WIS

PROJECT ID: WITH: N/A

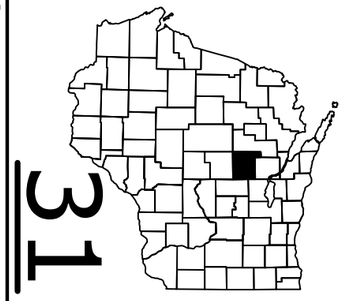
6887-01-71

COUNTY: **WAUPACA**

JANUARY 2026

ORDER OF SHEETS

TOTAL SHEETS = 176



N

DESIGN DESIGNATION

A.A.D.T.	2026	=	125
A.A.D.T.	2046	=	128
D.H.V.		=	19
D.D.		=	50/50
T.		=	5.1%
DESIGN SPEED		=	45 MPH/30 MPH ON BRIDGE
ESALS		=	7,300

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T LARRABEE, BUCKBEE ROAD

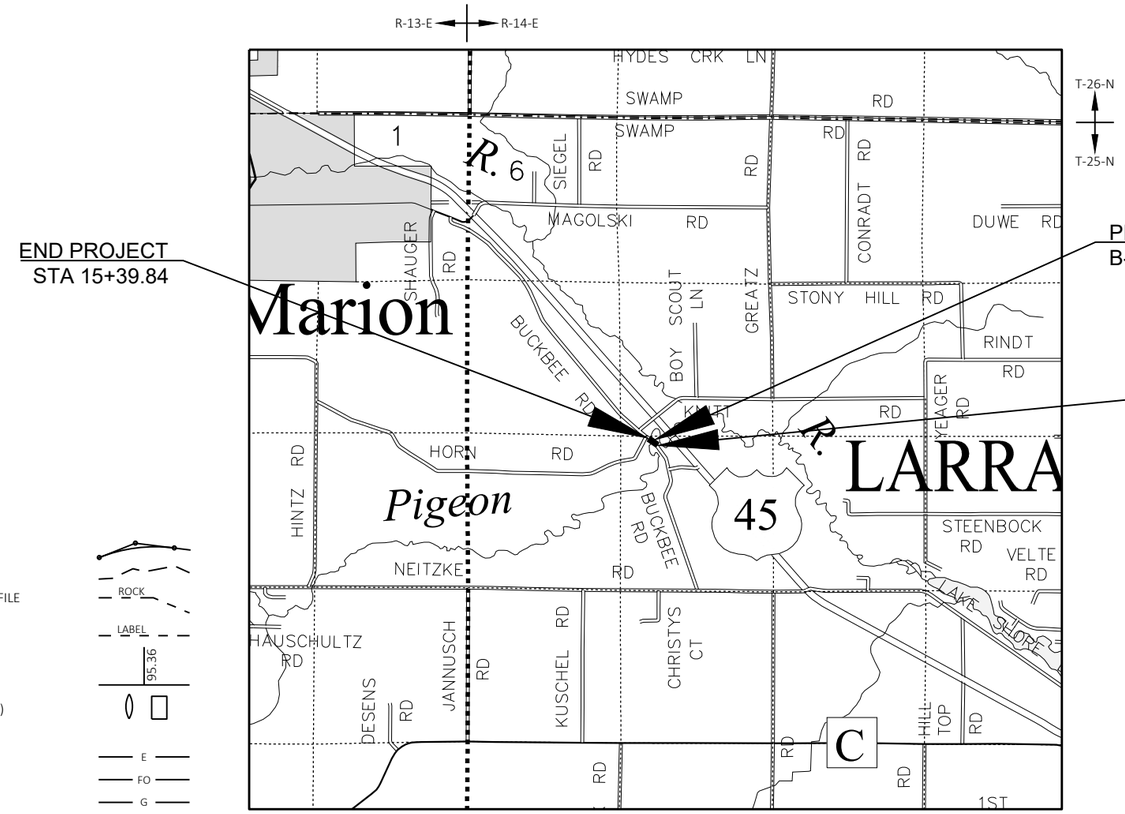
S BR PIGEON RIVER BRIDGE, B-68-0151

LOCAL STREET
WAUPACA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6887-01-71		

STATE PROJECT NUMBER

6887-01-71



END PROJECT
STA 15+39.84

PROPOSED STRUCTURE
B-68-0151

BEGIN PROJECT
STA 11+57.00
Y: 447,667.21
X: 602,502.23

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.073 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), WAUPACA COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR TOWN OF LARRABEE

Date 6/21/25 (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY:

STRAND ASSOCIATES®

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	STRAND ASSOCIATES
Designer	STRAND ASSOCIATES
Regional Examiner	JASON SCHAEFFER
Regional Supervisor	DAN ERVA

APPROVED FOR THE DEPARTMENT

DATE: 7/01/2025 (Signature)

E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\010101-TI.DWG PLOT DATE : 6/14/2025 3:00 AM PLOT BY : KOWALSKI, NICK PLOT NAME :

2

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED/EROSION MAT.

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

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

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

WETLANDS EXIST IN THE PROJECT AREA. DO NOT DISTURB AREAS OUTSIDE THE SLOPE INTERCEPTS.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION.

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

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

EXISTING SIGNS SHALL REMAIN IN PLACE UNLESS MOVED AS PART OF THE PLAN OR THE ENGINEER APPROVES THE REMOVAL.

UTILITIES CONTACTS

**DENOTES DIGGERS HOTLINE MEMBER

** ALLIANT ENERGY (ELECTRIC)

SETH SCHOUNARD
708 NORTHEAST 7TH STREET
MARION, WI 54950
PHONE: 715-754-4331
EMAIL: sethschounard@alliantenergy.com

** FRONTIER COMMUNICATIONS (FIBER)

CHRIS POLLACK
521 4TH STREET
WAUSAU, WI 54403
PHONE: 715-297-4773
EMAIL: christopher.pollack@ftr.com

** CHARTER/SPECTRUM (FIBER)

VINCE ALBIN
3545 PLANK ROAD
APPLETON, WI 54915
PHONE: 920-831-9249
EMAIL: vince.albin@charter.com

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

OTHER CONTACTS

DESIGN CONSULTANT

TERA MEYER
STRAND ASSOCIATES, INC.
910 WEST WINGRA DR.
MADISON, WI 53715
(608) 251-4843
tera.meyer@strand.com

TOWN OF LARRABEE

PETE SASSE
T. LARRABEE SUPERVISOR
E8645 SWAMP ROAD
CLINTONVILLE, WI 54929
(715) 573-5627
larrabeesupervisor2@gmail.com

DNR LIAISON

MARTY DILLENBURG
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
625 E COUNTY ROAD Y, STE 700
OSHKOSH, WI 54901
(920) 410-7428
marty.dillenburg@wisconsin.gov

WISDOT CONTACT

JASON SCHAEFFER
WISDOT NC REGION
1681 2ND AVENUE SOUTH
WISCONSIN RAPIDS, WI 54495
(715) 421-7309
JASON.SCHAEFFER@dot.wi.gov

REFERENCE LINE CALLOUTS

NONE - BUCKBEE ROAD
H - HORN ROAD

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 STRIPTURF:	.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 SLOPETURF:			.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 = 0.937 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.527 ACRES

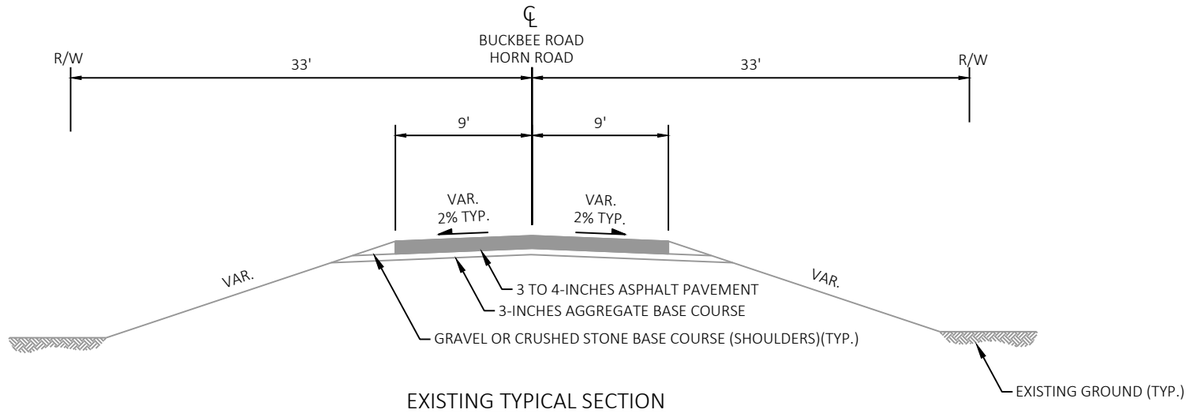
NOTES:

* SEE PLAN DETAILS FOR ADDITIONAL LAYOUT INFORMATION

** STA 11+57.00 - STA 12+56.00 SHOULDER WIDTHS REDUCED TO 0-FT TO MATCH EXISTING

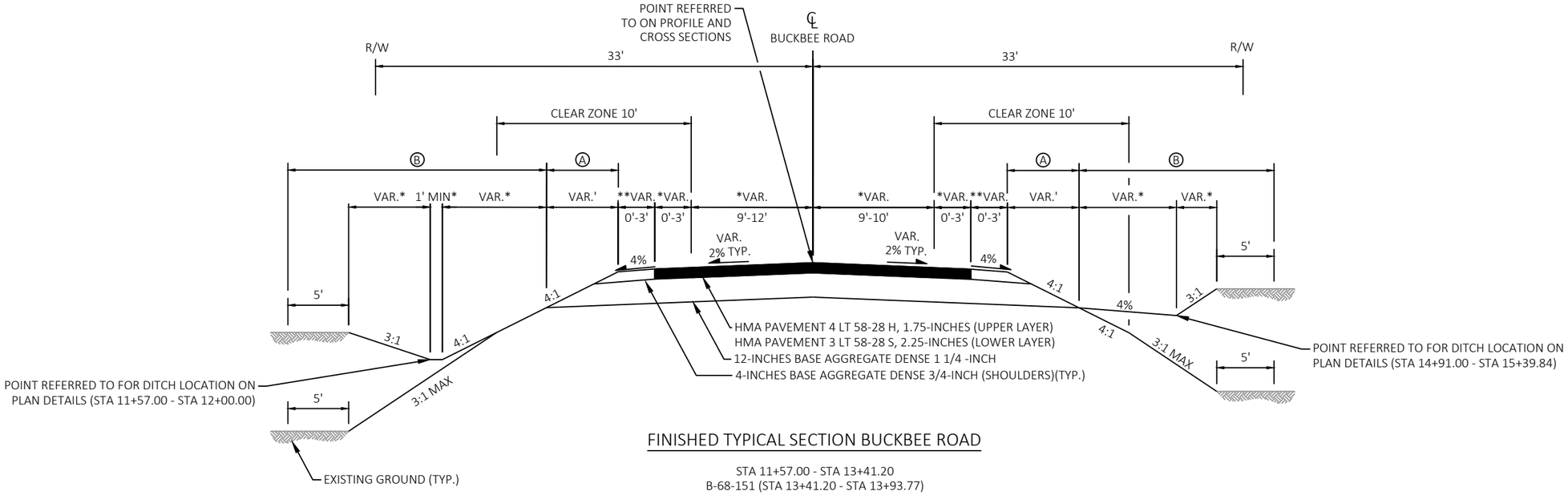
Ⓐ SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE B

Ⓑ SALVAGED TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE B



EXISTING TYPICAL SECTION

BUCKBEE ROAD: STA 11+57.00 - STA 15+39.84
HORN ROAD: STA 10+84.59 H - STA 12+76.23 H



FINISHED TYPICAL SECTION BUCKBEE ROAD

STA 11+57.00 - STA 13+41.20
B-68-151 (STA 13+41.20 - STA 13+93.77)
STA 13+93.77 - STA 15+39.84

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	TYPICAL SECTIONS	SHEET 33	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\020301-TS.DWG
LAYOUT NAME - 020301-ts
PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

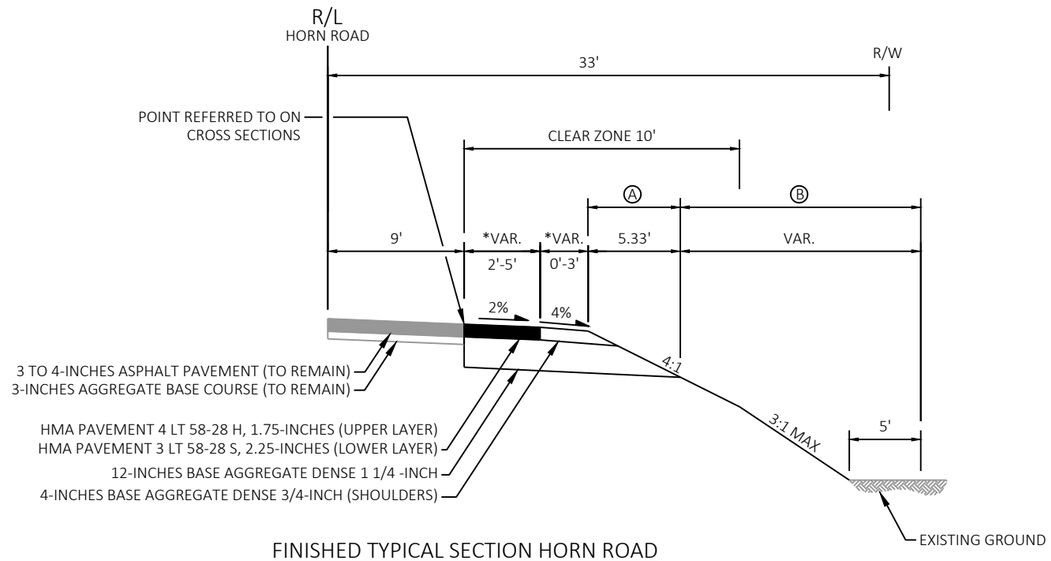
NOTES:

* SEE PLAN DETAILS FOR ADDITIONAL LAYOUT INFORMATION

** STA 11+57.00 - STA 12+56.00 SHOULDER WIDTHS REDUCED TO 0-FT TO MATCH EXISTING

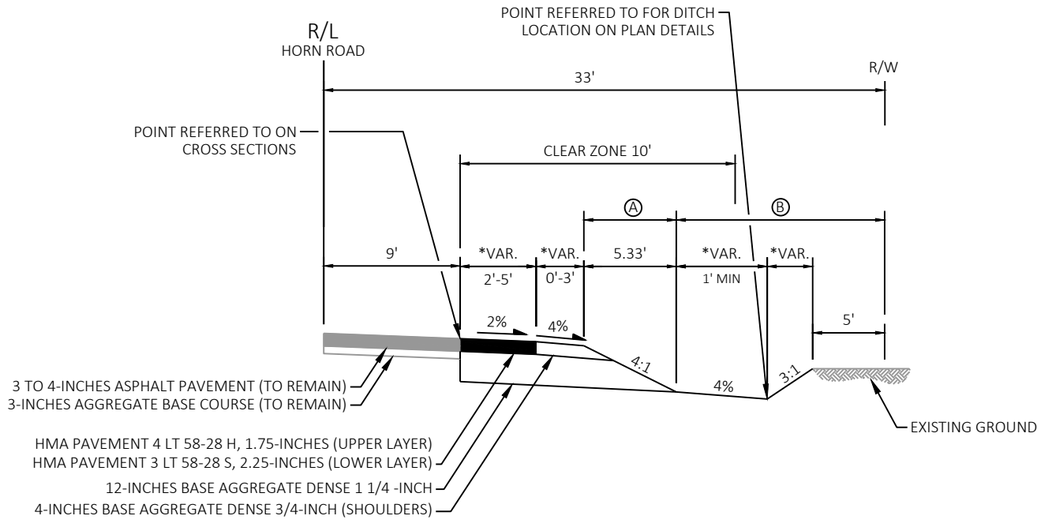
Ⓐ SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE B

Ⓑ SALVAGED TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE B



FINISHED TYPICAL SECTION HORN ROAD

STA 10+64.59 H - STA 11+59.59 H
STA 12+76.23 H - STA 12+95.65 H



FINISHED TYPICAL SECTION HORN ROAD

STA 12+33.35 H - STA 12+76.23 H

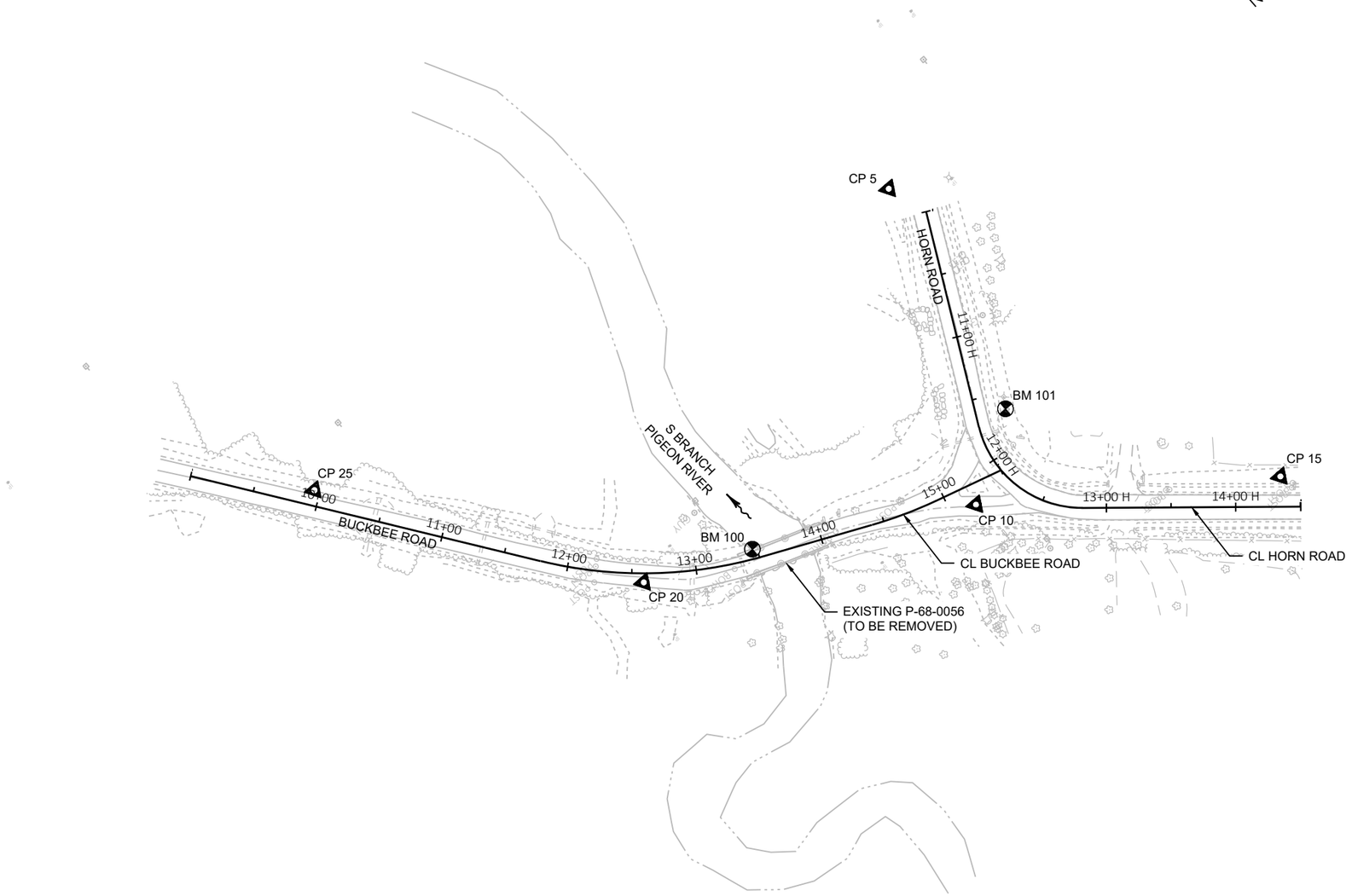
PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	TYPICAL SECTIONS	SHEET 44	E

2

BENCH MARKS				
NO.	STATION	OFFSET	ELEV.	DESCRIPTION
BM 100	13+46.22	7.53' LT	821.84	CHISELED SQUARE SE SIDE OF BRIDGE
BM 101	11+63.02 H	23.29' LT	828.38	RR SPIKE IN UTILITY POLE

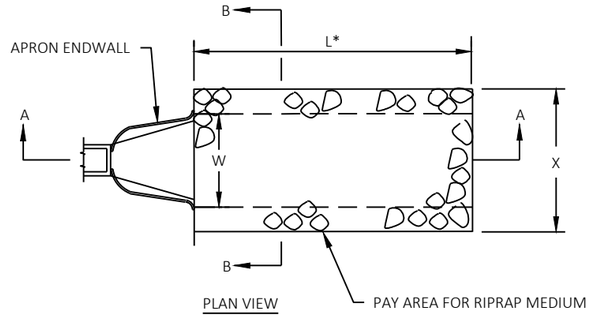
CONTROL POINTS AND BENCHMARK DETAIL

CONTROL POINTS					
NO.	STATION	OFFSET	Y	X	DESCRIPTION
CP 5			447,642.855	602,097.384	ROD
CP 10	15+20.23	15.81' RT	447,871.946	602,206.147	MAG NAIL
CP 15	14+34.69 H	23.40' LT	448,009.503	602,013.723	ROD
CP 20	12+59.17	6.90' RT	447,749.390	602,440.005	MAG NAIL
CP 25	9+95.68	144.24' LT	447,528.908	602,586.147	ROD



PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CONSTRUCTION DETAILS	SHEET 5 5	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\021001-CD.DWG
LAYOUT NAME - 021001-cd
PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : ##########



PLAN VIEW

L* = 3 x W (NOR.) OR 10' MIN. OR
AS INDICATED IN THE PLANS OR
AS DIRECTED BY THE ENGINEER.

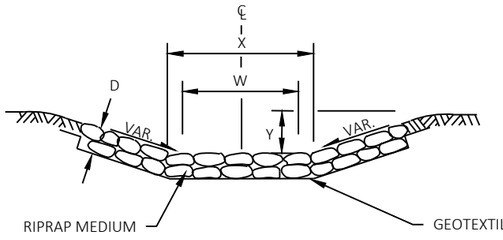
D = 18" FOR RIPRAP MEDIUM

X = W+2' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+4' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

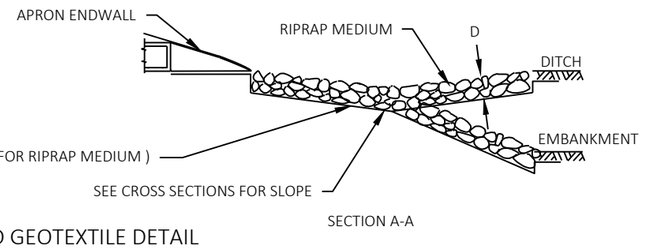
Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
12" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

CONSTRUCTION NOTES:

1. EXTEND GEOTEXTILE FABRIC BENEATH THE ENTIRE LENGTH OF THE APRON ENDWALL SECTION. INSTALL ON GRADE PRIOR TO ENDWALL INSTALLATION.
2. COMPLETE GEOTEXTILE FABRIC AND RIPRAP SECTION INSTALLATION PRIOR TO STORM WATER FLOW.

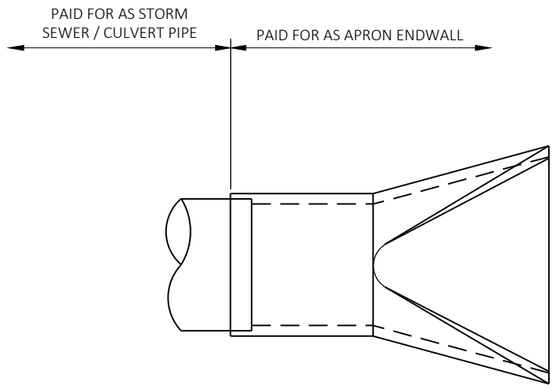


SECTION B-B

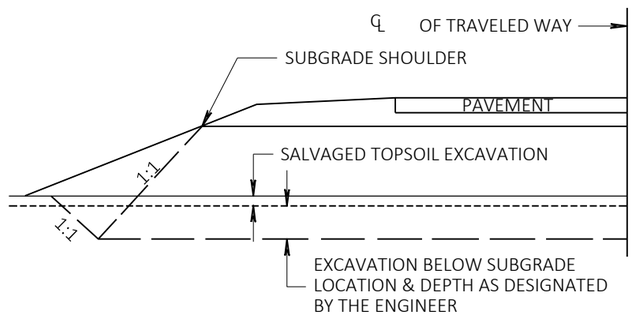


SECTION A-A

RIPRAP AND GEOTEXTILE DETAIL AT APRON ENDWALLS



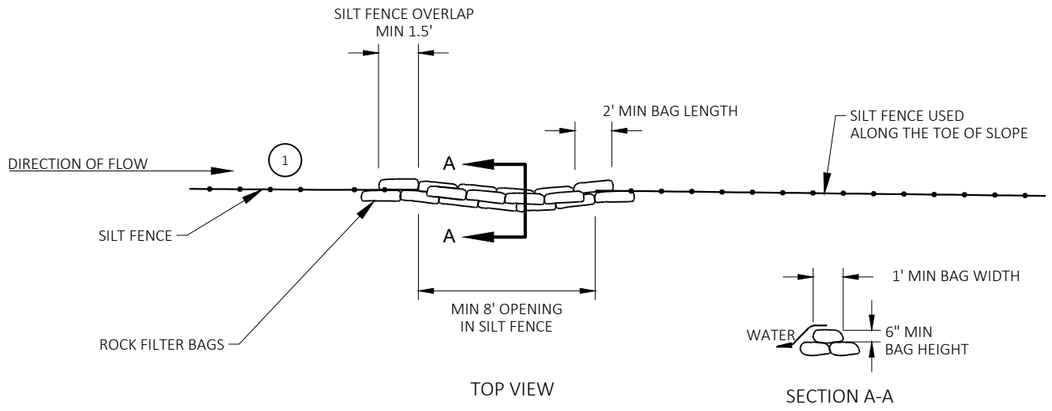
APRON ENDWALL DETAIL



DETAIL FOR EXCAVATION BELOW SUBGRADE

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CONSTRUCTION DETAILS	SHEET 6	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\021002-CD.DWG
LAYOUT NAME - 021002-cd
PLOT DATE : 11/17/2025 1:29 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



ROCK BAGS USED FOR SILT FENCE RELIEF

GENERAL NOTES

THE SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

INSTALL SILT FENCE PRIOR TO CONSTRUCTING THE SILT FENCE OPENING. PRIOR TO CONSTRUCTING THE SILT FENCE OPENING, PLACE ROCK BAGS AT THE SILT FENCE OPENING AS SHOWN IN THIS DETAIL.

CONSTRUCTION OF THE SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE SILT FENCE BID ITEM.

PROVIDE A MINIMUM OF 22 ROCK BAGS PER 3 FOOT OPENING. ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS BID ITEM.

THE CONTRACTOR SHALL ADJUST THE SILT FENCE RELIEF OPENINGS WITHIN THE SILT FENCE AS NECESSARY TO PROVIDE RELIEF: AS SHOWN ON THE PLANS, TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE FIELD ENGINEER.

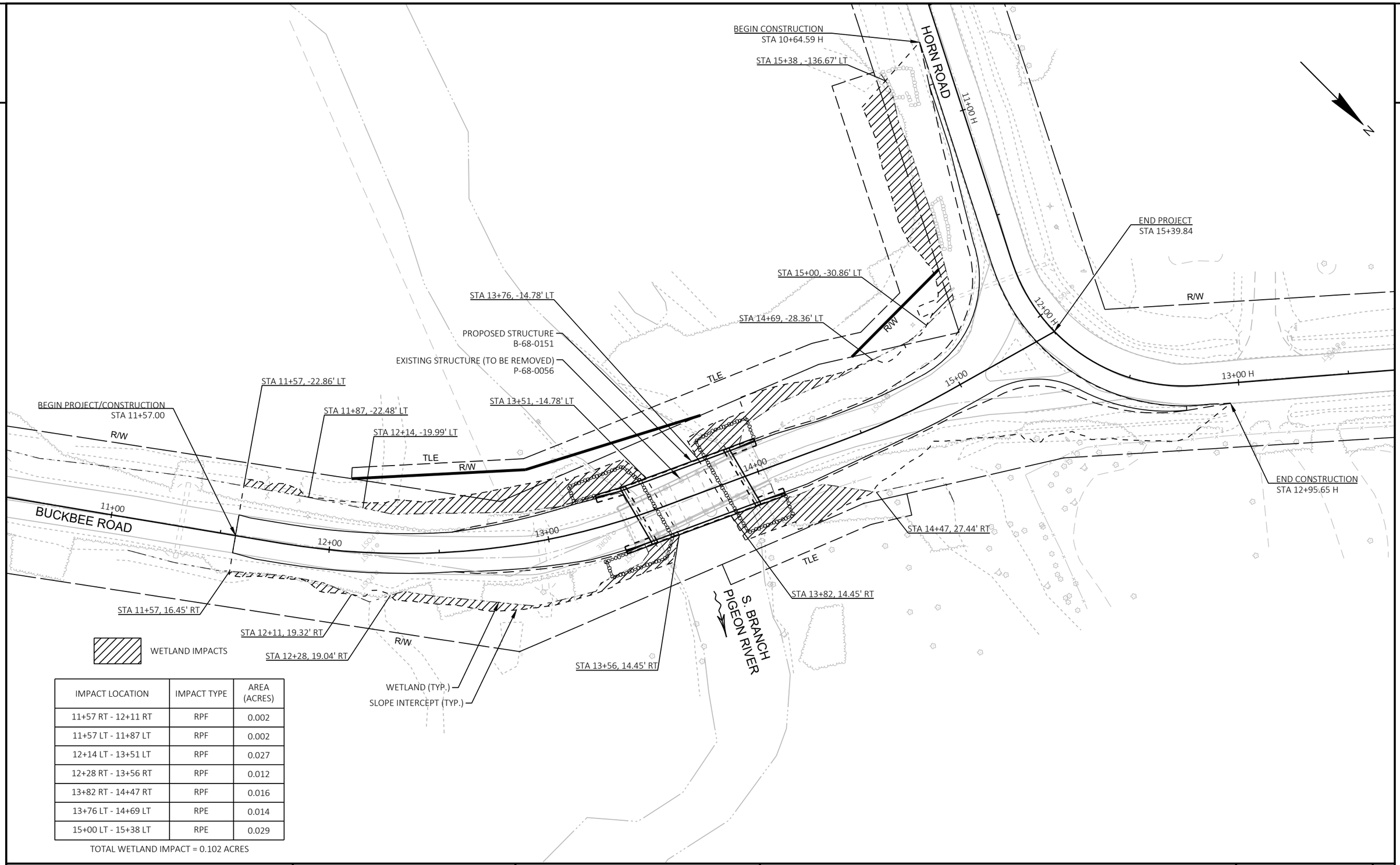
(1) REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.

2

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CONSTRUCTION DETAILS	SHEET 77	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\021002-CD.DWG
LAYOUT NAME - 021003-cd
PLOT DATE : 6/30/2025 3:09 PM
PLOT BY : KOWALSKI, NICK
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



IMPACT LOCATION	IMPACT TYPE	AREA (ACRES)
11+57 RT - 12+11 RT	RPF	0.002
11+57 LT - 11+87 LT	RPF	0.002
12+14 LT - 13+51 LT	RPF	0.027
12+28 RT - 13+56 RT	RPF	0.012
13+82 RT - 14+47 RT	RPF	0.016
13+76 LT - 14+69 LT	RPE	0.014
15+00 LT - 15+38 LT	RPE	0.029

TOTAL WETLAND IMPACT = 0.102 ACRES

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	WETLAND DETAIL	SHEET 8 8	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\021001-CD_WETLAND.DWG
LAYOUT NAME - 021002-cd_wetland
PLOT DATE : 6/30/2025 3:09 PM
PLOT BY : KOWALSKI, NICK
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

2

DITCH END
STA 11+97.80, 22.12' LT
ELEV: 816.24'

GRADE BREAK
STA 11+86.00, 22+64' LT
ELEV: 816.39'

DITCH BEGIN
STA 11+57.00, 22.98' LT
ELEV: 816.09'

11+59.30
-323.08' LT

13+82.59
-354.87' LT

R319'

R320'

R373'

R372'

TLE

R/W

10:1 TAPER

BAD

+62.30
-9.00' LT

+55.20
-9.00' LT

+66.20
-10.65' LT

1'

15:1 TAPER

MATCHLINE 13+00

R/W

P.L.

BUCKBEE ROAD

11+00

12+00

XXXXXXXX

1.3%

2.0%

+77

5.9%

+93

2.0%

9'

9'

+67.50
9.00' RT

+56.20
9.00' RT

+66.20
10.65' RT

15:1 TAPER

1'

BEGIN PROJECT/CONSTRUCTION
STA 11+57.00
MATCH EXISTING
SAWING ASPHALT REQ'D

10:1 TAPER

SLOPE INTERCEPT (TYP.)

HMA

BAD

10:1 TAPER

LEGEND

HMA	HMA PAVEMENT
XXXXX	SAWING ASPHALT
→	TRAFFIC FLOW
BAD	BASE AGGREGATE DENSE 3/4-INCH (SHOULDERS)
	GRUBBING REQ'D

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	PLAN DETAILS	SHEET 9 9	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\021201-PD.DWG
LAYOUT NAME - 021201-pd-01

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

HMA	HMA PAVEMENT
XXXXX	SAWING ASPHALT
	TRAFFIC FLOW
BAD	BASE AGGREGATE DENSE 3/4-INCH (SHOULDERS)
	GRUBBING REQ'D

BEGIN CONSTRUCTION
STA 10+64.59 H, 9.17' RT

SHOULDER CLOSURE IN ACCORDANCE WITH SDD TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

TLE
R/W
SLOPE INTERCEPT (TYP.)
10:1 TAPER
+84.59 11.00' RT
11+00 H
+14.59 14.00' RT
+14.59 11.00' RT
MATCHLINE 11+25 H

S. BRANCH PIGEON RIVER
P.L.
GUY

STA 14+86.23, -61.94' LT
R50'
TLE
R/W
BAD
MATCHLINE 13+00
15:1 TAPER
+16.16 -14.03' LT
+16.20 -13.03' LT
13'
1'
+13.77 -14.33' LT
+13.77 -13.33' LT
+33.82 -13.00' LT
+33.77 -12.00' LT
+66.15 -13.00' LT
+86.15 -15.00' LT
+86.16 -12.00' LT
10:1 TAPER
12'
824.54'
4.0%
2.7%
2.0%
14+00
15+00
+16.20 13.20' RT
+16.16 14.20' RT
+18.77 13.00' RT
+18.82 14.00' RT
+63.88 10.00' RT
+63.89 11.00' RT
+86.16 10.00' RT
+92.30 11.00' RT
+12.30 10.00' RT
+12.30 13.00' RT
BUCKBEE ROAD
10'
824.57'
HMA
EXISTING STRUCTURE (TO BE REMOVED) P-68-0056
PROPOSED STRUCTURE B-68-0151
SLOPE INTERCEPT (TYP.)
DITCH BEGIN
STA 14+90.87', 22.90' RT
ELEV: 822.99'
HORIZONTAL GRADE BREAK
STA 15+16.15, 32.46' RT
ELEV: 823.46'
STA 15+12.52, 50.00' RT
R40'
SECTION LINE

MATCHLINE 11+25 H
15:1 TAPER
826.61'
+59.59 17.00' RT
+59.59 14.00' RT
2.0%
2.4%
826.14'
+76.11 17.26' RT
3'
NOTE:PAVING GRADE TO BE PERPENDICULAR FROM OUTSIDE RADIUS TO BUCKBEE CENTERLINE OR HORN EDGELINE
STA 12+17.35 H, -55.41' LT
R73'
END PROJECT
STA 15+39.84
MATCH EXISTING
SAWING ASPHALT REQ'D
12+00 H
HORN ROAD
825.82'
825.28'
2.6%
4.0%
+31.82 15.09' RT
2.5%
+33.35 14.00' RT
826.34'
+33.35 17.00' RT
2.0%
STA 12+86.12 H, -71.27' LT
R72'
END CONSTRUCTION
STA 12+95.65 H, 9.17' RT
10:1 TAPER
+76.23 11.00' RT
DITCH END
STA 12+76.23 H, 17.80' RT
ELEV: 825.81'

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	PLAN DETAILS	SHEET 10 10	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\021201-PD.DWG
LAYOUT NAME - 021201-pd-02
PLOT DATE : 6/30/2025 3:09 PM
PLOT BY : KOWALSKI, NICK
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- SILT FENCE/INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE
- SLOPE INTERCEPT
- TURBIDITY BARRIERS
- FLOW ARROW
- WETLAND BOUNDARY
- EROSION MAT URBAN CLASS I TYPE B
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- RIPRAP MEDIUM
- SFR — SILT FENCE RELIEF/CLIMBING TURTLE FENCE RELIEF

S. BRANCH PIGEON RIVER

BUCKBEE ROAD

HORN ROAD

P.L.

R/W

11+00

12+00

13+00

14+00

15+00

SFR

TLE

WETLANDS (TYP.)

BEGIN PROJECT/CONSTRUCTION
STA 11+57.00

BEGIN CONSTRUCTION
STA 10+64.59 H, 9.17' RT

ONCE RIPRAP IS INSTALLED SILT FENCE WILL BE SHORTENED AND TIED INTO NEW RIPRAP (TYP.)

END PROJECT
STA 15+39.84

END CONSTRUCTION
STA 12+95.65 H, 9.17' RT

SLOPE INTERCEPT (TYP.)

EXISTING STRUCTURE (TO BE REMOVED)
P-68-0056

PROPOSED STRUCTURE
B-68-0151

SECTION LINE

N

2

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	EROSION CONTROL	SHEET 11	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 11/17/2025 1:30 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON POST(S)

XXX DESIGNATES SIGN ITEM NUMBER

N

BUCKBEE ROAD

)+00

11+00

12+00

13+

BEGIN PROJECT/CONSTRUCTION
STA 11+57.00

MATCHLINE 13+00

POST

POST

POST

250'

STA. 11+75,
BEGINNING
OF CURVE

W1-1L
36"X36"

100

101

30
MPH

W13-1
18"X18"

W1-6
48"X24"

102

W1-6
48"X24"

103

2

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 12 12	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\023201-PS.DWG
LAYOUT NAME - 023201-ps

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON POST(S)

XXX DESIGNATES SIGN ITEM NUMBER

MATCHLINE 12+50 H

STA. 12+81 H, END OF CURVE

350'

113 114 W1-1R 36"X36" 15 MPH W13-1 18"X18"

115 116 W1-10R 30"X30" 15 MPH W13-1 18"X18"

13+00 H

END CONSTRUCTION
STA 12+95.65 H, 9.00' RT

HORN ROAD

BEGIN CONSTRUCTION
STA 10+64.59 H, 9.00' RT

11+00 H

N

W1-10L 30"X30" 15 MPH W13-1 18"X18"

111 112

350'

STA 11+72 H

HORN ROAD

12+00 H

END PROJECT
STA 15+39.84

S. BRANCH PIGEON RIVER

MATCHLINE 13+00

104 W5-52L 12"X36"

E01 REMOVE

E03 REMOVE

106 W5-52R 12"X36"

108 109 W1-1R 36"X36" 30 MPH W13-1 18"X18"

MARKING STOP LINE PAINT 18-INCH
STA 15+25.87

14+00

15+00

BUCKBEE ROAD

E04 REMOVE

E05 REMOVE

110 STOP R1-1 30"X30"

MATCHLINE 12+50 H

105 W5-52R 12"X36"

E02 REMOVE

PROPOSED STRUCTURE
B-68-0151

EXISTING STRUCTURE (TO BE REMOVED)
P-68-0056

107 W5-52L 12"X36"

NOTE: SEE SDD SIGNING AND MARKING FOR TWO LANE BRIDGES, SITUATION 2, FOR SIGNING WORK ONLY (PAVEMENT MARKING EXCLUDED FROM THIS PROJECT,EXCEPT MARKING STOP LINE AS SHOWN). SEE SDD STOP LINE AND CROSSWALK PAVEMENT MARKING.

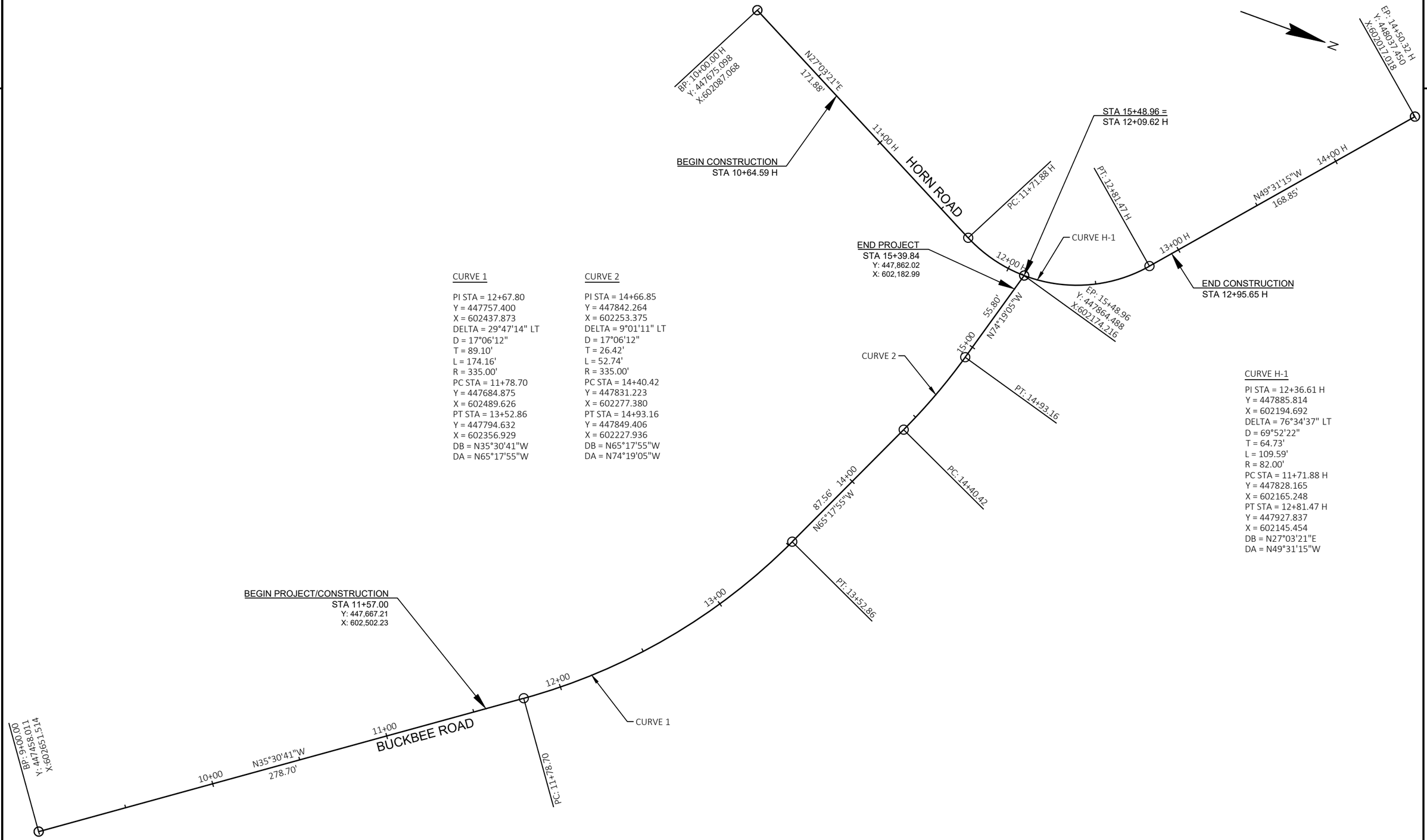
PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 13 13	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\023201-PS.DWG
LAYOUT NAME - 023202-ps

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2



CURVE 1

PI STA = 12+67.80
Y = 447757.400
X = 602437.873
DELTA = 29°47'14" LT
D = 17°06'12"
T = 89.10'
L = 174.16'
R = 335.00'
PC STA = 11+78.70
Y = 447684.875
X = 602489.626
PT STA = 13+52.86
Y = 447794.632
X = 602356.929
DB = N35°30'41"W
DA = N65°17'55"W

CURVE 2

PI STA = 14+66.85
Y = 447842.264
X = 602253.375
DELTA = 9°01'11" LT
D = 17°06'12"
T = 26.42'
L = 52.74'
R = 335.00'
PC STA = 14+40.42
Y = 447831.223
X = 602277.380
PT STA = 14+93.16
Y = 447849.406
X = 602227.936
DB = N65°17'55"W
DA = N74°19'05"W

CURVE H-1

PI STA = 12+36.61 H
Y = 447885.814
X = 602194.692
DELTA = 76°34'37" LT
D = 69°52'22"
T = 64.73'
L = 109.59'
R = 82.00'
PC STA = 11+71.88 H
Y = 447828.165
X = 602165.248
PT STA = 12+81.47 H
Y = 447927.837
X = 602145.454
DB = N27°03'21"E
DA = N49°31'15"W

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	ALIGNMENT DETAIL	SHEET 14 14	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\027201-AD.DWG
LAYOUT NAME - 027201-ad

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:50 FT

Estimate Of Quantities

6887-01-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	7.000	7.000
0004	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0006	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. P-68-056	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	443.000	443.000
0010	206.1001	Excavation for Structures Bridges (structure) 01. B-68-0151	EACH	1.000	1.000
0012	208.0100	Borrow	CY	133.000	133.000
0014	210.1500	Backfill Structure Type A	TON	244.000	244.000
0016	213.0100	Finishing Roadway (project) 01. 6887-01-71	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	38.000	38.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	880.000	880.000
0022	312.0110	Select Crushed Material	TON	38.000	38.000
0024	455.0605	Tack Coat	GAL	48.000	48.000
0026	460.2000	Incentive Density HMA Pavement	DOL	150.000	150.000
0028	460.5223	HMA Pavement 3 LT 58-28 S	TON	120.000	120.000
0030	460.5424	HMA Pavement 4 LT 58-28 H	TON	93.000	93.000
0032	502.0100	Concrete Masonry Bridges	CY	215.000	215.000
0034	502.3200	Protective Surface Treatment	SY	154.000	154.000
0036	502.3210	Pigmented Surface Sealer	SY	76.000	76.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	3,520.000	3,520.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	29,460.000	29,460.000
0042	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0044	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0046	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	1.000	1.000
0048	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	4.000	4.000
0050	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	400.000	400.000
0052	606.0200	Riprap Medium	CY	3.000	3.000
0054	606.0300	Riprap Heavy	CY	154.000	154.000
0056	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	192.000	192.000
0058	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6887-01-71	EACH	1.000	1.000
0060	619.1000	Mobilization	EACH	1.000	1.000
0062	624.0100	Water	MGAL	21.000	21.000
0064	625.0500	Salvaged Topsoil	SY	1,000.000	1,000.000
0066	627.0200	Mulching	SY	100.000	100.000
0068	628.1504	Silt Fence	LF	990.000	990.000
0070	628.1520	Silt Fence Maintenance	LF	2,480.000	2,480.000
0072	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0074	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0076	628.2008	Erosion Mat Urban Class I Type B	SY	1,530.000	1,530.000
0078	628.6005	Turbidity Barriers	SY	158.000	158.000
0080	628.7504	Temporary Ditch Checks	LF	64.000	64.000
0082	628.7555	Culvert Pipe Checks	EACH	3.000	3.000
0084	628.7560	Tracking Pads	EACH	3.000	3.000
0086	628.7570	Rock Bags	EACH	154.000	154.000
0088	629.0210	Fertilizer Type B	CWT	1.500	1.500
0090	630.0130	Seeding Mixture No. 30	LB	97.000	97.000
0092	630.0300	Seeding Borrow Pit	LB	5.000	5.000
0094	630.0500	Seed Water	MGAL	49.000	49.000
0096	633.5200	Markers Culvert End	EACH	2.000	2.000
0098	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000

6887-01-71

Line	Item	Item Description	Unit	Total	Qty
0100	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	3.000	3.000
0102	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	3.000	3.000
0104	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	2.000	2.000
0106	637.2210	Signs Type II Reflective H	SF	5.180	5.180
0108	637.2230	Signs Type II Reflective F	SF	78.750	78.750
0110	638.2602	Removing Signs Type II	EACH	5.000	5.000
0112	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0114	642.5001	Field Office Type B	EACH	1.000	1.000
0116	643.5000	Traffic Control	EACH	1.000	1.000
0118	645.0111	Geotextile Type DF Schedule A	SY	42.000	42.000
0120	645.0120	Geotextile Type HR	SY	280.000	280.000
0122	646.6105	Marking Stop Line Paint 18-Inch	LF	12.000	12.000
0124	650.4500	Construction Staking Subgrade	LF	562.000	562.000
0126	650.5000	Construction Staking Base	LF	562.000	562.000
0128	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0130	650.6501	Construction Staking Structure Layout (structure) 01. B-68-0151	EACH	1.000	1.000
0132	650.9911	Construction Staking Supplemental Control (project) 01. 6887-01-71	EACH	1.000	1.000
0134	650.9920	Construction Staking Slope Stakes	LF	562.000	562.000
0136	690.0150	Sawing Asphalt	LF	221.000	221.000
0138	715.0502	Incentive Strength Concrete Structures	DOL	1,290.000	1,290.000
0140	999.2100.S	Installing and Maintaining Climbing Turtle Exclusion Fence	LF	1,190.000	1,190.000
0142	SPV.0180	Special 01. Infill Riprap - STA 13+92.50 to STA 13+42.50	SY	187.000	187.000

GRUBBING SUMMARY

CATEGORY	STATION	-	STATION	LOCATION	201.0205 GRUBBING STA
0010	11+57	-	13+41	LT/RT	2
	13+94	-	15+40	LT/RT	2
	10+65 H	-	12+96 H	RT	3
				TOTALS	7

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	-	STATION	LOCATION	203.0100 EACH	SIZE
0010	11+67	-	11+85	LT	1	18"x18' CMCP
	12+95	-	12+97	LT/RT	1	36"x28' CMCP
				TOTALS	2	

FINISHING ROADWAY

CATEGORY	PROJECT	213.0100 EACH
0010	6887-01-71	1

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)(4)	SALVAGED/UNUSABLE PAVEMENT MATERIAL	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (6) FACTOR 1.25	MASS ORDINATE +/- (7)	WASTE (8)	208.0100 BORROW	312.0110 SELECT CRUSHED MATERIAL	*624.0100 Water
BUCKBEE	11+57.00/15+36.94	LT/RT	353	17	81	272	217	271	1			32	0.7
HORN	10+84.59 H/12+76.23 H	RT	70	3	0	70	163	204	-134			6	0.1
GRAND TOTAL			423	20	81	342	380	475	-133	20	133	38	0.8
TOTAL COMMON EXC			443										

*QUANTITIES LISTED ELSEWHERE

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.
(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL. ITEM NUMBER 312.0110
(4)EBS CALCUALTED AS 5 PERCENT OF CUT.
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(6) EXPANDED FILL = (UNEXPANDED FILL)*EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.25
(7) MASS ORDINATE: MASS ORDINATE = CUT-SALVAGED/UNUSABLE PAVEMENT MATERIAL-EXPANDED FILL
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.
(8) WASTE = MASS ORDINATE + EBS EXCAVATION
(9) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

3

BASE AGGREGATE SUMMARY

CATEGORY	STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100* WATER MGAL
0010	11+57 - 13+41	LT/RT	11	360	8.2
	13+94 - 15+40	LT/RT	13	370	8.4
	10+65 H - 12+96 H	RT	14	150	3.6
		TOTALS	38	880	20.2

*QUANTITIES LISTED ELSEWHERE

ASPHALTIC ITEMS

CATEGORY	STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5424 HMA PAVEMENT 4 LT 58-28 H TON
0010	11+57 - 13+41	LT/RT	20	49	38
	13+94 - 15+40	LT/RT	21	53	41
	10+85 H - 12+76 H	LT/RT	7	18	14
		TOTALS	48	120	93

CULVERT ITEMS

CATEGORY	INLET STATION	INLET OFFSET	INLET ELEVATION	OUTLET STATION	OUTLET OFFSET	OUTLET ELEVATION	PIPE THICKNESS (IN)	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EA	520.8000 CONCRETE COLLARS FOR PIPE EA	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
0010	15+16	35.6 LT	821.53	15+12	36.1 LT	822.08	0.064	4	1	1	2	1

RIPRAP SUMMARY

CATEGORY	STATION	OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0010	15+08	37.1 LT	3	11

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100 EACH
0030	6887-01-71	1

MOBILIZATION

CATEGORY	PROJECT	619.1000 EACH
0010	6887-01-71	1

3

FINISHING SUMMARY

CATEGORY	STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL
0010	11+52	-	13+49	RT	140	---	240	0.2	15	---	7.7
	12+30	-	13+27	LT	140	---	230	0.2	15	---	7.3
	13+91	-	12+90 H*	RT/RT	190	---	300	0.3	19	---	9.4
	13+77	-	10+70 H*	LT/RT	330	---	450	0.4	26	---	13.0
	BORROW SITE				---	80	---	0.1	---	4	1.8
	UNDISTRIBUTED				200	20	310	0.3	22	1	9.8
				TOTALS	1,000	100	1,530	1.5	97	5	49.0

*FINISHING ITEMS BEGIN ALONG BUCKBEE ROAD ALIGNMENT AND END ALONG HORN ROAD ALIGNMENT STATIONING

SILT FENCE AND CLIMBING TURTLE FENCE SUMMARY

CATEGORY	STATION	-	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	999.2100.S INSTALLING AND MAINTAINING CLIMBING TURTLE EXCLUSION FENCE LF
0010	11+52	-	13+49	RT	210	530	250
	12+30	-	13+27	LT	160	400	200
	13+91	-	12+90 H*	RT/RT	200	500	240
	13+77	-	10+79 H*	LT/RT	220	550	260
	UNDISTRIBUTED				200	500	240
				TOTALS	990	2,480	1,190

*SILT FENCE BEGINS ALONG BUCKBEE ROAD ALIGNMENT AND ENDS ALONG HORN ROAD ALIGNMENT STATIONING

3

TURBIDITY BARRIER

CATEGORY	STATION	-	STATION	LOCATION	628.6005 TURBIDITY BARRIER SY
0010	13+27	-	13+49	LT/RT	66
	13+77	-	13+90	LT/RT	60
	UNDISTRIBUTED				32
				TOTALS	158

MOBILIZATIONS EROSION CONTROL

CATEGORY	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	5	5

TRACKING PADS

CATEGORY	LOCATION	628.7560 EACH
0010	EAST END OF PROJECT	1
	WEST END OF PROJECT	1
	BORROW SITE	1
	TOTALS	3

TEMPORARY DITCH CHECKS

CATEGORY	STATION	LOCATION	628.7504 LF
0010	12+28	LT	12
	14+82	RT	8
	15+22	RT	18
	12+64 H	RT	6
	UNDISTRIBUTED		20
		TOTALS	64

ROCK BAGS

CATEGORY	STATION	LOCATION	628.7570 EACH
0010	10+84 H	RT	22
	12+50	LT/RT	44
	13+35	LT/RT	44
	13+90	LT/RT	44
		TOTAL	154

CULVERT PIPE CHECKS

CATEGORY	STATION	LOCATION	628.7555 EACH
0010	11+79 H	LT	3
		TOTAL	3

CONSTRUCTION STAKING ITEMS

CATEGORY	STATION - STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	11+57 - 13+41	LT/RT	184	184	184
	13+94 - 15+40	LT/RT	147	147	147
	10+65 H - 12+96 H	RT	231	231	231
		TOTALS	562	562	562

FIELD OFFICE TYPE B

CATEGORY	PROJECT	642.5001 EACH
0010	6887-01-71	1

PAVEMENT MARKING

CATEGORY	STATION	LOCATION	646.6105 MARKING STOP LINE PAINT 18-INCH LF
0010	15+25.87	RT	12

TRAFFIC CONTROL

CATEGORY	PROJECT	643.5000 EACH
0010	6887-01-71	1

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

CATEGORY	PROJECT	650.9911 EACH
0010	6887-01-71	1

SAWING ASPHALT

CATEGORY	STATION-STATION	OFFSET LT/RT	LOCATION	690.0150 SAWING ASPHALT LF
0010	11+57	LT/RT	MATCH	18
	10+85 H - 12+76 H	RT	RT EOP	203
			TOTALS	221

CONSTRUCTION STAKING STRUCTURE LAYOUT

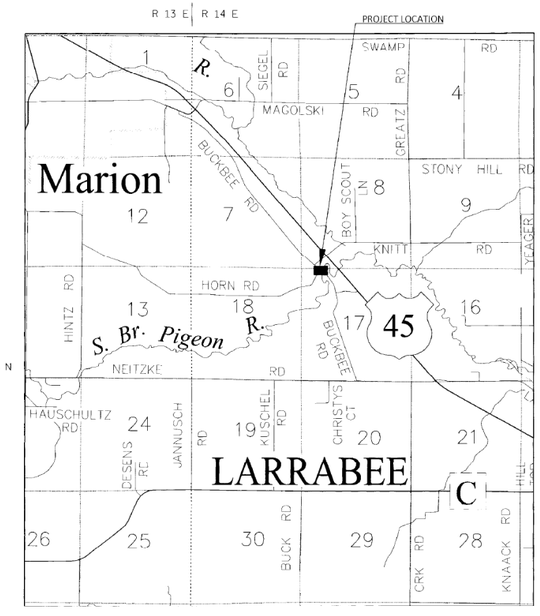
CATEGORY	STRUCTURE	650.6501 EACH
0020	B-68-0151	1

PERMANENT SIGNING SUMMARY

CATEGORY	ROADWAY DESCRIPTION	SIGN NO.	APPROX. STA.	LOC.	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6-INCH x 14-FT EACH	634.0616 POSTS WOOD 4x6-INCH x 16-FT EACH	634.0618 POSTS WOOD 4x6-INCH x 18-FT EACH	634.0620 POSTS WOOD 4x6-INCH x 20-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	BUCKBEE ROAD	E01	13+34	LT	---	---	0 x 0	---	---	---	---	---	---	1	1	
		E02	13+38	RT	---	---	0 x 0	---	---	---	---	---	---	1	1	
		E03	14+01	LT	---	---	0 x 0	---	---	---	---	---	---	1	1	
		E04	14+03	RT	---	---	0 x 0	---	---	---	---	---	---	1	1	
		E05	15+30	RT	---	---	0 x 0	---	---	---	---	---	---	1	1	
		100	9+28	RT	W1-1L	LEFT TURN	36 x 36	---	9.00	---	---	---	1	---	---	
		101	9+28	RT	W13-1	ADVISORY SPEED PLATE (YELLOW BACK)	18 x 18	---	2.25	---	---	---	---	---	---	30 MPH, INSTALL BELOW SIGN 100
		102	12+54	RT	W1-6	NIGHT ARROW (SINGLE)	48 x 24	---	8.00	---	1	---	---	---	---	
		103	12+82	RT	W1-6	NIGHT ARROW (SINGLE)	48 x 24	---	8.00	---	1	---	---	---	---	
		104	13+24	LT	W5-52L	CLEARANCE STRIPER DOWN RIGHT	12 x 36	---	3.00	1	---	---	---	---	---	
		105	13+31	RT	W5-52R	CLEARANCE STRIPER DOWN LEFT	12 x 36	---	3.00	1	---	---	---	---	---	
		106	14+04	LT	W5-52R	CLEARANCE STRIPER DOWN LEFT	12 x 36	---	3.00	1	---	---	---	---	---	
		107	14+09	RT	W5-52L	CLEARANCE STRIPER DOWN RIGHT	12 x 36	---	3.00	1	---	---	---	---	---	
		108	14+40	LT	W1-1R	RIGHT TURN	36 x 36	---	9.00	---	---	1	---	---	---	
		109	14+40	LT	W13-1	ADVISORY SPEED PLATE (YELLOW BACK)	18 x 18	---	2.25	---	---	---	---	---	---	30 MPH, INSTALL BELOW SIGN 110
		110	15+15	RT	R1-1	STOP	30 x 30	5.18	---	---	1	---	---	---	---	
	HORN ROAD	111	---	RT	W1-10L	COMBINATION LEFT CURVE 1 INTERSECTION SIGN	30 x 30	---	6.25	---	---	1	---	---	---	SEE SIGN DETAILS FOR LOCATION INFORMATION
		112	---	RT	W13-1	ADVISORY SPEED PLATE (YELLOW BACK)	18 x 18	---	2.25	---	---	---	---	---	---	---	15 MPH, SEE SIGN DETAILS FOR LOCATION INFORMATION, INSTALL BELOW SIGN 113
		113	12+81 'H'	LT	W1-1R	RIGHT TURN	36 x 36	---	9.00	---	---	---	1	---	---	
		114	12+81 'H'	LT	W13-1	ADVISORY SPEED PLATE (YELLOW BACK)	18 x 18	---	2.25	---	---	---	---	---	---	15 MPH, INSTALL BELOW SIGN 115
		115	---	LT	W1-10R	COMBINATION RIGHT CURVE I INTERSECTION SIGN	30 x 30	---	6.25	---	---	1	---	---	---	SEE SIGN DETAILS FOR LOCATION INFORMATION
		116	---	LT	W13-1	ADVISORY SPEED PLATE (YELLOW BACK)	18 x 18	---	2.25	---	---	---	---	---	---	15 MPH, SEE SIGN DETAILS FOR LOCATION INFORMATION, INSTALL BELOW SIGN 117
	TOTALS							5.18	78.75	4	3	3	2	5	5	

4

STATE OF WISCONSIN
TOWN OF LARRABEE
TRANSPORTATION PROJECT PLAT TITLE SHEET
6887-01-01
T LARRABEE, BUCKBEE ROAD
S BR PIGEON RIVER BRIDGE, P-68-0056
LOCAL STREET
WAUPACA COUNTY



LAYOUT
SCALE 0 1/2 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6887-01-01.

NOTES:

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

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

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

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

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

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

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE WAUPACA COUNTY HIGHWAY DEPARTMENT AND THE TOWN OF LARRABEE.

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

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

CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER SYMBOL	R/W MONUMENT (TO BE SET)
QUARTER LINE			NON-MONUMENTED R/W POINT
SIXTEENTH LINE		SECTION CORNER MONUMENT	FOUND IRON PIN (3/4-INCH CAPPED REBAR UNLESS NOTED) IP
NEW REFERENCE LINE		GEODETIC SURVEY MONUMENT	
NEW R/W LINE		SIXTEENTH CORNER MONUMENT	
EXISTING R/W OR LIE LINE		SIGN SIGN	OFF-PREMISE SIGN 40.23 SIGN
PROPERTY LINE	P.L.		
LOT, TIE & OTHER MINOR LINES			
SLOPE INTERCEPT			COMPENSABLE / NON-COMPENSABLE
CORPORATE LIMITS		ELECTRIC POLE	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	W (TYP.)	TELEPHONE POLE	
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	
TEMPORARY LIMITED EASEMENT AREA		ACCESS RESTRICTED BY ACQUISITION	
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)	
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
BUILDING TO BE REMOVED		NO ACCESS (NEW HIGHWAY)	
BRIDGE CULVERT		PARCEL NUMBER 25	UTILITY NUMBER 40
		PARALLEL OFFSETS	

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

W	WATER
G	GAS
T	TELEPHONE
OH	OVERHEAD TRANSMISSION LINES
E	ELECTRIC
TV	CABLE TELEVISION
FO	FIBER OPTIC
FM	FORCE MAIN
SAN	SANITARY SEWER
ST	STORM SEWER

GN

21

PROJECT NUMBER 6887-01-01 4.01
SHEET 2 OF 2

FILE NAME : S:\MAD\5100-5199\5185\001\DRAWINGS\CAD\CIVIL3D\RW\DWG\040101_RT.DWG
LAYOUT NAME: 040101_rt

PLOT DATE : 12/10/2024 11:34 AM PLOT BY : BARTELT, HEATHER PLOT NAME : _____

APPRAISAL PLAT DATE : 12/10/24
BUCKBEE ROAD 6887-01-01 4.01

TRANSPORTATION PROJECT PLAT NO: 6887-01-01-4.01

THAT PART OF LOT 7, BLOCK 7, AND PART OF LOT 7, BLOCK 8 IN VILLAGE OF BUCKBEE BEING LOCATED IN AND INCLUDING OTHER LANDS IN THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 IN SECTION 17, TOWNSHIP 25 NORTH, RANGE 14 EAST, TOWN OF LARRABEE, WAUPACA COUNTY, WISCONSIN

RELOCATION ORDER BUCKBEE ROAD (S BR PIGEON RIVER BRIDGE, P-68-0056) WAUPACA COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 60.50 AND 82.12, WISCONSIN STATUTES, THE TOWN OF LARRABEE HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE TOWN FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE TOWN OF LARRABEE, PURSUANT TO THE PROVISIONS OF SUBSECTION 60.50 AND 82.12, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

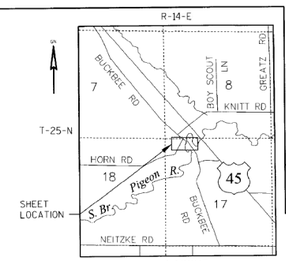
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	FEE R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
1	MICHAEL G. KRUEGER SR. & BONNIE M. KRUEGER	FEE,TLE	922	---	922	1599
2	ROBERT J. & DARLENE S. KOHEL REVOCABLE TRUST	FEE,TLE	802	10027	10829	3318

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
100	CHARTER COMMUNICATIONS/SPECTRUM	RELEASE OF RIGHTS
101	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

THE PURPOSE OF ALL TLE'S IS FOR SLOPE GRADING UNLESS OTHERWISE NOTED.



DOC# 927032

Recorded on
Dec 17, 2024 01:11 PM

MICHAEL MAZEMKE
WAUPACA COUNTY
REGISTER OF DEEDS
Fee Amount: 30.00
Pages: 2

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6887-01-01-4.01
SHEET 1 OF 2

PI STA = 12+67.80
Y = 447757.400
X = 602437.873
DELTA = 20°47'14" LT
D = 17°06'12"
T = 89.10'
L = 174.16'
R = 335.00'
PC STA = 11+78.70
PT STA = 13+52.86

ALIGNMENT SUB-CURVE
PC 11+78.70 TO STA. 12+05.17
R=335.00'
L=26.47'
LCB=N37°46'29"W
LCH=26.46'

ALIGNMENT SUB-CURVE
STA. 12+05.17 TO PT 13+52.86
R=335.00'
L=147.69'
LCB=N52°40'06"W
LCH=146.50'

PI STA = 14+66.85
Y = 447842.264
X = 602253.375
DELTA = 9°03'11" LT
D = 17°06'12"
T = 26.42'
L = 52.74'
R = 335.00'
PC STA = 14+40.42
PT STA = 14+93.16

PI STA = 12+36.61 H
Y = 447885.814
X = 602194.692
DELTA = 76°34'37" LT
D = 69°52'22"
T = 64.73'
L = 109.59'
R = 82.00'
PC STA = 11+71.88 H
PT STA = 12+81.47 H

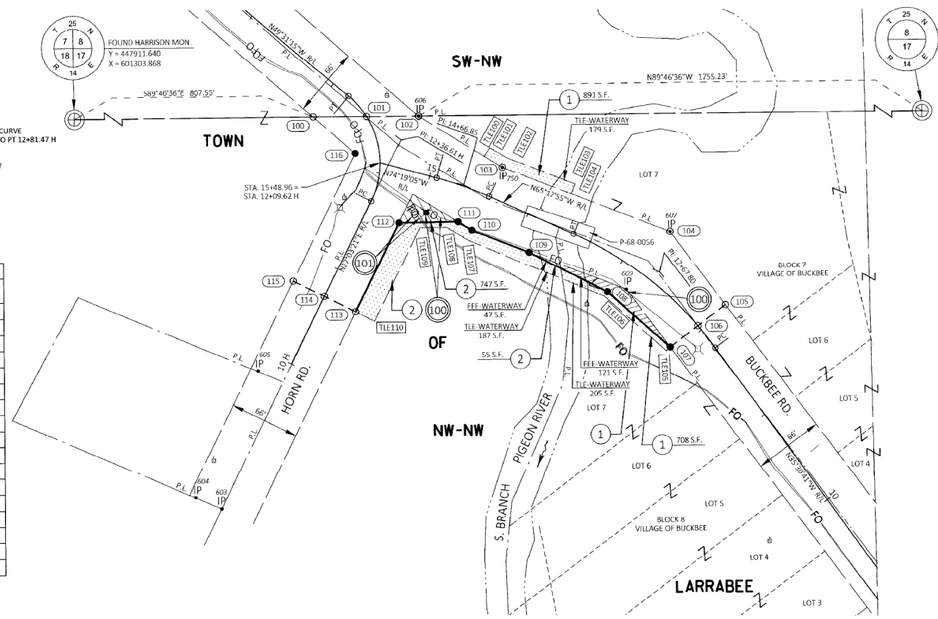
ALIGNMENT SUB-CURVE
PC 11+71.88 H TO STA. 12+09.62 H
R=82.00'
L=37.75'
LCB=N13°52'08"E
LCH=37.41'

ALIGNMENT SUB-CURVE
STA. 12+09.62 H TO STA. 12+55.66 H
R=82.00'
L=46.04'
LCB=N15°24'11"W
LCH=45.44'

ALIGNMENT SUB-CURVE
STA. 12+55.66 H TO PT 12+81.47 H
R=82.00'
L=25.81'
LCB=N40°30'16"W
LCH=25.70'

(100) CHARTER COMMUNICATIONS/SPECTRUM
NO RECORDED EASEMENT
PARCELS 1 & 2

(101) FRONTIER COMMUNICATIONS
NO RECORDED EASEMENT
PARCEL 2



STATION & OFFSET TABLE		
POINT	STATION	OFFSET
100	12+94.81 H	36.81'
101	12+55.66 H	0.00'
102	15+24.61	51.99'
103	14+40.03	30.19'
104	12+80.05	48.04'
105	12+03.23	32.86'
106	12+05.17	0.00'
107	12+07.55	-33.00'
108	12+95.44	-33.00'
109	13+84.39	-33.00'
110	14+42.90	-36.02'
111	14+59.88	-33.52'
112	11+65.35 H	32.71'
113	10+71.18 H	33.10'
114	10+71.05 H	0.00'
115	10+70.91 H	-32.90'
116	12+21.93 H	-22.77'
TLE100	14+58.12	33.31'
TLE101	14+56.50	43.14'
TLE102	14+39.64	40.23'
TLE103	13+70.65	43.82'
TLE104	13+70.13	33.83'
TLE105	12+07.38	-38.02'
TLE106	12+95.48	-38.04'
TLE107	14+43.44	-46.06'
TLE108	14+69.27	-42.02'
TLE109	11+70.00 H	52.69'
TLE110	10+71.27 H	53.10'

COURSE TABLE		
COURSE	BEARING	DISTANCE
100 - 101	S89° 46' 36"E	50.74'
101 - 102	S89° 36' 38"E	49.57'
102 - 103	S57° 49' 40"E	92.90'
103 - 104	S68° 16' 46"E	176.00'
104 - 105	S36° 19' 03"E	87.23'
105 - 106	S53° 40' 57"W	32.92'
106 - 107	S53° 40' 57"W	33.08'
107 - 108	N47° 57' 41"W	79.01'
108 - 109	N62° 14' 51"W	88.15'
109 - 110	N68° 16' 46"W	58.32'
110 - 111	N57° 49' 40"W	55.43'
111 - 112	S89° 50' 46"W	55.86'
112 - 113	S26° 49' 03"W	94.16'
113 - 114	N63° 10' 57"W	33.10'
114 - 115	N63° 10' 57"W	32.90'
115 - 116	N26° 49' 03"E	134.92'
116 - 100	N48° 32' 51"W	52.67'

FOUND MONUMENT TABLE			
POINT	Y COORDS	X COORDS	IP TYPE
603	447539.150	602018.814	SURVEY NAIL
604	447550.072	601994.416	3" IP
605	447668.772	602055.382	3" IP
606	447907.962	602211.705	3/4" RBR
607	447795.607	602448.305	3/4" RBR
609	447741.228	602406.263	3/4" RBR, BENT EAST
750	447858.489	602290.351	3/4" RBR

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

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

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF REGISTER OF DEEDS IN WAUPACA COUNTY AS SHEET 2 OF 2 OF THIS DOCUMENT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE WAUPACA COUNTY HIGHWAY DEPARTMENT AND THE TOWN OF LARRABEE.

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

EXISTING HIGHWAY RIGHT-OF-WAY ON BUCKBEE ROAD BASED ON VILLAGE OF BUCKBEE AND EXISTING CENTELINE.

EXISTING HIGHWAY RIGHT-OF-WAY ON HORN ROAD BASED ON TOWN OF LARABEE ROAD RECORD V001, PAGE 031 AND EXISTING CENTERLINE.

STRAND ASSOCIATES, INC. ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843

I, HEATHER S. BARTELT PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE TOWN OF LARRABEE I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: Heather Bartelt DATE: 12/10/24
PRINT NAME: HEATHER S. BARTELT
REGISTRATION NUMBER: S-2797

WISCONSIN HEATHER S. BARTELT S-2797 MADISON WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE TOWN OF LARRABEE:

SIGNATURE: _____ DATE: 12-11-24
PRINT NAME: Steve A Sass Chair #2

GN
SCALE, FEET
0 50 100

FILE NAME: S:\MAD\5100-5199\5185\001\DRAWINGS\CAD\CIVIL3D\RW\DWG\040101_RP.DWG
APPRAISAL PLAT DATE: 12/10/24
PLOT DATE: 12/10/2024 11:33 AM
PLOT BY: BARTELT, HEATHER
PLOT NAME:

MICHEAL G SR &
BONNIE M KRUEGER

ROBERT J & DARLENE S
KOHEL JT REV TRUST

JAMES E. SHUELKE

ALLIANT ENERGY (ELECTRIC)

FRONTIER COMMUNICATIONS(FIBER)

CHARTER/SPECTRUM (FIBER)

REMOVING SMALL PIPE CULVERTS

WETLAND BOUNDARY (TYP.)

BUCKBEE ROAD

HORN ROAD

EXISTING STRUCTURE
(TO BE REMOVED)
P-68-0056

PROPOSED STRUCTURE
B-68-0151

BEGIN CONSTRUCTION
STA 10+64.59 H, 9.17' RT

STA. 15+16, 35.6' LT
CONCRETE COLLARS FOR PIPE REQ'D
IE: 822.27'

4-FEET CULVERT PIPE
CORRUGATED STEEL 18-INCH

STA. 15+12, 36.1' LT
APRON ENDWALLS FOR
CULVERT PIPE STEEL 18-INCH
IE: 822.08'

EXISTING CULVERT TO REMAIN

SECTION LINE

BEGIN PROJECT/CONSTRUCTION
STA 11+57.00
MATCH EXISTING
SAW CUT REQ'D

SLOPE INTERCEPT (TYP.)

REMOVING SMALL PIPE CULVERTS

S. BRANCH
PIGEON RIVER

END PROJECT
STA 15+39.84
MATCH EXISTING
SAW CUT REQ'D

END CONSTRUCTION
STA 12+95.65 H, 9.17' RT

MICHEAL G SR &
BONNIE M KRUEGER

SHERMAN L & MARIANNE S
HINTZ LIV TRUST

VCL = 160.00
K = 80.76

STA 11+57.00
EL 819.44

VPT STA 13+80.00
VPT EL 822.14

PROPOSED PROFILE

EXISTING GROUND

0.50%

2.48%

VPC STA 12+20.00
VPC EL 819.76

VPI STA 13+00.00
VPI EL 820.16

STA 15+39.84
EL 826.11

STA. 13+41
STRUCTURE B-68-0151
SINGLE-SPAN CONCRETE FLAT SLAB
26.3-FT CLEAR ROADWAY WIDTH

STA. 13+43
REMOVE STRUCTURE P-68-0056
THREE-SPAN MASONRY SPANDREL ARCH
17.4-FT CLEAR ROADWAY WIDTH
20-FT OUT-TO-OUT WIDTH WITH
METAL RAILING

EXISTING CL ELEVATION

PROPOSED CL ELEVATION

819.55	819.57	819.47	819.45	819.50	819.66	819.51	819.96	819.73	820.55	821.48	821.45	822.17	822.64	823.28	823.88	824.50	825.12			
10+00.00	10+50.00	11+00.00	11+50.00	12+00.00	12+50.00	13+00.00	13+50.00	14+00.00	14+50.00	15+00.00	15+50.00	16+00.00								

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	PLAN AND PROFILE: BUCKBEE ROAD	SHEET 22 24	E

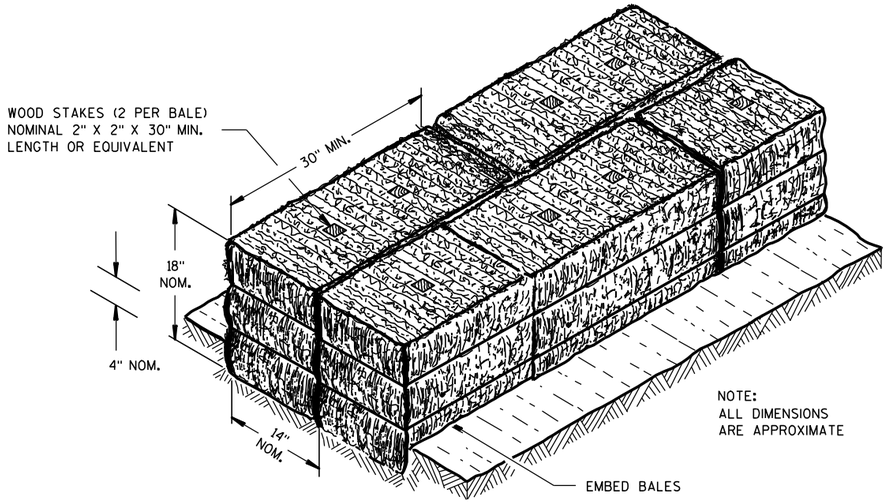
FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\050101-PP.DWG
LAYOUT NAME - 050101-pp

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : PLOT SCALE : 1 IN:50 FT

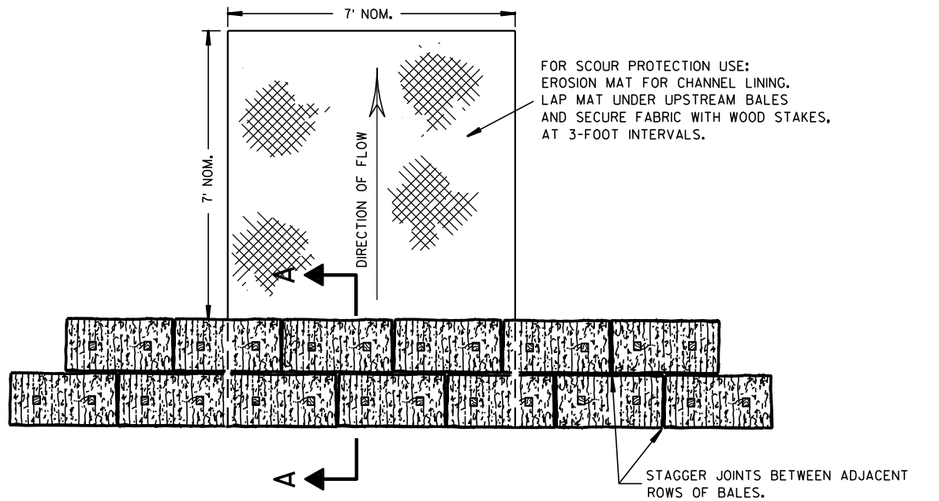
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

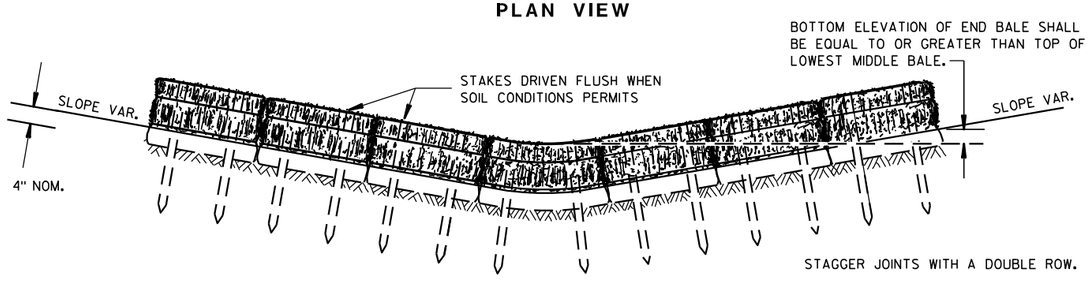
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14D01-01	TURTLE EXCLUSION FENCE CLIMBING TURTLE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



SECTION A-A



PLAN VIEW



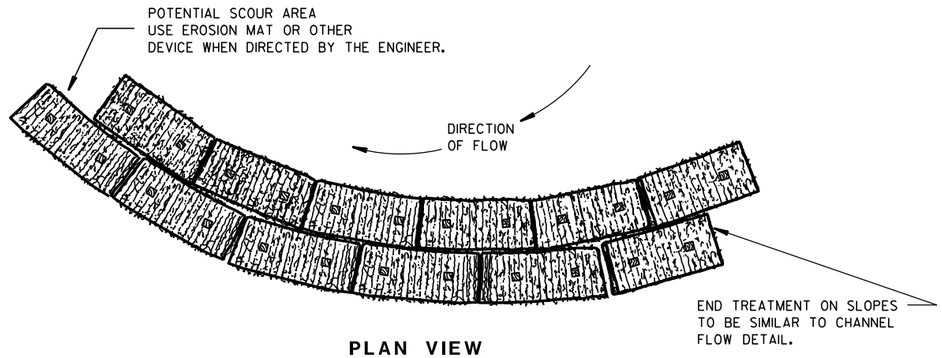
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

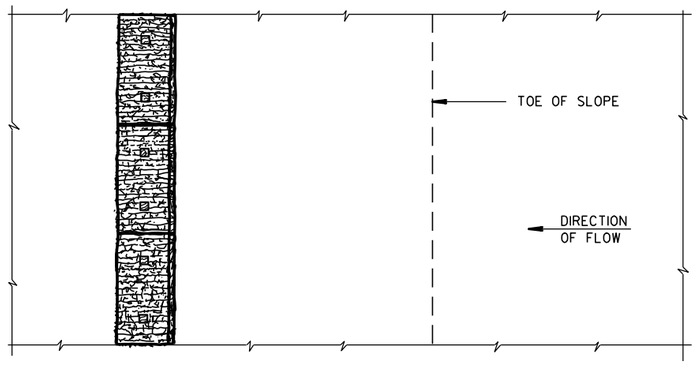
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

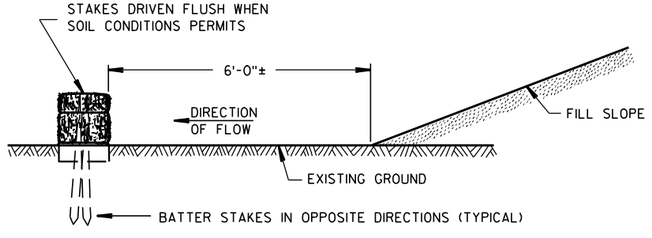


PLAN VIEW

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

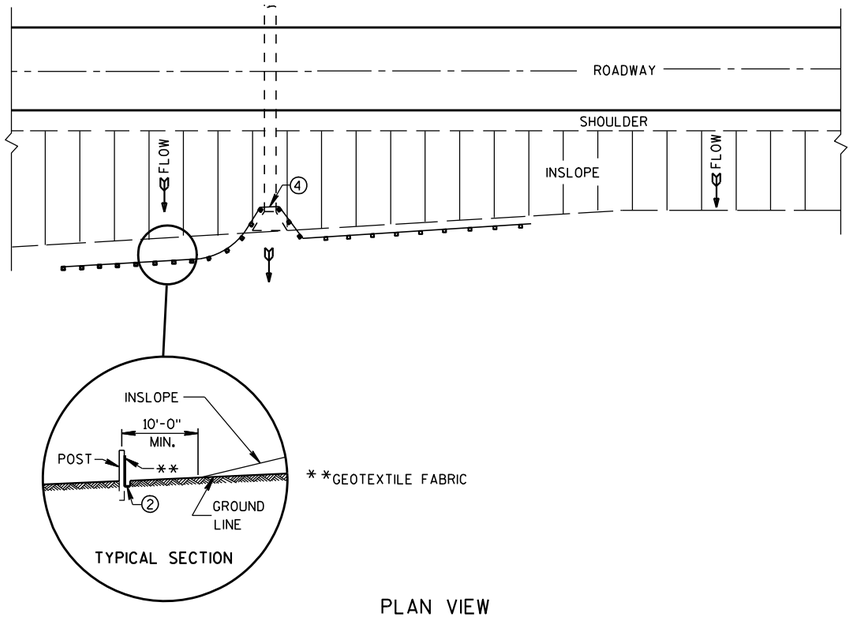
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

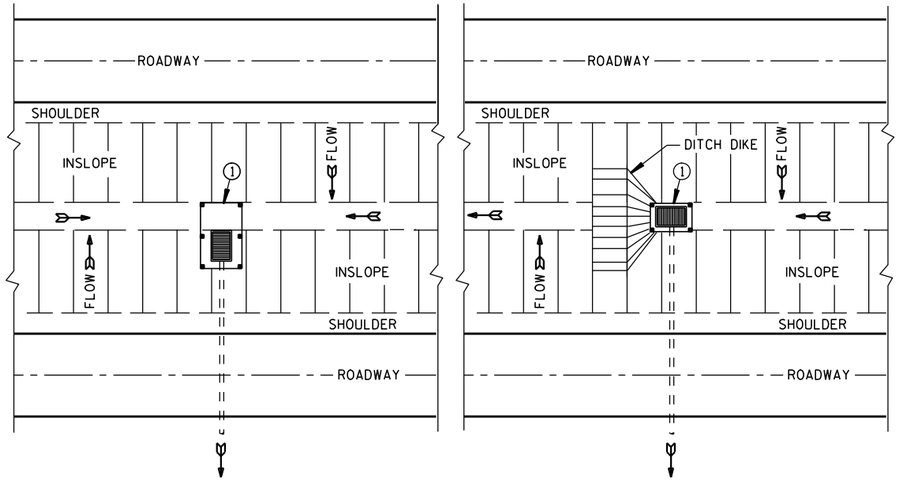
6

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.

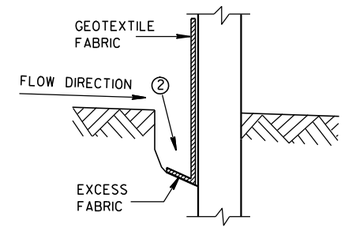
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

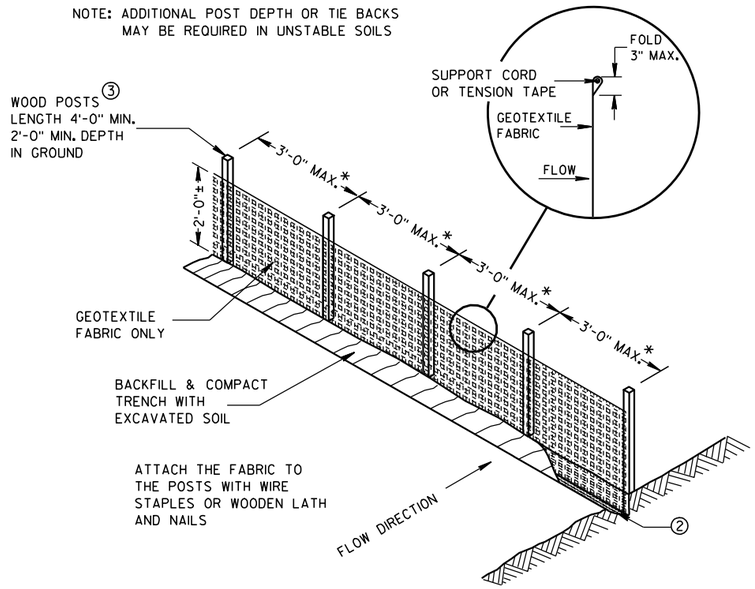
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

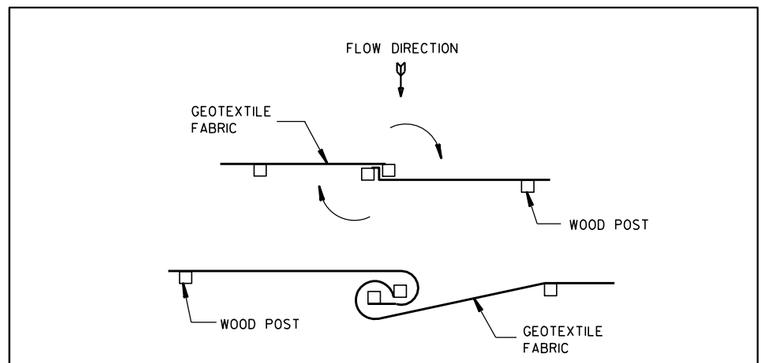
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



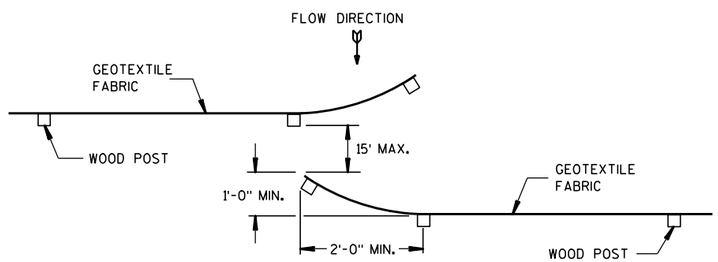
TRENCH DETAIL



SILT FENCE

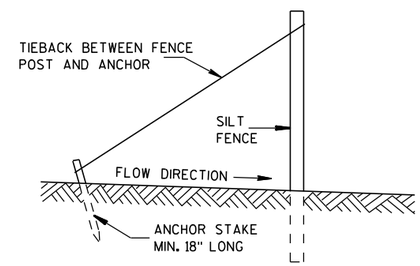


TWIST METHOD



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

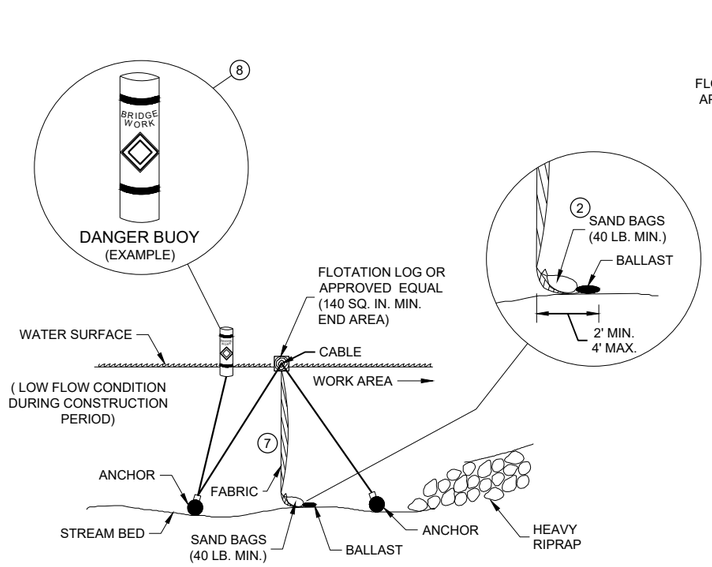
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

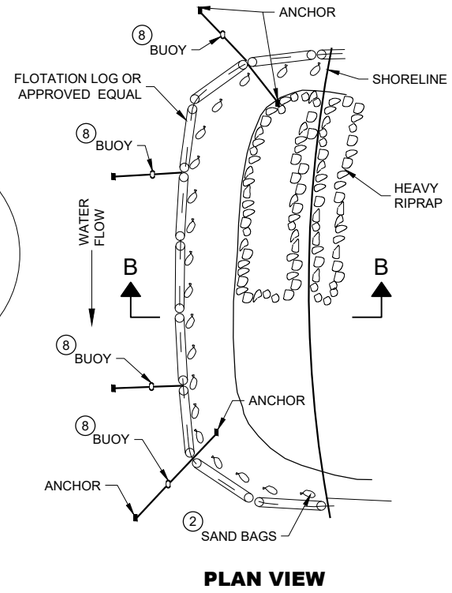
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

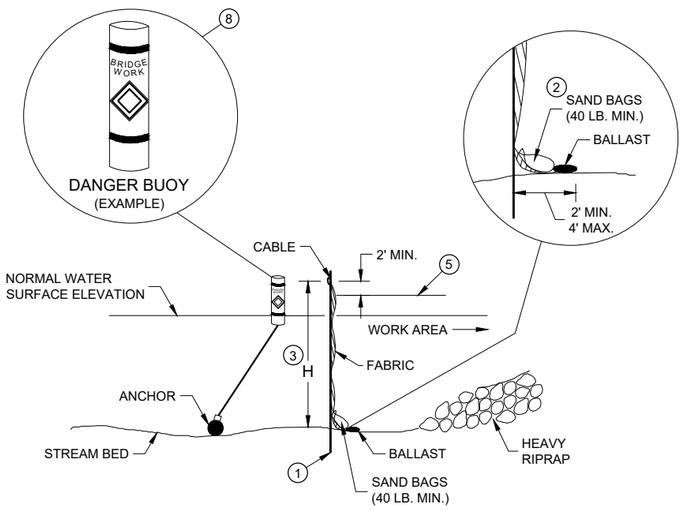


SECTION B - B

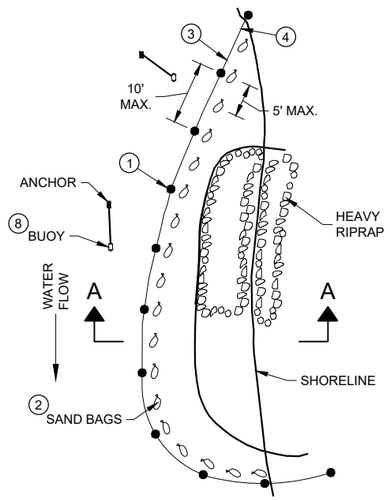


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT 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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

(1) DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

(2) SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

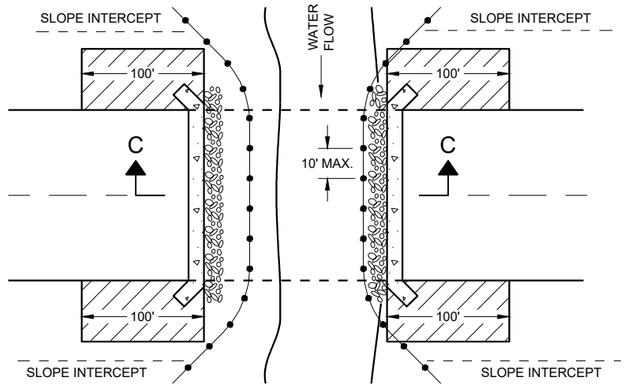
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

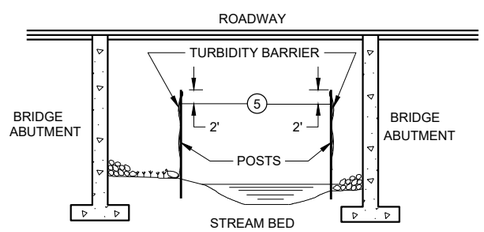
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(7) ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

(8) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

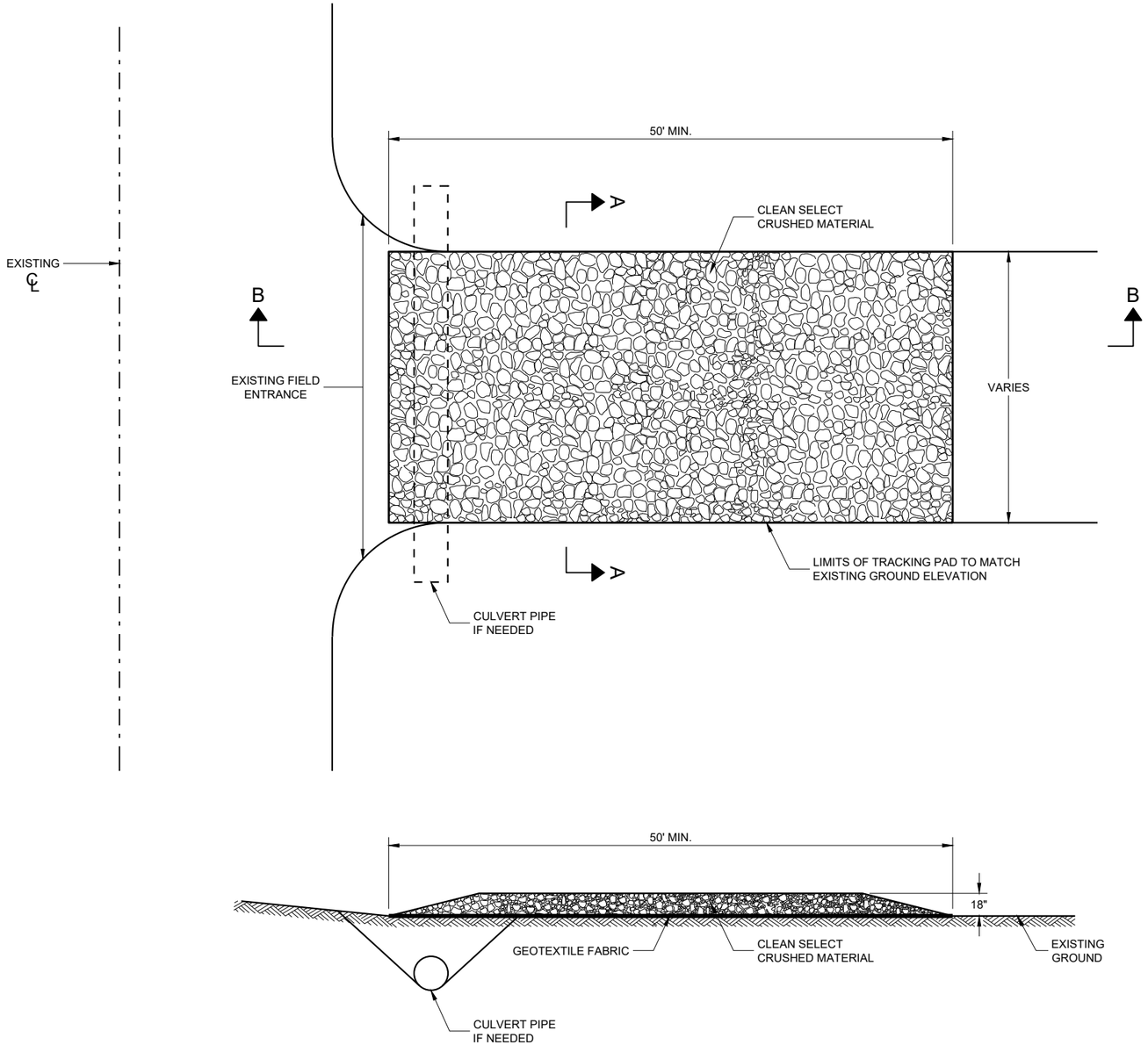
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

6
SDD 08E11 - 02



SECTION B - B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

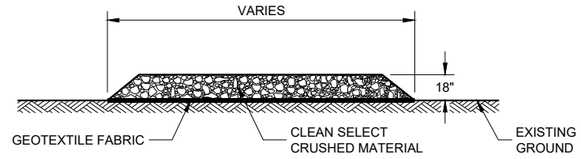
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

6

SDD 08E14 - 01

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

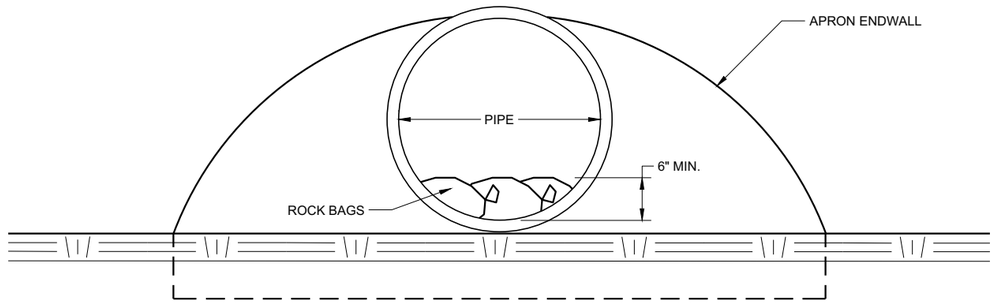
3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

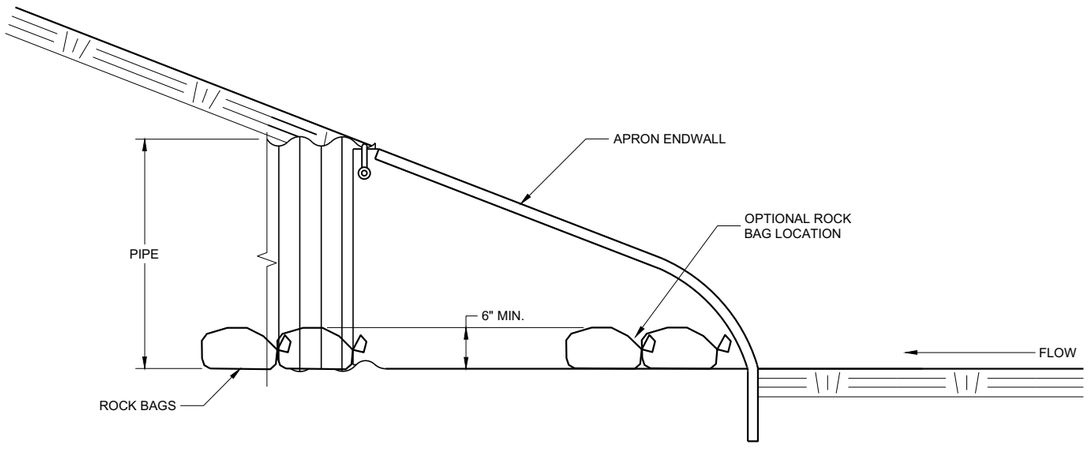
FHWA

6

SDD 08E14 - 01



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

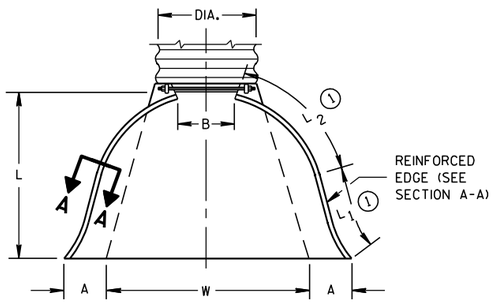
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

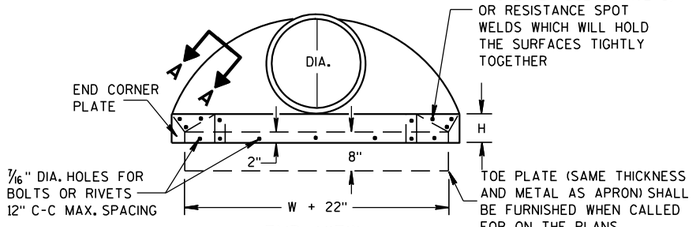
REINFORCED CONCRETE APRON ENDWALLS

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

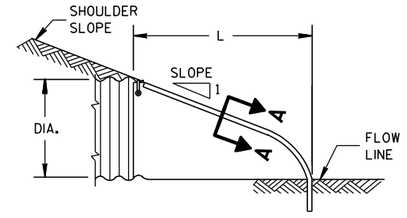
*MINIMUM
**MAXIMUM



PLAN VIEW

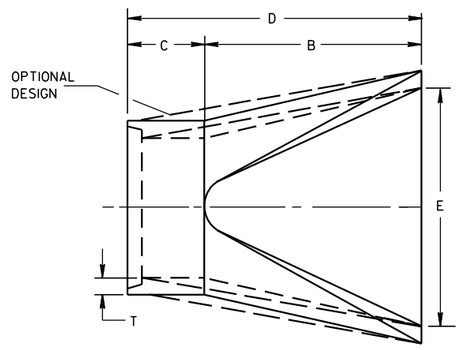


END VIEW

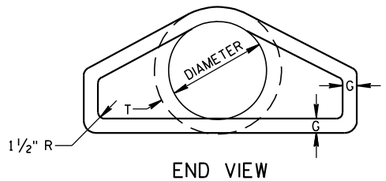


SIDE ELEVATION

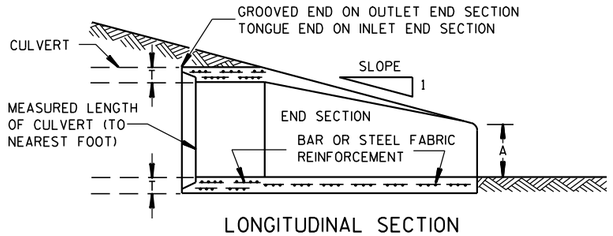
METAL ENDWALLS



PLAN

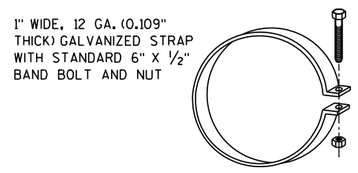


END VIEW



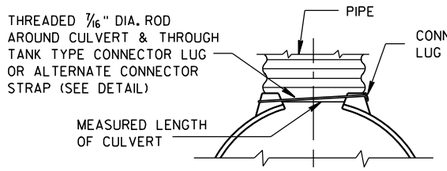
LONGITUDINAL SECTION

CONCRETE ENDWALLS

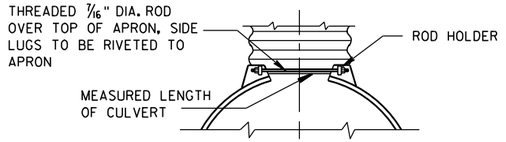


ALTERNATE FOR TYPE 1 CONNECTION

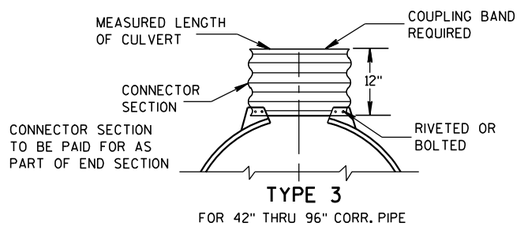
END SECTION CONNECTOR STRAP



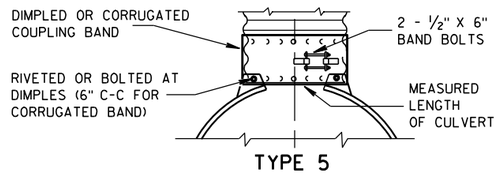
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

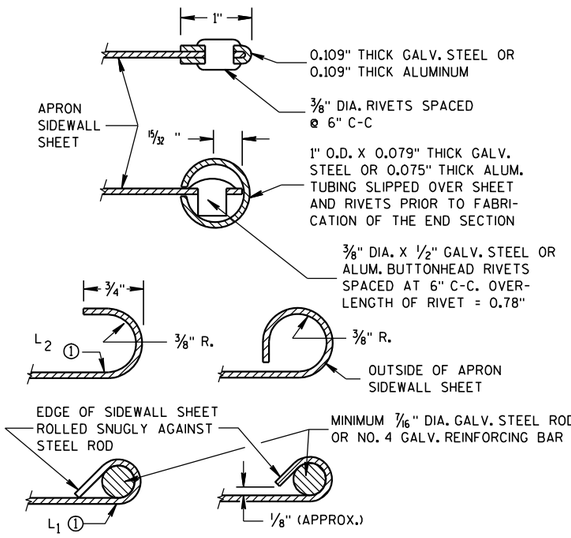
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

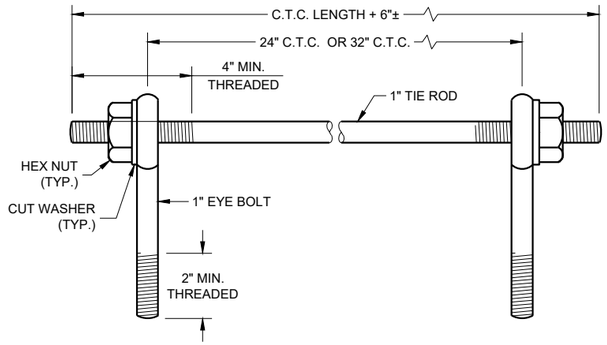
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

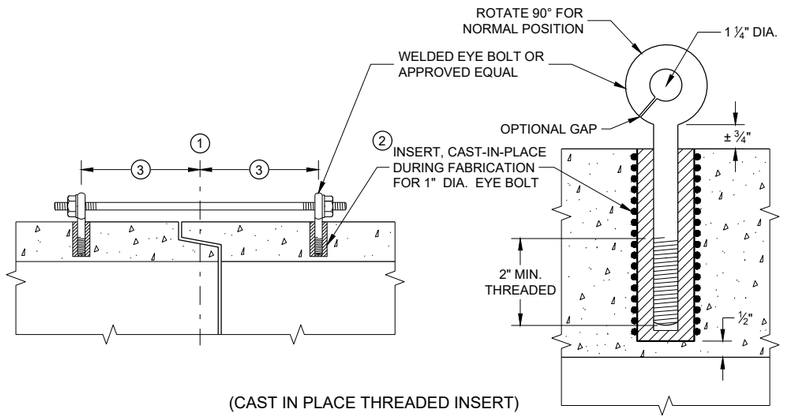
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



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.

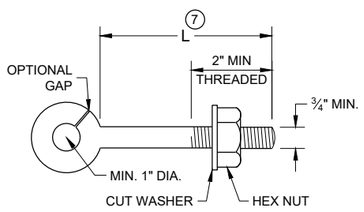
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

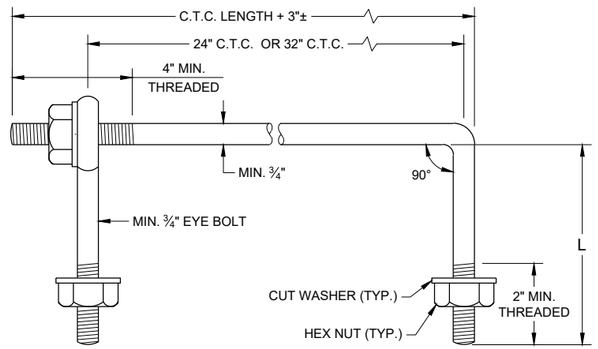
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

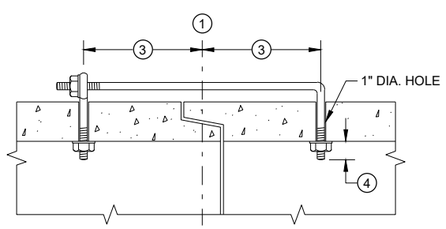


EYE BOLT (7)

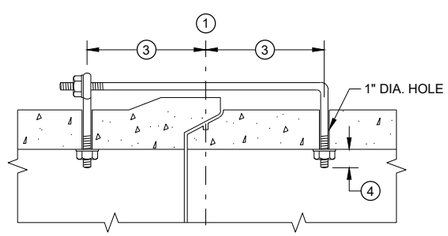
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

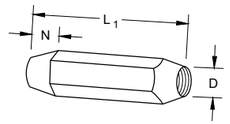
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

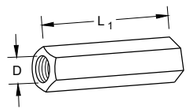
ADJUSTABLE TIE ROD TABLE

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



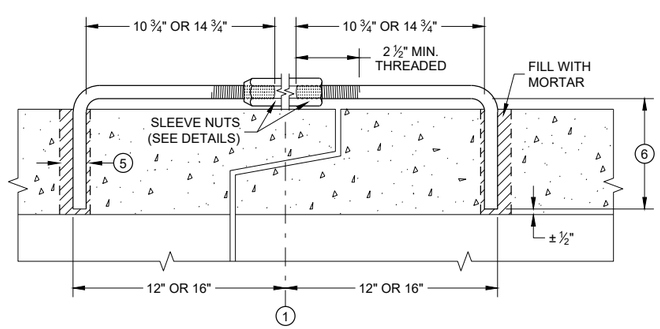
TAPERED



PLAIN

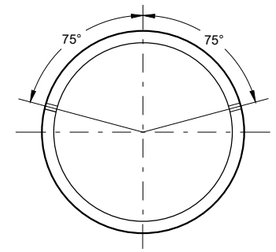
RIGHT AND LEFT THREADS

SLEEVE NUTS



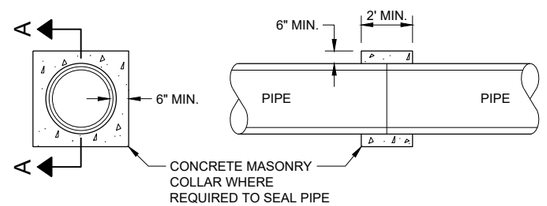
LONGITUDINAL SECTION

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

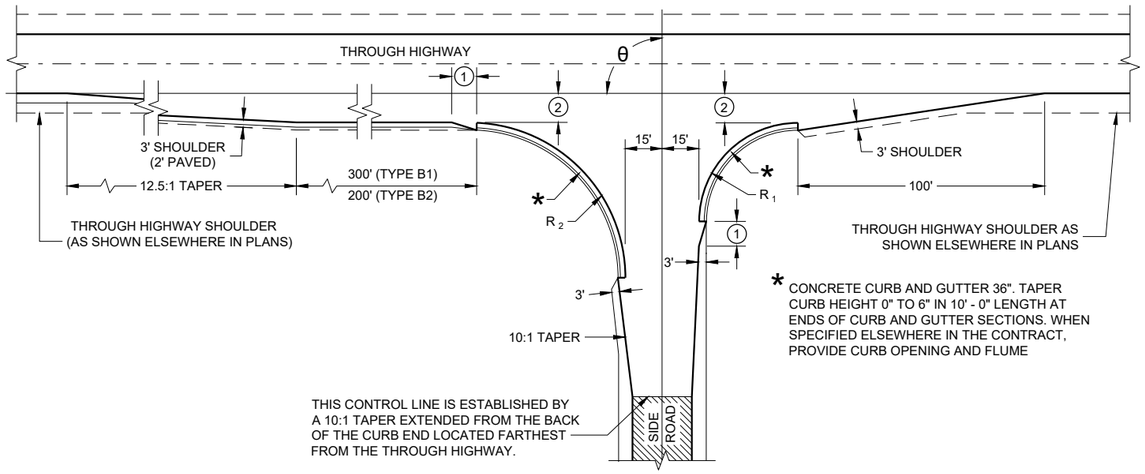
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 08F04 - 08

SDD 08F04 - 08



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

TYPE "B1" AND "B2"

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

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

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

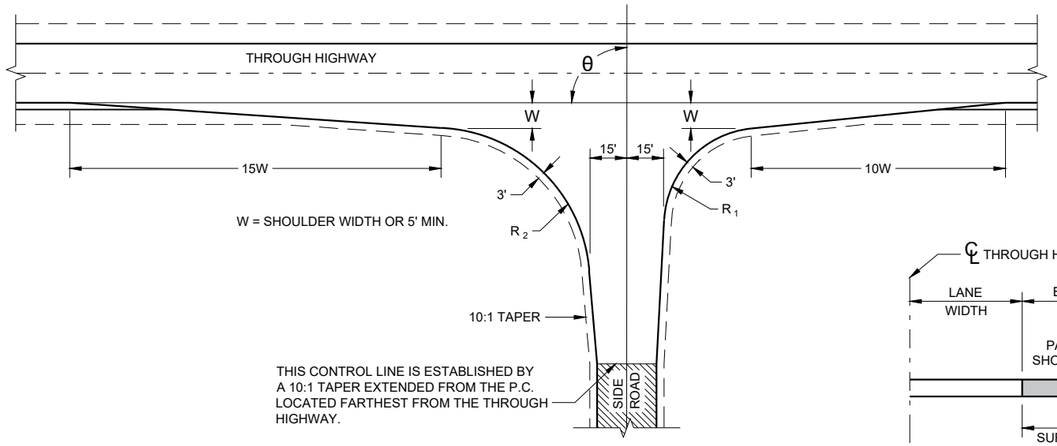
(1) 10-FT TYPICAL.

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

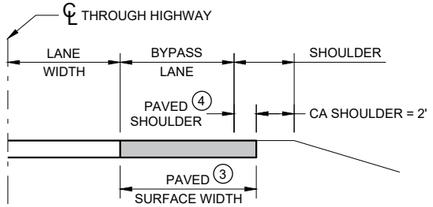
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

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

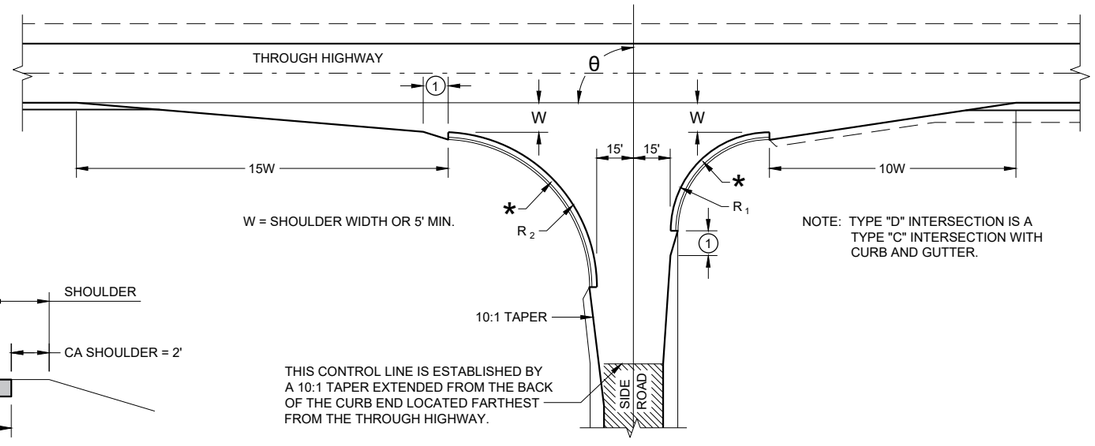
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

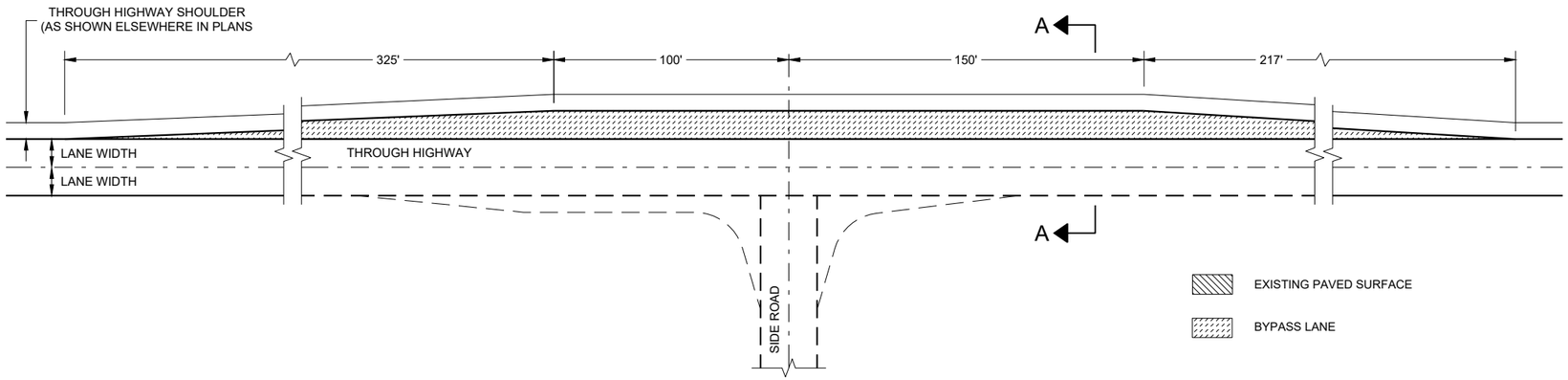


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB AND GUTTER.

TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 09A01 - 14a

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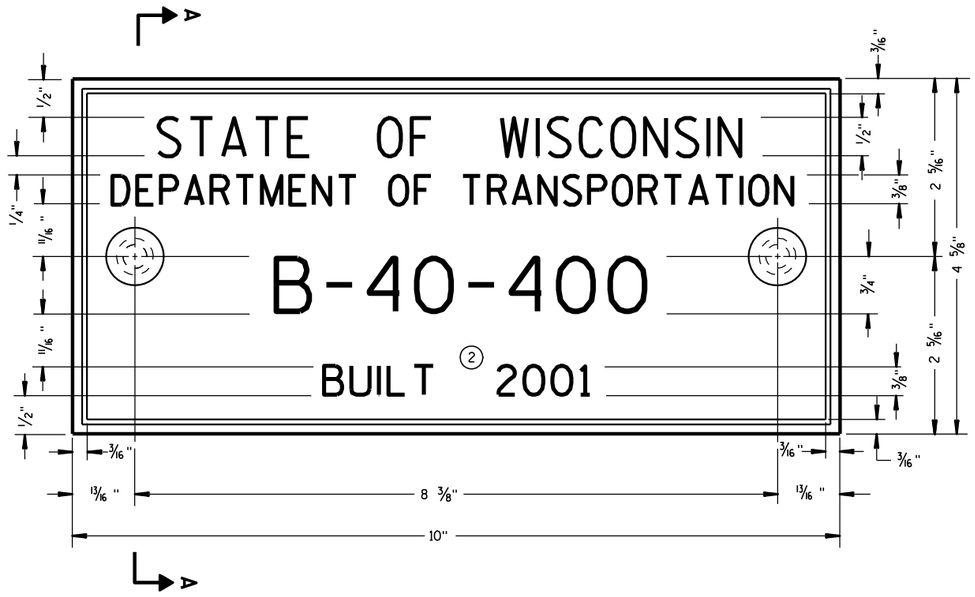
SDD 09A01 - 14a



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

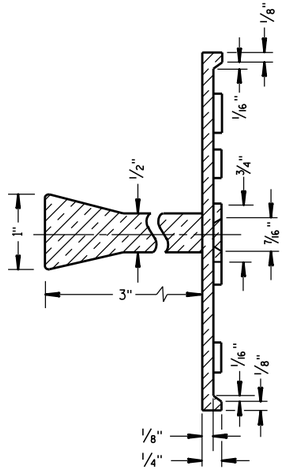
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

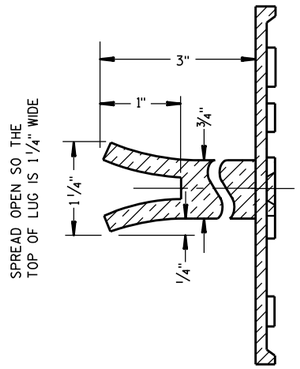
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

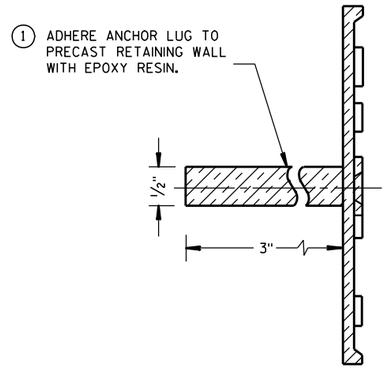
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

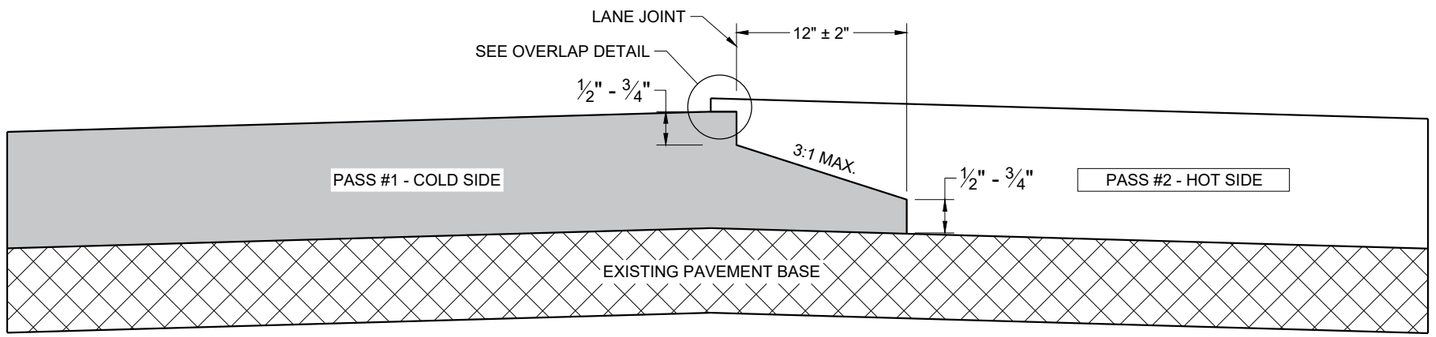
3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

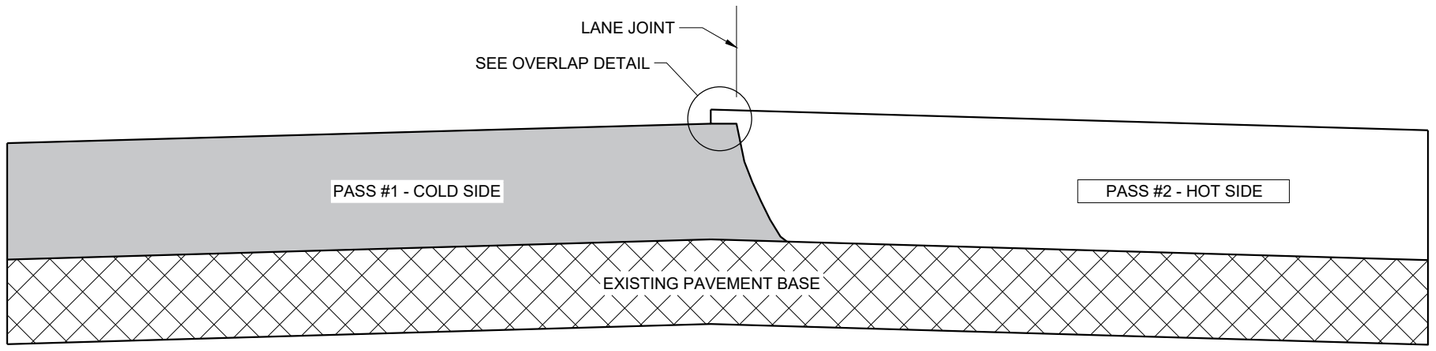
FHWA

6

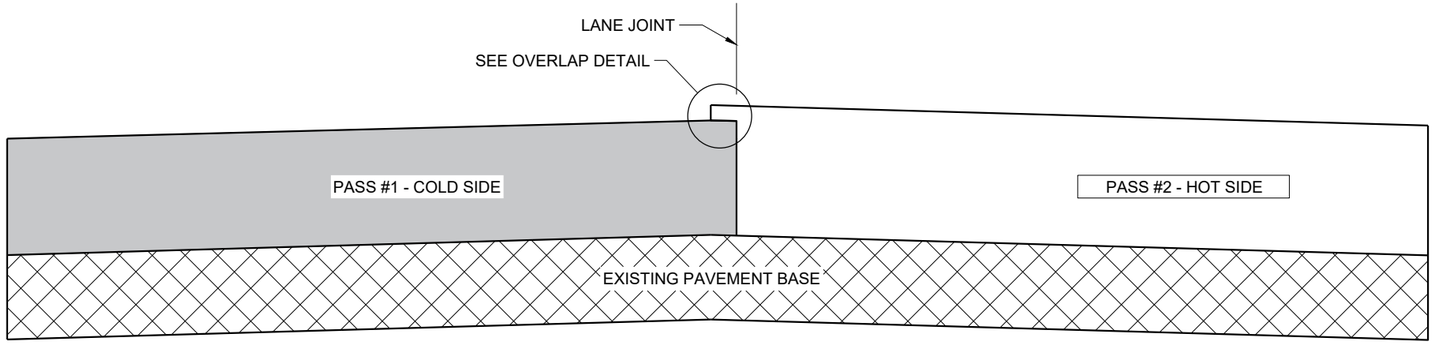
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

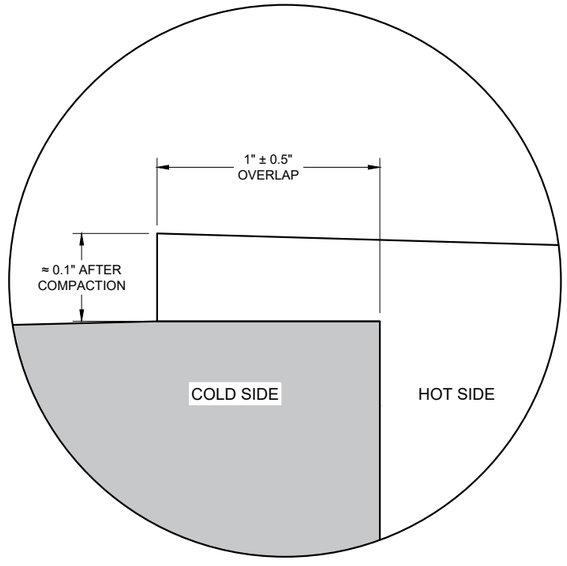
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

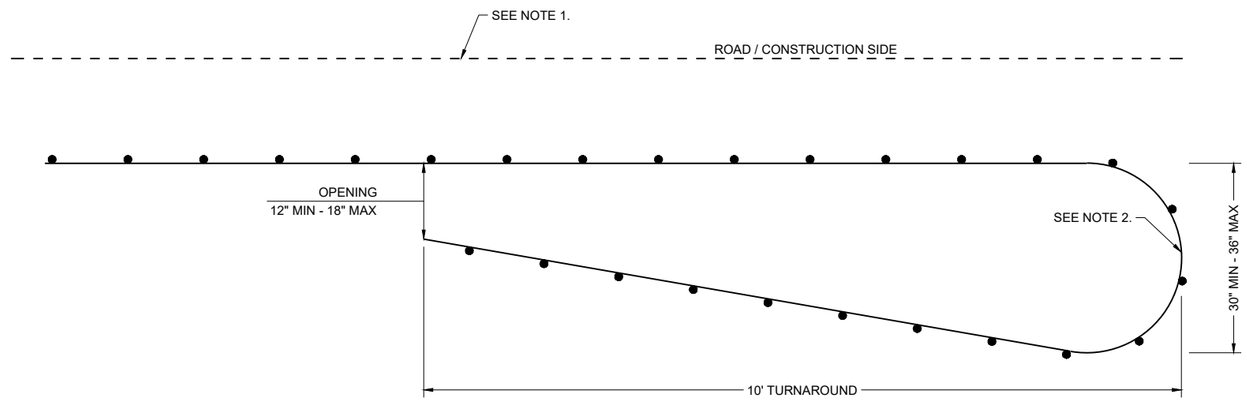
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

GENERAL NOTES:

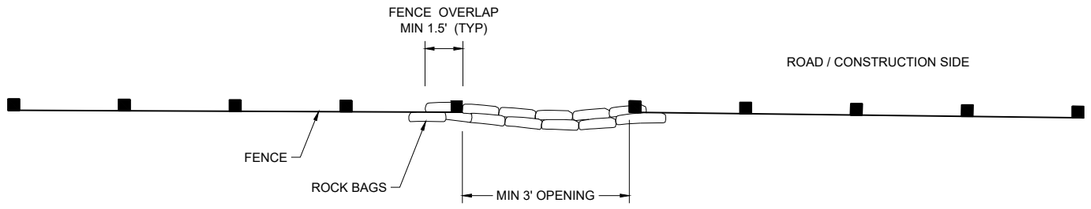
1. WHERE SILT FENCE IS REQUIRED, IT SHALL BE PLACED ON THE CONSTRUCTION SIDE OF THE EXCLUSION FENCING, OR COMBINED WITH THE EXCLUSION FENCING AS ALLOWED IN THE SPECIFICATIONS. STAKES ON THIS DETAIL ARE OPPOSITE OF STANDARD SILT FENCE FOR SEDIMENT CONTROL.
2. PLACE TURNAROUNDS AT ALL TERMINI ENDS OF THE 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.

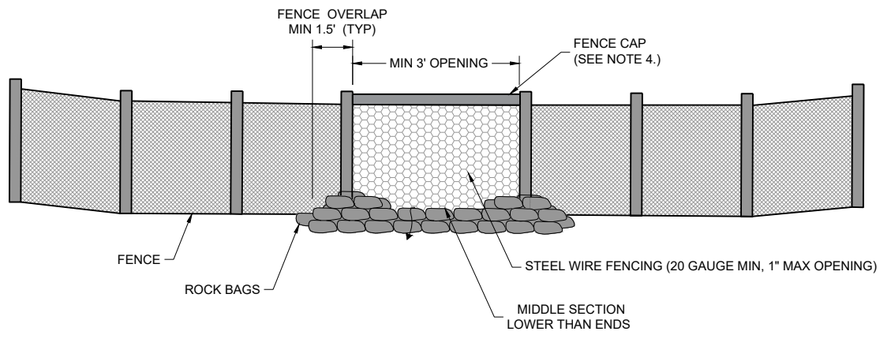


PLAN VIEW

CLIMBING TURTLE EXCLUSION FENCE DETAIL



PLAN VIEW



FRONT VIEW

CLIMBING TURTLE FENCE RELIEF DETAIL

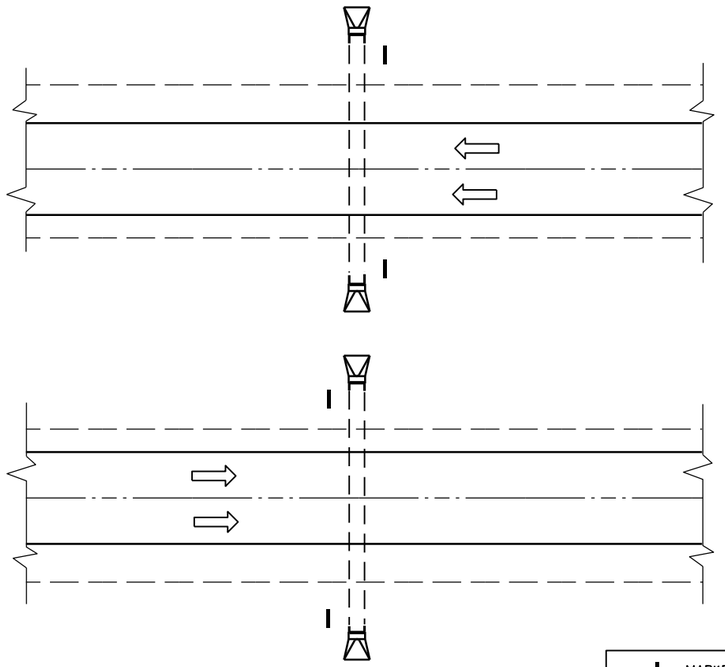
TURTLE EXCLUSION FENCE
CLIMBING TURTLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2025
DATE

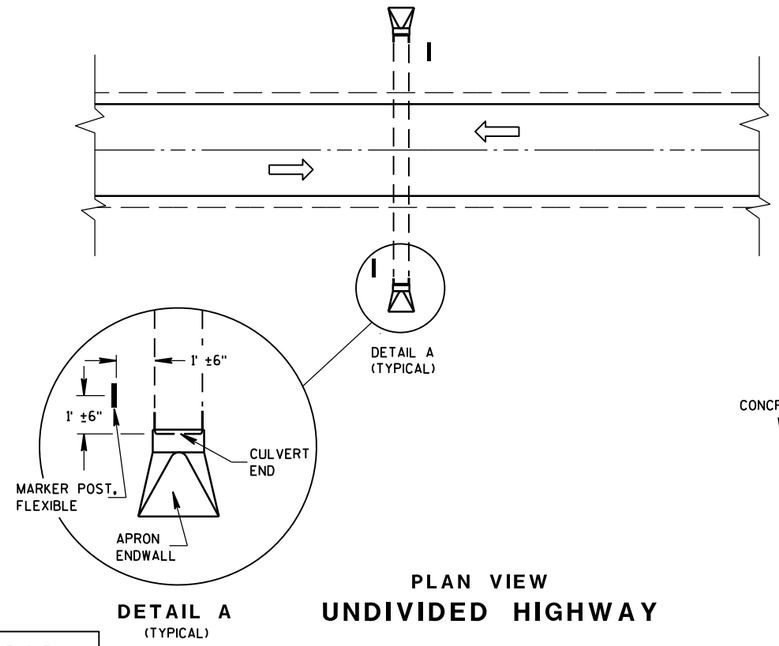
/S/ ALYSSA BARRETTE
CHIEF STATEWIDE ENVIRONMENTAL SERVICES
BUREAU OF TECHNICAL SER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

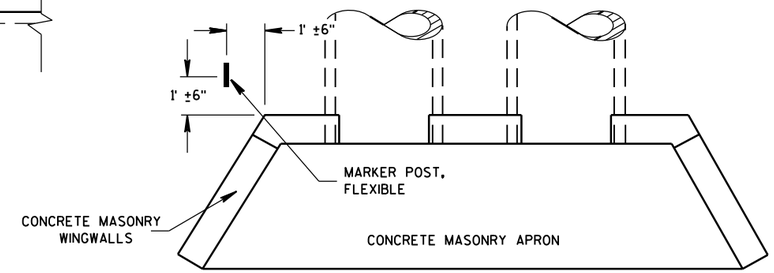
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

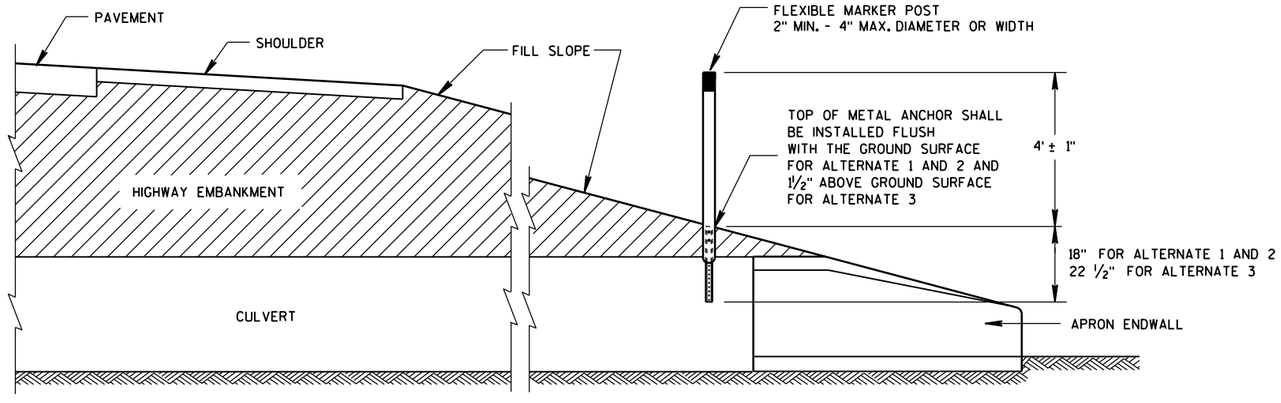
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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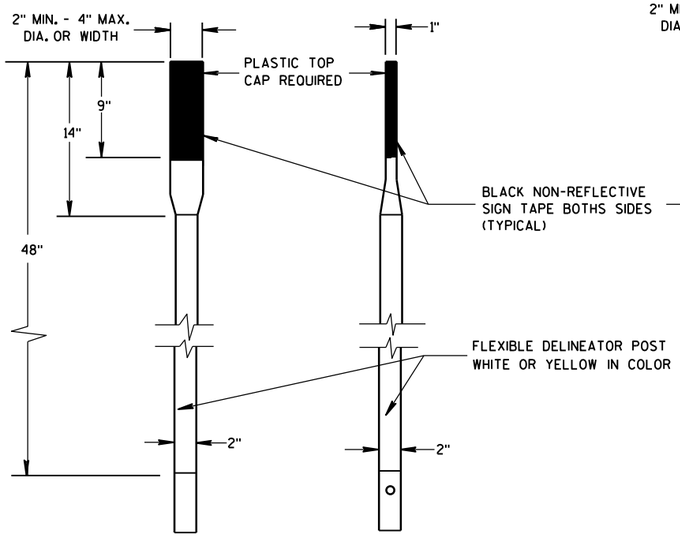
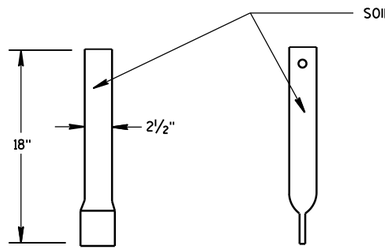
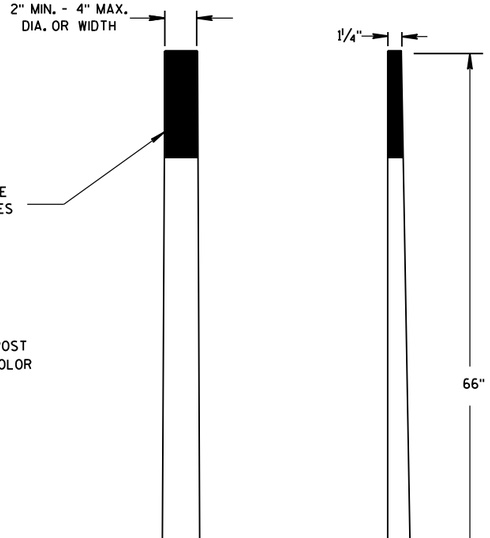
S.D.D. 15 A 3-2a





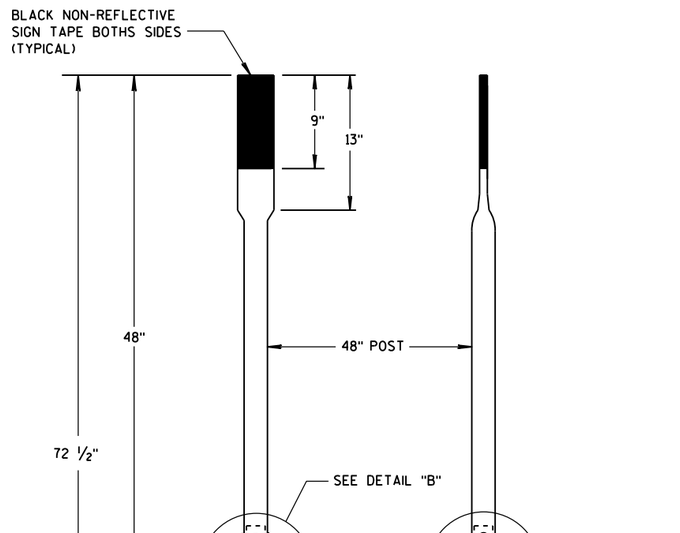
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

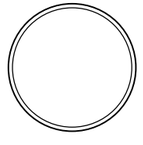
ALTERNATE 2



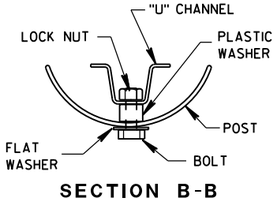
FRONT VIEW SIDE VIEW

ALTERNATE 3

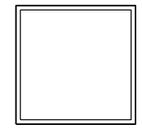
FLEXIBLE MARKER POSTS



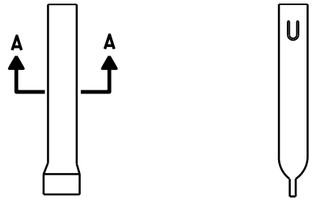
SECTION A-A



SECTION B-B

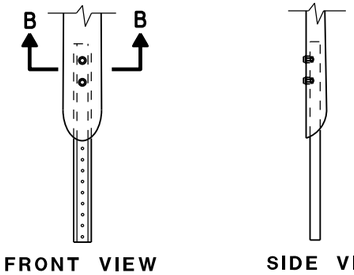


SECTION C-C



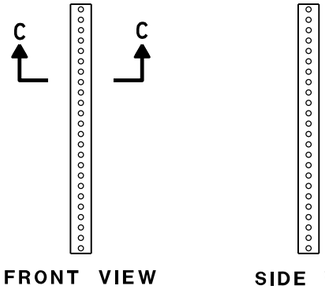
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

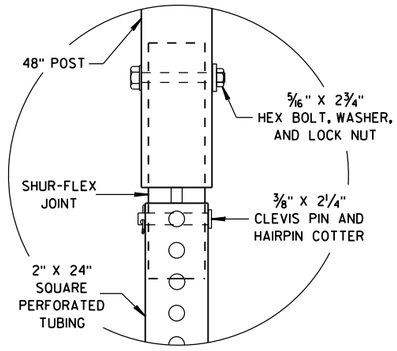
ALTERNATE 2



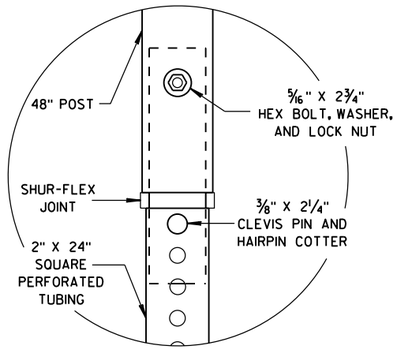
FRONT VIEW SIDE VIEW

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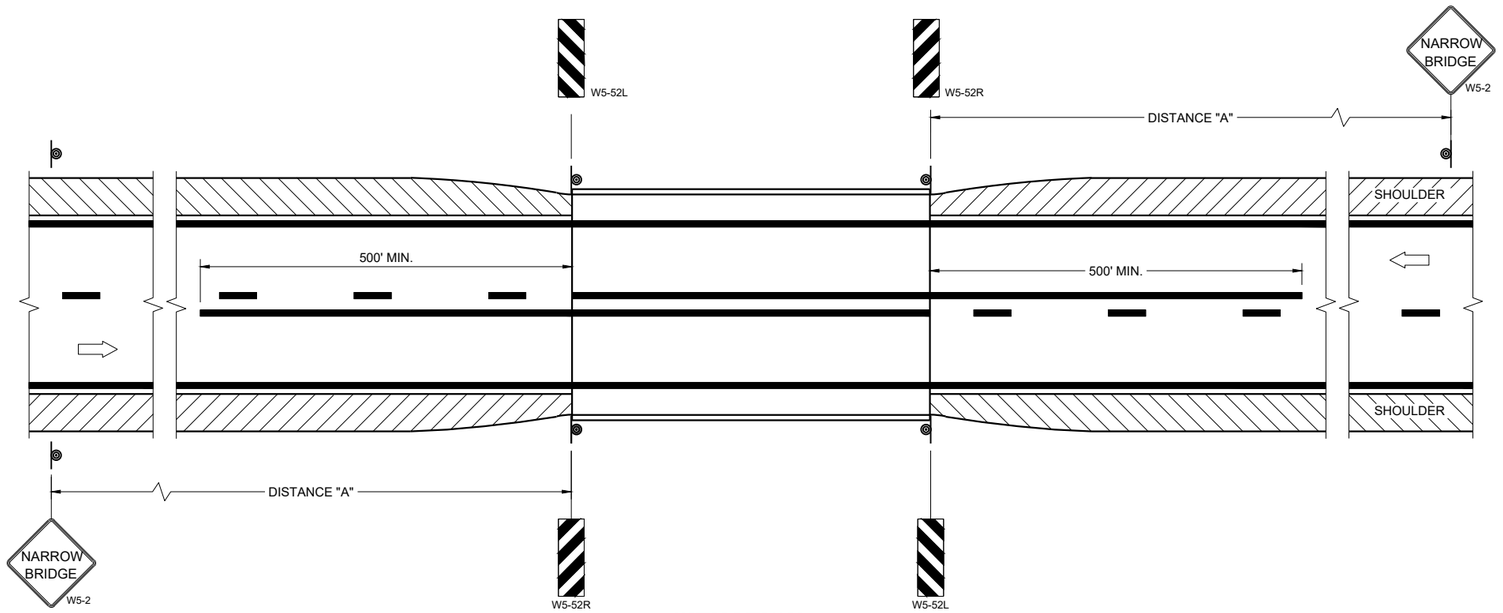
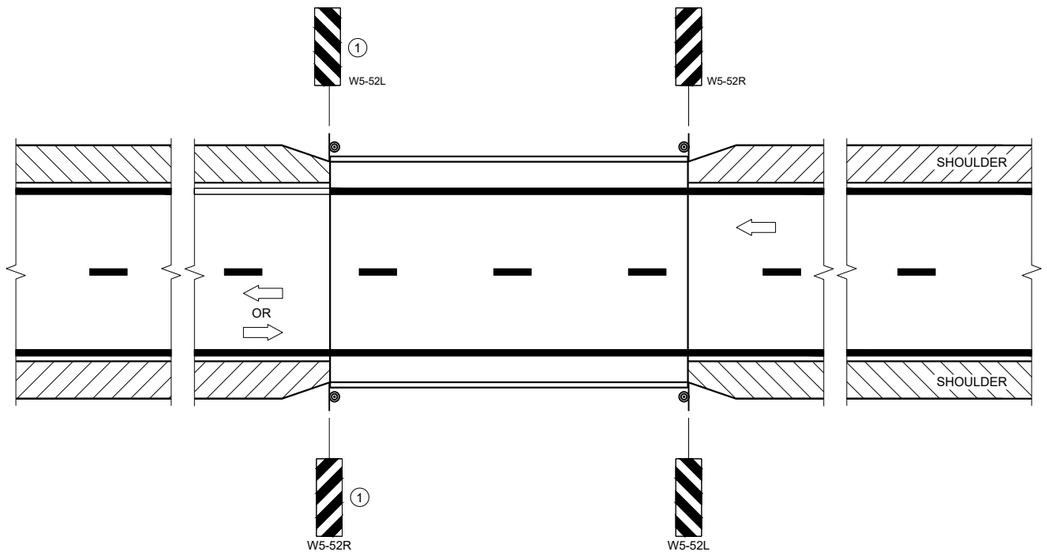
S.D.D. 15 A 3-2b



SITUATION 1

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



SITUATION 2

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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

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

SIGNING AND MARKING FOR TWO LANE BRIDGES

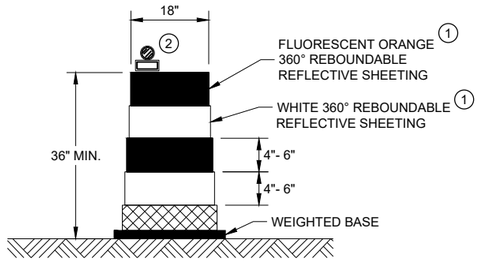
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6
SDD 15C06-12

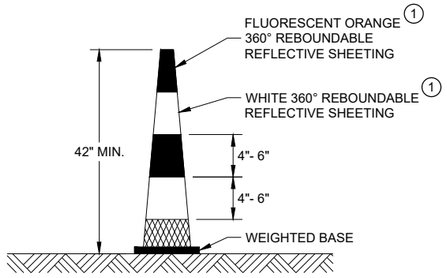
GENERAL NOTES

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

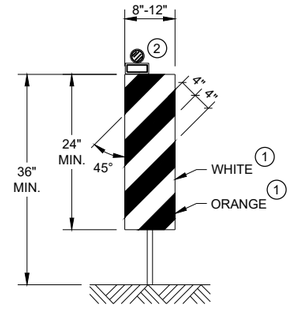
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

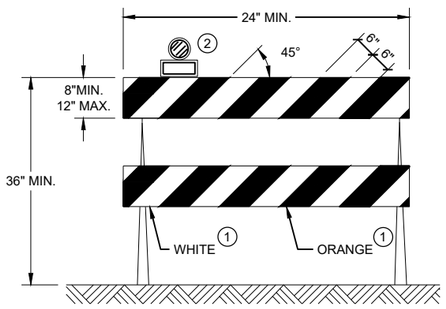
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



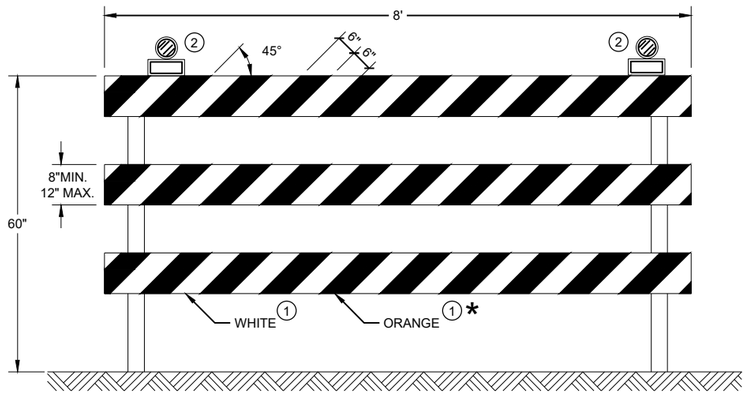
VERTICAL PANEL

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.

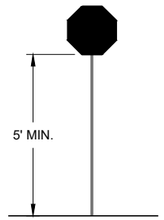
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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.



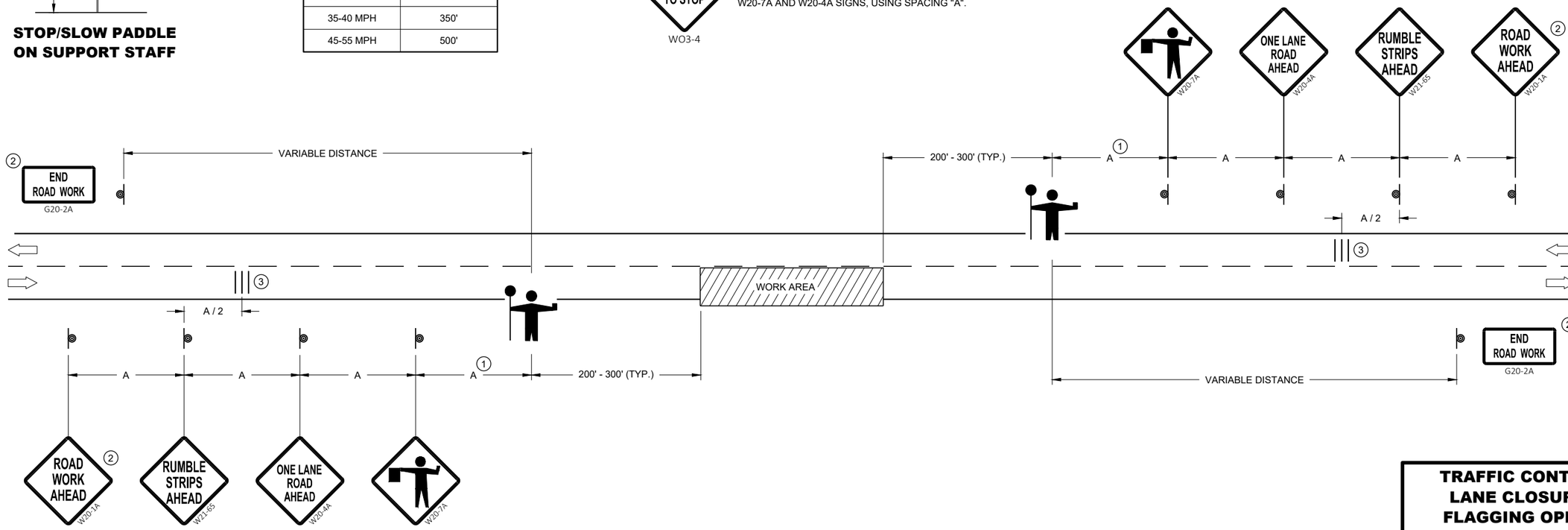
STOP/SLOW PADDLE ON SUPPORT STAFF

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

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SDD 15C12 - 09a

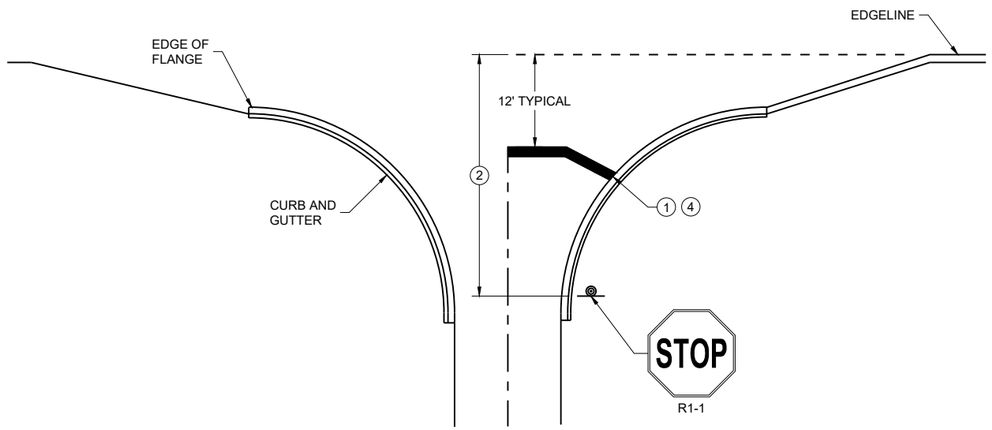
6

SDD 15C12 - 09a

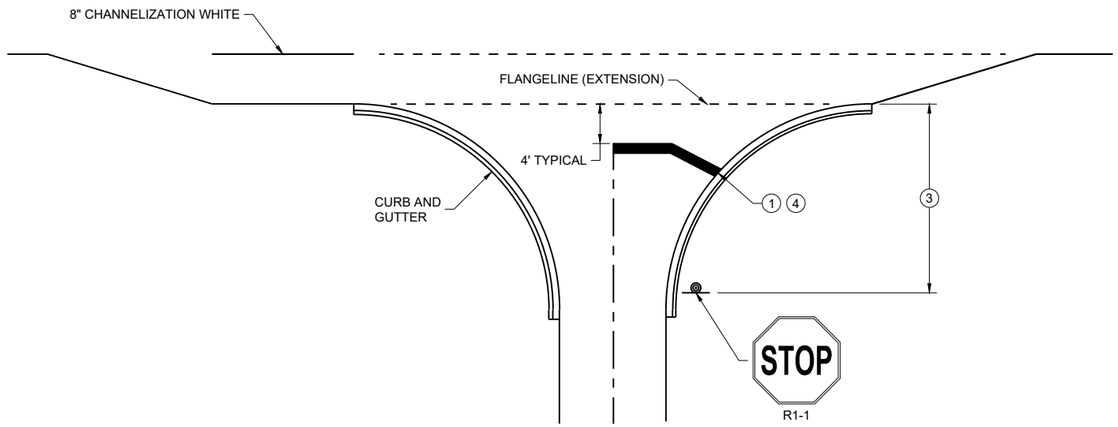
GENERAL NOTES

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

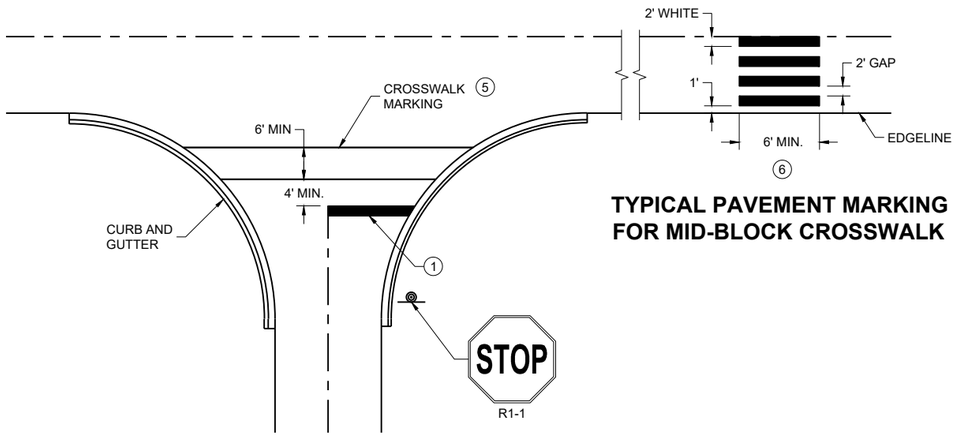
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE 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

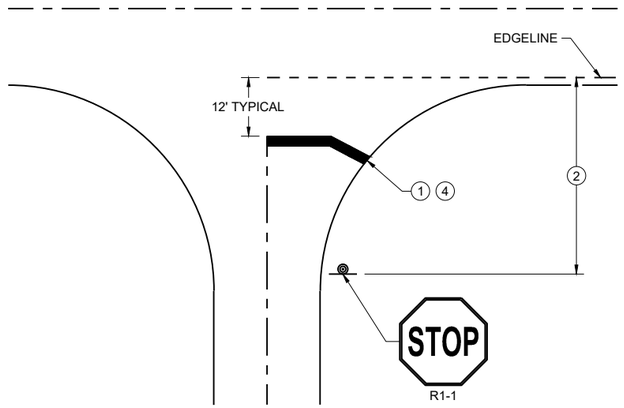


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



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

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SDD 15C33-05

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.

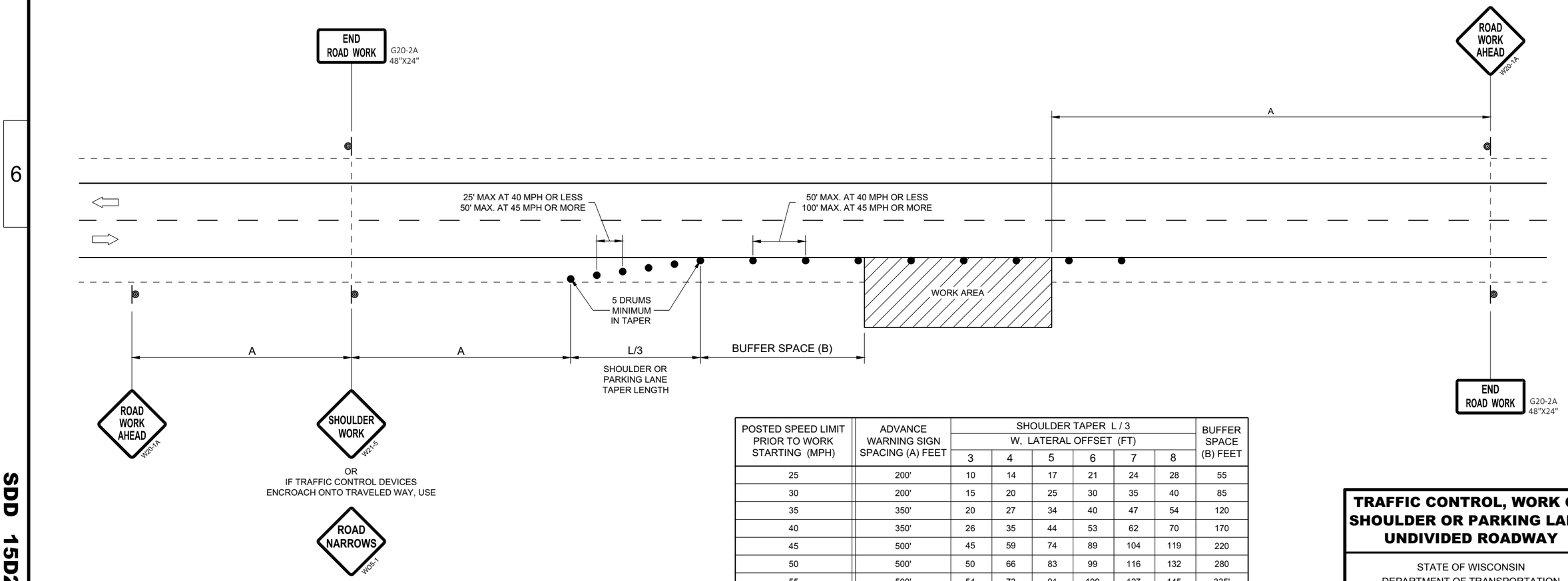
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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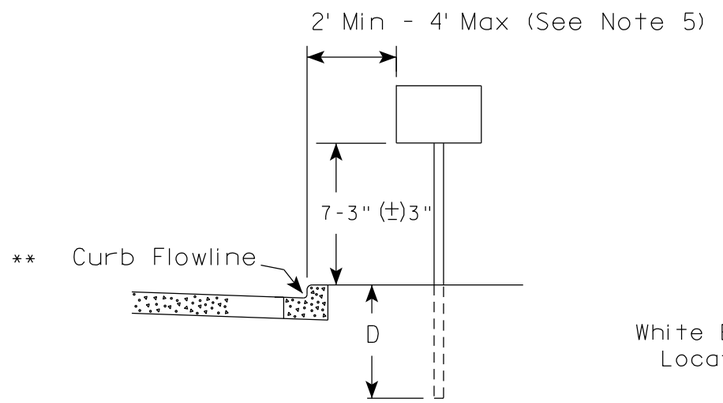
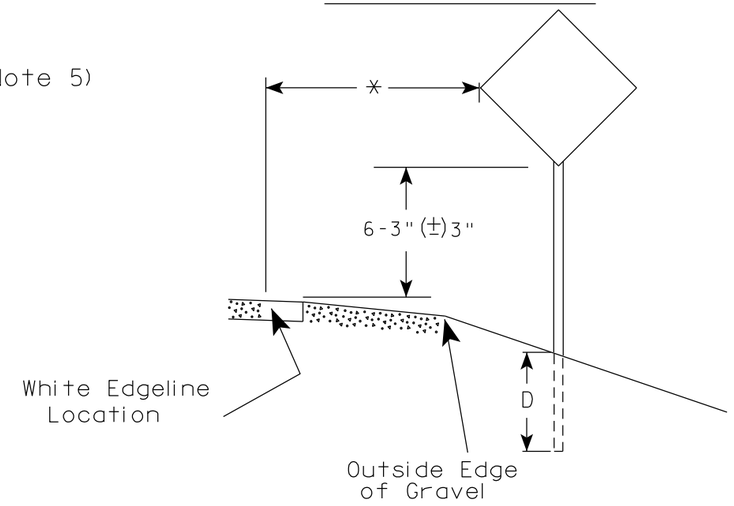
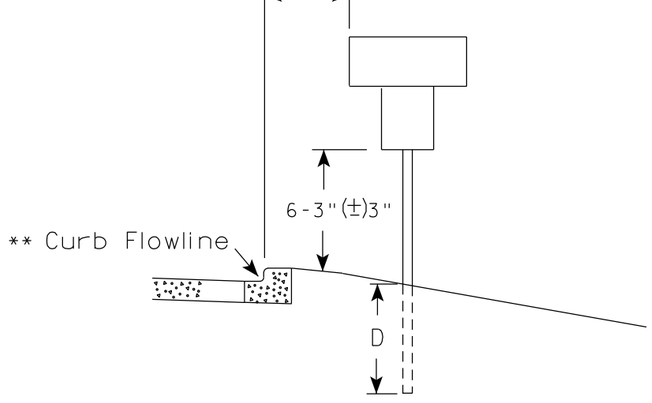
SDD 15D28 - 04

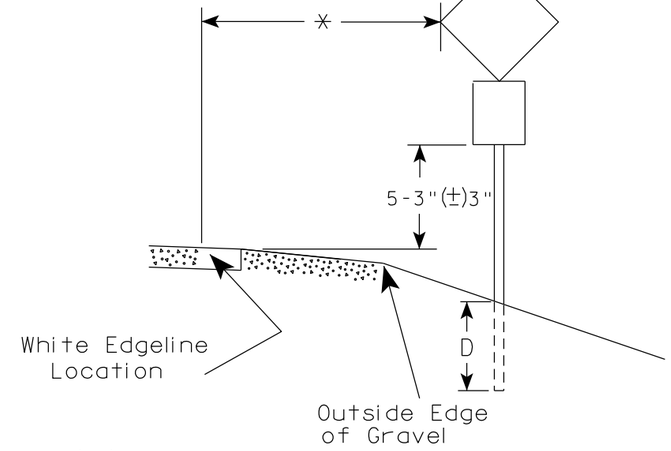
URBAN AREA



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.

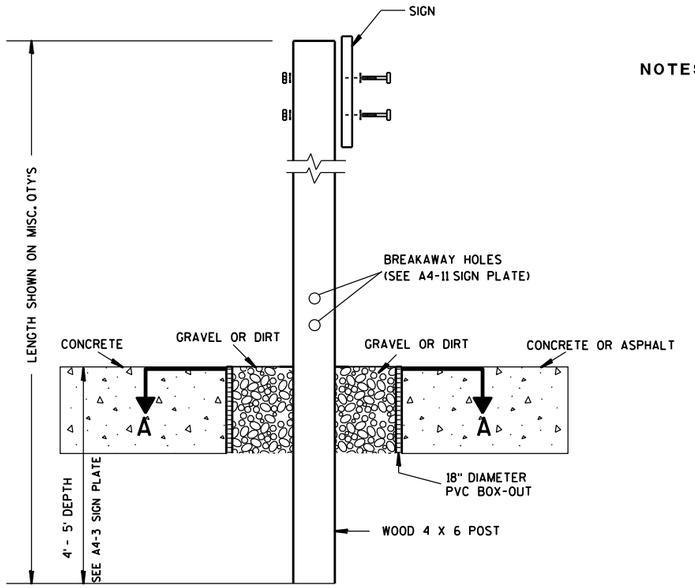
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

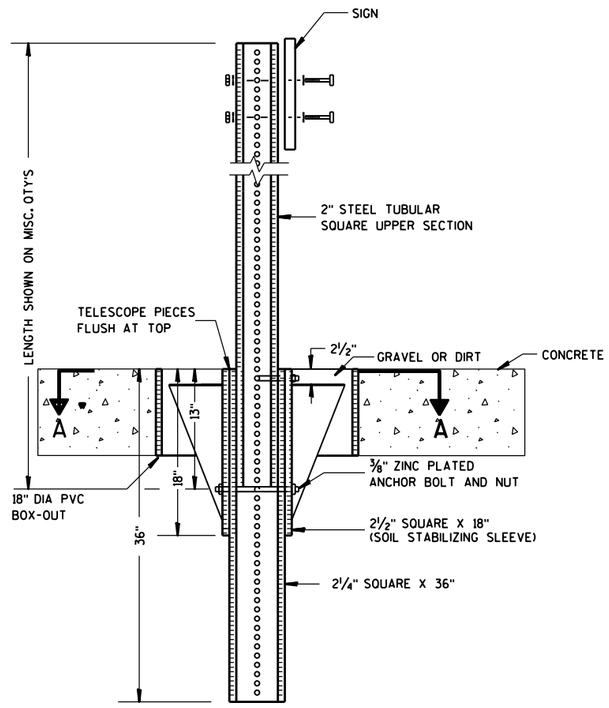
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 44	E



ELEVATION VIEW

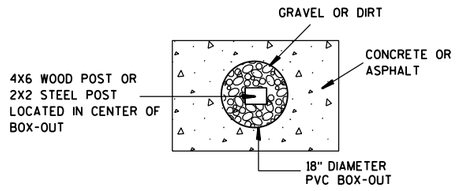
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

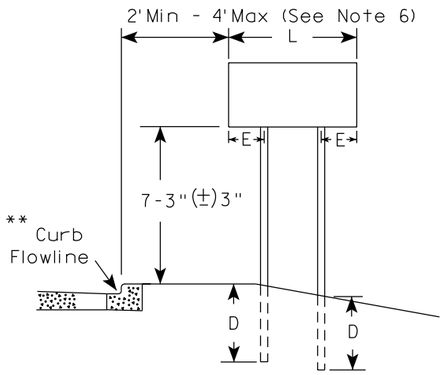
APPROVED Matthew R Rauch
for State Traffic Engineer

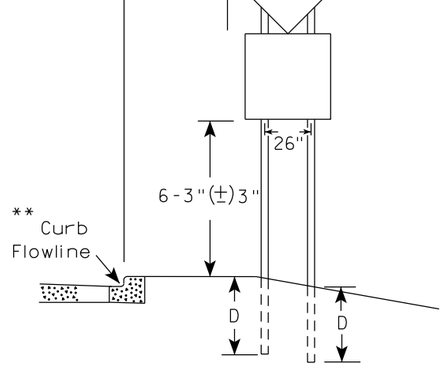
DATE 1/27/14 PLATE NO. A4-3B.1

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

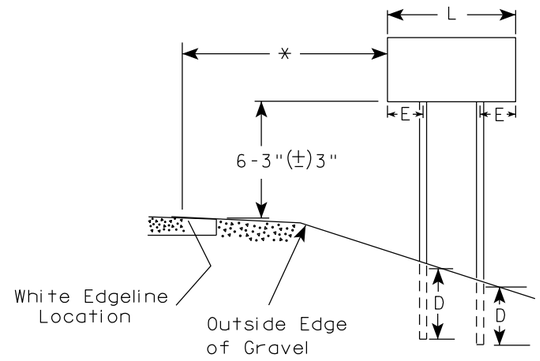
URBAN AREA

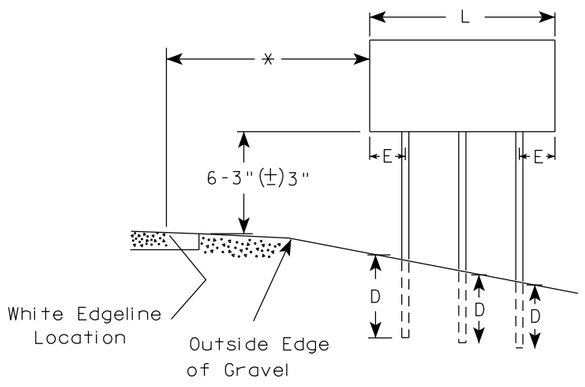


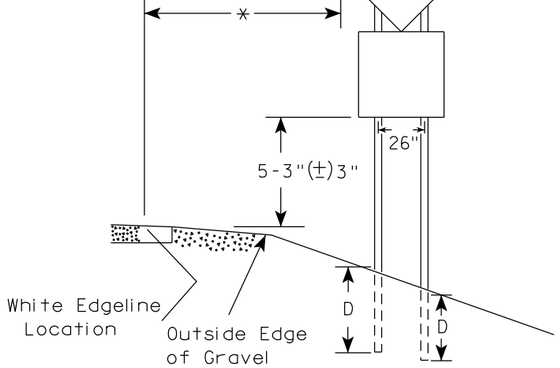


48" DIAMOND WARNING SIGN

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'

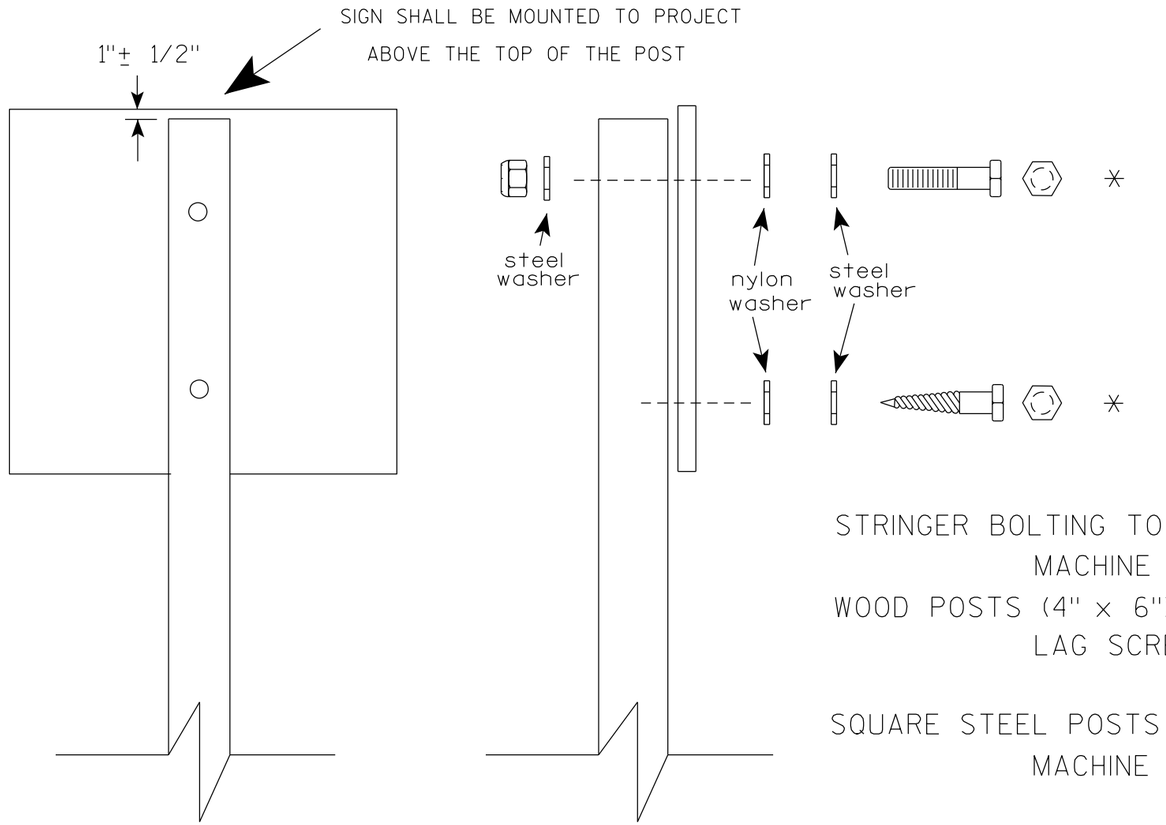
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 46	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

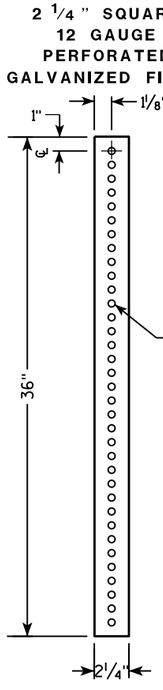
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

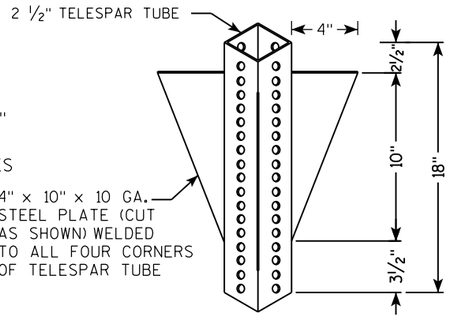
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

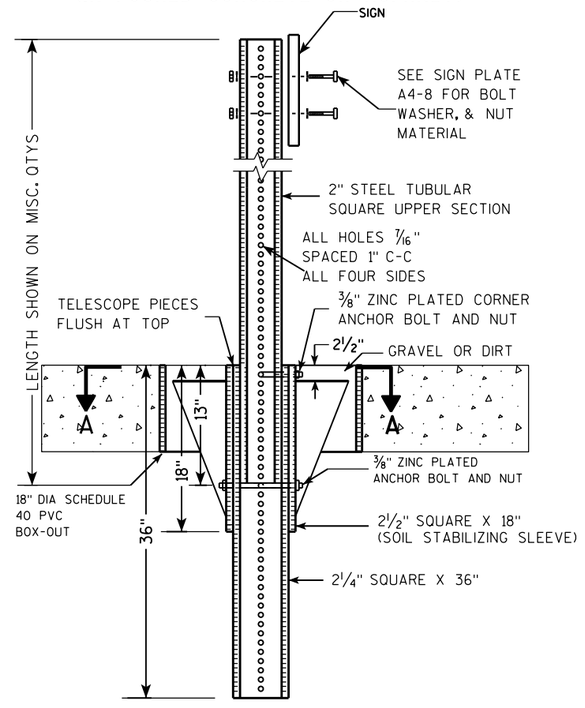
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



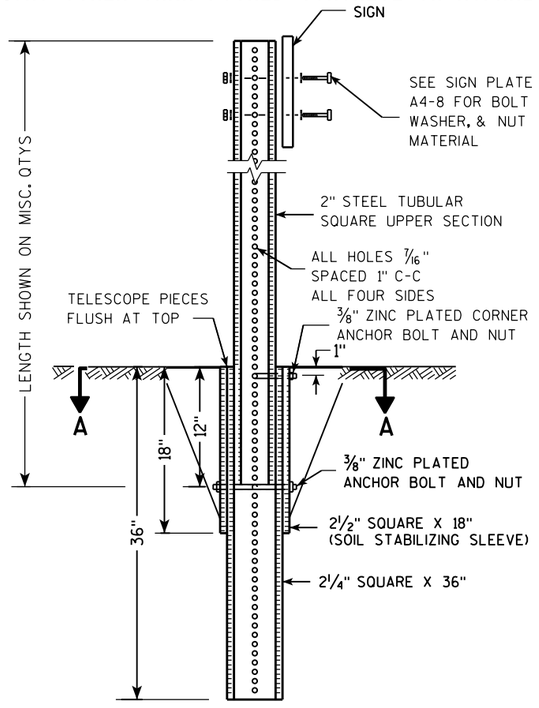
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

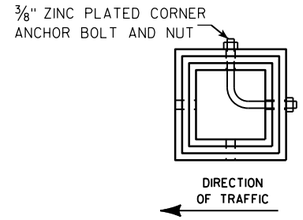


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

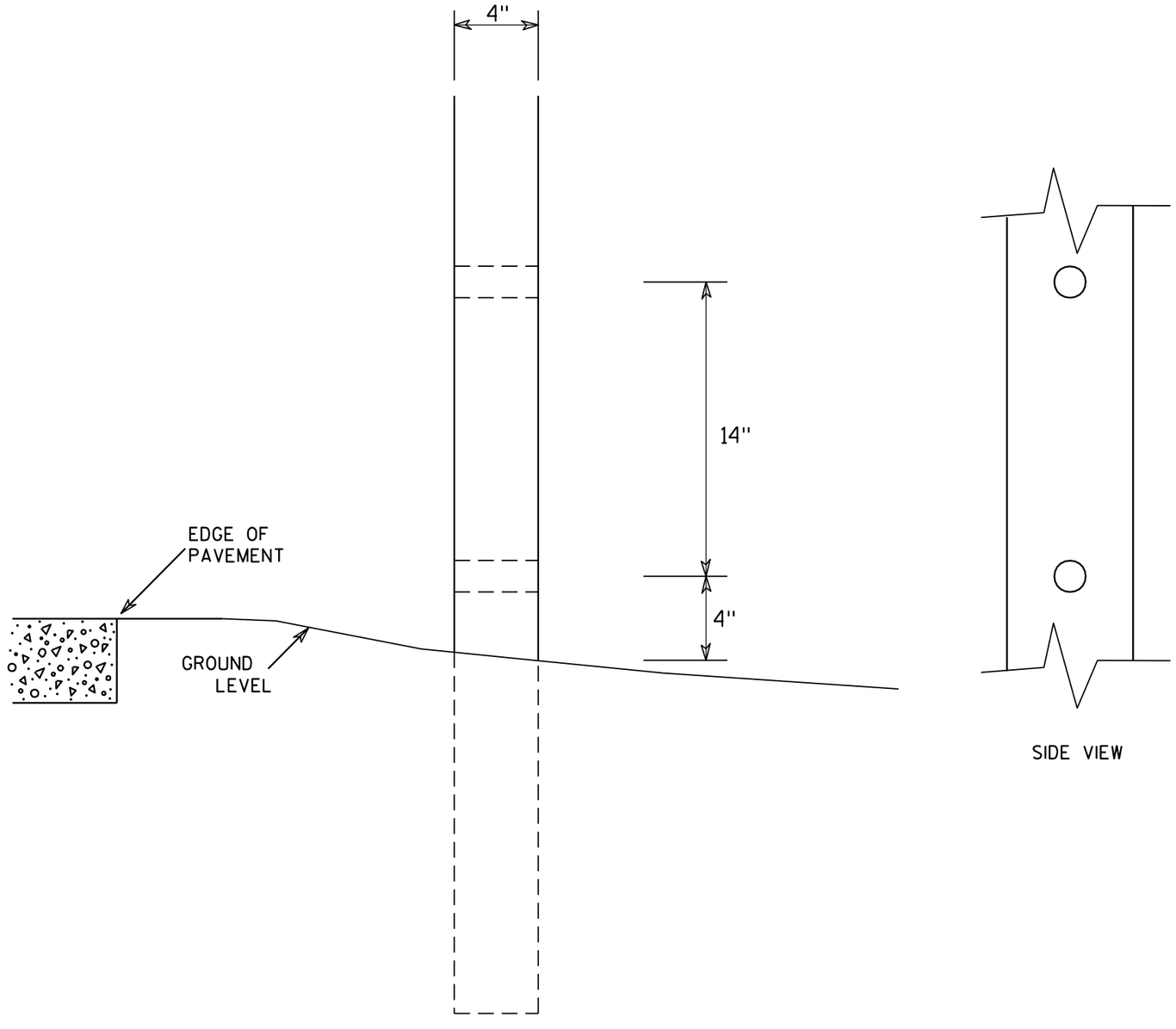
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 48 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

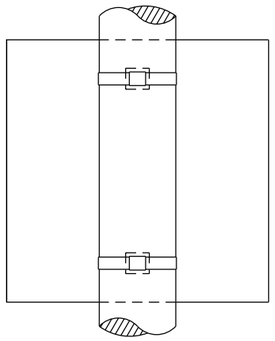
APPROVED Chester J Spang for State Traffic Engineer

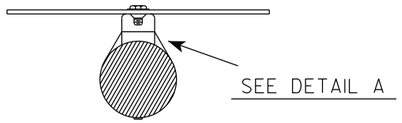
DATE 3/27/97 PLATE NO. A4-11.2

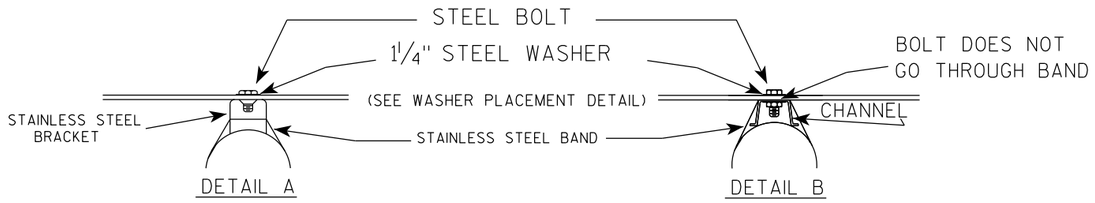
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 49	E

BANDING

SINGLE SIGN



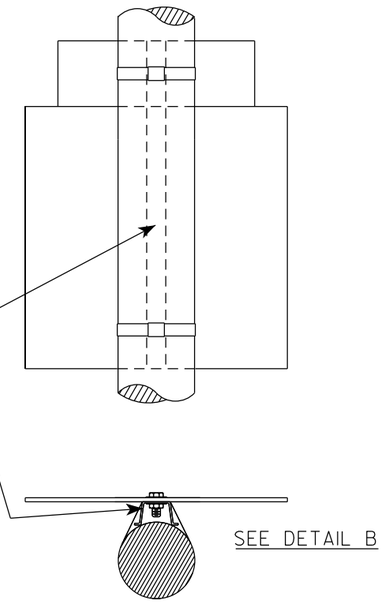




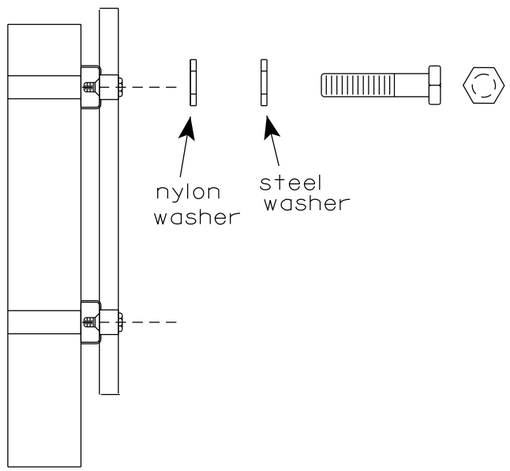
GENERAL NOTES

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

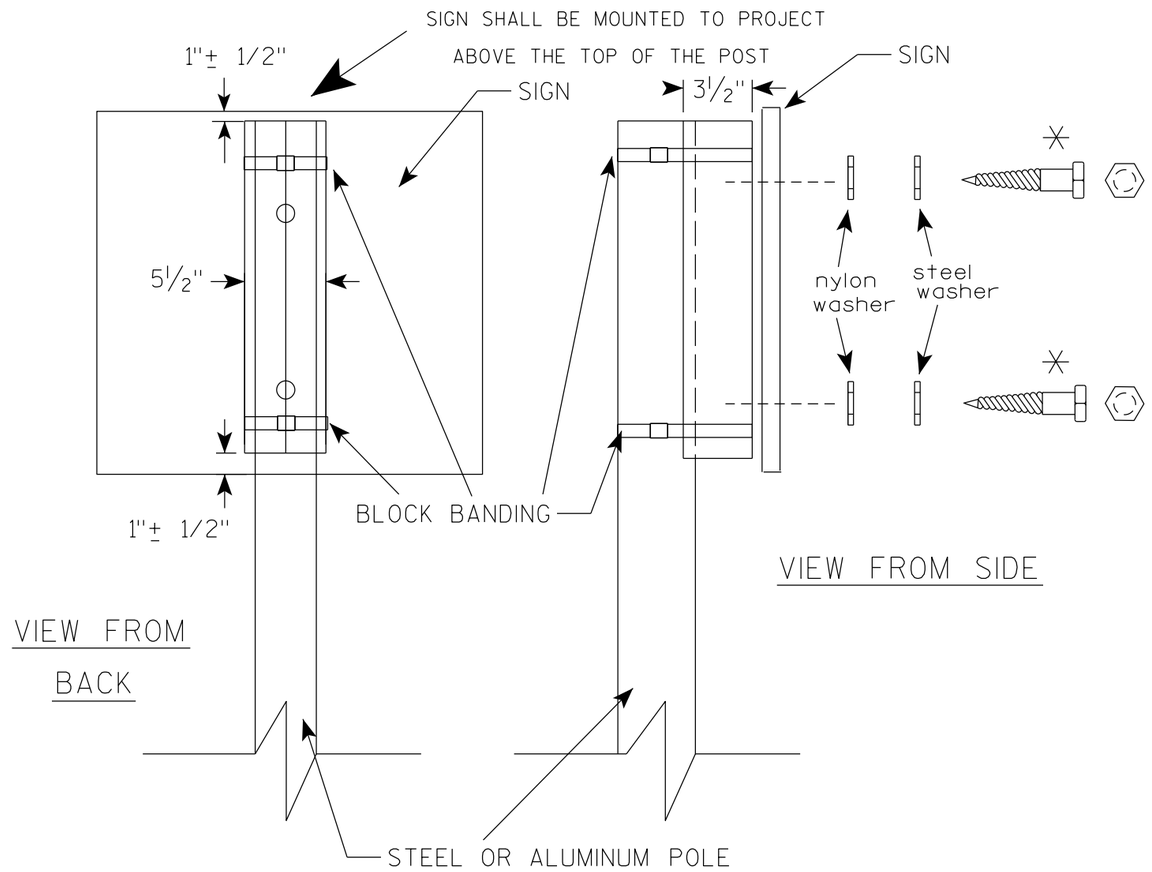
WISCONSIN DEPT OF TRANSPORTATION

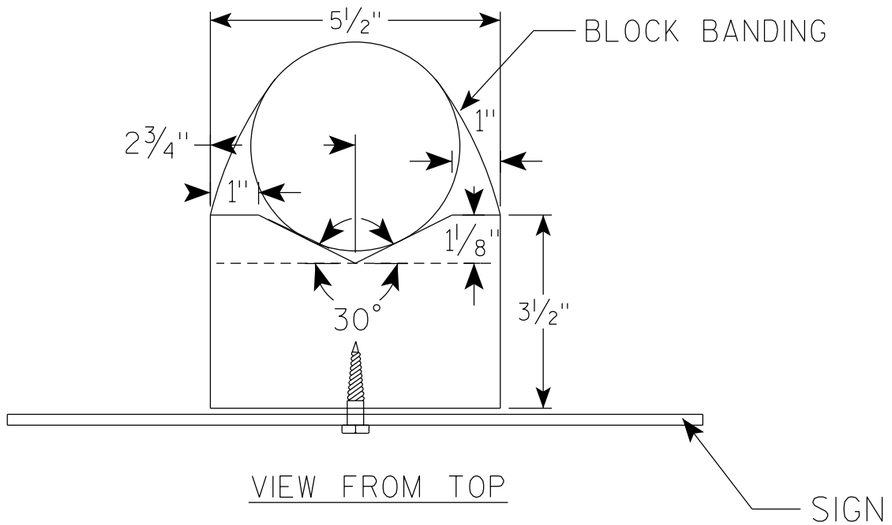
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 50	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)

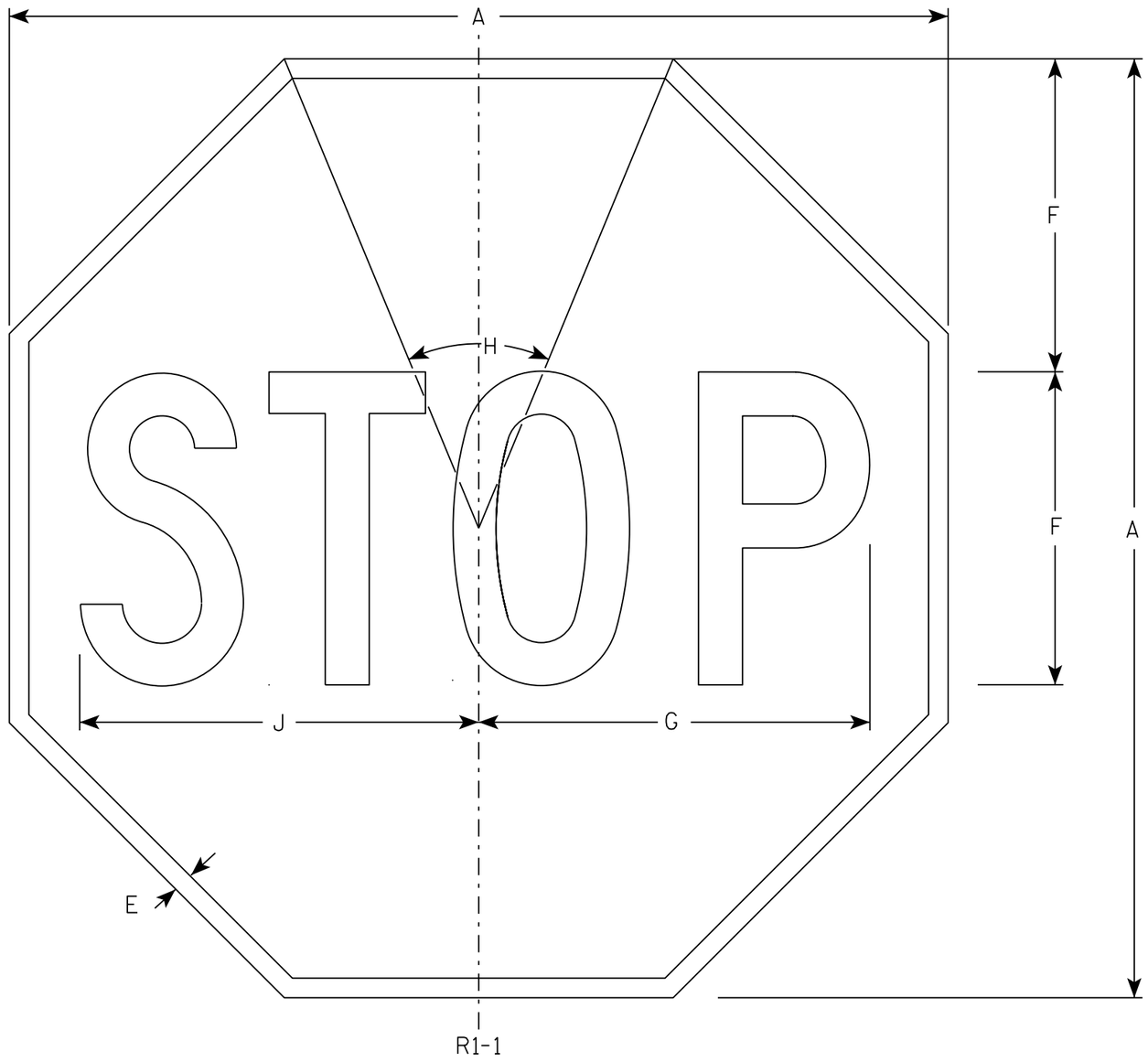
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 51 E



NOTES

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

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

STANDARD SIGN

R1-1

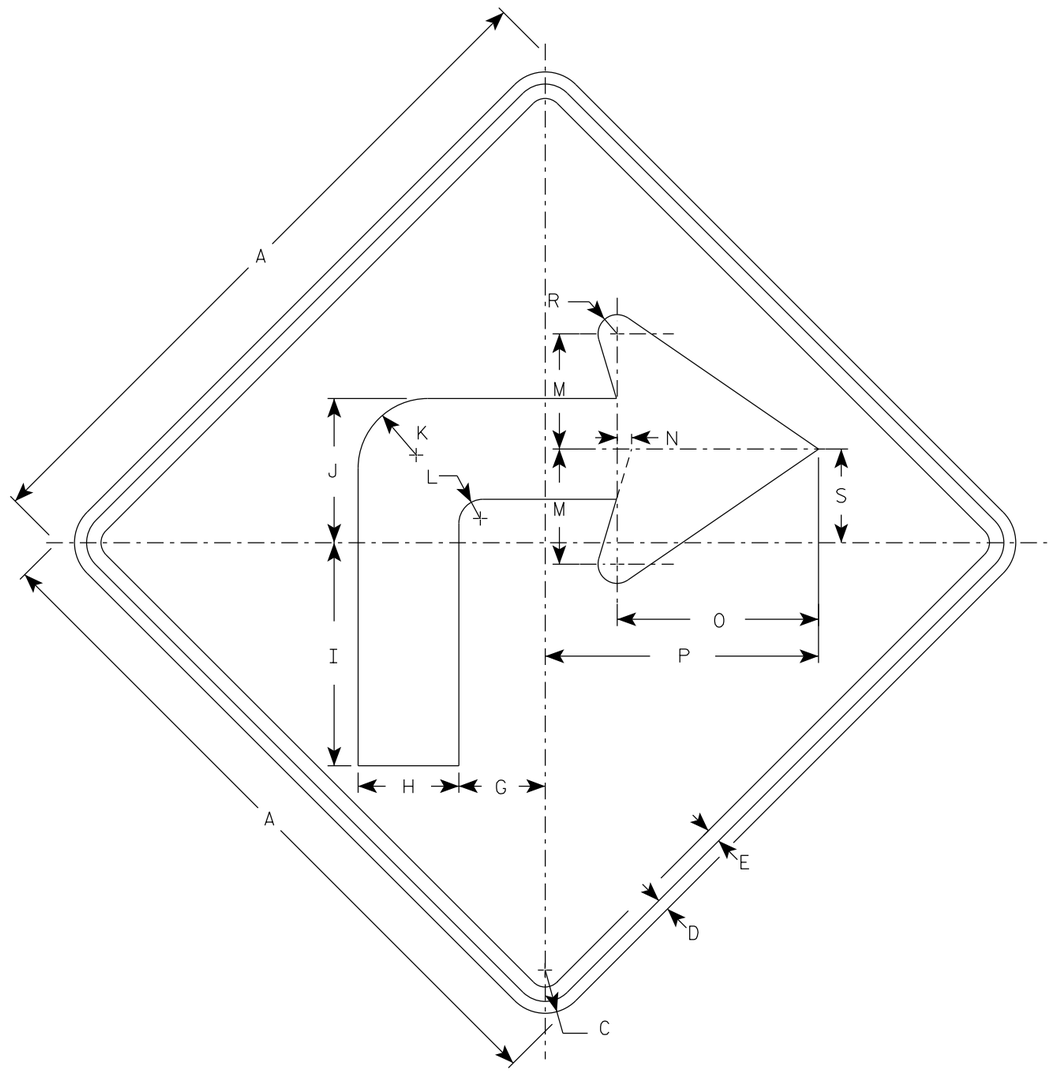
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 52	E



W1-1R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

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

STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

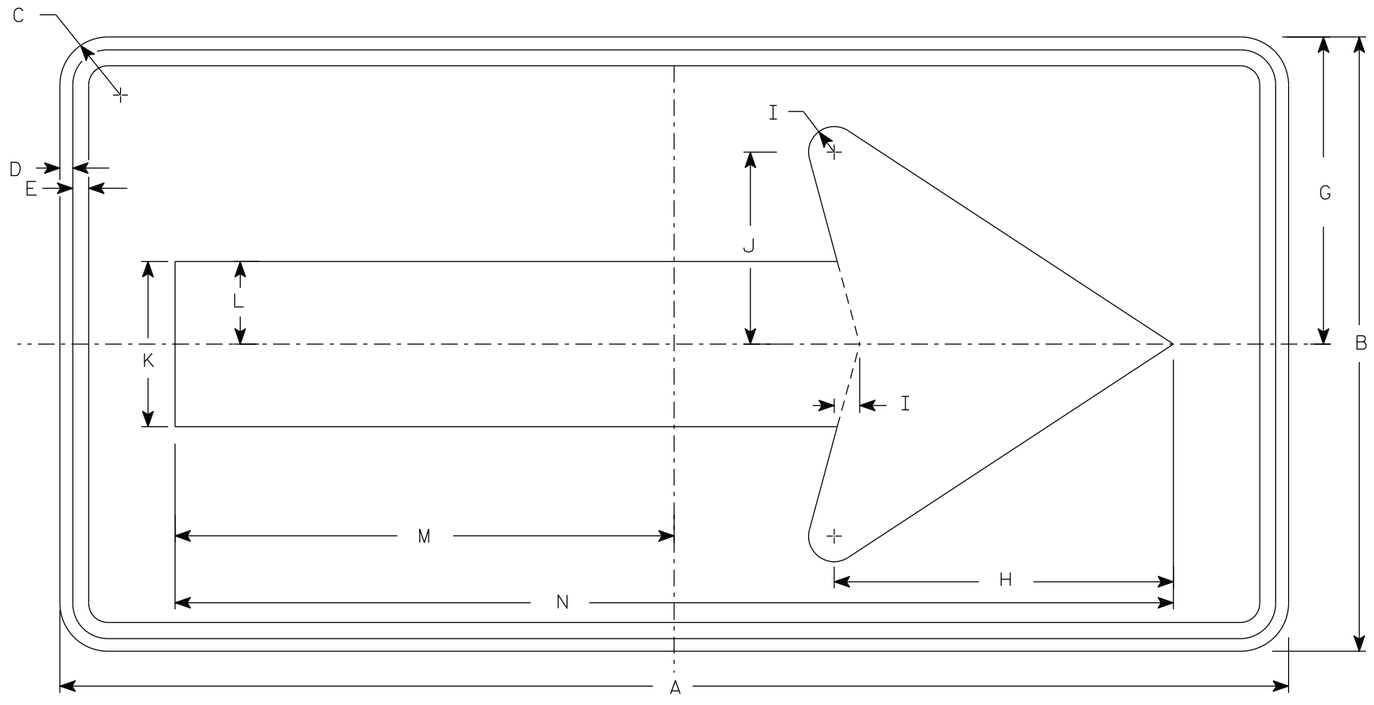
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/22/2023 PLATE NO. W1-1.12

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

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black



W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	3	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN

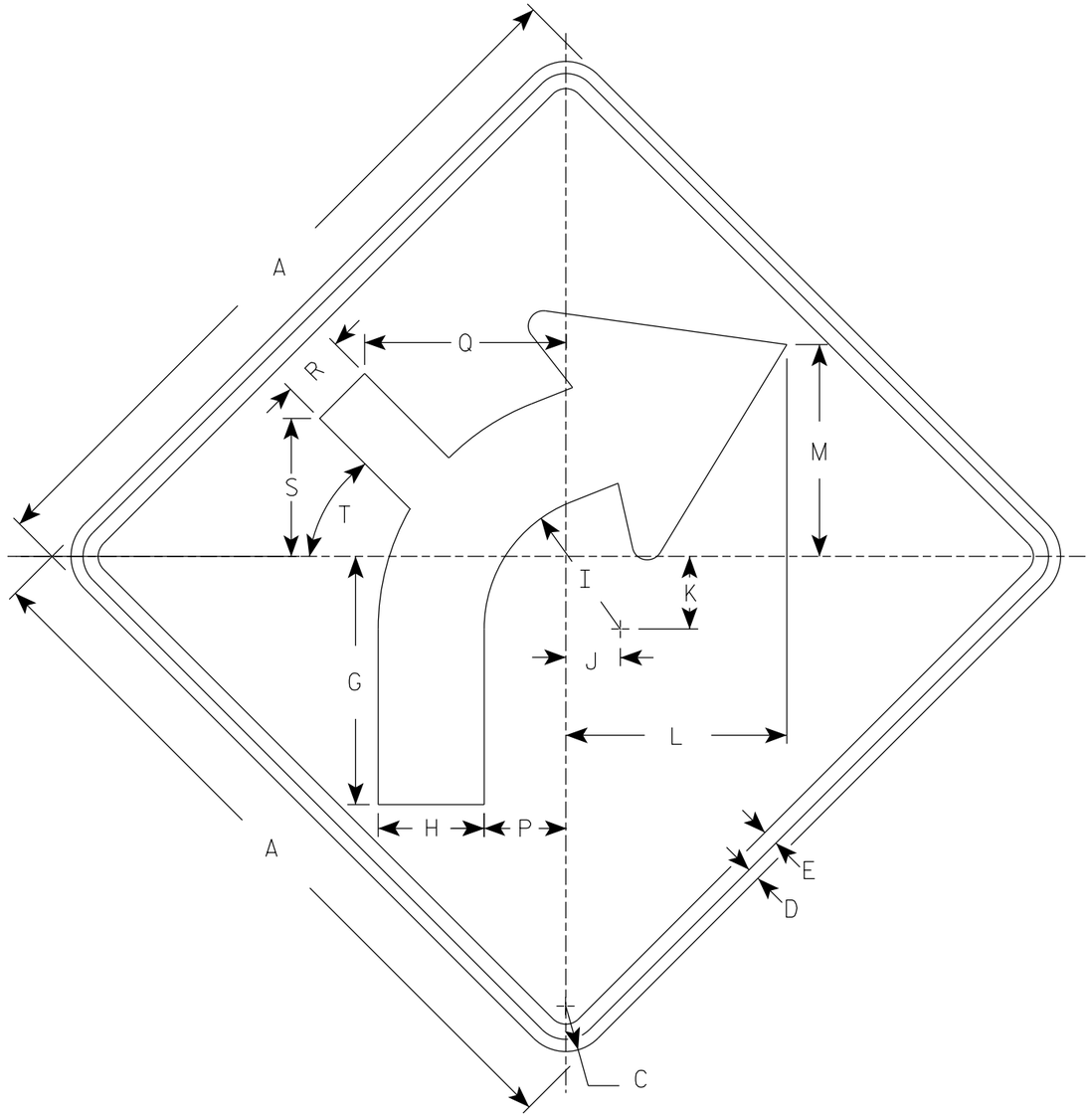
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/13/2023 PLATE NO. W1-6.9

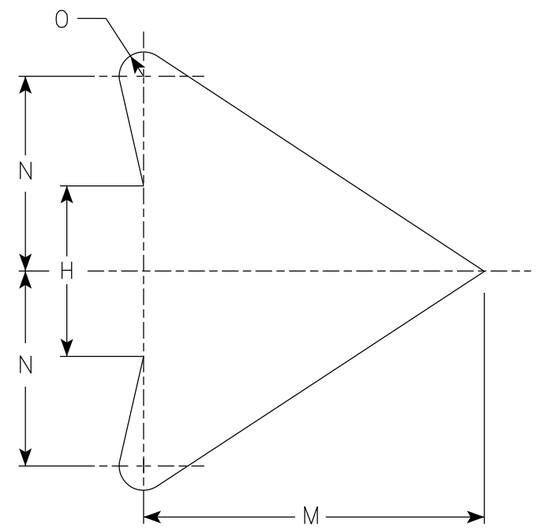
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W1-10R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W1-10L is the same as W1-10R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2	2 5/8	6 5/8	2 1/8	4 1/2	45°							4.0
2S	30		1 7/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8	3 3/8	8 3/8	2 5/8	5 3/4	45°							6.25
2M	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4	4	10	3 1/4	6 7/8	45°							9.0
3	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4	4	10	3 1/4	6 7/8	45°							9.0
4	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4	4	10	3 1/4	6 7/8	45°							9.0
5	48		3	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1	5 3/8	13 1/4	4 1/4	9 1/8	45°							16.0

STANDARD SIGN
W1-10

WISCONSIN DEPT OF TRANSPORTATION

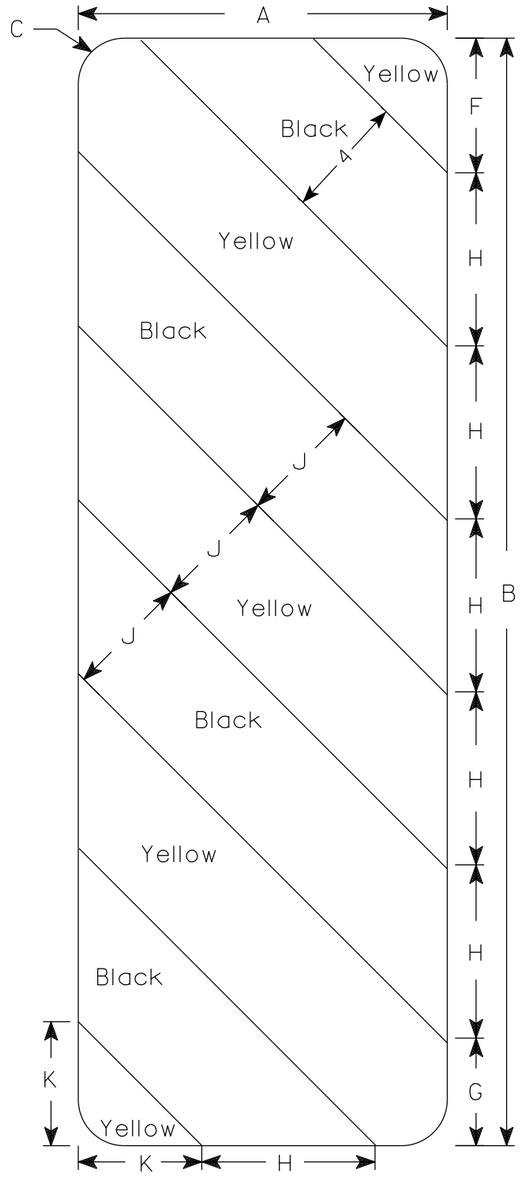
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/15/2023 PLATE NO. W1-10.4

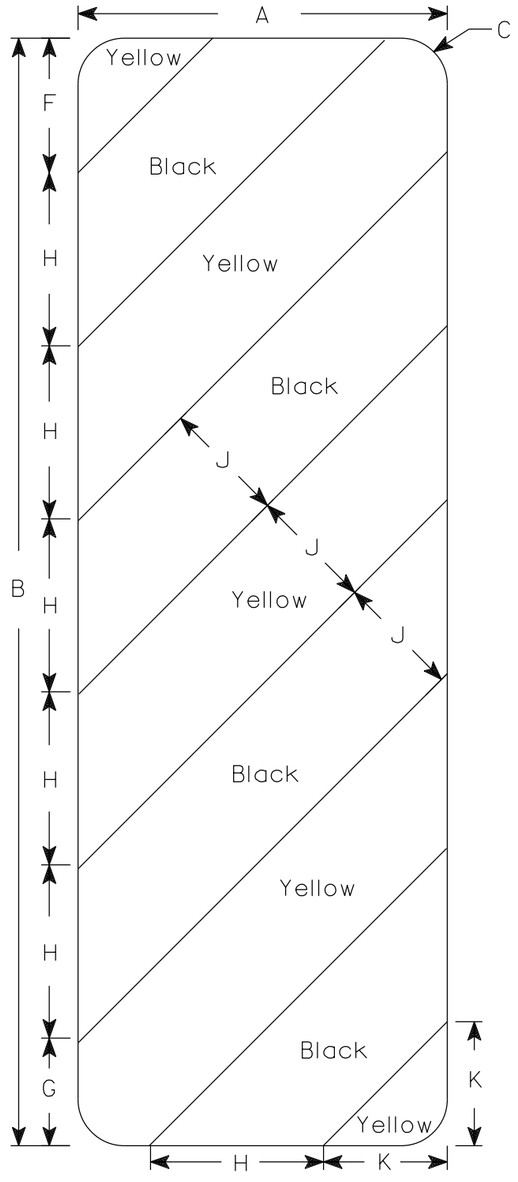
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W110.dgn PLOT DATE : 30-OCT 2023 11:09 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Alternate colors of stripes as shown.

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	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

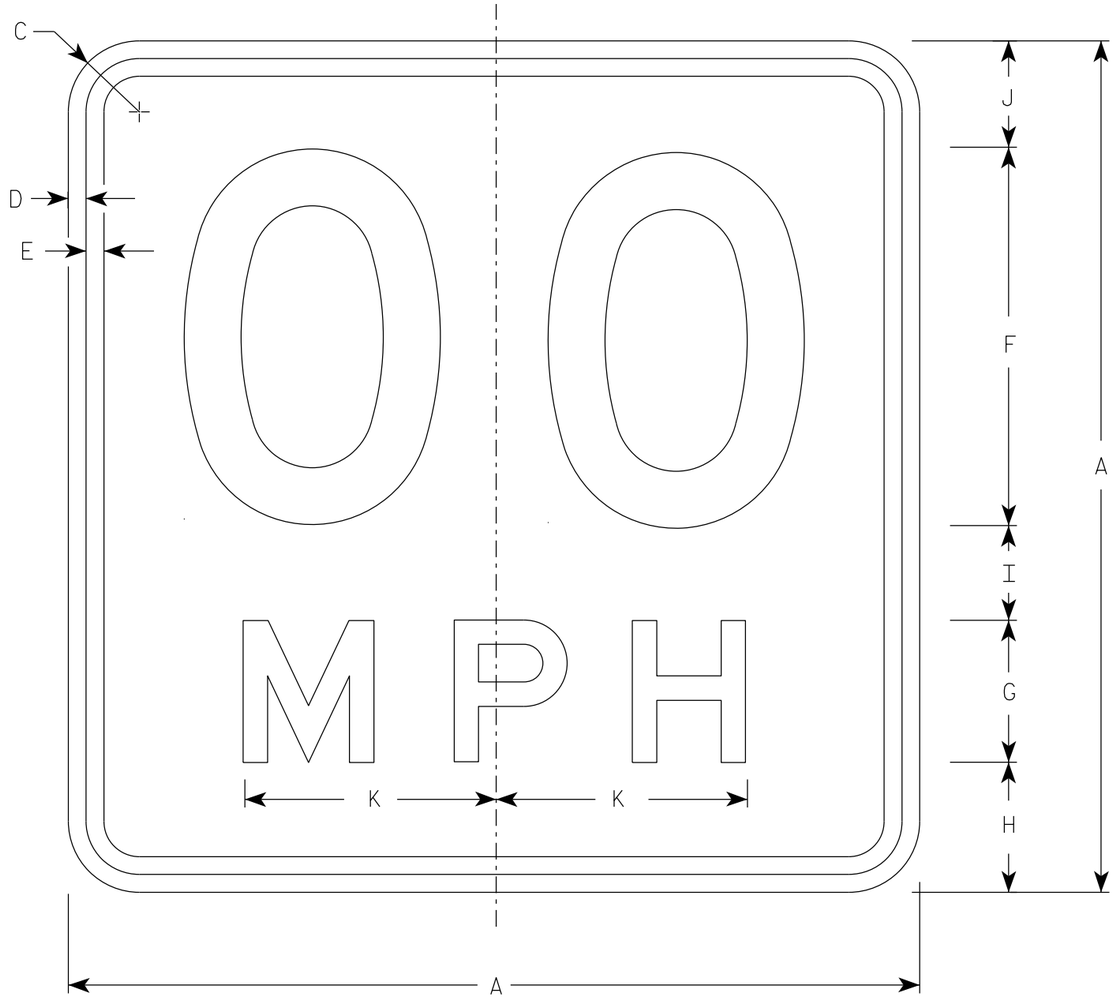
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 56 E



W13-1

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

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 5
4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
5. Line 1 is Series D
   Line 2 is Series E

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

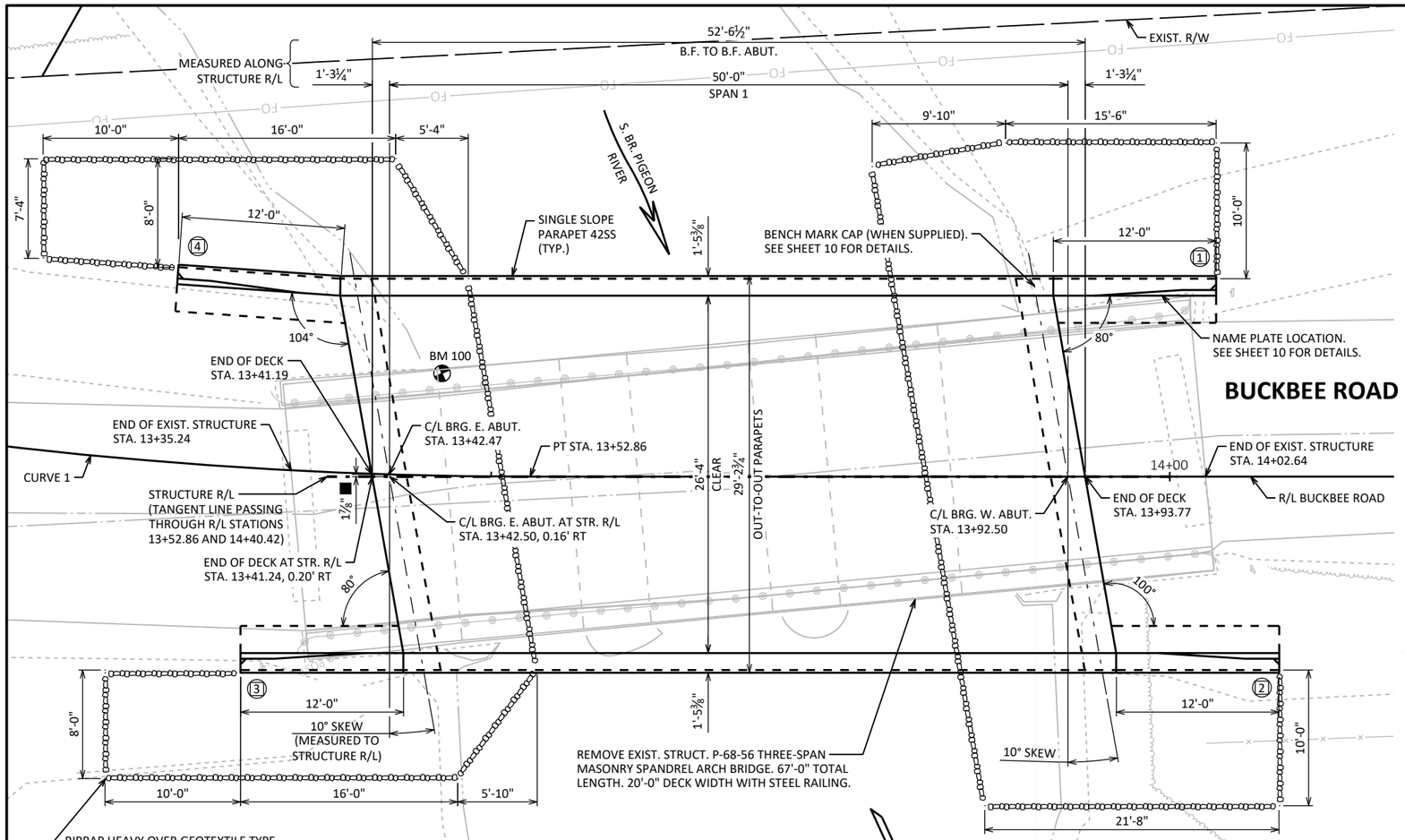
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

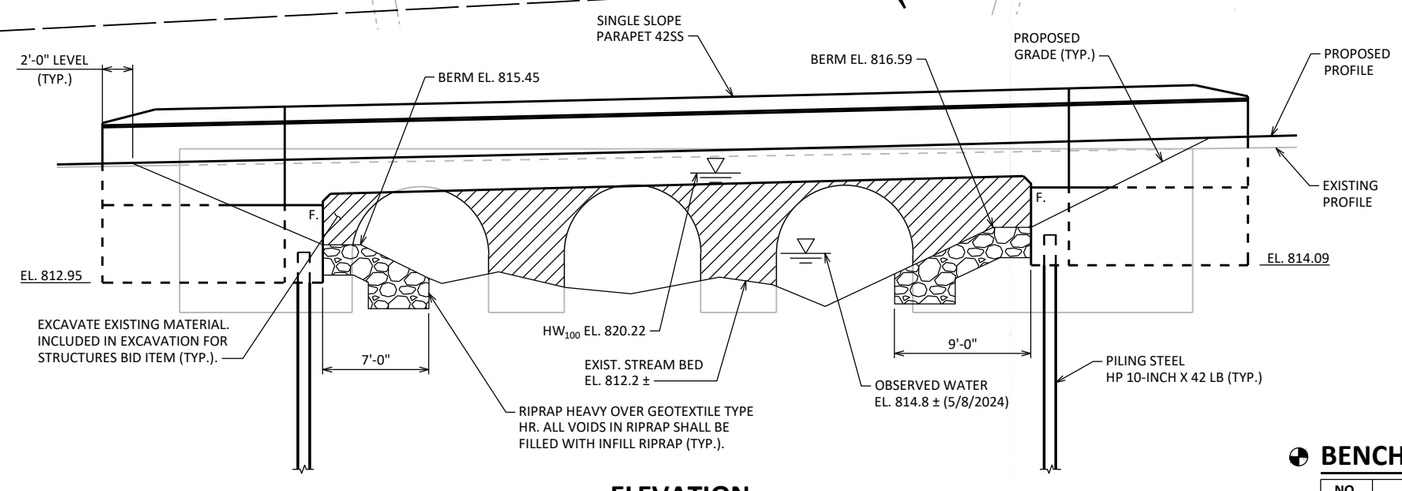
DATE 1/8/2024 PLATE NO. W13-1.17

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 57 E



PLAN

(SINGLE-SPAN CONCRETE FLAT SLAB)



ELEVATION

(NORMAL TO SUBSTRUCTURE, LOOKING UPSTREAM)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.05
OPERATING RATING: RF = 1.37
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE — f'_c = 4,000 PSI
ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
GRADE 60 — f_y = 60,000 PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 40'-0" LONG AT EAST AND WEST ABUTMENTS.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE PILE CAPACITY.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 1,740 C.F.S.
Q_{BRIDGE} = 1,174 C.F.S.
$Q_{ROADWAY}$ = 566 C.F.S.
V_{100}= 4.41 F.P.S.
HW_{100}= EL. 820.22
WATERWAY AREA = 266.28 SQ. FT.
DRAINAGE AREA = 49.9 SQ. MI.
SCOUR CRITICAL CODE = 5

ROADWAY OVERTOPPING

FREQUENCY = 50 YEARS
Q = 1,590 C.F.S.
HW. = EL. 819.45

2-YEAR FREQUENCY:

Q_2= 861 C.F.S.
V_2= 5.00 F.P.S.
HW_2= EL. 817.65

TRAFFIC DATA

FEATURE ON: BUCKBEE ROAD

ADT = 125 (2026)
ADT = 128 (2046)
R.D.S. = 45 MPH/30 MPH ON BRIDGE

HORIZONTAL CURVE DATA

CURVE 1:

PI STA = 12+67.80
Y = 447757.400
X = 602437.873
DELTA = 29°47'14" LT
D = 17°06'12"
T = 89.10'
L = 174.16'
R = 335.00'
PC STA = 11+78.70
Y = 447684.875
X = 602489.626
PT STA = 13+52.86
Y = 447794.632
X = 602356.929

LIST OF DRAWINGS:

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES, NOTES, & DETAILS
3. SUBSURFACE EXPLORATION
4. EAST ABUTMENT
5. EAST ABUTMENT DETAILS
6. WEST ABUTMENT
7. WEST ABUTMENT DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE DETAILS
10. SINGLE-SLOPE PARAPET 42SS

LEGEND

(X) INDICATES WING NUMBER

■ DISTANCE FROM STRUCTURE R/L TO R/L BUCKBEE ROAD MEASURED AT C/L ABUT., NORMAL TO STRUCTURE R/L.

STRUCTURE DESIGN CONTACTS:

DESIGN CONSULTANT: EVAN CONSTANT 608-251-4843
BUREAU OF STRUCTURES: AARON BONK 608-261-0261

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
100	13+46.22, 7.53' LT	CHISELED SQUARE SE SIDE OF BRIDGE	821.84

WISCONSIN
EVAN J. CONSTANT
E-48226
MADISON
WI
PROFESSIONAL ENGINEER
8-1-2025

NO.	DATE	REVISION	BY

STRAND ASSOCIATES®
MADISON, WISCONSIN 53715
(608)–251–4843
(608) 251–8655 FAX
WWW.STRAND.COM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JLR 08/22/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STATE PROJECT NUMBER
6887-01-71

STRUCTURE B-68-151

BUCKBEE RD. OVER S. BR. PIGEON RIVER

COUNTY	TOWN
WAUPACA	LARRABEE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
JRP	KRB	EJC	KRB

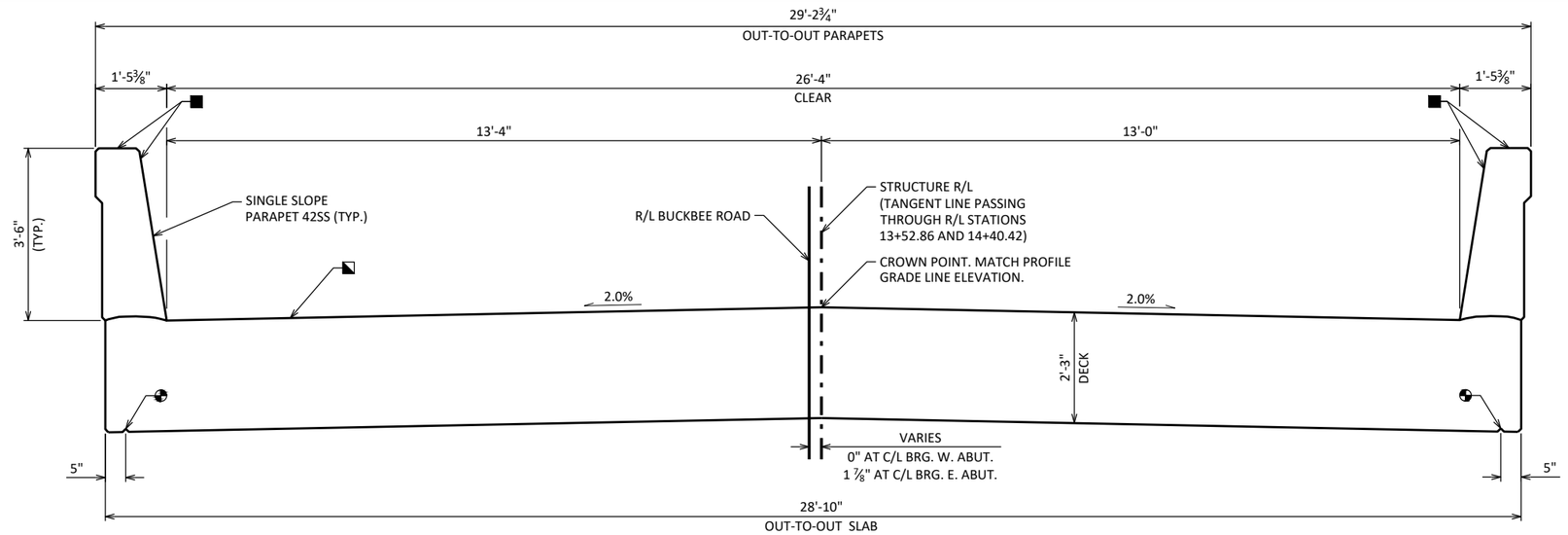
GENERAL PLAN

SHEET 1 OF 10
58

I.D. 6887-01-01
DATE:

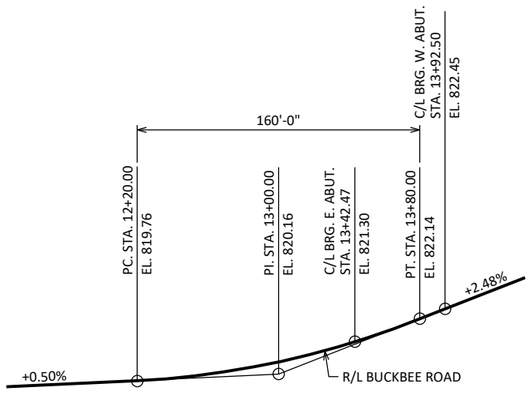
8

8

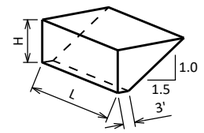


CROSS SECTION THRU SUPERSTRUCTURE

(LOOKING WEST)

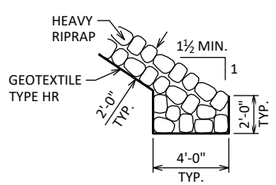


PROFILE GRADE LINE



ABUTMENT BACKFILL DIAGRAM

L = OUT TO OUT OF ABUTMENT BODY INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)



RIPRAP TOE DETAIL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	EAST ABUT.	WEST ABUT.	SUPERS.	TOTAL
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-68-056	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-68-151	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	122	122	---	244
502.0100	CONCRETE MASONRY BRIDGES	CY	34.7	35.2	145.1	215
502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	154	154
502.3210	PIGMENTED SURFACE SEALER	SY	12	12	52	76
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,760	1,760	---	3,520
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,370	2,400	24,690	29,460
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	9	---	18
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	200	200	---	400
606.0300	RIPRAP HEAVY	CY	75	79	---	154
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95	97	---	192
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	21	21	---	42
645.0120	GEOTEXTILE TYPE HR	SY	133	136	---	269
SPV.0180.01	INFILL RIPRAP - STA 13+92.50 TO STA 13+42.50	SY	90	97	---	187
	NON-BID ITEMS					
	NAME PLATE	EACH				1
	FILLER	SIZE				1/2" & 3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

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

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

BAR DIMENSIONS FOR BENDING ARE OUT-TO-OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-68-151" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE, TOP, AND ENDS OF THE PARAPETS.

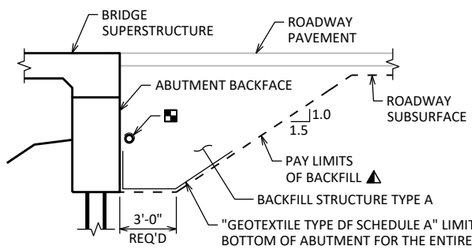
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

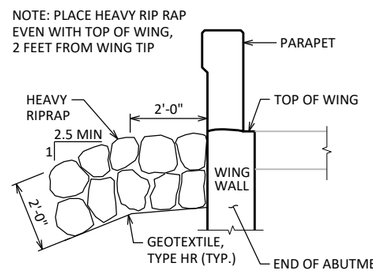
AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. DIAPHRAGMS.
- PROTECTIVE SURFACE TREATMENT.
- BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 6.
- PIGMENTED SURFACE SEALER.



TYPICAL SECTION THRU ABUTMENT



TYPICAL FILL SECTION AT WING TIPS

STATE PROJECT NUMBER

6887-01-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY EJC | PLANS CK'D KRB

CROSS SECTION, QUANTITIES, NOTES, & DETAILS

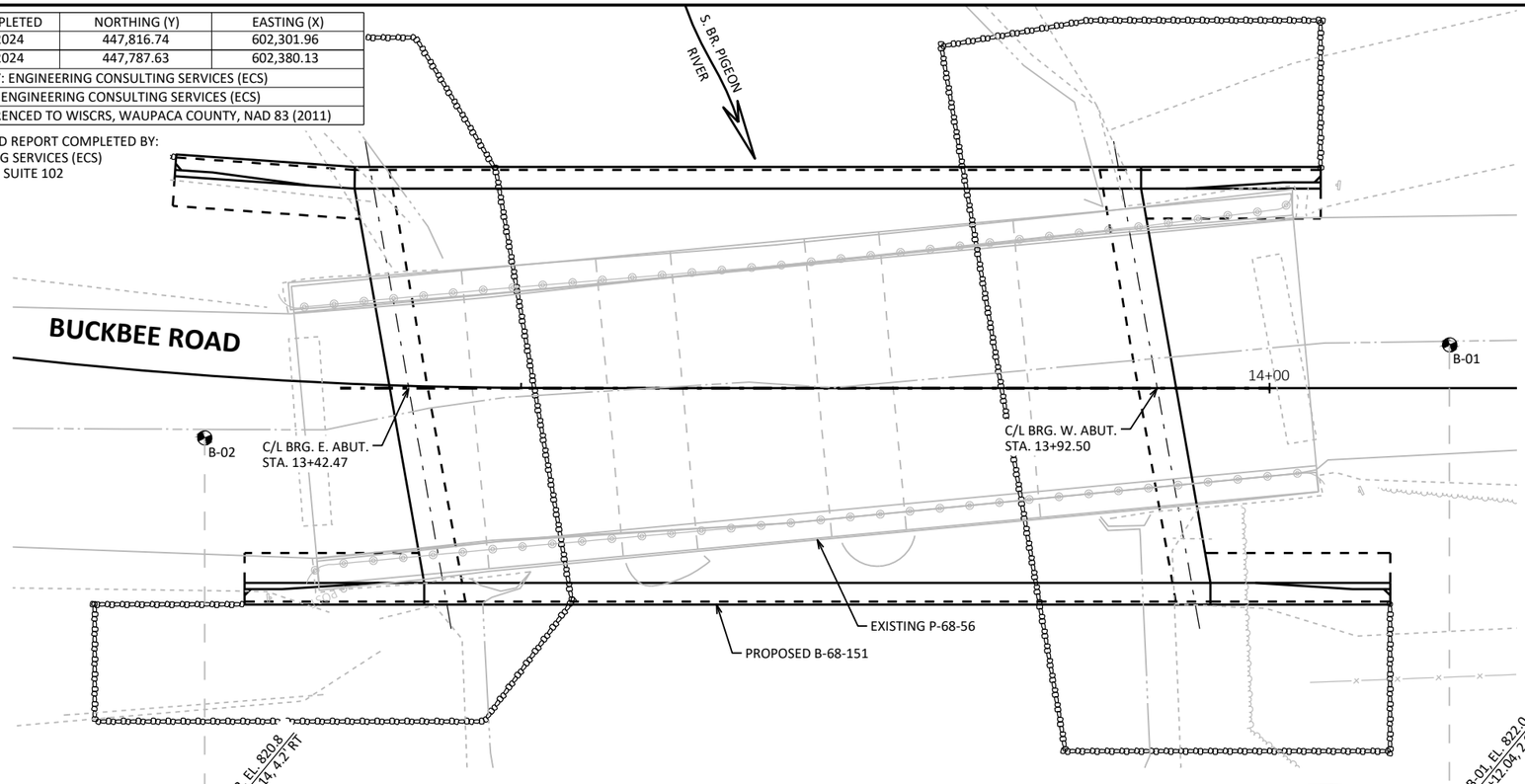
SHEET 2
59

8

8

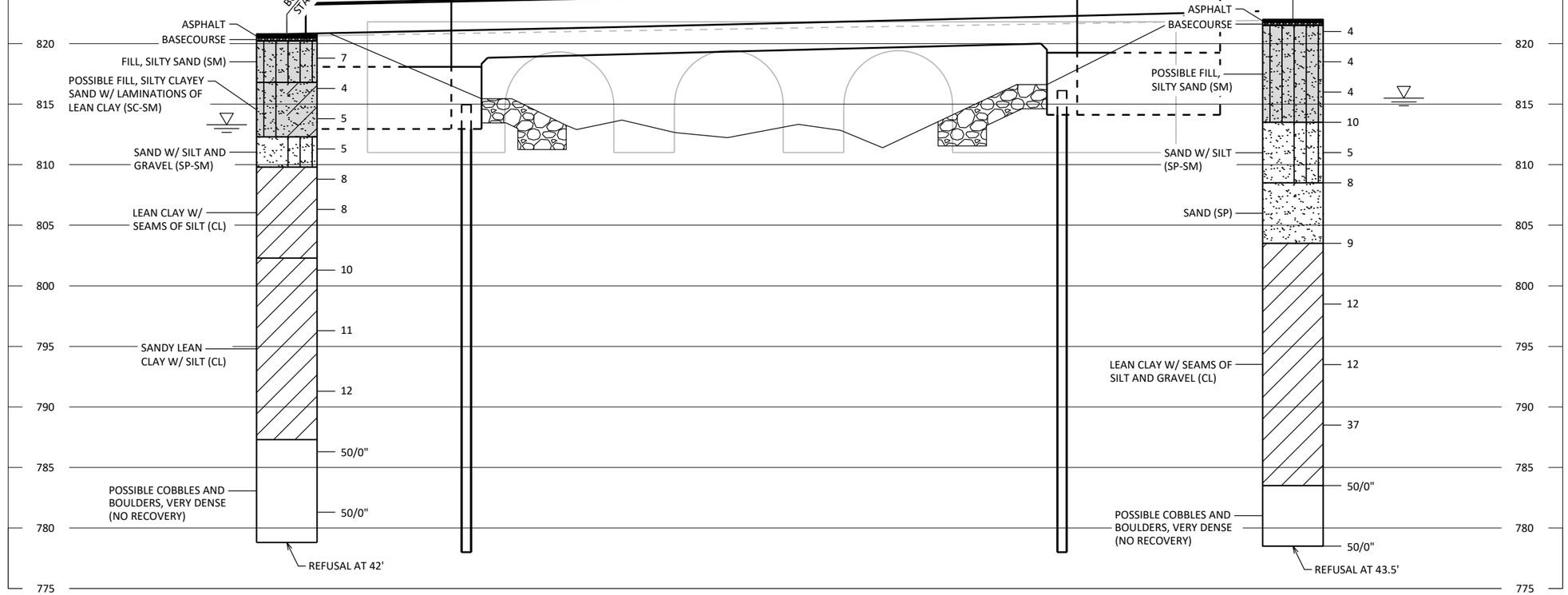
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-01	5/07/2024	447,816.74	602,301.96
B-02	5/08/2024	447,787.63	602,380.13
BORINGS COMPLETED BY: ENGINEERING CONSULTING SERVICES (ECS)			
REPORT COMPLETED BY: ENGINEERING CONSULTING SERVICES (ECS)			
ALL COORDINATES REFERENCED TO WISCRS, WAUPACA COUNTY, NAD 83 (2011)			

BORINGS PERFORMED AND REPORT COMPLETED BY:
ENGINEERING CONSULTING SERVICES (ECS)
1060 BREEZEWOOD LANE, SUITE 102
NEENAH, WI 54956



LEGEND

BORING LOCATION.



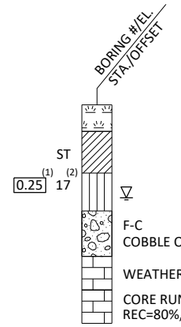
STATE PROJECT NUMBER

6887-01-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

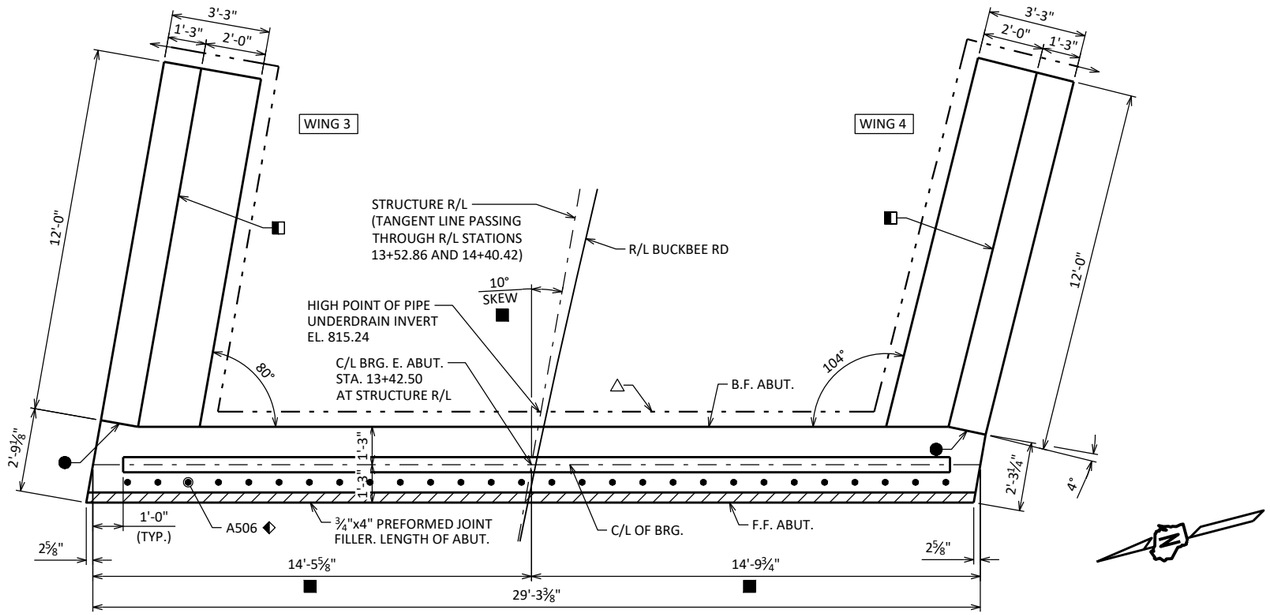
DRAWN BY EJC | PLANS CK'D KRB

SUBSURFACE EXPLORATION

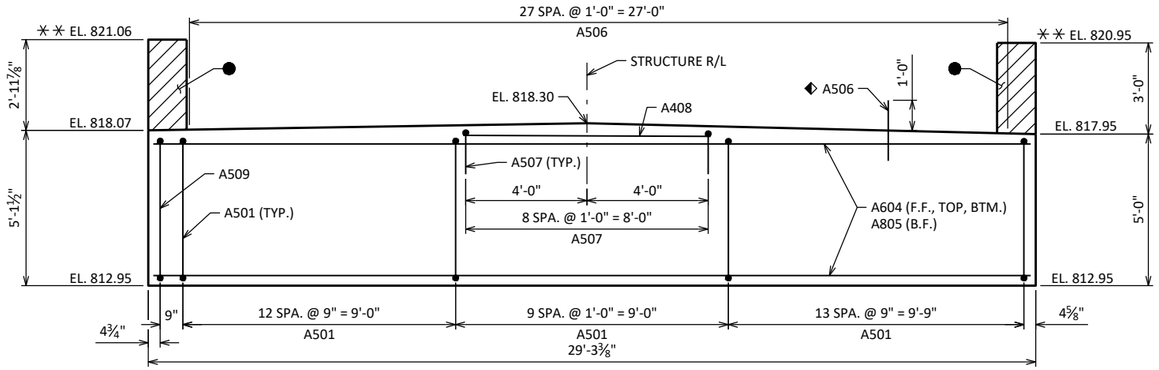
SHEET 3
60

8

8

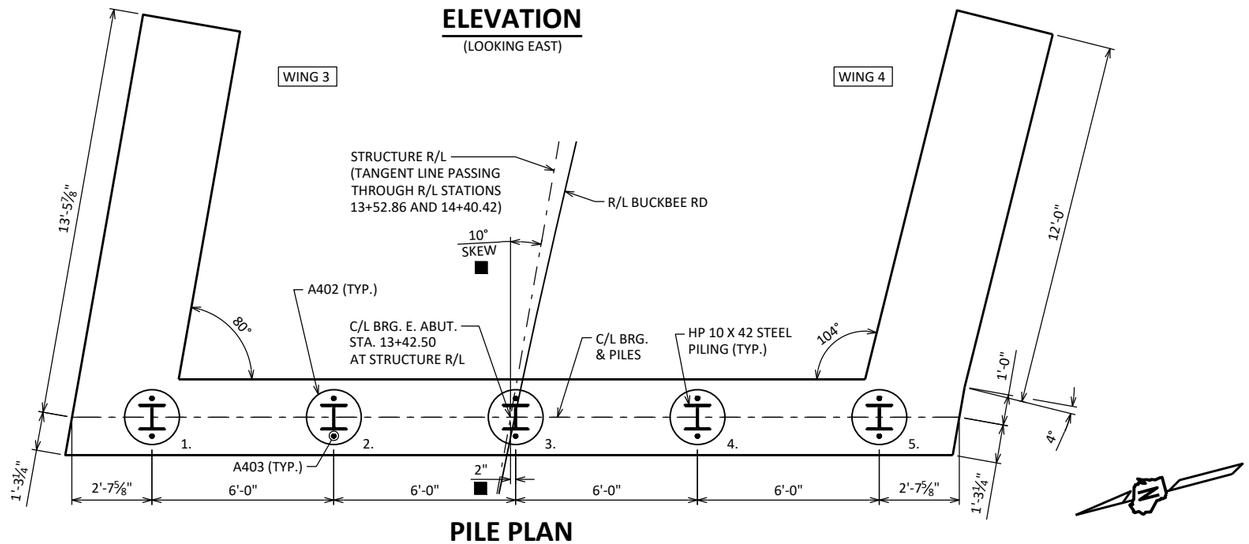


PLAN

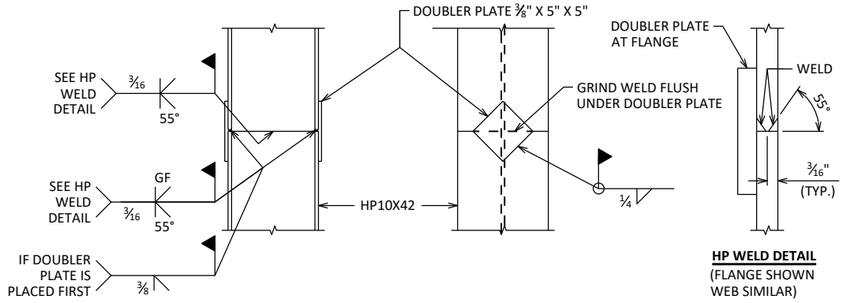


ELEVATION

(LOOKING EAST)



PILE PLAN



HP WELD DETAIL
(FLANGE SHOWN
WEB SIMILAR)

'HP' PILE DETAILS

STATE PROJECT NUMBER

6887-01-71

NOTES

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER 1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE. EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INSIDE FACE.

ADJUST A501 BARS INTERFERING WITH PILES.

SEE THIS SHEET FOR PILE SPLICE DETAILS.

SEE SHEET 5 FOR REINFORCING DETAILS.

EAST ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB WITH A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE. ESTIMATED 40 FEET LONG EACH.

LEGEND

- ● ½" FILLER, EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ✳✳ ELEVATION GIVEN AT B.F. ABUTMENT.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. HIGH POINT EL. 815.24 AT R/L. ATTACH RODENT SHIELD AT ENDS OF PIPE. SEE DETAIL ON "WEST ABUTMENT" SHEET.
- ◆ A506 BARS AT 1'-0" O.C. THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- ■ DIMENSION AND ANGLE MEASURED TO STRUCTURE R/L.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY JRP | PLANS CK'D KRB

EAST ABUTMENT

SHEET 4
61

SCALE =

8

8

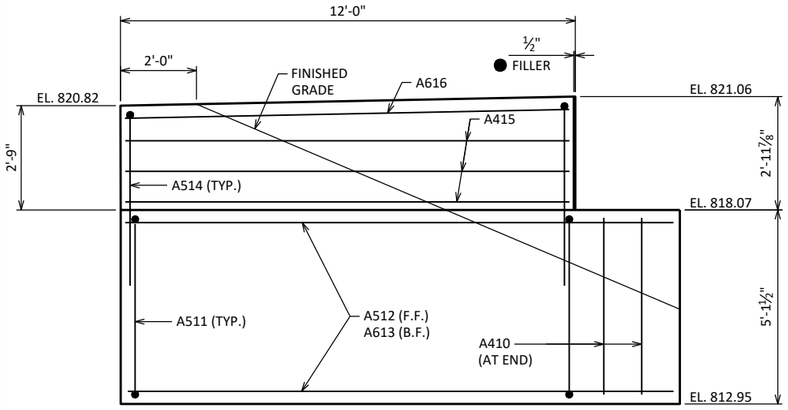
STATE PROJECT NUMBER

6887-01-71

EAST ABUTMENT BILL OF BARS

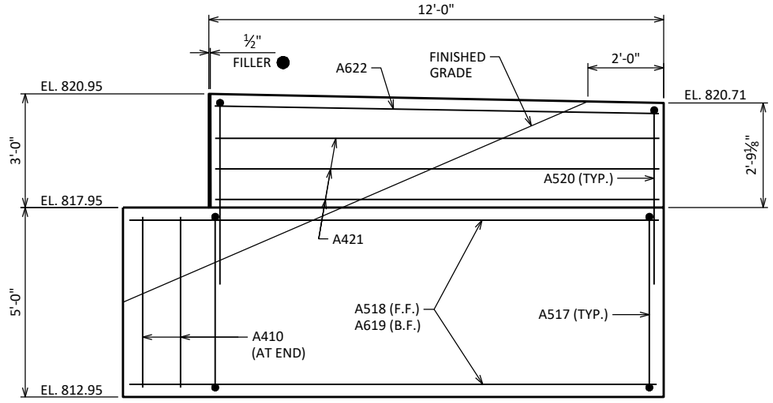
UNCOATED: 1,760 LBS
COATED: 1,560 LBS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
A501	35	14'-0"	X		LOWER BODY - VERT.
A402	5	28'-0"	X		LOWER BODY - PILES - SPIRAL
A403	10	2'-3"			LOWER BODY - PILES - VERT.
A604	11	28'-10"			LOWER BODY - TOP, BOT., & F.F. - HORIZ.
A805	7	31'-2"	X		LOWER BODY - B.F. - HORIZ.
■ A506	28	2'-0"		X	LOWER BODY - VERT.
A507	9	4'-9"	X		LOWER BODY - TOP - VERT.
A408	3	8'-0"			LOWER BODY - TOP - HORIZ.
A509	1	5'-11"	X		LOWER BODY - VERT.
A410	4	4'-7"			LOWER BODY - ENDS - VERT.
A511	13	15'-10"	X	X	LOWER WING - VERT. - WING 3
A512	6	14'-4"		X	LOWER WING - F.F. - HORIZ. - WING 3
A613	8	13'-10"		X	LOWER WING - B.F., TOP - HORIZ. - WING 3
A514	17	10'-6"	X	X	UPPER WING - VERT. - WING 3
A415	7	11'-7"		X	UPPER WING - HORIZ. - WING 3
A616	2	11'-7"		X	UPPER WING - HORIZ. - WING 3
A517	13	15'-8"	X	X	LOWER WING - VERT. - WING 4
A518	6	14'-0"		X	LOWER WING - F.F. - HORIZ. - WING 4
A619	6	14'-8"		X	LOWER WING - B.F. - HORIZ. - WING 4
A520	17	10'-8"	X	X	UPPER WING - VERT. - WING 4
A421	7	11'-7"		X	UPPER WING - HORIZ. - WING 4
A622	2	11'-7"		X	UPPER WING - HORIZ. - WING 4
A623	2	14'-3"		X	LOWER WING - TOP - HORIZ. - WING 4



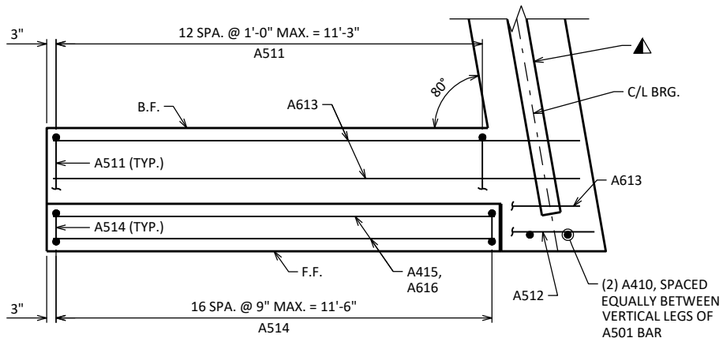
WING 3 ELEVATION

(FRONT FACE)

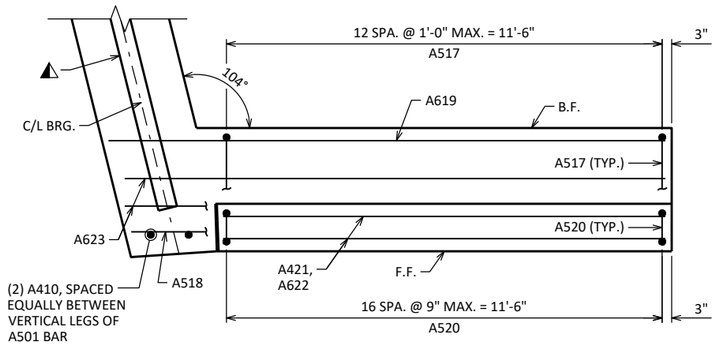


WING 4 ELEVATION

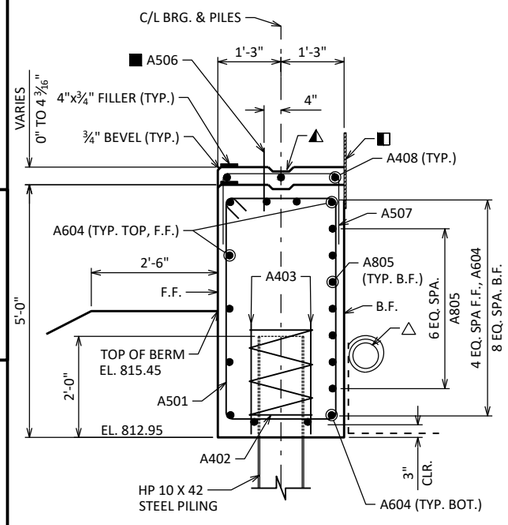
(FRONT FACE)



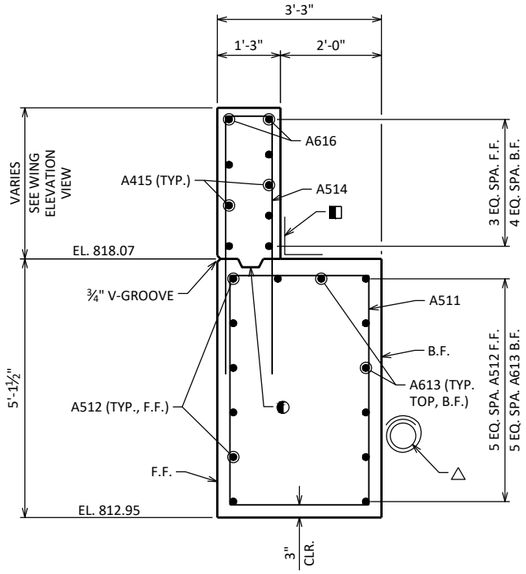
WING 3 PLAN



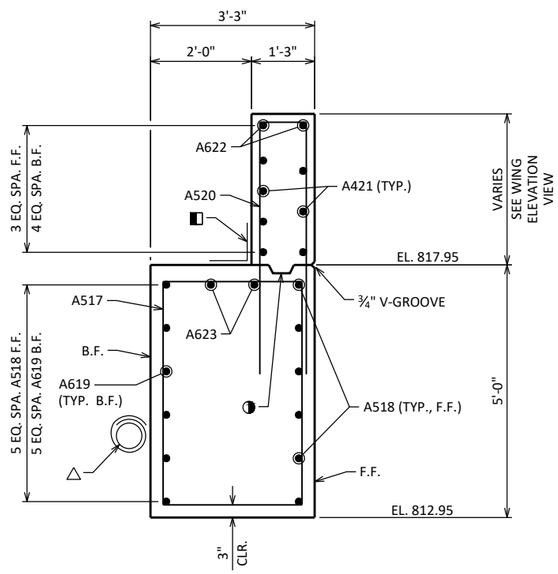
WING 4 PLAN



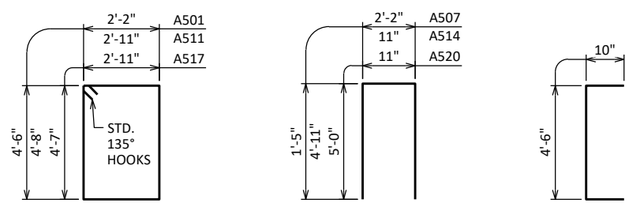
TYPICAL ABUTMENT SECTION



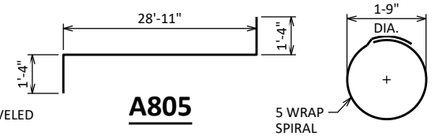
SECTION THRU WING 3



SECTION THRU WING 4



A501, A511, A517 | **A507, A514, A520** | **A509**



A805 | **A402**

LEGEND

- ◐ OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.
- ● ½" FILLER TO EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INNER FACE.
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ◭ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. HIGH POINT EL. 815.24 AT R/L. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN PER DETAIL ON "WEST ABUTMENT" SHEET.
- ■ THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY JRP | PLANS CK'D KRB

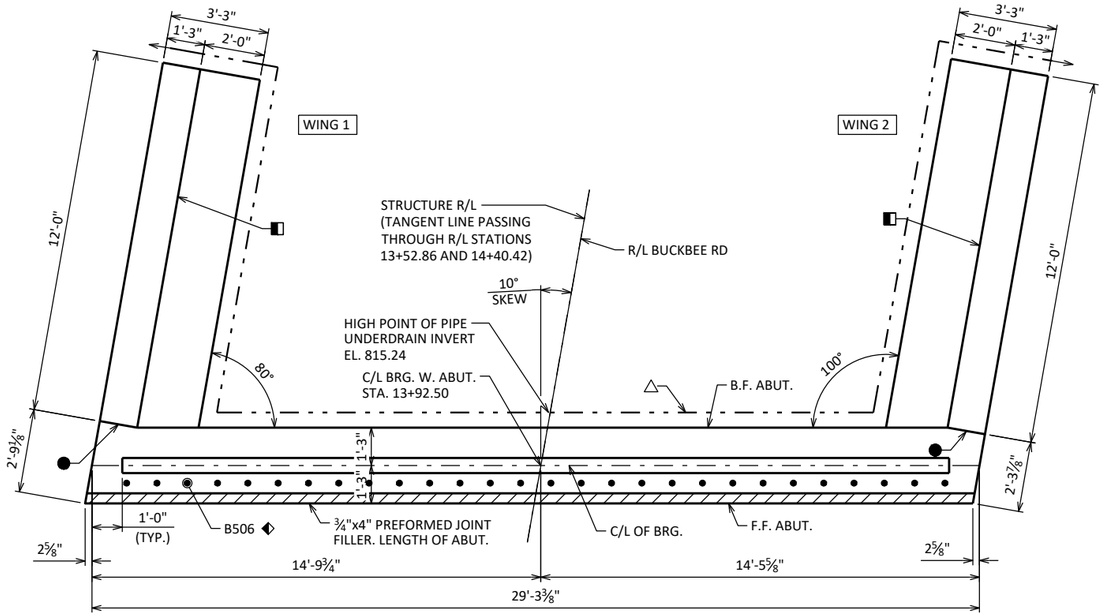
EAST ABUTMENT DETAILS

SHEET 5
62

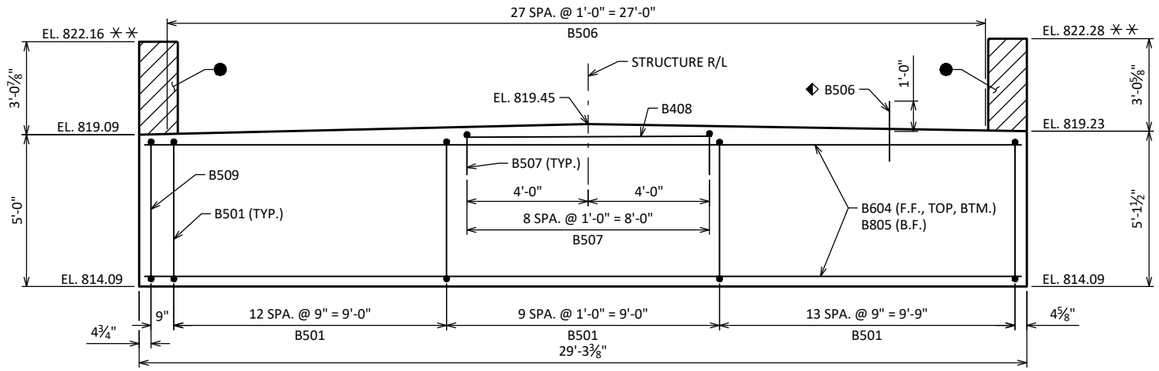
SCALE =

STATE PROJECT NUMBER

6887-01-71

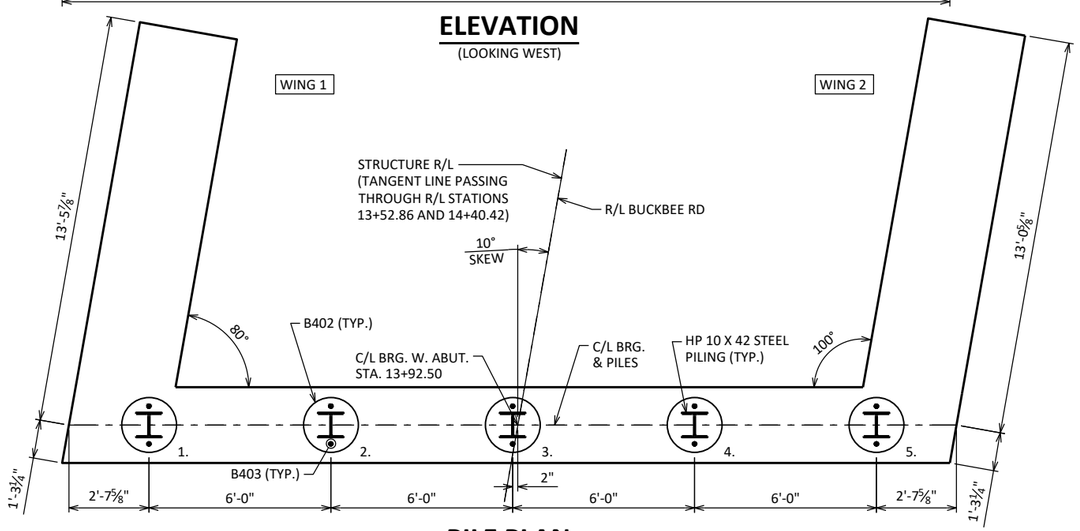


PLAN



ELEVATION

(LOOKING WEST)



PILE PLAN

NOTES

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER 1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE. EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INSIDE FACE.

ADJUST B501 BARS INTERFERING WITH PILES.

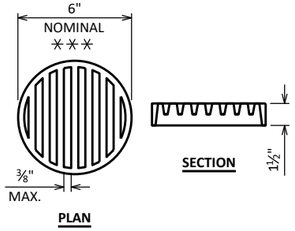
SEE SHEET 4 FOR PILE SPLICE DETAILS.

SEE SHEET 7 FOR REINFORCING DETAILS.

WEST ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB WITH A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE. ESTIMATED 40 FEET LONG EACH.

LEGEND

- ● ½" FILLER, EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ✳✳ ELEVATION GIVEN AT B.F. ABUTMENT.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. HIGH POINT EL. 815.24 AT R/L. ATTACH RODENT SHIELD AT ENDS OF PIPE. SEE DETAIL THIS SHEET.
- ◆ B506 BARS AT 1'-0" O.C. THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.



RODENT SHIELD DETAIL

✳✳✳ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY JRP | PLANS CK'D KRB

WEST ABUTMENT

SHEET 6
63

SCALE =

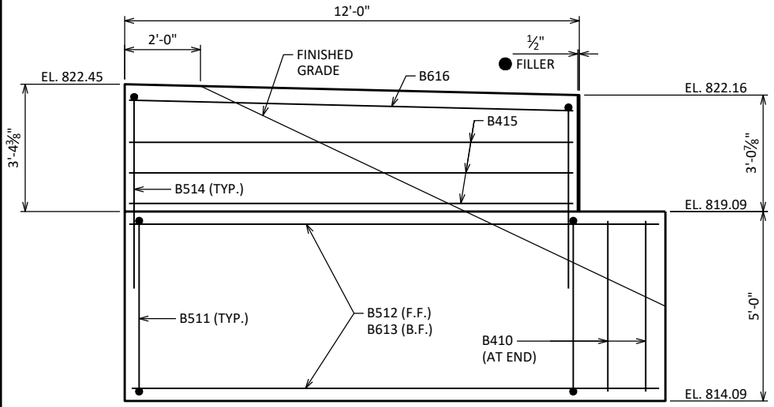
STATE PROJECT NUMBER

6887-01-71

WEST ABUTMENT BILL OF BARS

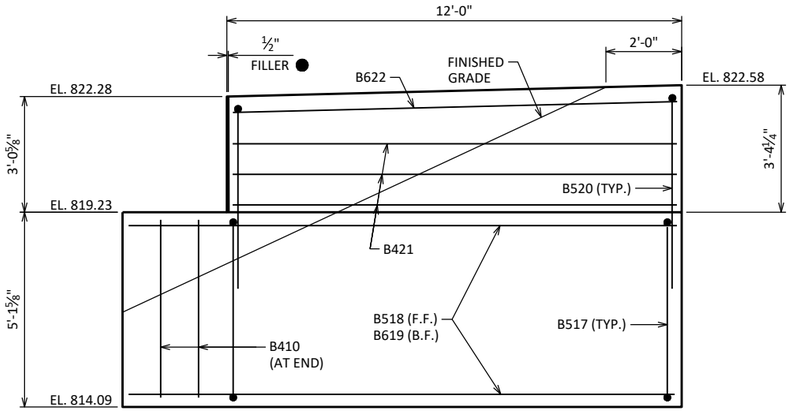
UNCOATED: 1,760 LBS
COATED: 1,590 LBS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
B501	35	14'-0"	X		LOWER BODY - VERT.
B402	5	28'-0"	X		LOWER BODY - PILES - SPIRAL
B403	10	2'-3"			LOWER BODY - PILES - VERT.
B604	11	28'-10"			LOWER BODY - TOP, BOT., & F.F. - HORIZ.
B805	7	31'-2"	X		LOWER BODY - B.F. - HORIZ.
■ B506	28	2'-0"		X	LOWER BODY - VERT.
B507	9	4'-9"	X		LOWER BODY - TOP - VERT.
B408	3	8'-0"			LOWER BODY - TOP - HORIZ.
B509	1	5'-11"	X		LOWER BODY - VERT.
B410	4	4'-7"			LOWER BODY - ENDS - VERT.
B511	13	15'-8"	X	X	LOWER WING - VERT. - WING 1
B512	6	14'-4"		X	LOWER WING - F.F. - HORIZ. - WING 1
B613	8	13'-10"		X	LOWER WING - B.F., TOP - HORIZ. - WING 1
B514	17	11'-6"	X	X	UPPER WING - VERT. - WING 1
B415	7	11'-7"		X	UPPER WING - HORIZ. - WING 1
B616	2	11'-7"		X	UPPER WING - HORIZ. - WING 1
B517	13	15'-10"	X	X	LOWER WING - VERT. - WING 2
B518	6	14'-0"		X	LOWER WING - F.F. - HORIZ. - WING 2
B619	6	14'-6"		X	LOWER WING - B.F. - HORIZ. - WING 2
B520	17	11'-4"	X	X	UPPER WING - VERT. - WING 2
B421	7	11'-7"		X	UPPER WING - HORIZ. - WING 2
B622	2	11'-7"		X	UPPER WING - HORIZ. - WING 2
B623	2	14'-2"		X	LOWER WING - TOP - HORIZ. - WING 2



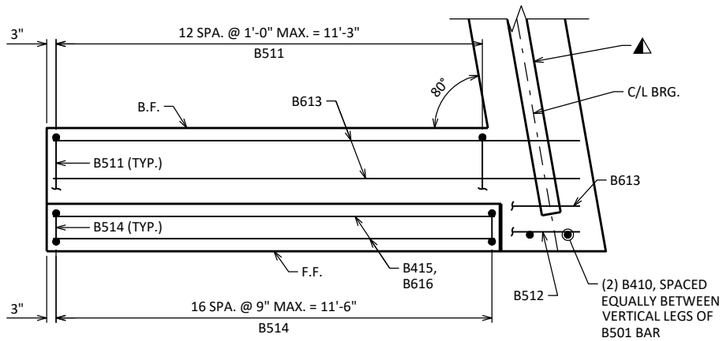
WING 1 ELEVATION

(FRONT FACE)

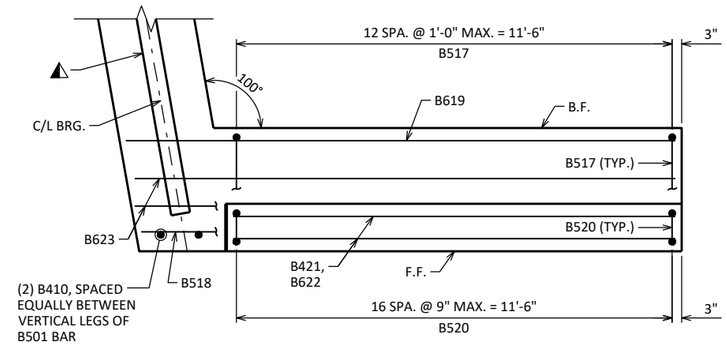


WING 2 ELEVATION

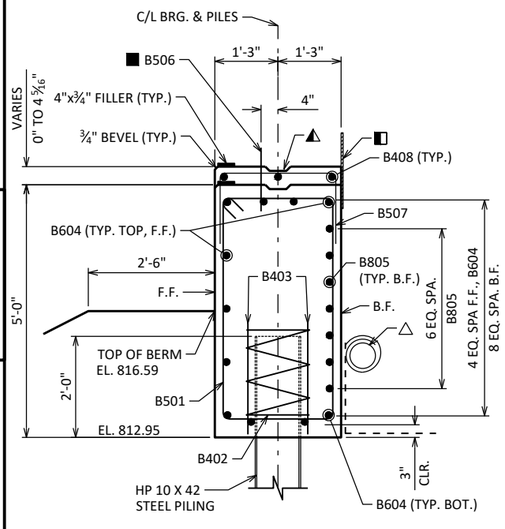
(FRONT FACE)



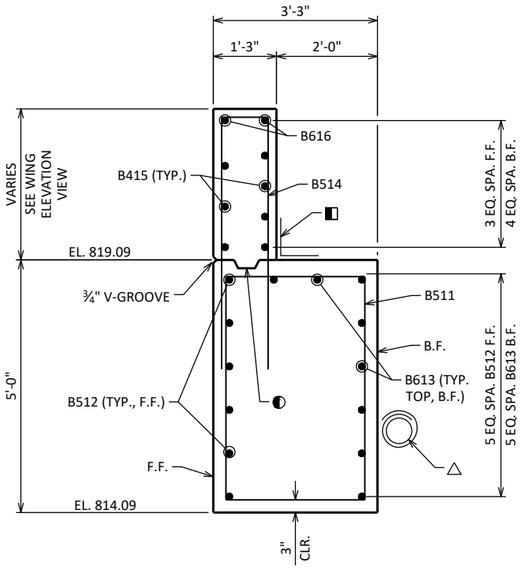
WING 1 PLAN



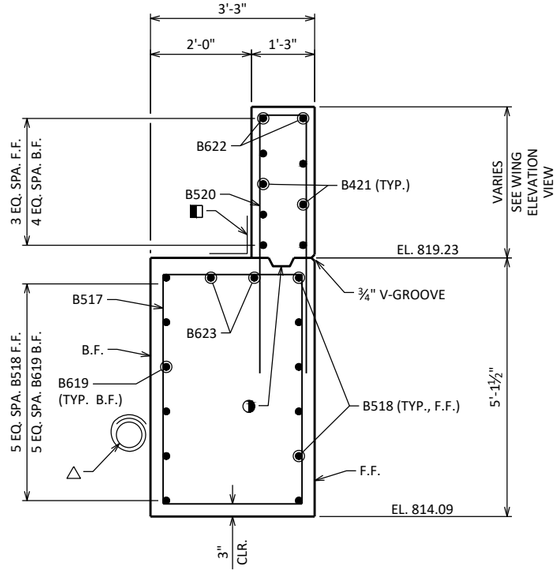
WING 2 PLAN



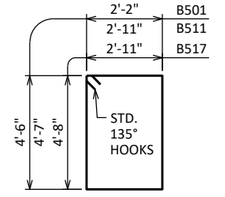
TYPICAL ABUTMENT SECTION



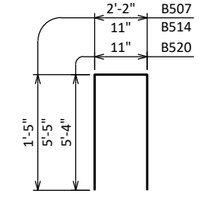
SECTION THRU WING 1



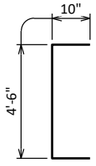
SECTION THRU WING 2



B501, B511, B517



B507, B514, B520



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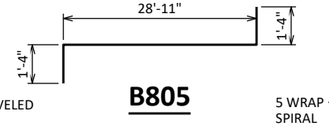
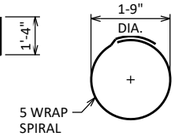


B805



B402

LEGEND

- ◐ OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.
- ● ½" FILLER TO EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INNER FACE.
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ◭ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. HIGH POINT EL. 815.24 AT R/L. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN PER DETAIL ON "WEST ABUTMENT" SHEET.
- ■ THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY JRP | PLANS CK'D KRB

WEST ABUTMENT DETAILS

SHEET 7
64

SCALE =

8

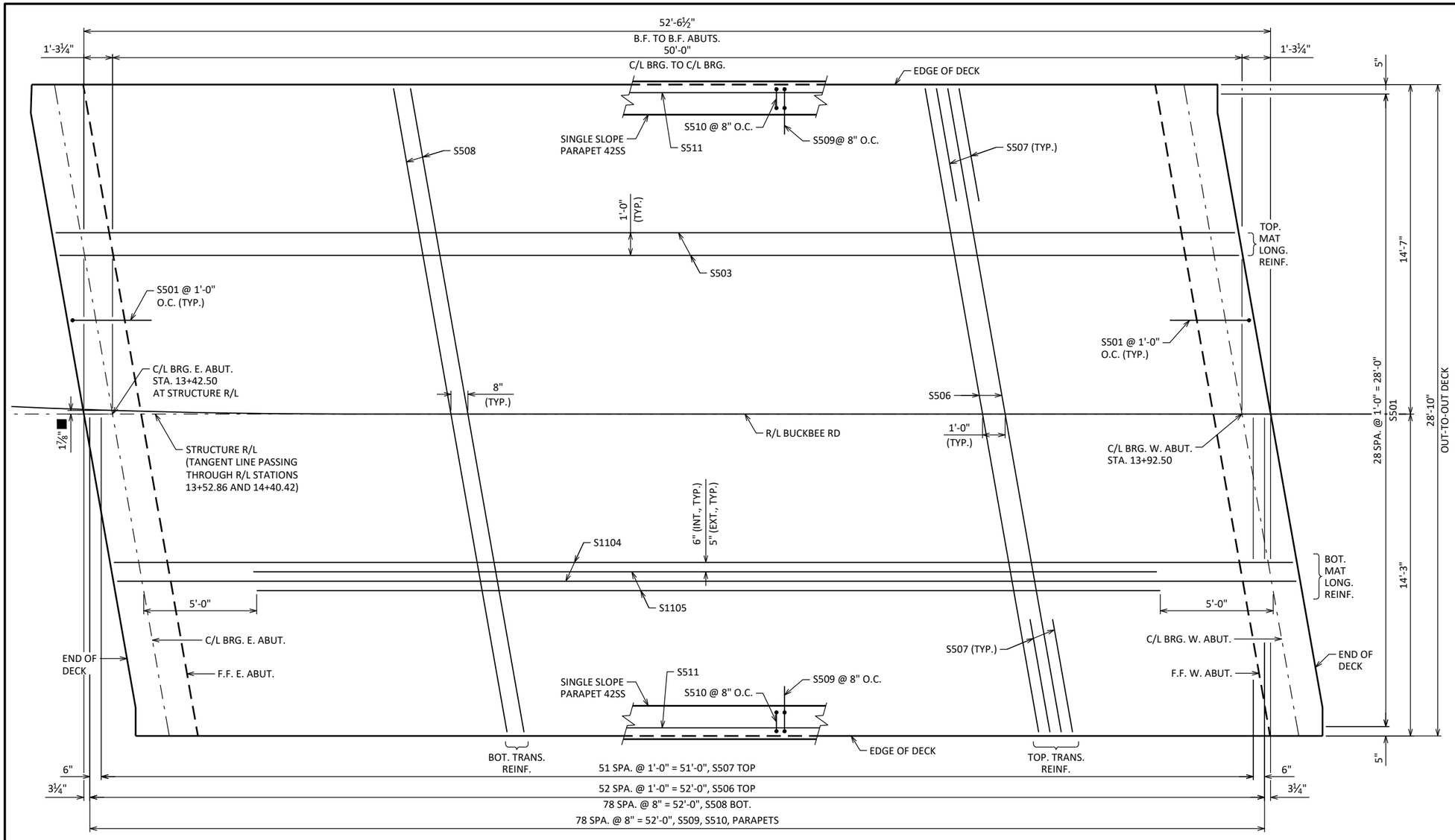
8

STATE PROJECT NUMBER

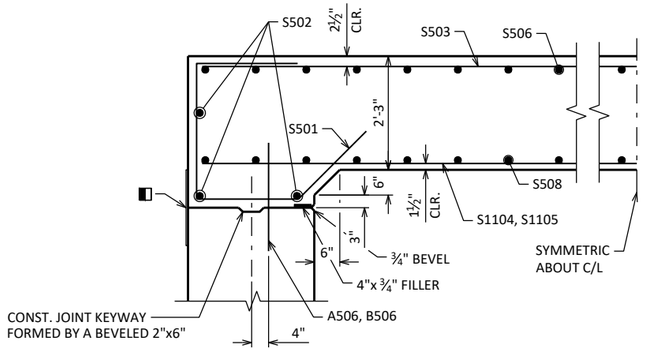
6887-01-71

LEGEND

- 18" RUBBERIZED MEMBRANE WATERPROOFING.
- DISTANCE FROM STRUCTURE R/L TO R/L BUCKBEE ROAD MEASURED AT C/L ABUT., NORMAL TO STRUCTURE R/L.



PLAN



HALF LONGITUDINAL SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY JRP | PLANS CK'D KRB

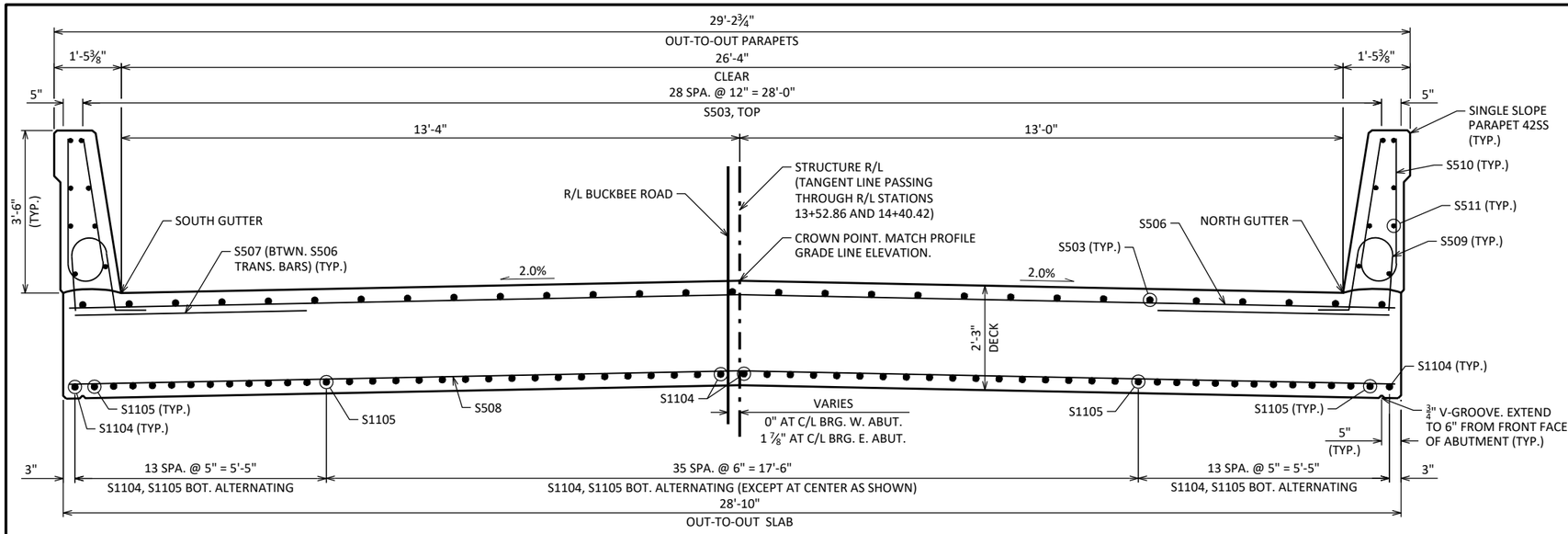
SUPERSTRUCTURE

SHEET 8
65

SCALE =

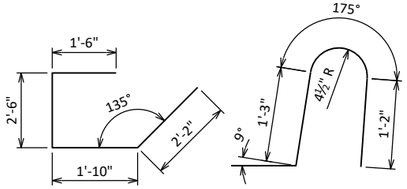
8

8



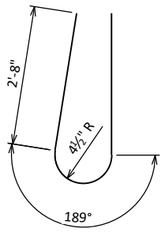
CROSS SECTION THRU SUPERSTRUCTURE

(LOOKING WEST)

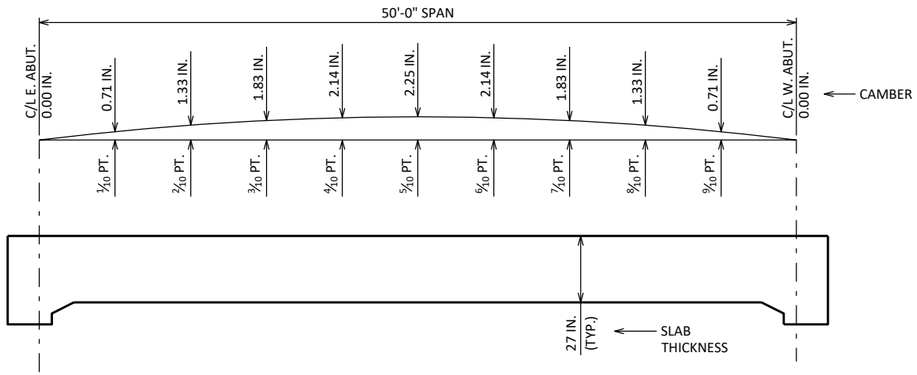


S501

S509



S510



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS.

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
MINUS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS =	TOP OF SLAB FALSEWORK ELEVATON

TOP OF DECK ELEVATIONS

LOCATION	SOUTH EDGE OF DECK 14.58' LT		STRUCTURE R/L -		NORTH EDGE OF DECK 14.25' RT	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
C/L E. ABUT.	13+39.35	820.95	13+42.50	821.30	13+45.33	821.07
0.1L POINT	13+44.57	821.05	13+47.50	821.40	13+50.13	821.17
0.2L POINT	13+49.80	821.15	13+52.50	821.50	13+55.01	821.27
0.3L POINT	13+54.93	821.26	13+57.50	821.61	13+60.01	821.38
0.4L POINT	13+59.93	821.37	13+62.50	821.72	13+65.01	821.50
0.5L POINT	13+64.93	821.49	13+67.50	821.84	13+70.01	821.61
0.6L POINT	13+69.93	821.60	13+72.50	821.96	13+75.01	821.73
0.7L POINT	13+74.93	821.72	13+77.50	822.08	13+80.01	821.85
0.8L POINT	13+79.93	821.85	13+82.50	822.20	13+85.01	821.98
0.9L POINT	13+84.93	821.97	13+87.50	822.33	13+90.01	822.10
C/L W. ABUT.	13+89.93	822.09	13+92.50	822.45	13+95.01	822.23

OFFSET DISTANCES ARE FROM STRUCTURE R/L.

ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.

DECK ELEVATIONS AT INSIDE FACE OF PARAPETS ARE THE SAME AS AT THE EDGE OF DECK (DECK LEVEL UNDER PARAPET, SEE "SINGLE SLOPE PARAPET 42SS" SHEET FOR DETAIL).

SURVEY TOP OF SLAB ELEVATIONS

	E. ABUT.	5/10 PT.	W. ABUT.
SOUTH GUTTER LINE			
CROWN ON STRUCTURE R/L			
NORTH GUTTER LINE			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS AND AT 5/10 PT. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND R/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

STATE PROJECT NUMBER

6887-01-71

SUPERSTRUCTURE BILL OF BARS

COATED: 24,690 LBS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
S501	58	7'-9"	X	X	SLAB AT ABUT. - VERT.
S502	6	28'-11"		X	SLAB AT ABUT. - HORIZ.
S503	29	52'-2"		X	SLAB - LONG. - TOP
S1104	32	52'-2"		X	SLAB - LONG. - BOTTOM
S1105	30	40'-0"		X	SLAB - LONG. - BOTTOM
S506	53	28'-11"		X	SLAB - TRANSVERSE - TOP
S507	104	5'-0"		X	SLAB - TRANSVERSE - TOP - EDGES
S508	79	28'-11"		X	SLAB - TRANSVERSE - BOTTOM
S509	158	4'-5"	X	X	PARAPET - VERT.
S510	158	6'-8"	X	X	PARAPET - VERT.
S511	16	52'-2"		X	PARAPET - HORIZ.

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY JRP | PLANS CK'D KRB

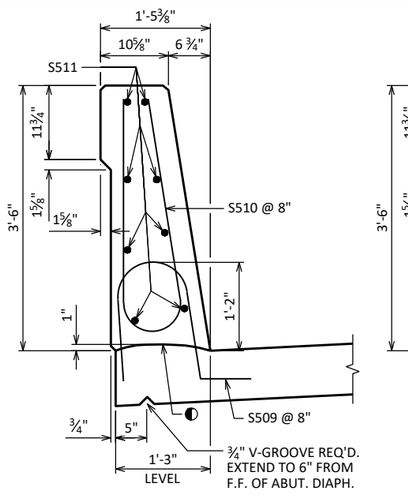
SUPERSTRUCTURE DETAILS

SHEET 9
66

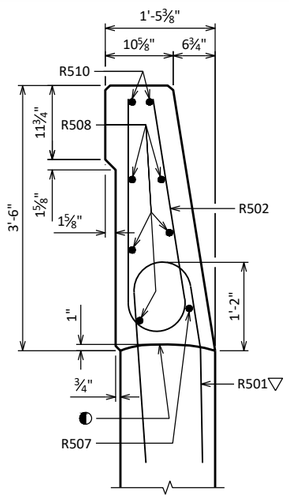
SCALE =

8

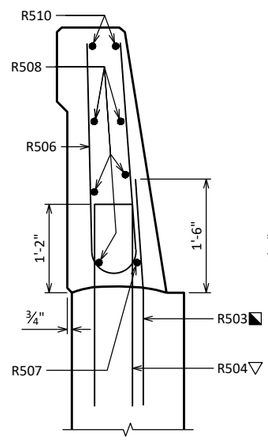
8



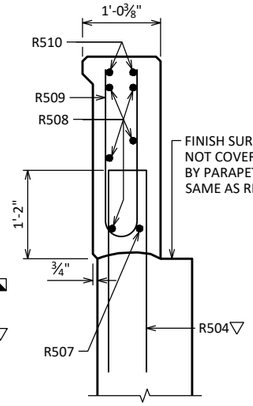
SECTION THRU PARAPET ON DECK



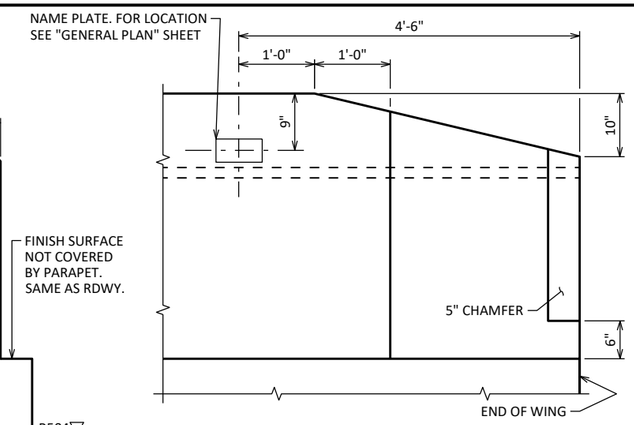
SECTION C-C



SECTION B-B



SECTION A-A



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

STATE PROJECT NUMBER

6887-01-71

SINGLE SLOPE PARAPET 42SS BILL OF BARS

COATED, E. ABUT. = 810 LBS
COATED, W. ABUT. = 810 LBS

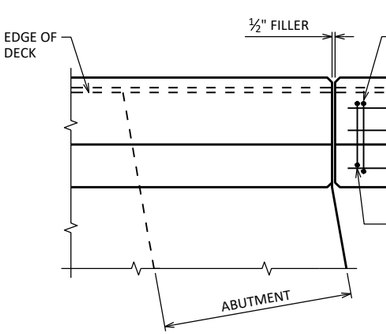
MARK	NO. REQ'D E. ABUT.	NO. REQ'D W. ABUT.	LENGTH	BENT	COAT	LOCATION
R501	10	10	5'-10"	X	X	PARAPET - VERT.
R502	10	10	6'-8"	X	X	PARAPET - VERT.
R503	24	24	3'-0"	X	X	PARAPET - VERT.
R504	34	34	5'-7"	X	X	PARAPET - VERT.
R505	10	10	6'-5"	X	X	PARAPET - VERT.
R506	12	12	6'-6"	X	X	PARAPET - VERT.
R507	2	2	11'-6"	X	X	PARAPET - HORIZ.
R508	10	10	11'-7"		X	PARAPET - HORIZ.
⚠ R509	12	12	5'-5"	X	X	PARAPET - VERT.
R510	4	4	11'-7"	X	X	PARAPET - HORIZ.

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

BAR SERIES TABLE

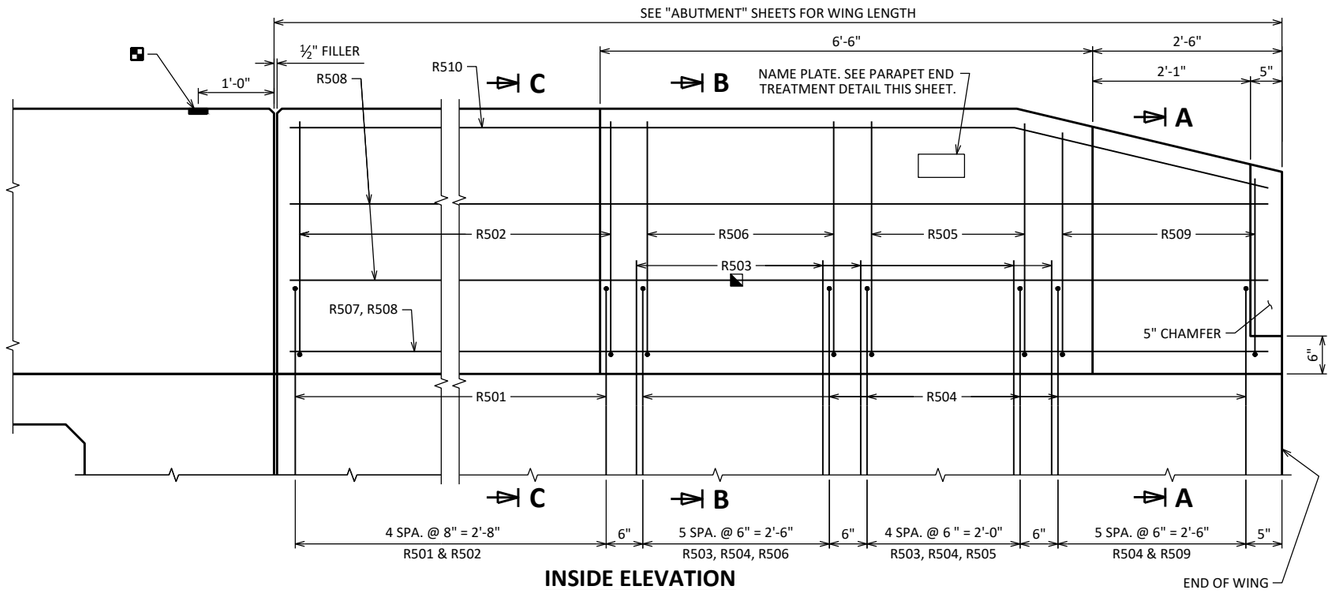
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"



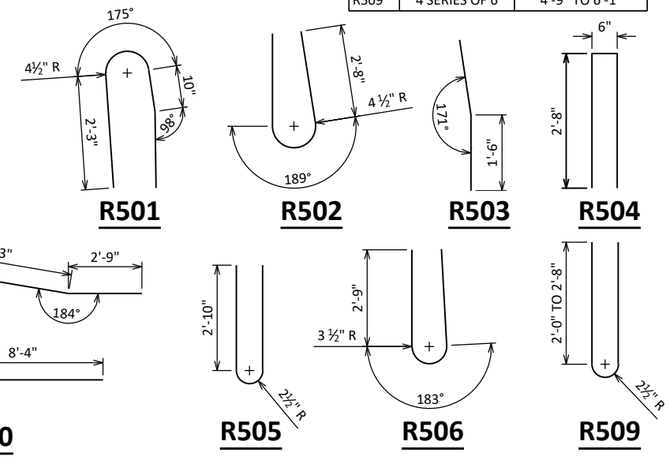
PLAN

SW CORNER SHOWN, OTHERS SIMILAR



INSIDE ELEVATION

SW CORNER SHOWN, OTHERS SIMILAR



◐ CONST. JOINT - STRIKE OFF AS SHOWN

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

■ BENCH MARK CAP (WHEN SUPPLIED).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-68-151

DRAWN BY JRP | PLANS CK'D KRB

SINGLE SLOPE PARAPET 42SS

SHEET 10
67

SCALE = 2.00

8

8

BUCKBEE ROAD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	FILL	EBS	CUT	FILL	EBS	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 4	NOTE 1		NOTE 5
11+57.00	0.00	37.22	0.92	1.86	0	0	0	0	0	0
11+75.00	18.00	45.49	0.26	2.27	28	0	1	28	0	28
12+00.00	25.00	30.58	0.00	1.53	35	0	2	63	0	63
12+50.00	50.00	20.14	16.83	1.01	47	16	2	110	20	90
13+00.00	50.00	17.40	45.62	0.87	35	58	2	145	93	53
13+41.19	41.19	27.07	64.00	1.35	34	84	2	179	198	-19
13+93.79	0.00	19.63	35.18	0.98	0	0	0	179	198	-19
14+00.00	6.21	17.67	31.80	0.88	4	8	0	183	208	-25
14+50.00	50.00	17.66	9.02	0.88	33	38	2	216	255	-39
15+00.00	50.00	35.97	2.32	1.80	50	11	2	266	269	-3
15+36.95	36.95	90.92	0.00	4.55	87	2	4	353	271	82
	COLUMN TOTALS				353	217	17			

HORN ROAD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	FILL	EBS	CUT	FILL	EBS	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 4	NOTE 1		NOTE 5
10+84.60	0.00	5.96	51.20	0.30	0	0	0	0	0	0
11+00.00	15.40	6.05	48.88	0.30	3	29	0	3	36	-33
11+50.00	50.00	6.35	54.04	0.32	11	95	1	14	155	-141
11+78.02	28.02	13.36	11.60	0.67	10	34	1	24	198	-174
12+00.00	21.98	1.32	0.00	0.07	6	5	0	30	204	-174
12+25.00	25.00	14.16	0.00	0.71	7	0	0	37	204	-167
12+37.50	12.50	22.62	0.00	1.13	9	0	0	46	204	-158
12+50.00	12.50	16.10	0.00	0.81	9	0	0	55	204	-149
12+76.22	26.22	15.22	0.00	0.76	15	0	1	70	204	-134
	COLUMN TOTALS				70	163	3			

NOTES:

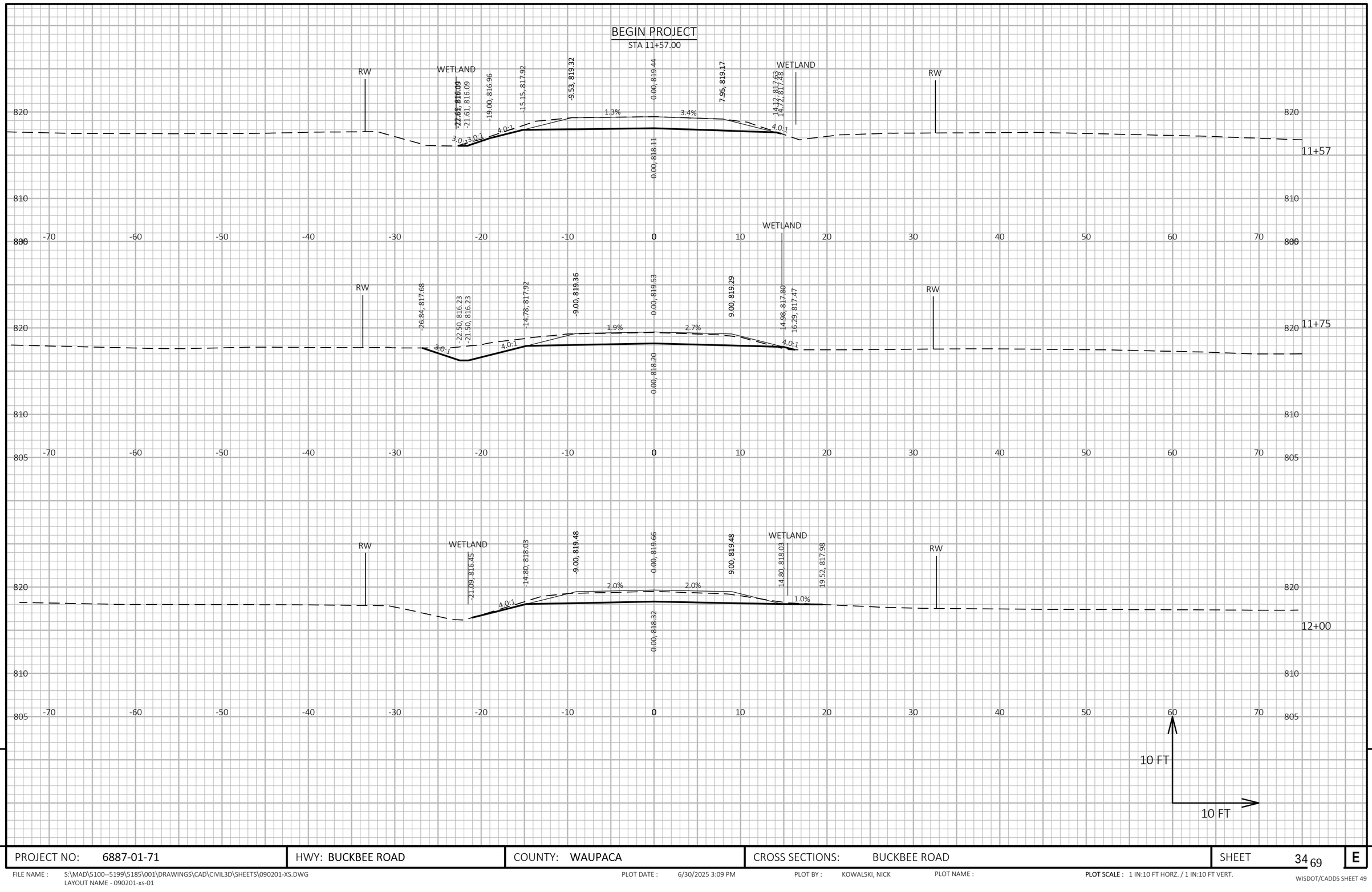
1) CUT: CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL: NOT SHOWN IN CROSS SECTIONS
3) FILL: FILL DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL
4) EBS CALCULATED AT 5 PERCENT OF CUT
5) MASS ORDINATE: MASS ORDINATE = CUT-SALVAGED/UNUSABLE PAVEMENT MATERIAL-EXPANDED FILL

9

9

PROJECT NO: 6887-01-71 | HWY: BUCKBEE ROAD | COUNTY: WAUPACA | EARTHWORK | SHEET: 33 68 | E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : PLOT SCALE : 1" = 1" WISDOT/CADDS SHEET 42



PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CROSS SECTIONS: BUCKBEE ROAD	SHEET 34 69 E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090201-xs-01

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME :

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

WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CROSS SECTIONS: BUCKBEE ROAD	SHEET 35 70	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\090201-XS.DWG
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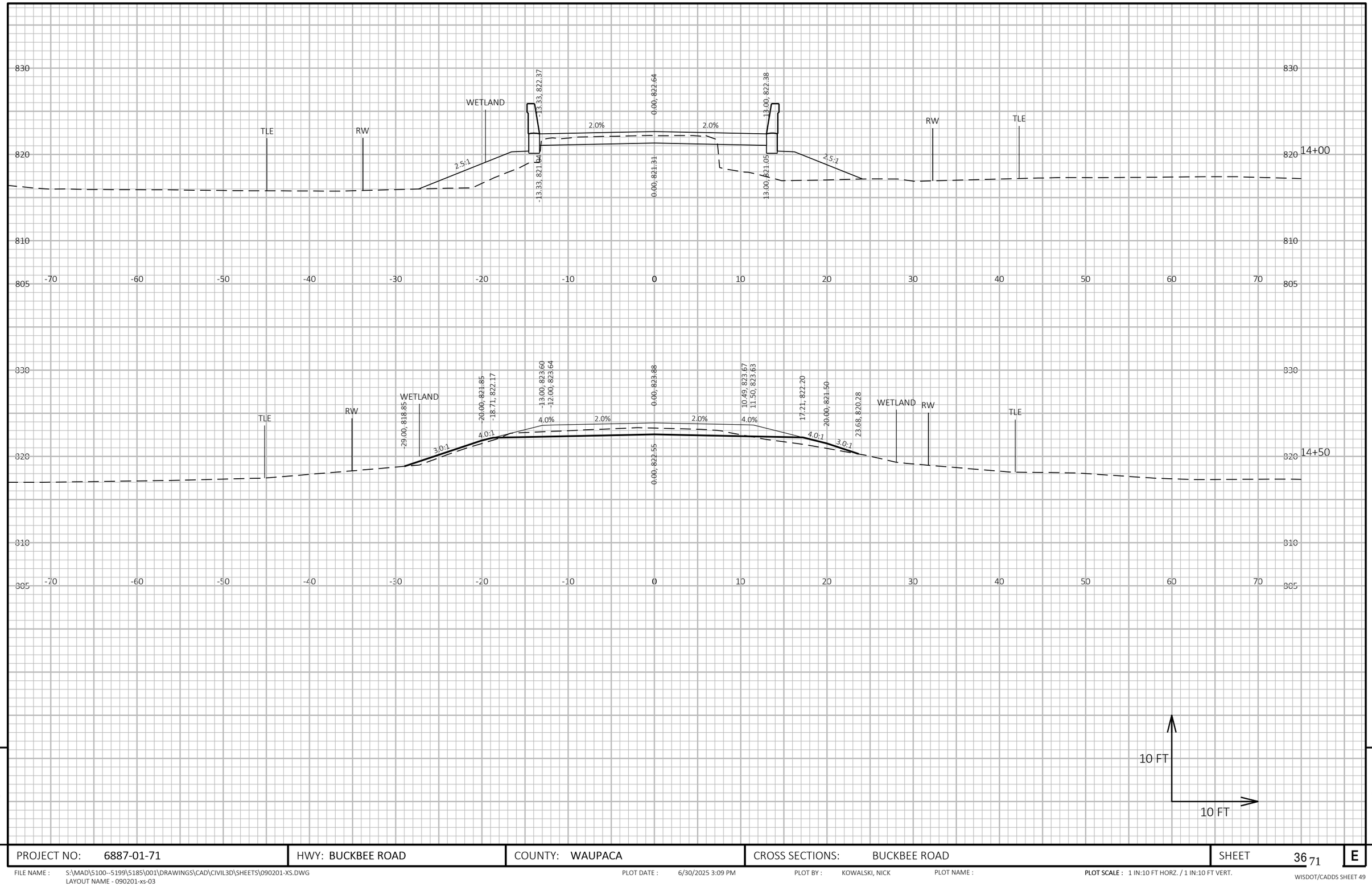
PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME :

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

WISDOT/CADDS SHEET 49



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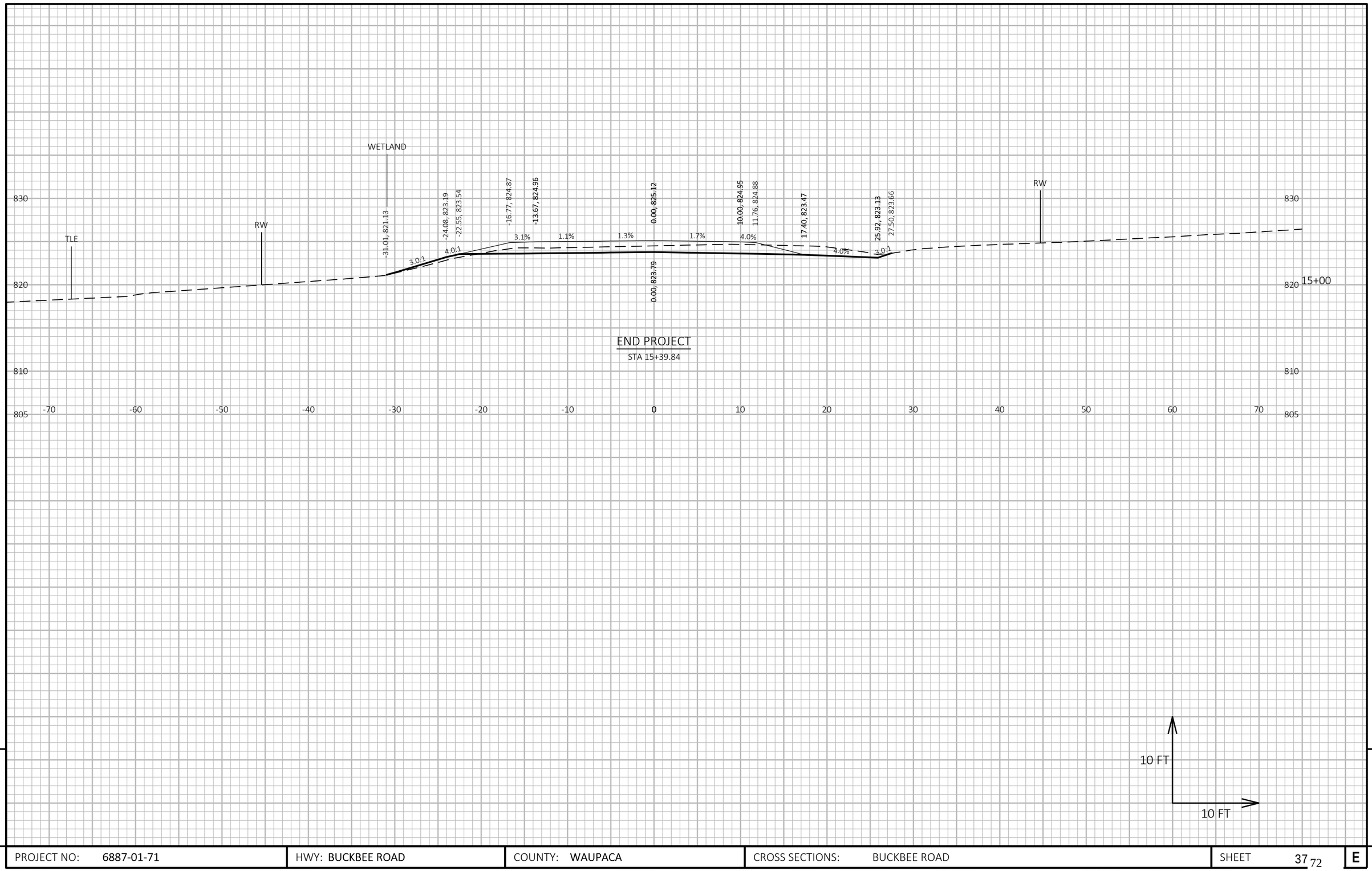
PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CROSS SECTIONS: BUCKBEE ROAD	SHEET 36 71	E

9

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090201-xs-03

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CROSS SECTIONS: BUCKBEE ROAD	SHEET 37 72	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090201-xs-04

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
STA 10+64.59 H

RW

9.17, 829.83

RW

10+65 H

840
830
820
810
805

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

RW

9.00, 828.79
11.00, 828.75
16.80, 827.30
19.00, 826.75
2.0%
4.0:1
WETLAND
RW
3.0:1
42.96, 818.76
TLE
9.00, 827.45

10+85 H

10 FT
10 FT

9

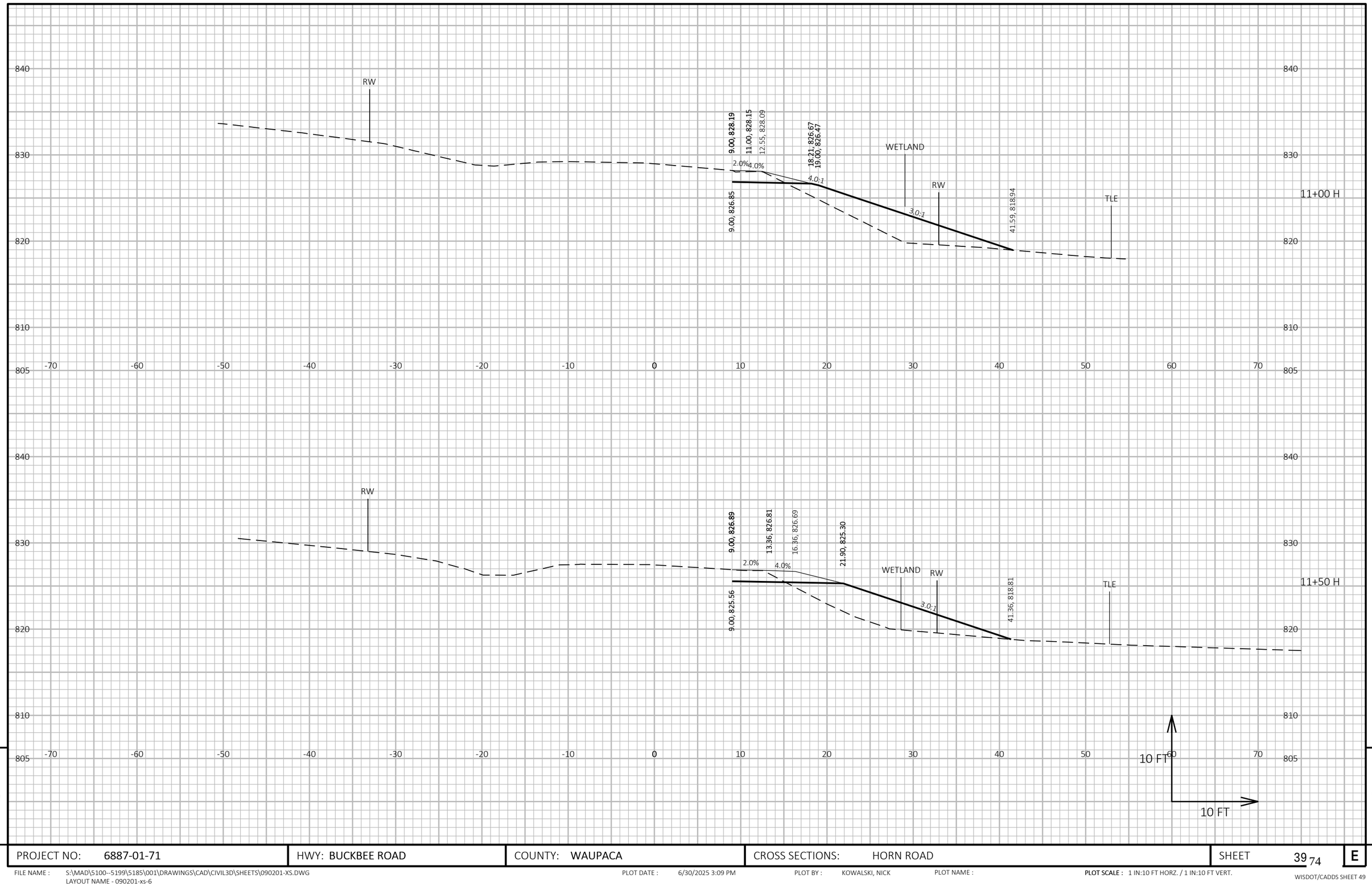
9

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CROSS SECTIONS: HORN ROAD	SHEET 38 73	E

FILE NAME : S:\MAD\5100--5199\5185\001\DRAWINGS\CAD\CIVIL3D\SHEETS\090201-XS.DWG
LAYOUT NAME - 090201-xs-5

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CROSS SECTIONS: HORN ROAD	SHEET 39 74	E

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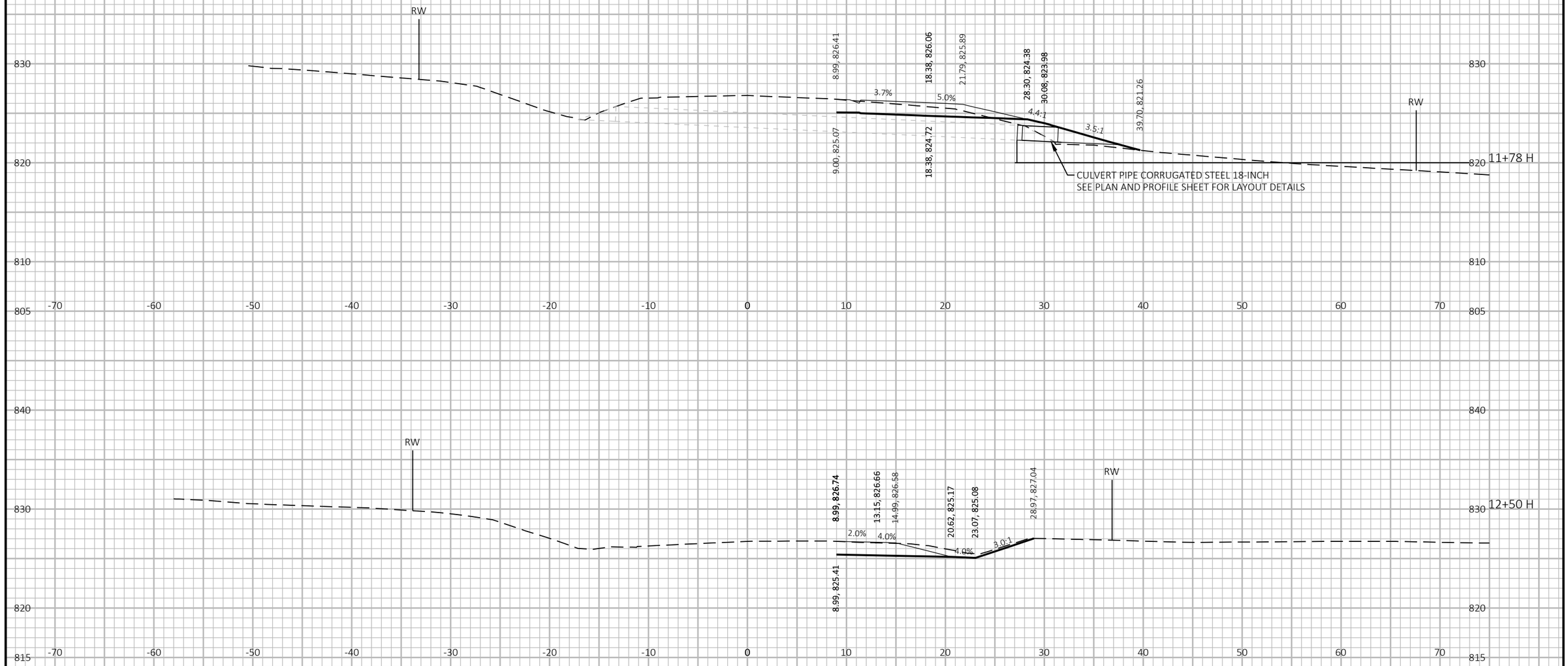
LAYOUT NAME - 090201-xs-6

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6887-01-71	HWY: BUCKBEE ROAD	COUNTY: WAUPACA	CROSS SECTIONS: HORN ROAD	SHEET 40 75	E

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LAYOUT NAME - 090201-xs-7

PLOT DATE : 6/30/2025 3:09 PM PLOT BY : KOWALSKI, NICK PLOT NAME :

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

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov