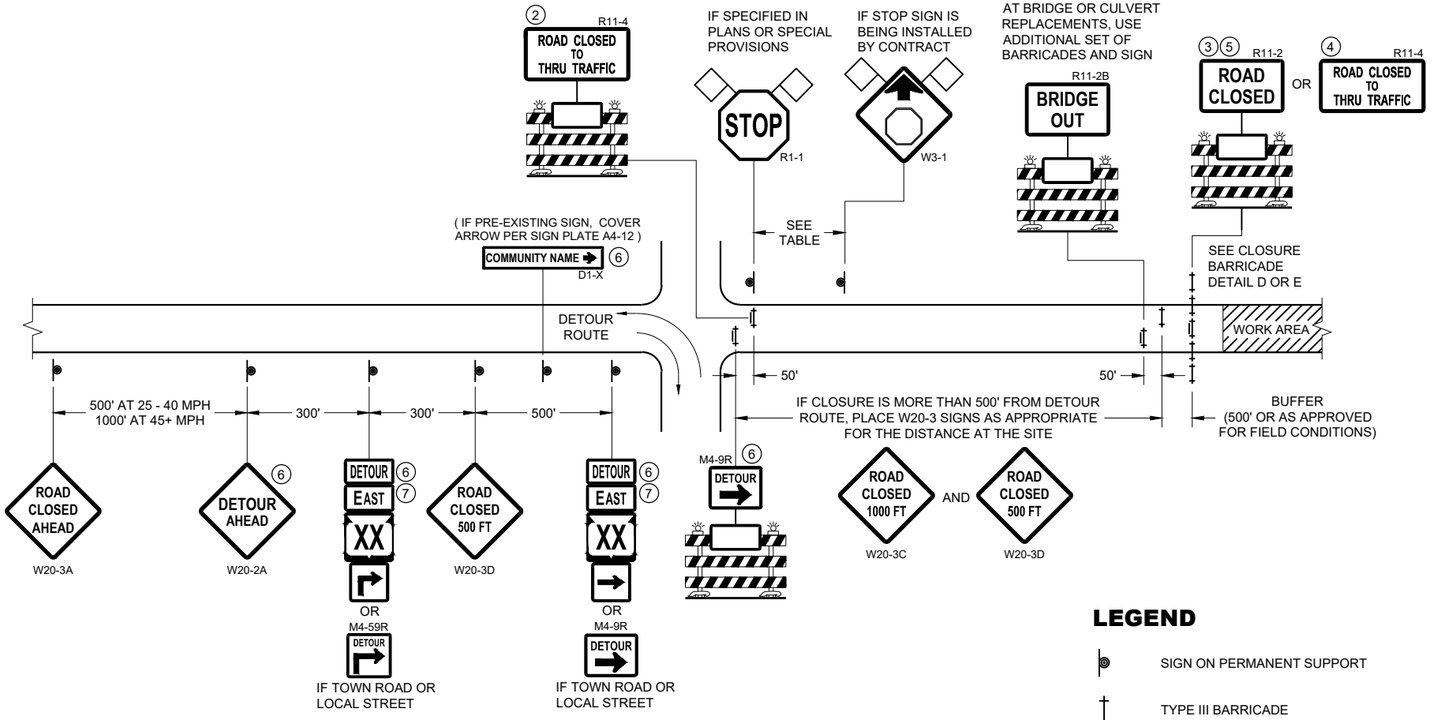
6

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



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

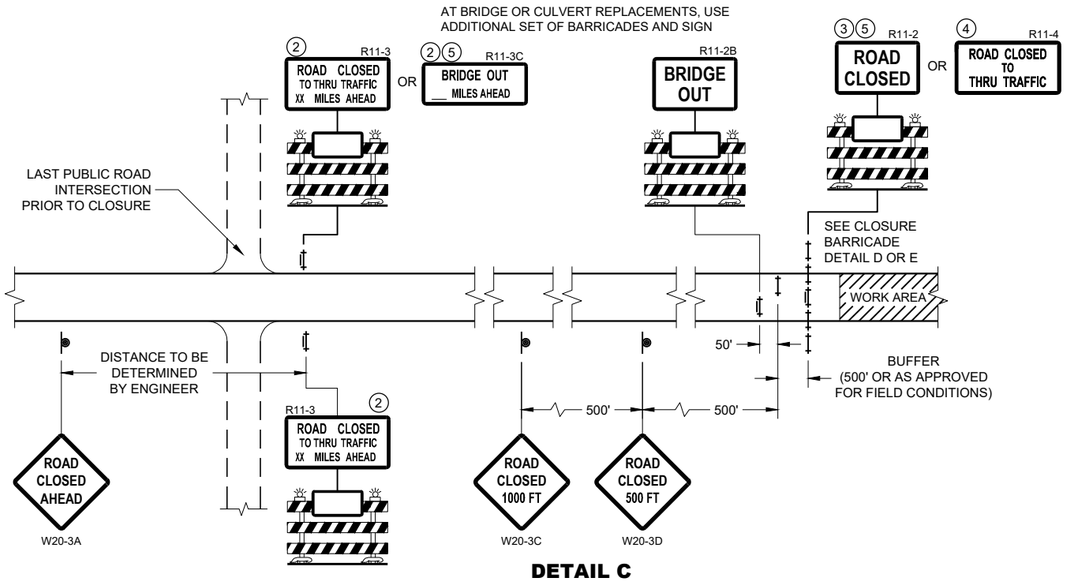
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8

EAST M3 - X

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

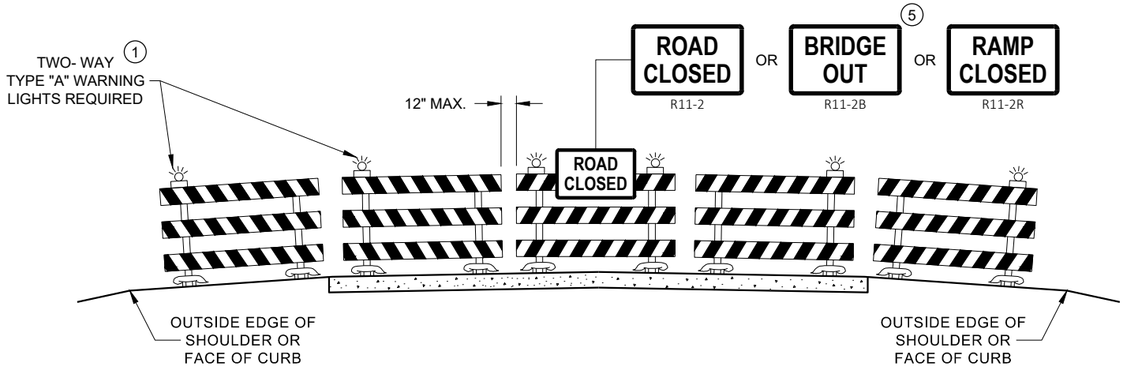
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

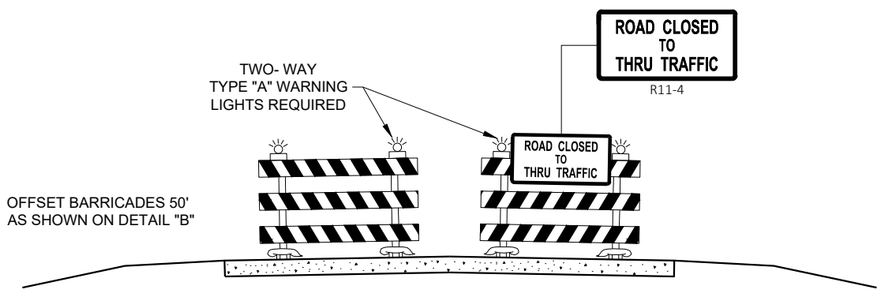
6

SDD 15C02 - 09a

SDD 15C02 - 09a



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
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- XX — M1 - 6
- COUNTY / X — 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 M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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

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

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

500'

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

M4-8a END DETOUR WEST *

DETOUR ROUTE

WORK AREA

DETOUR NEXT X MILES *
G20-51

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

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

MATCH POINT

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

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

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

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

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

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

500'

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

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

DETOUR ROUTE

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

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

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

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

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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

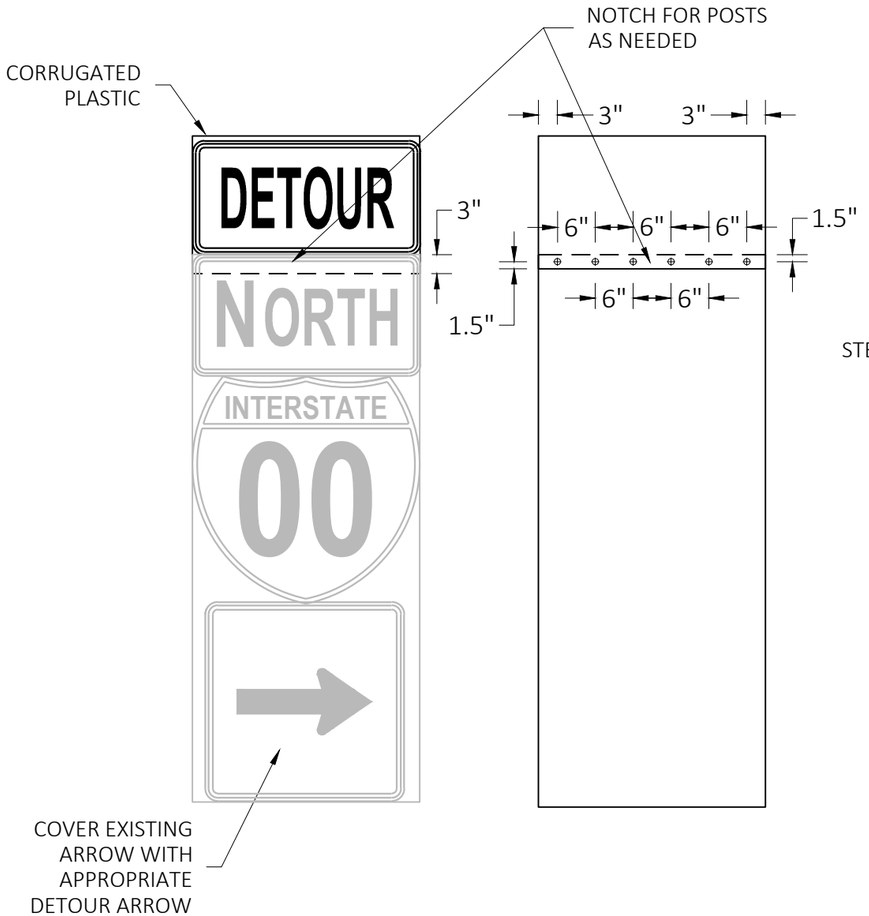
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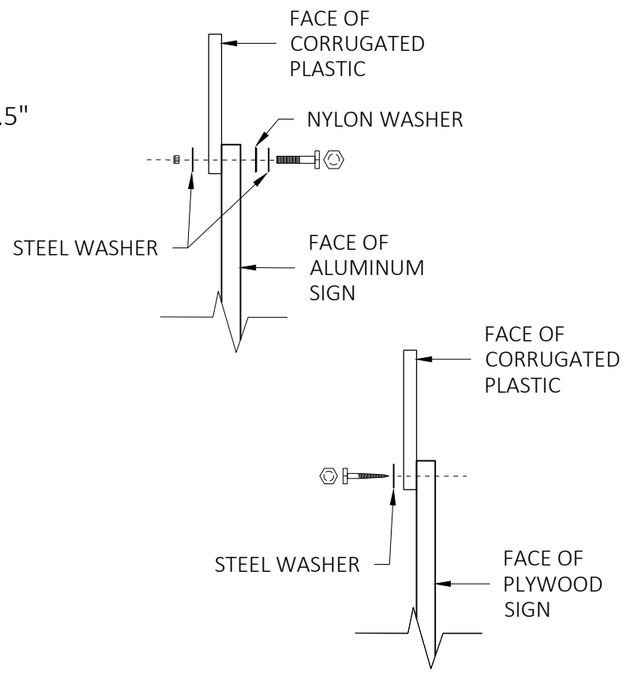
SDD 15C02 - 09c

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

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

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC3

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

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
1-1/4" O.D. x 3/8" I.D. x .080 NYLON

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

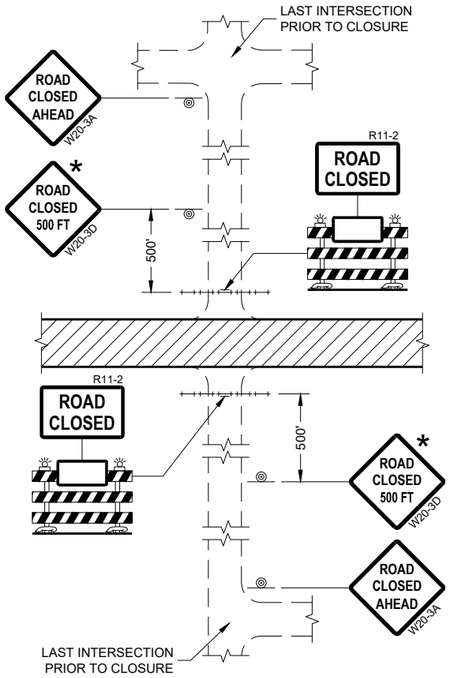
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

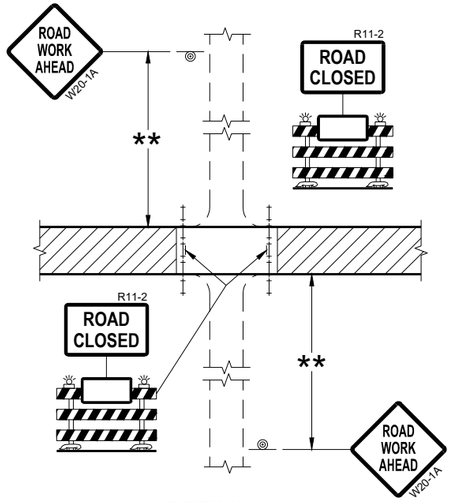
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6
SDD 15C02-09h



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

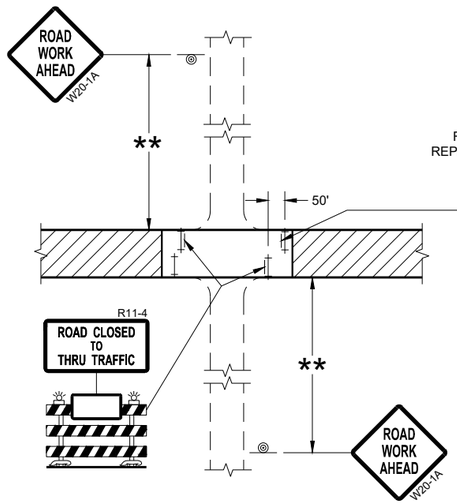
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

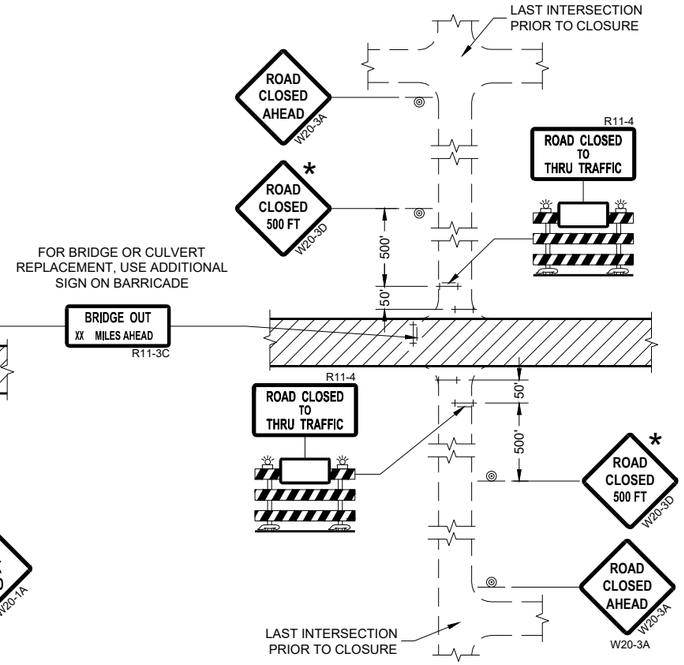
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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



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



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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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

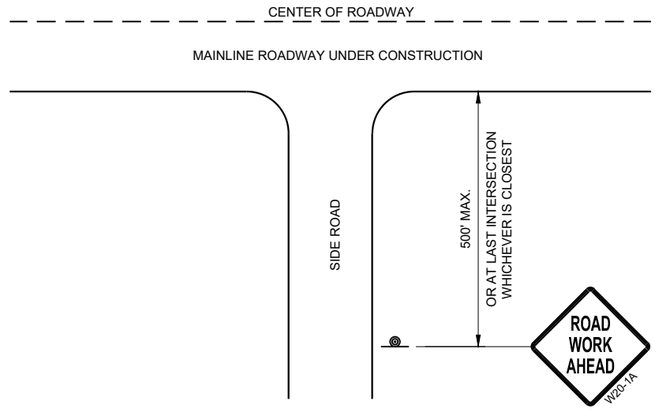
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

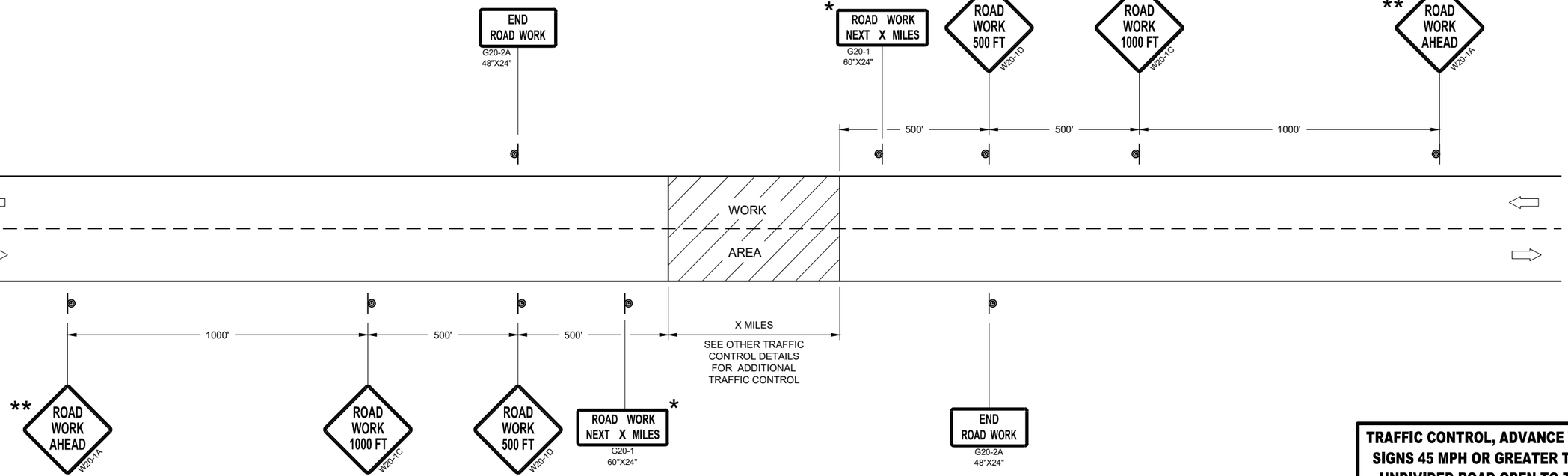
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

GENERAL NOTES

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.

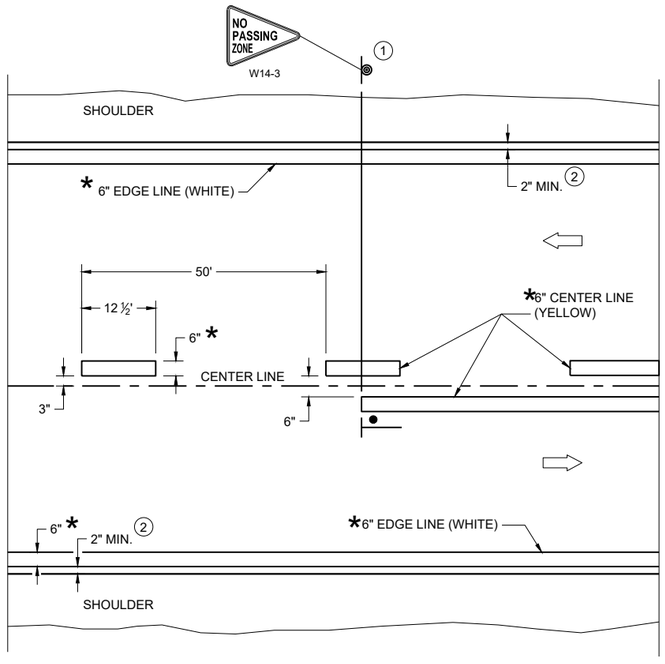
LEGEND

"T" MARKING

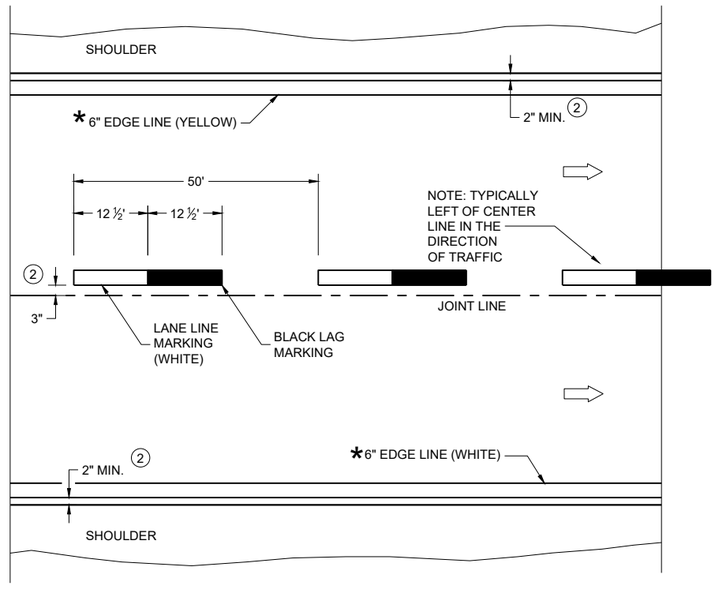
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

SDD 15C08-24a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

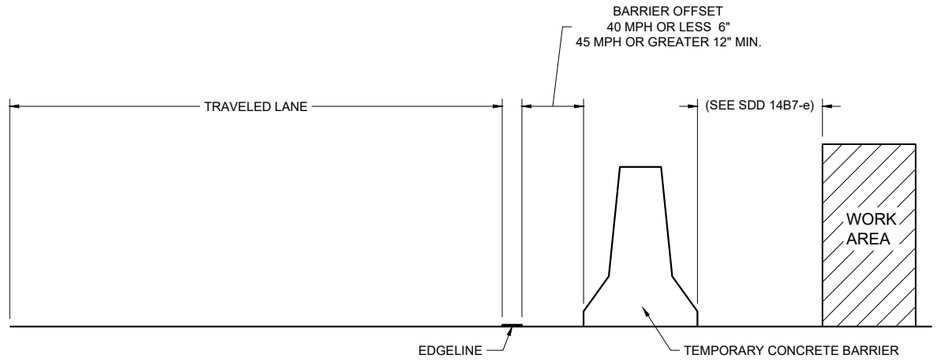
APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6

SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

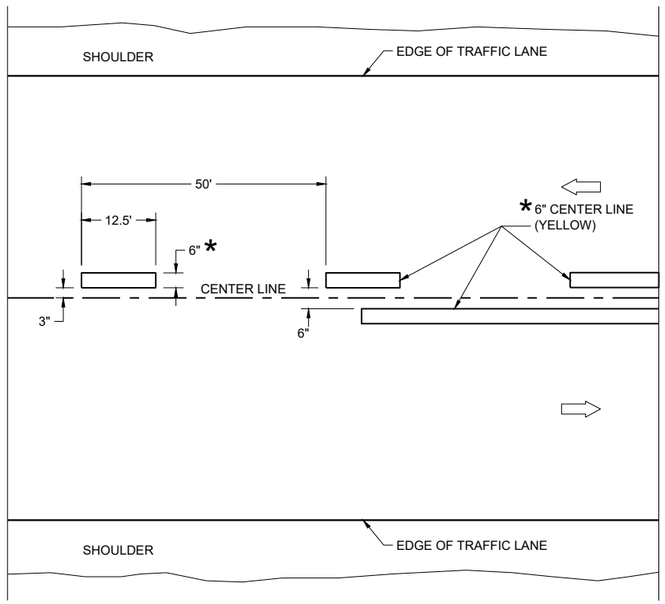
GENERAL NOTES

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

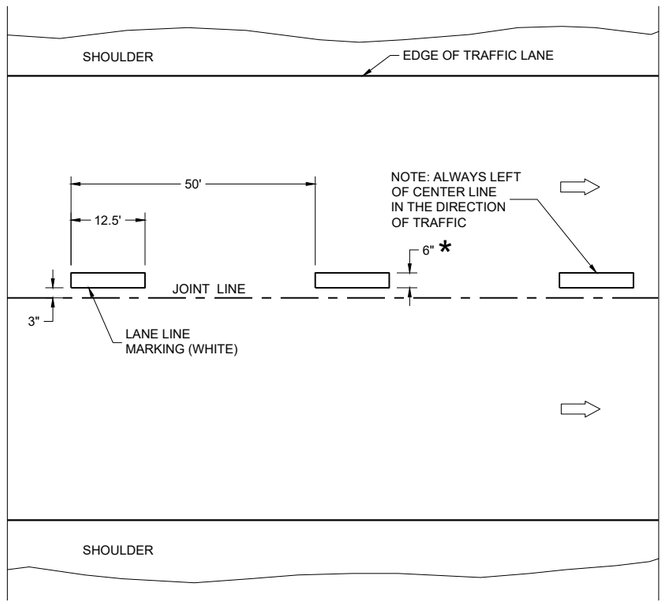
LEGEND

DIRECTION OF TRAFFIC

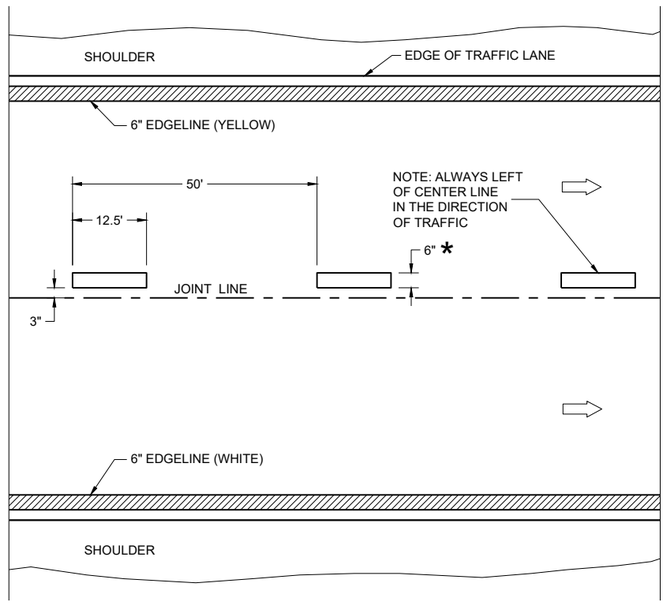
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

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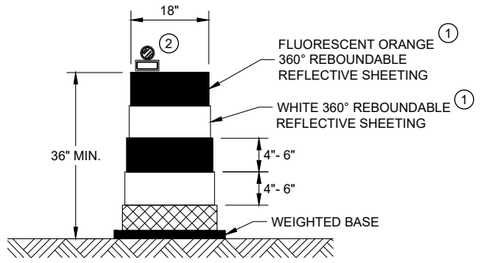
SDD 15C08-24b

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SDD 15C08-24b

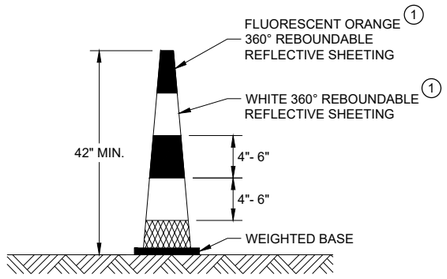
GENERAL NOTES

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



DRUM

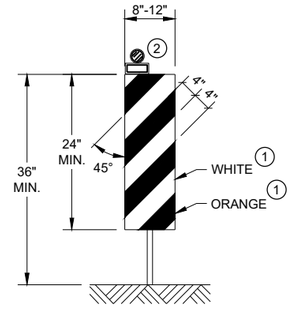
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

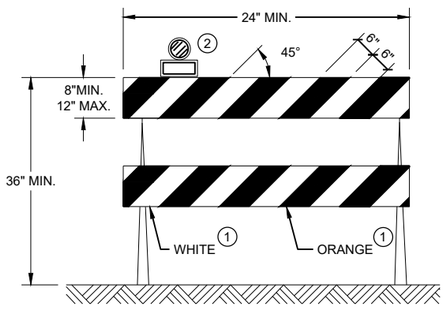
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



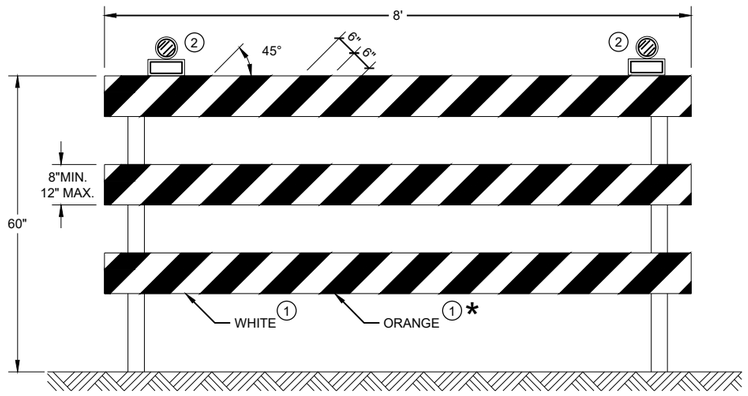
VERTICAL PANEL

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



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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C11 - 10b
SDD 15C11 - 10b

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.

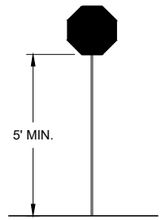
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

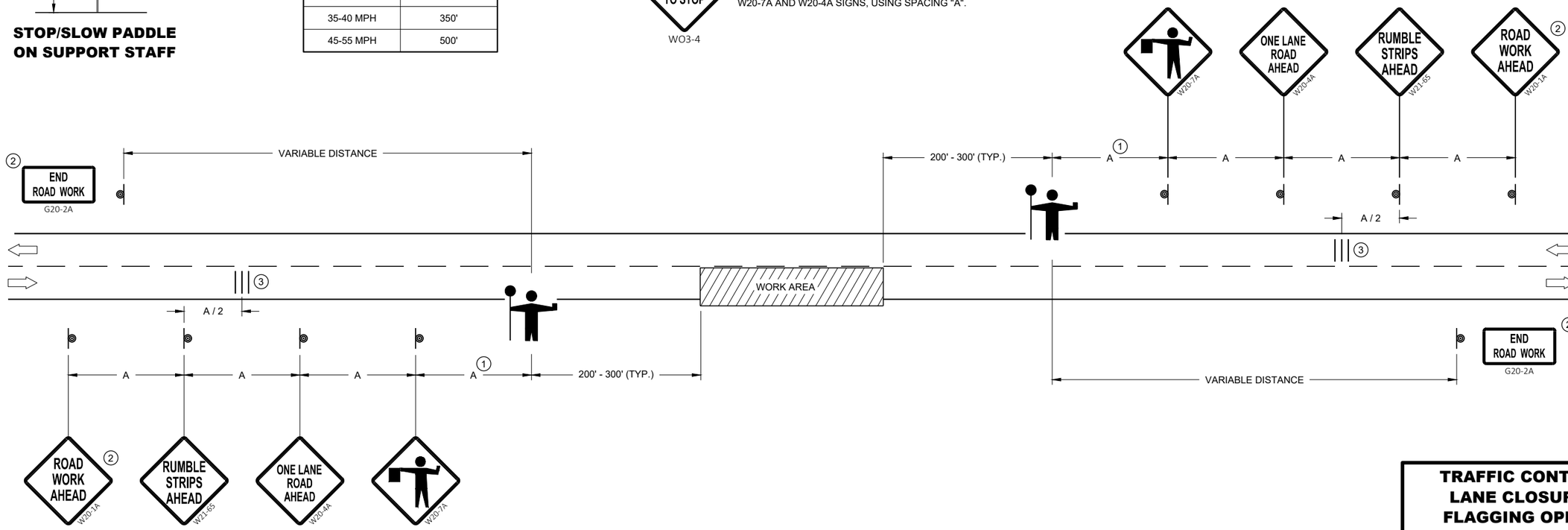
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C12 - 09a

SDD 15C12 - 09a

GENERAL NOTES

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL CONE 42-INCH

TRAFFIC CONTROL DRUM

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

AFAD — 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

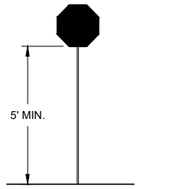
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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.

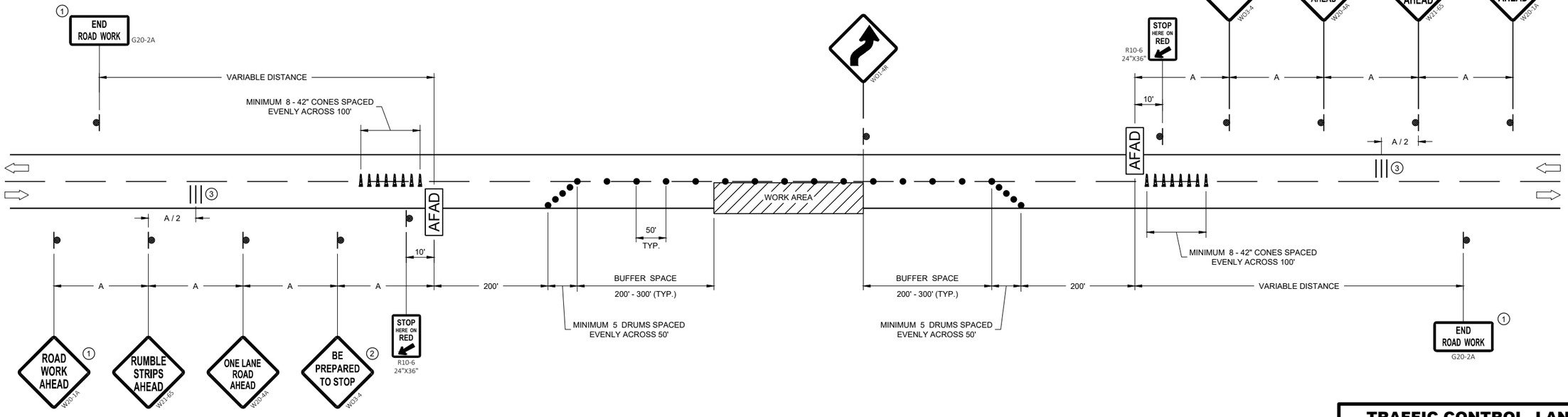
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



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'



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

FHWA

SDD 15C12 - 09b

SDD 15C12 - 09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

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

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

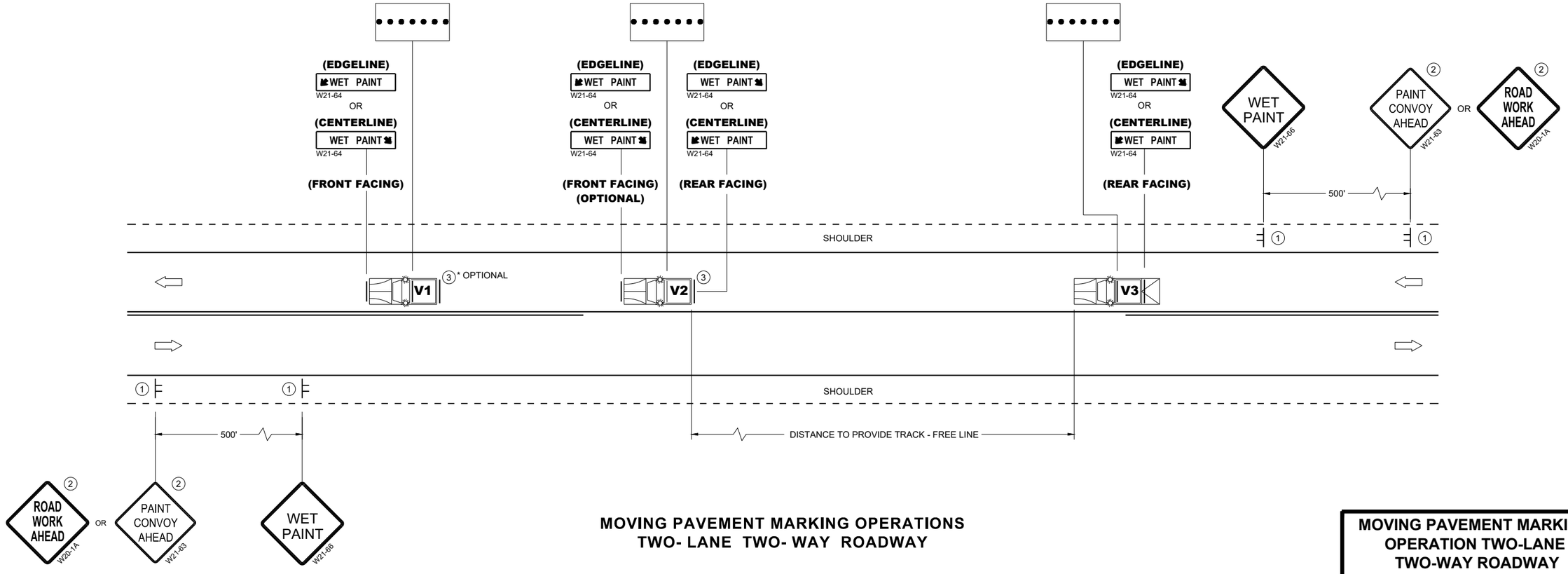
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(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.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — STATE ELECTRICAL ENGINEER

FHWA

6

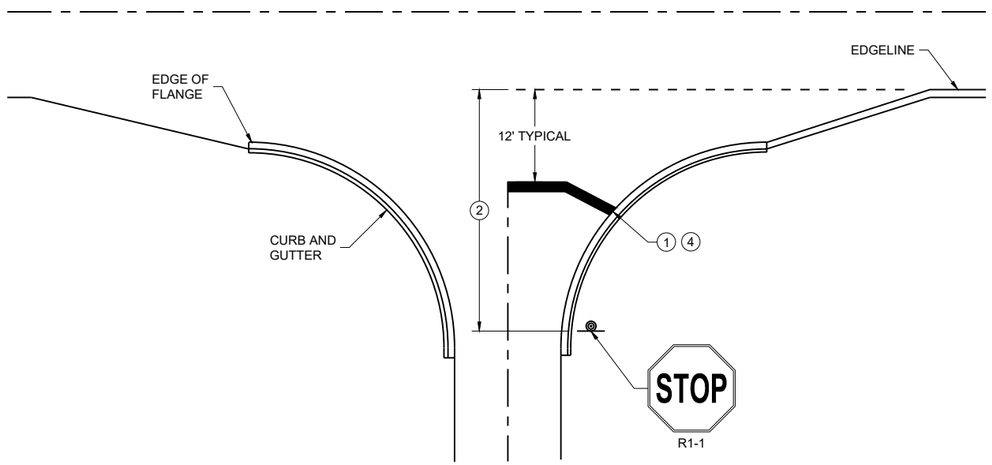
SDD 15C19-11a

SDD 15C19-11a

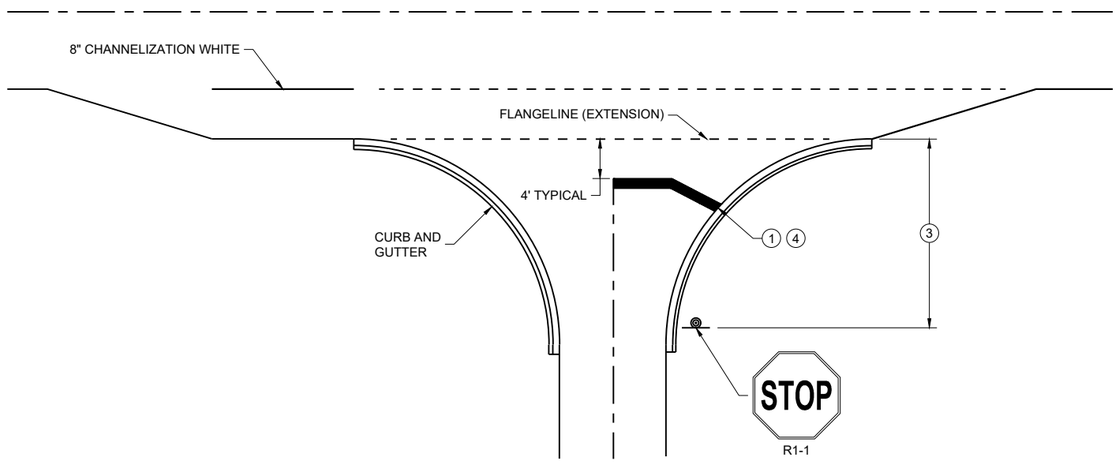
GENERAL NOTES

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

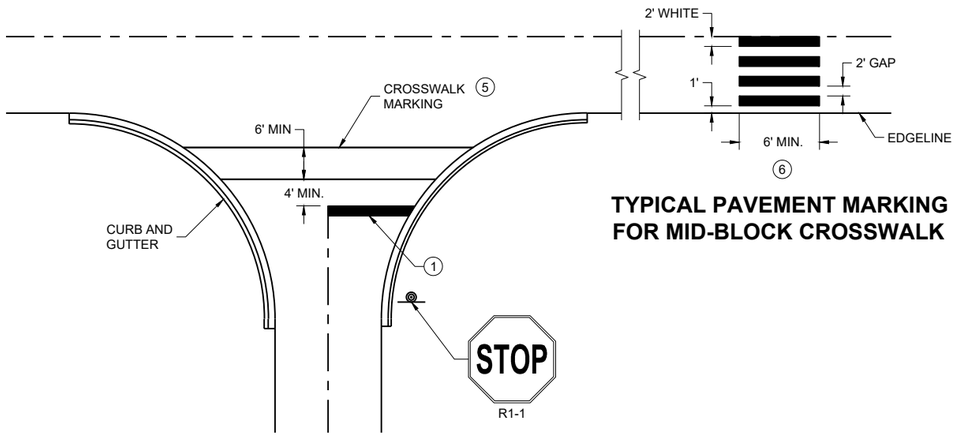
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

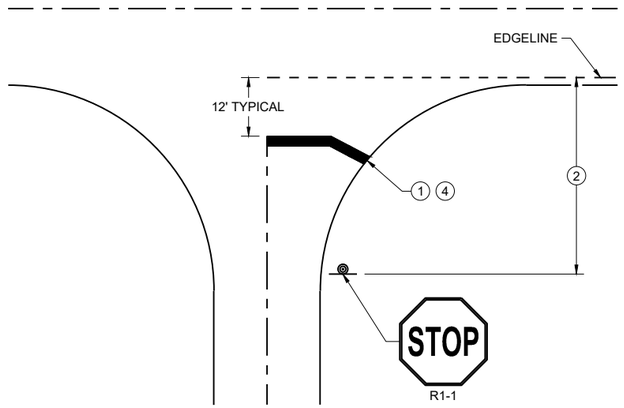


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

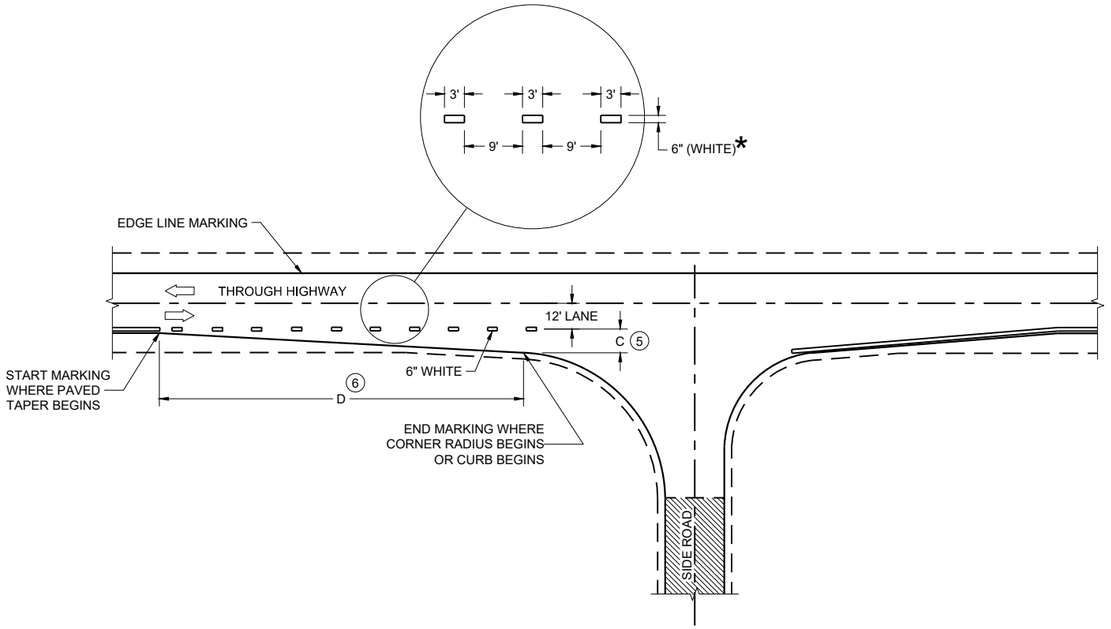
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

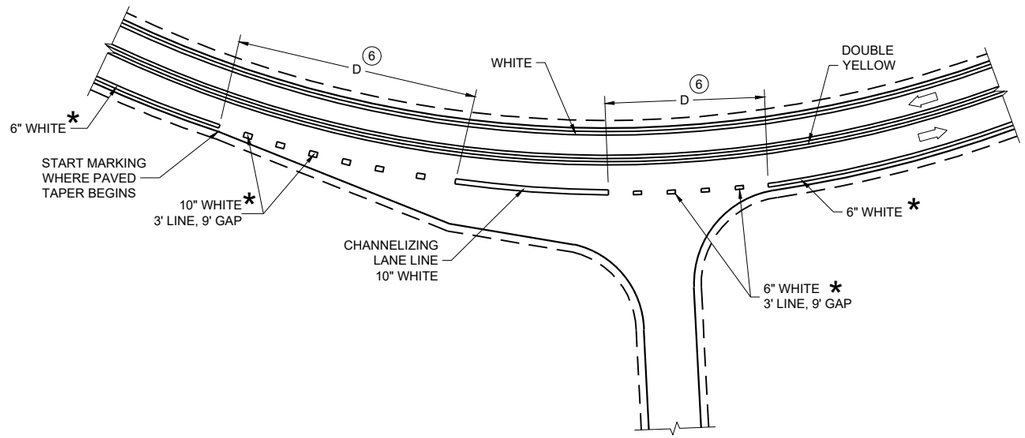
GENERAL NOTES

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

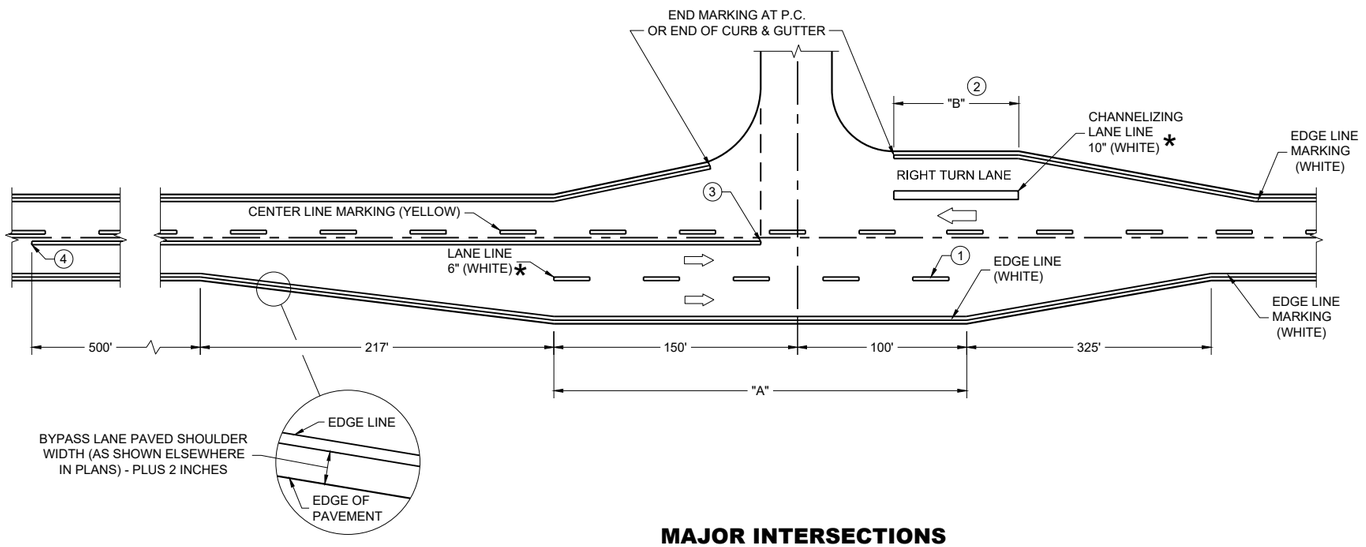
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

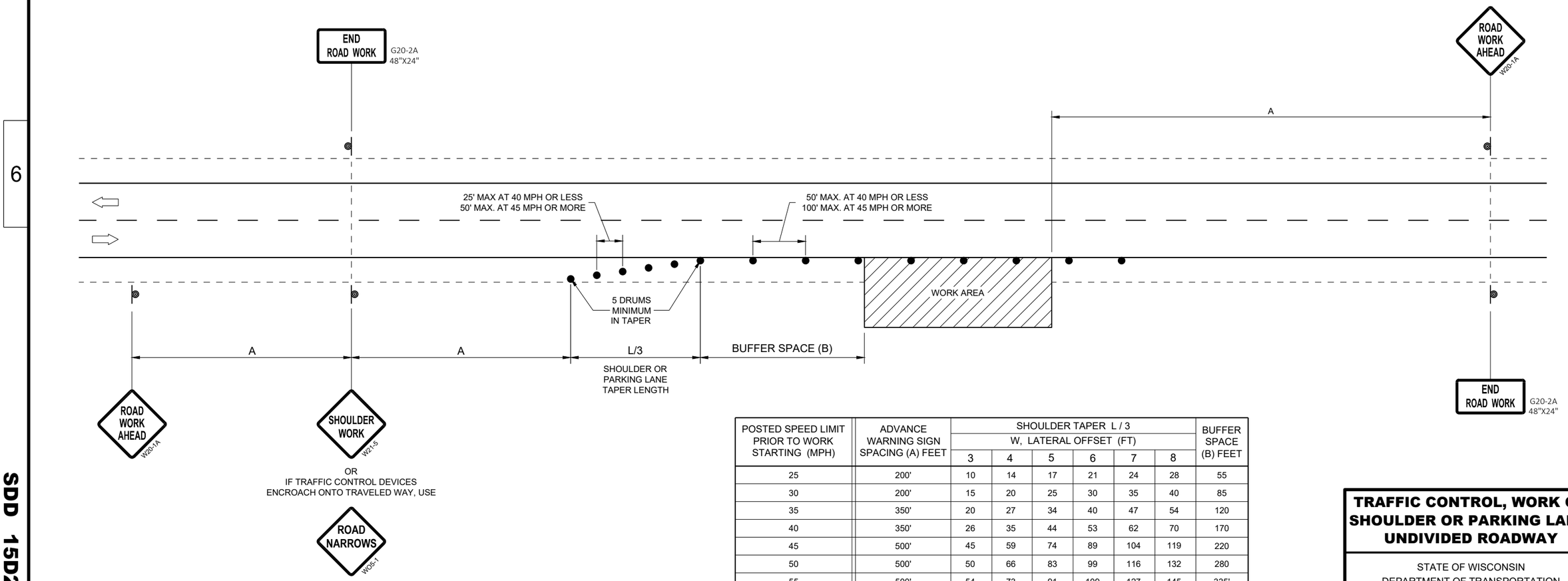
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

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



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

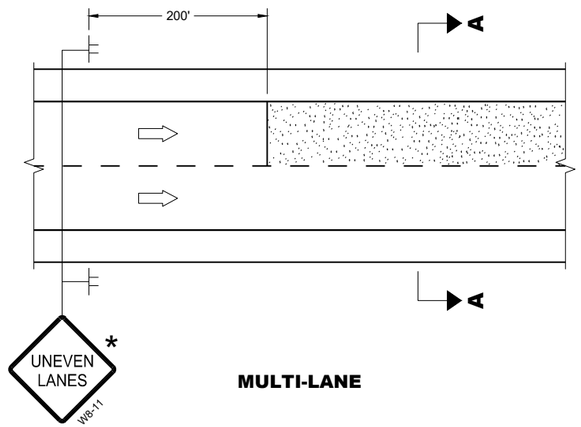
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

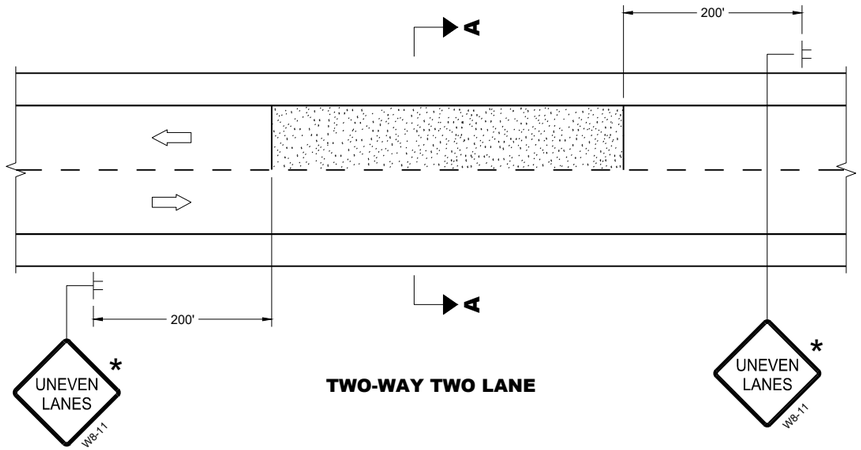
FHWA

SDD 15D28 - 04

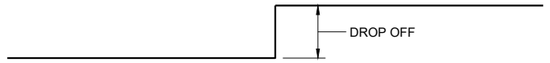
SDD 15D28 - 04



MULTI-LANE

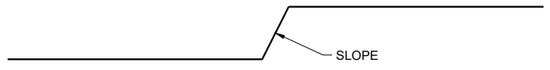


TWO-WAY TWO LANE

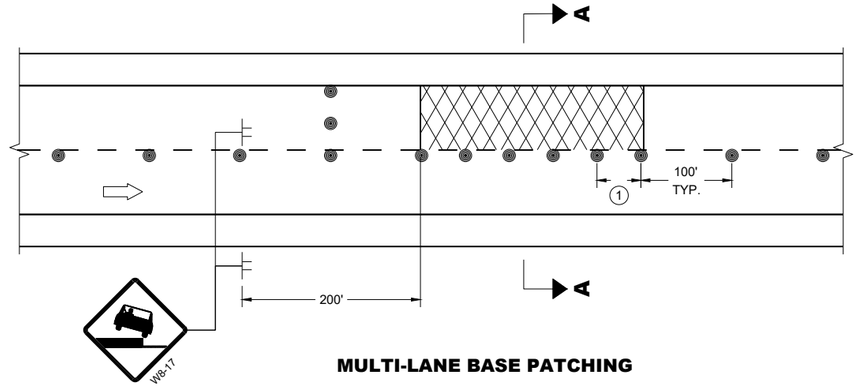


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

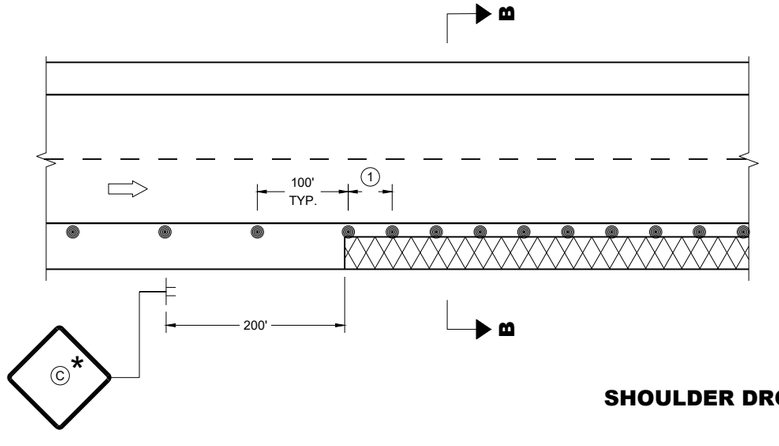
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

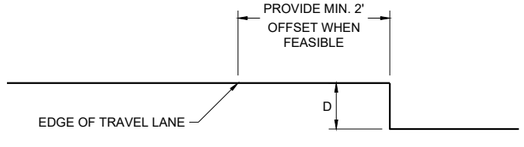
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6
SDD 15D39-03

GENERAL NOTES

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

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

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

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

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

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

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

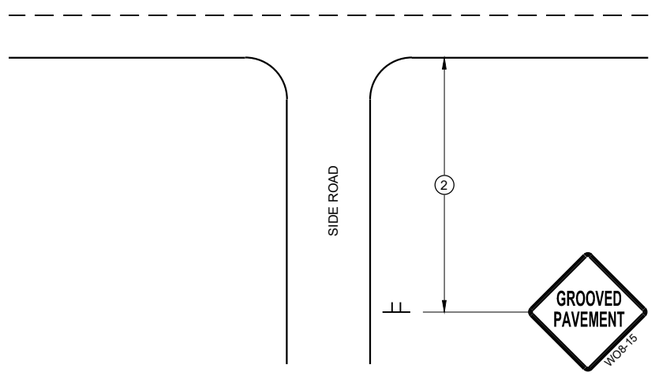
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

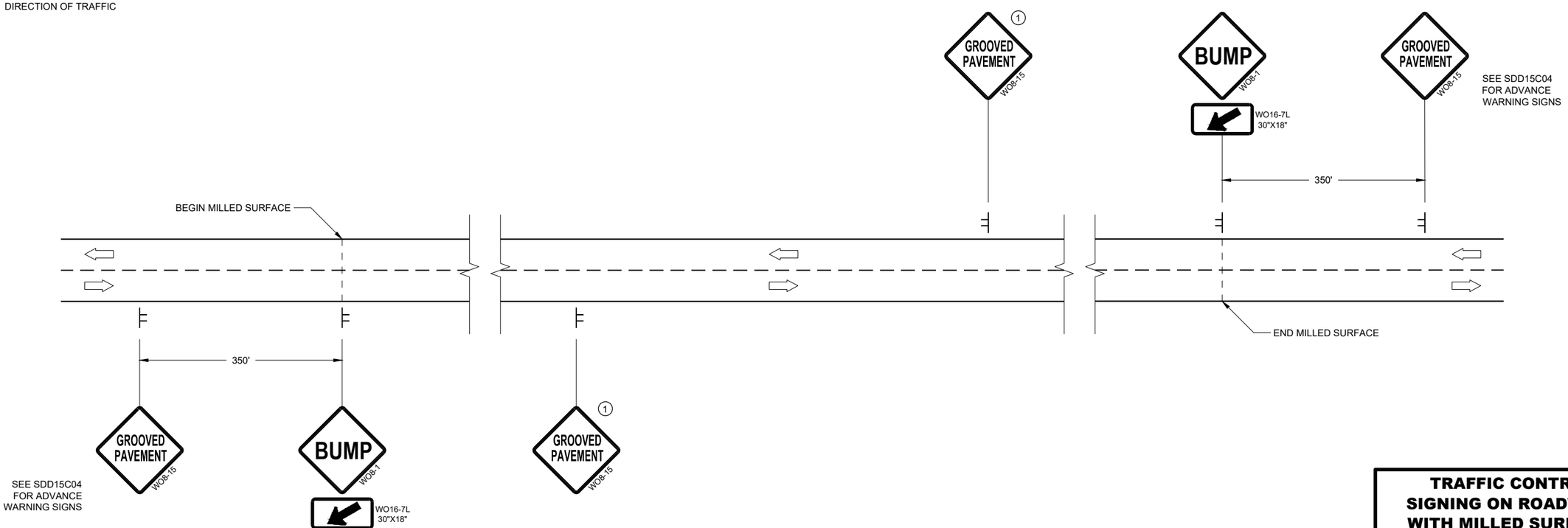
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D44 - 02

GENERAL NOTES

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

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

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

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

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

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

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

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

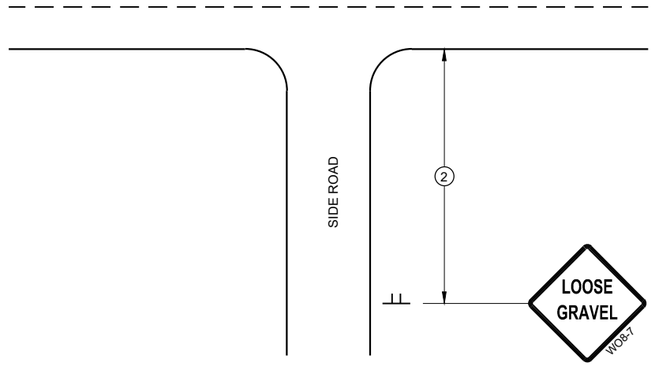
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

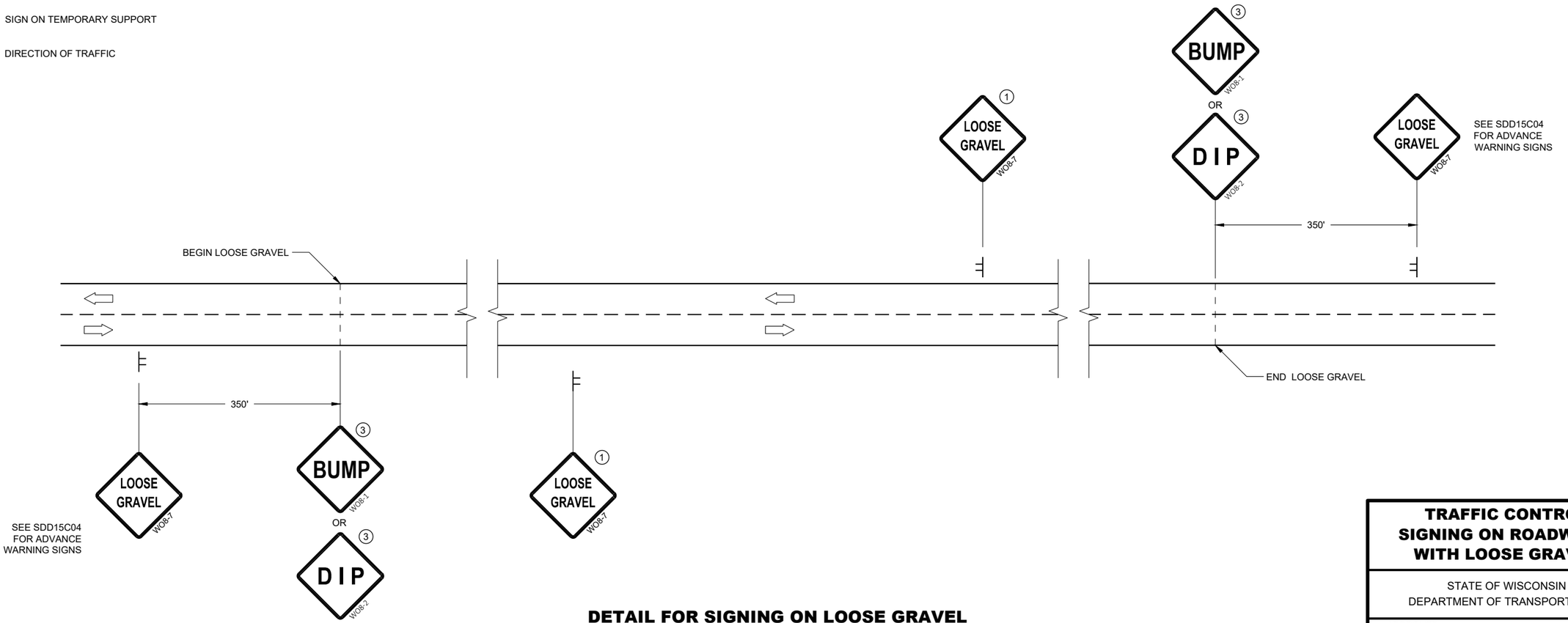
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D45 - 03

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

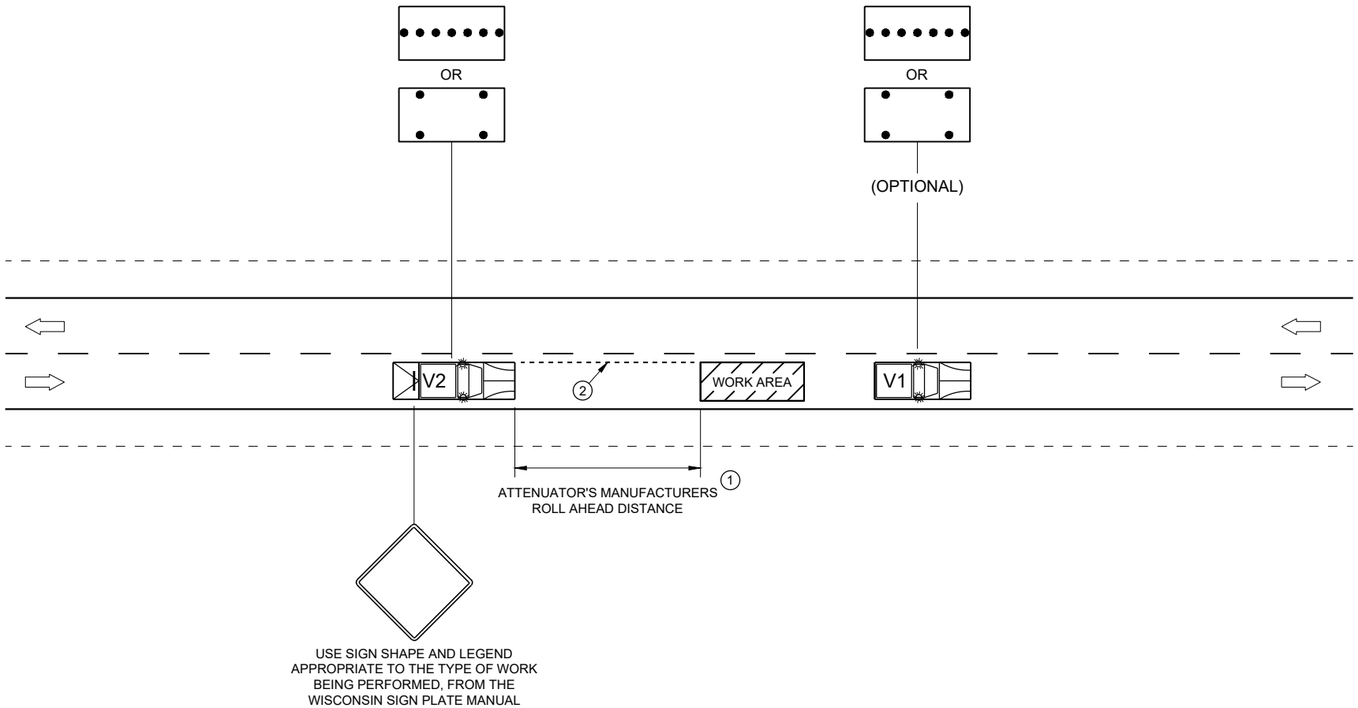
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



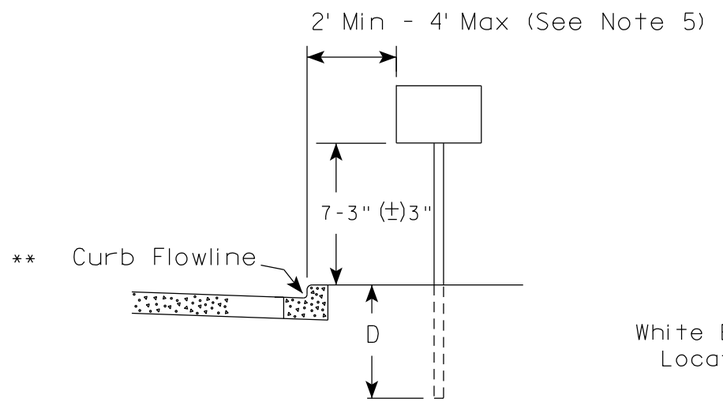
TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

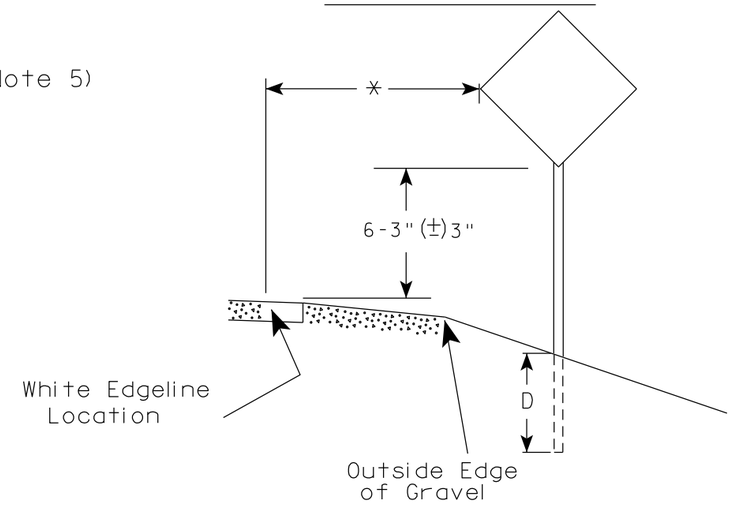
APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

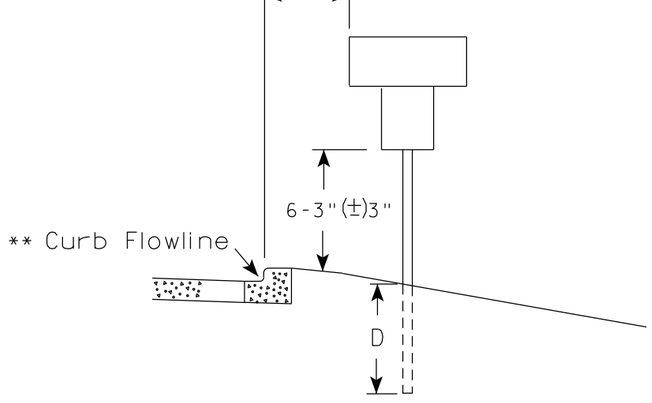
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SDD 15D51 - 01

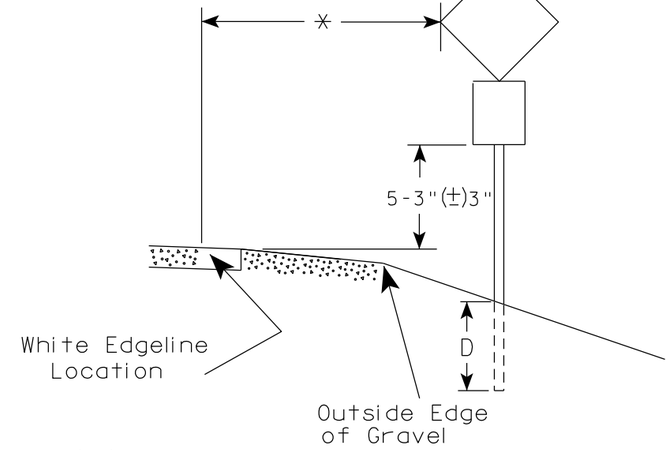
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

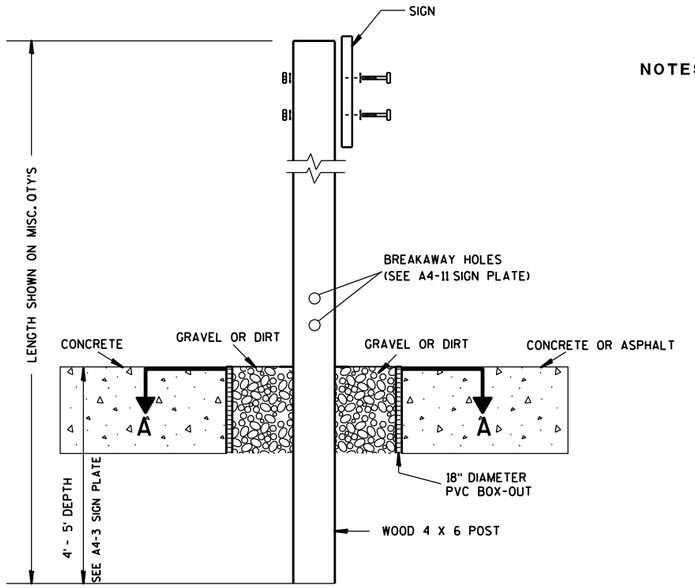
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

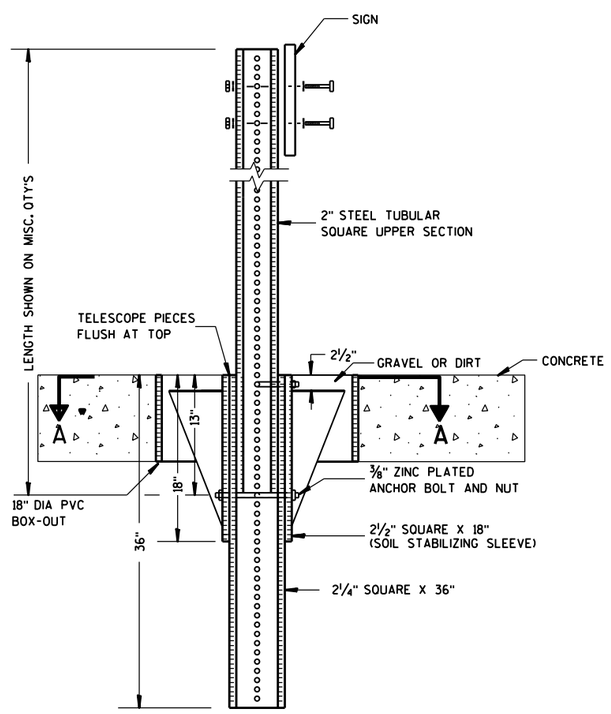
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 172	E



ELEVATION VIEW

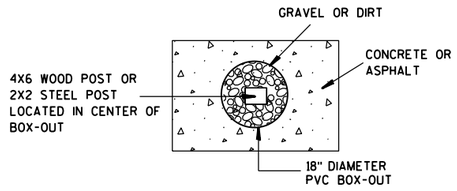
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

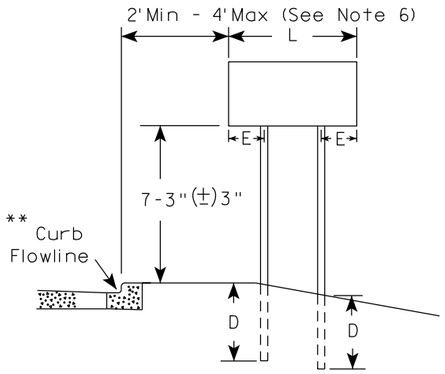
APPROVED Matthew R Rauch
for State Traffic Engineer

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

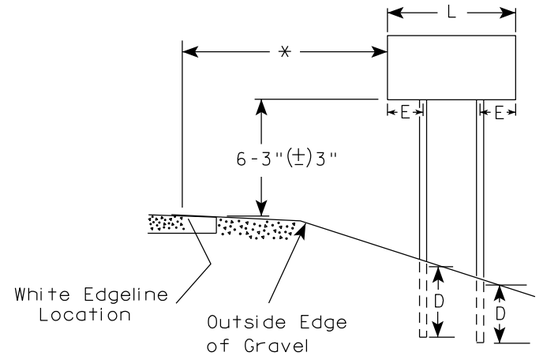
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

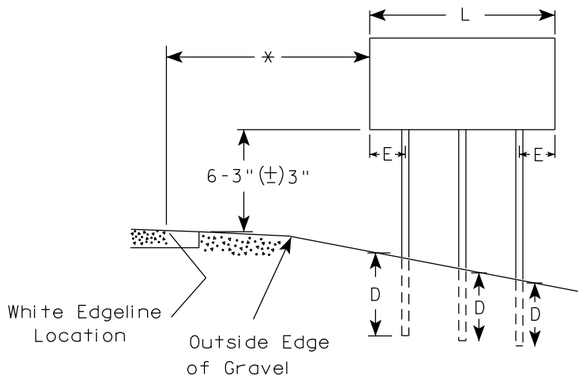
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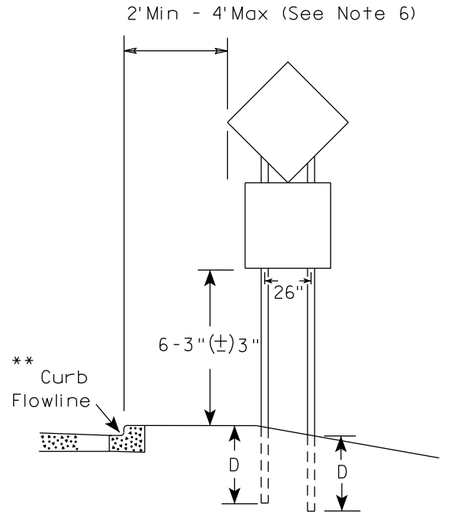
URBAN AREA



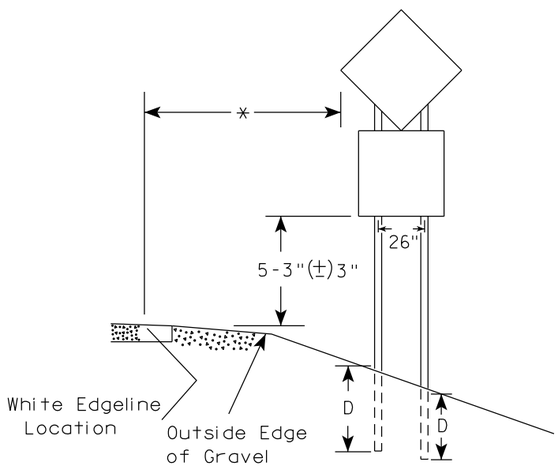
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

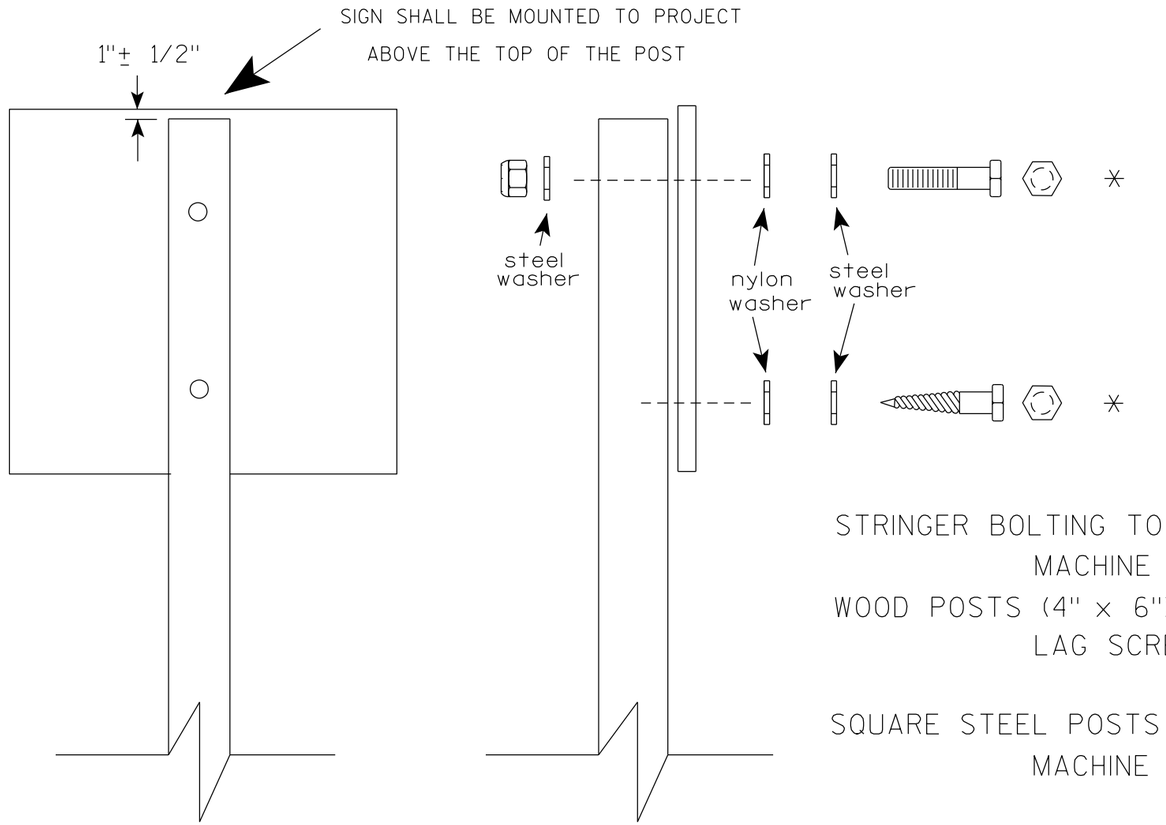
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 174	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

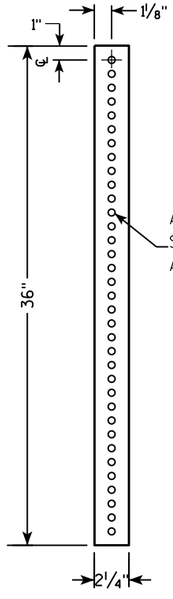
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

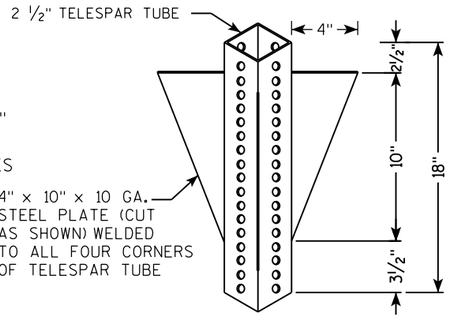
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

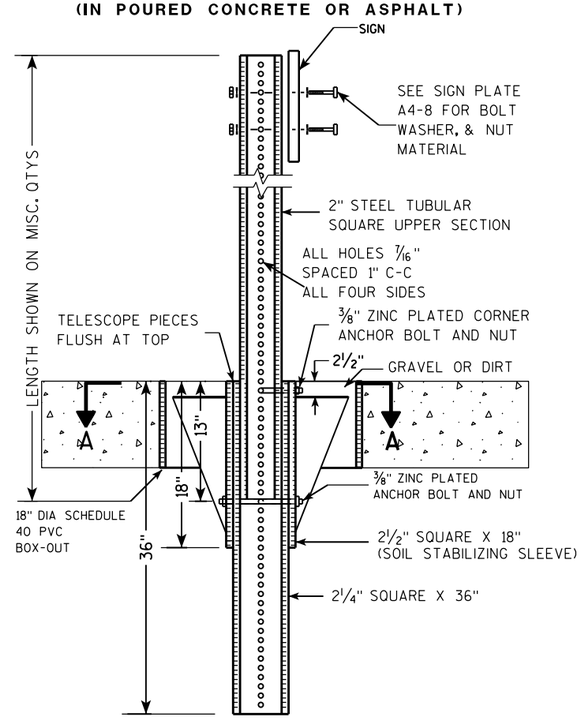
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



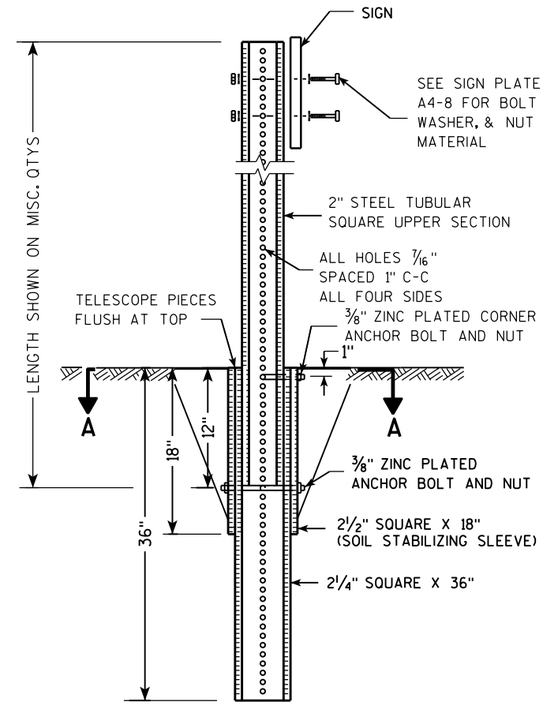
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

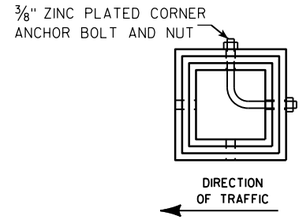


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

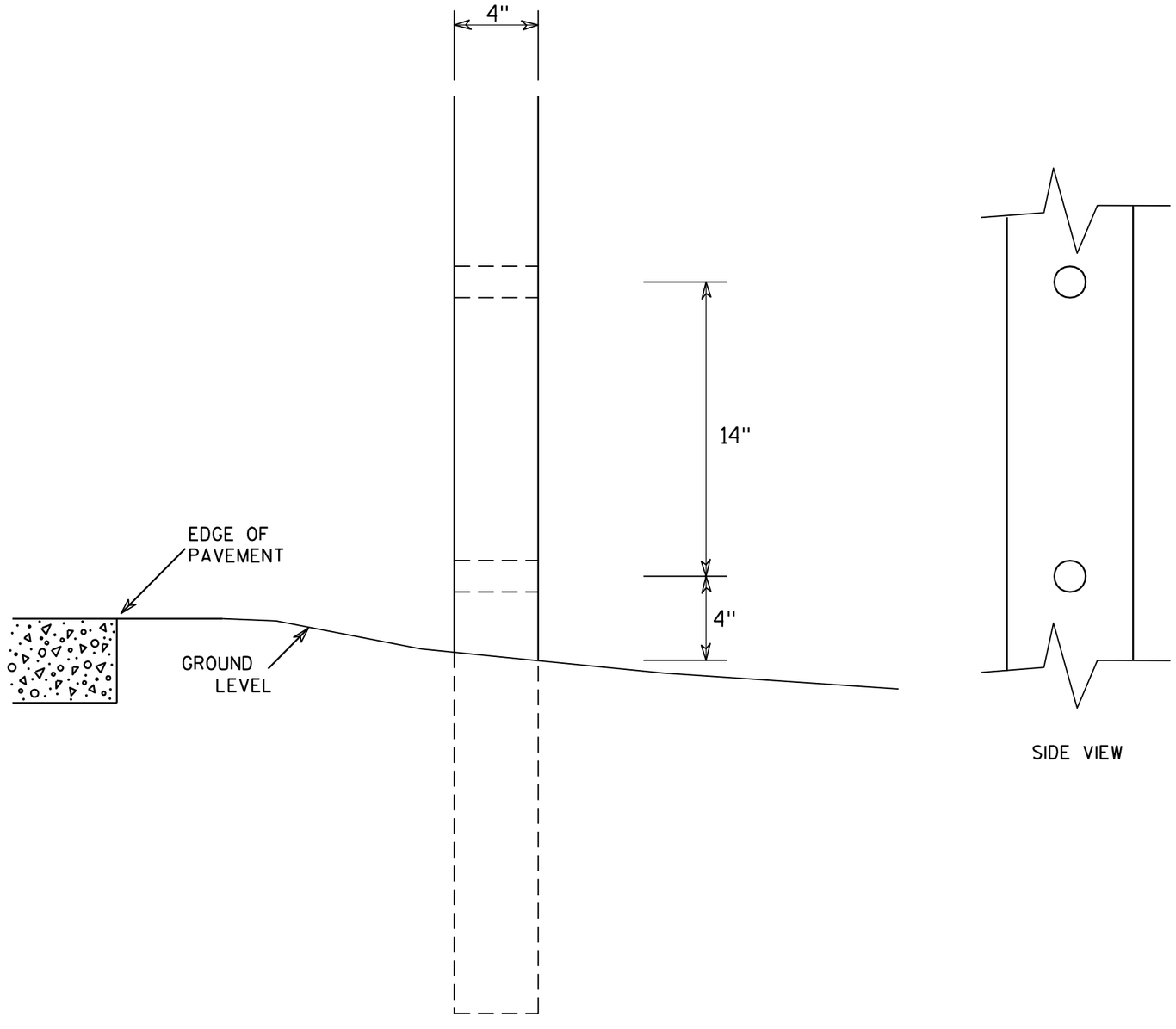
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

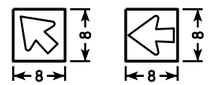
APPROVED Chester J Spang for State Traffic Engineer

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

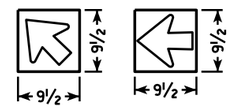
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 177	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

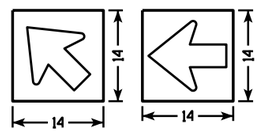




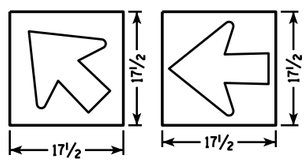




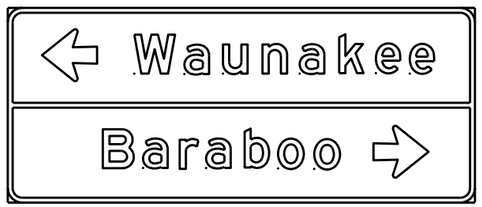






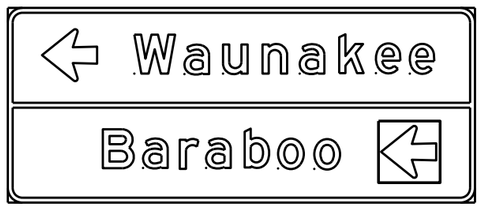


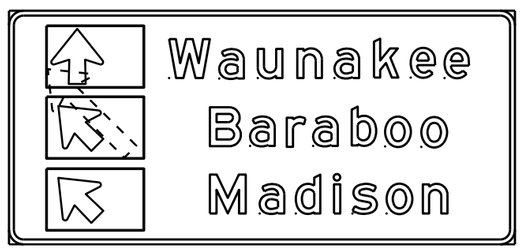
BEFORE





AFTER





GENERAL NOTES

1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

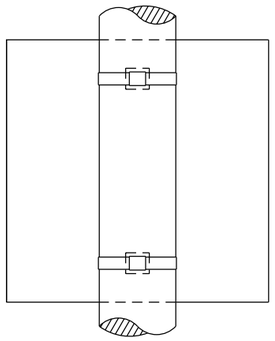
A4-12.2

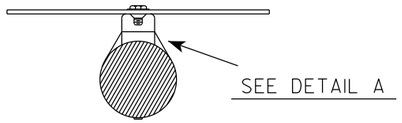
PROJECT NO:

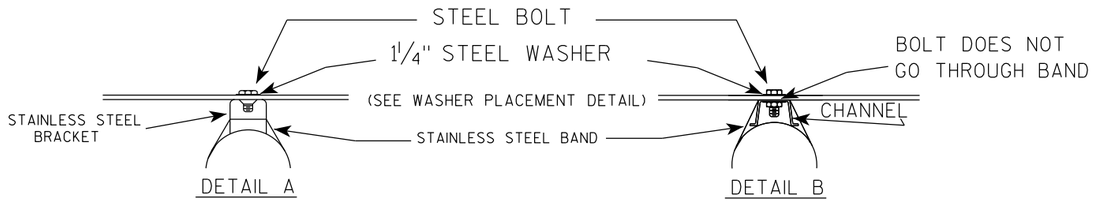
SHEET NO: E

BANDING

SINGLE SIGN



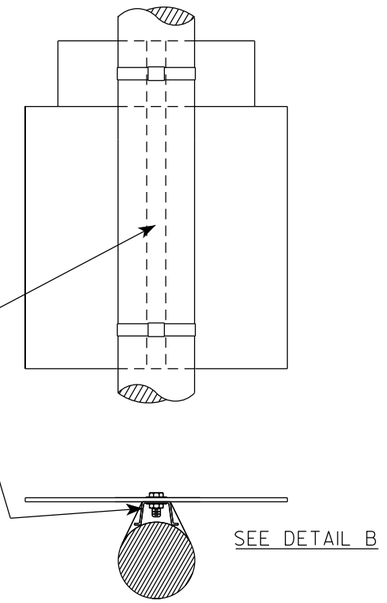




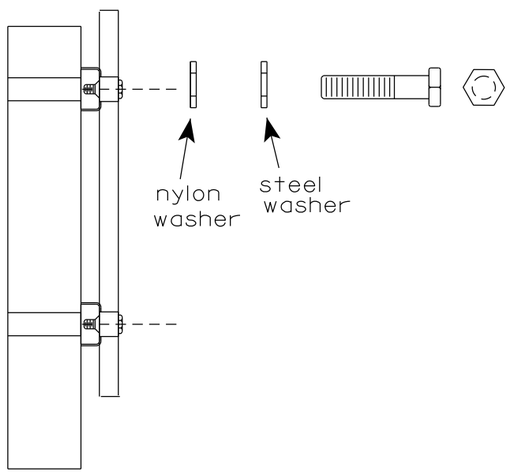
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

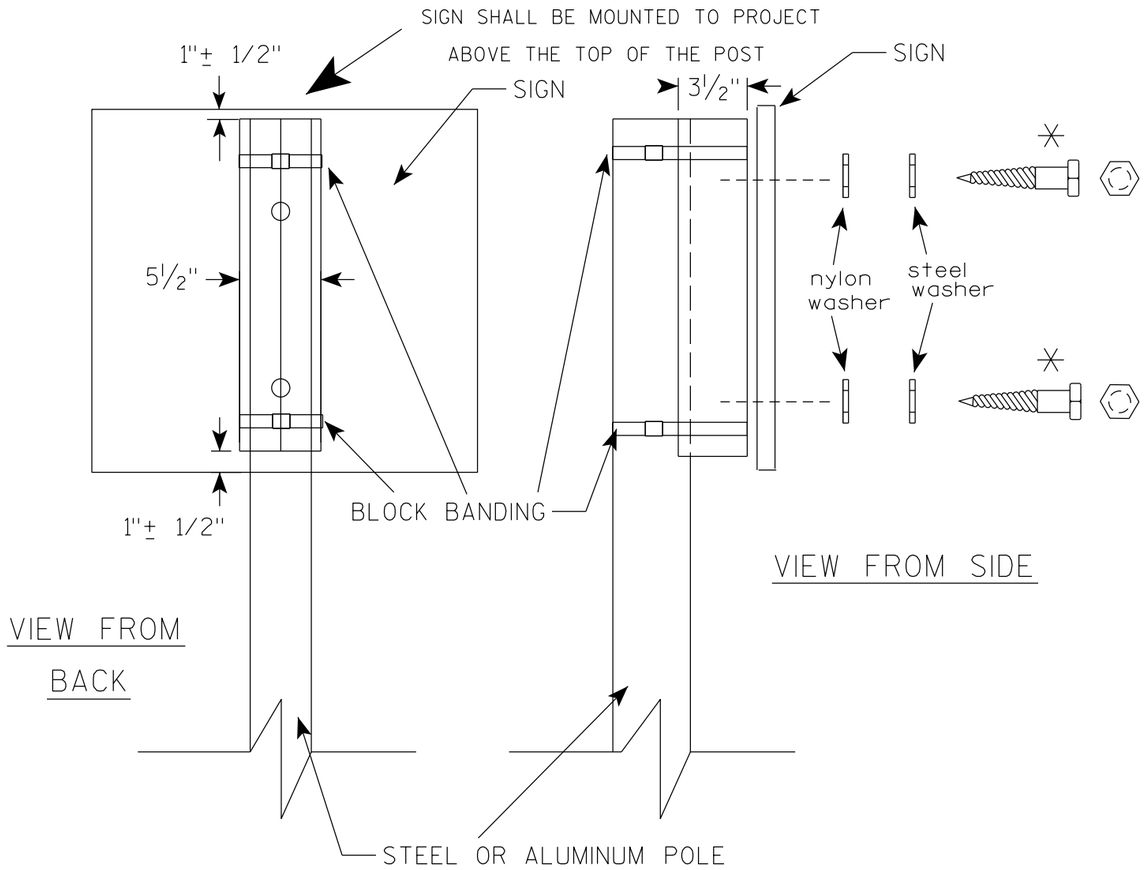
DATE 6/10/19 PLATE NO. A5-9.4

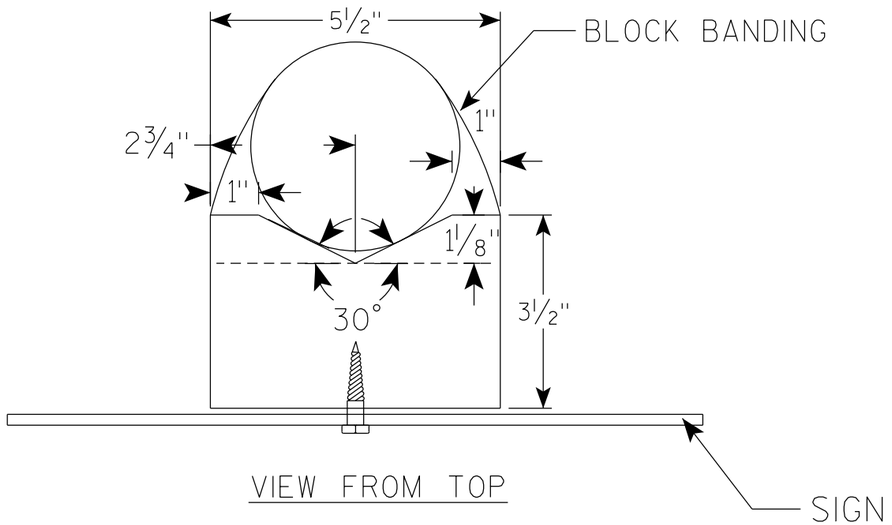
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 179	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

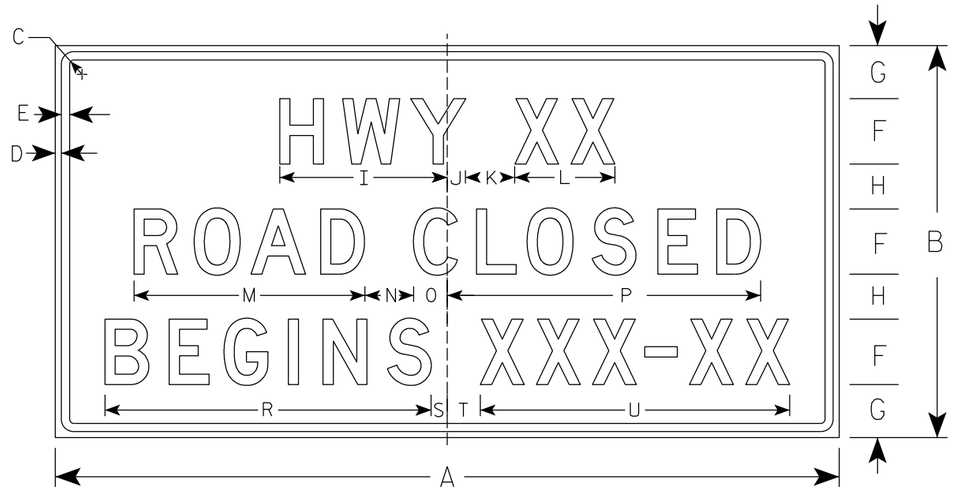
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

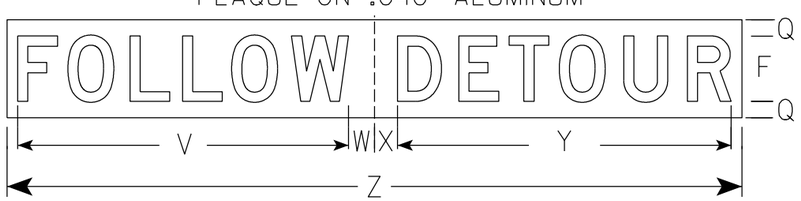
PROJECT NO:

SHEET NO: 180 E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

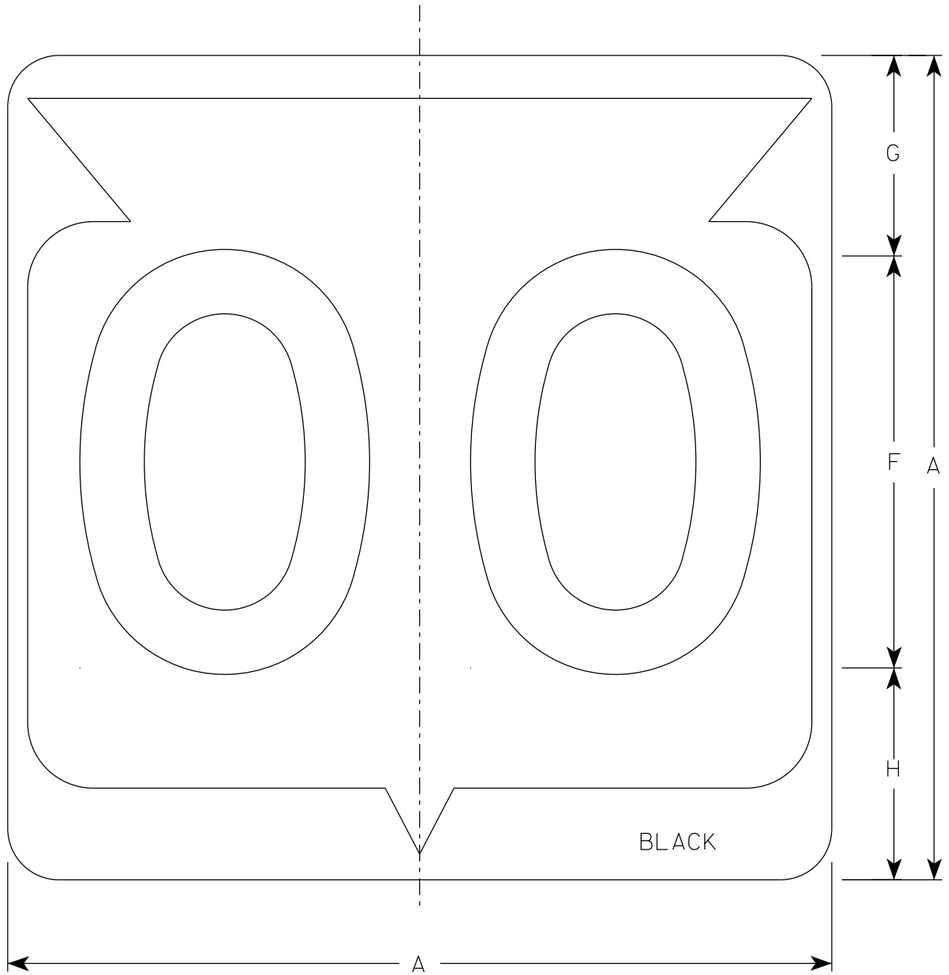
STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

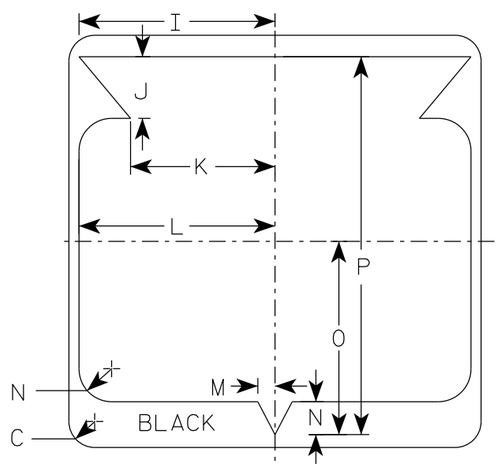
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 181 E



M1-6



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C

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

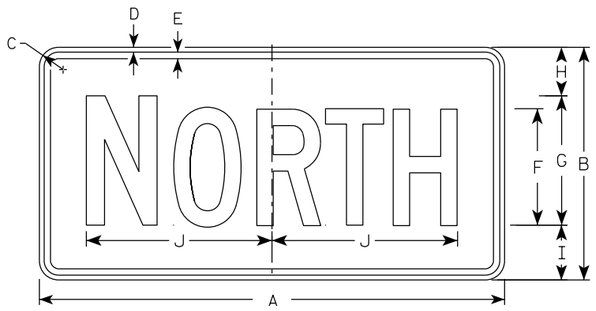
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

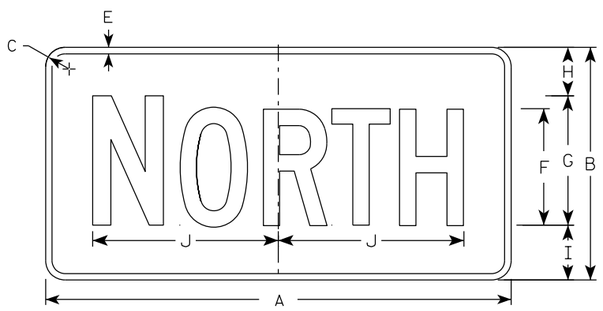
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

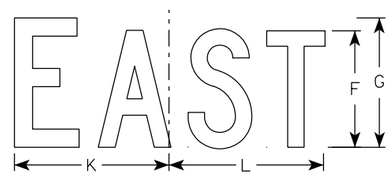
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 182	E



M3-1
MM3-1
MP3-1



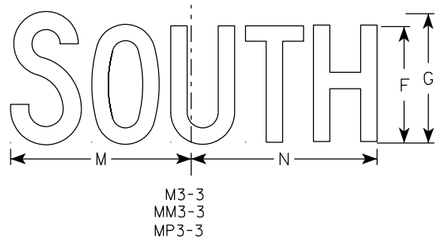
MB3-1
MK3-1
MN3-1



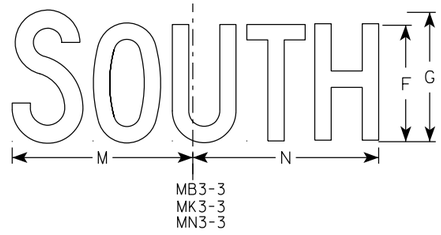
M3-2
MM3-2
MP3-2



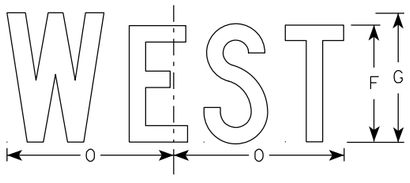
MB3-2
MK3-2
MN3-2



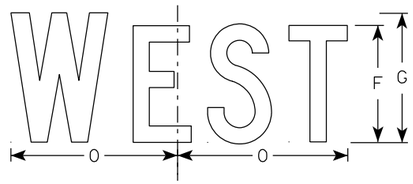
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

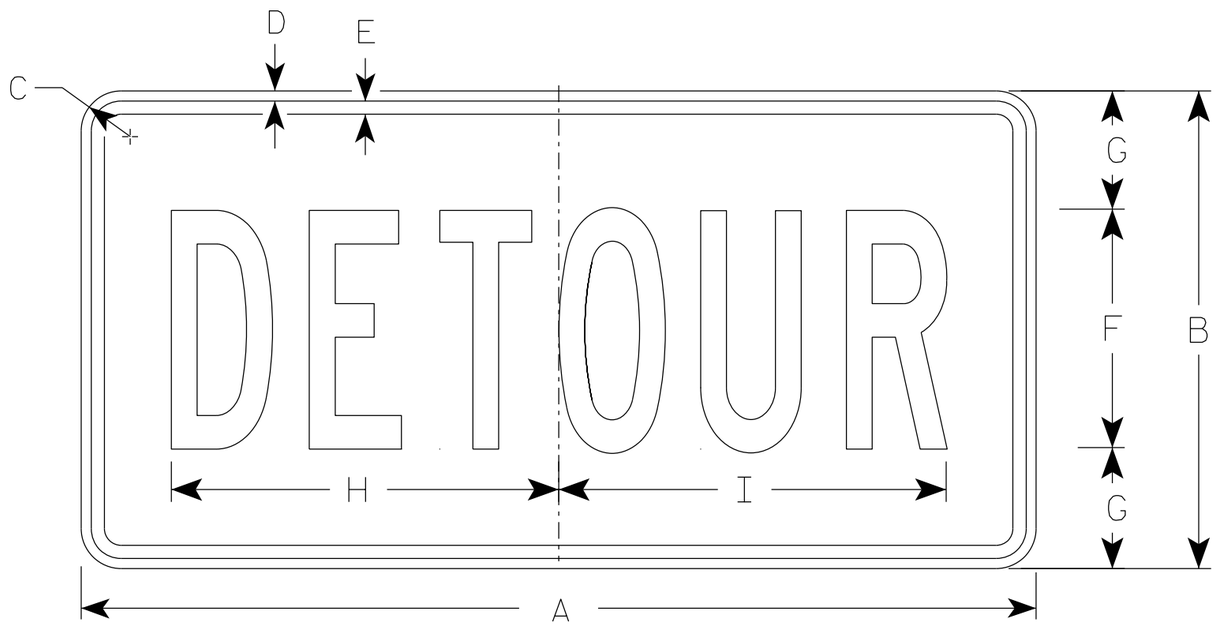
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 183 | E

NOTES

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



M4-8

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

STANDARD SIGN
M4-8

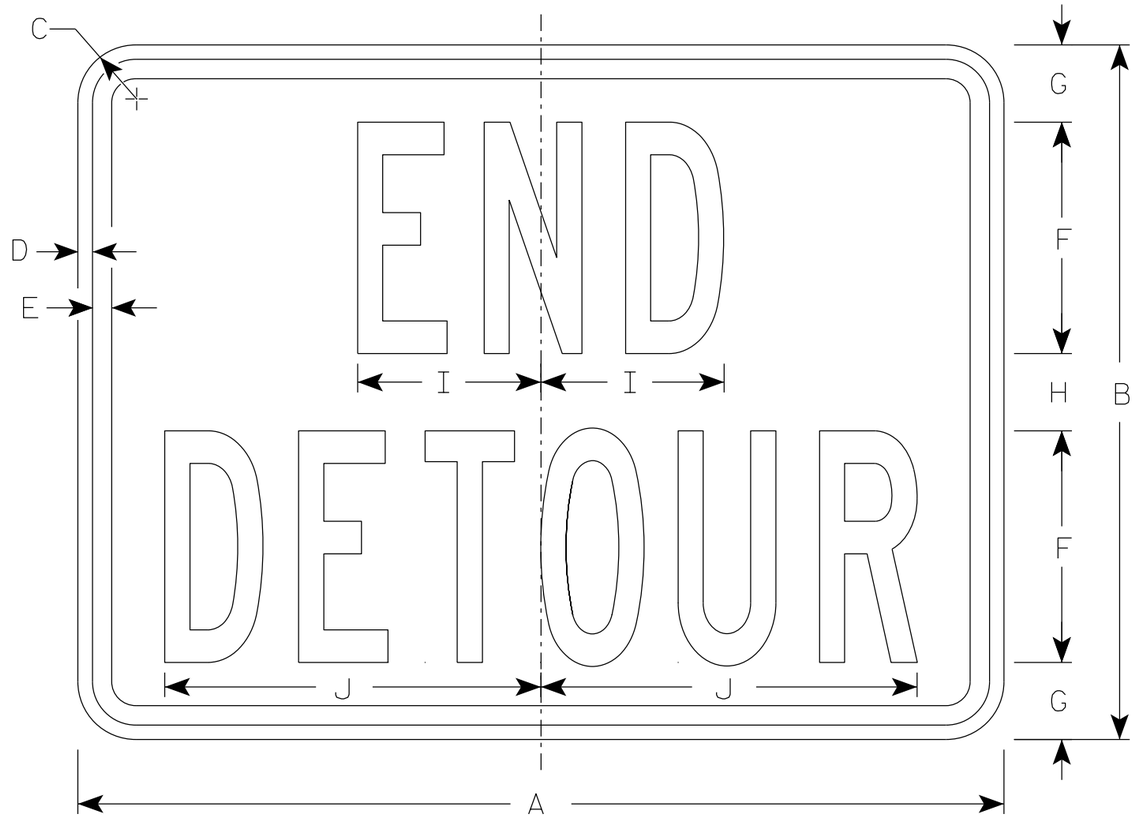
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48.dgn PLOT DATE : 9-FEB 2023 7:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

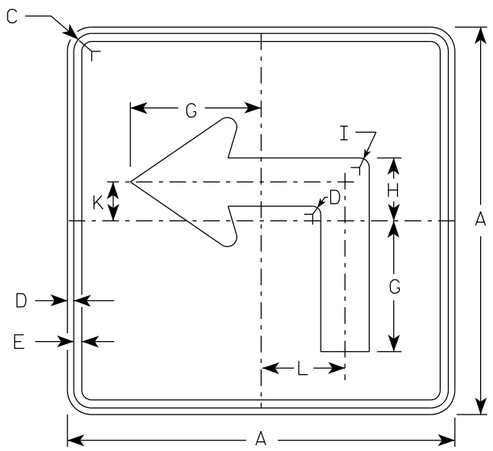
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

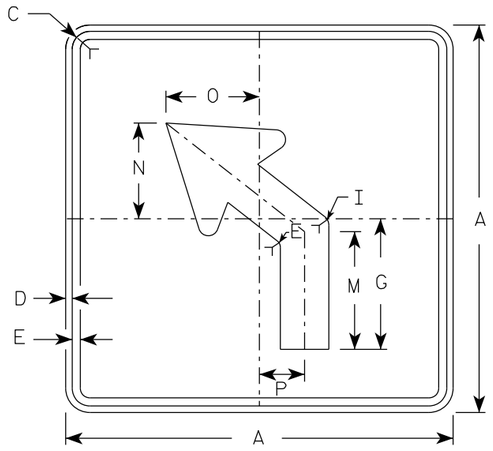
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

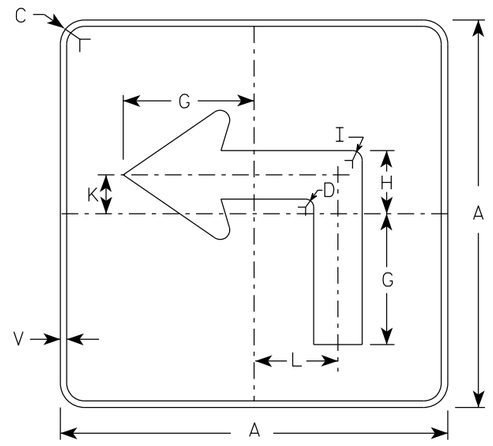
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 185 | E



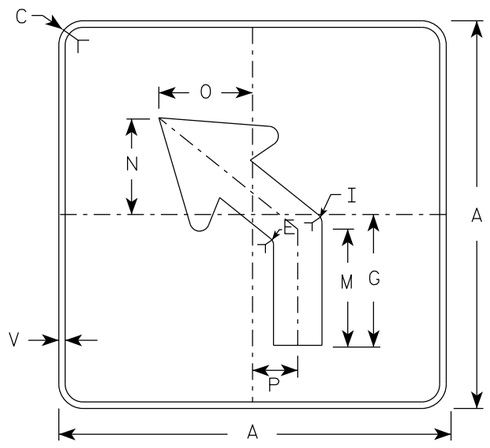
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



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

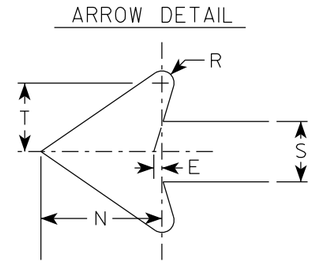


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



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

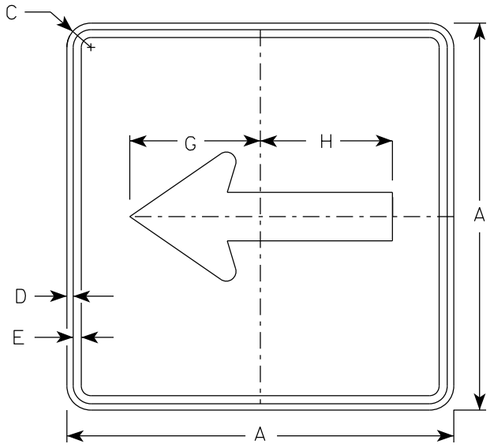
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

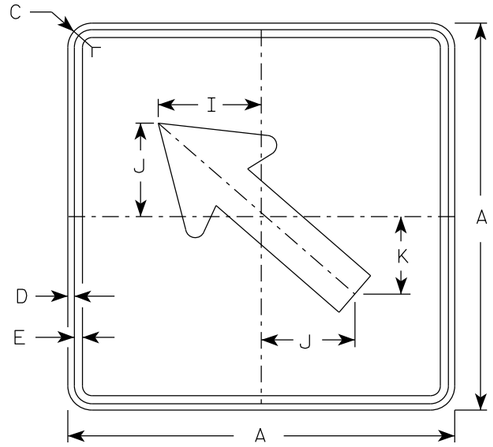
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

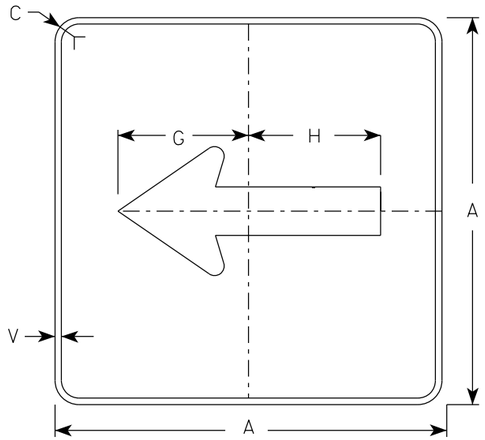
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 186 | E



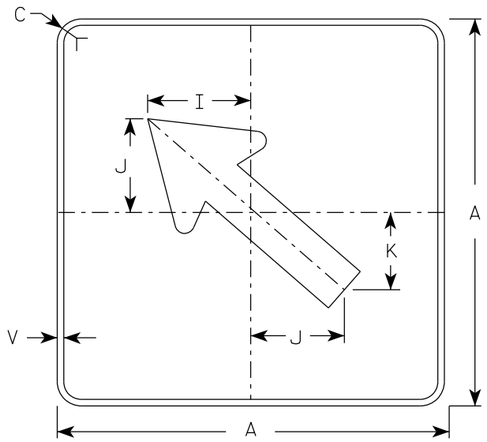
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

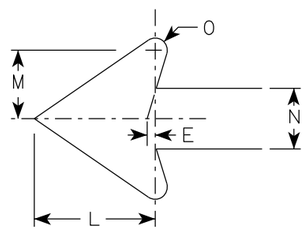


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



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

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

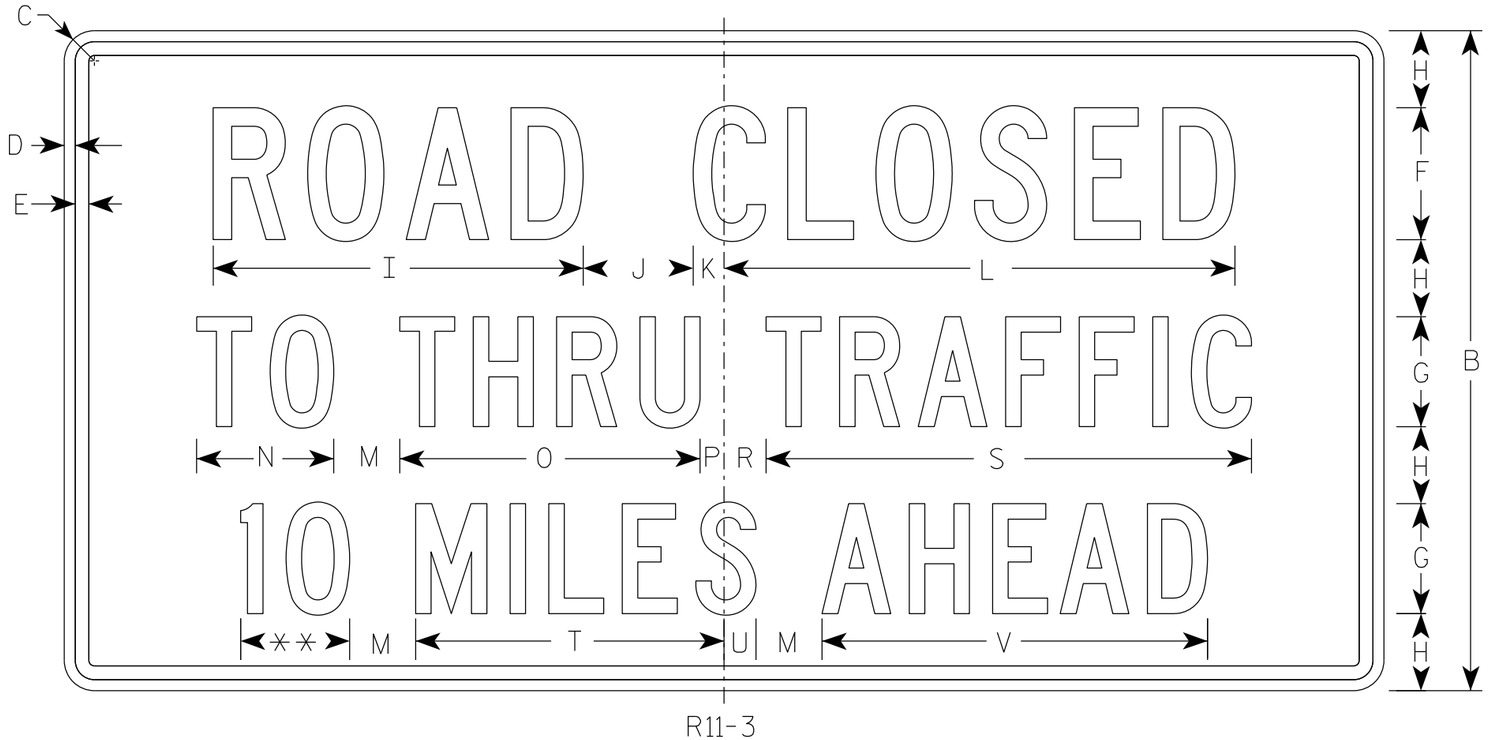
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 187 | E

7

7

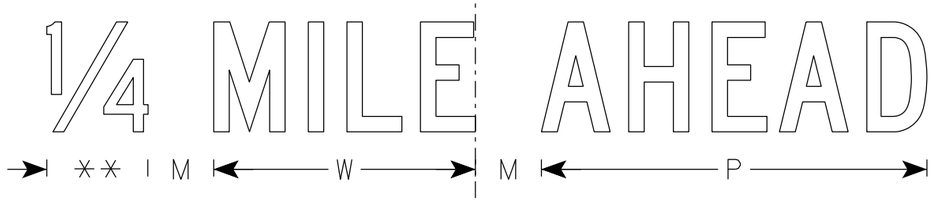
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

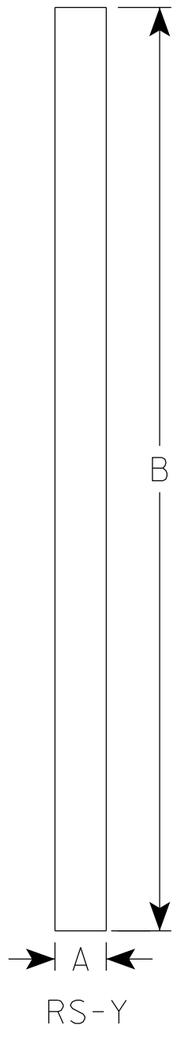
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 188	E



NOTES

1. Sign is Type II - Type F Reflective or as Noted
2. Color:
   Background - As noted in Note 3
3. USE APPROPRIATE CODE FOR DIFFERENT COLOR:
   RS-Y = YELLOW
   RS-G = YELLOW-GREEN (School Zones Only)
   RS-W = WHITE - Type H Reflective
   RS-R = RED - Type H Reflective
4. Base Material .080" aluminum blank

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	2	72																									1.0
2M	2	72																									1.0
3																											
4																											
5																											

STANDARD SIGN
RS-Y

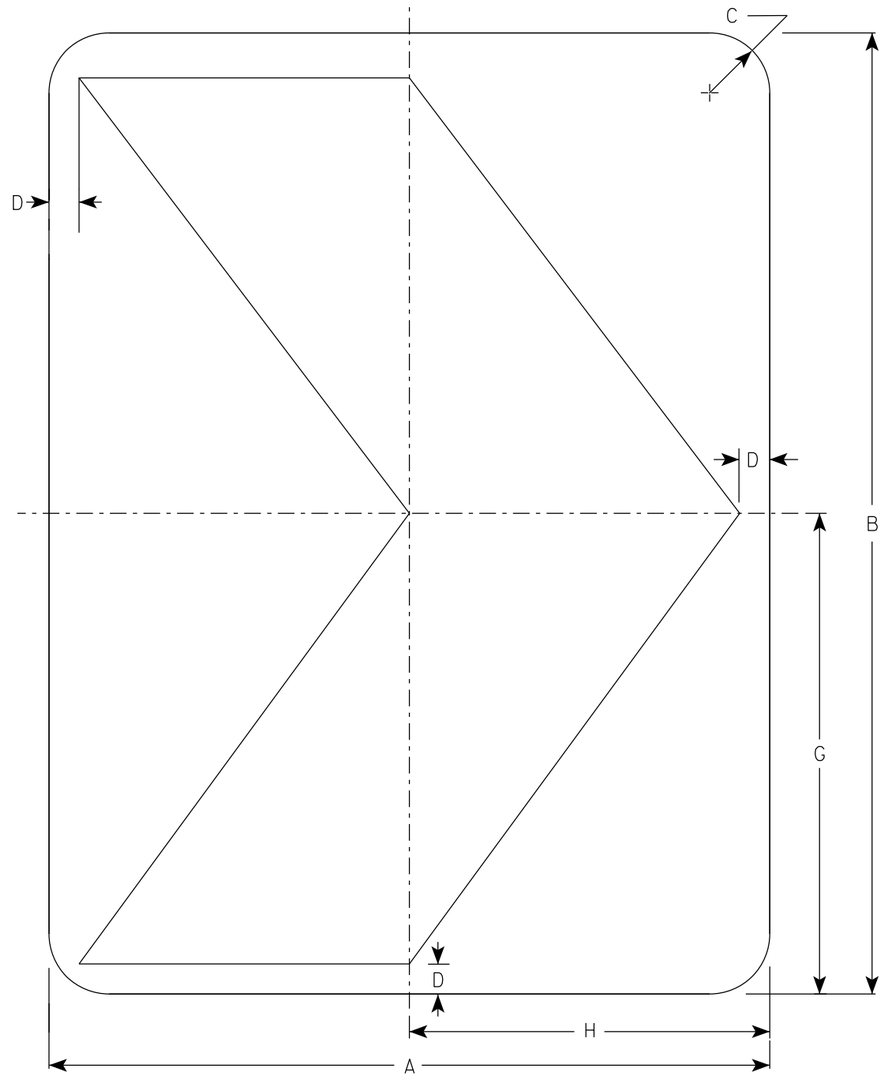
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/11/24 PLATE NO. RS-Y.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate_RS-Y.dgn PLOT DATE : 11-JULY 2024 8:27 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



W1-8

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	1 ⅞	1 ½			24	18																			12.0

STANDARD SIGN

W1-8

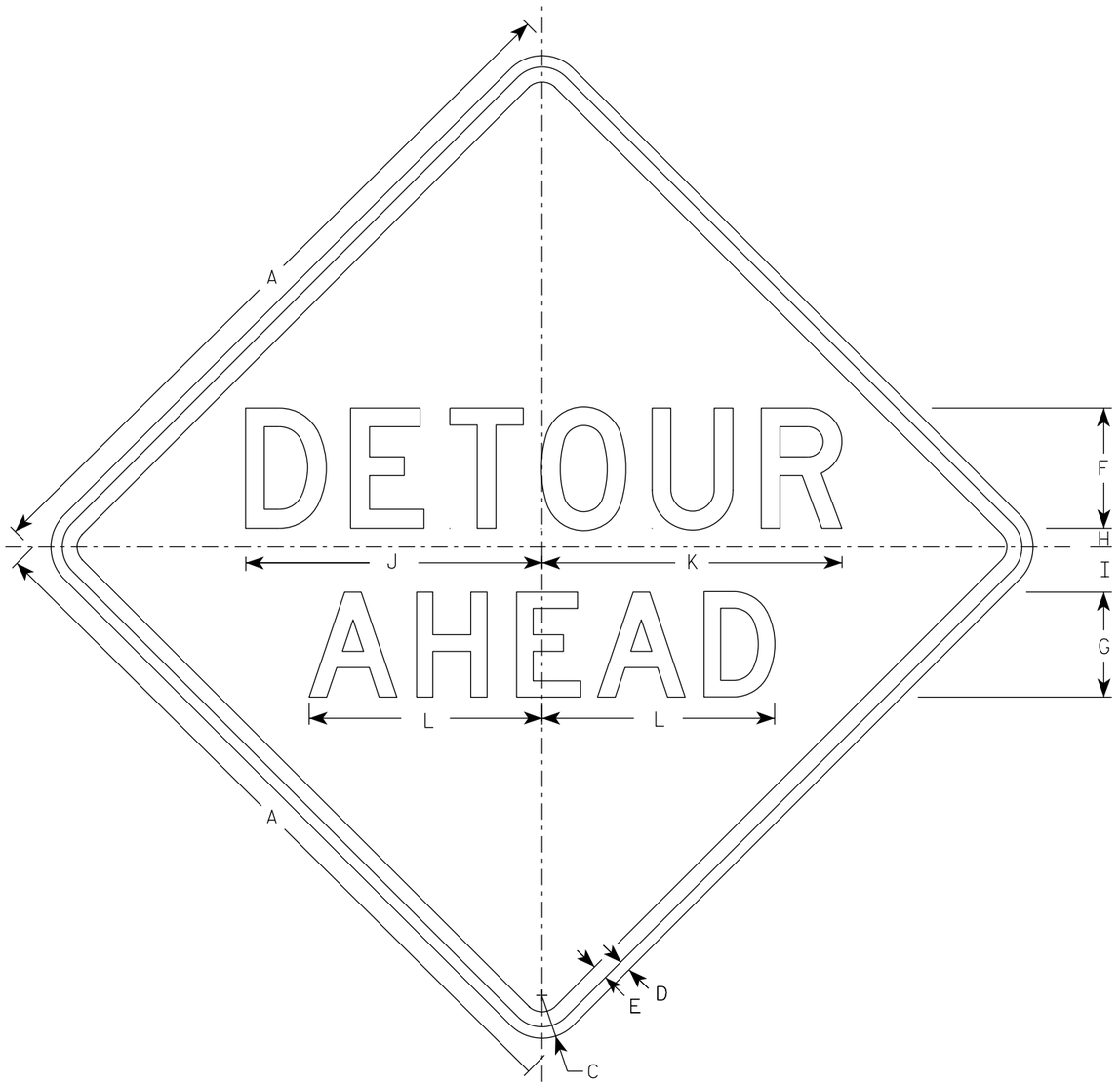
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

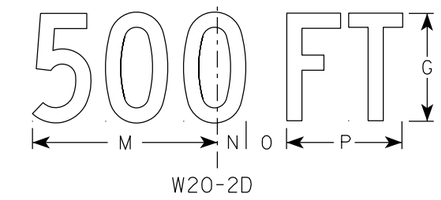
DATE 5/11/2023 PLATE NO. W1-8.7

PROJECT NO:

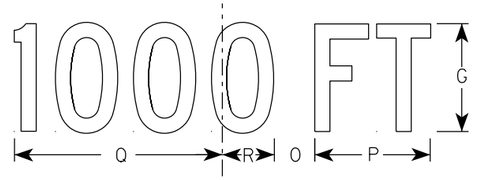
SHEET NO: 190 **E**



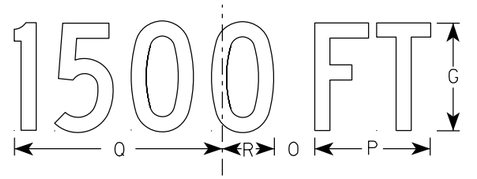
W20-2A



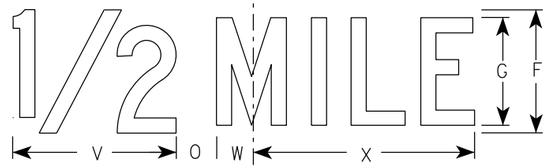
W20-2D



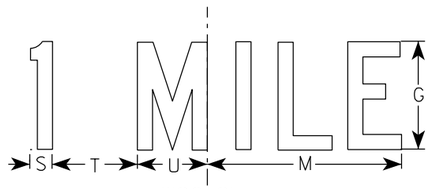
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

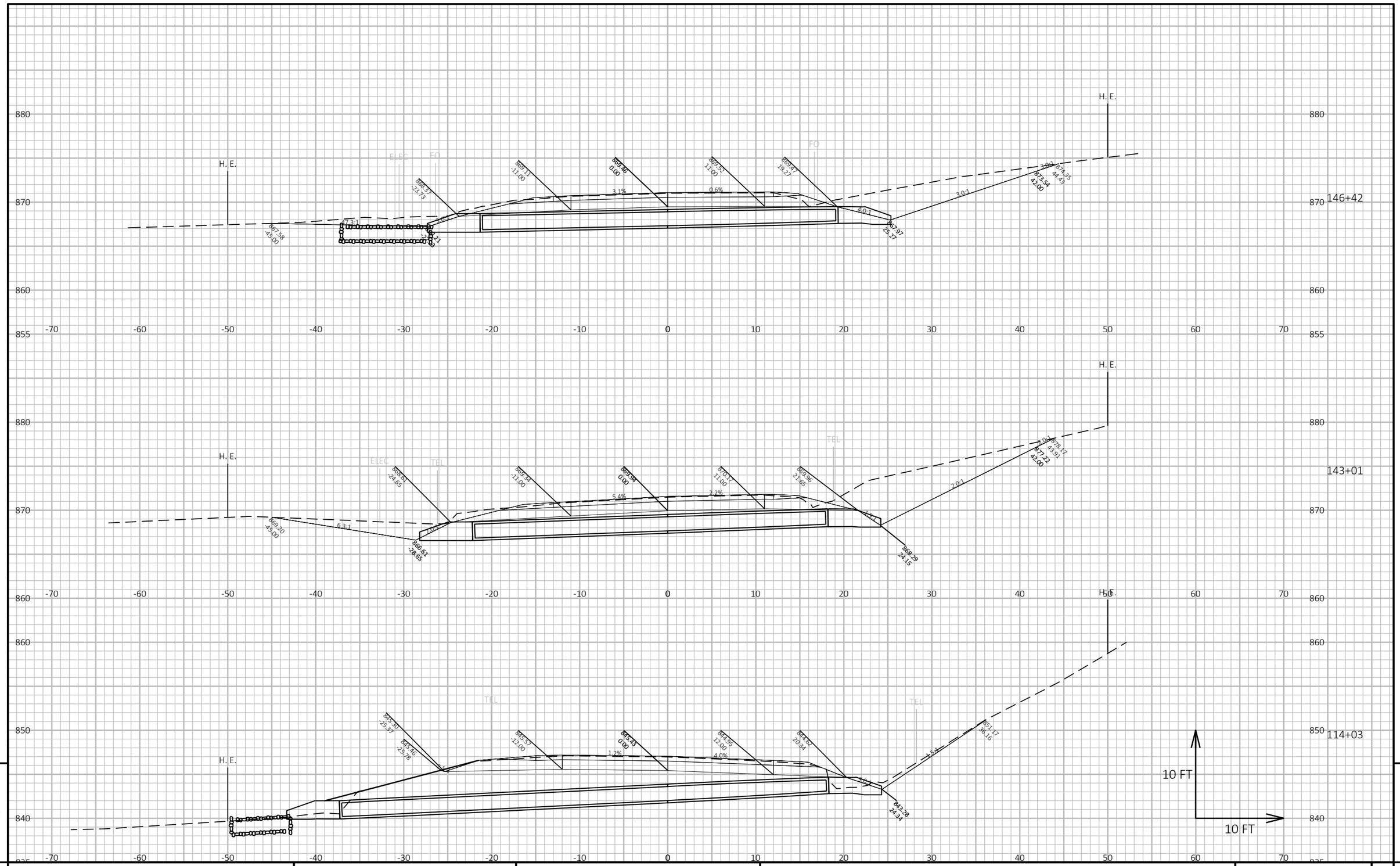
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



9

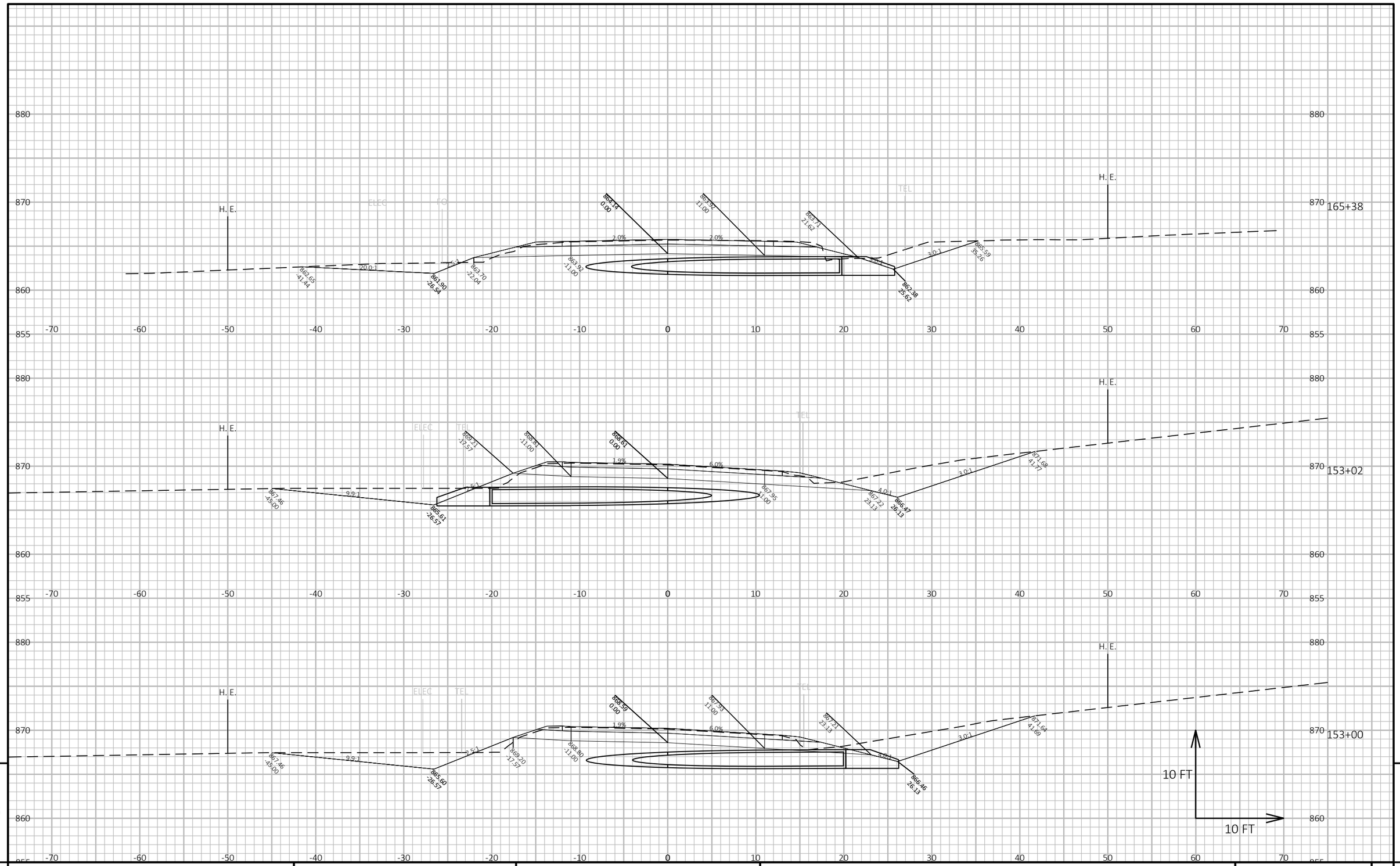
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 192	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 21

PLOT DATE : 3/14/2025 9:31 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

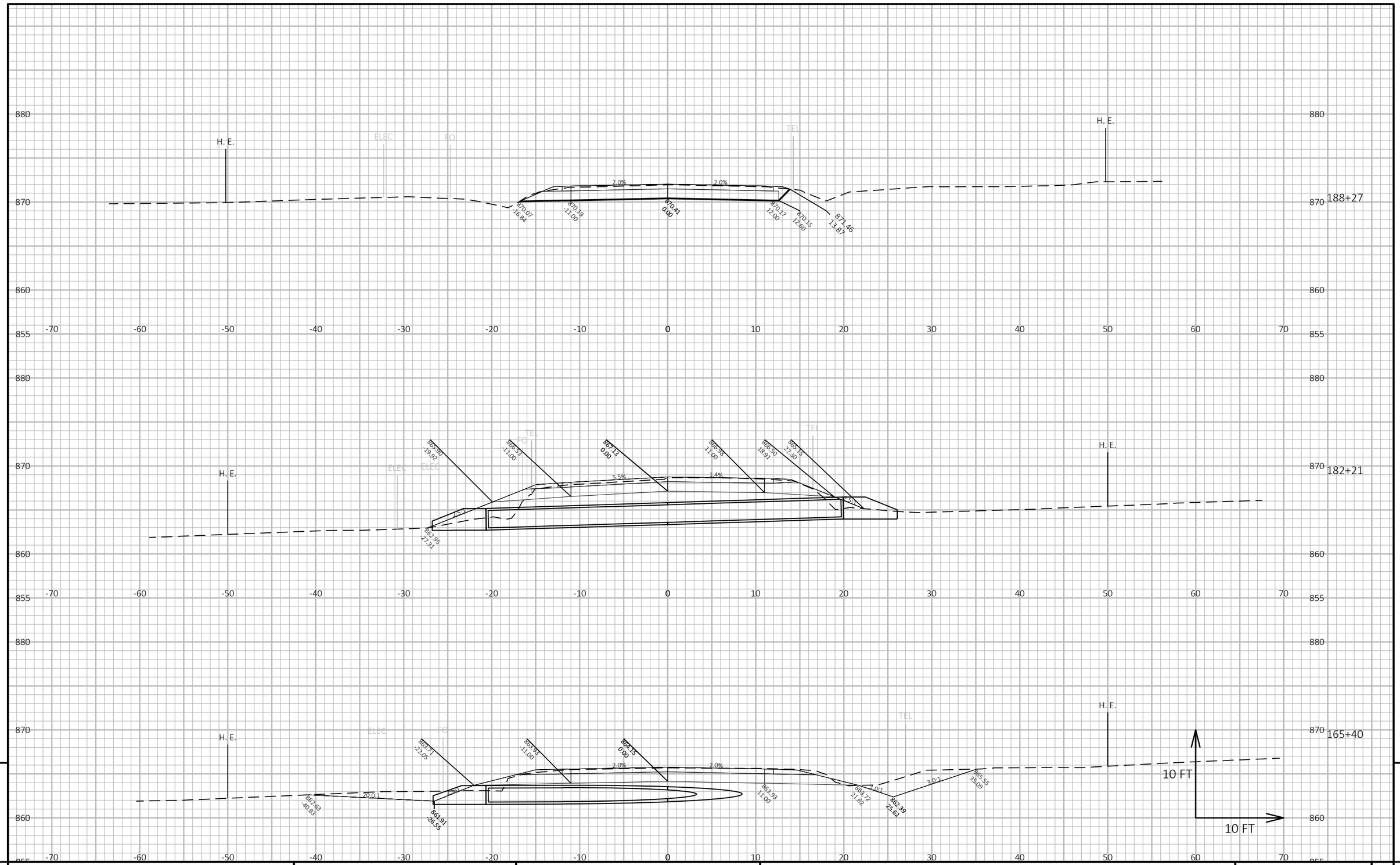
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 193	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 22

PLOT DATE : 3/14/2025 9:31 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

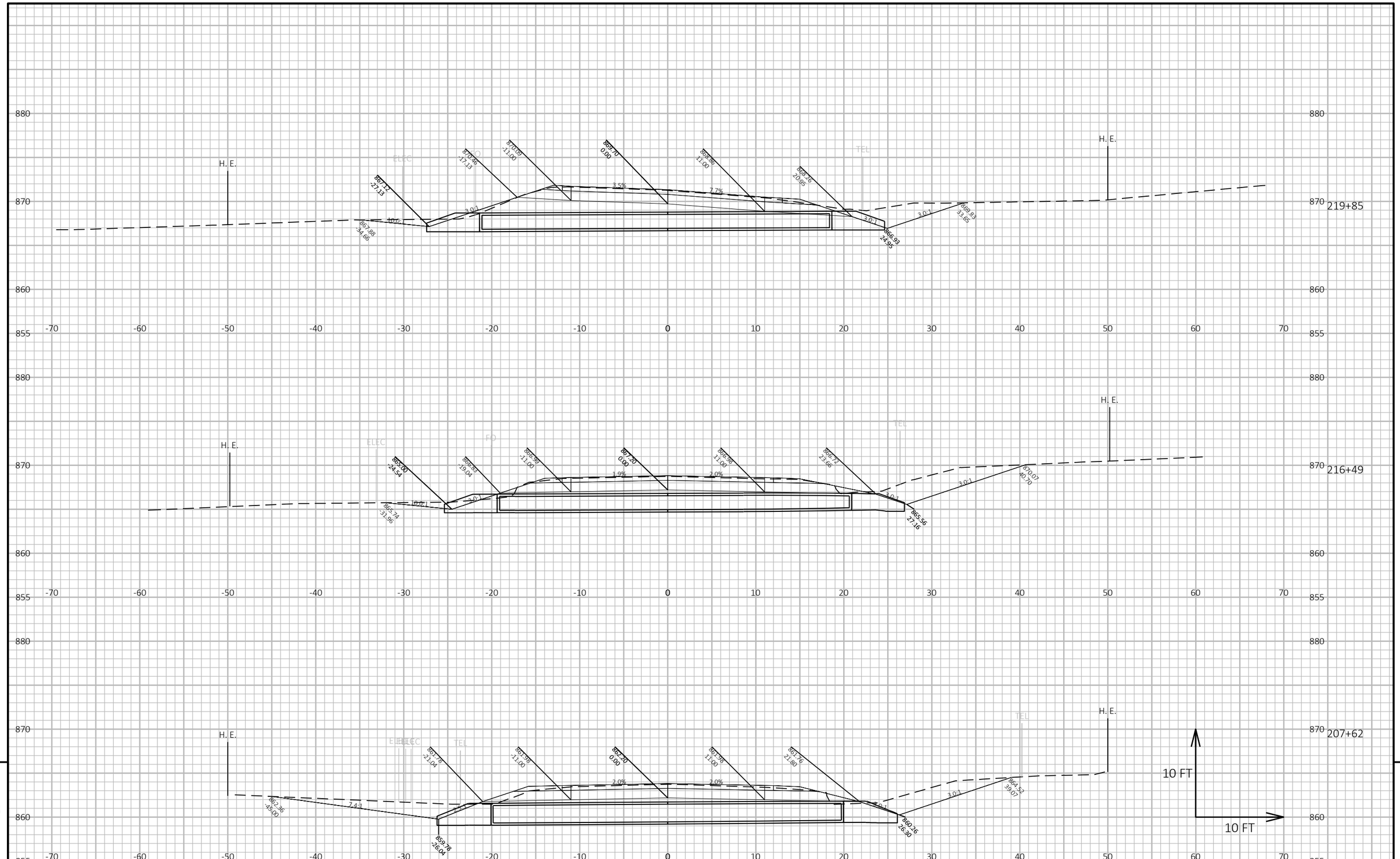


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 194	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 23

PLOT DATE : 3/14/2025 9:31 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

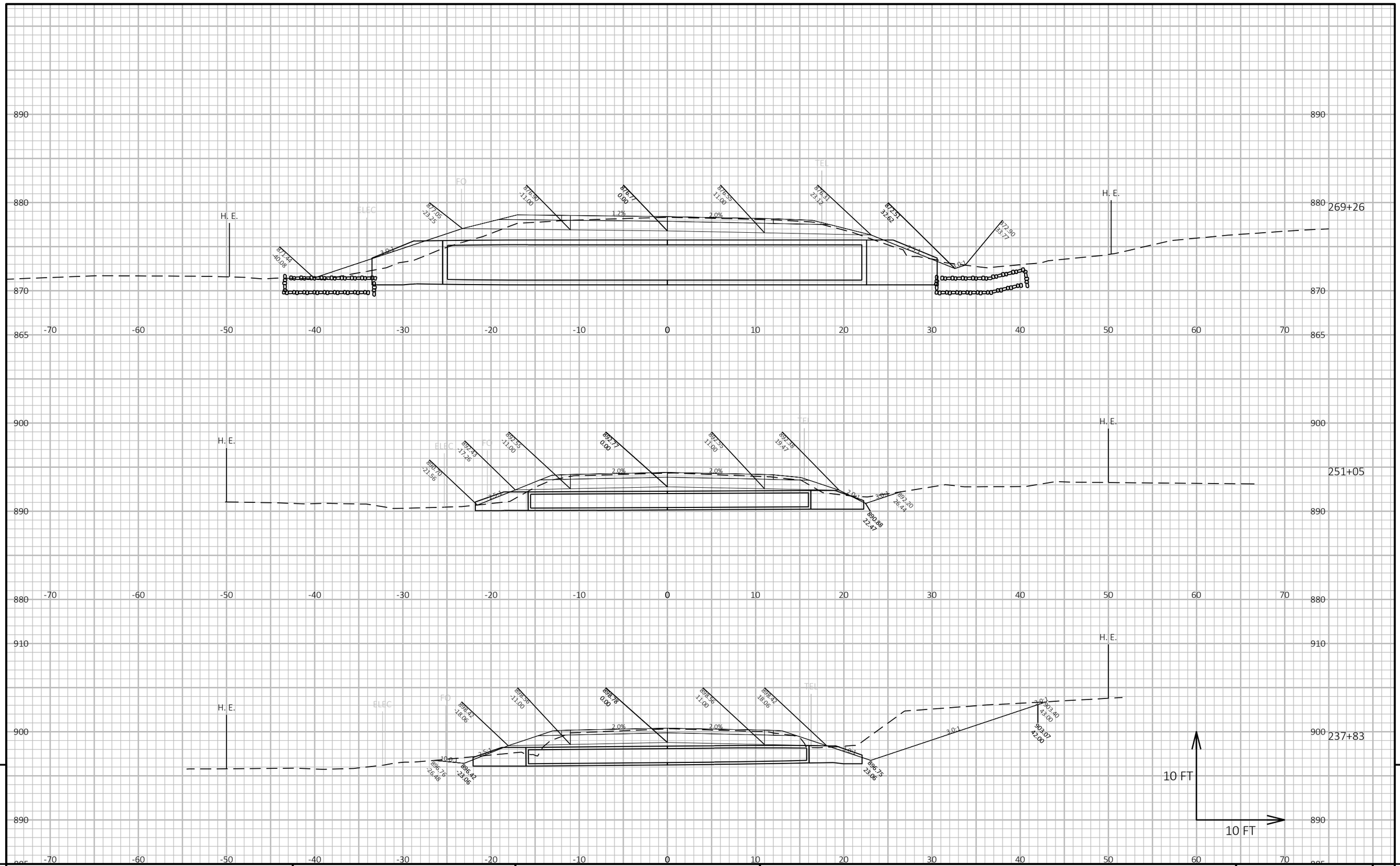


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 195	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 24

PLOT DATE : 3/14/2025 9:31 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

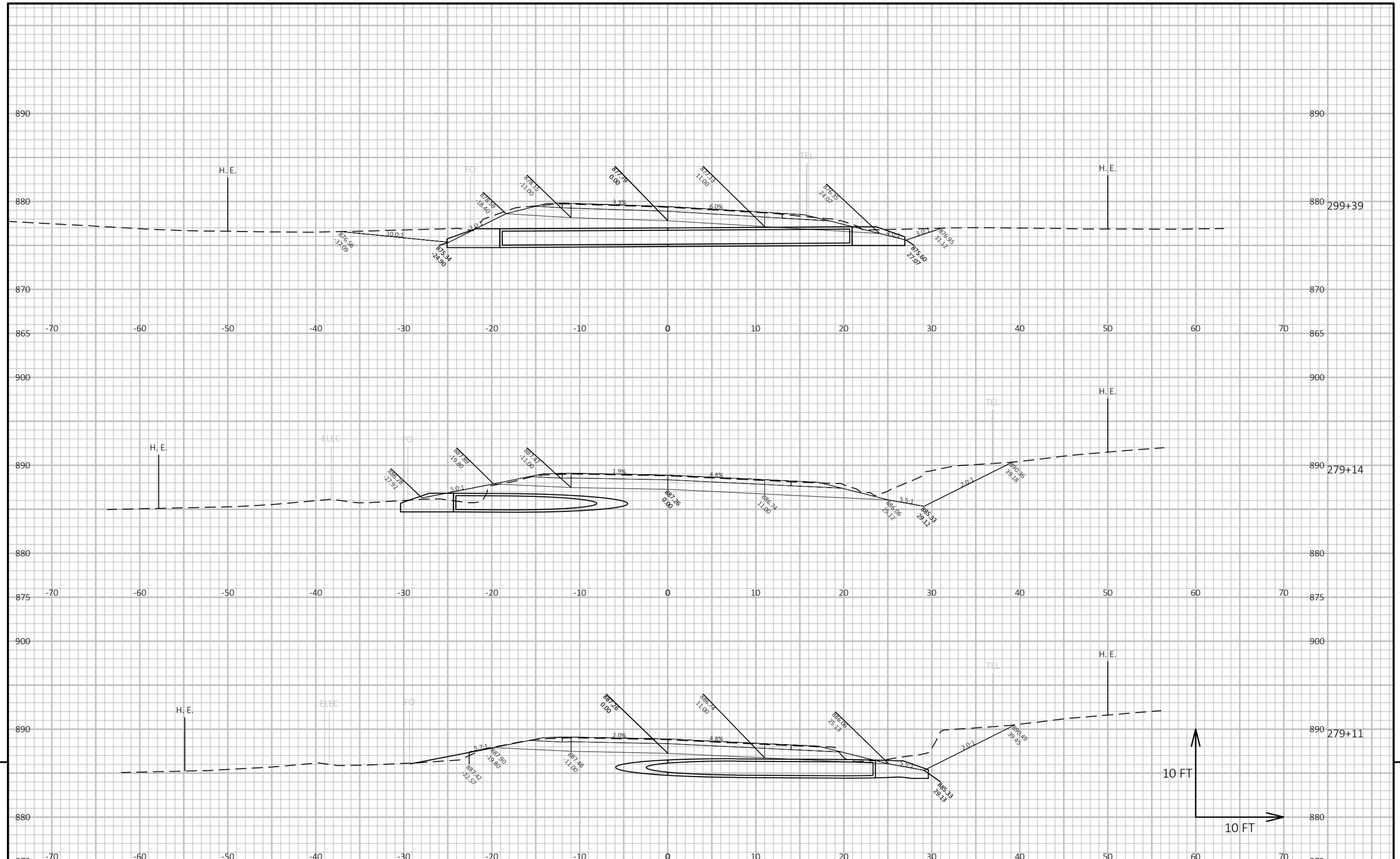


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 196	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 25

PLOT DATE : 3/14/2025 9:31 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

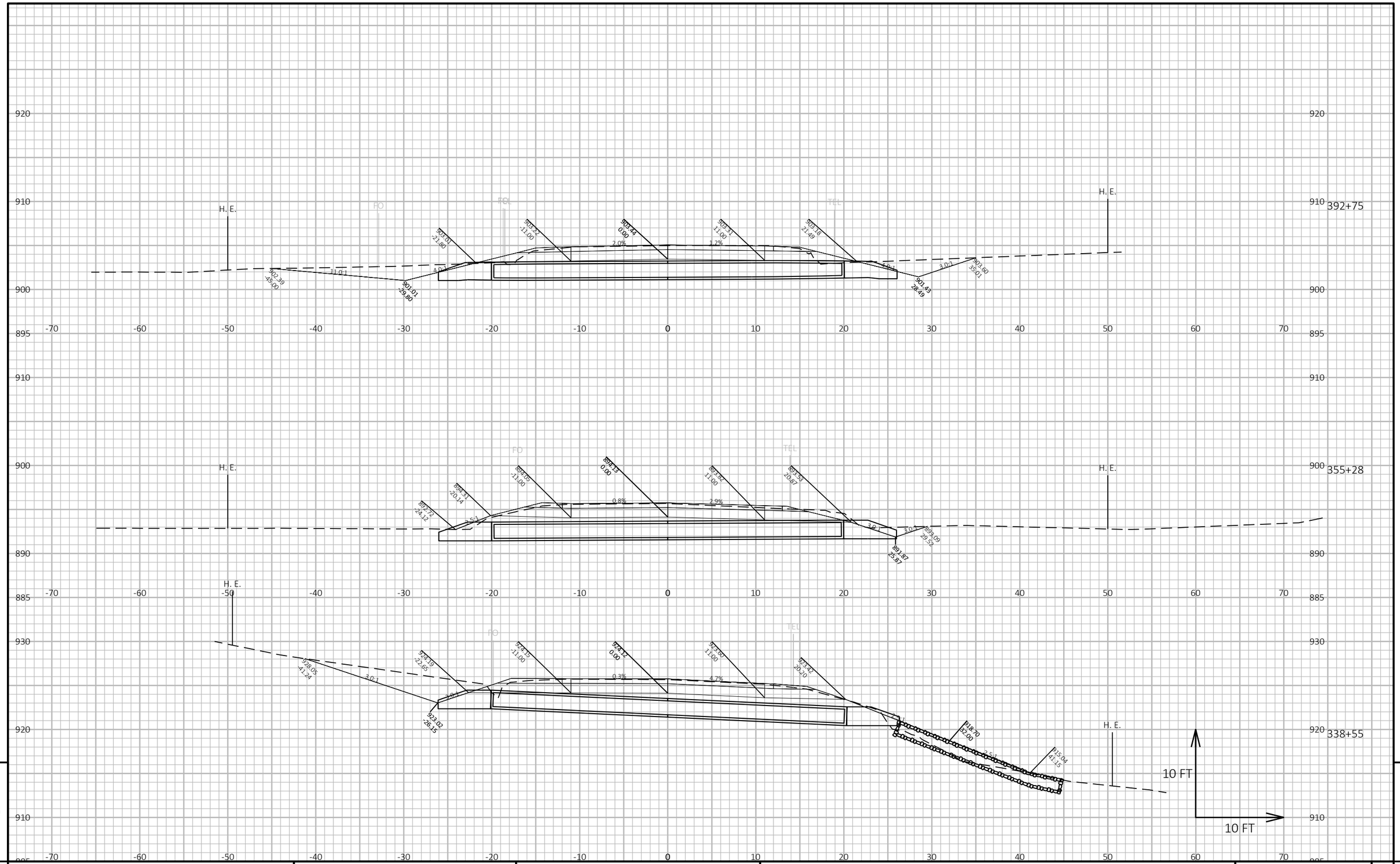


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 197	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 26

PLOT DATE : 3/14/2025 9:31 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

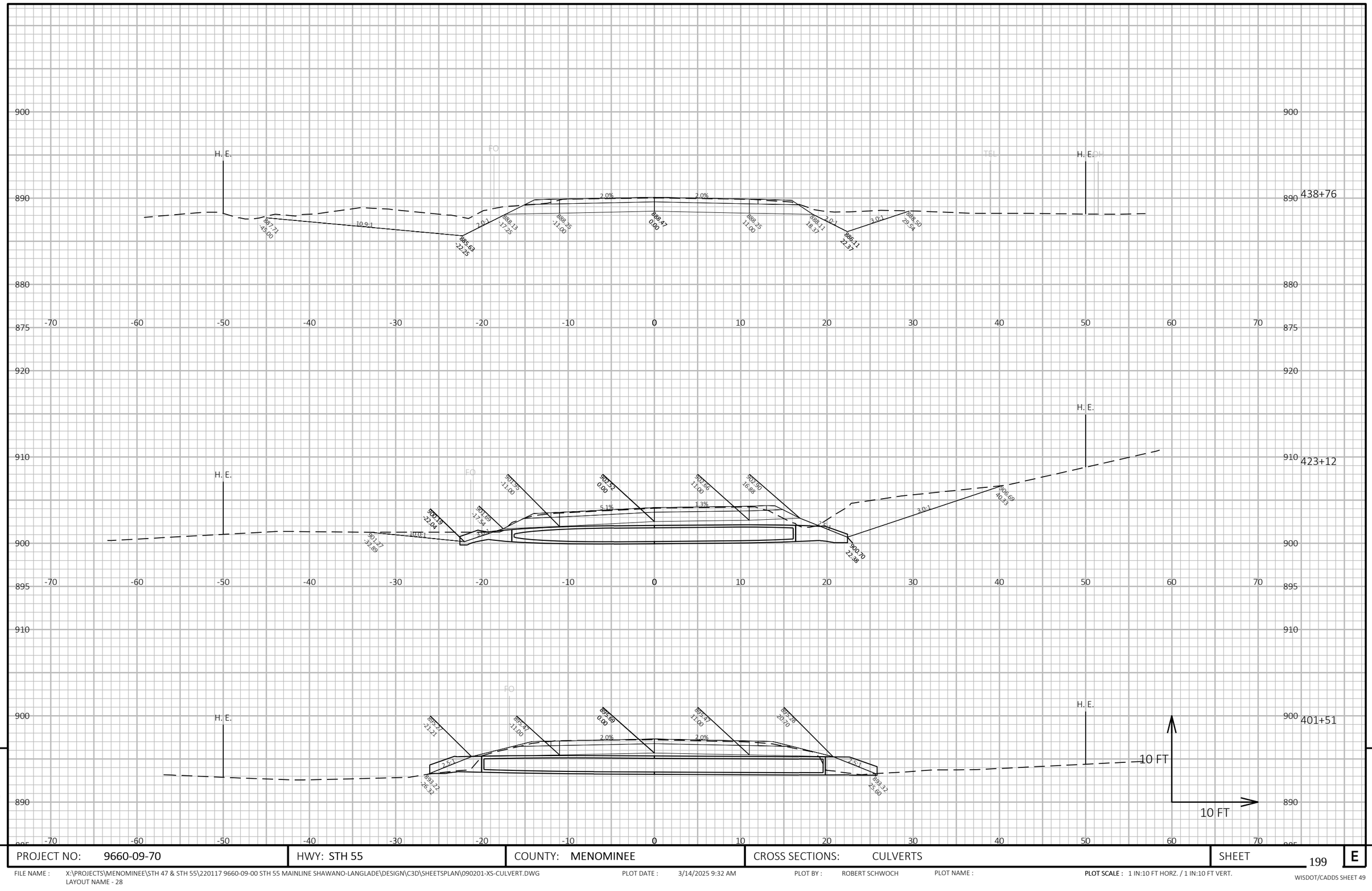


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 198	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 27

PLOT DATE : 3/14/2025 9:31 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 199	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 28

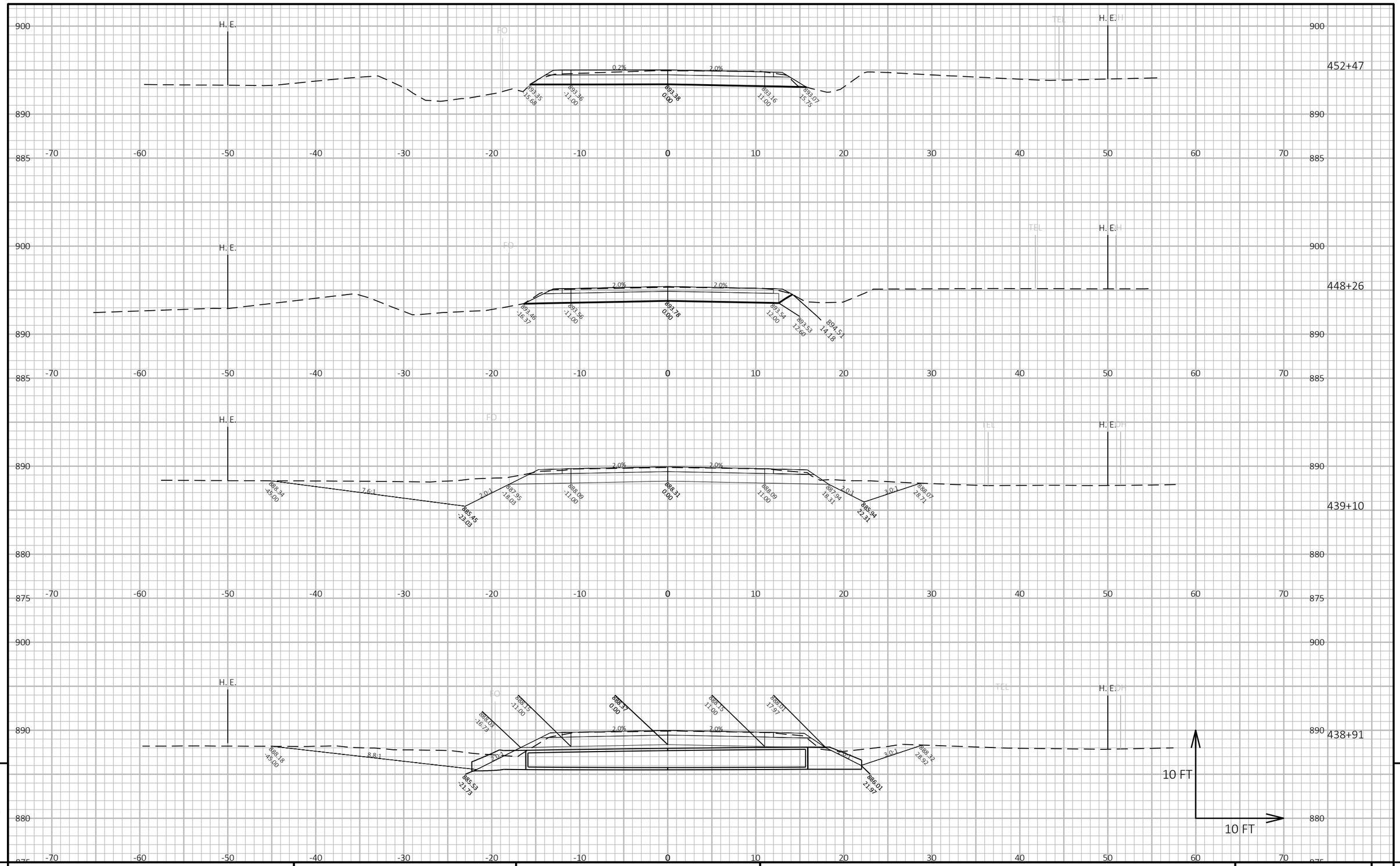
PLOT DATE : 3/14/2025 9:32 AM

PLOT BY : ROBERT SCHWOCH

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

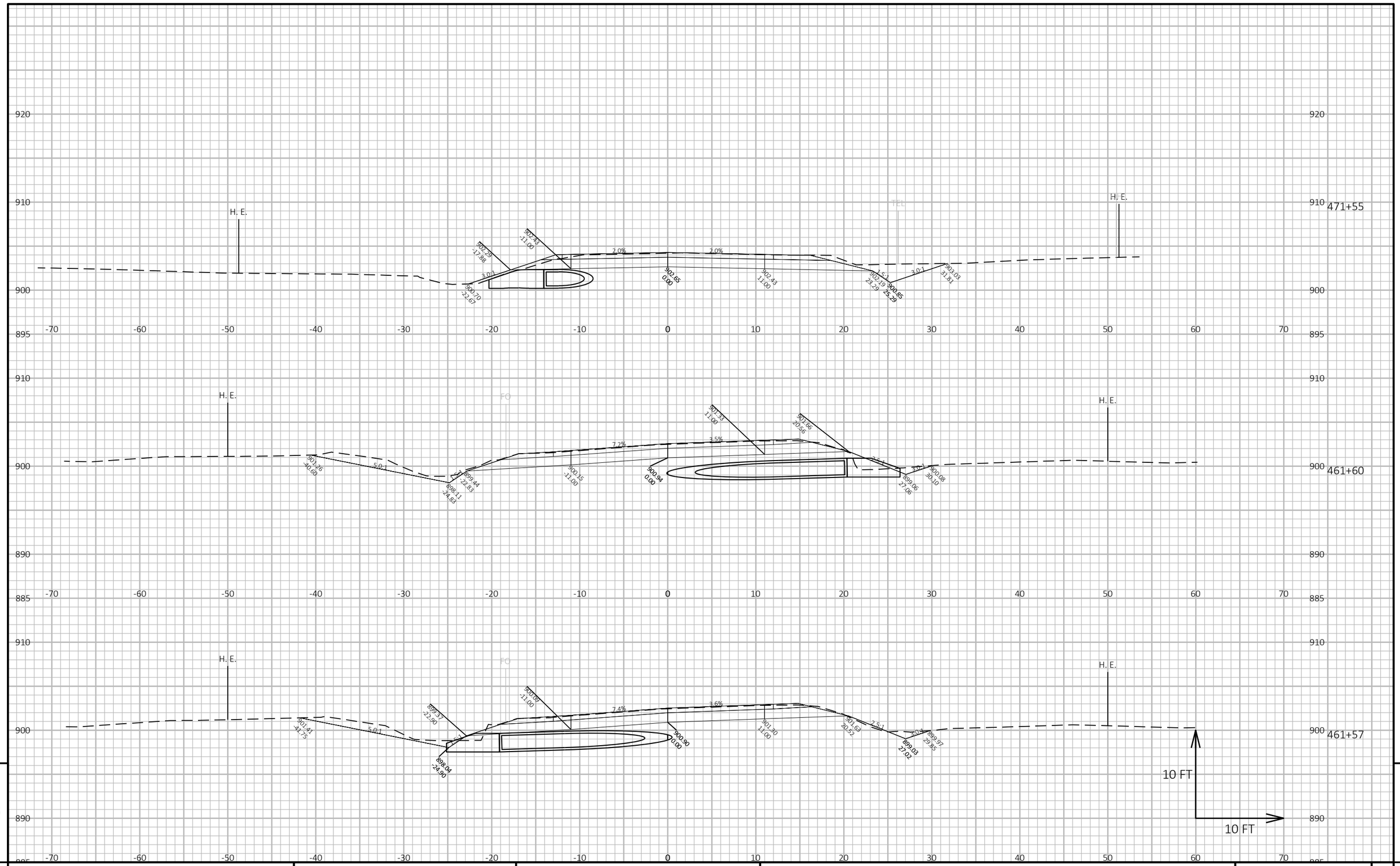
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 200	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 29

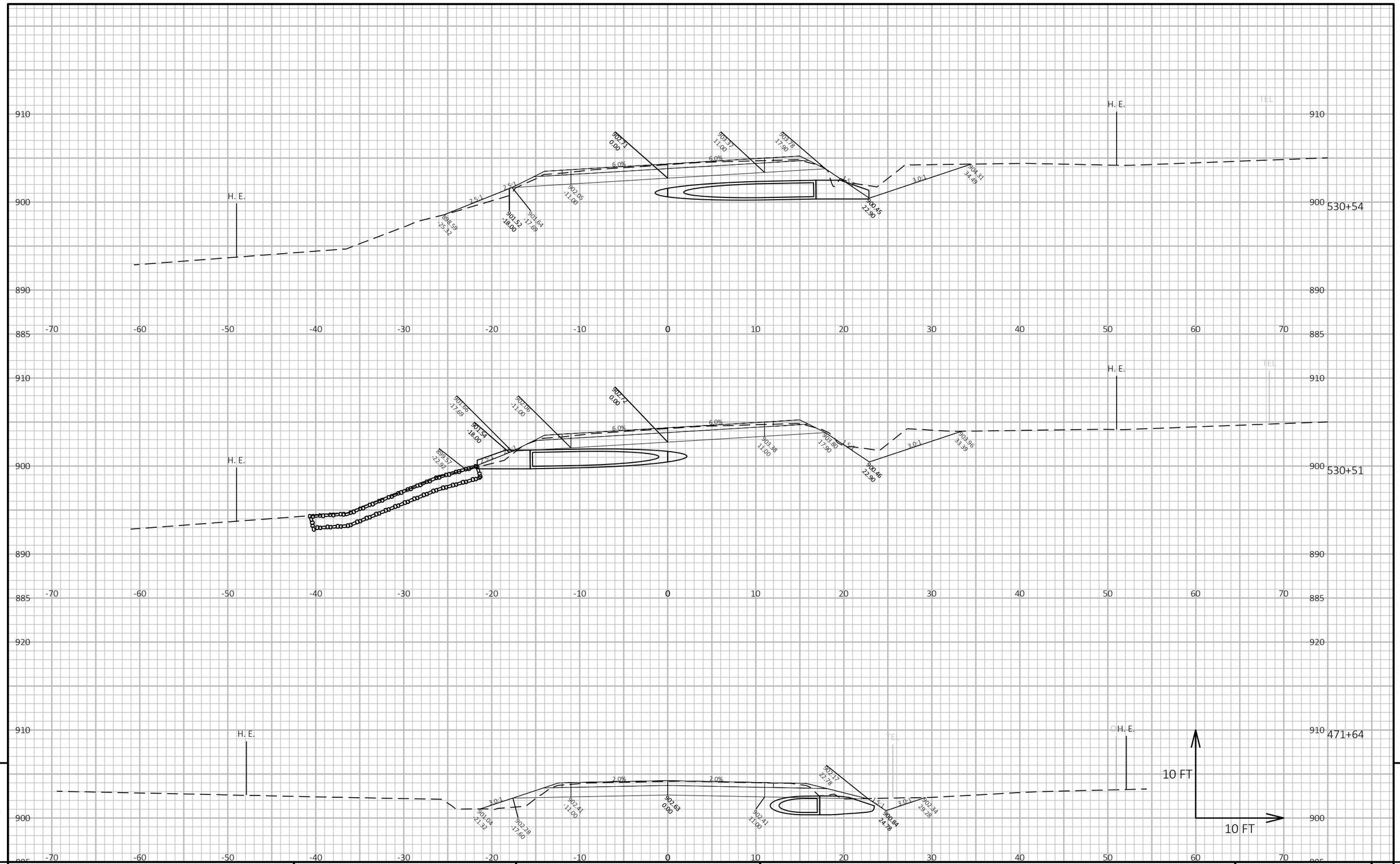
PLOT DATE : 3/14/2025 9:32 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 201	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 30
PLOT DATE : 3/14/2025 9:32 AM
PLOT BY : ROBERT SCHWOCH
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

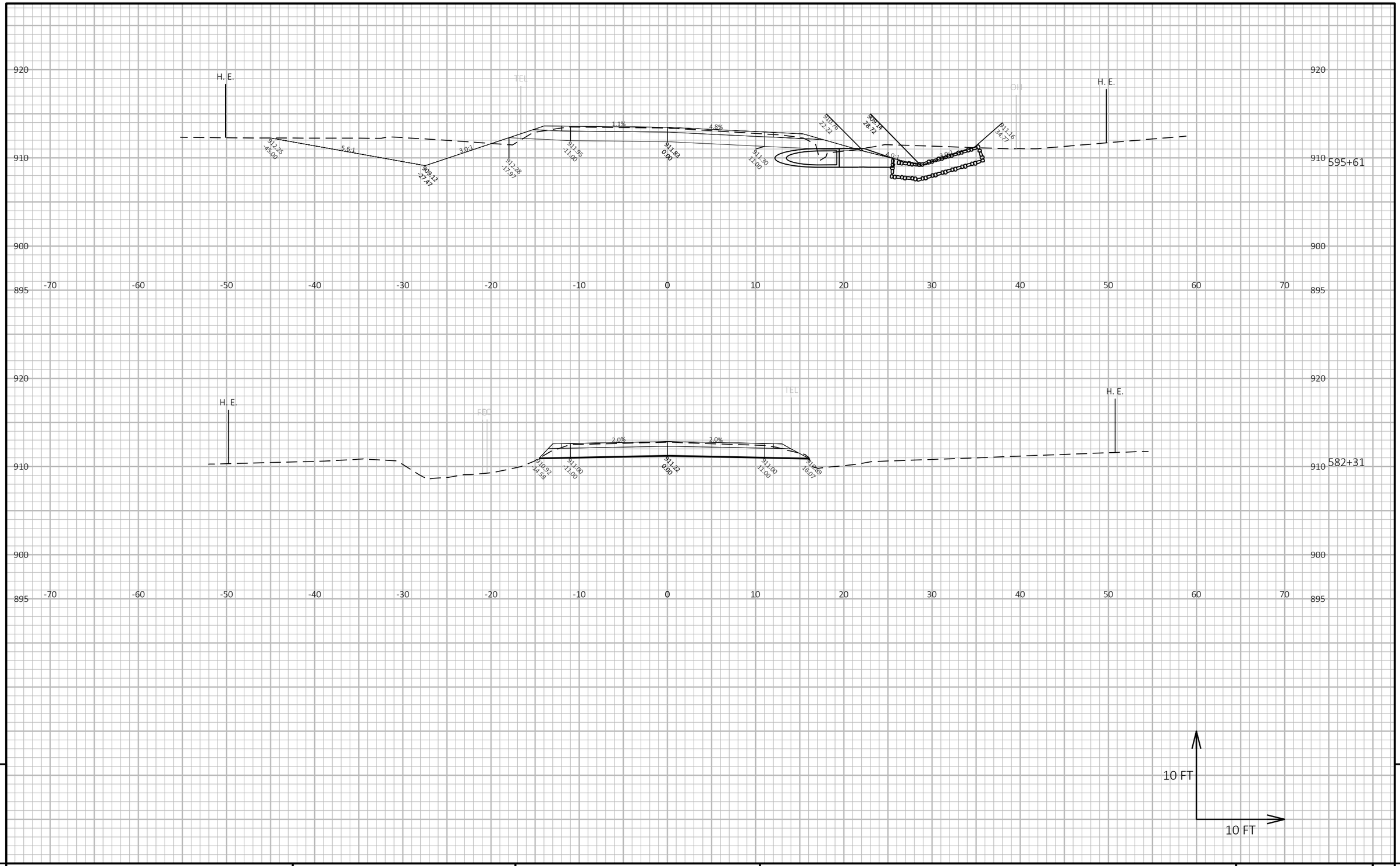


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 202	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 31

PLOT DATE : 3/14/2025 9:32 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

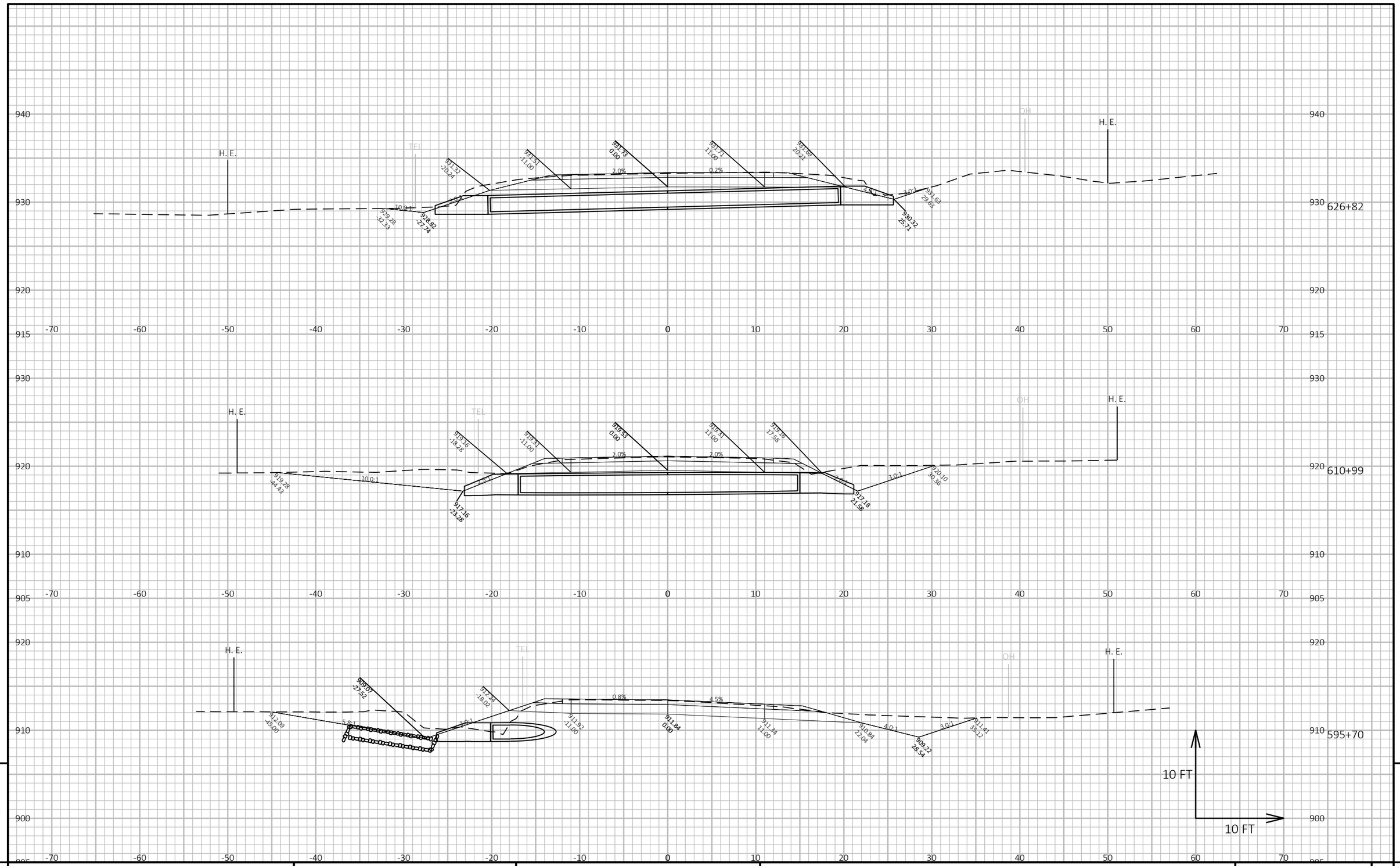
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 203	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 32

PLOT DATE : 5/22/2025 12:33 PM PLOT BY : ANDY BLOCK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

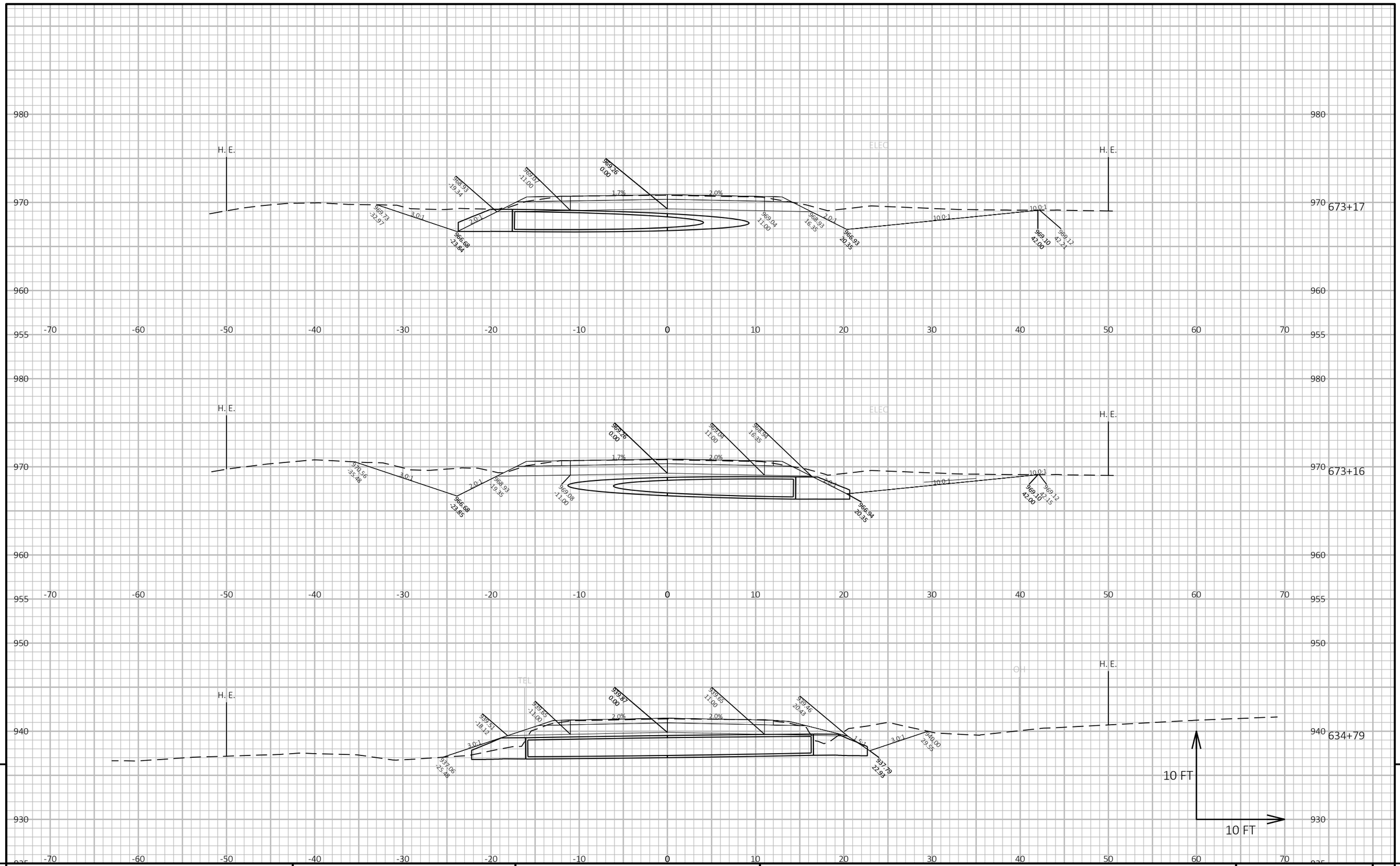
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 204	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 33

PLOT DATE : 3/14/2025 9:32 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

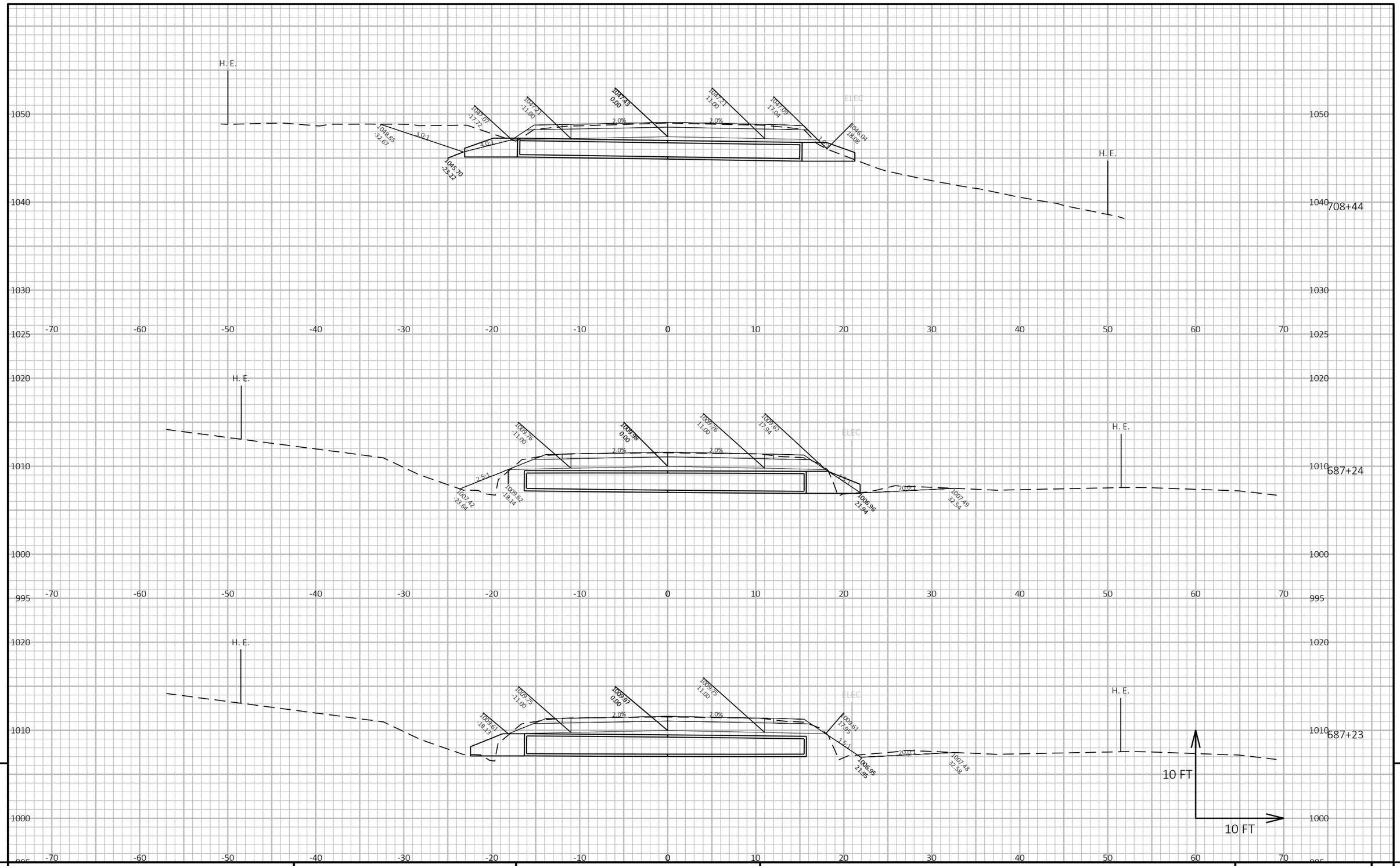


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 205 E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 34

PLOT DATE : 3/14/2025 9:32 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

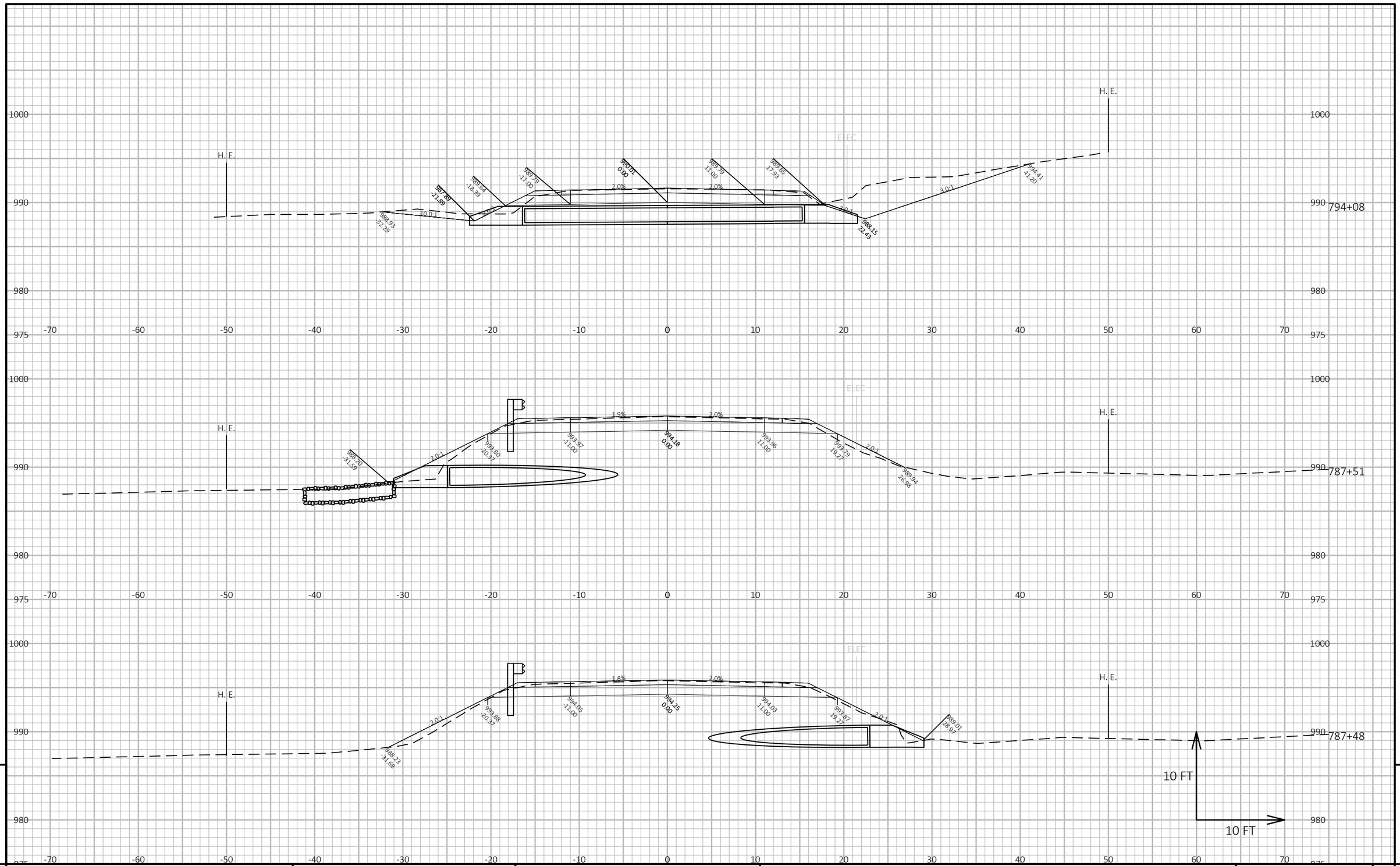
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 206	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 35

PLOT DATE : 3/14/2025 9:32 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

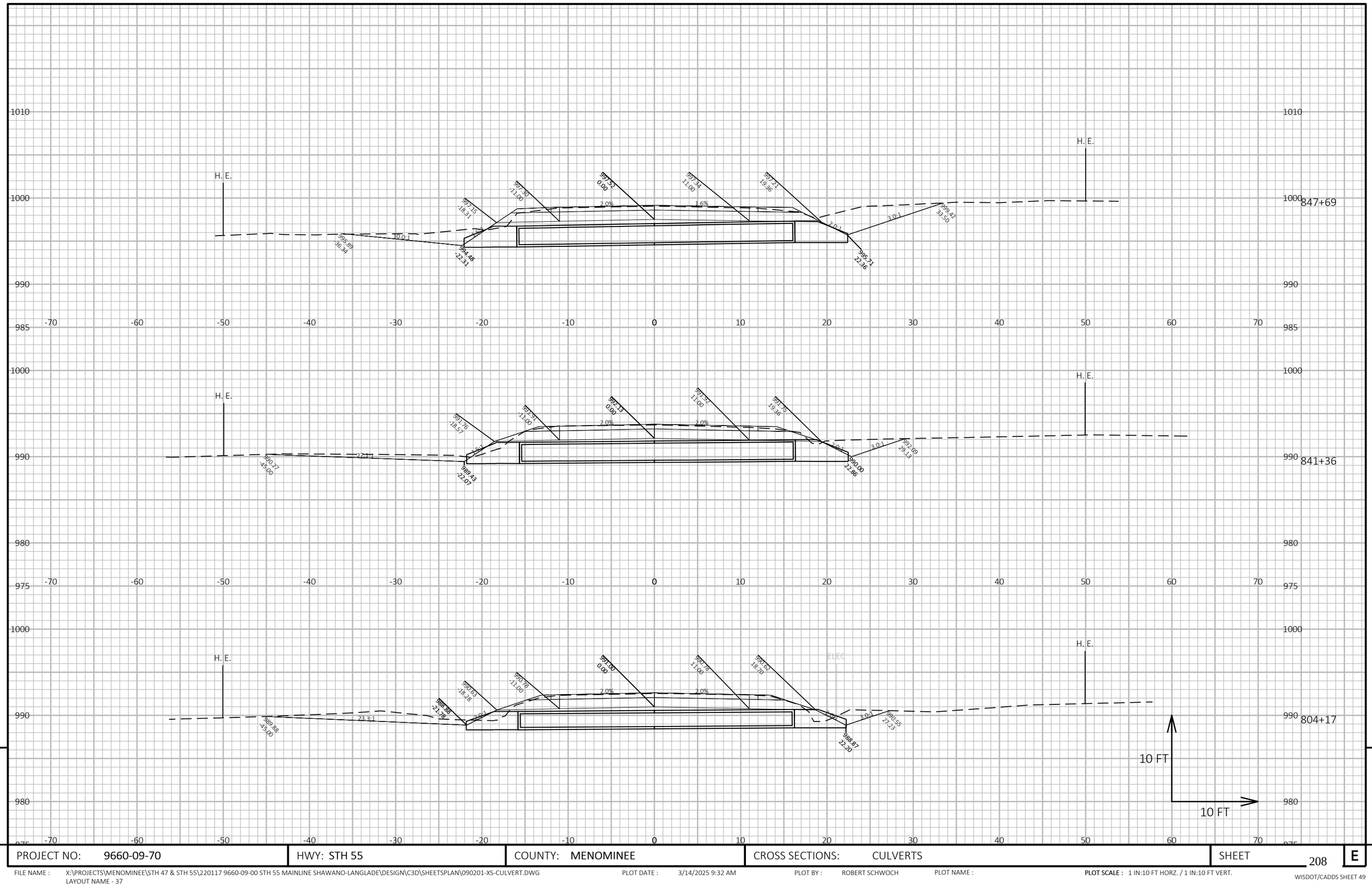
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 207	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 36

PLOT DATE : 3/14/2025 9:32 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

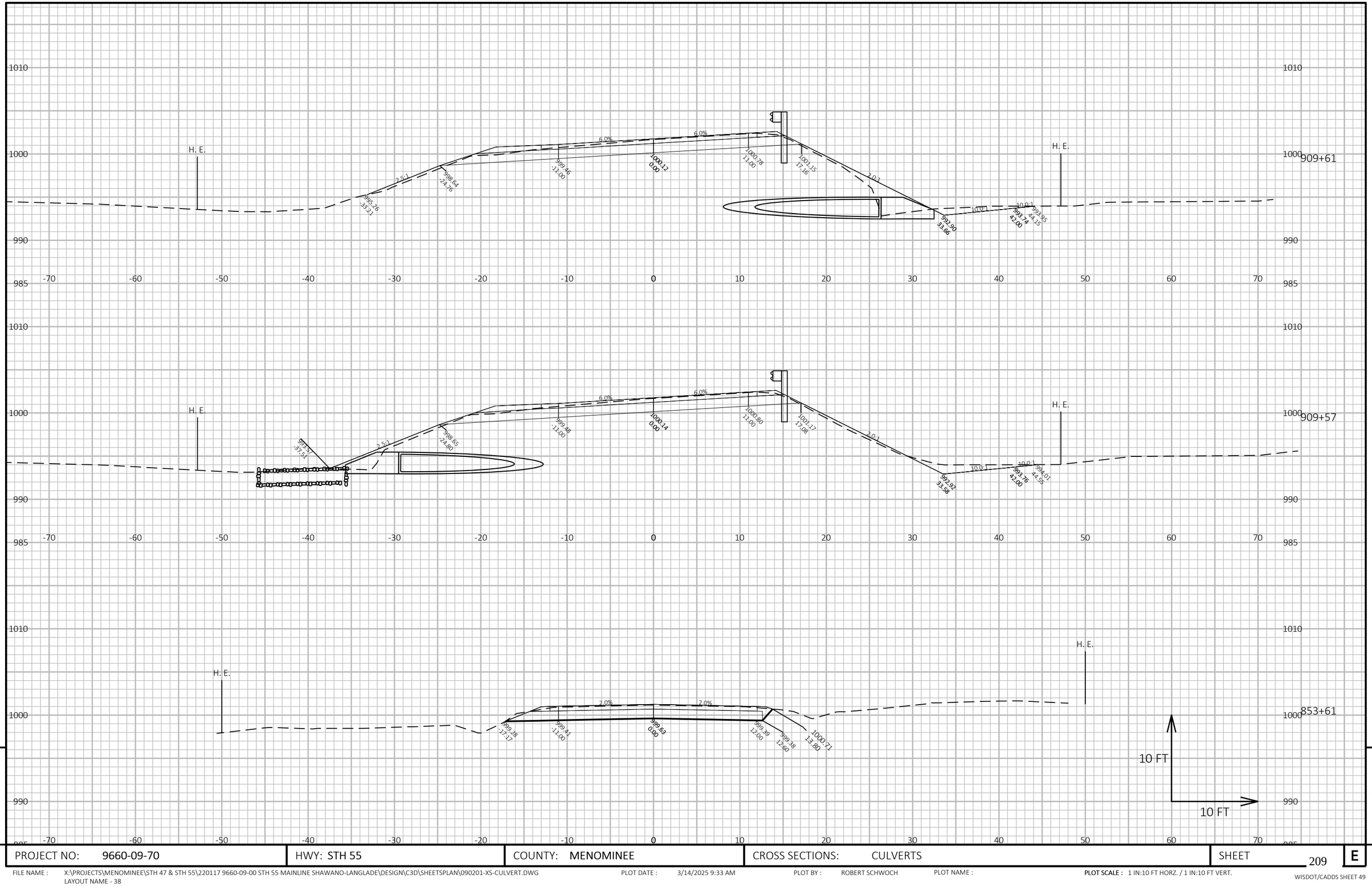


9

9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 208	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 37
PLOT DATE : 3/14/2025 9:32 AM
PLOT BY : ROBERT SCHWOCH
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

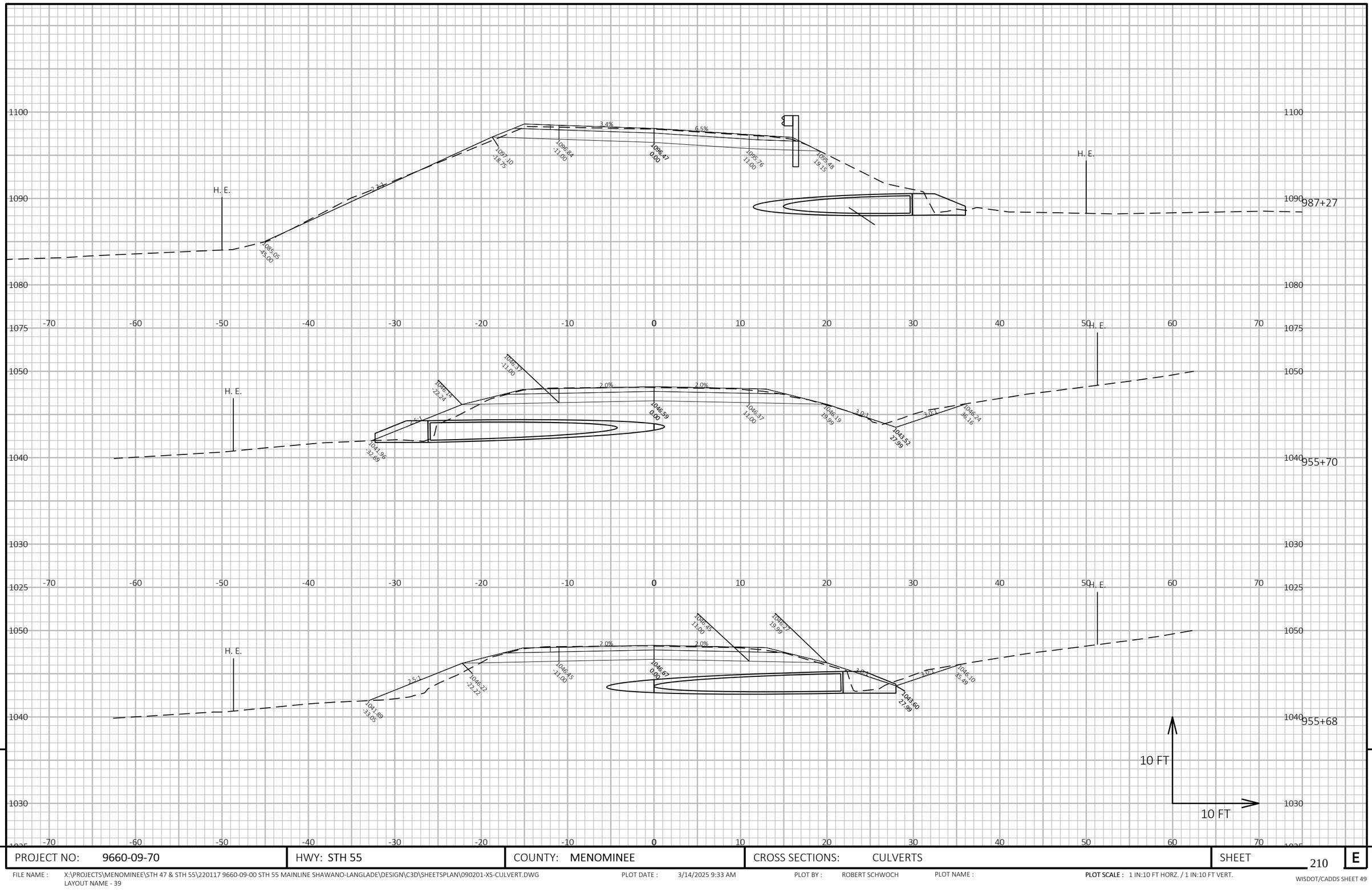


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 209	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 38

PLOT DATE : 3/14/2025 9:33 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

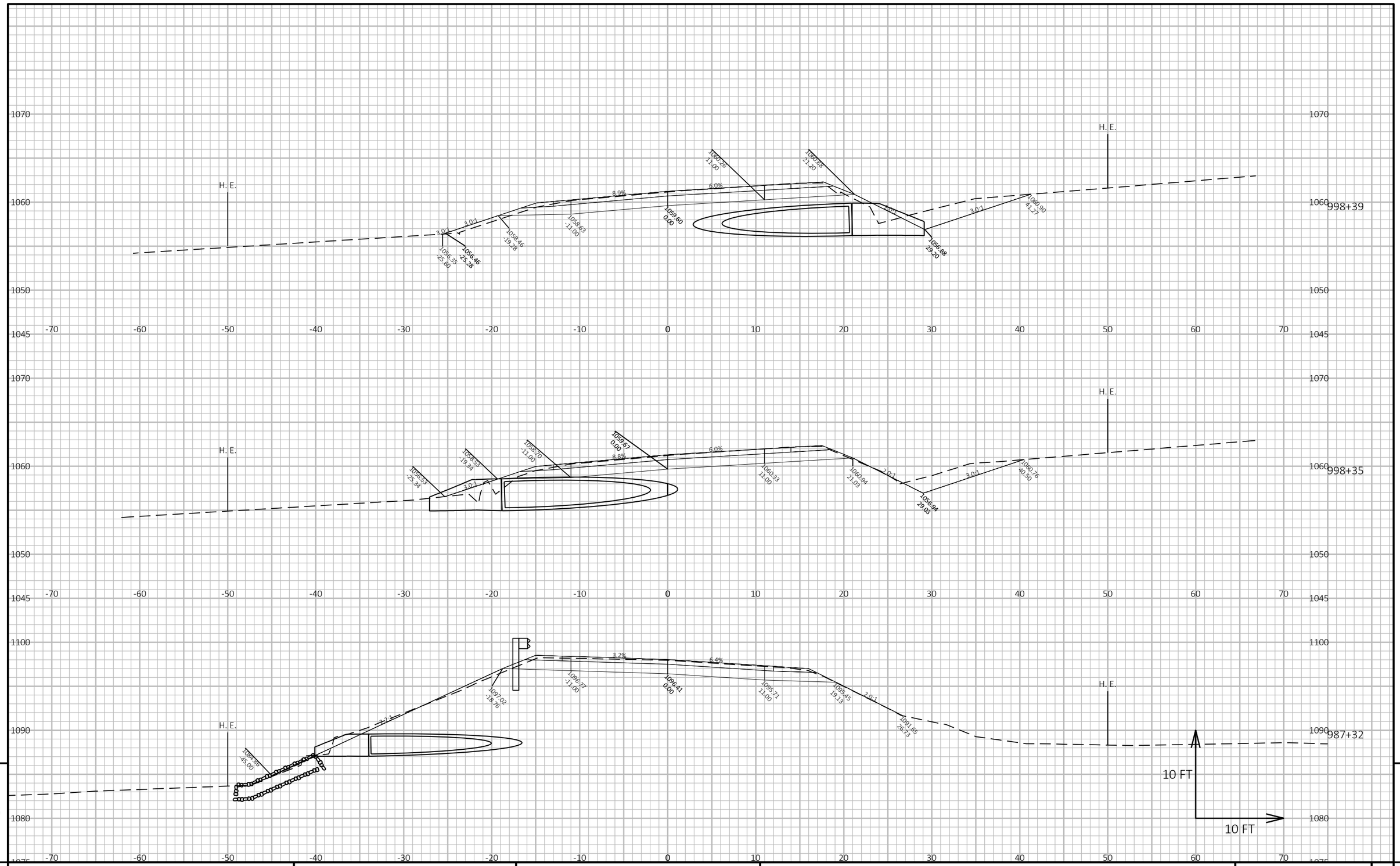


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 210	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 39

PLOT DATE : 3/14/2025 9:33 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

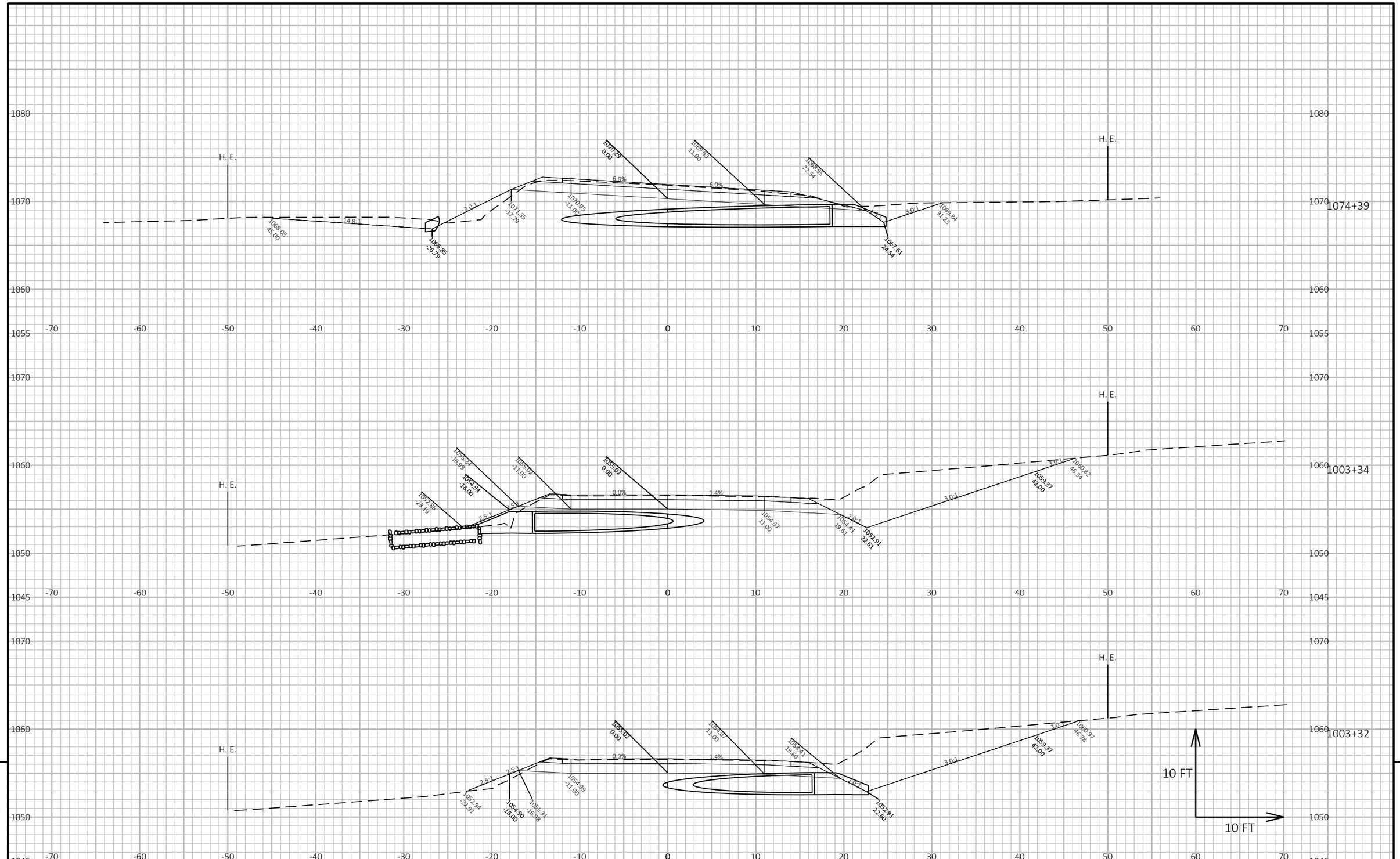
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 211	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 40

PLOT DATE : 3/14/2025 9:33 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

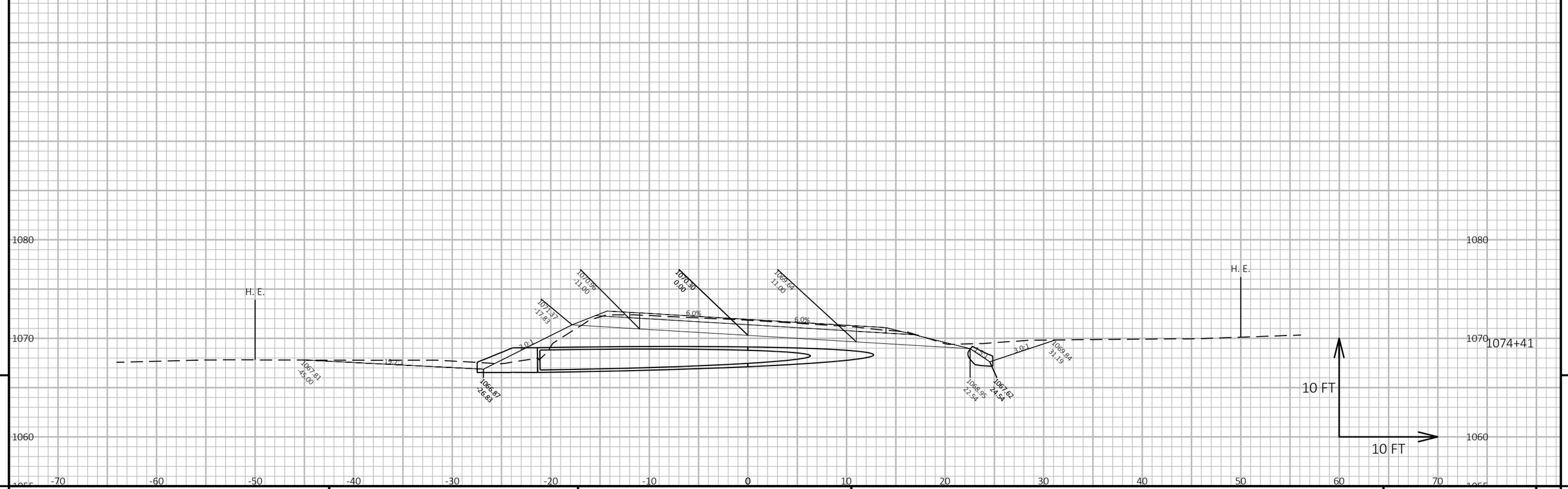


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 212	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 41

PLOT DATE : 3/14/2025 9:33 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

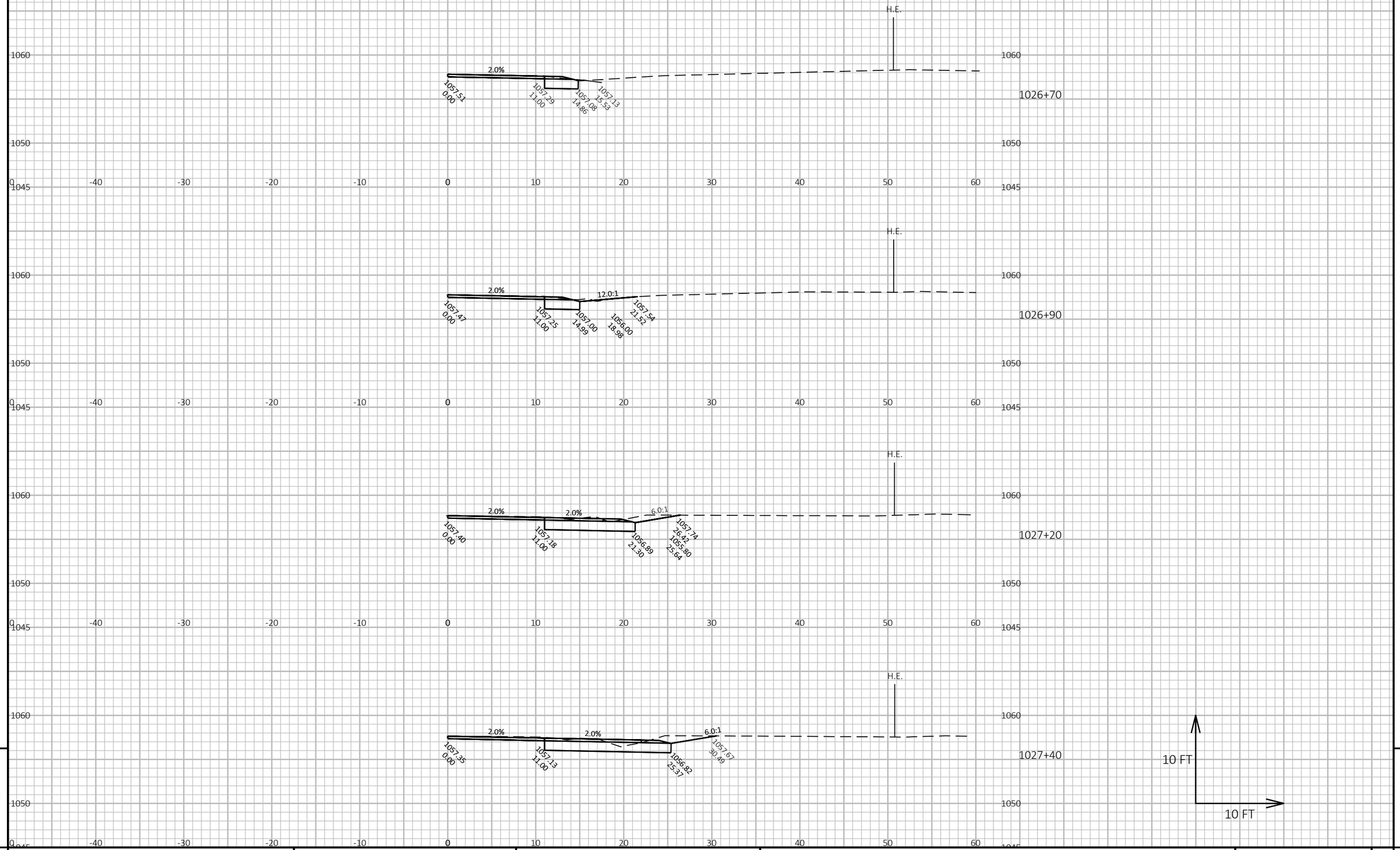


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: CULVERTS	SHEET 213	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\SHEETSPLAN\090201-XS-CULVERT.DWG
LAYOUT NAME - 42

PLOT DATE : 3/14/2025 9:33 AM PLOT BY : ROBERT SCHWOCH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

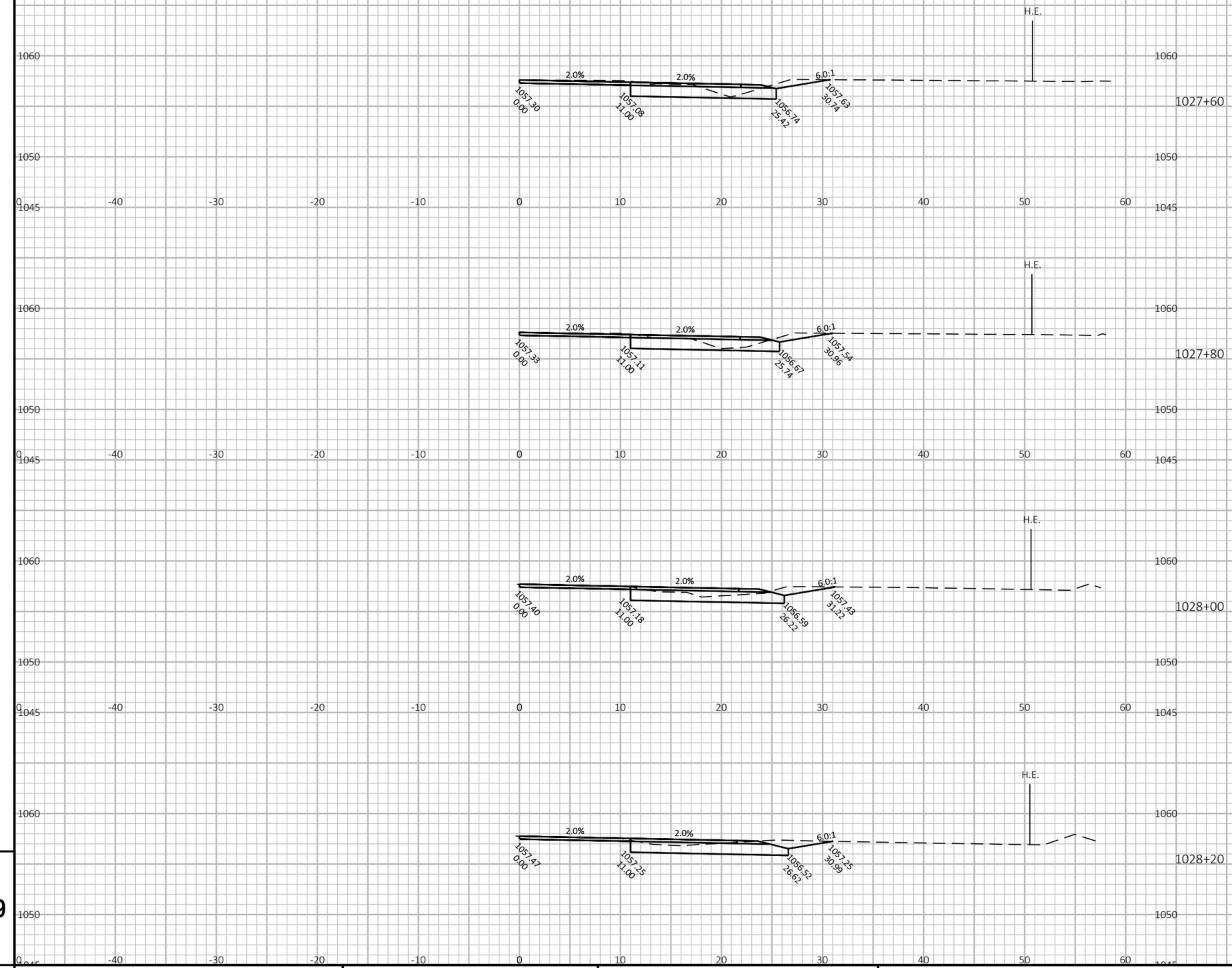
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: PROPOSED EMERGENCY PULL-OUT	SHEET 214	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 05

PLOT DATE : 5/22/2025 1:07 PM PLOT BY : ANDY BLOCK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

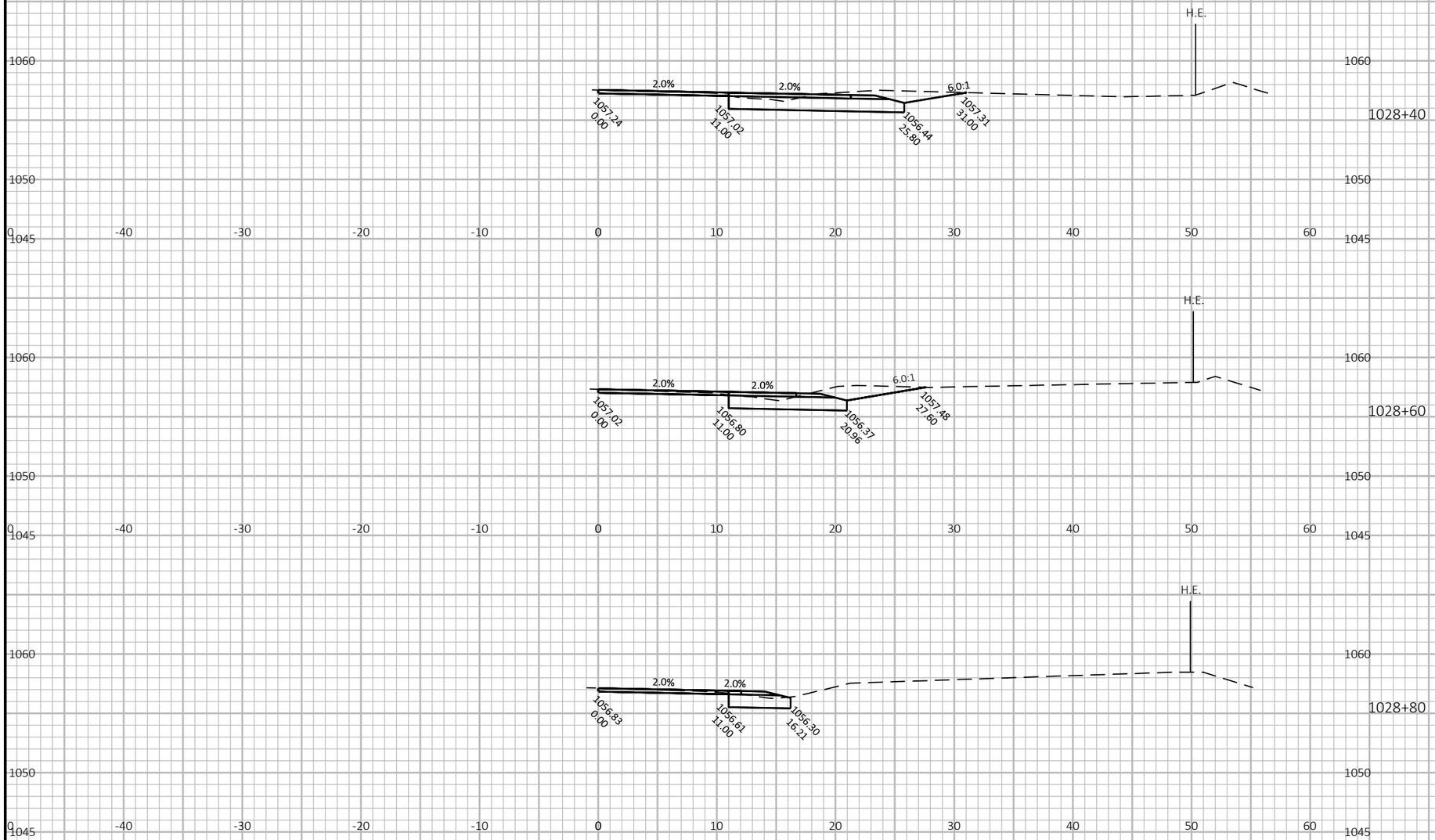
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: PROPOSED EMERGENCY PULL-OUT	SHEET 215	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 06

PLOT DATE : 5/22/2025 1:08 PM PLOT BY : ANDY BLOCK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

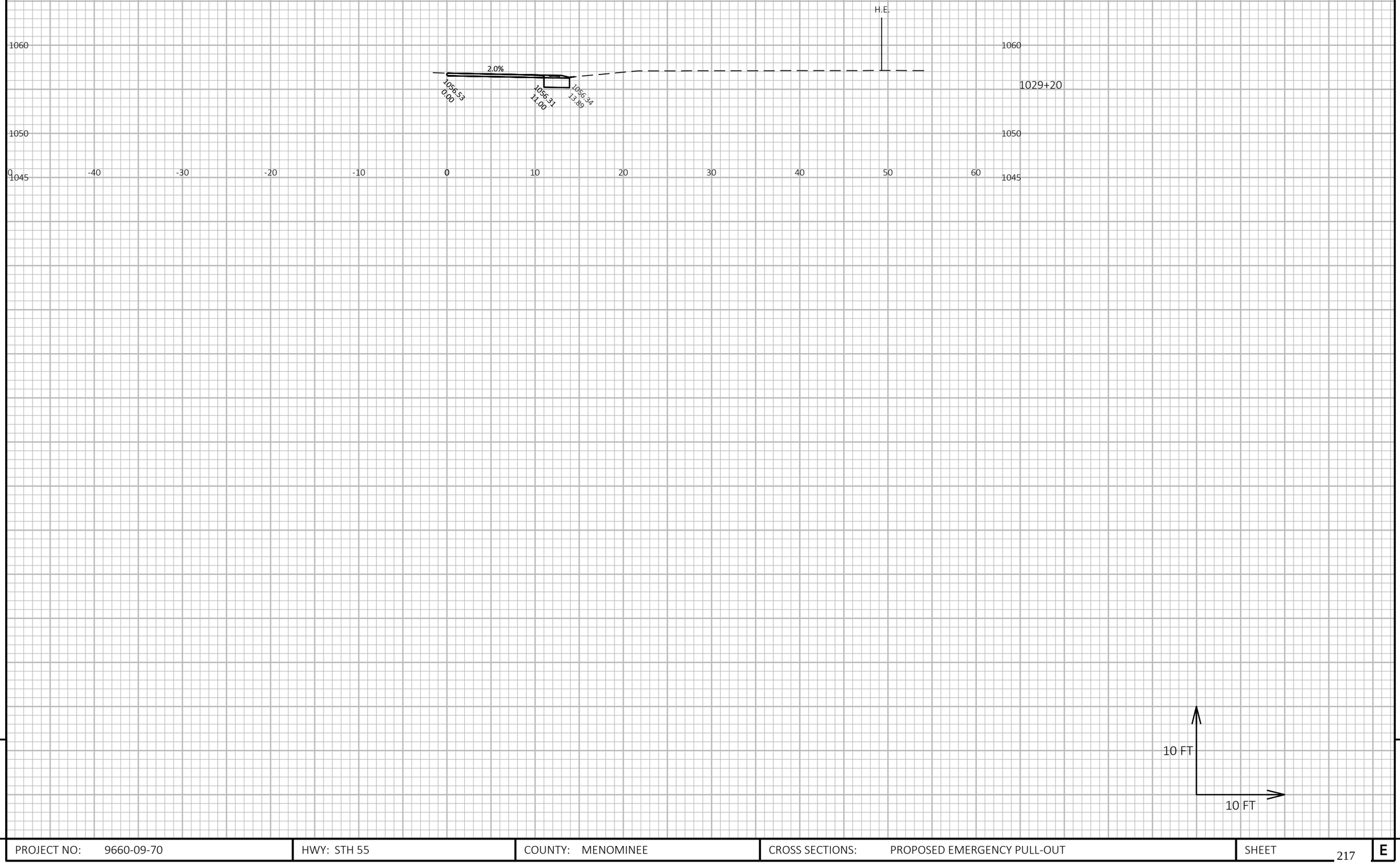


PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: PROPOSED EMERGENCY PULL-OUT	SHEET 216	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 07

PLOT DATE : 5/22/2025 1:08 PM PLOT BY : ANDY BLOCK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



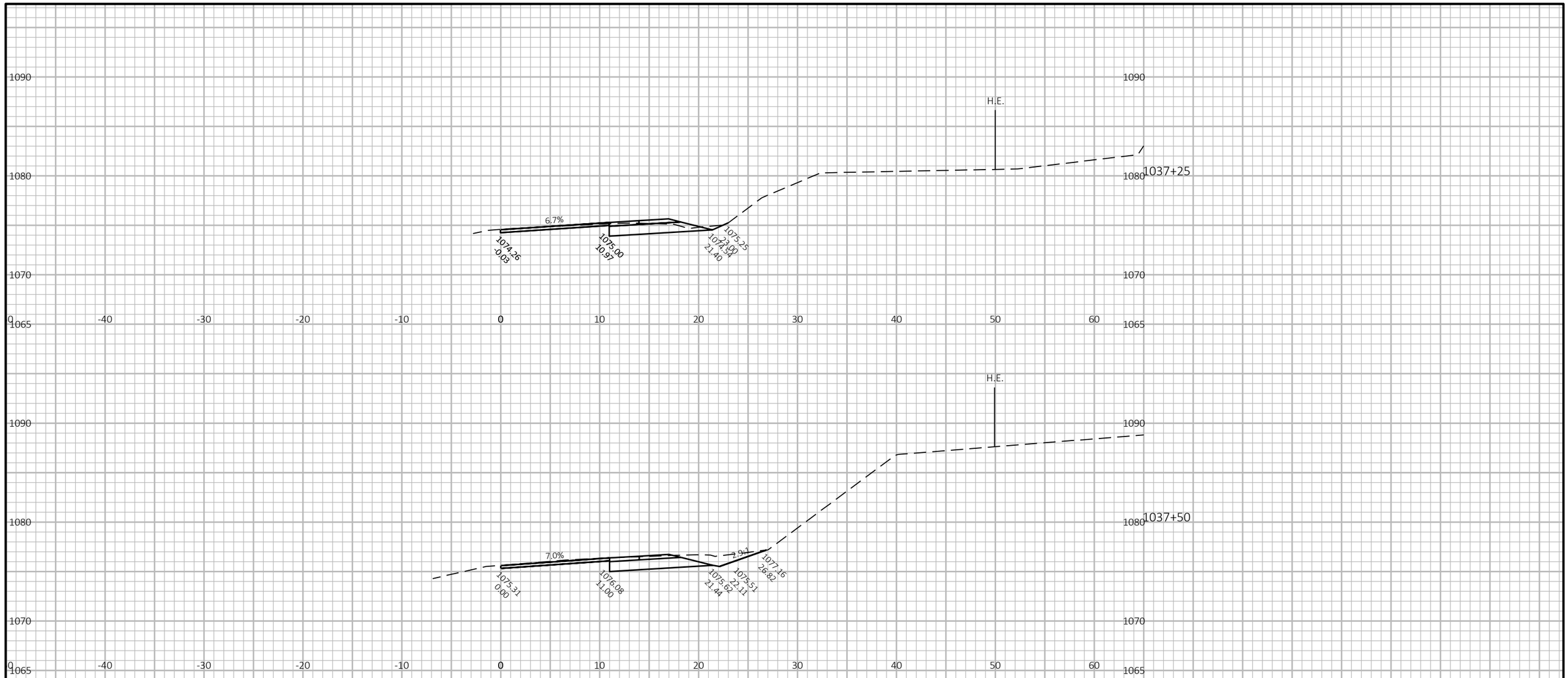
9

9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: PROPOSED EMERGENCY PULL-OUT	SHEET 217	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 08

PLOT DATE : 5/22/2025 1:09 PM PLOT BY : ANDY BLOCK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

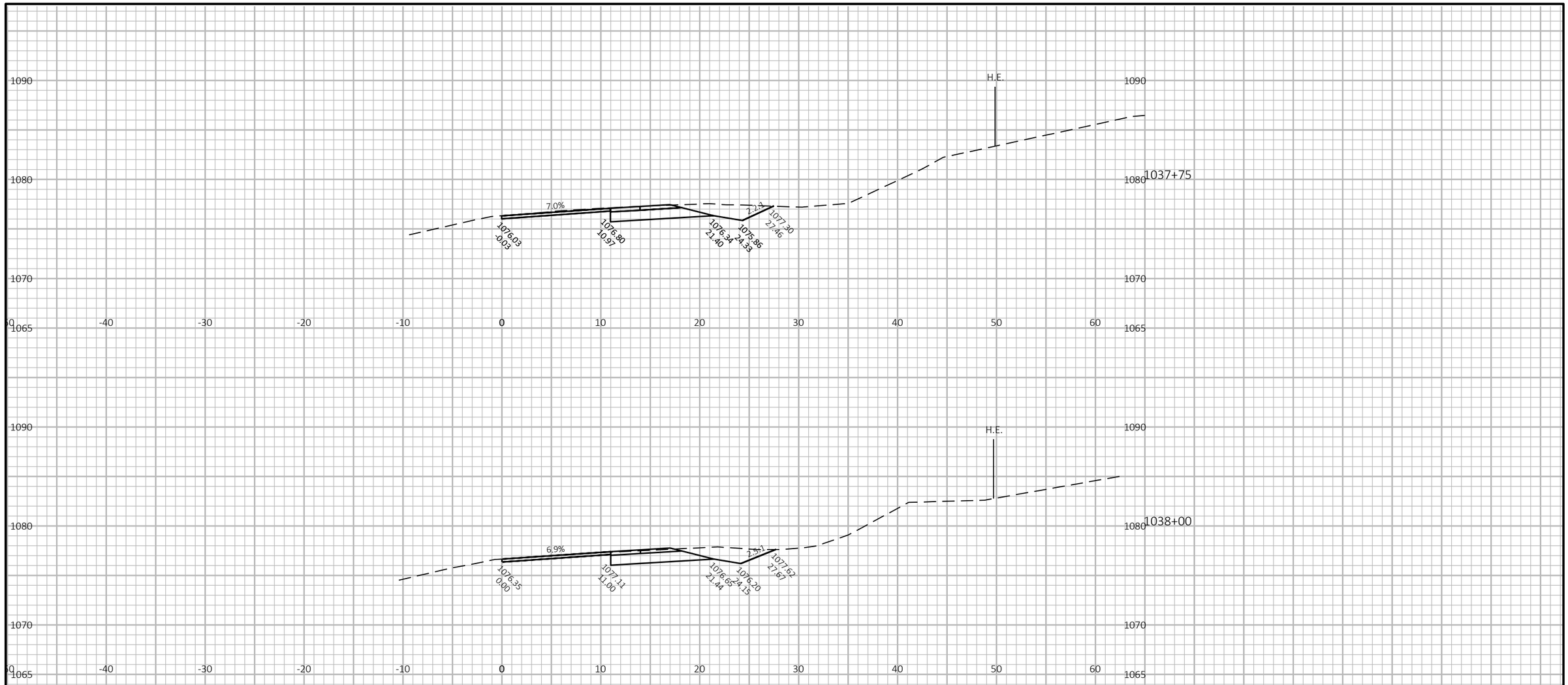
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: EMERGENCY PULL-OUT REMOVAL	SHEET 218	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 09

PLOT DATE : 5/22/2025 1:09 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

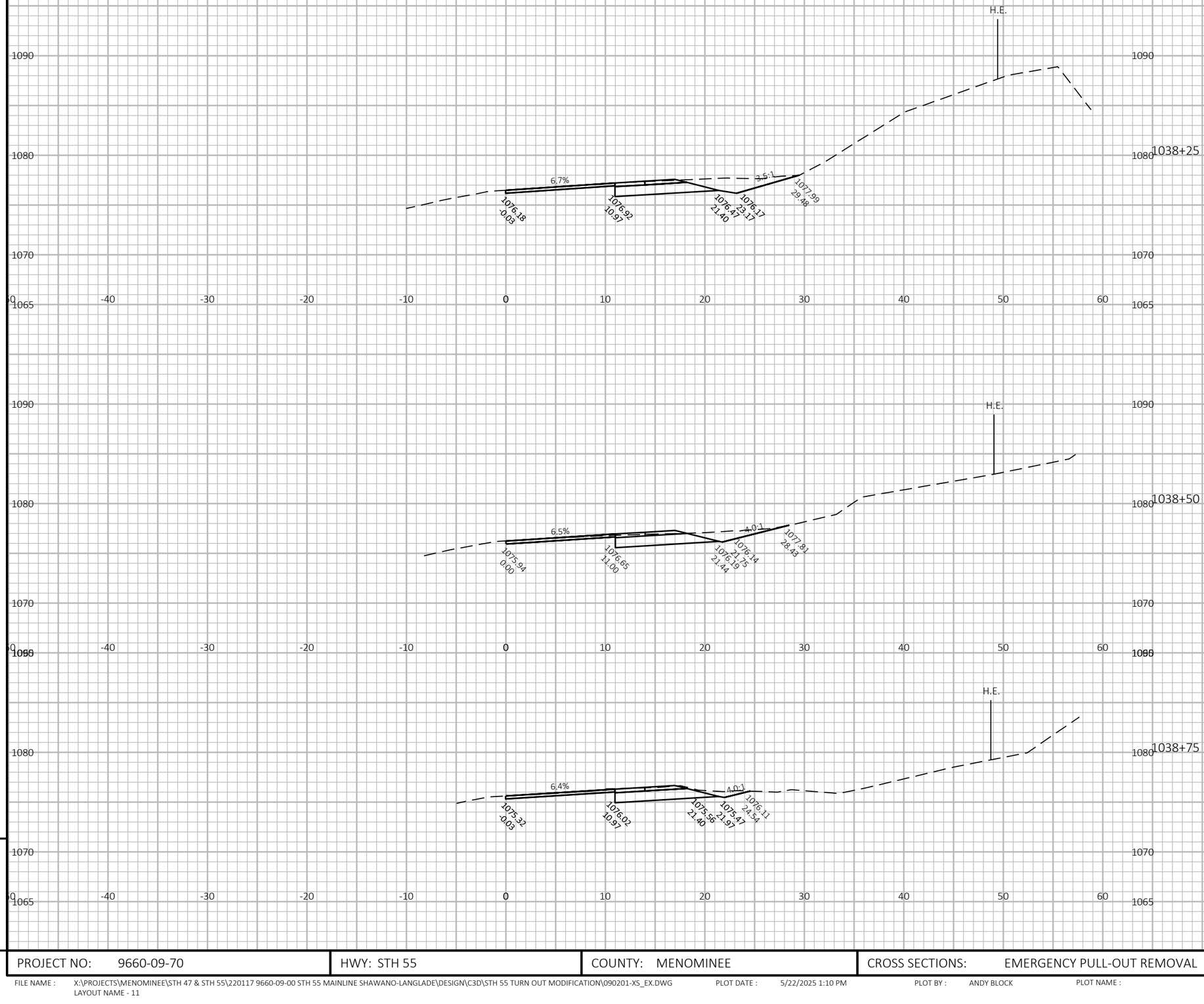
9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: EMERGENCY PULL-OUT REMOVAL	SHEET 219	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 10

PLOT DATE : 5/22/2025 1:10 PM PLOT BY : ANDY BLOCK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

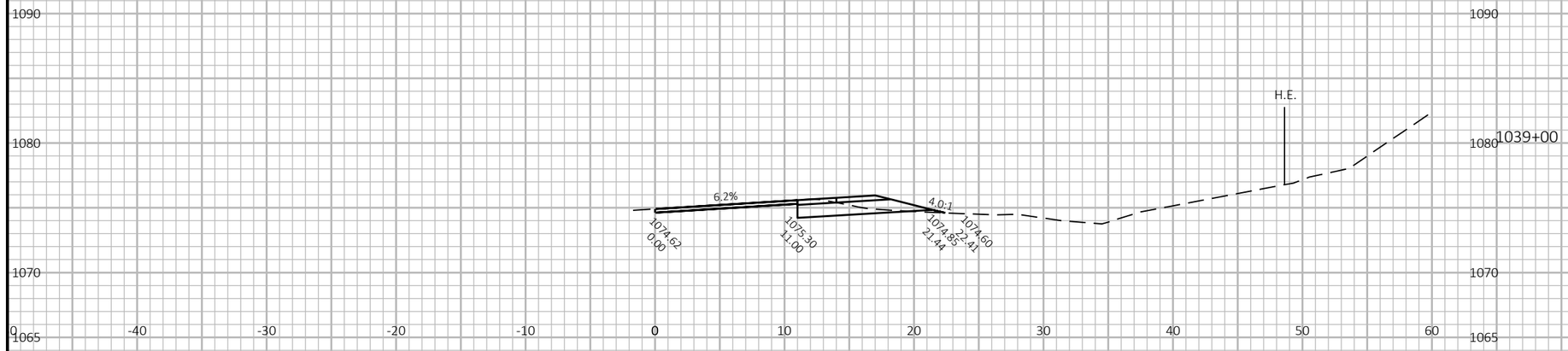


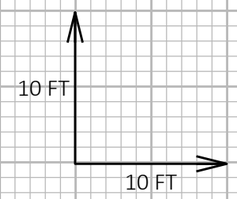
PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: EMERGENCY PULL-OUT REMOVAL	SHEET 220	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 11

PLOT DATE : 5/22/2025 1:10 PM PLOT BY : ANDY BLOCK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

PROJECT NO: 9660-09-70	HWY: STH 55	COUNTY: MENOMINEE	CROSS SECTIONS: EMERGENCY PULL-OUT REMOVAL	SHEET 221	E

FILE NAME : X:\PROJECTS\MENOMINEE\STH 47 & STH 55\220117 9660-09-00 STH 55 MAINLINE SHAWANO-LANGLADE\DESIGN\C3D\STH 55 TURN OUT MODIFICATION\090201-XS_EX.DWG
LAYOUT NAME - 12

PLOT DATE : 5/22/2025 1:10 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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through innovation and exceptional service.

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