MAD | DECEMBER 2024

PROJECT ID: 1706-03-80

WITH: N/A

COUNTY: LAFAYETTE

ORDER OF SHEETS

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

TOTAL SHEETS = 208

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHULLSBURG - MONROE

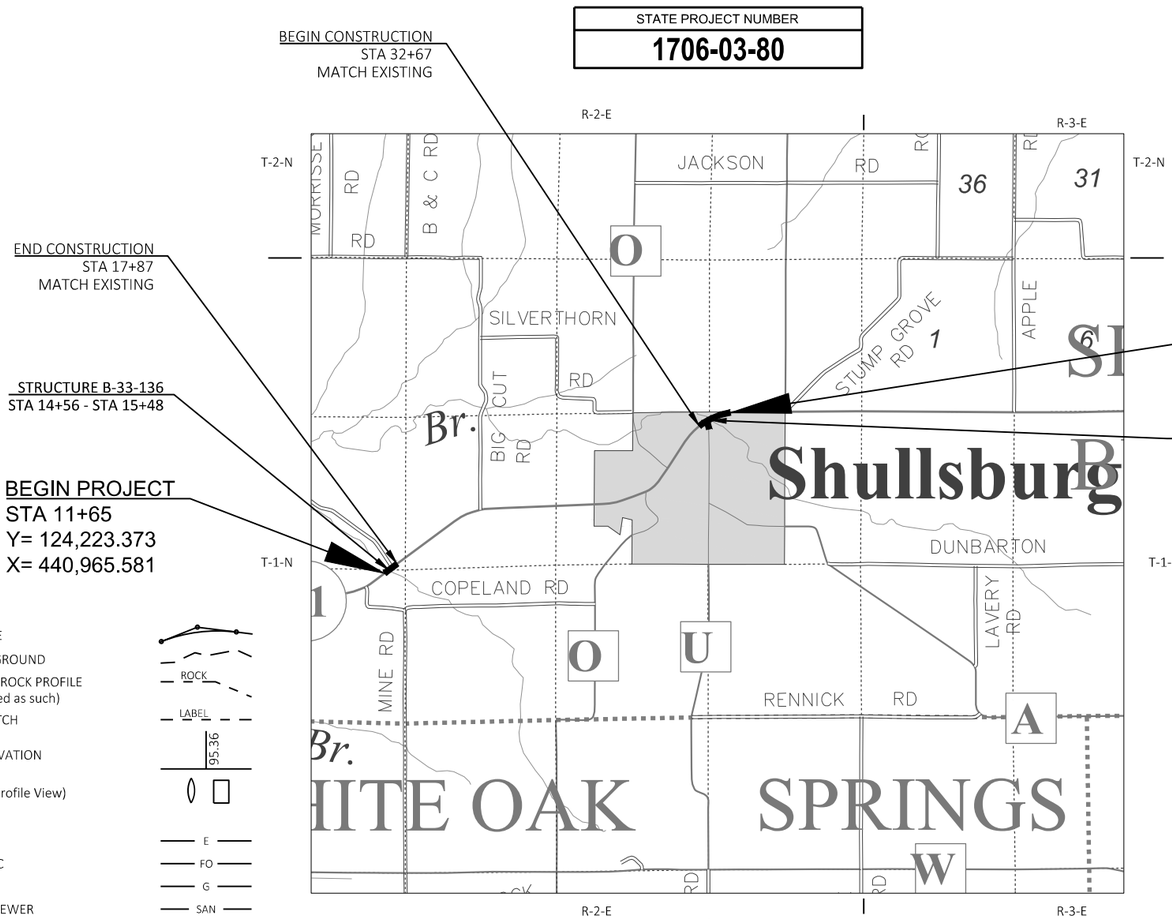
SHULLSBURG BRANCH BRIDGES

STH 11

LAFAYETTE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1706-03-80	WISC 2025091	1

STATE PROJECT NUMBER
1706-03-80



N

DESIGN DESIGNATION

A.A.D.T.	2025	=	3800
A.A.D.T.	2045	=	3800
D.H.V.		=	448
D.D.		=	60/40
T.		=	23.1%
DESIGN SPEED		=	60 MPH
ESALS		=	2,000,000 (HMA)
		=	3,100,000 (CONCRETE)

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

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

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

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.224 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WCCS), LAFAYETTE 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.

ORIGINAL PLANS DEVELOPED BY WISDOT SW REGION

WISCONSIN DEPARTMENT OF TRANSPORTATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JSD PROFESSIONAL SERVICES
Designer	JOSHUA WELLNITZ
Project Manager	JOSHUA NELSON, P.E.
Regional Examiner	SW REGION
Regional Supervisor	JIM SIMPSON, P.E., P.L.S.

APPROVED FOR THE DEPARTMENT

DATE: 7/22/24 (Signature)

E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\010101_TI.DWG PLOT DATE : 12/21/2023 9:44 AM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

GENERAL NOTES

1. MATCH EXISTING SIDE ROAD GEOMETRICS AND OVERLAY EXISTING TAPERS.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
3. UTILITY LINES IN THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.
4. SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.
5. APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF NEW HMA PAVEMENT.
6. ASPHALTIC SURFACE/HMA WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.
7. DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE SEEDED, FERTILIZED, AND E-MAT PLACED AS DIRECTED BY THE ENGINEER. ALL OTHER DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND E-MAT PLACED AT THE CONTRACTORS EXPENSE.
8. CONTRACTORS SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN WORKING ON OR DIRECTLY ADJACENT TO A DRIVEWAY. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.
9. PRIOR TO THE PLACEMENT OF BEAMGUARD, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.
10. THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTURBED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.
11. THE EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL SHEETS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER IN THE FIELD.
12. THE NUMBER, LOCATION, AND SPACING OF SIGNS AND DEVICES, AS SHOWN IN THE PLANS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.
13. EXISTING RIGHT OF WAY LINES SHOWN IN THE PLANS AND CROSS SECTIONS ARE APPROXIMATE

LIST OF STANDARD ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
AP	ACCESS POINT
AC	ACRE
ADJ	ADJUST
AECPRC	APRON ENDWALLS FOR CULVERT
AC	ASPHALT CEMENT
ASPH	ASPHALTIC
ACP	ASPHALTIC CONCRETE PAVEMENT
ADT	AVERAGE DAILY TRAFFIC
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C/L	CENTER LINE
CONC	CONCRETE
CONST	CONSTRUCTION
CTH	COUNTY TRUNK HIGHWAY
CABC	CRUSHED AGGREGATE BASE COURSE
CWA	HUNDREDWEIGHT
CY	CUBIC YARD
CP	CULVERT PIPE
CP	CONTROL POINT
CE	COMMERCIAL ENTRANCE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DWY	DRIVEWAY
E	EAST
EL	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZE
FE	FIELD ENTRANCE
FT	FOOT
HES	HIGH EARLY STRENGTH
HP	HIGH POINT
HMA	HOT MIX ASPHALT
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
INV	INVERT
IP	IRON PIPE OR PIN
JT	JOINT
LB	POUND
LT	LEFT
L	LENGTH OF CURVE
LF	LINEAR FOOT
LP	LOW POINT
LS	LUMP SUM
MH	MANHOLE
MAX	MAXIMUM
Mgal	MEGAGALLON
MPH	MILES PER HOUR
MIN	MINIMUM
MON	MONUMENT
N	NORTH
NC	NORMAL CROWN
NO	NUMBER
NOM	NOMINAL
OD	OUTSIDE DIAMETER
OPT	OPTIONAL
PAVT	PAVEMENT
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
QTR	QUARTER
R	RADIUS
RD	ROAD
RDWY	ROADWAY
REINF	REINFORCING OR REINFORCEMENT
REQD	REQUIRED
RT	RIGHT
R/L	REFERENCE LINE
R/W	RIGHT-OF-WAY
S	SOUTH
SC	SECTION CORNER
SDD	STANDARD DETAIL DRAWINGS
SE	SUPER ELEVATION
SF	SQUARE FEET
SHLDR	SHOULDER
SS	STORM SEWER
ST	STREET
STA	STATION
STH	STATE TRUNK HIGHWAYS
STR	STRUCTURE OR STRUCTURAL
SQ	SQUARE
SW	SIDEWALK
SY	SQUARE YARD
T	TANGENT
T	TRUCKS (PERCENT OF)
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
V	VELOCITY OF DESIGN SPEED
VAR	VARIABLE
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
W	WEST
WM	WATER MAIN
X	EAST GRID COORDINATE
Y	YARD
Y	NORTH GRID COORDINATE

WISCONSIN DNR CONTACT

DOT LIAISON

WISCONSIN DNR
SHELLEY NELSON
3911 FISH HATCHERY ROAD
MADISON, WI 53711
PHONE: (608) 444-2835
EMAIL: shelley.nelson@wisconsin.gov

WISCONSIN DOT CONTACTS

WISDOT PROJECT MANAGER

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WISDOT PROJECT LEADER

WISDOT
JOSHUA WELLNITZ
2101 WRIGHT STREET
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EMAIL: Joshua.Wellnitz@dot.wi.gov

UTILITY CONTACTS

ELECTRICITY

SHULLSBURG UTILITY - ELECTRICITY
NICK DOYLE
190 JUDGEMENT ST
SHULLSBURG, WI 53586
PHONE: (608) 965-4424
M PHONE: (608) 482-3997
EMAIL: electric@cityofshullsburg.org

GAS/PETROLEUM

WE ENERGIES - GAS/PETROLEUM
ADAM MARING
210 N 29TH AVENUE
MONROE, WI 53566
PHONE: (608) 328-5679
M PHONE: (608) 426-1715
EMAIL: Adam.maring@we-energies.com

ELECTRICITY

ALLIANT ENERGY - ELECTRICITY
RANDY MARTIN
761 ENTERPRISE DRIVE
PLATTEVILLE, WI 53818
PHONE: (608) 732-4392
EMAIL: randymartin@AlliantEnergy.com

COMMUNICATIONS

BRIGHTSPEED - COMMUNICATION LINE
DOUG MCGOWAN
135 N BONSON ST
PLATTEVILLE, WI 53818
PHONE: (608) 342-5377
EMAIL: Doug.mcgowan@brightspeed.com

ELECTRICITY

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
DOUG VOSBERG
2489 RINDEN RD
COTTAGE GROVE, WI 53527
PHONE: (920) 887-7650
EMAIL: dvosberg@atcllc.com

SANITARY SEWER

SHULLSBURG WATSEWATER TREATMENT PLANT
TOM KLEIBER
780 WATER ST
SHULLSBURG, WI 53586
PHONE: (608) 574-6366
EMAIL: wwtp@cityofshullsburg.org

COMMUNICATIONS

ALLIANT ENERGY - COMMUNICATION LINE
LAURA SEALS
200 1ST ST SE
CEDAR RAPIDS, IA 52401
PHONE: (319) 786-4198
EMAIL: lauraseals@AlliantEnergy.com

ELECTRICITY

SCENIC RIVERS ENERGY COOPERATIVE - ELECTRICITY
CHAD OLMSTEAD
206 COUNTY ROAD K
LANCASTER, WI 53813
PHONE: (608) 723-2121 EX.561
EMAIL: colmstead@srec.net

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
PLAN DETAILS
EROSION CONTROL
PIPE UNDERDRAIN
PERMANENT SIGNING AND MARKING
TRAFFIC CONTROL
DETOUR PLAN

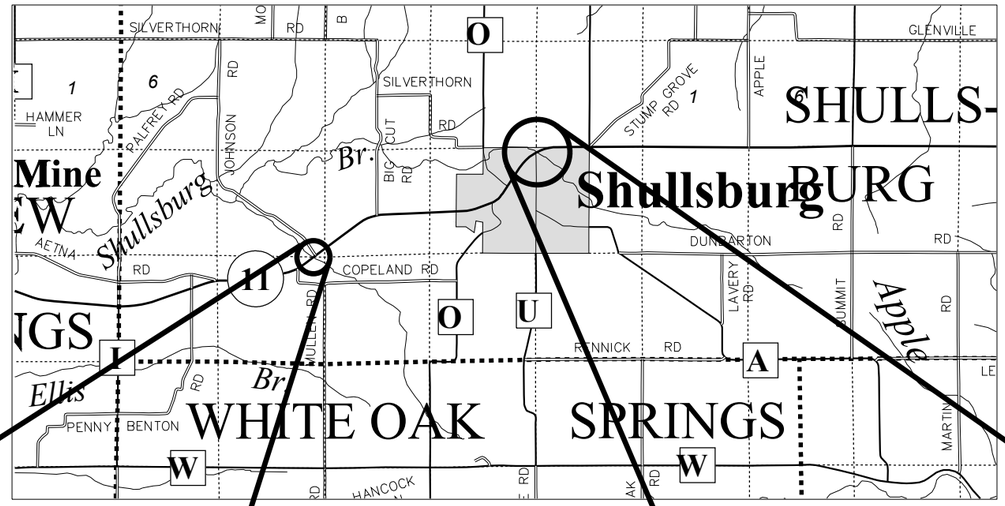
CONTROL POINTS

POINT NUMBER	STATION	OFFSET	NORTHING	EASTING	ELEVATION	CODE	DESCRIPTION	DESIGNATION	NOTES
900	40+20	57.03' LT	129863.216	452859.520	953.663	CP	Alum. Disc	FENO	
901	29+38	50.32' RT	129268.312	451959.244	960.428	CP	Alum. Disc	FENO	
902	18+55	29.31' LT	124656.797	441503.612	885.847	CP	Alum. Disc	FENO	
903	N/A	N/A	124129.620	440770.860	878.712	CP	Alum. Disc	FENO	
1001	N/A	N/A	127050.191	444368.832	986.348	CP	Disc in Conc.	DH5011	SHULLSBURG S GPS
1002	N/A	N/A	123469.662	434515.566	957.820	CP	Disc in Conc.	NJ0034	H111
1003	N/A	N/A	130112.632	462977.921	1092.824	CP	Disc in Conc.	DH5010	SHULLSBURG E GPS

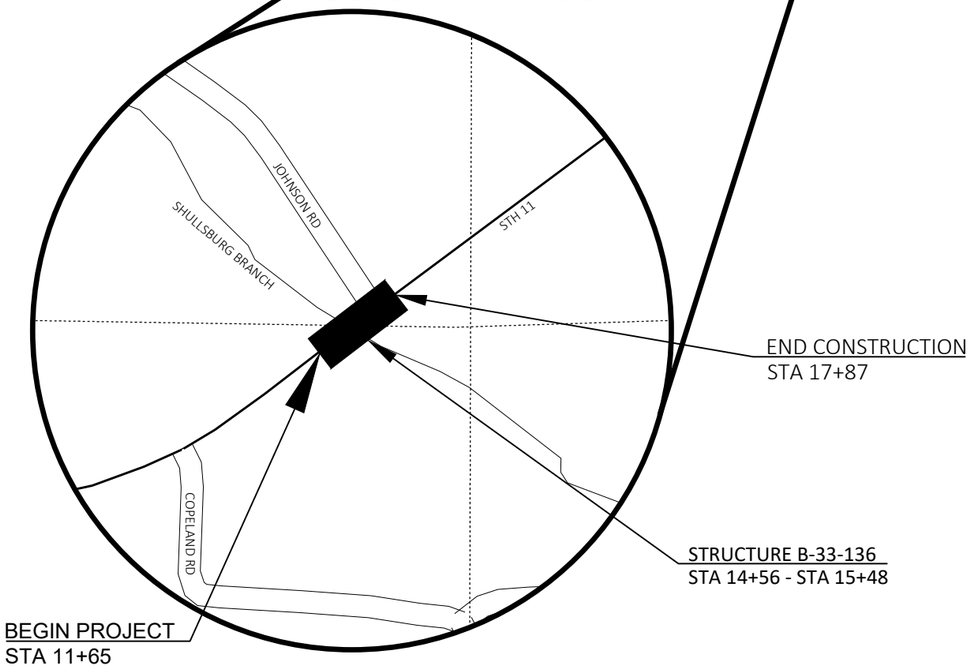
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

2

N



B-33-136 STRUCTURE LOCATION



END CONSTRUCTION
STA 17+87

STRUCTURE B-33-136
STA 14+56 - STA 15+48

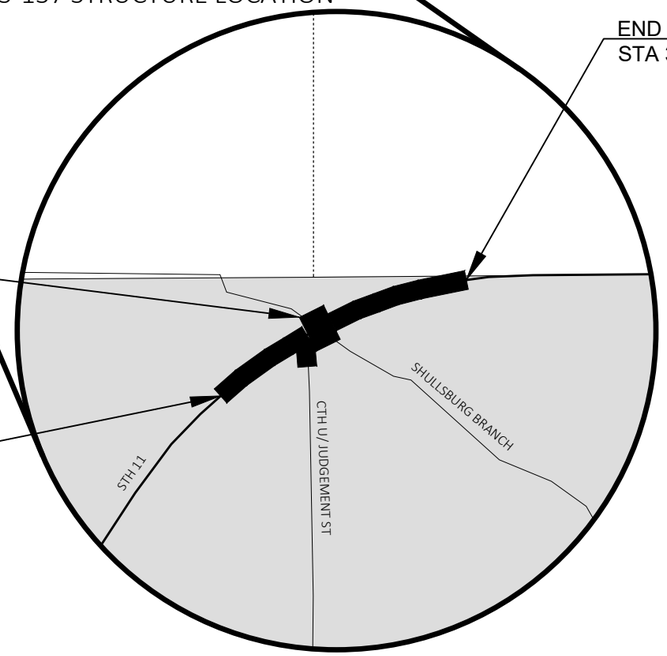
BEGIN PROJECT
STA 11+65
Y= 124,223.373
X= 440,965.581

B-33-137 STRUCTURE LOCATION

END PROJECT
STA 38+27

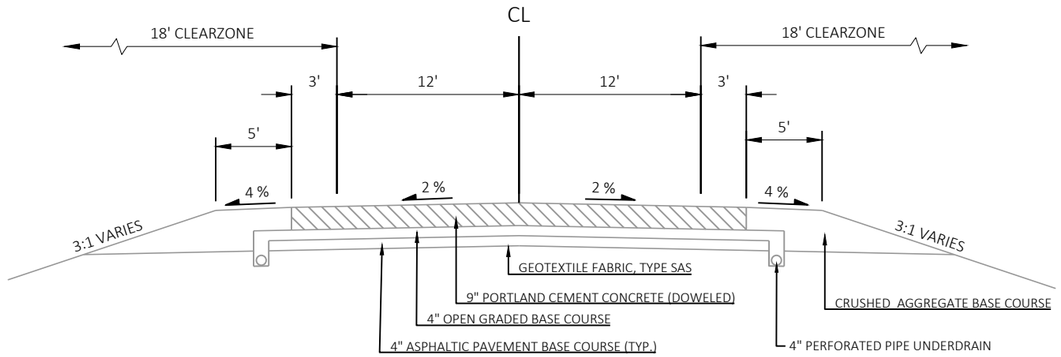
STRUCTURE B-33-137
STA 34+69 - STA 35+21

BEGIN CONSTRUCTION
STA 32+67



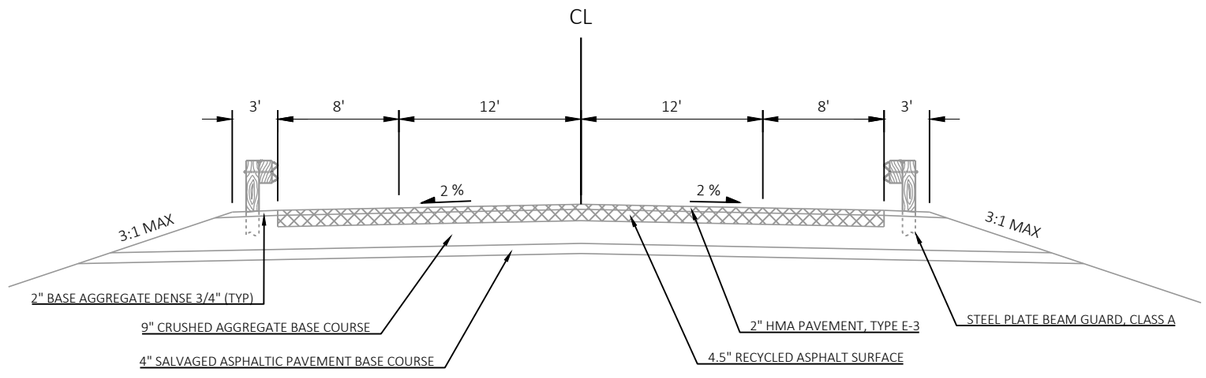
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PROJECT OVERVIEW	SHEET 3	E

2



EXISTING TYPICAL SECTION

STA 11+65 - 14+75
STA 15+27 - 17+87

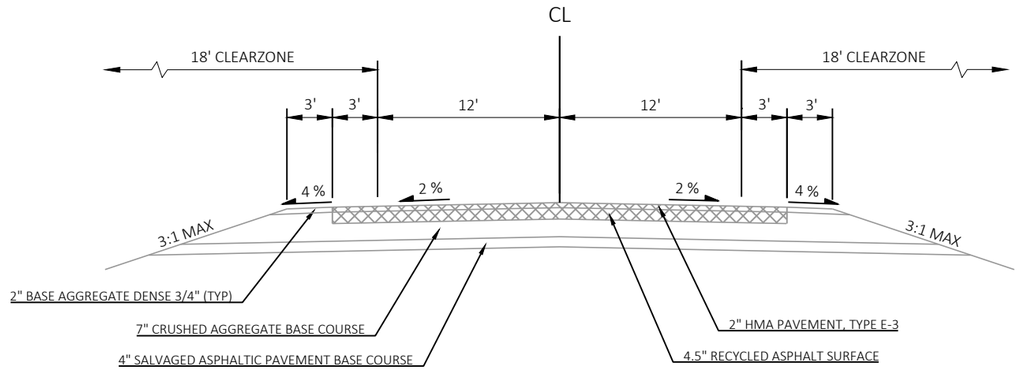


EXISTING TYPICAL SECTION

STA 32+67 - 34+69

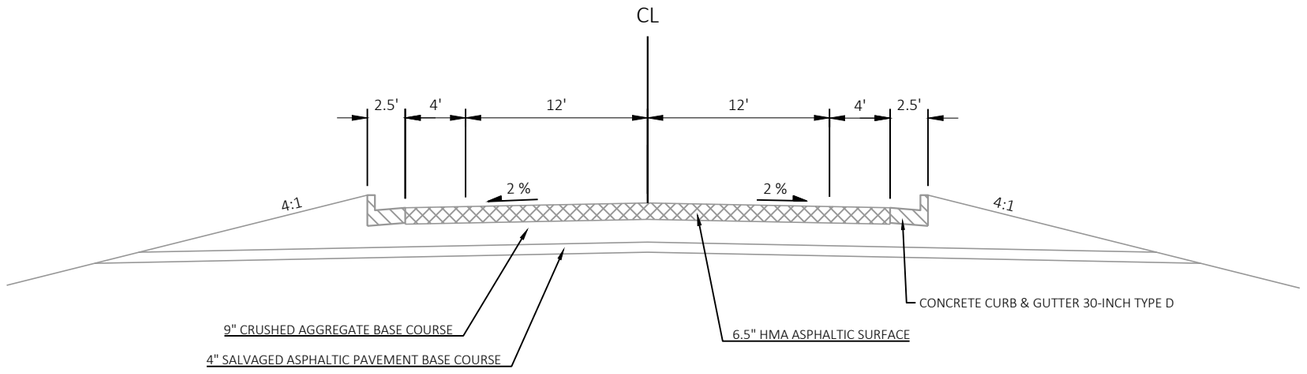
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	TYPICAL SECTIONS	SHEET 4	E

2



EXISTING TYPICAL SECTION

STA 35+21 - 38+27



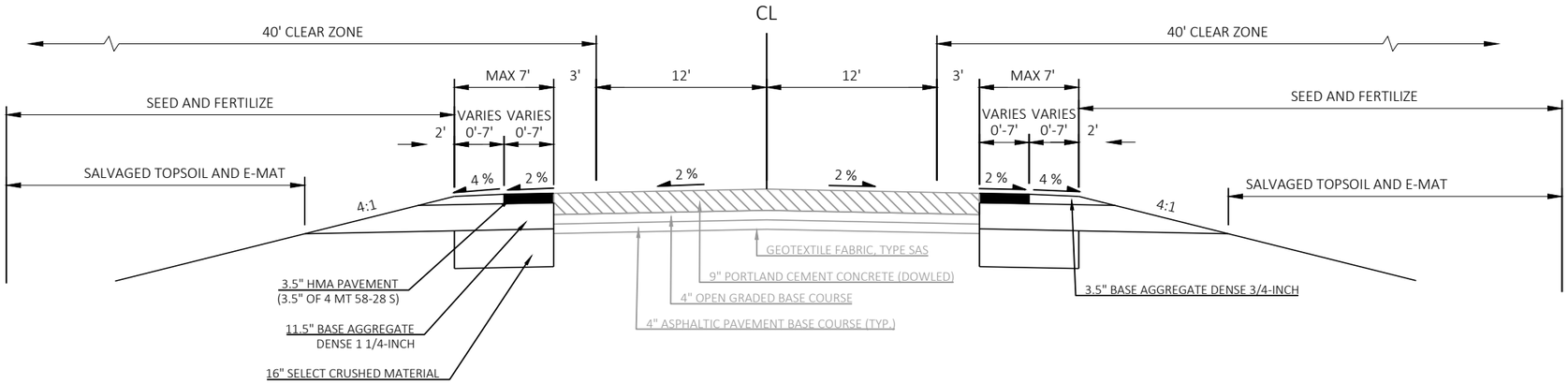
EXISTING TYPICAL SECTION

JUDGEMENT ST/CTH U

STA 13+50 "JS" - 14+83 "JS"

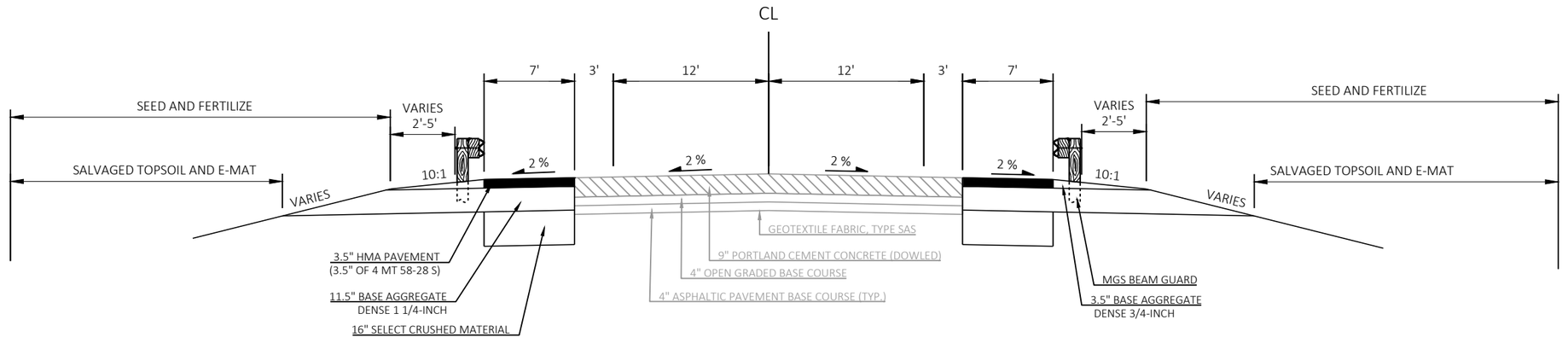
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	TYPICAL SECTIONS	SHEET 5	E

2



FINISHED TYPICAL SECTION

STA 11+65 - 12+86



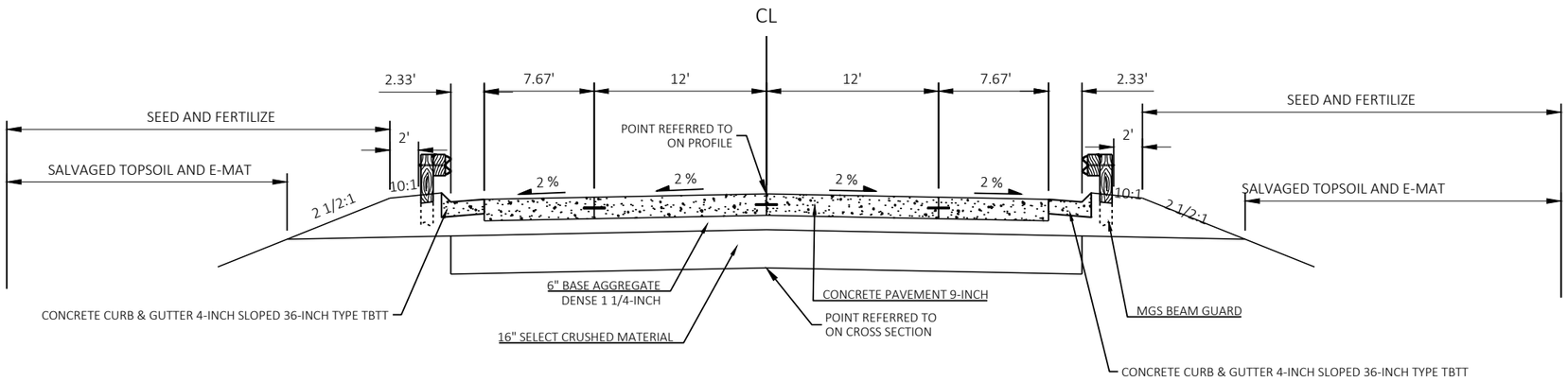
FINISHED TYPICAL SECTION

STA 12+86 - 14+00

STA 16+00 - 17+87

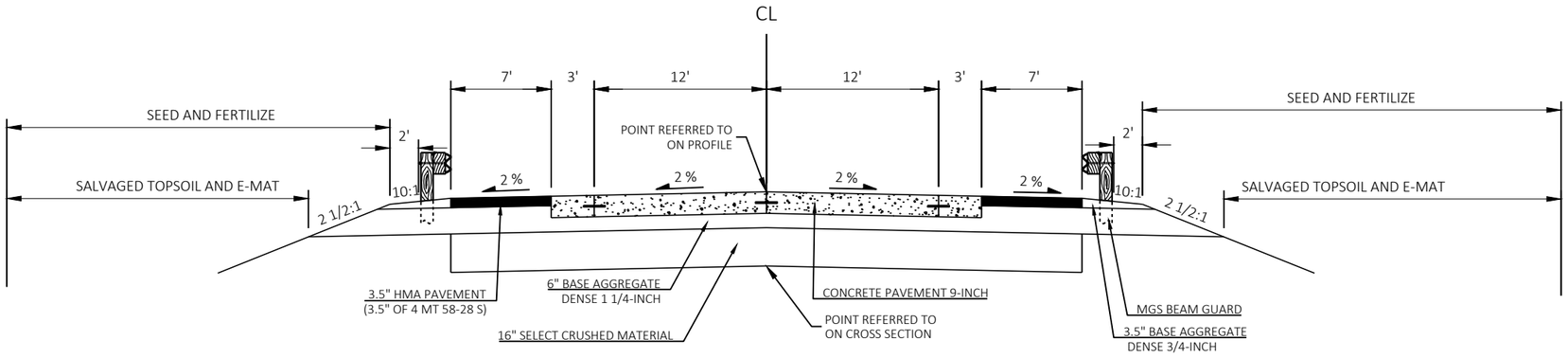
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	TYPICAL SECTIONS	SHEET 6	E

2



FINISHED TYPICAL SECTION

STA 14+00 - 14+37



FINISHED TYPICAL SECTION

STA 15+67 - 16+00

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	TYPICAL SECTIONS	SHEET 7	E

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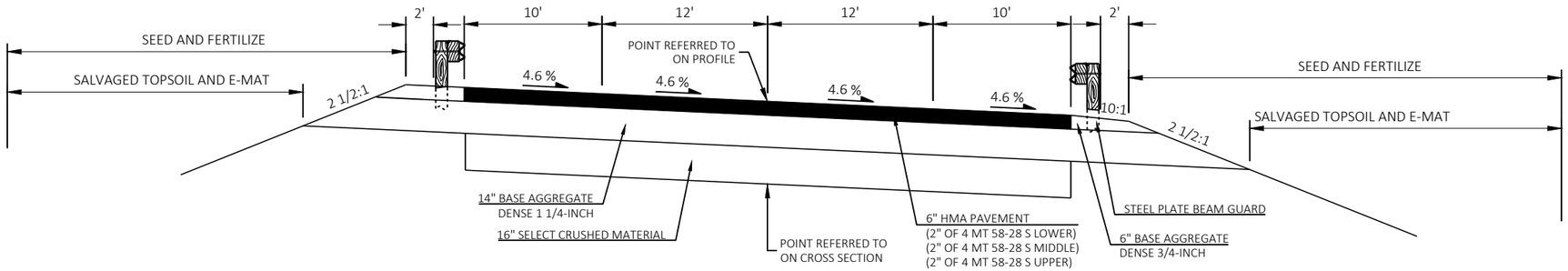
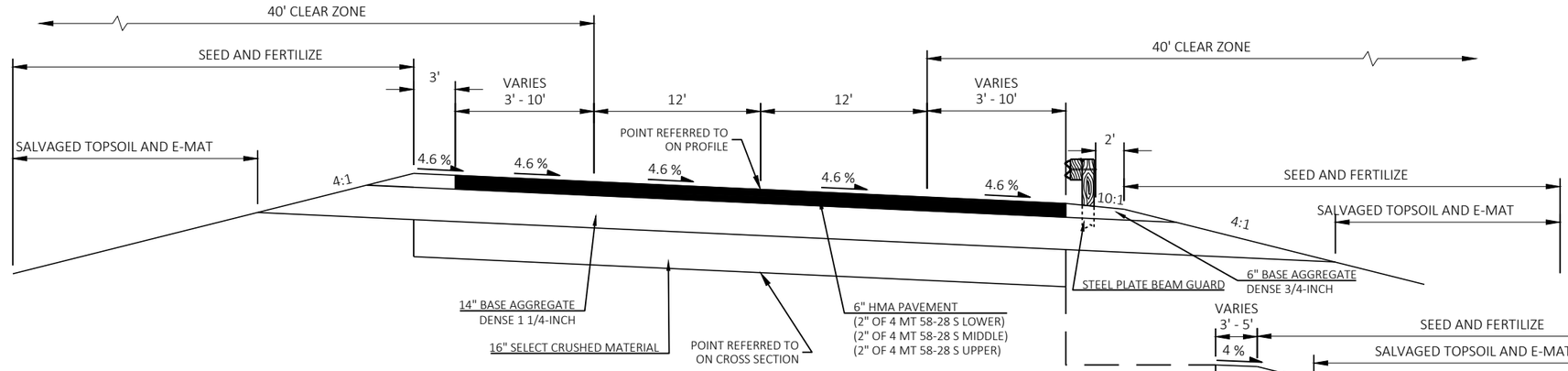


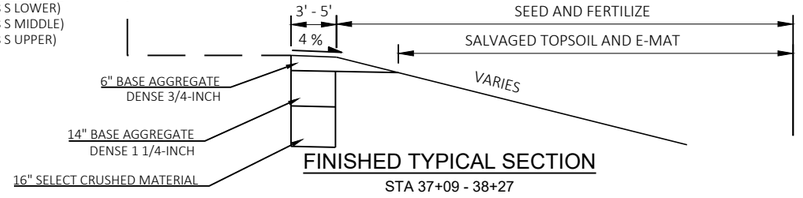
FINISHED TYPICAL SECTION

STA 32+67 - 34+49
STA 35+42 - 36+59



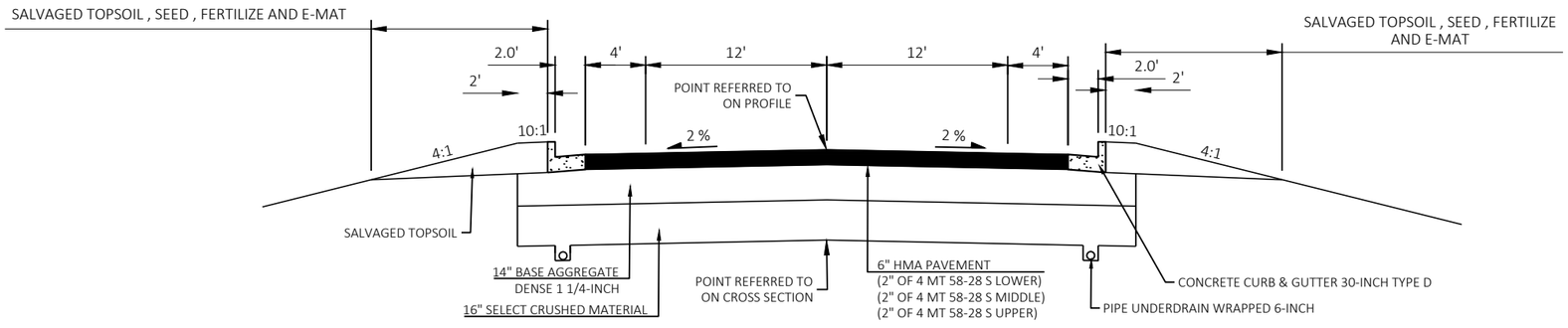
FINISHED TYPICAL SECTION

STA 36+59 - 37+09



FINISHED TYPICAL SECTION

STA 37+09 - 38+27

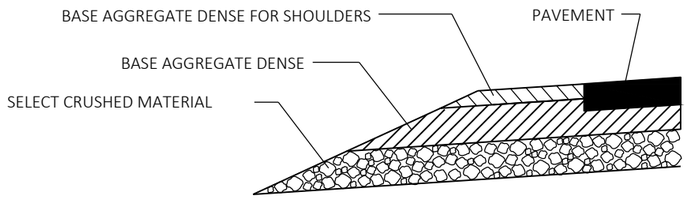


FINISHED TYPICAL SECTION

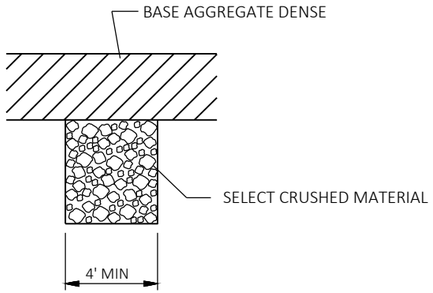
JUDGEMENT ST/CTH U

STA 13+50 "JS" - 14+95 "JS"

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	TYPICAL SECTIONS	SHEET 8	E



SECTION A-A



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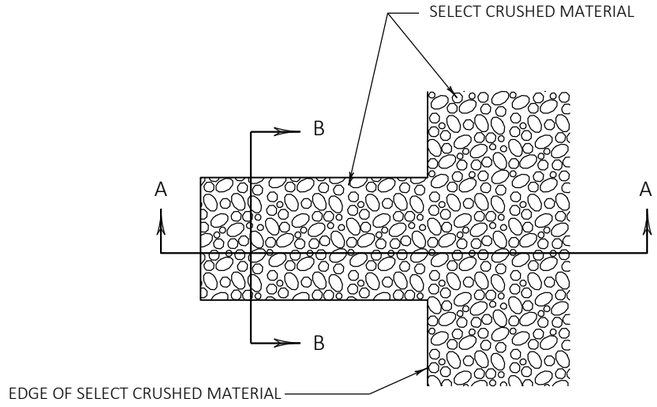


DETAIL FOR FRENCH DRAINS

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

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

DO NOT COVER WITH TOPSOIL.

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

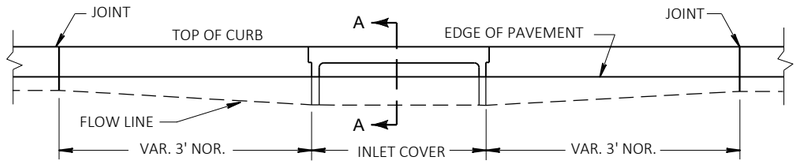
STH 11 STATION RANGES

STA 11+65 - 14+37

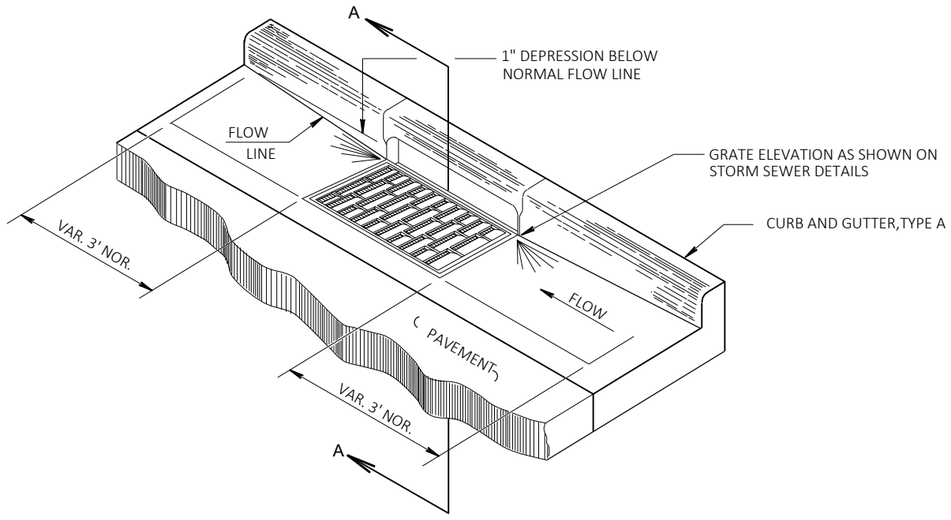
STA 15+67 - 17+87

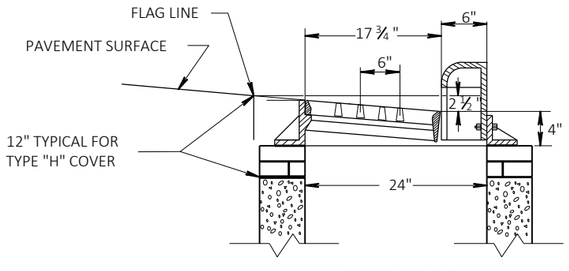
STA 32+67 - 34+49

STA 35+42 - 38+27



ELEVATION



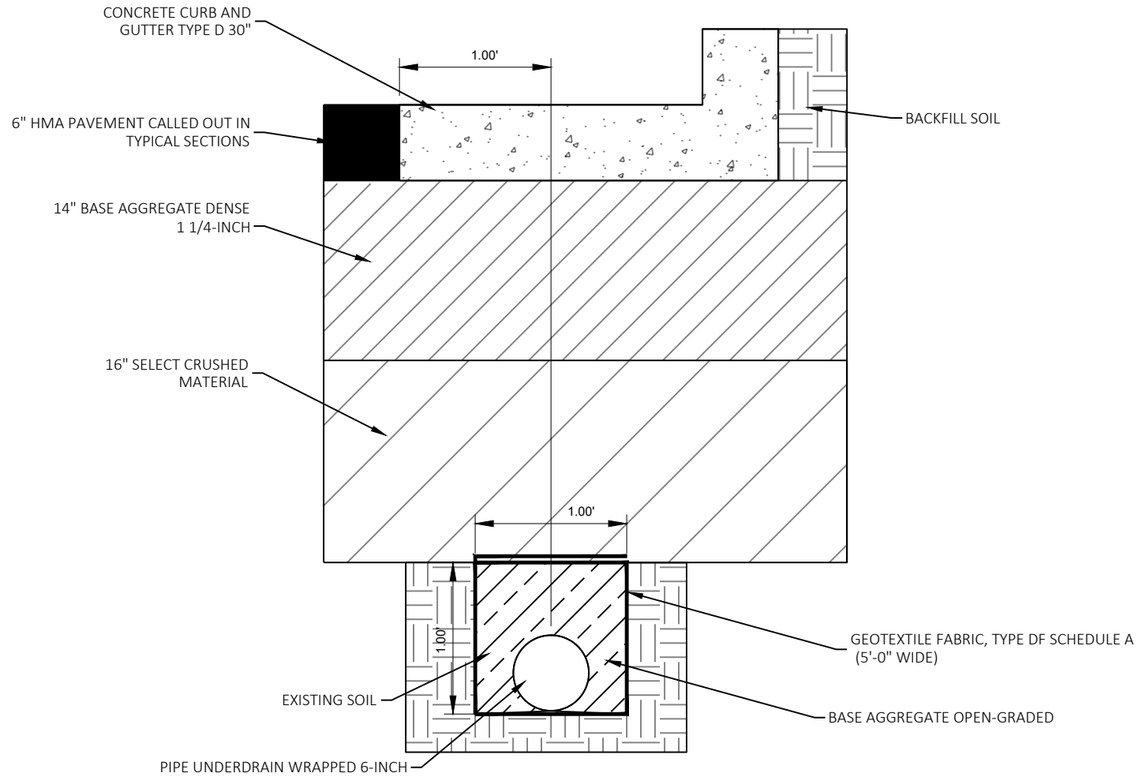


SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

(TYPE 3-H INLET SHOWN)

NOTES:
PIPE UNDERDRAIN INSTALLED IN AREAS WHERE CURB AND GUTTER IS INSTALLED SHALL BE DRAINED TO EXSITING STORM SEWER INLETS VIA STORM SEWER INLET TAP.



PIPE UNDERDRAIN DETAIL

2

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CONSTRUCTION DETAILS: CURB AND GUTTER AT INLETS AND UNDERDRAIN	SHEET 10	E

2

EXISTING R/W

BRIGHTSPEED

SHULLSBURG BRANCH

50'
MGS GUARDRAIL TERMINAL EAT

75'
MGS GUARDRAIL 3

39.4'
MGS THRIE
BEAM TRANSITION

ALLIANT ENERGY

POST 1
STA 12+85.88, -24.00' L

POST 5
STA 13+10.88, -23.00' L

POST 9
STA 13+35.88, -22.00' L

10:1

7'

SI

STA 14+50.27, -22.00' L

STA 14+10.77, -22.00' L

10'

REMOVING GUARDRAIL

15'

12+00

13+00

STH 11

14+00

B-33-136

SAWING CONCRETE

15'

7'

10'

10:1

POST 1
STA 13+01.89, 24.00' R

POST 5
STA 13+26.89, 23.00' R

POST 9
STA 13+51.89, 22.00' R

STA 14+27.49, 22.00' R

STA 14+66.89, 22.00' R

SI

50'
MGS GUARDRAIL TERMINAL EAT

75'
MGS GUARDRAIL 3

39.4'
MGS THRIE
BEAM TRANSITION

ATC MANAGEMENT, INC.
ALLIANT ENERGY

TLE

EXISTING R/W

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CONSTRUCTION DETAILS: BEAM GUARD	SHEET 11	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - BG 01

PLOT DATE : 7/15/2024 10:40 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

STA 16+01.57, -80.85' L

STA 16+00.83, -68.38' L

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

2+00

JOHNSON RD

BRIGHTSPEED

EXISTING R/W

EXISTING R/W

20.64'
STEEL PLATE THRIE BEAM
STRUCTURE APPROACH

SI

R36'

REMOVING GUARDRAIL

STEEL PLATE BEAM GUARD
SHORT RADIUS, R = 36'
11 CRT POSTS

STA 15+37.11, -22.00' L

STA 15+57.76, -22.01' L

STA 15+64.16, -22.00' L

ALLIANT ENERGY

SAWING ASPHALT

10'

12'

12'

10'

15'

15'

7'

B-33-136

16+00

STH 11

17+00

18+00

SAWING CONCRETE

STA 15+53.73, 22.00' R

STA 15+93.13, 22.00' R

STA 17+20, 22.00' R

STA 17+45, 22.00' R

STA 17+70, 22.00' R

39.4'
MGS THRIE
BEAM TRANSITION

125'
MGS GUARDRAIL 3

50'
MGS GUARDRAIL TERMINAL EAT

SI

SHULLSBURG BRANCH

ATC MANAGEMENT, INC.
ALLIANT ENERGY

EXISTING R/W

TLE

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CONSTRUCTION DETAILS: BEAMGUARD	SHEET 12	E

2

2

EXISTING R/W

ALLIANT ENERGY

TLE

R/W

174'
STEEL PLATE BEAM GUARD CLASS A

20.65'
STEEL THRIE BEAM
STRUCTURE APPROACH

MATCH INTO EXISTING
STEEL PLATE BEAM GUARD

SI

STA 32+66.65, -20.32' L

STA 33+50, -20.00' L

STA 33+74.87, -22.00' L

STA 34+40.35, -22.00' L

STA 34+61, -22.00' L

STA 35+08.30, -22.00' L

STA 35+28.75, -21.99' L

8'

10'

12'

SAWING ASPHALT

STH 11

33+00

34+00

35+00

B-33-137

STA 32+69.84, 21.02' R

STA 32+95.05, 22.08' R

STA 33+20.29, 22.87' R

50'
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

PT: 14+45.41

JUDGEMENT ST/CTH U

STEEL PLATE BEAM
GUARD CLASS A
L=75'

STA 14+93.06, 62.33' R

STA 14+87.07, 42.72' R

STA 35+29.83, 22.17' R

STEEL THRIE BEAM STRUCTURE
APPROACH CURVED
L = 20.64' R = 47.93'

R47.93'

STA 14+34.26, 18.25' R

STA 14+22.44, 18.88' R

ANCHORAGES FOR STEEL PLATE
BEAM GUARD TYPE 2

WE ENERGIES

BRIGHTSPEED

SHULLSBURG UTILITY

SHULLSBURG BRANCH

EXISTING R/W

TLE

R/W

SHULLSBURG UTILITY

14+00

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CONSTRUCTION DETAILS: BEAMGUARD	SHEET 13	E

2

SHULLSBURG UTILITY

SCENIC RIVERS ENERGY COOPERATIVE

BRIGHTSPEED

R/W

TLE

EXISTING R/W

SCENIC RIVERS ENERGY COOPERATIVE

20.65'
STEEL THRIE BEAM
STRUCTURE APPROACH

STA 35+79.93, -52.05' L

STA 35+74.23, -40.98' L

STA 35+08.30, -22.00' L

R15'

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

ALLIANT ENERGY

SI

STA 35+28.75, -21.99' L

STEEL PLATE BEAM GUARD
SHORT RADIUS, R = 15'
5 CRT POSTS

BEGIN STEEL PLATE BEAM GUARD SHORT RADIUS

10'

STA 35+47.32, -21.98' L

STEEL PLATE BEAM GUARD CLASS A

STH 11

B-33-137

12'

36+00

37+00

38+00

35+00

12'

STEEL PLATE BEAM GUARD CLASS A

10'

STA 35+50.68, 22.17' R

112.5'
STEEL PLATE BEAM GUARD CLASS A

WE ENERGIES

STA 36+63.18, 22.00' R

STA 36+88.17, 23.14' R

STA 37+13.18, 24.00' R

4+93.06, 62.33' R

7, 42.72' R

STA 35+29.83, 22.17' R

20.65'
STEEL THRIE BEAM
STRUCTURE APPROACH

50'
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

SI

EIXSITNG R/W

R/W

SHULLSBURG BRANCH

TLE

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CONSTRUCTION DETAILS: BEAMGUARD	SHEET 14	E

2

2

N

TLE

R/W

EXISTING R/W

STA 34+21.75
STA 15+05.60

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH, TYPE TBTT

32+00

STH 11

34+00

B-33-137

36+00

STH 11

15+00 "JS"

PT: 14+45.41 "JS"

STA 14+66.76 "JS", -84.65' L
EL 937.93

STA 14+53.57 "JS", -35.89' L
EL 934.80

JUDGEMENT ST/CTH U

R50'

STA 14+94.70 "JS", 59.22' R
EL 934.02

STA 35+69.34, 19.79' R
EL 933.50

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH, TYPE TBT

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH, TYPE TBTT

R55'

EXISTING R/W

R/W

TLE

STA 14+04.09 "JS", -71.02' L
EL 929.72

STA 14+86.98, 38.59' R
CURB FLANGE HIGH POINT
EL 934.21

STA 14+77.78 "JS", 28.10' R
EL 934.14

STA 14+45.20 "JS", 66.00' R
EL 925.89

14+00 "JS"

STA 14+45.24 "JS", 16.00' R
EL 933.78

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH, TYPE D

STA 14+04.09 "JS", -16.00' L
EL 933.14

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH, TYPE TBT

STA 13+99.64 "JS", 16.00' R
EL 933.10

STA 13+51 "JS", -16.00' L
EL 932.60

PC: 13+50.16 "JS"

CONCRETE CURB & GUTTER
30-INCH, TYPE D

BEGIN CONSTRUCTION
STA 13+50 "JS"
MATCH EXISTING
SAW CUT REQ'D

STA 13+51 "JS", 16.00' R
EL 932.60

13+00 "JS"

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	INTERSECTION DETAILS: JUDGEMENT ST/CTH U	SHEET 15	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 01

PLOT DATE : 7/15/2024 10:45 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

WETLANDS

WETLAND IMPACTS

WETLAND NUMBER X

WETLAND MITIGATION BANK TABLE		
WETLAND #	BANK TYPE	ACRES
1	SHALLOW MARSH (SM)	.008
2	SHALLOW MARSH (SM)	.003
3	SHALLOW MARSH (SM)	.002
4	SHALLOW MARSH (SM)	.003

2

N

EXISTING R/W

JOHNSON RD

1+00

2+00

SHULLSBURG BRANCH

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH, TYPE TBTT

STEEL PLATE BEAM GUARD
SEE CONSTRUCTION DETAILS

SI

BRIGHTSPEED - COMMUNICATION

EXISTING R/W

ALLIANT ENERGY - COMMUNICATION

MGS BEAM GUARD
SEE CONSTRUCTION DETAILS

CONCRETE SURFACE DRAIN SEE
EROSION CONTROL SHEETS
FOR ADDITIONAL DETAILS

CONCRETE APPROACH SLABS

STRUCTURAL APPROACH SLABS

9-INCH CONCRETE PAVEMENT

ALLIANT ENERGY - COMMUNICATION

END CONSTRUCTION
STA 17+87

BEGIN PROJECT
STA 11+65.00
Y=124,223.373
X=440,965.581

SAWING ASPHALT
MATCH EXISTING

DRILLED DOWEL BARS 1 1/4-INCH, 15" C-C

STH 11

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00

15

B-33-136

SAWING CONCRETE
MATCH EXISTING

MGS BEAM GUARD
SEE CONSTRUCTION DETAILS

ATC MANAGEMENT, INC
ALLIANT ENERGY- ELECTRIC

TLE

REMOVING SMALL
PIPE CULVERT

STA 12+62 RT
CP CLASS III-A 18-INCH, 42-FT

EXISTING R/W

CONCRETE SURFACE DRAIN SEE
EROSION CONTROL SHEETS
FOR ADDITIONAL DETAILS

9-INCH CONCRETE PAVEMENT

SI

TLE

EXISTING R/W

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH, TYPE TBTT

ASPHALTIC FLUME SEE
EROSION CONTROL SHEETS
FOR ADDITIONAL DETAILS

NOTE:
SEE SDD 13C11 FOR DOWEL BAR SPACING AND DIAMETER IN CONCRETE PAVEMENT

SEE SDD 13B2 FOR DETAILS ON CONSTRUCTING STRUCTURAL AND CONCRETE APPROACH SLABS

SEE STRUCTURE PLANS FOR DETAILS ON CONSTRUCTION OF STRUCTURE B-33-136

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PLAN DETAILS: B-33-136	SHEET 16	E

LEGEND

WETLANDS

WETLAND IMPACTS

WETLAND NUMBER (X)

WETLAND MITIGATION BANK TABLE		
WETLAND #	BANK TYPE	ACRES
5	SHALLOW MARSH (SM)	.003
6	SHALLOW MARSH (SM)	.003
7	SHALLOW MARSH (SM)	.003
8	RIPARIAN WETLAND (WOODED) FLOODPLAIN (RPF)	.009

PI STA = 35+62.65
Y = 129872.803
X = 452213.934
DELTA = 55°53'40" RT
D = 2°30'02"
T = 1215.62'
L = 2235.30'
R = 2291.34'
PC STA = 23+47.03
PT STA = 45+82.33
SE = 4.6%

BRIGHTSPEED - COMMUNICATION

STEEL PLATE BEAM GUARD
SEE CONSTRUCTION DETAILS

ALLIANT ENERGY - COMMUNICATION

EXISTING R/W

TLE

R/W

SI

CONCRETE APPROACH SLABS

BEGIN CONSTRUCTION
STA 32+67
MATCH EXISTING
SAW CUT REQ'D

STH 11

32+00

33+00

34+00

15+00 "JS"

35+00

36+00

37+00

38+00

39+00

15

B-33-137

CAUTION

SCENIC RIVERS ENERGY COOPERATIVE - ELECTRIC

BRIGHTSPEED - COMMUNICATION

EXISTING R/W

END PROJECT
STA 38+27
MATCH EXISTING
SAW CUT REQ'D

STEEL PLATE BEAM GUARD
SEE CONSTRUCTION DETAILS

9-INCH CONCRETE PAVEMENT

R/W

TLE

SI

EXISTING R/W

WE ENERGIES - GAS

DROP INLET INCLUDES
1 - 2X2-FT INLET
1 - TYPE V INLET COVER
1 - 12" CORRUGATED POLYETHYLENE OR
POLYPROPYLENE PIPE
1 - APRON ENDWALL FOR CULVERT PIPE STEEL 12-INCH

SHULLSBURG BRANCH

SHULLSBURG UTILITY - ELECTRIC

STEEL PLATE BEAM GUARD
SEE CONSTRUCTION DETAILS

EXISTING R/W

ASPHALTIC FLUME SEE
EROSION CONTROL SHEETS
FOR ADDITIONAL DETAILS

PI STA = 13+98.11 "JS"
Y = 129483.622
X = 452355.618
DELTA = 16°23'18" LT
D = 17°12'21"
T = 47.95'
L = 95.25'
R = 333.00'
PC STA = 13+50.16 "JS"
PT STA = 14+45.41 "JS"

STA 13+50 "JS"
MATCH EXISTING
SAW CUT REQ'D

14+00 "JS"

13+00 "JS"

JUDGEMENT ST / CTH U

BRIGHTSPEED - COMMUNICATION

WE ENERGIES - GAS

NOTE:
SEE SDD 8D3 FOR DETAILS ON CONSTRUCTING DROP INLET AT STRUCTURE

SEE SDD 13B2 FOR DETAILS ON CONSTRUCTING STRUCTURAL APPROACH SLABS

SEE STRUCTURE PLANS FOR DETAILS ON CONSTRUCTION OF STRUCTURE B-33-137

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PLAN DETAILS B-33-137	SHEET 17	E

2

2

LEGEND

- EROSION MAT
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- SHEET PILING
- TURBIDITY BARRIER
- SILT SCREEN
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- WETLANDS
- SURFACE WATER FLOW

CONCRETE SURFACE DRAIN NOTES: FINAL PLACEMENT OF CONCRETE SURFACE DRAIN MUST MAINTAIN MINIMUM POST SEPARATION DISTANCE IN STANDARD DETAIL DRAWING 8D2

N

BRIGHTSPEED - COMMUNICATION
PERPENDICULAR CONCRETE SURFACE DRAIN 28' LONG
EROSION MAT URBAN CLASS I TYPE B
HEAVY RIPRAP SEE STRUCTURE PLAN B-33-136 FOR DIMENSIONS
EROSION MAT URBAN CLASS I TYPE B
EXISTING R/W
EXISTING R/W
MEDIUM RIPRAP 6'x8'
EROSION MAT URBAN CLASS I TYPE B
SI
ALLIANT ENERGY - COMMUNICATION
JOHNSON RD
POST
STH 11
STA 14+05.23 -19.67' L
STA 14+21.24 19.67' R
15
B-33-136
EROSION MAT URBAN CLASS I TYPE B
SI
SI
EROSION MAT URBAN CLASS I TYPE B
MEDIUM RIPRAP 6'x8'
PERPENDICULAR CONCRETE SURFACE DRAIN 26' LONG
EROSION MAT URBAN CLASS I TYPE B
SHULTSBURG BRANCH
SI
EROSION MAT URBAN CLASS I TYPE B
ATC MANAGEMENT, INC
ALLIANT ENERGY - ELECTRIC
TLE
EXISTING R/W

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	EROSION CONTROL: B-33-136	SHEET 18	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 7/15/2024 11:20 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EROSION MAT
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- SHEET PILING
- TURBIDITY BARRIER
- SILT SCREEN
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- WETLANDS
- SURFACE WATER FLOW

N

EXISTING R/W

BRIGHT SPEED - COMMUNICATION

PERPENDICULAR CONCRETE SURFACE DRAIN 26' LONG

EROSION MAT URBAN CLASS I TYPE B

MEDIUM RIPRAP 6'x8'

HEAVY RIPRAP SEE STRUCTURE PLAN B-33-136 FOR DIMENSIONS

EXISTING R/W

JOHNSON RD

POST

ALLIANT ENERGY - COMMUNICATION

902 CP

STH 11

STA 14+05.23 -19.67' L

B-33-136

15

STA 14+21.24 19.67' R

STA 17+80 20.00' R

EROSION MAT URBAN CLASS I TYPE B

PERPENDICULAR CONCRETE SURFACE DRAIN 24' LONG

MEDIUM RIPRAP 6'x8'

ATC MANAGEMENT, INC

ALLIANT ENERGY - ELECTRIC

EROSION MAT URBAN CLASS I TYPE B

SHULSBURG BRANCH

GUY

POST

EROSION MAT URBAN CLASS I TYPE B

MEDIUM RIPRAP 10'x12'

TLE

ANGLED ASPHALTIC FLUME 39' LONG

EXISTING R/W

CONCRETE SURFACE DRAIN NOTES: FINAL PLACEMENT OF CONCRETE SURFACE DRAIN MUST MAINTAIN MINIMUM POST SEPARATION DISTANCE IN STANDARD DETAIL DRAWING 8D2

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	EROSION CONTROL: B-33-136	SHEET 19	E

2

2

LEGEND

- EROSION MAT
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- SHEET PILING
- TURBIDITY BARRIER
- SILT SCREEN
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- WETLANDS
- SURFACE WATER FLOW

N

SCENIC RIVERS ENERGY COOPERATIVE - ELECTRIC

WE ENERGIES - GAS

BRIGHTSPEED - COMMUNICATION

ALLIANT ENERGY - COMMUNICATION

EXTRA HEAVY RIPRAP SEE STRUCTURE PLAN B-33-137 FOR DIMENSIONS

EROSION MAT CLASS II TYPE C

TLE

R/W

SI

EXISTING R/W

EROSION MAT URBAN CLASS I TYPE B

B-33-137

INLET PROTECTION TYPE D

STH 11

STA 32+64
19.50' R

JUDGEMENT ST/CTH U

SHULLSBURG BRANCH

MEDIUM RIPRAP 10'x12'

ANGLED ASPHALTIC FLUME 38' LONG

MEDIUM RIPRAP 7'x16'

MEDIUM RIPRAP 6'x8'

SHULLSBURG UTILITY - ELECTRIC

INLET PROTECTION TYPE C

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	EROSION CONTROL: B-33-137	SHEET 20	E

2

2

BRIGHTSPEED - COMMUNICATION

ALLIANT ENERGY - COMMUNICATION

APRON ENDWALLS FOR UNDERDRAIN
REINFORCED CONCRETE 4-INCH
STA 11+70 LT

DAYLIGHT EXISTING 4-INCH
PERFORATED PIPE UNDERDRAIN
WITH PIPE UNDERDRAIN 4-INCH

SIGN

SIGN

STA 11+70
-17.10' LT

STH 11

11+00

12+00

13+00

STA 12+25
16.78' RT

DAYLIGHT EXISTING 4-INCH
PERFORATED PIPE UNDERDRAIN
WITH PIPE UNDERDRAIN 4-INCH

APRON ENDWALLS FOR UNDERDRAIN
REINFORCED CONCRETE 4-INCH
STA 12+25 RT

ATC MANAGEMENT, INC
ALLIANT ENERGY - ELECTRIC

NOTE: CONNECTION TO EXISTING PIPE UNDERDRAIN AND 90 ELBOWS FOR DAYLIGHTING UNDERDRAIN ARE INCIDENTAL TO CONSTRUCTION OF 4-INCH PERFORATED PIPE UNDERDRAIN ITEM

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PIPE UNDERDRAIN	SHEET 21	E

2

2

BRIGHTSPEED - COMMUNICATION

ALLIANT ENERGY - ELECTRIC

APRON ENDWALLS FOR UNDERDRAIN
REINFORCED CONCRETE 4-INCH
STA 15+79 LT

STA 15+93.15
-17.16' LT

DAYLIGHT EXISTING 4-INCH
PERFORATED PIPE UNDERDRAIN
WITH PIPE UNDERDRAIN 4-INCH

STH 11

16+00

17+00

18+00

STA 17+85
16.82' RT

DAYLIGHT EXISTING 4-INCH
PERFORATED PIPE UNDERDRAIN
WITH PIPE UNDERDRAIN 4-INCH

APRON ENDWALLS FOR UNDERDRAIN
REINFORCED CONCRETE 4-INCH
STA 17+85 RT

ATC MANAGEMENT, INC
ALLIANT ENERGY - ELECTRIC

NOTE: CONNECTION TO EXISTING PIPE
UNDERDRAIN AND 90 ELBOWS FOR
DAYLIGHTING UNDERDRAIN ARE INCIDENTAL
TO CONSTRUCTION OF 4-INCH PERFORATED
PIPE UNDERDRAIN ITEM

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PIPE UNDERDRAIN	SHEET 22	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\022601-PU.DWG
LAYOUT NAME - 02

PLOT DATE : 7/15/2024 11:08 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

BRIGHTSPEED - COMMUNICATION

STA 13'JS'+48.59
-17.00' LT

STORM SEWER INLET TAP
STA 13+49'JS' LT

STA 14'JS'+00
-17.00' LT

13+00 'JS'

JUDGEMENT STREET/ CTH U

14+00 'JS'

15+00 'JS'

34+00 STH 11

STORM SEWER INLET TAP
STA 13+51'JS' RT

STA 14'JS'+00
17.00' RT

WE ENERGIES - GAS

STA 13'JS'+50.77
17.00' RT

SHULLSBURG UTILITY - ELECTRIC

35+00

N

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PIPE UNDERDRAIN	SHEET 23	E

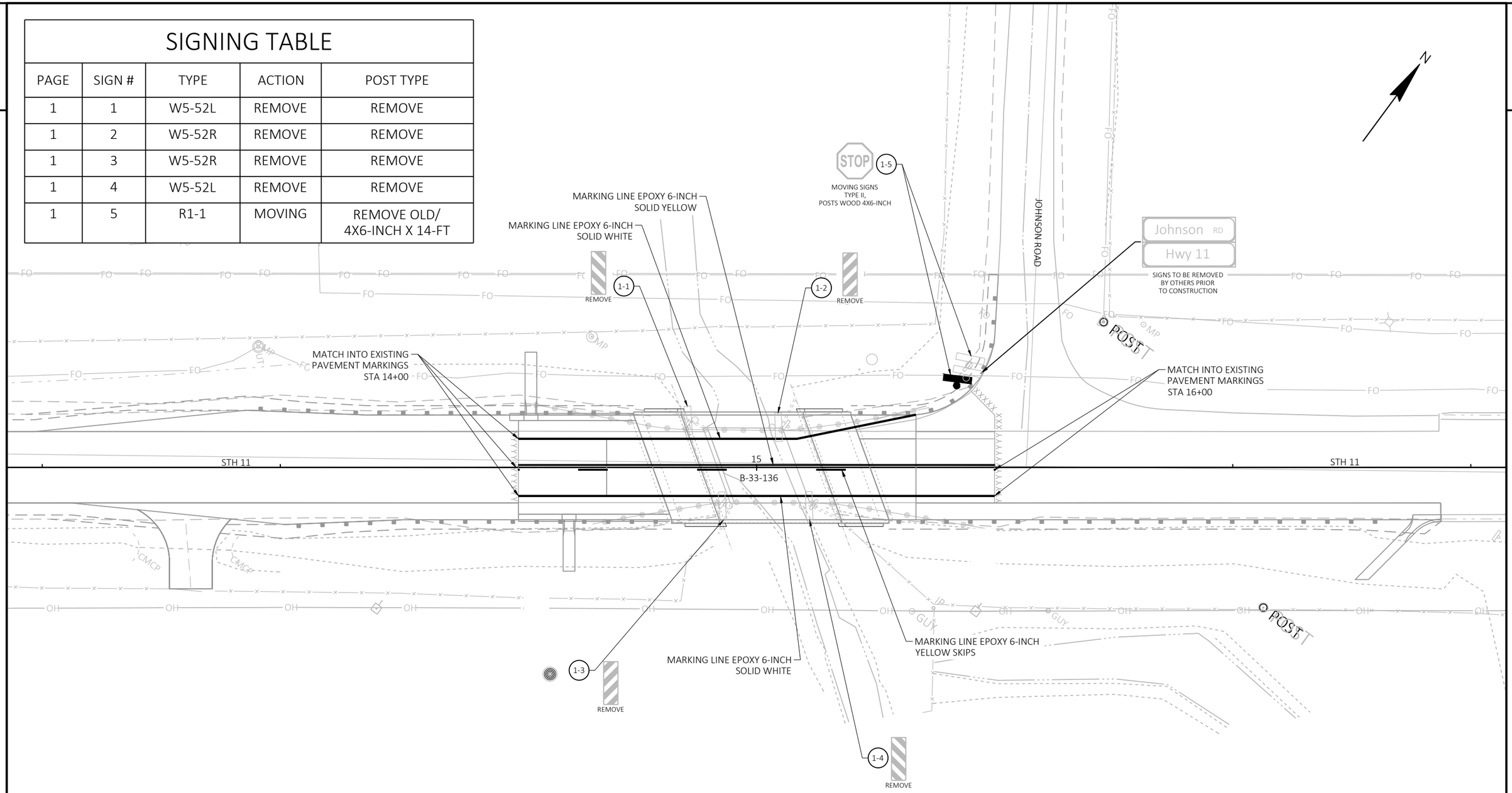
FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\022601-PU.DWG
LAYOUT NAME - 03

PLOT DATE : 7/15/2024 11:08 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:20 FT

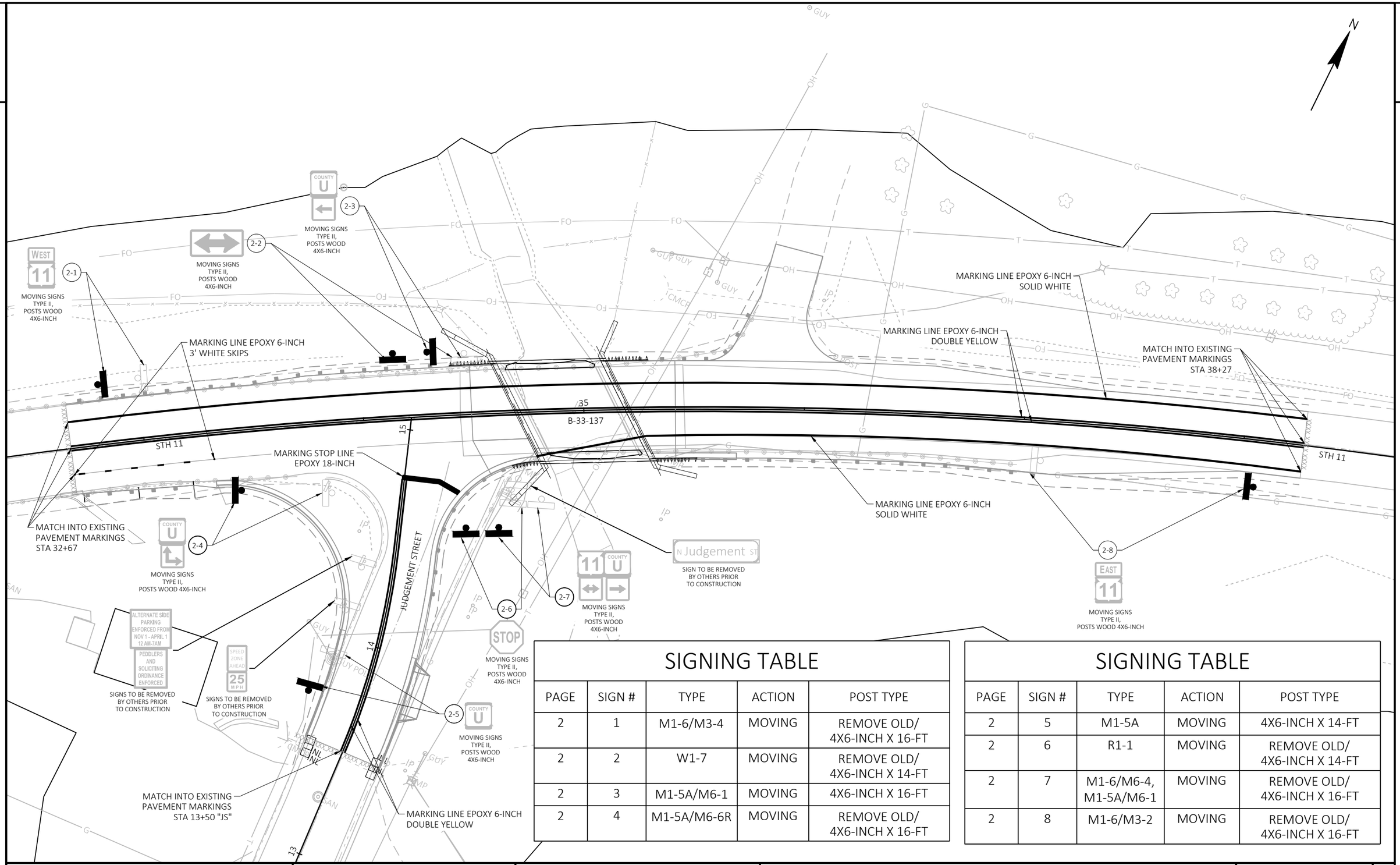
WISDOT/CADDS SHEET 42

SIGNING TABLE

PAGE	SIGN #	TYPE	ACTION	POST TYPE
1	1	W5-52L	REMOVE	REMOVE
1	2	W5-52R	REMOVE	REMOVE
1	3	W5-52R	REMOVE	REMOVE
1	4	W5-52L	REMOVE	REMOVE
1	5	R1-1	MOVING	REMOVE OLD/ 4X6-INCH X 14-FT



2



SIGNING TABLE

PAGE	SIGN #	TYPE	ACTION	POST TYPE
2	1	M1-6/M3-4	MOVING	REMOVE OLD/ 4X6-INCH X 16-FT
2	2	W1-7	MOVING	REMOVE OLD/ 4X6-INCH X 14-FT
2	3	M1-5A/M6-1	MOVING	4X6-INCH X 16-FT
2	4	M1-5A/M6-6R	MOVING	REMOVE OLD/ 4X6-INCH X 16-FT

SIGNING TABLE

PAGE	SIGN #	TYPE	ACTION	POST TYPE
2	5	M1-5A	MOVING	4X6-INCH X 14-FT
2	6	R1-1	MOVING	REMOVE OLD/ 4X6-INCH X 14-FT
2	7	M1-6/M6-4, M1-5A/M6-1	MOVING	REMOVE OLD/ 4X6-INCH X 16-FT
2	8	M1-6/M3-2	MOVING	REMOVE OLD/ 4X6-INCH X 16-FT

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PERMANENT SIGNING AND PAVEMENT MARKINGS	SHEET 25	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - B-33-137 East
PLOT DATE : 7/15/2024 11:17 PM
PLOT BY : WELLNITZ, JOSHUA M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

NOTE: PLACE ROAD CLOSED AHEAD SIGN AT JOHNSON RD AND PALFREY RD INTERSECTION

JOHNSON RD

Shullsburg Br.

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED 1000 FT W20-3C

ROAD CLOSED 500 FT W20-3D

BIG CUT RD

Shullsburg Br.

N

1000'

11

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

R11-3B 60" X 30"
BRIDGE OUT
1/4 MILES AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE

R11-2B 48" X 30"
BRIDGE OUT
TYPE III BARRICADE

R11-2B 48" X 30"
BRIDGE OUT
TYPE III BARRICADE

PCMS

500'

500'

500'

500'

PCMS

0

COPELAND RD

MINE RD

PORTABLE CHANGEABLE MESSAGE BOARD MESSAGES

FRAME 1	FRAME 2
HWY 11 TO CLOSE	XXXXDAY XX/XX

NOTE: PLACE PCMS SIGNS AT BOTH ENDS OF THE BRIDGE TO BE CLOSED 7 DAYS PRIOR TO EACH STAGE BEGINING

TRAFFIC CONTROL LEGEND

- WORK ZONE
- SIGN ON PERMANENT SUPPORT (EXISTING/ PROPOSED)
- TYPE III BARRICADE (WITH/WITHOUT SIGN)
- PORTABLE CHANGEABLE MESSAGE SIGN — PCMS

NOTE: FOLLOW SDD 15C2 FOR MAINLINE CLOSURE DETAILS AT BRIDGE STRUCTURES AND ROADWAYS

SIGN SIZE GUIDE	
TYPE	SIZE
W20-3X	48IN X 48IN

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	TRAFFIC CONTROL - STAGE 1	SHEET 26	E

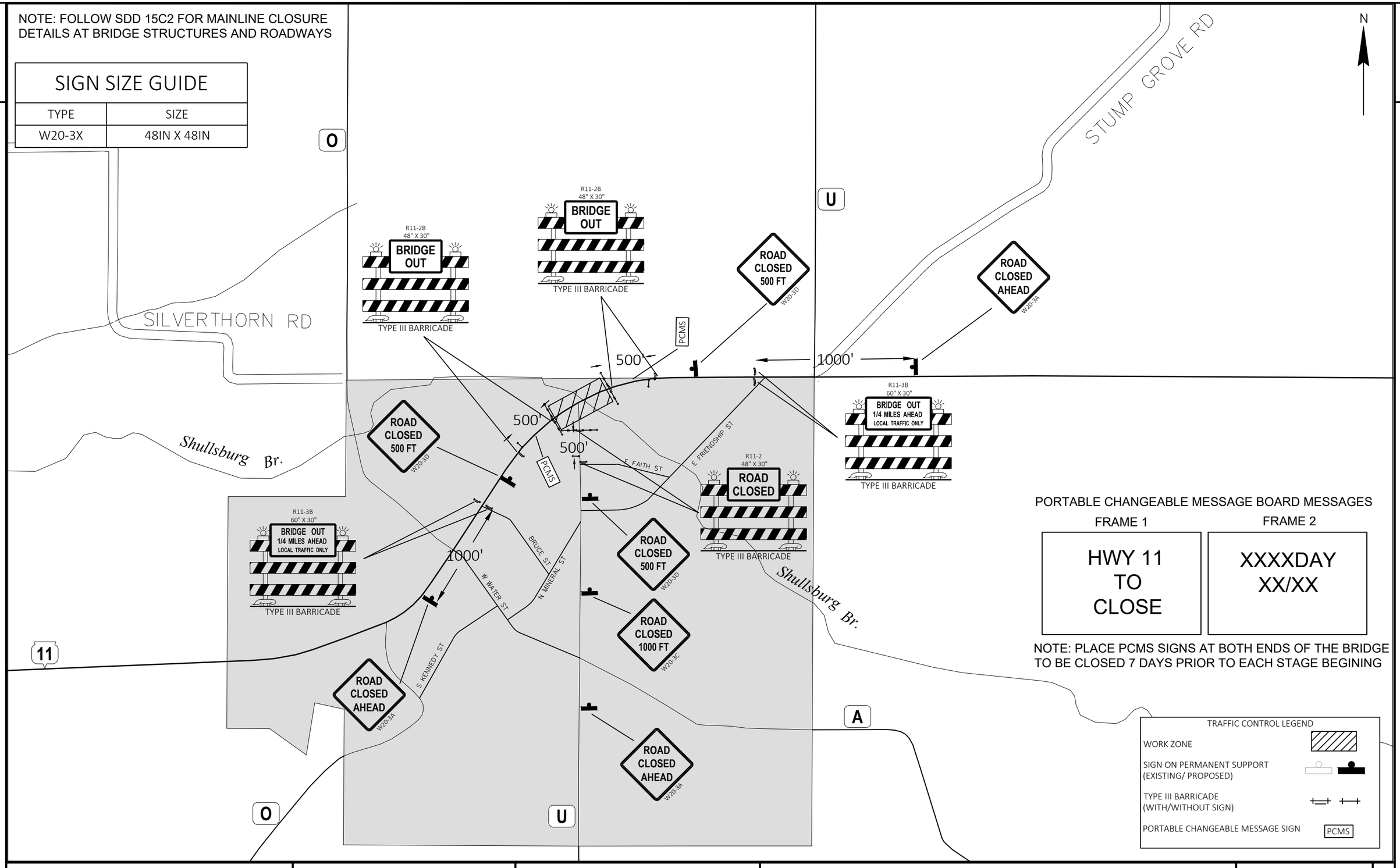
FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - Stage 1

PLOT DATE : 4/24/2024 1:12 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

NOTE: FOLLOW SDD 15C2 FOR MAINLINE CLOSURE DETAILS AT BRIDGE STRUCTURES AND ROADWAYS

SIGN SIZE GUIDE	
TYPE	SIZE
W20-3X	48IN X 48IN



PORTABLE CHANGEABLE MESSAGE BOARD MESSAGES

FRAME 1	FRAME 2
HWY 11 TO CLOSE	XXXXDAY XX/XX

NOTE: PLACE PCMS SIGNS AT BOTH ENDS OF THE BRIDGE TO BE CLOSED 7 DAYS PRIOR TO EACH STAGE BEGINING

TRAFFIC CONTROL LEGEND

- WORK ZONE
- SIGN ON PERMANENT SUPPORT (EXISTING/ PROPOSED)
- TYPE III BARRICADE (WITH/WITHOUT SIGN)
- PORTABLE CHANGEABLE MESSAGE SIGN — PCMS

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	TRAFFIC CONTROL - STAGE 2	SHEET 27	E

2

GENERAL NOTES: TRAFFIC CONTROL AND DETOURS

SEE SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WisMUTCD. ADJUSTMENTS TO FIT FIELD CONDITIONS SHALL BE APPROVED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL PLAN, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

ALL "W" AND "WO" SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

ALL M05 AND M06 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

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

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

ALL DETOUR SIGNS IN THE PLAN SHALL BE UP FOR STAGE 1 AND STAGE 2 UNLESS OTHERWISE NOTED IN THE PLAN.

TRAFFIC CONTROL PLANS AT KEY INTERSECTIONS ARE DETAILED ON THE FOLLOWING 4 DETOUR PLAN SHEETS. TRAFFIC CONTROL FOR STRUCTURES B-33-136 AND B-33-137 ARE DETAILED ON TRAFFIC CONTROL SHEETS STAGE 1 AND STAGE 2 RESPECTIVELY.

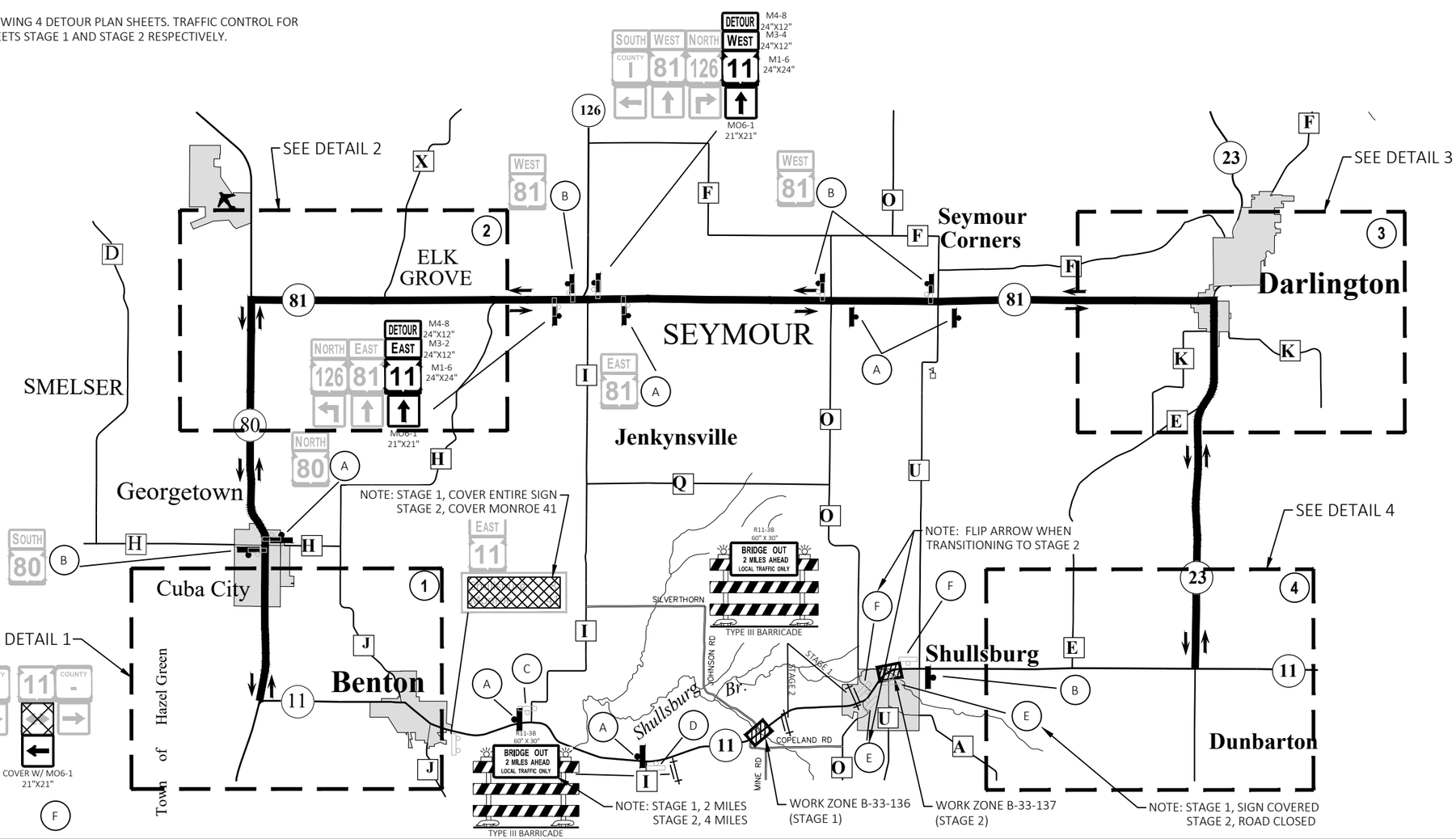
DETOUR PLAN LEGEND

- WORK ZONE
- DETOUR ROUTE/ TRAFFIC FLOW
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT (EXISTING/ PROPOSED)
- SIGN ON DOUBLE PERMANENT SUPPORT (EXISTING/ PROPOSED)
- TYPE III BARRICADE (WITH/WITHOUT SIGN)
- TRAFFIC CONTROL COVERING SIGNS TYPE I, OR TYPE II (BLANK BLACK PANEL TYPICAL FOR ALL COVERING)

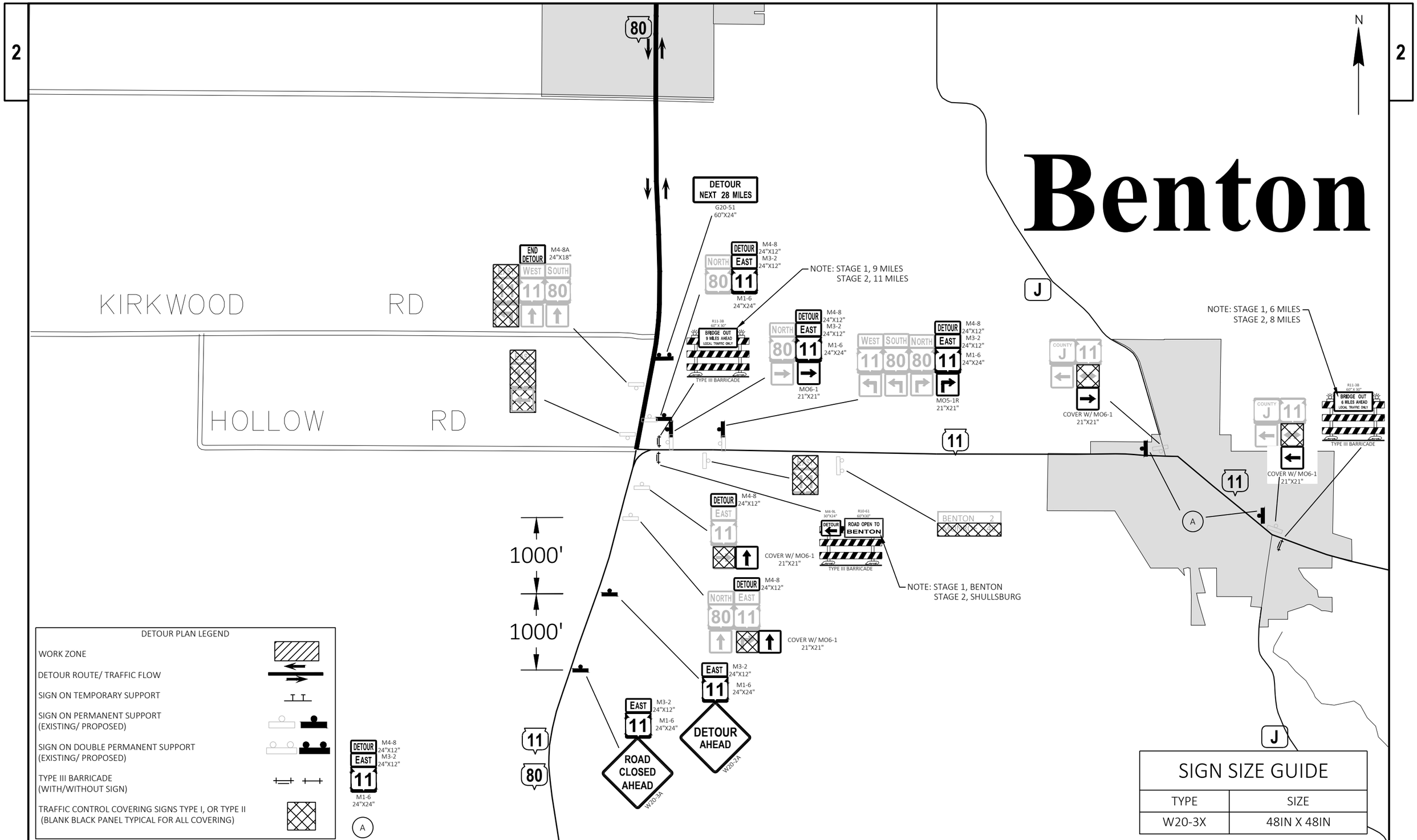
PORTABLE CHANGEABLE MESSAGE BOARD MESSAGES

FRAME 1	FRAME 2
HWY 11 TO CLOSE	XXXXDAY XX/XX

NOTE: PLACE PCMS SIGNS AT THE ENDS OF THE BRIDGE TO BE CLOSED 7 DAYS BEFORE EACH STAGE BEGINS



PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	DETOUR PLAN	SHEET 28	E

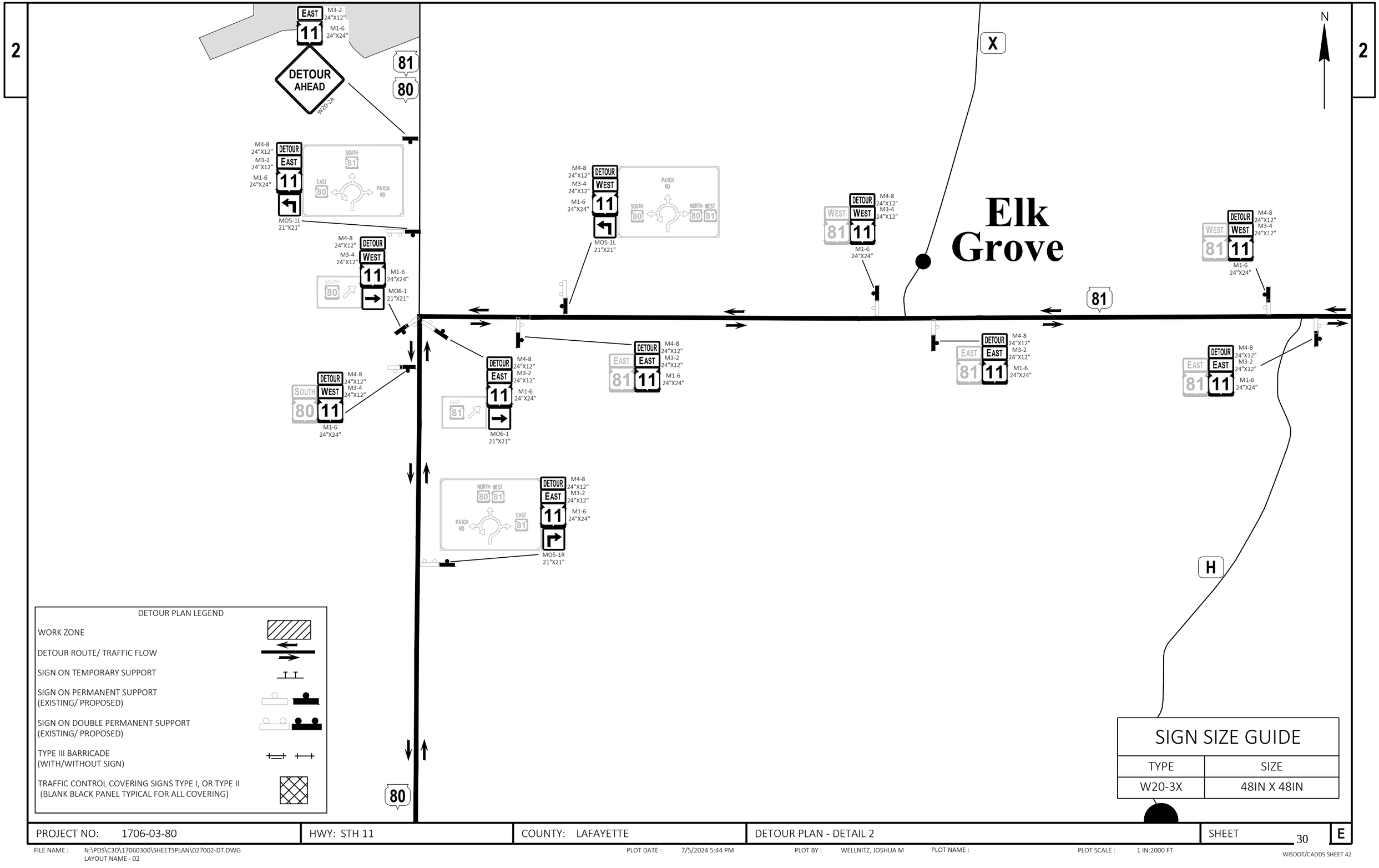


PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL 1	SHEET 29 E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 01

PLOT DATE : 7/5/2024 5:44 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42

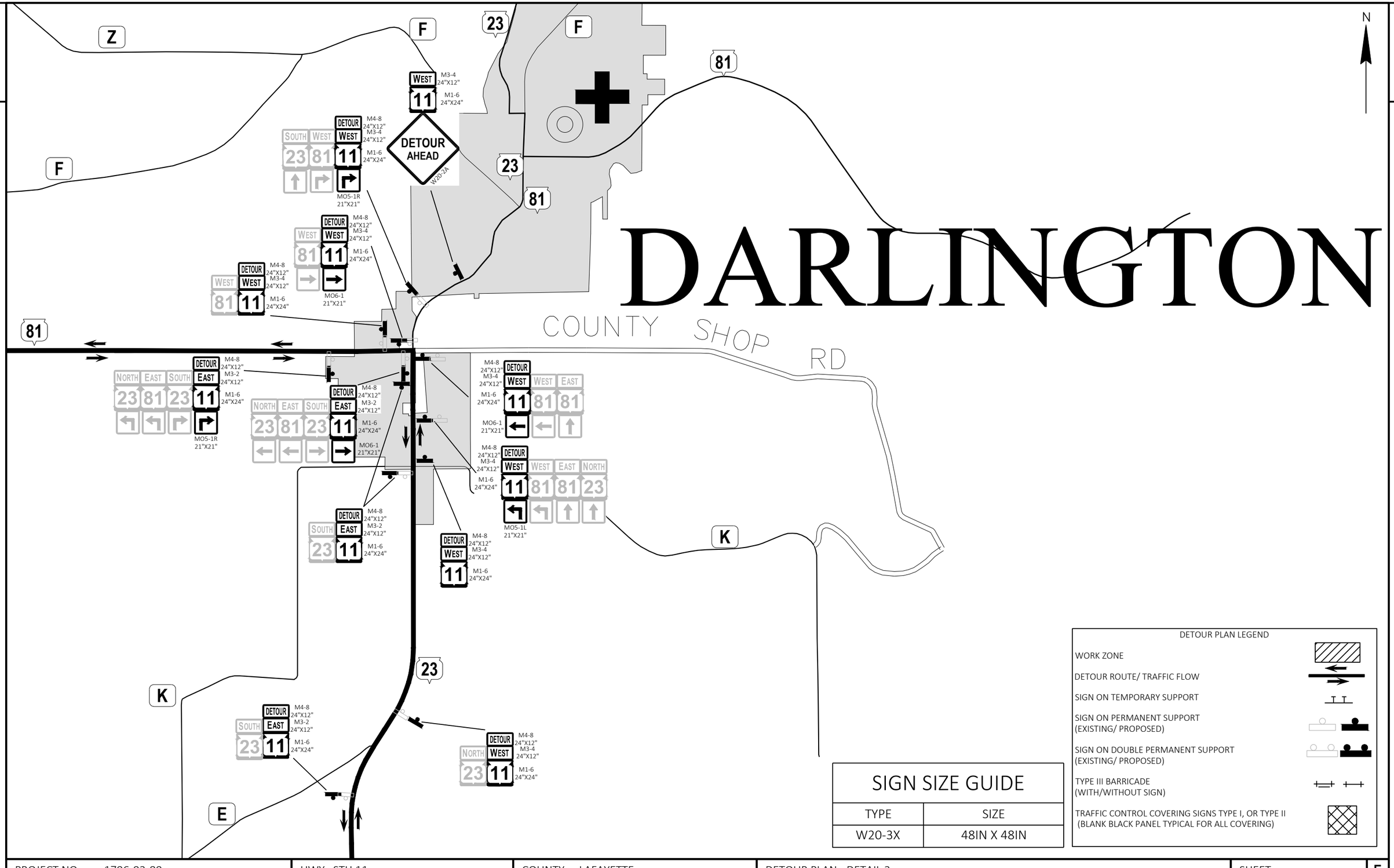


PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL 2	SHEET 30	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 02

PLOT DATE : 7/5/2024 5:44 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42



SIGN SIZE GUIDE

TYPE	SIZE
W20-3X	48IN X 48IN

DETOUR PLAN LEGEND

- WORK ZONE
- DETOUR ROUTE/ TRAFFIC FLOW
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT (EXISTING/ PROPOSED)
- SIGN ON DOUBLE PERMANENT SUPPORT (EXISTING/ PROPOSED)
- TYPE III BARRICADE (WITH/WITHOUT SIGN)
- TRAFFIC CONTROL COVERING SIGNS TYPE I, OR TYPE II (BLANK BLACK PANEL TYPICAL FOR ALL COVERING)

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL 3	SHEET 31	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 03
PLOT DATE : 7/5/2024 5:44 PM
PLOT BY : WELLNITZ, JOSHUA M
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT

2

E

P

N

APPLE RD

NOTE: STAGE 1, 5 MILES
STAGE 2, 3 MILES

R11-3B
60" X 30"
BRIDGE OUT
5 MILES AHEAD
LOCAL TRAFFIC ONLY

TYPE III BARRICADE

COVER W/ MO6-1
21"X21"

NOTE: ONLY COVER
FOR STAGE 2

END DETOUR M4-8A 24"X18"
EAST WEST 11

GRATIOT
MONROE

EAST SOUTH WEST
COUNTY P 11

NOTE: ONLY USE
FOR STAGE 1

NOTE: STAGE 1, COVER DUBUQUE 33
STAGE 2, COVER ENTIRE SIGN

SHULLSBURG 5

M4-9R 30"X24"
DETOUR
ROAD OPEN TO SHULLSBURG
R10-61 60"X30"

TYPE III BARRICADE

23

DETOUR NEXT 28 MILES
G20-51 60"X24"

DETOUR M4-8 24"X12"
NORTH WEST M3-4 24"X12"
23 11 M1-6 24"X24"

DETOUR M4-8 24"X12"
SOUTH NORTH WEST M3-4 24"X12"
COUNTY P 23 11 M1-6 24"X24"

MO6-1
21"X21"

DETOUR M4-8 24"X12"
WEST NORTH
11 23

COVER W/ MO5-1R
21"X21"

DETOUR AHEAD
W20-2A

ROAD CLOSED AHEAD
W20-3A

11

1000' 1000'

DETOUR M4-8 24"X12"
EAST WEST M3-4 24"X12"
11 11 M1-6 24"X24"

DETOUR M4-8 24"X12"
M3-4 24"X12"
WEST NORTH EAST
M1-6 24"X24" 11 23 11

MO5-1L
21"X21"

DETOUR M4-8 24"X12"
M3-4 24"X12"
WEST NORTH SOUTH
M1-6 24"X24" 11 23 COUNTY P

MO6-1
21"X21"

R11-3B
60" X 30"
BRIDGE OUT
7 MILES AHEAD
LOCAL TRAFFIC ONLY

TYPE III BARRICADE

NOTE: STAGE 1, 7 MILES
STAGE 2, 5 MILES

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
11 11 M1-6 24"X24"

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
EAST M3-2 24"X12"
11 23 11 M1-6 24"X24"

MO6-1
21"X21"

COVER W/ MO6-1
21"X21"

WEST M3-4 24"X12"
11 M1-6 24"X24"

DETOUR AHEAD
W20-2A

SIGN SIZE GUIDE

TYPE	SIZE
W20-3X	48IN X 48IN

DETOUR PLAN LEGEND

- WORK ZONE
- DETOUR ROUTE/ TRAFFIC FLOW
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT (EXISTING/ PROPOSED)
- SIGN ON DOUBLE PERMANENT SUPPORT (EXISTING/ PROPOSED)
- TYPE III BARRICADE (WITH/WITHOUT SIGN)
- TRAFFIC CONTROL COVERING SIGNS TYPE I, OR TYPE II (BLANK BLACK PANEL TYPICAL FOR ALL COVERING)

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL 4	SHEET 32	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 04

PLOT DATE : 7/5/2024 5:44 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42

Estimate Of Quantities

1706-03-80

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	4.000	4.000
0004	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-33-826	EACH	1.000	1.000
0008	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 02. B-33-825	EACH	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	823.000	823.000
0012	204.0150	Removing Curb & Gutter	LF	282.000	282.000
0014	204.0165	Removing Guardrail	LF	940.000	940.000
0016	205.0100	Excavation Common	CY	4,452.000	4,452.000
0018	206.1001	Excavation for Structures Bridges (structure) 01. B-33-137	EACH	1.000	1.000
0020	206.1001	Excavation for Structures Bridges (structure) 02. B-33-136	EACH	1.000	1.000
0022	206.5001	Cofferdams (structure) 01. B-33-137	EACH	1.000	1.000
0024	210.1500	Backfill Structure Type A	TON	5,735.000	5,735.000
0026	213.0100	Finishing Roadway (project) 01. 1706-03-80	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	140.000	140.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,002.000	4,002.000
0032	310.0110	Base Aggregate Open-Graded	TON	16.000	16.000
0034	312.0110	Select Crushed Material	TON	5,723.000	5,723.000
0036	415.0090	Concrete Pavement 9-Inch	SY	435.000	435.000
0038	415.0410	Concrete Pavement Approach Slab	SY	213.000	213.000
0040	416.0620	Drilled Dowel Bars	EACH	48.000	48.000
0042	450.4000	HMA Cold Weather Paving	TON	920.000	920.000
0044	455.0605	Tack Coat	GAL	275.000	275.000
0046	460.2000	Incentive Density HMA Pavement	DOL	650.000	650.000
0048	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,010.000	1,010.000
0050	465.0315	Asphaltic Flumes	SY	38.000	38.000
0052	502.0100	Concrete Masonry Bridges	CY	1,250.000	1,250.000
0054	502.1100	Concrete Masonry Seal	CY	1,374.000	1,374.000
0056	502.3200	Protective Surface Treatment	SY	746.000	746.000
0058	502.3210	Pigmented Surface Sealer	SY	143.000	143.000
0060	505.0400	Bar Steel Reinforcement HS Structures	LB	34,010.000	34,010.000
0062	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	149,530.000	149,530.000
0064	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	420.000	420.000
0066	516.0500	Rubberized Membrane Waterproofing	SY	67.000	67.000
0068	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	2.000	2.000
0070	520.3318	Culvert Pipe Class III-A 18-Inch	LF	42.000	42.000
0072	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	1.000	1.000
0074	530.0112	Culvert Pipe Corrugated Polyethylene 12-Inch	LF	30.000	30.000
0076	550.0020	Pre-Boring Rock or Consolidated Materials	LF	360.000	360.000
0078	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	400.000	400.000
0080	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	103.000	103.000
0082	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	101.000	101.000
0084	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	122.000	122.000
0086	601.0590	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	LF	140.000	140.000
0088	602.0810	Concrete Driveway 6-Inch	SY	20.000	20.000
0090	602.3010	Concrete Surface Drains	CY	6.000	6.000
0092	606.0200	Riprap Medium	CY	21.000	21.000
0094	606.0300	Riprap Heavy	CY	235.000	235.000
0096	606.0400	Riprap Extra-Heavy	CY	398.000	398.000
0098	611.0654	Inlet Covers Type V	EACH	1.000	1.000

1706-03-80

Line	Item	Item Description	Unit	Total	Qty
0100	611.3220	Inlets 2x2-FT	EACH	1.000	1.000
0102	612.0104	Pipe Underdrain 4-Inch	LF	124.000	124.000
0104	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	479.000	479.000
0106	612.0804	Apron Endwalls for Underdrain Reinforced Concrete 4-Inch	EACH	4.000	4.000
0108	614.0115	Anchorages for Steel Plate Beam Guard Type 2	EACH	1.000	1.000
0110	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	8.000	8.000
0112	614.0200	Steel Thrie Beam Structure Approach	LF	84.000	84.000
0114	614.0305	Steel Plate Beam Guard Class A	LF	382.000	382.000
0116	614.0345	Steel Plate Beam Guard Short Radius	LF	100.000	100.000
0118	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000
0120	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	2.000	2.000
0122	614.0400	Adjusting Steel Plate Beam Guard	LF	50.000	50.000
0124	614.2300	MGS Guardrail 3	LF	275.000	275.000
0126	614.2500	MGS Thrie Beam Transition	LF	117.000	117.000
0128	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
0130	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1706-03-80	EACH	1.000	1.000
0132	619.1000	Mobilization	EACH	1.000	1.000
0134	624.0100	Water	MGAL	102.000	102.000
0136	625.0500	Salvaged Topsoil	SY	4,400.000	4,400.000
0138	628.1504	Silt Fence	LF	2,060.000	2,060.000
0140	628.1520	Silt Fence Maintenance	LF	2,060.000	2,060.000
0142	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0144	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0146	628.2008	Erosion Mat Urban Class I Type B	SY	3,930.000	3,930.000
0148	628.2027	Erosion Mat Class II Type C	SY	270.000	270.000
0150	628.6005	Turbidity Barriers	SY	150.000	150.000
0152	628.7504	Temporary Ditch Checks	LF	8.000	8.000
0154	628.7555	Culvert Pipe Checks	EACH	9.000	9.000
0156	629.0210	Fertilizer Type B	CWT	5.000	5.000
0158	630.0130	Seeding Mixture No. 30	LB	79.000	79.000
0160	630.0500	Seed Water	MGAL	99.000	99.000
0162	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0164	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0166	638.2102	Moving Signs Type II	EACH	12.000	12.000
0168	638.2602	Removing Signs Type II	EACH	4.000	4.000
0170	638.3000	Removing Small Sign Supports	EACH	11.000	11.000
0172	642.5001	Field Office Type B	EACH	1.000	1.000
0174	643.0300	Traffic Control Drums	DAY	140.000	140.000
0176	643.0420	Traffic Control Barricades Type III	DAY	5,142.000	5,142.000
0178	643.0705	Traffic Control Warning Lights Type A	DAY	7,724.000	7,724.000
0180	643.0900	Traffic Control Signs	DAY	35,749.000	35,749.000
0182	643.0920	Traffic Control Covering Signs Type II	EACH	12.000	12.000
0184	643.1000	Traffic Control Signs Fixed Message	SF	37.500	37.500
0186	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0188	643.5000	Traffic Control	EACH	1.000	1.000
0190	645.0111	Geotextile Type DF Schedule A	SY	1,008.000	1,008.000
0192	645.0120	Geotextile Type HR	SY	1,085.000	1,085.000
0194	646.2020	Marking Line Epoxy 6-Inch	LF	1,630.000	1,630.000
0196	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	1,310.000	1,310.000

1706-03-80

Line	Item	Item Description	Unit	Total	Qty
0198	646.6120	Marking Stop Line Epoxy 18-Inch	LF	30.000	30.000
0200	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	2,320.000	2,320.000
0202	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0204	650.4500	Construction Staking Subgrade	LF	1,211.000	1,211.000
0206	650.5000	Construction Staking Base	LF	1,046.000	1,046.000
0208	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	329.000	329.000
0210	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0212	650.6501	Construction Staking Structure Layout (structure) 01. B-33-137	EACH	1.000	1.000
0214	650.6501	Construction Staking Structure Layout (structure) 02. B-33-136	EACH	1.000	1.000
0216	650.7000	Construction Staking Concrete Pavement	LF	153.000	153.000
0218	650.9911	Construction Staking Supplemental Control (project) 01. 1706-03-80	EACH	1.000	1.000
0220	650.9920	Construction Staking Slope Stakes	LF	1,185.000	1,185.000
0222	690.0150	Sawing Asphalt	LF	124.000	124.000
0224	690.0250	Sawing Concrete	LF	65.000	65.000
0226	715.0502	Incentive Strength Concrete Structures	DOL	7,500.000	7,500.000
0228	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	195.000	195.000
0230	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. STA 15+00	EACH	1.000	1.000
0232	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 02. STA 34+90	EACH	1.000	1.000
0234	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0236	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0238	SPV.0060	Special 01. Storm Sewer Tap	EACH	2.000	2.000
0240	SPV.0060	Special 02. Temporary Barrier System Remove and Store	EACH	1.000	1.000
0242	SPV.0090	Special 01. Steel Thrie Beam Structure Approach Curved	LF	21.000	21.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	15+00	-	16+00	B-33-136	1	1
0010	33+00	-	36+00	B-33-137	3	3
				TOTAL 0010	**4**	**4**

REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	* 203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF
0010	12+60	-	12+60	STH 11 RT	1	-	-	-
0010	14+23	-	15+89	STH 11	-	555	-	340
0010	32+67	-	38+27	STH 11	-	251	-	600
0010	13+50 "JS"	-	14+95 "JS"	JUDGEMENT ST	-	17	282	-
				TOTAL 0010	**1**	**823**	**282**	**940**

* 18-INCH STEEEL CORRUGATED PIPE

3

EARTHWORK

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5) FACTOR 1.33	MASS ORDINATE +/- (6)	WASTE (7)
DIVISION 1									
11-B_33_136	11+65.00/18+13.69		1,480	144	1,336	744	990	346	346
JOHNSON RD	2+19.28/2+75.00		8	0	8	0	0	8	8
DIVISION 1 SUBTOTAL			1,488	144	1,344	744	990	354	354
DIVISION 2									
11-B_33_137	32+66.76/38+27.37		2,379	242	2,137	917	1,220	917	917
JUDGEMENT ST	13+50.00/14+93.53		585	78	507	56	74	433	433
DIVISION 2 SUBTOTAL			2,964	320	2,644	973	1,294	1,350	1,350
GRAND TOTAL			4,452	464	3,988	1,717	2,284	1,704	1,704

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) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.33
DEPENDING ON SELECTIONS: **EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR**
(6) 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.
(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

3

AGGREGATES

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	* 312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL	REMARKS
0010	11+65	-	14+00	STH 11 LT SHLD	-	210	190	6	
0010	11+80	-	14+00	STH 11 RT SHLD	-	200	180	6	
0010	11+65	-	14+60	STH 11	65	-	-	1	
0010	11+65	-	17+87	STH 11	-	-	10	1	FRENCH DRAINS
0010	12+50	-	12+70	DRIVEWAY RT	-	30	-	1	
0010	14+00	-	14+60	STH 11	-	110	230	5	
0010	15+40	-	16+00	STH 11	-	150	230	6	
0010	16+00	-	17+87	STH 11 RT SHLD	30	210	120	5	
0010	32+67	-	34+69	STH 11	40	890	850	27	
0010	32+67	-	38+27	STH 11	-	-	10	1	FRENCH DRAINS
0010	35+20	-	38+27	STH 11	70	1,280	1,250	39	
0010	35+80	-	36+00	DRIVEWAY LT	-	50	-	1	
0010	13+50 'JS'	-	14+86 'JS'	JUDGEMENT ST	-	550	600	17	
0010	13+75 'JS'	-	13+94 ' JS'	DRIVEWAY RT	-	10	-	1	
				TOTAL 0010	**140**	**3,690**	**3,670**	**102**	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE IN PLAN

CONCRETE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0620 DRILLED DOWEL BARS EACH	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF	601.0590 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT LF	602.0810 CONCRETE DRIVEWAY 6-INCH SY	602.3010 CONCRETE SURFACE DRAINS CY	REMARKS
0010	13+96	-	14+64	STH 11 B-33-136	195	52	24	-	-	-	105	-	-	WEST APPROACH
0010	14+05	-	14+05	19.67' LT	-	-	-	-	-	-	-	-	3	
0010	14+21		14+21	19.67' RT	-	-	-	-	-	-	-	-	3	
0010	15+40	-	16+00	STH 11 B-33-136	153	52	24	-	-	-	-	-	-	EAST APPROACH
0010	34+49	-	34+79	STH 11 B-33-137	43	54	-	-	-	-	-	-	-	WEST APPROACH
0010	35+42	-	35+87	STH 11 B-33-137	44	55	-	-	-	28	11	-	-	EAST APPROACH
0010	13+50 'JS'	-	14+93 'JS'	JUDGEMENT ST	-	-	-	103	101	94	24	20	-	
				TOTAL 0010	**435**	**213**	**48**	**103**	**101**	**122**	**140**	**20**	**6**	

3

HMA

CATEGORY	STATION	TO	STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON
0010	11+96	-	14+00	11 SHOULDERS	-	-	50
0010	15+67	-	17+87	11 SHOULDERS	-	-	40
0010	32+67	-	34+56	11 SHOULDERS + LANE	300	90	300
0010	35+42	-	38+27	11 SHOULDERS + LANE	420	125	420
0010	13+50 'JS'	-	14+86 'JS'	JUDGEMENT ST	200	60	200
				TOTAL 0010	**920**	**275**	**1,010**

ASPHALTIC FLUME

CATEGORY	STATION	LOCATION	465.0315 ASPHALTIC FLUMES SY
0010	17+80	STH 11 B-33-136 RT	20
0010	32+64	STH 11 B-33-137 RT	18
		TOTAL 0010	**38**

3

CULVERTS PIPES

CATEGORY	STATION	LOCATION	* UPSTREAM INVERT	* DOWNSTREAM INVERY	** 520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	520.3318 CULVERT PIPE CLASS III-A 18-INCH LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
0010	12+62	DRIVEWAY RT	872.87	872.58	2	42	1
				TOTAL 0010	**2**	**42**	**1**

*PIPE INVERT AT END OF PIPE FOR INFORMATION ONLY. FIELD VERIFY
**MINIMUM THICKNESS OF CORRUGATED STEEL PIPE = 0.064"

STORM SEWER PIPES

CATEGORY	STRUCTURE	TO	STRUCTURE	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT	530.0112 CULVERT PIPE CORRUGATED POLYETHYLENE 12-INCH LF
0010	1	-	2	928.12	924.42	0.1300	30
						TOTAL 0010	**30**

STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	* STATION	* OFFSET	LOCATION	** RIM	*** INVERT	**** DEPTH	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	611.0654 INLET COVERS TYPE V EACH	611.3220 INLETS 2X2-FT EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
0010	1	35+60.15	21.39' RT	STH 11	933.47	928.12	4.18	-	1	1	1
0010	2	35+60.15	49.35' RT	STH 11	-	924.42	-	1	-	-	1
							TOTAL 0010	**1**	**1**	**1**	**2**

*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION
***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.6005 TURBIDITY BARRIERS SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	* 645.0120 GEOTEXTILE TYPE HR SY
0010	11+65	-	17+87	STH 11	-	990	990	5	3	1,910	-	67	2	2	-
0010	14+05	-	14+05	STH 11 LT	3	-	-	-	-	-	-	-	-	-	10
0010	14+21	-	14+21	STH 11RT	3	-	-	-	-	-	-	-	-	-	10
0010	17+75	-	17+75	STH 11 RT	4	-	-	-	-	-	-	-	-	-	18
0010	32+67	-	38+27	STH 11	-	970	970	5	3	1,830	260	73	5	5	-
0010	32+90	-	32+90	STH 11 RT	4	-	-	-	-	-	-	-	-	-	18
0010	35+80	-	35+80	STH 11 RT	3	-	-	-	-	-	-	-	-	-	10
0010	13+50'JS'	-	13+50'JS'	JUDGEMENT LT	4	-	-	-	-	-	-	-	-	-	18
0010	11+65		38+27	UNDISTRIBUTED	-	100	100	-	-	190	10	10	1	2	-
				TOTAL 0010	**21**	**2,060**	**2,060**	**10**	**6**	**3,930**	**270**	**150**	**8**	**9**	**84**

* ADDITIONAL QUANTITY SHOWN ELSEWHERE IN PLAN

PIPE UNDERDRAIN

CATEGORY	STATION	TO	STATION	LOCATION	310.0110 BASE AGGREGATE OPEN-GRADED TON	612.0104 PIPE UNDERDRAIN 4-INCH LF	* 612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF	612.0804 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 4-INCH EACH	* 645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY	SPV.0060.01 SPECIAL (01. STORM SEWER TAP) EACH
0010	11+65	-	11+70	LT	1	21	-	1	-	-
0010	11+80	-	12+25	RT	4	55	-	1	-	-
0010	15+79	-	16+00	LT	2	31	-	1	-	-
0010	17+85	-	17+87	RT	1	17	-	1	-	-
0010	13+49 'JS'	-	14+00 'JS'	LT	4	-	48	-	26	1
10.00	13+51 'JS'	-	14+00 'JS'	RT	4	-	51	-	27	1
				TOTAL 0010	**16**	**124**	**99**	**4**	**53**	**2**

* ADDITIONAL QUANTITY SHOWN ELSEWHERE IN PLAN

BEAMGUARD

CATEGORY	STATION	TO	STATION	LOCATION	614.0115 ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2 EACH	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.0390 STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL EACH	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	SPV.0090.01 SPECIAL (01. STEEL THRIE BEAM STRUCTURE APPROACH CURVED) LF	REMARKS
0010	12+86	-	14+50	LT	-	-	-	-	-	-	-	75	39	1	-	NW B-33-136
0010	13+02	-	14+66	RT	-	-	-	-	-	-	-	75	39	1	-	SW B-33-136
0010	15+38	-	16+02	LT	-	21	-	69	-	1	-	-	-	-	-	NE B-33-136
0010	15+54	-	17+81	RT	-	-	-	-	-	-	-	125	39	1	-	SE B-33-136
0010	32+70	-	33+20	RT	-	-	-	-	1	-	25	-	-	-	-	BEGIN CONST B-33-137
0010	33+00	-	34+60	LT	-	21	175	-	-	-	25	-	-	-	-	NW B-33-137
0010	35+09	-	35+80	LT	-	21	19	31	-	1	-	-	-	-	-	NE B-33-137
0010	35+30	-	37+13	RT	-	21	113	-	1	-	-	-	-	-	-	SE B-33-137
0010	14+22 'JS'	-	14+93 'JS'	RT	1	-	75	-	-	-	-	-	-	-	21	SW B-33-137
				TOTAL 0010	**1**	**84**	**382**	**100**	**2**	**2**	**50**	**275**	**117**	**3**	**21**	

RESTORATION

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL
0010	11+65	-	17+87	STH 11 B-33-136	1,910	2	34	43
0010	32+67	-	38+27	STH 11 B-33-137	2,090	2	38	47
0010	11+65	-	38+27	UNDISTRIBUTED	400	1	7	9
				TOTAL 0010	**4,400**	**5**	**79**	**99**

PERMANENT SIGNING

CATEGORY	STATION	TO	STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
0010	14+00	-	16+00	STH 11	1	-	1	4	5
0010	32+70	-	38+28	STH 11	1	4	5	-	4
0010	13+50 "JS"	-	14+79 "JS"	JUDGEMENT ST	2	1	6	-	2
				TOTAL 0010	**4**	**5**	**12**	**4**	**11**

3

TRAFFIC CONTROL

CATEGORY	LOCATION	SIGN CODE	ESTIMATED DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 * TRAFFIC CONTROL COVERING SIGNS EACH	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	REMARKS
0010	DETOUR	-	160	-	-	8	1,280	12	1,920	206	32,960	12	-	-	-	
0010	STAGE 1 TRAFFIC CONTROL	-	69	-	-	23	1,587	34	2,346	18	1,242	-	-	-	-	
0010	STAGE 2 TRAFFIC CONTROLL	-	91	-	-	25	2,275	38	3,458	17	1,547	-	-	-	-	
0010	PCMS SIGNS	-	7	20	140	-	-	-	-	-	-	-	-	4	28	"HWY 11 TO CLOSE XXXXDAY XX/XX'
0010	STH 11 AND 80 INTERSECTION	R10-61, MOD	-	-	-	-	-	-	-	-	-	-	12.5	-	-	STAGE 1 "BENTON"
0010	STH 11 AND 23 INTERSECTION	R10-61, MOD	-	-	-	-	-	-	-	-	-	-	12.5	-	-	STAGE 1 "SHULLSBURG"
0010	STH 11 AND 80 INTERSECTION	R10-61, MOD	-	-	-	-	-	-	-	-	-	-	12.5	-	-	STAGE 2 "SHULLSBURG"
			TOTAL 0010	**20**	**140**	**56**	**5,142**	**84**	**7,724**	**241**	**35,749**	**12**	**37.5**	**4**	**28**	

* ALL COVERING SIGNS USED FOR ONE CYCLE

3

PAVEMENT MARKINGS

CATEGORY	STATION	TO	STATION	LOCATION	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH WHITE LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE LF	646.2020 MARKING LINE EPOXY 6-INCH YELLOW LF
0010	14+00	-	16+00	STH 11	-	-	370	250
0010	32+67	-	38+27	STH 11	-	2,060	940	1,120
0010	13+50 "JS"	-	14+79 "JS"	JUDGEMENT ST	30	260	-	260
				TOTAL 0010	**30**	**2,320**	**1,310**	**1,630**

SAWING ITEMS

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	14+00	STH 11	-	30
0010	16+00	STH 11	22	30
0010	32+67	STH 11	40	-
0010	38+28	STH 11	30	-
0010	13+50 'JS'	JUDGEMENT	32	5
		TOTAL 0010	**124**	**65**

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. B-33-137) EACH	650.6501.02 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (02. B-33-136) EACH	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	11+65	-	17+87	STH 11	543	422	3	-	1	108	573
0010	32+67	-	38+27	STH 11	512	468	28	1	-	45	512
0010	13+50 "JS"	-	14+95 "JS"	JUDGEMENT ST	156	156	298	-	-	-	100
				TOTAL 0010	**1,211**	**1,046**	**329**	**1**	**1**	**153**	**1,185**

BIRD DETERRENT SYSTEMS

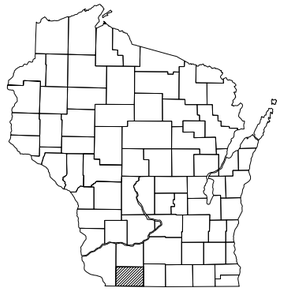
CATEGORY	STATION	TO	STATION	LOCATION	999.2000.S.01 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01. STA 15+00) EACH	999.2000.S.02 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (STATION) (02. STA 34+90) EACH
0010	34+50	-	35+50	STH 11 B-33-0825	1	-
0010	34+65	-	35+25	STH 11 B-33-0826	-	1
				TOTAL 0010	**1**	**1**

LAFAYETTE COUNTY REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.02 SPECIAL (02. TEMPORARY BARRIER SYSTEM REMOVE AND STORE) EACH
0010	34+10	-	35+75	B-33-0826 LT	1
				TOTAL 0010	**1**

*TEMPORARY BARRIER SYSTEM REMOVE AND STORE ITEMS	
ITEM	QUANTITY
TEMPORARY CONCRETE BARRIER SECTION	12
W5-52L BRIDGE MARKER SIGN	1
W5-52R BRIDGE MARKER SIGN	2
10 FT STEEL POST	2
6 FT STEEL POST	1
SAND BARRELS	3
TIRE RINGS	6
5/8" X 12-INCH BOLT	1
5/8" X 14-INCH BOLT	2

*TABLE PROVIDED FOR INFORMATION ONLY



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJECT NO. 1706-03-20
SHULLSBURG - MONROE
SHULLSBURG BRANCH BRIDGES
STH 11
LAFAYETTE COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE — CULVERT

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN — OFF-PREMISE SIGN (#1-25)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER (25) — UTILITY NUMBER (40)
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

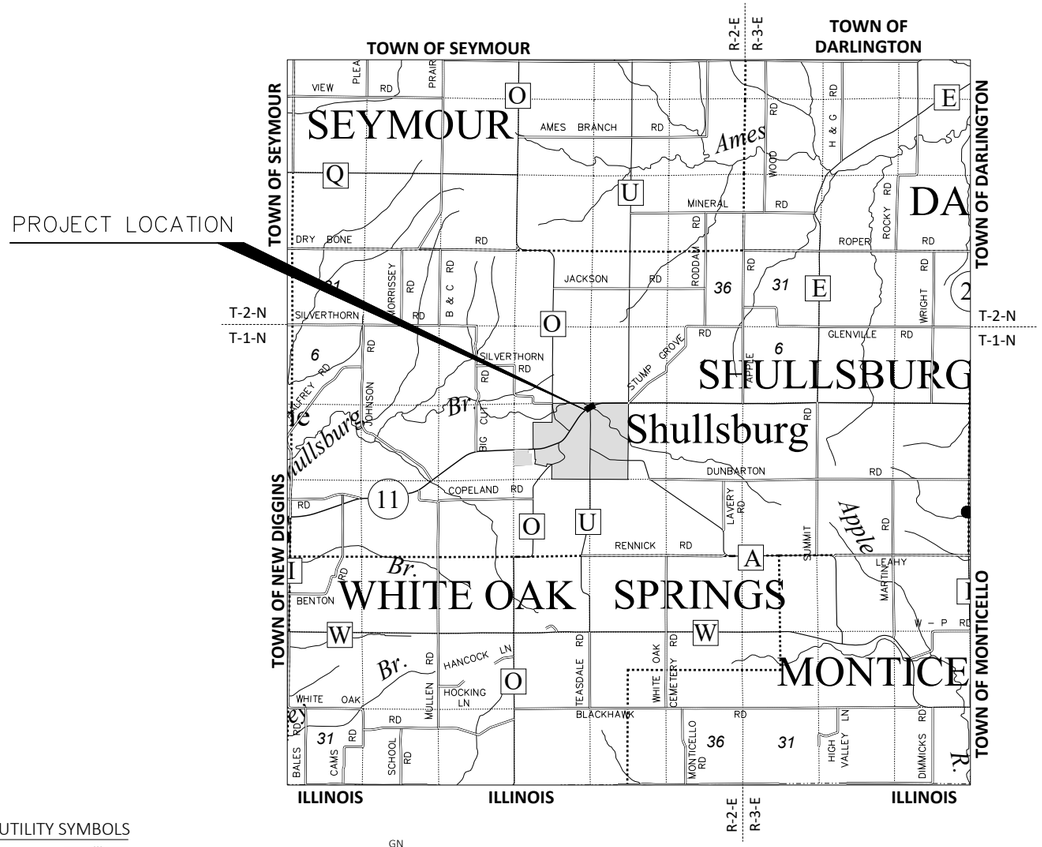
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	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

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	☒



THE NOTES,CONVENTIONAL SYMBOLS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1706-03-20

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 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 CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

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

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

PROJECT NUMBER 1706-03-20 - 4. 01
SHEET 2 OF 2

FILE NAME : S:\PROJECTS\W11651 WISDOT - SW REGION JV SURVEY WO 2022\1000 1706-03-00 STH 11 LAFAYETTE CO\RW\W11651_STH 11 TITLE.DWG
LAYOUT NAME: 4.01 TITLE
PLOT DATE : 6/28/2023 3:02 PM PLOT BY : TIM VELTE PLOT NAME : _____

TRANSPORTATION PROJECT PLAT NO: 1706-03-20 - 4.01 AMENDMENT NO. 2

AMENDS UTILITY NUMBER 203 OF TRANSPORTATION PROJECT PLAT NO. 1706-03-20 - 4.01 AMENDMENT NO. 1 RECORDED AS DOCUMENT NUMBER 375303, AND AMENDS UTILITY NUMBER 204, AND UTILITY NUMBER 205, AND AMENDS PARCEL 7 OF TRANSPORTATION PROJECT PLAT NO. 1706-03-20 - 4.01 RECORDED AS DOCUMENT NUMBER 373592

PART OF LOT 1 CSM 599, DOC. 333919, AND UNPLATTED LANDS LOCATED IN THE NE¼-NE¼, OF SECTION 10, TOWNSHIP 1 NORTH, RANGE 2 EAST, AND PART OF LOT 1 CSM 3, P. 442 , DOC. 306765, PART OF LOT 1 CSM 3, P. 469, DOC. 309542, AND UNPLATTED LANDS LOCATED IN THE NW¼-NW¼, OF SECTION 11 TOWNSHIP 1 NORTH, RANGE 2 EAST, CITY OF SHULLSBURG, LAFAYETTE COUNTY, WISCONSIN.

RELOCATION ORDER STH 11, SHULLSBURG - MONROE, SHULLSBURG BRANCH BRIDGES, LAFAYETTE COUNTY

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

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

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

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

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), LAFAYETTE COUNTY, NAD 83 (2011), IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" 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 LAFAYETTE COUNTY AS SHEET 2 OF 2 OF DOCUMENT NO. 373592

EXISTING HIGHWAY RIGHT OF WAY FOR STH 11 ESTABLISHED FROM RIGHT OF WAY DIV. JOB NO. 9516.

EXISTING HIGHWAY RIGHT OF WAY FOR N. JUDGEMENT STREET/ CTH U ESTABLISHED FROM CSM 599, CSM 3 P. 442, CSM 3 P. 469, CSM 4 P.489

EXISTING ACCESS CONTROL ALONG STH 11 HAS BEEN ESTABLISHED FROM PREVIOUS ACCESS CONTROL PROJECT 1700-02-29 EFFECTIVE ON AND AFTER 6/26/2003, RECORDED IN VOL. 228 PG. 961-966 AS DOC. # 290936.

FOR OUTDOOR ADVERTISING CONTROL REFER TO PROJECT 1700-01-30.

Document Number: 375715
LAFAYETTE COUNTY, WI
CATHY J. PAULSON
REGISTER OF DEEDS
04/16/2024 11:22 AM
PAGES: 1
ELECTRONICALLY RETURNED TO SENDER

44

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1706-03-20-4.01 AMENDMENT NO. 2
SHEET 1 OF 1

GN

SCALE, FEET
0 50' 100'

PLOT SCALE : 1:50

PLOT BY: Aniker, Noah

PLOT DATE: 4/11/2024 10:07 AM

FILENAME: S:\Projects\W11651 WisDOT - SW Region JV Survey WO 2022\1000 1706-03-00 STH 11 Lafayette Co\RW\W11651_STH 11 TPP_AMEND 2.dwg

APPRAISAL PLAT DATE: 4/11/2024

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
3	BROWN-BADER FARM LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE, TLE	0.09	0.36	0.45	0.09
5	RONALD G. SCHARDT AND BEVERLY K. SCHARDT, HUSBAND AND WIFE, AS SURVIVORSHIP MARITAL PROPERTY	FEE, TLE	0.02	0.59	0.61	0.04
6	HARRY L. BLACKBOURN AND DEBBIE M. BLACKBOURN, SPOUSE AS SURVIVORSHIP MARITAL PROPERTY	FEE, TLE	0.01	-	0.01	0.02
7	THE COUNTY OF LAFAYETTE, HIGHWAY DEPARTMENT	FEE, TLE	0.05	0.47	0.52	0.04

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

FOUND MONUMENT STATION OFFSET TABLE

PT.#	STATION	OFFSET	Y	X
1	36+09.20	49.99'LT	129716.212	452465.708
2	35+34.57	49.94'RT	129593.861	452441.551
3	14+21.41'U'	36.90'RT	129515.674	452382.423
4	13+53.17'U'	29.40'RT	129440.564	452387.323
5	13+70.65'U'	29.26'LT	129452.810	452327.373
6	33+94.52	49.94'RT	129528.978	452320.916

COURSE TABLE

COURSE	BEARING	DISTANCE
100-101	N63° 59' 50"E	55.69'
101-102	S25° 20' 08"E	14.52'
102-103	(SEE ERWC1)	
103-104	S21° 08' 07"E	50.38'
104-105	S21° 08' 07"E	49.62'
105-106	(SEE ERWC2)	
106-107	S22° 53' 23"E	10.42'
107-108	S65° 03' 41"W	159.61'
108-109	S62° 14' 05"W	52.33'
109-3	S00° 31' 08"W	36.31'
3-4	(SEE ERWC3)	
4-112	S80° 36' 17"W	29.56'
112-113	S80° 36' 17"W	31.04'
113-114	N19° 21' 04"W	53.60'
114-115	N39° 25' 47"W	20.48'
115-116	N80° 18' 54"W	10.99'
116-117	S57° 45' 44"W	81.87'
117-118	N33° 17' 17"W	7.45'
118-119	(SEE ERWC4)	
119-120	N34° 53' 14"W	50.85'
120-121	N34° 53' 14"W	49.15'
121-122	(SEE ERWC5)	
122-123	N30° 24' 45"W	15.01'
123-124	N61° 17' 51"E	140.05'
124-100	N63° 01' 47"E	13.00'

ERWC1 CURVE DATA FROM R/W PT.# 102 TO R/W PT.# 103
L=171.70'
R=2342.00'
LCH=171.66'
LCB=N66°47'48"E

ERWC2 CURVE DATA FROM R/W PT.# 105 TO R/W PT.# 106
L=69.46'
R=2242.00'
LCH=69.46'
LCB=S68°00'39"W

ERWC3 CURVE DATA FROM R/W PT.# 3 TO R/W PT4

L=75.27'	(75.41')
R=7303.00'	(7303.00')
LCH=75.27'	(75.41')
LCB=S03°43'49"E	(N04°12'35"W)

ERWC4 CURVE DATA FROM R/W PT.# 118 TO R/W PT119
L=62.58'
R=2242.00'
LCH=62.58'
LCB=S55°38'20"W

ERWC5 CURVE DATA FROM R/W PT.# 121 TO R/W PT.#122
L=182.87'
R=2342.00'
LCH=182.83'
LCB=N57°05'16"E

PI STA = 13+98.11'U'
Y = 129483.622
X = 452355.618
DELTA = 16°23'18"LT
D = 17°12'21"
T = 47.95'
L = 95.25'
R = 333.00'
PC STA = 13+50.16'U'
Y = 129435.738
X = 452358.157
PT STA = 14+45.41'U'
Y = 129528.845
X = 452339.673
DB = N03°02'05"W
DA = N19°25'23"W

PI STA = 35+62.65
Y = 129872.803
X = 452213.934
DELTA = 55°53'40"RT
D = 2°30'02"
T = 1215.62'
L = 2235.30'
R = 2291.34'
PC STA = 23+47.03
Y = 128862.437
X = 451537.990
PT STA = 45+82.33
Y = 129879.649
X = 453429.539
DB = N33°46'58"E
DA = N89°40'39"E

STA 34+21.79 = STA 15+05.72'U'
Y=129585.721
X=452319.618

TLE POINT STATION OFFSET TABLE

PT. #	STATION	OFFSET	Y	X
508	33+53.97	49.87'LT	129594.350	452235.290
509	33+54.00	75.92'LT	129616.680	452221.884
510	35+15.19	74.98'LT	129696.624	452367.898
511	36+32.00	76.17'LT	129749.720	452476.243
512	36+32.00	50.45'LT	129726.243	452486.737
513	37+05.00	49.59'RT	129663.013	452593.219
514	37+04.95	68.97'RT	129645.061	452600.517
515	35+32.99	70.51'RT	129574.773	452449.361
516	35+33.00	60.50'RT	129583.727	452444.901
517	34+70.95	60.09'RT	129556.346	452391.041
518	14+20.00'U'	45.00'RT	129516.268	452390.657
519	13+55.00'U'	37.00'RT	129443.063	452394.782
520	13+55.60'U'	29.39'RT	129443.203	452387.144
521	13+35.19'U'	31.01'LT	129419.147	452327.979
522	13+47.00'U'	45.00'LT	129430.202	452313.387
523	14+02.00'U'	53.00'LT	129476.104	452299.552
524	33+43.00	66.00'RT	129489.552	452285.917
525	33+40.00	64.00'RT	129489.743	452282.386
526	32+49.00	64.00'RT	129442.185	452207.807
527	32+49.01	50.62'RT	129453.327	452200.400

ALIGNMENT SUB -CURVE
PC STA 23+47.03 TO PT. 120
L=852.97'
R=2291.34'
LCH=848.05'
LCB=N44°26'50"E

ALIGNMENT SUB -CURVE
PT. 120 TO SEC. LINE
L=294.29'
R=2291.34'
LCH=294.09'
LCB=N58°47'28"E

ALIGNMENT SUB -CURVE
SEC. LINE TO PT. 104
L=255.71'
R=2291.34'
LCH=255.57'
LCB=N65°40'03"E

ALIGNMENT SUB -CURVE
PT. 104 TO PT STA 45+82.33
L=832.33'
R=2291.34'
LCH=827.76'
LCB=N79°16'15"E

UTILITY EASEMENT TABLE

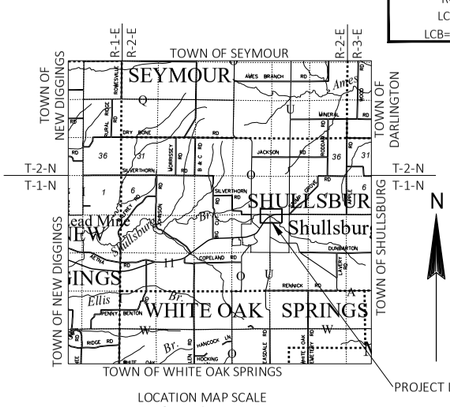
UTILITY NUMBER	OWNER & RECORDING INFORMATION	LOCATED IN R/W PARCEL #
200	WP&L SINGLE POLE ELECTRIC SINGLE GUY STUB & ANCHOR EASEMENT, DOC. 177983 V.23, P.492	6
200	WP&L 60' WIDE ELECTRIC EASEMENT, DOC. 167555 V.20, P. 20	3
200	WP&L 60' WIDE ELECTRIC EASEMENT, DOC.167089, V.19, P.504	3
201	CITY OF SHULLSBURG ELECTRIC, NO RECORD OF EASEMENT	5
201	CITY OF SHULLSBURG ELECTRIC, DOC 180113 V39, P.374	6
202	LAFAYETTE ELECTRIC COOPERATIVE, DOC. 180218, V.30, P.391	3,5
203	CENTURYLINK (FORMERLY GTE) 1 ROD TELEPHONE EASEMENT , DOC. 239568, V.64,P.282	3
203	BRIGHTSPEED NO RECORD OF EASEMENT	6,7
204, 205	CITY OF SHULLSBURG WATER AND SEWER EASEMENT, DOC. 232878, V.61, P.456	7

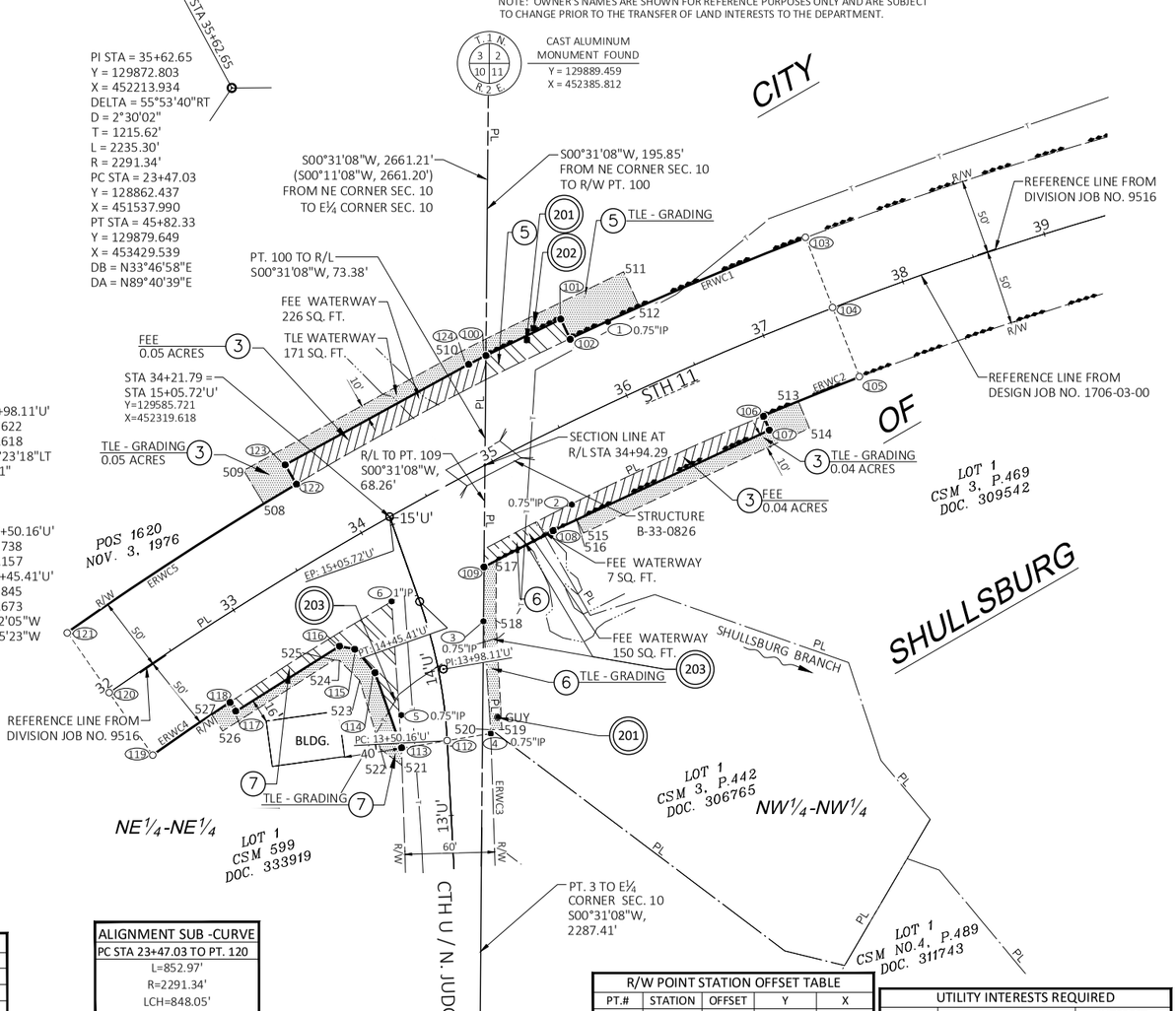
R/W POINT STATION OFFSET TABLE

PT.#	STATION	OFFSET	Y	X
100	35+27.85	65.01'LT	129693.617	452384.038
101	35+82.00	65.00'LT	129718.032	452434.090
102	35+82.00	50.48'LT	129704.907	452440.304
103	37+50.00	50.38'LT	129772.540	452598.079
104	37+50.00	0.00'RT	129725.548	452616.244
105	37+50.00	49.62'RT	129679.267	452634.136
106	36+79.00	49.58'RT	129653.260	452569.732
107	36+79.00	60.00'RT	129643.659	452573.786
108	35+15.07	59.94'RT	129576.361	452429.061
109	34+61.33	60.02'RT	129551.983	452382.755
112	13+50.16'U'	0.00'RT	129435.738	452358.157
113	13+46.72'U'	30.85'LT	129430.671	452327.533
114	14+05.33'U'	41.92'LT	129481.244	452309.772
115	33+56.56	65.18'RT	129497.065	452296.762
116	33+48.00	58.00'RT	129498.915	452285.925
117	32+64.00	58.00'RT	129455.243	452216.676
118	32+64.00	50.55'RT	129461.470	452212.588
119	32+00.00	50.85'RT	129426.148	452160.926
120	32+00.00	0.00'RT	129467.858	452131.842
121	32+00.00	49.15'LT	129508.177	452103.729
122	33+79.00	49.99'LT	129607.516	452257.212
123	33+79.00	65.00'LT	129620.462	452249.613
124	35+15.20	64.98'LT	129687.721	452372.452

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
200	WP&L	RELEASE OF RIGHTS
201	CITY OF SHULLSBURG, ELECTRIC	RELEASE OF RIGHTS
202	SCENIC RIVERS ENERGY COOPERATIVE	RELEASE OF RIGHTS
203	BRIGHTSPEED OF CENTRAL WISCONSIN, LLC (FORMERLY GTE)	RELEASE OF RIGHTS
204	CITY OF SHULLSBURG, SEWER	RELEASE OF RIGHTS
205	CITY OF SHULLSBURG, WATER	RELEASE OF RIGHTS





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

SIGNATURE: _____ DATE: 4/11/2024
PRINT NAME: NOAH E. ANLIKER
REGISTRATION NUMBER: S-3265

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

SIGNATURE: _____ DATE: 4/11/2024
PRINT NAME: CORY SCHLAGEL

JEWELL associates engineers, inc.
Engineers · Architects · Surveyors

WISCONSIN NOAH E. ANLIKER S-3265 CAZENOVIA WISCONSIN LAND SURVEYOR

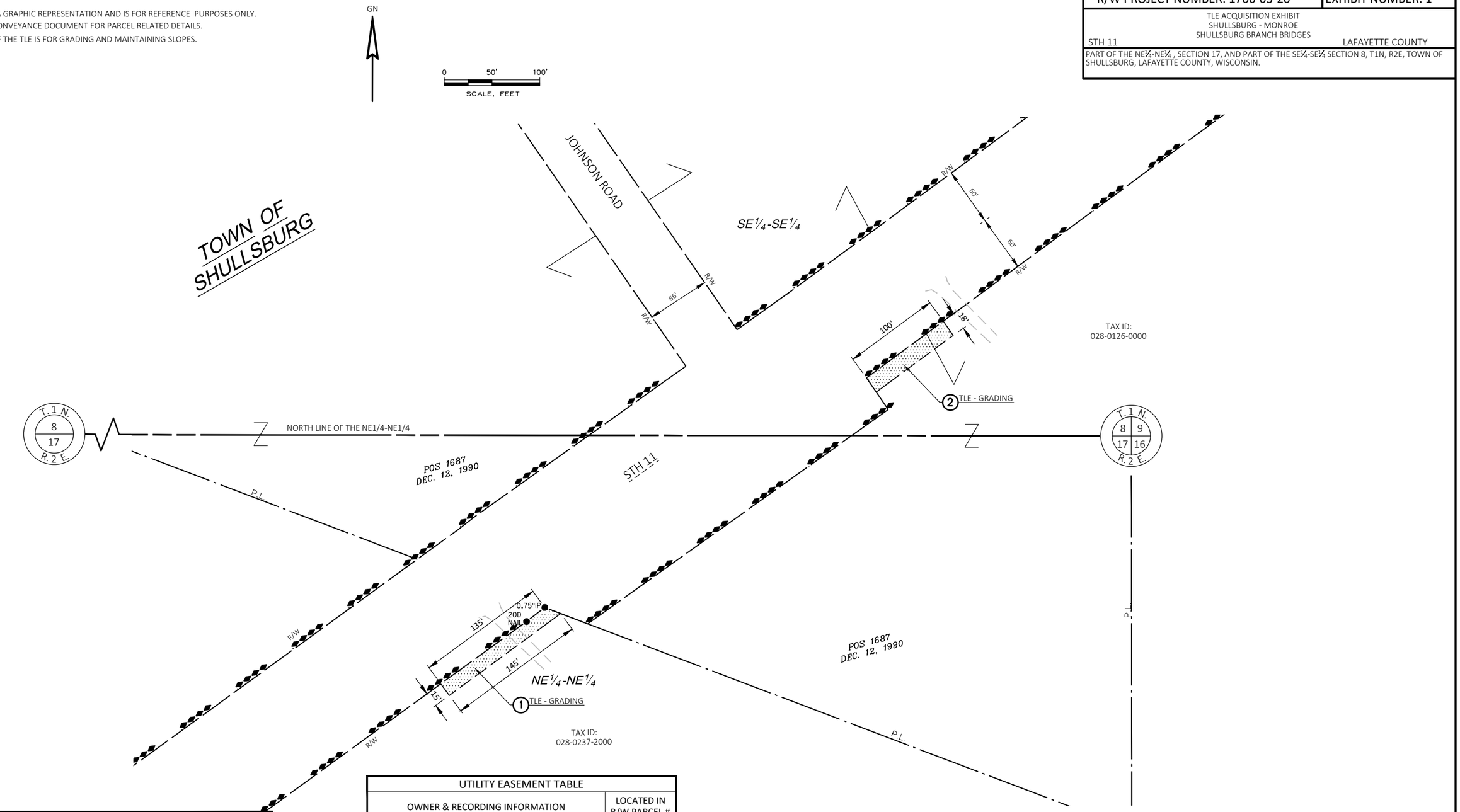
NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.
THE PURPOSE OF THE TLE IS FOR GRADING AND MAINTAINING SLOPES.

R/W PROJECT NUMBER: 1706-03-20	EXHIBIT NUMBER: 1

TLE ACQUISITION EXHIBIT
SHULLSBURG - MONROE
SHULLSBURG BRANCH BRIDGES

STH 11 — LAFAYETTE COUNTY

PART OF THE NE¼-NE¼, SECTION 17, AND PART OF THE SE¼-SE¼ SECTION 8, T1N, R2E, TOWN OF SHULLSBURG, LAFAYETTE COUNTY, WISCONSIN.



SCHEDULE OF LANDS & INTERESTS REQUIRED			
PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	TLE ACRES
1	WILLIAM MORRISSEY JR AND SHEILA MORRISSEY, HUSBAND AND WIFE AS SURVIVORSHIP MATITAL PROPERTY	TLE	0.05
2	T.R. DOYLE & SONS INC	TLE	0.04

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

UTILITY EASEMENT TABLE	
OWNER & RECORDING INFORMATION	LOCATED IN R/W PARCEL #
WISCONSIN POWER AND LIGHT COMPANY, 80' WIDE EASEMENT 40' OFFSET FROM OVERHEAD LINE, DOC.208718,V.47,P. 602	2
CENTURYLINK (FORMERLY GENERAL TELEPHONE COMPANY), BLANKET EASEMENT SE1/4-SE1/4 SEC. 8, DOC.197018,V.40,P. 451	2

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
200	ALLIANT ENERGY	RELEASE OF RIGHTS
203	BRIGHTSPEED	RELEASE OF RIGHTS

THIS EXHIBIT IS APPROVED FOR THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION

SIGNATURE: Cory Schlagel DATE: 7/06/2023

PRINT NAME: CORY SCHLAGEL

APPRAISAL PLAT DATE: 5/16/2023

FILENAME: S:\Projects\W11651 WisDOT – SW Region JV Survey WO 2022\1000 1706-03-00 STH 11 Lafayette Co\RW\W11651_STH 11 TLE EXHIBIT.dwg

PLOT DATE: June 28, 2023

PLOT BY: Tim Velte

SEE STRUCTURE PLANS FOR MORE DETAILS ON STRUCTURE B-33-136

BRIGHTSPEED - COMMUNICATION

JOHNSON RD

BRIGHTSPEED - COMMUNICATION

BRIGHTSPEED - COMMUNICATION

EXISTING R/W

EXISTING R/W

SI

ALLIANT ENERGY - COMMUNICATION

BEGIN PROJECT
STA 11+65
MATCH EXISTING

SI

9-INCH CONCRETE PAVEMENT

POST

END CONSTRUCTION
STA 17+87
MATCH EXISTING

CONCRETE APPROACH SLAB

12+00 | 13+00 | 14+00 | 15+00 | 16+00 | 17+00 | 18+00

N53° 34' 39"E 1005.35'

STH 11

STH 11

B-33-136

9-INCH
CONCRETE PAVEMENT

STRUCTURAL APPROACH
SLAB

SI

9-INCH CONCRETE PAVEMENT

CONCRETE APPROACH SLAB

BR SHULLSBURG BRANCH

POST

SI

TLE

EXISTING R/W

PROPOSED
GRAVEL F.E.

TLE

BEGIN RECONSTRUCTION
MATCH EXISTING STA 14+00

ATC MANAGEMENT, INC
ALLIANT ENERGY - ELECTRIC

END RECONSTRUCTION
MATCH EXISTING STA 16+00

EXISTING R/W

5

5

STA 14+00.00
EL 876.37

STA 16+00.00
EL 878.83

885
880
875
870
867

1.23%

ORIGINAL GROUND

PROPOSED PROFILE

SHOULDER REHAB SECTION

RECONSTRUCT
SECTION

RECONSTRUCT
SECTION

SHOULDER REHAB SECTION

STRUCTURE B-33-136

11+65

14+00

14+56.38

15+47.62

16+00

17+87

STA 15+00
STRUCTURE B-33-136 REQUIRED
1-SPAN 26" HAUNCHED SLAB 44'-0" CLEAR ROADWAY WIDTH
20 DEGREE SKEW RHF

STA 15+00
REMOVE STRUCTURE B-33-825 REQUIRED
1-SPAN STEEL GIRDER

876.36 | 876.00 | 875.87 | 876.01 | 876.37 | 877.04 | 877.77 | 878.35 | 878.83 | 879.65 | 880.85 | 882.28 | 883.81

11 | 12 | 50 | 13 | 50 | 14 | 50 | 15 | 50 | 16 | 50 | 17 | 50 | 18 | 18

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PLAN AND PROFILE: STH 11 B-33-136	SHEET 46	E

SEE STRUCTURE PLANS FOR MORE DETAILS ON STRUCTURE B-33-137

PI STA = 35+62.65
Y = 129872.803
X = 452213.934
DELTA = 55°53'40" RT
D = 2°30'02"
T = 1215.62'
L = 2235.30'
R = 2291.34'
PC STA = 23+47.03
PT STA = 45+82.33

ALLIANT ENERGY - COMMUNICATION

SCENIC RIVERS ENERGY COOPERATIVE

BRIGHTSPEED - COMMUNICATION

PROPOSED GRAVEL P.E.

SHULLSBURG BRANCH

EXISTING R/W

TLE

R/W

SI

BEGIN CONCRETE APPROACH SLAB
STA 34+49.1

END CONCRETE APPROACH SLAB
STA 35+41.5

B-33-137

STH 11

32+00 33+00 34+00 35+00 36+00 37+00 38+00

15+00 'JS'

N19°25'23"W 60.31'

JUDGEMENT ST/CTH U

14+00 'JS'

CAUTION

BEGIN CONSTRUCTION
STA 32+67
MATCH EXISTING

SHULLSBURG UTILITY

WE ENERGIES

END PROJECT
STA 38+27
MATCH EXISTING

5

5

31+50.00 32+00.00 33+00.00 34+00.00 35+00.00 36+00.00 37+00.00 38+00.00 38+75.00

945 940 935 930

STA 32+66.67
EL 941.68

STA 33+00.00
EL 940.19

ORIGINAL GROUND

-4.48%

-4.01%

JUDGEMENT ST/CTH U INTERSECTION

VCL = 300.00

K = 57.10

LP STA 35+58.83
LP EL 934.40

STA 37+50.00
EL 936.34

STA 38+27.37
EL 937.21

34+70.06

35+20.06

STRUCTURE B-33-137

1.13%

1.25%

STA 34+90
STRUCTURE B-33-137 REQUIRED
1-SPAN 27" HAUNCHED SLAB
44'-4" CLEAR ROADWAY WIDTH
25 DEGREE SKEW RHF

VPC STA 33+30.00
VPC EL 938.99

PROPOSED PROFILE

VPI STA 34+80.00
VPI EL 932.98

RECONSTRUCT SECTION

VPT STA 36+30.00
VPT EL 934.85

RECONSTRUCT SECTION

STA 34+90
REMOVE STRUCTURE B-33-826 REQUIRED
1-SPAN STEEL ROLLED GIRDER

32+66.67

34+70.06

35+20.06

38+27.37

947.68 945.03 942.43 940.19 940.19 938.22 938.22 936.71 936.61 935.34 935.44 934.73 934.71 934.25 934.41 934.52 934.55 935.09 935.10 935.74 935.72 936.33 936.34 936.92 936.91 937.47 937.75

31 32 33 34 35 36 37 38 38

PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	PLAN AND PROFILE: STH 11 B-33-137	SHEET 47	E

PI STA = 13+98.11 "JS"
Y = 129483.622
X = 452355.618
DELTA = 16°23'18" LT
D = 17°12'21"
T = 47.95'
L = 95.25'
R = 333.00'
PC STA = 13+50.16 "JS"
PT STA = 14+45.41 "JS"

EXISTING HOUSE
EXISTING SALT SHED
EXISTING PARKING LOT
BRIGHTSPEED
TLE
SI
R/W
EXISTING R/W
ALLIANT ENERGY
SCENIC RIVERS ENERGY COOPERATIVE
STH 11
JUDGEMENT ST/CTH U
CAUTION
WE ENERGIES
PROPOSED CONCRETE DRIVEWAY APRON TYPE Z
SHULLSBURG UTILITY
CURVED THRIE BEAM LOCATION
SHULLSBURG BRANCH
B-33-137

N0°55'47"W 124.10'
N2°22'18"W 87.48'
N3°02'05"W 130.20'
N19°25'23"W 60.31'

11+00 'JS'
12+00 'JS'
13+00 'JS'
14+00 'JS'
15+00 'JS'
33+00
34+00
35+00

BEGIN CONSTRUCTION
STA 13+50 "JS"
MATCH EXISTING

END CONSTRUCTION
STA 14+95 "JS"MATCH INTO STH 11

ORIGINAL GROUND
PROPOSED PROFILE

VCL = 76.07
K = 29.45

STA 13+50.16
EL 933.15

STA 14+93.53
EL 935.54

STA 15+05.72
EL 936.05

VPC STA 13+92.54
VPC EL 933.38

VPI STA 14+30.58
VPI EL 933.58

VPT STA 14+68.61
VPT EL 934.76

0.53%
3.11%
4.16%

945
940
935
930
926

947.34
942.52
938.59
935.70
933.87
933.16
933.00
933.43
933.77
934.24
935.78
935.81

11
12
13
14
15
15

PROJECT NO: 1706-03-80	HWY: 11	COUNTY: LAFAYETTE	PLAN AND PROFILE: JUDGEMENT STREET/ CTH U	SHEET 48	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\050102-PP.DWG
LAYOUT NAME - 03
PLOT DATE : 7/22/2024 4:44 PM
PLOT BY : WELLNITZ, JOSHUA M
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

Standard Detail Drawing List

08A05-21D	INLET COVERS TYPE V, V-B, & VV-B
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D03-09A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D03-09B	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-05B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-05C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D19-04	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
12A03-10	NAME PLATE (STRUCTURES)
13A03-07	CONCRETE PAVEMENT SHOULDERS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-14A	RURAL DOWELED CONCRETE PAVEMENT
13C11-14B	RURAL DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-12G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

6

Standard Detail Drawing List

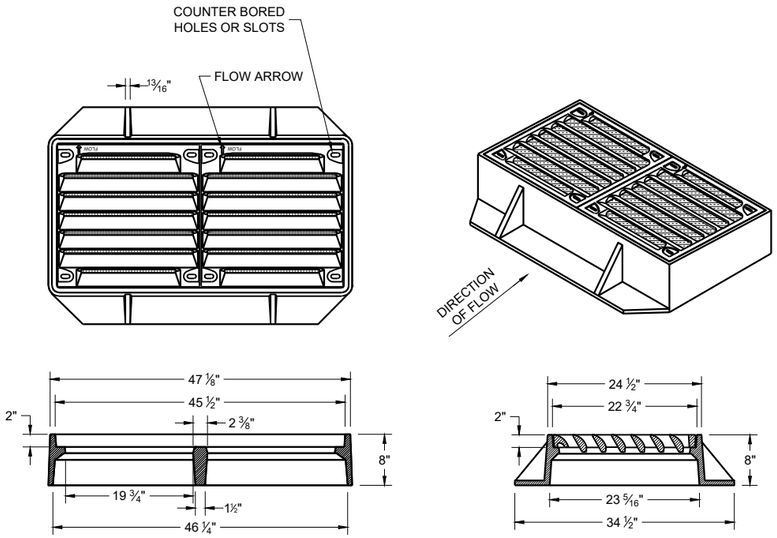
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

6

GENERAL NOTES

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

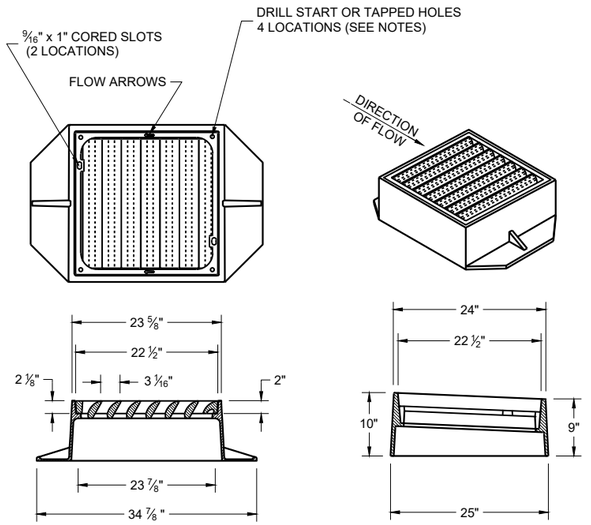
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "VV-B"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER
ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

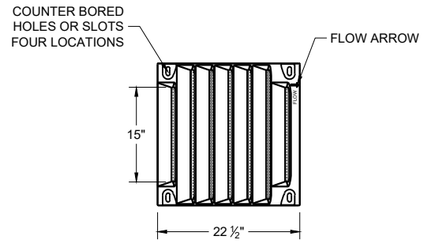
TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 35B
⅜" DIA. X 1/16" DRILL START IN 8 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
⅜" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" AND "VV-B" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" OR "VV-B" (FOR DOUBLE GRATE) ON DRAINAGE TABLE

TAP ½" -13 HOLES IN FOUR LOCATIONS PER GRATE IN FRAME TO BOLT GRATE(S).
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

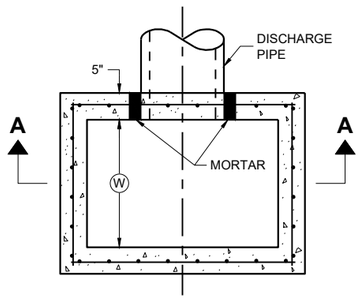
GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - ½" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS
TYPES V, V-B, AND VV-B

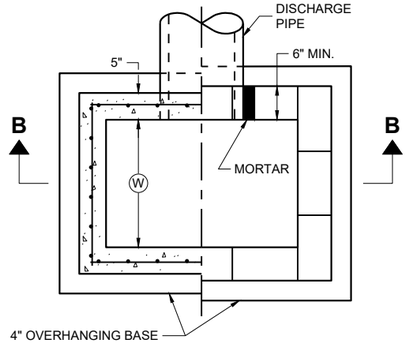
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

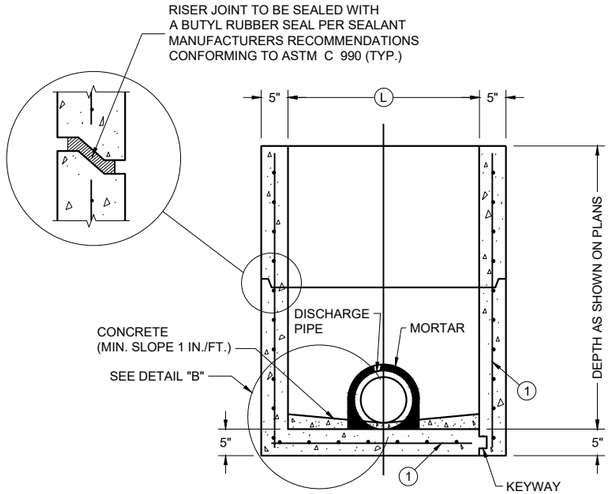
6
SDD 08A05-21d



PLAN VIEW



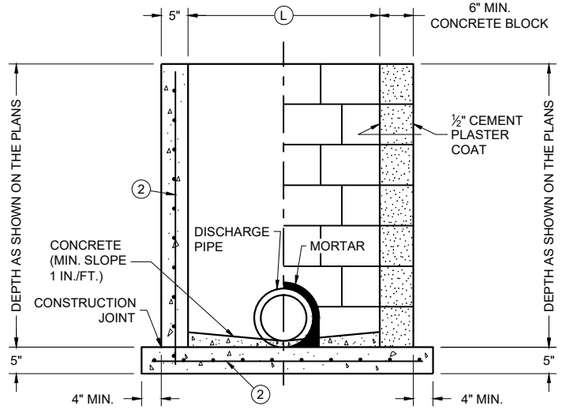
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

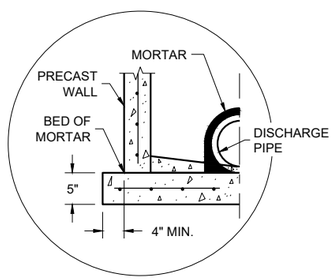
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

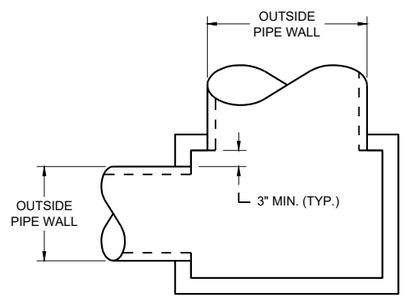
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

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

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

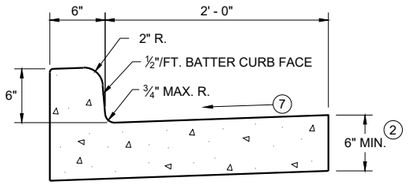
INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

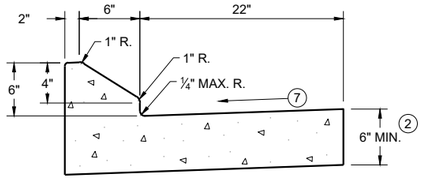
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

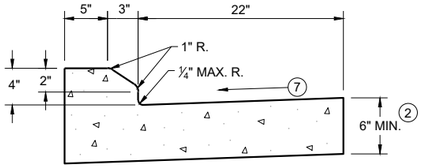
6
SDD 08C07-03



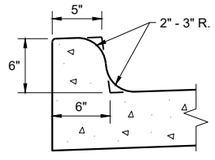
TYPES A (1) & D



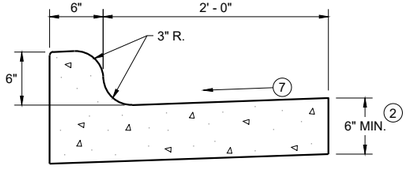
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

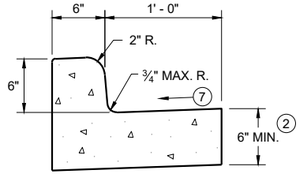


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



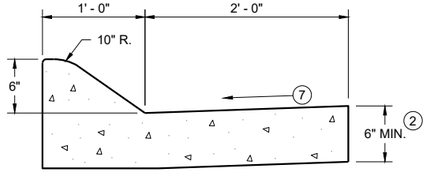
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

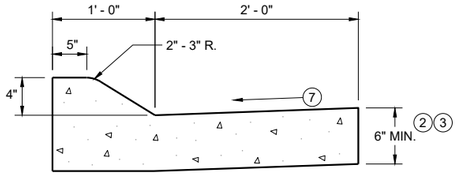


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

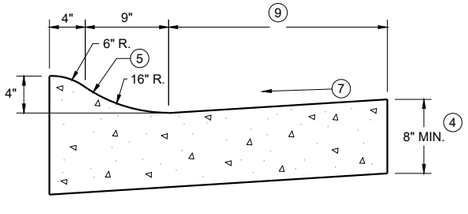


6" SLOPED CURB TYPES A (1) & D



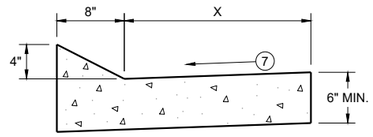
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

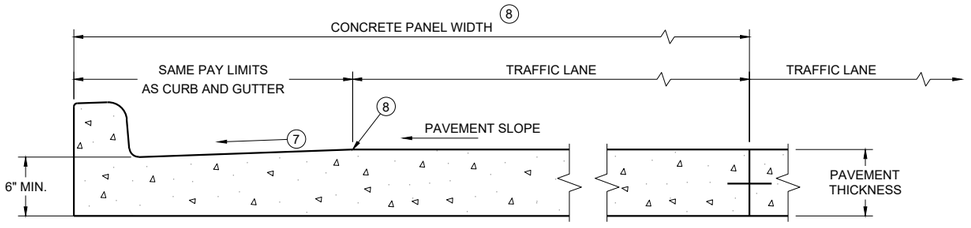


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

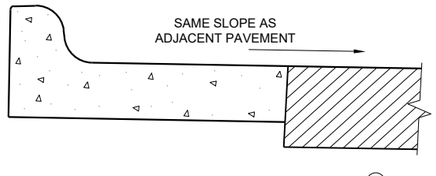
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

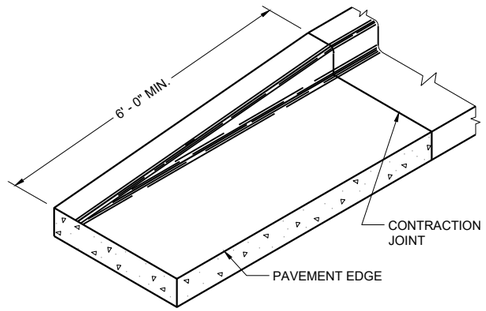
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

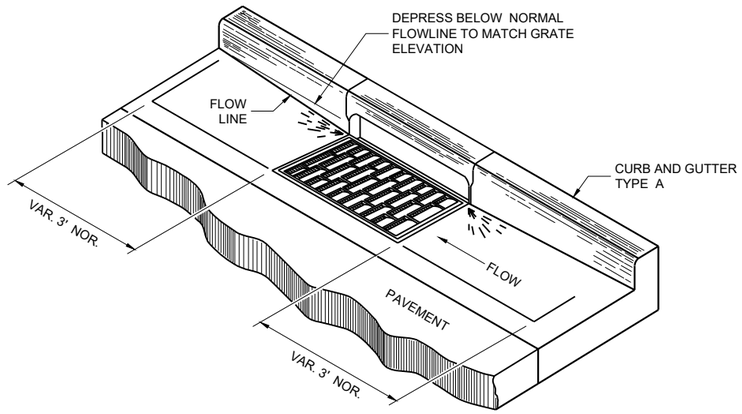
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

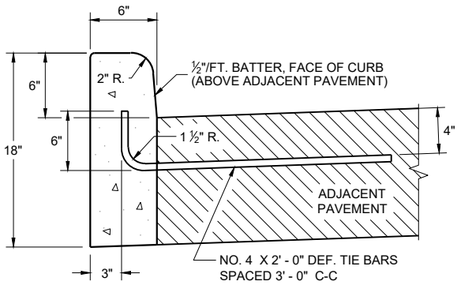
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

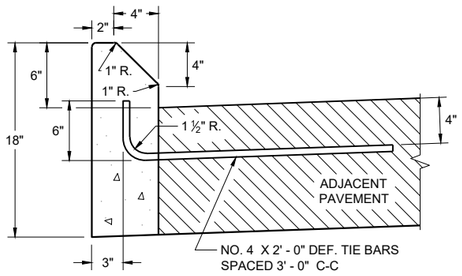
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

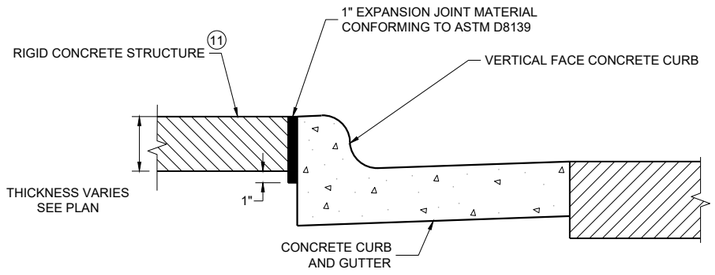


TYPES A (1) & D

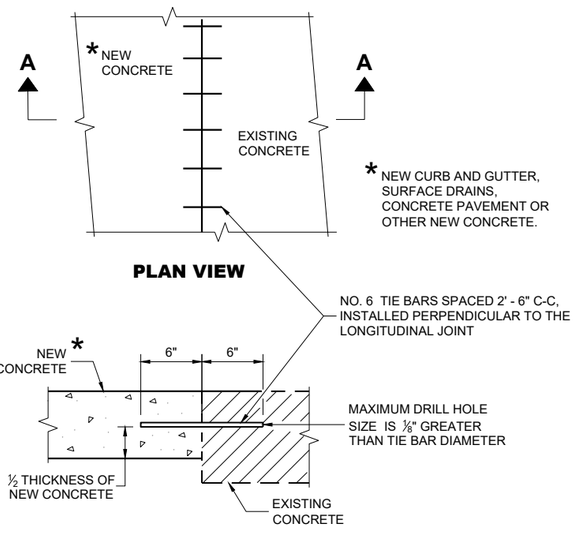


TYPES G (1) & J

CONCRETE CURB



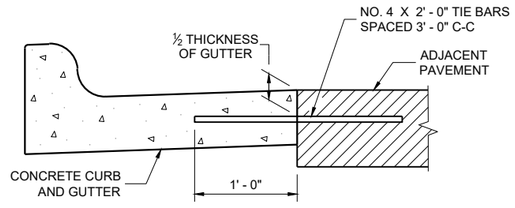
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



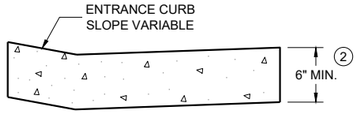
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6
SDD 08D01-23b

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.

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

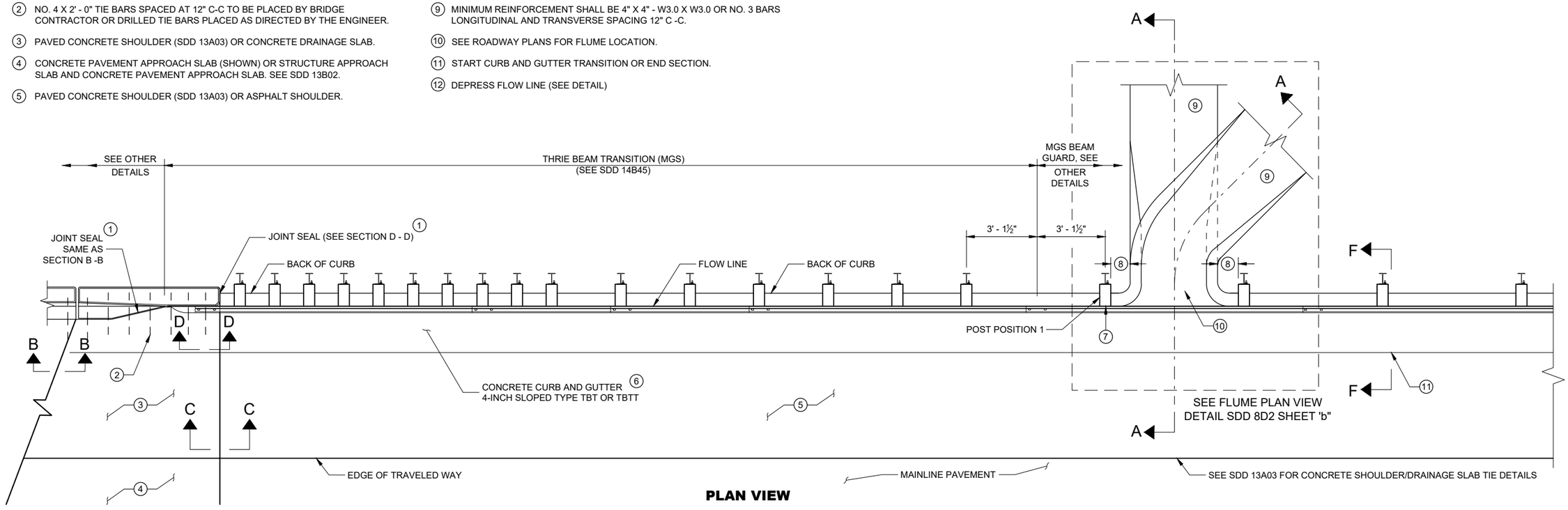
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

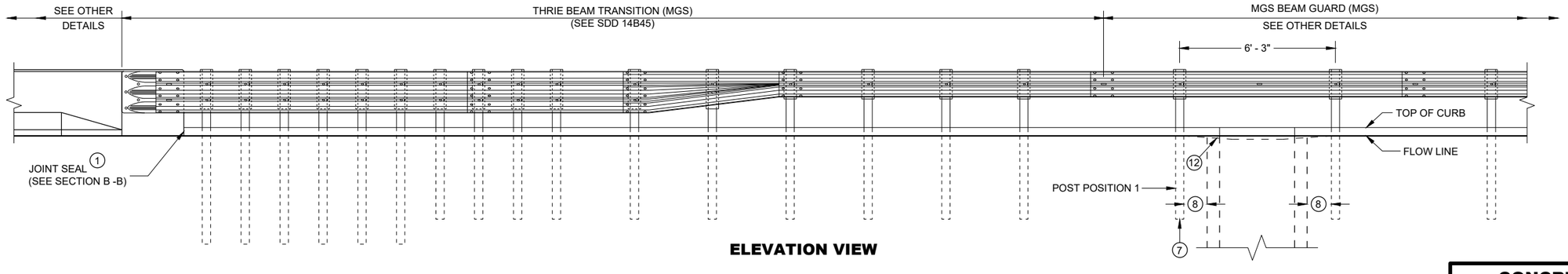
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



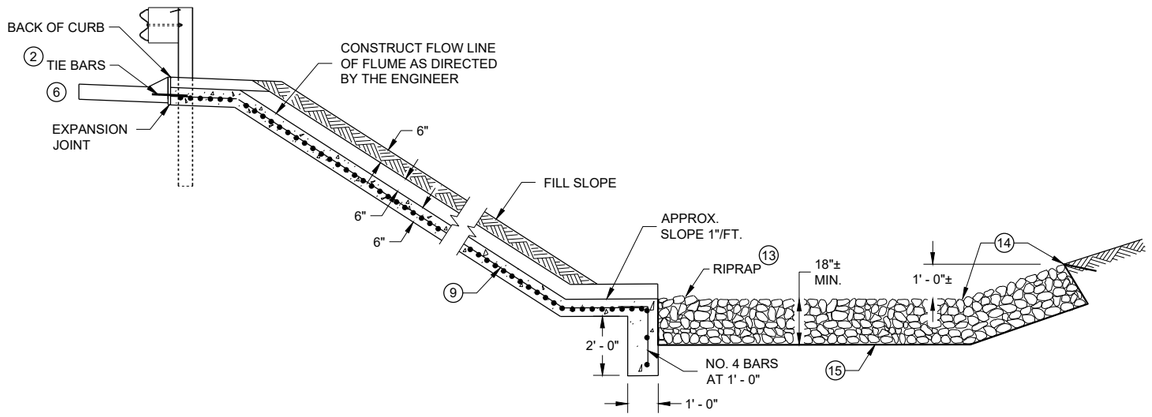
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

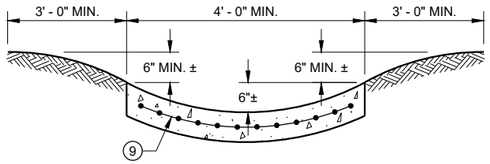
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D02 - 08a

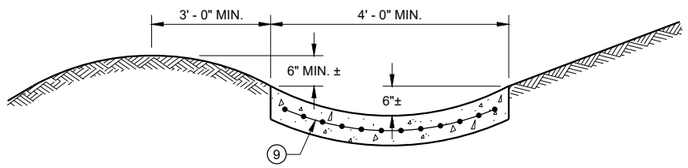
SDD 08D02 - 08a



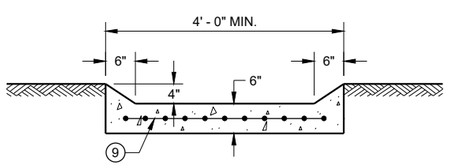
SECTION A - A



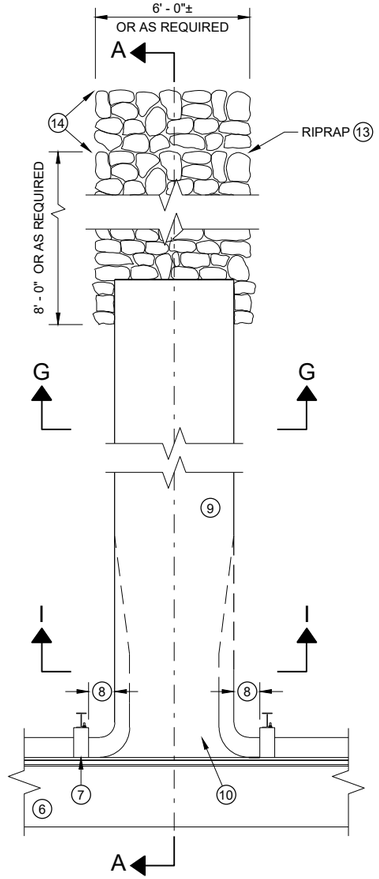
SECTION G - G



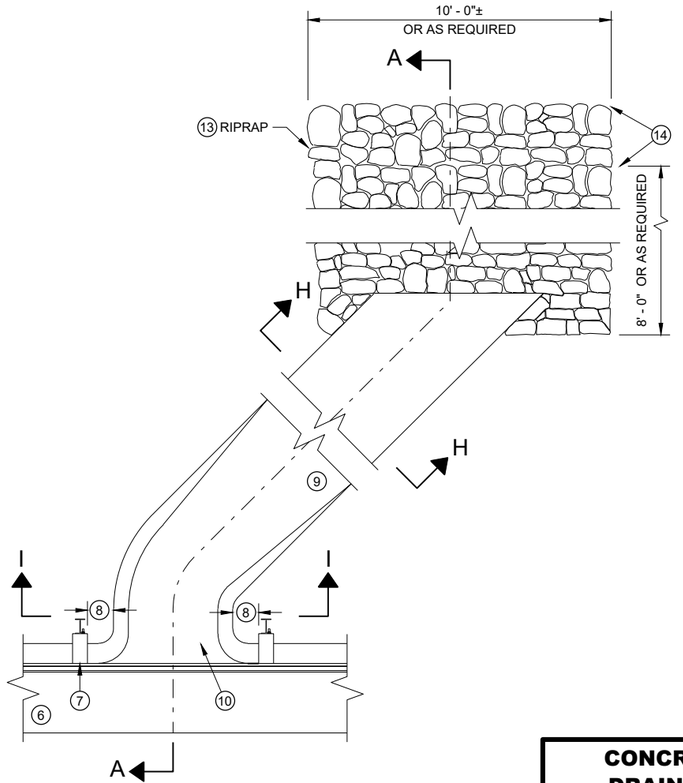
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

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.

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

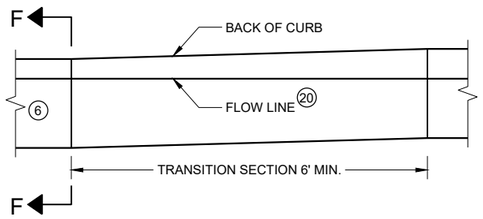
1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

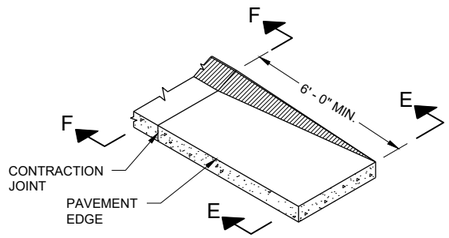
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

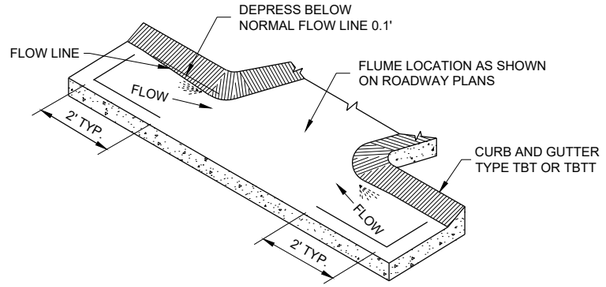
SDD 08D02 - 08b



**CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



**CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



**CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**

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.

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

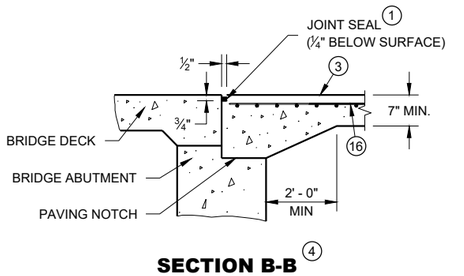
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

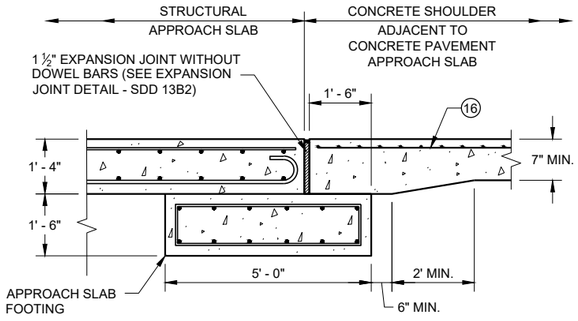
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

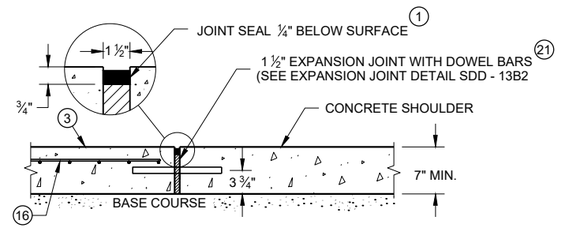
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



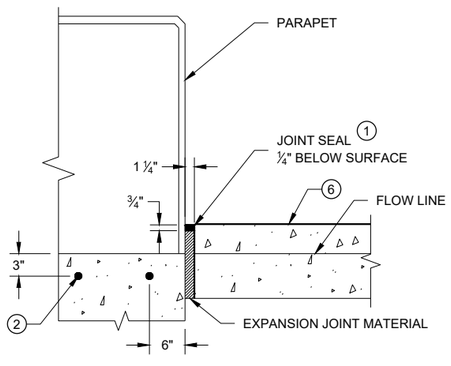
SECTION B-B (4)



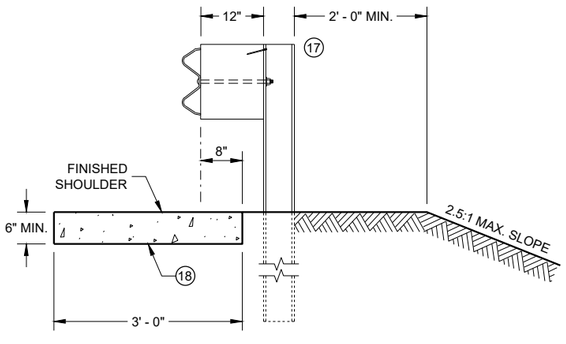
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



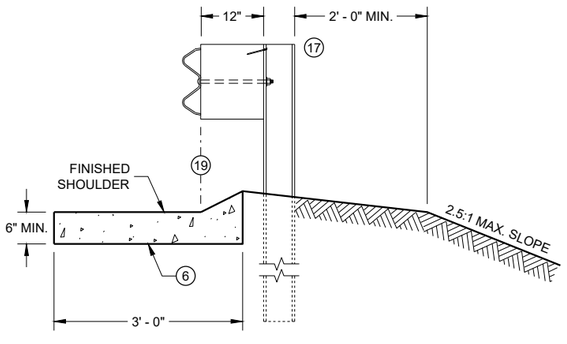
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 08D02 - 08c

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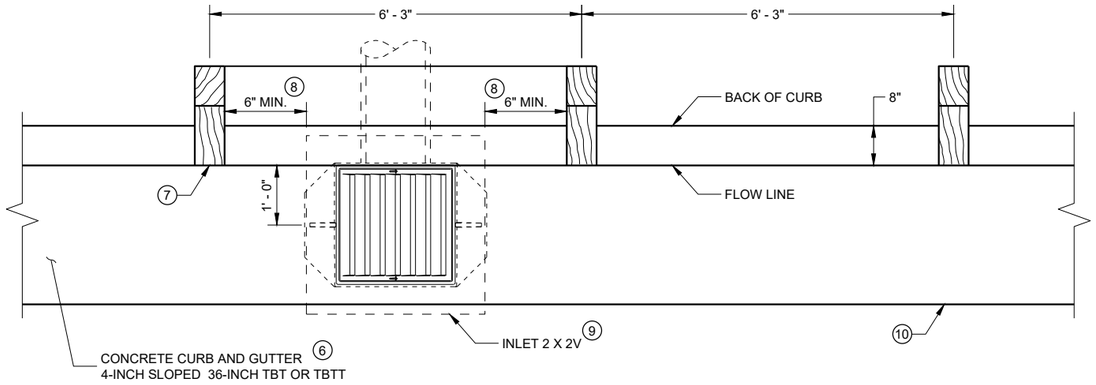
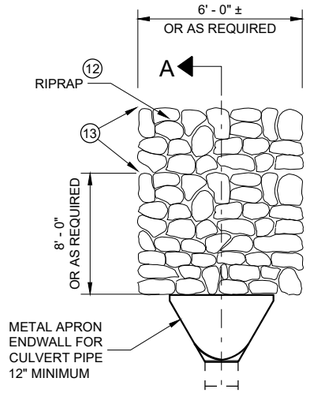
SDD 08D02 - 08c



INLET PLAN VIEW

(NOTE: RAIL NOT SHOWN FOR CLARITY)

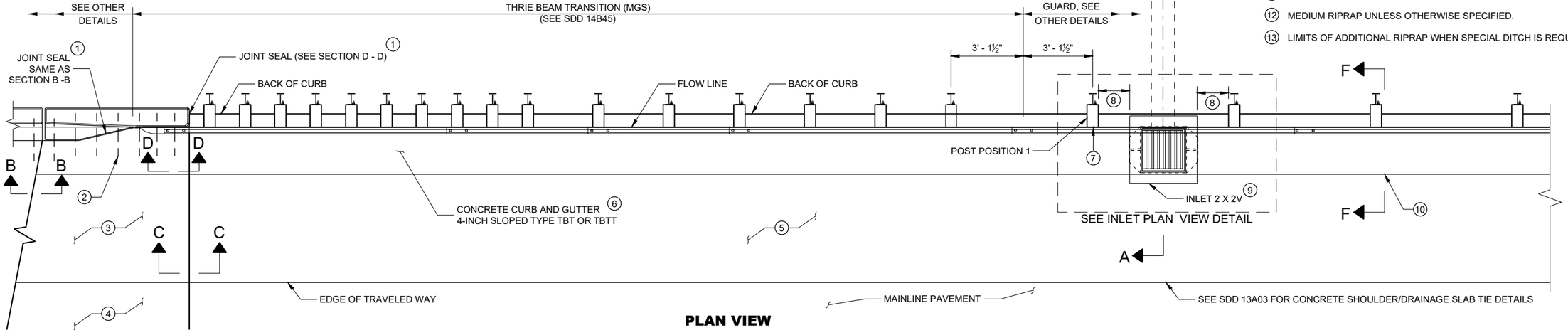


GENERAL NOTES

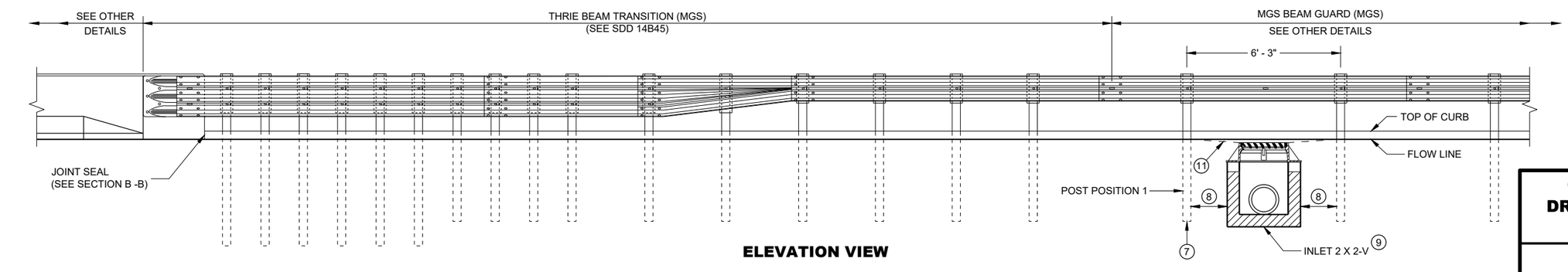
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
9. SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
10. START CURB AND GUTTER TRANSITION OR END SECTION.
11. DEPRESS FLOW LINE (SEE DETAIL)
12. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
13. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.



PLAN VIEW

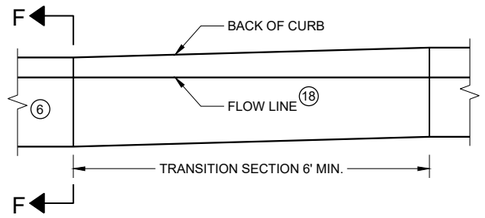


ELEVATION VIEW

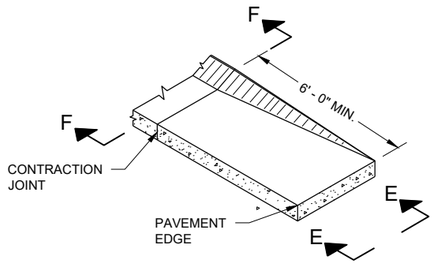
CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

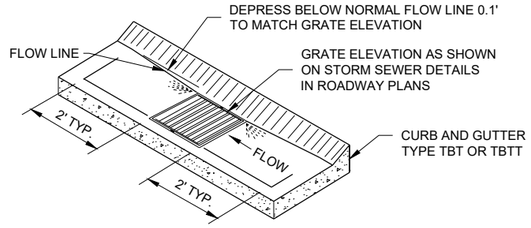
6
SDD 08D03 - 09a



CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION AT INLETS CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

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.

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.

(9) SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.

(10) START CURB AND GUTTER TRANSITION OR END SECTION.

(11) DEPRESS FLOW LINE (SEE DETAIL)

(12) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(13) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(14) GEOTEXTILE TYPE HR.

(15) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(16) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

(17) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

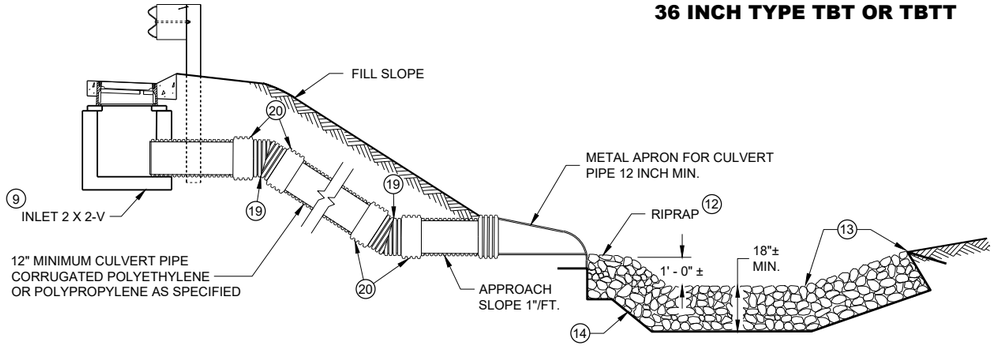
(18) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

(19) MANUFACTURER SUPPLIED BEND.

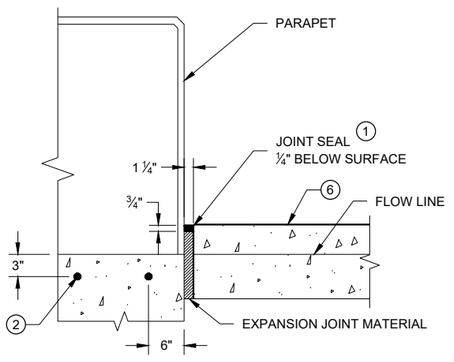
(20) MANUFACTURER SUPPLIED EXTERNAL MECHANICAL COUPLING OR A MANUFACTURER RECOMMENDED COUPLING WITH A MASTIC IMPREGNATED GEOTEXTILE WRAP AND MECHANICAL FASTENING BANDS.

(21) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

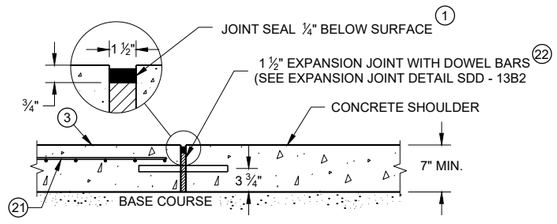
(22) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



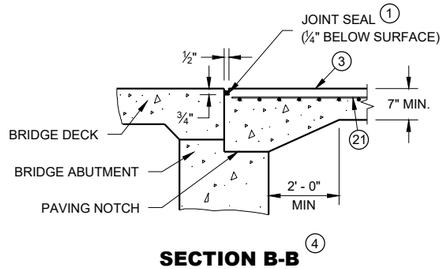
SECTION A - A



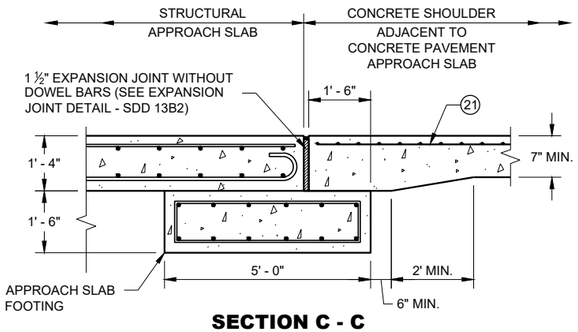
SECTION D - D



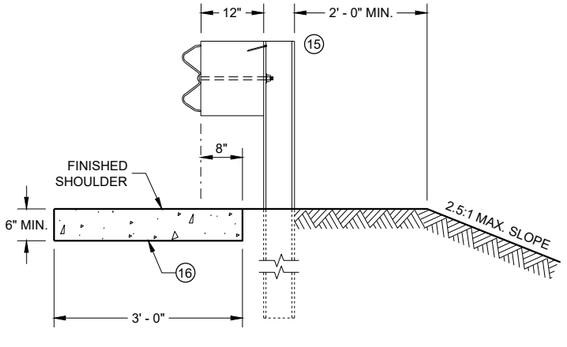
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



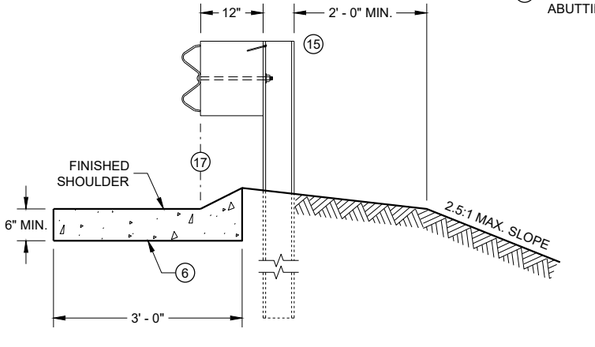
SECTION B-B (4)



SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

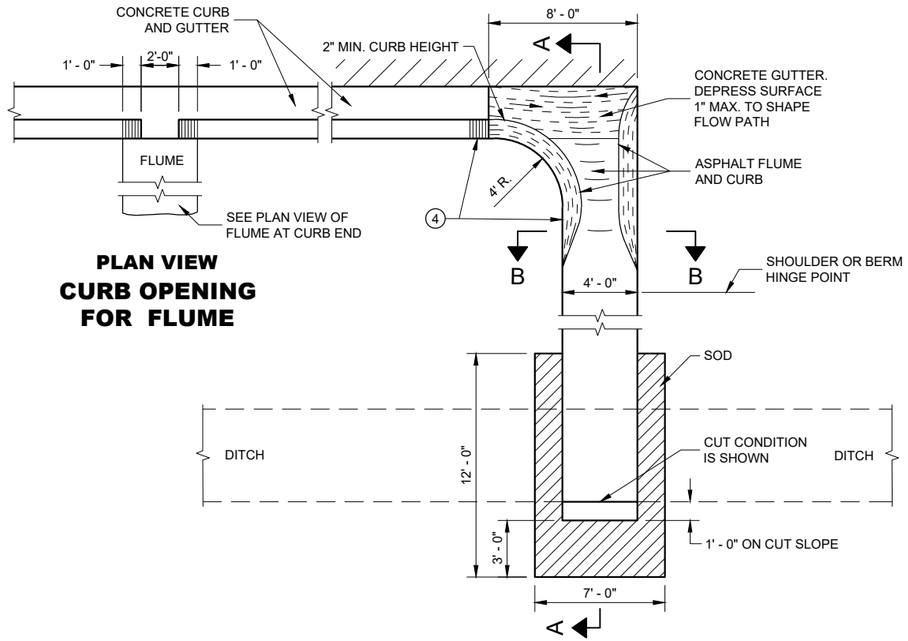
FHWA

6

SDD 08D03 - 09b
SDD 08D03 - 09b

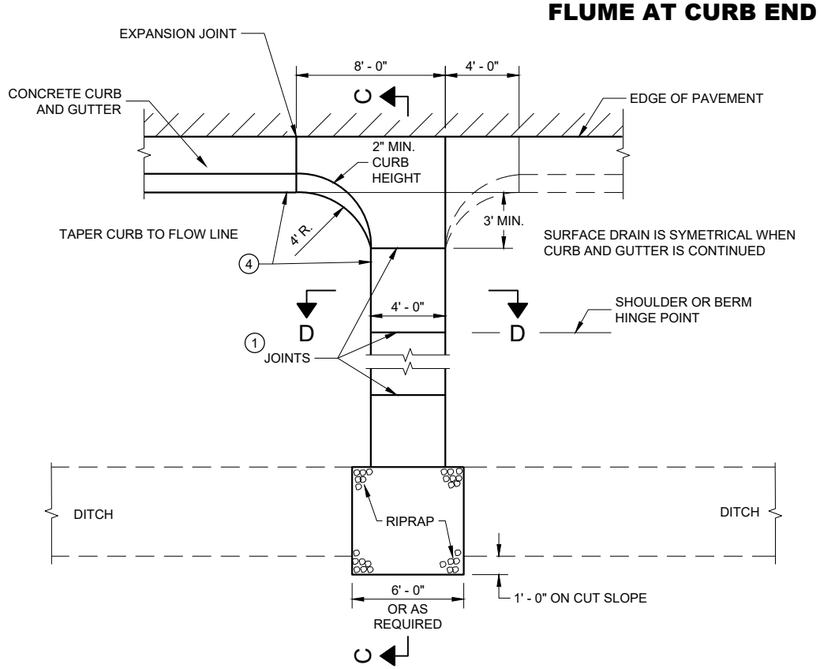
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



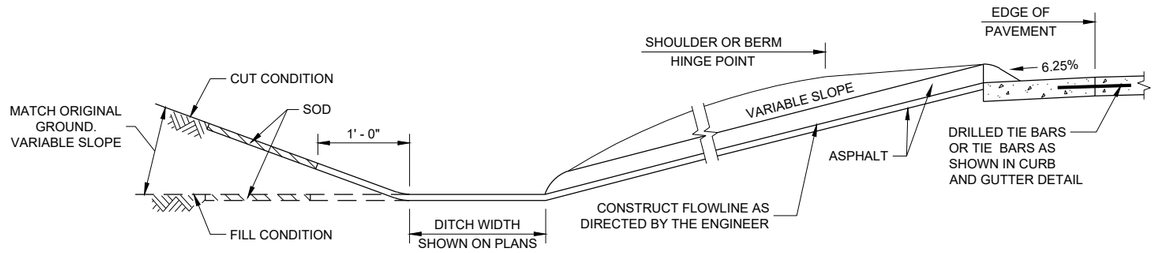
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

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

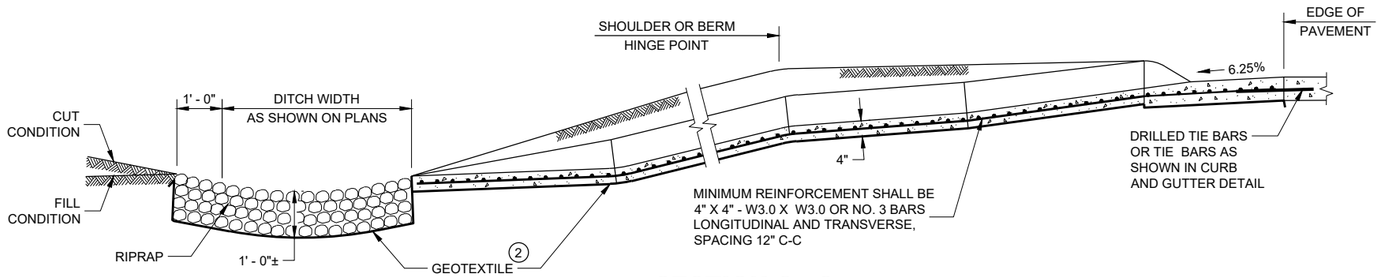
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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

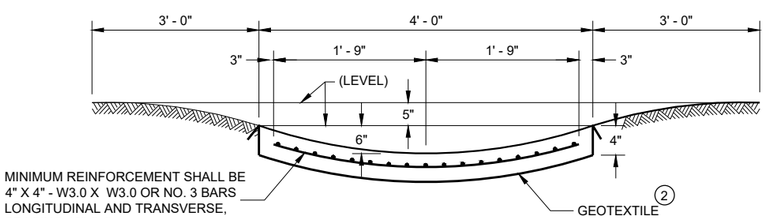


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

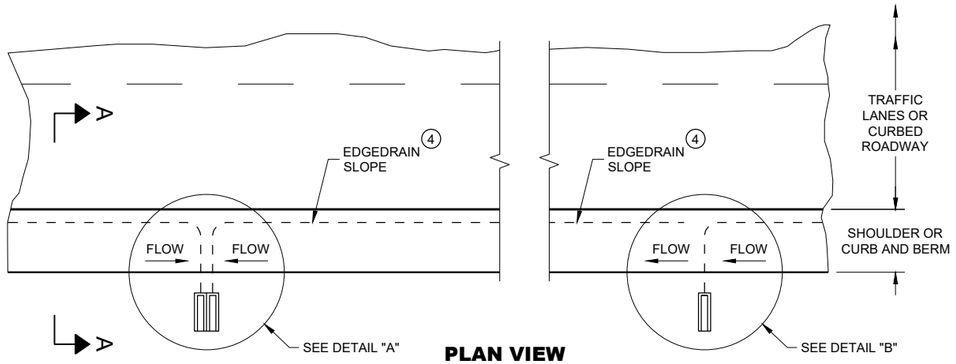
FHWA

6

SDD 08D04 - 07

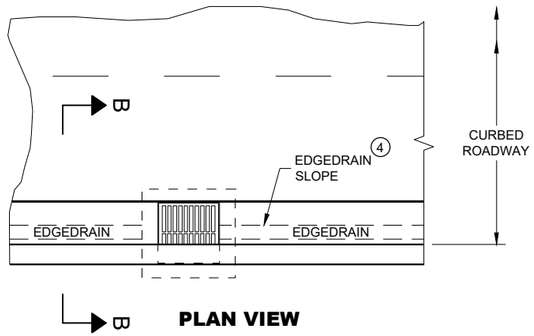
6

SDD 08D04 - 07



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

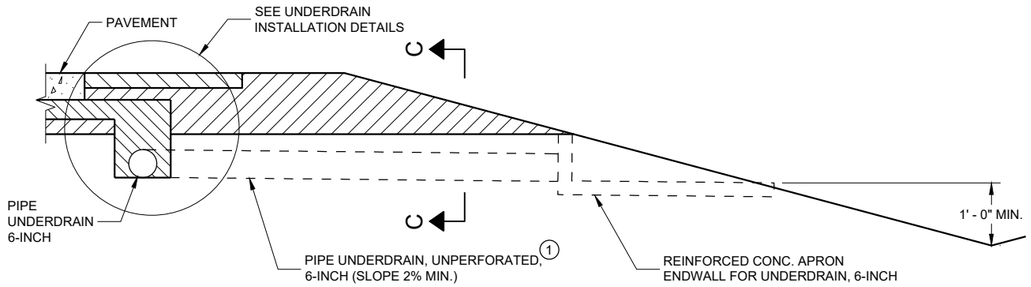
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

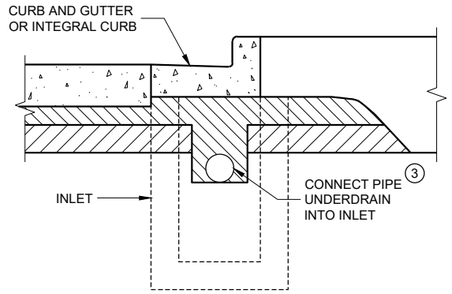
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



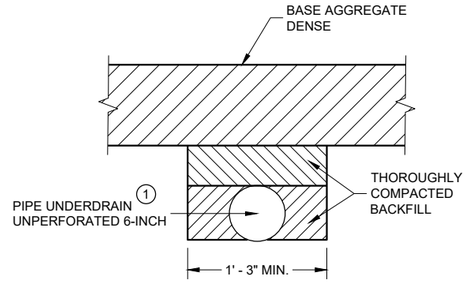
SECTION A - A

RURAL CROSS SECTION



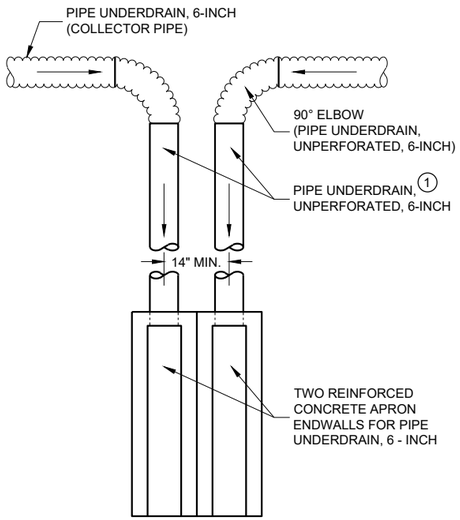
SECTION B - B

URBAN CROSS SECTION

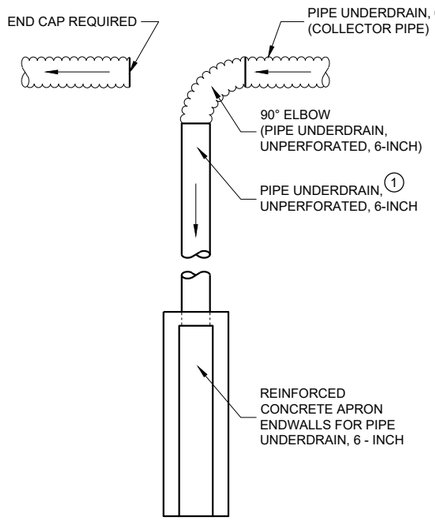


SECTION C - C

TRENCH FOR OUTFALL PIPE

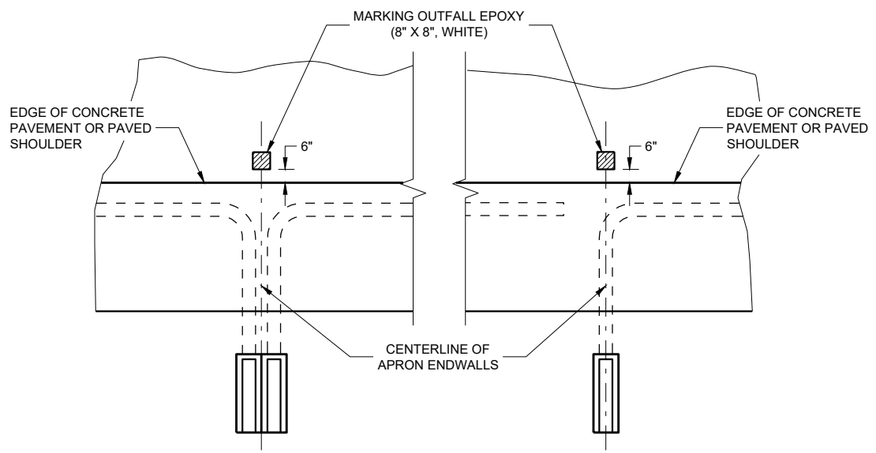


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

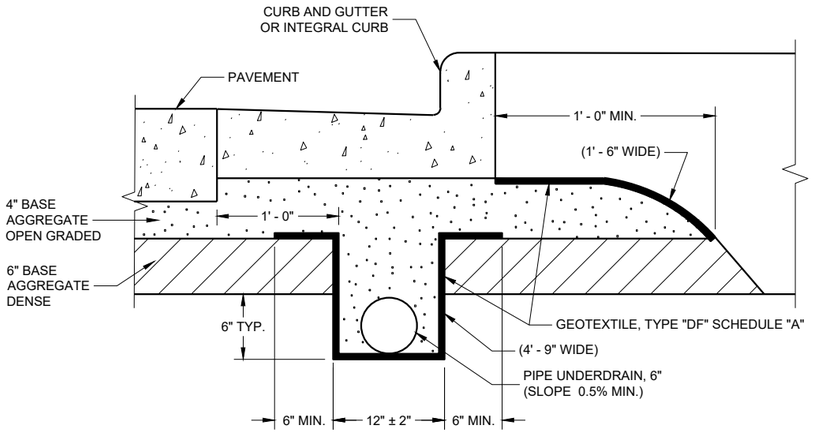
PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD08D15 - 05a



EDGEDRAIN IN URBAN ROADWAY

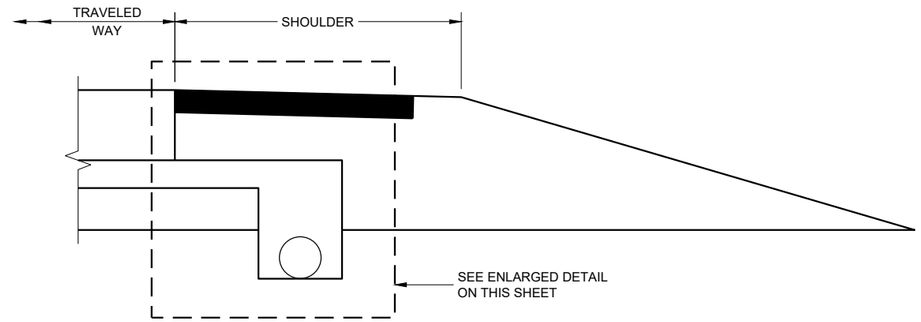
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

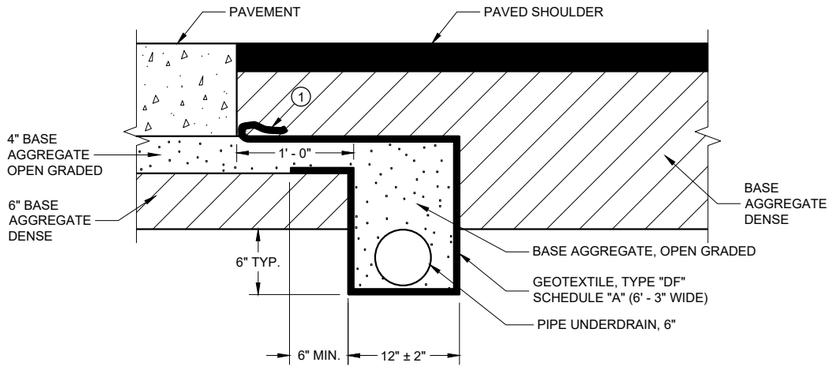
(1) FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.

(2) TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.



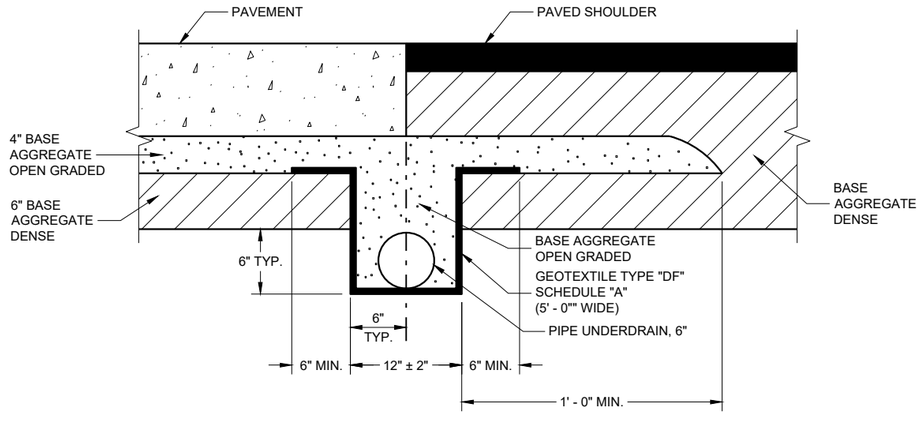
RURAL CROSS SECTION

6



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

6

SDD 08D15 - 05b

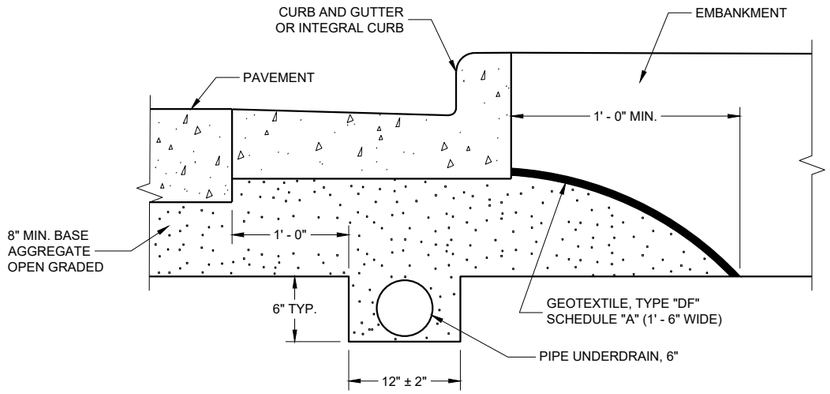
EGEDRAIN AND BASE AGGREGATE OPEN GRADED

SDD 08D15 - 05b

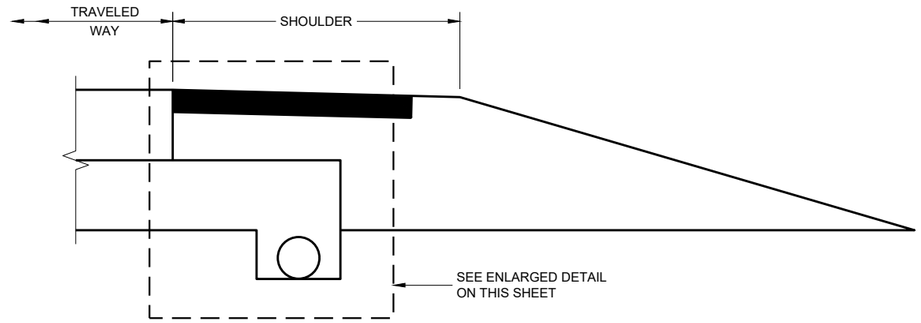
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

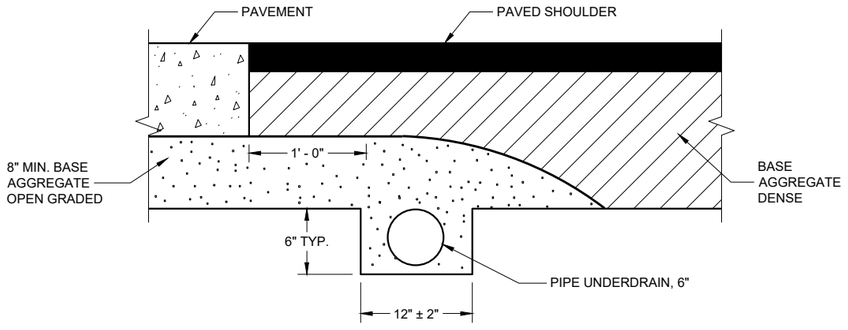
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.



EDGEDRAIN IN URBAN ROADWAY

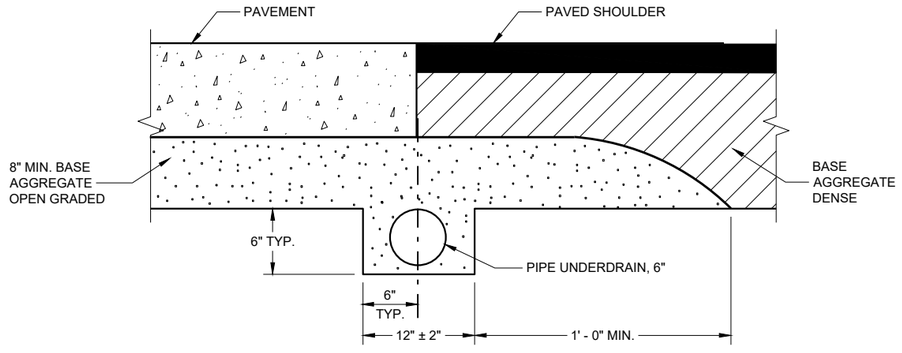


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

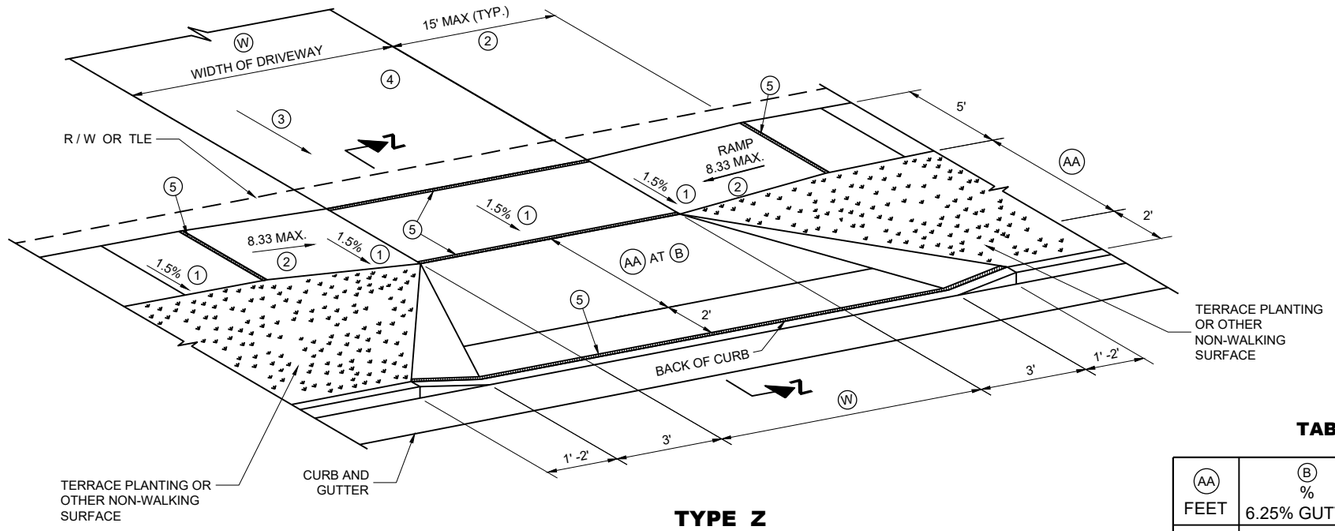
APPROVED
September 2015
DATE

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

FHWA

6

SDD 08D15 - 05c



TYPE Z

SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

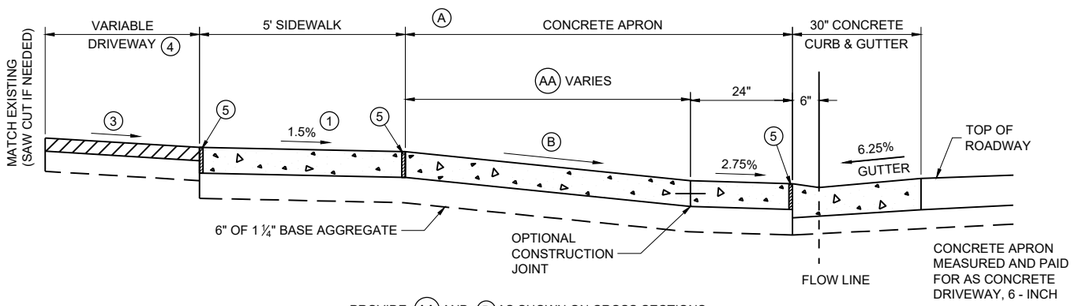
(5) ½" EXPANSION JOINT FILLER.

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

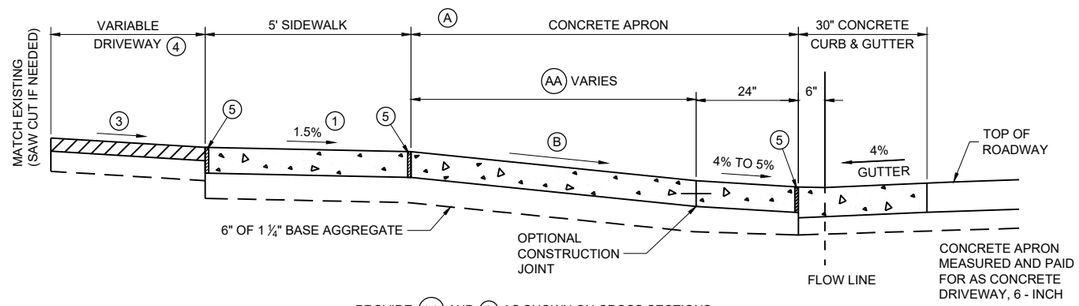
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

6.25% GUTTER SLOPE



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

4% GUTTER SLOPE

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

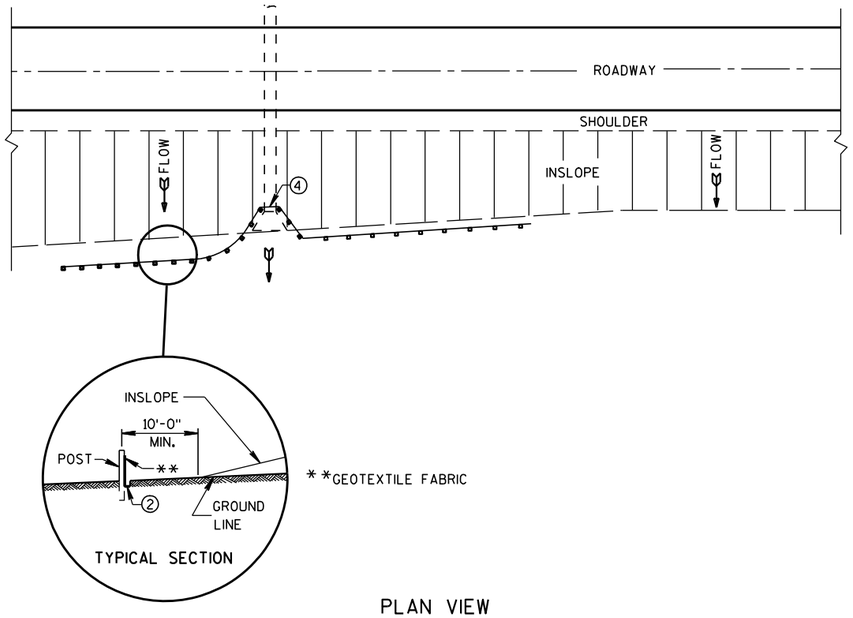
SECTION Z - Z
DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

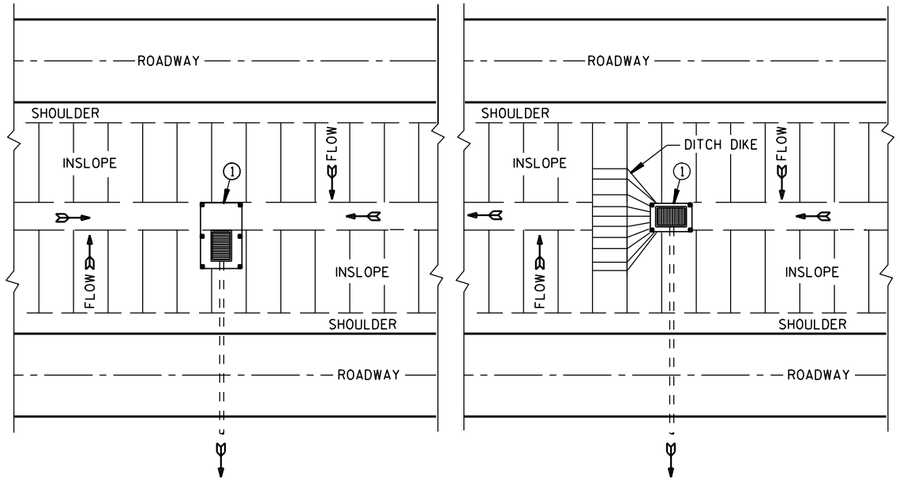
APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



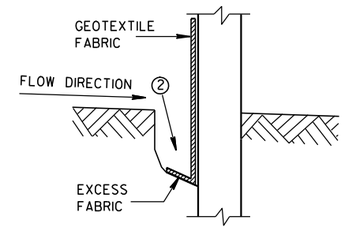
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

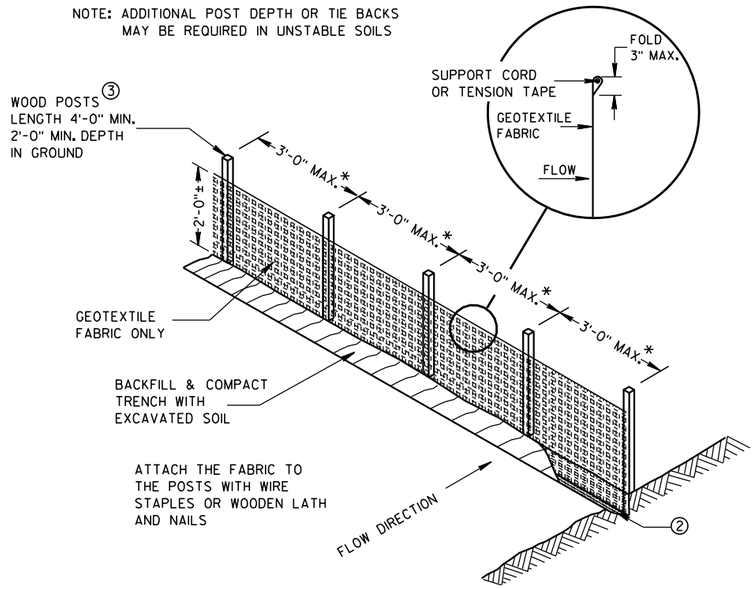
GENERAL NOTES

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

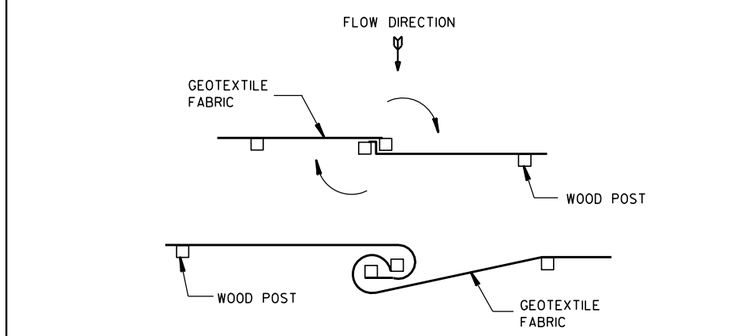
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



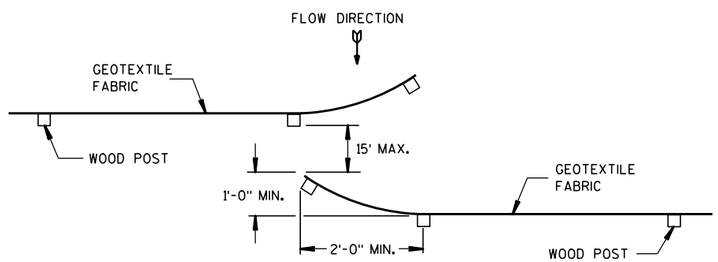
TRENCH DETAIL



SILT FENCE

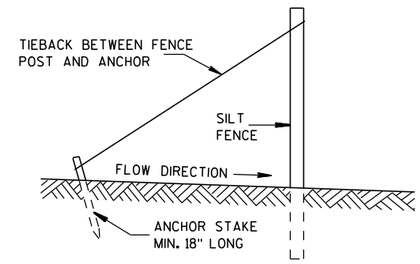


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

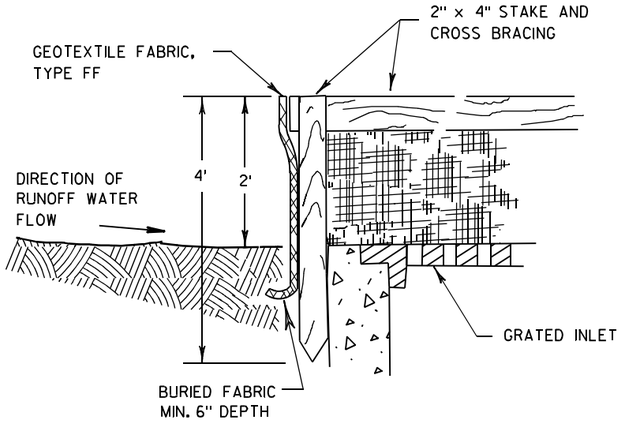
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

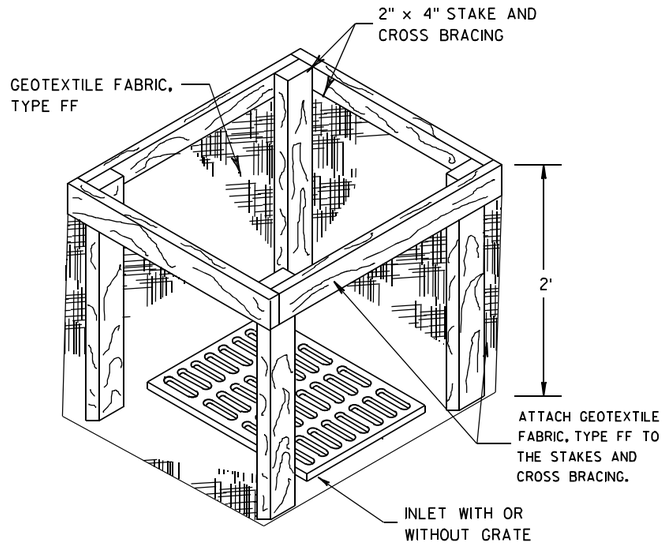
6

S.D.D. 8 E 9-6

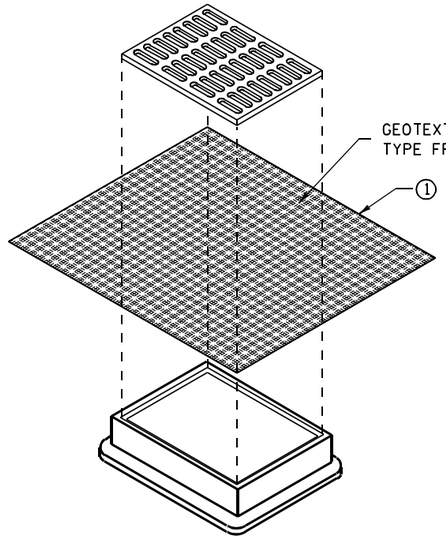
6

S.D.D. 8 E 9-6



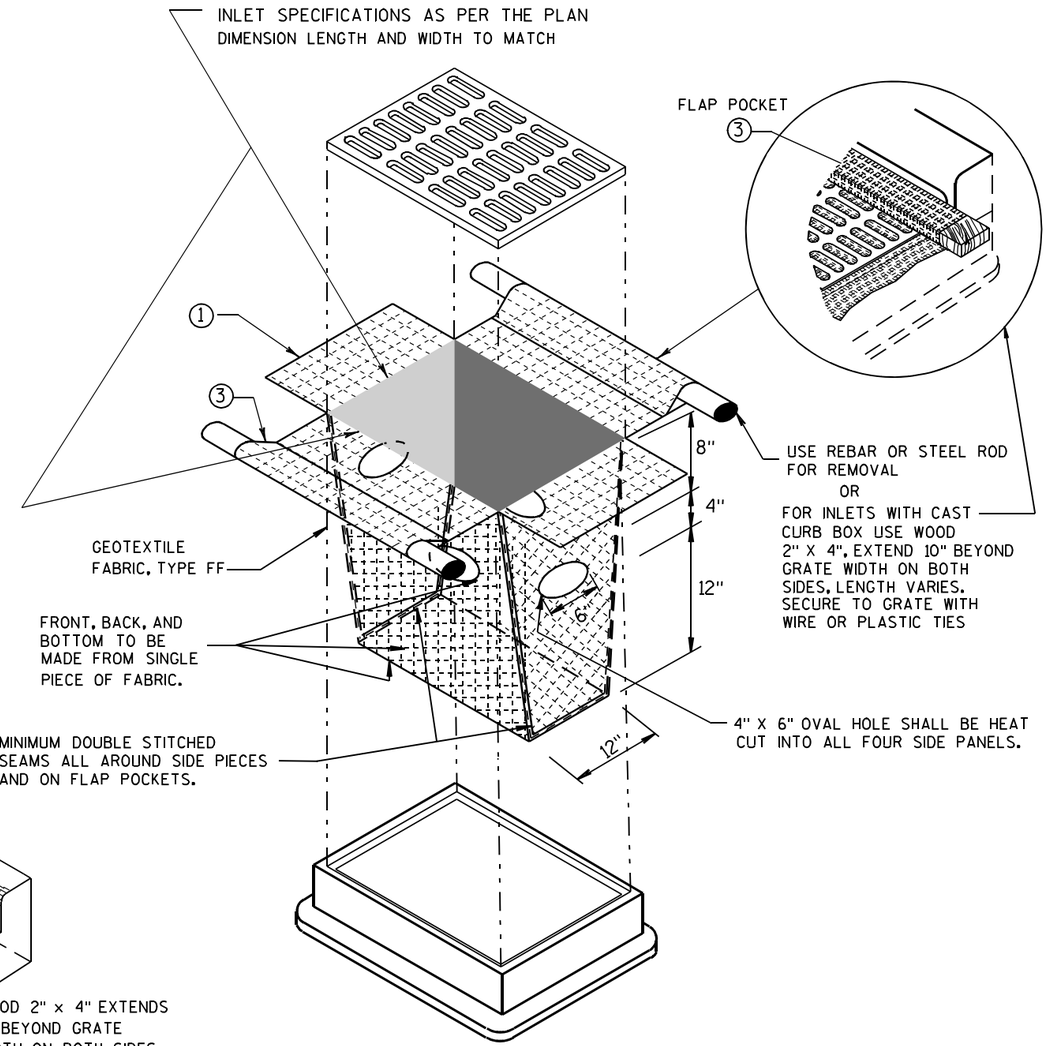


INLET PROTECTION, TYPE A



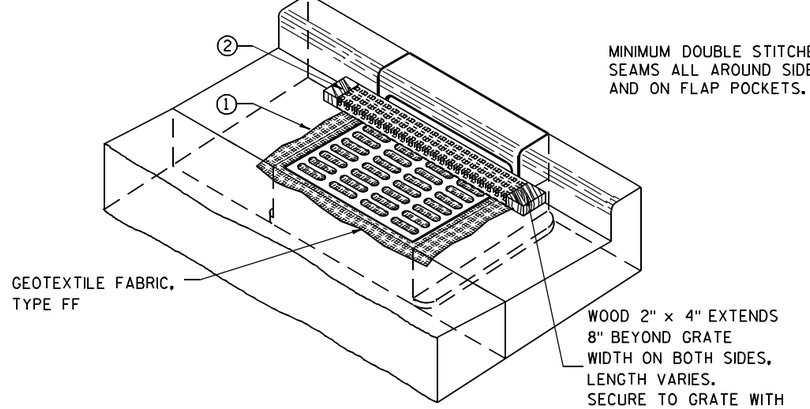
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

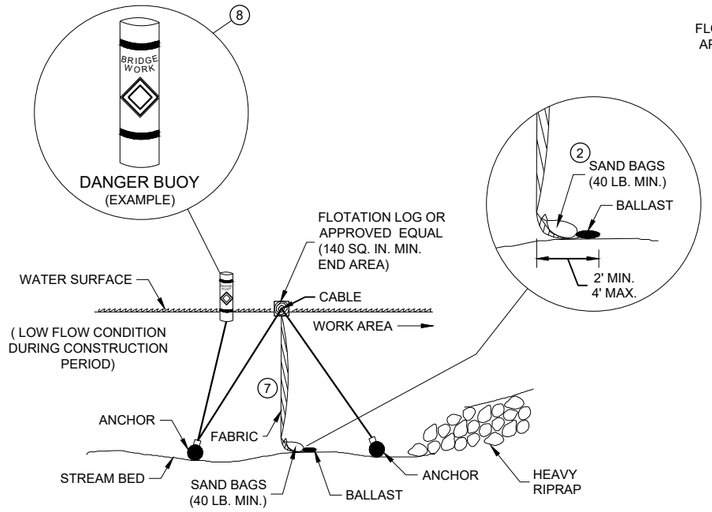
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

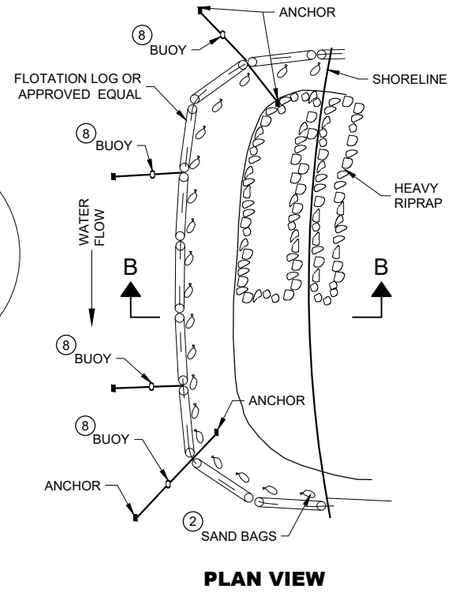
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2

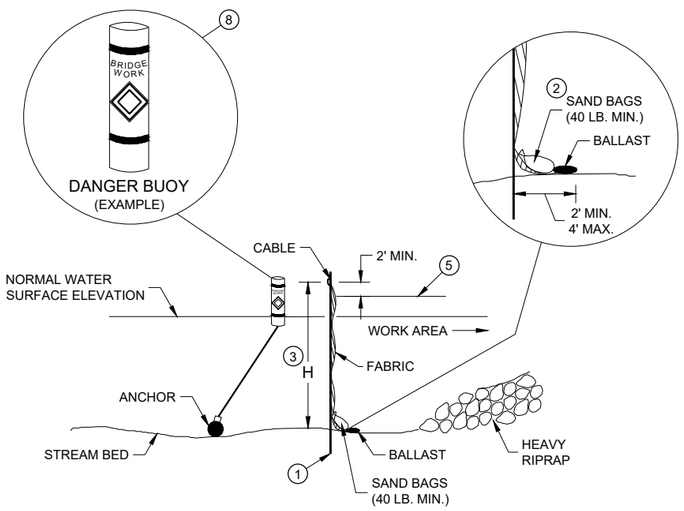


SECTION B - B

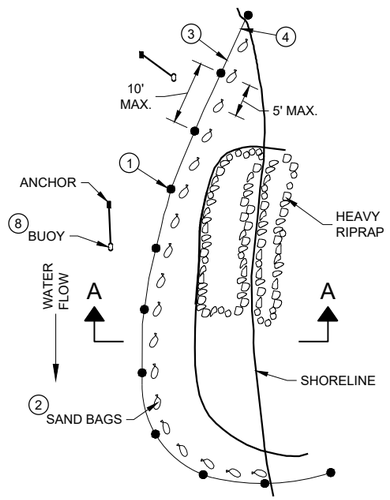


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

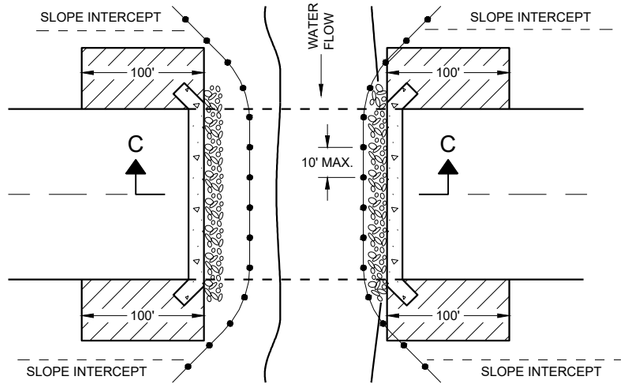
TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

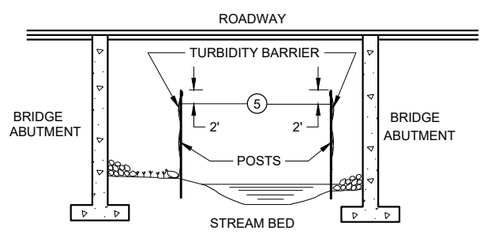
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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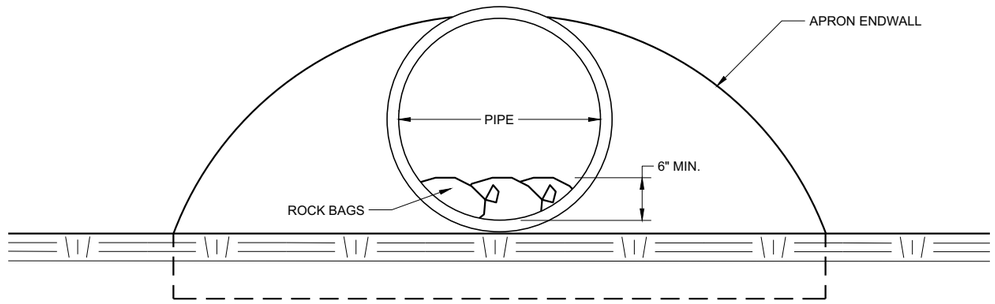
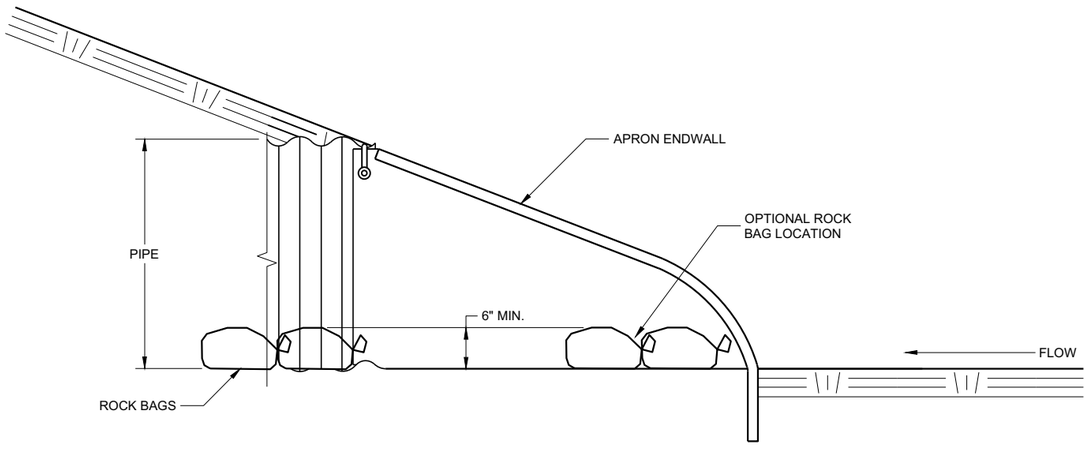
SDD 08E11 - 02



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

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

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SDD 08E15 - 01

METAL APRON ENDWALLS

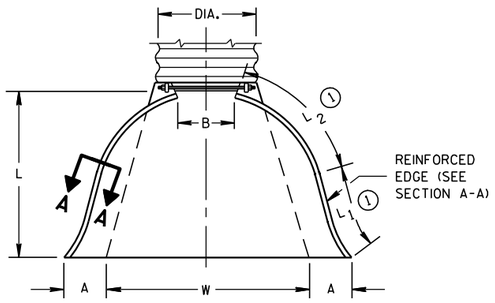
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

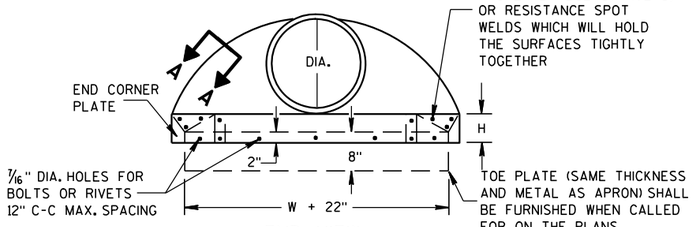
REINFORCED CONCRETE APRON ENDWALLS

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

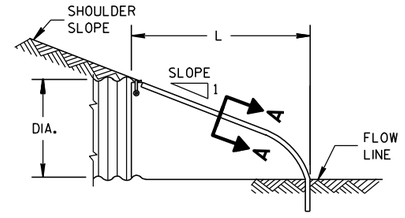
*MINIMUM
**MAXIMUM



PLAN VIEW

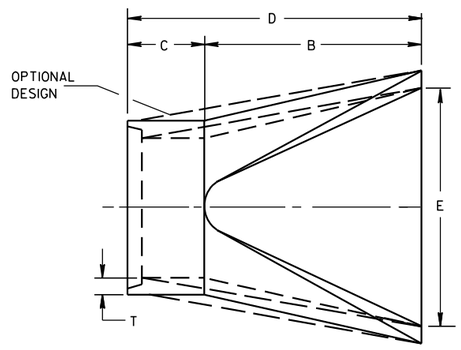


END VIEW

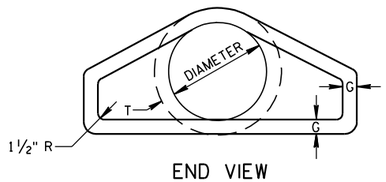


SIDE ELEVATION

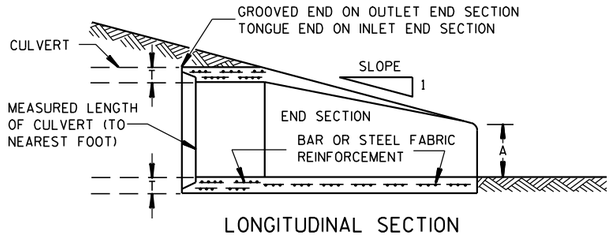
METAL ENDWALLS



PLAN

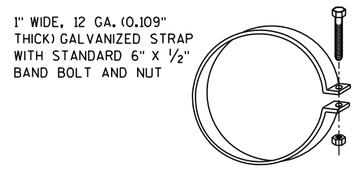


END VIEW



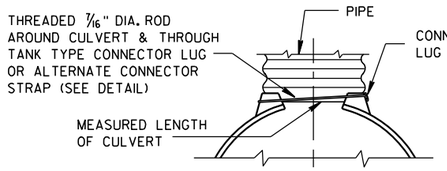
LONGITUDINAL SECTION

CONCRETE ENDWALLS

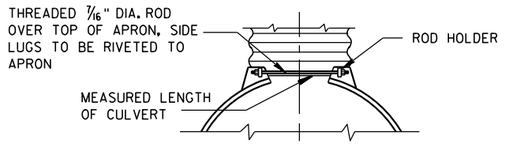


ALTERNATE FOR TYPE 1 CONNECTION

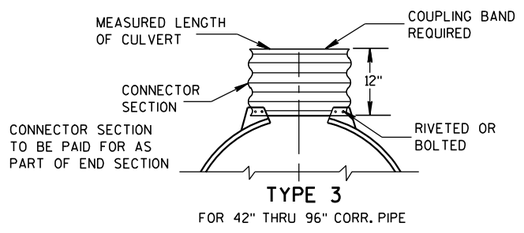
END SECTION CONNECTOR STRAP



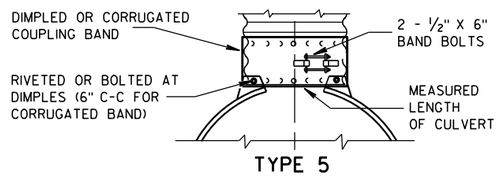
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

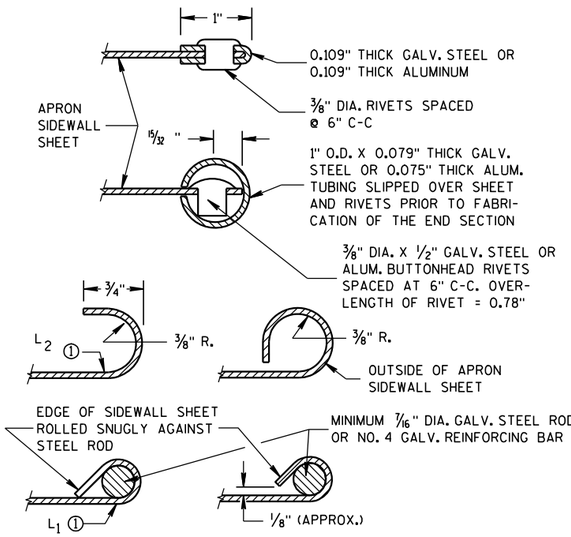
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

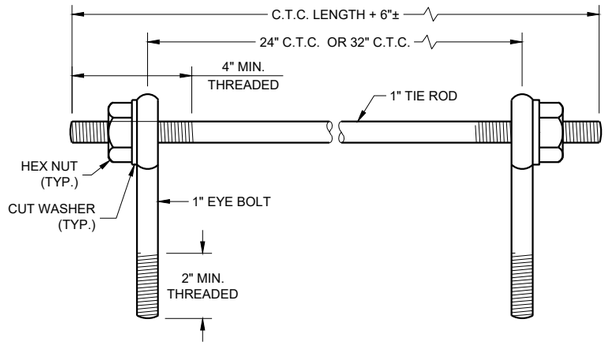
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

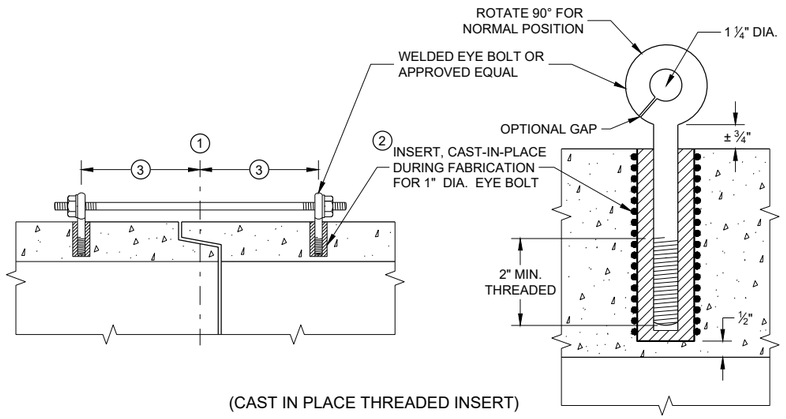
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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.

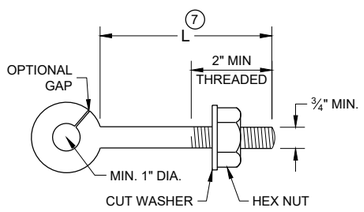
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

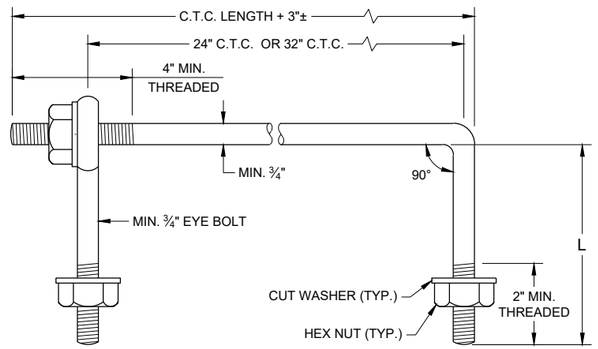
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

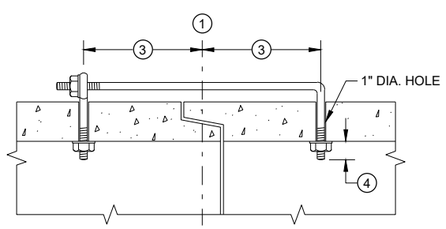


EYE BOLT (7)

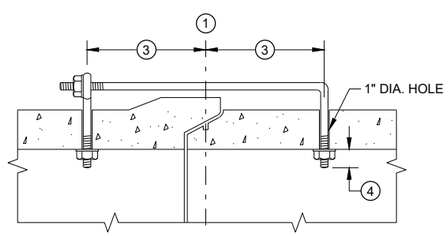
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

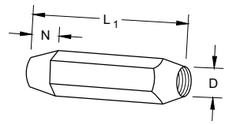
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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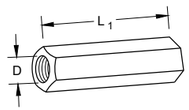
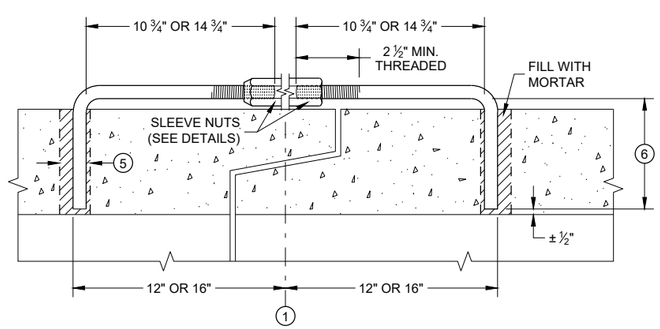


PLAIN

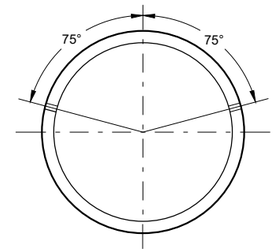
RIGHT AND LEFT THREADS

SLEEVE NUTS



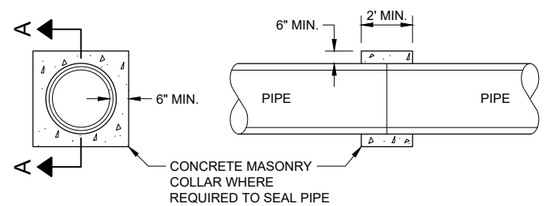
LONGITUDINAL SECTION

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

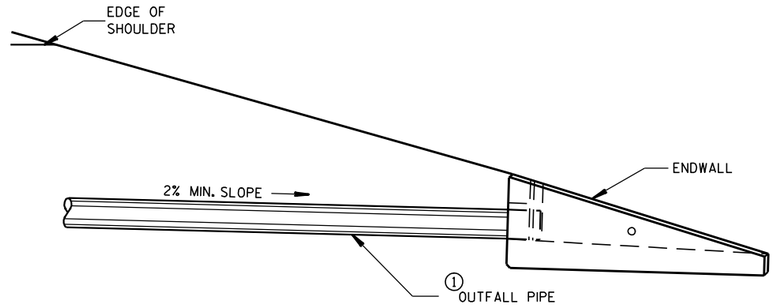
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 08F04 - 08

SDD 08F04 - 08

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

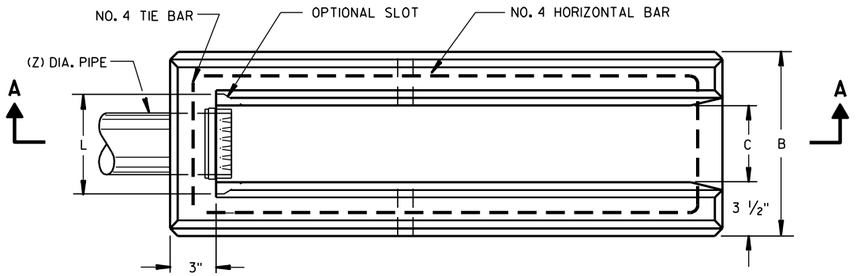
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

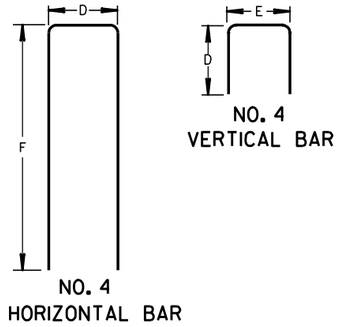
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

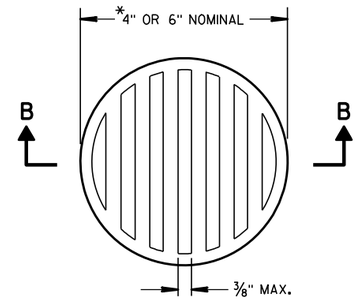
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

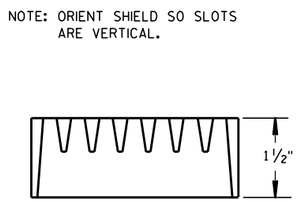


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

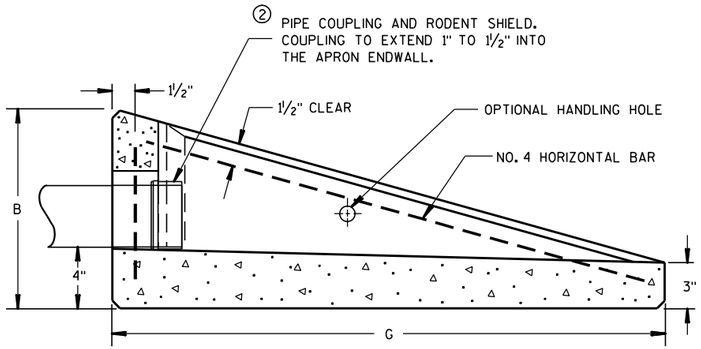




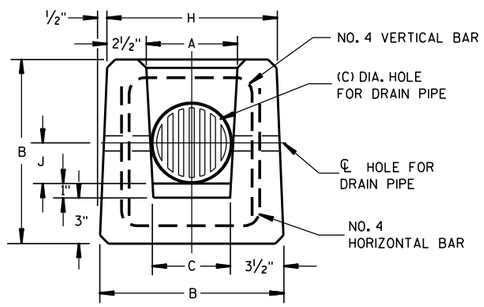
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

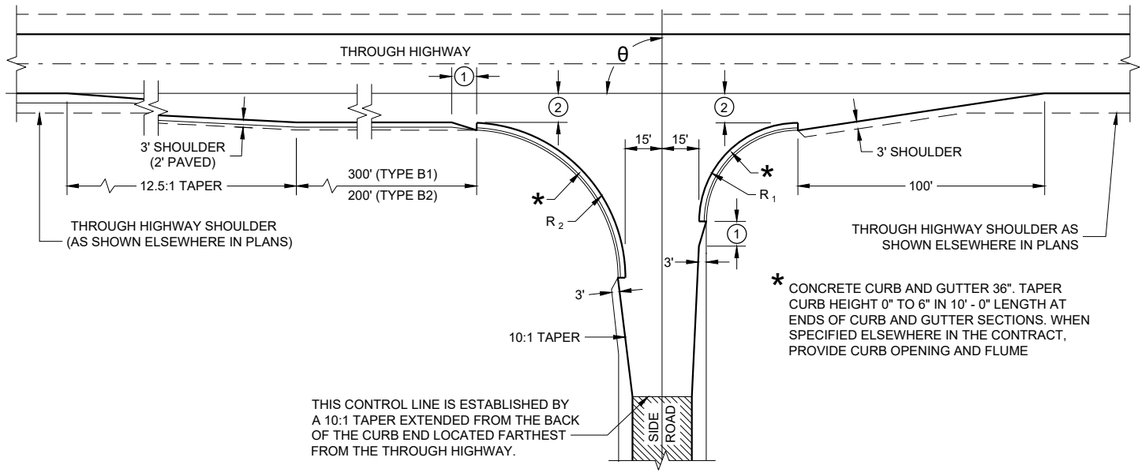
REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 6-4



* 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.

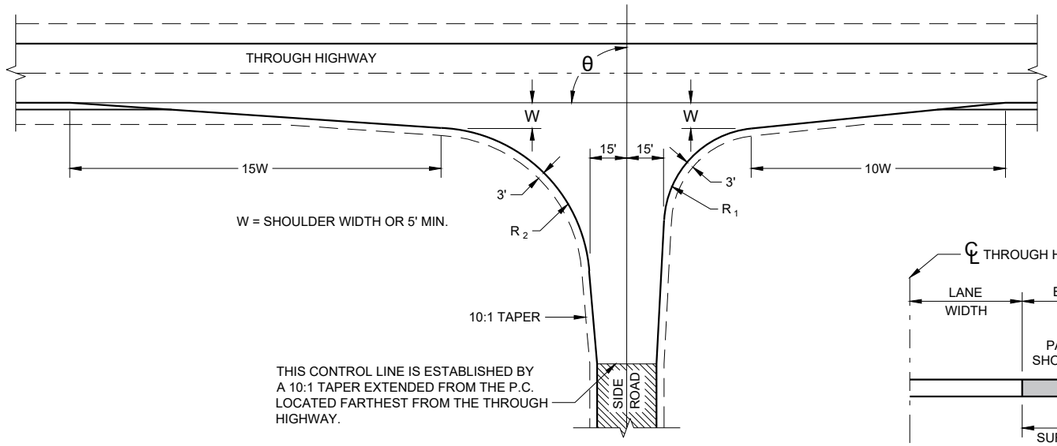
(1) 10-FT TYPICAL.

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

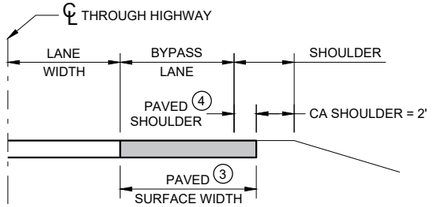
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(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

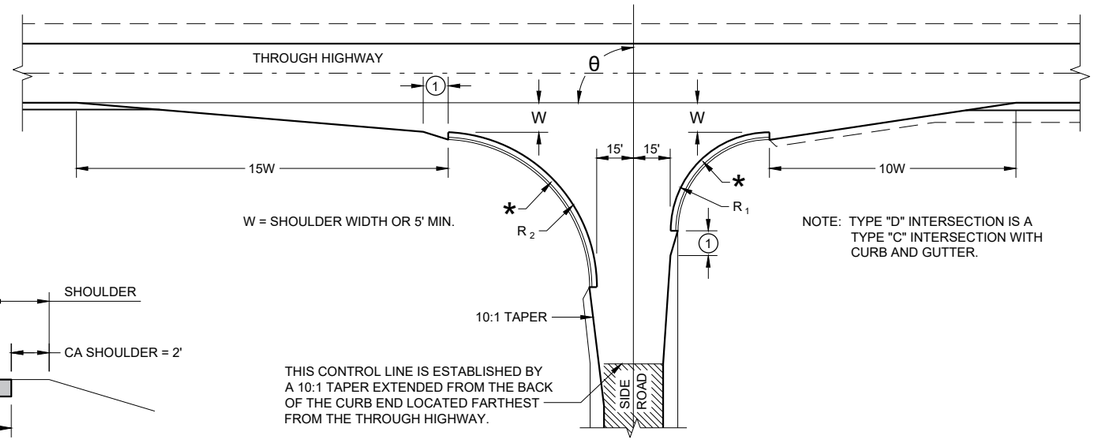
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

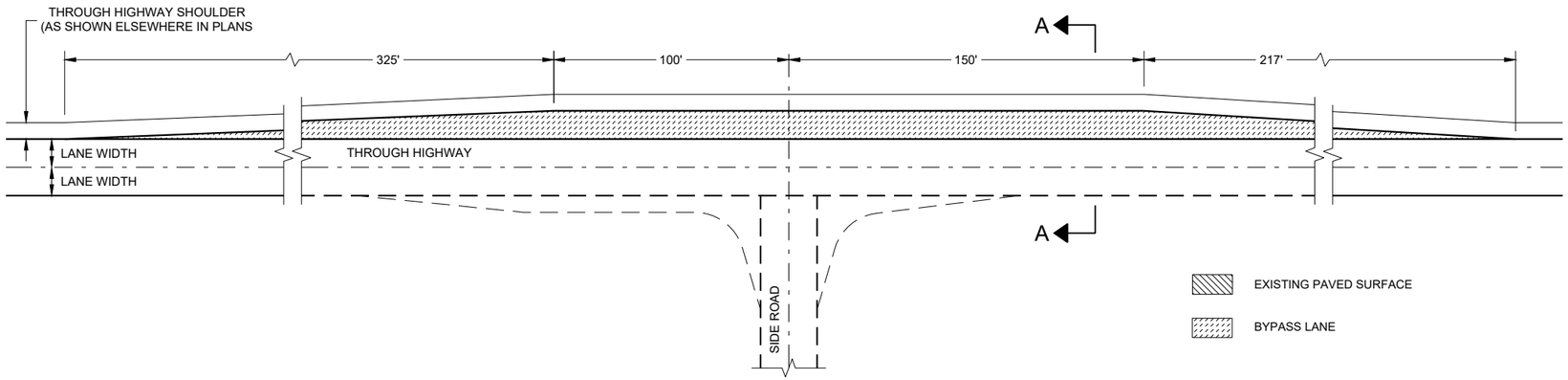


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



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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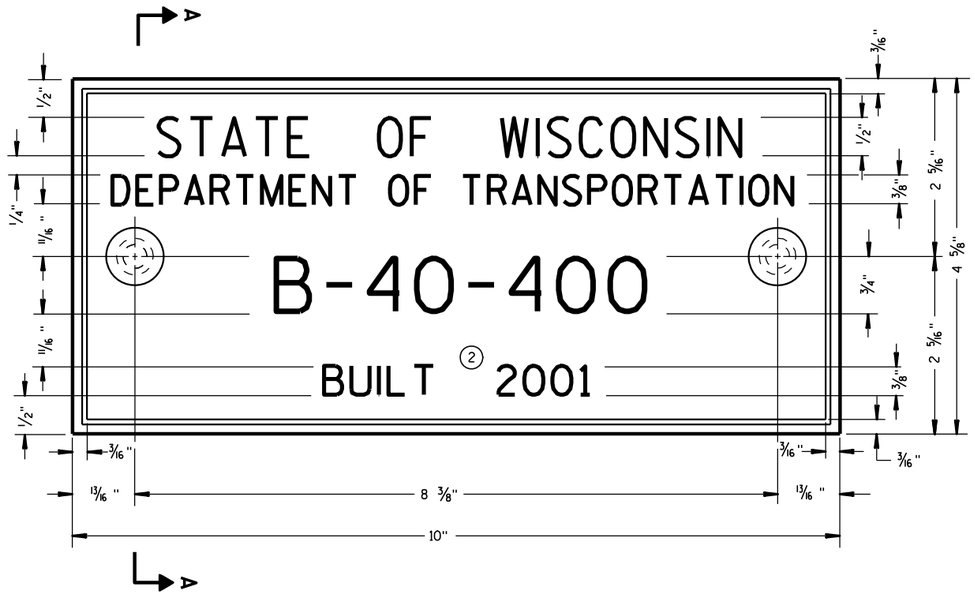


TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

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

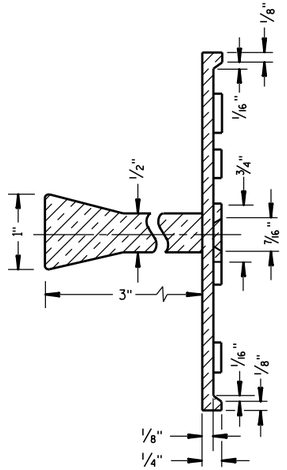
GENERAL NOTES

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.

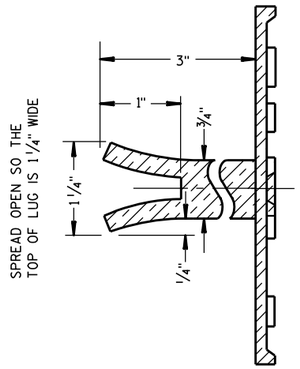
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

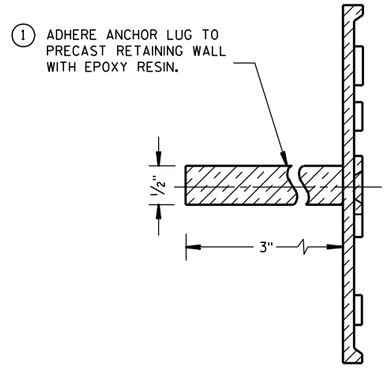
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

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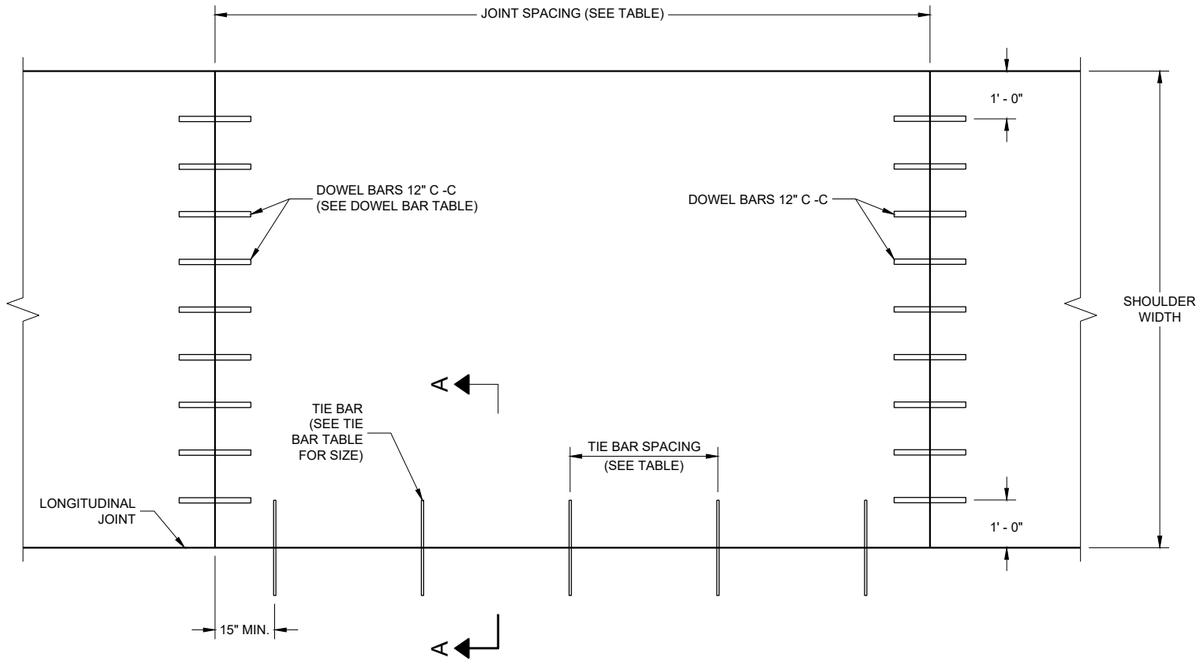


PLAN VIEW

CONCRETE PAVEMENT SHOULDER

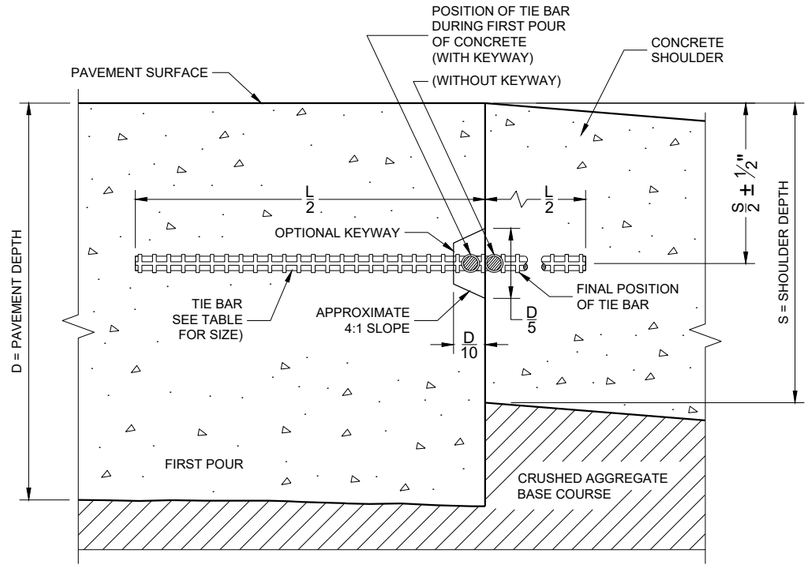
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A - A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
<10 ½"	NO. 4	30"	36"
>10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER ***	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12"
7", 7 ½"	1"	14"
8" & ABOVE	1 ¼"	15"

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FRO THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Peter Kemp — PAVEMENT SUPERVIS

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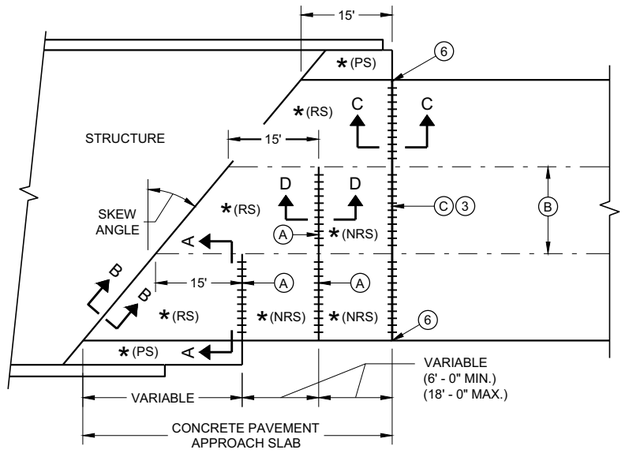
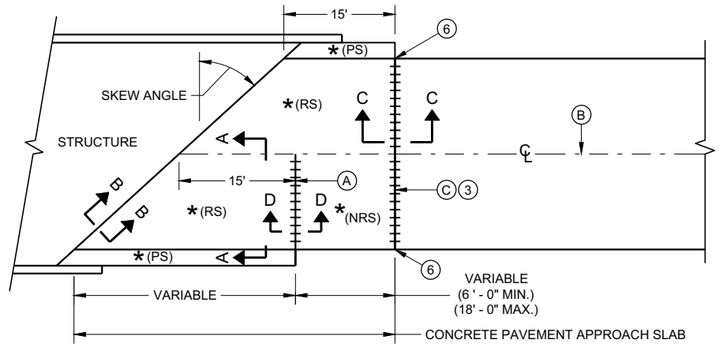
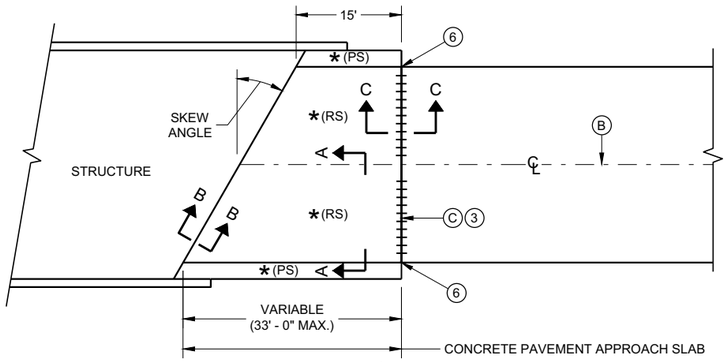


SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

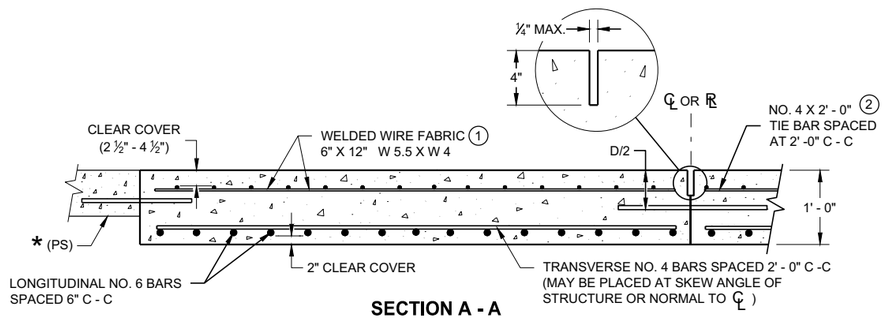
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

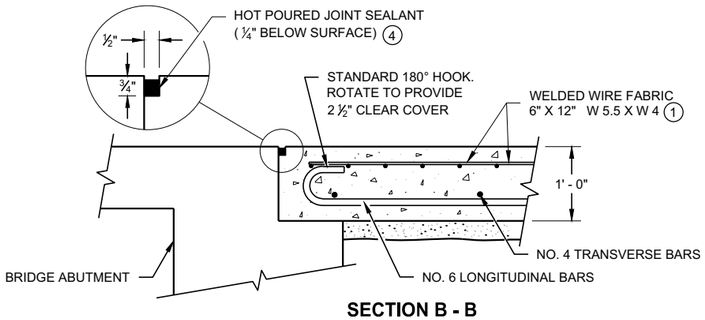
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

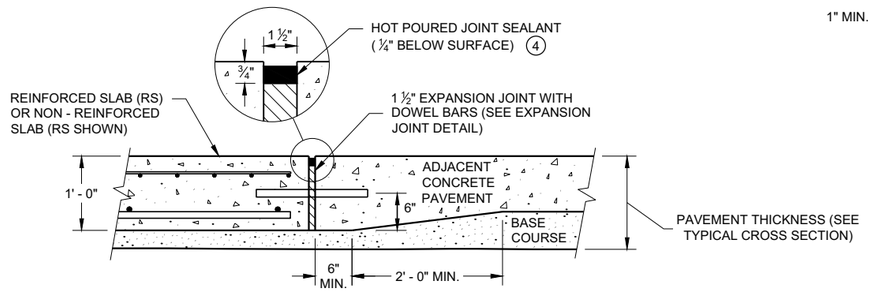
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

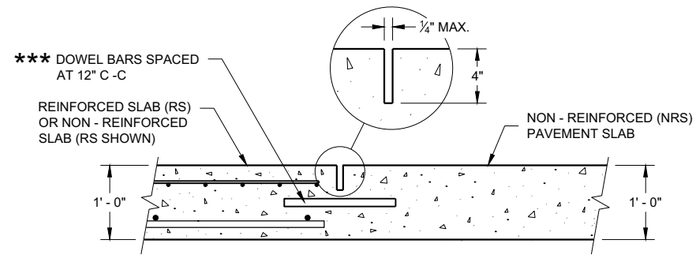
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

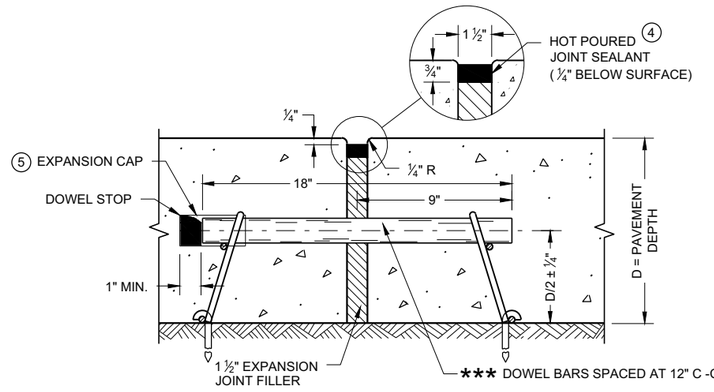
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

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

FHWA

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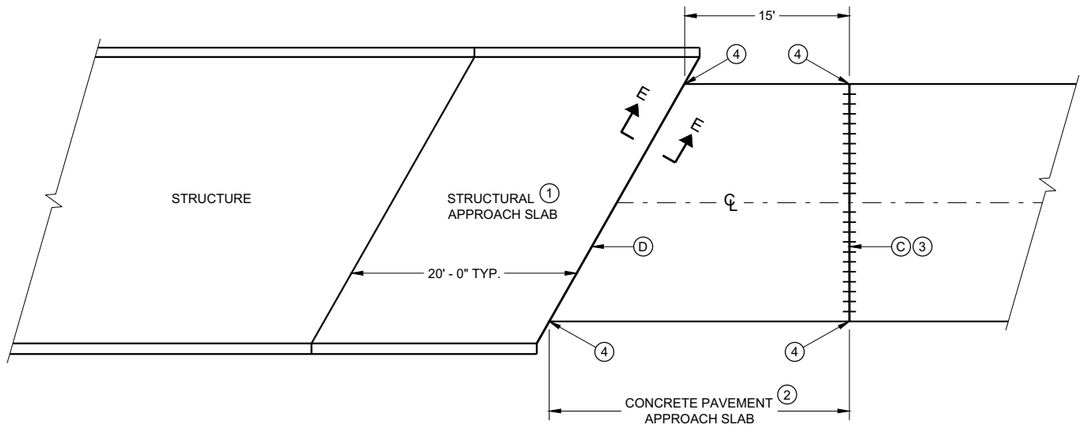
SDD 13B02 - 09a



BRIDGE APPROACHES

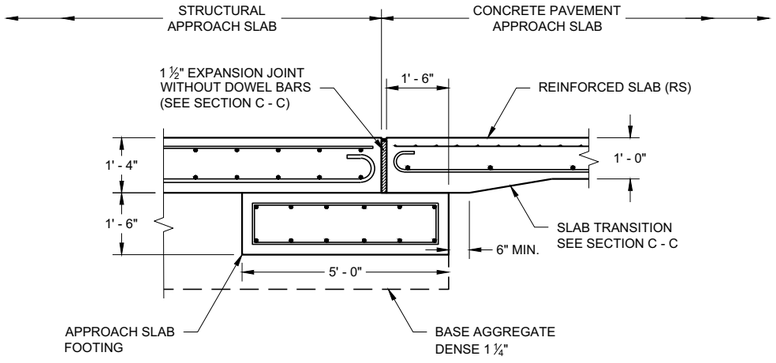
GENERAL NOTES

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

1. SEE BRIDGE PLAN.
2. CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS
3. DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
4. EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

C. 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

D. 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
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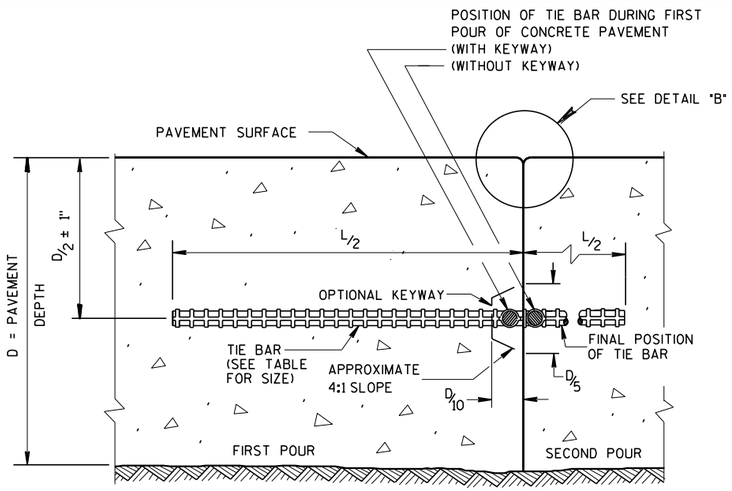
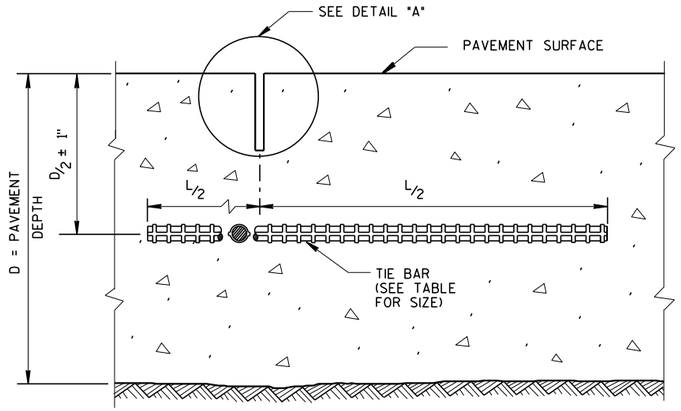
SDD 13B02 - 09b
SDD 13B02 - 09b



CONSTRUCTION JOINT



SAWED JOINT

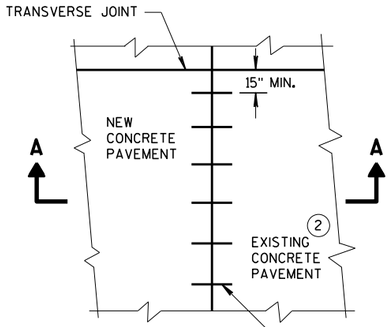
GENERAL NOTES

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

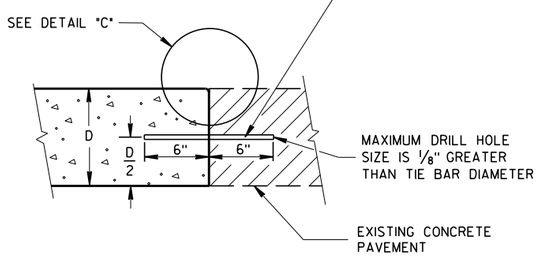
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

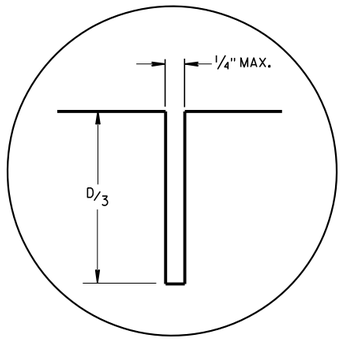


PLAN VIEW

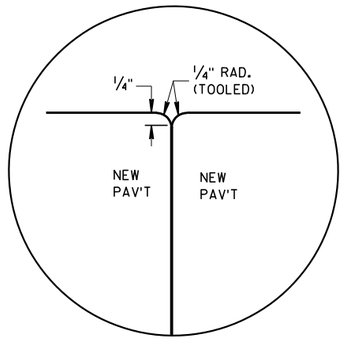


SECTION A-A

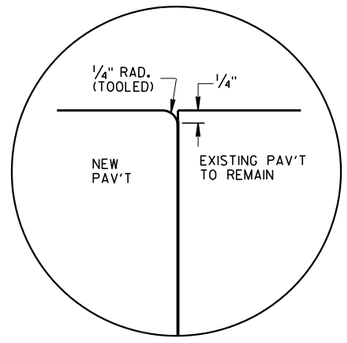
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



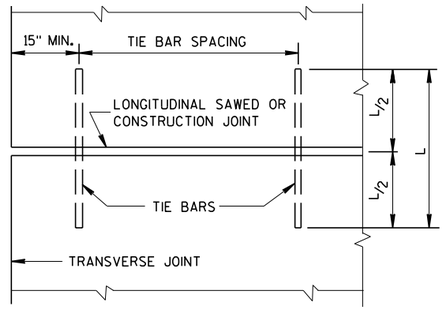
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp — PAVEMENT SUPE
FHWA

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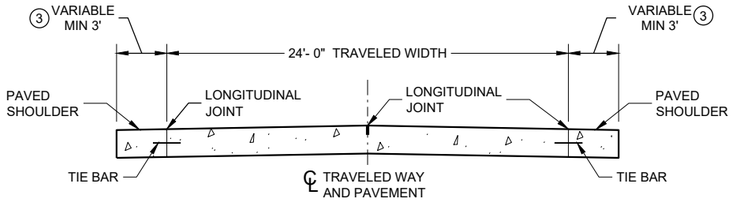
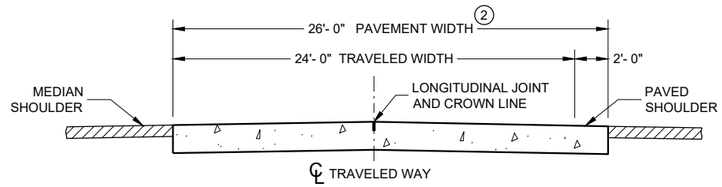
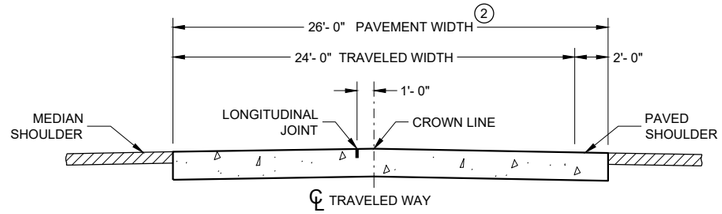


SECTION A - A

TWO-LANE TWO-WAY HIGHWAY (1)



SECTION B - B



ALTERNATIVE SECTION B - B

DIVIDED HIGHWAY (1)

GENERAL NOTES

CONTRACTION JOINTS

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

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

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

CONSTRUCTION JOINTS

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

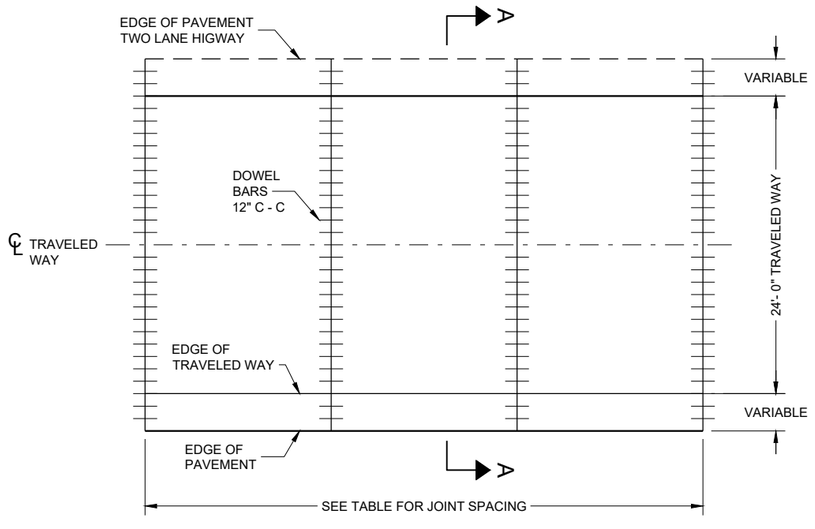
(1) REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

(2) MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED "PAVED SHOULDER" AS CONCRETE PAVEMENT.

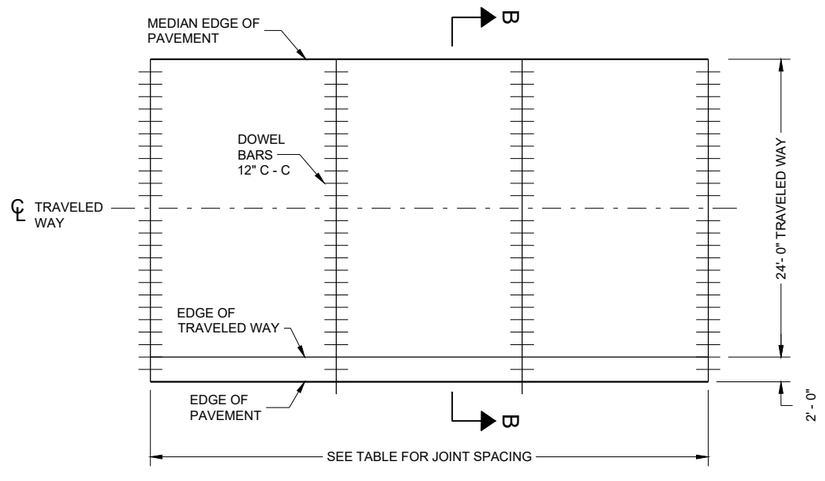
(3) SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



CONTRACTION JOINT LAYOUT FOR TWO-LANE TWO-WAY HIGHWAY



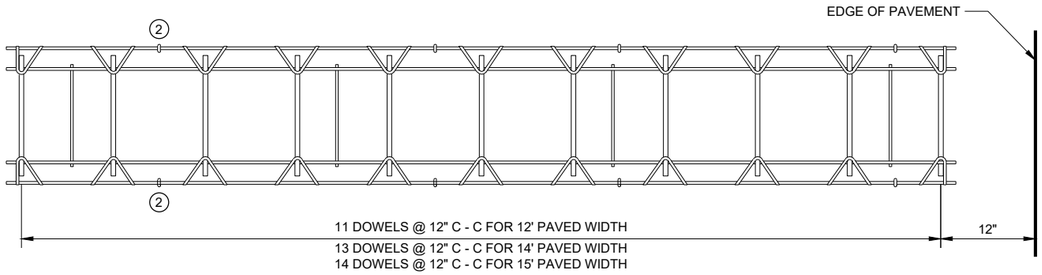
CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD13C11 - 14a



PLAN VIEW

SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY (1)

GENERAL NOTES

(1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.

(2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

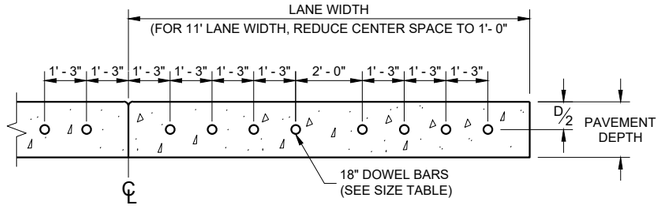
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

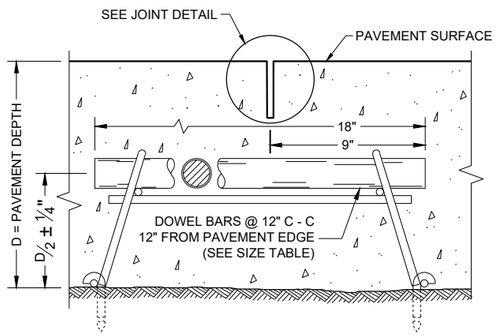
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

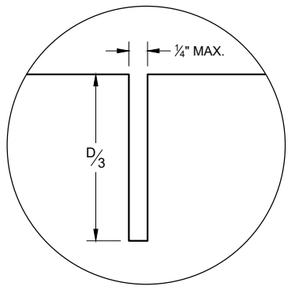
(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



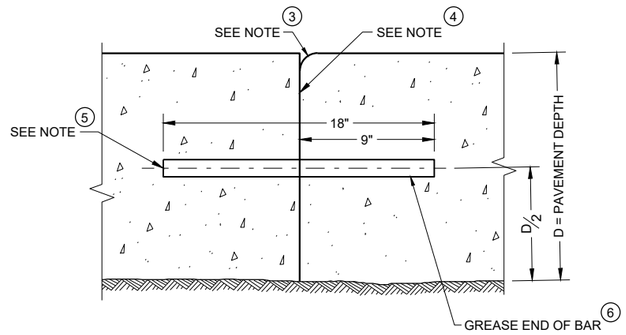
DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



DOWELED CONTRACTION JOINT



JOINT DETAIL



TRANSVERSE CONSTRUCTION JOINT

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

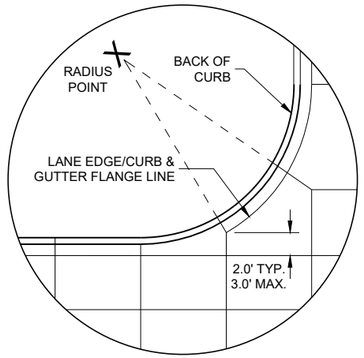
APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

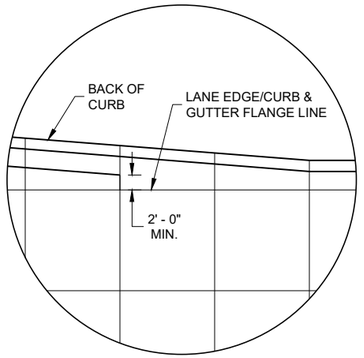
FHWA

6

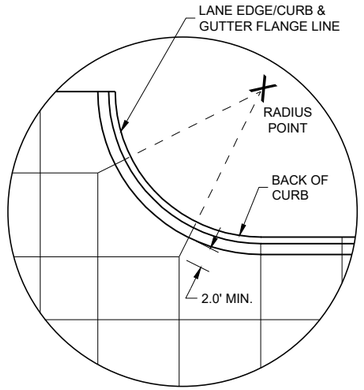
SDD 13C11 - 14b



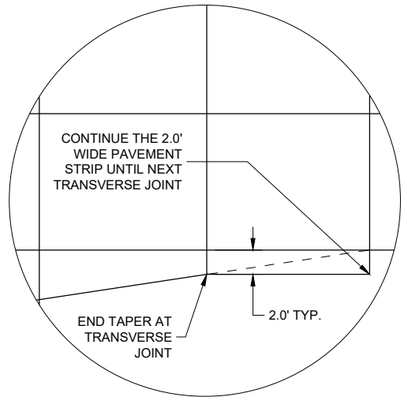
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

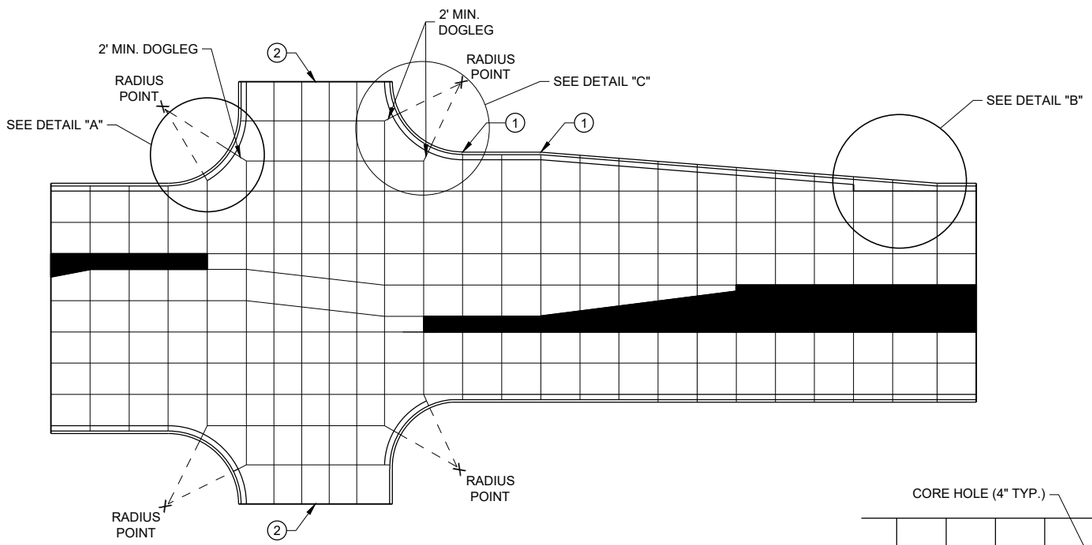
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

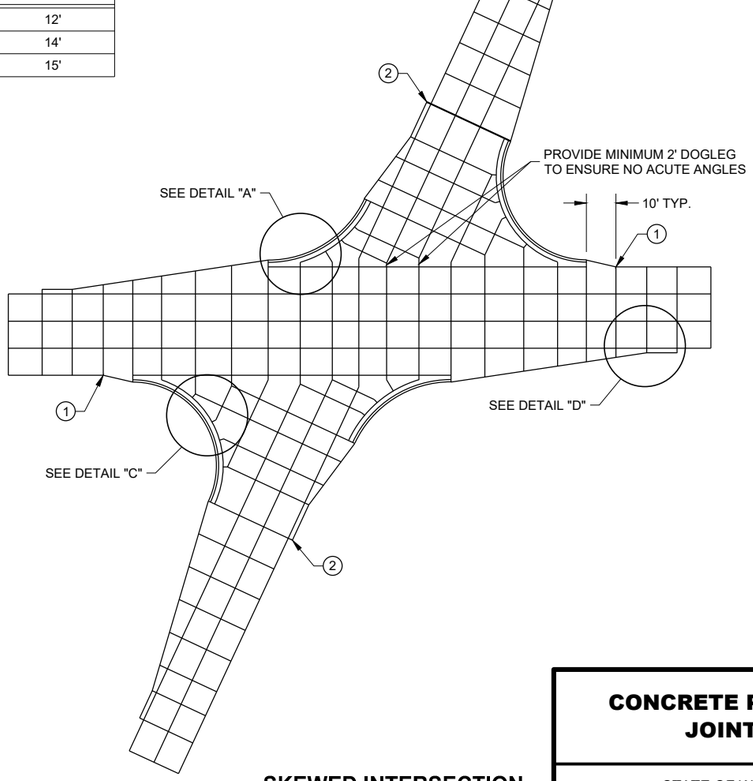
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



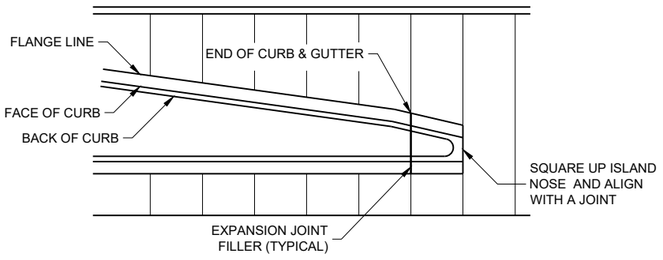
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

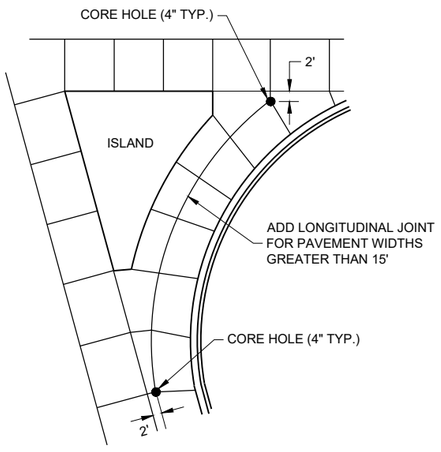
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

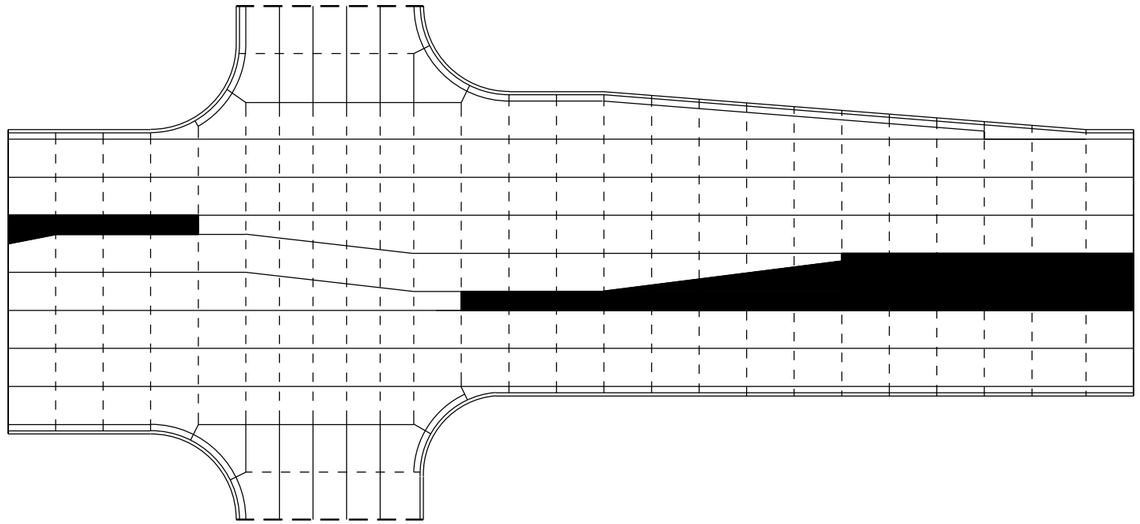
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

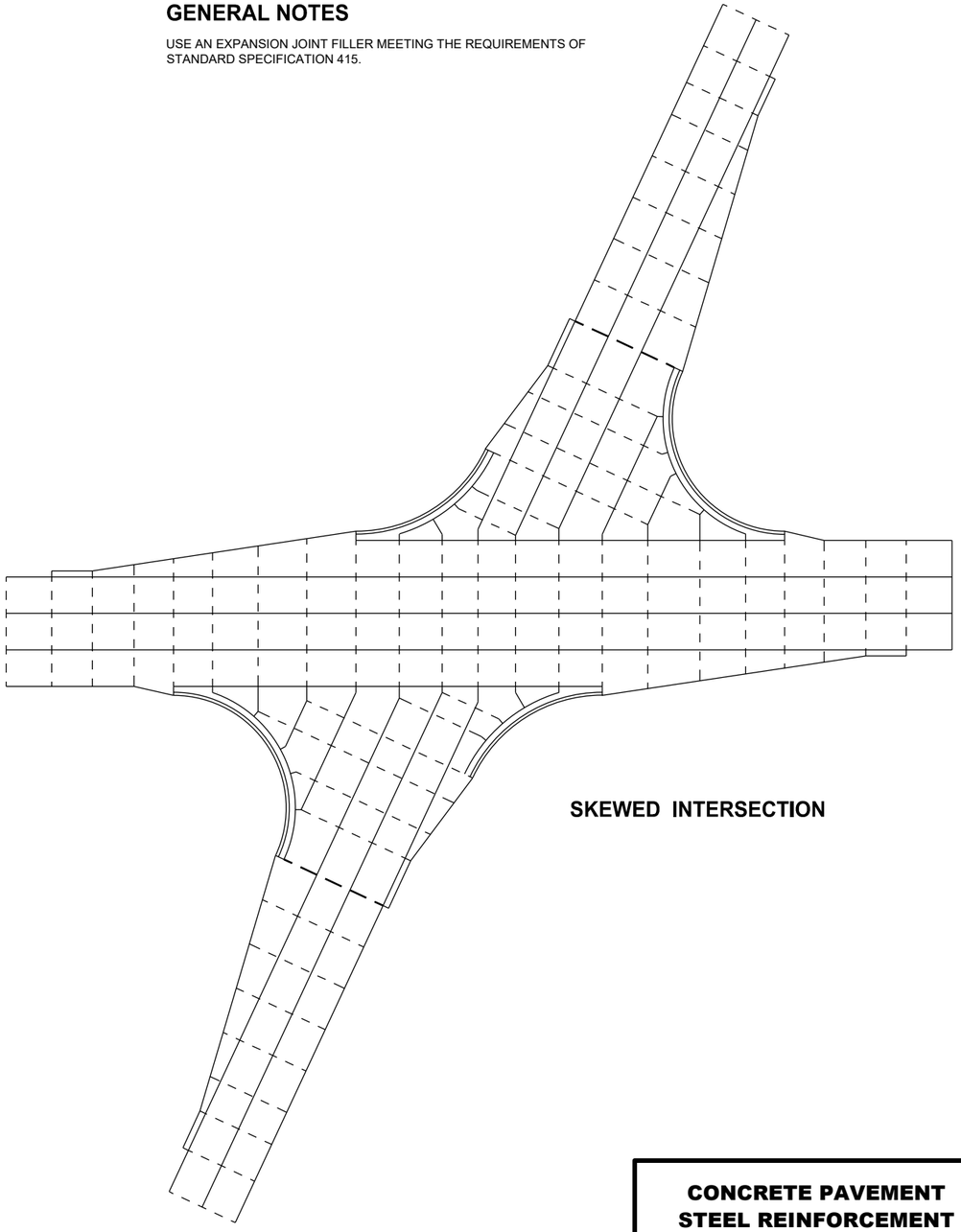
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

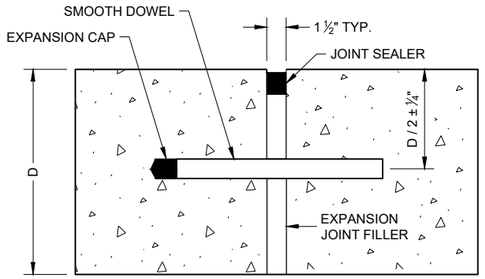
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

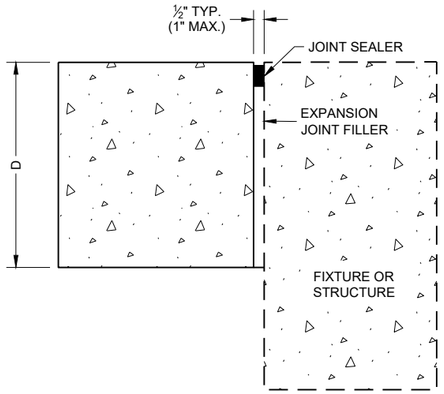
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

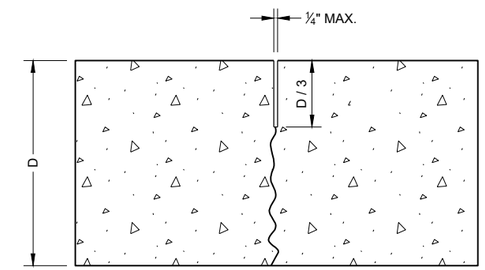
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

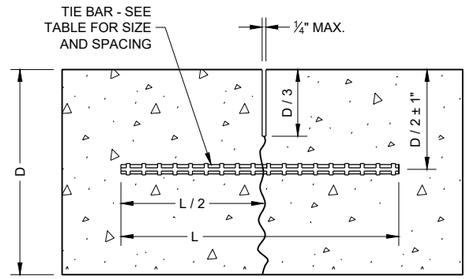
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

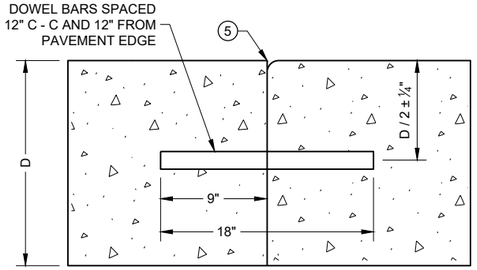
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



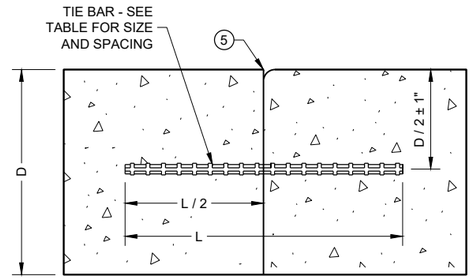
UNDOWELED TRANSVERSE



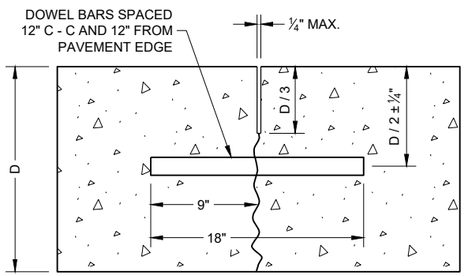
TIED LONGITUDINAL



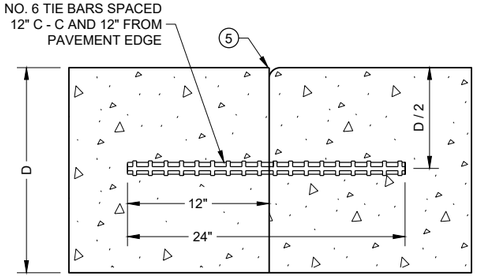
DOWELED TRANSVERSE (3)



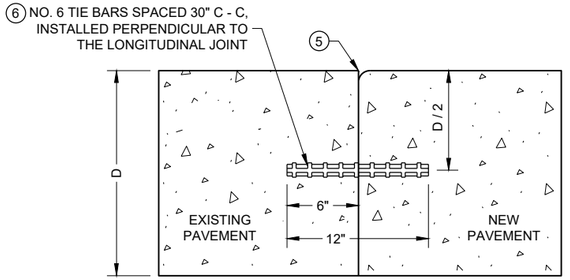
TIED LONGITUDINAL



DOWELED TRANSVERSE



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)

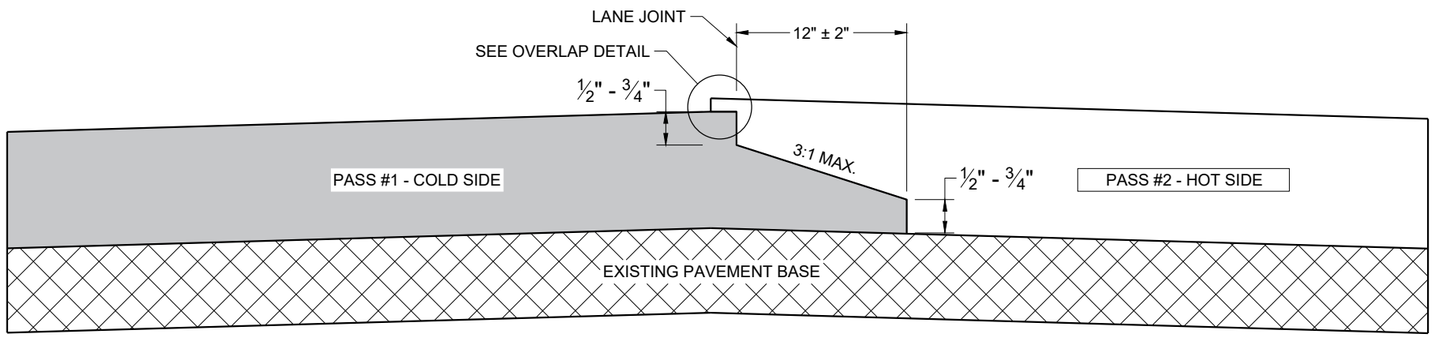


TIED LONGITUDINAL TO EXISTING

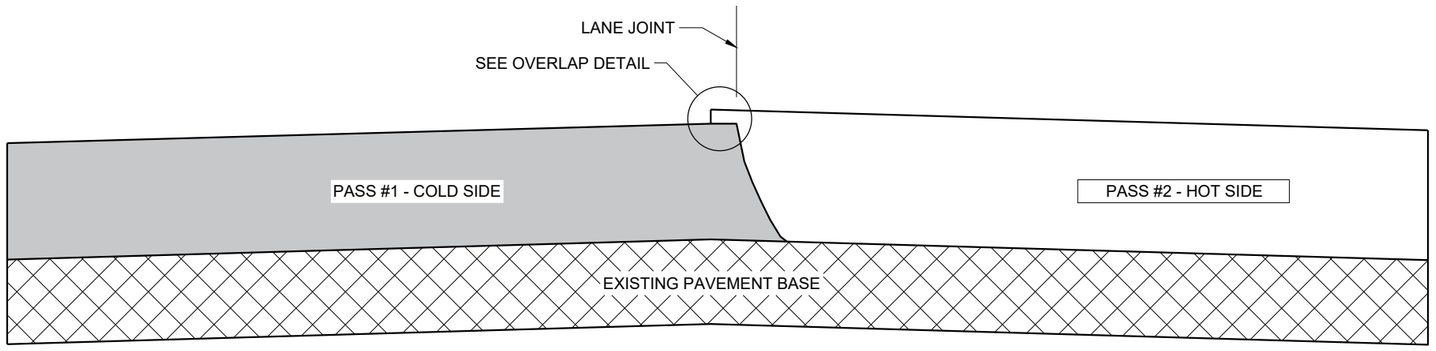
CONTRACTION JOINTS (2)

CONSTRUCTION JOINTS (4)

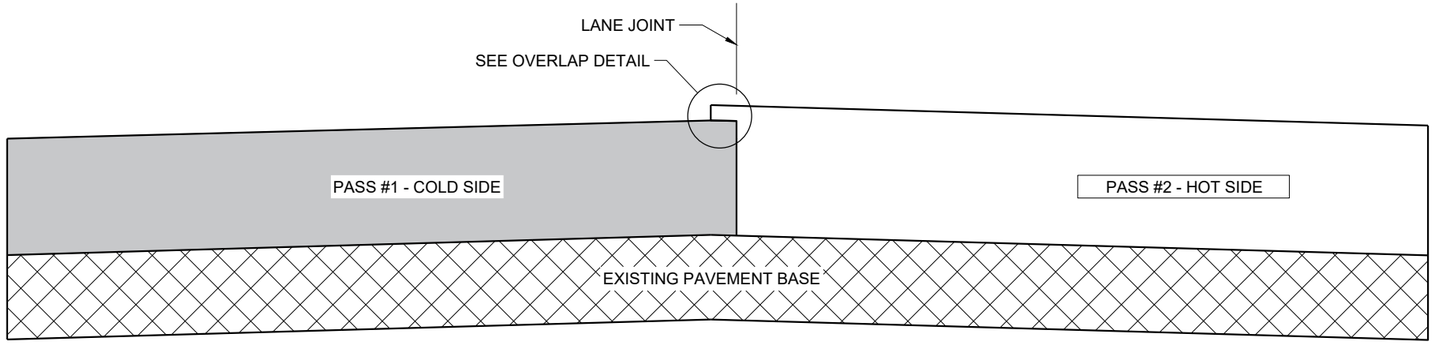
CONCRETE PAVEMENT JOINT TYPES



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

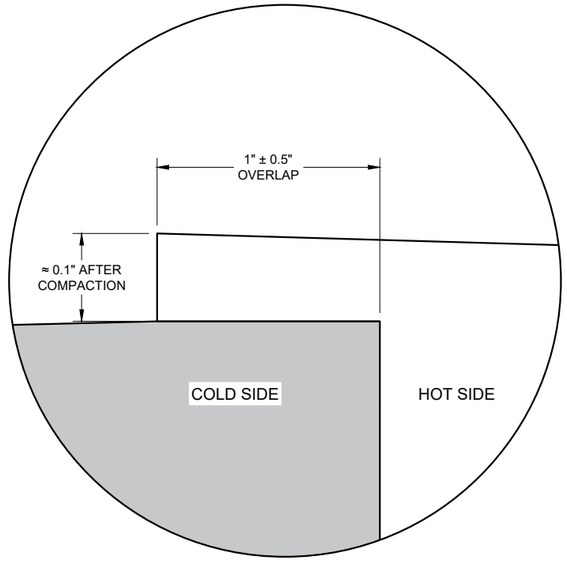
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

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

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

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

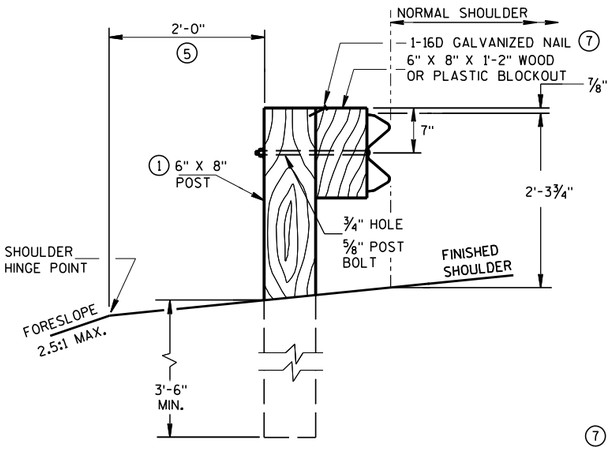
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

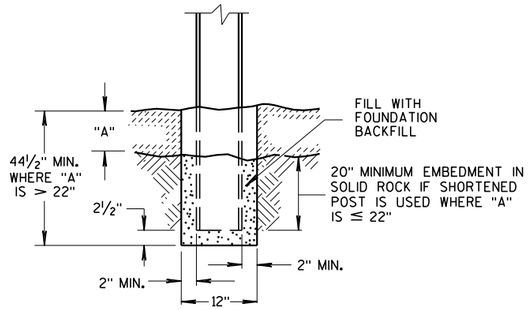
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

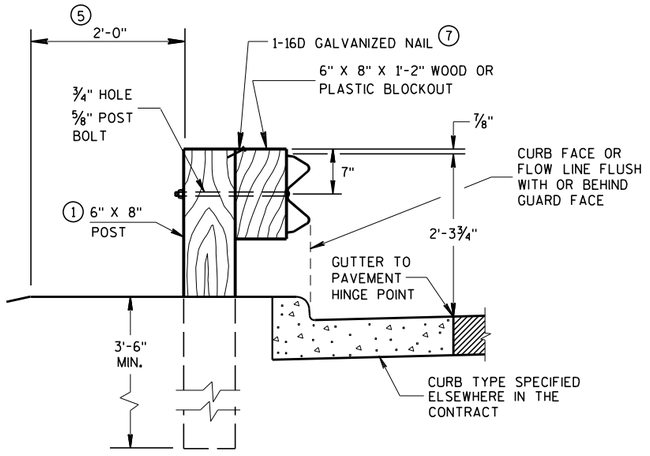
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



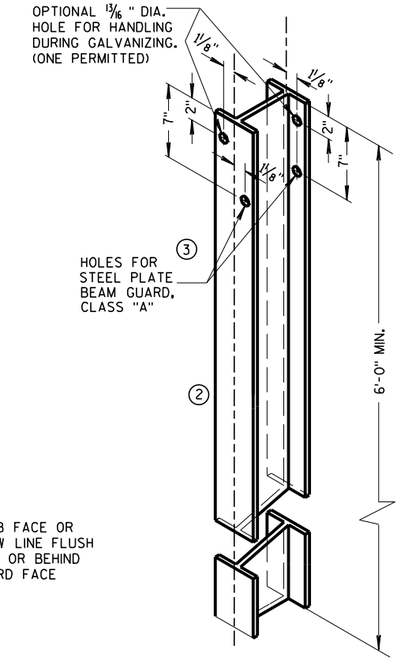
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

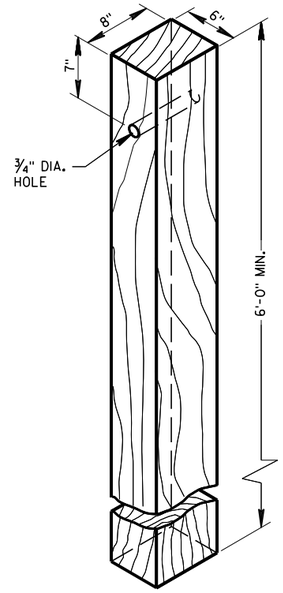


END VIEW
LOCATED ALONG A CURBED ROADWAY

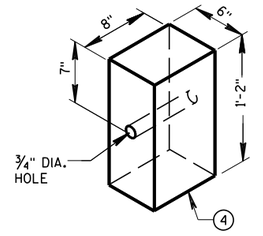


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

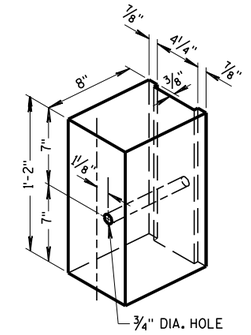
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



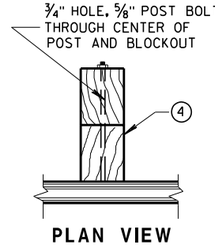
WOOD POST
(6"X8") NOMINAL



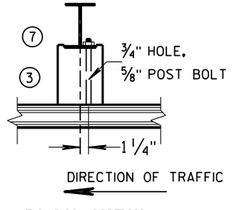
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



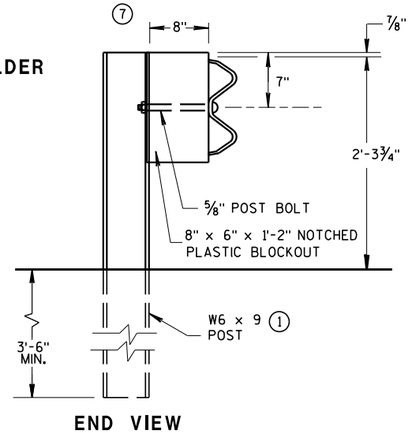
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



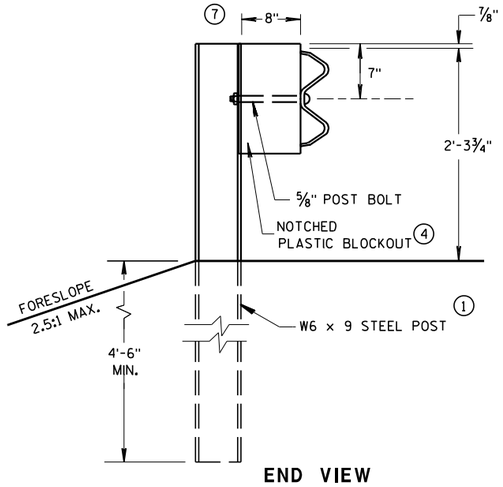
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



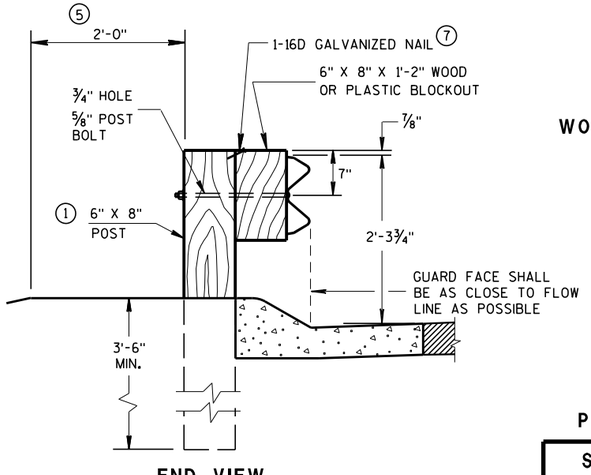
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



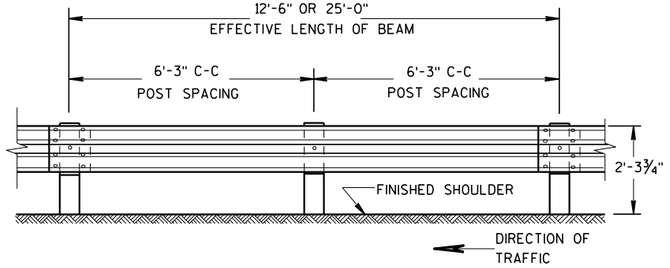
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

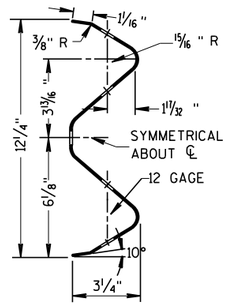
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

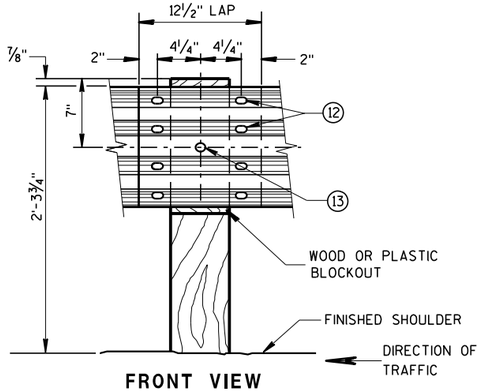


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

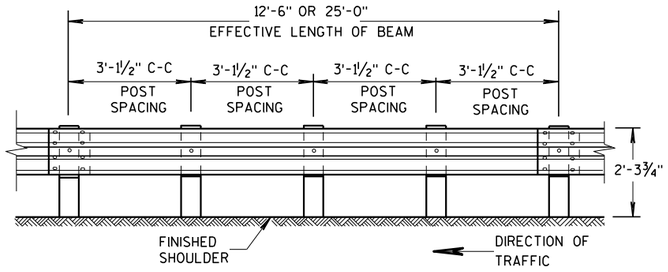
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

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

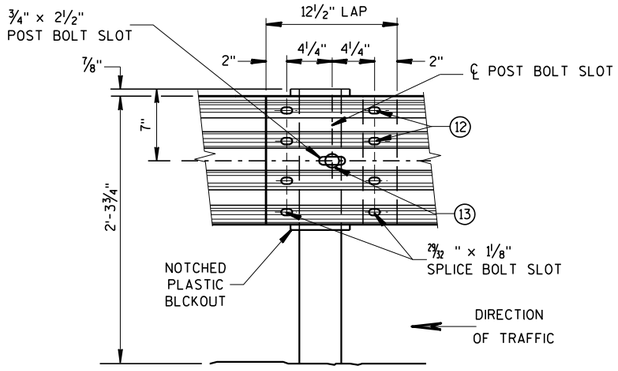
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

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



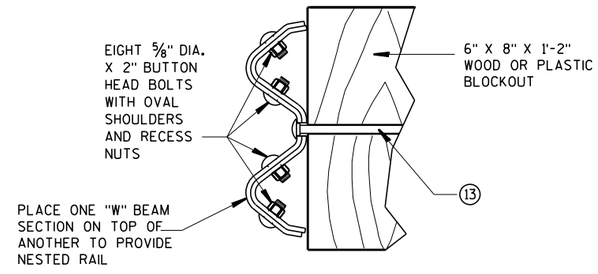
FRONT VIEW

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



FRONT VIEW

BEAM SPLICE AT STEEL POST

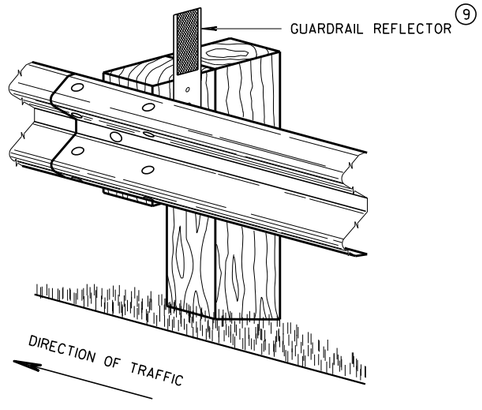


NESTED W BEAM (NW)

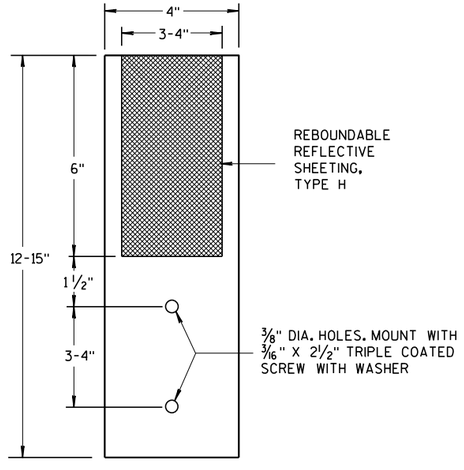
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

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



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



4"x 12" GUARDRAIL REFLECTOR

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

STATE OF WISCO 85
DEPARTMENT OF TRANSPORTATION

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

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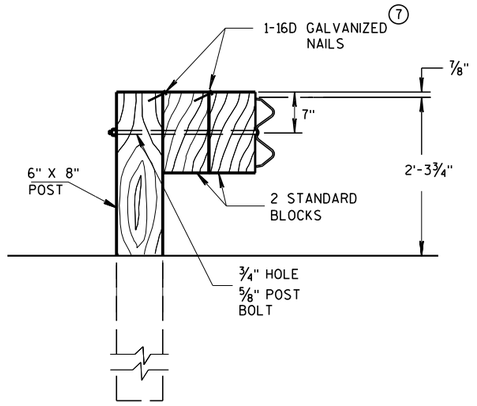
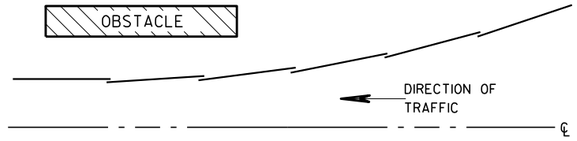
S.D.D. 14 B 15-11b

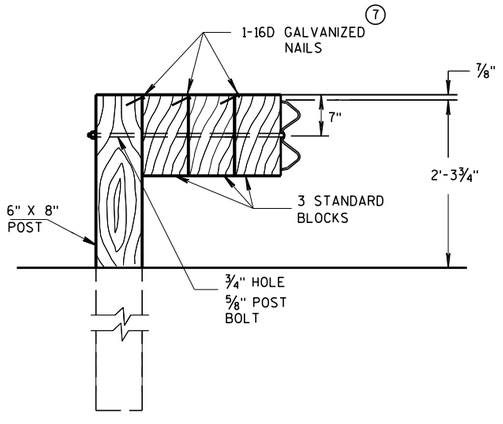


DETAIL FOR DOUBLE BLOCKS

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

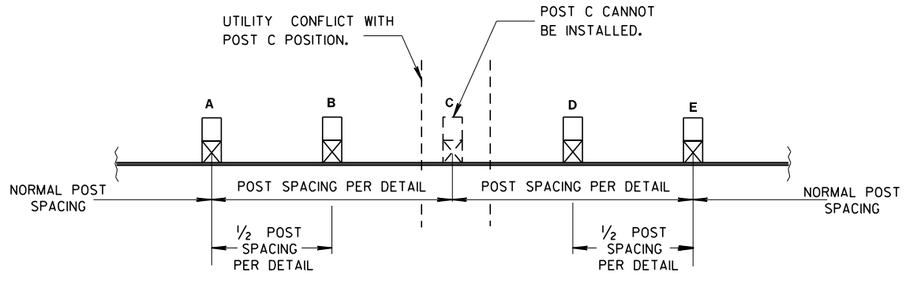


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

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

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

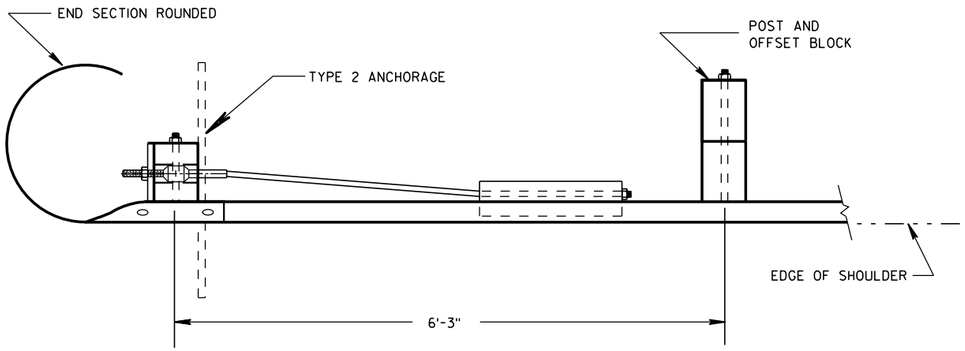
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

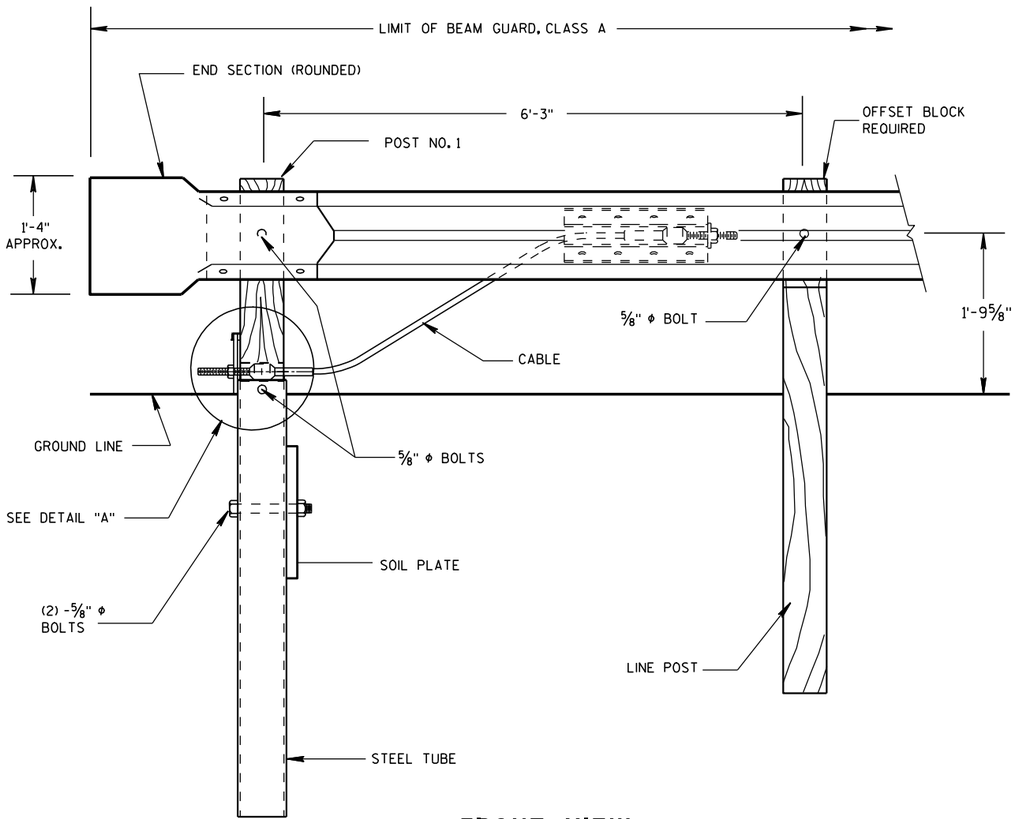
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR

FHWA

6
S.D.D. 14 B 15-11c



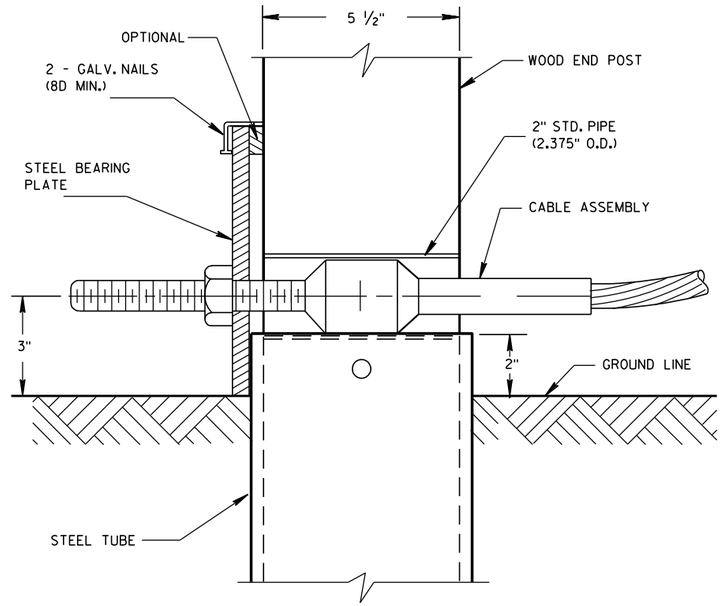
PLAN VIEW



FRONT VIEW

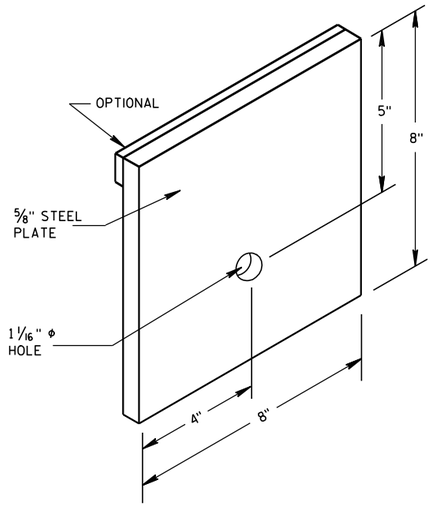
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO.....T

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S.D.D. 14 B 16-4a

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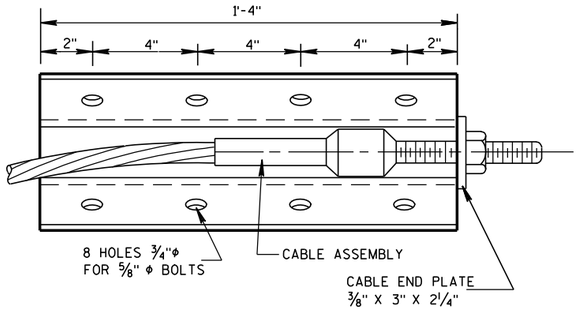
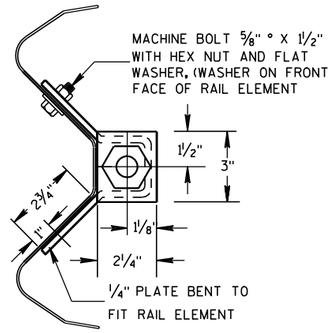
S.D.D. 14 B 16-4a

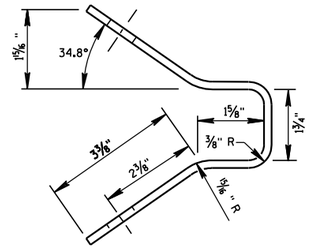


FRONT VIEW

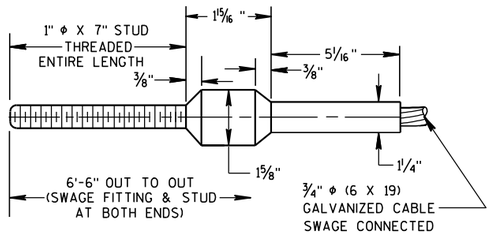


END VIEW

ANCHOR PLATE DETAIL



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP A MINIMUM BREAKING STRENGTH OF 40,000 LB (TIGHTEN UNTIL TAUT)

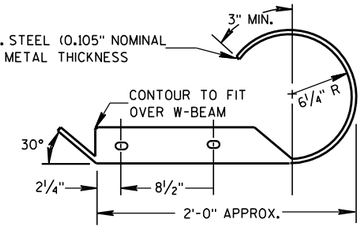
GENERAL NOTES

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

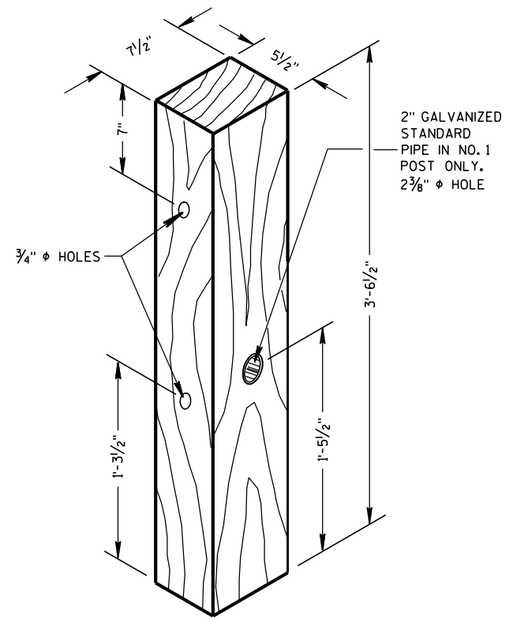
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

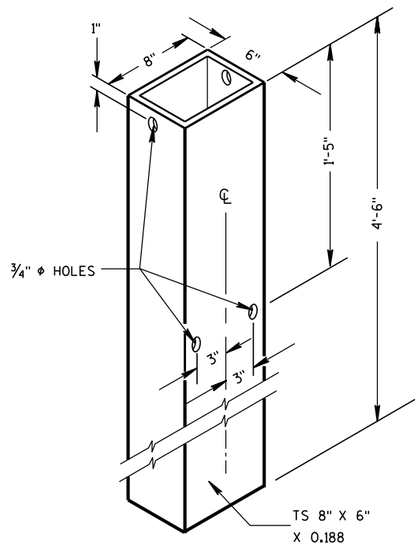
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

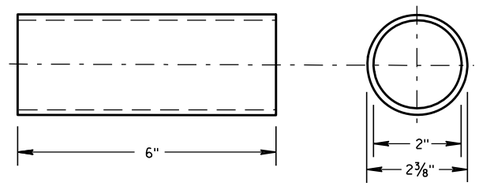


WOOD BREAKAWAY POST



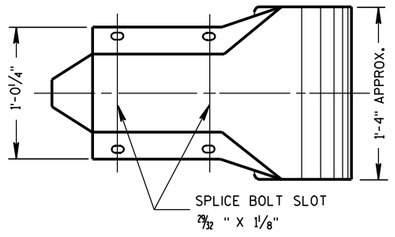
STEEL TUBE

STEEL TUBE SHALL CONFORM TO REQUIREMENTS OF ASTM A500

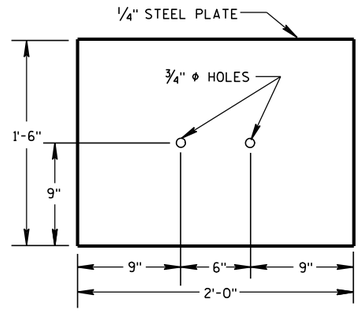


BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"



FRONT VIEW
W BEAM END SECTION ROUNDED



SOIL PLATE

ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/21/2007 DATE
/S/ Jerry H. ROADWAY STANDARDS ENGINEER
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ENT
FHWA

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S.D.D. 14 B 16-4b

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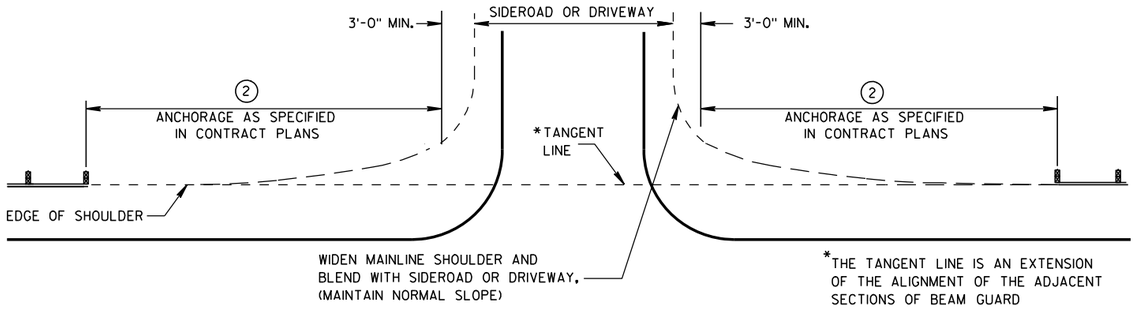
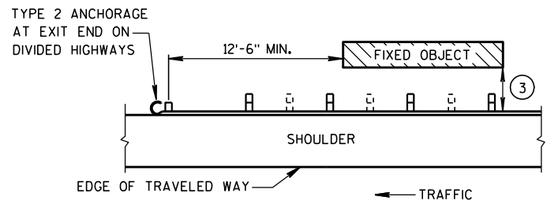
S.D.D. 14 B 16-4b



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

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

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

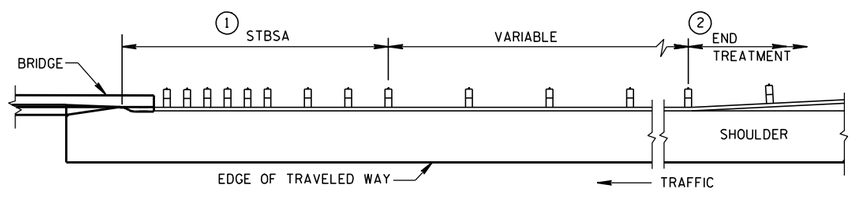
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

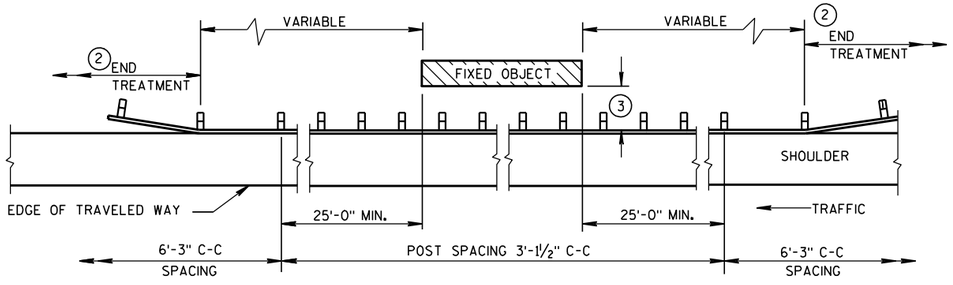
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

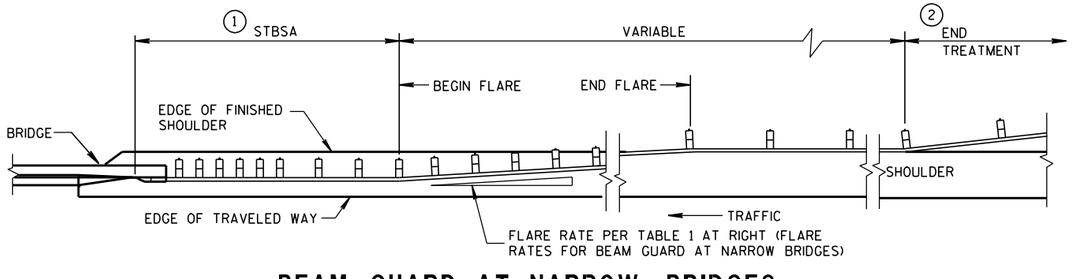


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



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

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-21-07 DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 14 B 18-6a

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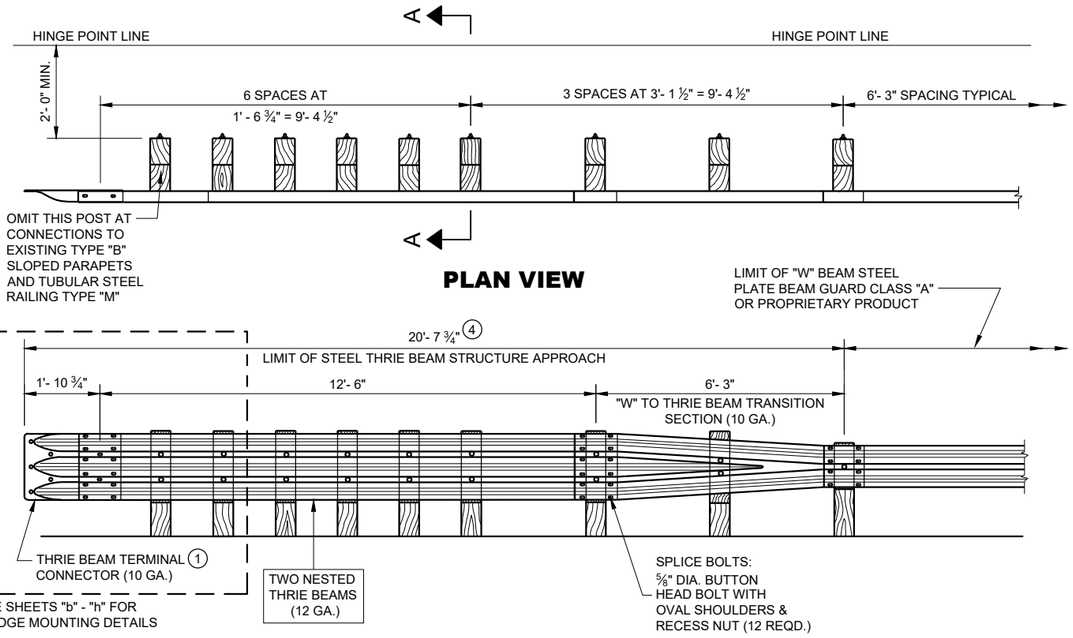
S.D.D. 14 B 18-6a



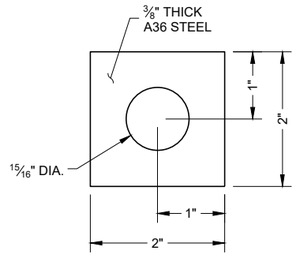


PLATE WASHER DETAIL

GENERAL NOTES

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

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

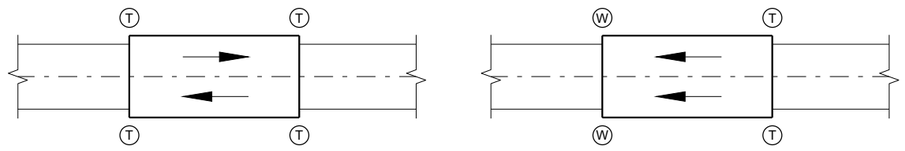
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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

(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

(3) POST BOLTS ARE ⅝" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A ⅝" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

(4) ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



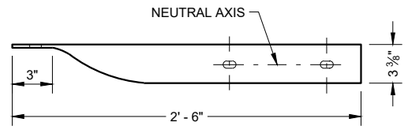
TWO WAY TRAFFIC

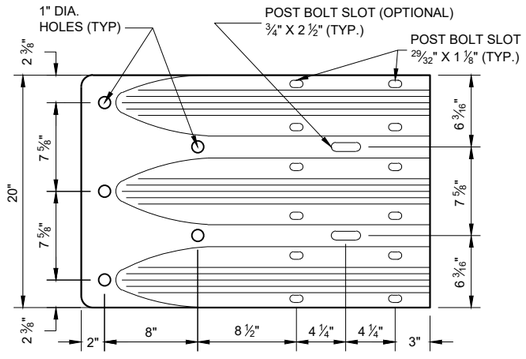
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

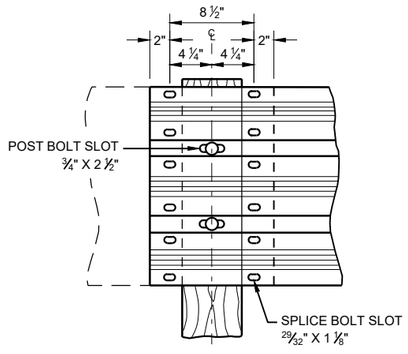
(W) W-BEAM CONNECTION WHEN REQUIRED

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

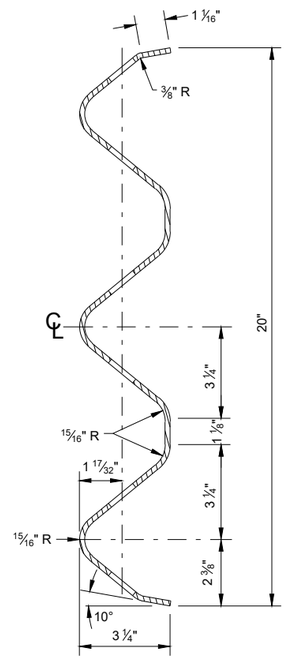




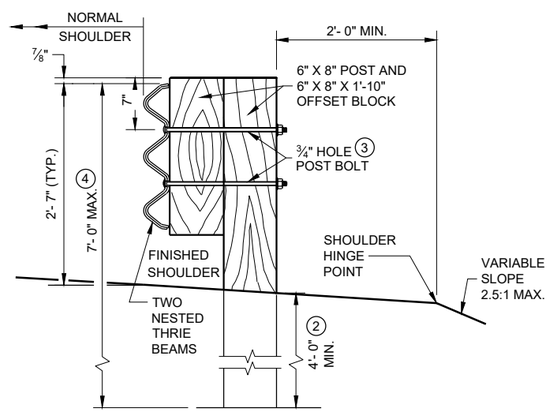
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

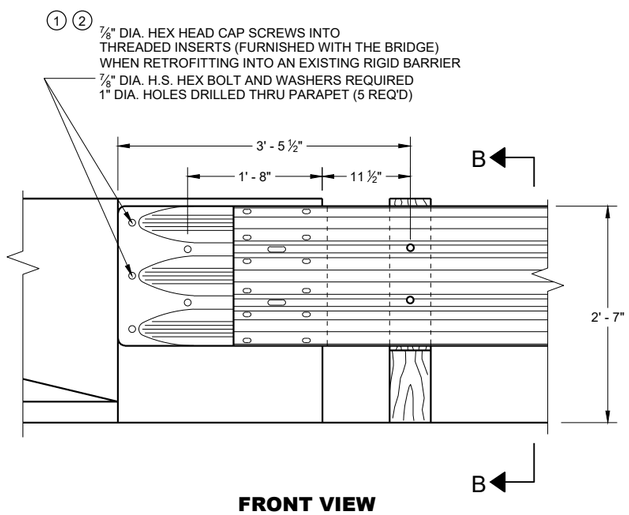
APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

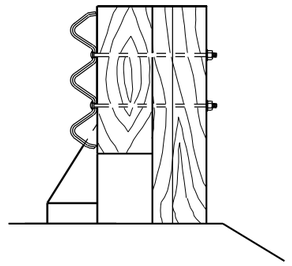
6

SDD 14B20 - 12a

SDD 14B20 - 12a



FRONT VIEW



SECTION B - B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

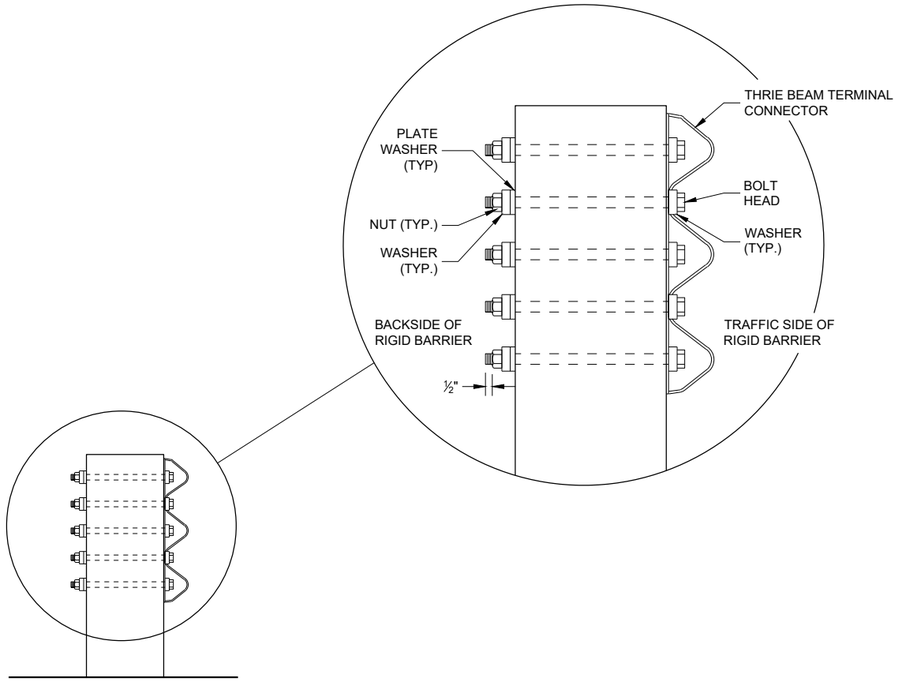
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

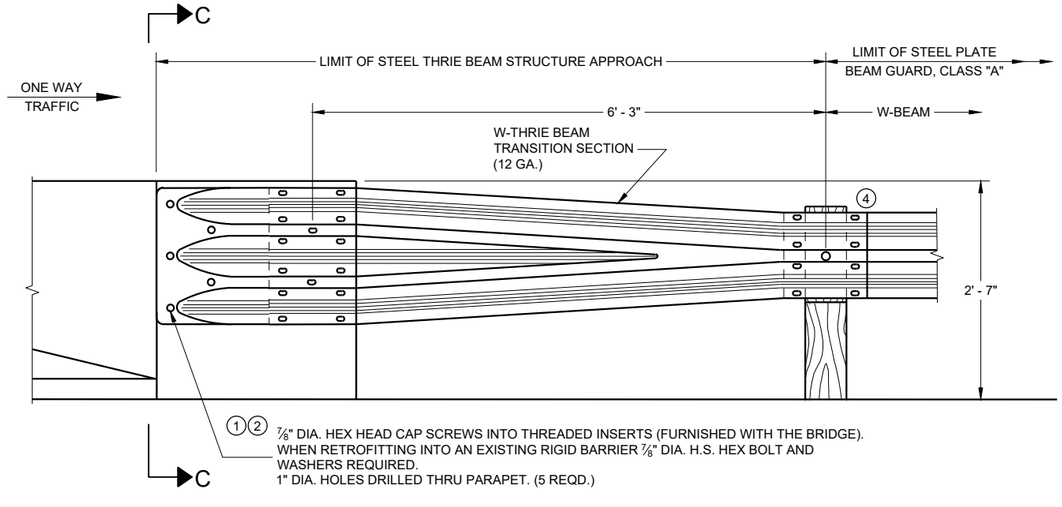
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

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



SECTION C - C



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGE)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

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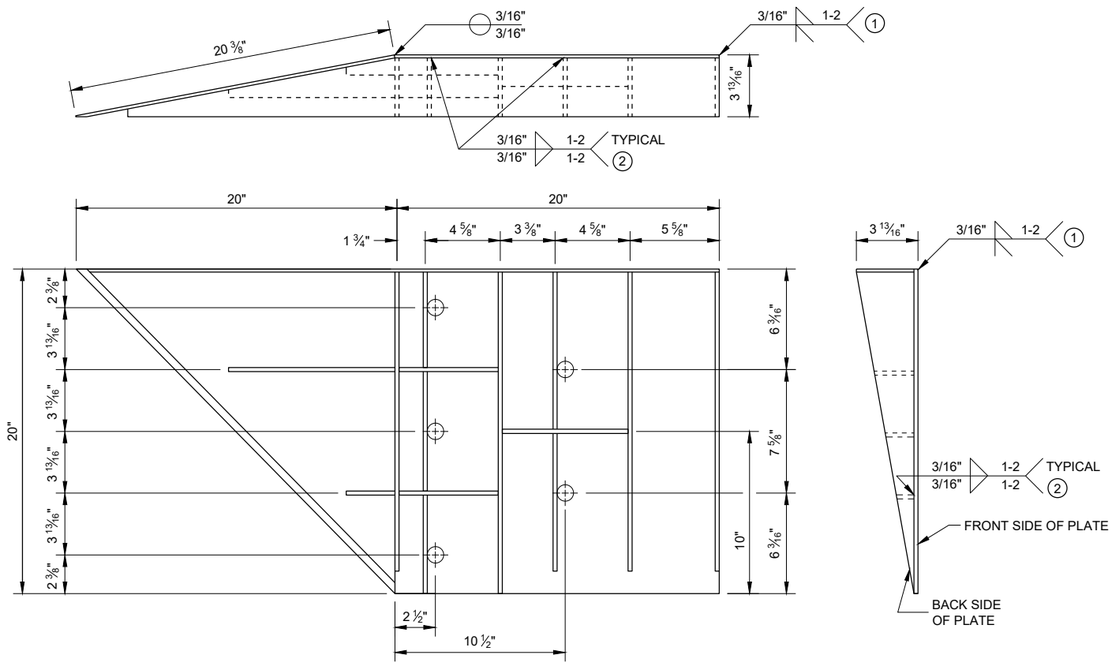

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

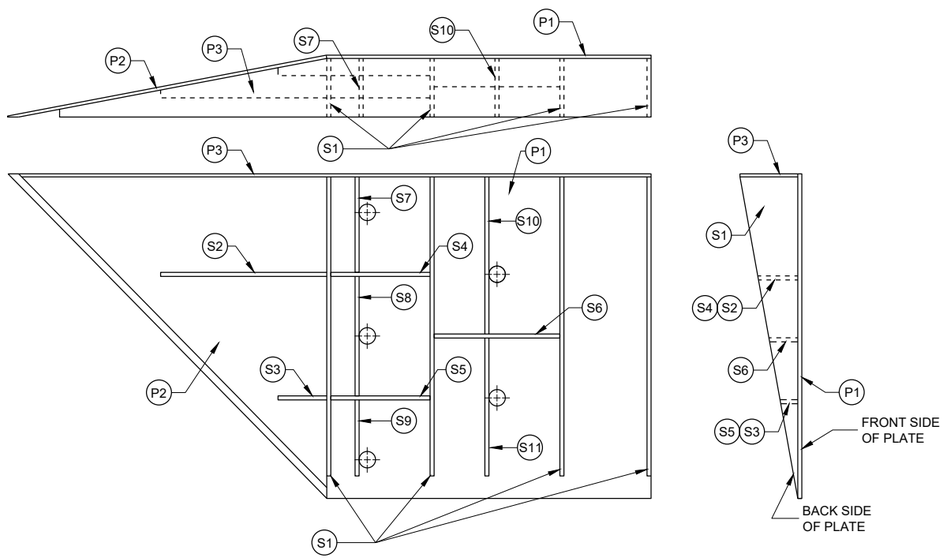

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION, MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATED DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 1/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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6

SDD 14B20 - 12g

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

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

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

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

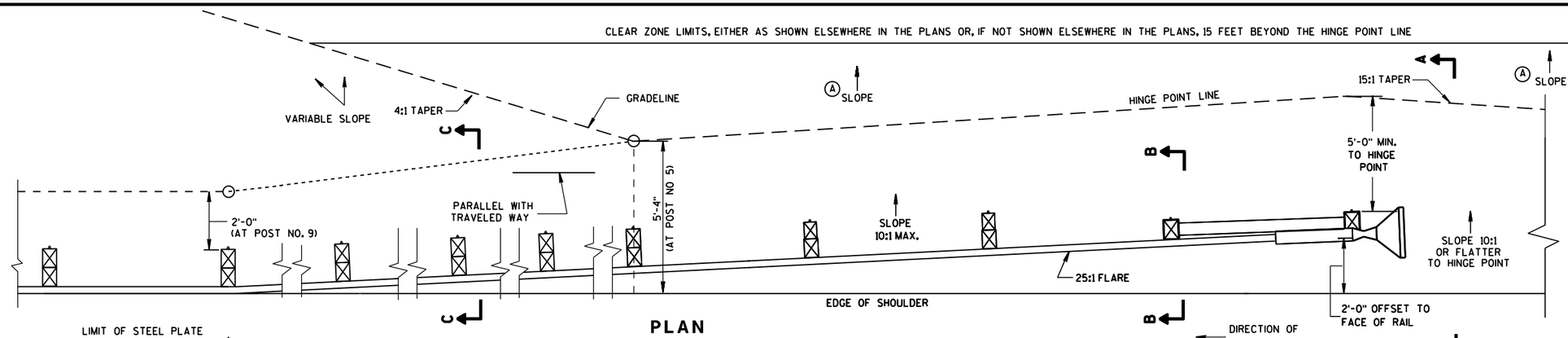
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

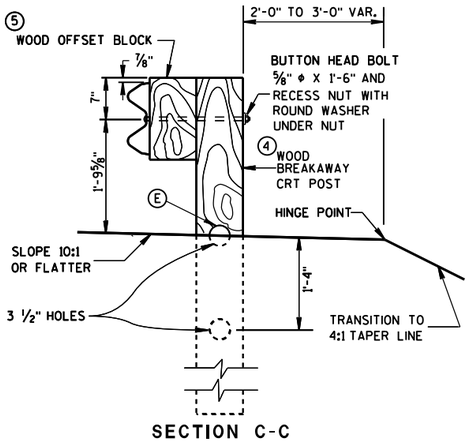
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

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

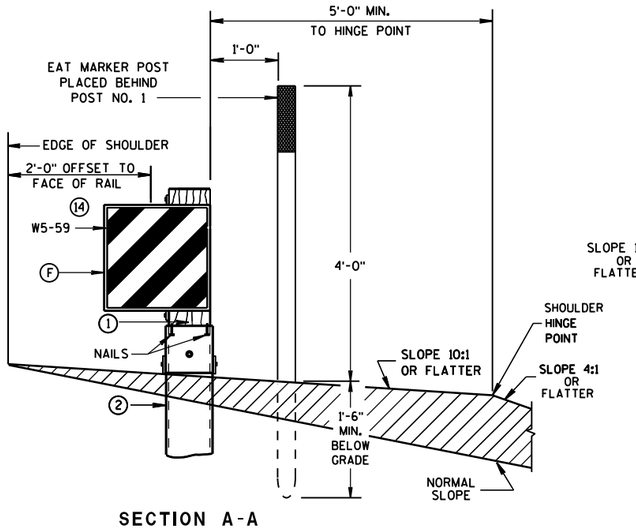
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

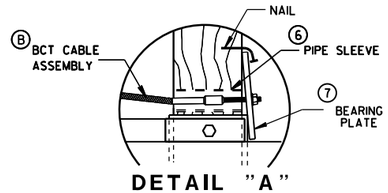




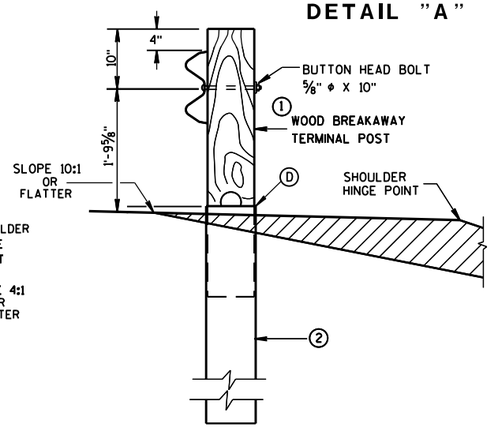
SECTION C-C
TYPICAL AT POST NOS. 6, 8



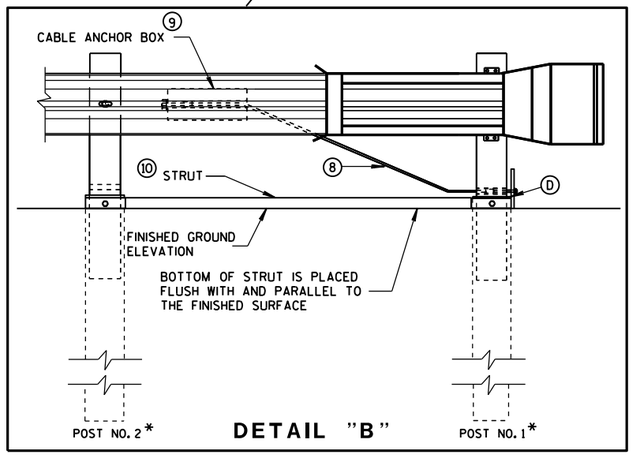
SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



SECTION B-B
TYPICAL AT POST NO. 2*



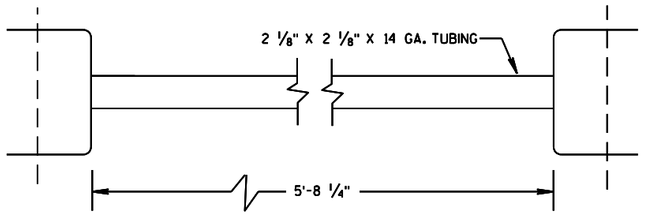
DETAIL "B"

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

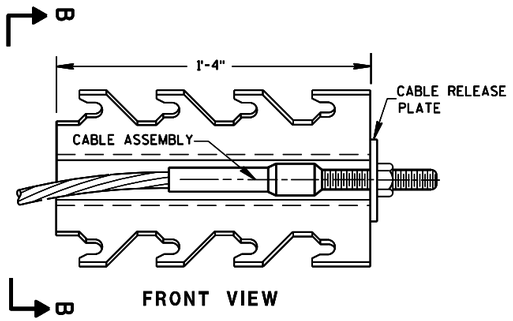
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

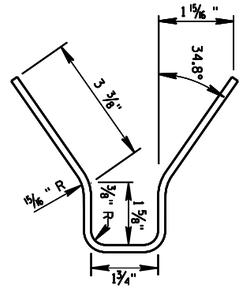
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

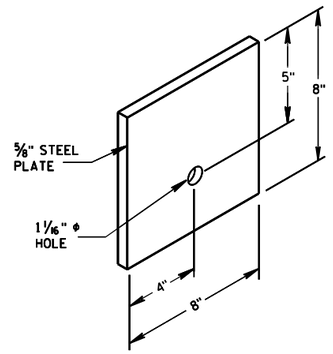


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

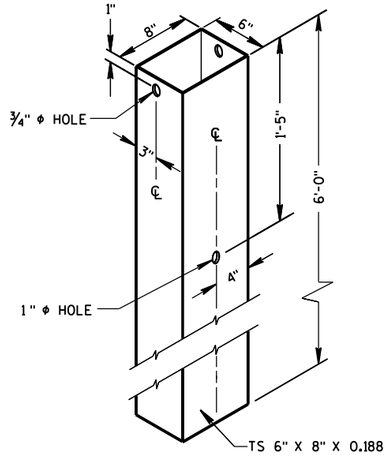
6

S.D.D. 14 B 24-9b

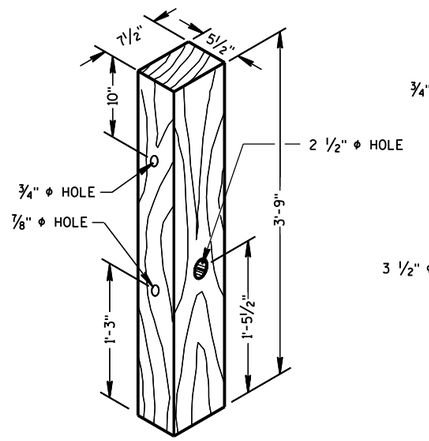
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

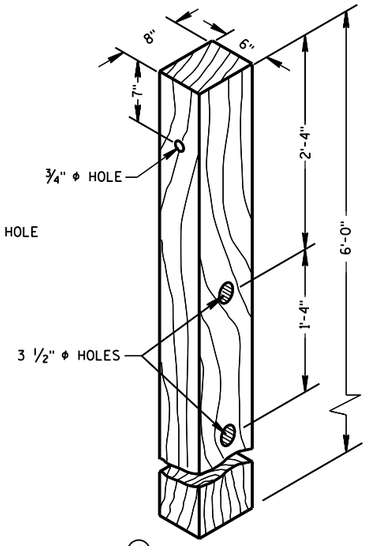
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

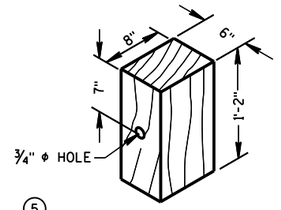


④ CRT POST
(POSTS NO'S 5-8

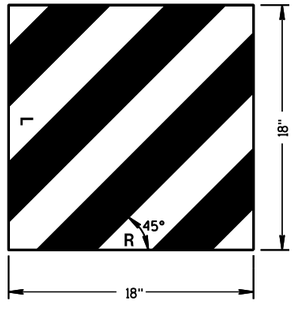
WOOD BREAKAWAY POSTS

GENERAL NOTES

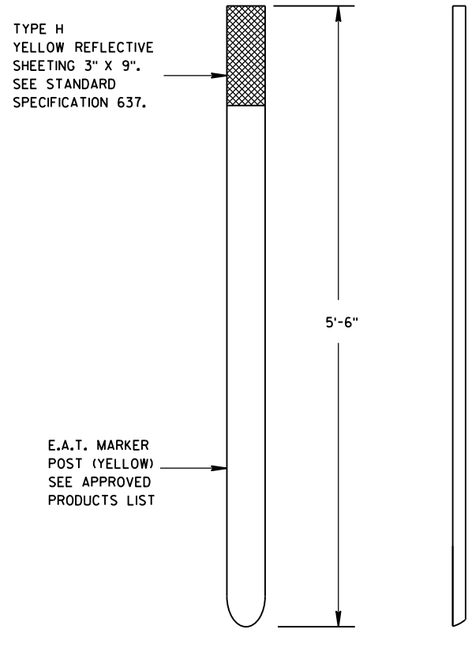
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



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



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

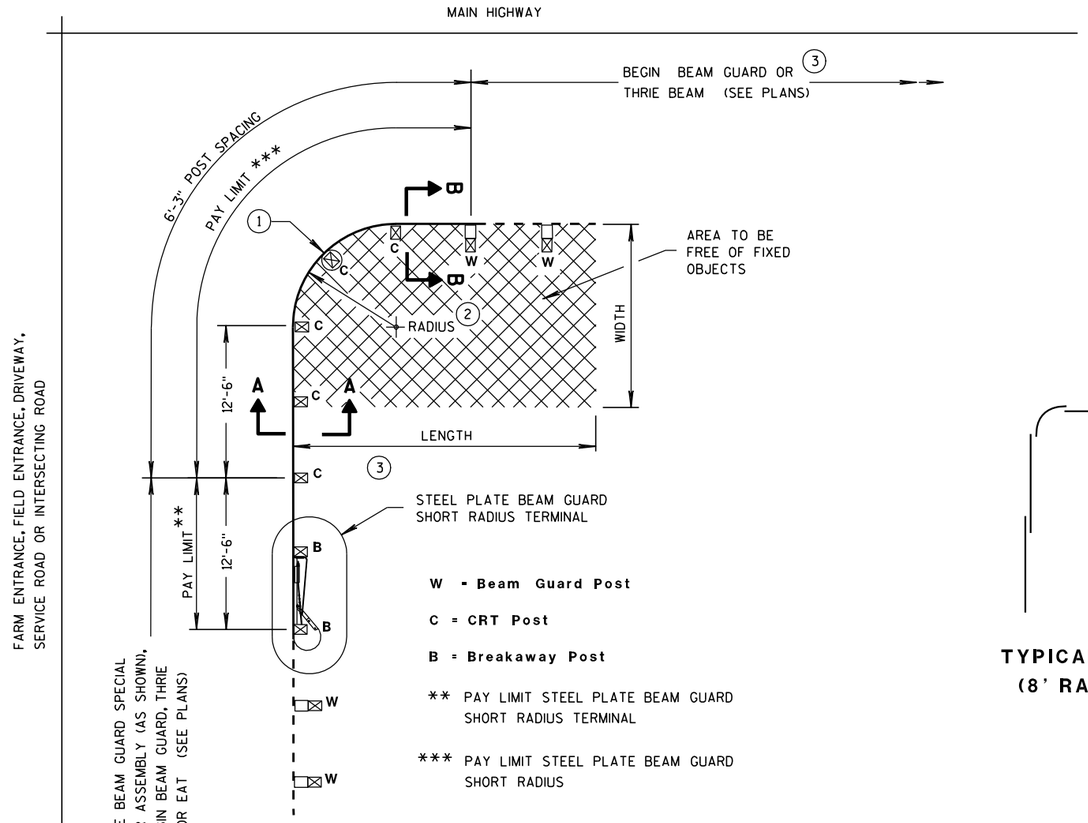
/S/ Rodney Taylor
ROADWAY STANDARDS 95 ENT
UNIT SUPERV...

6

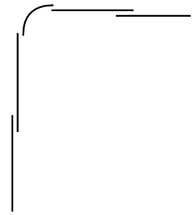
S.D.D. 14 B 24-9c

6

S.D.D. 14 B 24-9c



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

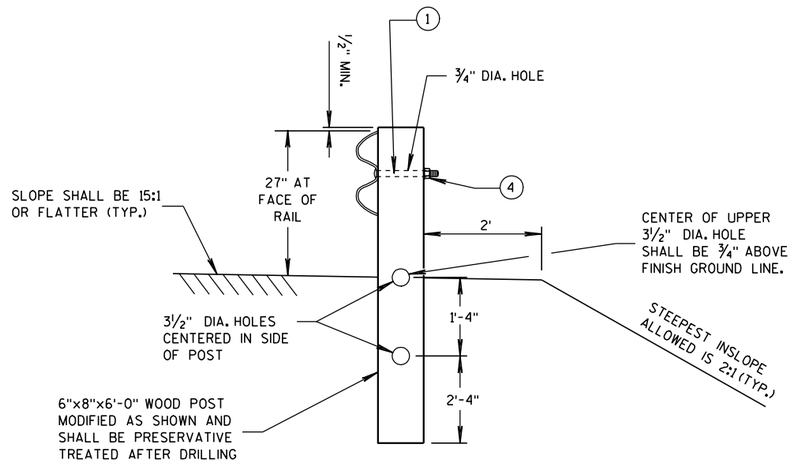
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

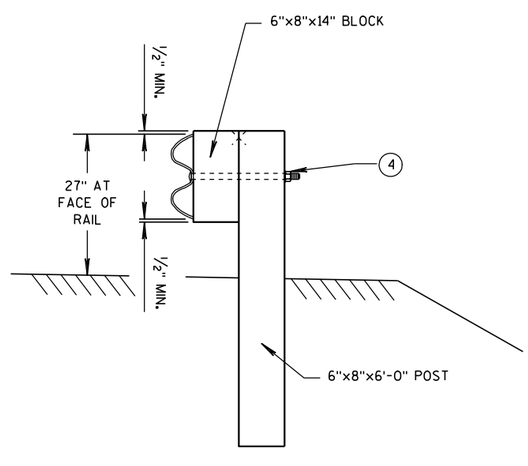
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

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

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



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

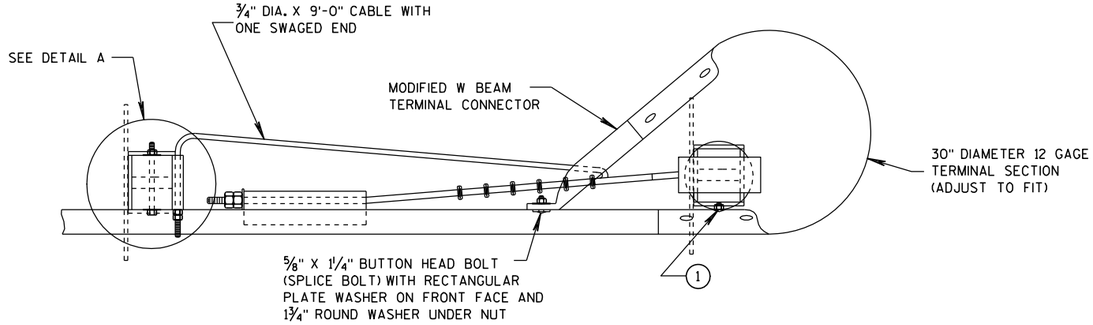
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

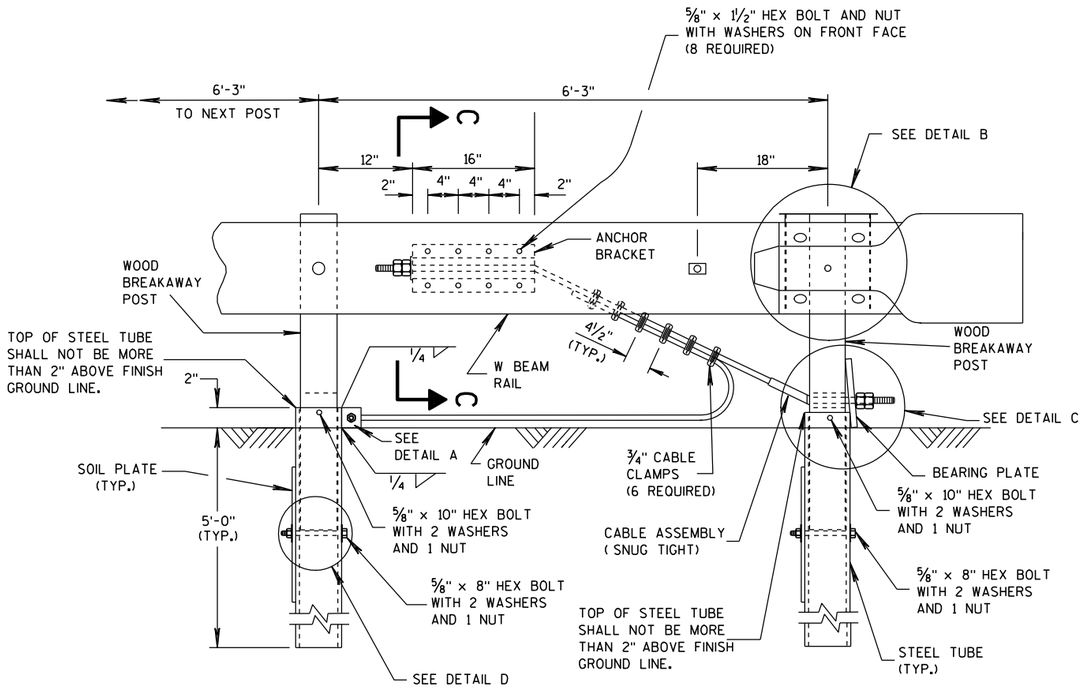
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



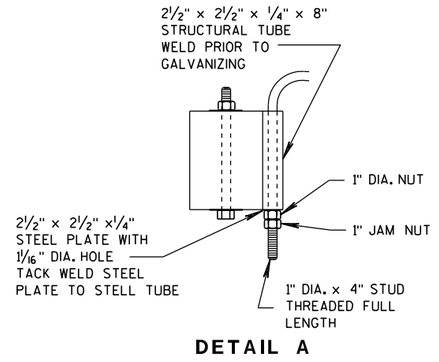
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

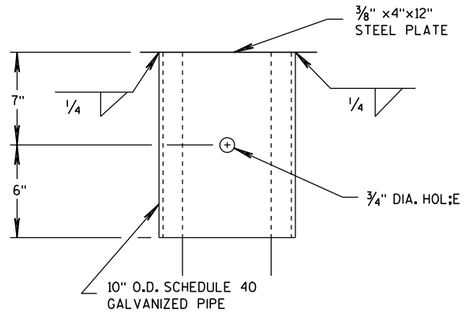
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

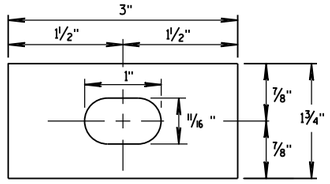
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

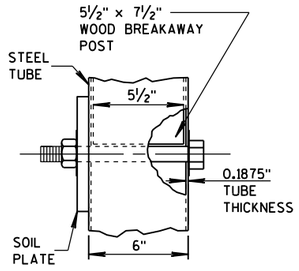
S.D.D. 14 B 27-1b

6

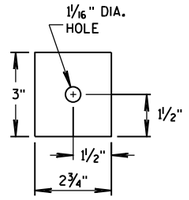
S.D.D. 14 B 27-1b



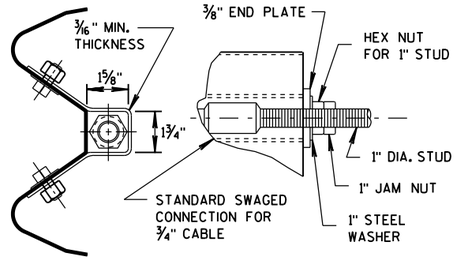
RECTANGULAR PLATE WASHER



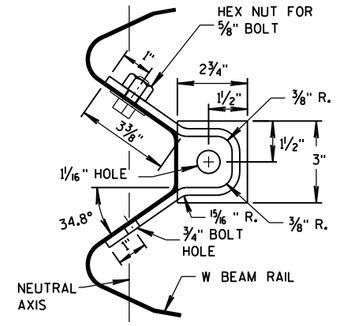
DETAIL D



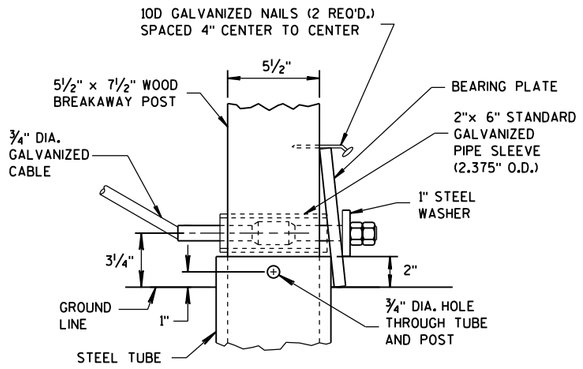
END PLATE



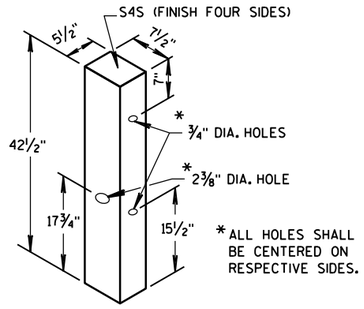
SECTION C-C
(END PLATE REMOVED)



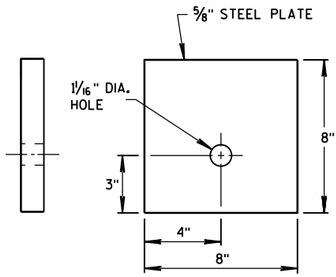
ANCHOR BRACKET



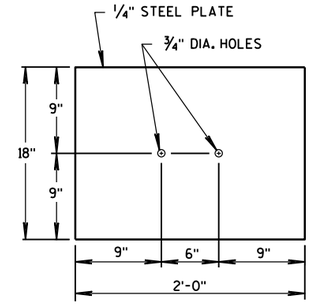
DETAIL C



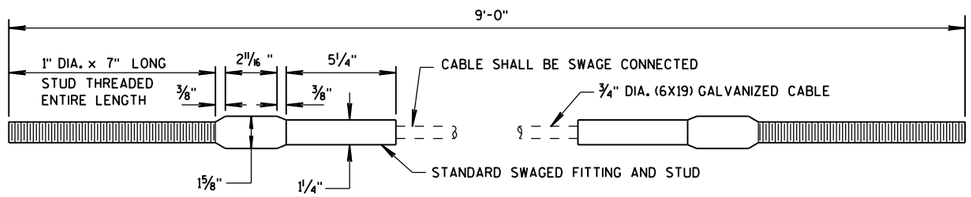
WOOD BREAKAWAY POST



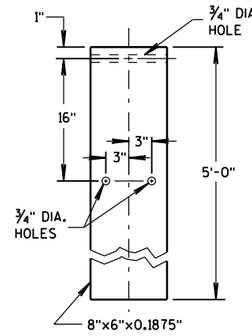
BEARING PLATE



SOIL PLATE



CABLE ASSEMBLY



STEEL TUBE

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

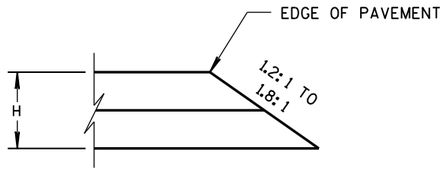
APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

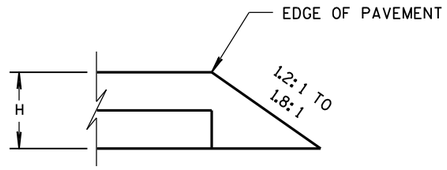
6

S.D.D. 14 B 27-1c



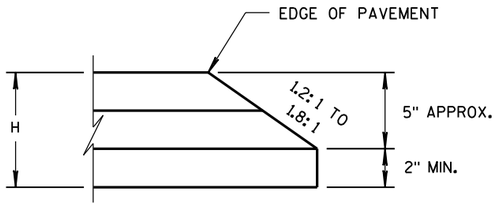
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



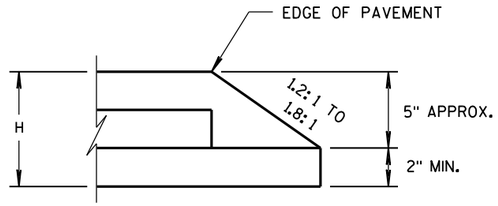
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

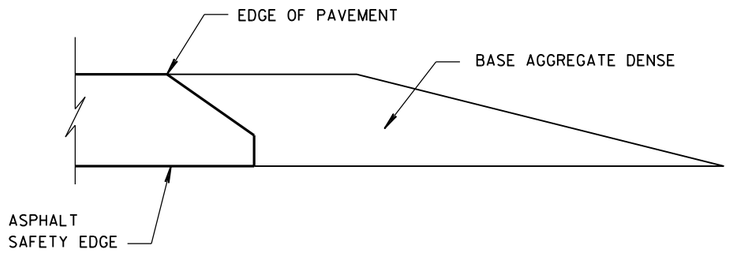
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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

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

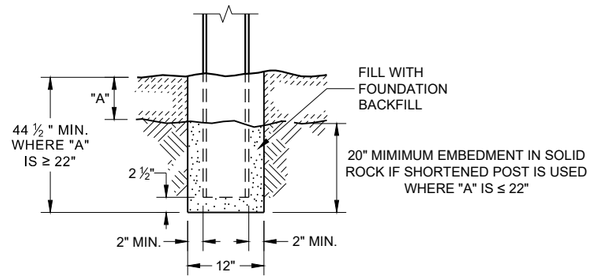
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

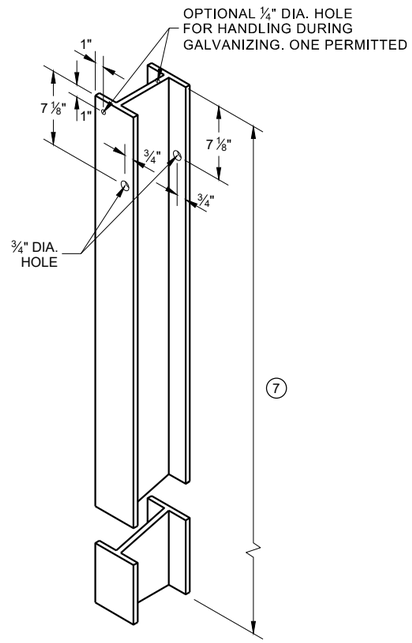
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

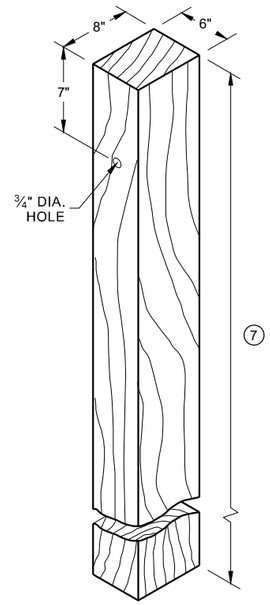
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



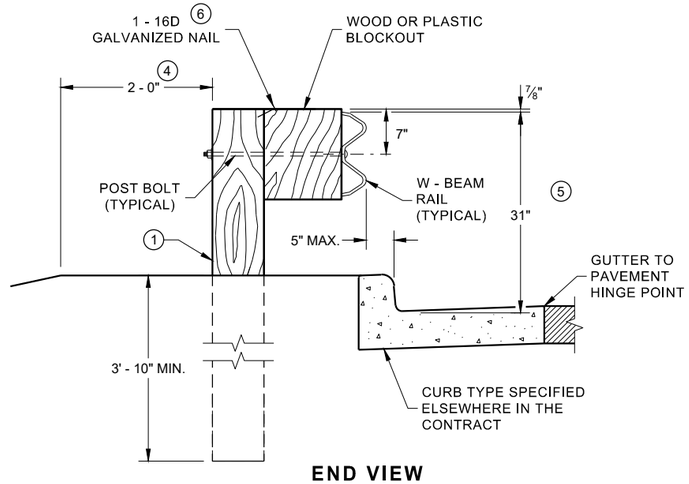
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



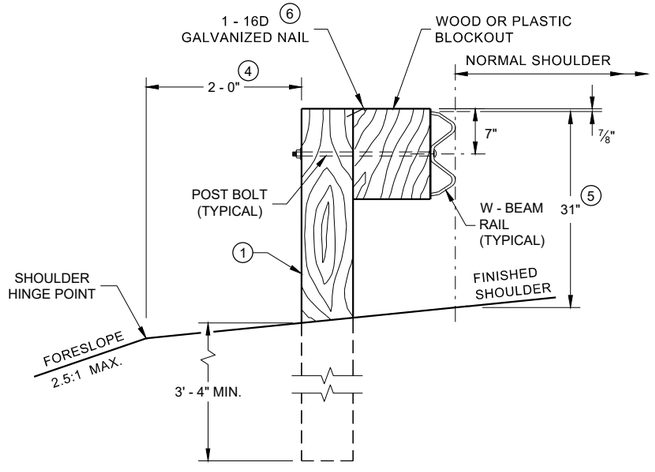
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



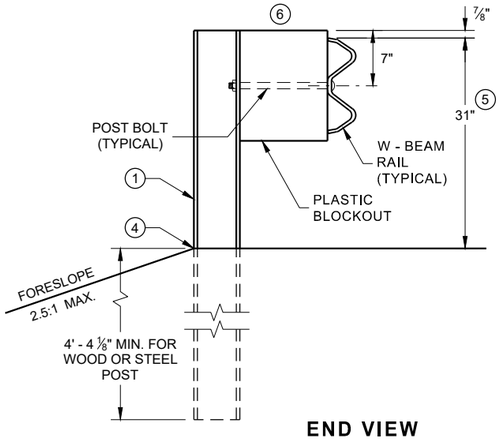
WOOD POST (6" X 8") NOMINAL (1)



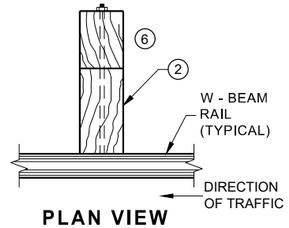
END VIEW
LOCATED ALONG A CURBED ROADWAY



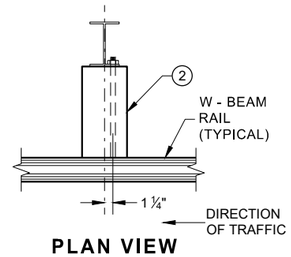
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



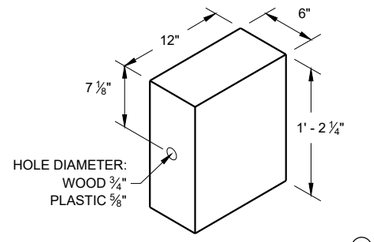
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

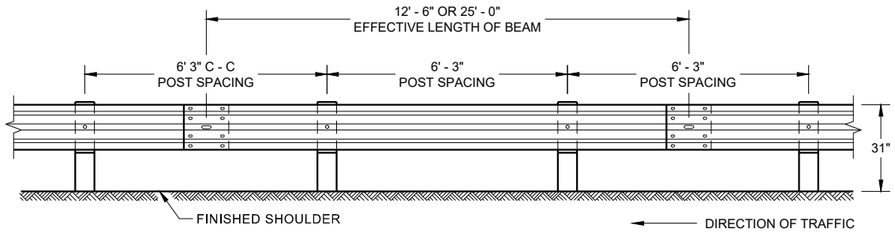
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

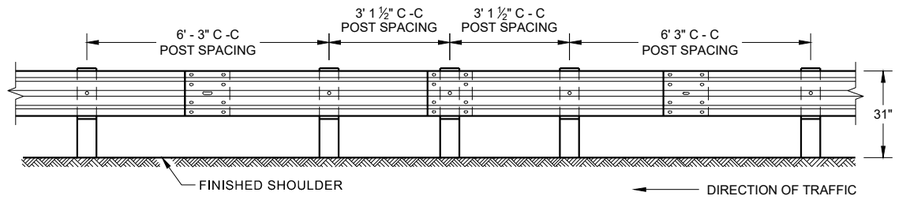
SDD 14B42 - 07a

6

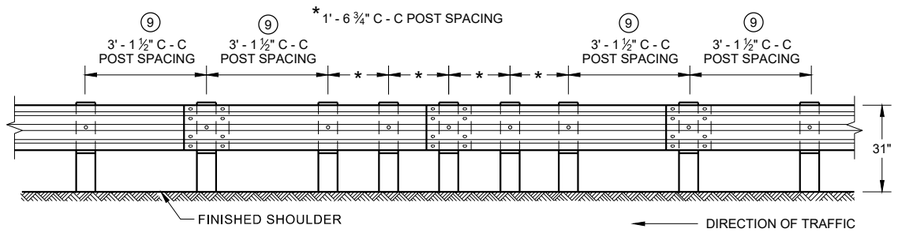
SDD 14B42 - 07a



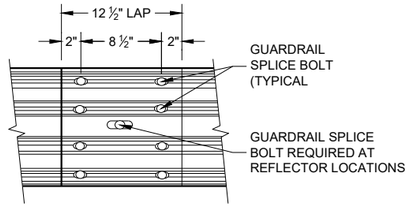
FRONT VIEW
POST SPACING STANDARD INSTALLATION



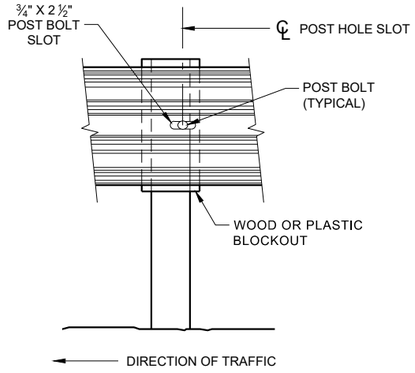
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



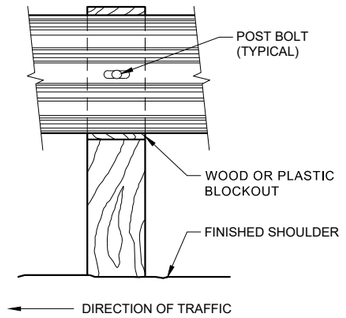
FRONT VIEW
QUARTER POST SPACING (QS)



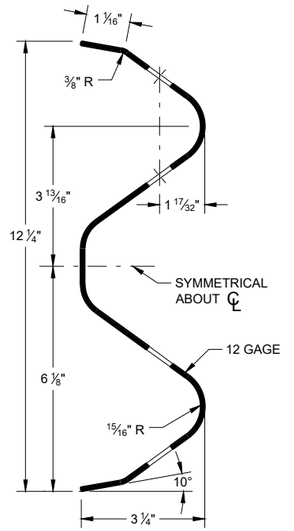
FRONT VIEW
MID-SPAN BEAM SPLICE



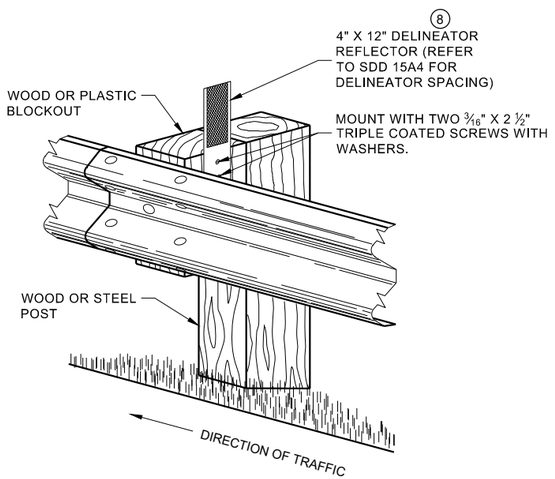
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

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

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

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

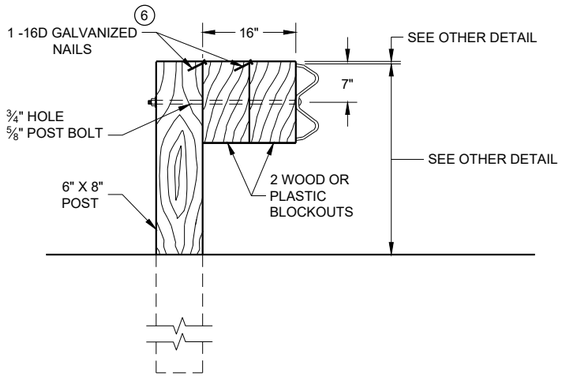
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

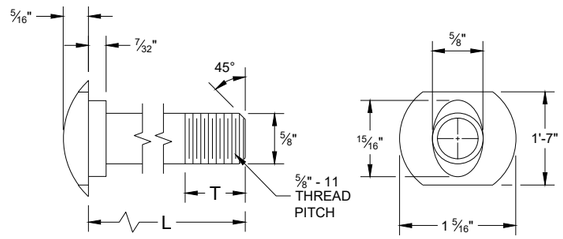


DETAIL FOR 16" BLOCKOUT DEPTH

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

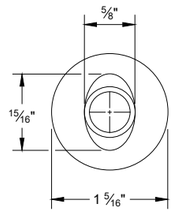
NOTE:

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

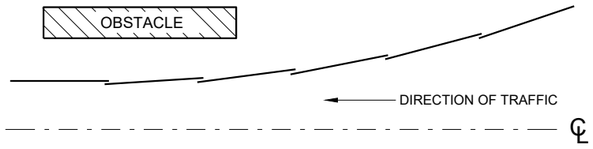


POST BOLT TABLE

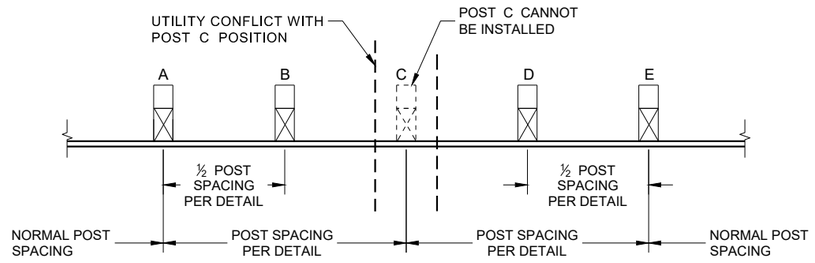
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



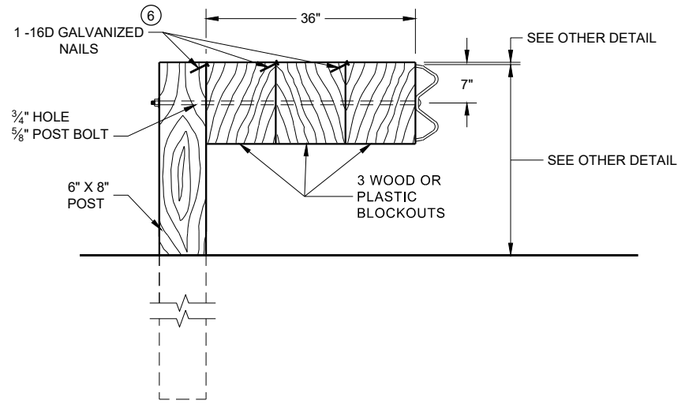
ALTERNATE BOLT HEAD



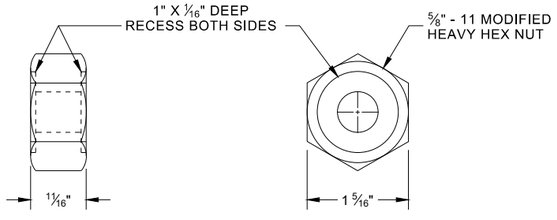
PLAN VIEW
BEAM LAPPING DETAIL



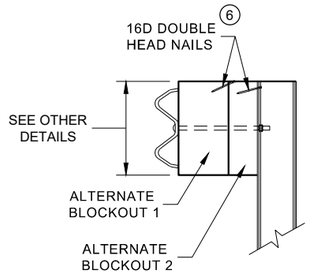
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



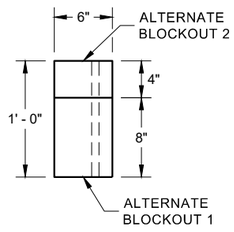
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

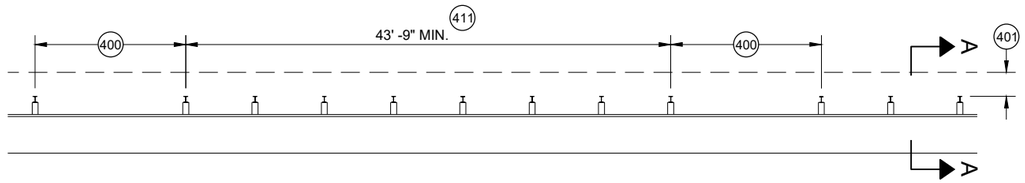
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

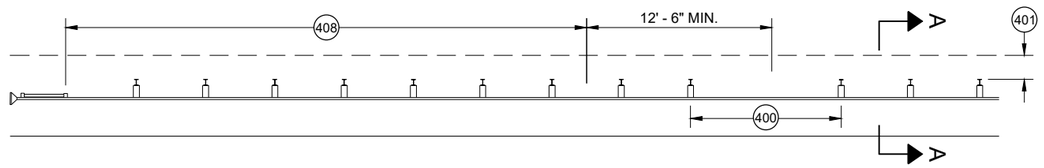
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

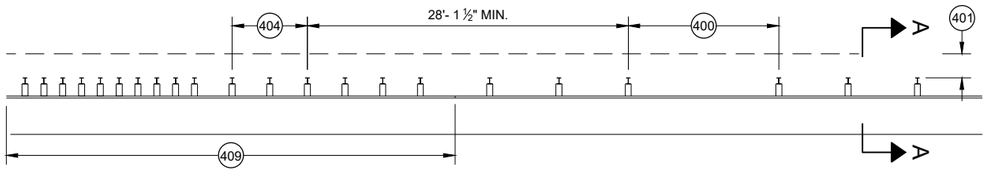
SDD 14B42 - 07c



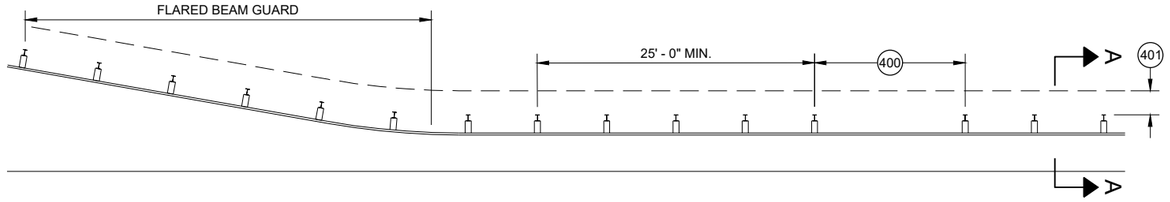
MISSING POST IN MGS GUARDRAIL



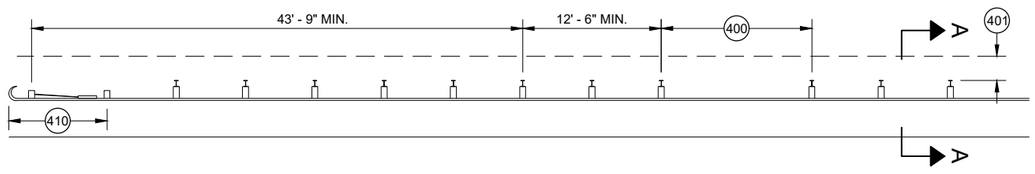
MISSING POST IN MGS GUARDRAIL NEAR EAT



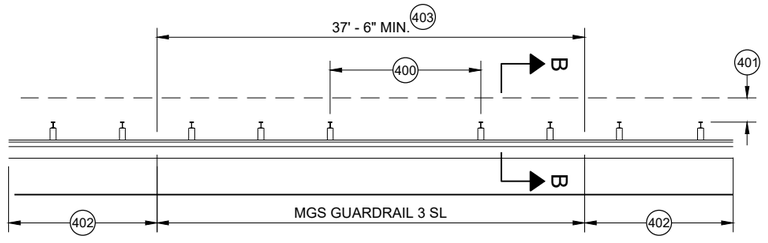
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

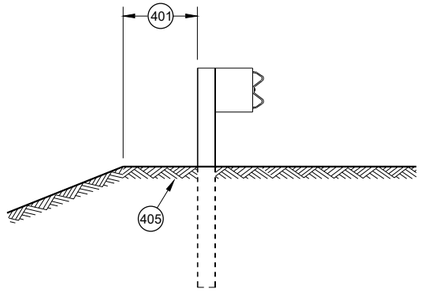


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

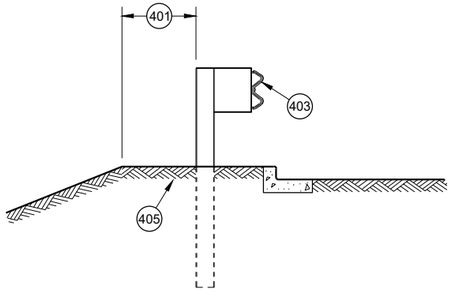


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

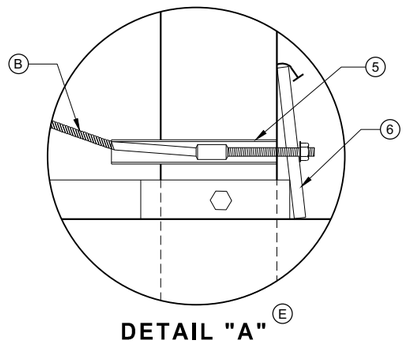
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

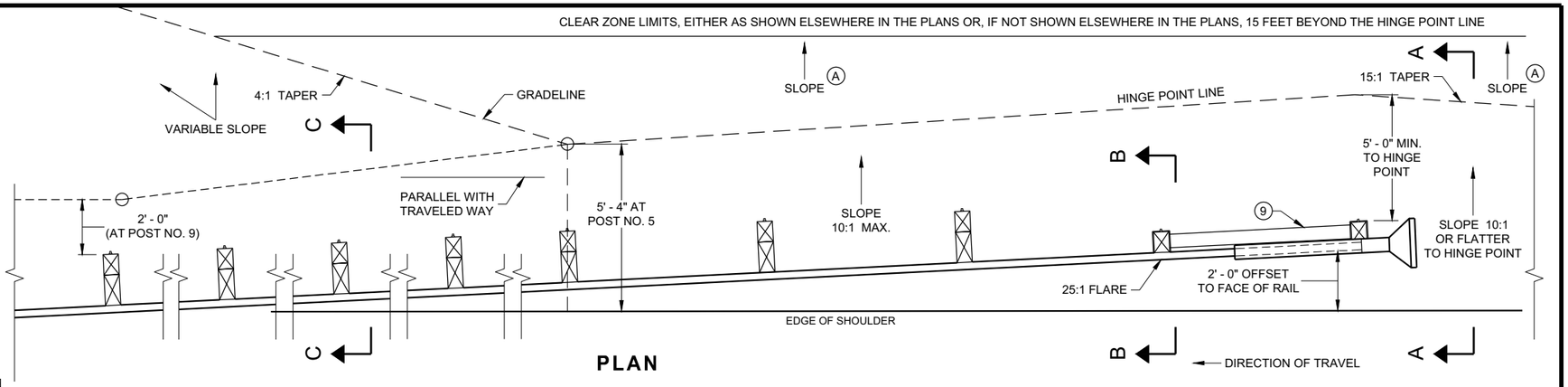
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

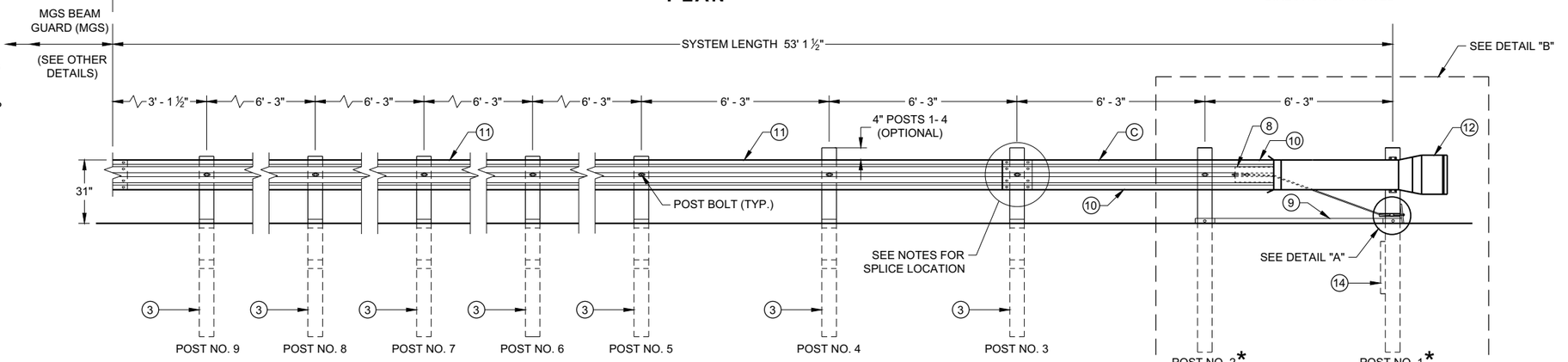
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

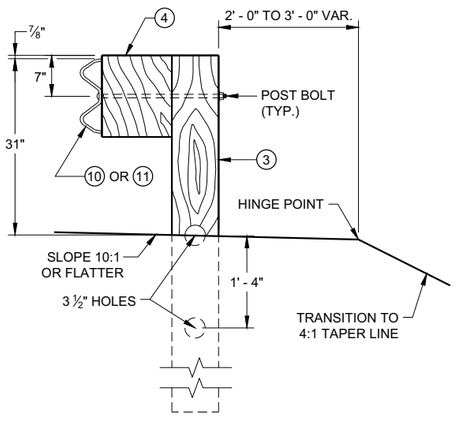
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



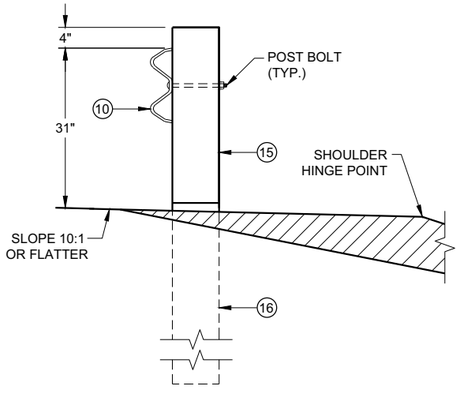
DETAIL "A" (E)



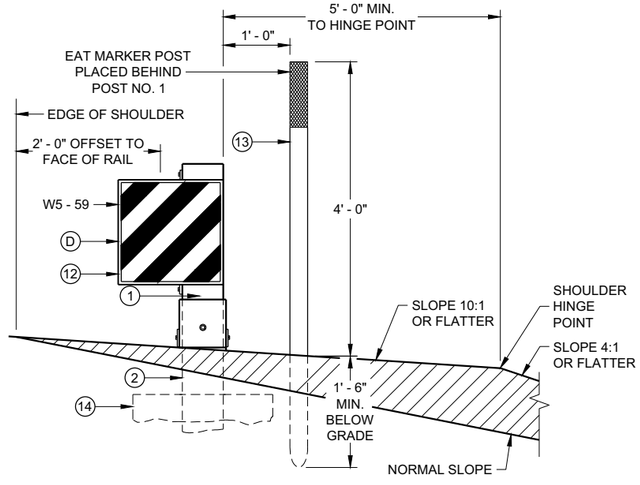




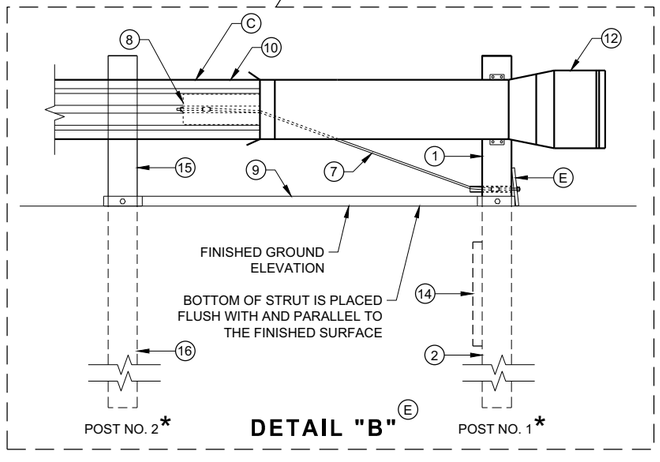
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



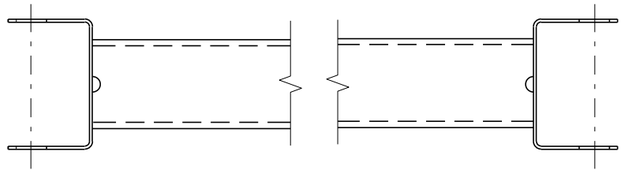
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

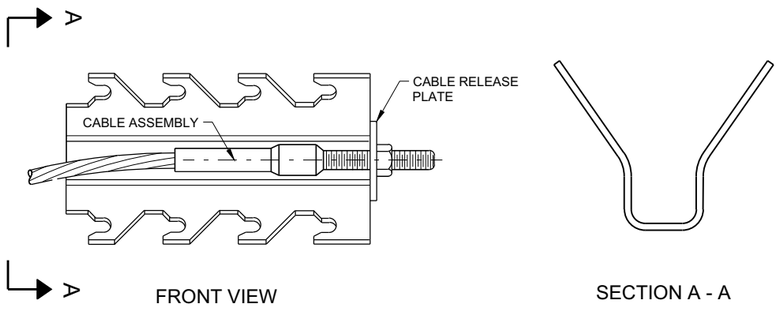
SDD 14B44 - 04a



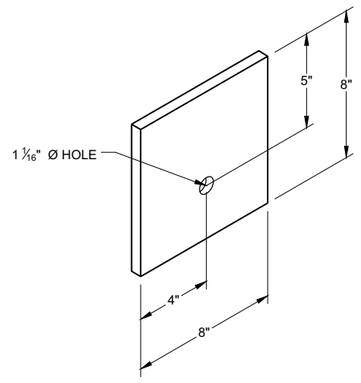
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

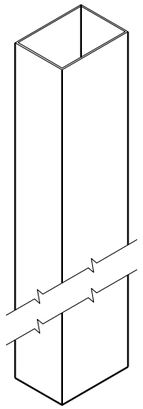
6

SDD 14B44 - 04b

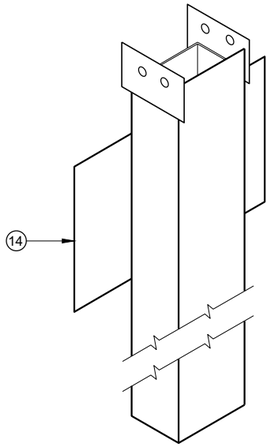
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

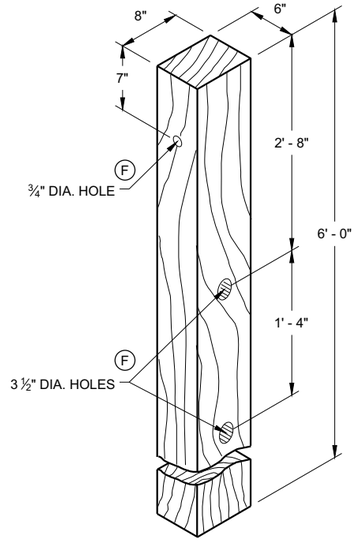
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



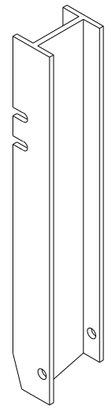
UPPER POST NO. 1 (1) (E)



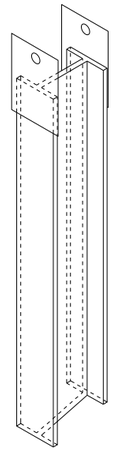
LOWER POST NO. 1 (2) (E)



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



UPPER POST NO. 2 (15) (E)



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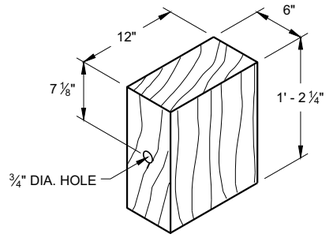
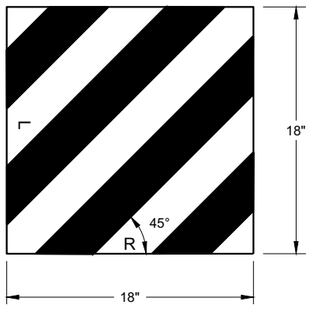
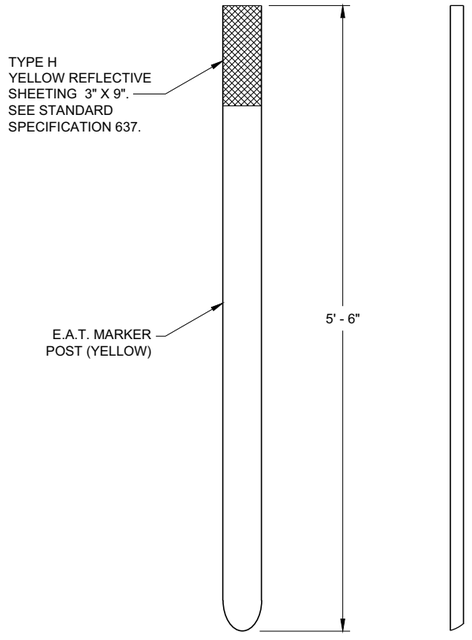


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



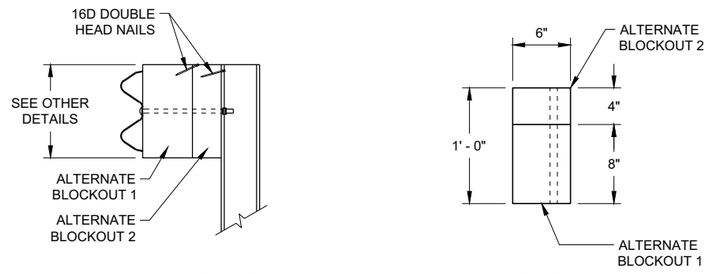
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

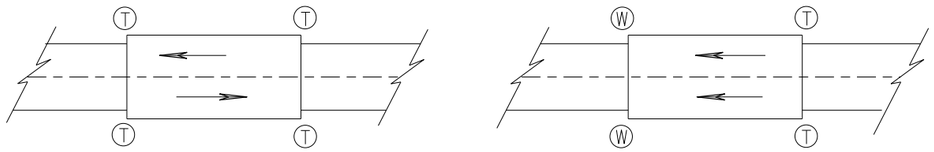
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

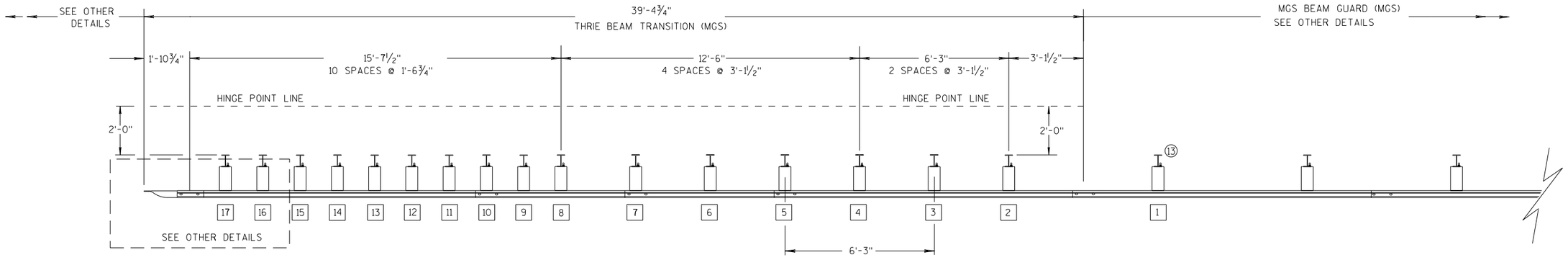
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

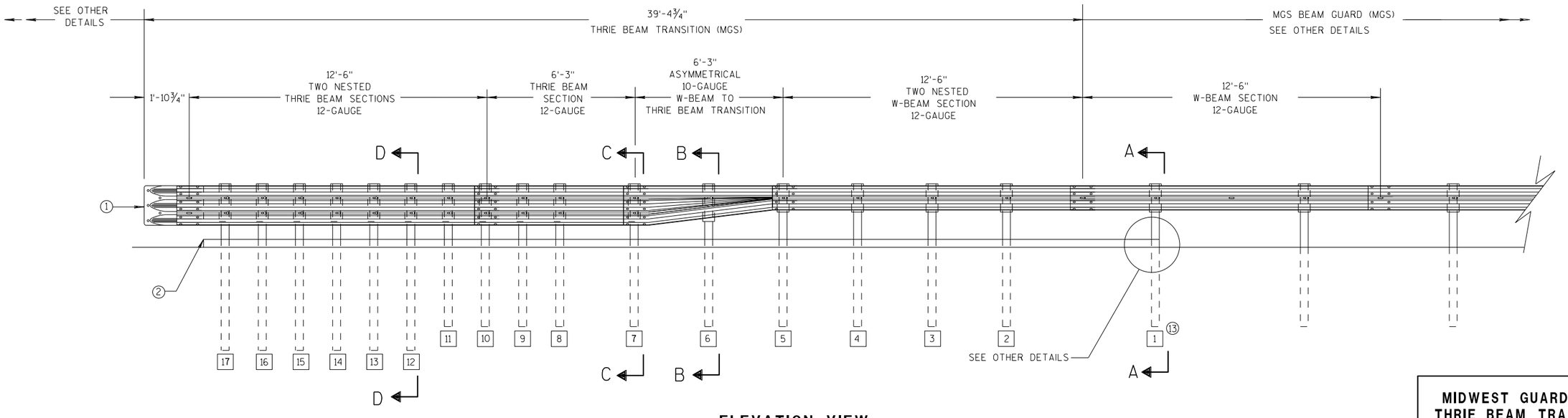
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

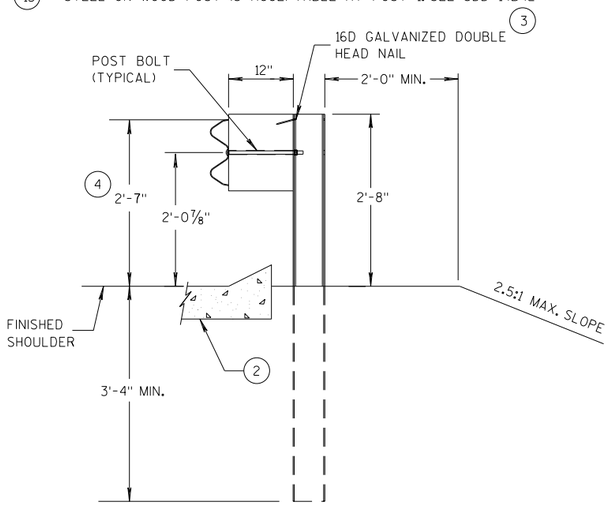
GENERAL NOTES

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

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

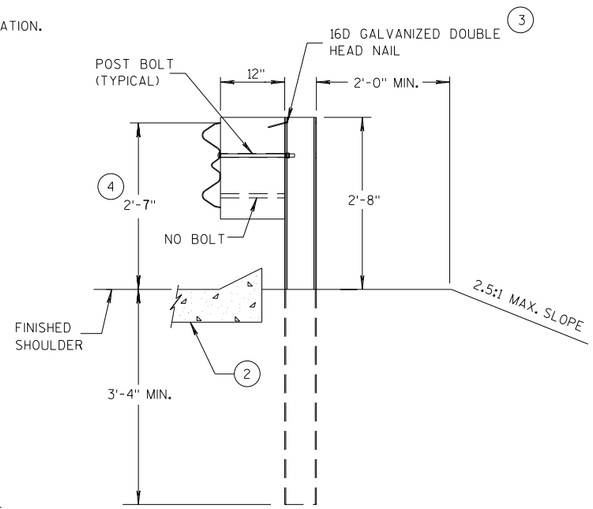
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



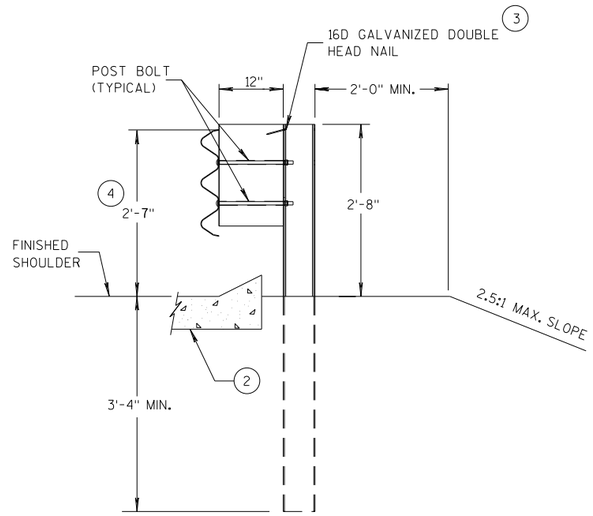
SECTION A-A (13)

POSTS 1-5



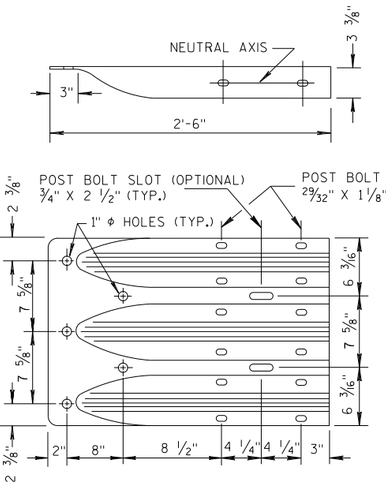
SECTION B-B

POST 6

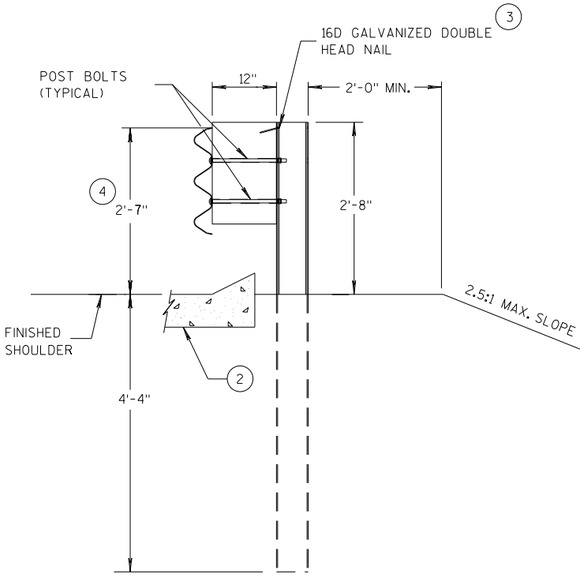


SECTION C-C

POSTS 7-11

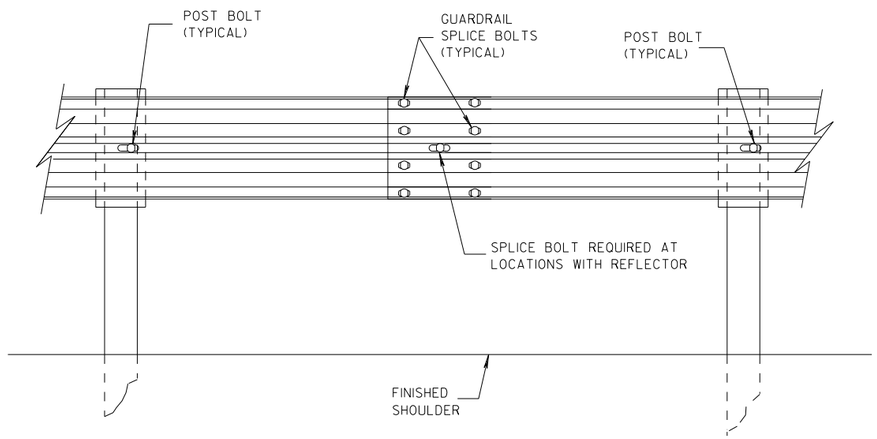


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

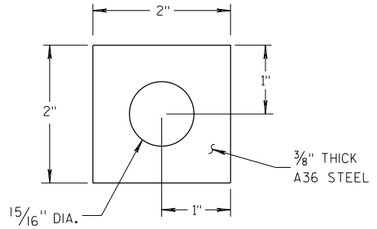
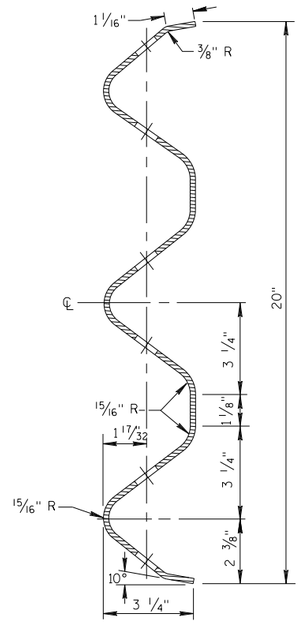


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 108

6

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

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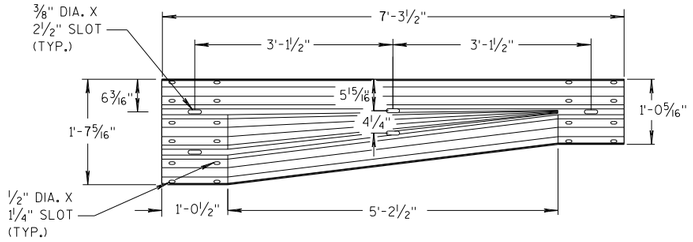
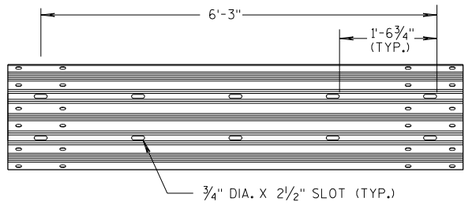
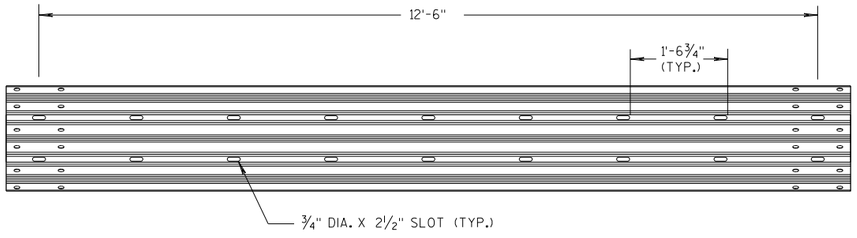
S.D.D. 14 B 45-5b



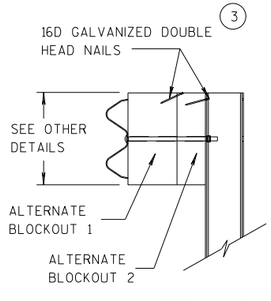
W-BEAM TO THRIE BEAM TRANSITION SECTION



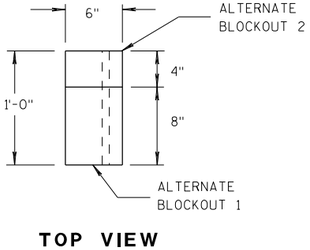
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

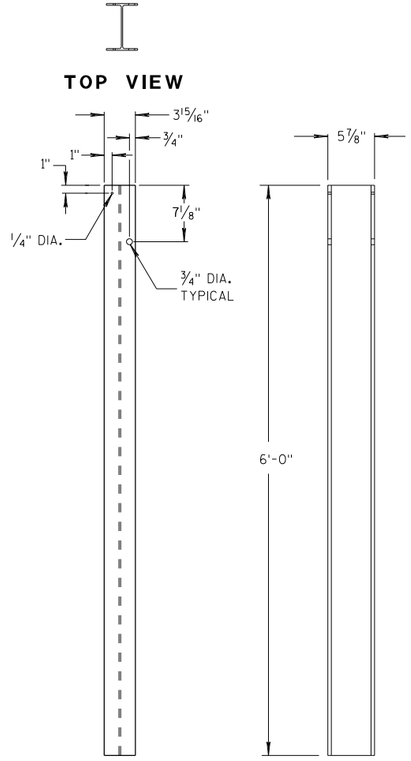


SIDE VIEW



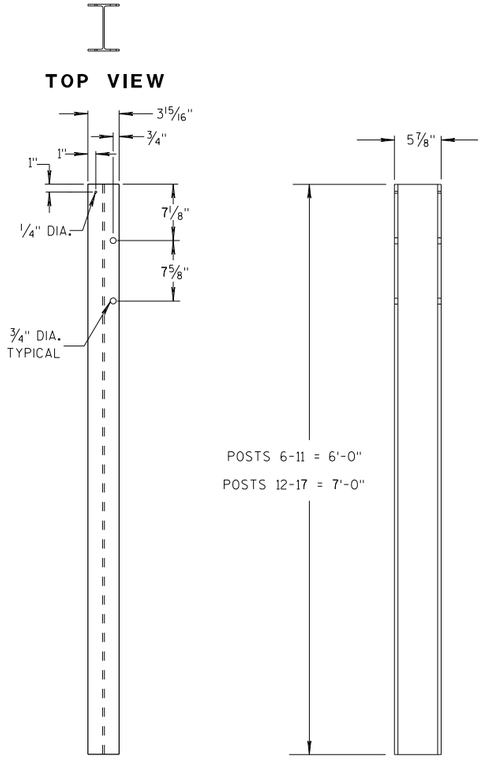
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



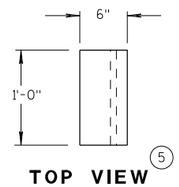
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

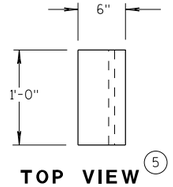


FRONT VIEW SIDE VIEW

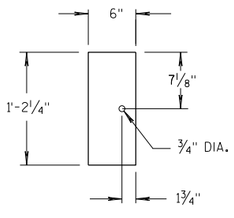
STEEL POSTS 6-17



TOP VIEW (5)

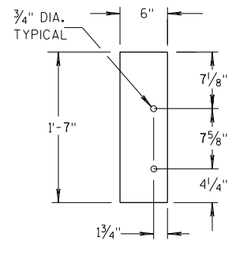


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

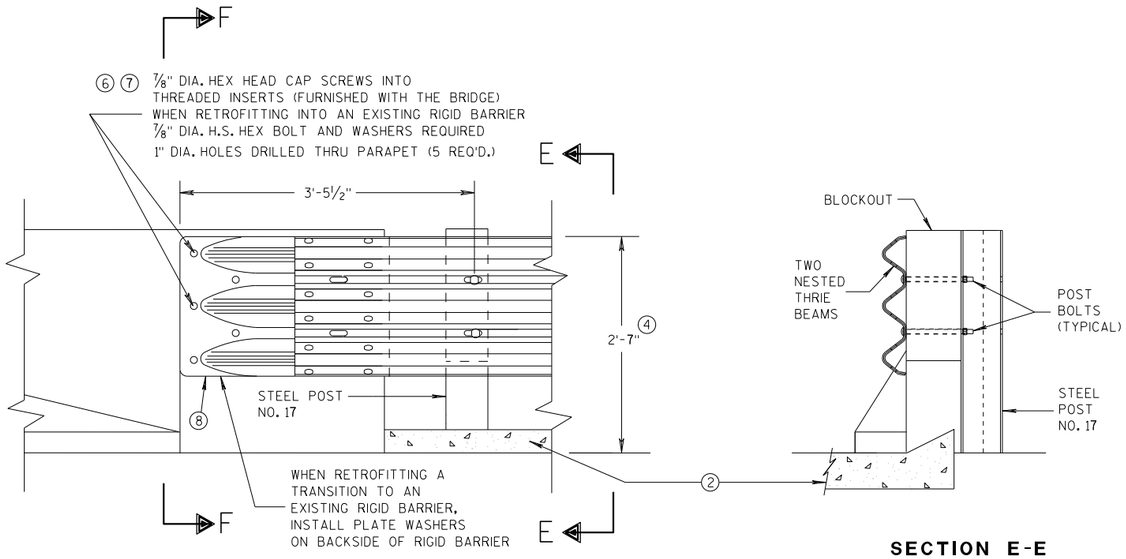
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

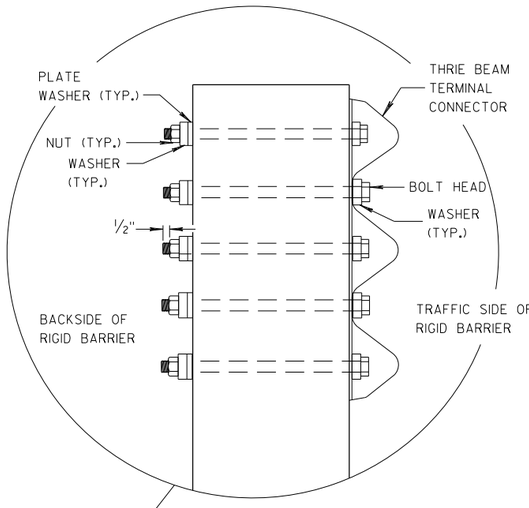
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

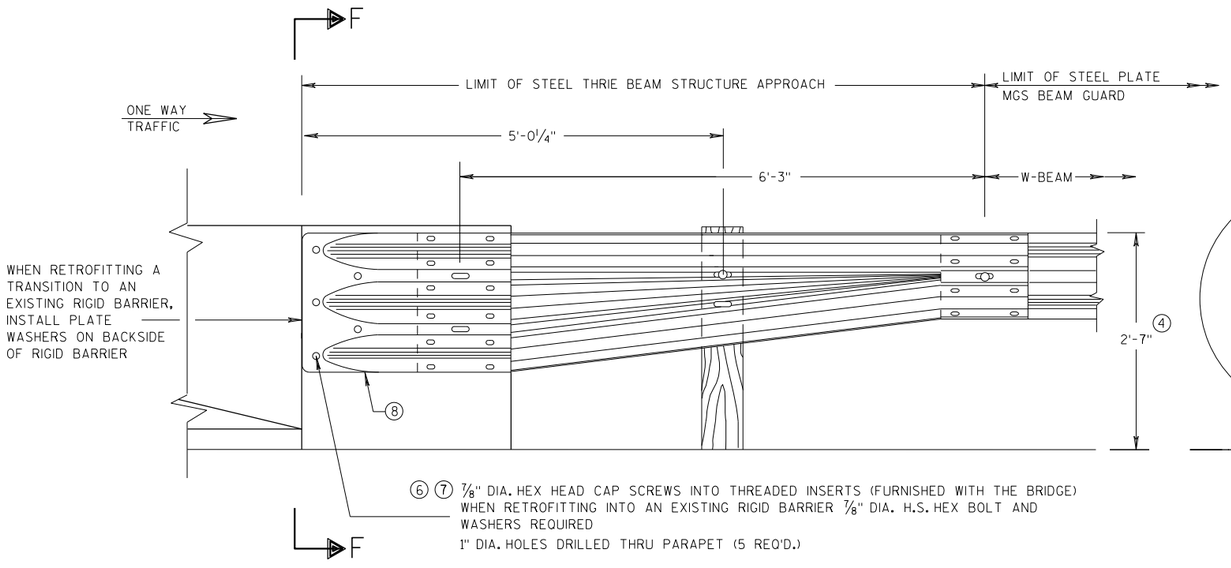
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

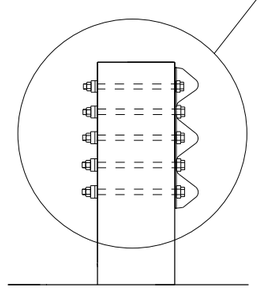
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

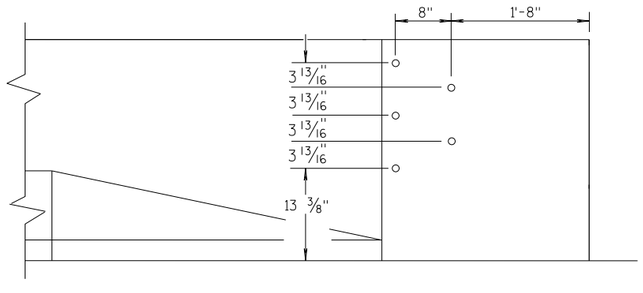




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS
NT
FHWA

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

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

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

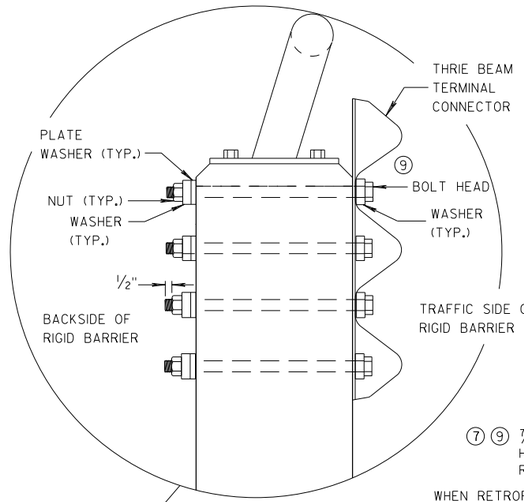
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

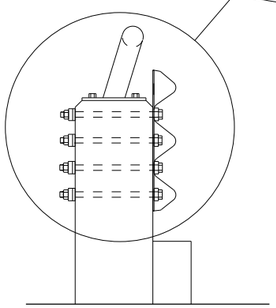
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

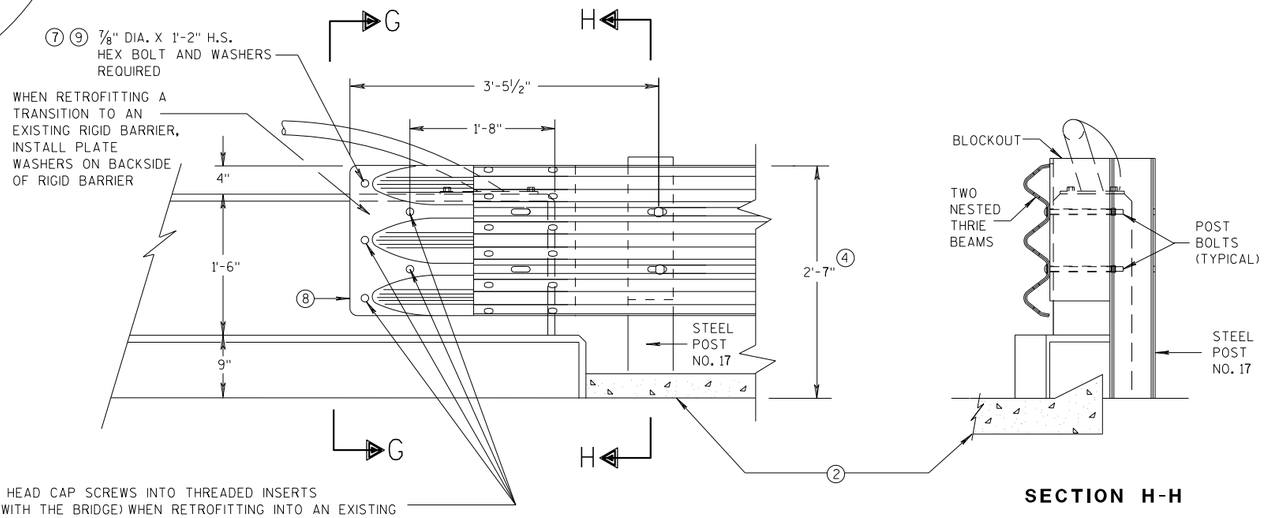
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





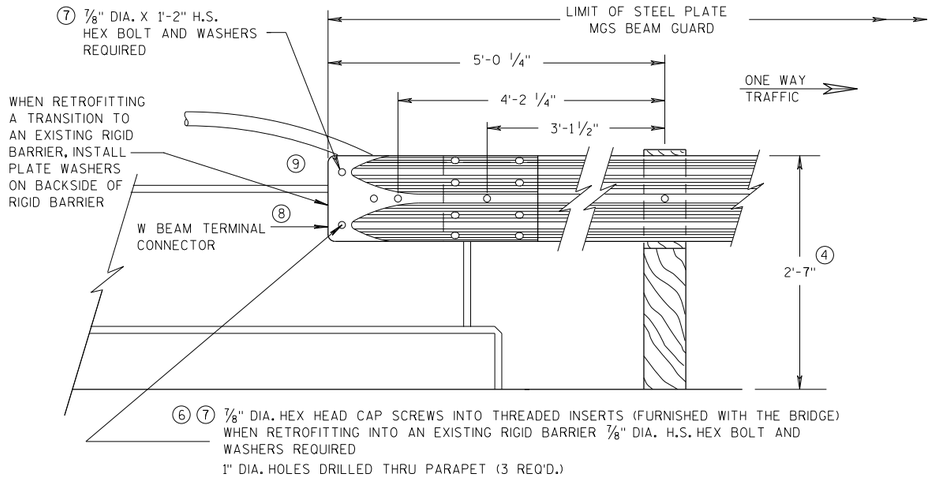
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor
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FHWA

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

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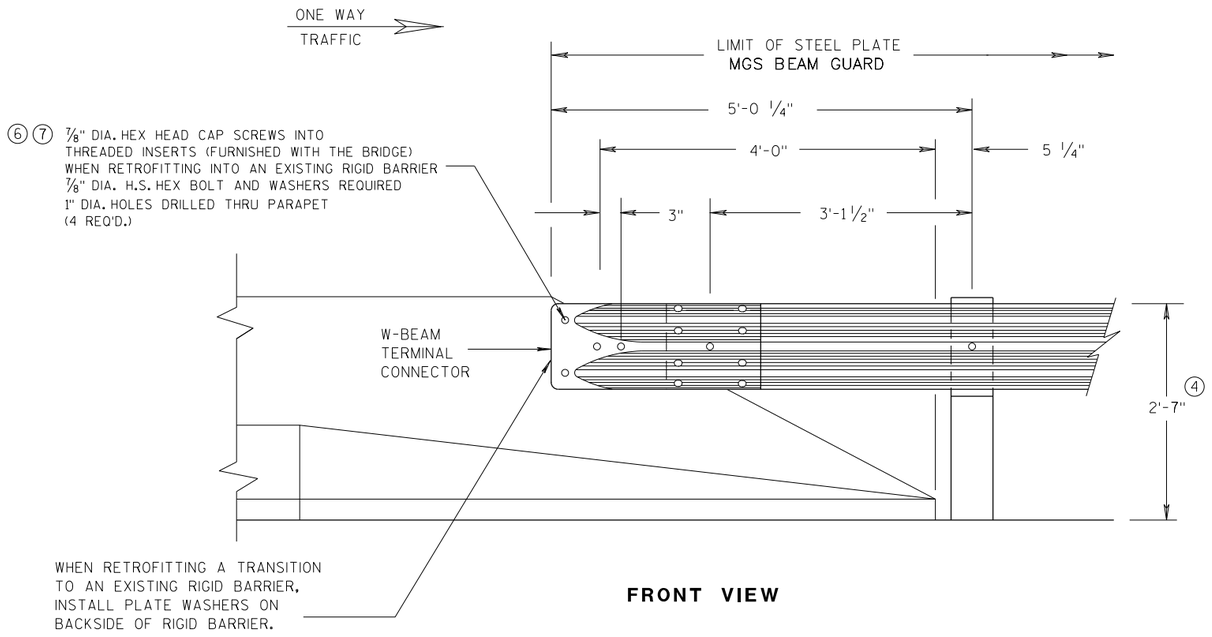
S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

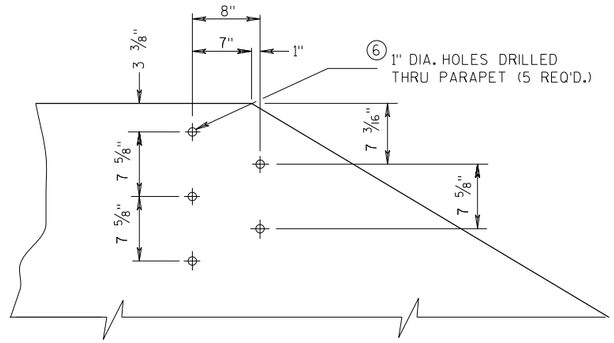
GENERAL NOTES

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

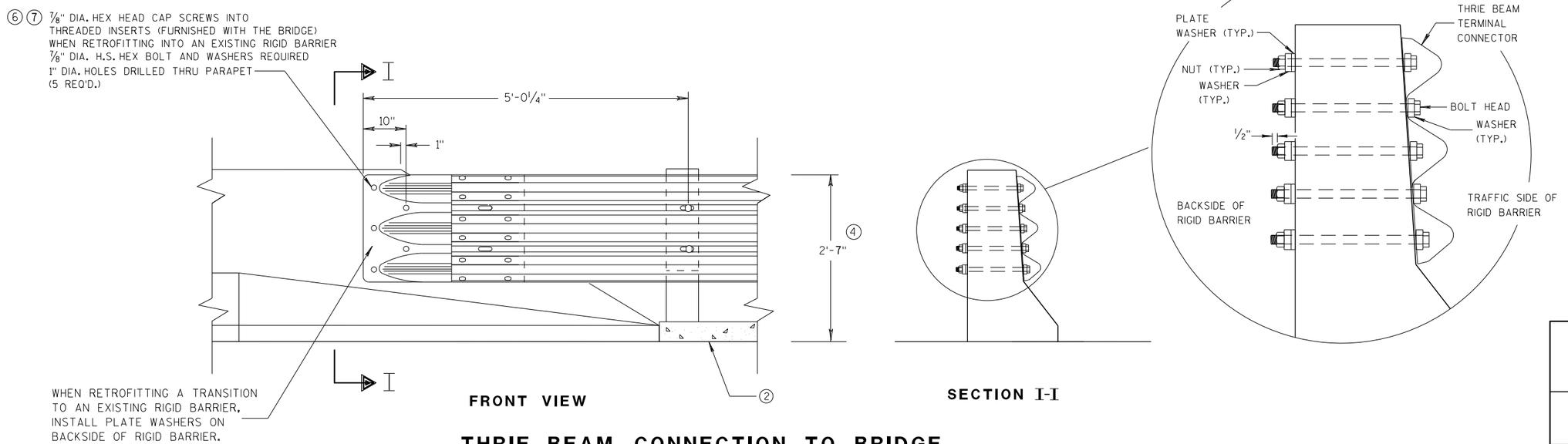
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018
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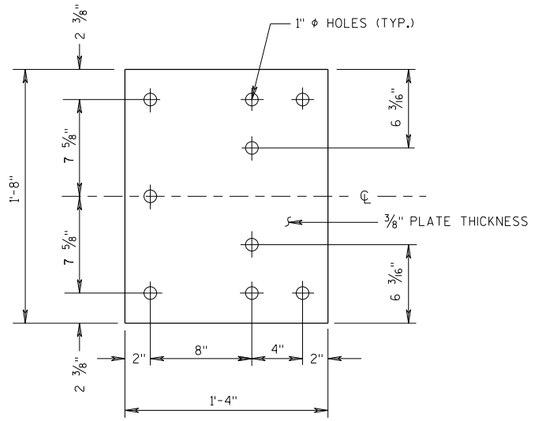
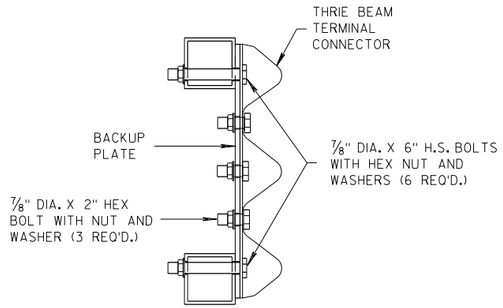
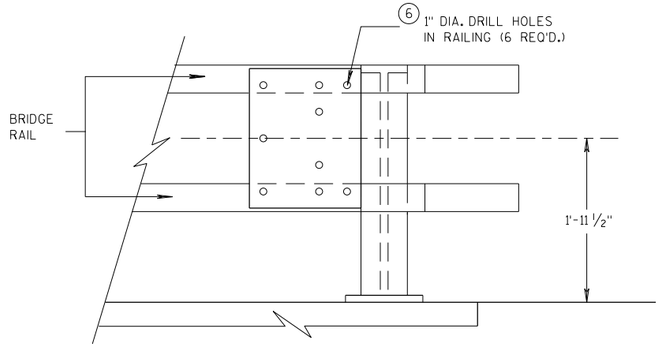
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

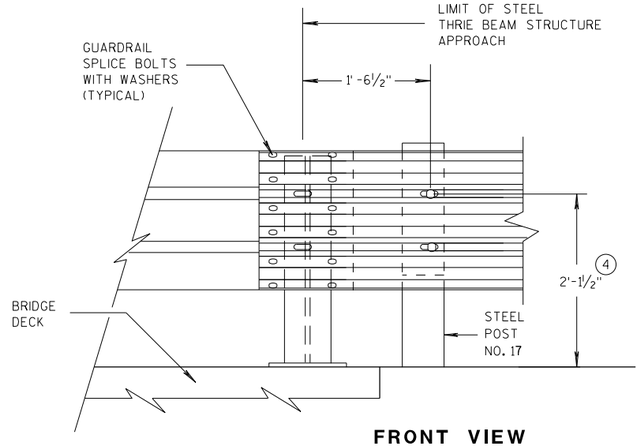


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

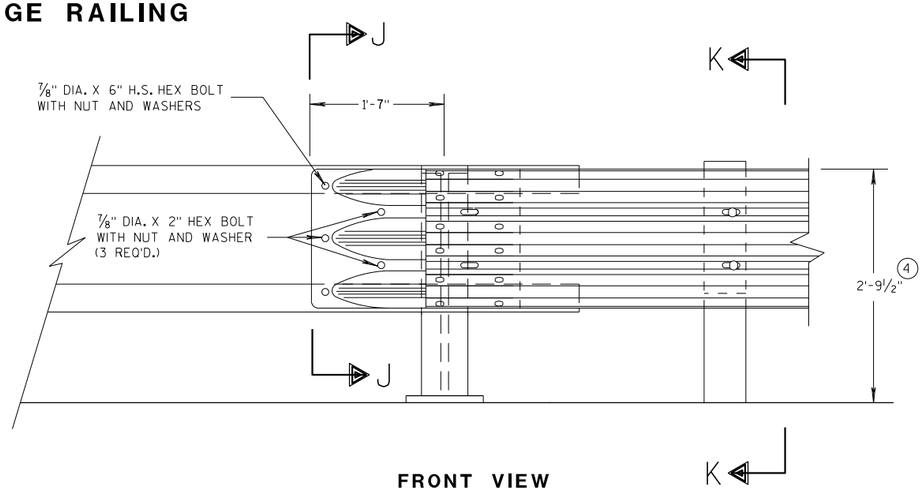
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

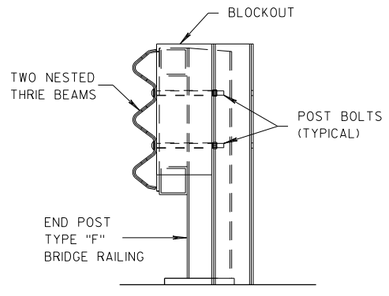


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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

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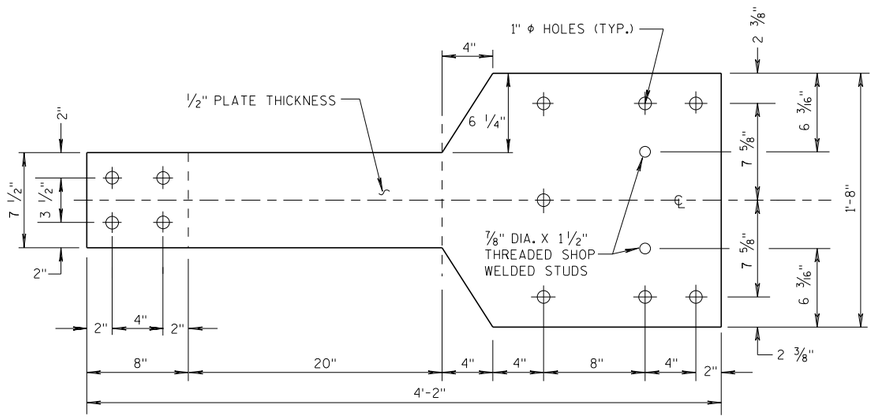
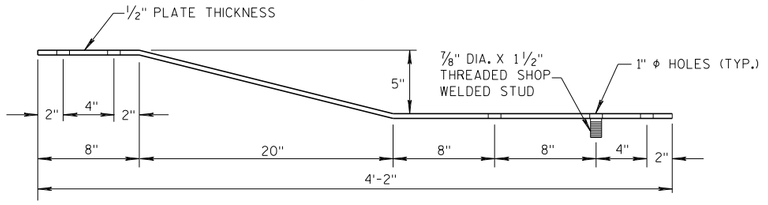
S.D.D. 14 B 45-5g

GENERAL NOTES

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

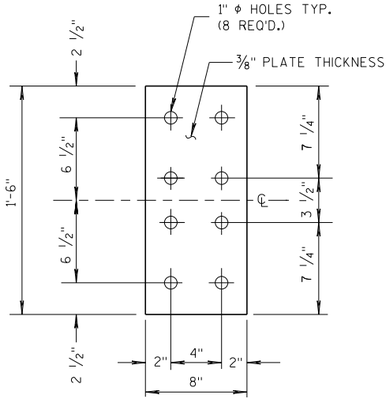


FRONT VIEW



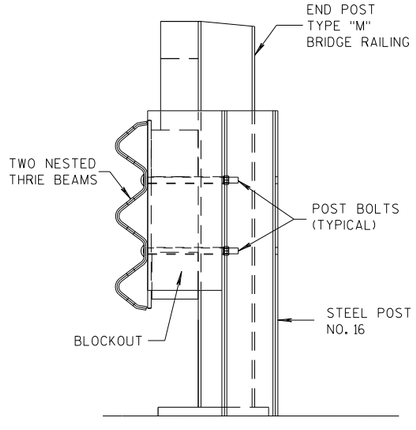
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

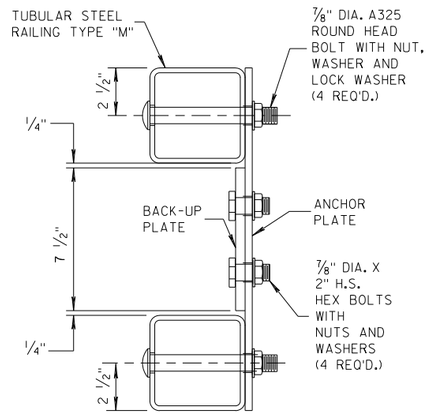


FRONT VIEW

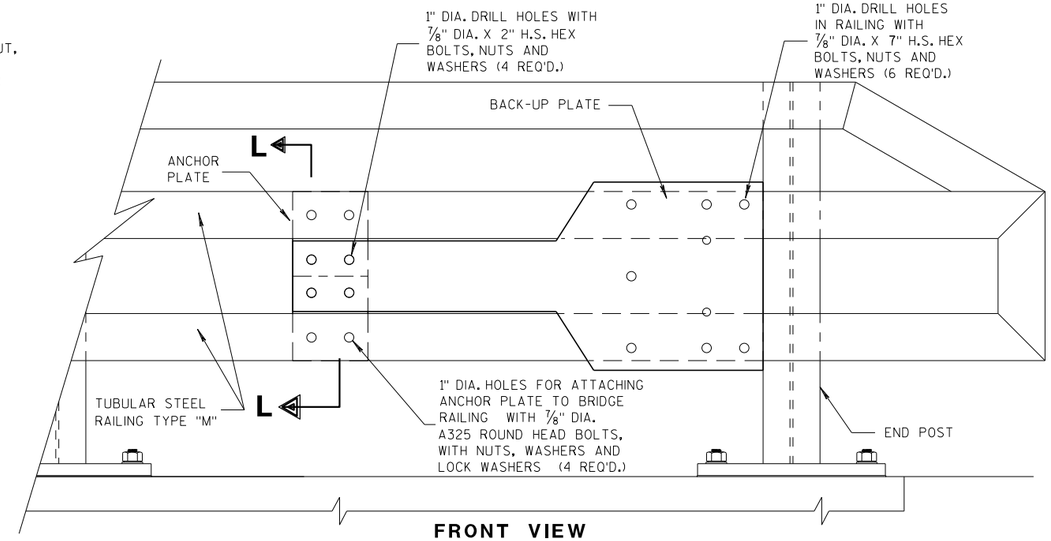
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

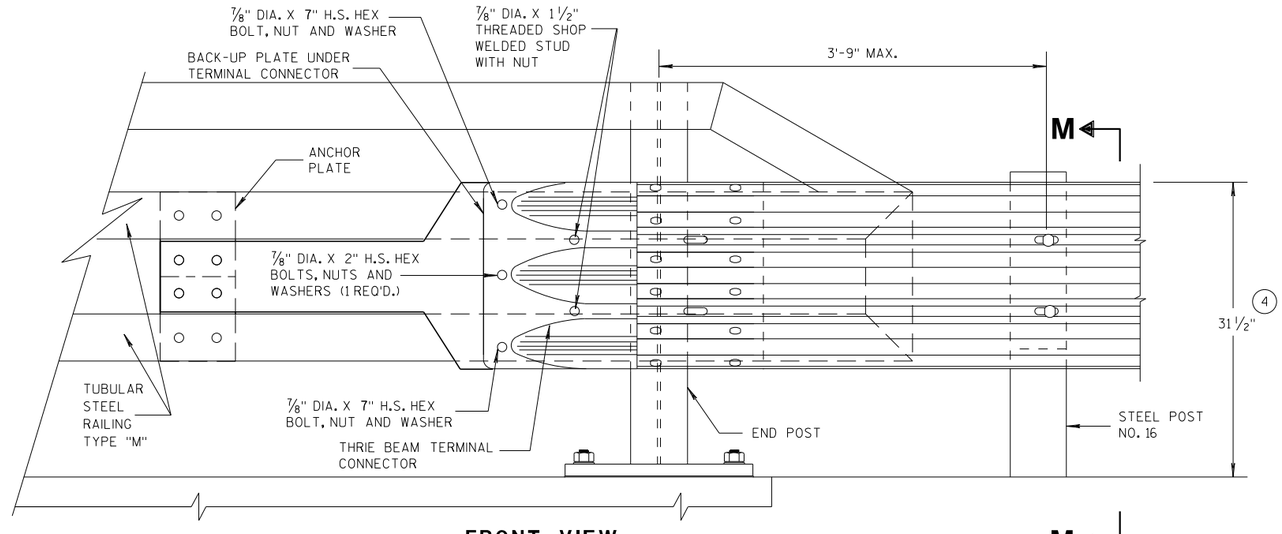


SECTION L-L

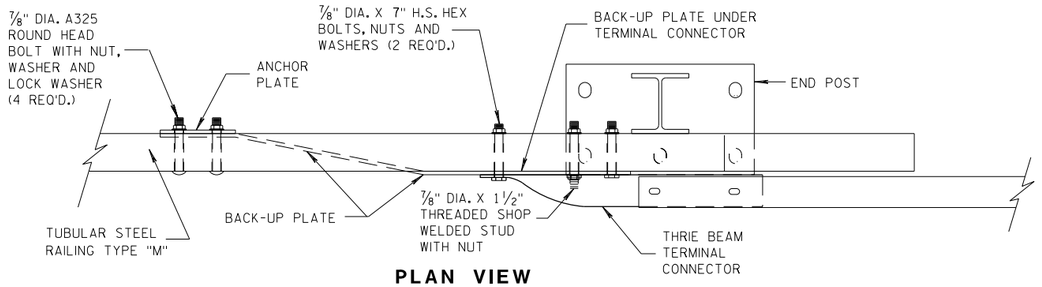


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

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

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

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

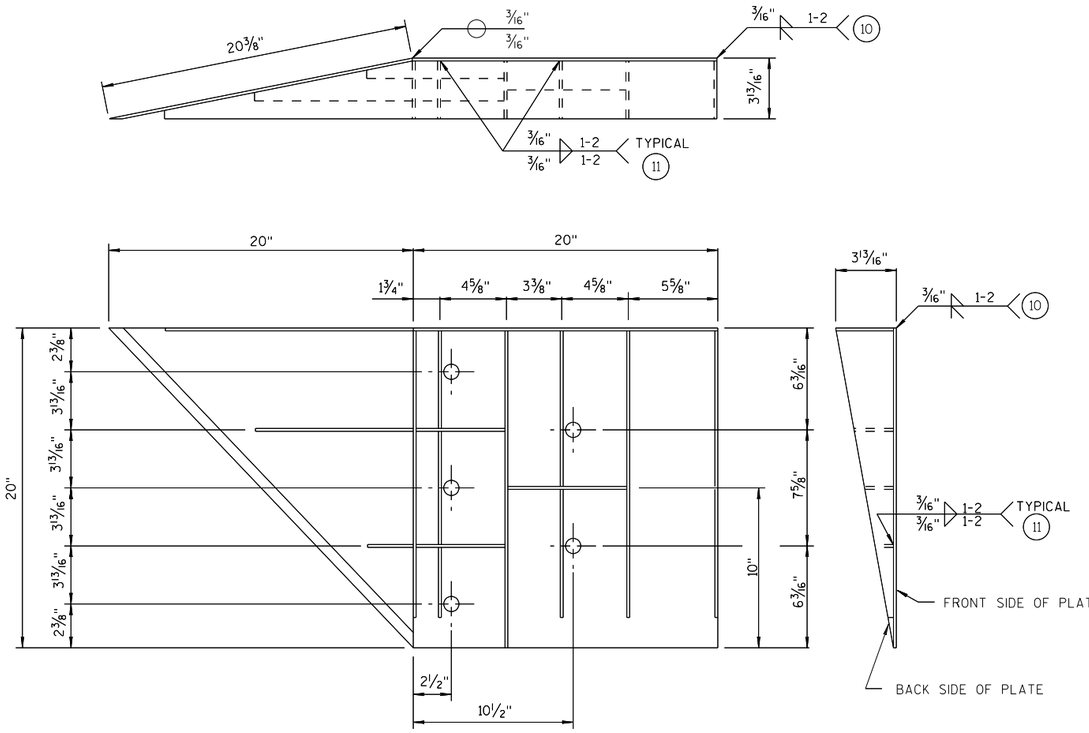
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

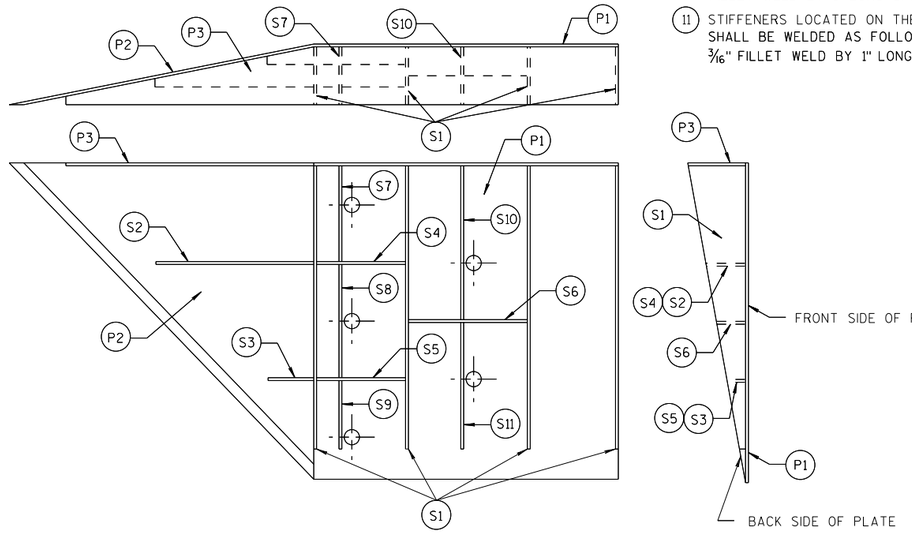


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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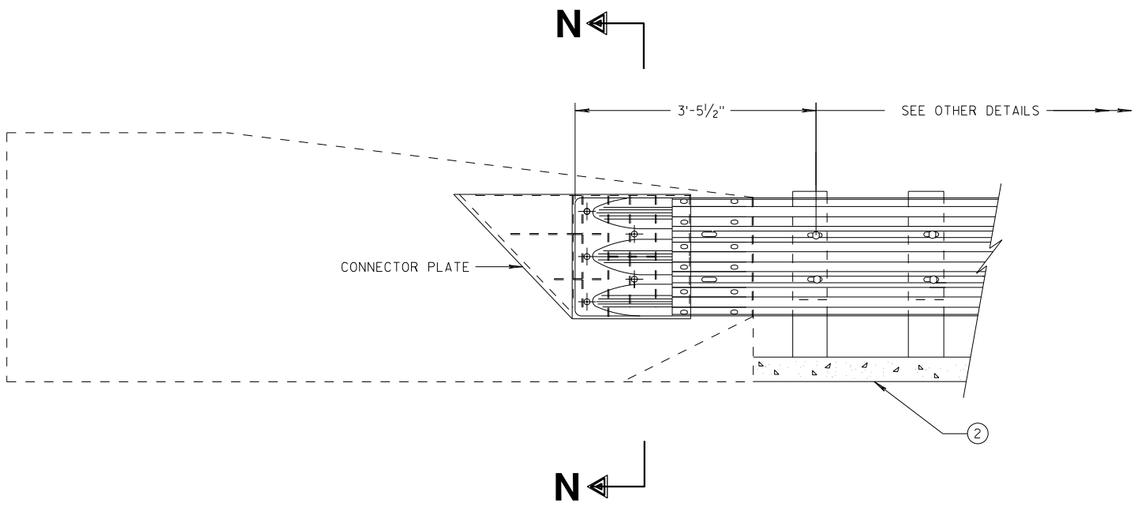
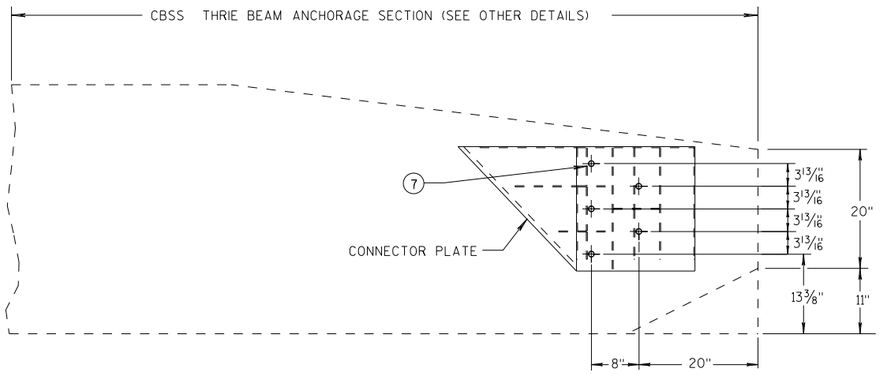


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



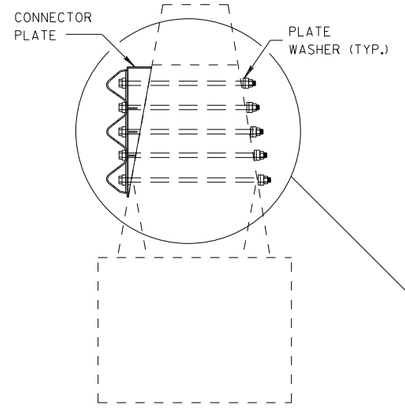
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

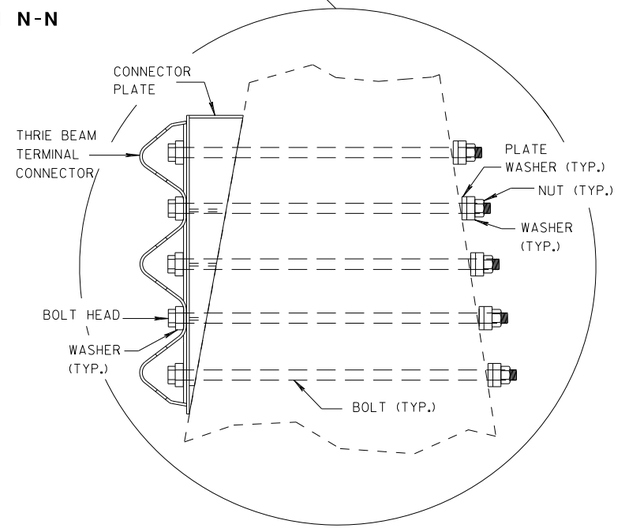
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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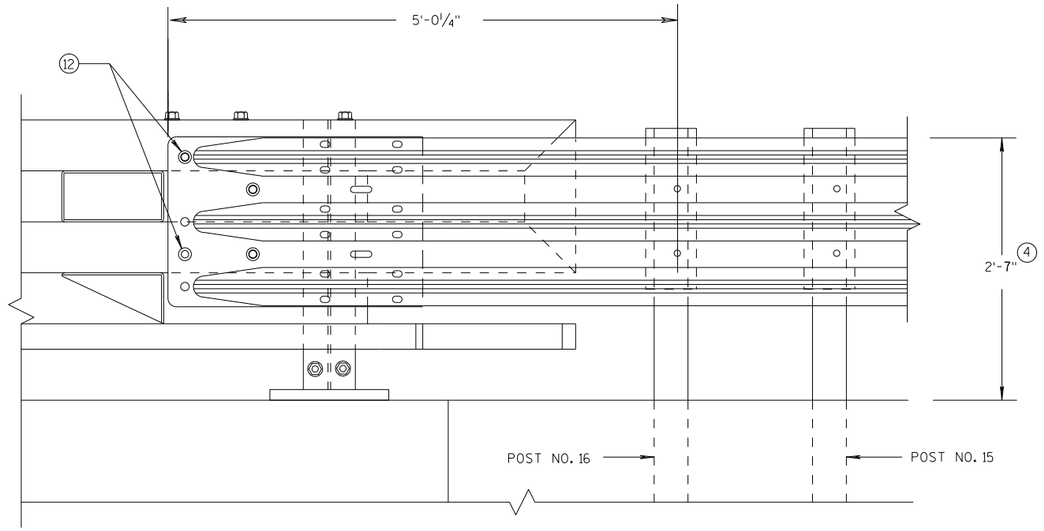
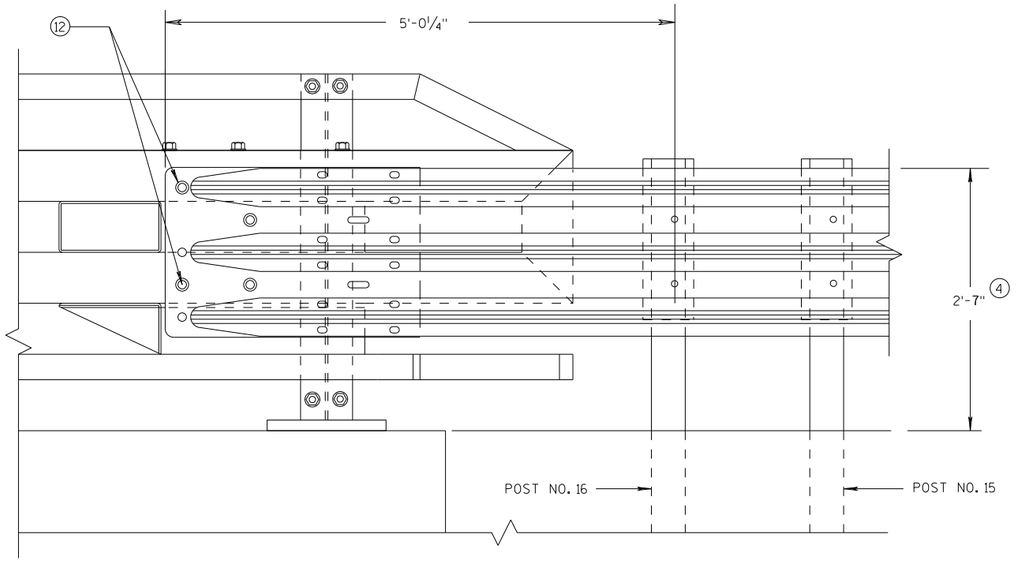


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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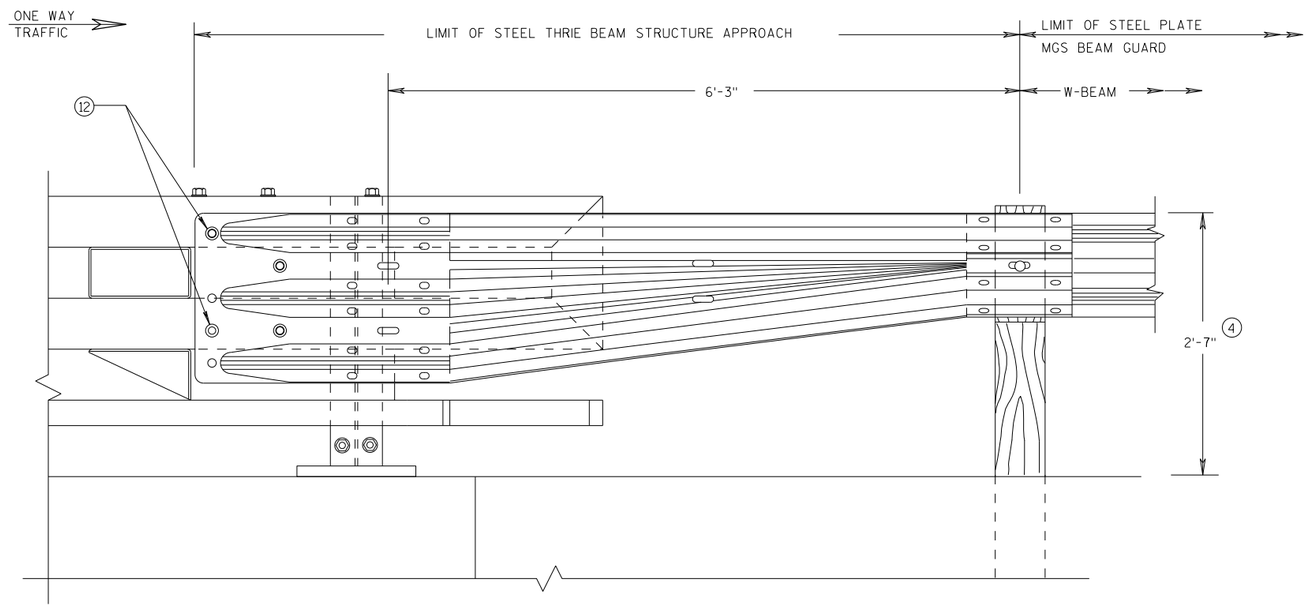


FRONT VIEW

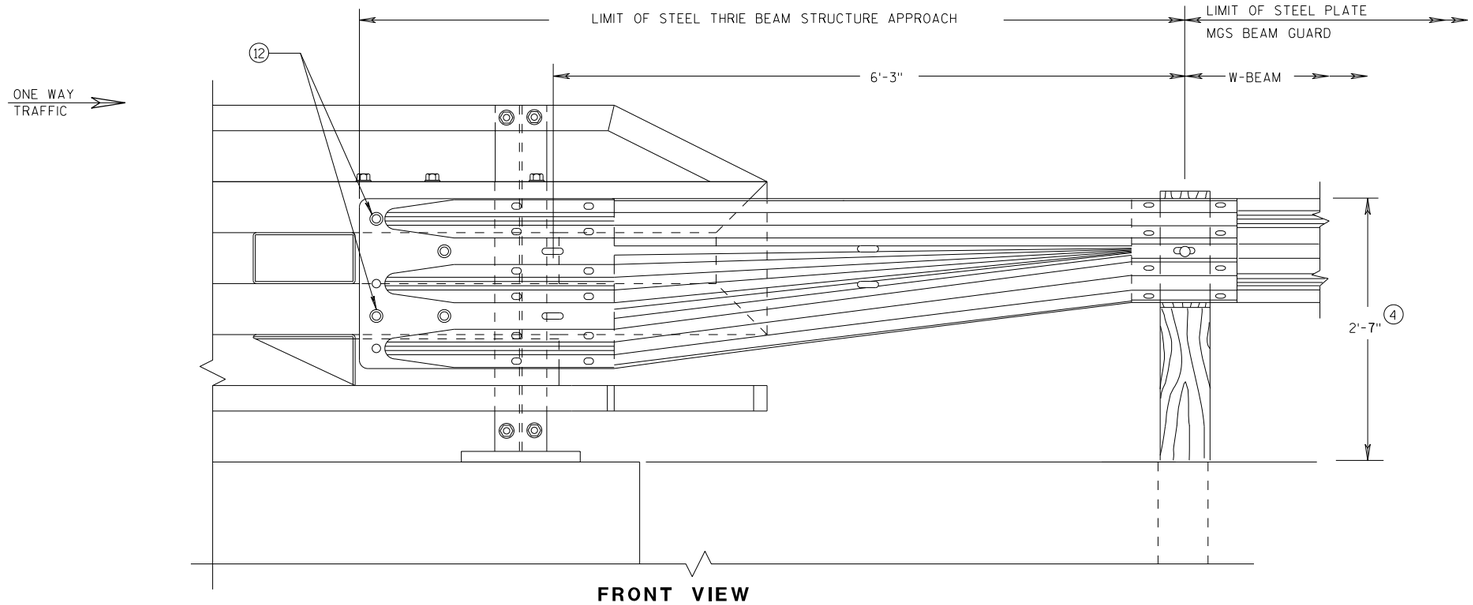
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
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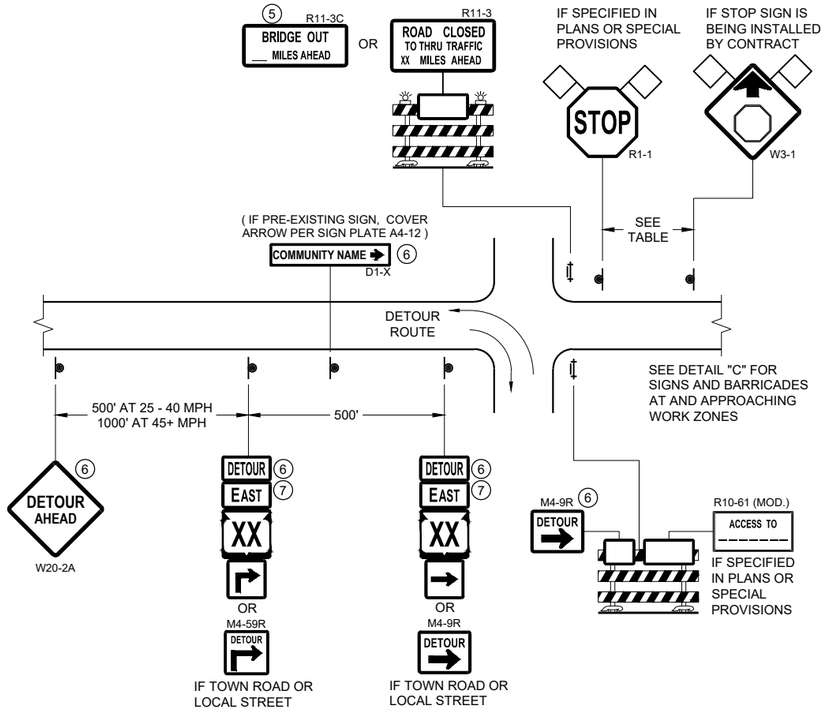
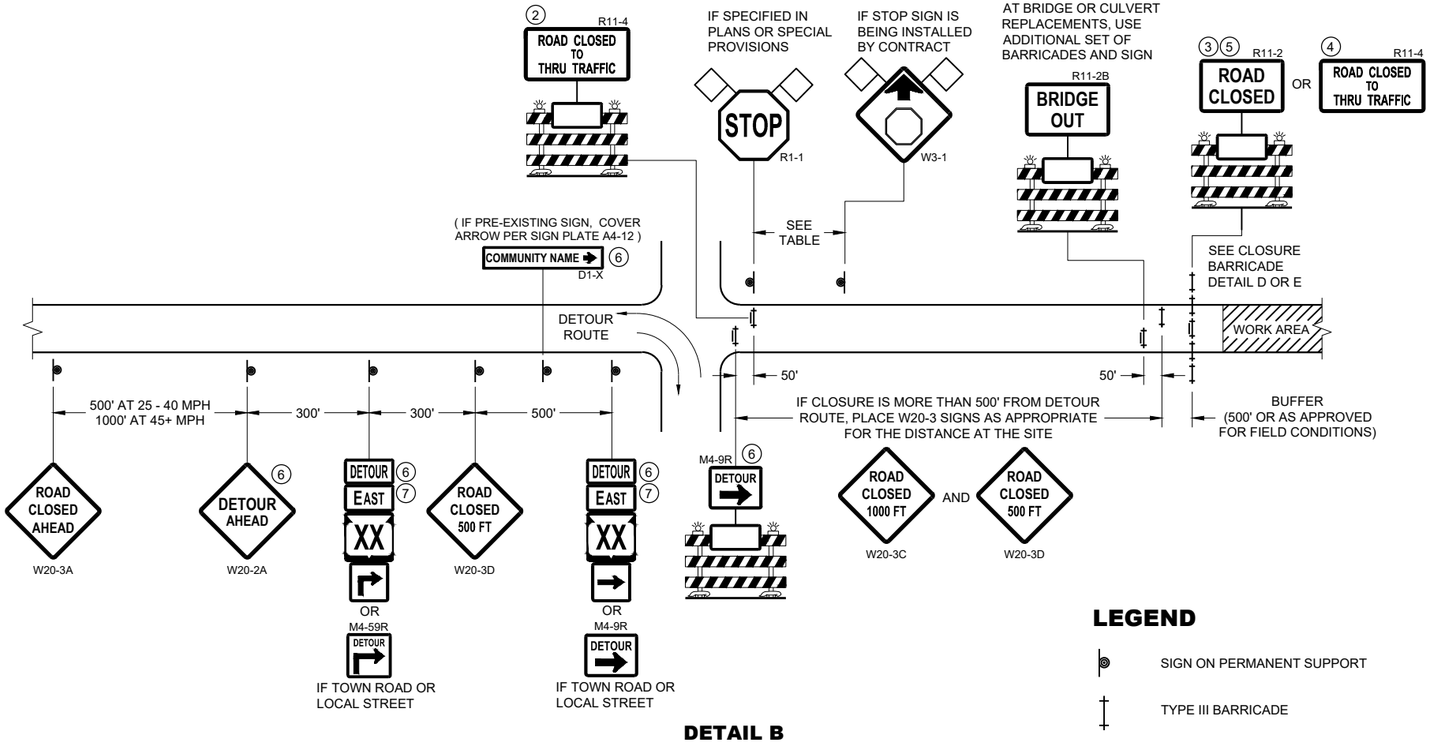


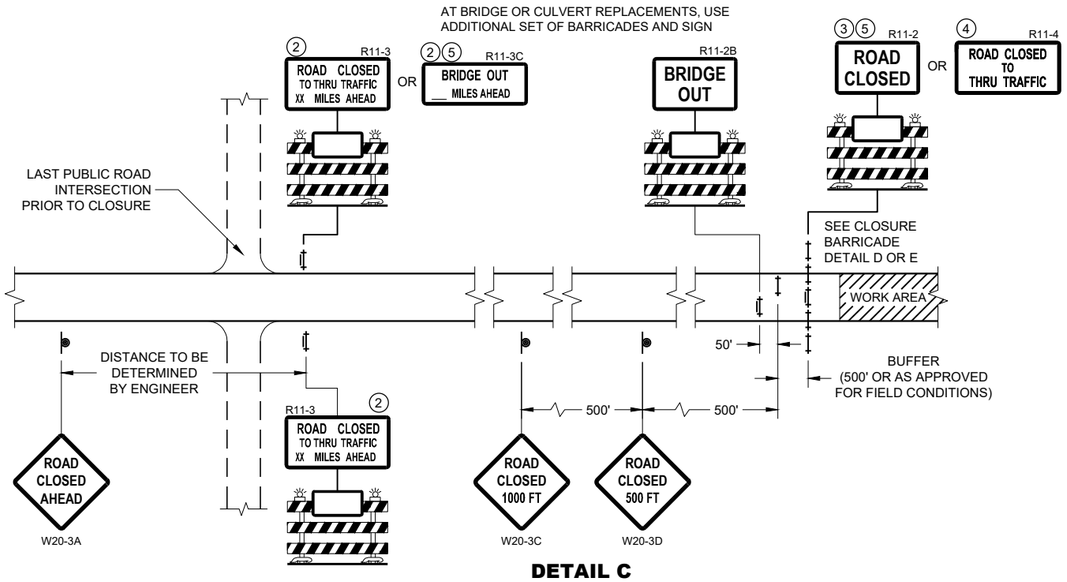
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15C02 - 09a

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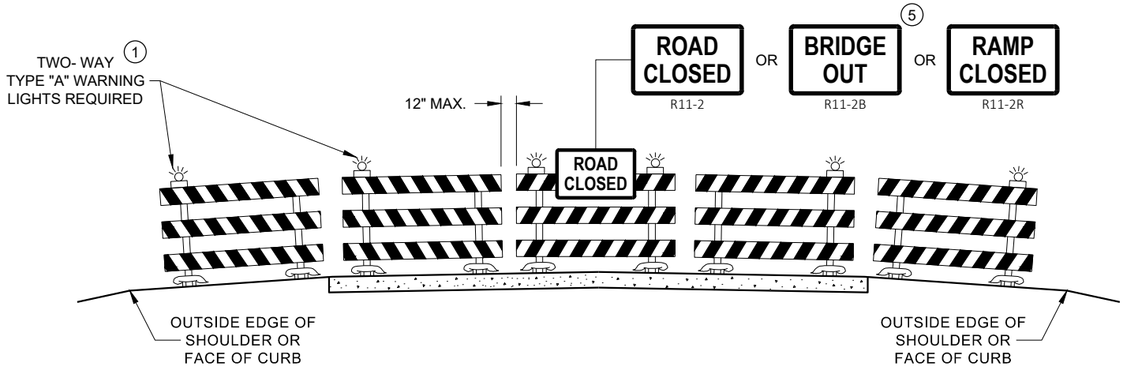
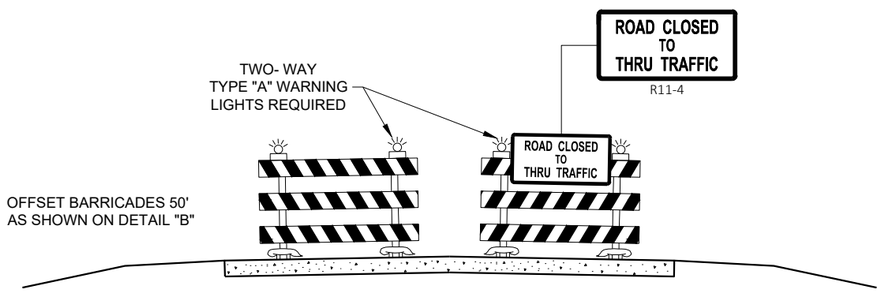


DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

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

GENERAL NOTES

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

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

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

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

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

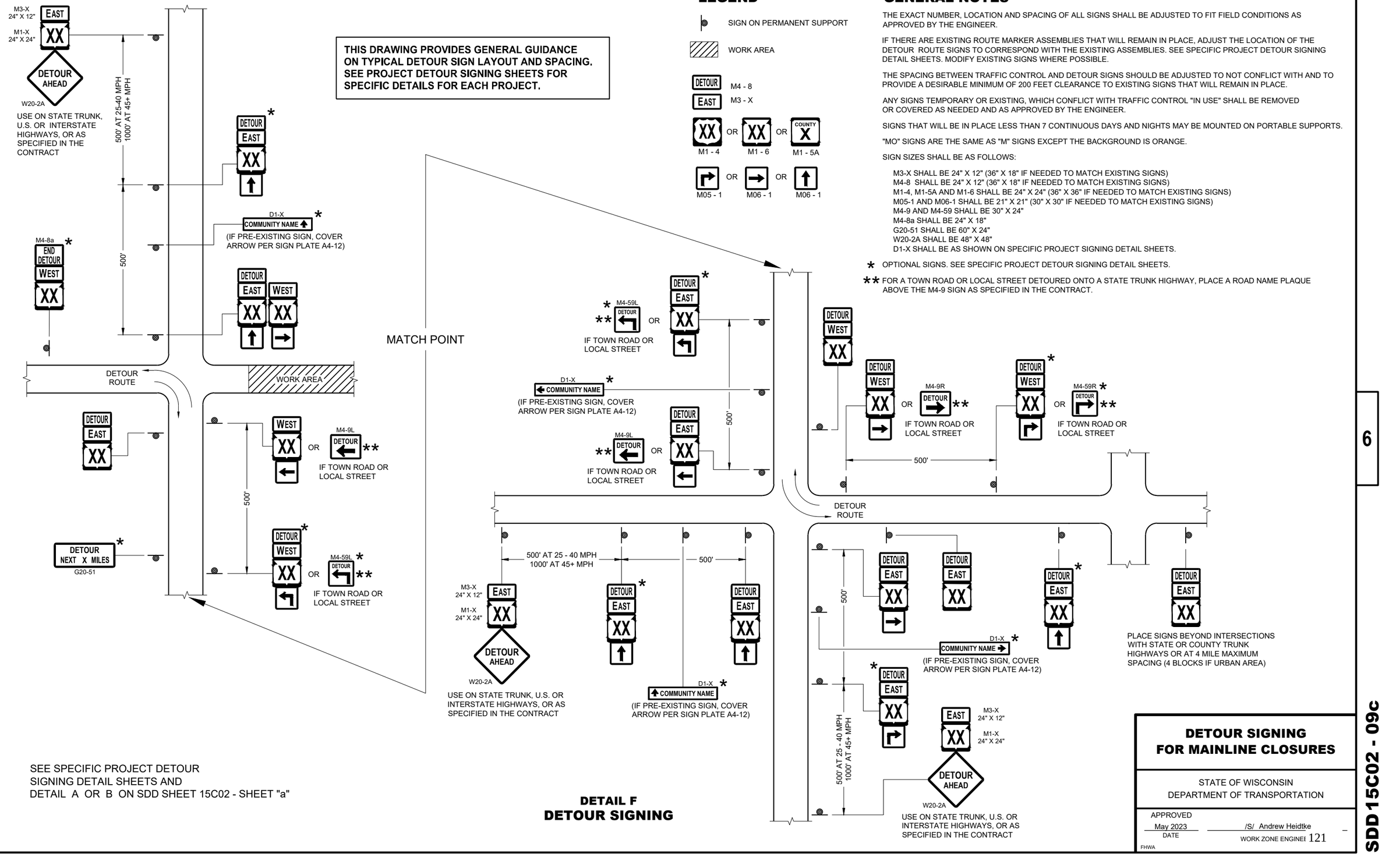
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

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

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

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



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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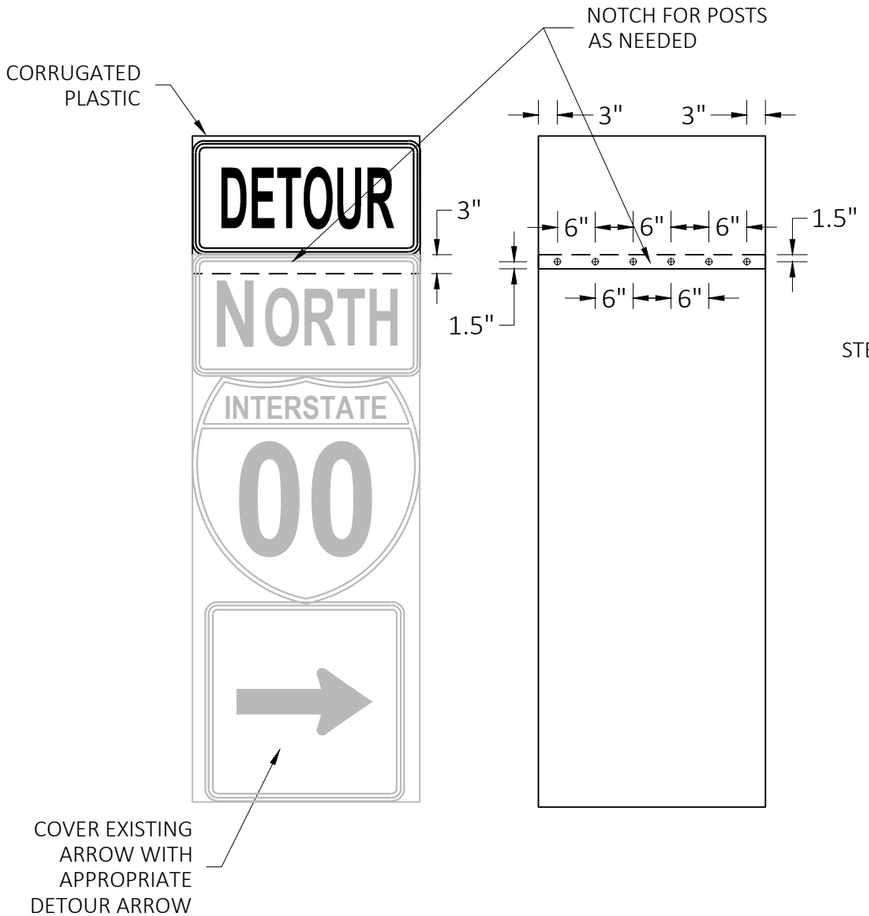
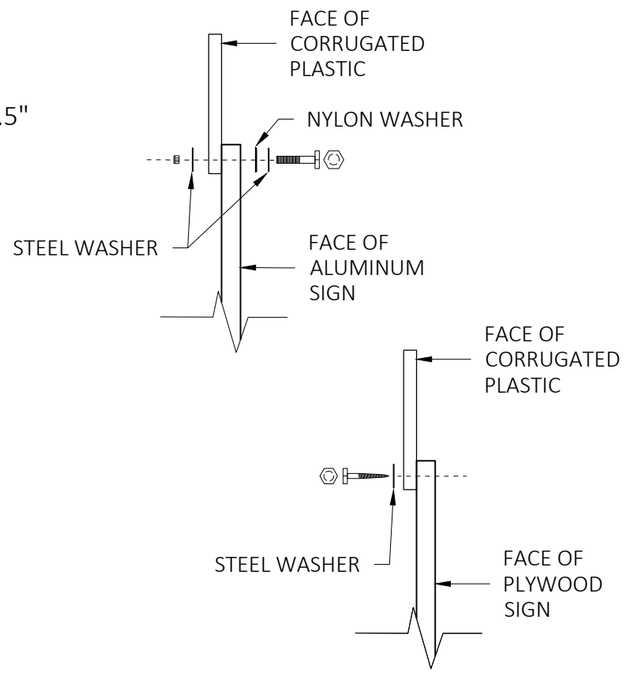
SDD 15C02 - 09c

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

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

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

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

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

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

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

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

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

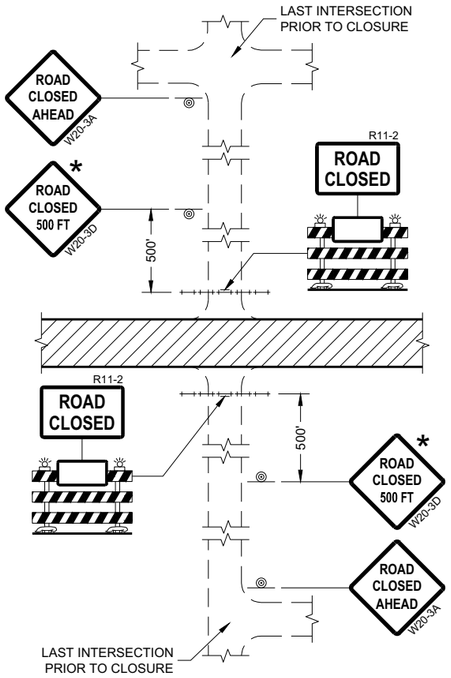
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

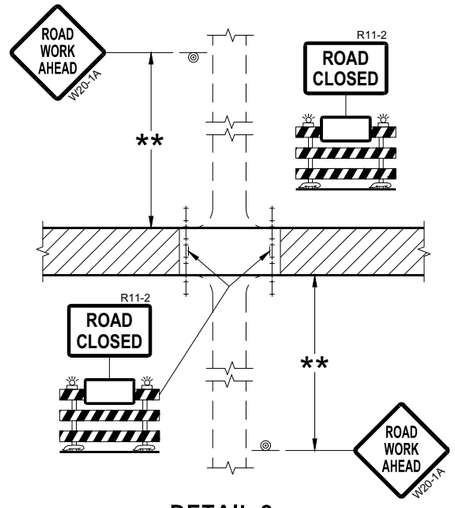
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

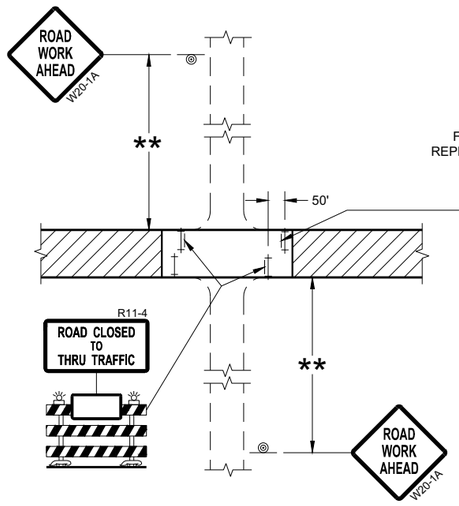
6
SDD 15C02-09h



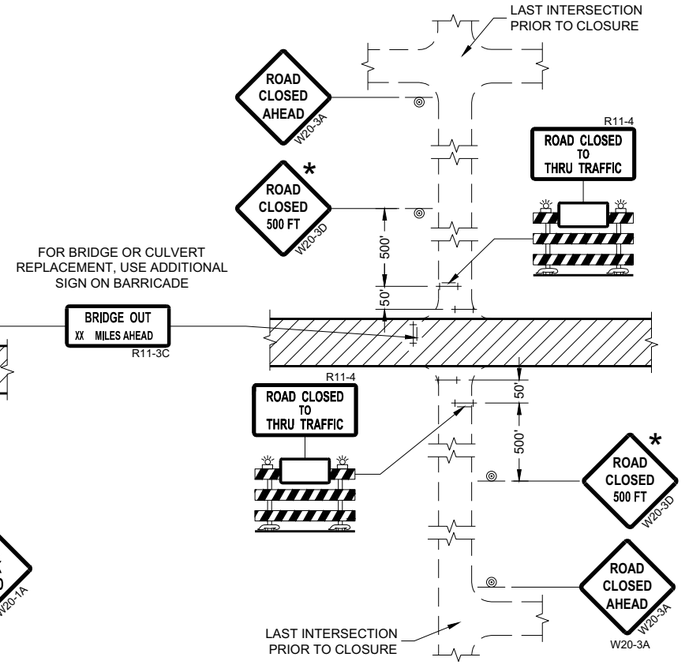
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C03 - 05

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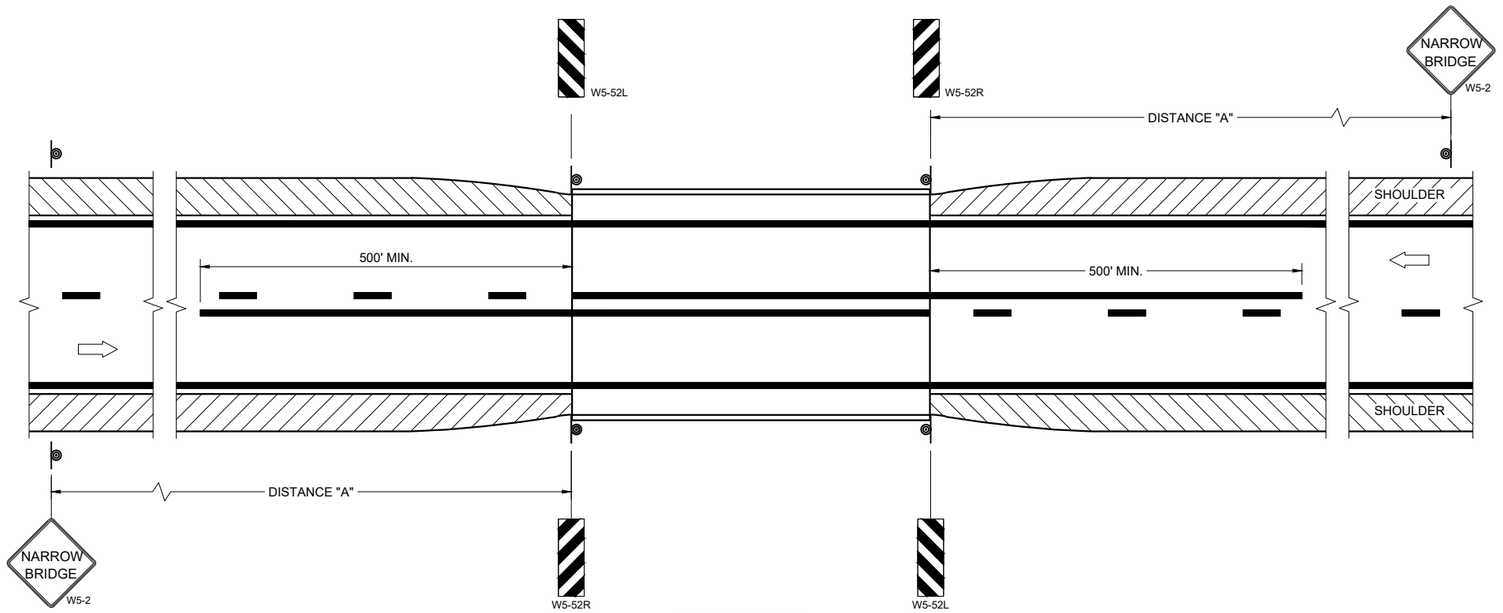
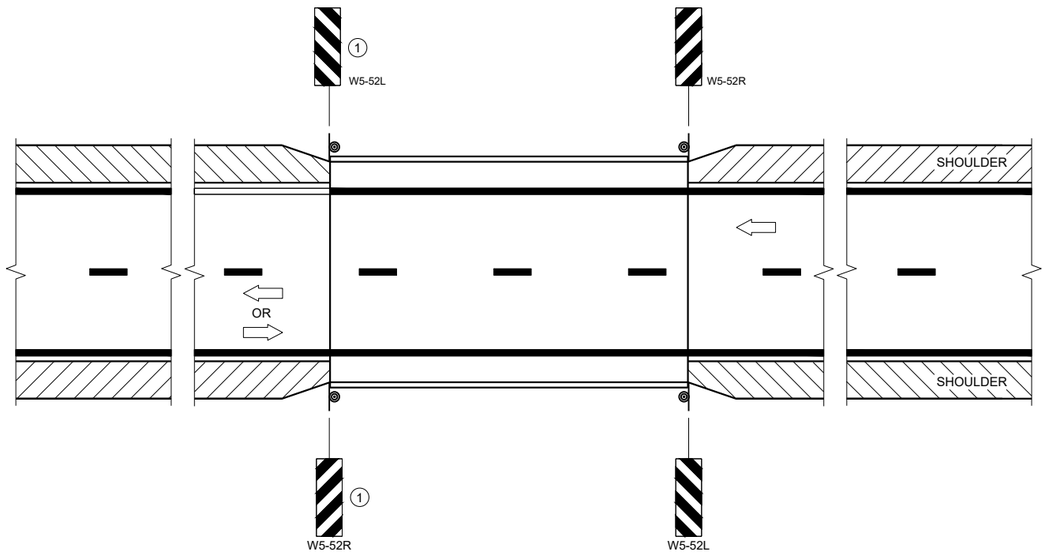
SDD 15C03 - 05



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

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

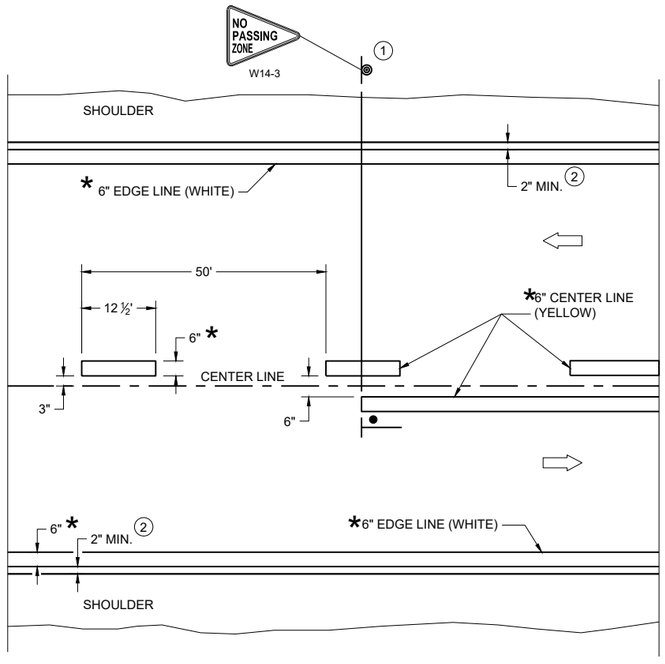
LEGEND

"T" MARKING

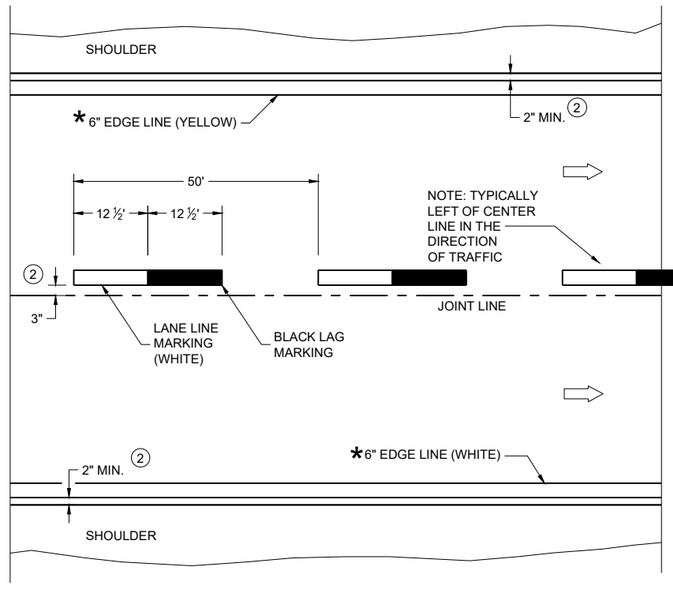
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

SDD 15C08-23a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

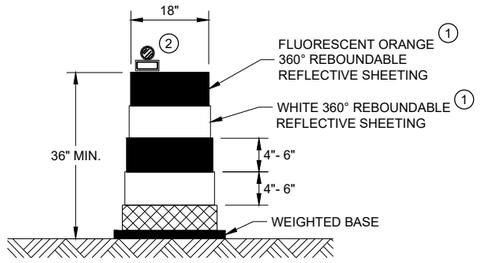
6

SDD 15C08-23a

GENERAL NOTES

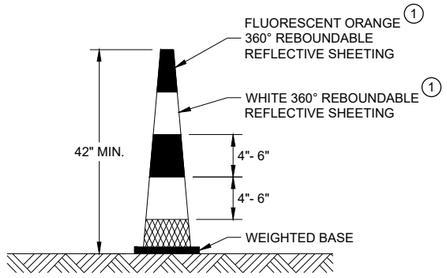
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

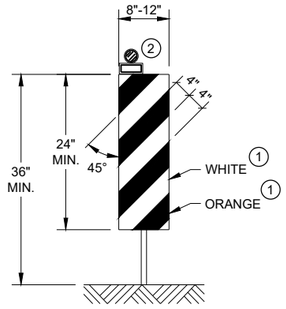
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

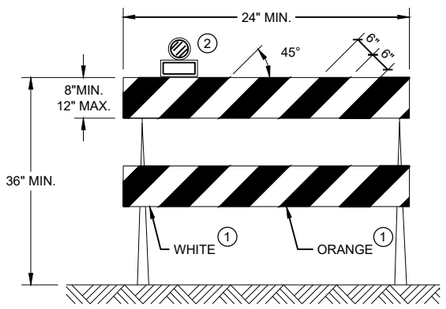
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



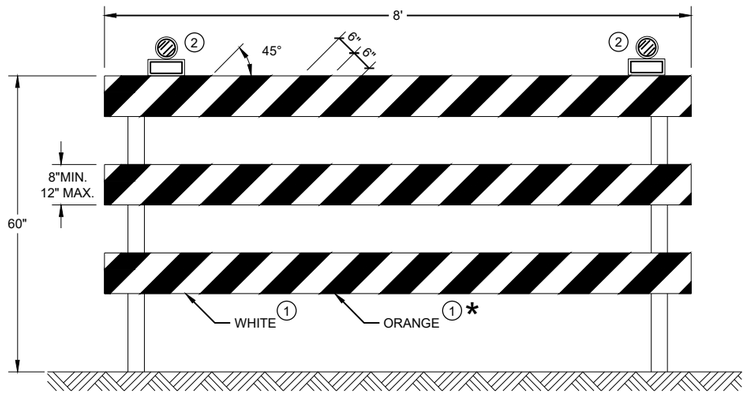
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C11 - 10b

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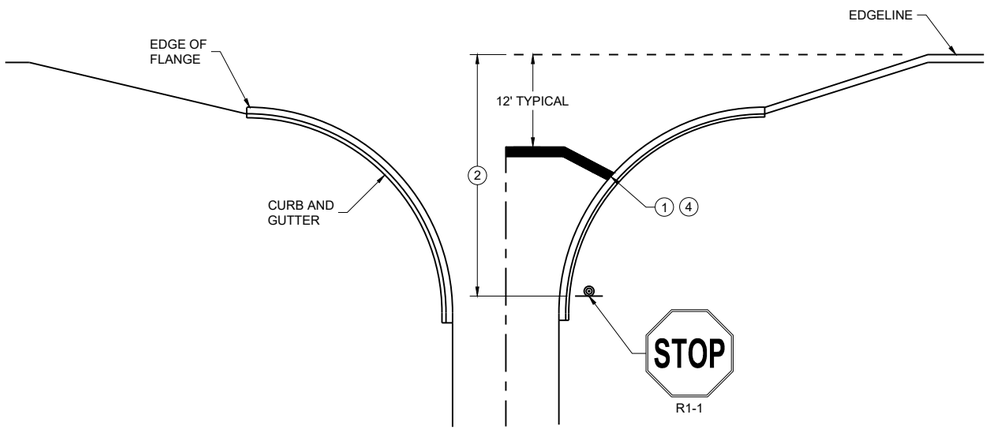
SDD 15C11 - 10b

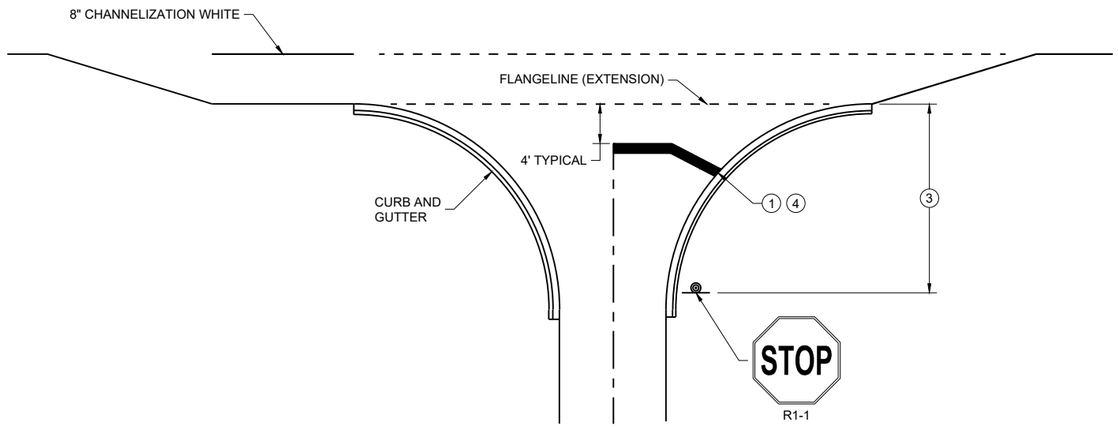
GENERAL NOTES

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

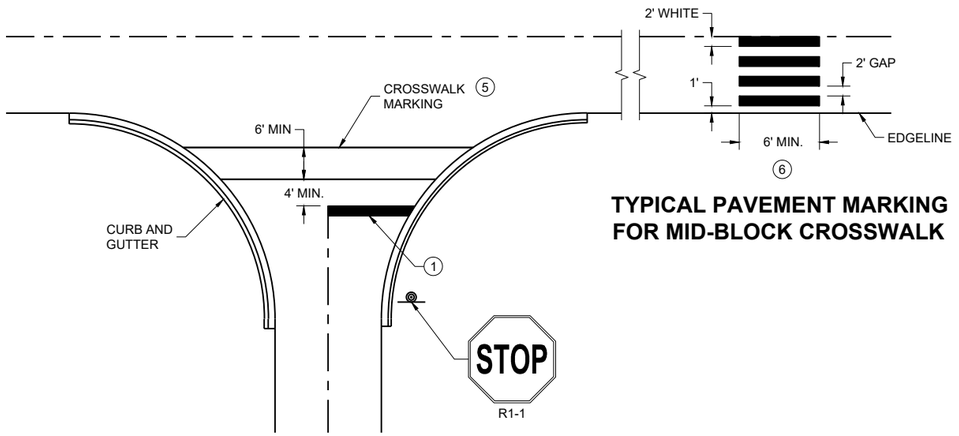
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE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

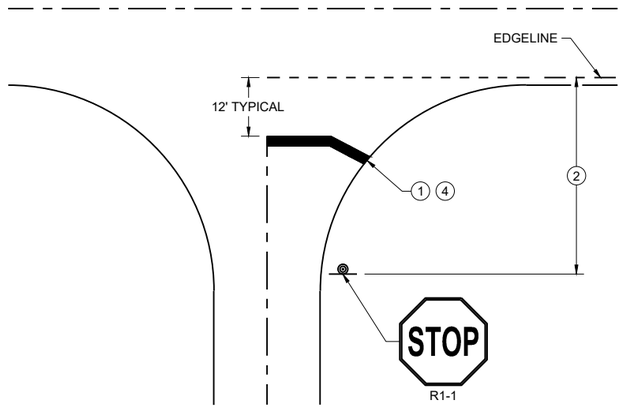


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



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

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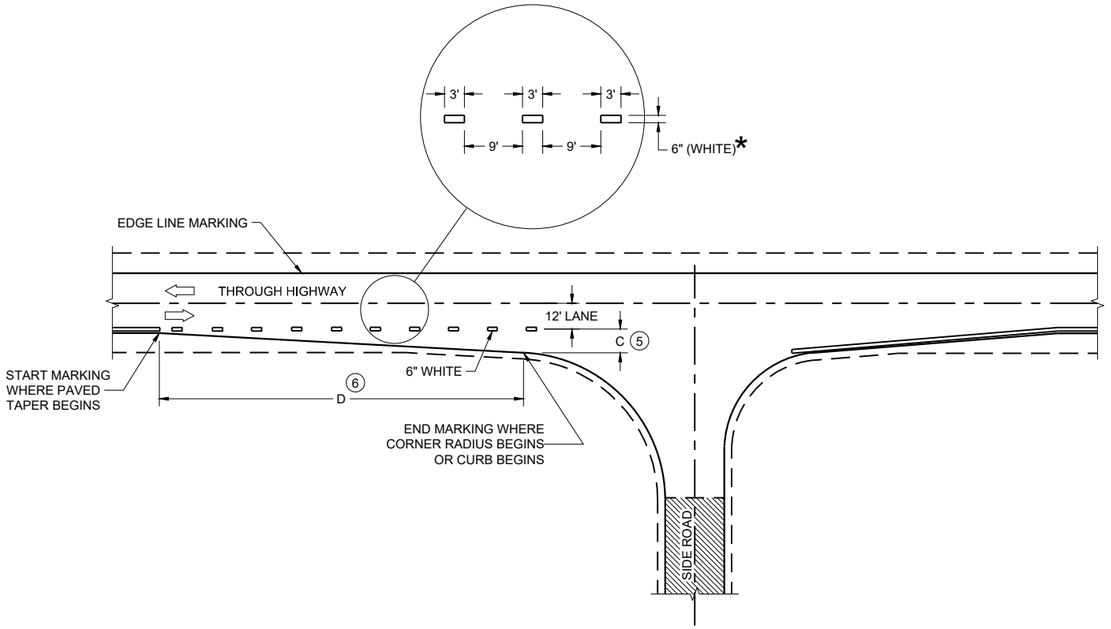
SDD 15C33-05



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

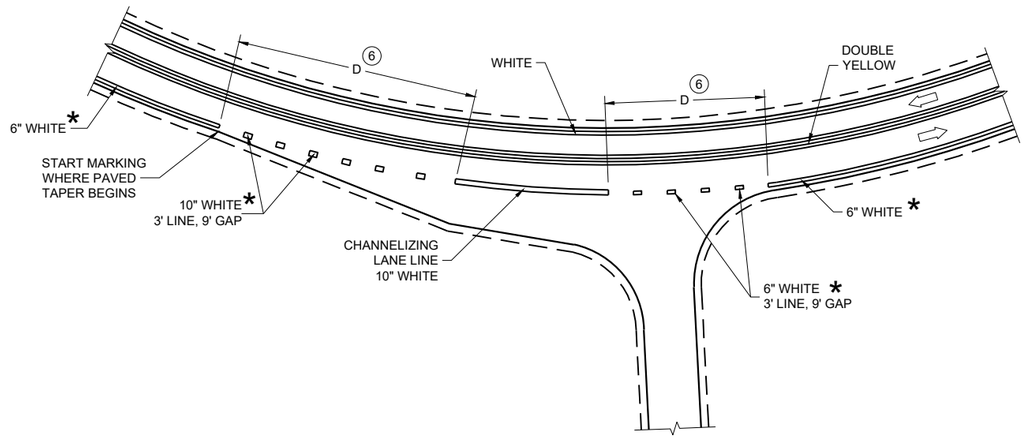
GENERAL NOTES

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

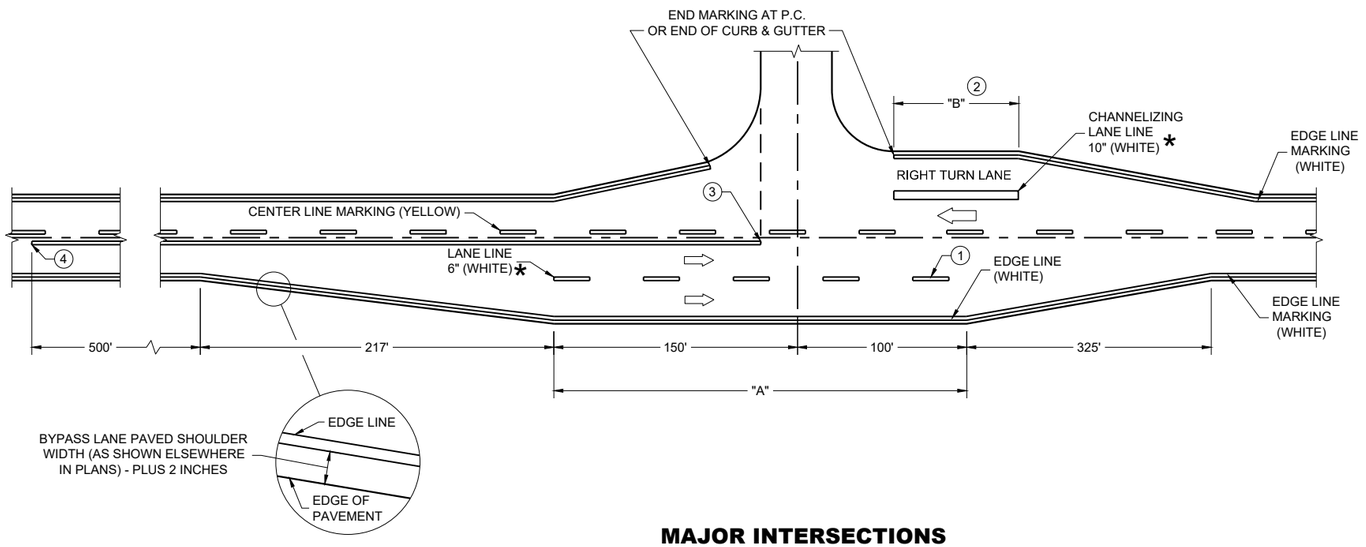
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

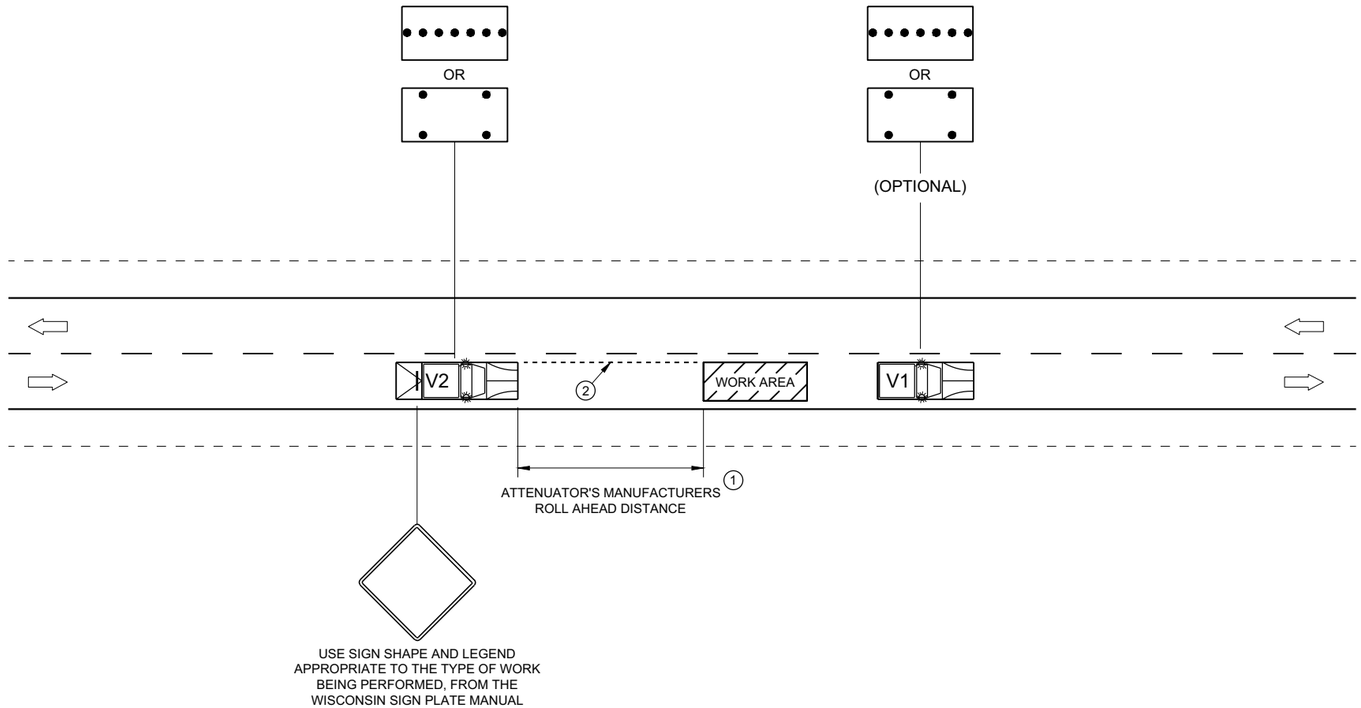
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

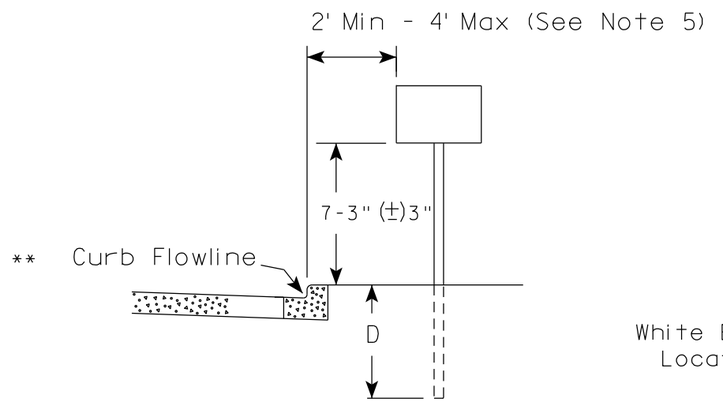
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

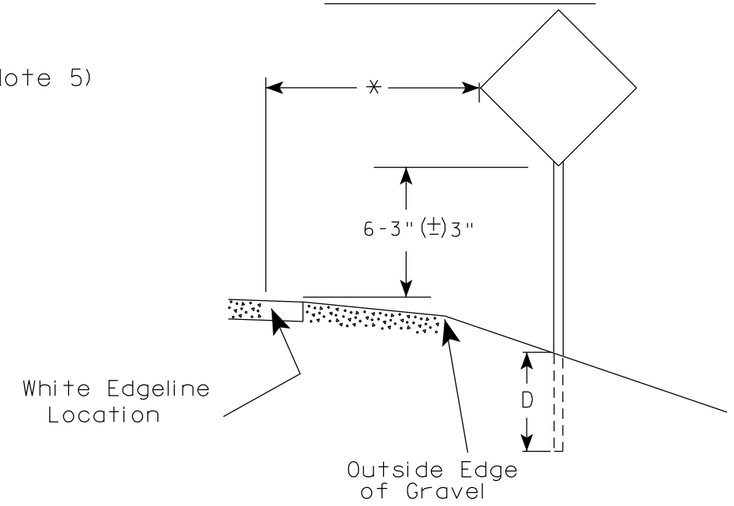
6

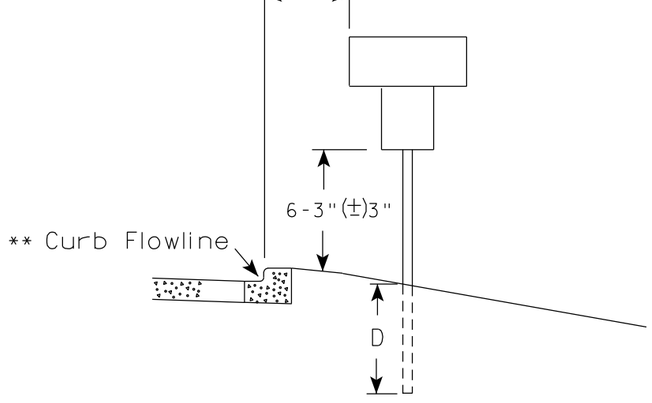
SDD 15D51 - 01

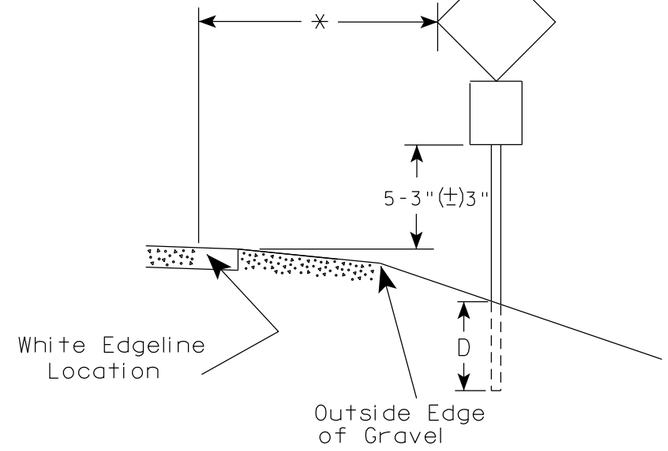
URBAN AREA



RURAL AREA (See Note 2)







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

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

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.

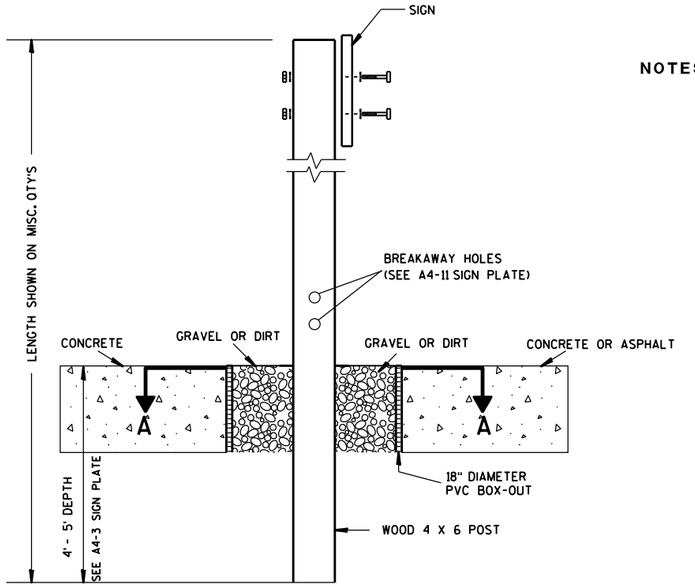
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

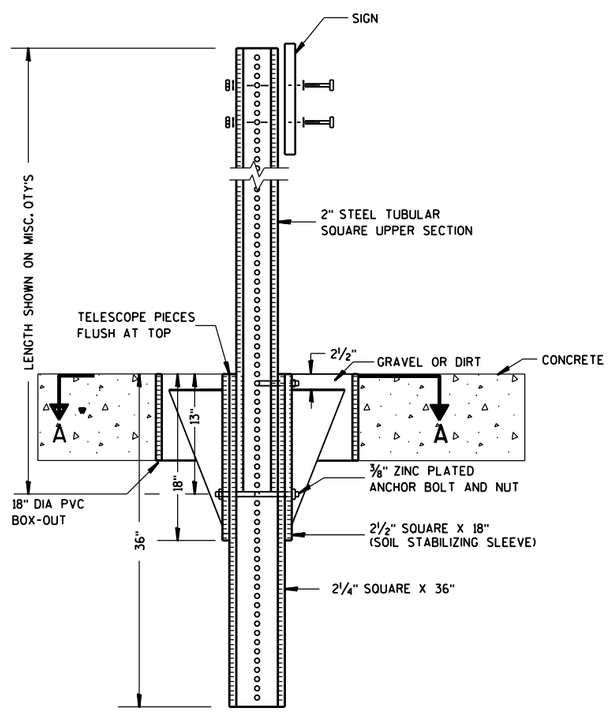
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 130	E



ELEVATION VIEW

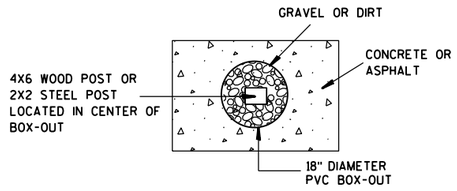
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

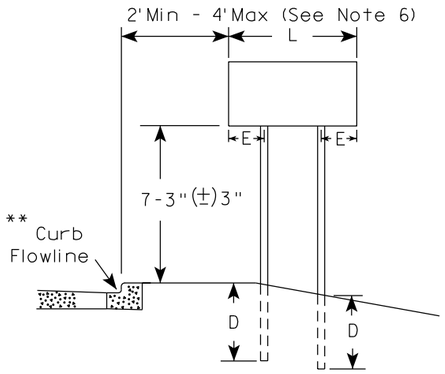
APPROVED Matthew R Rauch
for State Traffic Engineer

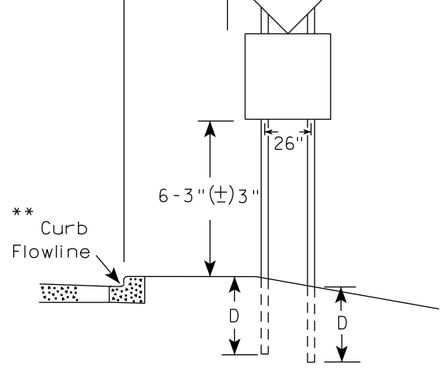
DATE 1/27/14 PLATE NO. A4-3B.1

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

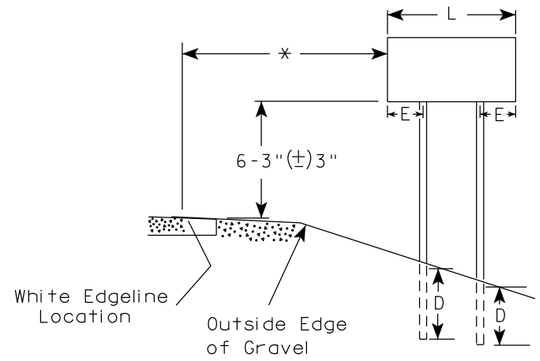
URBAN AREA

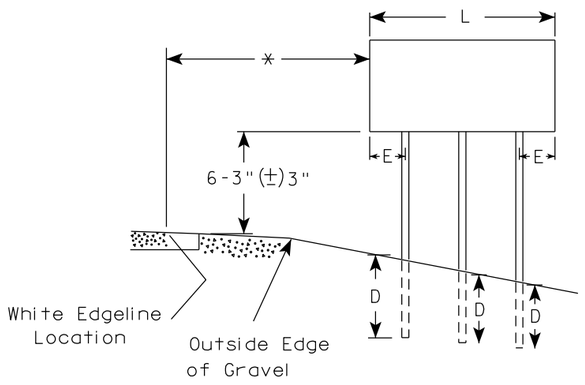


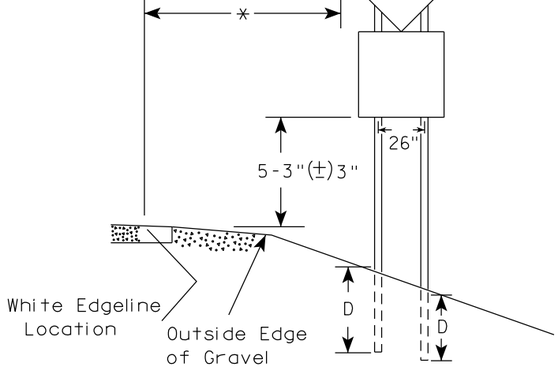


48" DIAMOND WARNING SIGN

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'

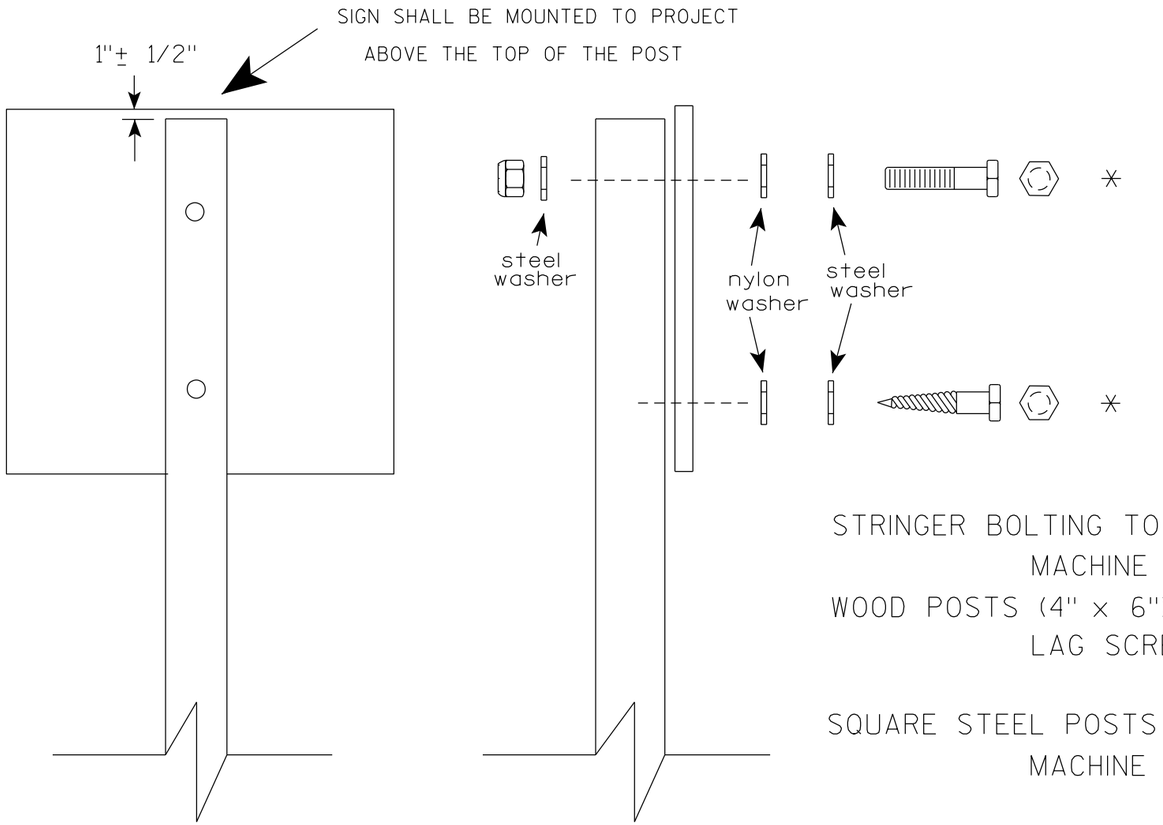
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 132	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

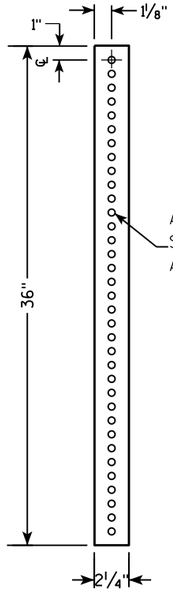
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

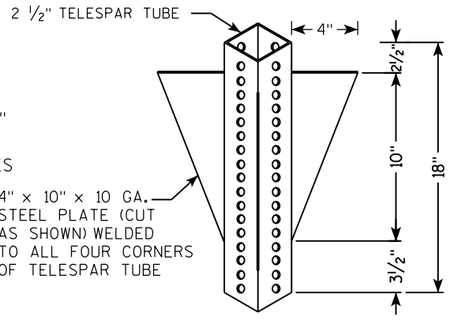
SHEET NO: 133 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

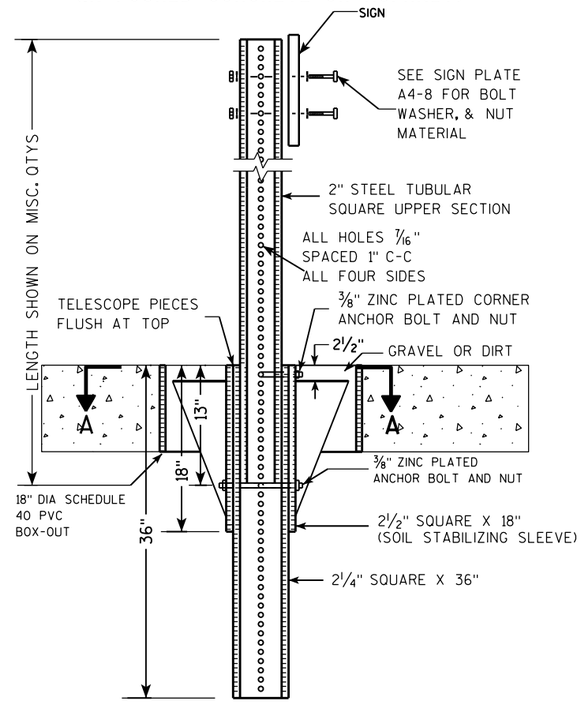
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



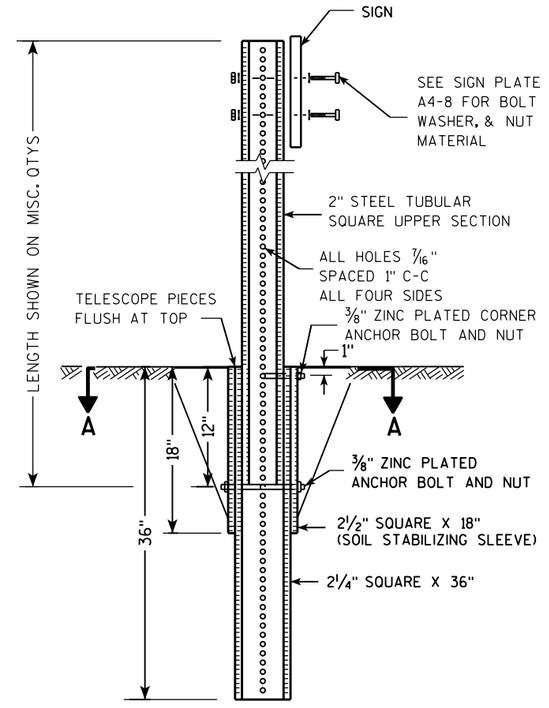
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

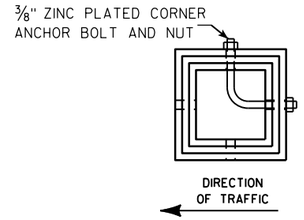


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

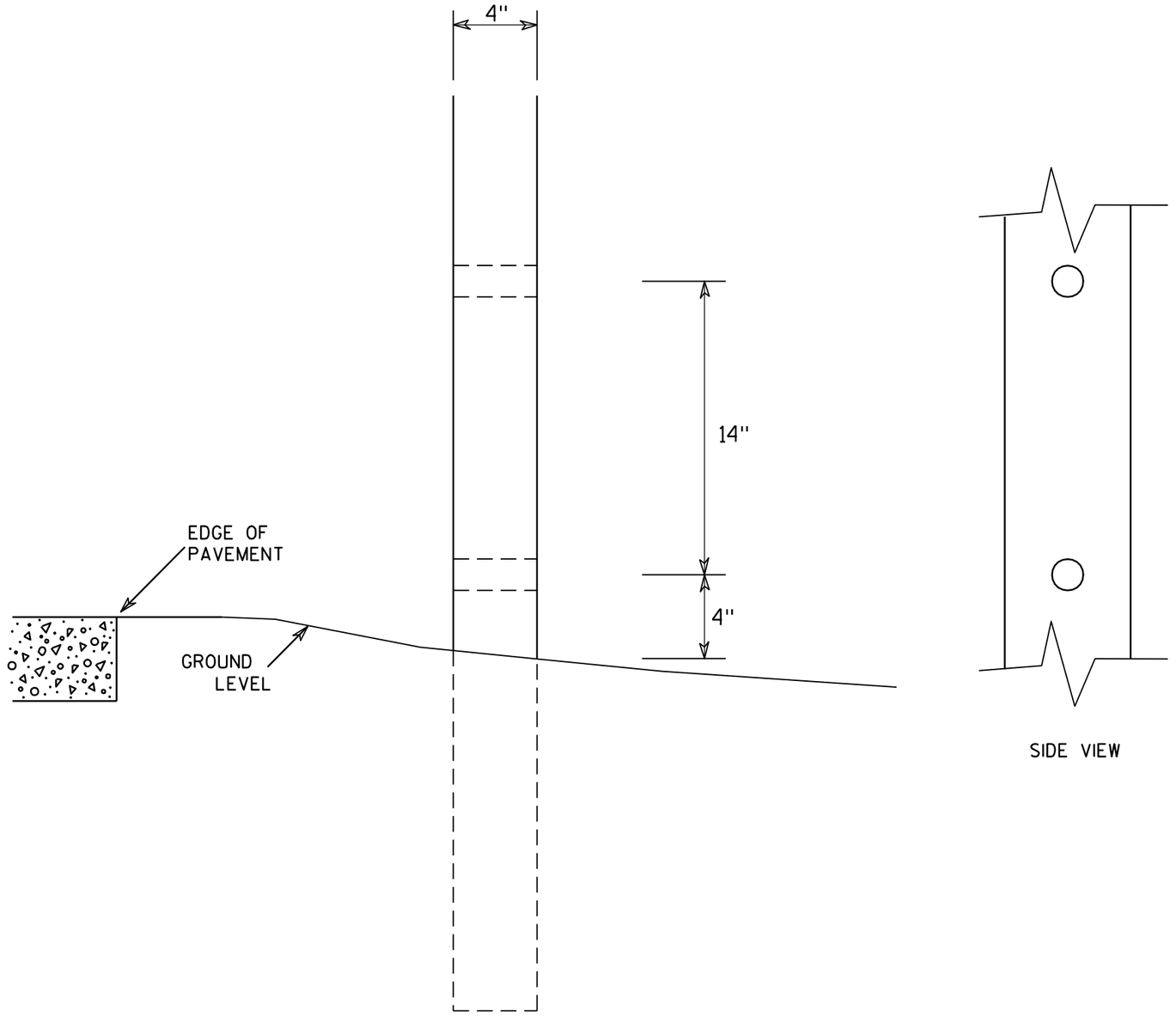
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

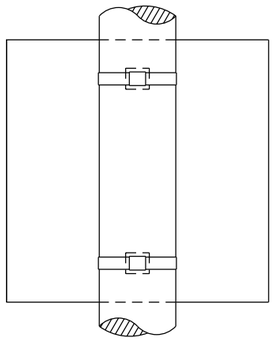
APPROVED Chester J Spang for State Traffic Engineer

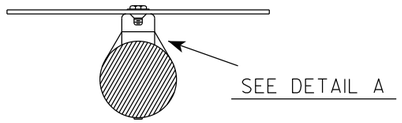
DATE 3/27/97 PLATE NO. A4-11.2

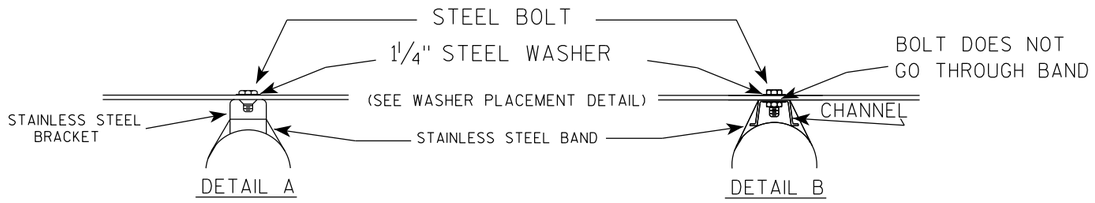
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 135	E

BANDING

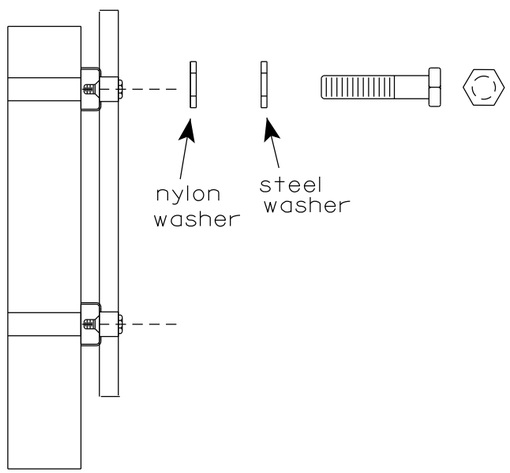
SINGLE SIGN







WASHER PLACEMENT

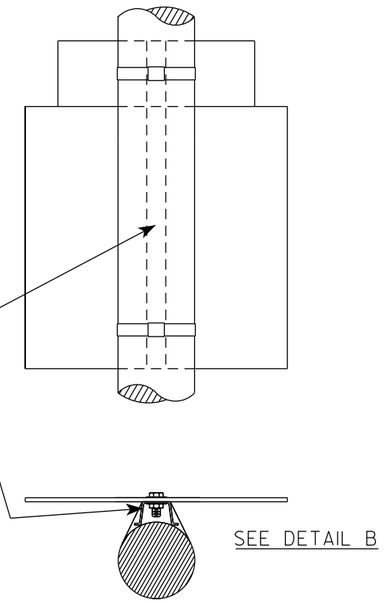


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

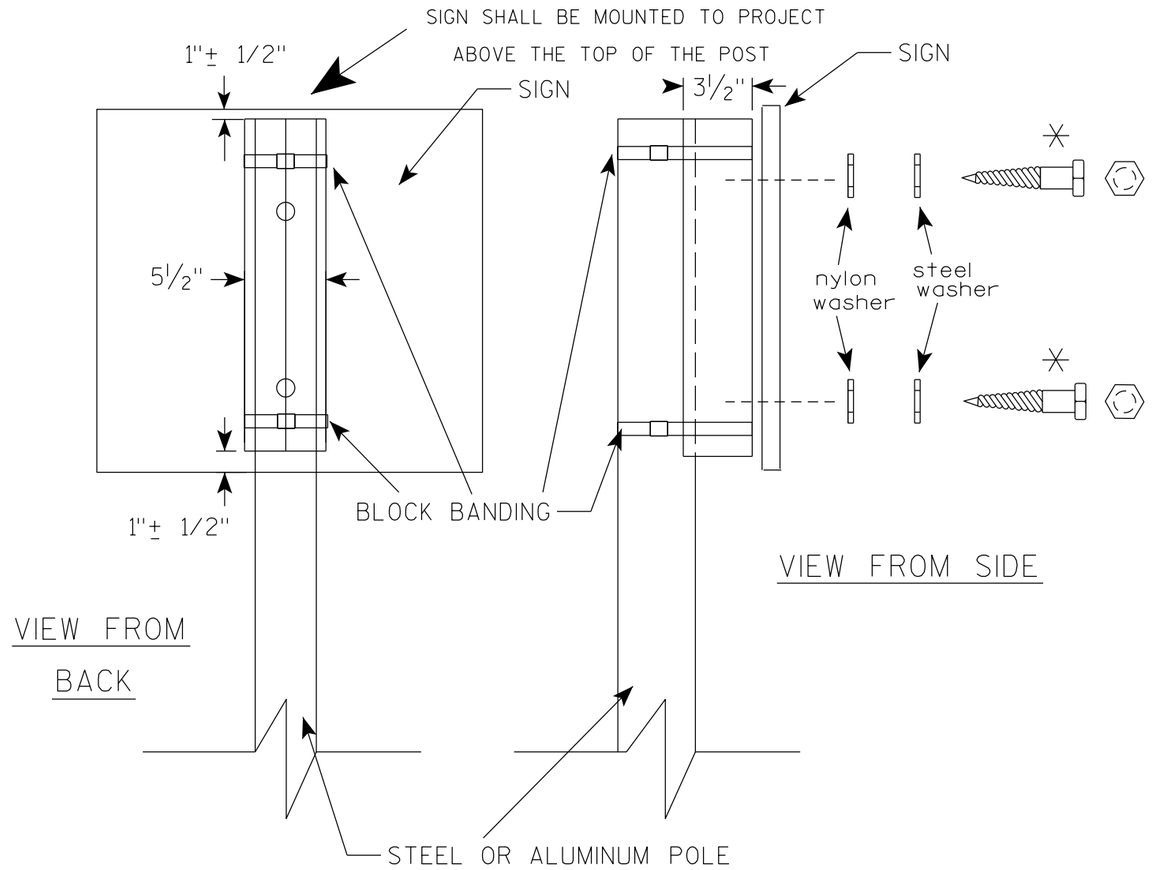
DATE 6/10/19 PLATE NO. A5-9.4

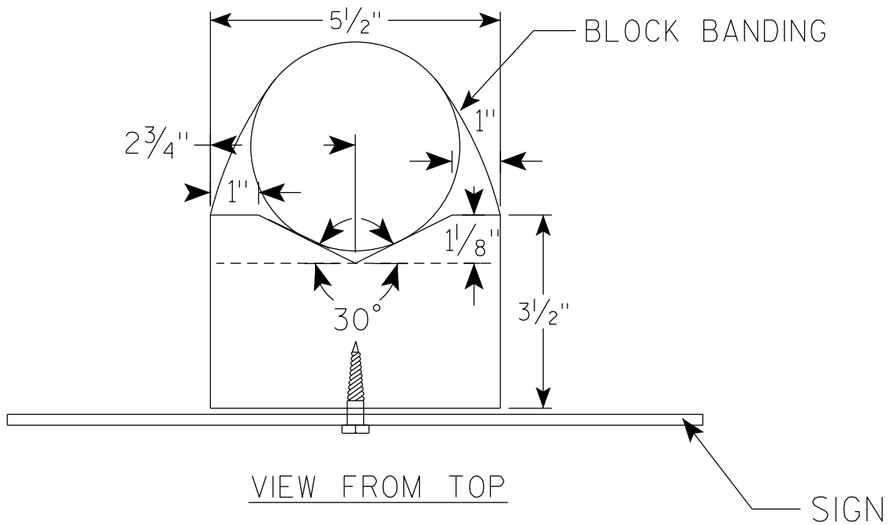
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 136	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

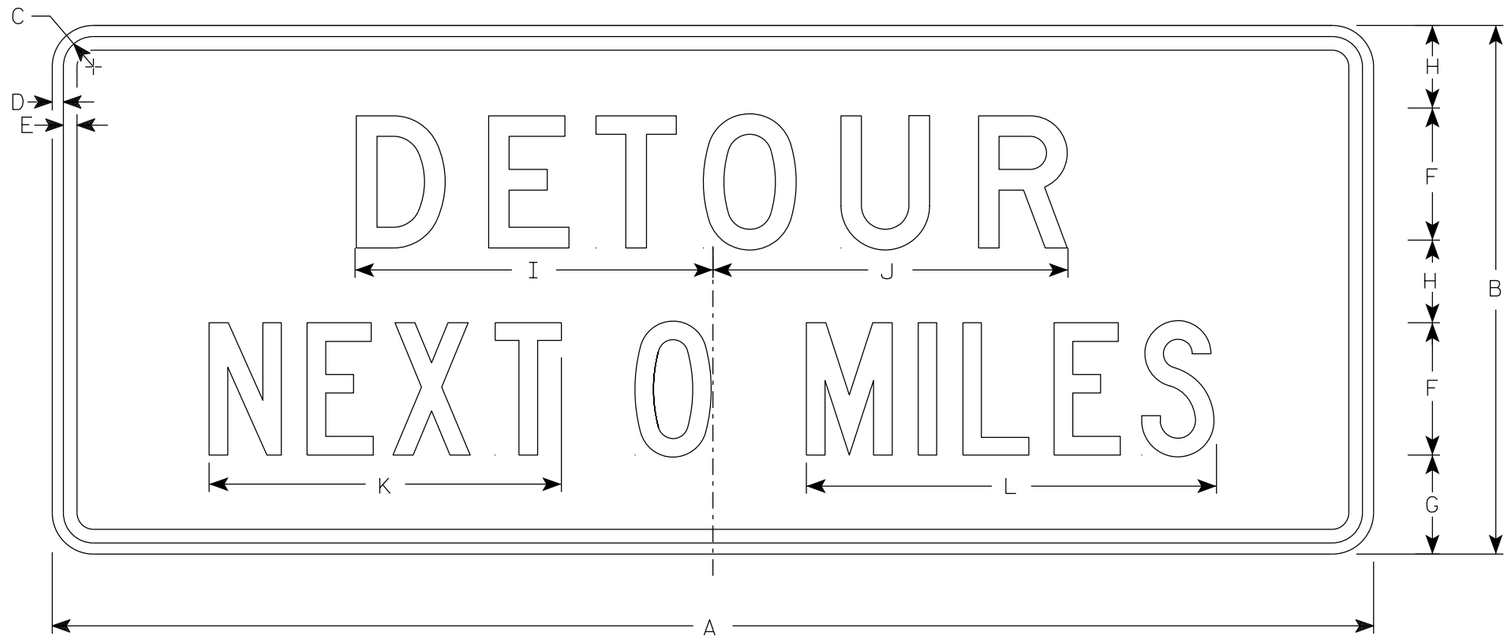
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 137 E



G20-51

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Line 1 is D and Line 2 is C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
2M	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
3	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
4	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
5	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0

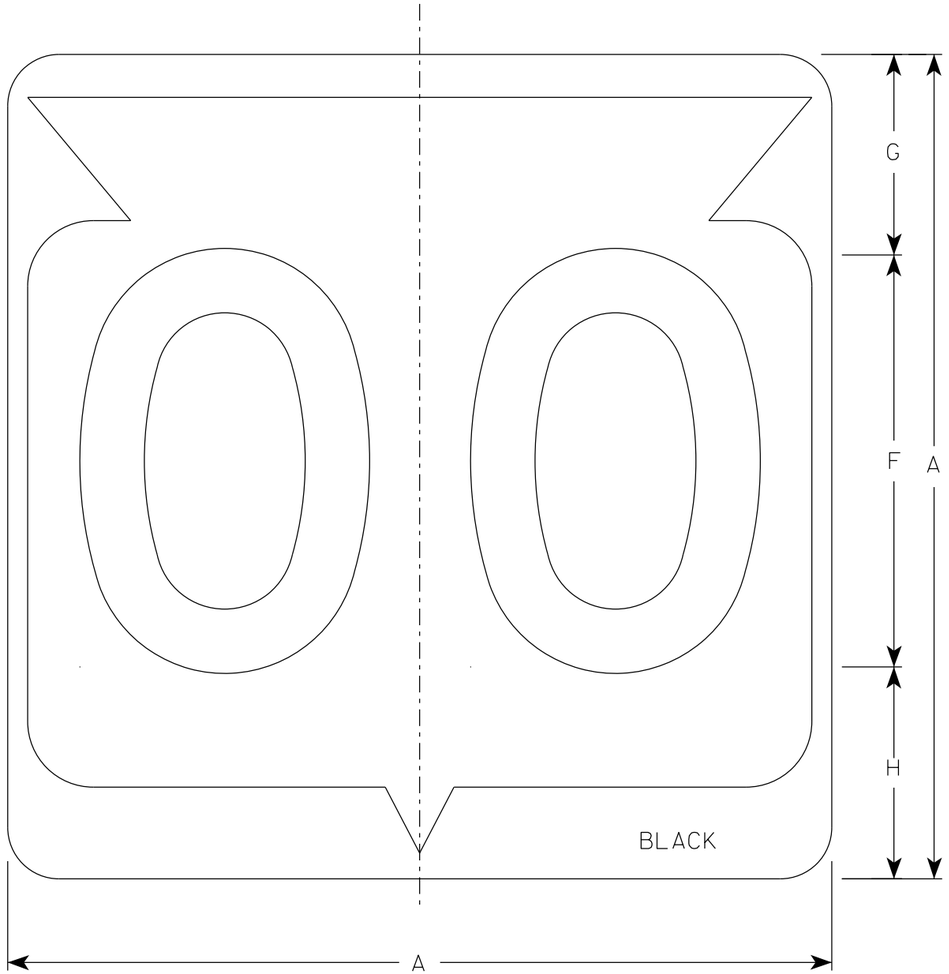
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-51.3

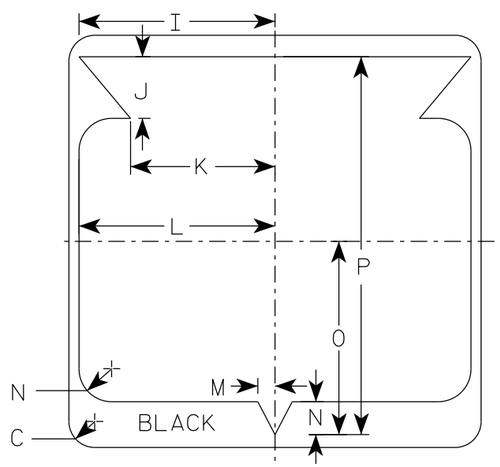
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 138 | E



M1-6

NOTES

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



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

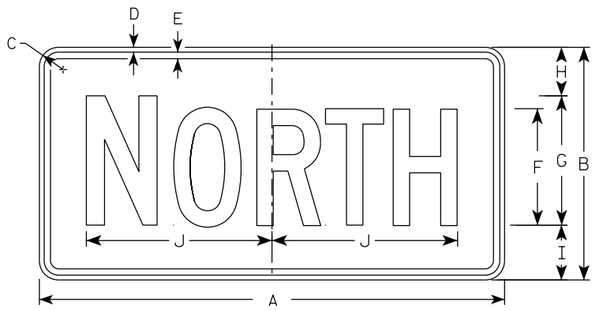
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

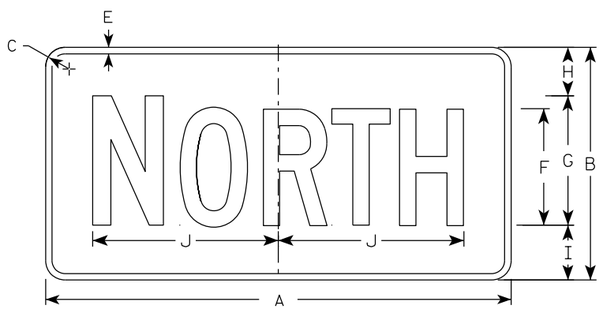
APPROVED Matthew R Rauch
for State Traffic Engineer

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

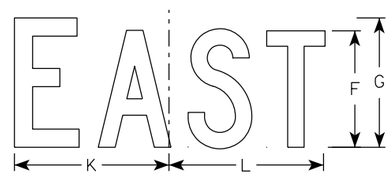
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 139	E



M3-1
MM3-1
MP3-1

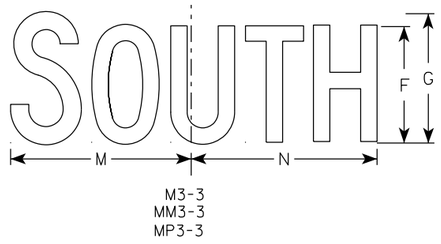


MB3-1
MK3-1
MN3-1

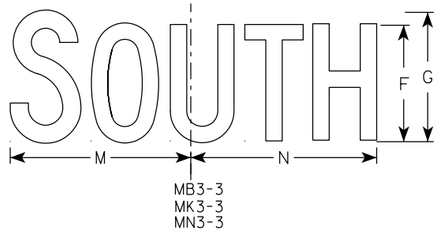


M3-2
MM3-2
MP3-2

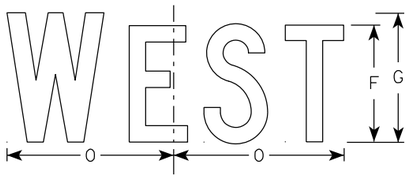
MB3-2
MK3-2
MN3-2



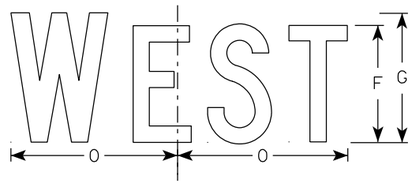
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

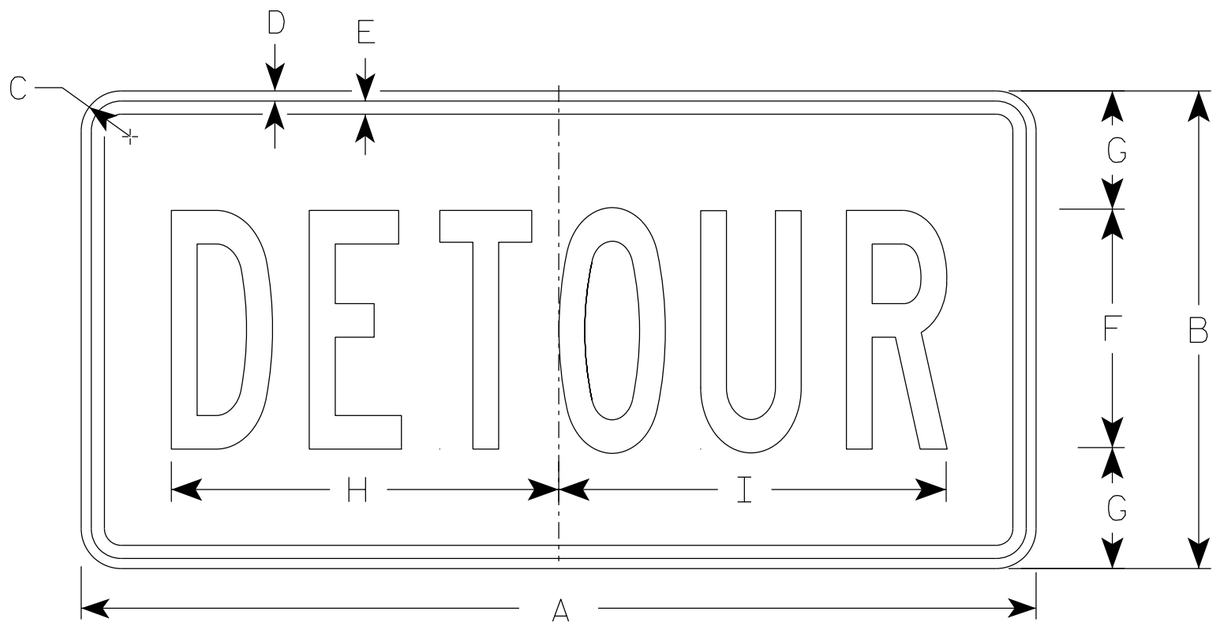
APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 140 | E

NOTES

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



M4-8

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

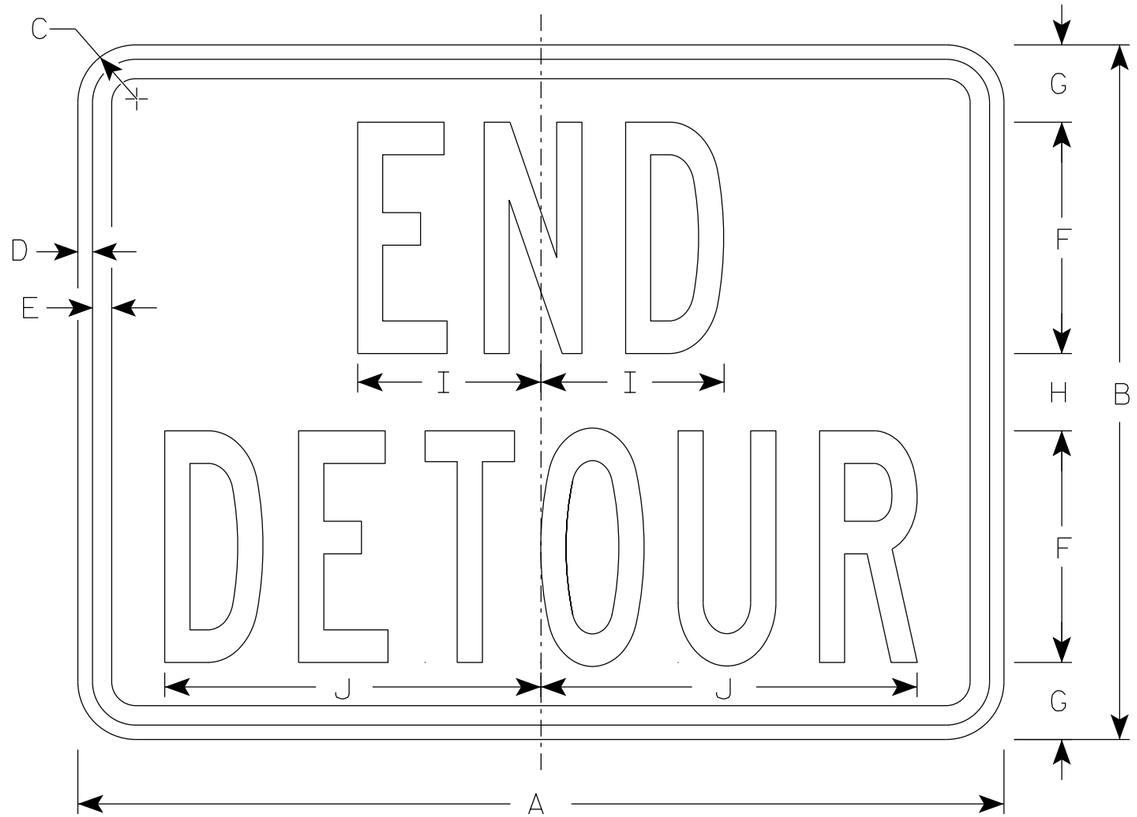
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 141	E



M4-8A

NOTES

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

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

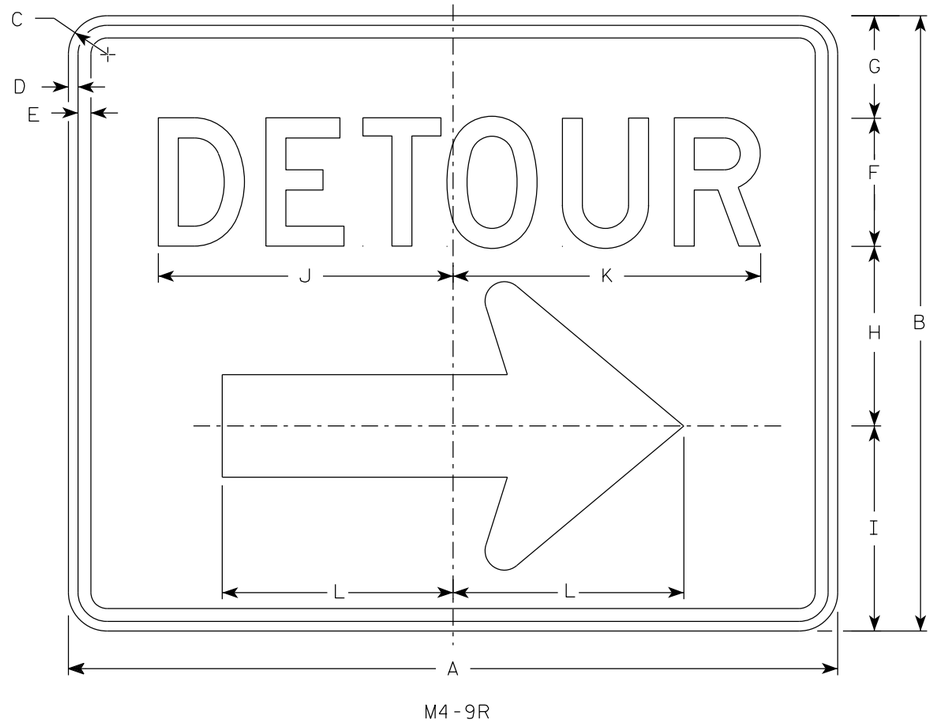
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

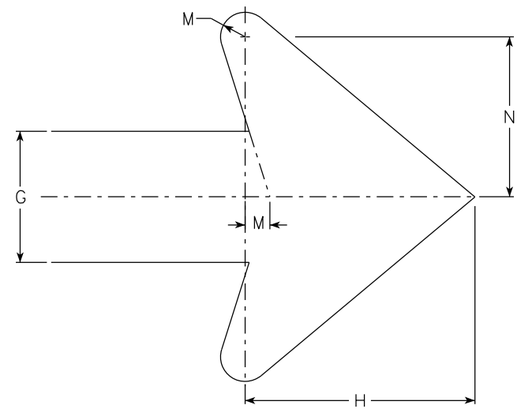
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 142 | E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

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

STANDARD SIGN
M4-9 R & L

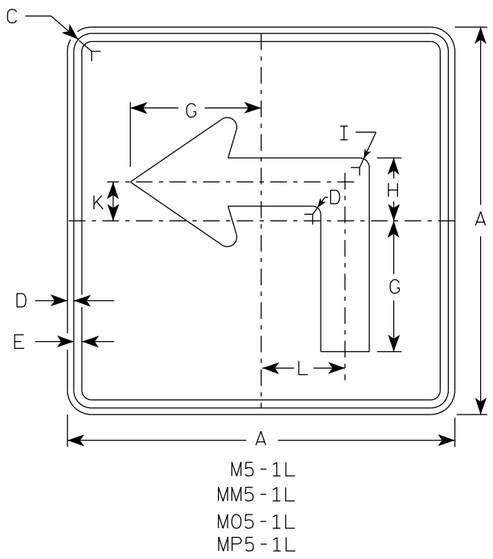
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

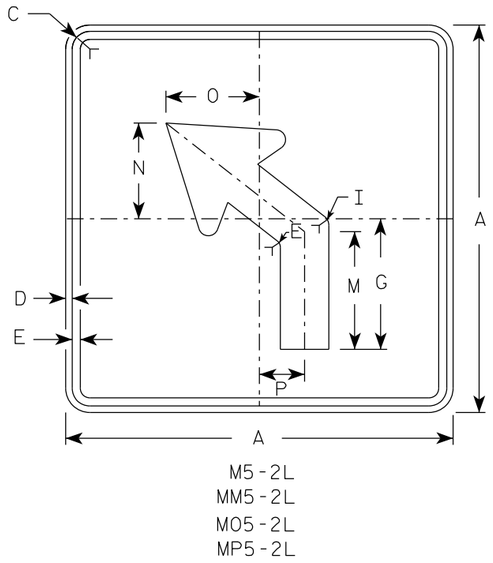
DATE 2/9/2023 PLATE NO. M4-9R.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

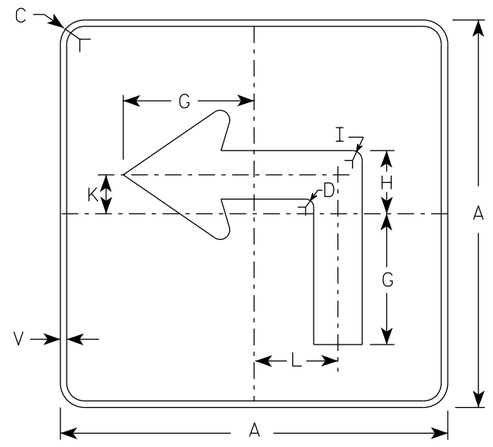
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M49R.dgn PLOT DATE : 21-MARCH 2023 1:40 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



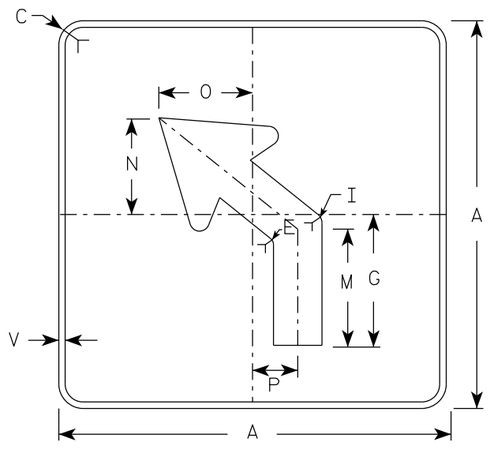
M5-1L
MM5-1L
MO5-1L
MP5-1L



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



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

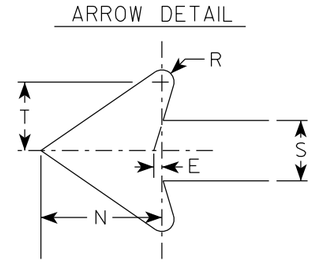


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

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

ARROW DETAIL



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

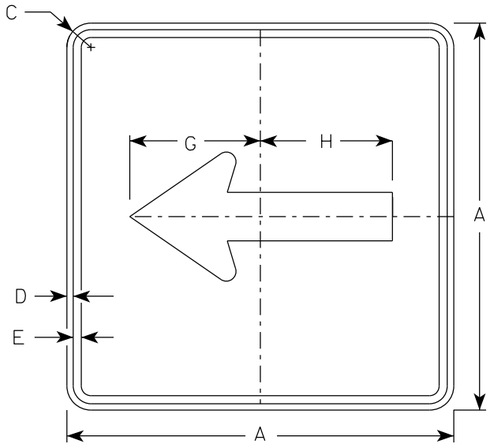
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

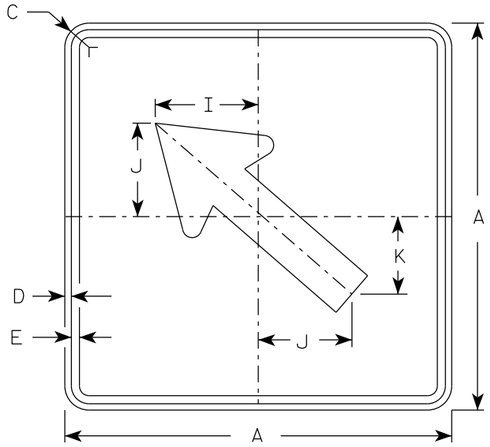
APPROVED Matthew R Rauch
for State Traffic Engineer

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

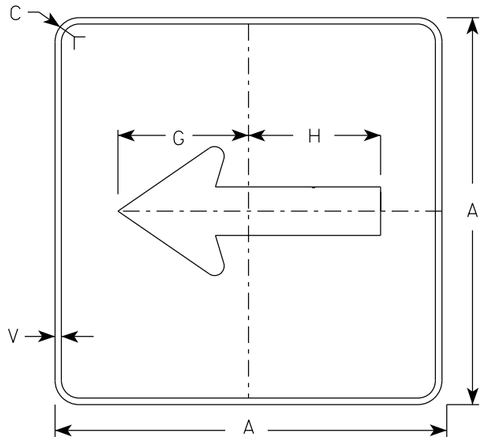
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 144 | E



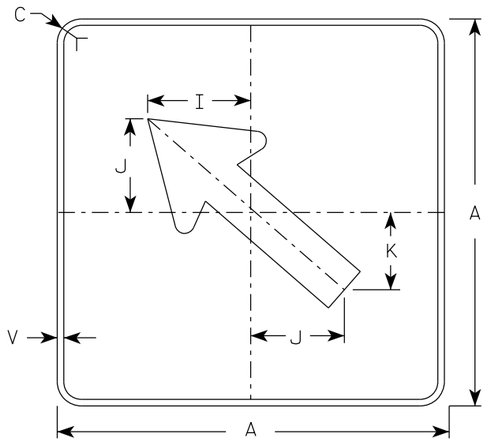
M6-1
MM6-1
MO6-1
MP6-1



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



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

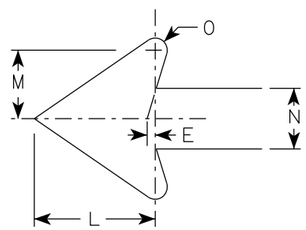


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

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

ARROW DETAIL



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

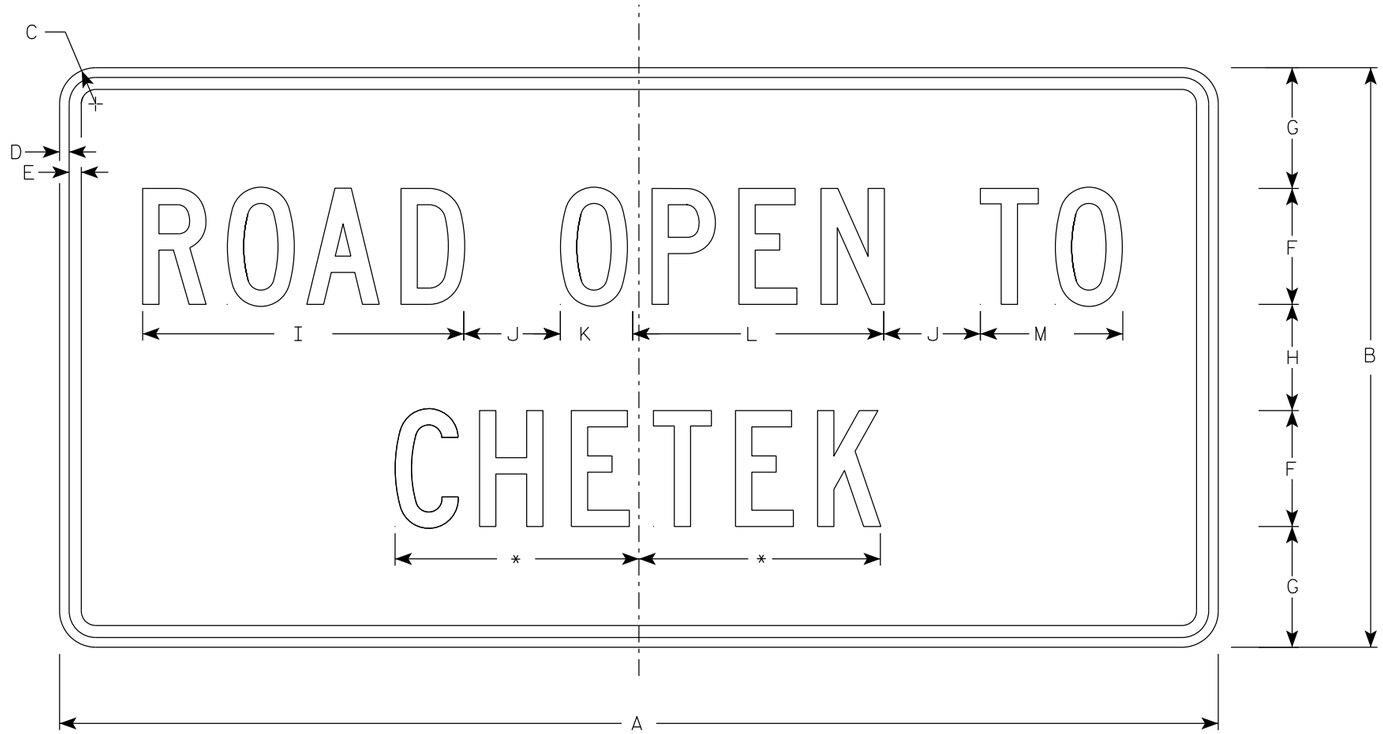
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 145 | E



R10-61

*See note 5

NOTES

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

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

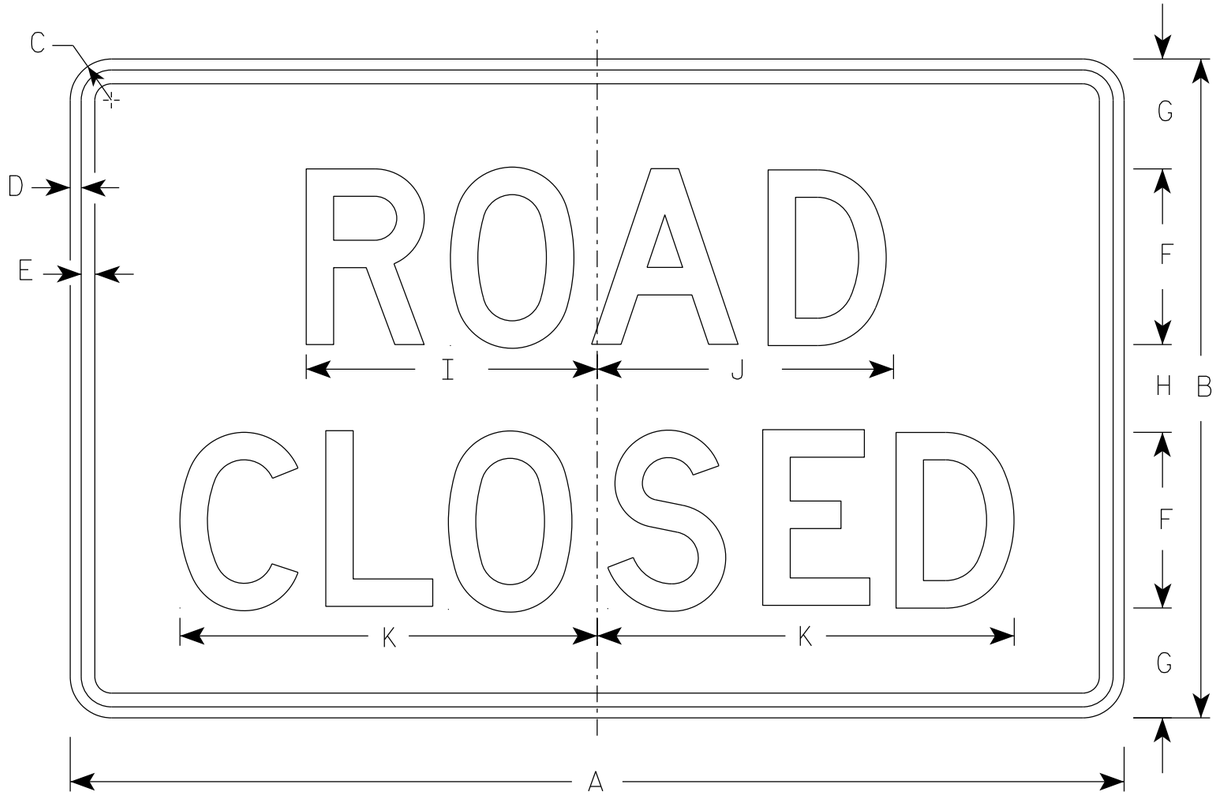
STANDARD SIGN
R10-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R10-61.6

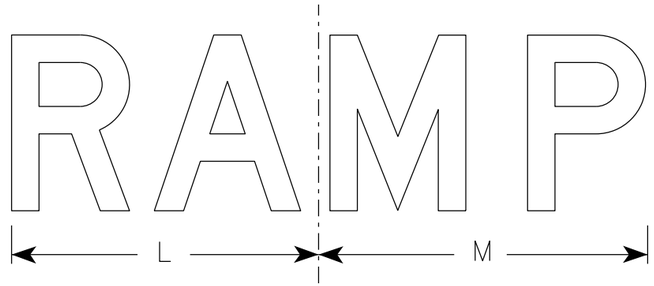
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 146	E



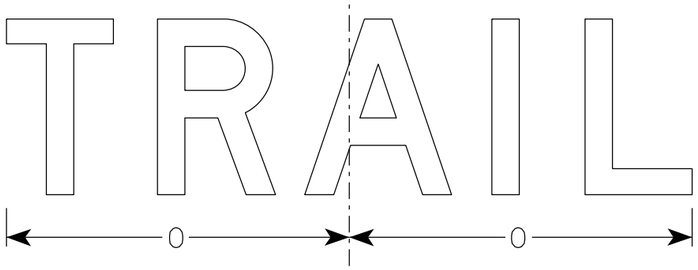
R11-2

NOTES

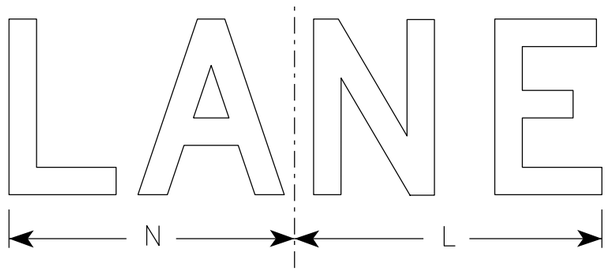
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

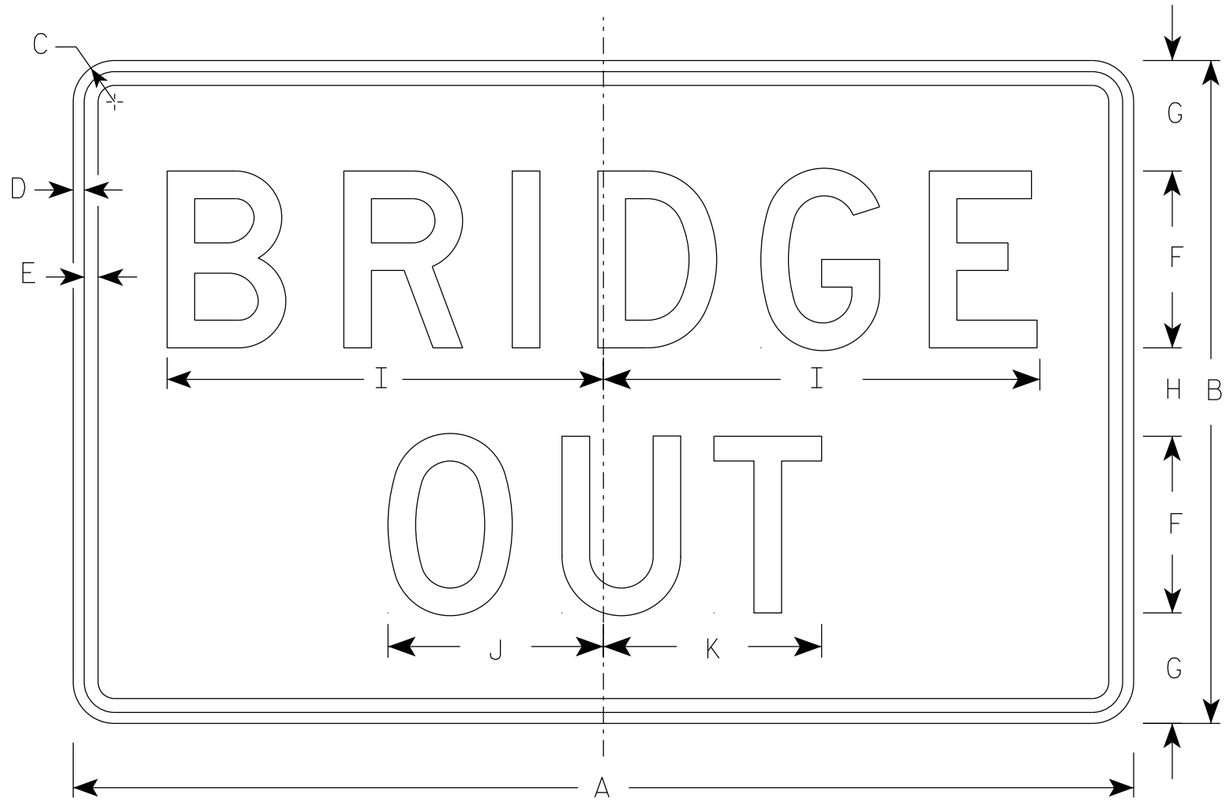
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

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

7



R11-2B

NOTES

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

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

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

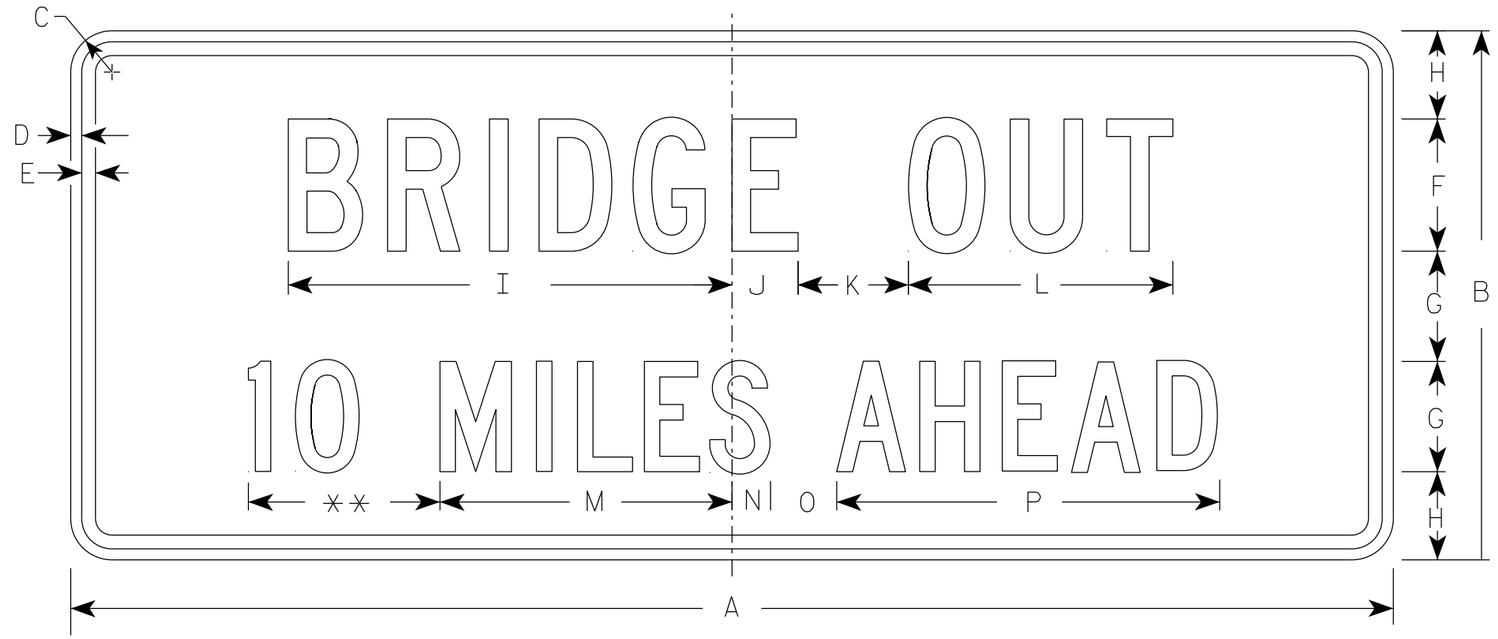
DATE 2/5/24 PLATE NO. R11-2B.3

PROJECT NO:

SHEET NO: 148 E

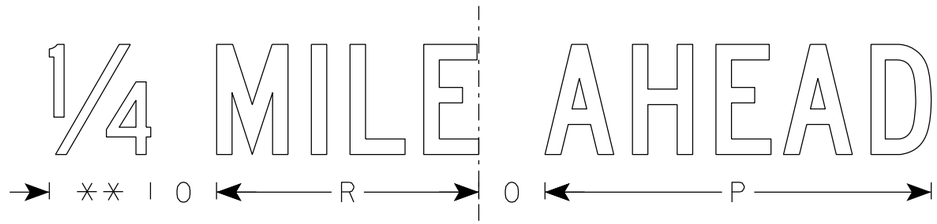
NOTES

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



R11-3C

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 1/2	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

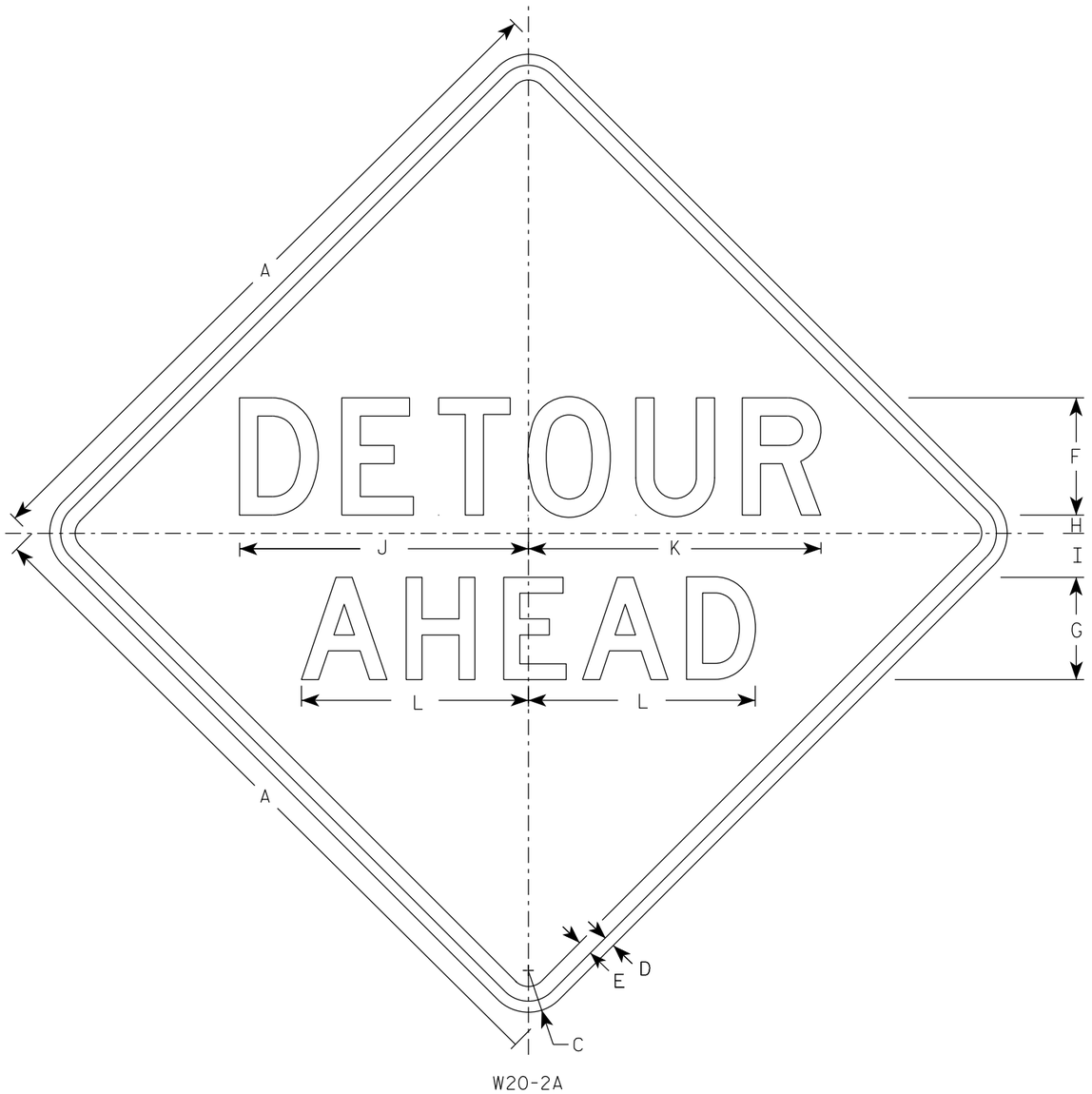
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

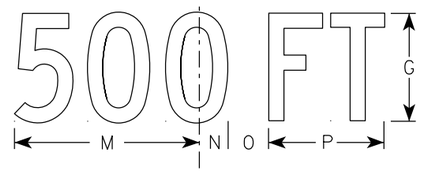
DATE 2/5/24 PLATE NO. R11-3C.4

PROJECT NO:

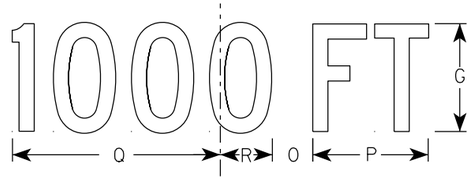
SHEET NO: 149 E



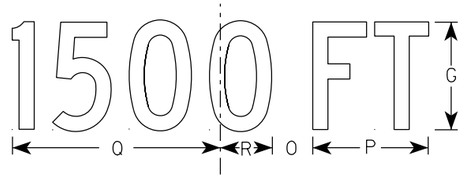
W20-2A



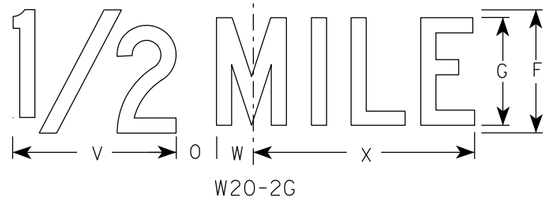
W20-2D



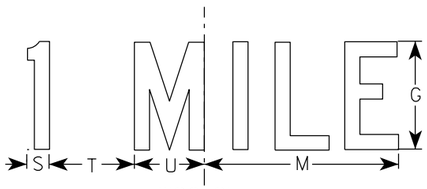
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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

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

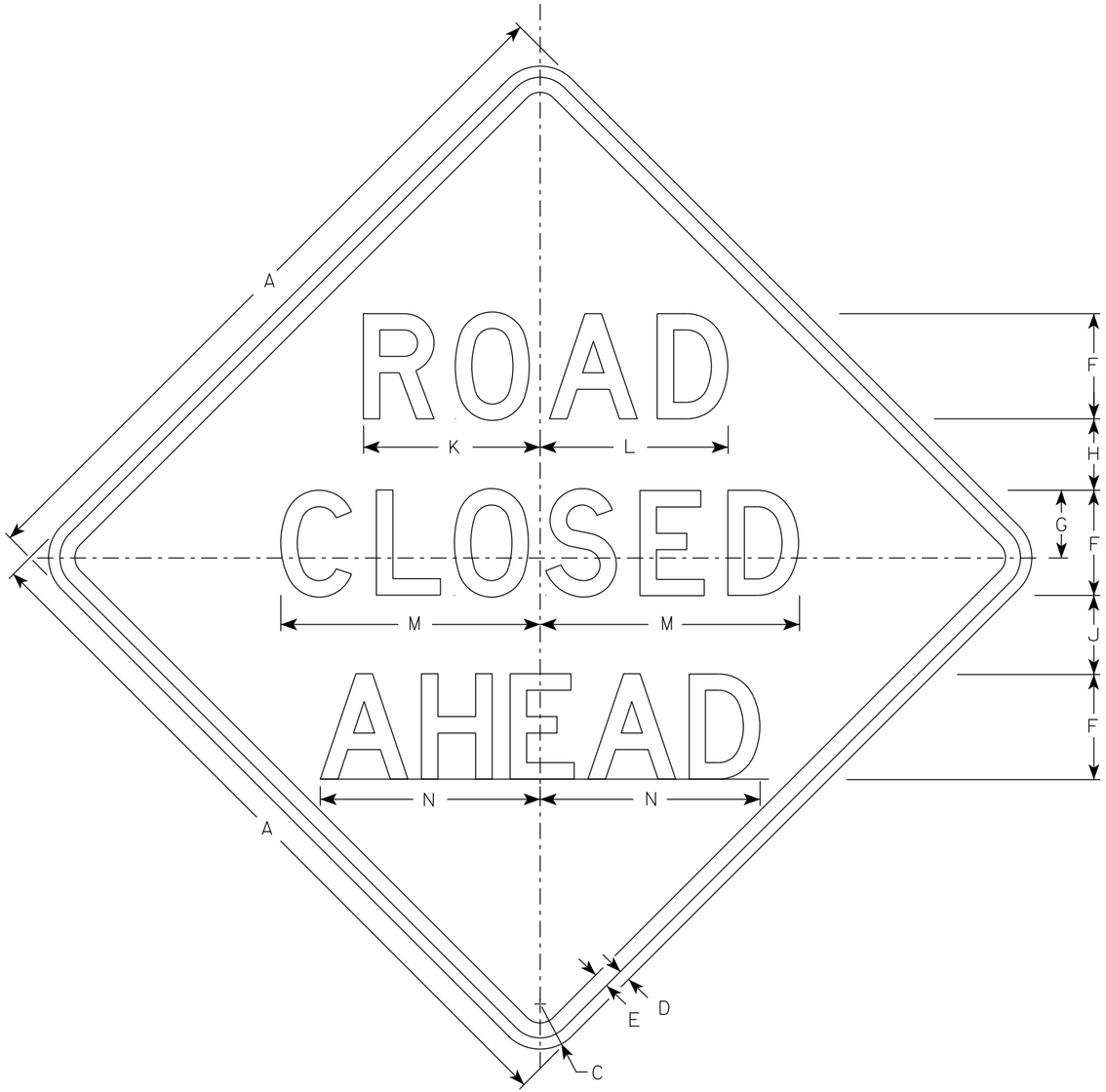
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

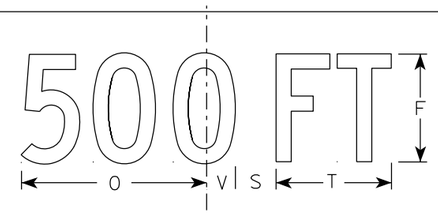
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

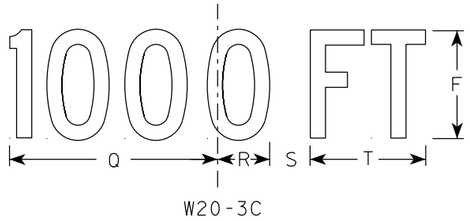
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



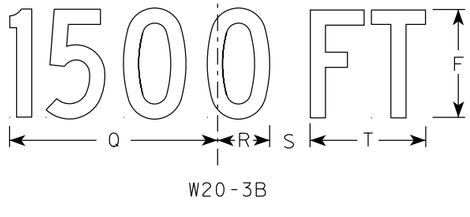
W20-3A



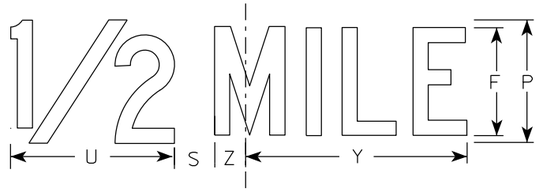
W20-3D



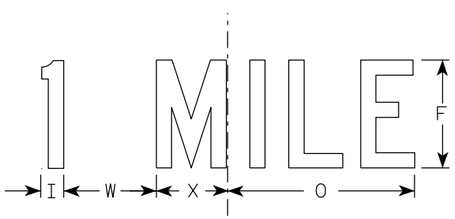
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

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

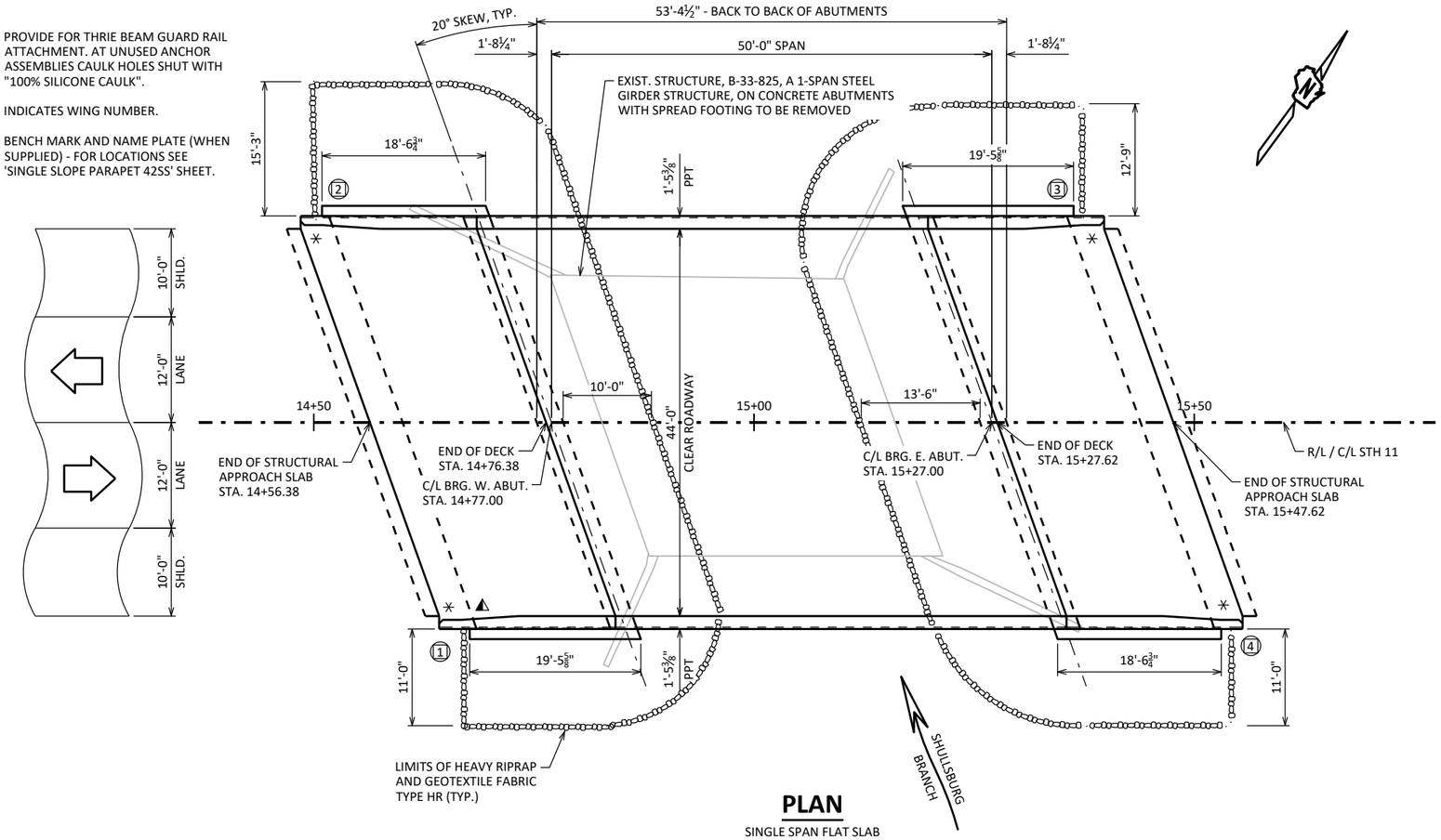
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W203.DGN PLOT DATE : 10-JAN 2024 12:02 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

7

STATE PROJECT NUMBER

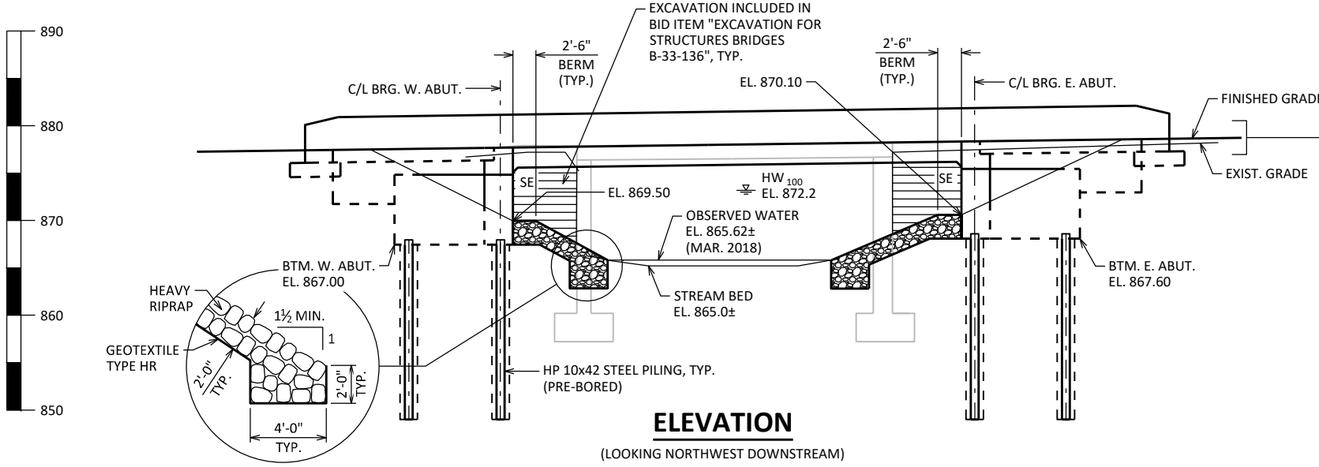
1706-03-80

- ⚹ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".
- (#) INDICATES WING NUMBER.
- ⚠ BENCH MARK AND NAME PLATE (WHEN SUPPLIED) - FOR LOCATIONS SEE 'SINGLE SLOPE PARAPET 42SS' SHEET.



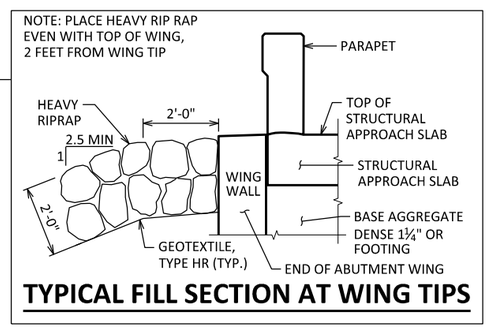
PLAN

SINGLE SPAN FLAT SLAB



ELEVATION

(LOOKING NORTHWEST DOWNSTREAM)



TYPICAL FILL SECTION AT WING TIPS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.12
OPERATING RATING: RF = 1.45
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 & STRUCTURAL APPROACH SLAB — f'_c = 4,000 PSI
- ALL OTHER — f'_c = 3,500 PSI

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

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10x42 STEEL PILING SEATED IN HOLES PRE-BORED AN ESTIMATED 18'-0" AND BACKFILLED WITH CEMENT GROUT. PILE DRIVING IS NOT REQUIRED. A GEOTECHNICAL ENGINEER WILL VERIFY THE PRE-BORING LENGTH SPECIFIED/DRILLED IS ADEQUATE TO REACH COMPETENT ROCK AT EACH PILE LOCATION PRIOR TO PILE PLACEMENT. PILE LENGTHS MAY VARY.

PILE LENGTH ESTIMATED 20'-0" LONG AT BOTH ABUTMENTS.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 180 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 1,500 C.F.S.
V_{100}= 9.34 F.P.S.
HW_{100}= EL. 872.2
WATERWAY AREA = 379.6 SQ. FT.
DRAINAGE AREA = 3.9 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:

Q_2= 225 C.F.S.
V_2= 2.2 F.P.S.
HW_2= EL. 869.7

TRAFFIC DATA

STH 11:

ADT = 4,055 (2041)
R.D.S. = 60 MPH

LIST OF DRAWINGS:

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. SUPERSTRUCTURE PLAN
9. SUPERSTRUCTURE DETAILS
10. STRUCTURAL APPROACH SLAB
11. SINGLE SLOPE PARAPET 42SS
12. ALTERNATE CONSTRUCTION JOINT

STRUCTURE DESIGN CONTACTS:

CHRIS DOLL 608-266-3229
KYLE BUSCH 608-267-0465

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED KHB 8/22/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-33-136

STH 11 OVER SHULLSBURG BRANCH (WEST)

COUNTY	TOWN
LAFAYETTE	SHULLSBURG

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
CAD	ACT	DTH	CAD

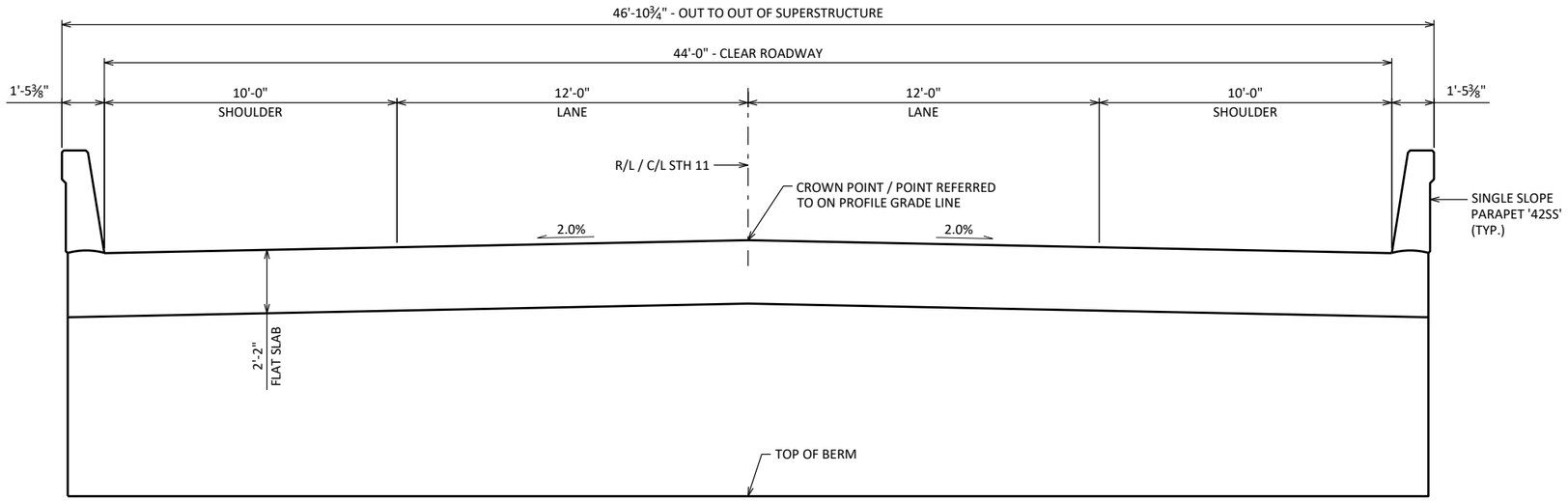
GENERAL PLAN

SHEET 1 OF 12
152

I.D. 1706-03-00A DATE: JULY 2024

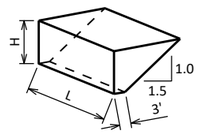
STATE PROJECT NUMBER

1706-03-80



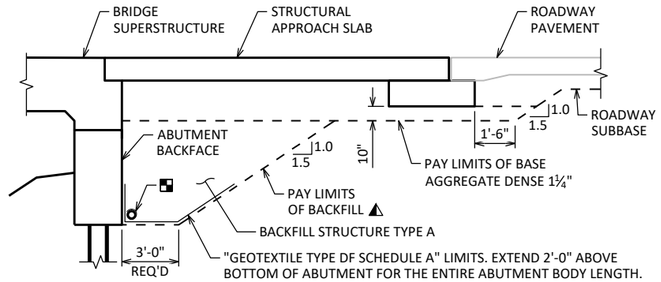
CROSS SECTION THRU ROADWAY

(LOOKING EAST)



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)



TYPICAL SECTION THRU ABUTMENT

⚠ 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.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-33-136" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENT 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. ALSO EXCLUDED IS THE "BASE AGGREGATE DENSE 1 ¼-INCH" AS DETAILED ON THE STRUCTURAL APPROACH SLAB SHEETS.

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

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

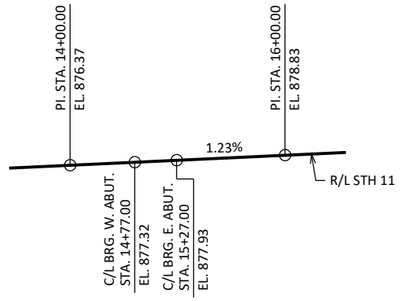
PIGMENTED PROTECTIVE SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS.

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.

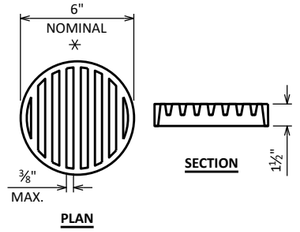
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	W. STRUCT. APP. SLAB	W. ABUT.	E. ABUT.	E. STRUCT. APP. SLAB	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-33-825	EACH	---	---	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-33-136	EACH	---	---	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	---	195	196	---	391
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	---	---	156	156	---	312
502.0100	CONCRETE MASONRY BRIDGES	CY	216.8	65.4	62.0	62.2	65.4	472
502.3200	PROTECTIVE SURFACE TREATMENT	SY	276	99	---	---	99	474
502.3210	PIGMENTED SURFACE SEALER	SY	51	---	20	20	---	91
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	---	---	3,260	3,270	---	6,530
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	43,850	11,075	1,990	2,000	11,075	69,990
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	420	---	---	---	---	420
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	---	14	14	---	28
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	---	---	180	180	---	360
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	---	---	200	200	---	400
606.0300	RIPRAP HEAVY	CY	---	---	110	125	---	235
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	---	80	80	---	160
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	---	2	---	---	2	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	---	44	44	---	88
645.0120	GEOTEXTILE TYPE HR	SY	---	---	187	211	---	398
	NON-BID ITEMS							
	FILLER	SIZE	---	---	---	---	---	½", ¾", 1½"



PROFILE GRADE LINE - STH 11



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

DRAWN BY DTH | PLANS CK'D CAD

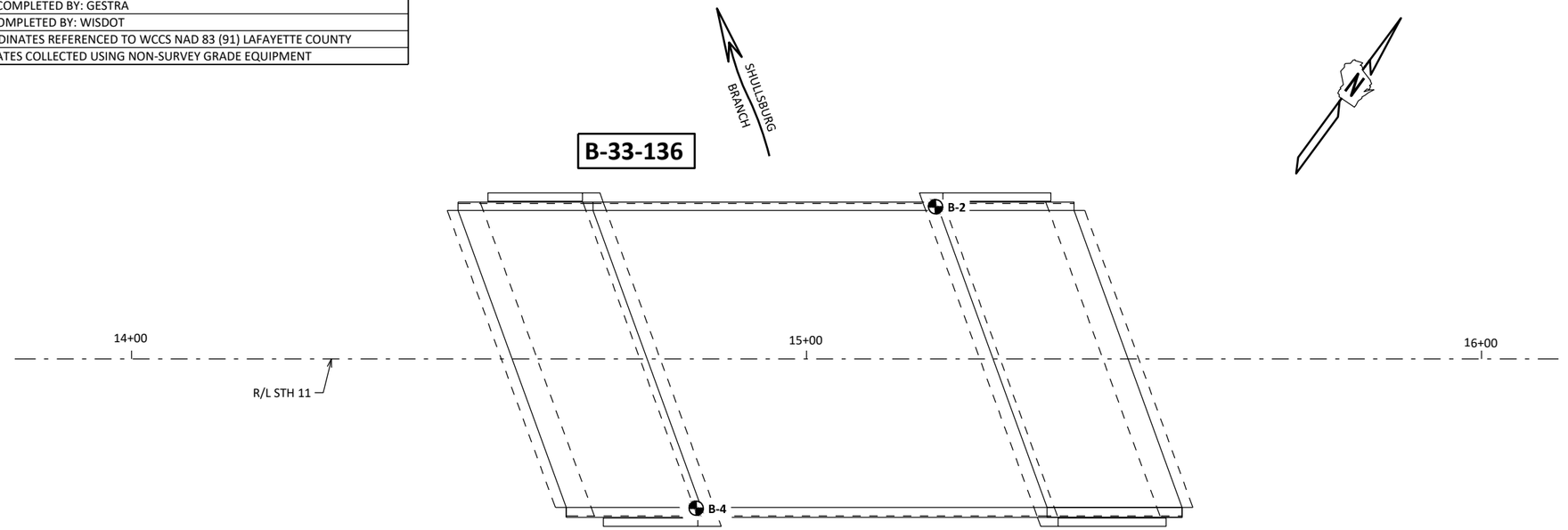
CROSS SECTION & QUANTITIES

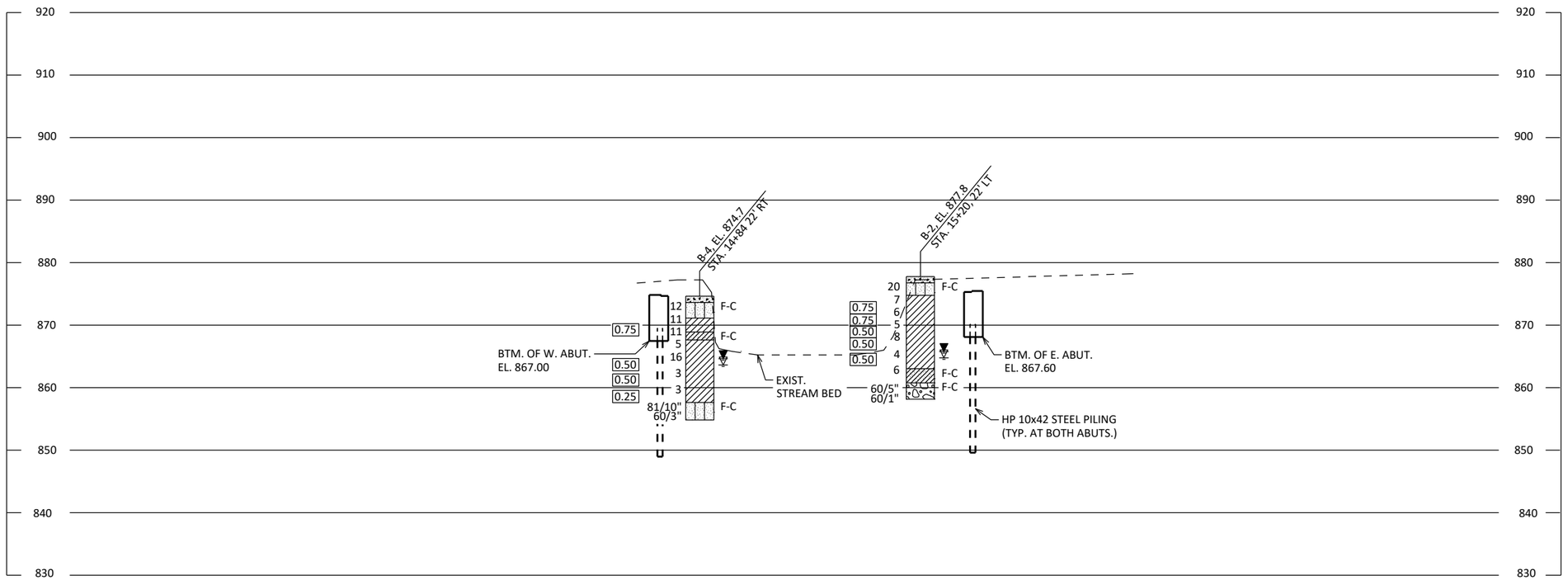
SHEET 2
153

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	07/25/2023	124452	441238
4	07/25/2023	124395	441236
BORINGS COMPLETED BY: GESTRA			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) LAFAYETTE COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





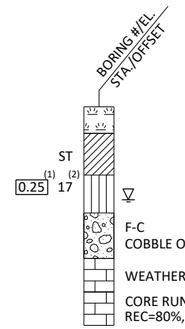
STATE PROJECT NUMBER

1706-03-80

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

DRAWN BY JJ/DTH | PLANS CK'D CAD

SUBSURFACE EXPLORATION

SHEET 3
154

8

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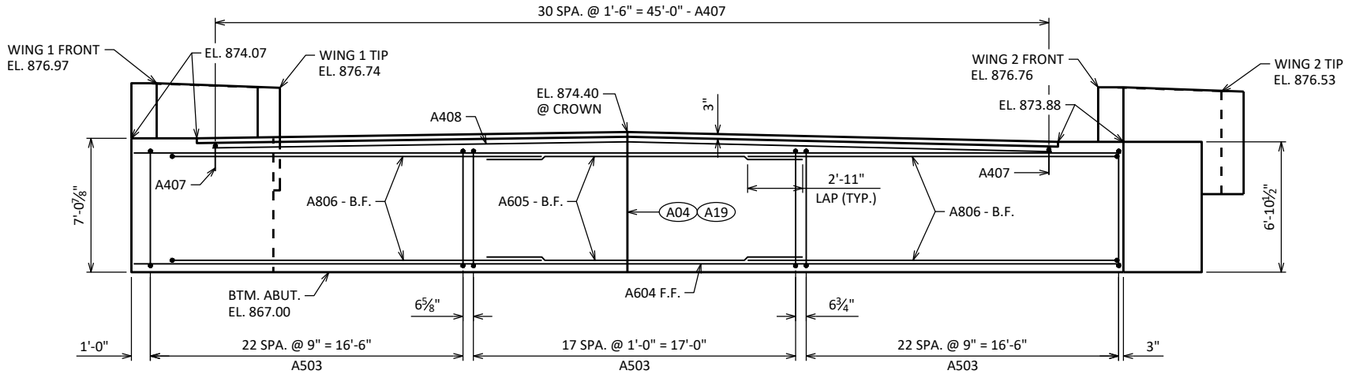
STATE PROJECT NUMBER

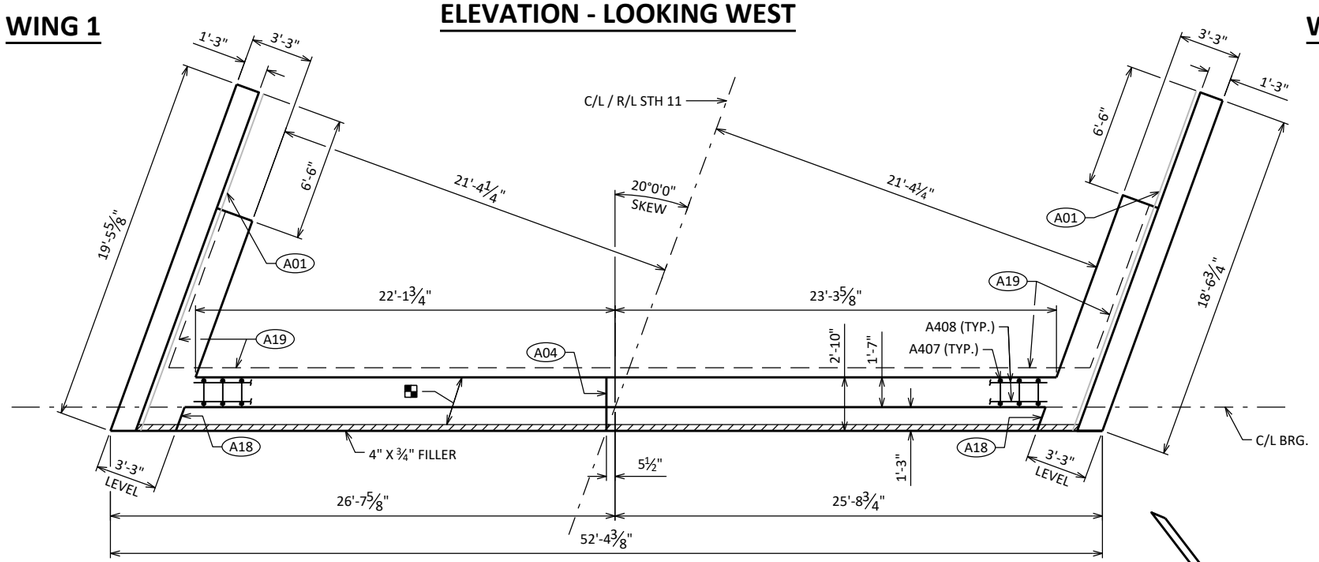
1706-03-80



ELEVATION - LOOKING WEST

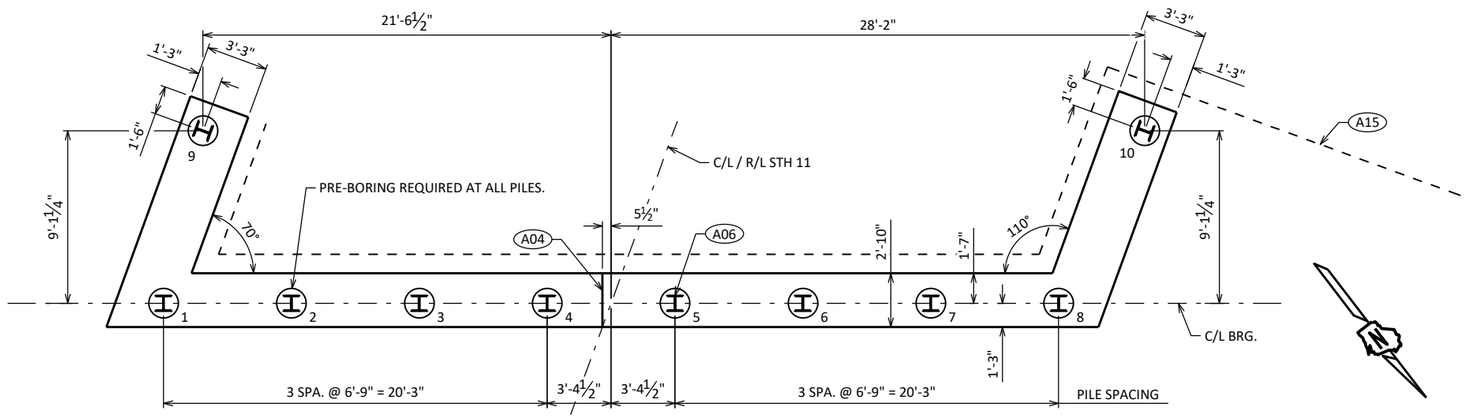
WING 1

WING 2

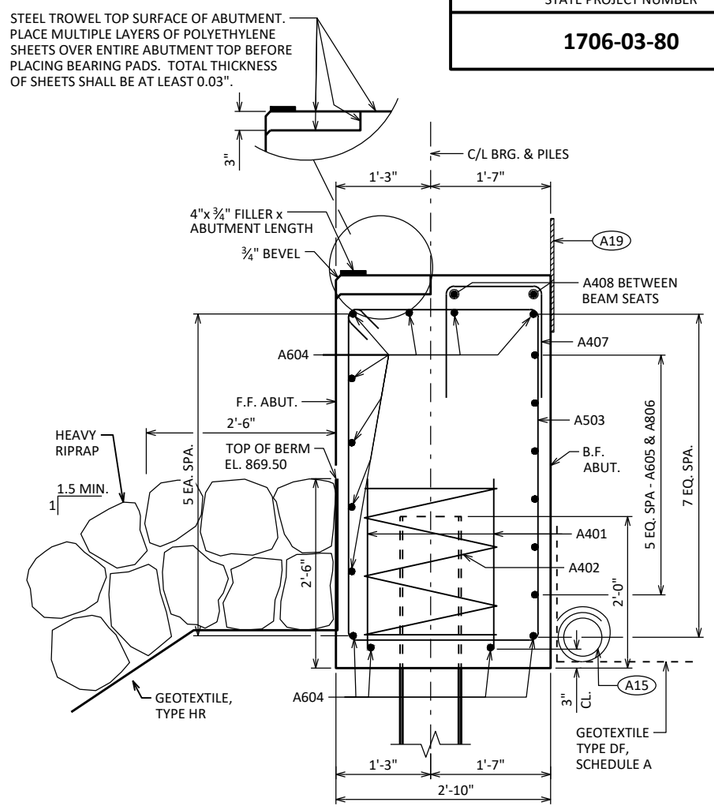


PLAN

▪ TOP OF ABUTMENT IN AREA OF SUPERSTRUCTURE SLAB SHALL BE LEVEL IN THE DIRECTION PARALLEL TO THE REFERENCE LINE



PILE PLAN



SECTION THRU BODY

A01 ½" FILLER BETWEEN WING AND SUPERSTRUCTURE & STRUCTURAL APPROACH SLAB. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH GRAY, NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW JOINT SURFACE).

A04 VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.

A06 SUPPORT ABUTMENT ON HP 10x42 STEEL PILING SEATED IN HOLES PRE-BORED AN ESTIMATED 18'-0" AND BACKFILLED WITH CEMENT GROUT. PILES ESTIMATED 20'-0" LONG.

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A18 ¾" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

DRAWN BY DTH | PLANS CK'D CAD

WEST ABUTMENT

SHEET 4
155

8

8

STATE PROJECT NUMBER

1706-03-80

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401		16	2'-3"			PILES - 2 PER BODY PILE
A402		8	28'-0"	X		PILES - 1 PER BODY PILE
A503		64	17'-11"	X		BODY - STIRRUPS
A604		12	52'-0"			BODY HORIZ. - F.F., TOP & BTM.
A605		6	19'-8"			BODY - HORIZ. - B.F.
A806		12	20'-0"	X		BODY - HORIZ. - B.F.
A407		31	3'-9"	X		BODY - VERT. - TOP
A408		2	45'-0"			BODY - HORIZ. - TOP
A509	X	10	19'-8"	X		WING 1 - STIRRUP - LOWER WING
A410	X	4	6'-6"			WING 1 - VERT. - END OF ABUT.
A511	X	8	12'-6"			WING 1 - HORIZ. - LOWER WING - F.F.
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A413	X	7	7'-10"			WING 1 - HORIZ. - UPPER WING - BOT.
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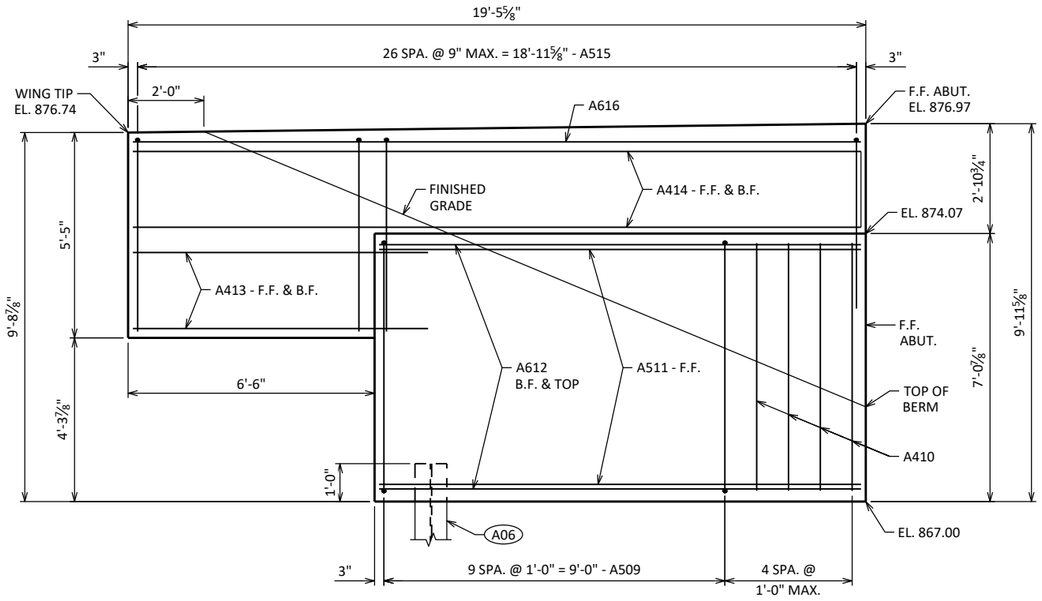
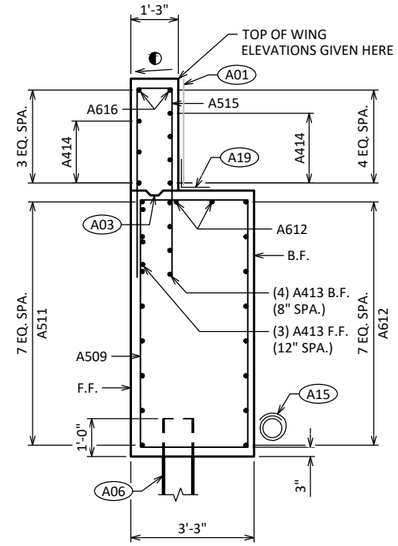
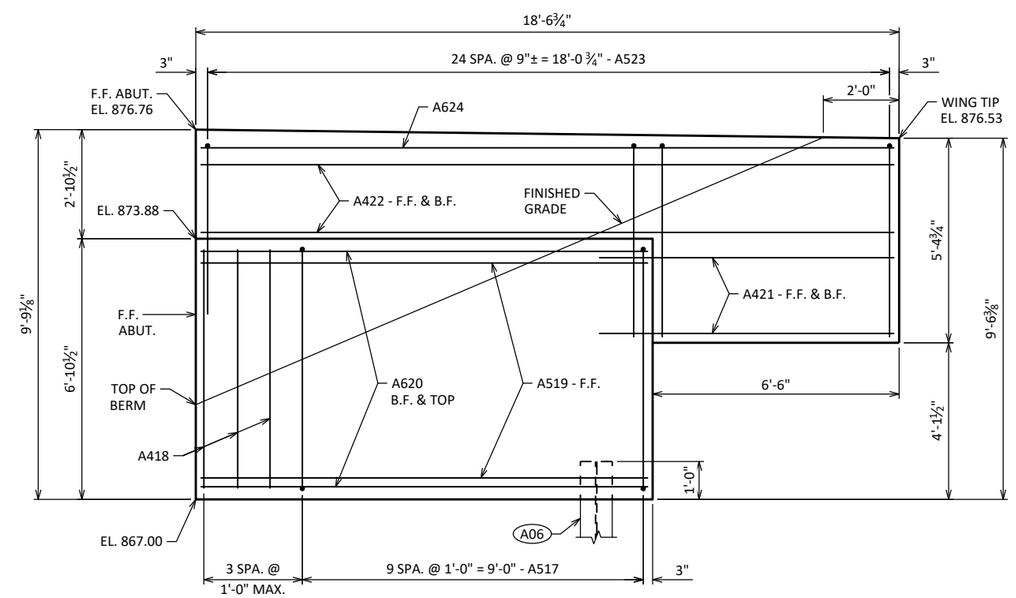
A515	X	27	10'-8"	X		WING 1 - VERT. - UPPER WING
A616	X	2	18'-10"			WING 1 - HORIZ. - UPPER WING - TOP
A517	X	10	19'-2"	X		WING 2 - STIRRUP - LOWER WING
A418	X	3	6'-4"			WING 2 - VERT. - END OF ABUT.
A519	X	8	11'-10"			WING 2 - HORIZ. - LOWER WING - F.F.
A620	X	10	12'-4"			WING 2 - HOIRZ. - LOWER WING - B.F. & TOP
A421	X	7	7'-10"			WING 2 - HORIZ. - UPPER WING - BOT.
A422	X	9	18'-4"			WING 2 - HORIZ. - UPPER WING
A523	X	25	10'-10"	X		WING 2 - VERT. - UPPER WING
A624	X	2	18'-4"			WING 2 - HORIZ. - UPPER WING - TOP



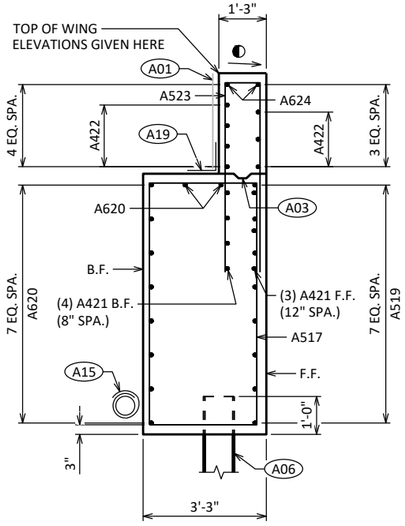
WING 1 ELEVATION



WING 1 SECTION



WING 2 ELEVATION



WING 2 SECTION

A01 ½" FILLER BETWEEN WING AND SUPERSTRUCTURE & STRUCTURAL APPROACH SLAB. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH GRAY. NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW JOINT SURFACE).

A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2x6. (18" RMW @ B.F. & ¾" "V"-GROOVE @ F.F. IF JOINTS IS USED).

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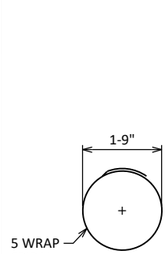
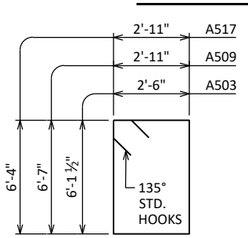
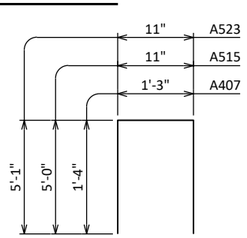
◐ SLOPE TO DRAIN.



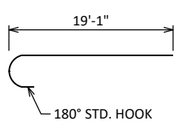
A402



A503, A509, A517



A407, A515, A523



A806

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

DRAWN BY DTH | PLANS CK'D CAD

WEST ABUTMENT DETAILS

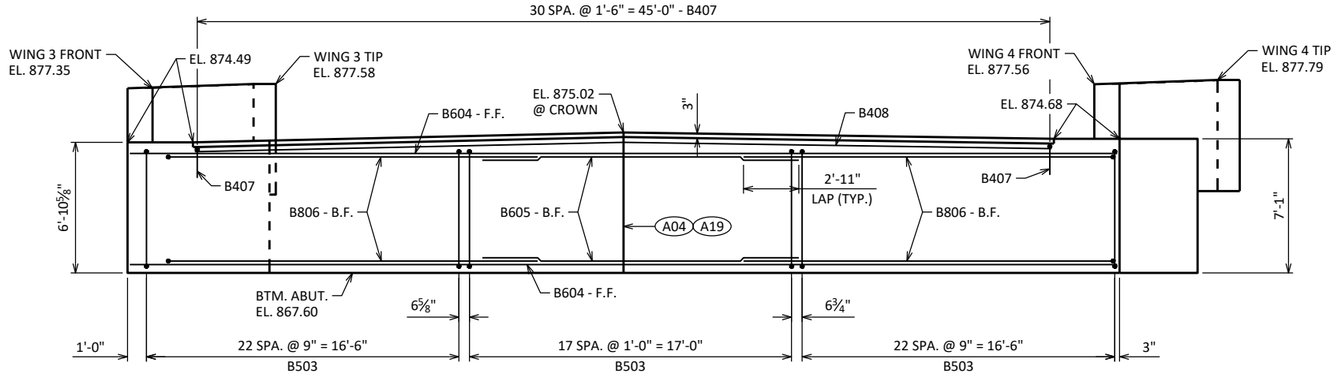
SHEET 5
156

8

8

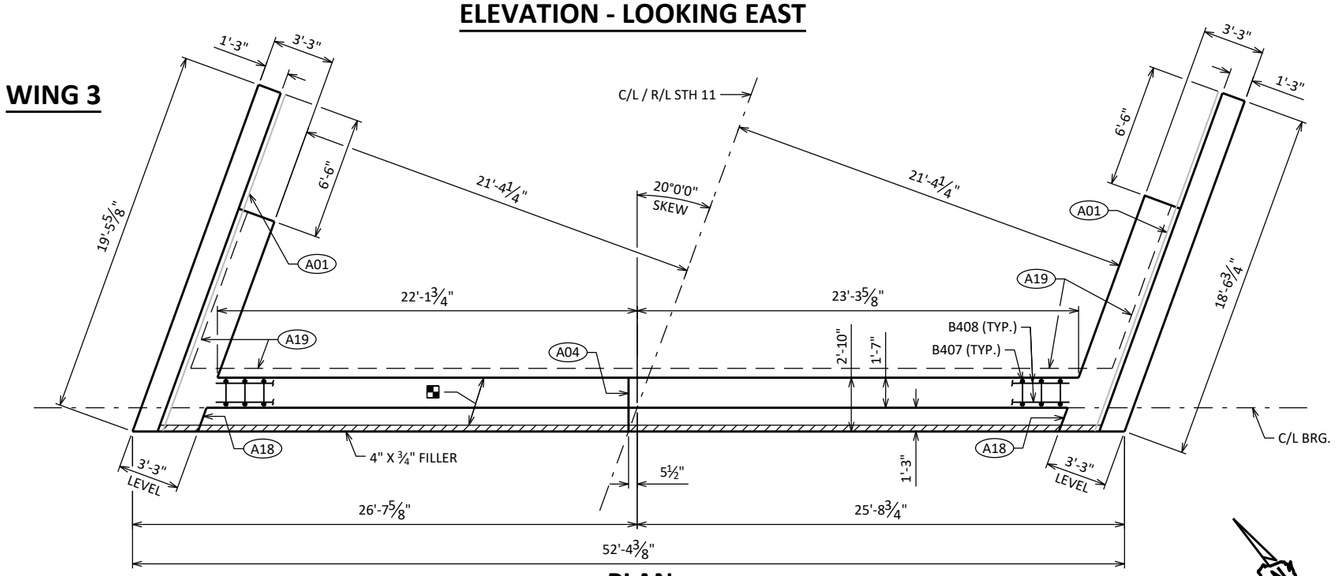
STATE PROJECT NUMBER

1706-03-80



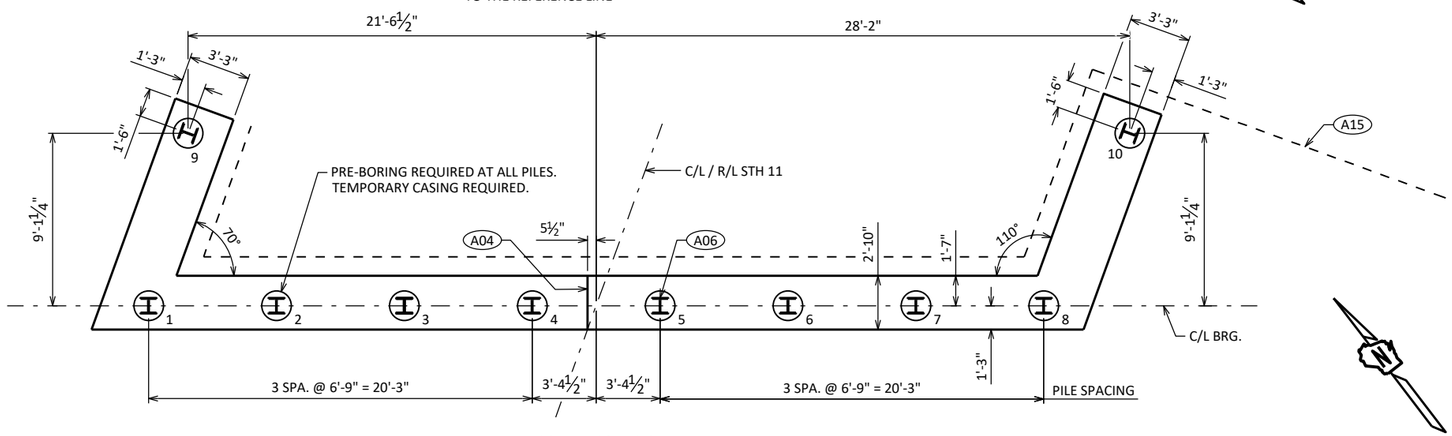
ELEVATION - LOOKING EAST

WING 3



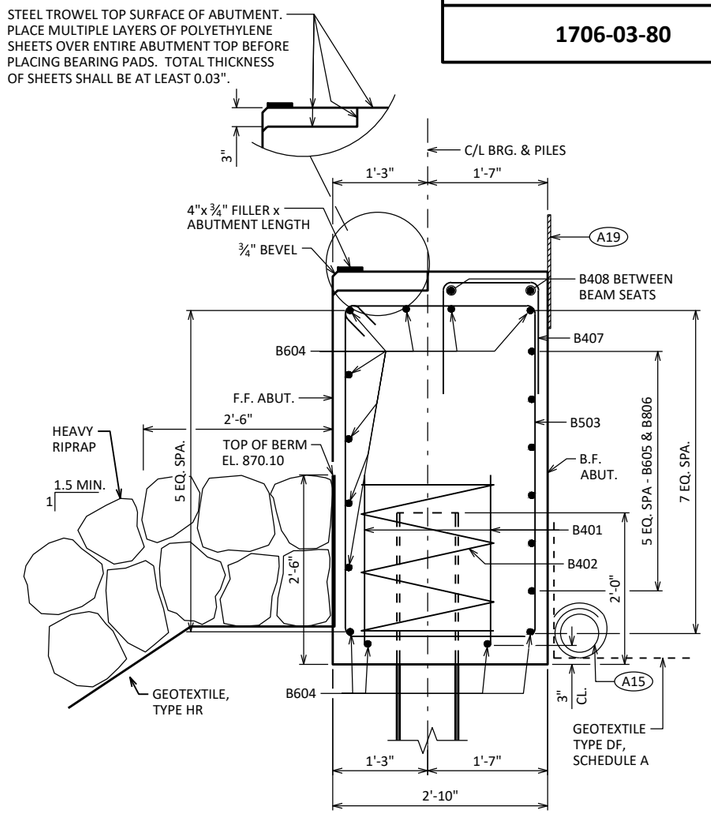
PLAN

▪ TOP OF ABUTMENT IN AREA OF SUPERSTRUCTURE SLAB SHALL BE LEVEL IN THE DIRECTION PARALLEL TO THE REFERENCE LINE



PILE PLAN

WING 4



SECTION THRU BODY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

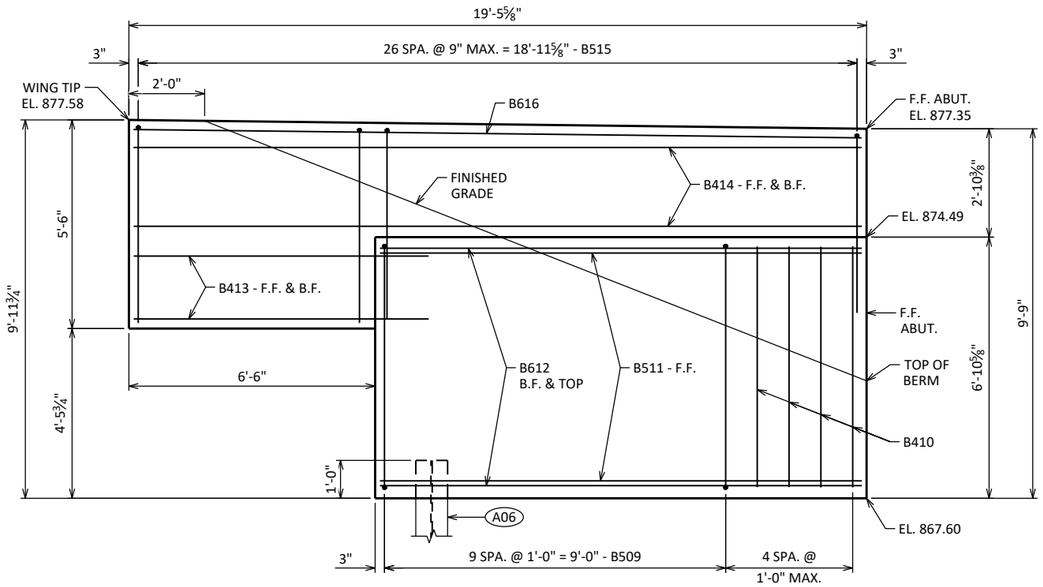
DRAWN BY DTH | PLANS CK'D CAD

EAST ABUTMENT

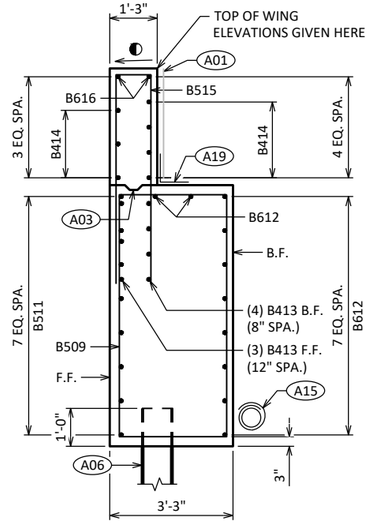
SHEET 6
157

8

8



WING 3 ELEVATION



WING 3 SECTION

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SLOPE TO DRAIN.

STATE PROJECT NUMBER

1706-03-80

BILL OF BARS

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

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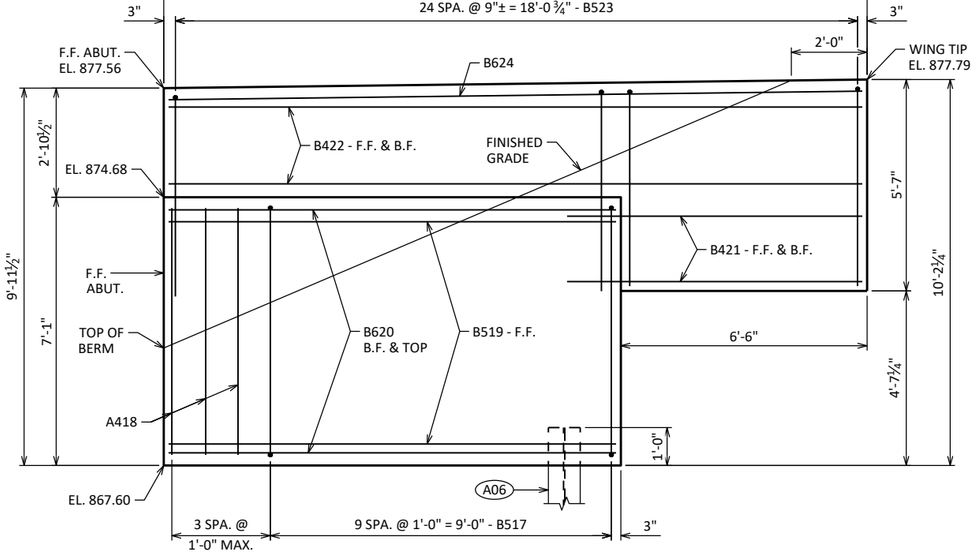
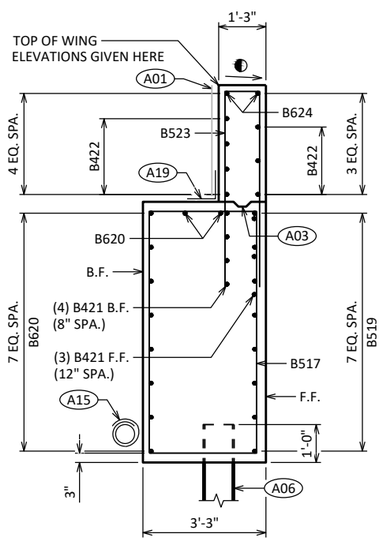
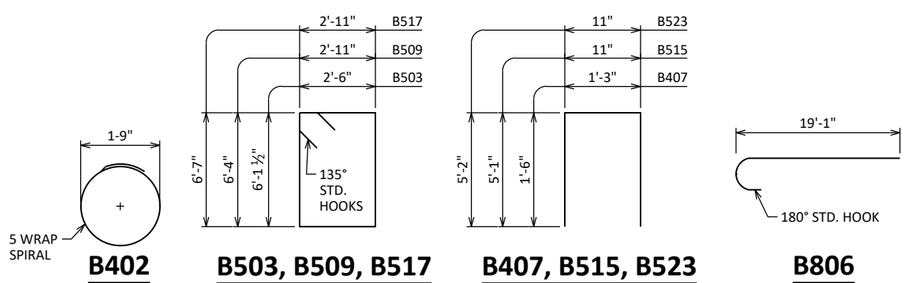


WING 4 ELEVATION



WING 4 SECTION



B402 **B503, B509, B517** **B407, B515, B523** **B806**

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

DRAWN BY DTH | PLANS CK'D CAD

EAST ABUTMENT DETAILS

SHEET 7
158

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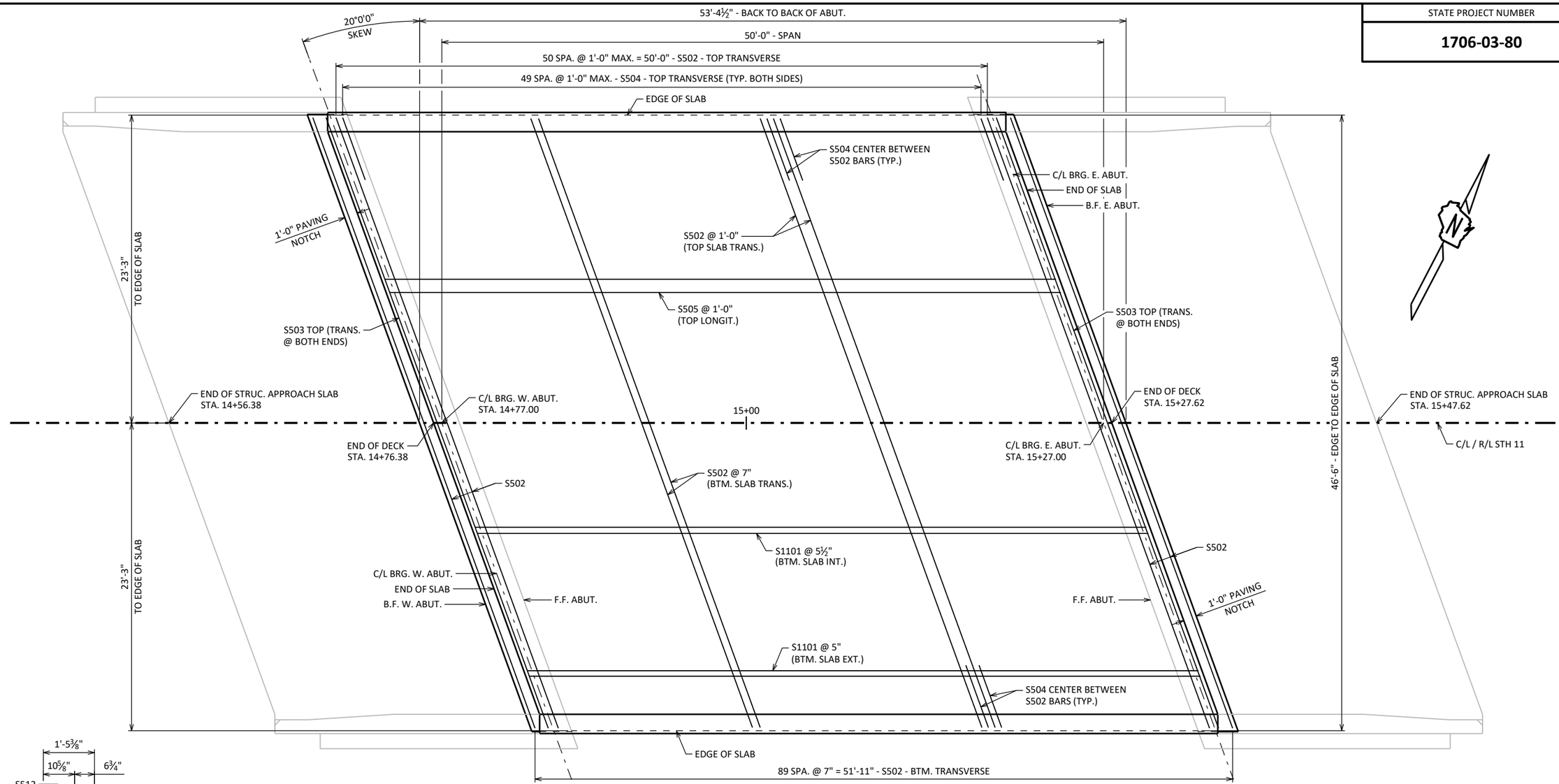
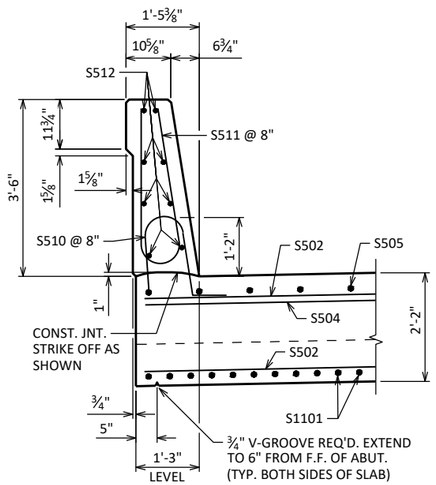
STATE PROJECT NUMBER

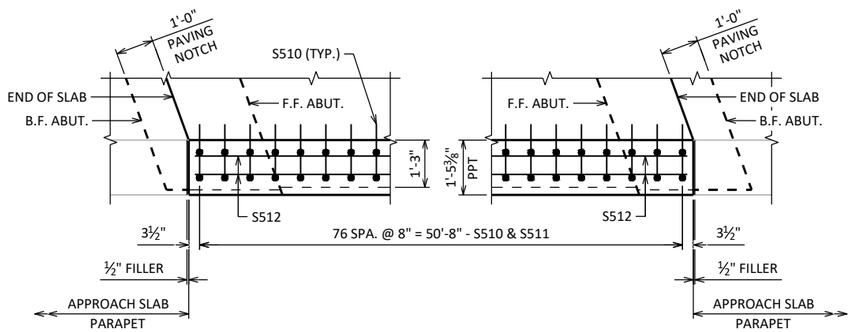
1706-03-80



PLAN



SECTION THRU PARAPET ON BRIDGE



PARTIAL PLAN OF PARAPET REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

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SUPERSTRUCTURE PLAN

SHEET 8

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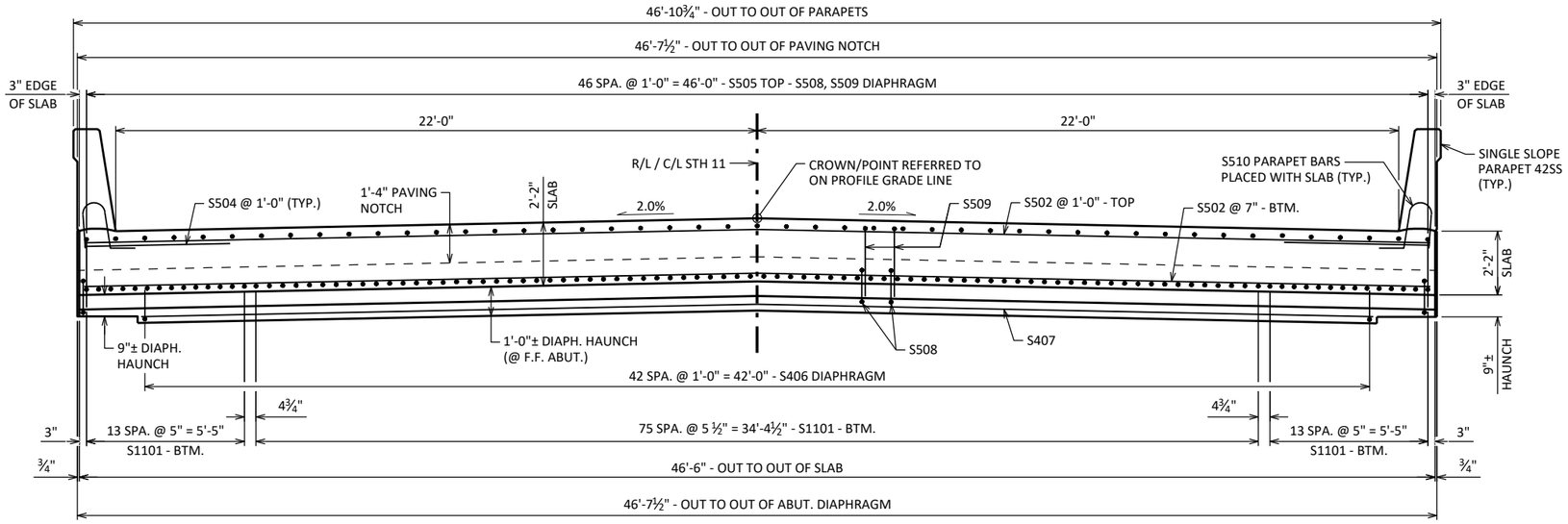


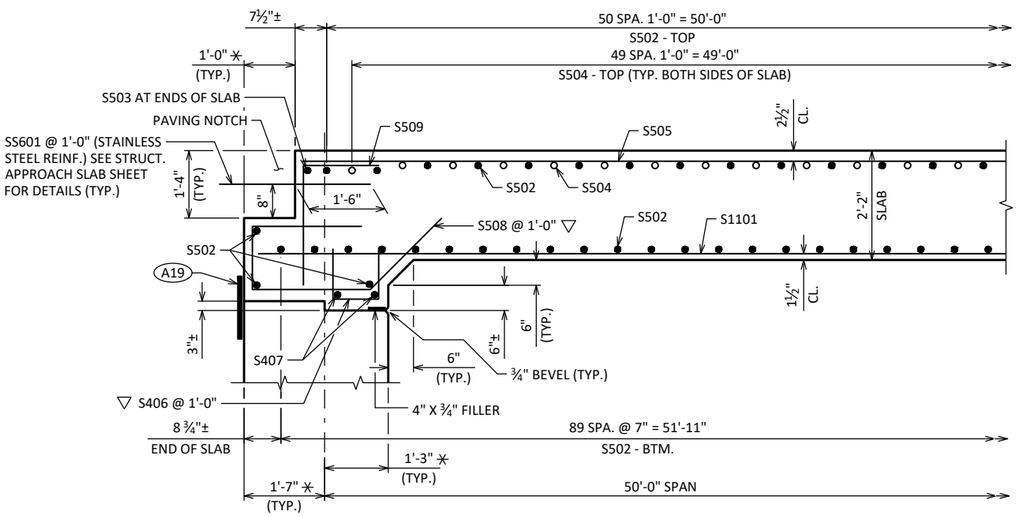
CROSS SECTION THRU SLAB

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S1101	X	104	52'-10"			SLAB - LONGIT. - BTM.
S502	X	147	49'-1"			SLAB - TRANS. - TOP & BTM.
S503	X	2	48'-4"			SLAB - TRANS. - TOP AT ENDS
S504	X	100	5'-0"			SLAB - TRANS. - EDGE OF SLAB - TOP
S505	X	47	50'-9"			SLAB - LONGIT. - TOP
S406	X	86	2'-9"	X		SLAB - DIAPH. - VERT.
S407	X	4	45'-0"			SLAB - DIAPH. - HORIZ.
S508	X	94	7'-8"	X		SLAB - DIAPH. - VERT.
S509	X	94	3'-9"	X		SLAB - DIAPH. - VERT.
S510	X	154	4'-5"	X		SLAB/PARAPET - VERT.
S511	X	154	6'-8"	X		PARAPET - VERT.
S512	X	16	50'-9"			PARAPET - HORIZ.
SS601		94	3'-0"			SLAB TO APPROACH SLAB

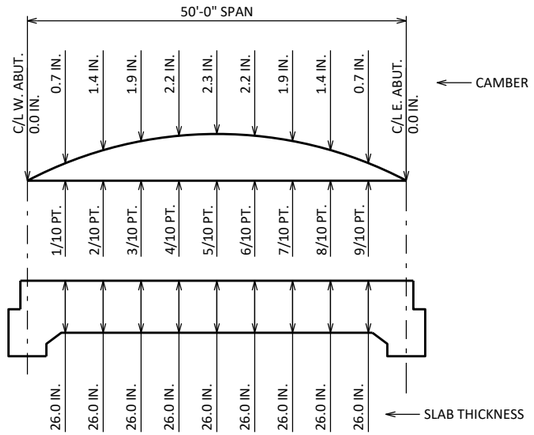
STAINLESS STEEL



LONGITUDINAL SECTION THRU ROADWAY

▽ BARS PLACED PARALLEL TO R/L, SPACING PERP. TO R/L.

⚹ DIMENSION MEASURED PERP. TO F.F. OF ABUTMENT.



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS.

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP.
CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PARAPETS SHOWN ABOVE THE HORIZ. CONST. JT. SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

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

	TOP OF DECK ELEVATION AT FINAL GRADE
LESS	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 ELEVATION.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR C/L .

TOP OF DECK ELEVATIONS

LOCATION	C/L BRG. W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. E. ABUT.
N. GUTTER	876.78	876.84	876.90	876.96	877.02	877.09	877.15	877.21	877.27	877.33	877.39
C/L / R/L STH 11	877.32	877.38	877.44	877.50	877.56	877.62	877.69	877.75	877.81	877.87	877.93
S. GUTTER	876.98	877.04	877.10	877.16	877.22	877.28	877.34	877.41	877.47	877.53	877.59

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. W. ABUT.	5/10 PT.	C/L BRG. E. ABUT.
N. GUTTER			
C/L / R/L STH 11			
S. GUTTER			

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

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 (+).

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

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

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SUPERSTRUCTURE DETAILS

SHEET 9
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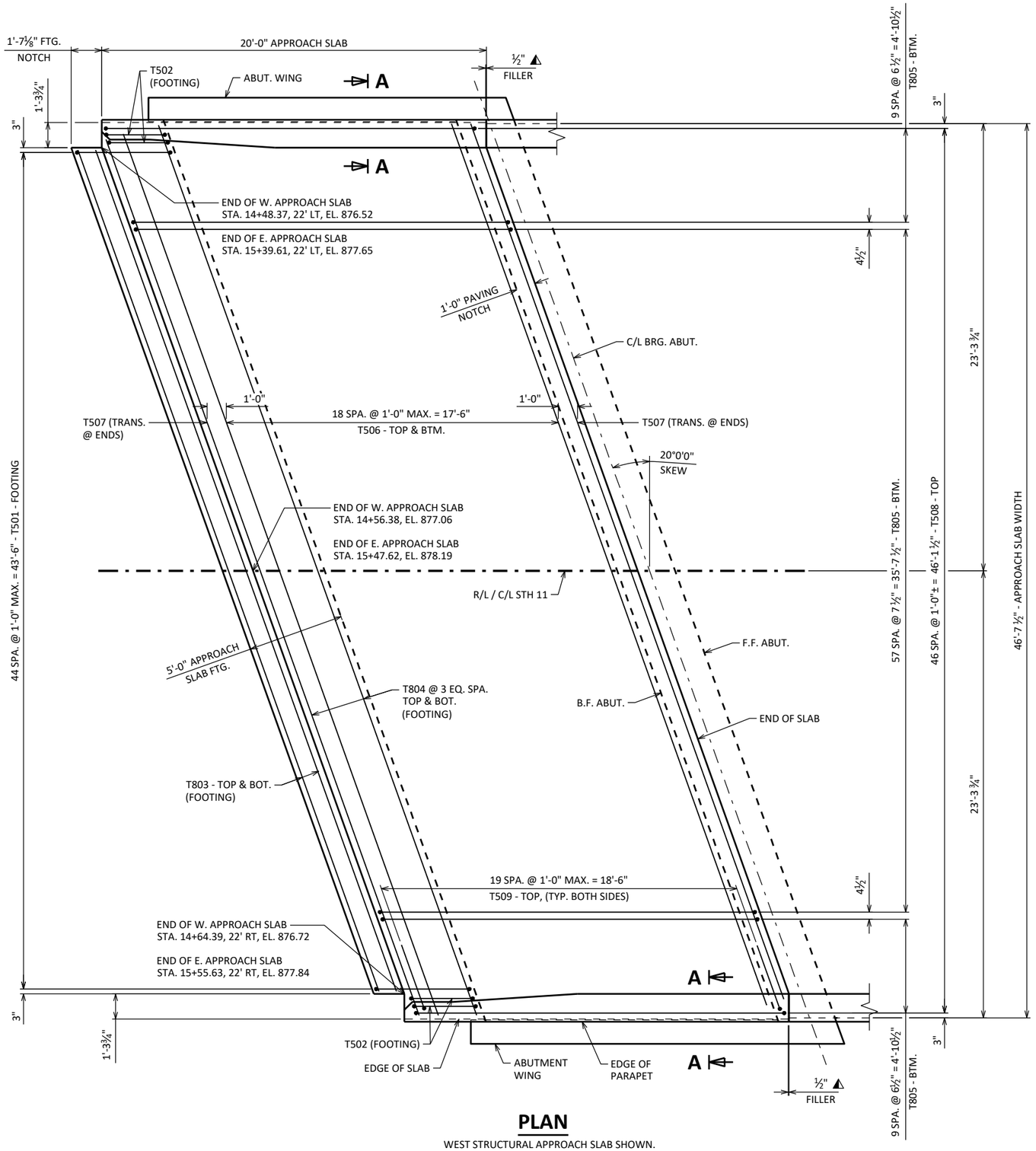
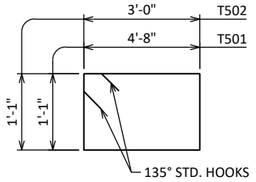
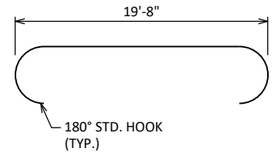


PLAN

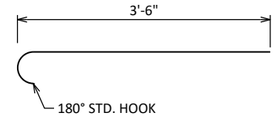
WEST STRUCTURAL APPROACH SLAB SHOWN.
EAST STRUCTURAL APPROACH SLAB SIMILAR.



T501, T502



T805

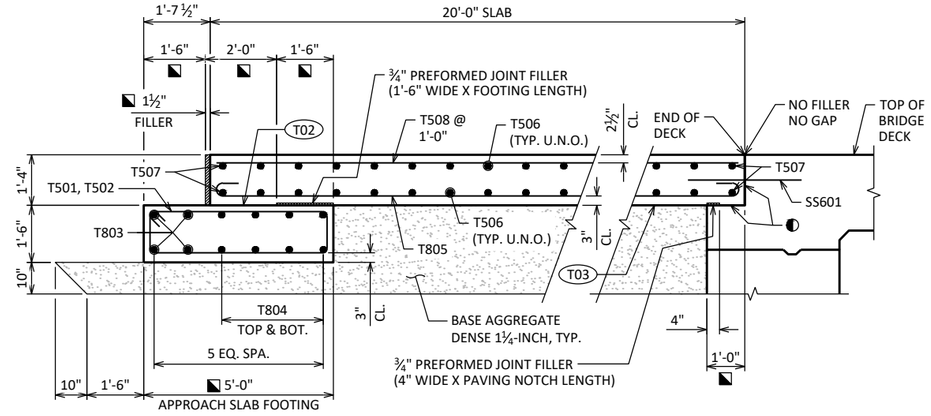


T509

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
T501	X	90	12'-2"	X		APPROACH SLAB FTG. - STIRRUP
T502	X	8	8'-10"	X		APPROACH SLAB FTG. - STIRRUP
T803	X	8	46'-5"			APPROACH SLAB FTG. - TRANS.
T804	X	16	49'-2"			APPROACH SLAB FTG. - TRANS.
T805	X	156	21'-6"	X		APPROACH SLAB - LONGIT. - BOT.
T506	X	76	49'-2"			APPROACH SLAB - TRANS. - TOP & BTM.
T507	X	8	48'-3"			APPROACH SLAB - TRANS. - TOP & BTM. @ ENDS
T508	X	94	19'-8"			APPROACH SLAB - LONGIT. - TOP
T509	X	80	4'-1"	X		APPROACH SLAB - TRANS. - TOP - EDGES



SECTION THRU APPROACH SLAB

◐ APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH SURFACES PRIOR TO POURING STRUCTURAL APPROACH SLAB.

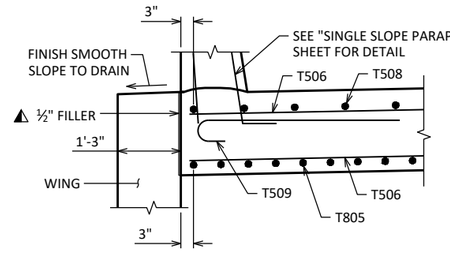
◪ MEASURED NORMAL TO ABUTMENT.

U.N.O. = UNLESS NOTED OTHERWISE.

◭ 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).

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(T03) PLACE MULTIPLE LAYER (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

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STRUCTURAL APPROACH SLAB

SHEET 10
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STATE PROJECT NUMBER

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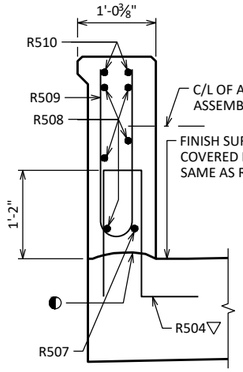
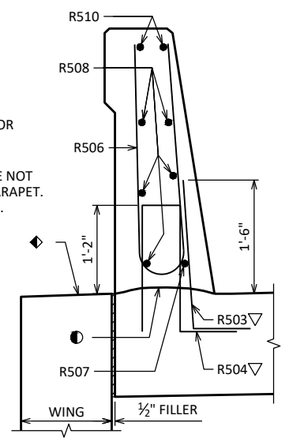
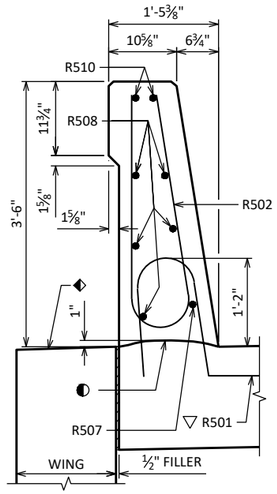


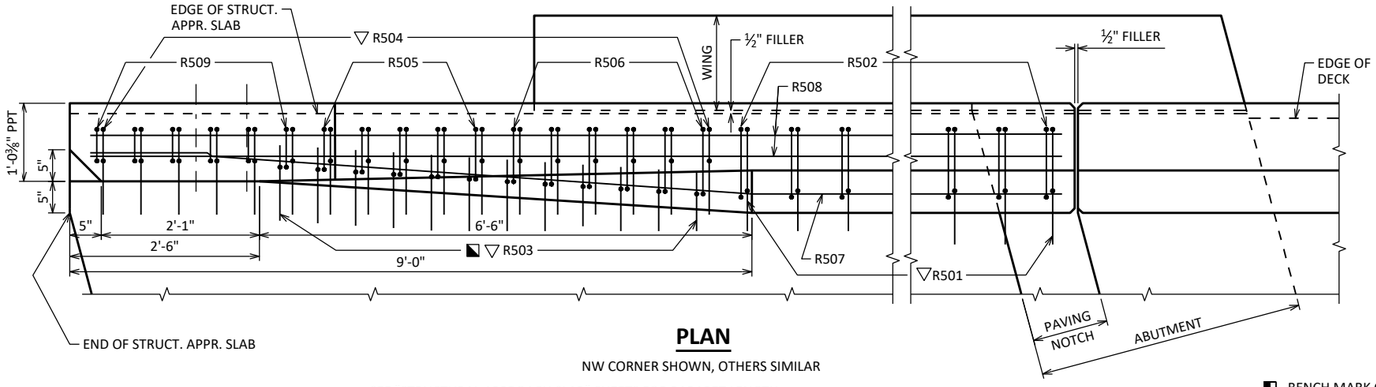
SECTION A-A



SECTION B-B

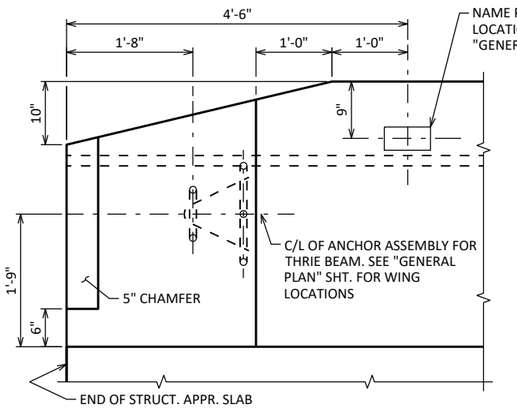


SECTION C-C



PLAN

NW CORNER SHOWN, OTHERS SIMILAR



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS

FOR STRUCTURAL APPOACH SLAB PARAPETS

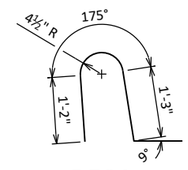
BAR MARK	COAT	W. ABUT.	E. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4'-5"	X		PARAPET VERT.
R502	X	34	34	6'-8"	X		PARAPET VERT.
R503	X	24	24	2'-9"	X		PARAPET VERT.
R504	X	34	34	4'-4"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	19'-6"	X		PARAPET HORIZ.
R508	X	10	10	19'-6"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	4	19'-6"	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.

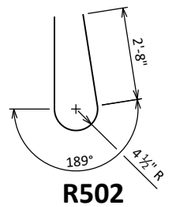
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

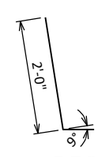
BAR MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"



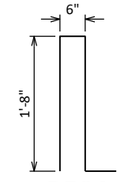
R501



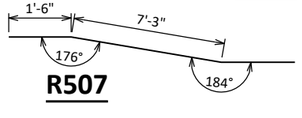
R502



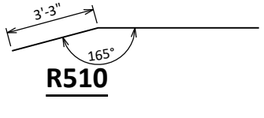
R503



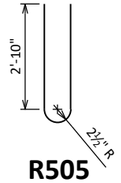
R504



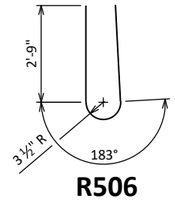
R507



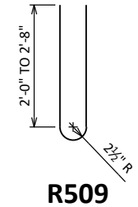
R510



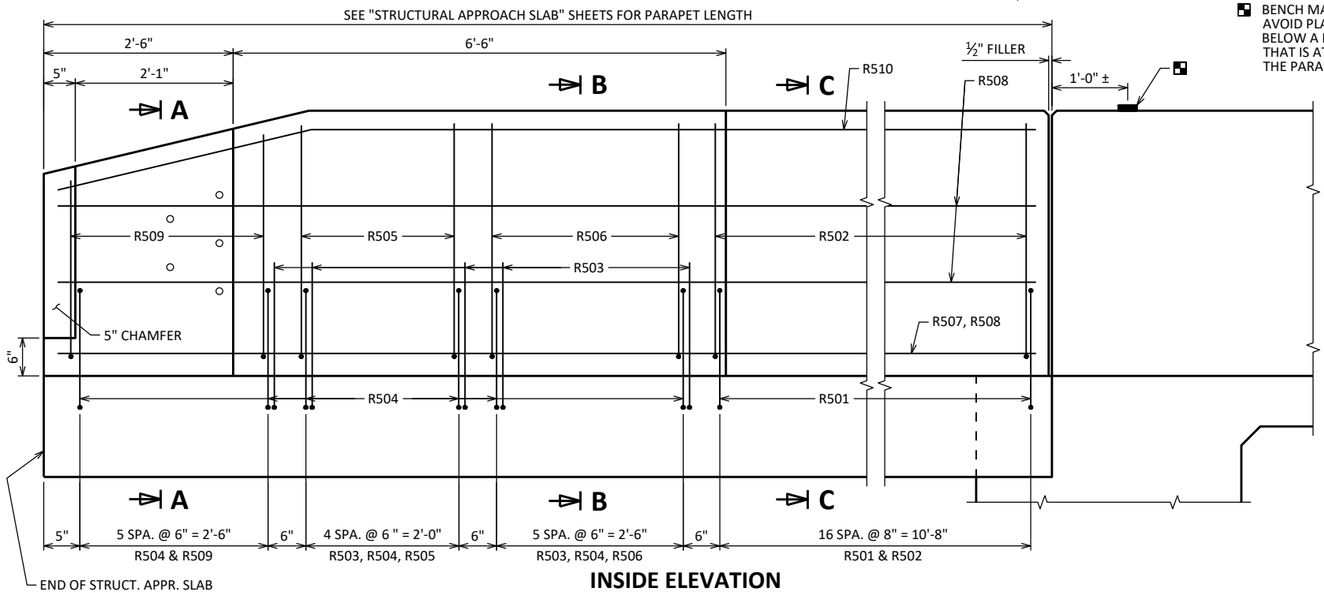
R505



R506



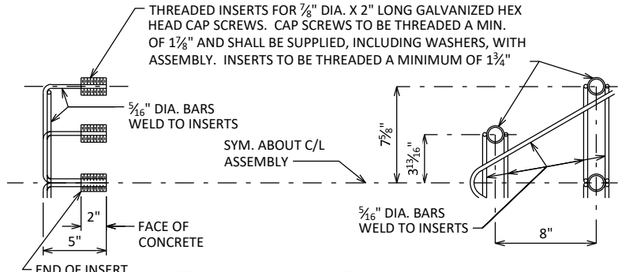
R509



INSIDE ELEVATION

NW CORNER SHOWN, OTHERS SIMILAR
WING & STRUCTURAL APPROACH SLAB FOOTING NOT SHOWN FOR CLARITY

BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

- ◐ CONST. JOINT - STRIKE OFF AS SHOWN
- ◆ SLOPE FOR DRAINAGE
- ◪ USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ R501, R503, AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

DRAWN BY DTH | PLANS CK'D CAD

SINGLE SLOPE PARAPET 42SS

SHEET 11
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STATE PROJECT NUMBER

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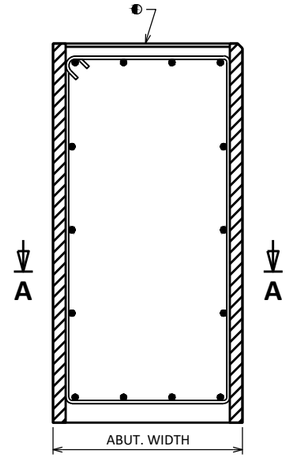
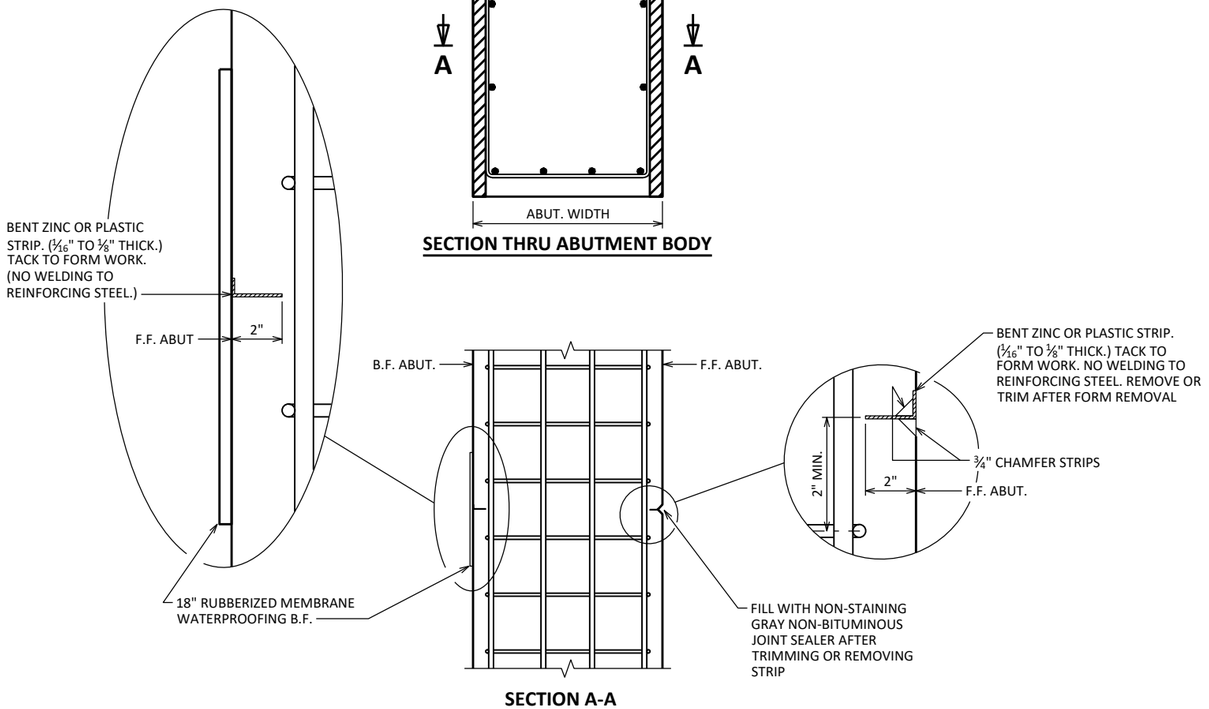


SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATIVE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

◐ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-136

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ALTERNATE CONSTRUCTION JOINT

SHEET 12
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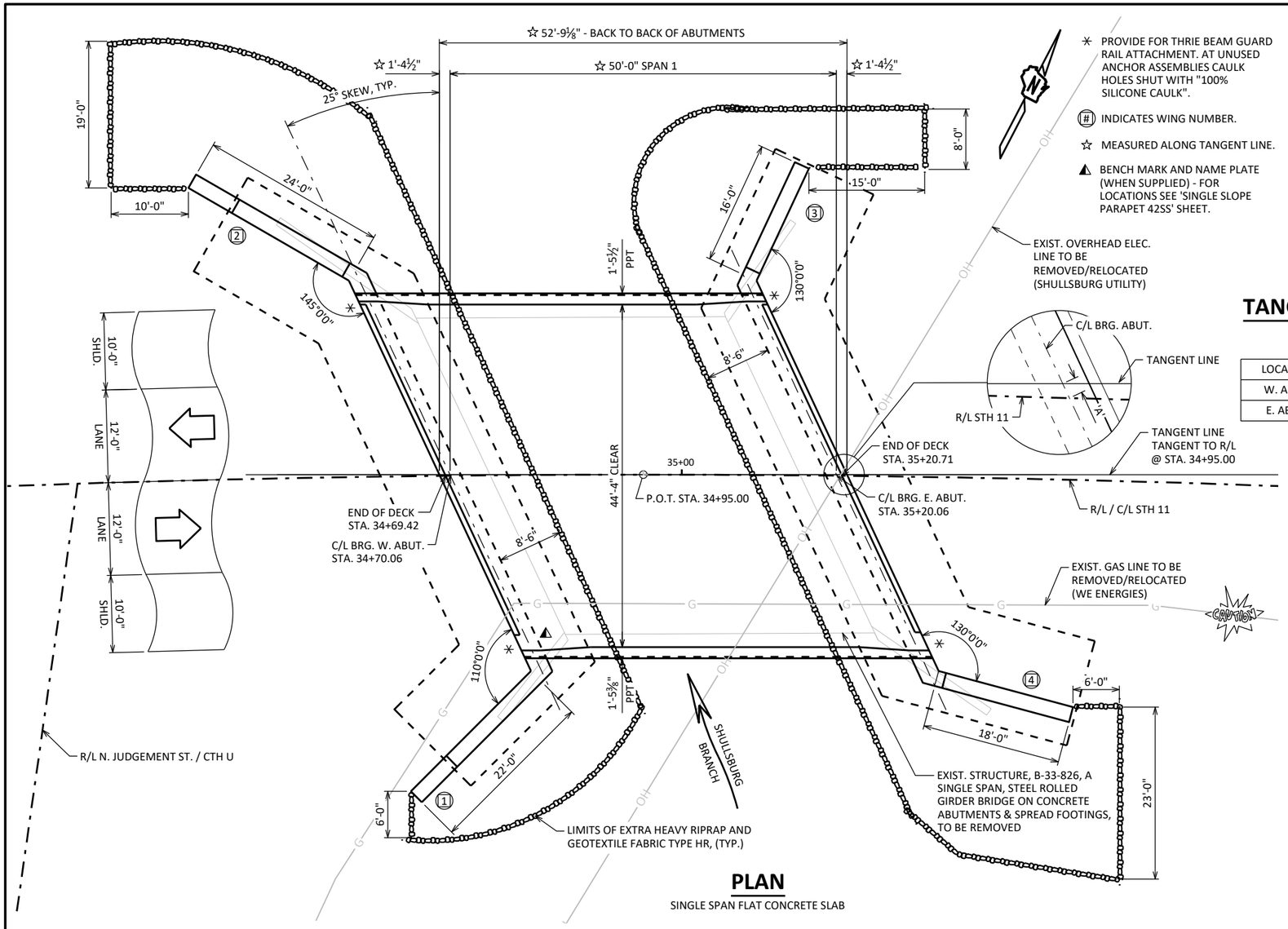
STATE PROJECT NUMBER

1706-03-80



PLAN

SINGLE SPAN FLAT CONCRETE SLAB

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

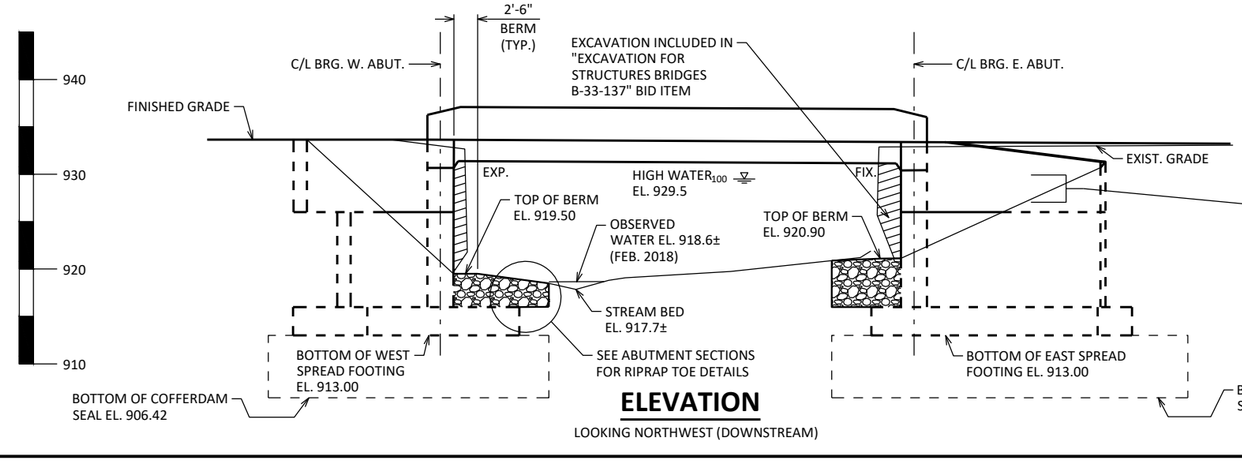
(#) INDICATES WING NUMBER.

☆ MEASURED ALONG TANGENT LINE.

◭ BENCH MARK AND NAME PLATE (WHEN SUPPLIED) - FOR LOCATIONS SEE 'SINGLE SLOPE PARAPET 42SS' SHEET.

TANGENT OFFSET TABLE

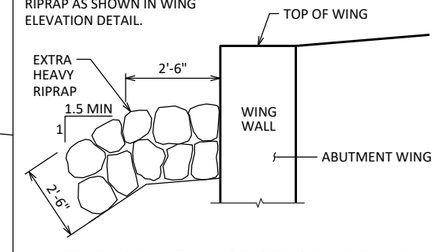
LOCATION	DIM. A
W. ABUT.	0'-1 13/16"
E. ABUT.	0'-1 13/16"



ELEVATION

LOOKING NORTHWEST (DOWNSTREAM)

NOTE: PLACE EXTRA HEAVY RIPRAP AS SHOWN IN WING ELEVATION DETAIL.



TYPICAL FILL SECTION AT WING

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.12
OPERATING RATING: RF = 1.45
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

ABUTMENT WITH SPREAD FOOTINGS TO BE SUPPORTED ON DENSE GRAVEL/ROCK WITH A REQUIRED FACTORED BEARING RESISTANCE OF 10,000 PSF ***. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE COFFERDAM SEALS.

*** THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 3600 C.F.S.
V_{100}= 13.1 F.P.S.
HW_{100}= EL. 929.5
WATERWAY AREA = 276 SQ. FT.
DRAINAGE AREA = 7 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:

Q_2= 575 C.F.S.
V_2= 3.9 F.P.S.
HW_2= EL. 923.9

TRAFFIC DATA

STH 11

ADT = 4,055 (2041)
R.D.S. = 60 MPH

CURVE DATA

STH 11

P.I. = 35+62.65
Δ = 55°53'40"
D = 2°30'2"
T = 1,215.62'
L = 2,235.30'
R = 2,291.34'
S.E. = 4.6%
P.C. = 23+47.03
P.T. = 45+82.33

LIST OF DRAWINGS:

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. COFFERDAM & BACKFILL DETAILS
5. WEST ABUTMENT - 1
6. WEST ABUTMENT - 2
7. WEST ABUTMENT - 3
8. WEST ABUTMENT - 4
9. EAST ABUTMENT - 1
10. EAST ABUTMENT - 2
11. EAST ABUTMENT - 3
12. EAST ABUTMENT - 4
13. SUPERSTRUCTURE PLAN
14. SUPERSTRUCTURE DETAILS
15. SINGLE SLOPE PARAPET 42SS
16. ALTERNATE CONSTRUCTION JOINT

STRUCTURE DESIGN CONTACTS:

CHRIS DOLL 608-266-3229
KYLE BUSCH 608-267-0465

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 8/22/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-33-137

STH 11 OVER SHULLSBURG BRANCH (EAST)

COUNTY: LAFAYETTE | CITY: SHULLSBURG

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATION

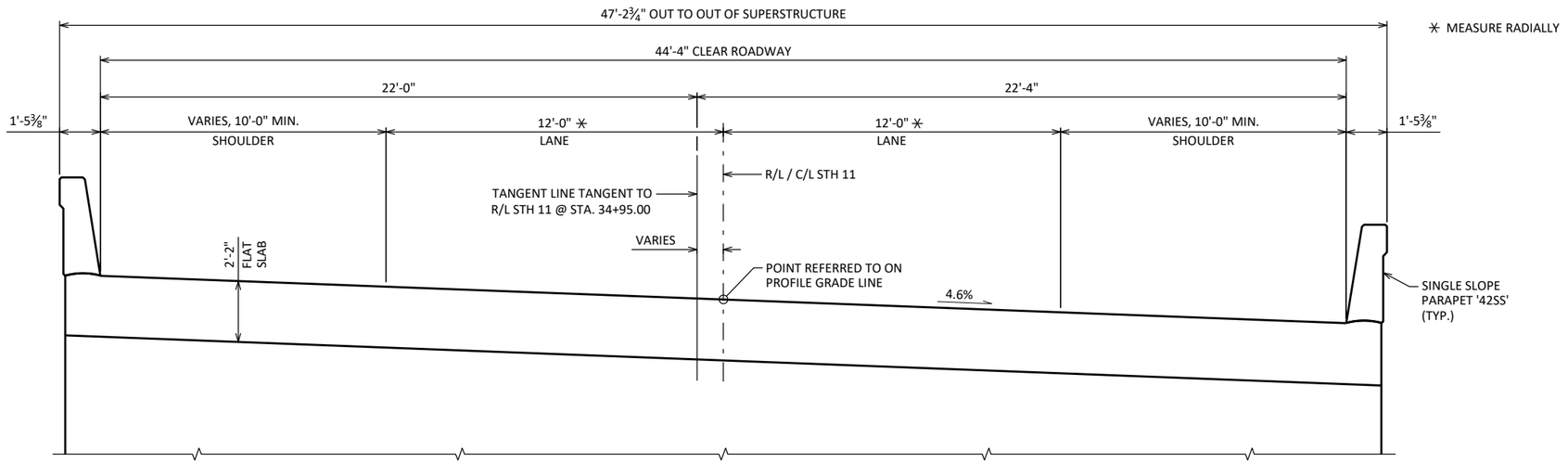
DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
CAD	DLM	DTH	CAD

GENERAL PLAN

SHEET 1 OF 16
164

I.D. 1706-03-00B

DATE: JULY 2024

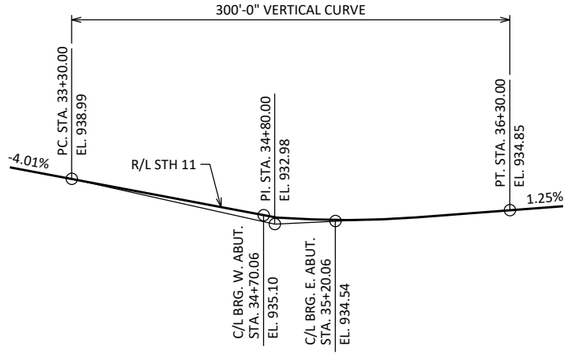


CROSS SECTION THRU ROADWAY

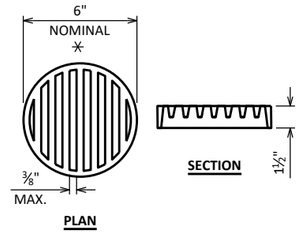
LOOKING EAST

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	W. ABUT.	E. ABUT.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-33-826	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGE B-33-137	EACH	---	---	---	1
206.5001	COFFERDAMS B-33-137	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	2,712	2,632	5,344
312.0110	SELECT CRUSHED MATERIAL	TON	---	1,029	1,024	2,053
502.0100	CONCRETE MASONRY BRIDGES	CY	218.3	286.2	273.4	778
502.1100	CONCRETE MASONRY SEAL	CY	---	686.6	686.6	1,374
502.3200	PROTECTIVE SURFACE TREATMENT	SY	272	---	---	272
502.3210	PIGMENTED SURFACE SEALER	SY	52	---	---	52
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	---	13,500	13,980	27,480
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	44,280	18,100	17,160	79,540
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	19	20	39
606.0400	RIPRAP EXTRA-HEAVY	CY	---	178	220	398
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	110	110	220
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	---	---	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	430	437	867
645.0120	GEOTEXTILE TYPE HR	SY	---	294	309	603
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	1/2", 3/4"



PROFILE GRADE LINE - STH 11



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.

STATE PROJECT NUMBER

1706-03-80

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGE B-33-137" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENT 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.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

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

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH EXTRA 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.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

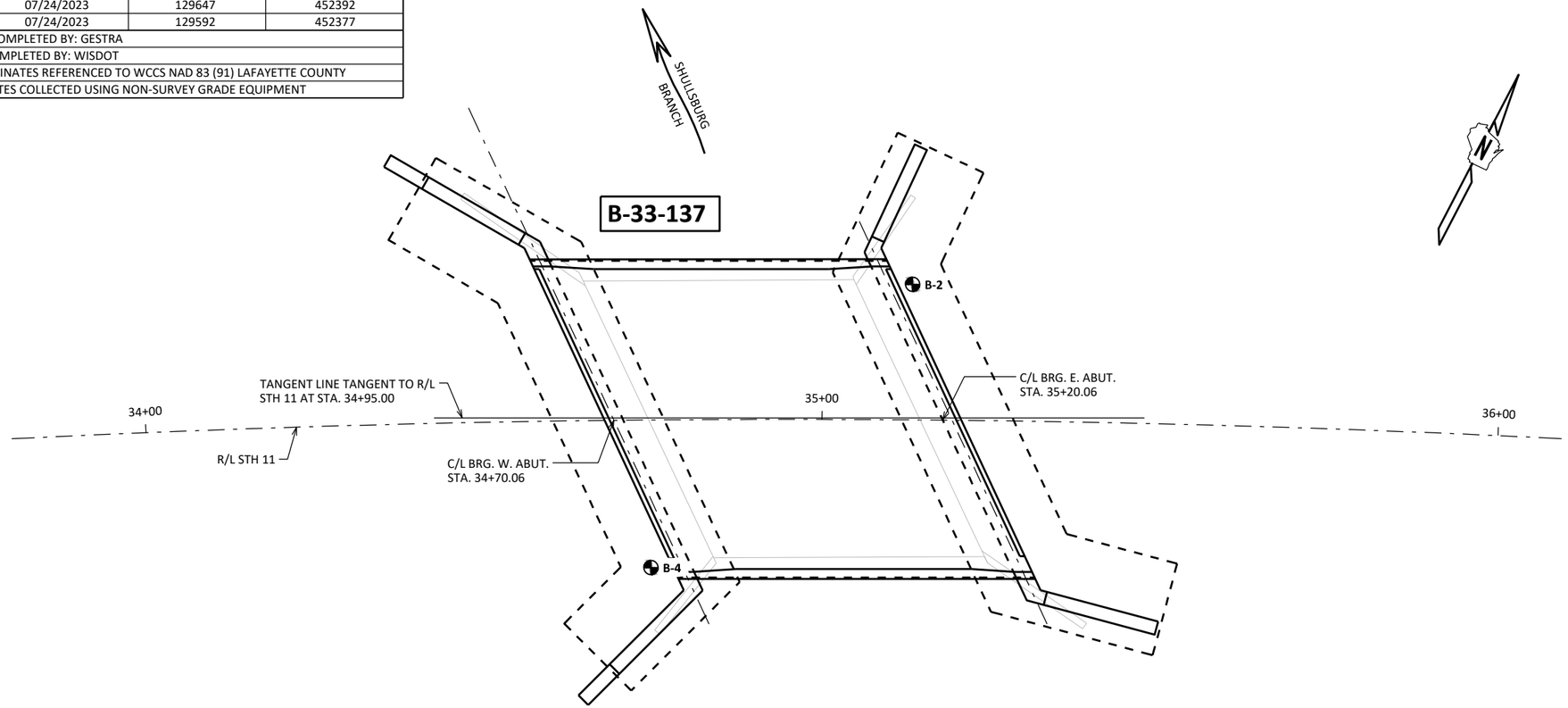
CROSS SECTION & QUANTITIES

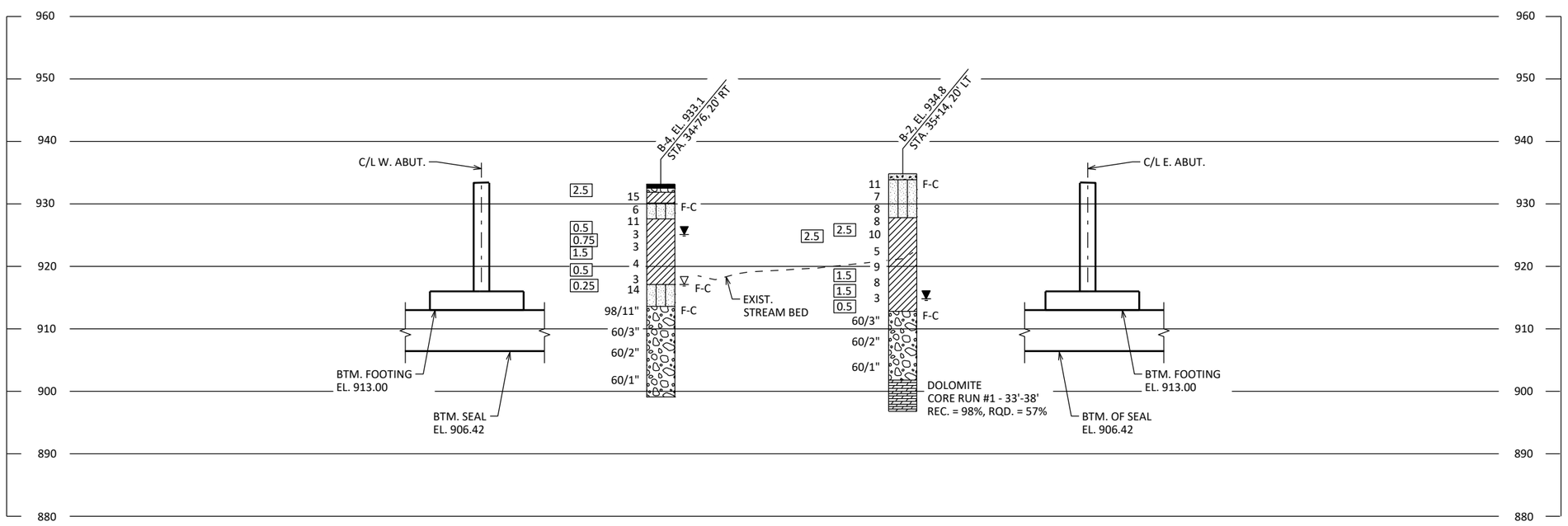
SHEET 2
165

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	07/24/2023	129647	452392
4	07/24/2023	129592	452377
BORINGS COMPLETED BY: GESTRA			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) LAFAYETTE COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





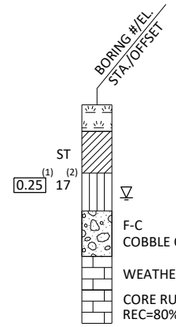
STATE PROJECT NUMBER

1706-03-80

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY JJ/DTH | PLANS CK'D CAD

SUBSURFACE EXPLORATION

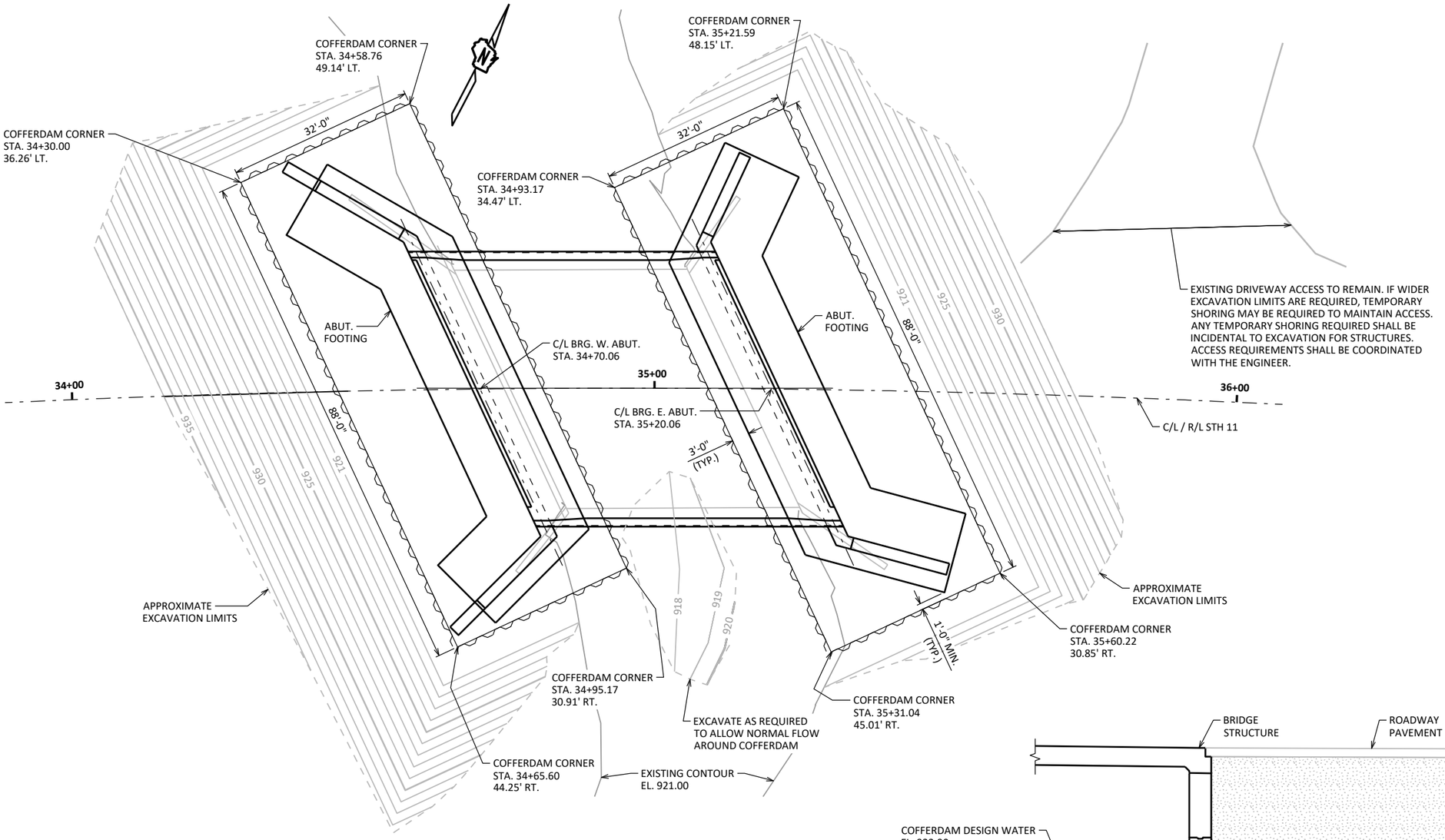
SHEET 3
166

8

8

STATE PROJECT NUMBER

1706-03-80



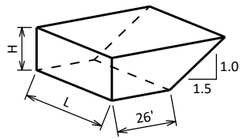
COFFERDAM LAYOUT PLAN

NOTES

COFFERDAM LAYOUT SHOWN IS THE LAYOUT ASSUMED TO DETERMINE CONCRETE SEAL AND BACKFILL QUANTITIES. ACTUAL LAYOUT AND EXCAVATION LIMITS SHALL BE DETERMINED BY THE CONTRACTOR.

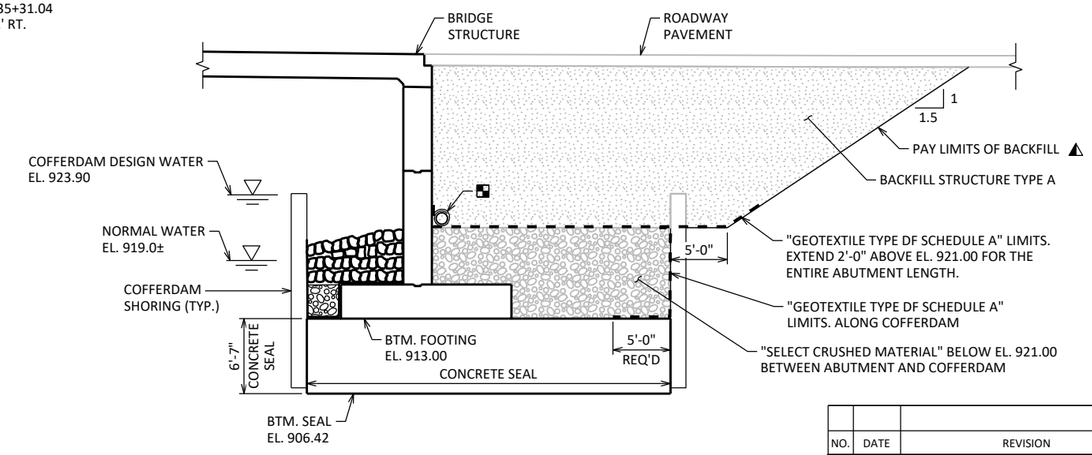
COFFERDAM CONCRETE SEAL THICKNESS SHOWN IS DESIGNED FOR A WATER ELEVATION AT OR BELOW EL. 923.90 (2-YEAR FREQUENCY HIGH WATER ELEVATION).

CONTRACTOR MAY PROPOSED ALTERNATE / REDUCED CONCRETE SEAL THICKNESSES / DESIGNS AT THEIR OWN RISK. A MINIMUM SEAL THICKNESS OF 2'-0" IS REQUIRED TO REACH THE DESIRED SUBSTRATUM BEARING MATERIAL AT EL. 911.00.



ABUTMENT BACKFILL DIAGRAM

L = OUT TO OUT OF ABUTMENT BODY INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT ABOVE EL. 921.00 (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(26.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)



TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL 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. MINIMUM INVERT ELEVATION 921.00.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

COFFERDAM & BACKFILL DETAILS

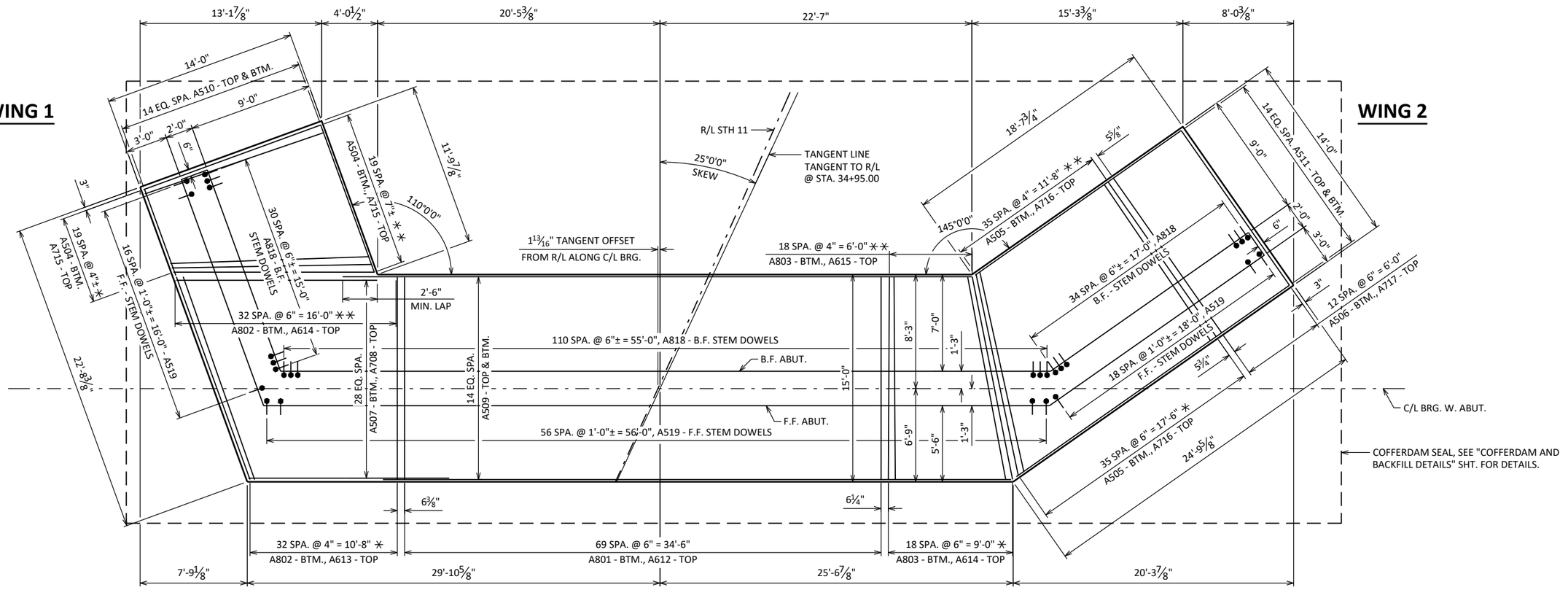
SHEET 4
167

8

8

STATE PROJECT NUMBER

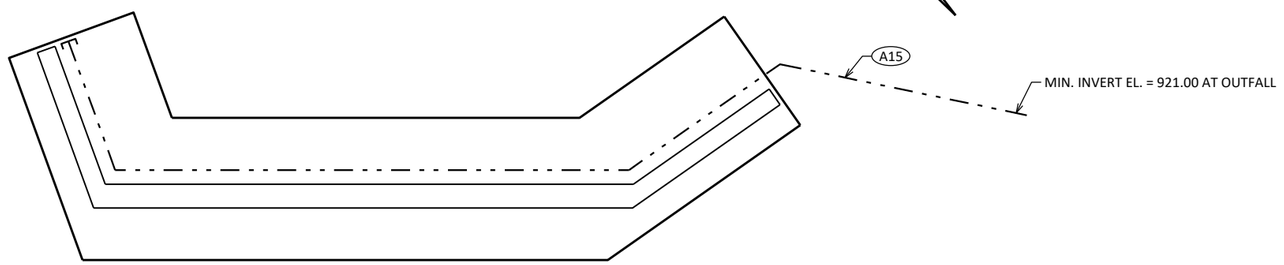
1706-03-80



WEST ABUTMENT - FOOTING PLAN

✳ FLARED BAR SPACING ALONG FRONT EDGE OF FOOTING

✳✳ FLARED BAR SPACING ALONG BACK EDGE OF FOOTING



PIPE UNDERDRAIN PLAN

FOUNDATION NOTE:
ABUTMENT WITH SPREAD FOOTING IS DESIGNED BASED ON THE USE OF A CONVENTIONAL COFFERDAM.
COFFERDAM CONCRETE SEAL TO BE FOUNDED ON DENSE GRAVEL / ROCK WITH A REQUIRED FACTORED BEARING RESISTANCE OF 10,000 PSF. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO POURING THE COFFERDAM SEAL.
SEE "COFFERDAM AND BACKFILL DETAILS" SHT. FOR ASSUMED COFFERDAM LAYOUT AND EXCAVATION EXTENTS.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

WEST ABUTMENT - 1

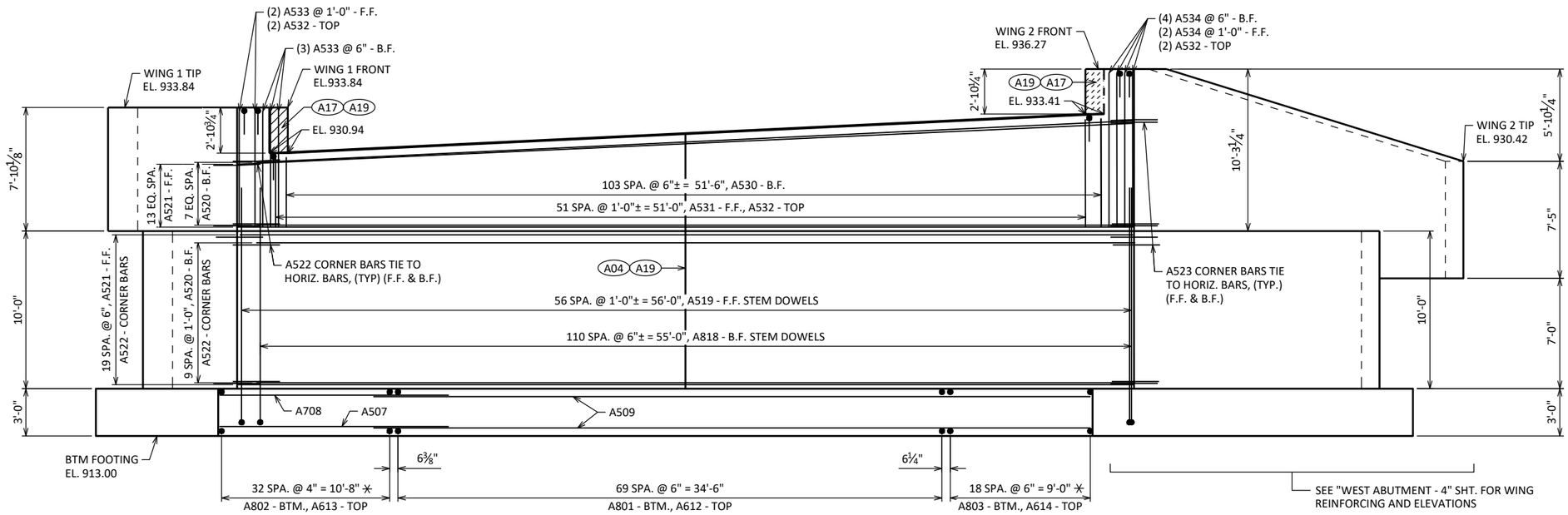
SHEET 5
168

8

8

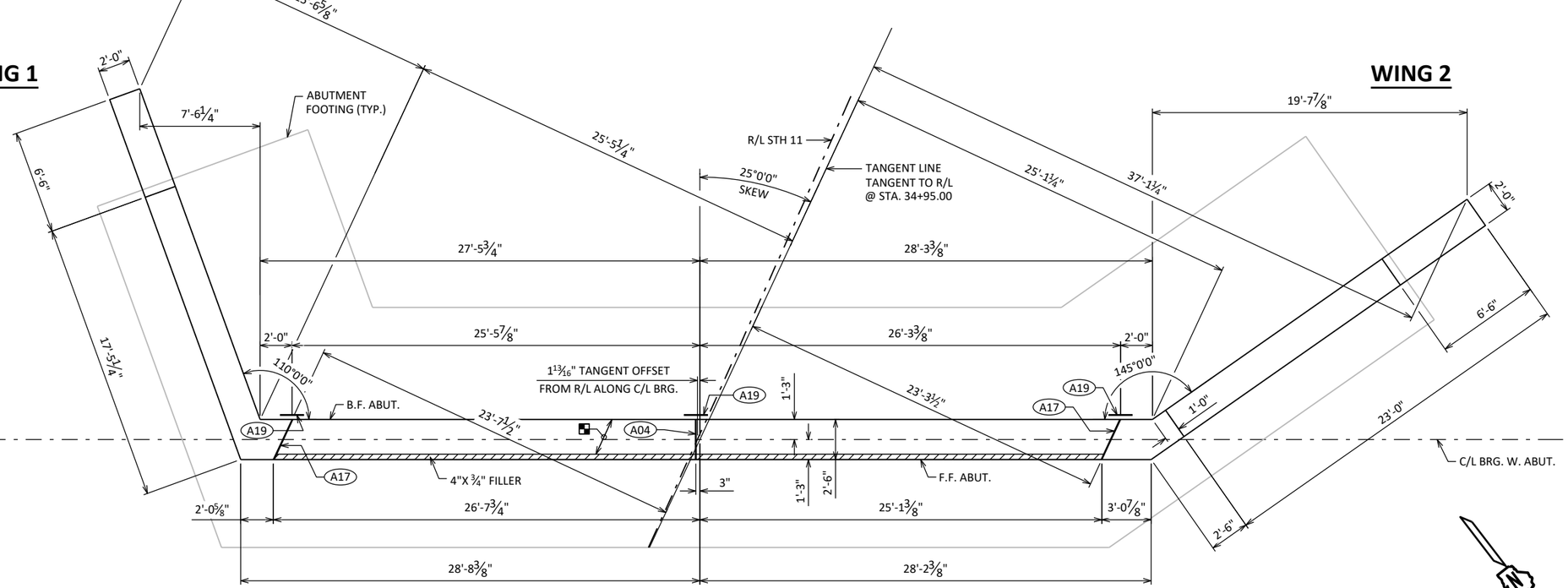
STATE PROJECT NUMBER

1706-03-80



WEST ABUTMENT - ELEVATION

⚹ FLARED BAR SPACING ALONG FRONT EDGE OF FOOTING



WEST ABUTMENT - PLAN

TOP OF ABUTMENT IN AREA OF SUPERSTRUCTURE SLAB SHALL BE LEVEL IN THE DIRECTION PARALLEL TO THE TANGENT LINE.

A04 VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.

A17 ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINT AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

WEST ABUTMENT - 2

SHEET 6
169

8

8

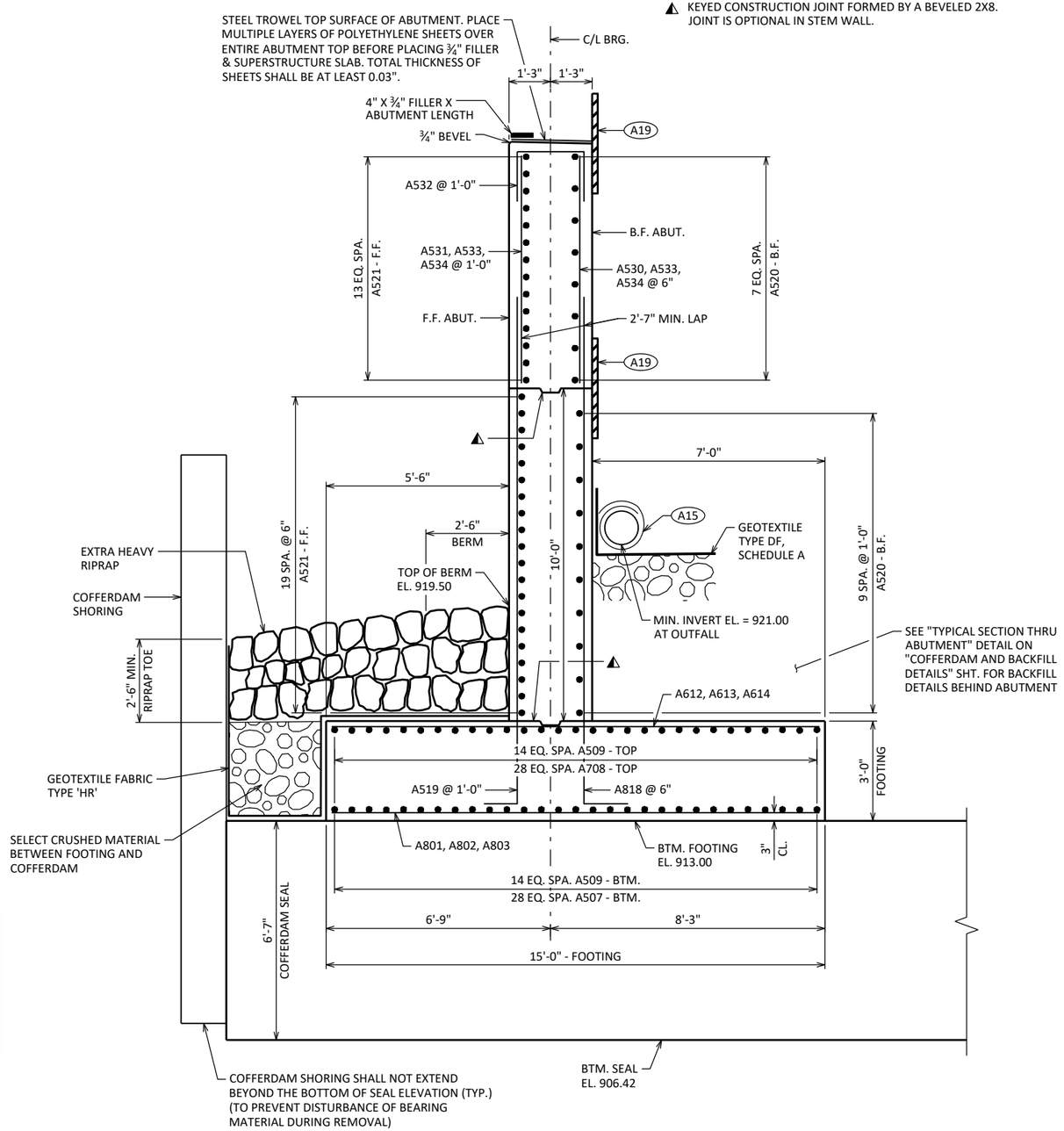
STATE PROJECT NUMBER

1706-03-80

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

⚠ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2X8. JOINT IS OPTIONAL IN STEM WALL.

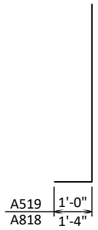


SECTION THRU WEST ABUTMENT

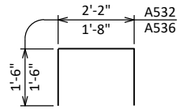
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
A802 & A613	1 SERIES OF 33	14'-8" TO 15'-7"
A803 & A614	1 SERIES OF 19	14'-8" TO 14'-11"
A504 & A715	1 SERIES OF 20	13'-8" TO 14'-5"
A505 & A716	1 SERIES OF 36	13'-8" TO 14'-9"
A510	2 SERIES OF 15	6'-7" TO 11'-4"
A511	2 SERIES OF 15	18'-3" TO 24'-2"
A530	1 SERIES OF 104	4'-6" TO 6'-11"
A531	1 SERIES OF 52	4'-6" TO 6'-11"
A541	1 SERIES OF 35	5'-7" TO 9'-10"
A542	1 SERIES OF 19	5'-7" TO 9'-10"
A543	2 SERIES OF 7	7'-1" TO 8'-7"
A544	1 SERIES OF 3	12'-2" TO 19'-11"
A545	1 SERIES OF 6	13'-8" TO 24'-1"
A546	1 SERIES OF 3	3'-5" TO 11'-3"
A547	1 SERIES OF 3	5'-5" TO 13'-3"

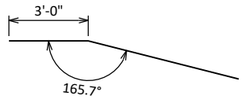
BUNDLE AND TAG EACH SERIES SEPARATELY



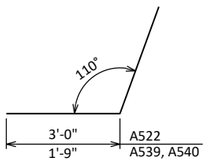
A818, A519



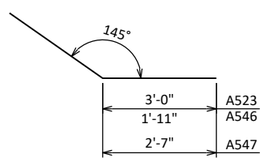
A532, A536



A548



A522, A539, A540



A523, A546, A547

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A801		70	14'-8"			FOOTING - TRANS. - BTM.
A802		33	15'-2"		◒	FOOTING - TRANS. - BTM.
A803		19	14'-9"		◒	FOOTING - TRANS. - BTM.
A504		20	14'-1"		◒	FOOTING - TRANS. - BTM. - WING 1
A505		36	14'-3"		◒	FOOTING - TRANS. - BTM. - WING 2
A506		13	13'-8"			FOOTING - TRANS. - BTM. - WING 2
A507		29	14'-6"			FOOTING - LONG. - BTM.
A708		29	14'-6"			FOOTING - LONG. - TOP
A509		15	45'-7"			FOOTING - LONG. - TOP & BTM.
A510		30	9'-0"		◒	FOOTING - LONG. - TOP & BTM. - WING 1
A511		30	21'-3"		◒	FOOTING - LONG. - TOP & BTM. - WING 2
A612		70	14'-8"			FOOTING - TRANS. - TOP
A613		33	15'-2"		◒	FOOTING - TRANS. - TOP
A614		19	14'-9"		◒	FOOTING - TRANS. - TOP
A715		20	14'-1"		◒	FOOTING - TRANS. - TOP - WING 1
A716		36	14'-3"		◒	FOOTING - TRANS. - TOP - WING 2
A717		13	13'-8"			FOOTING - TRANS. - TOP - WING 2
A818	X	177	16'-6"	X		STEM - VERT. DOWELS - B.F.
A519	X	93	16'-3"	X		STEM - VERT. DOWELS - F.F.
A520	X	18	55'-9"			STEM - LONG. - B.F.
A521	X	34	56'-6"			STEM - LONG. - F.F.
A522	X	52	5'-11"	X		LONG. - CORNER BARS - WING 1
A523	X	52	6'-0"	X		LONG. - CORNER BARS - WING 2
A524	X	10	15'-4"			LONG. - WING 1 - LOWER - B.F.
A525	X	20	17'-2"			LONG. - WING 1 - LOWER - F.F.
A526	X	7	17'-4"			LONG. - WING 2 - LOWER - B.F.
A527	X	14	18'-10"			LONG. - WING 2 - LOWER - F.F.
A528	X	8	23'-10"			LONG. - WING 2 - LOWER/UPPER - B.F.
A529	X	14	25'-4"			LONG. - WING 2 - LOWER/UPPER - F.F.
A530	X	104	5'-9"		◒	STEM - VERT. - UPPER - B.F.
A531	X	52	5'-9"		◒	STEM - VERT. - UPPER - F.F.
A532	X	56	4'-11"	X		STEM - VERT. - UPPER - TOP
A533	X	5	7'-5"			STEM - VERT. - UPPER - F.F. & B.F.
A534	X	6	9'-10"			STEM - VERT. - UPPER - F.F. & B.F.
A535	X	62	7'-5"			VERT. - WING 1 - UPPER - F.F. & B.F.
A536	X	50	4'-5"	X		VERT. - WINGS 1 & 2 - TOP
A537	X	8	21'-10"			LONG. - WING 1 - UPPER - B.F.
A538	X	14	23'-9"			LONG. - WING 1 - UPPER - F.F.
A539	X	3	23'-7"	X		LONG. - WING 1 - UPPER - B.F.
A540	X	3	24'-11"	X		LONG. - WING 1 - UPPER - F.F.
A541	X	35	7'-9"		◒	VERT. - WING 2 - UPPER - B.F.
A542	X	19	7'-9"		◒	VERT. - WING 2 - UPPER - F.F.
A543	X	14	7'-10"		◒	VERT. - WING 2 - UPPER - F.F. & B.F.
A544	X	3	16'-1"		◒	LONG. - WING 2 - UPPER - B.F.
A545	X	6	18'-11"		◒	LONG. - WING 2 - UPPER - F.F.
A546	X	3	7'-4"	X	◒	LONG. - WING 2 - UPPER - B.F.
A547	X	3	9'-4"	X	◒	LONG. - WING 2 - UPPER - F.F.
A548	X	2	25'-11"	X		LONG. - WING 2 - UPPER - TOP

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

WEST ABUTMENT - 3

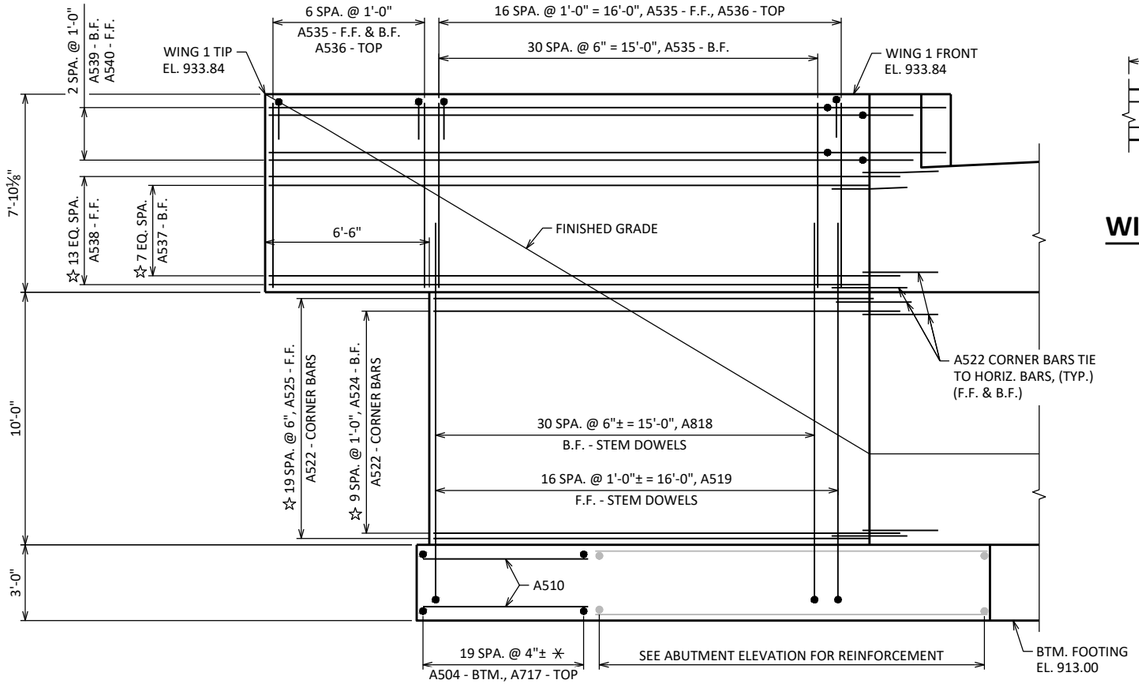
SHEET 7
170

8

8

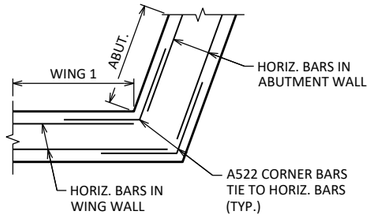
STATE PROJECT NUMBER

1706-03-80



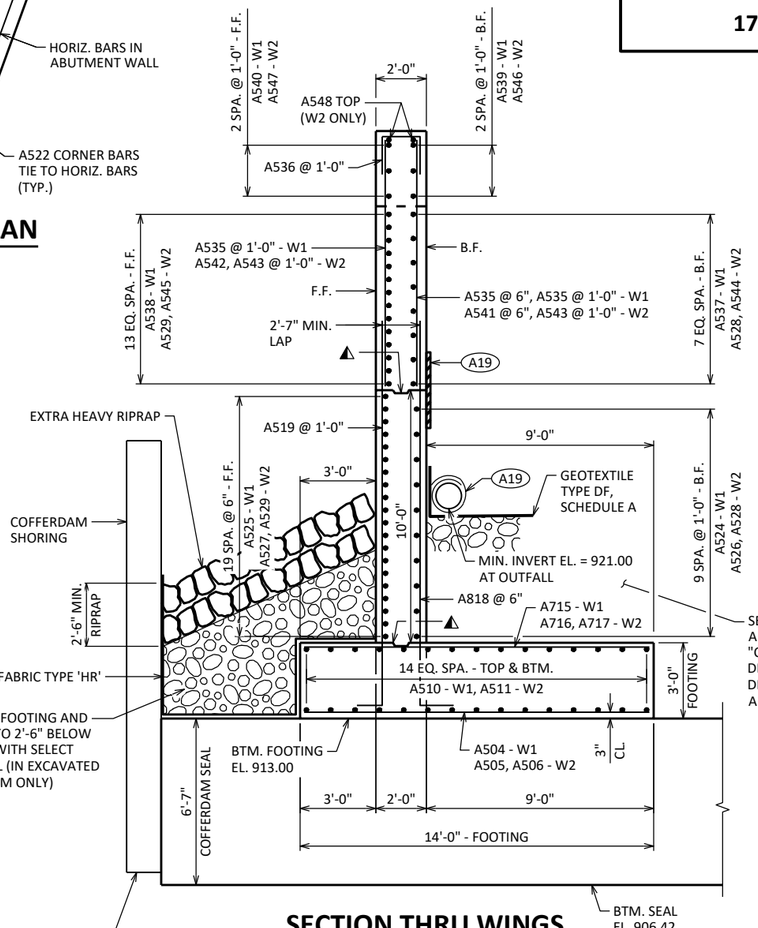
WING 1 (W1) ELEVATION

(LOOKING AT F.F.)



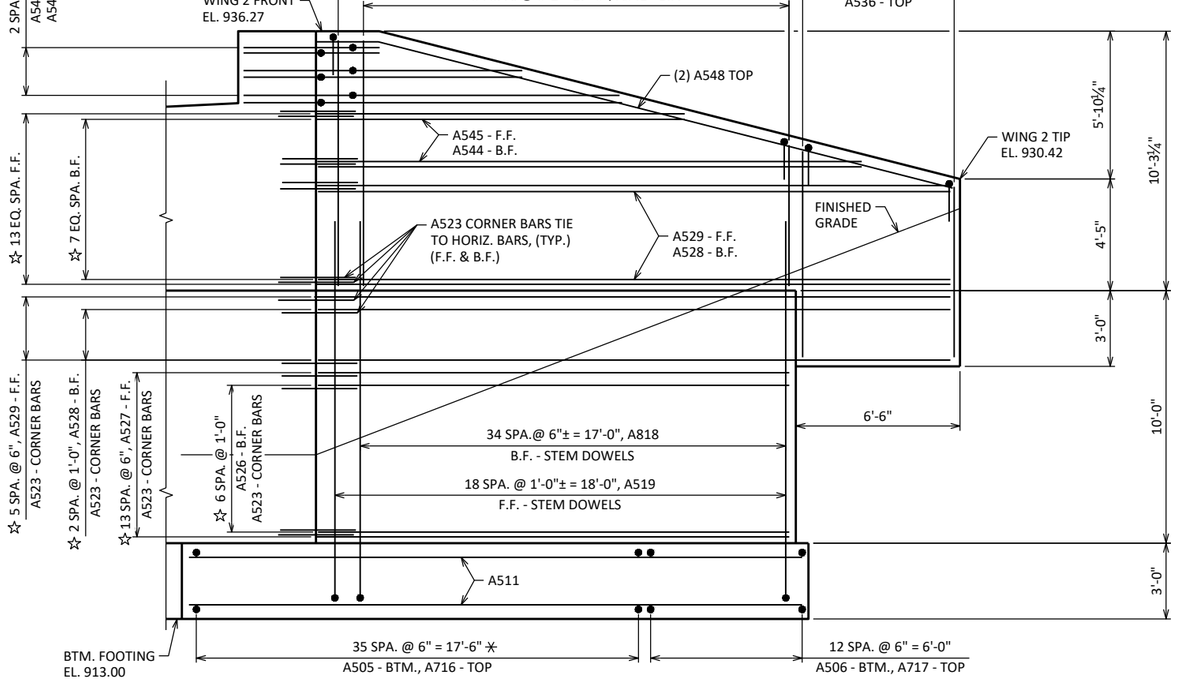
WING 1 - PART PLAN

(SHOWING CORNER BARS)



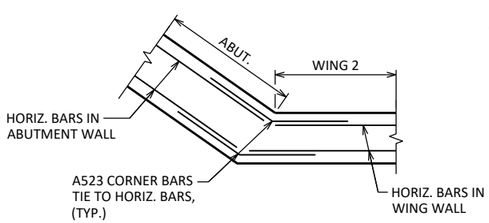
SECTION THRU WINGS

W1 = WING 1
W2 = WING 2



WING 2 (W2) ELEVATION

(LOOKING AT F.F.)



WING 2 - PART PLAN

(SHOWING CORNER BARS)

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

◭ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2X8. JOINT IS OPTIONAL IN STEM WALL.

☆ HORIZONTAL BARS ALONG FRONT AND BACK FACES OF WINGS TO ALIGN WITH HORIZONTAL BARS IN ABUTMENT AND BE JOINED USING CORNER BARS WHERE SHOWN.

⚹ FLARED BAR SPACING ALONG FRONT EDGE OF FOOTING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

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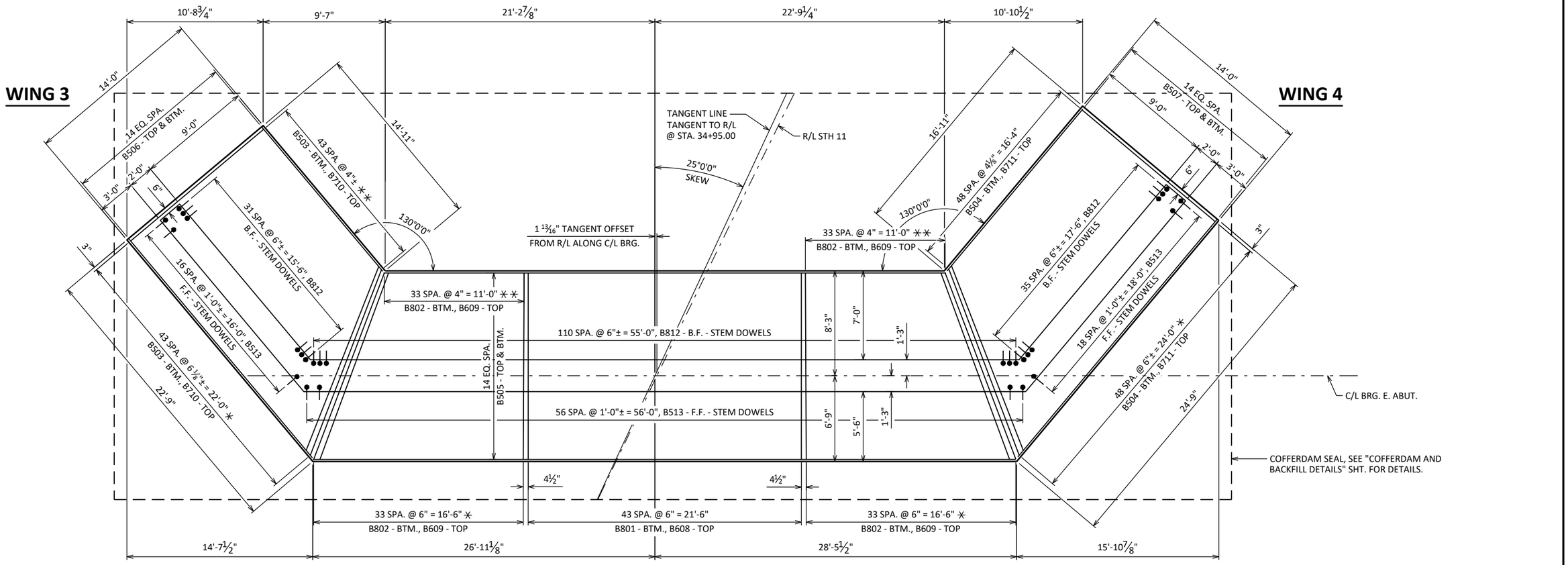
WEST ABUTMENT - 4

SHEET 8
171

8

8

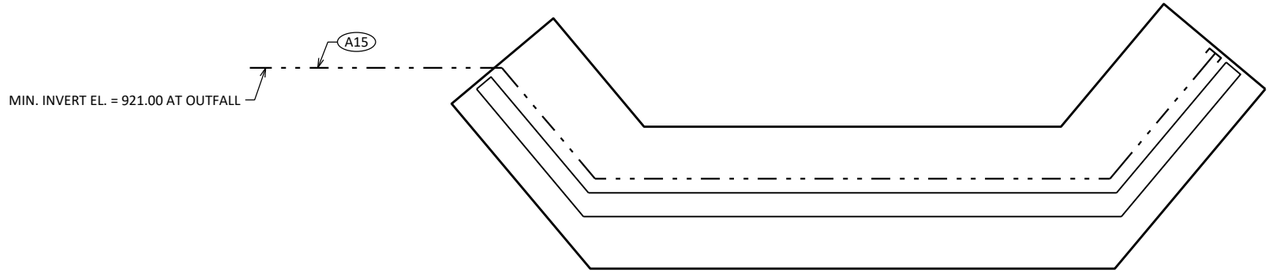
STATE PROJECT NUMBER
1706-03-80



EAST ABUTMENT - FOOTING PLAN

* FLARED BAR SPACING ALONG FRONT EDGE OF FOOTING

* * FLARED BAR SPACING ALONG BACK EDGE OF FOOTING



PIPE UNDERDRAIN PLAN

FOUNDATION NOTE:
ABUTMENT WITH SPREAD FOOTING IS DESIGNED BASED ON THE USE OF A CONVENTIONAL COFFERDAM.
COFFERDAM CONCRETE SEAL TO BE FOUNDED ON DENSE GRAVEL / ROCK WITH A REQUIRED FACTORED BEARING RESISTANCE OF 10,000 PSF. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO POURING THE COFFERDAM SEAL.
SEE "COFFERDAM AND BACKFILL DETAILS" SHT. FOR ASSUMED COFFERDAM LAYOUT AND EXCAVATION EXTENTS.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

NO.	DATE	REVISION	BY

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STRUCTURE B-33-137

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EAST ABUTMENT - 1

SHEET 9
172

8

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STATE PROJECT NUMBER

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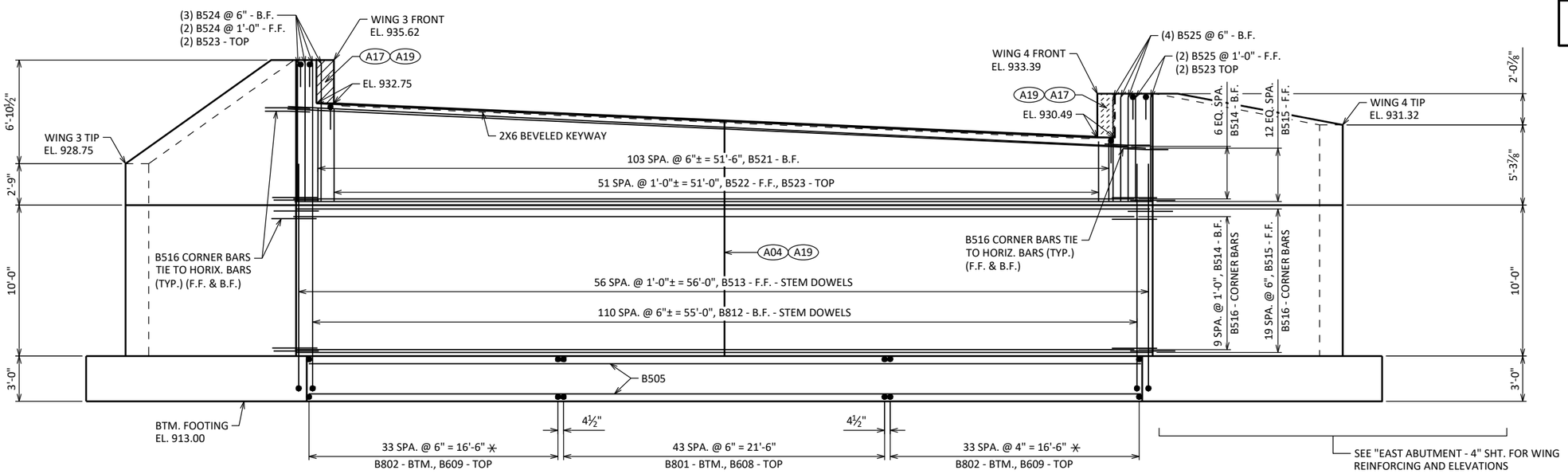
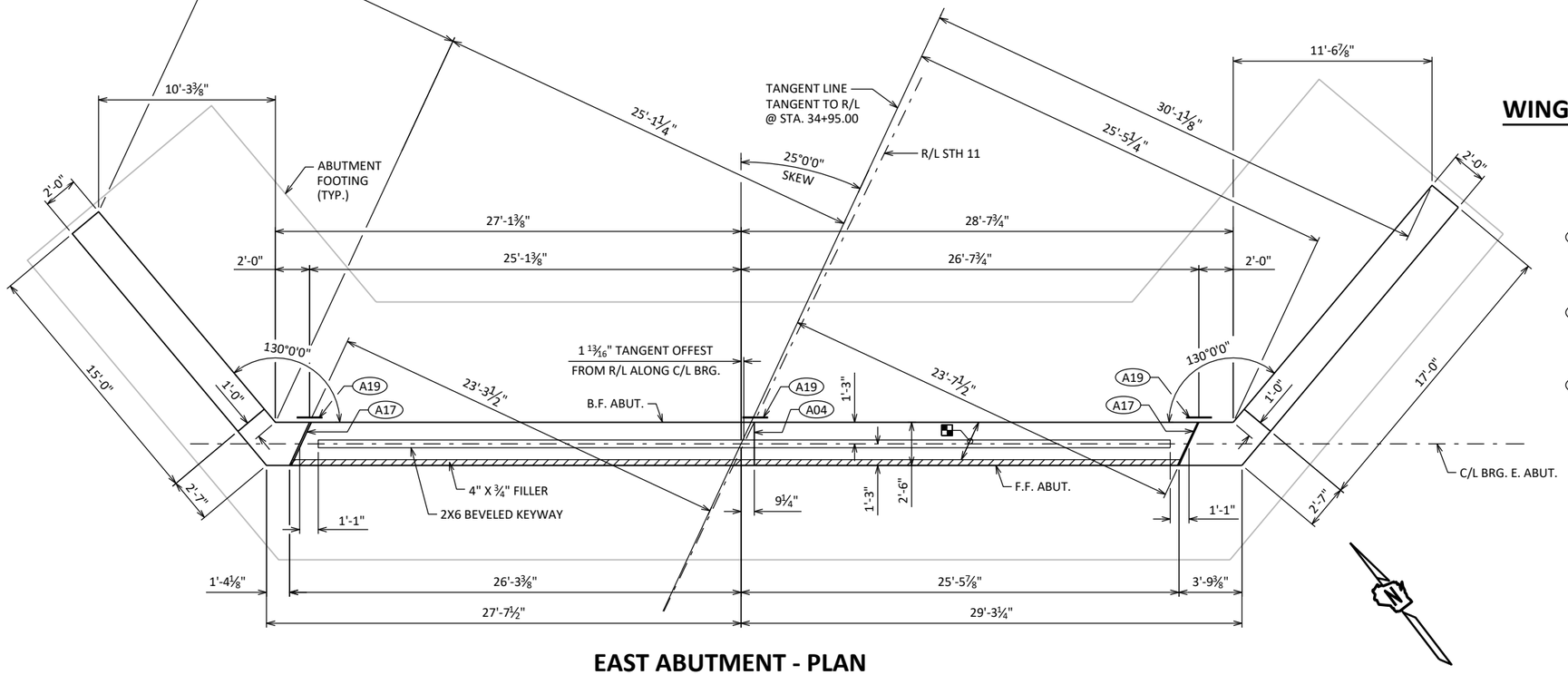


EAST ABUTMENT - ELEVATION

⚹ FLARED BAR SPACING ALONG FRONT EDGE OF FOOTING



EAST ABUTMENT - PLAN

▪ TOP OF ABUTMENT IN AREA OF SUPERSTRUCTURE SLAB SHALL BE LEVEL IN THE DIRECTION PARALLEL TO THE TANGENT LINE.

WING 3

WING 4

A04 VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.

A17 ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINT AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

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EAST ABUTMENT - 2

SHEET 10
173

8

8

STATE PROJECT NUMBER

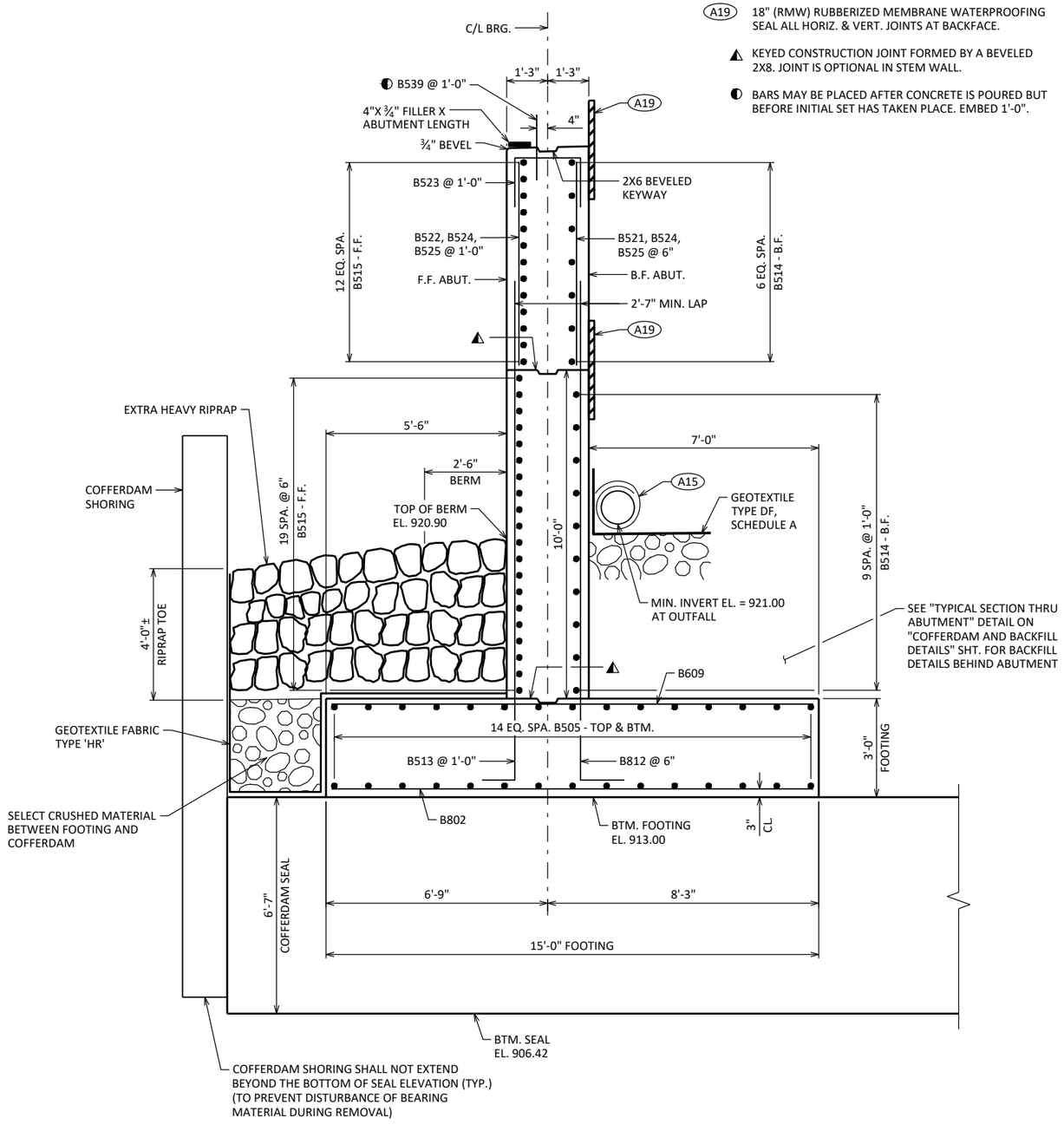
1706-03-80

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

⚠ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2X8. JOINT IS OPTIONAL IN STEM WALL.

◐ BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0".

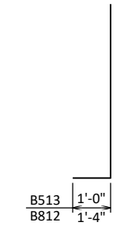


SECTION THRU EAST ABUTMENT

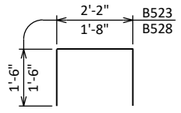
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

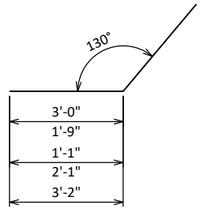
BAR MARK	NO. REQ'D	LENGTH
B802 & B609	2 SERIES OF 34	14'-8" TO 15'-7"
B503 & B710	1 SERIES OF 44	13'-8" TO 15'-7"
B504 & B711	1 SERIES OF 49	13'-8" TO 15'-7"
B505	2 SERIES OF 15	44'-3" TO 55'-2"
B506	2 SERIES OF 15	14'-8" TO 22'-4"
B507	2 SERIES OF 15	16'-8" TO 24'-4"
B521	1 SERIES OF 104	4'-2" TO 6'-5"
B522	1 SERIES OF 52	4'-2" TO 6'-5"
B526	1 SERIES OF 29	3'-0" TO 9'-3"
B527	1 SERIES OF 16	3'-0" TO 9'-3"
B529	1 SERIES OF 4	8'-7" TO 15'-5"
B530	1 SERIES OF 8	8'-7" TO 16'-8"
B531	1 SERIES OF 3	3'-0" TO 7'-4"
B532	1 SERIES OF 3	3'-8" TO 8'-0"
B534	1 SERIES OF 35	5'-0" TO 7'-0"
B535	1 SERIES OF 19	5'-0" TO 7'-0"
B536	1 SERIES OF 3	3'-11" TO 17'-10"
B537	1 SERIES OF 3	6'-3" TO 22'-4"



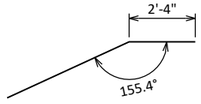
B812, B513



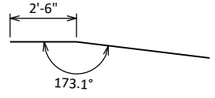
B523, B528



B516, B531, B532, B536, B537



B533



B538

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B801		44	14'-8"			FOOTING - TRANS. - BTM.
B802		68	15'-2"		◒	FOOTING - TRANS. - BTM.
B503		44	14'-8"		◒	FOOTING - TRANS. - BTM. - WING 3
B504		49	14'-8"		◒	FOOTING - TRANS. - BTM. - WING 4
B505		30	49'-9"		◒	FOOTING - LONG. - TOP & BTM.
B506		30	18'-6"		◒	FOOTING - LONG. - TOP & BTM. - WING 3
B507		30	20'-6"		◒	FOOTING - LONG. - TOP & BTM. - WING 4
B608		44	14'-8"			FOOTING - TRANS. - TOP
B609		68	15'-2"		◒	FOOTING - TRANS. - TOP
B710		44	14'-8"		◒	FOOTING - TRANS. - TOP - WING 3
B711		49	14'-8"		◒	FOOTING - TRANS. - TOP - WING 4
B812	X	179	16'-6"	X		STEM - VERT. DOWELS - B.F.
B513	X	93	16'-3"	X		STEM - VERT. DOWELS - F.F.
B514	X	17	55'-10"			STEM - LONG. - B.F.
B515	X	33	56'-6"			STEM - LONG. - F.F.
B516	X	100	6'-0"	X		LONG. - CORNER BARS - WINGS 3 & 4
B517	X	13	15'-8"			LONG. - WING 3 - LOWER/UPPER - B.F.
B518	X	25	17'-4"			LONG. - WING 3 - LOWER/UPPER - F.F.
B519	X	17	17'-10"			LONG. - WING 4 - LOWER/UPPER - B.F.
B520	X	33	19'-4"			LONG. - WING 4 - LOWER/UPPER - F.F.
B521	X	104	5'-4"		◒	STEM - VERT. - UPPER - B.F.
B522	X	52	5'-4"		◒	STEM - VERT. - UPPER - F.F.
B523	X	56	4'-11"	X		STEM - VERT. - UPPER - TOP
B524	X	5	9'-3"			STEM - VERT. - UPPER - F.F. & B.F.
B525	X	6	7'-0"			STEM - VERT. - UPPER - F.F. & B.F.
B526	X	29	6'-2"		◒	VERT. - WING 3 - UPPER - B.F.
B527	X	16	6'-2"		◒	VERT. - WING 3 - UPPER - F.F.
B528	X	36	4'-5"	X		VERT. - WINGS 3 & 4 - TOP
B529	X	4	12'-0"		◒	LONG. - WING 3 - UPPER - B.F.
B530	X	8	12'-8"		◒	LONG. - WING 3 - UPPER - F.F.
B531	X	3	5'-2"	X	◒	LONG. - WING 3 - UPPER - B.F.
B532	X	3	5'-4"	X	◒	LONG. - WING 3 - UPPER - F.F.
B533	X	2	18'-9"	X		LONG. - WING 3 - UPPER - TOP
B534	X	35	6'-0"		◒	VERT. - WING 4 - UPPER - B.F.
B535	X	19	6'-0"		◒	VERT. - WING 4 - UPPER - F.F.
B536	X	3	10'-11"	X	◒	LONG. - WING 4 - UPPER - B.F.
B537	X	3	14'-4"	X	◒	LONG. - WING 4 - UPPER - F.F.
B538	X	2	19'-4"	X		LONG. - WING 4 - UPPER - TOP
B539	X	52	2'-0"			STEM VERT. DOWEL - TOP

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

EAST ABUTMENT - 3

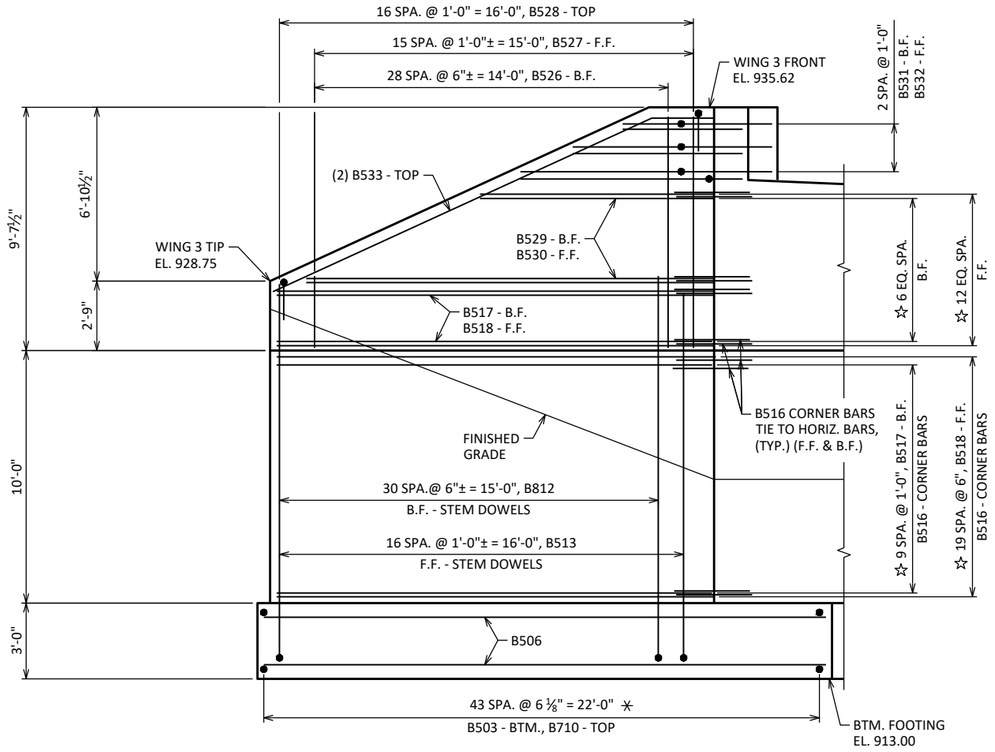
SHEET 11
174

8

8

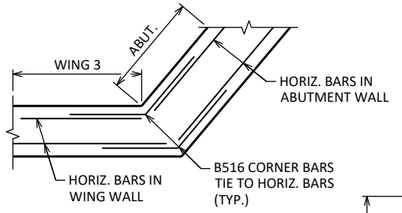
STATE PROJECT NUMBER

1706-03-80



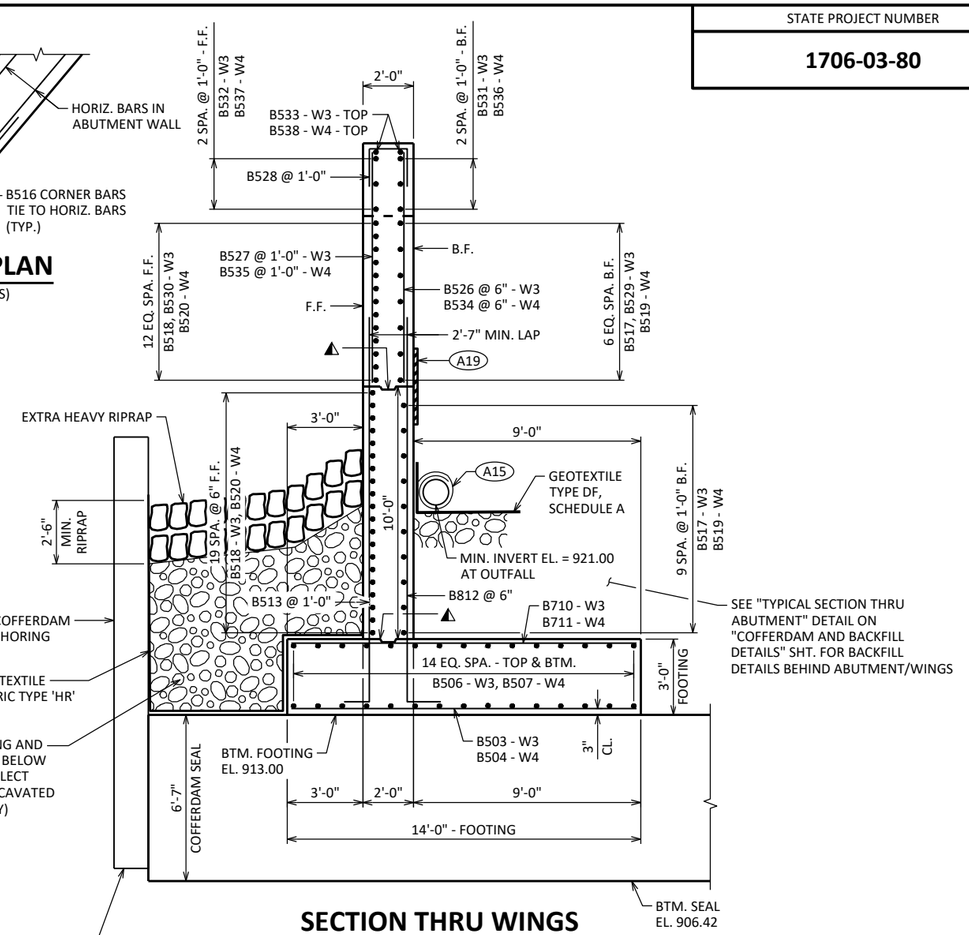
WING 3 (W3) ELEVATION

(LOOKING AT F.F.)



WING 3 - PART PLAN

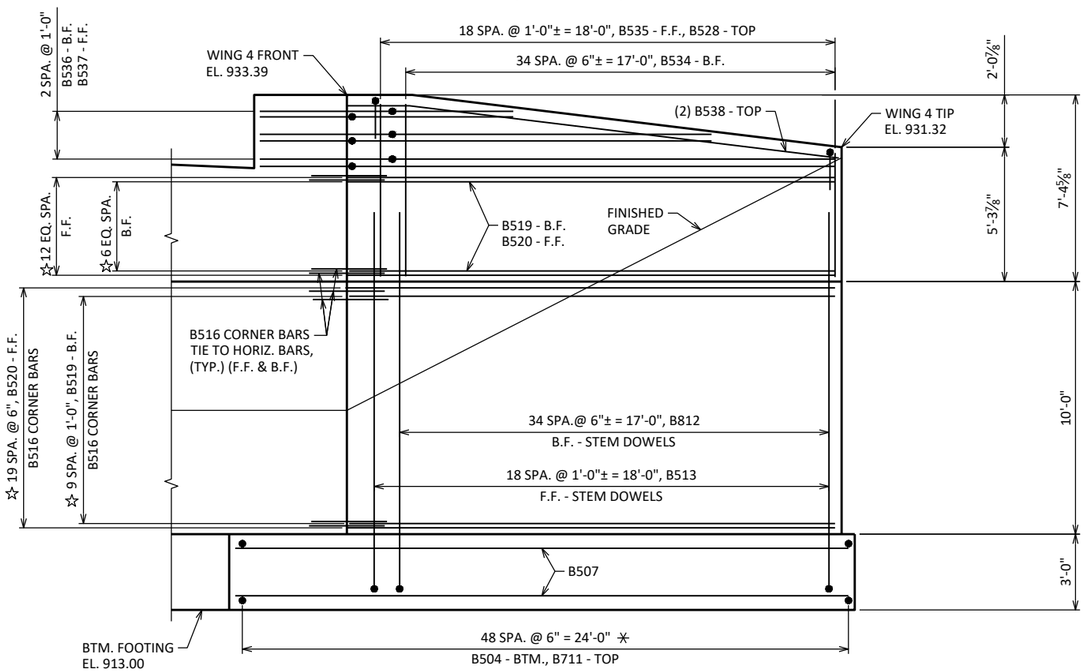
(SHOWING CORNER BARS)



SECTION THRU WINGS

W3 = WING 3
W4 = WING 4

COFFERDAM SHORING SHALL NOT EXTEND BEYOND THE BOTTOM OF SEAL ELEVATION (TYP.) (TO PREVENT DISTURBANCE OF BEARING MATERIAL DURING REMOVAL)



WING 4 (W4) ELEVATION

(LOOKING AT F.F.)

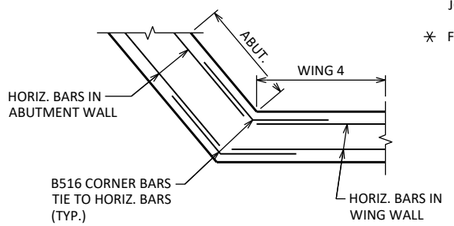
A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

◭ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2X8. JOINT IS OPTIONAL IN STEM WALL.

☆ HORIZONTAL BARS ALONG FRONT AND BACK FACES OF WINGS TO ALIGN WITH HORIZONTAL BARS IN ABUTMENT AND BE JOINED USING CORNER BARS WHERE SHOWN.

⚹ FLARED BAR SPACING ALONG FRONT EDGE OF FOOTING.



WING 4 - PART PLAN

(SHOWING CORNER BARS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

EAST ABUTMENT - 4

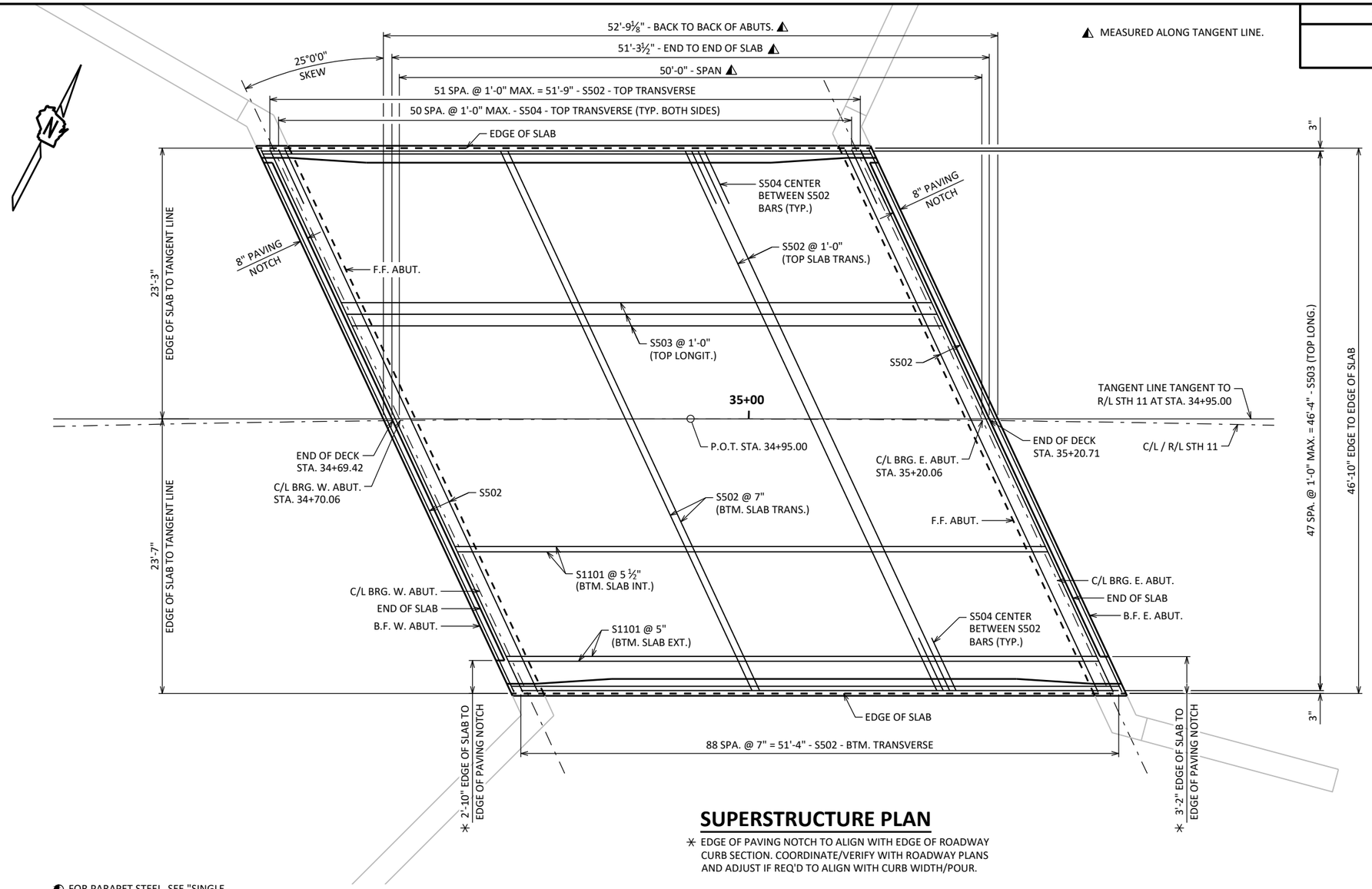
SHEET 12
175

8

8

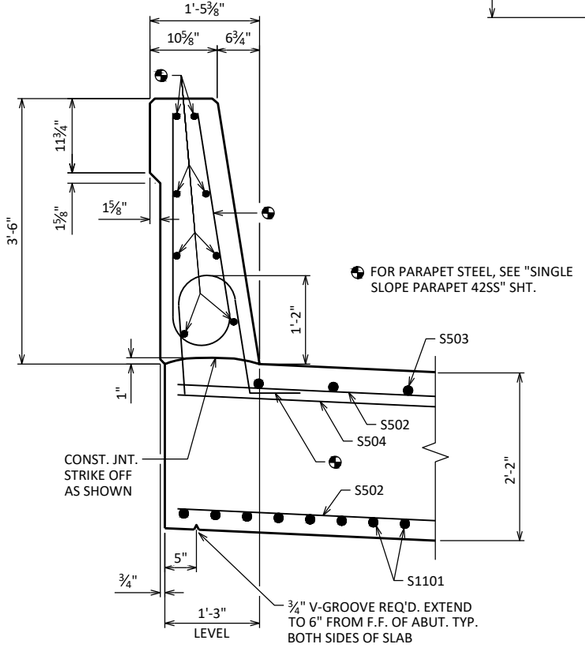
STATE PROJECT NUMBER

1706-03-80



SUPERSTRUCTURE PLAN

✳ EDGE OF PAVING NOTCH TO ALIGN WITH EDGE OF ROADWAY CURB SECTION. COORDINATE/VERIFY WITH ROADWAY PLANS AND ADJUST IF REQ'D TO ALIGN WITH CURB WIDTH/POUR.



SECTION THRU PARAPET ON BRIDGE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

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SUPERSTRUCTURE PLAN

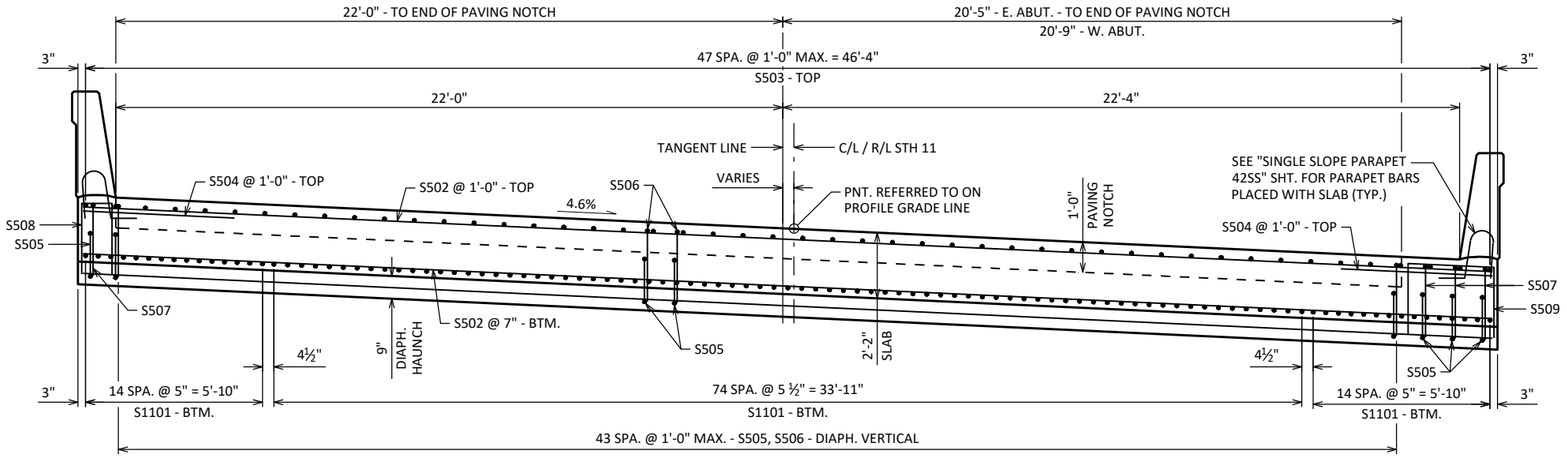
SHEET 13
176

8

8

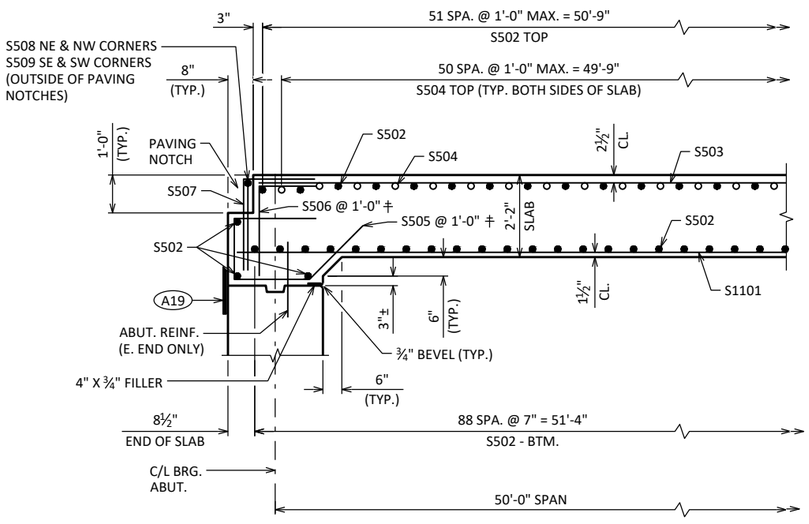
STATE PROJECT NUMBER

1706-03-80



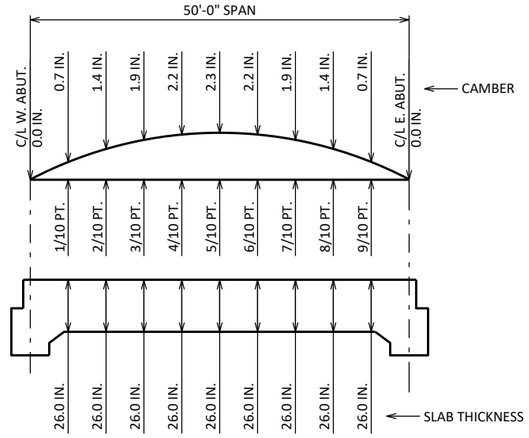
CROSS SECTION THRU SLAB

(LOOKING EAST)



LONGITUDINAL SECTION THRU ROADWAY

‡ BARS PLACED PARALLEL TO TANGENT LINE SPACING PERPENDICULAR TO TANGENT LINE.



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS.

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP.
CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PARAPETS SHOWN ABOVE THE HORIZ. CONST. JT. SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

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

	TOP OF DECK ELEVATION AT FINAL GRADE
LESS	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 ELEVATIONS ALONG GUTTER LINES AND CROWN OR C/L.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR C/L.

TOP OF DECK ELEVATIONS

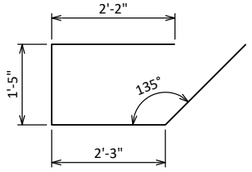
LOCATION	C/L BRG. W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. E. ABUT.
N. GUTTER	936.28	936.20	936.12	936.04	935.97	935.90	935.84	935.78	935.72	935.68	935.63
C/L / R/L STH 11	935.10	935.02	934.95	934.88	934.82	934.76	934.71	934.66	934.61	934.57	934.54
S. GUTTER	933.92	933.85	933.79	933.73	933.68	933.63	933.59	933.55	933.51	933.48	933.46

BILL OF BARS

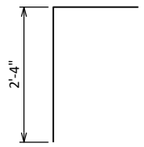
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S1101	X	105	52'-3"			SLAB - LONGIT. - BTM.
S502	X	147	51'-3"			SLAB - TRANS.
S503	X	48	50'-10"			SLAB - LONGIT. - TOP
S504	X	102	5'-0"			SLAB - TRANS. - EDGE OF SLAB - TOP
S505	X	96	7'-6"	X		SLAB - DIAPH. - VERT.
S506	X	88	3'-9"	X		SLAB - DIAPH. - VERT.
S507	X	8	4'-5"	X		SLAB - DIAPH. - VERT.
S508	X	2	5'-5"	X		SLAB - DIAPH. - NE & NW CORNERS
S509	X	2	7'-3"	X		SLAB - DIAPH. - SE & SW CORNERS

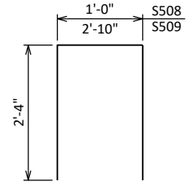
NOTE: SEE "SINGLE SLOPE PARAPET 42SS" SHT. FOR ADDITIONAL BAR STEEL AT PARAPETS.



S505



S506, S507



S508, S509

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. W. ABUT.	5/10 PT.	C/L BRG. E. ABUT.
N. GUTTER LINE			
C/L / R/L STH 11			
S. GUTTER LINE			

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

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 (+).

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

▲ CONST. JOINT KEYWAY FORMED BY A BEVELED 2"x6".

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

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SUPERSTRUCTURE DETAILS

SHEET 14
177

8

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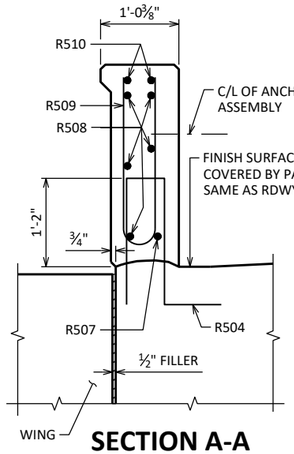
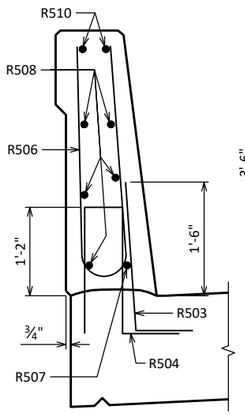
STATE PROJECT NUMBER

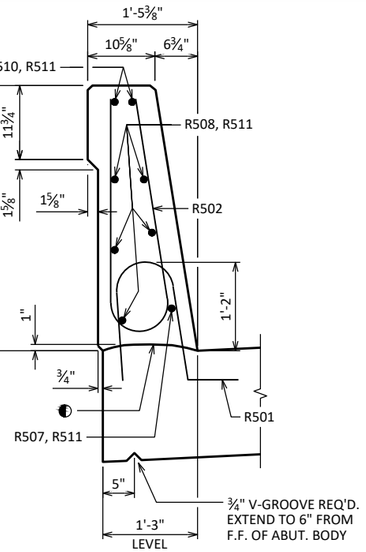
1706-03-80



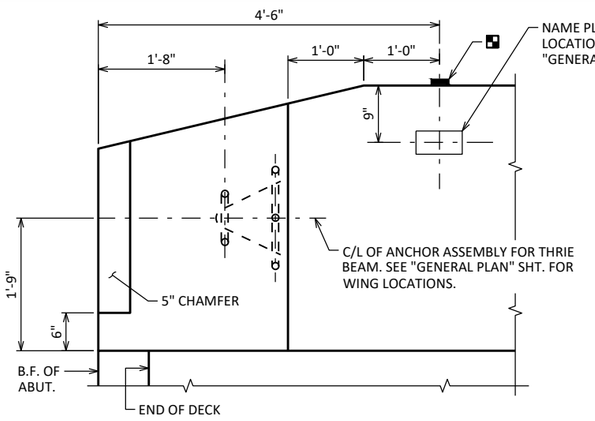
SECTION A-A



SECTION B-B



SECTION C-C



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

BILL OF BARS

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

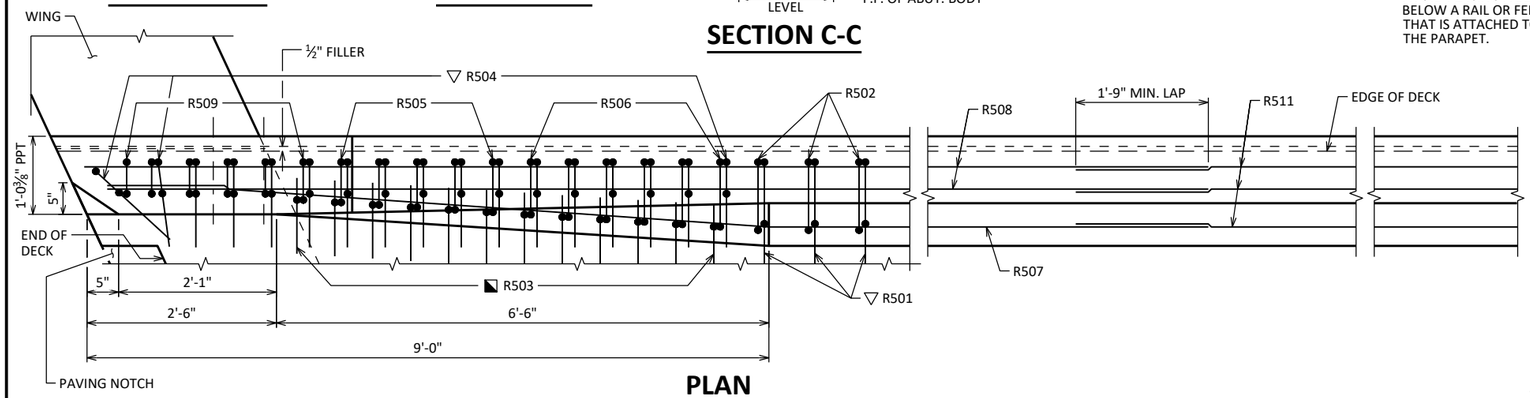
BAR MARK	COAT	N. PPT.	S. PPT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	53	53	4'-5"	X		PARAPET - VERT.
R502	X	53	53	6'-8"	X		PARAPET - VERT.
R503	X	24	24	2'-9"	X		PARAPET - VERT.
R504	X	34	34	4'-4"	X		PARAPET - VERT.
R505	X	10	10	6'-5"	X		PARAPET - VERT.
R506	X	12	12	6'-6"	X		PARAPET - VERT.
R507	X	2	2	13'-0"	X		PARAPET - HORIZ.
R508	X	10	10	13'-0"			PARAPET - HORIZ.
R509	X	12	12	5'-5"	X	⚠	PARAPET - VERT.
R510	X	4	4	13'-0"	X		PARAPET - HORIZ.
R511	X	8	8	30'-0"			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

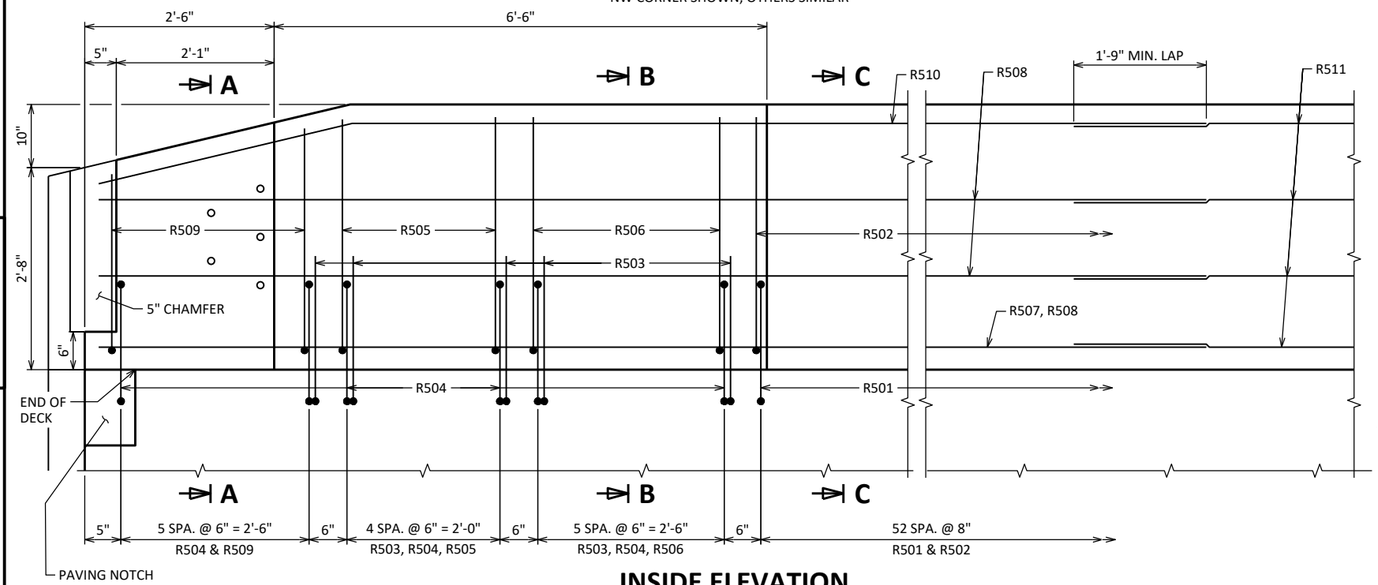
BUNDLE AND TAG EACH SERIES SEPARATELY.

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



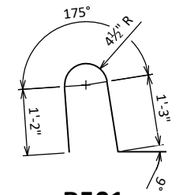
PLAN

NW CORNER SHOWN, OTHERS SIMILAR

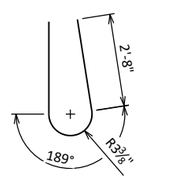


INSIDE ELEVATION

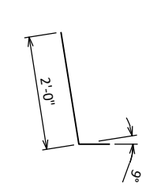
NW CORNER SHOWN, OTHERS SIMILAR



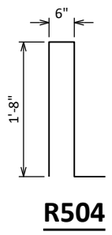
R501



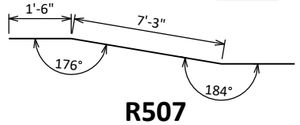
R502



R503



R504



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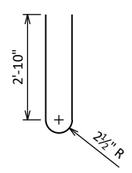
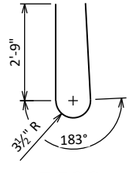
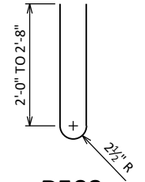


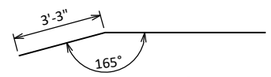
R505



R506

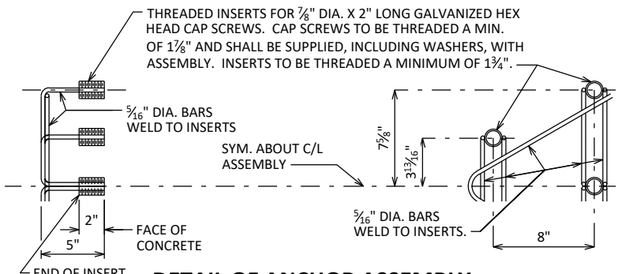


R509



R510

- CONST. JOINT - STRIKE OFF AS SHOWN
- USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- R501, R503, R504, AND R511 BARS TO BE TIED TO SUPERSTRUCTURE STEEL BEFORE SUPERSTRUCTURE IS POURED. SKEW END R504 BARS AS REQ'D TO AVOID PAVING NOTCH AS SHOWN.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

SINGLE SLOPE PARAPET 42SS

SHEET 15
178

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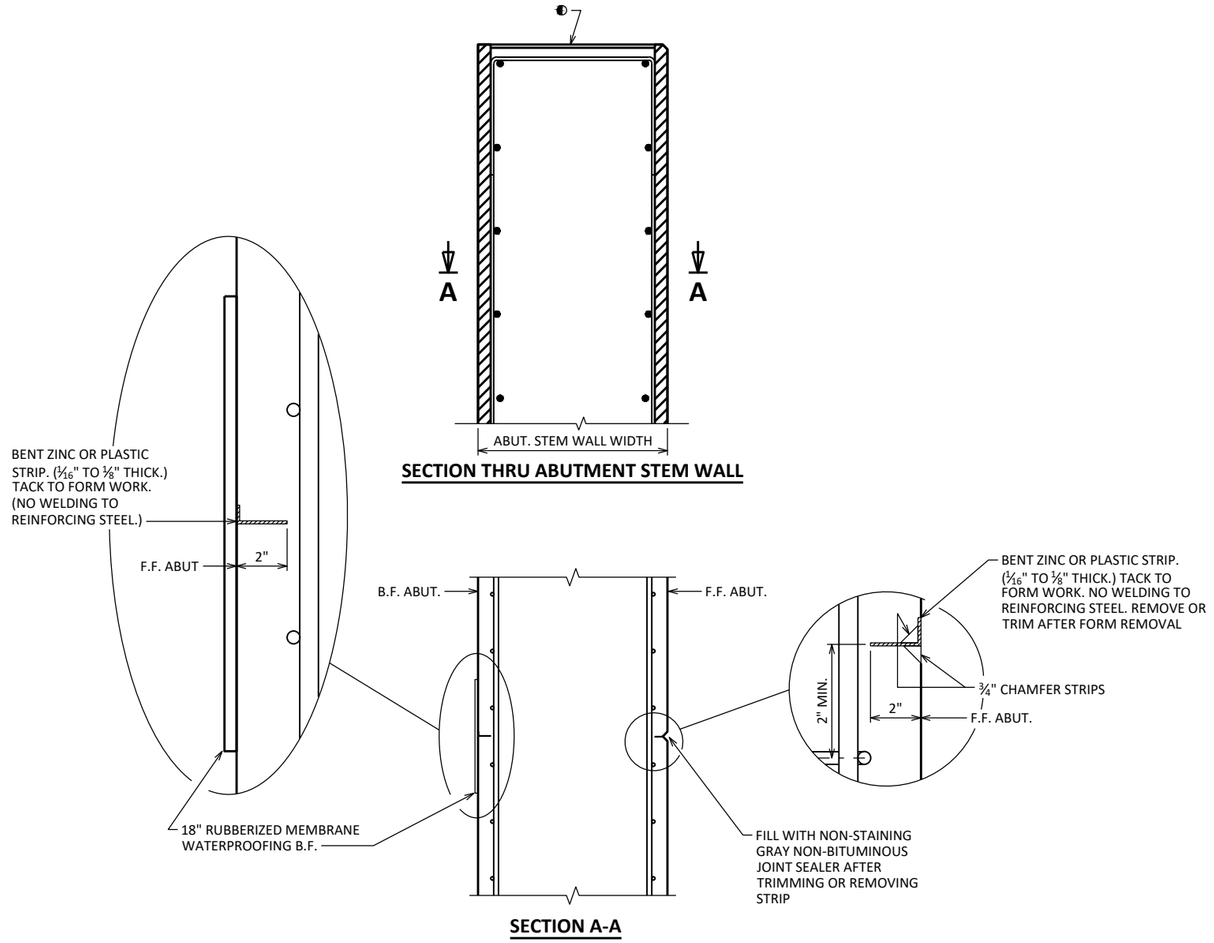
STATE PROJECT NUMBER
1706-03-80



SECTION THRU ABUTMENT STEM WALL

SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATIVE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CONSTRUCTION JOINTS ARE NOT REQUIRED IN THE ABUTMENT FOOTING.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

◐ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-137

DRAWN BY DTH | PLANS CK'D CAD

ALTERNATE CONSTRUCTION JOINT

SHEET 16

8

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DIVISION 1 - STH 11 CL B-33-0825

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.33	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
11+65.00	1165.00	0.00	23.61	0.00	0.84	0	0	0	0	0	0
11+80.00	1180.00	15.00	119.19	0.00	0.57	40	0	0	40	0	40
12+00.00	1200.00	20.00	117.69	0.00	0.00	88	0	0	128	0	128
12+61.98	1261.98	61.98	182.08	0.00	7.49	344	0	9	472	12	460
12+85.90	1285.90	23.92	54.48	0.00	15.30	105	0	10	577	25	552
13+00.00	1300.00	14.10	97.31	0.00	16.89	40	0	8	617	36	581
13+01.89	1301.89	1.89	40.66	0.00	17.75	5	0	1	622	37	585
13+10.88	1310.88	8.99	39.37	0.00	17.22	13	0	6	635	45	590
13+26.89	1326.89	16.01	37.52	0.00	16.47	23	0	10	658	59	599
13+35.88	1335.88	8.99	36.19	0.00	18.01	12	0	6	670	67	604
13+51.89	1351.89	16.01	35.07	0.00	24.51	21	0	13	691	84	607
14+00.00	1400.00	48.11	123.87	0.00	15.15	142	0	35	833	130	703
14+37.01	1437.01	37.01	124.96	22.50	46.96	171	31	43	1,004	188	785
15+00.00	1500.00	62.99	0.00	22.50	0.00	146	38	55	1,150	261	820
15+39.67	1539.67	39.67	1.09	0.00	49.52	1	0	36	1,151	309	773
15+60.84	1560.84	21.17	5.55	23.25	25.99	3	37	30	1,154	348	700
15+65.00	1565.00	4.16	6.76	23.25	0.00	1	4	2	1,155	351	694
15+70.00	1570.00	5.00	124.69	24.00	25.32	12	4	2	1,167	354	699
15+75.00	1575.00	5.00	127.16	25.50	25.20	23	5	5	1,190	360	711
15+80.00	1580.00	5.00	132.78	26.25	24.40	24	5	5	1,214	367	723
15+85.00	1585.00	5.00	141.06	27.00	23.21	25	5	4	1,239	372	738
15+90.00	1590.00	5.00	149.11	28.88	23.17	27	5	4	1,266	378	754
15+95.00	1595.00	5.00	126.79	27.00	22.57	26	5	4	1,292	383	770
16+00.00	1600.00	5.00	113.82	25.13	21.39	22	5	4	1,314	388	782
16+05.00	1605.00	5.00	57.38	0.00	22.71	16	0	4	1,330	394	792
16+10.00	1610.00	5.00	48.65	0.00	24.90	10	0	4	1,340	399	797
16+50.00	1650.00	40.00	16.21	0.00	51.79	48	0	57	1,388	475	769
17+00.00	1700.00	50.00	15.71	0.00	88.21	30	0	130	1,418	648	626
17+20.00	1720.00	20.00	16.97	0.00	82.06	12	0	63	1,430	732	555
17+45.00	1745.00	25.00	18.32	0.00	75.09	16	0	73	1,446	829	473
17+70.00	1770.00	25.00	19.34	0.00	51.04	17	0	58	1,463	906	413
18+00.00	1800.00	30.00	3.81	0.00	42.26	13	0	52	1,476	975	357
18+13.69	1813.69	13.69	11.01	0.00	0.00	4	0	11	1,480	990	346

DIVISION 1 - JOHNSON RD

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.33	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
2+19.28	219.28	0.00	0.00	0.00	0.00	0	0	0	0	0	0
2+20.00	220.00	0.72	6.07	0.00	0.00	0	0	0	0	0	0
2+25.00	225.00	5.00	5.91	0.00	0.00	1	0	0	1	0	1
2+30.00	230.00	5.00	5.60	0.00	0.00	1	0	0	2	0	2
2+35.00	235.00	5.00	6.10	0.00	0.00	1	0	0	3	0	3
2+40.00	240.00	5.00	5.99	0.00	0.00	1	0	0	4	0	4
2+45.00	245.00	5.00	6.17	0.00	0.00	1	0	0	5	0	5
2+50.00	250.00	5.00	6.77	0.00	0.00	1	0	0	6	0	6
2+55.00	255.00	5.00	7.14	0.00	0.00	1	0	0	7	0	7
2+60.00	260.00	5.00	3.67	0.00	0.00	1	0	0	8	0	8
2+65.00	265.00	5.00	0.00	0.00	0.00	0	0	0	8	0	8
2+70.00	270.00	5.00	0.00	0.00	0.00	0	0	0	8	0	8
2+75.00	275.00	5.00	0.00	0.00	0.00	0	0	0	8	0	8

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

9

9

PROJECT NO: 1706-03-80 | HWY: STH 11 | COUNTY: LAFAYETTE | EARTHWORK DATA: B-33-136 | SHEET 180 | E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 01

PLOT DATE : 6/21/2024 5:52 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1" = 1'

DIVISION - STH 11 CL B-33-0826 (1)

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
									1.00	1.33	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
32+66.76	3266.76	0.00	136.76	13.32	11.88	0	0	0	0	0	0
32+70.00	3270.00	3.24	136.84	13.32	12.52	16	2	1	16	1	13
32+95.06	3295.06	25.06	136.42	13.32	19.05	127	12	15	143	21	108
33+00.00	3300.00	4.94	137.27	13.32	22.89	25	2	4	168	27	125
33+20.29	3320.29	20.29	136.41	13.65	26.75	103	10	19	271	52	193
33+30.81	3330.81	10.52	110.78	13.99	44.94	48	5	14	319	70	218
33+35.00	3335.00	4.19	141.55	14.15	52.37	20	2	8	339	81	225
33+40.00	3340.00	5.00	143.46	14.15	55.06	26	3	10	365	94	235
33+45.00	3345.00	5.00	145.61	14.15	52.91	27	3	10	392	108	245
33+50.00	3350.00	5.00	148.60	14.15	53.16	27	3	10	419	121	256
33+55.00	3355.00	5.00	152.77	14.15	58.58	28	3	10	447	134	268
33+60.00	3360.00	5.00	160.41	14.15	0.00	29	3	5	476	141	287
33+65.00	3365.00	5.00	168.57	14.15	0.00	30	3	0	506	141	314
33+70.00	3370.00	5.00	174.96	14.15	0.01	32	3	0	538	141	343
33+75.00	3375.00	5.00	180.53	14.15	0.10	33	3	0	571	141	373
33+80.00	3380.00	5.00	183.71	14.15	0.12	34	3	0	605	141	404
33+85.00	3385.00	5.00	182.29	13.82	0.13	34	3	0	639	141	435
33+90.00	3390.00	5.00	172.45	13.82	0.15	33	3	0	672	141	465
33+95.00	3395.00	5.00	156.78	13.82	55.80	30	3	5	702	148	485
34+00.00	3400.00	5.00	145.11	13.82	61.57	28	3	11	730	162	496
34+05.00	3405.00	5.00	133.90	13.82	69.65	26	3	12	756	178	503
34+10.00	3410.00	5.00	121.66	13.65	80.18	24	3	14	780	197	505
34+15.00	3415.00	5.00	109.16	13.49	87.93	21	3	16	801	218	502
34+20.00	3420.00	5.00	97.60	13.32	90.51	19	2	17	820	241	496
34+25.00	3425.00	5.00	103.84	13.32	93.05	19	2	17	839	263	491
34+30.00	3430.00	5.00	110.21	13.15	96.69	20	2	18	859	287	485
34+35.00	3435.00	5.00	115.72	.13.15	104.69	21	2	19	880	313	478
34+40.00	3440.00	5.00	120.72	12.99	120.82	22	2	21	902	340	471
34+45.00	3445.00	5.00	126.65	12.99	139.23	23	2	24	925	372	460
34+50.00	3450.00	5.00	35.48	12.65	0.00	15	2	13	940	390	455
34+55.00	3455.00	5.00	11.39	28.50	0.00	4	4	0	944	390	455
34+60.00	3460.00	5.00	0.00	0.00	0.00	1	3	0	945	390	453
35+17.50	3517.50	57.50	0.03	0.00	99.98	0	0	106	945	531	312
35+28.00	3528.00	10.50	0.28	28.50	70.20	0	6	33	945	575	262
35+35.00	3535.00	7.00	2.64	28.50	24.13	0	7	12	945	591	239
35+43.00	3543.00	8.00	129.19	28.50	195.21	20	8	32	965	633	209
35+50.00	3550.00	7.00	130.83	12.65	155.82	34	5	46	999	694	177
35+59.00	3559.00	9.00	134.97	12.65	130.66	44	4	48	1,043	758	153
35+79.50	3579.50	20.50	130.17	12.65	80.64	101	10	80	1,144	865	138
35+90.00	3590.00	10.50	125.95	12.65	80.06	50	5	31	1,194	906	141
36+00.00	3600.00	10.00	127.01	12.65	73.94	47	5	29	1,241	944	145
36+10.00	3610.00	10.00	138.67	12.65	77.41	49	5	28	1,290	982	151
36+50.00	3650.00	40.00	136.58	10.99	78.06	204	18	115	1,494	1,134	185
36+59.06	3659.06	9.06	136.85	10.99	56.15	46	4	23	1,540	1,165	196
36+83.95	3683.95	24.89	139.16	10.99	13.13	127	10	32	1,667	1,208	270
37+08.90	3708.90	24.95	133.80	9.90	2.08	126	10	7	1,793	1,217	377
37+50.00	3750.00	41.10	137.29	9.90	0.01	206	15	2	1,999	1,220	565
38+00.00	3800.00	50.00	131.16	9.90	0.00	249	18	0	2,248	1,220	796
38+27.37	3827.37	27.37	126.81	9.90	0.00	131	10	0	2,379	1,220	917

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

9

9

PROJECT NO: 1706-03-80 | HWY: STH 11 | COUNTY: LAFAYETTE | EARTHWORK DATA: B-33-137 | SHEET 181 | E

DIVISION - LCL-JUDGEMENTST-ALT3

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.33	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
13+50.00	1350.00	0.00	113.62	13.16	1.80	0	0	0	0	0	0
13+84.50	1384.50	34.50	104.30	13.16	7.69	139	17	6	139	8	114
13+99.64	1399.64	15.14	98.63	13.16	27.51	57	7	10	196	21	151
14+00.00	1400.00	0.36	100.28	13.16	26.12	1	0	0	197	21	152
14+05.00	1405.00	5.00	98.38	13.16	32.14	18	2	5	215	28	161
14+10.00	1410.00	5.00	95.50	13.16	1.57	18	2	3	233	32	173
14+15.00	1415.00	5.00	92.32	13.16	2.45	17	2	0	250	32	188
14+20.00	1420.00	5.00	90.40	13.16	3.16	17	2	1	267	33	202
14+25.00	1425.00	5.00	94.39	13.16	3.67	17	2	1	284	35	215
14+30.00	1430.00	5.00	99.00	13.16	4.10	18	2	1	302	36	230
14+35.00	1435.00	5.00	103.34	13.49	66.81	19	2	7	321	45	238
14+40.00	1440.00	5.00	108.02	13.82	54.77	20	3	11	341	60	240
14+45.00	1445.00	5.00	114.92	14.16	33.74	21	3	8	362	70	248
14+50.00	1450.00	5.00	133.03	15.82	2.05	23	3	3	385	74	264
14+55.00	1455.00	5.00	144.94	17.82	0.32	26	3	0	411	74	287
14+60.00	1460.00	5.00	148.74	19.82	0.82	27	3	0	438	74	311
14+65.00	1465.00	5.00	146.54	21.81	0.79	27	4	0	465	74	334
14+70.00	1470.00	5.00	139.48	23.15	0.55	26	4	0	491	74	356
14+75.00	1475.00	5.00	138.22	25.14	0.53	26	4	0	517	74	378
14+80.00	1480.00	5.00	141.55	21.15	0.30	26	4	0	543	74	400
14+85.00	1485.00	5.00	118.53	17.82	0.00	24	4	0	567	74	420
14+90.00	1490.00	5.00	48.52	14.49	0.00	15	3	0	582	74	432
14+93.53	1493.53	3.53	0.06	10.16	0.00	3	2	0	585	74	433

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

9

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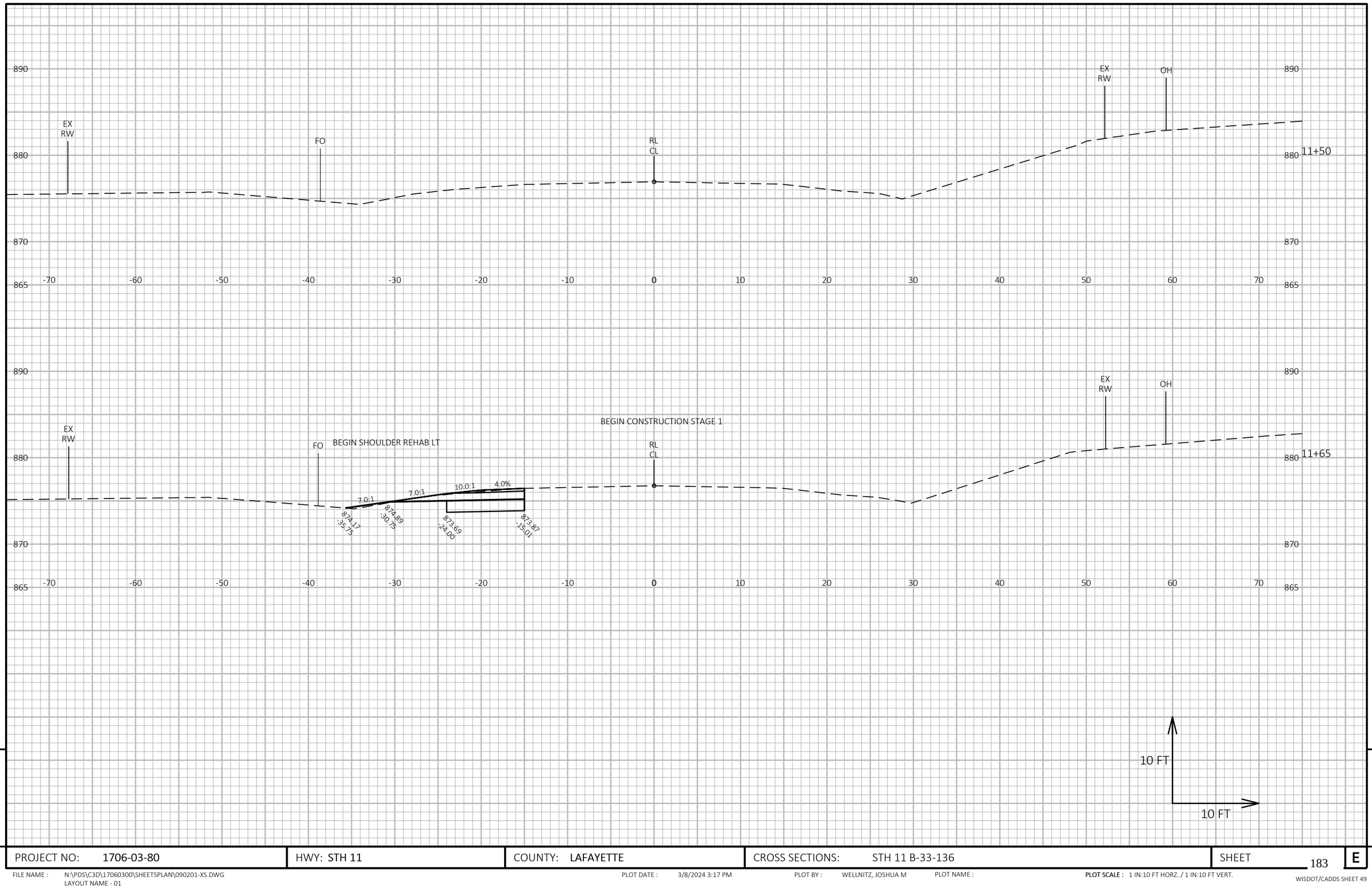
PROJECT NO: 1706-03-80 | HWY: STH 11 | COUNTY: LAFAYETTE | EARTHWORK DATA: JUDGEMENT ST | SHEET 182 | E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 03

PLOT DATE : 6/21/2024 5:52 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49



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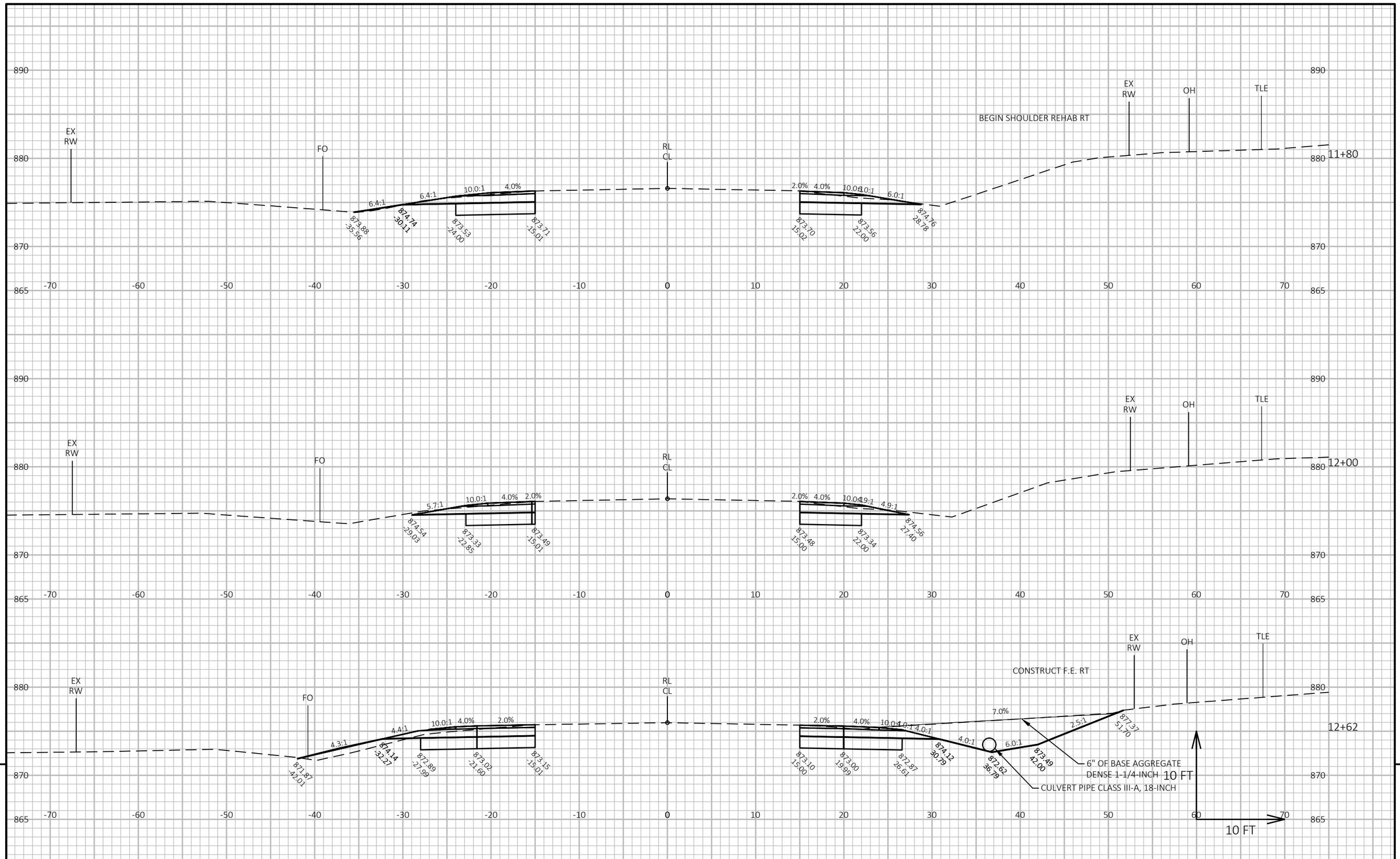
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 183	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 3/8/2024 3:17 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 184	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

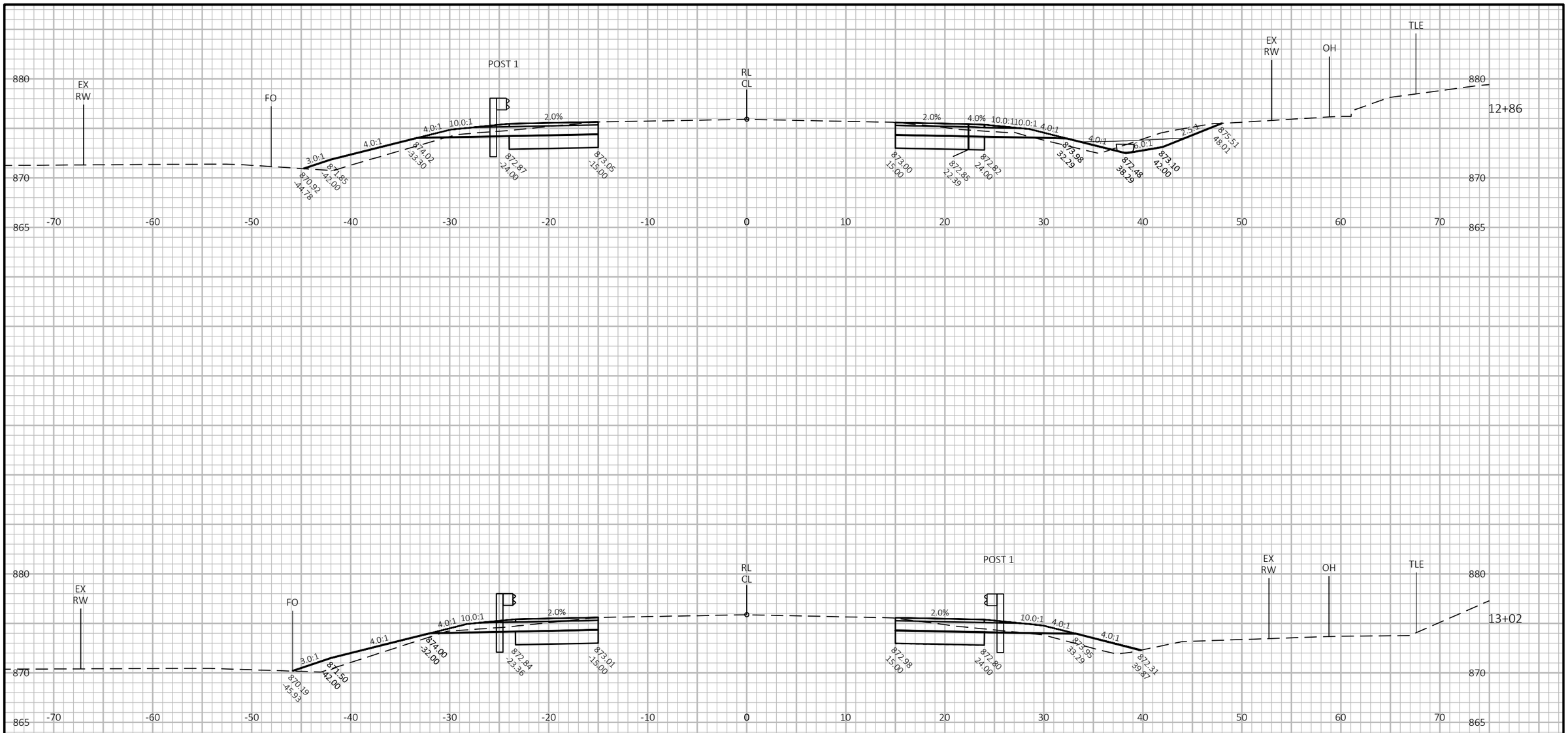
PLOT DATE : 3/8/2024 3:17 PM

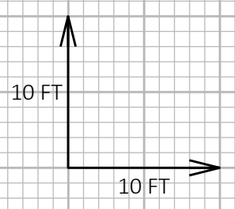
PLOT BY : WELLNITZ, JOSHUA M

PLOT NAME :

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

WISDOT/CADDS SHEET 49





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PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 185	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

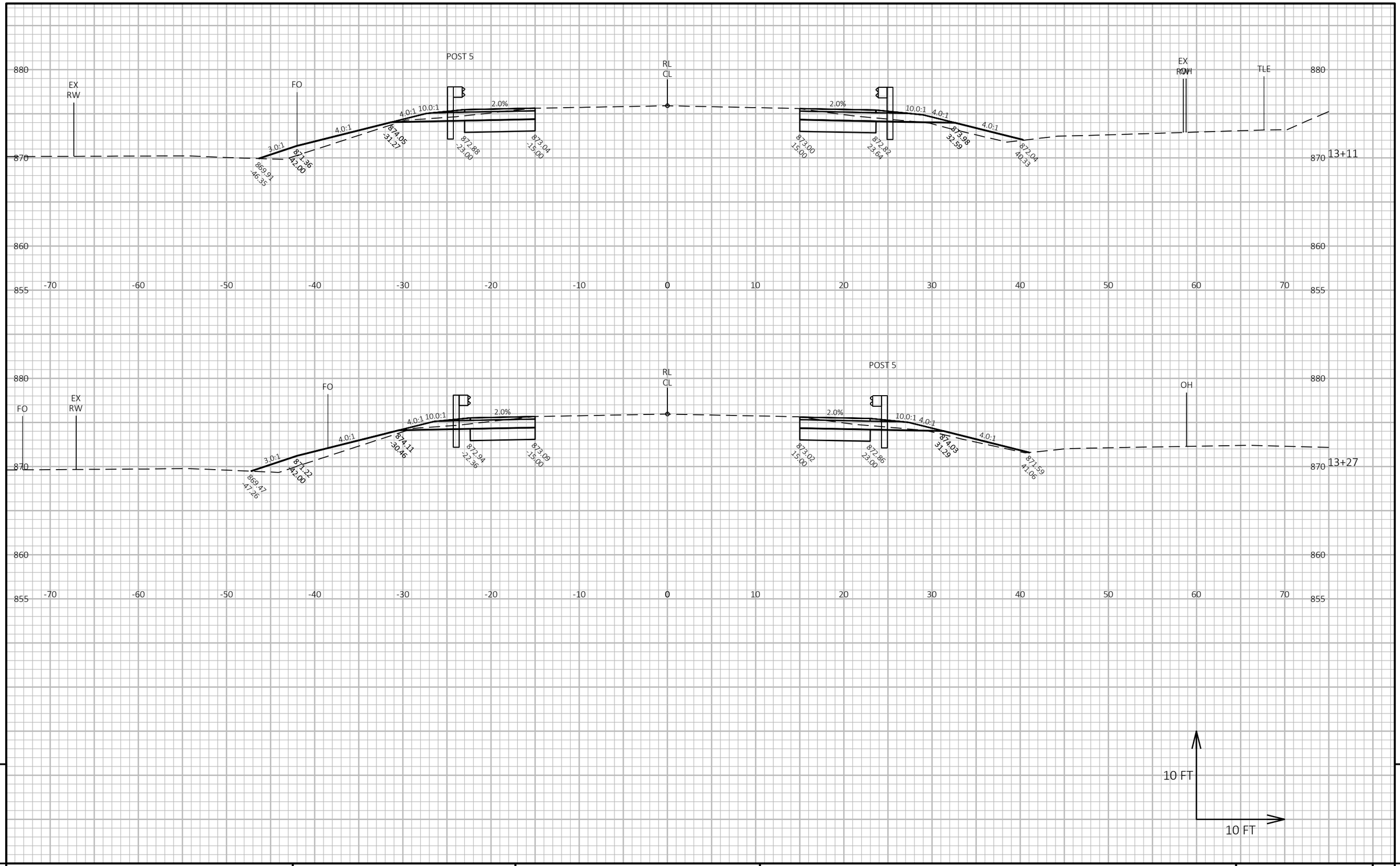
PLOT DATE : 3/8/2024 3:17 PM

PLOT BY : WELLNITZ, JOSHUA M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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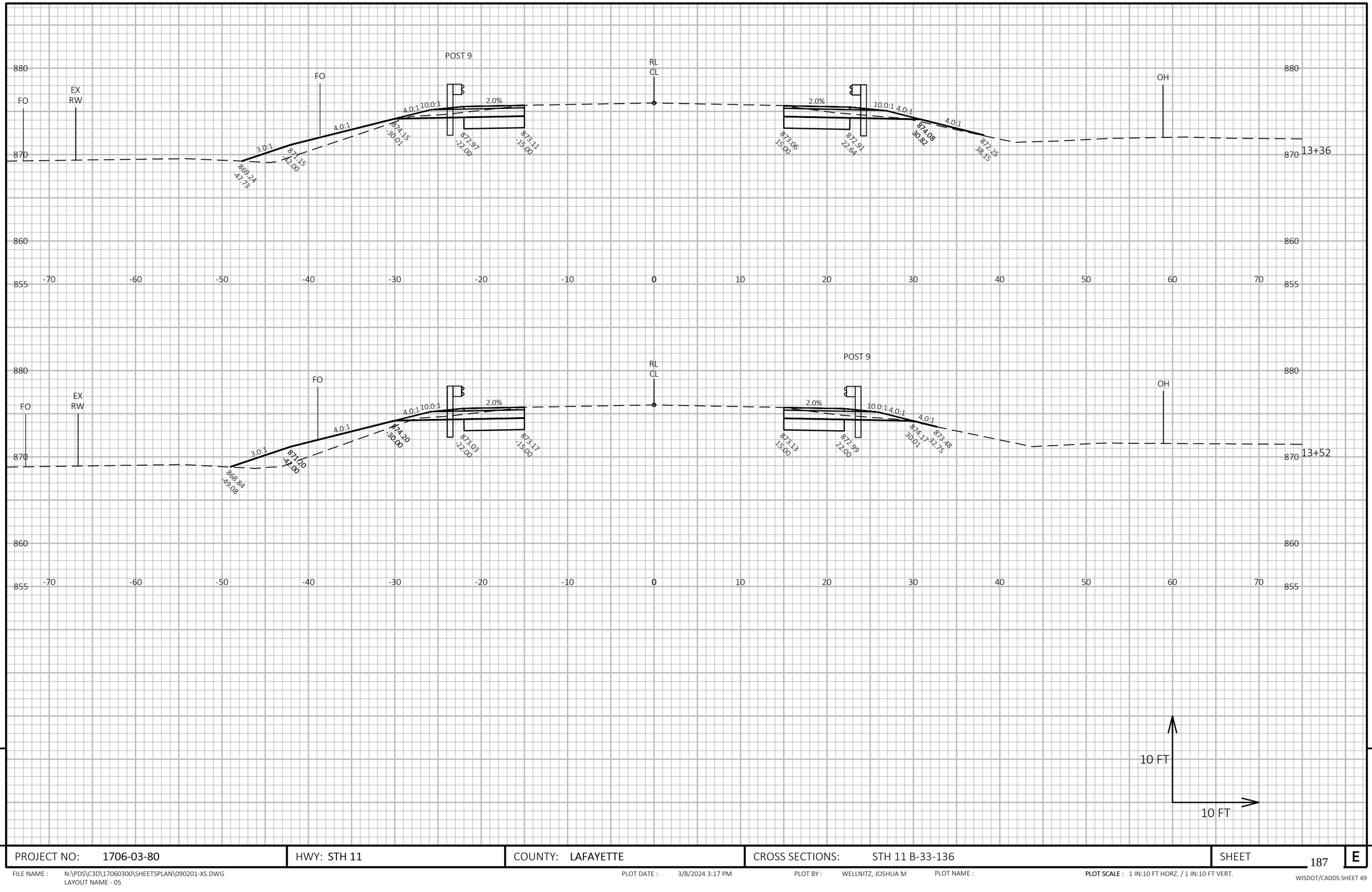
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 186	E



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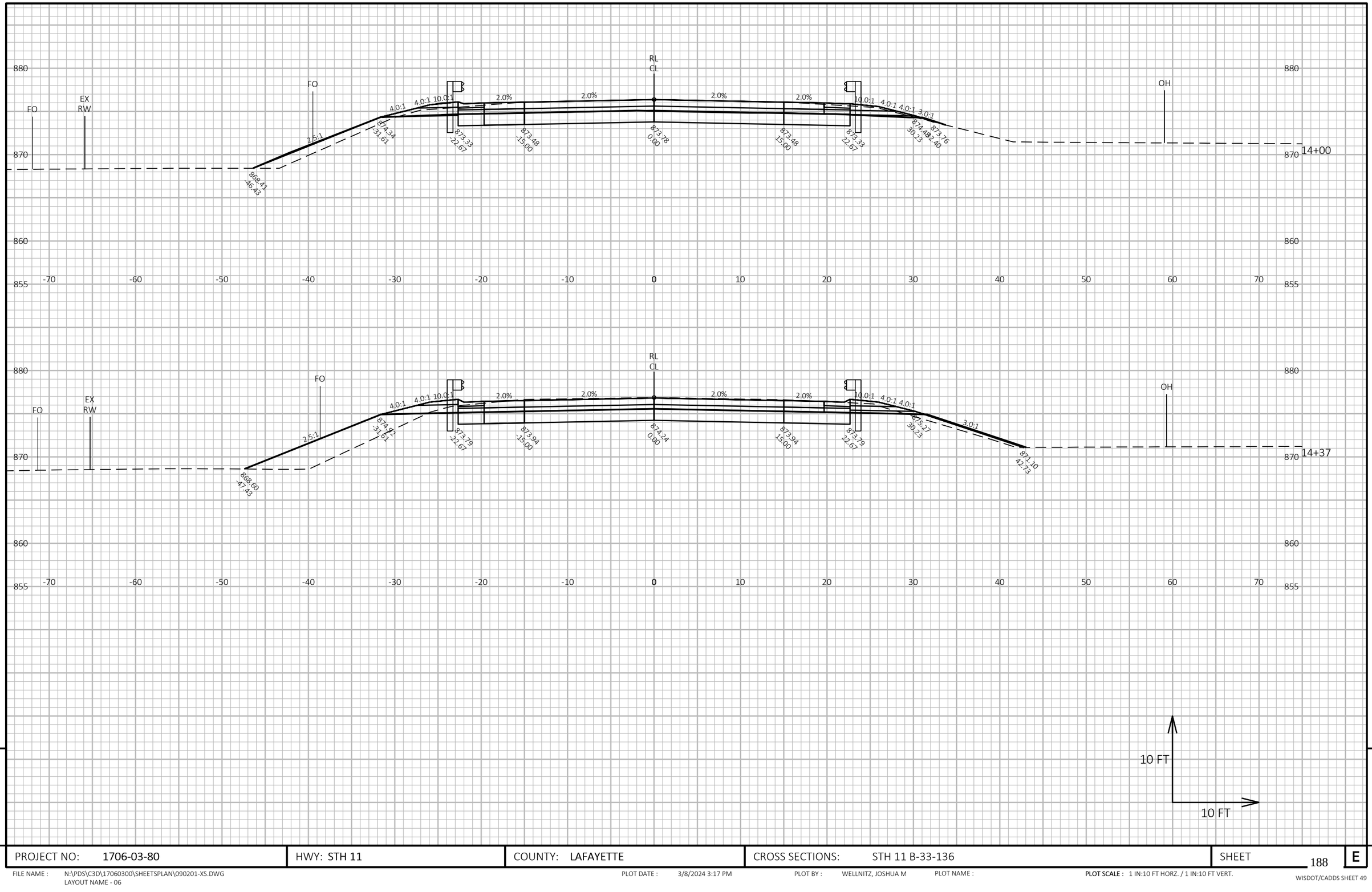
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 187	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 3/8/2024 3:17 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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



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PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 188	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

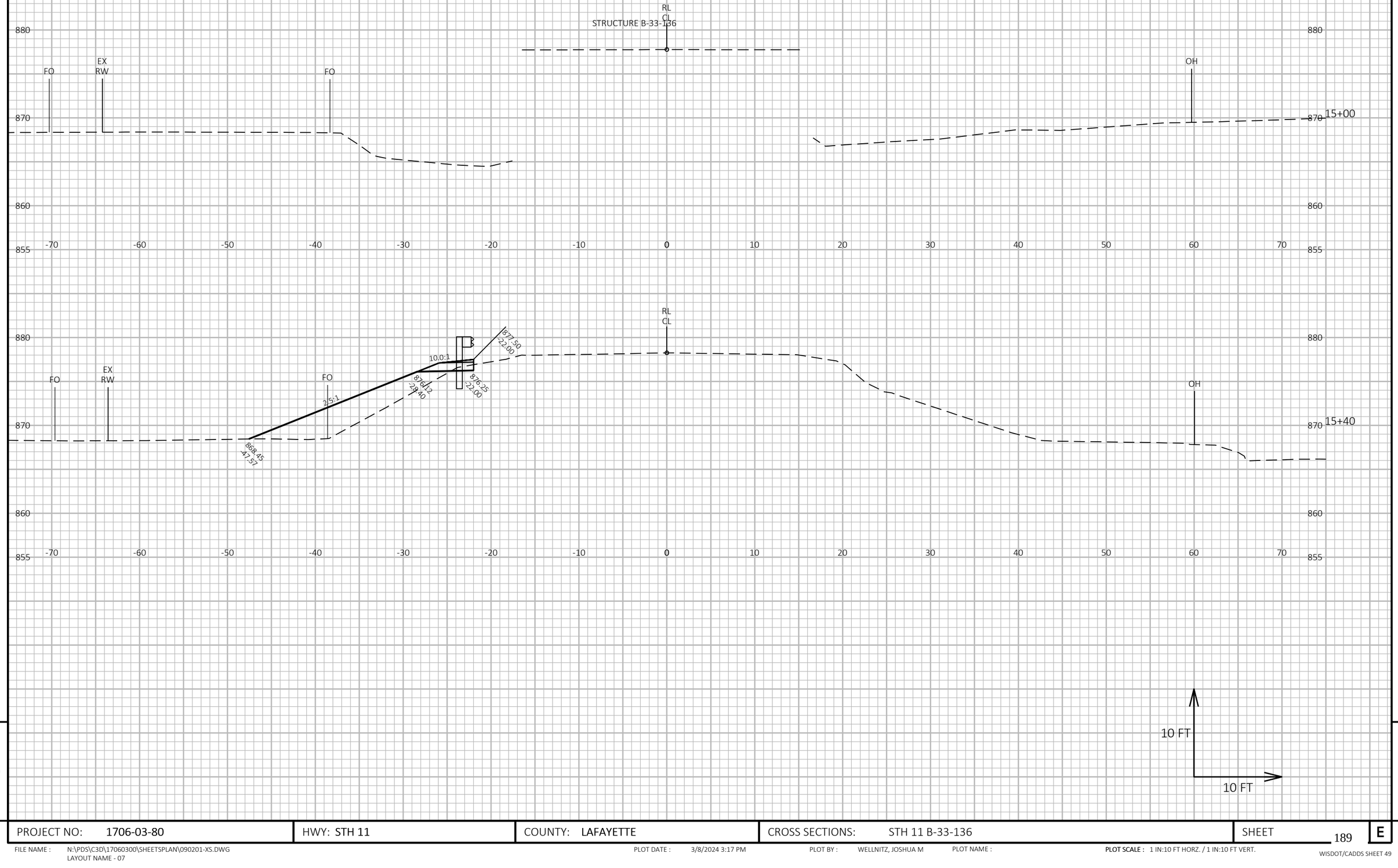
PLOT DATE : 3/8/2024 3:17 PM

PLOT BY : WELLNITZ, JOSHUA M

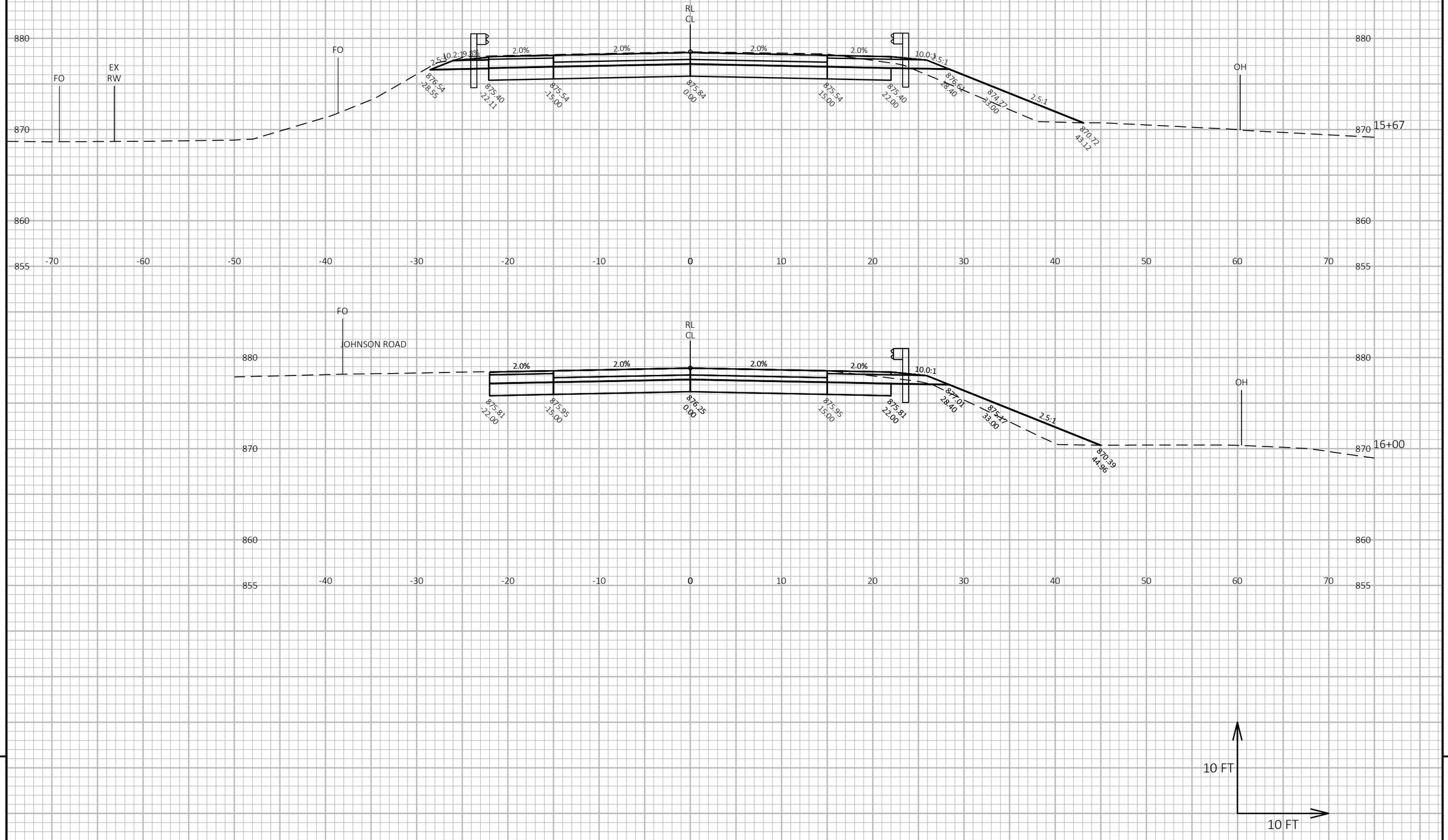
PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 189	E



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PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 190	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

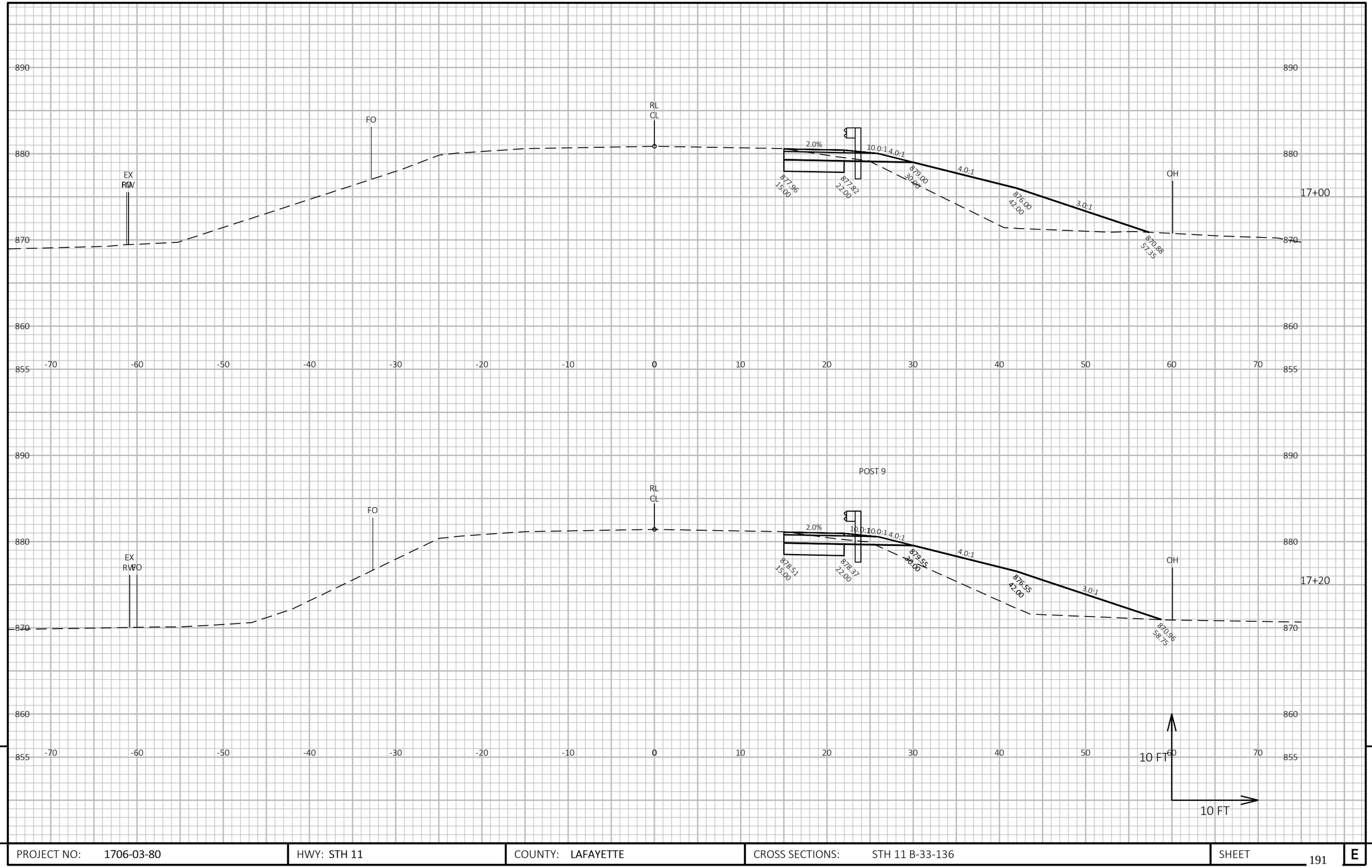
PLOT DATE : 3/8/2024 3:17 PM

PLOT BY : WELLNITZ, JOSHUA M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 191	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

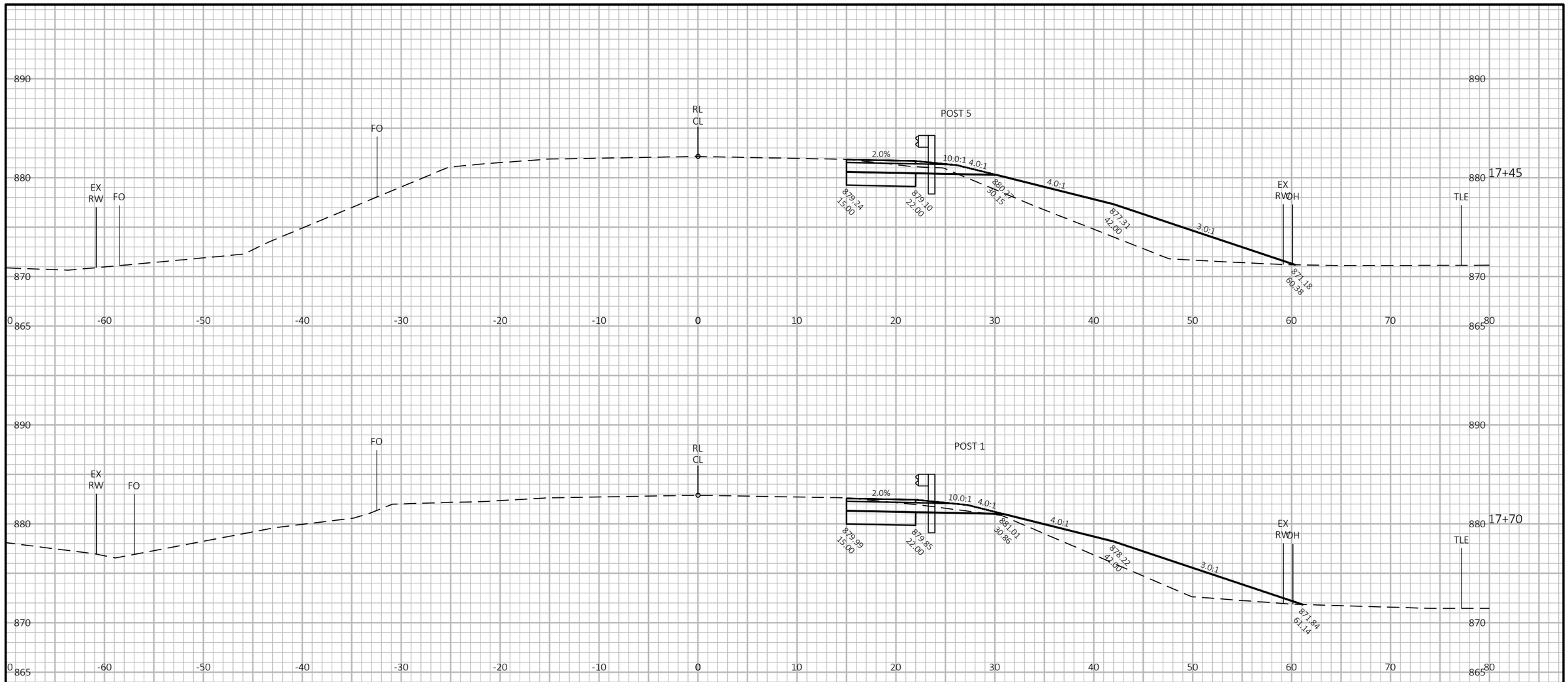
PLOT DATE : 3/8/2024 3:17 PM

PLOT BY : WELLNITZ, JOSHUA M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



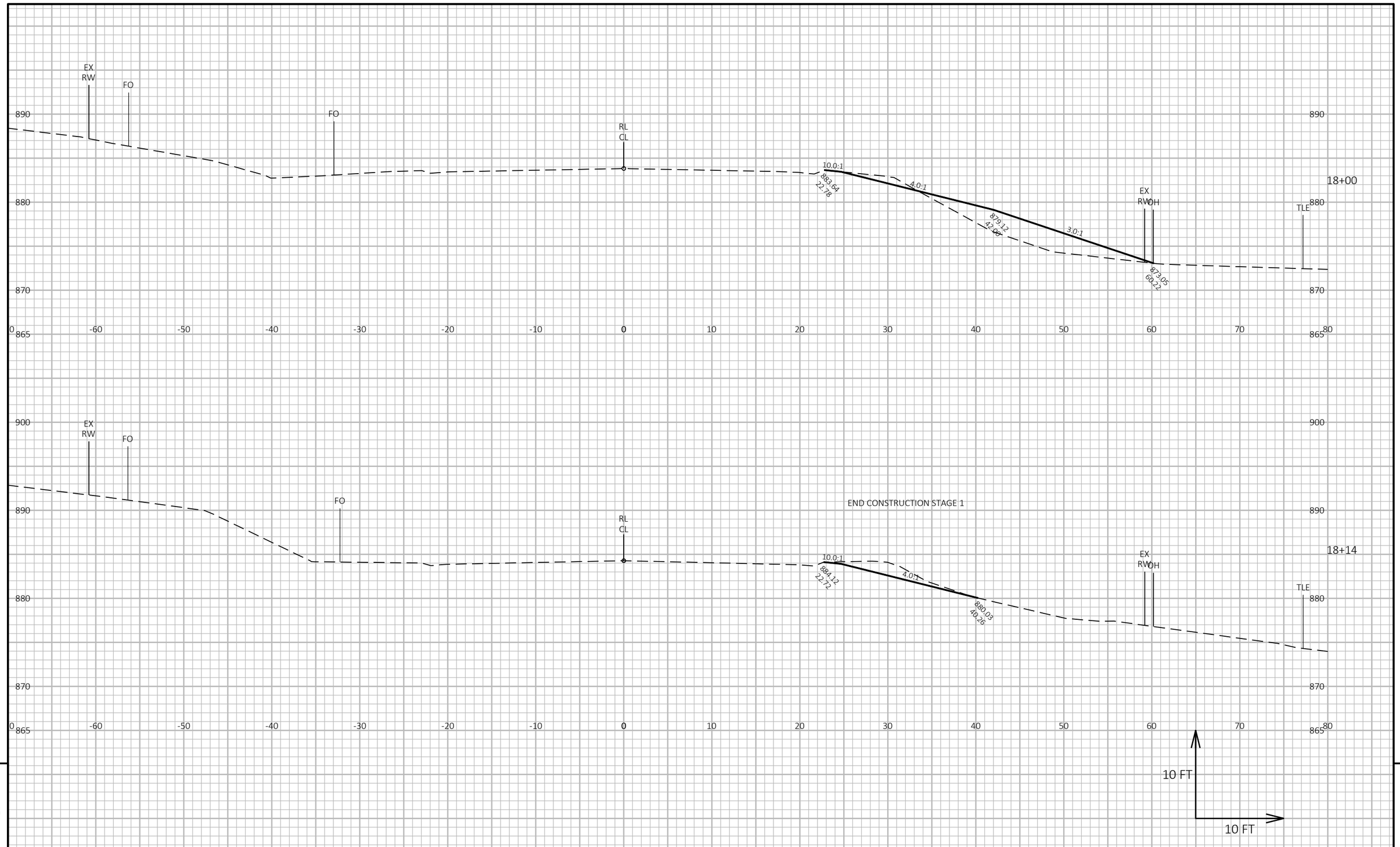
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 192	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 3/8/2024 3:17 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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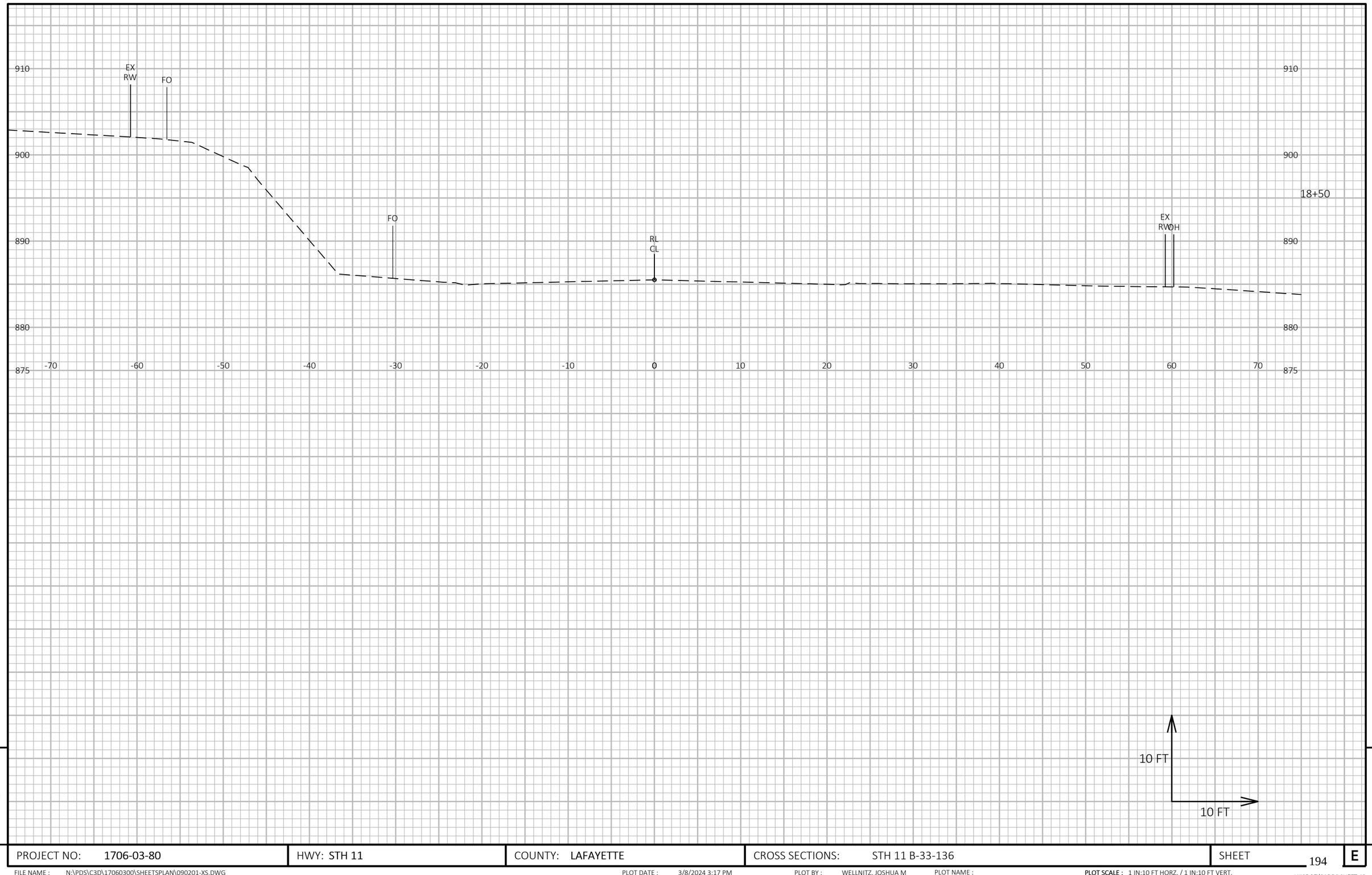
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 193	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 3/8/2024 3:17 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-136	SHEET 194	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 3/8/2024 3:17 PM

PLOT BY : WELLNITZ, JOSHUA M

PLOT NAME :

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

950
940
930
920
915
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70
EX RW
FO
EX RW
TLE
32+50

BEGIN CONSTRUCTION STAGE 2

950
940
930
920
915
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70
EX RW
FO
CL
10.0%
4.6%
4.6%
10.0%
4.0:1
4.0:1
EX RW
RW
TLE
3.0:1
32+67
10 FT
10 FT

9

9

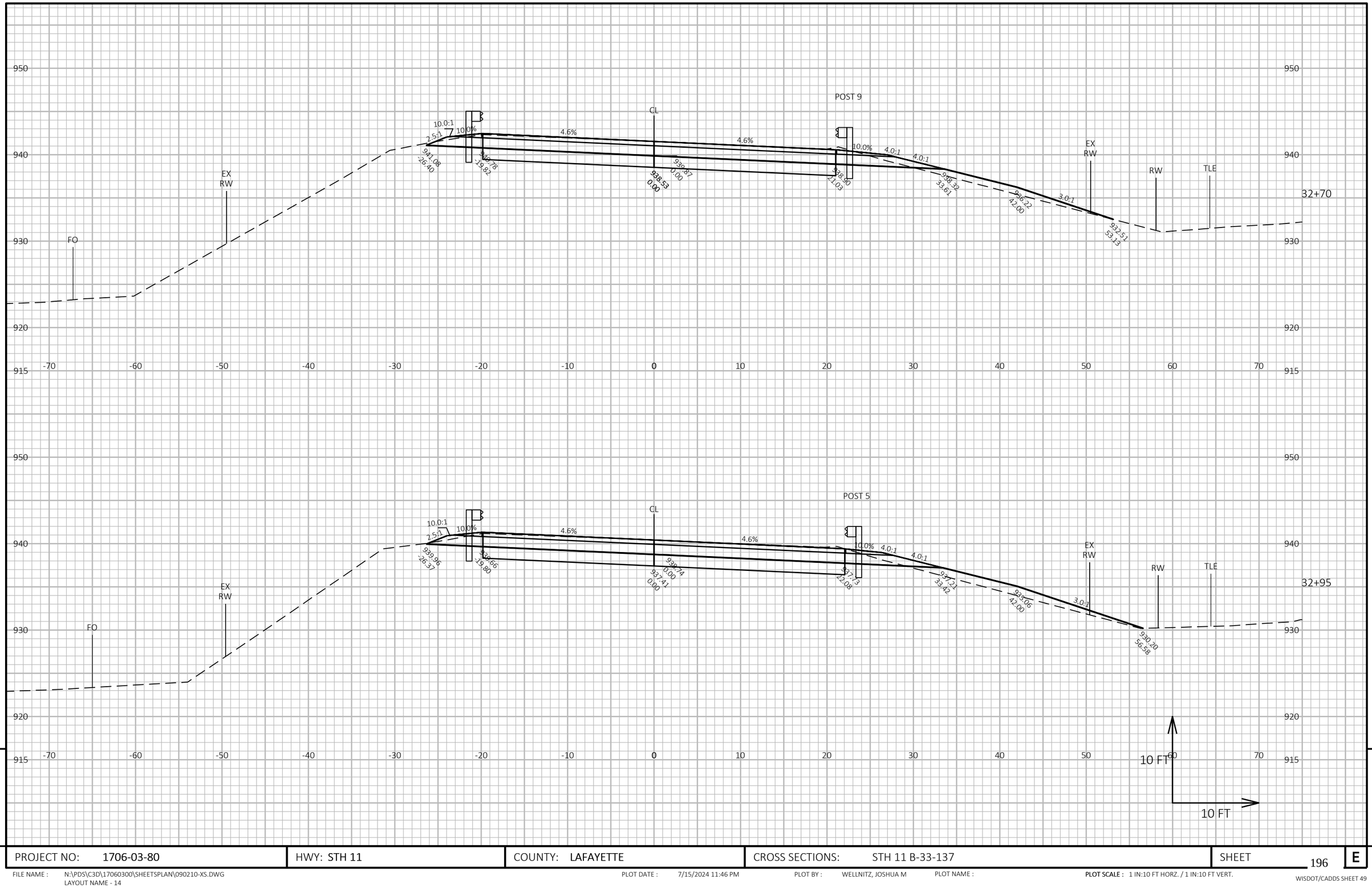
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 195	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



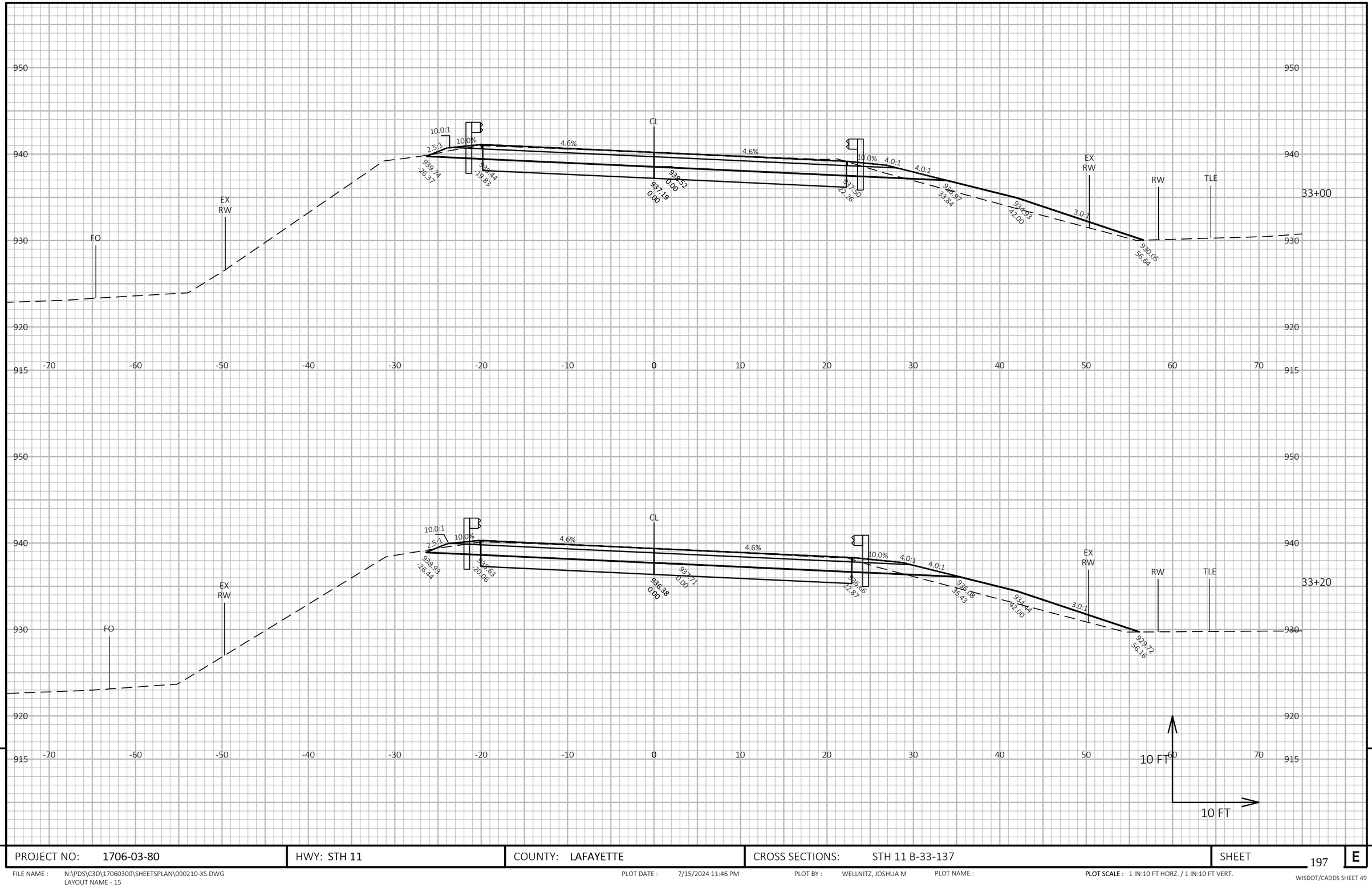
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 196 E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 14

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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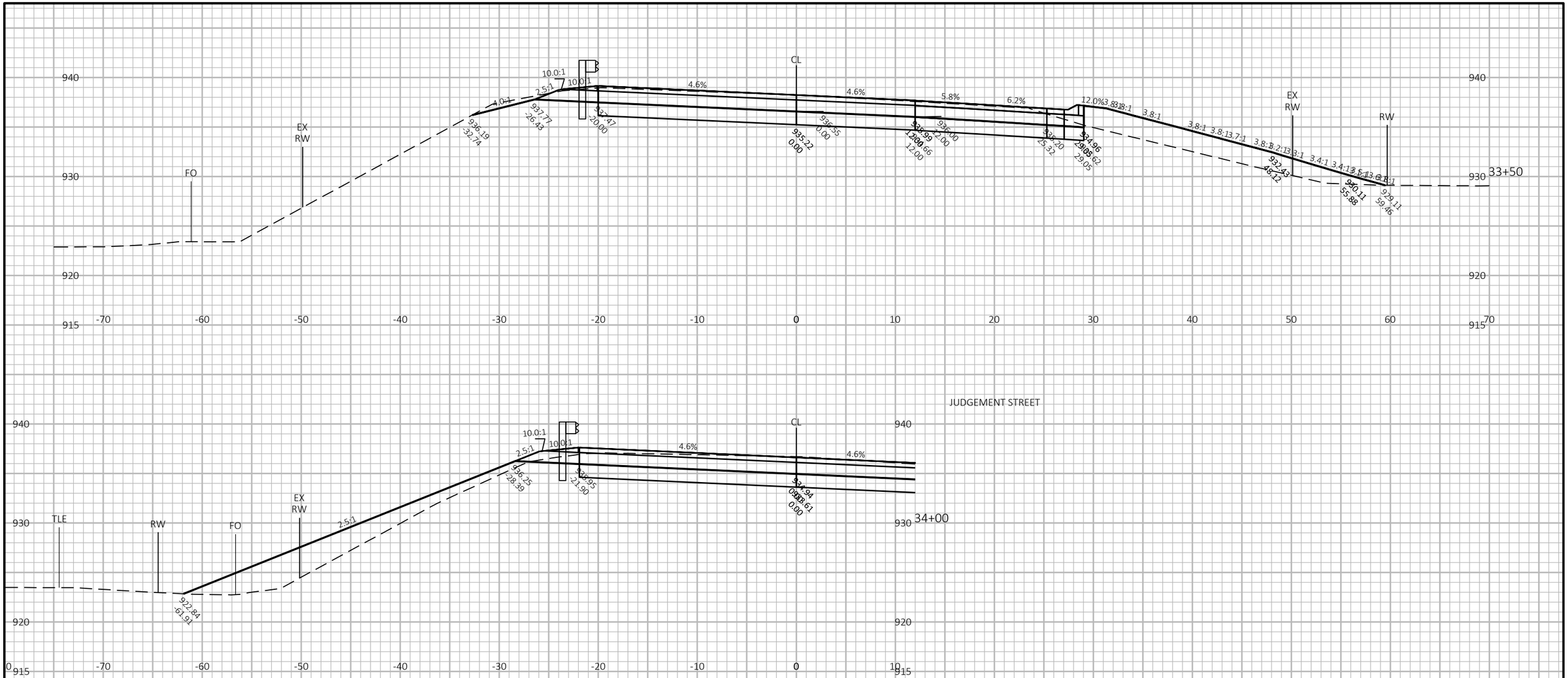
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 197	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 15

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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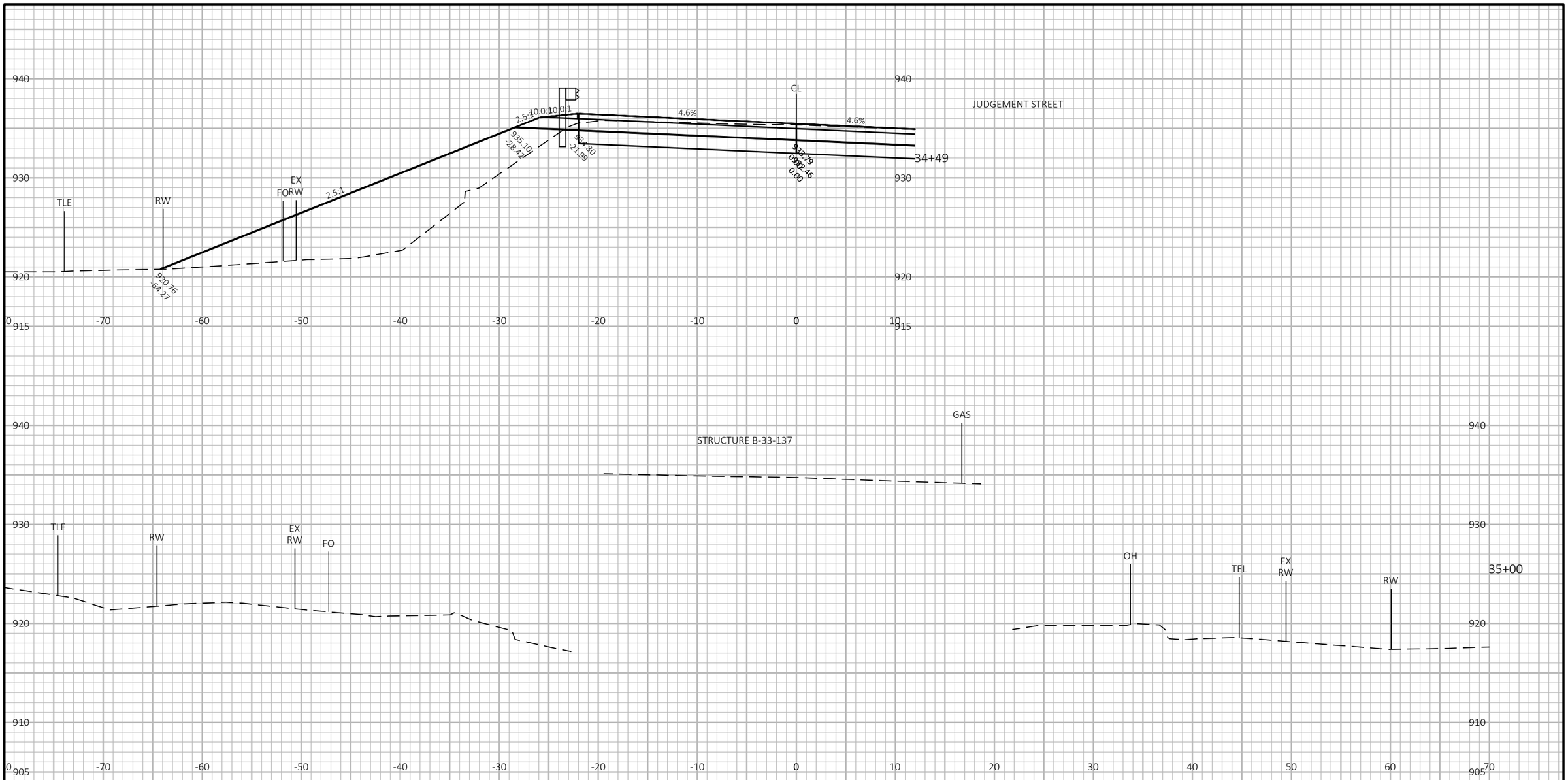
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 198	E



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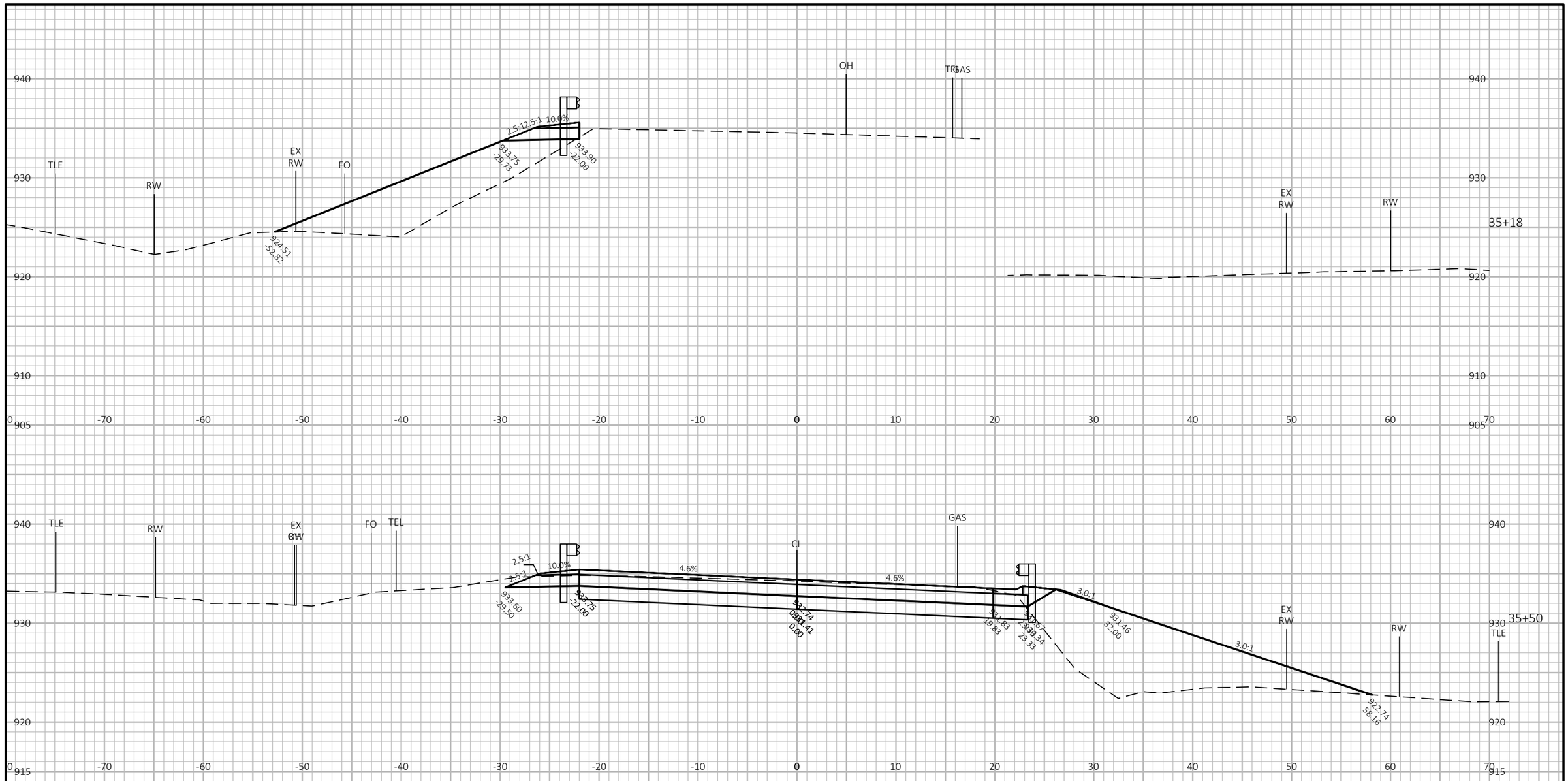
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 199	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 17

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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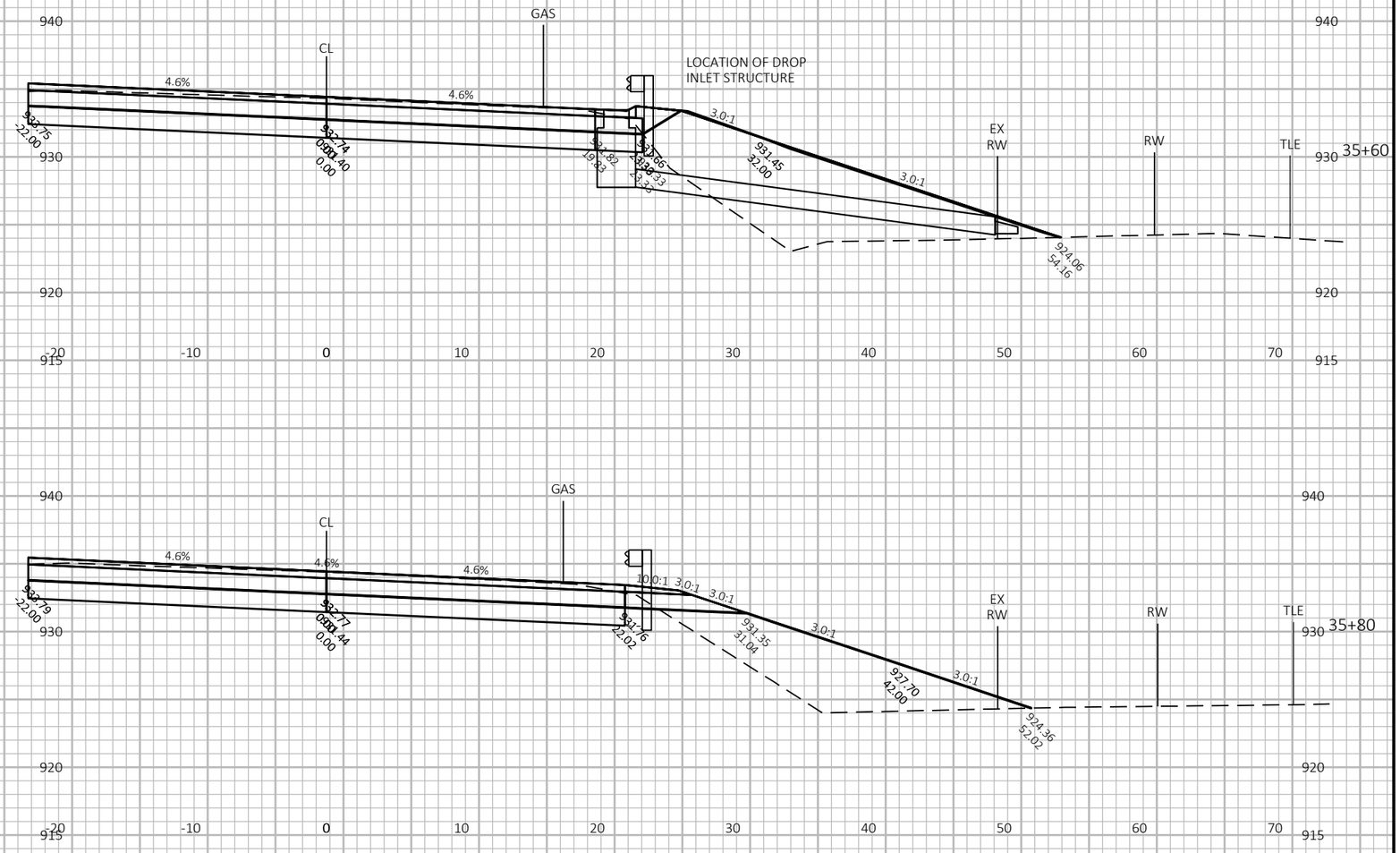
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 200	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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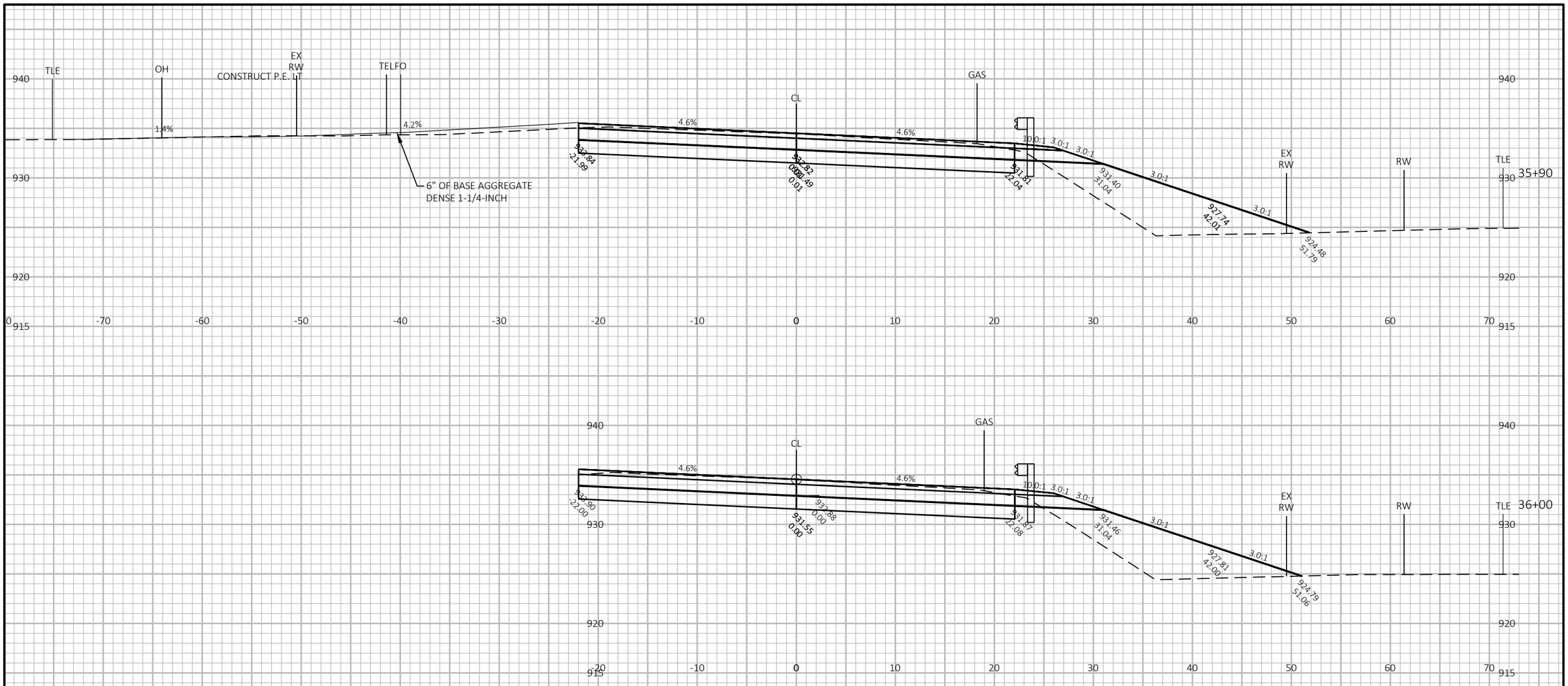
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 201	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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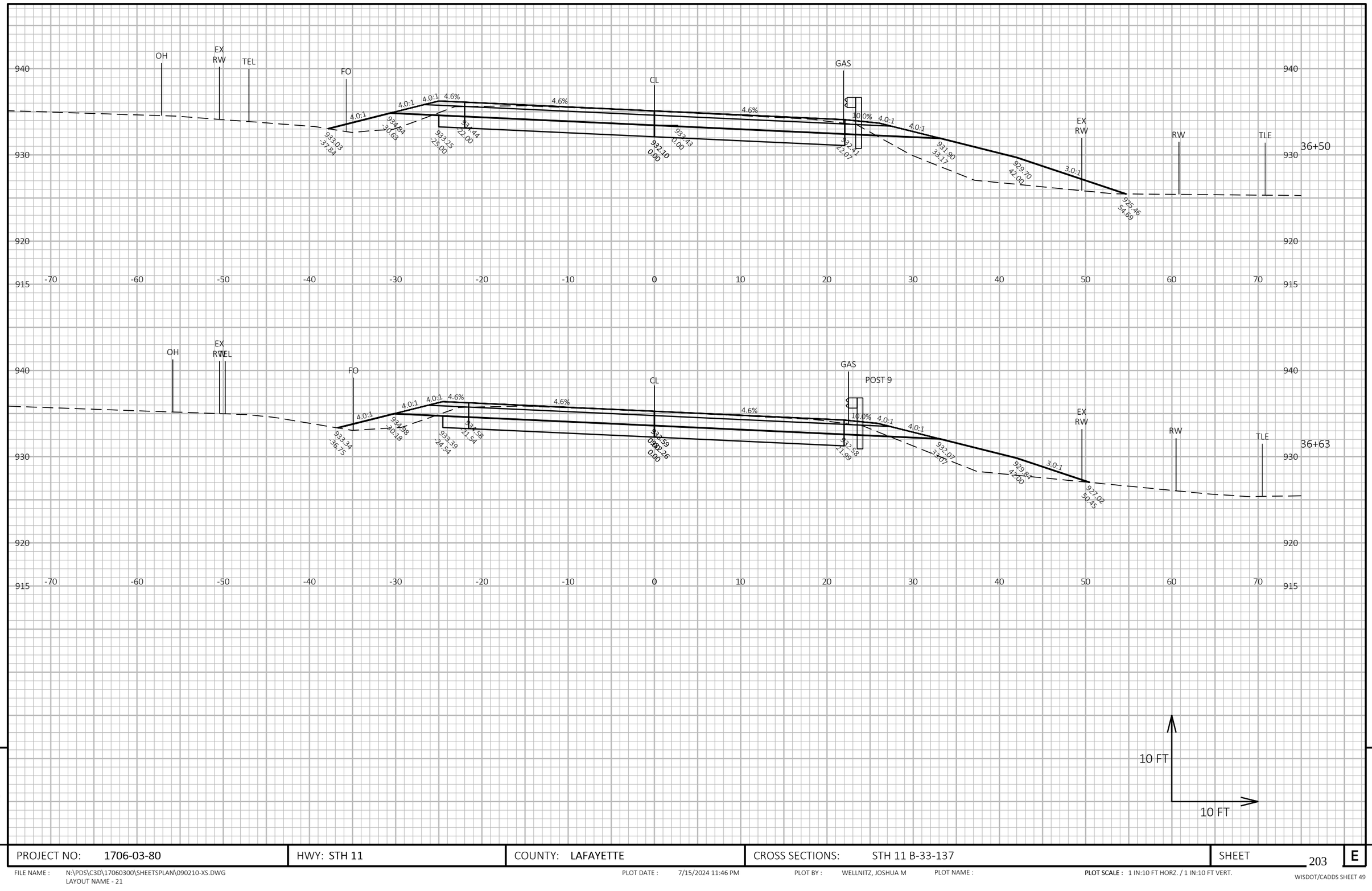
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 202	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 20

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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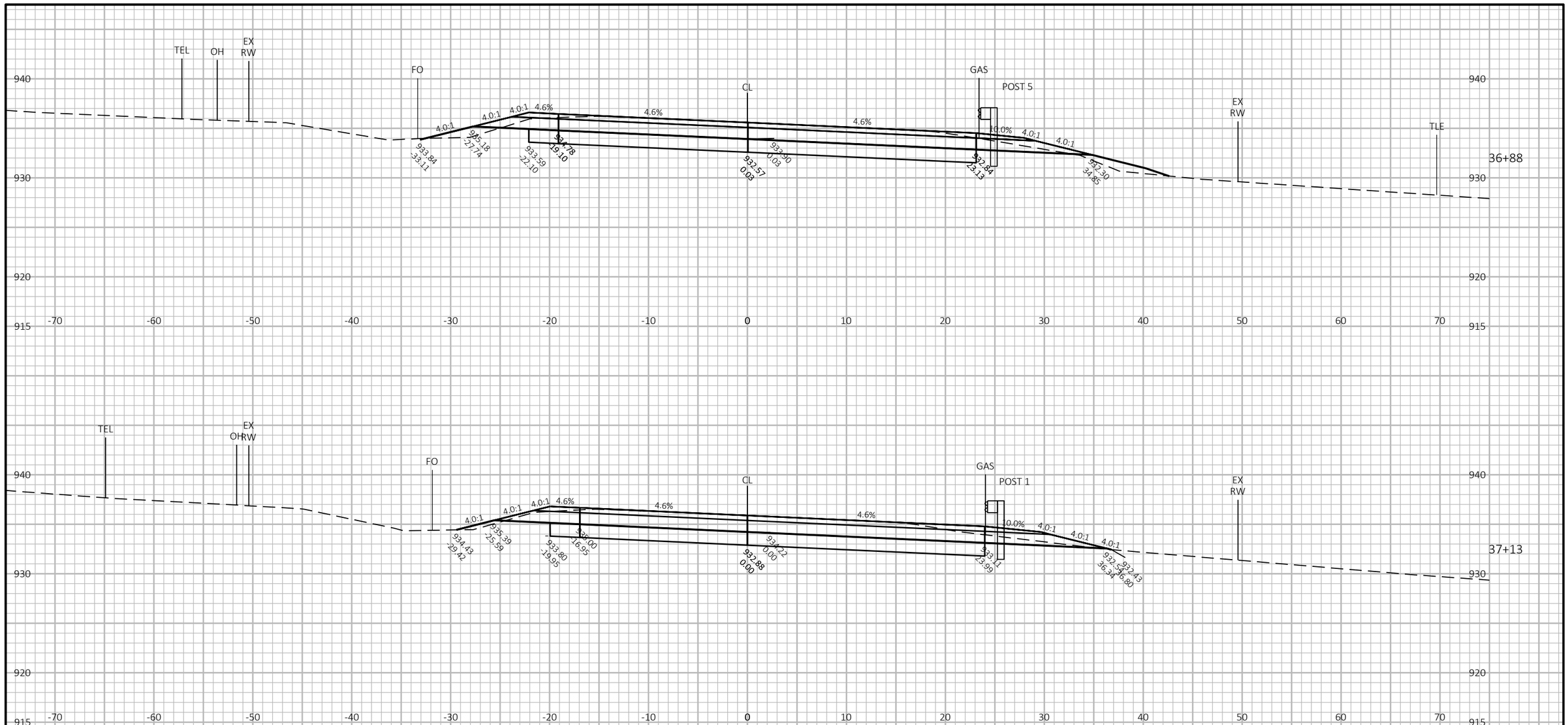
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 203	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 21

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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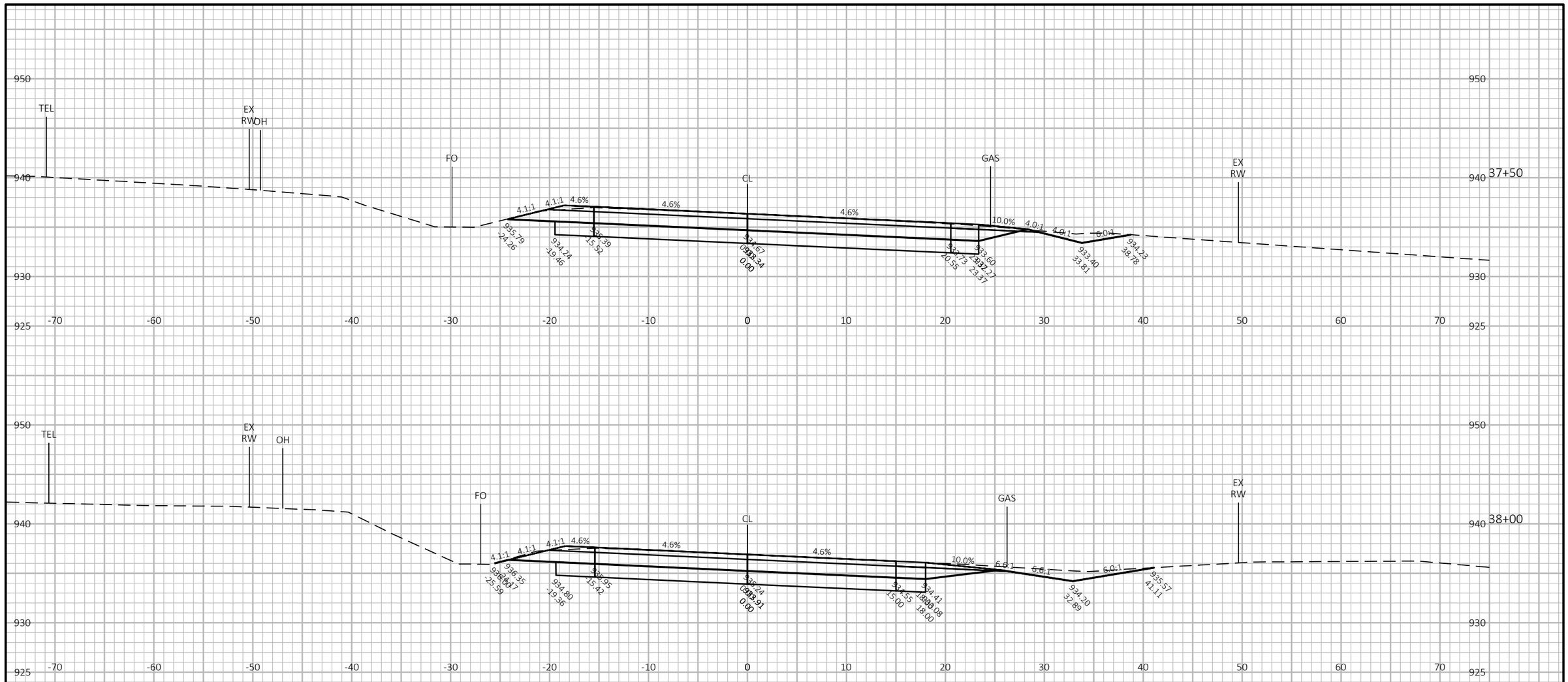
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 204	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 22

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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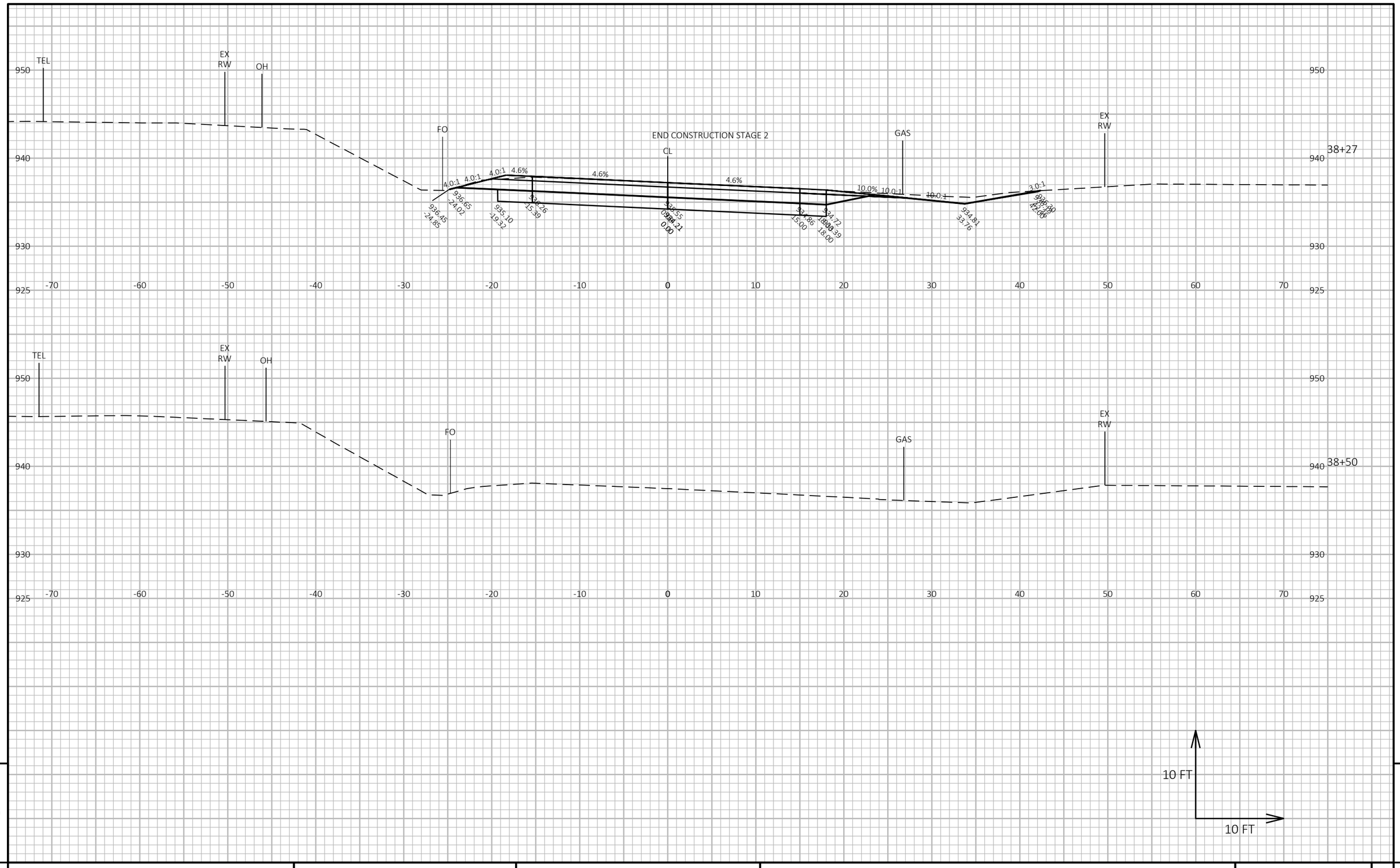
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 205	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 23

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49



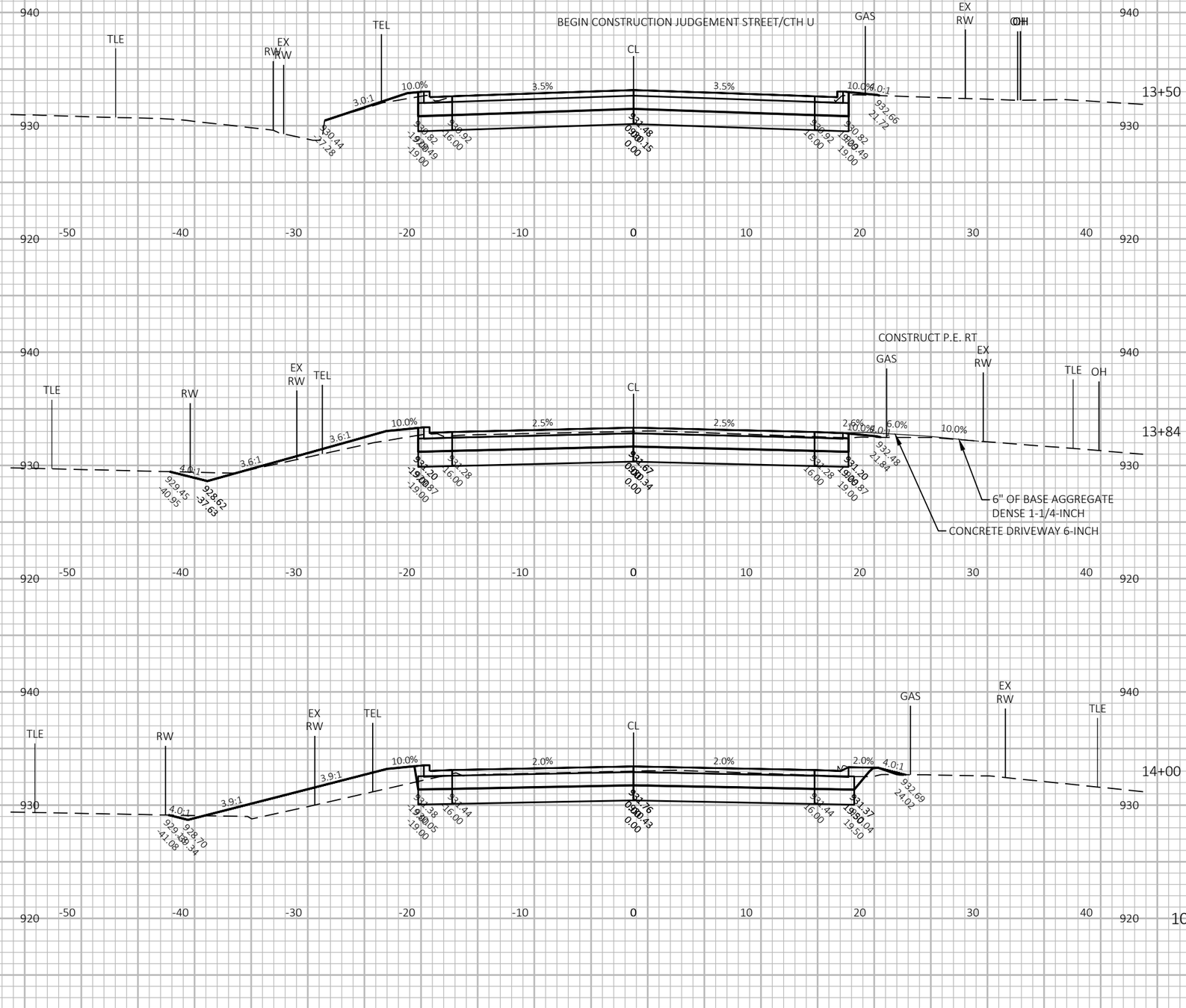
PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 11 B-33-137	SHEET 206	E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 24

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME :

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

WISDOT/CADDS SHEET 49

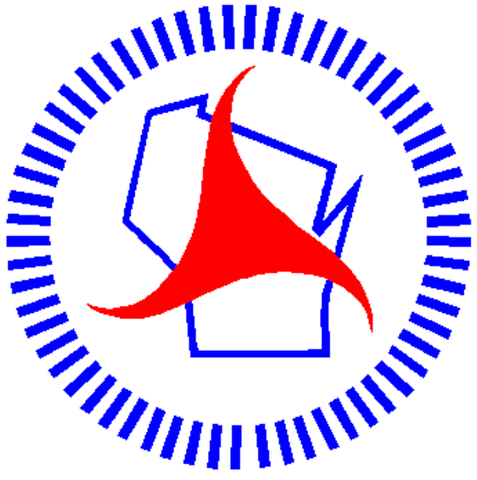


PROJECT NO: 1706-03-80	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: JUDGEMENT STREET	SHEET 207 E

FILE NAME : N:\PDS\C3D\17060300\SHEETSPLAN\090210-XS.DWG
LAYOUT NAME - 25

PLOT DATE : 7/15/2024 11:46 PM PLOT BY : WELLNITZ, JOSHUA M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



Wisconsin Department of Transportation

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through innovation and exceptional service.

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