MAD

FEBRUARY 2024

PROJECT ID: WITH: 5080-02-82

5080-02-74

COUNTY: SAUK

03

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 / Plan
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 = 414

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5080-02-74		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

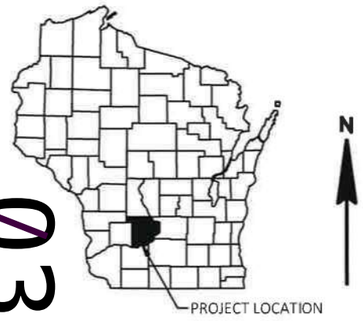
PLAN OF PROPOSED IMPROVEMENT

SPRING GREEN - REEDSBURG

USH 14 TO CTH GG

STH 23

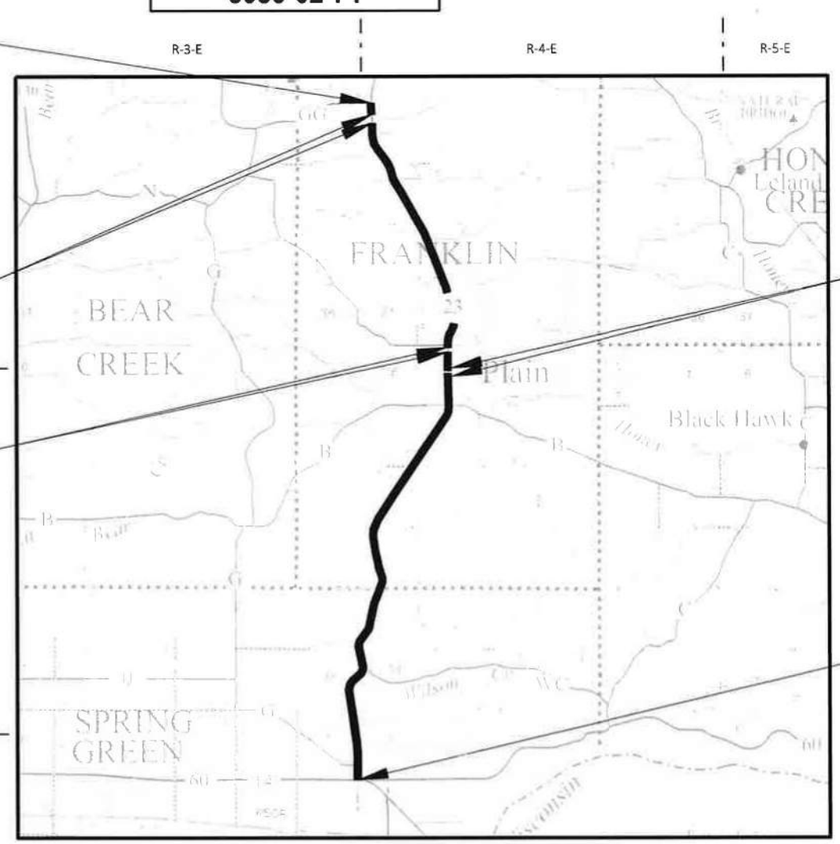
SAUK COUNTY



N

STATE PROJECT NUMBER
5080-02-74

END PROJECT
STA. 777+01.42
Y = 193,948.26
X = 564,000.92



EXCEPTION TO CENTERLINE LENGTH
B-56-137 & B-56-138
STA 754+90.00 TO STA 771+00.00

EXCEPTION TO CENTERLINE LENGTH
B-56-128
STA 543+99.44 TO STA 544+72.49

EXCEPTION TO CENTERLINE LENGTH
B-56-151
STA 502+99.74 TO STA 503+60.30

BEGIN PROJECT
STA 141+73.42
Y = 135,085.34
X = 562,633.82

DESIGN DESIGNATION

A.A.D.T.	(2022)	=	3100
A.A.D.T.	(2042)	=	3535
D.H.V.		=	N/A
D.D.		=	N/A
T.		=	30.4%
DESIGN SPEED		=	55 MPH
ESALS		=	1,900,000

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300 FT)
- 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 2.0 MI

TOTAL NET LENGTH OF CENTERLINE = 11.702 MI

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

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012.) GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

ORIGINAL PLANS PREPARED BY
MSA
1230 SOUTH BOULEVARD, BARABOO, WI 53913
(608) 356-2771 www.msa-ps.com

WISCONSIN
BOBBI L. MAXWELL
39012-006
BARABOO
WI
PROFESSIONAL ENGINEER

Bobbi L. Maxwell
10-31-23

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA PROFESSIONAL SERVICES, INC.
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	MAHESH SHRESTHA, P.E.
Regional Examiner	SW REGION - MADISON
Regional Supervisor	MARC SCHWEIGER, P.E.

APPROVED FOR THE DEPARTMENT
Mahesh Shrestha
DATE: _____ (Signature)

E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\010101-TI.DWG PLOT DATE : 10/31/2023 10:11 AM PLOT BY : BOBBI MAXWELL PLOT NAME :

GENERAL NOTES

PAVING
APPLY TACK COAT AT A MINIMUM RATE OF 0.07 GAL/SY TO MILLED SURFACES, AND 0.05 GAL/SY BETWEEN HMA LIFTS. HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/INCH.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A TRAVEL OR TURN LANE.

THE LIMITS OF PAVEMENT REMOVAL ON SIDE STREETS ARE APPROXIMATE AND WILL BE VERIFIED IN THE FIELD BY THE ENGINEER.

MISCELLANEOUS
THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IN THE AREA OF GRADING ONLY, ARE APPROXIMATE. THERE ARE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

EXISTING RIGHT OF WAY LINES ARE APPROXIMATE.

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

GRADING AND EROSION CONTROL
THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS OF EROSION CONTROL ITEMS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. REMOVE ITEMS AT THE ENGINEERS DISCRETION.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE FERTILIZED, PERMANENT SEEDED, TEMPORARILY SEEDED AND EMATTED PLACED AS DIRECTED BY THE ENGINEER.

DO NOT STORE BORROW OR WASTE DISPOSAL OR STAGE CONSTRUCTION EQUIPMENT AT THE ENVIRONMENTALLY SENSITIVE AREAS THAT ARE SHADED IN THE PLAN SHEETS.

UTILITIES

PATRICK MCINTYRE
ALLIANT ENERGY - GAS/PETROLEUM/ELECTRICITY
900 PRAIRIE DR
SPRING GREEN, WI 53588
PHONE: (608) 588-9708
MOBILE: (608) 844-9605
EMAIL: PATRICKMCINTYRE@ALLIANTENERGY.COM

DOUG VOSBERG
ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
2489 RINDEN ROAD
COTTAGE GROVE, WI 53527
PHONE: (608) 877-7650
EMAIL: DVOSBERG@ATCLLC.COM

NEIL HUNTAMER
SPECTRUM - COMMUNICATION LINE
2701 DANIELS ST.
MADISON, WI 53718
PHONE: (608) 219-1321
EMAIL: NEIL.HUNTAMER@CHARTER.COM

TYLER COFFMAN
FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
330 BLACKBURN ST.
RIPON, WI 54971
PHONE OFFICE: (217) 491-7186
EMAIL: TYLER.COFFMAN@JSITEL.COM

DOUGLAS FEINER
*PRAIRIE SANITARY DISTRCT - SEWER
506 N BALTIMORE ST.
SPRING GREEN, WI 53588
PHONE: (608) 279-0385
EMAIL: DOUJAY@CHARTER.NET

PHIL CURRY
NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM
5557 COUNTY D
PLATTEVILLE, WI 53818
PHONE: (402) 530-2801
MOBILE: (608) 732-7642
EMAIL: PHILLIP.CURRY@NNGCO.COM

JOHN RUHLAND
VILLAGE OF PLAIN
DEPARTMENT OF PUBLIC WORKS
510 MAIN STREET
PLAIN, WI 53577
MOBILE: (608) 588-5465
EMAIL: JRUHLAND@VILLAGEOFPLAIN.COM

IAN CRAMMOND
SAUK COUNTY BUILDING SERVICES - ELECTRICITY/GAS PETROLEUM
510 BROADWAY ST.
BARABOO, WI 53913
PHONE: (608) 355-4415
MOBILE: (608) 963-7546
EMAIL: IAN.CRAMMOND@SAUKCOUNTYWI.GOV

KEN LAS
REEDSBURG UTILITY COMMISSION
501 UTILITY COURT
REEDSBURG, WI 53959
PHONE: (608) 768-6450
MOBILE: (608) 415-9924
EMAIL: KLAS@RUCLS.NET

LORI KETTER
WINDSTREAM KDL, LLC - COMMUNICATION LINE
969 WAUBE LANE
GREEN BAY, WI 54304
PHONE: (920) 410-6902
EMAIL: LORI.KETTER@WINDSTREAM.COM

* NOT A MEMBER OF DIGGERS HOTLINE

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

STANDARD ABBREVIATIONS

AC	ACRES
AEW	APRON ENDWALL
AGG	AGGREGATE
AH	AHEAD
ALUM.	ALUMINUM
A.P.	ACCESS POINT
ASPH	ASPHALT
AVE	AVENUE
BAD	BASE AGGREGATE DENSE
BK	BACK
BLK	BLOCK
BOC	BACK OF CURB
BOW	BACK OF SIDEWALK
BM	BENCHMARK
CABC	CRUSHED AGGREGATE BASE COURSE
CL or ℄	CENTERLINE
Δ	CENTRAL ANGLE or DELTA
CMCP	CORRUGATED METAL CULVERT PIPE
CONC	CONCRETE
CP	CONTROL POINT
CPCS	CULVERT PIPE CORRUGATED STEEL
CSM	CERTIFIED SURVEY MAP
CTH	COUNTY TRUNK HIGHWAY
D	DEGREE OF CURVATURE
DES	DESIRABLE
E	EAST
EB	EASTBOUND
EBS	EXCAVATION BELOW SUBGRADE
EOP	EDGE OF PAVEMENT
ET AL	AND OTHERS
EW	ENDWALL
EXIST	EXISTING
FT	FOOT
FT2	SQUARE FEET
GN	GRID NORTH
GV	GAS VALVE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HYD	HYDRANT
IN	INCH
INL	INLET
INV	INVERT
IP	IRON PIPE
L	LENGTH
L	LENGTH OF CURVE
LC	LONG CHORD
LCP	LONG CHORD BEARING
LF	LINEAR FEET
LT	LEFT
MH	MANHOLE
MON	MONUMENT
N	NORTH
NB	NORTHBOUND
N.C.	NORMAL CROWN
NO	NUMBER
PB	PULLBOX
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
POB	POINT OF BEGINNING
PT	POINT OF TANGENCY
R	RADIUS
R	RANGE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REQ'D	REQUIRED
RL or R/L	REFERENCE LINE
RP	RADIUS POINT
RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH
SAN	SANITARY SEWER
SB	SOUTHBOUND
S.E.	SUPERELEVATION
SEC	SECTION
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SQ	SQUARE
ST	STREET
STA	STATION
STD	STANDARD
STH	STATE TRUNK HIGHWAY
STM	STORM SEWER
STR	STRUCTURE
T	TANGENT
TAN	TANGENT
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T or TN	TOWN
TYP.	TYPICAL
WM	WATERMIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
X	EAST GRID COORDINATE
Y	NORTH GRID COORDINATE

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 226 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 57 ACRES

SECTION 2 ORDER OF SHEETS

1. GENERAL NOTES
2. PROJECT OVERVIEW
3. TYPICAL SECTIONS
4. CONSTRUCTION DETAILS
5. CURB RAMP DETAILS
6. EROSION CONTROL
7. STORM SEWER
8. PERMANENT SIGNING
9. LIGHTING PLAN
10. PAVEMENT MARKING
11. TRAFFIC CONTROL
12. DETOUR
13. PEDESTRIAN ACCESS
14. ALIGNMENT DIAGRAM

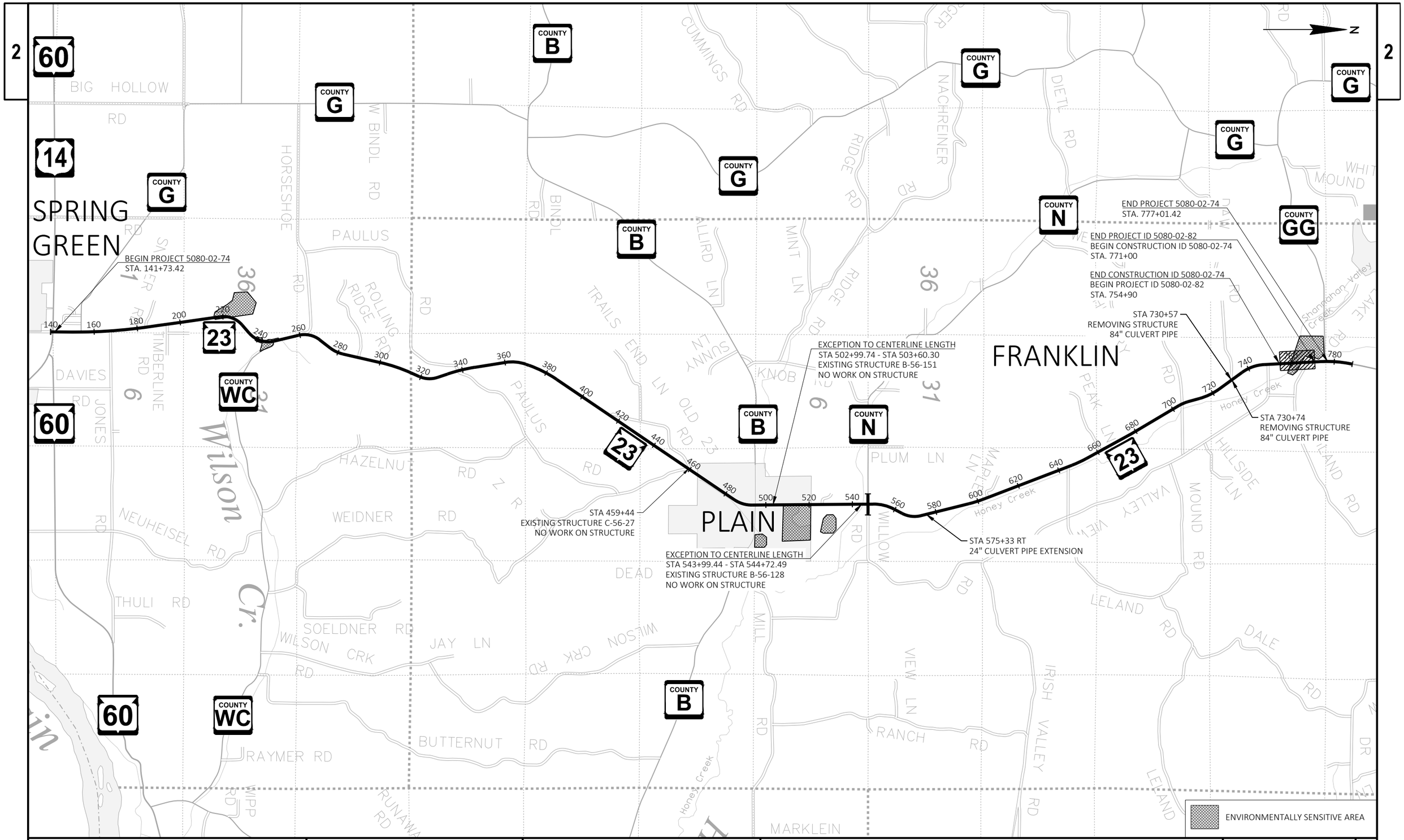
DESIGN CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION
ATTN: MAHESH SHRESTHA, PE
2101 WRIGHT ST
MADISON, WI 53704
PHONE: (608) 245-2674
EMAIL: MAHESH.SHRESTHA@DOT.WI.GOV

MSA PROFESSIONAL SERVICES, INC.
ATTN: BOBBI MAXWELL, PE
1230 SOUTH BOULEVARD
BARABOO, WI 53913
PHONE: (608) 255-8861
EMAIL: BMAXWELL@MSA-PS.COM

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: ANDY BARTA
SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: (608) 275-3308
CELL PHONE: (608) 235-2955
EMAIL: ANDREW.BARTA@WISCONSIN.GOV



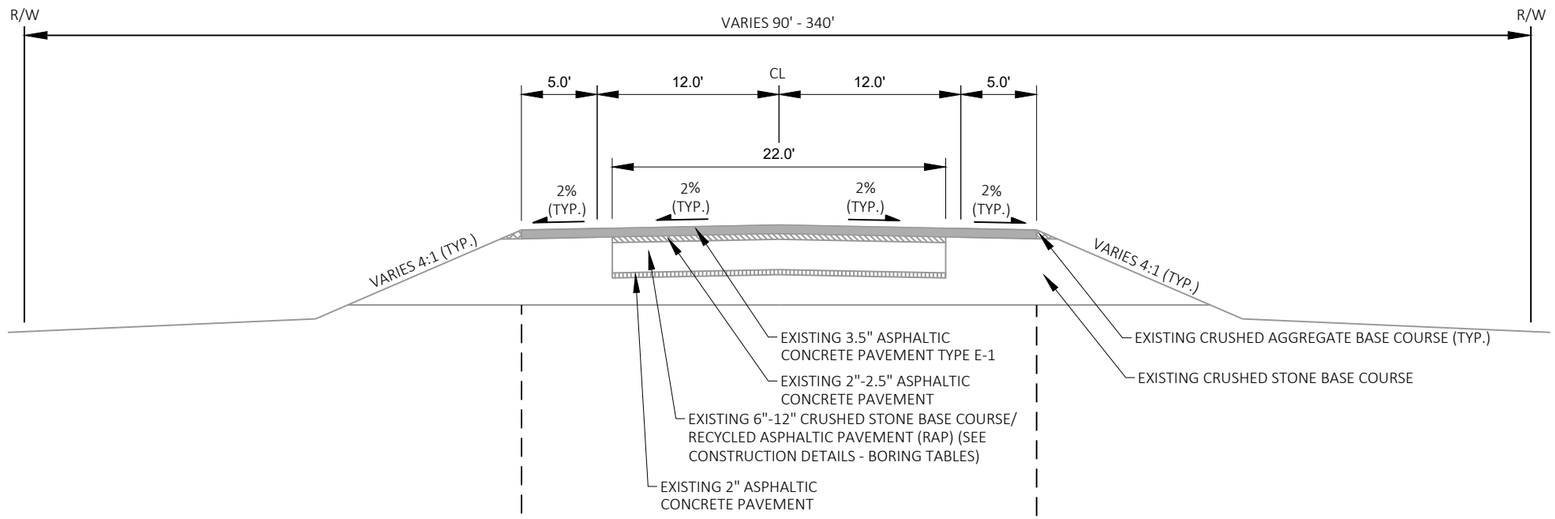
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 10/31/2023 9:23 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN: 0.75 MI

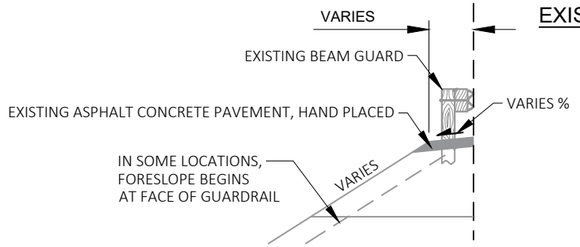
WISDOT/CADDS SHEET 42

2



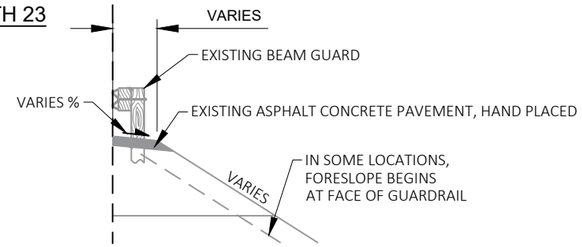
EXISTING TYPICAL SECTION - STH 23

STA. 141+73.42 TO STA. 456+39



EXISTING TYPICAL SECTION - STH 23

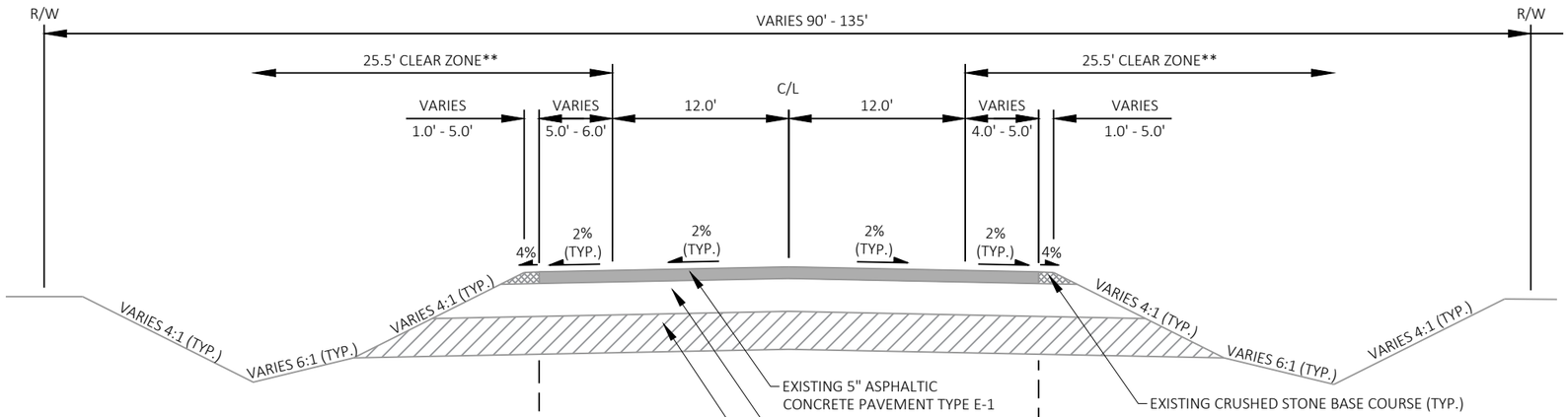
STA. 216+36 TO STA. 224+79
STA. 228+47 TO STA. 235+68
STA. 242+86 TO STA. 247+86
STA. 261+69 TO STA. 274+46
STA. 278+25 TO STA. 282+08
STA. 321+81 TO STA. 327+06
STA. 357+45 TO STA. 362+31



EXISTING TYPICAL SECTION - STH 23

STA. 240+83 TO STA. 247+27
STA. 288+80 TO STA. 291+21
STA. 332+20 TO STA. 337+88
STA. 357+11 TO STA. 368+28

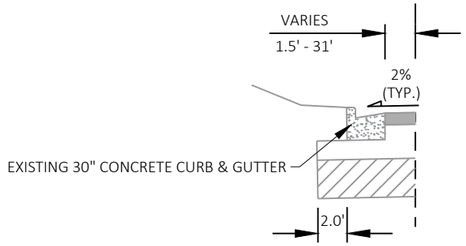
2



EXISTING TYPICAL SECTION - STH 23
STA. 456+39 TO STA. 462+95

EXISTING TYPICAL SECTION - STH 23
STA. 456+93 TO STA. 459+61

EXISTING TYPICAL SECTION - STH 23
STA. 458+64 TO STA. 462+26

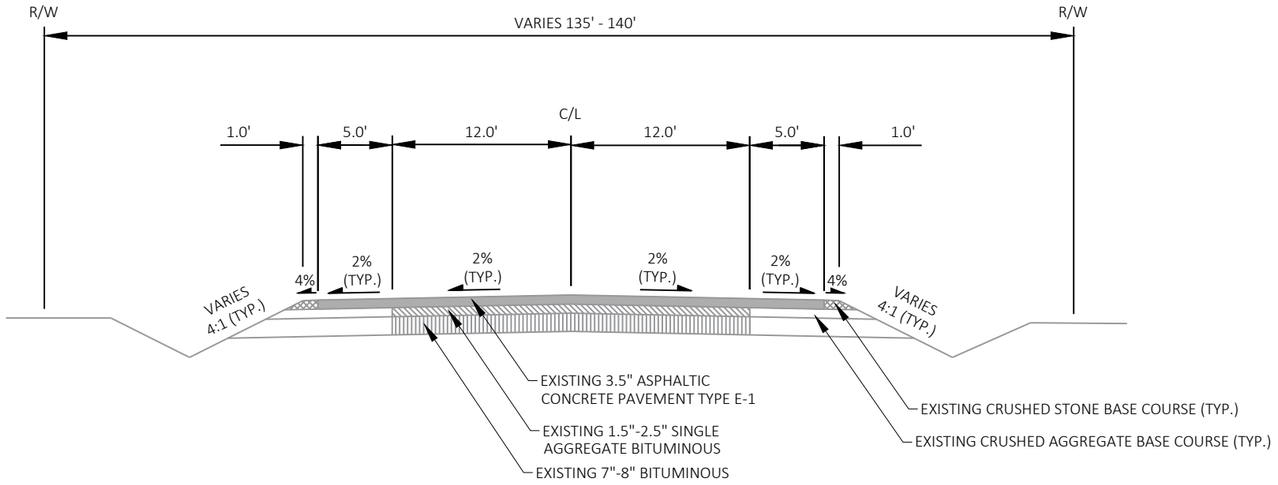


EXISTING TYPICAL SECTION - STH 23
STA. 460+22 TO STA. 462+79

CLEAR ZONE NOTES:

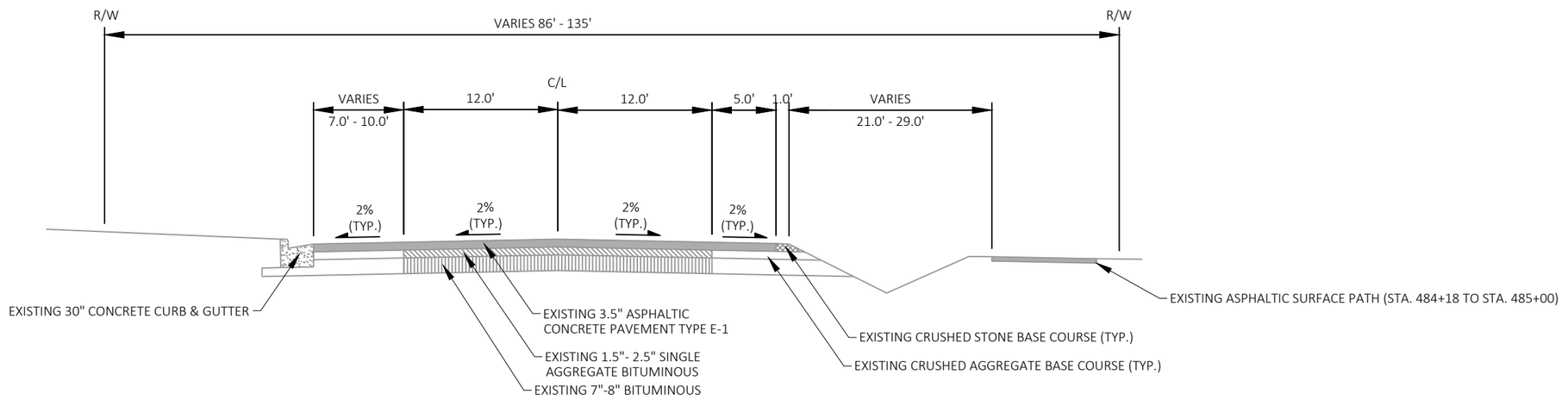
** CLEAR ZONE AS SHOWN ON AS-BUILT PROJECT ID 5080-02-73 BRANCH OF HONEY CREEK BRIDGE & APPROACHES, C-56-27

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 5	E



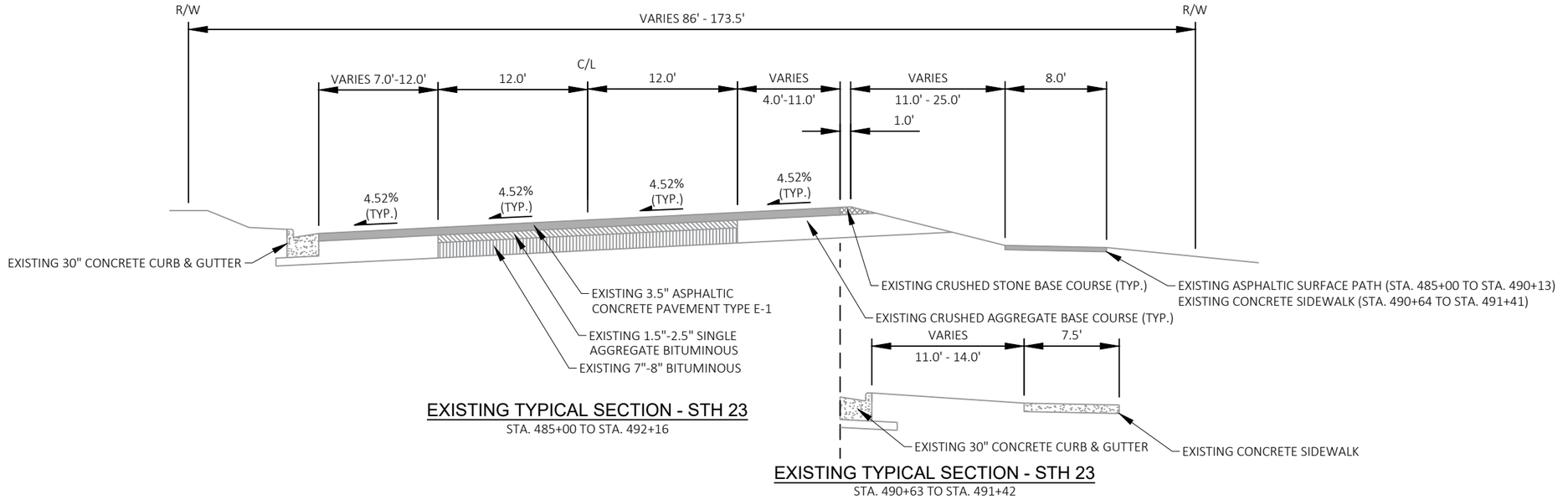
EXISTING TYPICAL SECTION - STH 23

STA. 462+95 TO STA. 475+56



EXISTING TYPICAL SECTION - STH 23

STA. 475+56 TO STA. 485+00

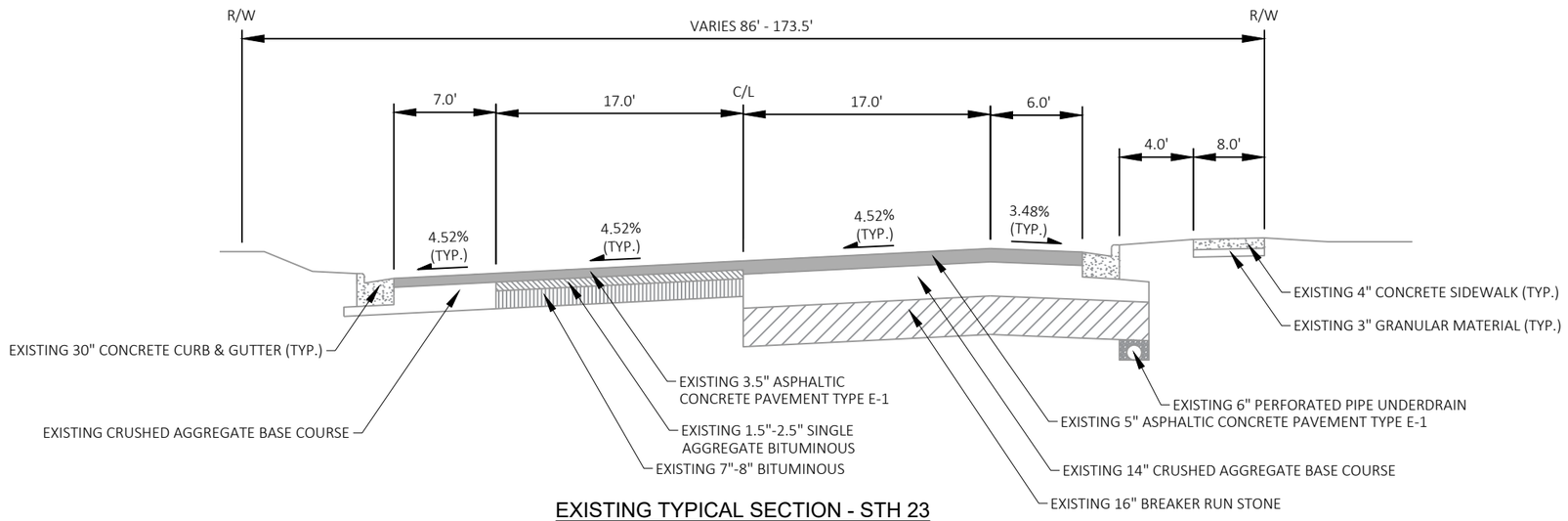


EXISTING TYPICAL SECTION - STH 23

STA. 485+00 TO STA. 492+16

EXISTING TYPICAL SECTION - STH 23

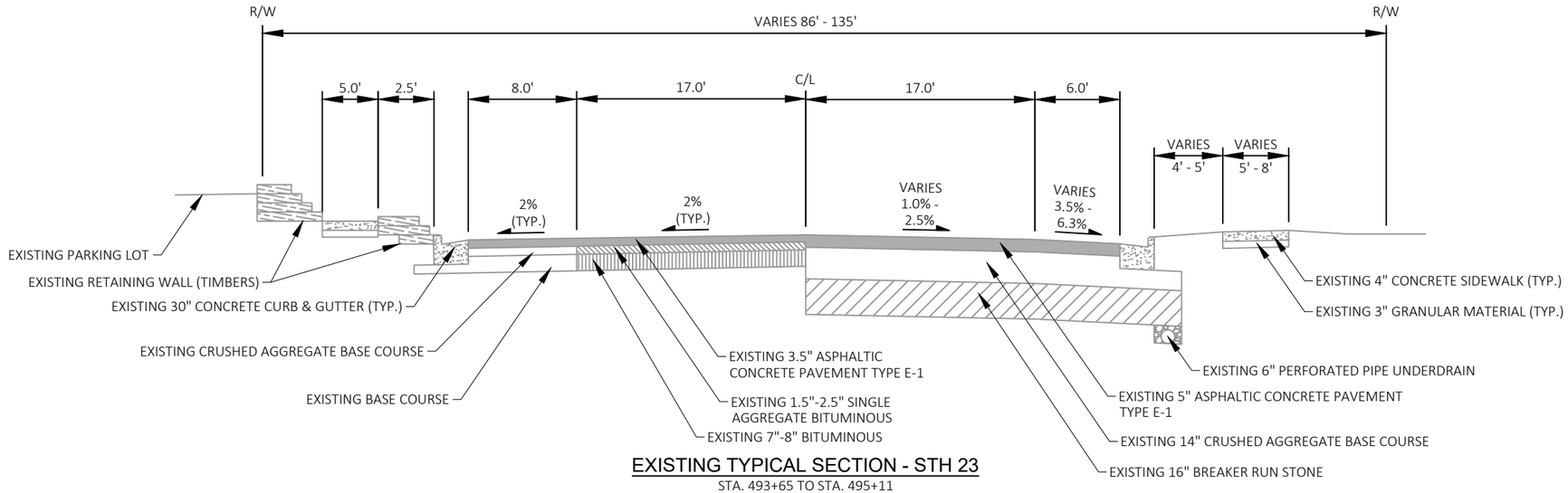
STA. 490+63 TO STA. 491+42



EXISTING TYPICAL SECTION - STH 23

STA. 492+16 TO STA. 493+65

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 7	E



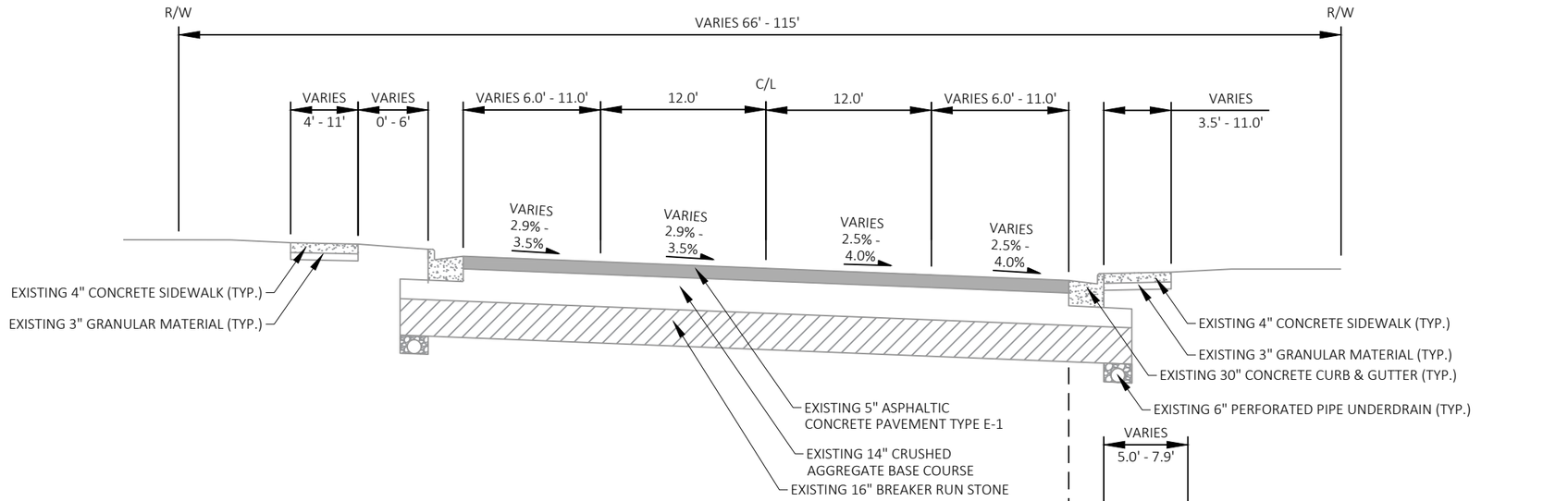
EXISTING TYPICAL SECTION - STH 23

STA. 493+65 TO STA. 495+11

2

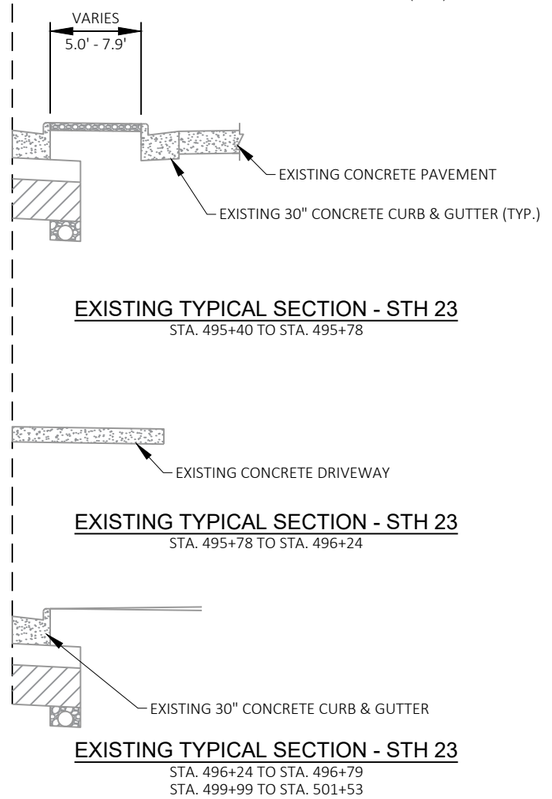
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\020301-TS.DWG
LAYOUT NAME - 020305-ts
PLOT DATE : 11/27/2023 1:51 PM
PLOT BY : CONNOR GIRTEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



EXISTING TYPICAL SECTION - STH 23

STA. 495+11 TO STA. 501+53



EXISTING TYPICAL SECTION - STH 23

STA. 495+40 TO STA. 495+78

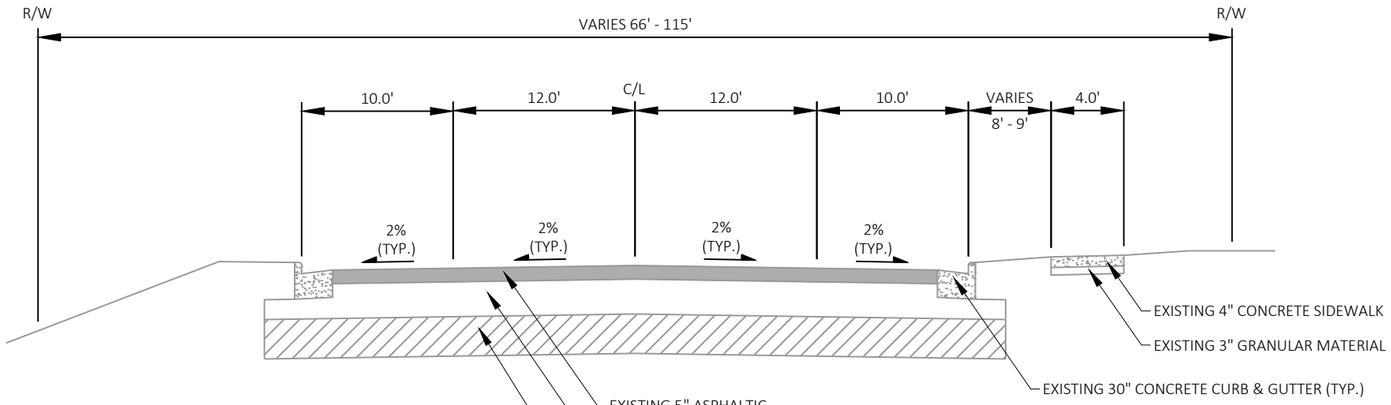
EXISTING TYPICAL SECTION - STH 23

STA. 495+78 TO STA. 496+24

EXISTING TYPICAL SECTION - STH 23

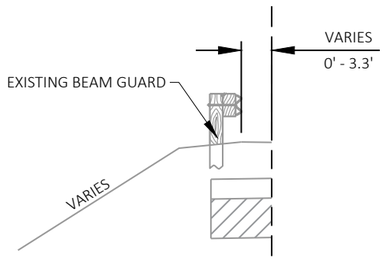
STA. 496+24 TO STA. 496+79
STA. 499+99 TO STA. 501+53

2



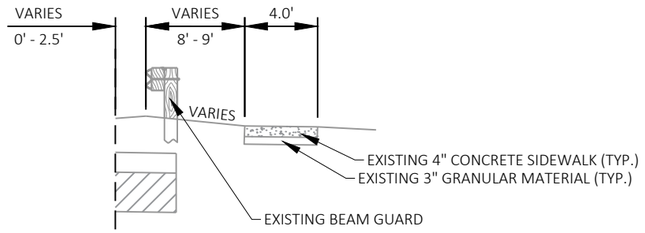
EXISTING TYPICAL SECTION - STH 23

STA. 501+53 TO STA. 503+00



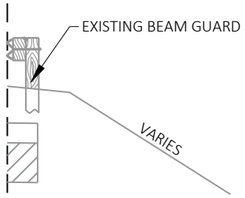
EXISTING TYPICAL SECTION - STH 23

STA. 502+38 TO STA. 502+84



EXISTING TYPICAL SECTION - STH 23

STA. 502+57 TO STA. 502+75

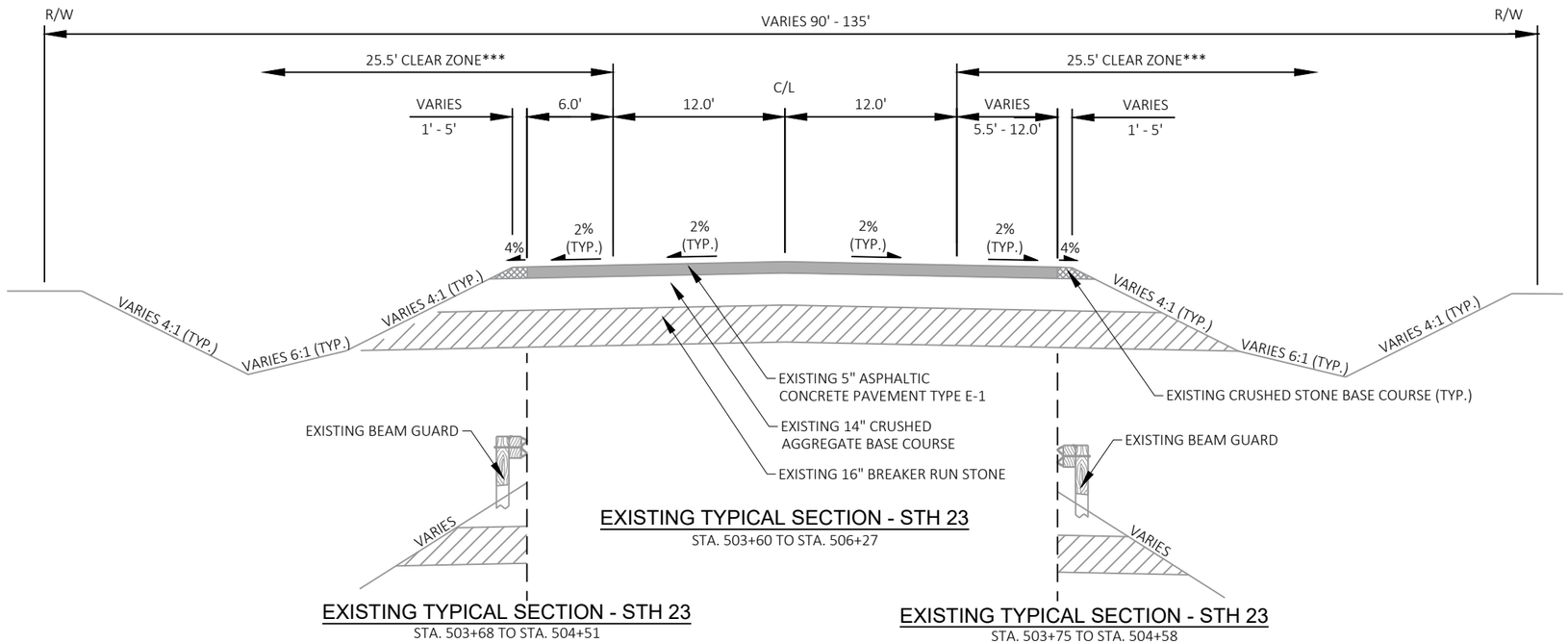


EXISTING TYPICAL SECTION - STH 23

STA. 502+75 TO STA. 502+92

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 10	E

2



EXISTING TYPICAL SECTION - STH 23
STA. 503+68 TO STA. 504+51

EXISTING TYPICAL SECTION - STH 23
STA. 503+60 TO STA. 506+27

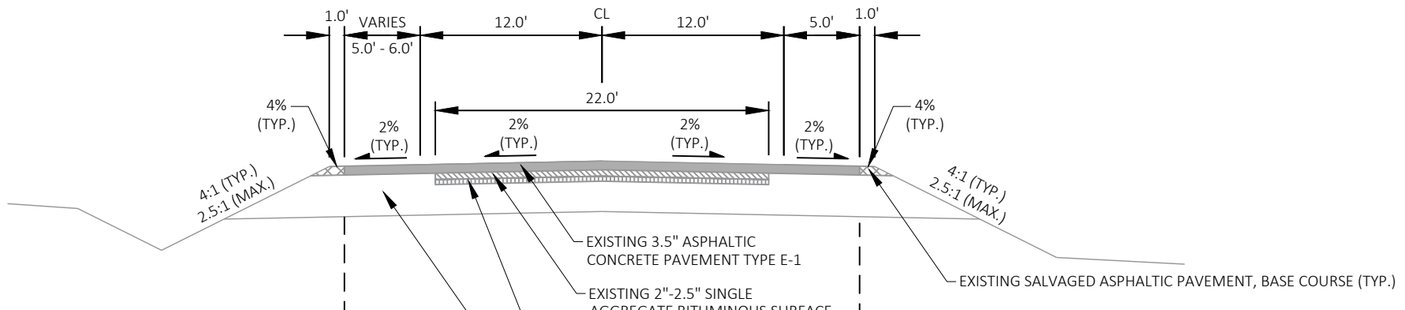
EXISTING TYPICAL SECTION - STH 23
STA. 503+75 TO STA. 504+58

CLEAR ZONE NOTES:

*** CLEAR ZONE AS SHOWN ON AS-BUILT PROJECT ID 5080-00-73 HONEY CREEK BRIDGE & APPROACHES, B-56-151

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 11	E

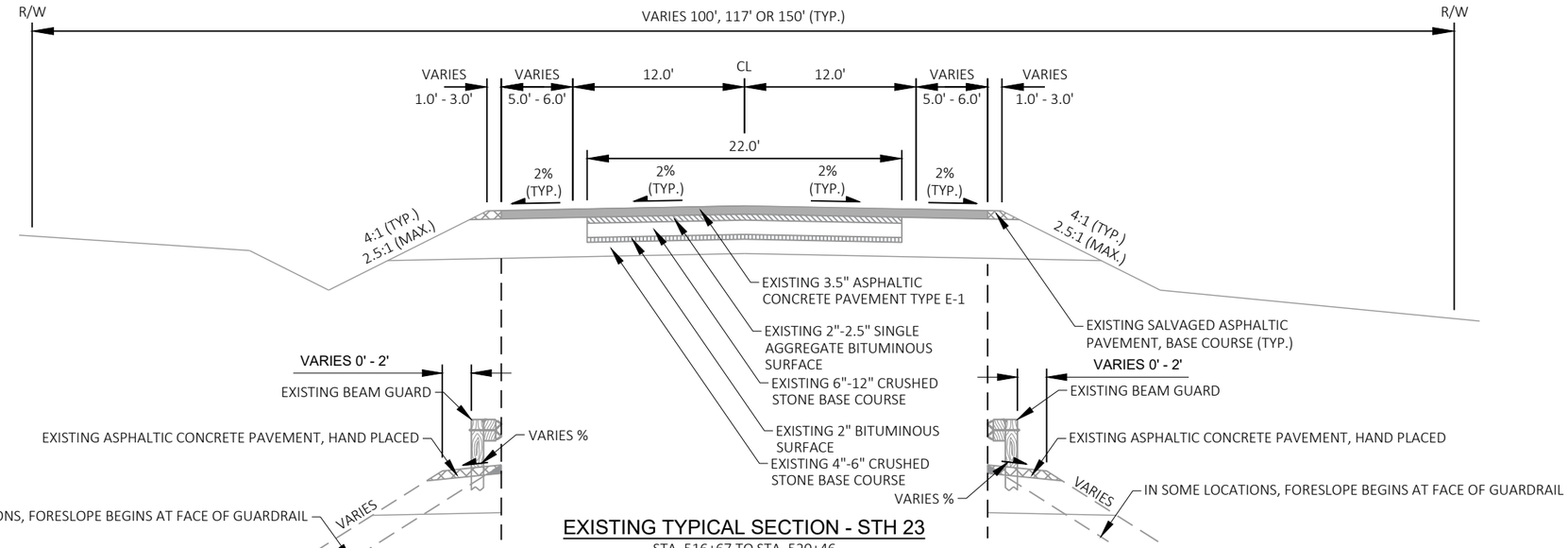
2



EXISTING TYPICAL SECTION - STH 23
STA. 512+17 TO STA. 516+67
STA. 520+46 TO STA. 531+97

EXISTING TYPICAL SECTION - STH 23
STA. 526+96 TO STA. 531+97

EXISTING TYPICAL SECTION - STH 23
STA. 528+32 TO STA. 531+97

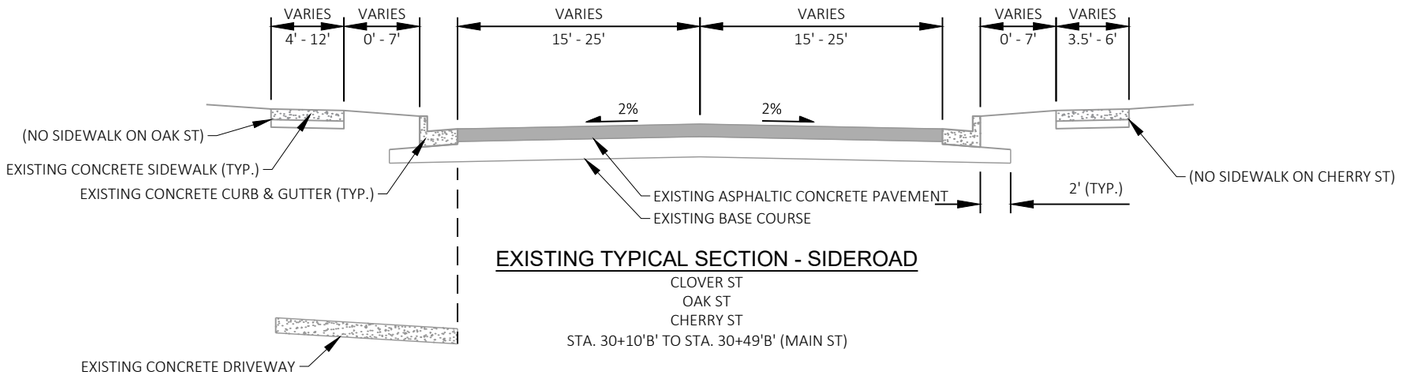


EXISTING TYPICAL SECTION - STH 23
STA. 531+97 TO STA. 534+87
STA. 543+12 TO STA. 545+94
STA. 551+08 TO STA. 559+88
STA. 730+68 TO STA. 731+75

EXISTING TYPICAL SECTION - STH 23
STA. 516+67 TO STA. 520+46
STA. 531+97 TO STA. 754+90
STA. 771+00 TO STA. 777+01.42

EXISTING TYPICAL SECTION - STH 23
STA. 531+97 TO STA. 534+35
STA. 543+39 TO STA. 545+31
STA. 565+46 TO STA. 575+88
STA. 729+18 TO STA. 730+96

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 12	E

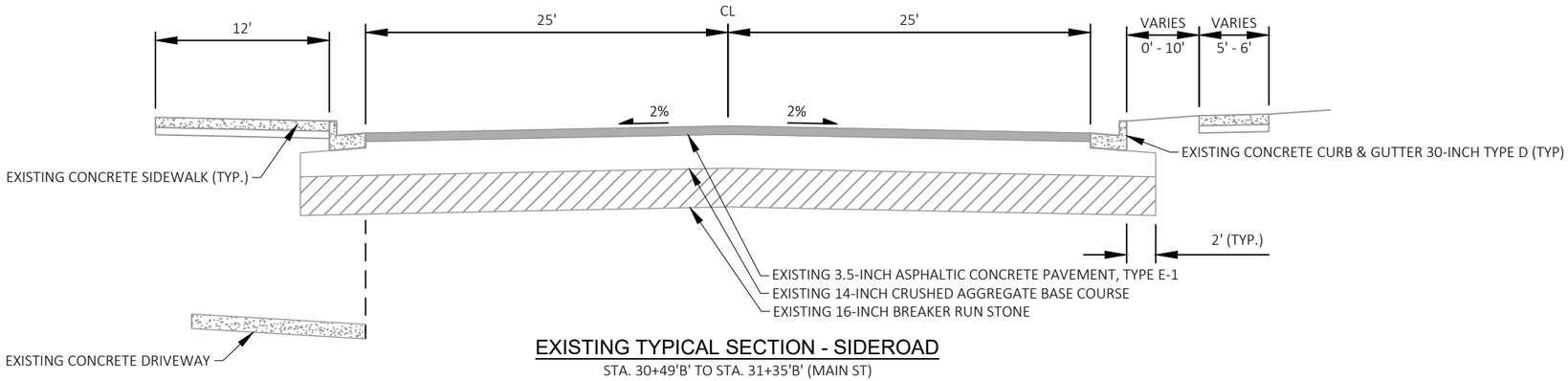


EXISTING TYPICAL SECTION - SIDEROAD

CLOVER ST
OAK ST
CHERRY ST
STA. 30+10'B' TO STA. 30+49'B' (MAIN ST)

EXISTING TYPICAL SECTION - SIDEROAD

STA. 31+71'B' TO STA. 31+87'B' (MAIN ST)

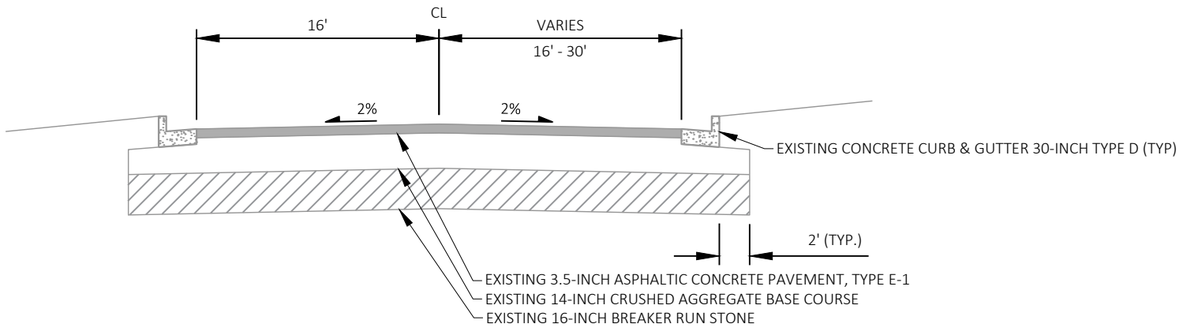


EXISTING TYPICAL SECTION - SIDEROAD

STA. 30+49'B' TO STA. 31+35'B' (MAIN ST)

EXISTING TYPICAL SECTION - SIDEROAD

STA. 31+35'B' TO STA. 31+86'B' (MAIN ST)

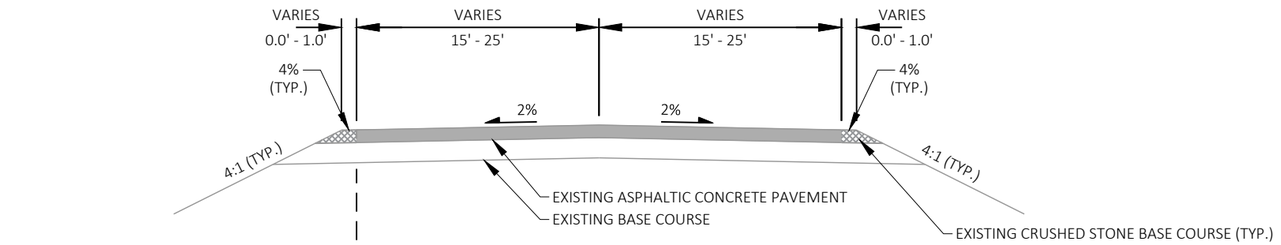


EXISTING TYPICAL SECTION - WILLOW ST

STA. 70+71'W' TO STA. 71+20'W' (WILLOW ST)

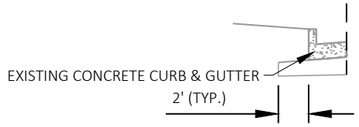
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 13	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\020301-TS.DWG
LAYOUT NAME - 020310-ts
PLOT DATE : 11/27/2023 1:51 PM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



EXISTING TYPICAL SECTION - SIDEROAD

WESTBROOK DR
ST. LUKES AVE



EXISTING TYPICAL SECTION - SIDEROAD

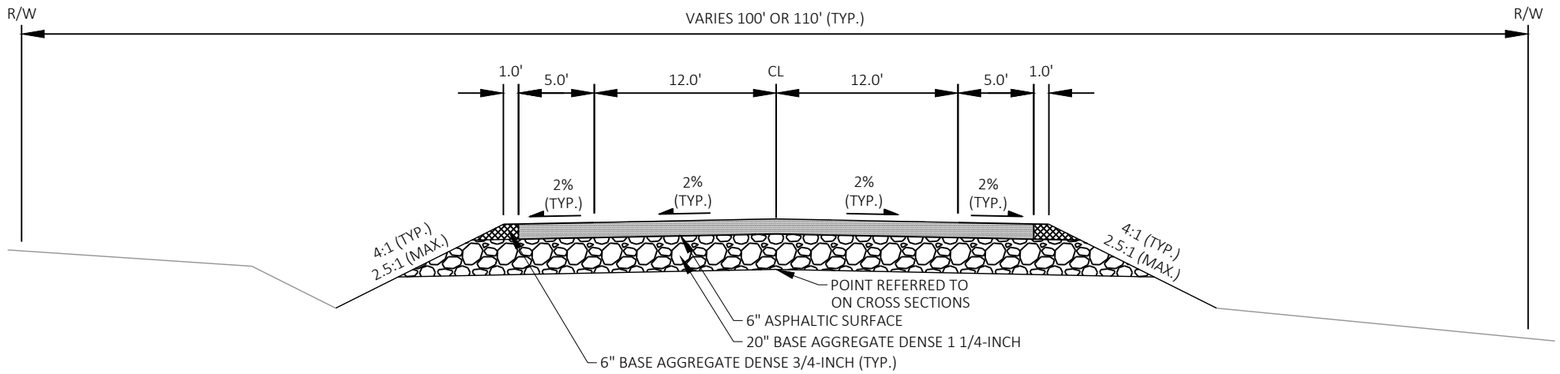
MAPLE ST

2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 14	E

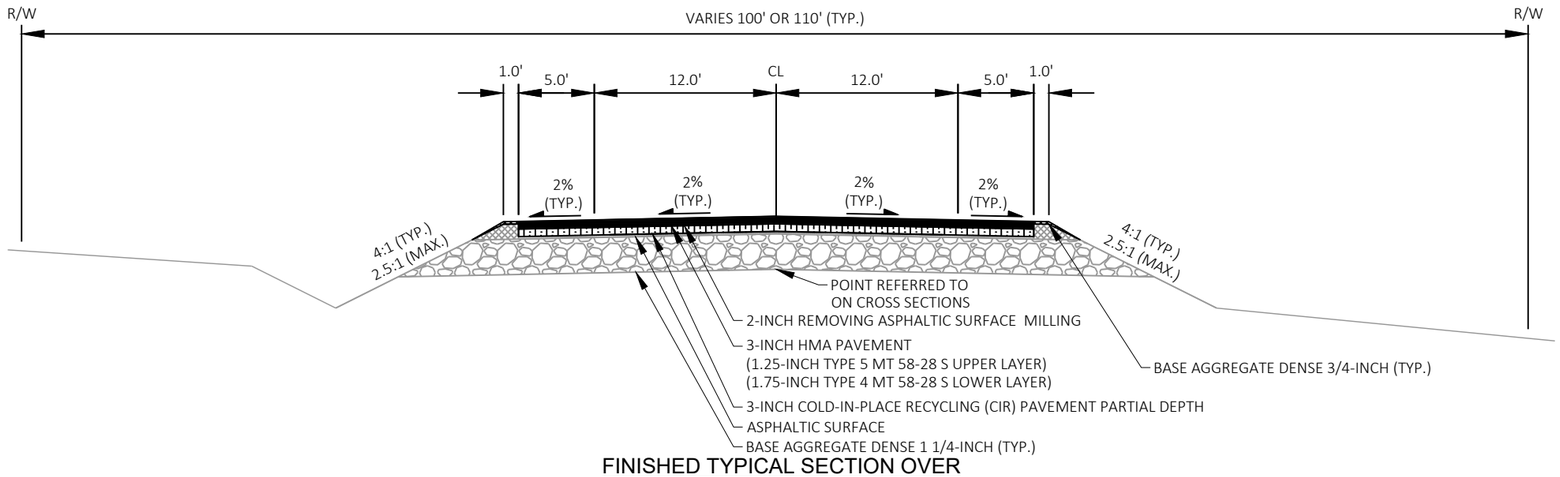
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\020301-TS.DWG
LAYOUT NAME - 020311-ts
PLOT DATE : 11/27/2023 1:51 PM
PLOT BY : CONNOR GIRTEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



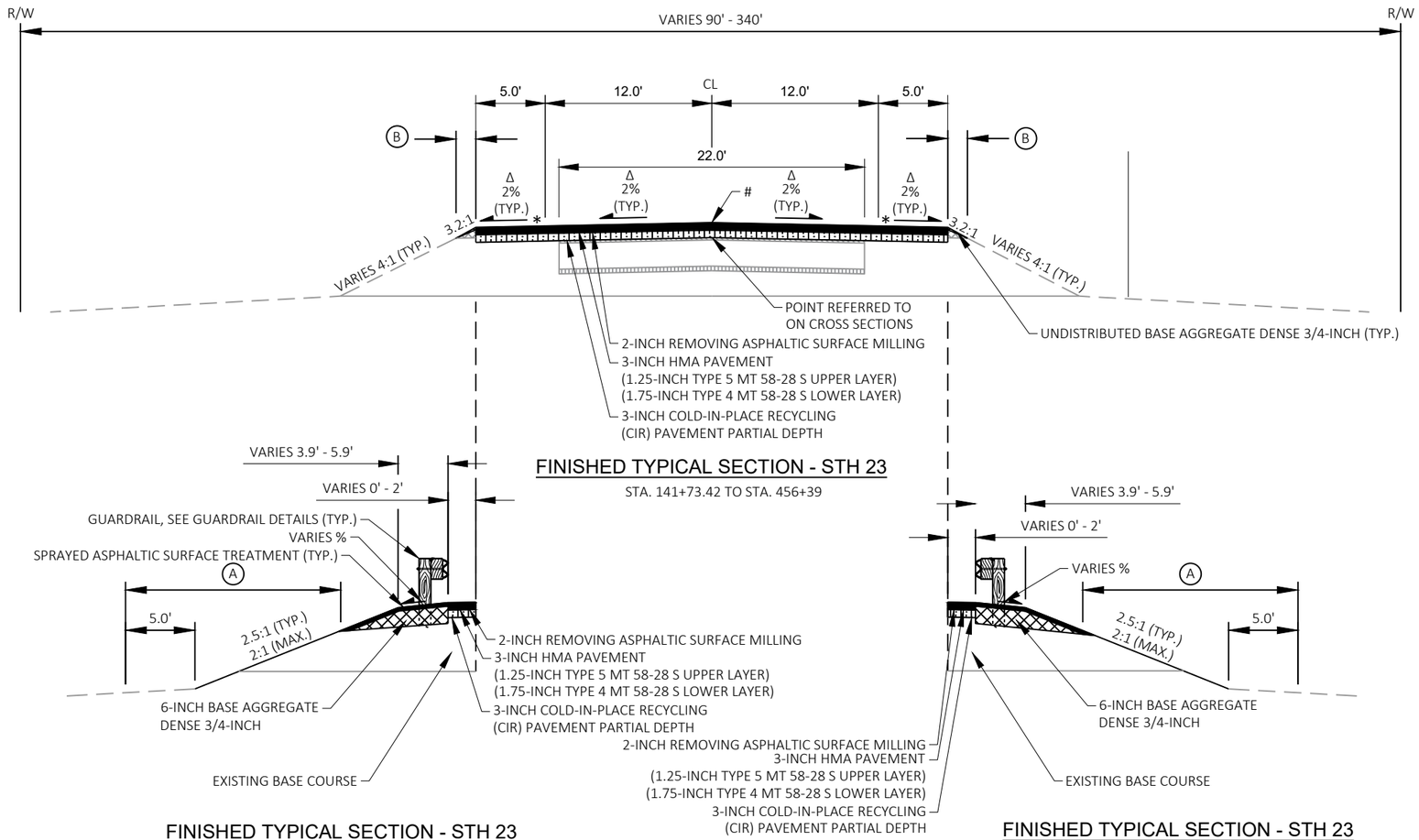
FINISHED TYPICAL SECTION OVER
CULVERT PIPES PRIOR TO CIR

STA. 729+79 TO STA. 731+51



FINISHED TYPICAL SECTION OVER
CULVERT PIPES

STA. 729+79 TO STA. 731+51



FINISHED TYPICAL SECTION - STH 23

STA. 141+73.42 TO STA. 456+39

FINISHED TYPICAL SECTION - STH 23

STA. 216+36 LT. TO STA. 235+76 LT.
STA. 242+86 LT. TO STA. 247+87 LT.
STA. 261+69 LT. TO STA. 274+51 LT.
STA. 277+49 LT. TO STA. 282+11 LT.
STA. 321+30 LT. TO STA. 327+07 LT.
STA. 357+34 LT. TO STA. 362+29 LT.

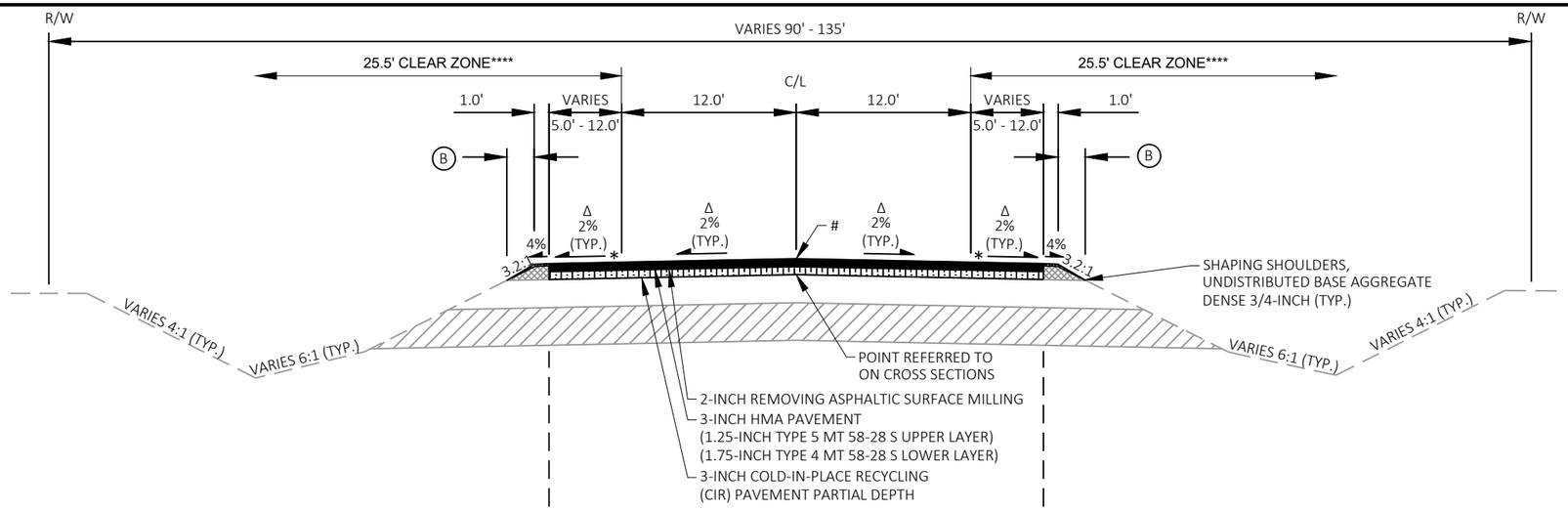
FINISHED TYPICAL SECTION - STH 23

STA. 241+02 RT. TO STA. 247+29 RT.
STA. 288+80 RT. TO STA. 291+24 RT.
STA. 332+27 RT. TO STA. 337+98 RT.
STA. 357+44 RT. TO STA. 368+32 RT.

NOTES:

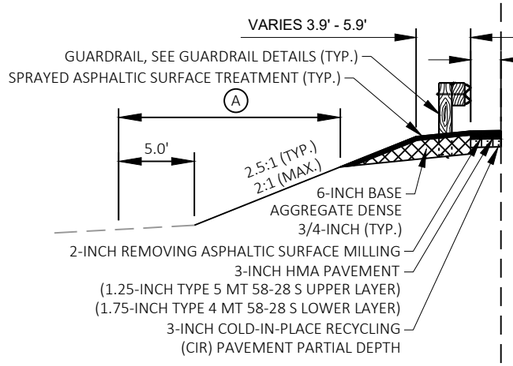
Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS
\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL
* ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL
(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT
(B) SEEDING & FERTILIZER TYPE B

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 16	E



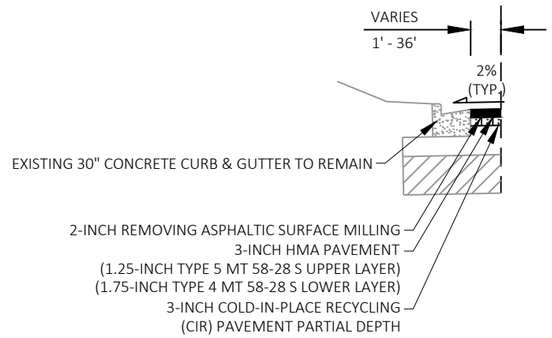
FINISHED TYPICAL SECTION - STH 23

STA. 456+39 TO STA. 462+95
STA. 503+00 TO STA. 506+27



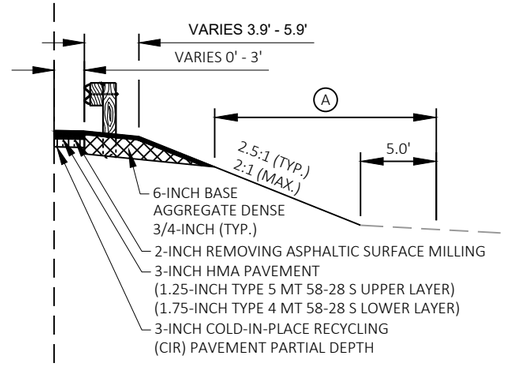
FINISHED TYPICAL SECTION - STH 23

STA. 456+88 LT. TO STA. 459+65 LT.
STA. 503+65 LT. TO STA. 504+58 LT.



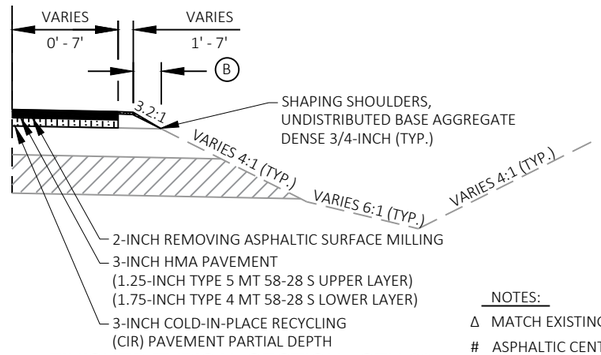
FINISHED TYPICAL SECTION - STH 23

STA. 460+22 TO STA. 462+79



FINISHED TYPICAL SECTION - STH 23

STA. 458+51 RT. TO STA. 462+32 RT.
STA. 503+72 RT. TO STA. 504+65 RT.



FINISHED TYPICAL SECTION - STH 23

STA. 504+85 TO STA. 506+27

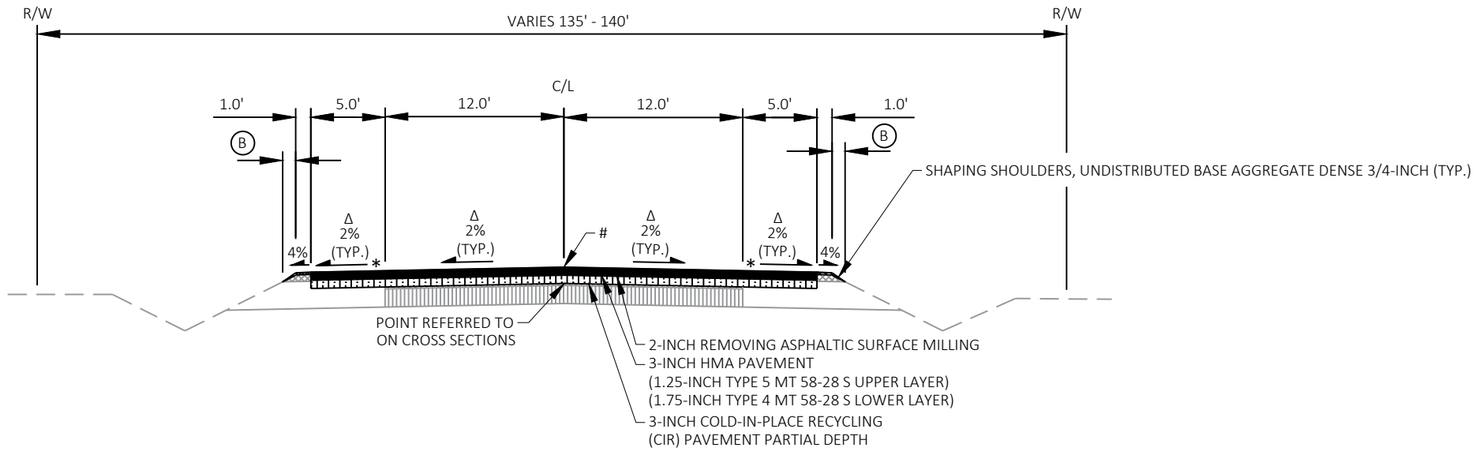
CLEAR ZONE NOTES:

CLEAR ZONE AS SHOWN ON AS-BUILT PROJECT ID:
**** 5080-02-73 BRANCH OF HONEY CREEK BRIDGE & APPROACHES, C-56-27
5080-00-73 HONEY CREEK BRIDGE & APPROACHES, B-56-151

NOTES:

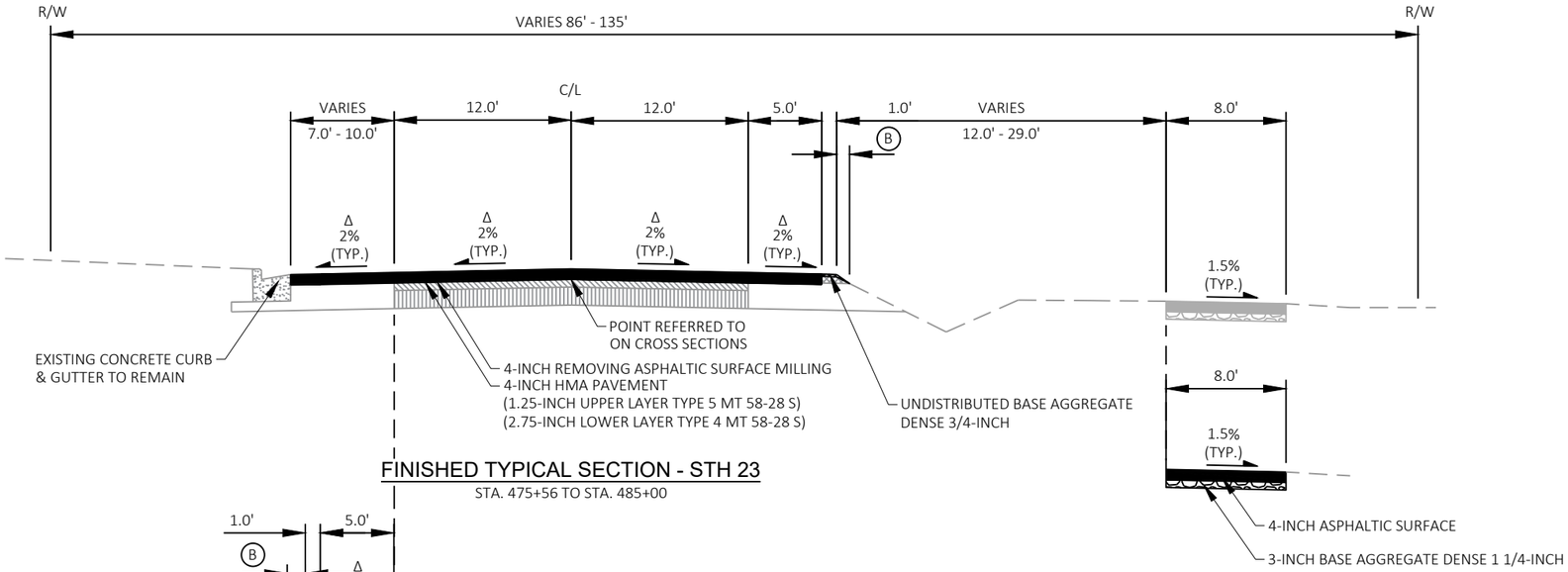
- Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS
- # ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL
- * ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL
- (A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT
- (B) SEEDING & FERTILIZER TYPE B

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 17	E



FINISHED TYPICAL SECTION - STH 23

STA. 462+95 TO STA. 475+38

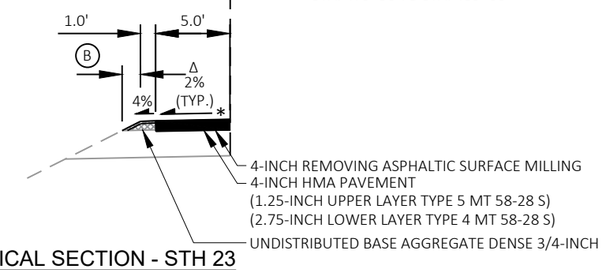


FINISHED TYPICAL SECTION - STH 23

STA. 475+56 TO STA. 485+00

FINISHED TYPICAL SECTION - STH 23

STA. 484+20 TO STA. 484+95



FINISHED TYPICAL SECTION - STH 23

STA. 475+38 TO STA. 475+56

NOTES:

Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS

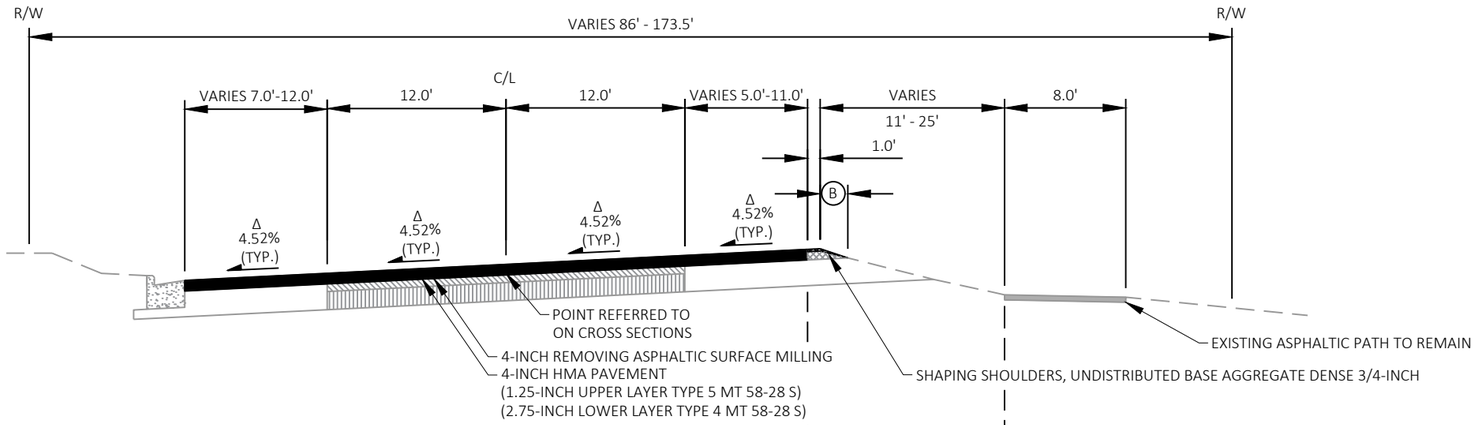
\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

* ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL

(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

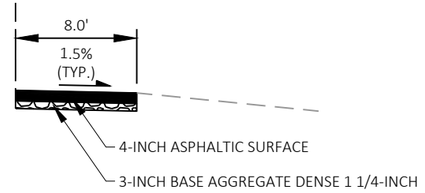
(B) SEEDING & FERTILIZER TYPE B

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 18	E



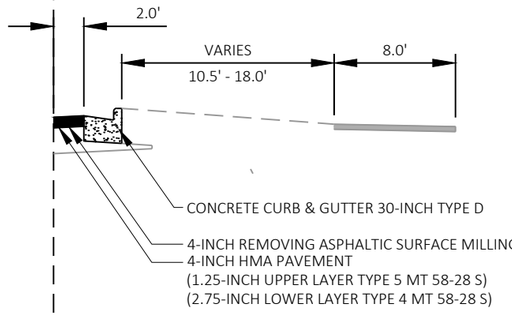
FINISHED TYPICAL SECTION - STH 23

STA. 485+00 TO STA. 492+16



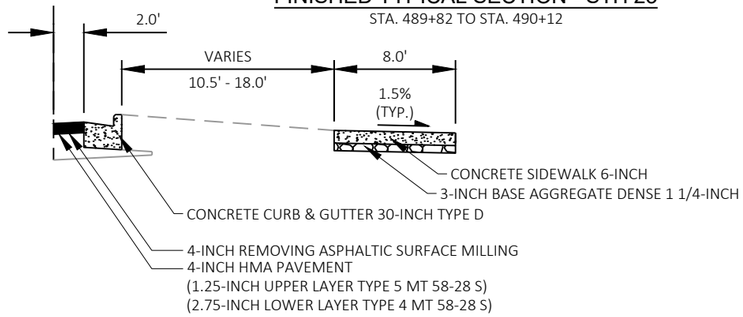
FINISHED TYPICAL SECTION - STH 23

STA. 488+48 TO STA. 488+73



FINISHED TYPICAL SECTION - STH 23

STA. 489+82 TO STA. 490+12



FINISHED TYPICAL SECTION - STH 23

STA. 490+12 TO STA. 491+79

NOTES:

Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS

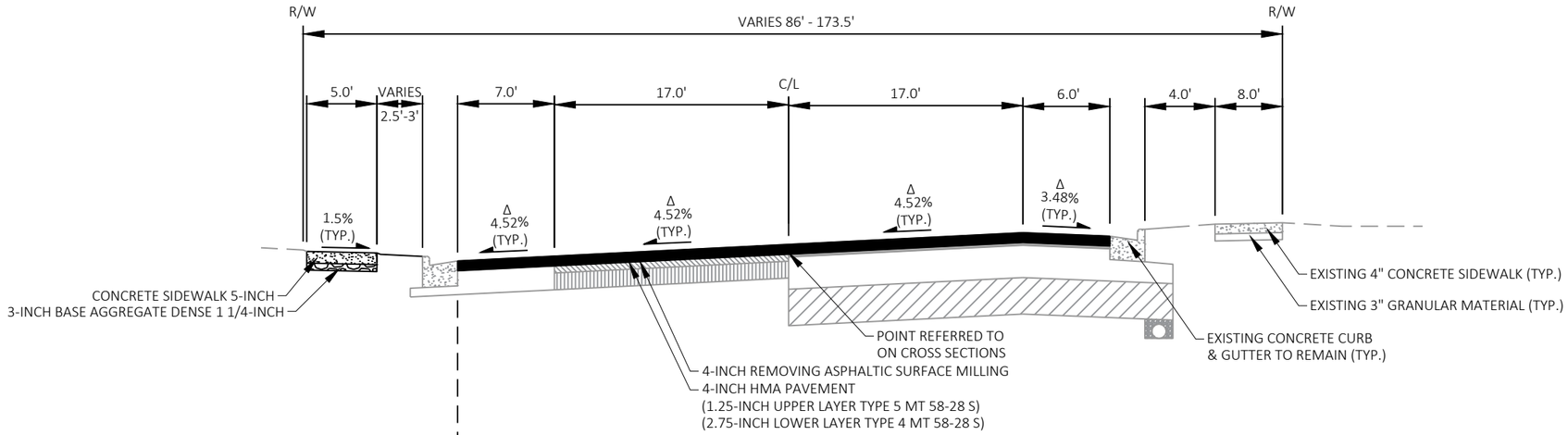
\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

∗ ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL

(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

(B) SEEDING & FERTILIZER TYPE B

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 19	E

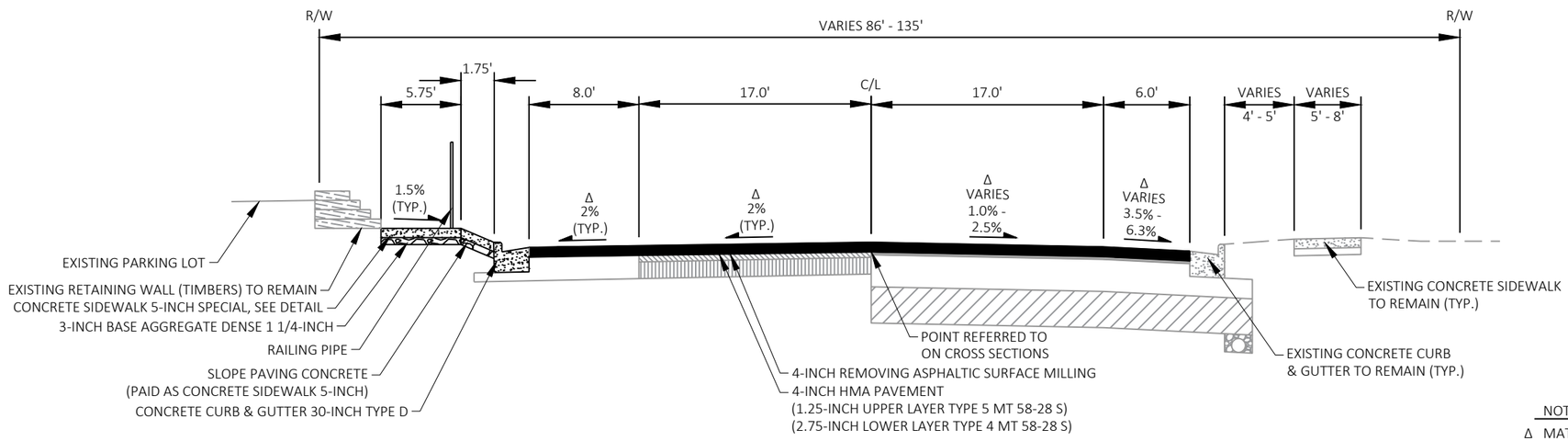


FINISHED TYPICAL SECTION - STH 23

STA. 492+16 TO STA. 493+65

FINISHED TYPICAL SECTION - STH 23

STA. 493+00 TO STA. 493+65



FINISHED TYPICAL SECTION - STH 23

STA. 493+65 TO STA. 495+11

NOTES:

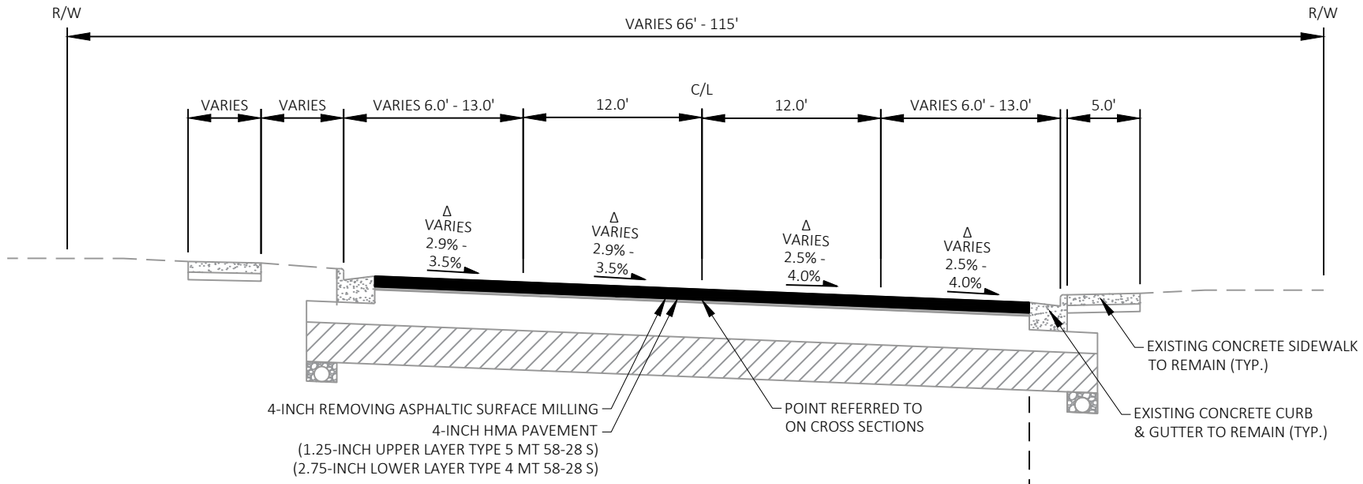
Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS

\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

∗ ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL

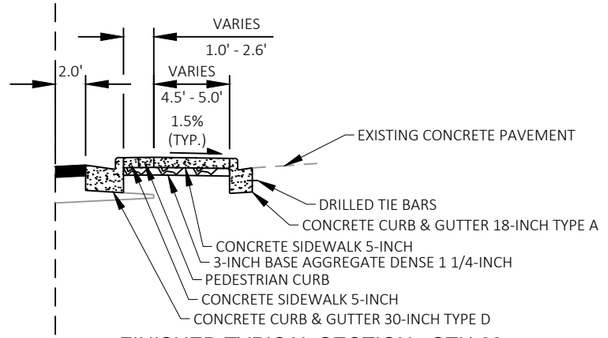
(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

(B) SEEDING & FERTILIZER TYPE B



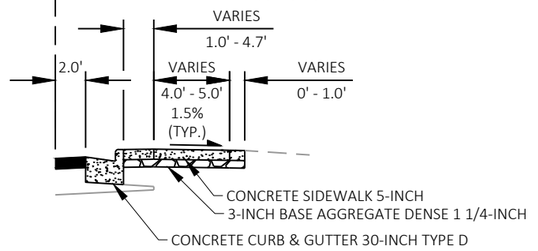
FINISHED TYPICAL SECTION - STH 23

STA. 495+11 TO STA. 501+53



FINISHED TYPICAL SECTION - STH 23

STA. 495+40 TO STA. 495+78



FINISHED TYPICAL SECTION - STH 23

STA. 495+78 TO STA. 496+79

NOTES:

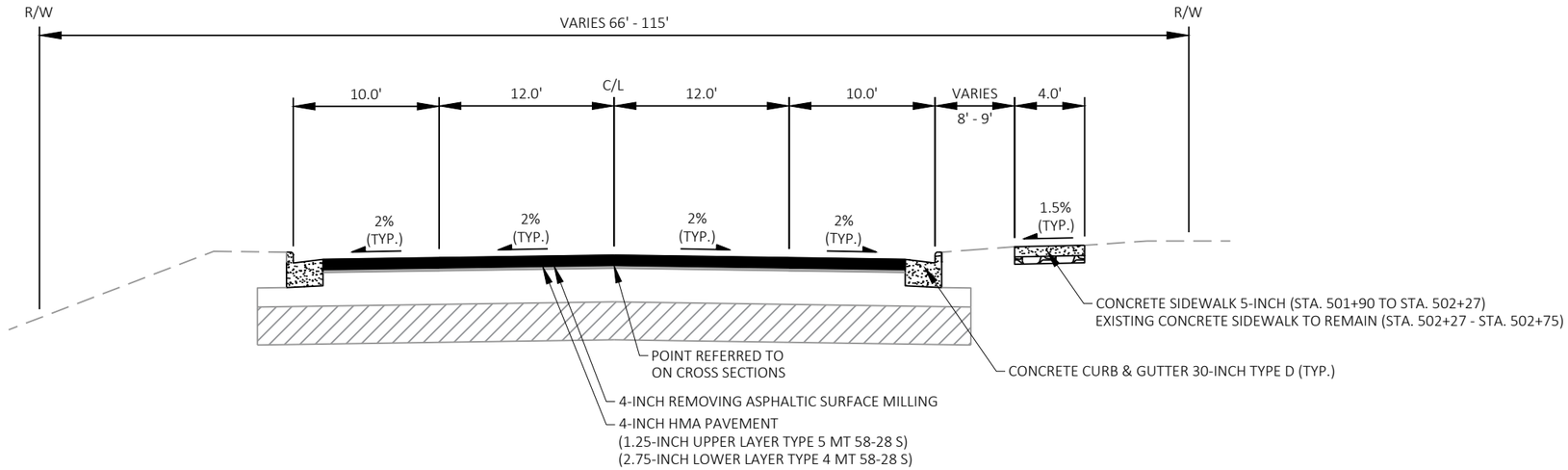
Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS

\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

∗ ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL

(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

(B) SEEDING & FERTILIZER TYPE B



FINISHED TYPICAL SECTION - STH 23

STA. 501+53 TO STA. 503+00

NOTES:

Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS

\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

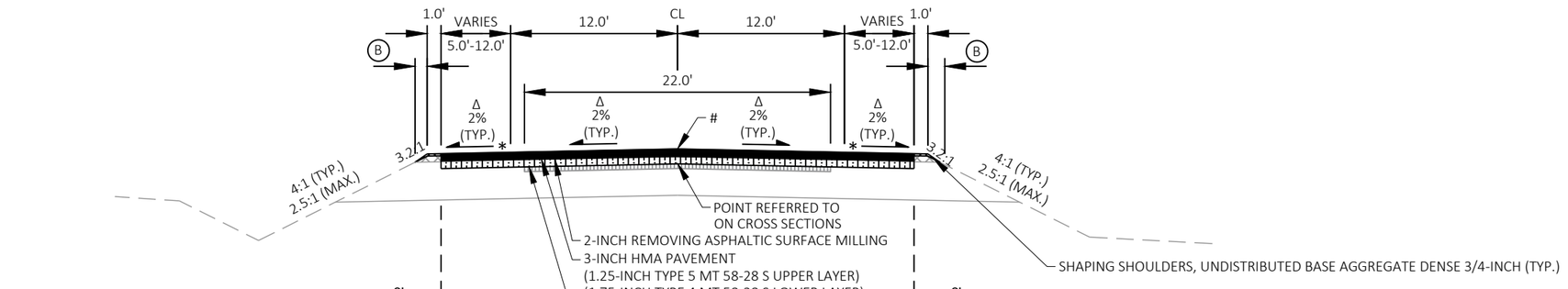
∗ ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL

(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

(B) SEEDING & FERTILIZER TYPE B

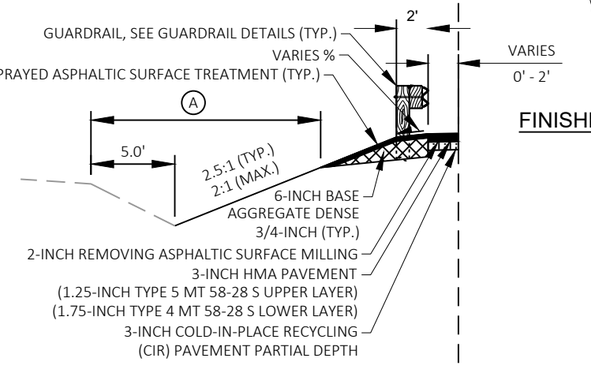
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 22	E

2



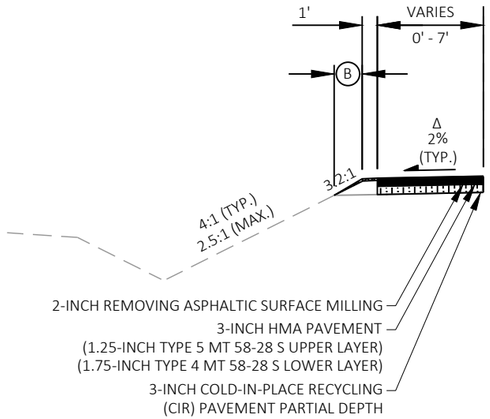
FINISHED TYPICAL SECTION - STH 23

STA. 506+27 TO STA. 516+67
STA. 520+43 TO STA. 535+24



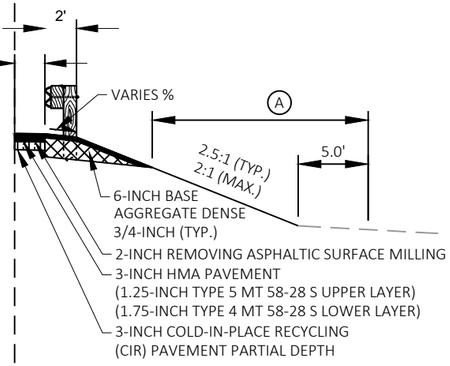
FINISHED TYPICAL SECTION - STH 23

STA. 526+59 LT. TO STA. 534+90 LT.



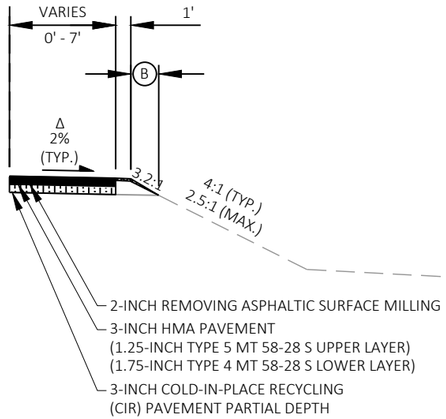
FINISHED TYPICAL SECTION - STH 23

STA. 506+88 TO STA. 512+27



FINISHED TYPICAL SECTION - STH 23

STA. 528+32 RT. TO STA. 534+85 RT.

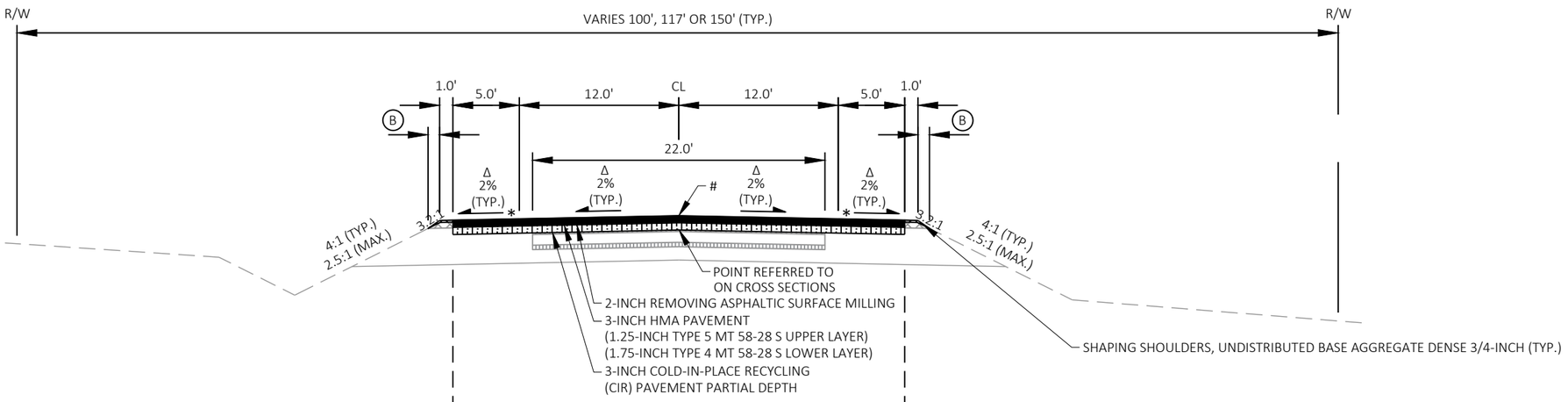


FINISHED TYPICAL SECTION - STH 23

STA. 506+27 TO STA. 509+66

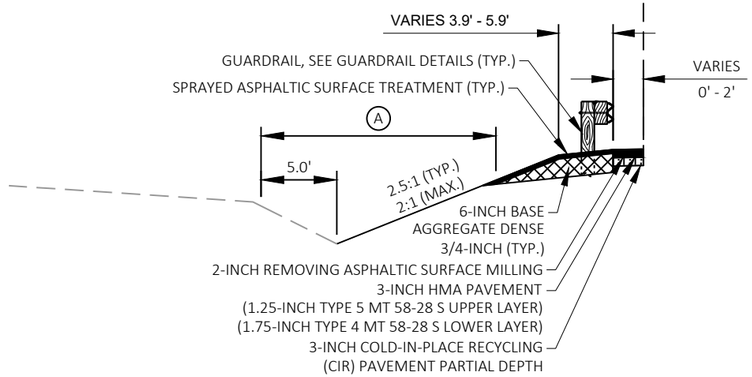
NOTES:

- Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS
- # ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL
- * ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL
- (A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT
- (B) SEEDING & FERTILIZER TYPE B



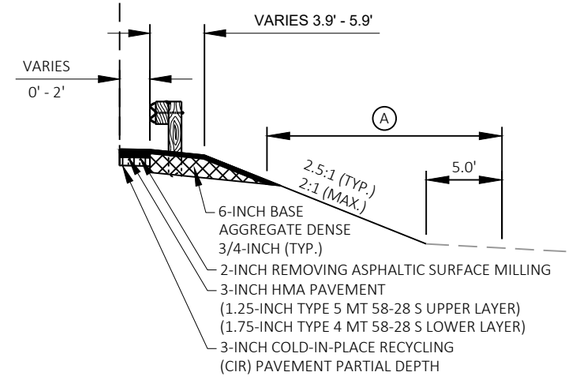
FINISHED TYPICAL SECTION - STH 23

STA. 516+67 TO STA. 520+46
STA. 531+97 TO STA. 543+99
STA. 544+72 TO STA. 729+79
STA. 731+51 TO STA. 754+90
STA. 771+00 TO STA. 777+01.42



FINISHED TYPICAL SECTION - STH 23

STA. 543+17 LT. TO STA. 544+10 LT.
STA. 544+60 LT. TO STA. 546+03 LT.
STA. 551+05 LT. TO STA. 560+37 LT.



FINISHED TYPICAL SECTION - STH 23

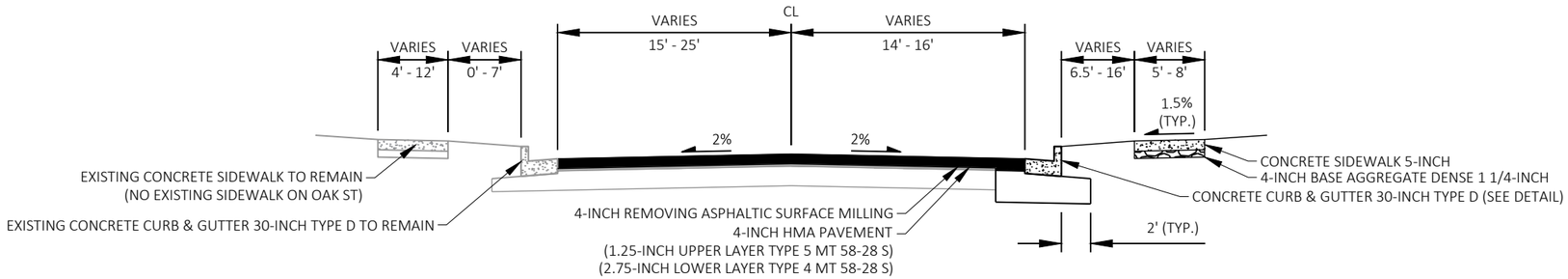
STA. 543+39 RT. TO STA. 544+10 RT.
STA. 544+60 RT. TO STA. 545+30 RT.
STA. 565+43 RT. TO STA. 575+88 RT.

NOTES:

Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS
\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL
* ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL
(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT
(B) SEEDING & FERTILIZER TYPE B

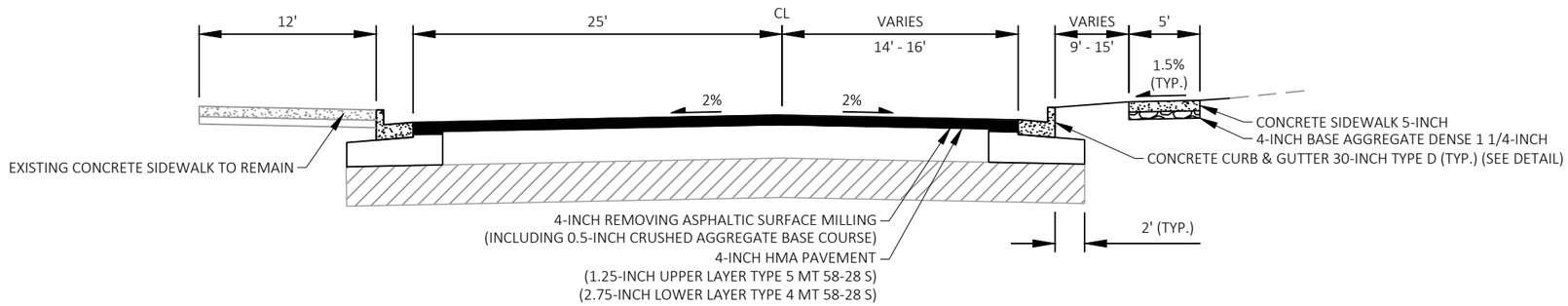
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 24	E

2



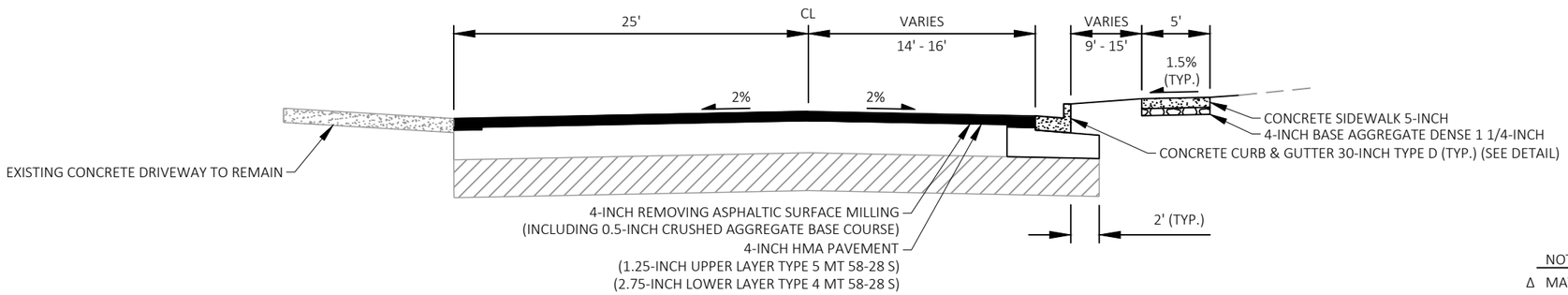
FINISHED TYPICAL SECTION - SIDEROADS

CLOVER ST
STA. 30+11'B' TO STA. 30+49'B' (MAIN ST)



FINISHED TYPICAL SECTION - SIDEROADS

STA. 30+49'B' TO STA. 31+35'B' (MAIN ST)



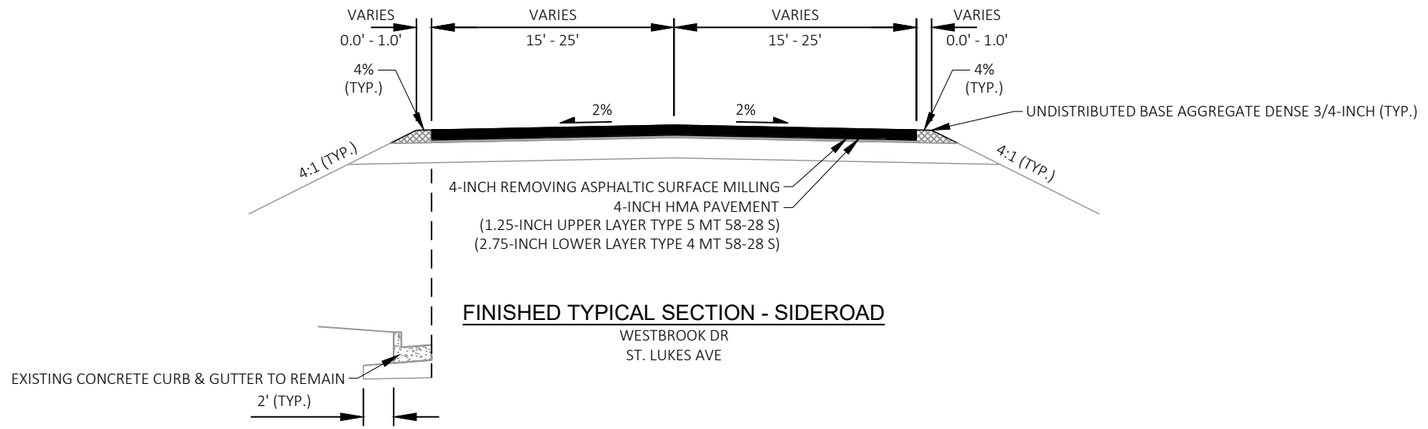
FINISHED TYPICAL SECTION - SIDEROADS

STA. 31+35'B' TO STA. 31+86'B' (MAIN ST)

NOTES:

- Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS
- # ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL
- ∗ ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL
- (A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT
- (B) SEEDING & FERTILIZER TYPE B

2

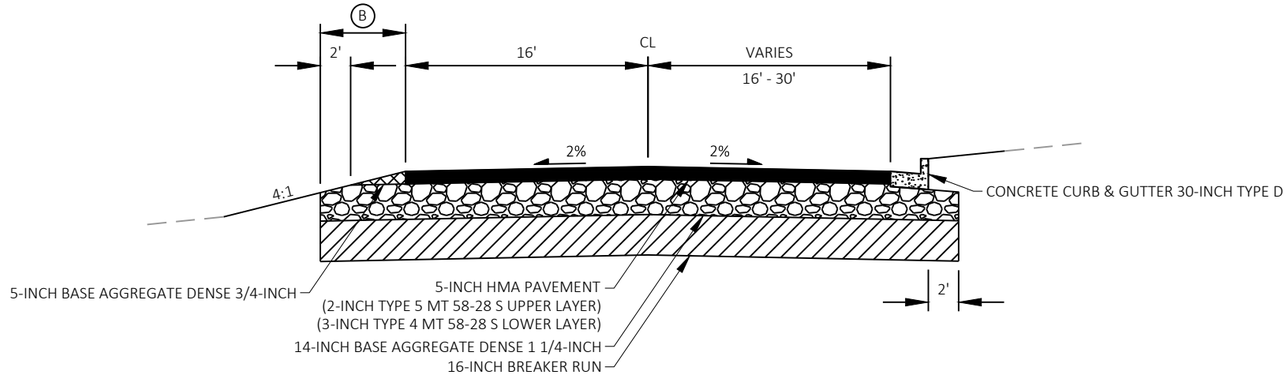


FINISHED TYPICAL SECTION - SIDEROAD

WESTBROOK DR
ST. LUKES AVE

FINISHED TYPICAL SECTION - SIDEROAD

MAPLE ST



FINISHED TYPICAL SECTION - WILLOW ST

STA. 70+71'W' TO STA. 71+20'W'

NOTES:

Δ MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS

\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

∗ ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL

(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

(B) SEEDING & FERTILIZER TYPE B

2

BORING SUMMARY TABLE 1

BORING NUMBER	FEET	STATION	OFFSET	EXISTING ASPHALT DEPTH	RAP DEPTH	BASE AGGREGATE DEPTH	TOTAL BASE AGG. + RAP	SUBGRADE TYPE	COMMENT
START	0.00	141+00							USH 14/STH 23 INTERSECTION
B-1	475.20	145+75	6' RT	7"	4"	3"	7"	SANDY SILT	
B-2	1900.80	160+01	9' RT	3"	7"	3"	10"	SAND	
B-3	3326.40	174+26	3' RT	6"	6"	5"	11"	SAND	
B-4	4857.60	189+58	15' RT	5"	5"	5"	10"	SILTY SAND	
	5280.00								TIMBERLINE ROAD
B-5	6230.40	203+30	6' LT	5"	-	8"	8"	SAND	
B-6	7656.00	217+56	9' LT	4"	8"	-	8"	SAND	
B-7	8764.80	228+65	6' LT	6"	6"	4"	10"	SAND	
B-8	9979.20	240+79	13' LT	4"	6"BASE/6" RAP	4"	14"	SAND	
	10612.80	247+13							CTH WC
B-9	11510.40	256+10	6' RT	6"	-	9"	9"	SILTY SAND	
	11932.80								HORSESHOE ROAD
B-10	12988.80	270+89	9' RT	12"	-	3"	3"	SAND	
B-11	14414.40	285+14	6' RT	3"	7"	6"	13"	SAND	
	14784.00								ROLLING RIDGE ROAD
B-12	15628.80	297+29	15' RT	3"	-	11"	11"	SAND	
B-13	16948.80	310+49	6' LT	4"	-	12"	12"	SILTY SAND	
B-14	18268.80	323+69	9' RT	4"	-	12"	12"	SILT	
	19641.60								PAULUS ROAD
B-15	19852.80	339+53	6' LT	6"	10"	-	10"	SANDY SILT	
B-16	21014.40	351+14	15' LT	3"	-	9"	9"	SILTY SAND	
B-17	22756.80	368+57	6' RT	6"	6"	6"	12"	SILTY SAND	
B-18	23654.40	377+54	9' RT	6"	6"	6"	12"	SANDY SILT	
B-19	24974.40	390+74	6' RT	4"	8"	6"	14"	SILT	
B-20	26294.40	403+94	15' RT	4"	6"	6"	12"	SANDY SILT	
B-21	27350.40	414+50	6' RT	4"	6"	6"	12"	SANDY SILT	
	27456.00								OLD 23
B-22	28512.00	426+12	9' LT	4"	6"	6"	12"	SANDY SILT	
B-23	29832.00	439+32	6' LT	4"	7"	4"	11"	SANDY SILT	

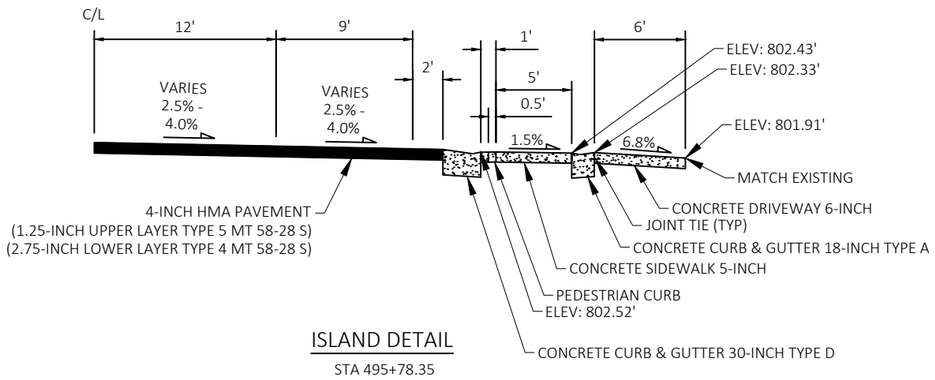
BORING SUMMARY TABLE 2

BORING NUMBER	FEET	STATION	OFFSET	EXISTING ASPHALT DEPTH	RAP DEPTH	SUBGRADE DEPTH	TOTAL BASE AGG. + RAP	SUBGRADE TYPE	COMMENT
B-24	31310.40	454+10	15' LT	3"	6"	6"	12"	SAND	
	31627.20								PAULUS ROAD
B-25	32524.80	466+25	6' RT	6"	-	7"	7"	SAND	
B-26	33580.80	476+81	9' RT	4"	6"	6"	12"	SILT	
	34214.40								WESTBROOK DRIVE
B-27	34742.40	488+42	6' RT	5"	-	6"	6"	SILTY SAND	
	35323.20								CTH B
B-28	36326.40	504+26	6' LT	8"	-	16"	16"	SILTY SAND	
	36643.20								KRAEMER ROAD
B-29	37540.80	516+41	9' LT	4"	-	14"	14"	SILT	
B-30	38596.80	526+97	6' LT	6"	-	10"	10"	SAND	
B-31	39969.60	540+70	15' LT	4"	4"	10"	14"	SILT	
	40497.60								CTH N
B-32	41289.60	553+90	0'	4"	8"	12"	20"	SAND	
B-33	42345.60	564+46	9' RT	4"	-	10"	10"	SILTY SAND	
B-34	43560.00	576+60	6' RT	4"	8"	12"	20"	SILTY SAND	
B-35	44827.20	589+27	15' RT	4"	-	20"	20"	SILTY SAND	
B-36	46147.20	602+47	6' LT	13"	-	11"	11"	SILTY SAND	
B-37	47308.80	614+09	9' LT	11"	-	11"	11"	SILTY SAND	
B-38	48523.20	626+23	6' LT	4"	8"	10"	18"	SILTY SAND	
B-39	50001.60	641+02	15' LT	4"	-	14"	14"	SILTY SAND	
	50212.80								LELAND ROAD
B-40	51427.20	655+27	6' RT	3"	8"	11"	19"	SILTY SAND	
	51902.40								PEAK LANE
B-41	52694.40	667+94	9' RT	4"	6"	6"	12"	SILTY SAND	
B-42	53908.80	680+09	6' RT	5"	6"	9"	15"	SILTY SAND	
B-43	55334.40	694+34	15' RT	4"	-	18"	18"	SILTY SAND	
	56179.20								HICKORY ROAD
B-44	56496.00	705+96	6' LT	6"	18"	-	18"	SANDY SILT	

BORING SUMMARY TABLE 3

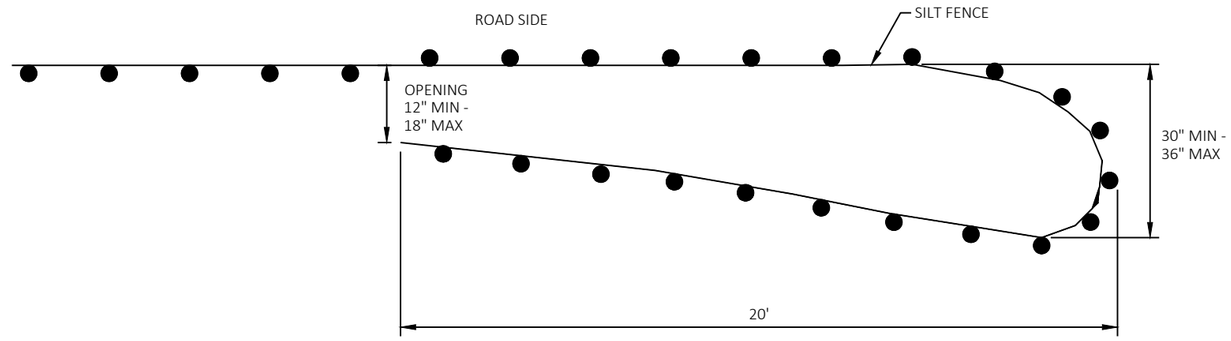
BORING NUMBER	FEET	STATION	OFFSET	EXISTING ASPHALT DEPTH	RAP DEPTH	SUBGRADE DEPTH	TOTAL BASE AGG. + RAP	SUBGRADE TYPE	COMMENT
B-45	57763.2	718+63	10' LT	4"	-	16"	16"	SILTY SAND	
	58819.2								DAWN ROAD
B-46	58977.6	730+78	0'	5"	7"	8"	15"	SILT	
B-47	60086.4	741+86	15' LT	4"	-	20"	20"	SILT	
	60667.2								VALLEY VIEW ROAD
B-48	61195.2	752+95	6' RT	4"	-	14"	14"	SILTY SAND	
	62409.6								
B-49	62779.2	768+79	9' RT	6"	6"	12"	18"	SILTY SAND	
	63307.2								CTH GG

2



ISLAND DETAIL

STA 495+78.35



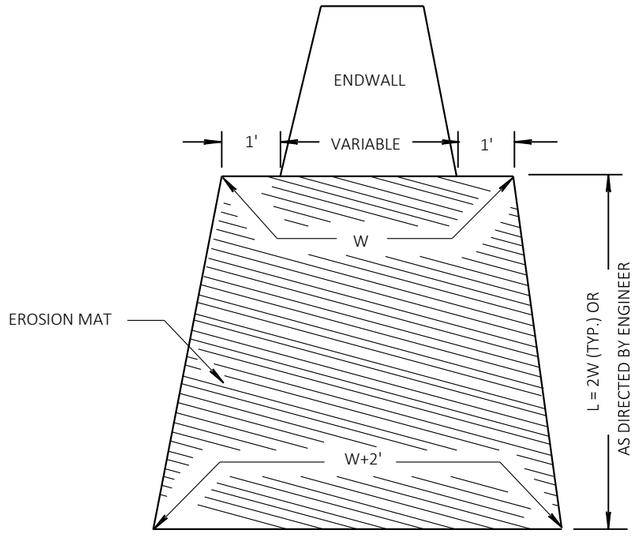
PLAN VIEW

GENERAL NOTES:

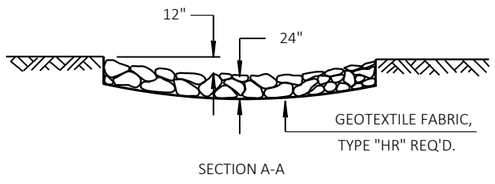
SILT FENCE POSTS FOR THE TURN-AROUND SHALL BE ON THE OUTSIDE OF THE TURN-AROUND AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

TEMPORARY SMALL ANIMAL TURN-AROUND

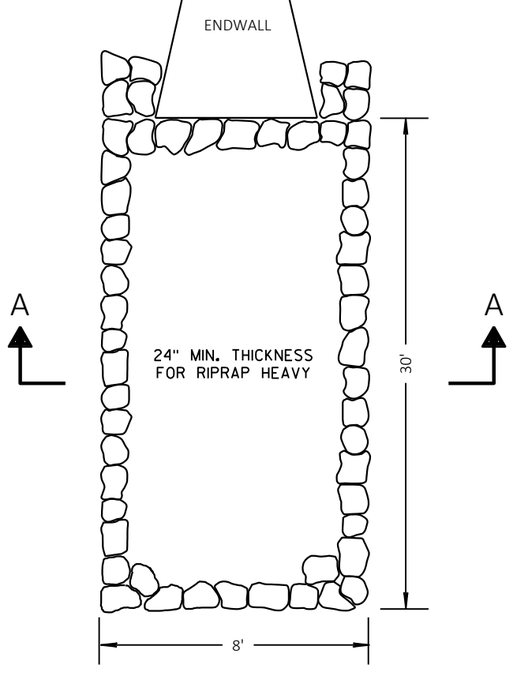
STA. 234+82 RT
STA. 240+65 RT
STA. 240+75 RT
STA. 242+12 LT
STA. 242+22 LT
STA. 247+22 RT
STA. 249+12 LT



EROSION MAT TREATMENT AT CULVERTS

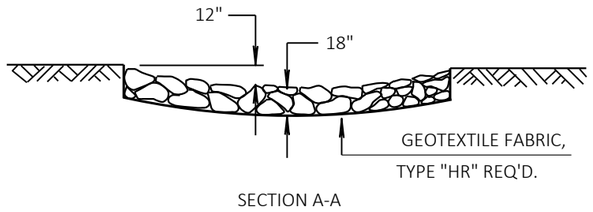


SECTION A-A

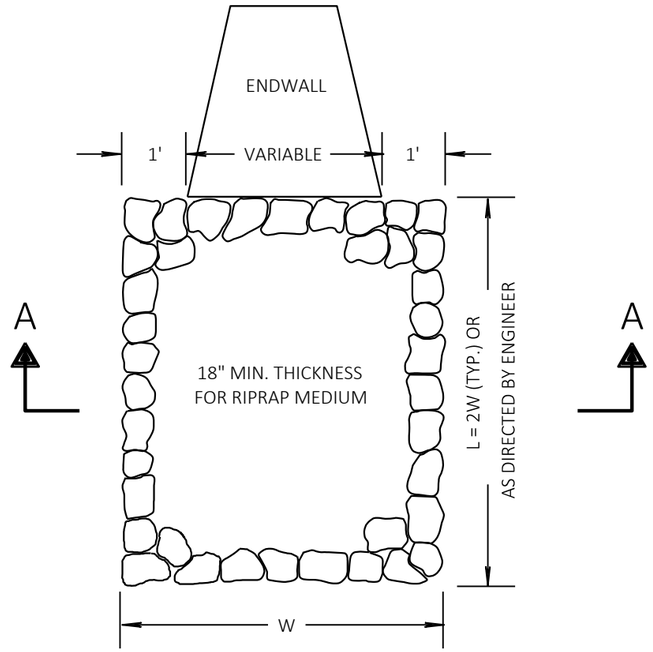


RIPRAP HEAVY TREATMENT AT CULVERTS

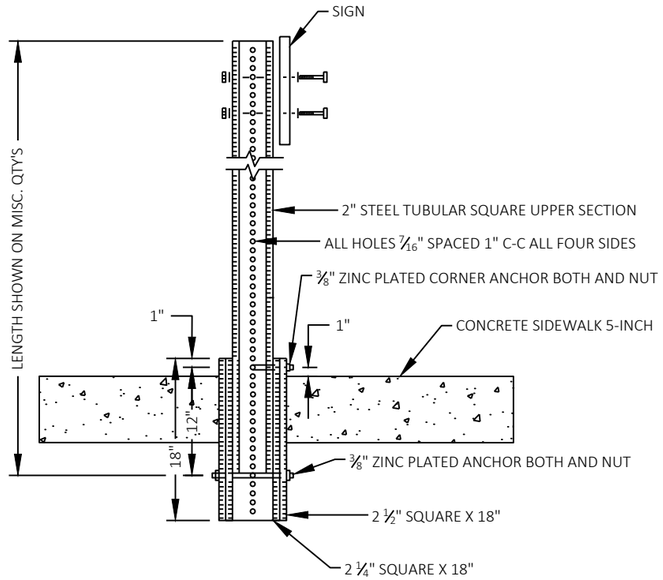
NOT TO SCALE
STA 575+36 RT



SECTION A-A

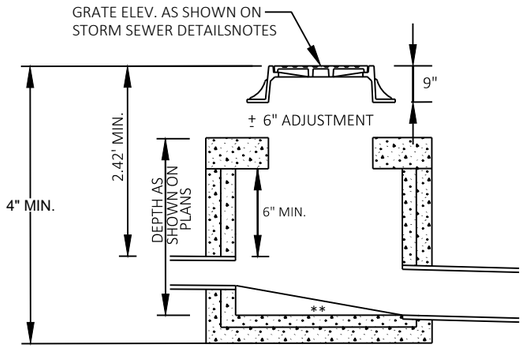


RIPRAP MEDIUM TREATMENT AT CULVERTS



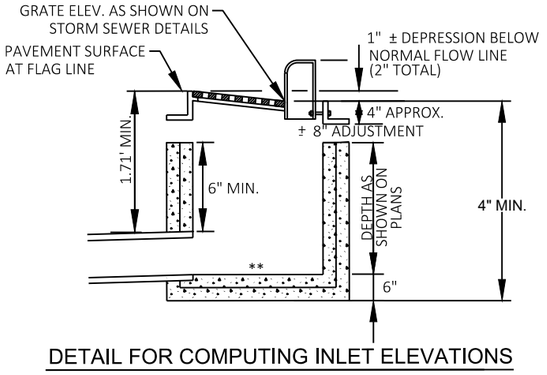
TUBULAR STEEL SIGN POST SLEEVE DETAIL

INCIDENTAL TO STEEL POST ITEM
STA. 495+43 RT



DETAIL FOR COMPUTING MANHOLE ELEVATIONS

** FILL WITH CONCRETE IF BOTTOM OF STRUCTURE IS BELOW LOWEST INVERT.
THIS DOES NOT APPLY TO SUMPS

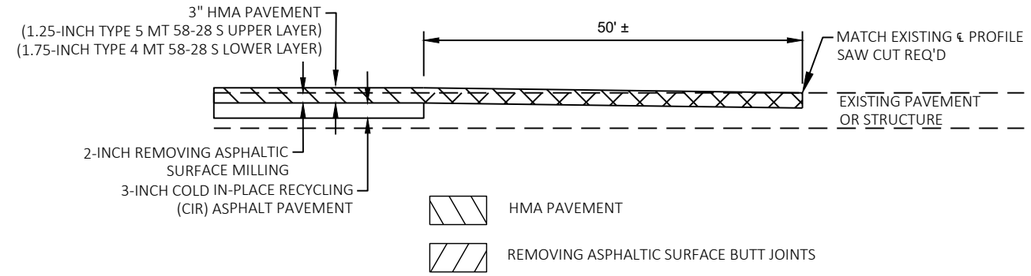


DETAIL FOR COMPUTING INLET ELEVATIONS

** FILL WITH CONCRETE IF BOTTOM OF STRUCTURE IS BELOW LOWEST INVERT.
THIS DOES NOT APPLY TO SUMPS

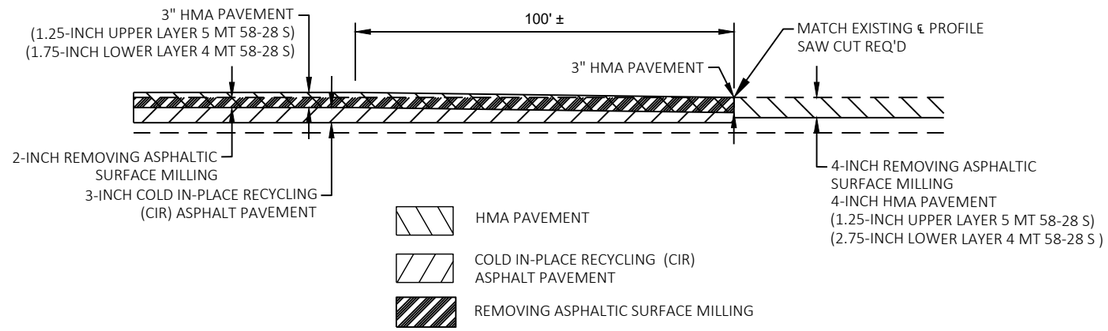
NOTE:

INLETS AT STA 478+73, STA 484+26, AND STA 488+71 REFERENCE THE BACK OF CURB FOR THEIR GRATE ELEVATION.



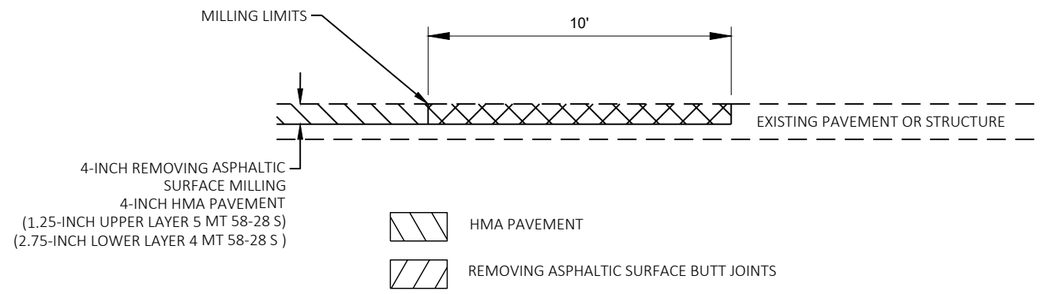
BUTT JOINT DETAIL (CIR)

NOT TO SCALE
STA 141+73 - STA 142+23
STA 503+60 - STA 504+10
STA 543+49 - STA 543+99
STA 544+72 - STA 545+22
STA 776+51 - STA 777+01



MILLING TRANSITION DETAIL

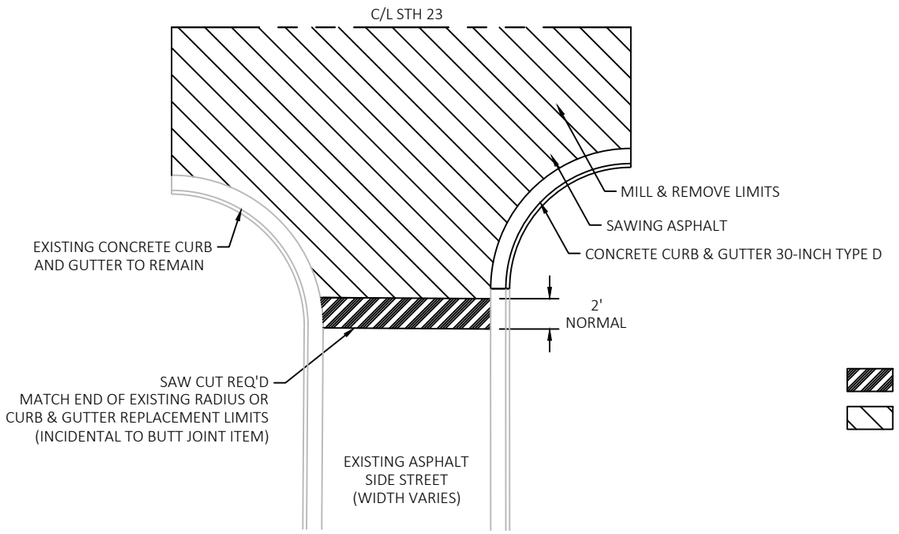
NOT TO SCALE
STA 473+88 - STA 474+88



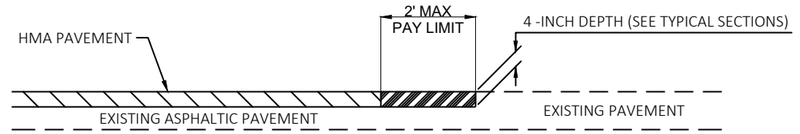
BUTT JOINT DETAIL (MILL AND OVERLAY)

NOT TO SCALE
STA 502+90 - STA 503+00

2



PLAN VIEW



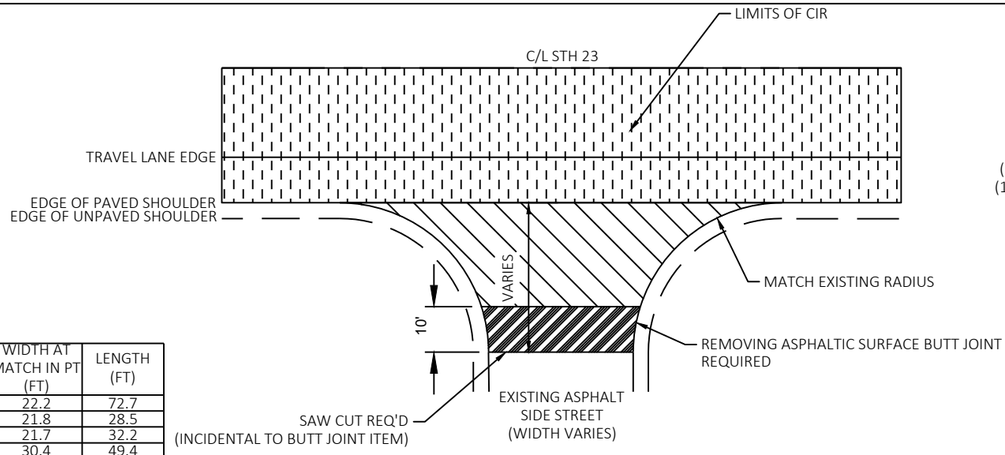
SECTION VIEW

REMOVING ASPHALTIC SURFACE BUTT JOINTS

REMOVING ASPHALTIC SURFACE MILLING

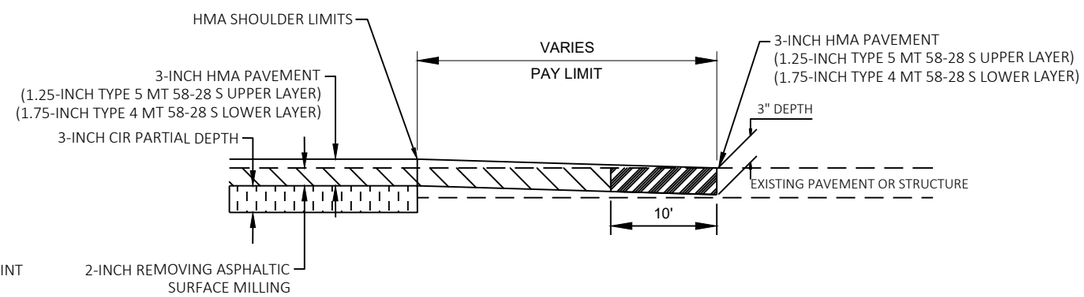
URBAN ASPHALTIC SURFACE SIDE ROAD DETAIL

SIDE ROAD WITH CURB AND GUTTER



PLAN VIEW

ROADWAY	WIDTH AT MATCH IN PT (FT)	LENGTH (FT)
JONES RD	22.2	72.7
SNYDER RD	21.8	28.5
TIMBERLINE RD	21.7	32.2
CTH WC	30.4	49.4
HORSESHOE RD	30.2	78.3
ROLLING RIDGE RD	26.8	41.0
PAULUS RD LT (338+00)	21.8	45.8
PAULUS RD RT (338+00)	25.3	56.7
OLD HIGHWAY 23	24.2	46.5
PAULUS RD (STA 458+50)	23.4	67.6
ST LUKE'S AVE	24.4	76.7
CTH N	28.2	47.5
WILLOW RD	26.1	49.0
MAPLE LN	19.5	25.6
LELAND RD	27.1	44.2
PEAK LANE	17.5	41.5
HICKORY RD LT	22.6	62.2
HICKORY RD RT	26.4	52.6
DAWN RD	19.5	69.8
VALLEY VIEW RD	22.6	50.6
CTH GG	27.9	56.4



SECTION VIEW

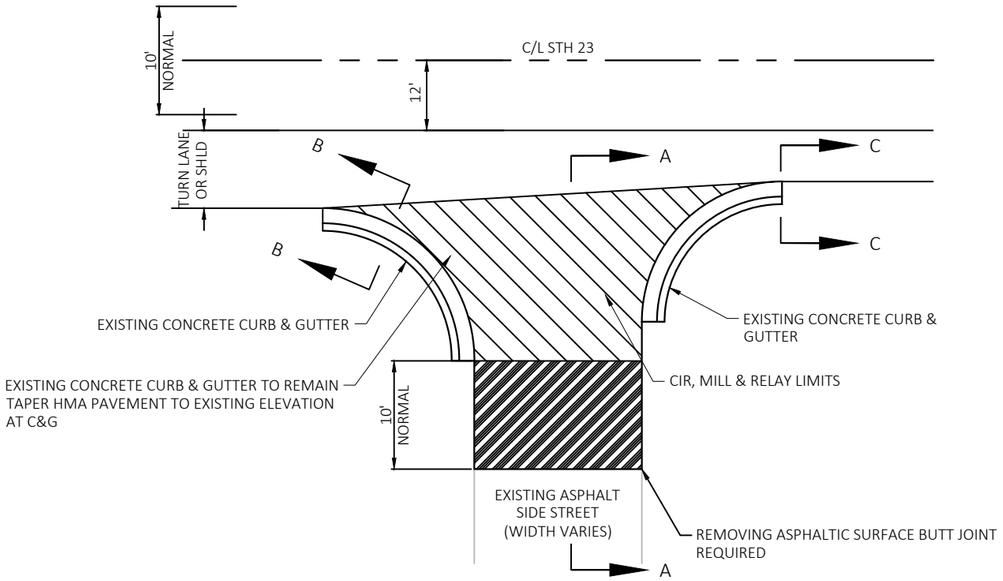
REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CIR LIMITS

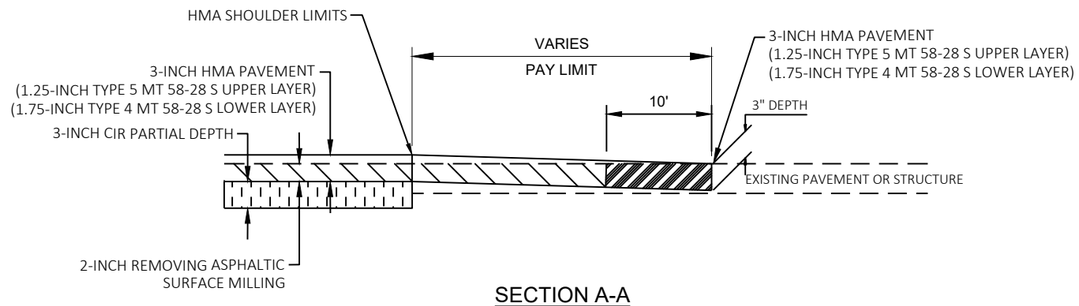
RURAL ASPHALTIC SURFACE SIDE ROAD DETAIL

PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"



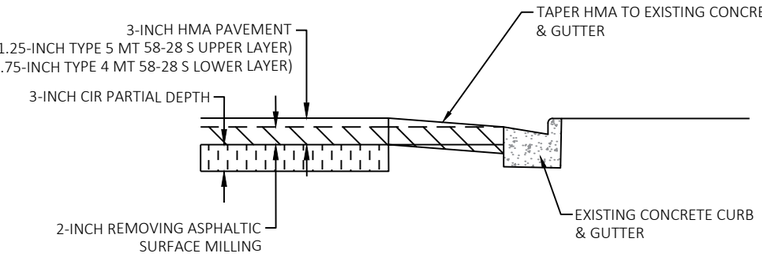
RURAL SIDE ROAD WITH CURB AND GUTTER

PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"
CTH G
KRAEMER DR
LEED PKWY

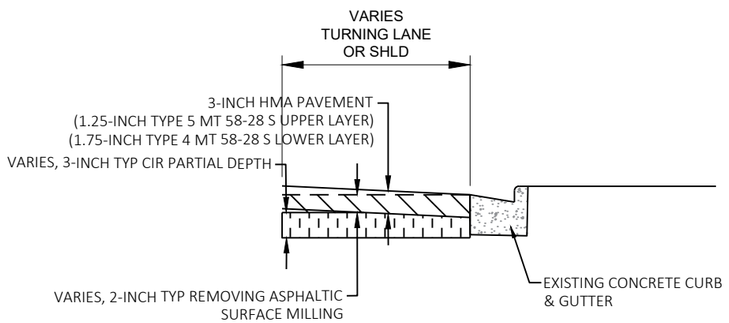


SECTION A-A

REMOVING ASPHALTIC SURFACE MILLING
REMOVING ASPHALTIC SURFACE BUTT JOINTS
CIR LIMITS



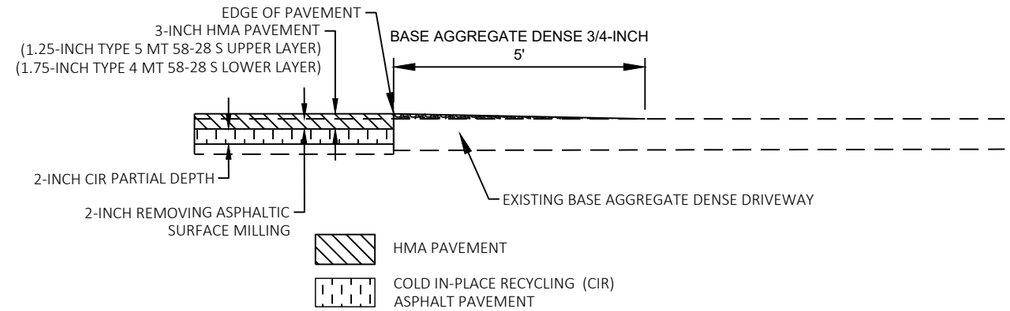
SECTION B-B



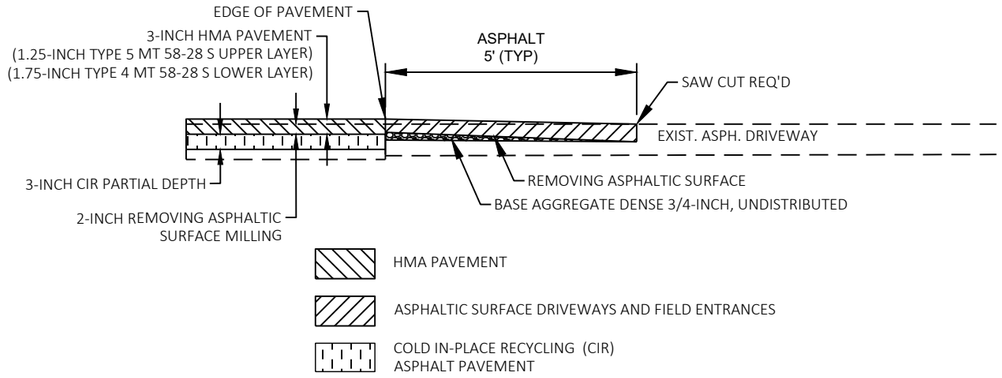
SECTION C-C

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS	SHEET 32	E

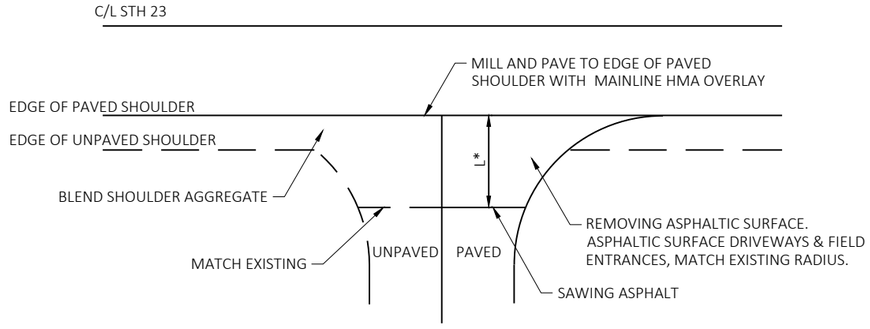
2



UNPAVED ELEVATION VIEW



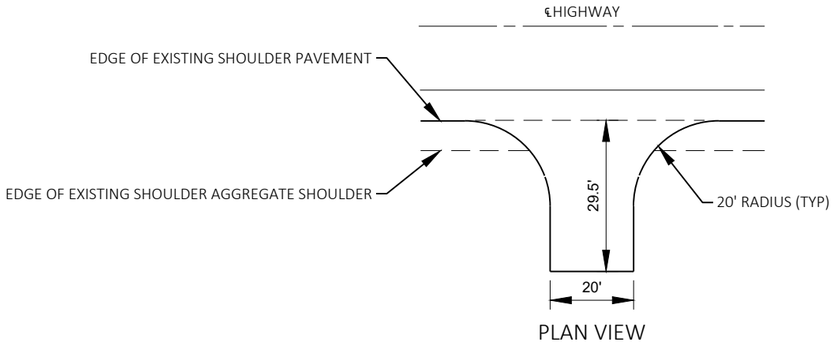
PAVED ELEVATION VIEW



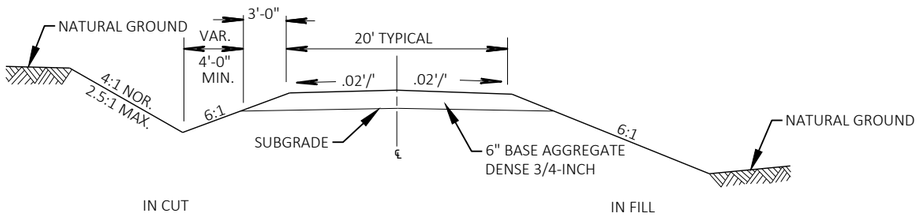
*L=5' TYPICAL: EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

DRIVEWAY/FIELD ENTRANCE DETAIL - NON GRADING AREAS

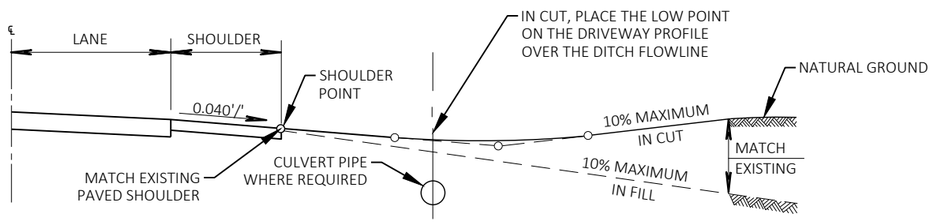
CE, PE, AND FE



PLAN VIEW



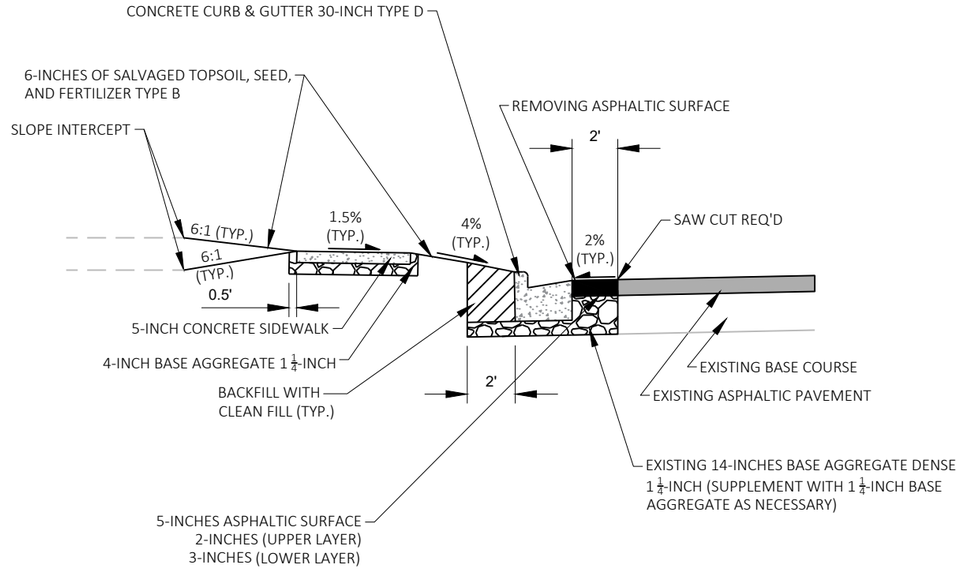
TYPICAL CROSS SECTION



TYPICAL PROFILES

FIELD ENTRANCE DETAIL

STA 546 + 10



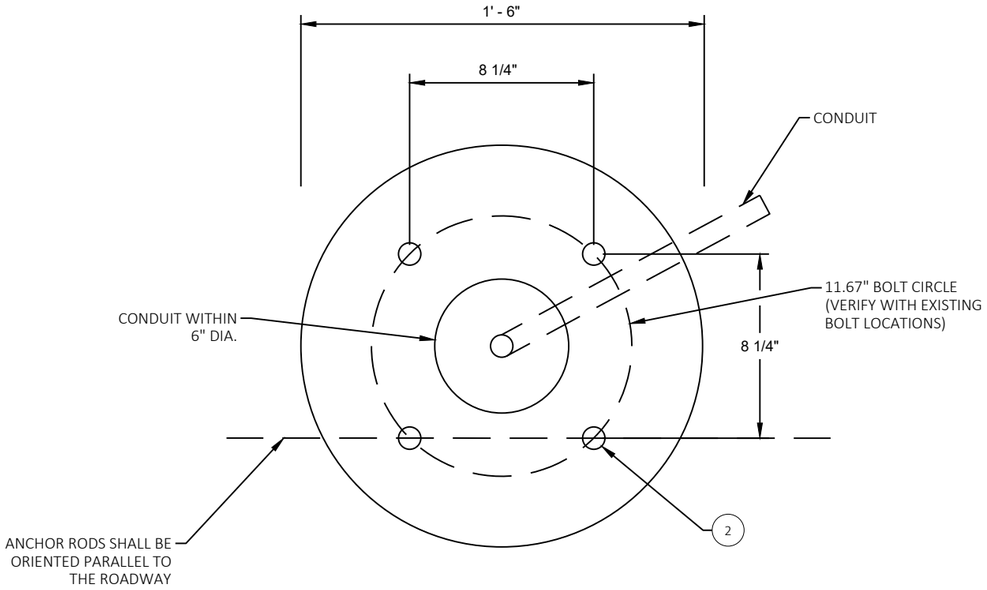
CURB & GUTTER REPLACEMENT DETAIL

SCALE: NONE

STA 484+25 - STA 484+44 LT
STA 487+96 - STA 488+44 LT
STA 488+39 - STA 488+69 LT
STA 489+82 - STA 491+78 RT
STA 491+34 - STA 491+66 LT
STA 491+92 - STA 492+36 LT
STA 492+05 - STA 492+34 RT
STA 492+99 - STA 495+01 LT
STA 494+44 - STA 494+96 RT
STA 495+37 - STA 496+82 RT
STA 495+39 - STA 495+62 LT
STA 497+70 - STA 497+94 LT
STA 497+71 - STA 498+06 RT
STA 498+25 - STA 498+49 LT
STA 498+29 - STA 498+66 RT
STA 501+79 - STA 502+89 RT
STA 502+13 - STA 502+76 LT
STA 507+84 - STA 508+07 RT
STA 507+93 - STA 508+31 LT

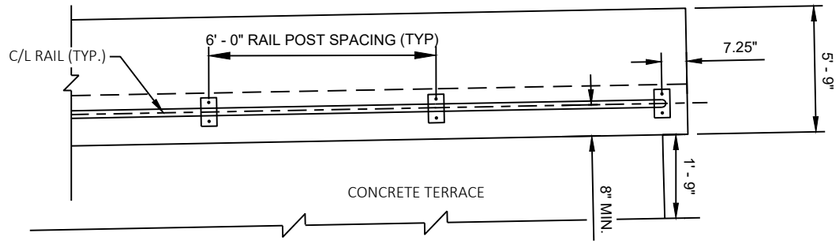
NOTE:

PATCH EXISTING ASPHALT PRIOR TO MILLING ADJACENT ASPHALTIC SURFACE.

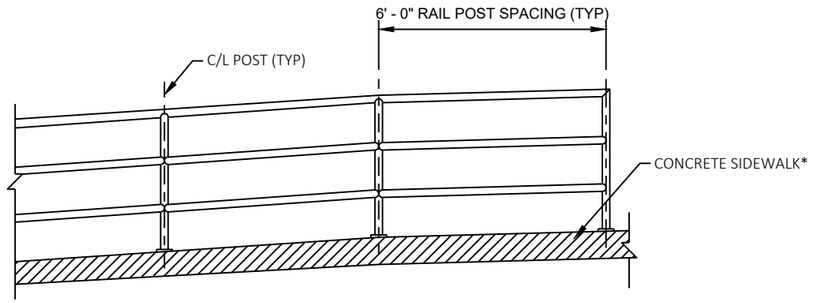


TYPE 1 BASE SPECIAL BOLT PATTERN

NOTE: SEE SDD CONCRETE BASES, TYPES 1, 2, 5, AND 6 FOR ADDITIONAL DETAILS AND NOTES.

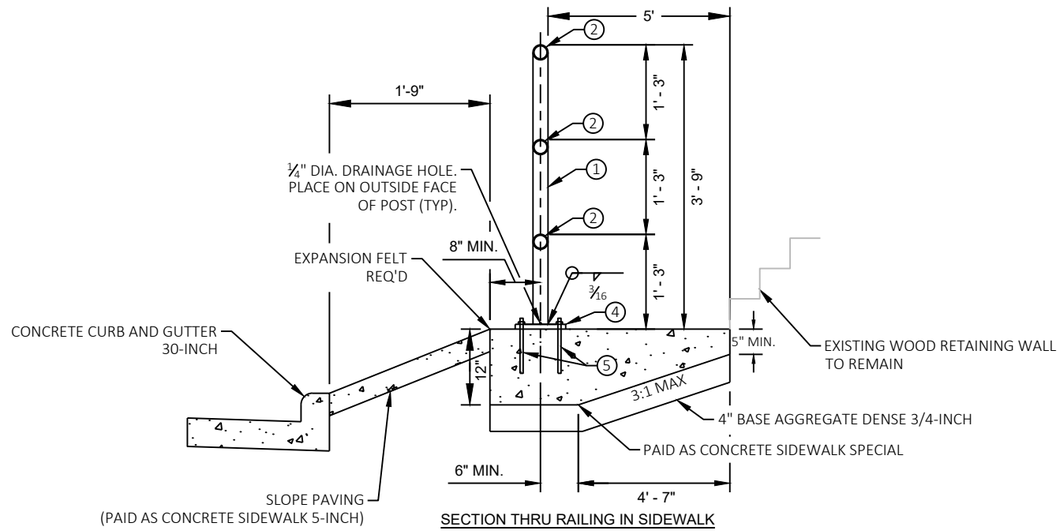


PLAN VIEW



ELEVATION VIEW

*FIELD VERIFY ELEVATIONS PRIOR TO RAILING FABRICATION.



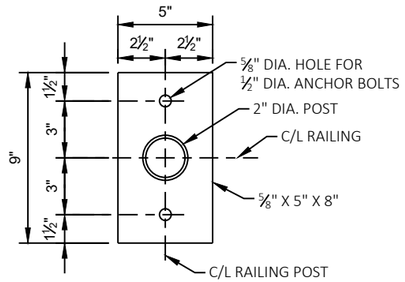
SECTION THRU RAILING IN SIDEWALK

NOTE:

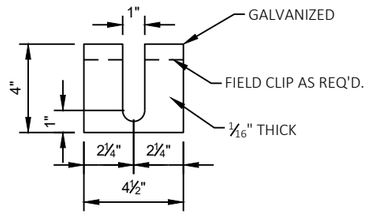
SEE GENERAL RAILING PIPE DETAILS

RAILING PIPE DETAIL

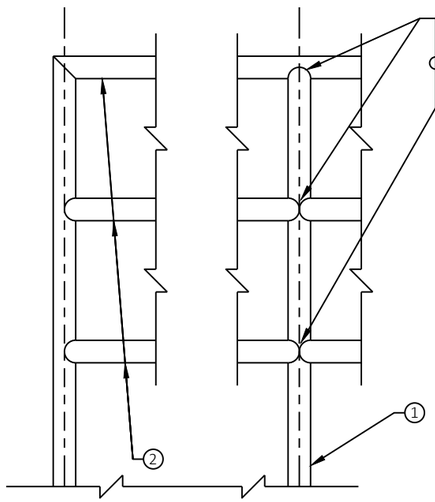
PAID AS "RAILING PIPE"
STA 493+70 - STA 494+68 LT



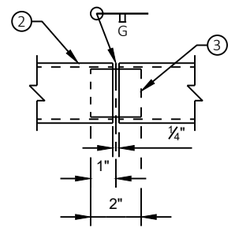
BASE PLATE DETAILS



POST SHIM DETAILS
PROVIDE UP TO 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



PART ELEVATION OF RAILING



SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

LEGEND

1. 2" DIA. SCH. 40 STEEL PIPE FOR POSTS: CUT BOTTOM OF POSTS AS REQUIRED TO SET POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.
2. 2" DIA. SCH. 40 STEEL PIPE FOR RAILS: WELD TO NO. 1
3. 1 ½" DIA. SCH. 40 PIPE SLEEVE FOR NO. 2 PROVIDE "SLIDING FIT."
4. PLATE ¾" X 5" X 6", WITH ⅝" DIA. HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1. OR PIPE SLEEVE AS SHOWN.
5. CONCRETE ADHESIVE ANCHORS 1/2-INCH. EMBED 7" IN CONCRETE ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF STANDARD SPECIFICATIONS. 2 REQ'D. PER POST. PLACE NORMAL TO PLATE NO. 5.

NOTES

BID ITEM SHALL BE "RAILING PIPE" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

GALVANIZE ALL MATERIAL AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER S.S.P.C. SPECIFICATIONS.

DRILL VENT HOLES IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

ALL STEEL PLATE MATERIALS USED IN FABRICATIONS SHALL BE MADE FROM MATERIAL CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

GALVANIZED STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

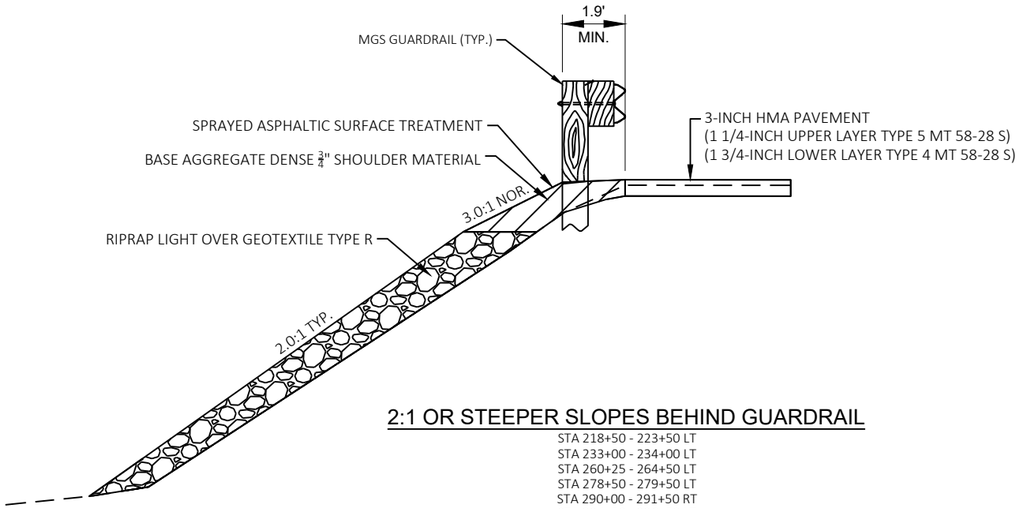
ALL STEEL RAILS, POST AND SLEEVES SHALL CONFORM TO A.S.T.M. DESIGNATION A53 GRADE B.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

FIELD VERIFY ELEVATIONS AND REQUIRED CLEARANCES PRIOR TO RAILING FABRICATION.

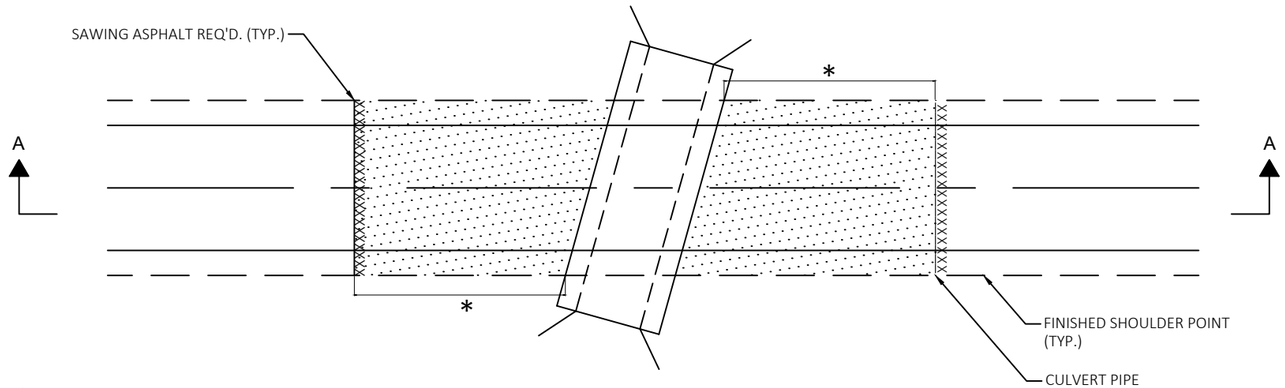
GENERAL RAILING PIPE DETAILS

PAID AS "RAILING PIPE"

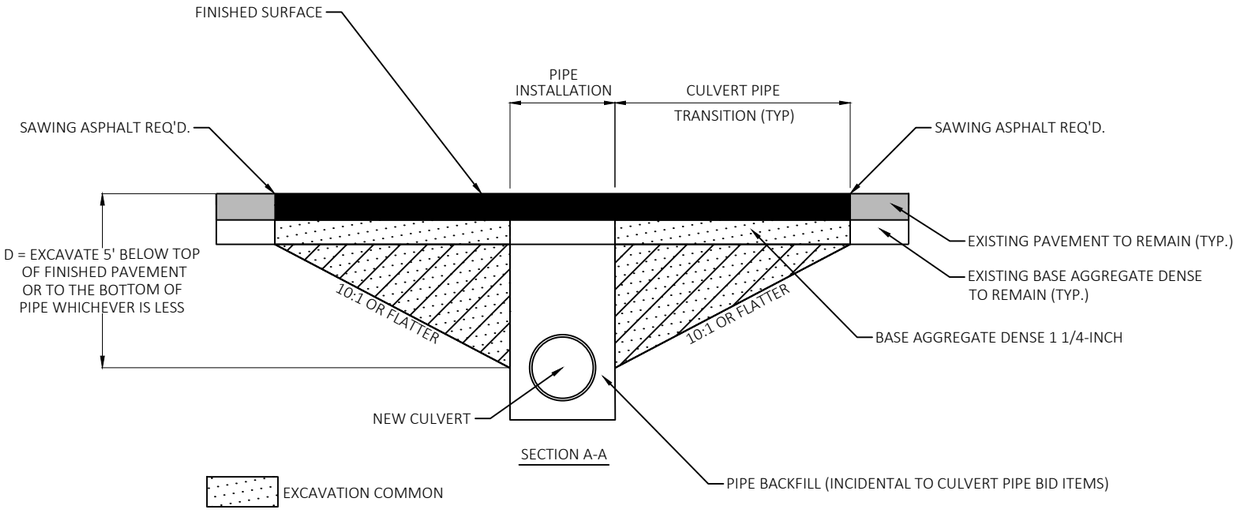


2:1 OR STEEPER SLOPES BEHIND GUARDRAIL

STA 218+50 - 223+50 LT
STA 233+00 - 234+00 LT
STA 260+25 - 264+50 LT
STA 278+50 - 279+50 LT
STA 290+00 - 291+50 RT
STA 324+50 - 326+50 LT
STA 333+00 - 337+00 RT
STA 357+23 - 357+85 LT
STA 358+18 - 367+50 RT
STA 359+00 - 361+98 LT
STA 551+50 - 557+50 LT
STA 572+50 - 575+50 RT



* SEE MISCELLANEOUS QUANTITIES FOR CULVERT PIPE TRANSITION LIMITS.



NEW CULVERT PIPES WITH TRANSITION

STA. 730+65

PIPE INSTALLATION AREA SHALL FOLLOW SECTION 520 FOR INSTALLATION, WIDTHS AND PAYMENT.

CONSTRUCT TRANSITION PERPENDICULAR TO CULVERT PIPE.

CULVERT PIPE TRANSITION AREAS WILL BE PAID BY EXCAVATION COMMON.

PAVEMENT SAW CUT SHALL BE PERPENDICULAR TO ROADWAY ALIGNMENT.

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

PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING.

PLACE ASPHALTIC SURFACE AFTER CULVERT PIPE INSTALLATION AND BEFORE MILLING.

EROSION CONTROL DETAIL FOR DRIVEWAY ACCESS

2

2

EXISTING R/W

N

ENVIRONMENTALLY
SENSITIVE AREA

TO ACCESS,
MOVE AND
REINSTALL BALES

48" X 24"
FIXED MESSAGE SIGN

EROSION BALES
(UNSTAKED)

TEMPORARY FIXED MESSAGE SIGN

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND (TYP)

STA 242+11 LT
BAD FE

240+00

241+00

242+00

243+00

STH 23

HO

GUY

INSTALL TEMPORARY SMALL
ANIMAL TURN-AROUND (TYP)

12'

EROSION BALES
(UNSTAKED)

TEMPORARY FIXED MESSAGE SIGN

STA 240+69 RT
BAD FE

TO ACCESS,
MOVE AND
REINSTALL BALES

48" X 24"
FIXED MESSAGE SIGN

EROSION MAT CLASS II TYPE C (TYP)

FO

T

EXISTING R/W

ENVIRONMENTALLY
SENSITIVE AREA

LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- EROSION BALE, BARRIER
- SLOPE INTERCEPT

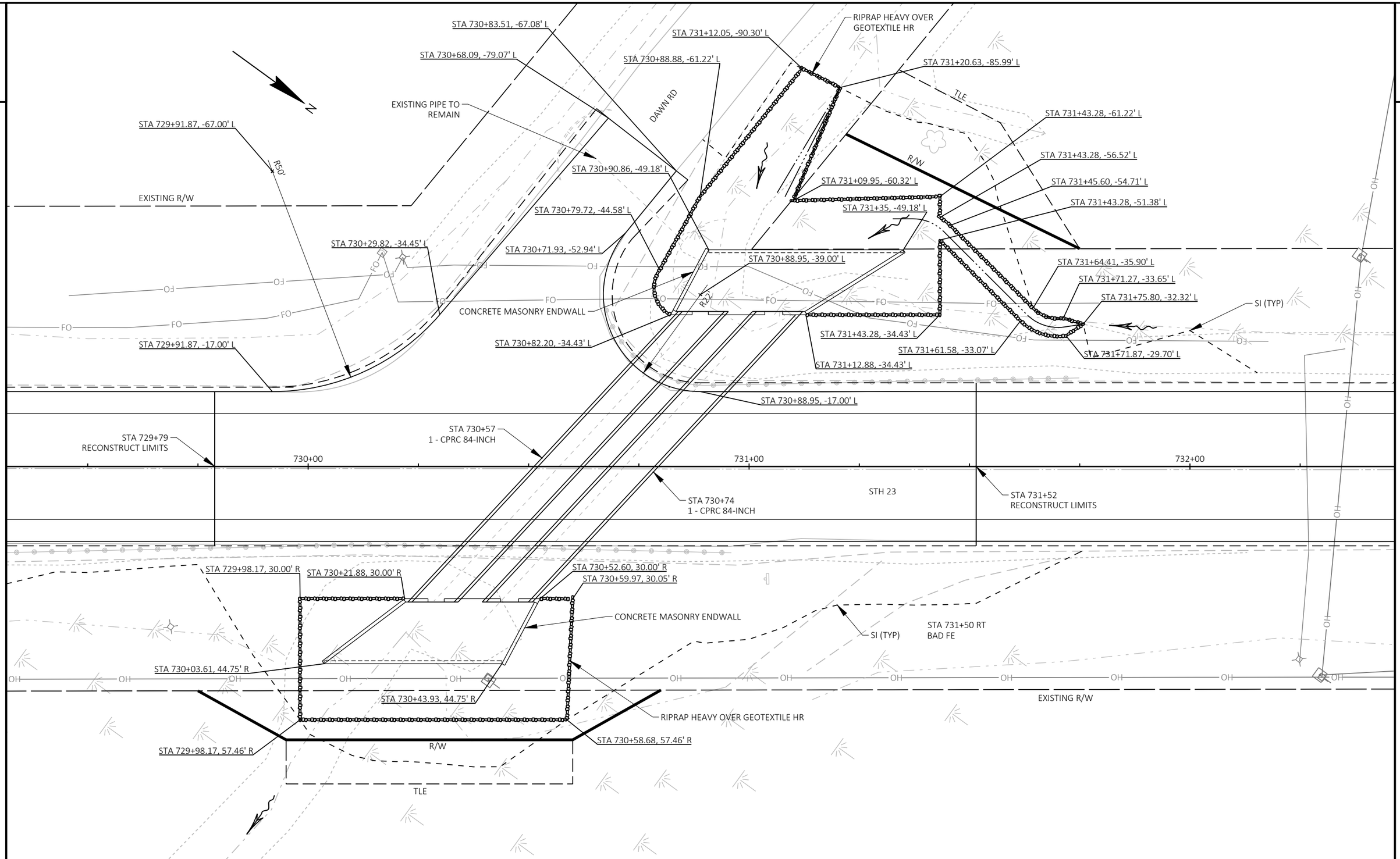
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS	SHEET 38	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022001-EC.DWG
LAYOUT NAME - Blowup

PLOT DATE : 11/21/2023 11:19 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - RIPRAP LAYOUT	SHEET 39	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021003-CD.DWG
LAYOUT NAME - 021020-cd
PLOT DATE : 10/31/2023 9:29 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

PLAN DETAILS LEGEND

CS-5	CONCRETE SIDEWALK 5-INCH
CD-6	CONCRETE DRIVEWAY 6-INCH
A-3	ASPHALTIC SURFACE 3-INCH
A-5	ASPHALTIC SURFACE 5-INCH
CCP	CONCRETE CURB PEDESTRIAN
AF	ASPHALTIC FLUME
CR-X	CURB RAMP TYPE X
DT	DRILLED TIE BARS

PROPOSED INLET

PROPOSED MANHOLE

(T) 10' CURB TRANSITION

XXX CONCRETE CURB & GUTTER TYPE X, XX-INCH

NOTES
1. ALL RADIUS DIMENSIONS ARE TO FACE OF CURB & GUTTER.
2. DIMENSIONS AND DATA POINT OFFSETS SHOWN ARE TO FLANGE LINE OR LANE LINE.
3. SEE ALIGNMENT DETAILS FOR CURB AND SIDEWALK ALIGNMENTS
4. CURB RAMP DETECTABLE WARNING FIELDS ARE NATURAL PATINA. SEE CURB RAMP DETAILS FOR CURB RAMP LAYOUTS.

N

CLOVER ST

EXISTING R/W

SEE CURB RAMP DETAILS

SEE CURB RAMP DETAILS

490+00

491+00

492+00

493+00

STH 23

30D

STA 490+40 RT
CONC PE
TYPE Y MOD

2105 802.25
2104 802.18
2103 801.99
2101 802.05
2102 801.87
2100 802.05

0.4%
0.3%
1.5%

7'
45'
8'

CONCRETE SIDEWALK 6-INCH

SIDEWALK CHANGES FROM CONCRETE SIDEWALK 6-INCH TO CONCRETE SIDEWALK 5-INCH

ASPHALTIC SURFACE

SEE CURB RAMP DETAILS

SEE CURB RAMP DETAILS

EXISTING R/W

CLOVER ST

GAS STATION DRIVEWAY					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2100	490+13.70	46.34' RT	802.05	166973.63	570651.72
2101	490+20.29	44.87' RT	802.05	166980.59	570651.84
2102	490+63.73	41.86' RT	801.87	167024.97	570658.31
2103	490+63.17	33.88' RT	801.99	167025.97	570650.37
2104	490+19.66	36.90' RT	802.18	166981.76	570643.93
2105	490+13.19	37.46' RT	802.25	166975.17	570642.96

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN DETAILS - VILLAGE OF PLAIN	SHEET 40	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021201-PD.DWG
LAYOUT NAME - 021203-pd
PLOT DATE : 10/31/2023 9:58 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

N

STA 493+60 LT
ASPH CE

EXISTING R/W

2204
799.67

2205
799.58

TLE

ASPHALTIC SURFACE

2200
800.36

CONCRETE SIDEWALK SPECIAL
(SEE DETAIL)

EXISTING INLET
TO REMAIN

TLE

MAIN ST / CTH B

2.8%

EXISTING R/W

0.3%

2203
799.76

2.8%

5'

1.5%

1.2%

1.5%

0.3%

1.7%

1.2%

1.3%

1.2%

SEE CURB
RAMP DETAILS

2206
799.68

2202
799.70

2201
800.29

SLOPE PAVING
(PAID AS CONCRETE SIDEWALK 5-INCH)

RAILING PIPE
(SEE DETAIL)

30D

493+00

494+00

495+00

STH 23

SEE CURB
RAMP DETAILS

MAIN ST / CTH B

EXISTING LOCATION OF CONTAMINATED
SOIL AND GROUNDWATER

PLAN DETAILS LEGEND

CS-5	CONCRETE SIDEWALK 5-INCH
CD-6	CONCRETE DRIVEWAY 6-INCH
A-3	ASPHALTIC SURFACE 3-INCH
A-5	ASPHALTIC SURFACE 5-INCH
CCP	CONCRETE CURB PEDESTRIAN
AF	ASPHALTIC FLUME
CR-X	CURB RAMP TYPE X
DT	DRILLED TIE BARS

■	PROPOSED INLET
●	PROPOSED MANHOLE
(T)	10' CURB TRANSITION
XXX	CONCRETE CURB & GUTTER TYPE X, XX-INCH

NOTES
1. ALL RADIUS DIMENSIONS ARE TO FACE OF CURB & GUTTER.
2. DIMENSIONS AND DATA POINT OFFSETS SHOWN ARE TO FLANGE LINE OR LANE LINE.
3. SEE ALIGNMENT DETAILS FOR CURB AND SIDEWALK ALIGNMENTS
4. CURB RAMP DETECTABLE WARNING FIELDS ARE NATURAL PATINA. SEE CURB RAMP DETAILS FOR CURB RAMP LAYOUTS.

STA 493+60 LT DRIVEWAY

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2200	493+70.01	34.67' LT	800.36	167337.24	570609.97
2201	493+69.97	29.88' LT	800.29	167337.25	570614.76
2202	493+62.39	29.73' LT	799.70	167329.67	570615.00
2203	493+62.38	34.74' LT	799.76	167329.61	570609.99
2204	493+62.37	36.87' LT	799.67	167329.58	570607.86
2205	493+47.98	36.79' LT	799.58	167315.52	570608.04
2206	493+48.03	24.86' LT	799.68	167315.60	570619.96

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN DETAILS - VILLAGE OF PLAIN	SHEET 41	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021201-PD.DWG
LAYOUT NAME - 021204-pd
PLOT DATE : 10/31/2023 9:58 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT

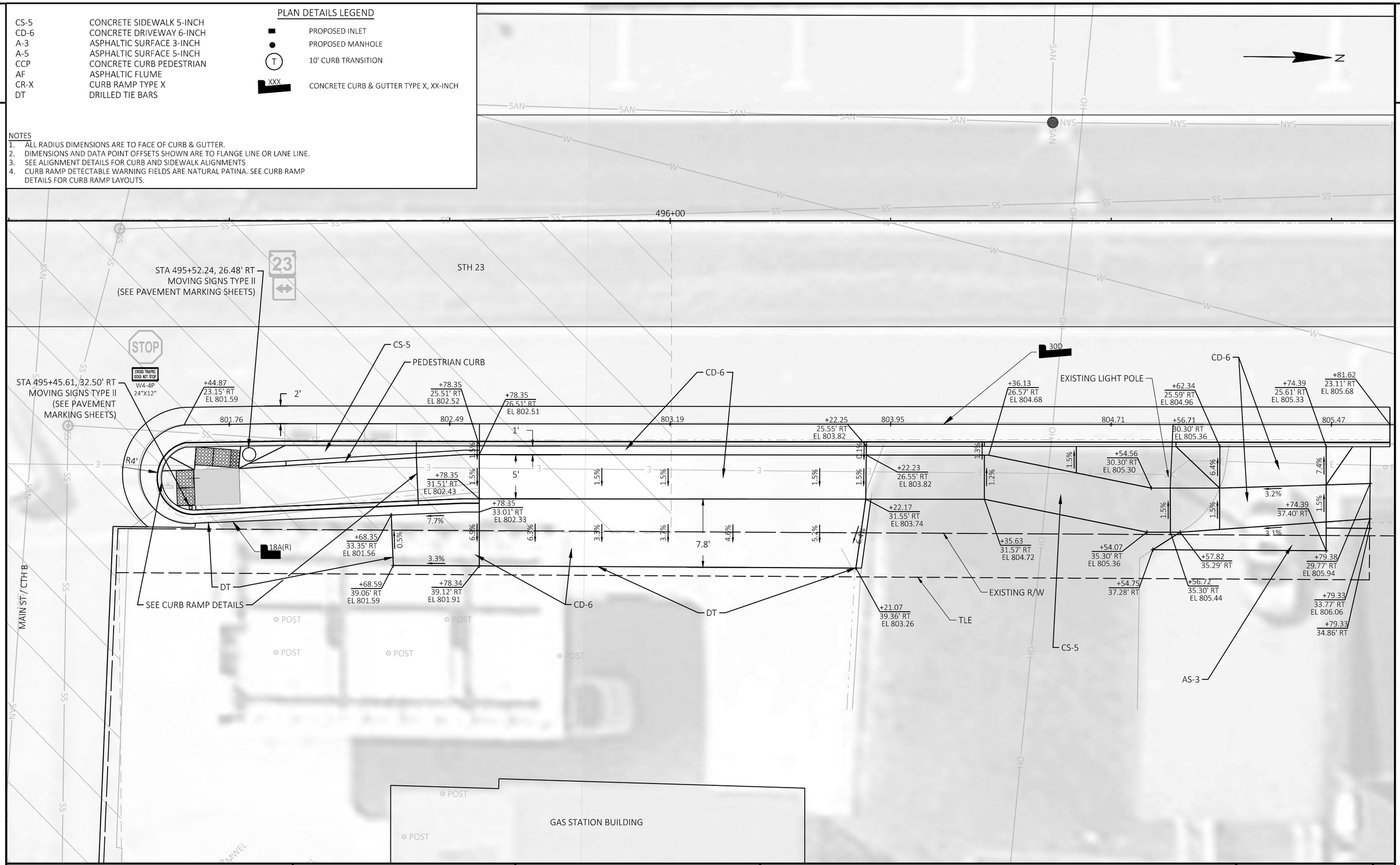
2

CS-5	CONCRETE SIDEWALK 5-INCH
CD-6	CONCRETE DRIVEWAY 6-INCH
A-3	ASPHALTIC SURFACE 3-INCH
A-5	ASPHALTIC SURFACE 5-INCH
CCP	CONCRETE CURB PEDESTRIAN
AF	ASPHALTIC FLUME
CR-X	CURB RAMP TYPE X
DT	DRILLED TIE BARS

PLAN DETAILS LEGEND

- PROPOSED INLET
- PROPOSED MANHOLE
- (T) 10' CURB TRANSITION
- XXX CONCRETE CURB & GUTTER TYPE X, XX-INCH

NOTES
1. ALL RADIUS DIMENSIONS ARE TO FACE OF CURB & GUTTER.
2. DIMENSIONS AND DATA POINT OFFSETS SHOWN ARE TO FLANGE LINE OR LANE LINE.
3. SEE ALIGNMENT DETAILS FOR CURB AND SIDEWALK ALIGNMENTS
4. CURB RAMP DETECTABLE WARNING FIELDS ARE NATURAL PATINA. SEE CURB RAMP DETAILS FOR CURB RAMP LAYOUTS.



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN DETAILS - VILLAGE OF PLAIN	SHEET 42 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021201-PD.DWG
LAYOUT NAME - 021205-pd-Shell
PLOT DATE : 10/31/2023 9:58 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

2

EXISTING R/W

ENVIRONMENTALLY
SENSITIVE AREA 47SK287

SI (TYP.)

N

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 216+35.64, 17' LT
POST 5 STA. 216+60.64, 17' LT
POST 9 STA. 216+85.64, 17' LT

STA 216+16 LT
BAD FE

ALLIANT ENERGY

MGS GUARDRAIL 3 K
(STA. 216+89 TO 235+22)

PC: 218+80.27

216+00
217+00
218+00
219+00
220+00
221+00

STH 23

MATCH LINE STA 221+50

EXISTING CULVERT
(TO REMAIN)

FRONTIER COMMUNICATIONS

EXISTING R/W

ENVIRONMENTALLY
SENSITIVE AREA 47SK287

SI (TYP.)

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

ALLIANT ENERGY

N

MGS GUARDRAIL 3 K
(STA. 216+89 TO 235+22)

222+00
223+00
224+00
225+00
226+00

STH 23

MATCH LINE STA 221+50

MATCH LINE STA 227+00

FRONTIER COMMUNICATIONS

EXISTING CULVERT
(TO REMAIN)

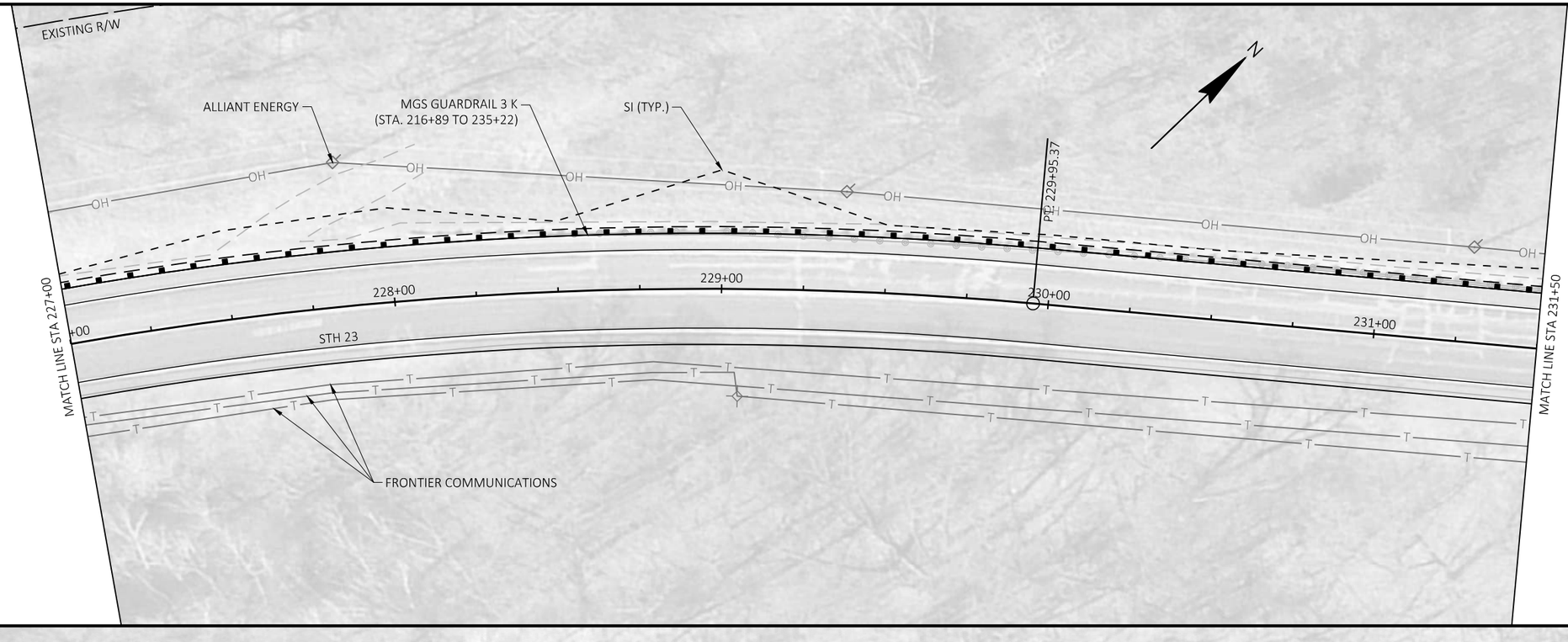
2

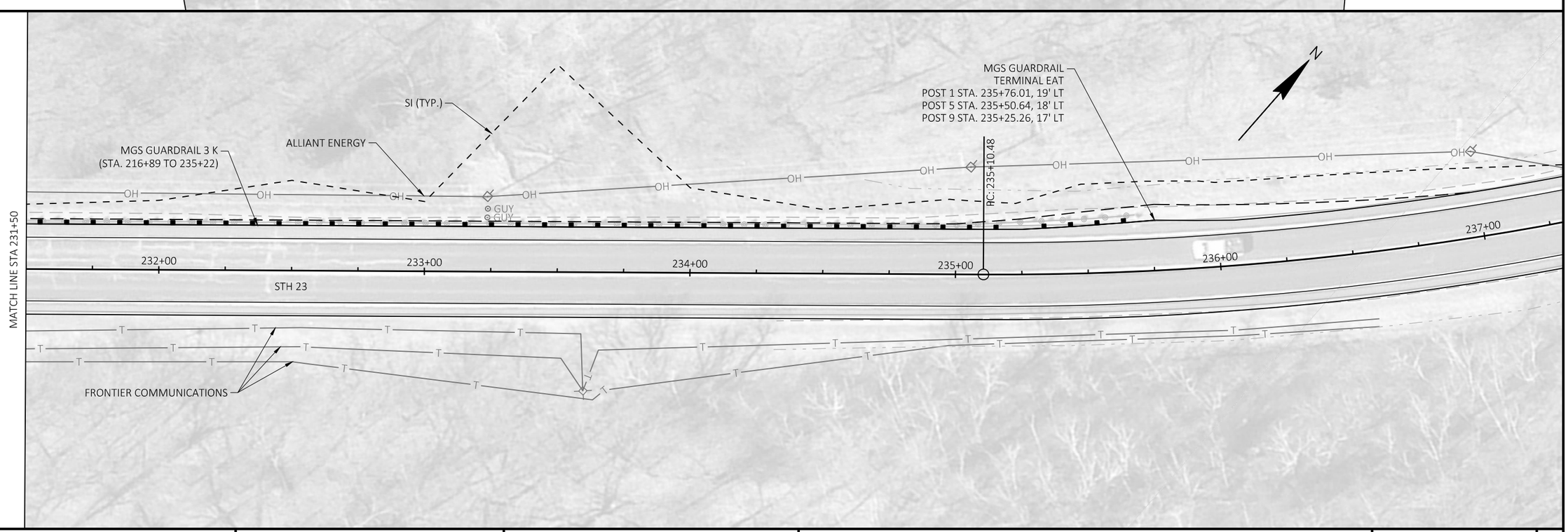
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 43	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021007-cd
PLOT DATE : 10/31/2023 10:19 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

ENVIRONMENTALLY
SENSITIVE AREA 47SK287





PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 44	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021007-cd (A)
PLOT DATE : 10/31/2023 10:19 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : Custom
WISDOT/CADDS SHEET 44

2

2

N

ENVIRONMENTALLY SENSITIVE AREA

MOVING TYPE II SIGN
REMOVE AND INSTALL NEW SMALL SIGN SUPPORT

SI (TYP.)

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 242+85.79, 19' LT
POST 5 STA. 243+11.23, 18' LT
POST 9 STA. 243+36.60, 17' LT

MGS GUARDRAIL 3 K
(STA. 243+40 TO 247+33)

239+00
240+00
241+00
242+00
243+00
244+00
245

MATCH LINE STA 245+00

STH 23

OH
FO
T
GUY

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 241+02.23, 19' RT
POST 5 STA. 241+26.87, 18' RT
POST 9 STA. 241+51.50, 17' RT

MGS GUARDRAIL 3 K
(STA. 241+55 TO 246+84)

SI (TYP.)

EXISTING R/W

FRONTIER COMMUNICATIONS

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

ENVIRONMENTALLY
SENSITIVE AREA

N

EXISTING CULVERT
(TO REMAIN)

MGS GUARDRAIL 3K
(STA. 243+40 TO 247+33)

SI (TYP.)

REEDSBURG UTILITY COMMISSION

PT: 247+64.48

MATCH LINE STA 245+00

246+00
247+00
248+00
249+00
250+00

STH 23

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 247+86.70, 19' LT
POST 5 STA. 247+61.64, 18' LT
POST 9 STA. 247+36.26, 17' LT

MGS GUARDRAIL 3 K
(STA. 241+55 TO 246+84)

MGS GUARDRAIL SHORT
RADIUS (45' R)

FRONTIER COMMUNICATIONS

ENVIRONMENTALLY
SENSITIVE AREA

MGS GUARDRAIL SHORT
RADIUS TERMINAL
STA 247+29

CTH WC

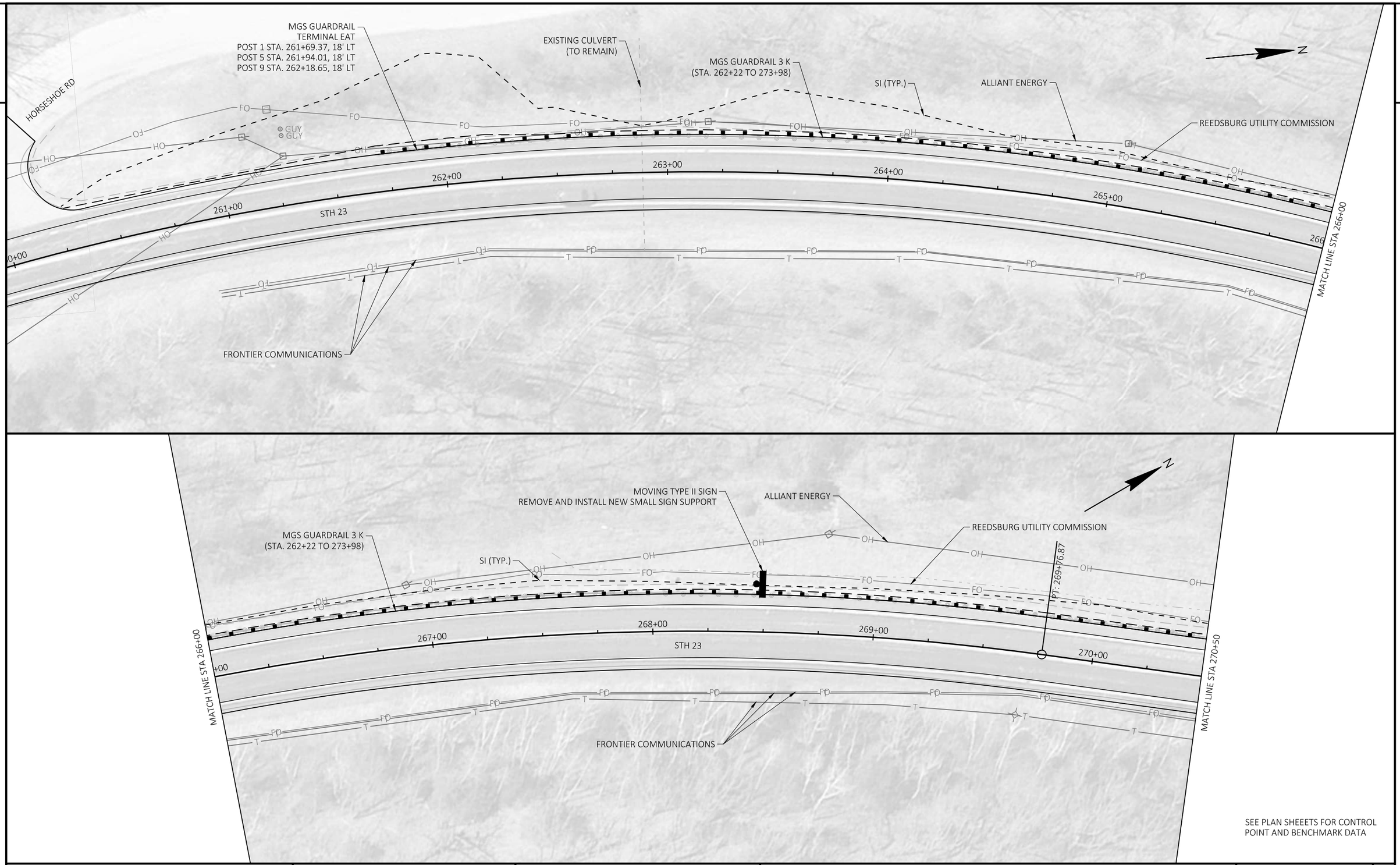
ALLIANT ENERGY

SEE PLAN SHEEETS FOR CONTROL
POINT AND BENCHMARK DATA

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 45	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021008-cd

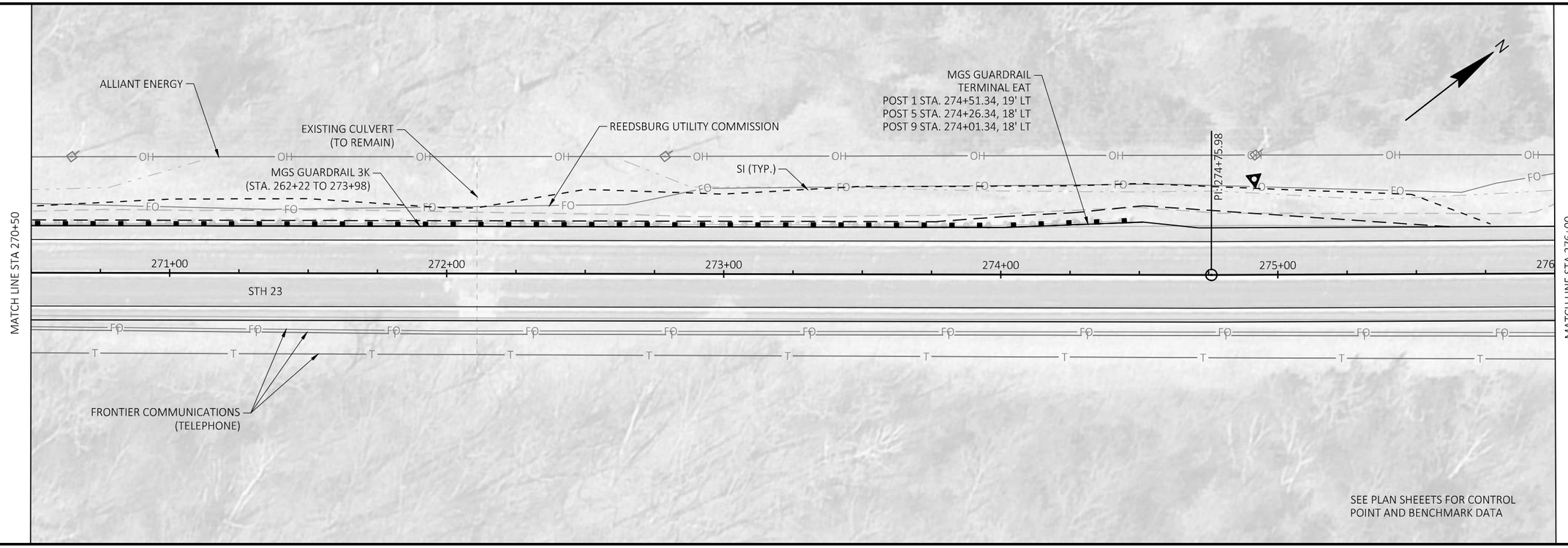
PLOT DATE : 10/31/2023 10:19 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : Custom



SEE PLAN SHEEETS FOR CONTROL POINT AND BENCHMARK DATA

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 46	E

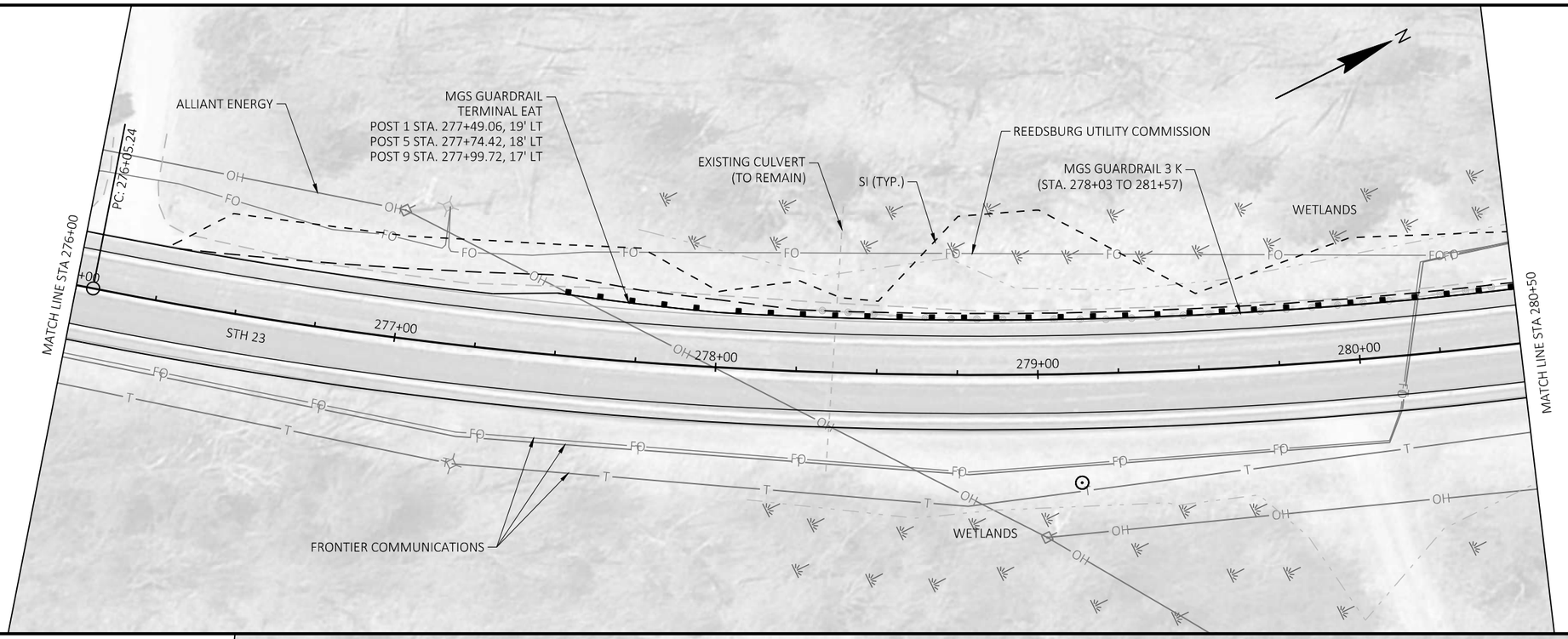
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021009-cd
PLOT DATE : 10/31/2023 10:19 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

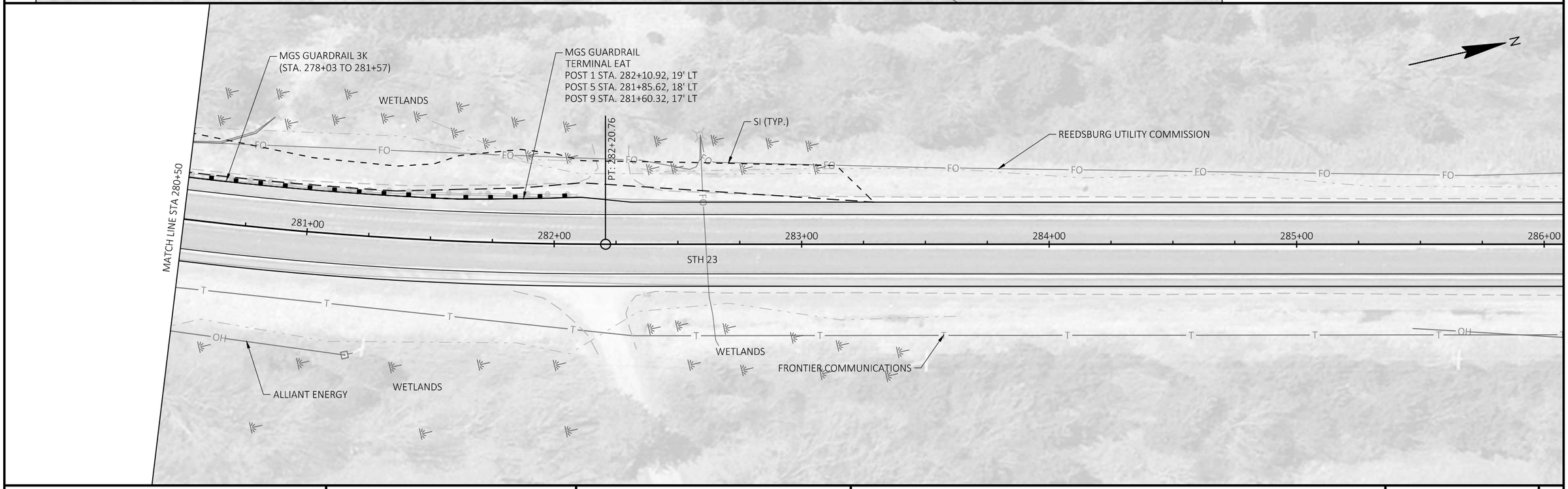


2

THIS FRAME INTENTIONALLY LEFT BLANK

2





PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 48	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021010-cd
PLOT DATE : 10/31/2023 10:20 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

2

ROLLING RIDGE RD

REEDSBURG UTILITY COMMISSION

FO

N

287+00 288+00 289+00 290+00 291+00 292+00 293+00

STH 23

T

OH

GUY

FRONTIER COMMUNICATIONS

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 288+80.33, 19' RT
POST 5 STA. 289+05.34, 18' RT
POST 9 STA. 289+30.34, 17' RT

MGS GUARDRAIL 3K
(STA. 289+33 TO 290+71)

SI (TYP.)

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 291+24.09, 19' RT
POST 5 STA. 290+99.09, 18' RT
POST 9 STA. 290+74.09, 17' RT

ALLIANT ENERGY

SEE PLAN SHEEETS FOR CONTROL
POINT AND BENCHMARK DATA

EXISTING R/W

N

MGS GUARDRAIL 3K
(STA. 321+84 TO 326+53)

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 321+29.89, 19' LT
POST 5 STA. 321+55.32, 18' LT
POST 9 STA. 321+80.70, 17' LT

GUY

SI (TYP.)

PC: 319+34.68

318+00 319+00 320+00 321+00 322+00 323

MATCH LINE STA 323+00

STH 23

FO

ALLIANT ENERGY

REEDSBURG UTILITY COMMISSION

EXISTING R/W

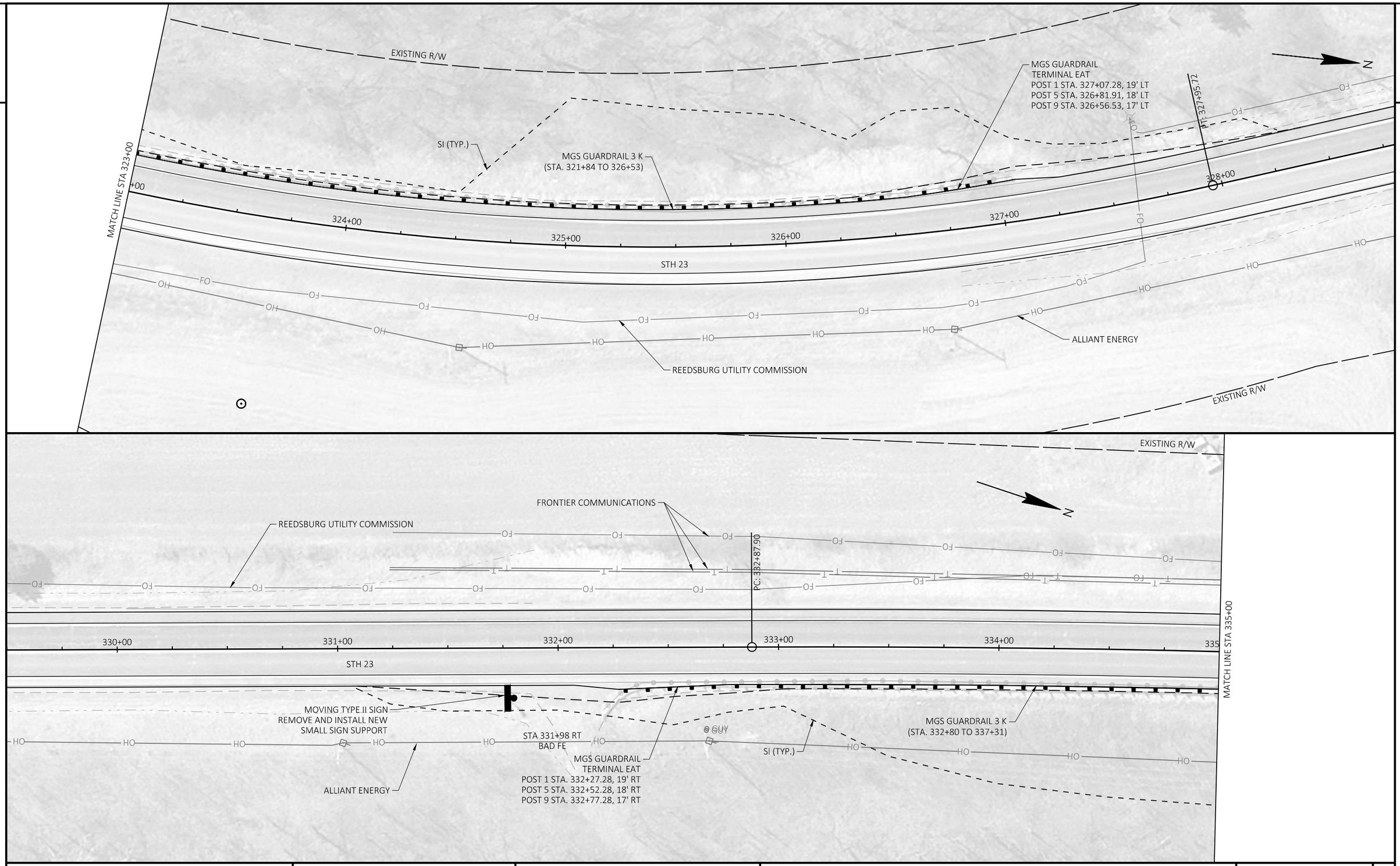
EXISTING R/W

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 49	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021011-cd

PLOT DATE : 10/31/2023 10:20 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 50	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021012-cd
PLOT DATE : 10/31/2023 10:20 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

EXISTING R/W

FRONTIER COMMUNCATIONS
(TELEPHONE)

REEDSBURG UTILITY COMMISSION

PAULUS RD

GUY

N

MATCH LINE STA 335+00

+00 336+00 337+00 338+00 339+00 340+00

STH 23

MGS GUARDRAIL 3 K
(STA. 332+80 TO 337+31)

SI (TYP.)

MGS GUARDRAIL
SHORT RADIUS (59' R)

MGS GUARDRAIL
SHORT RADIUS TERMINAL
STA 337+98

ALLIANT ENERGY

PAULUS RD

SEE PLAN SHEEETS FOR CONTROL
POINT AND BENCHMARK DATA

2

FRONTIER COMMUNICATIONS

ALLIANT ENERGY

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 357+34.43, 19' LT
POST 5 STA. 357+59.43, 18' LT
POST 9 STA. 357+84.43, 17' LT

MGS GUARDRAIL 3 K
(STA. 357+88 TO 361+98)

PC 360+21.01

GUY

N

356+00 357+00 358+00 359+00 360+00 361

STH 23

MATCH LINE STA 361+00

EXISTING CULVERT
(TO REMAIN)

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 357+43.51, 19' RT
POST 5 STA. 357+68.51, 18' RT
POST 9 STA. 357+93.51, 17' RT

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

MGS GUARDRAIL 3 K
(STA. 357+97 TO 367+78)

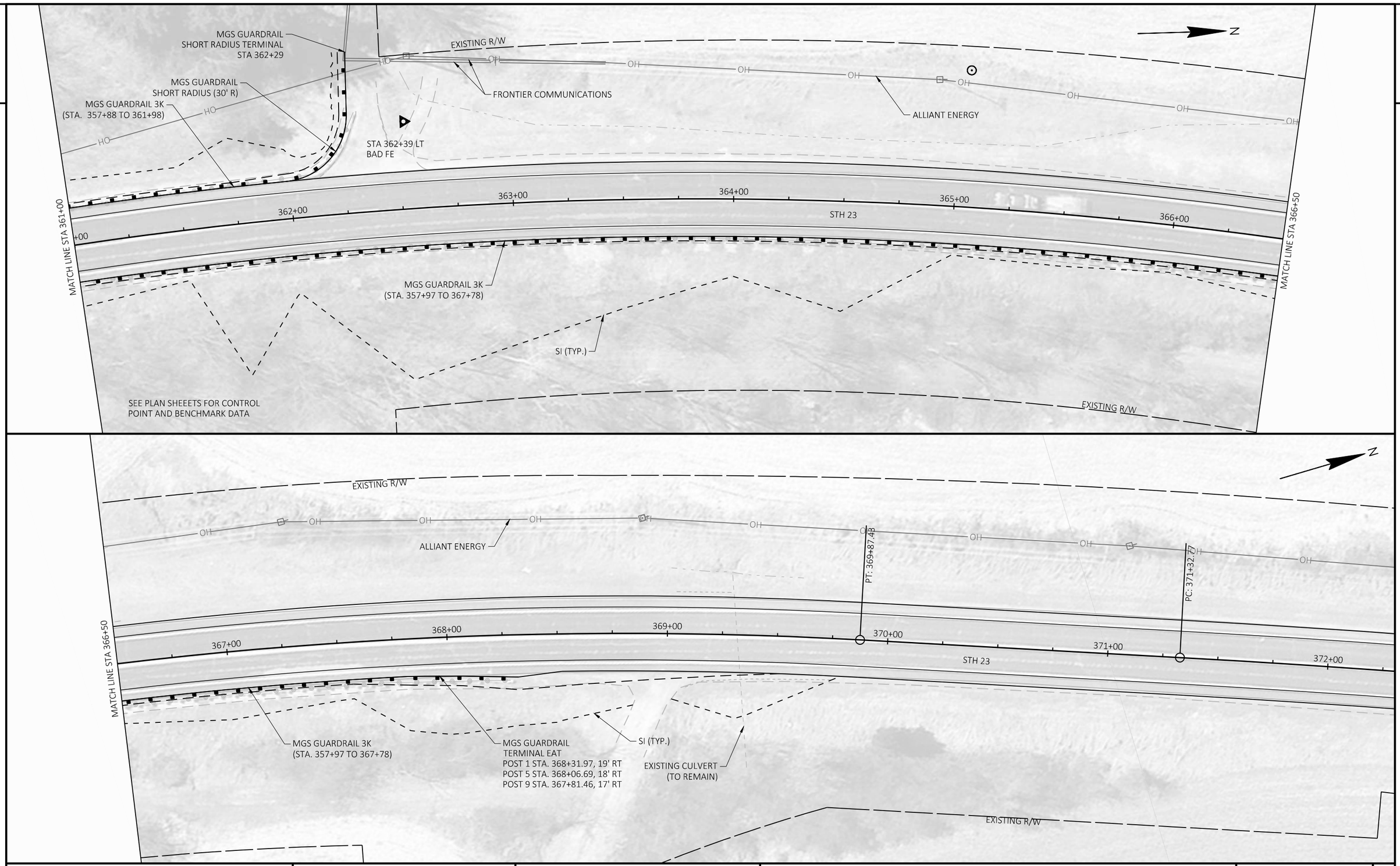
SI (TYP.)

EXISTING R/W

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 51	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021013-cd

PLOT DATE : 10/31/2023 10:20 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT



2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 52	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021014-cd
PLOT DATE : 10/31/2023 10:20 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

EXISTING R/W

MGS GUARDRAIL
SHORT RADIUS TERMINAL
STA 459+29

OLD HWY 23

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

ALLIANT ENERGY

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 456+87.58, 20' LT
POST 5 STA. 457+12.58, 19' LT
POST 9 STA. 457+37.58, 18' LT

SI (TYP.)

MGS GUARDRAIL 3
(STA. 457+41 TO 459+41)

MGS GUARDRAIL
SHORT RADIUS (24' R)

REMOVING TYPE II SIGN
AND SMALL SIGN SUPPORT

456+00 457+00 458+00 459+00 460+00 461

STH 23

MATCH LINE STA 461+00

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

EXISTING R/W

ALLIANT ENERGY

FRONTIER COMMUNICATIONS

WEIDNER RD

STRUCTURE C-56-27
(TO REMAIN)

MGS GUARDRAIL 3 K
(STA. 459+04 TO 461+79)

REEDSBURG UTILITY COMMISSION

MGS GUARDRAIL
SHORT RADIUS (49' R)

MGS GUARDRAIL
SHORT RADIUS TERMINAL
STA 458+51

FRONTIER COMMUNICATIONS

EXISTING R/W

REEDSBURG UTILITY COMMISSION

ALLIANT ENERGY

ALLIANT ENERGY

ST LUKES AVE

MATCH LINE STA 461+00

+00 462+00 463+00 464+00 465+00 466+00

STH 23

MGS GUARDRAIL 3K
(STA. 459+04 TO 461+79)

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 462+31.86, 20' RT
POST 5 STA. 462+06.86, 19' RT
POST 9 STA. 461+81.86, 18' RT

SI (TYP.)

EXISTING CULVERT
(TO REMAIN)

ALLIANT ENERGY

EXISTING R/W

FRONTIER COMMUNICATIONS

FRONTIER COMMUNICATIONS

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 53	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021015-cd

PLOT DATE : 10/31/2023 10:21 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

WILLOW ST

EXISTING R/W

SPECTRUM

CRASH CUSHIONS
PERMANENT

MGS THRIE BEAM
TRANSITION

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 504+58.01, 24.73' LT
POST 5 STA. 504+33.01, 23.73' LT
POST 9 STA. 504+08.01, 22.73' LT

WETLANDS

SI (TYP.)

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

N

71+00W

502+00
EP: 71+31.60W

503+00

504+00

505+00

506+00

507+00

STH 23

WILLOW ST

ALLIANT ENERGY

STRUCTURE B-56-151
(TO REMAIN)

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 504+65.12, 23.9' RT
POST 5 STA. 504+40.14, 22.9' RT
POST 9 STA. 504+15.16, 22.0' RT

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

ALLIANT ENERGY

EXISTING CULVERTS
(TO REMAIN)

N

SANDSTONE LN

PI: 525+24.74

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 526+58.92, 20' LT
POST 5 STA. 526+83.92, 19' LT
POST 9 STA. 527+08.92, 18' LT

WETLANDS

REEDSBURG UTILITY COMMISSION

MGS GUARDRAIL 3 K
(STA. 527+12 TO 534+37)

526+00

527+00

528+00

529+00

530+00

531

STH 23

MATCH LINE STA 531+00

EXISTING CULVERT
(TO REMAIN)

SEE PLAN SHEEETS FOR CONTROL
POINT AND BENCHMARK DATA

ALLIANT ENERGY

SI (TYP.)

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 528+29.13, 20' RT
POST 5 STA. 528+54.11, 19' RT
POST 9 STA. 528+79.09, 18' RT

WETLANDS

MGS GUARDRAIL 3 K
(STA. 528+82 TO 534+32)

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 54	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021016-cd

PLOT DATE : 10/31/2023 10:21 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

EXISTING R/W

WETLANDS

MGS GUARDRAIL 3 K
(STA. 527+12 TO 534+37)

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 534+90.20, 18' LT
POST 5 STA. 534+65.17, 18' LT
POST 9 STA. 534+40.17, 18' LT

REEDSBURG UTILITY COMMISSION

SI (TYP.)

PI: 534+83.96

N

MATCH LINE STA 531+00

+00 532+00 533+00 534+00 535+00 536+00

STH 23

MGS GUARDRAIL 3 K
(STA. 528+85 TO 534+32)

WETLANDS

ALLIANT ENERGY

REMOVING FENCE BY OTHERS

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 534+85.30, 18' RT
POST 5 STA. 534+60.32, 18' RT
POST 9 STA. 534+35.34, 18' RT

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

EXISTING R/W

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 543+17.35, 20' LT
POST 5 STA. 542+42.35, 19' LT
POST 9 STA. 543+67.35, 18' LT

FRONTIER COMMUNICATIONS

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

N

MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 546+02.55, 20' LT
POST 5 STA. 545+77.55, 19' LT
POST 9 STA. 545+52.55, 18' LT

CTH N

REEDSBURG UTILITY COMMISSION

MGS THRIE BEAM
TRANSITION

STRUCTURE B-56-128
(TO REMAIN)

MGS THRIE BEAM
TRANSITION

MGS GUARDRAIL 3
(STA. 544+99 TO 545+49)

WETLANDS

SI (TYP.)

542+00 543+00 544+00 545+00 546+00 547+00

STH 23

WETLANDS

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL
POST 1 STA. 543+39.35, 20' RT
POST 5 STA. 543+64.35, 19' RT
POST 9 STA. 543+89.35, 18' RT

STEEL THRIE BEAM
STRUCTURE APPROACH

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL
POST 1 STA. 545+30.49, 20' RT
POST 5 STA. 545+05.19, 19' RT
POST 9 STA. 544+80.49, 18' RT

ALLIANT ENERGY

WILLOW RD

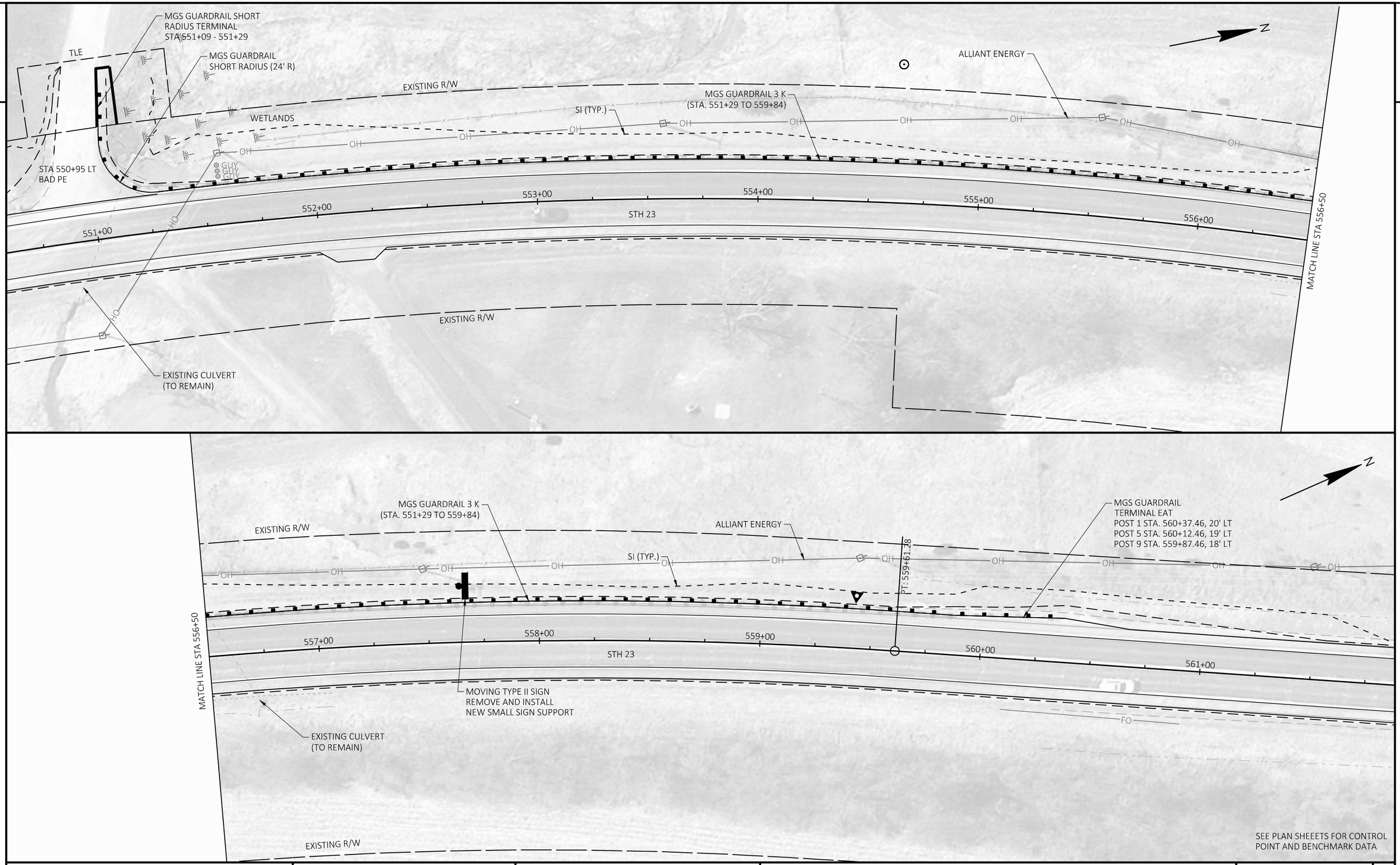
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 55	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021002-CD.DWG
LAYOUT NAME - 021017-cd

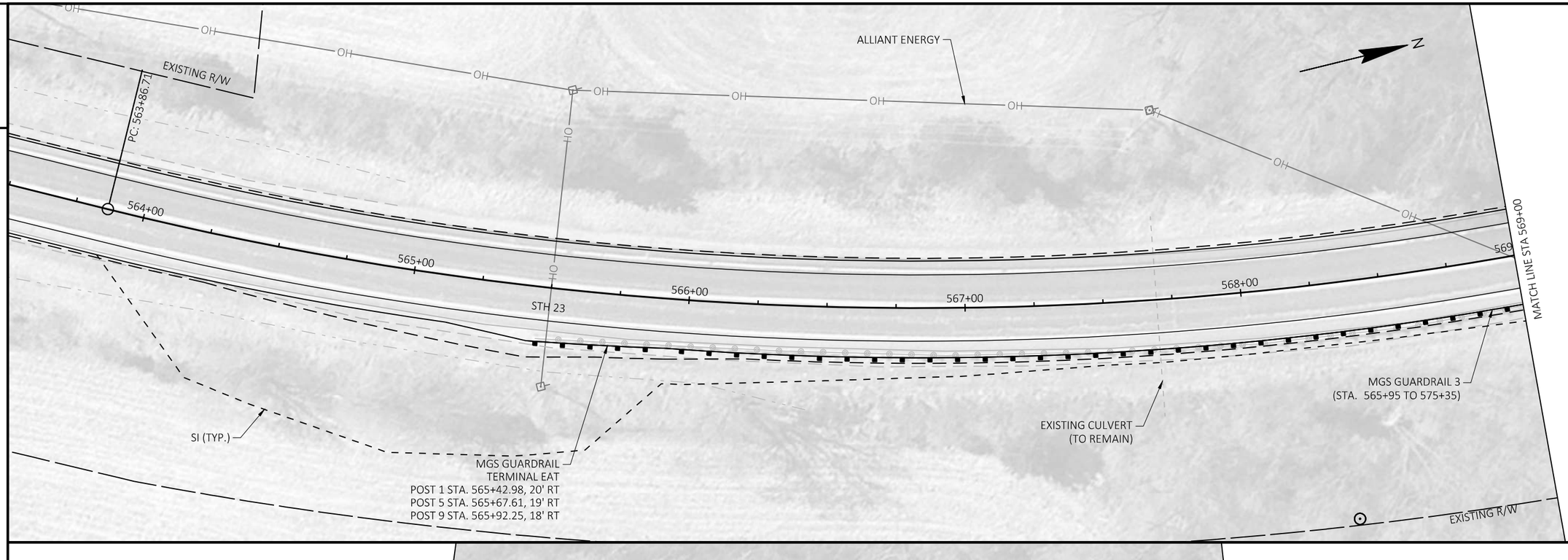
PLOT DATE : 10/31/2023 10:21 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

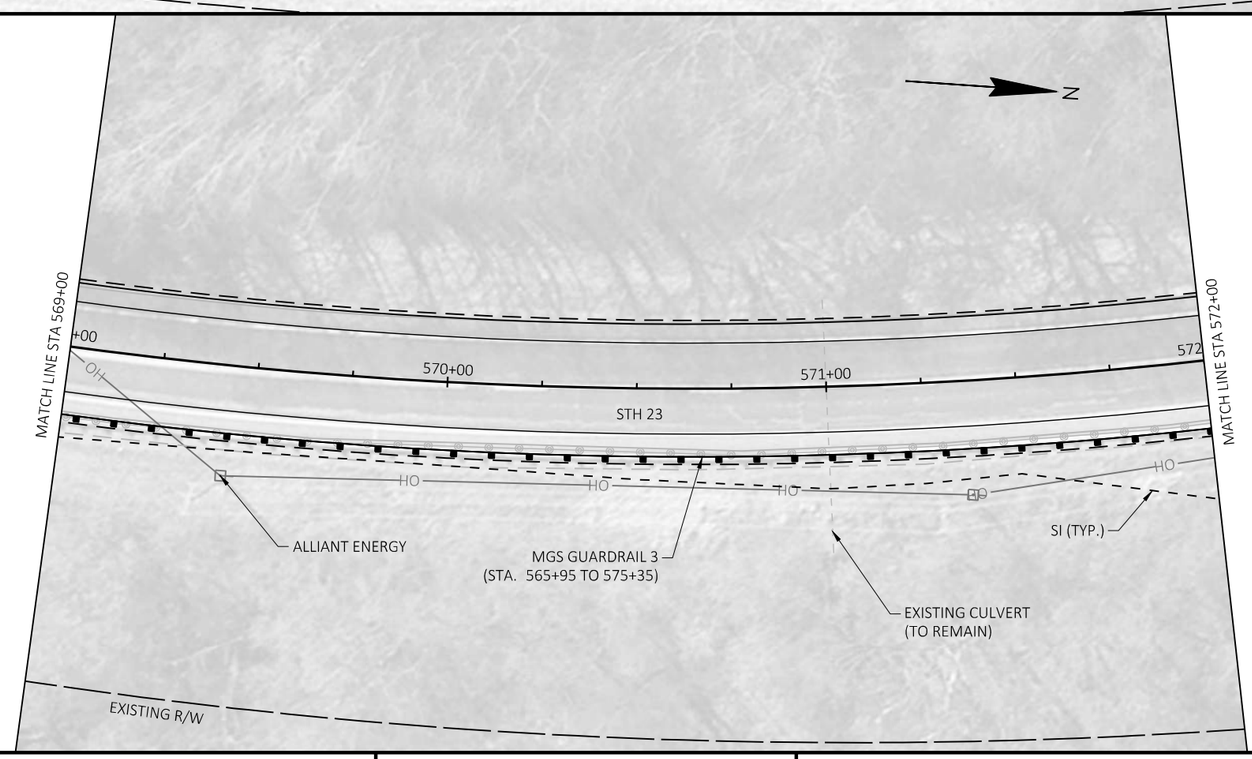
WISDOT/CADDS SHEET 44

2

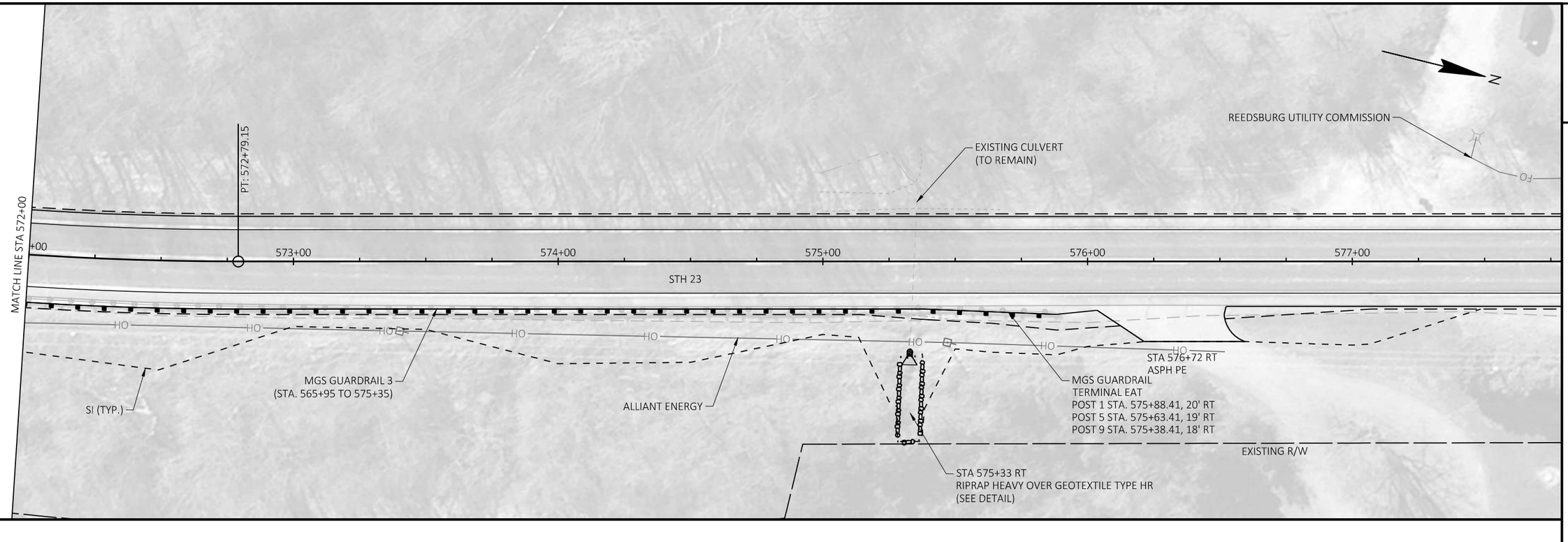


PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CONSTRUCTION DETAILS - GUARDRAIL	SHEET 56	E

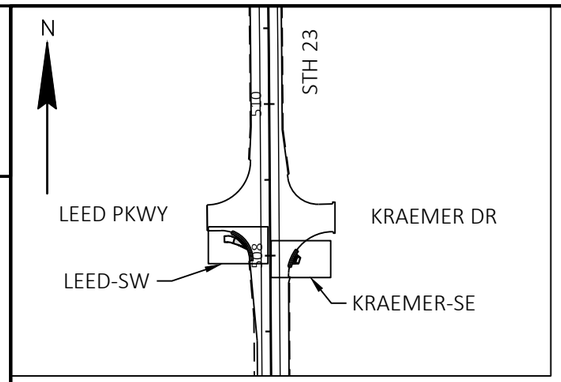

OH
EXISTING R/W
PC: 563+86.71
564+00
565+00
566+00
567+00
568+00
569+00
STH 23
ALLIANT ENERGY
N
MATCH LINE STA 569+00
SI (TYP.)
MGS GUARDRAIL
TERMINAL EAT
POST 1 STA. 565+42.98, 20' RT
POST 5 STA. 565+67.61, 19' RT
POST 9 STA. 565+92.25, 18' RT
EXISTING CULVERT
(TO REMAIN)
MGS GUARDRAIL 3
(STA. 565+95 TO 575+35)
EXISTING R/W

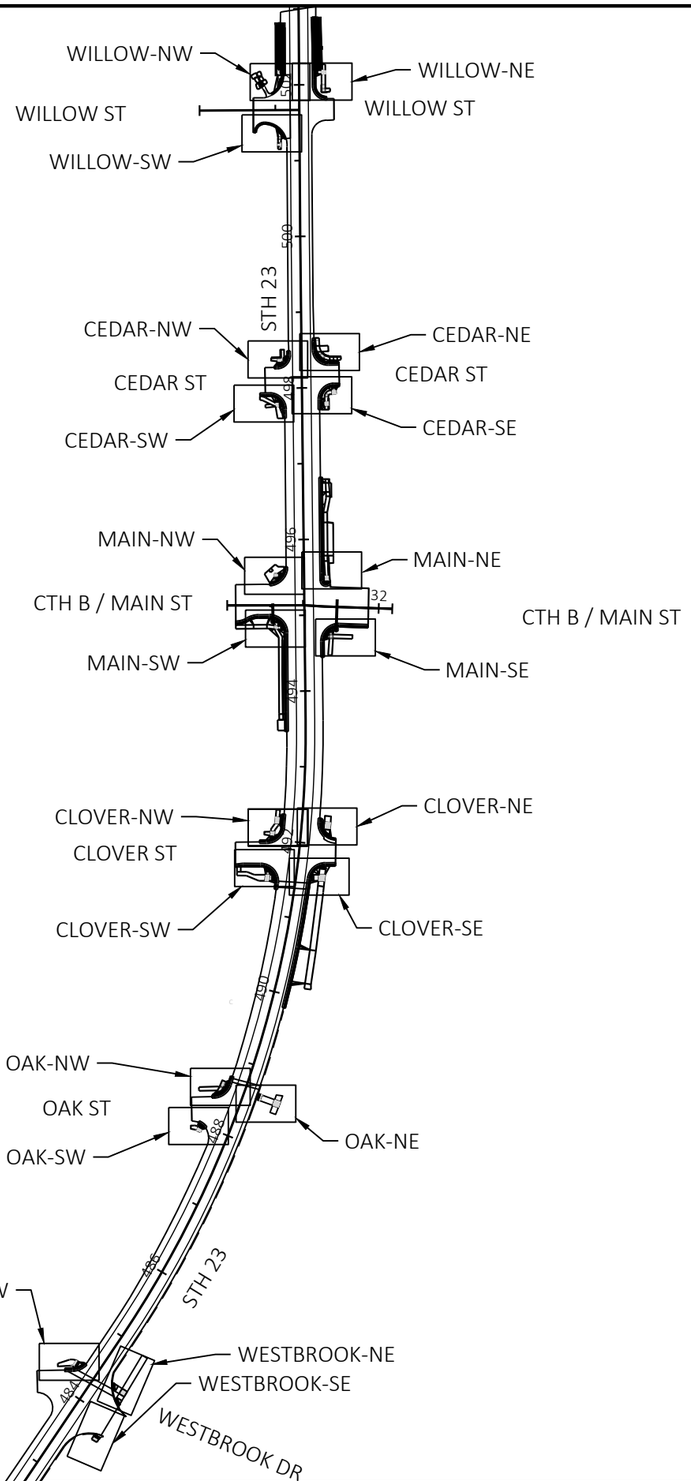

N
MATCH LINE STA 569+00
570+00
571+00
572+00
MATCH LINE STA 572+00
STH 23
HO
ALLIANT ENERGY
MGS GUARDRAIL 3
(STA. 565+95 TO 575+35)
SI (TYP.)
EXISTING CULVERT
(TO REMAIN)
EXISTING R/W

2



THIS FRAME INTENTIONALLY LEFT BLANK





2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS-OVERVIEW	SHEET 59	E

2

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- (XXXX YYY.YY) POINT NUMBER & ELEVATION

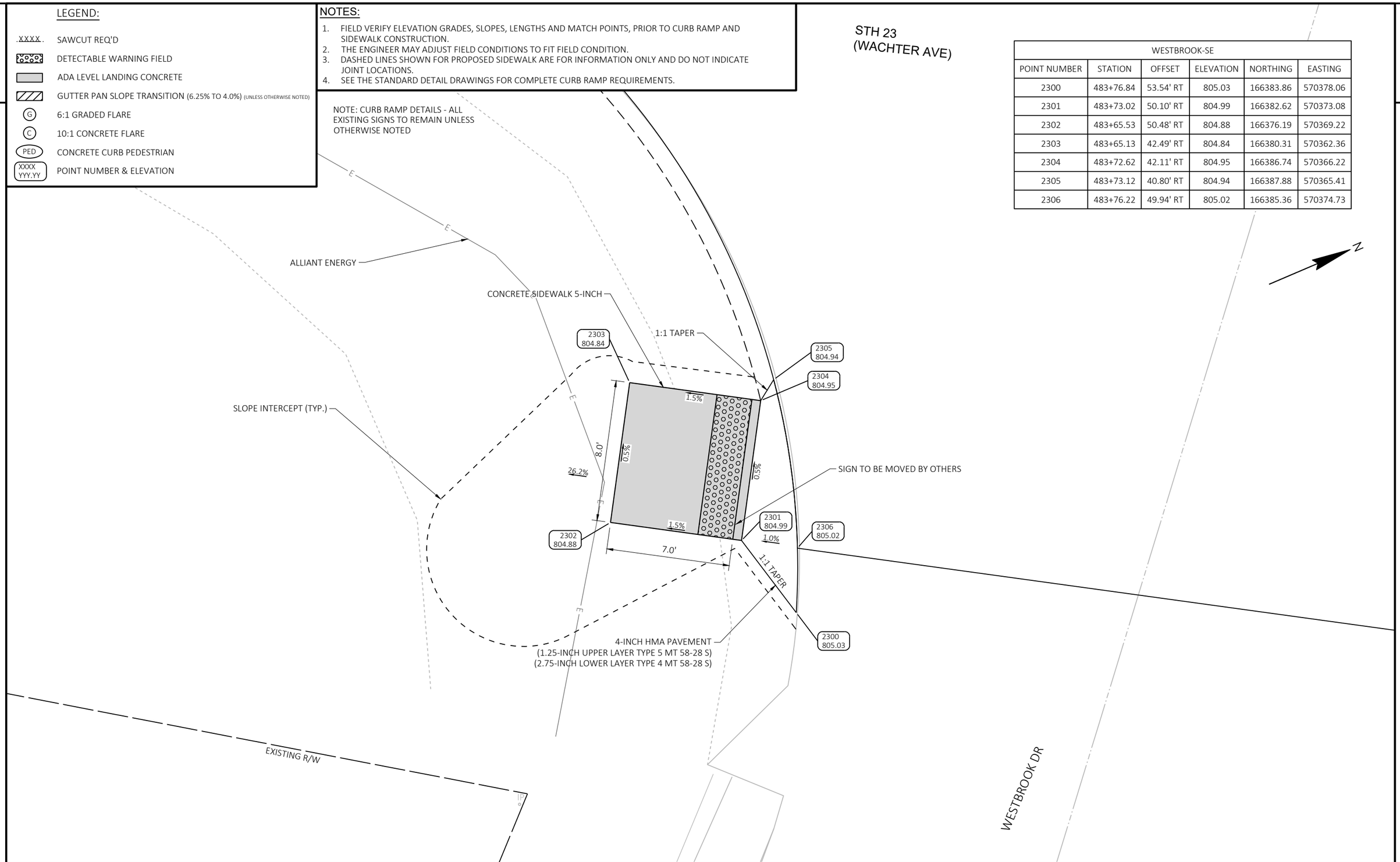
NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

NOTE: CURB RAMP DETAILS - ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED

STH 23
(WACHTER AVE)

WESTBROOK-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2300	483+76.84	53.54' RT	805.03	166383.86	570378.06
2301	483+73.02	50.10' RT	804.99	166382.62	570373.08
2302	483+65.53	50.48' RT	804.88	166376.19	570369.22
2303	483+65.13	42.49' RT	804.84	166380.31	570362.36
2304	483+72.62	42.11' RT	804.95	166386.74	570366.22
2305	483+73.12	40.80' RT	804.94	166387.88	570365.41
2306	483+76.22	49.94' RT	805.02	166385.36	570374.73



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - WESTBROOK - SE	SHEET 60	E

2

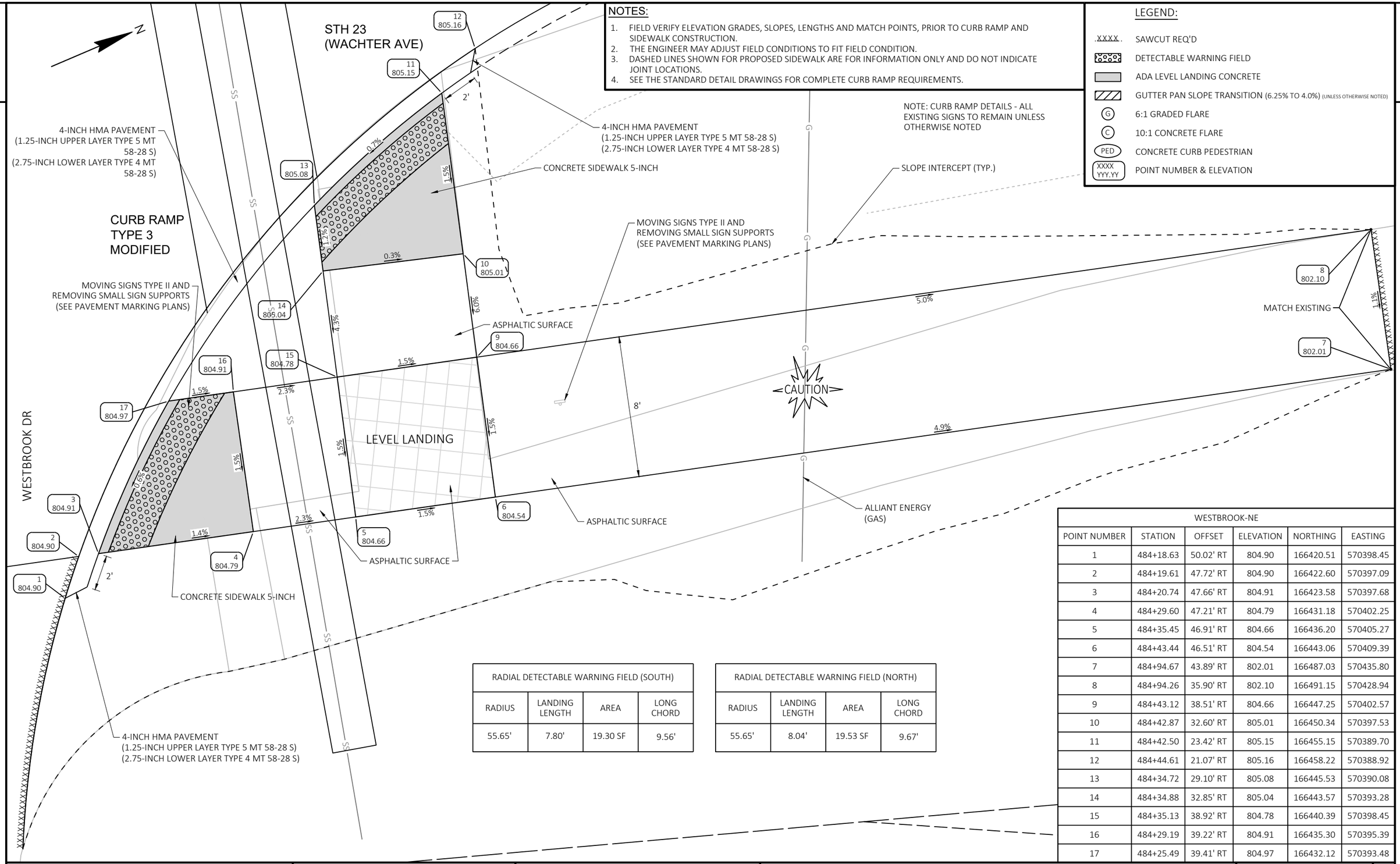
NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTE: CURB RAMP DETAILS - ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED



RADIAL DETECTABLE WARNING FIELD (SOUTH)			
RADIUS	LANDING LENGTH	AREA	LONG CHORD
55.65'	7.80'	19.30 SF	9.56'

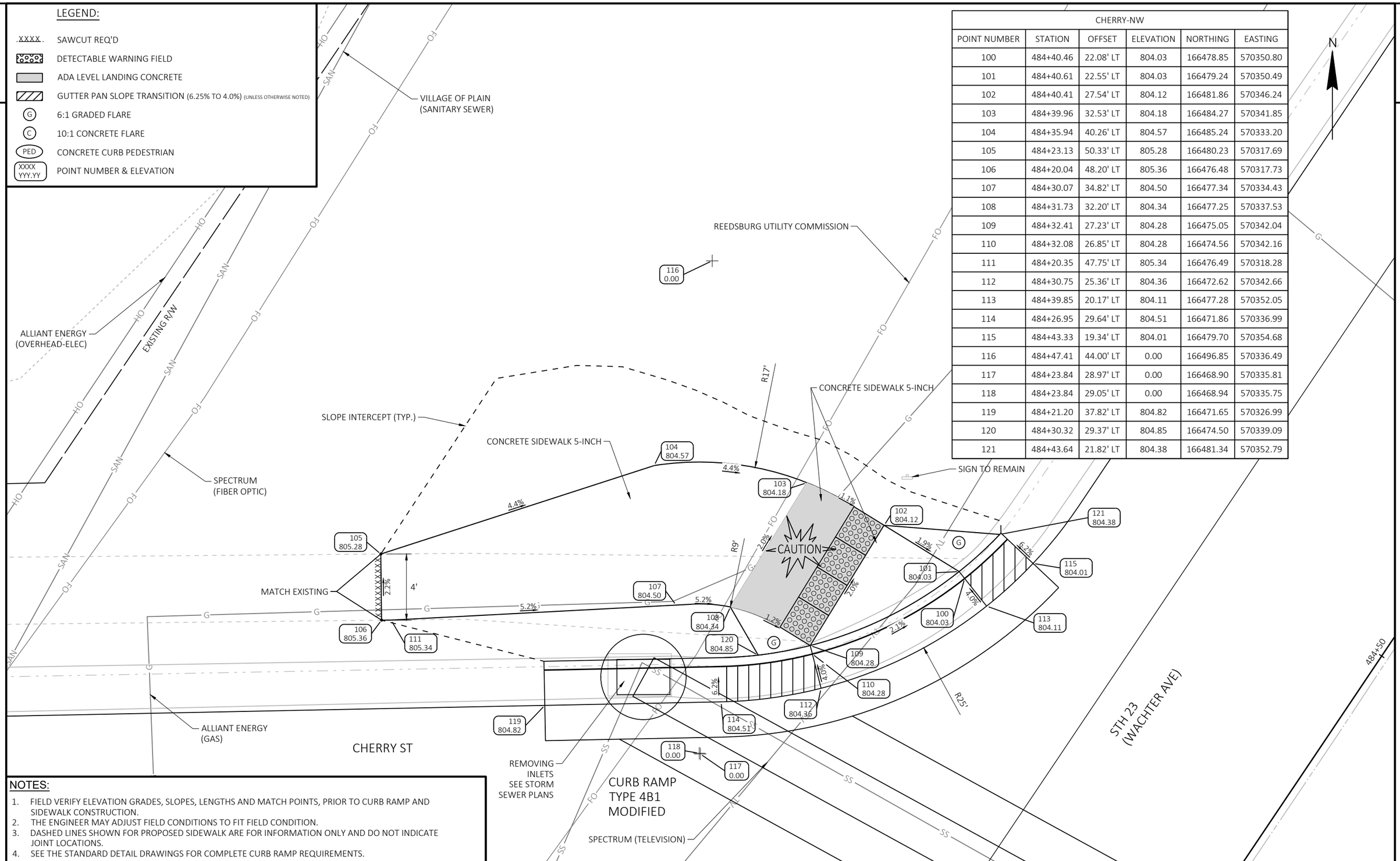
RADIAL DETECTABLE WARNING FIELD (NORTH)			
RADIUS	LANDING LENGTH	AREA	LONG CHORD
55.65'	8.04'	19.53 SF	9.67'

WESTBROOK-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	484+18.63	50.02' RT	804.90	166420.51	570398.45
2	484+19.61	47.72' RT	804.90	166422.60	570397.09
3	484+20.74	47.66' RT	804.91	166423.58	570397.68
4	484+29.60	47.21' RT	804.79	166431.18	570402.25
5	484+35.45	46.91' RT	804.66	166436.20	570405.27
6	484+43.44	46.51' RT	804.54	166443.06	570409.39
7	484+94.67	43.89' RT	802.01	166487.03	570435.80
8	484+94.26	35.90' RT	802.10	166491.15	570428.94
9	484+43.12	38.51' RT	804.66	166447.25	570402.57
10	484+42.87	32.60' RT	805.01	166450.34	570397.53
11	484+42.50	23.42' RT	805.15	166455.15	570389.70
12	484+44.61	21.07' RT	805.16	166458.22	570388.92
13	484+34.72	29.10' RT	805.08	166445.53	570390.08
14	484+34.88	32.85' RT	805.04	166443.57	570393.28
15	484+35.13	38.92' RT	804.78	166440.39	570398.45
16	484+29.19	39.22' RT	804.91	166435.30	570395.39
17	484+25.49	39.41' RT	804.97	166432.12	570393.48

2

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- (XXXX YYY.YY) POINT NUMBER & ELEVATION



CHERRY-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	484+40.46	22.08' LT	804.03	166478.85	570350.80
101	484+40.61	22.55' LT	804.03	166479.24	570350.49
102	484+40.41	27.54' LT	804.12	166481.86	570346.24
103	484+39.96	32.53' LT	804.18	166484.27	570341.85
104	484+35.94	40.26' LT	804.57	166485.24	570333.20
105	484+23.13	50.33' LT	805.28	166480.23	570317.69
106	484+20.04	48.20' LT	805.36	166476.48	570317.73
107	484+30.07	34.82' LT	804.50	166477.34	570334.43
108	484+31.73	32.20' LT	804.34	166477.25	570337.53
109	484+32.41	27.23' LT	804.28	166475.05	570342.04
110	484+32.08	26.85' LT	804.28	166474.56	570342.16
111	484+20.35	47.75' LT	805.34	166476.49	570318.28
112	484+30.75	25.36' LT	804.36	166472.62	570342.66
113	484+39.85	20.17' LT	804.11	166477.28	570352.05
114	484+26.95	29.64' LT	804.51	166471.86	570336.99
115	484+43.33	19.34' LT	804.01	166479.70	570354.68
116	484+47.41	44.00' LT	0.00	166496.85	570336.49
117	484+23.84	28.97' LT	0.00	166468.90	570335.81
118	484+23.84	29.05' LT	0.00	166468.94	570335.75
119	484+21.20	37.82' LT	804.82	166471.65	570326.99
120	484+30.32	29.37' LT	804.85	166474.50	570339.09
121	484+43.64	21.82' LT	804.38	166481.34	570352.79

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - CHERRY - NW	SHEET 62	E

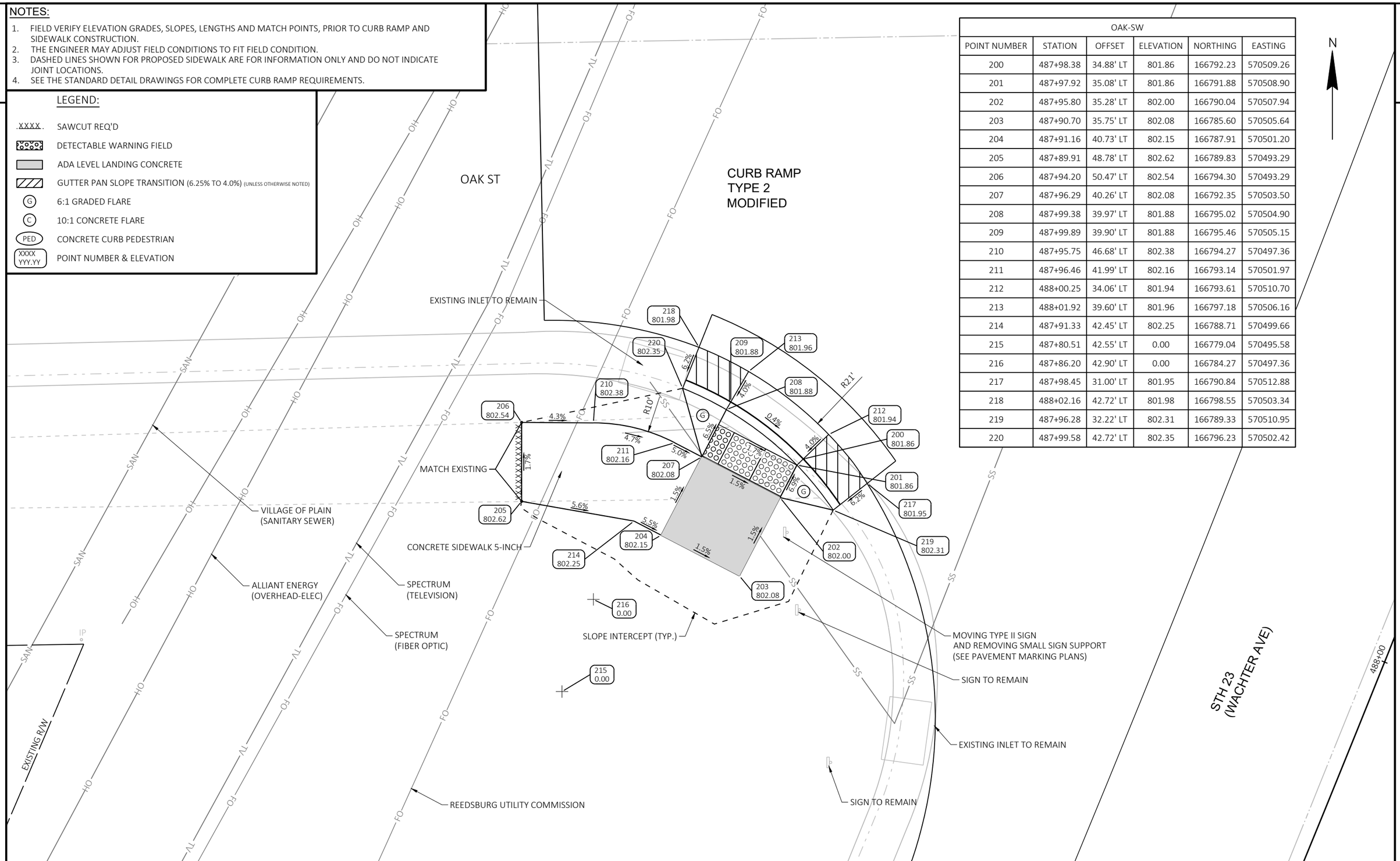
2

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND:

- XXXX — SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- PED — CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY — POINT NUMBER & ELEVATION

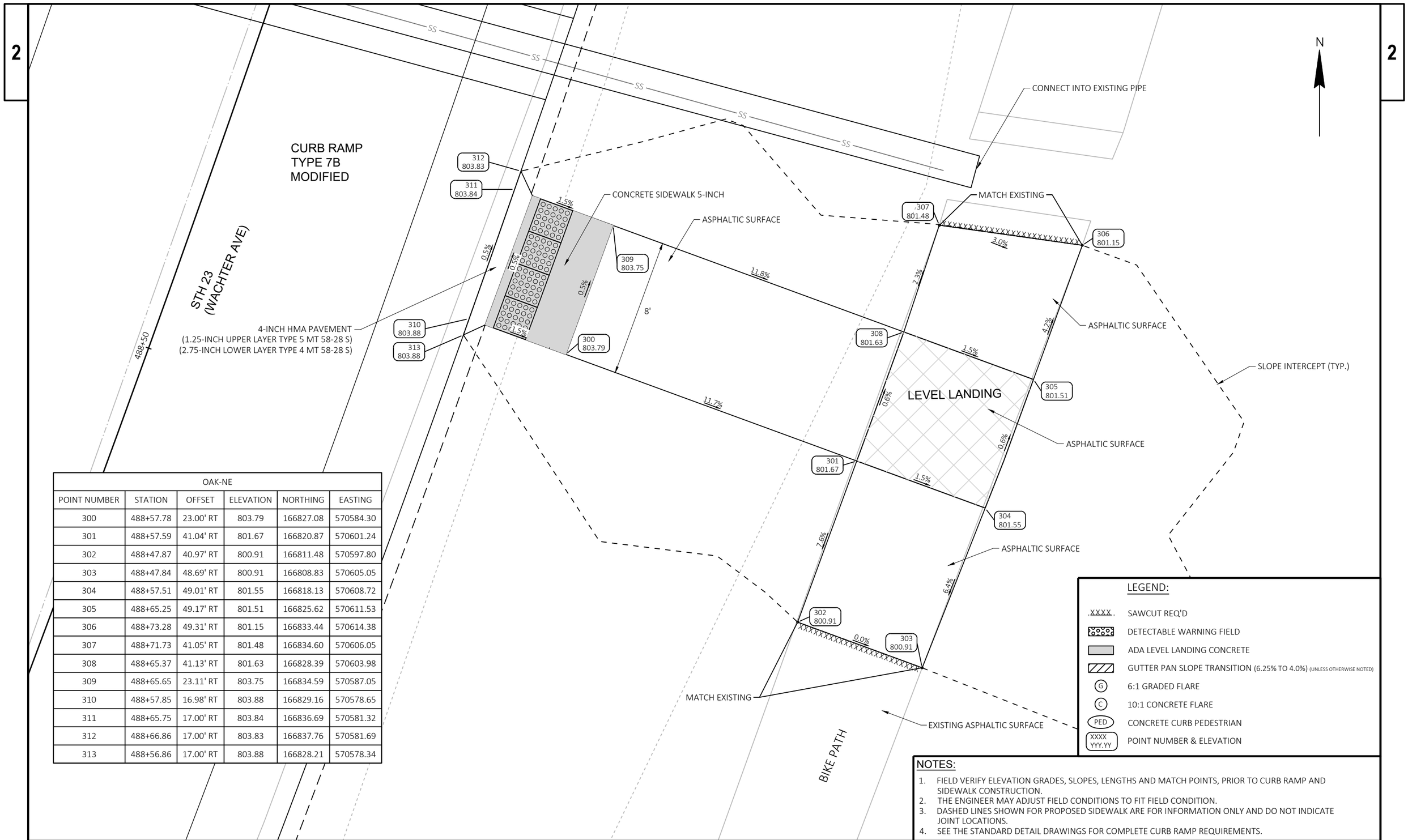


OAK-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
200	487+98.38	34.88' LT	801.86	166792.23	570509.26
201	487+97.92	35.08' LT	801.86	166791.88	570508.90
202	487+95.80	35.28' LT	802.00	166790.04	570507.94
203	487+90.70	35.75' LT	802.08	166785.60	570505.64
204	487+91.16	40.73' LT	802.15	166787.91	570501.20
205	487+89.91	48.78' LT	802.62	166789.83	570493.29
206	487+94.20	50.47' LT	802.54	166794.30	570493.29
207	487+96.29	40.26' LT	802.08	166792.35	570503.50
208	487+99.38	39.97' LT	801.88	166795.02	570504.90
209	487+99.89	39.90' LT	801.88	166795.46	570505.15
210	487+95.75	46.68' LT	802.38	166794.27	570497.36
211	487+96.46	41.99' LT	802.16	166793.14	570501.97
212	488+00.25	34.06' LT	801.94	166793.61	570510.70
213	488+01.92	39.60' LT	801.96	166797.18	570506.16
214	487+91.33	42.45' LT	802.25	166788.71	570499.66
215	487+80.51	42.55' LT	0.00	166779.04	570495.58
216	487+86.20	42.90' LT	0.00	166784.27	570497.36
217	487+98.45	31.00' LT	801.95	166790.84	570512.88
218	488+02.16	42.72' LT	801.98	166798.55	570503.34
219	487+96.28	32.22' LT	802.31	166789.33	570510.95
220	487+99.58	42.72' LT	802.35	166796.23	570502.42

N

2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - OAK - SW	SHEET 63	E



OAK-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	488+57.78	23.00' RT	803.79	166827.08	570584.30
301	488+57.59	41.04' RT	801.67	166820.87	570601.24
302	488+47.87	40.97' RT	800.91	166811.48	570597.80
303	488+47.84	48.69' RT	800.91	166808.83	570605.05
304	488+57.51	49.01' RT	801.55	166818.13	570608.72
305	488+65.25	49.17' RT	801.51	166825.62	570611.53
306	488+73.28	49.31' RT	801.15	166833.44	570614.38
307	488+71.73	41.05' RT	801.48	166834.60	570606.05
308	488+65.37	41.13' RT	801.63	166828.39	570603.98
309	488+65.65	23.11' RT	803.75	166834.59	570587.05
310	488+57.85	16.98' RT	803.88	166829.16	570578.65
311	488+65.75	17.00' RT	803.84	166836.69	570581.32
312	488+66.86	17.00' RT	803.83	166837.76	570581.69
313	488+56.86	17.00' RT	803.88	166828.21	570578.34

LEGEND:

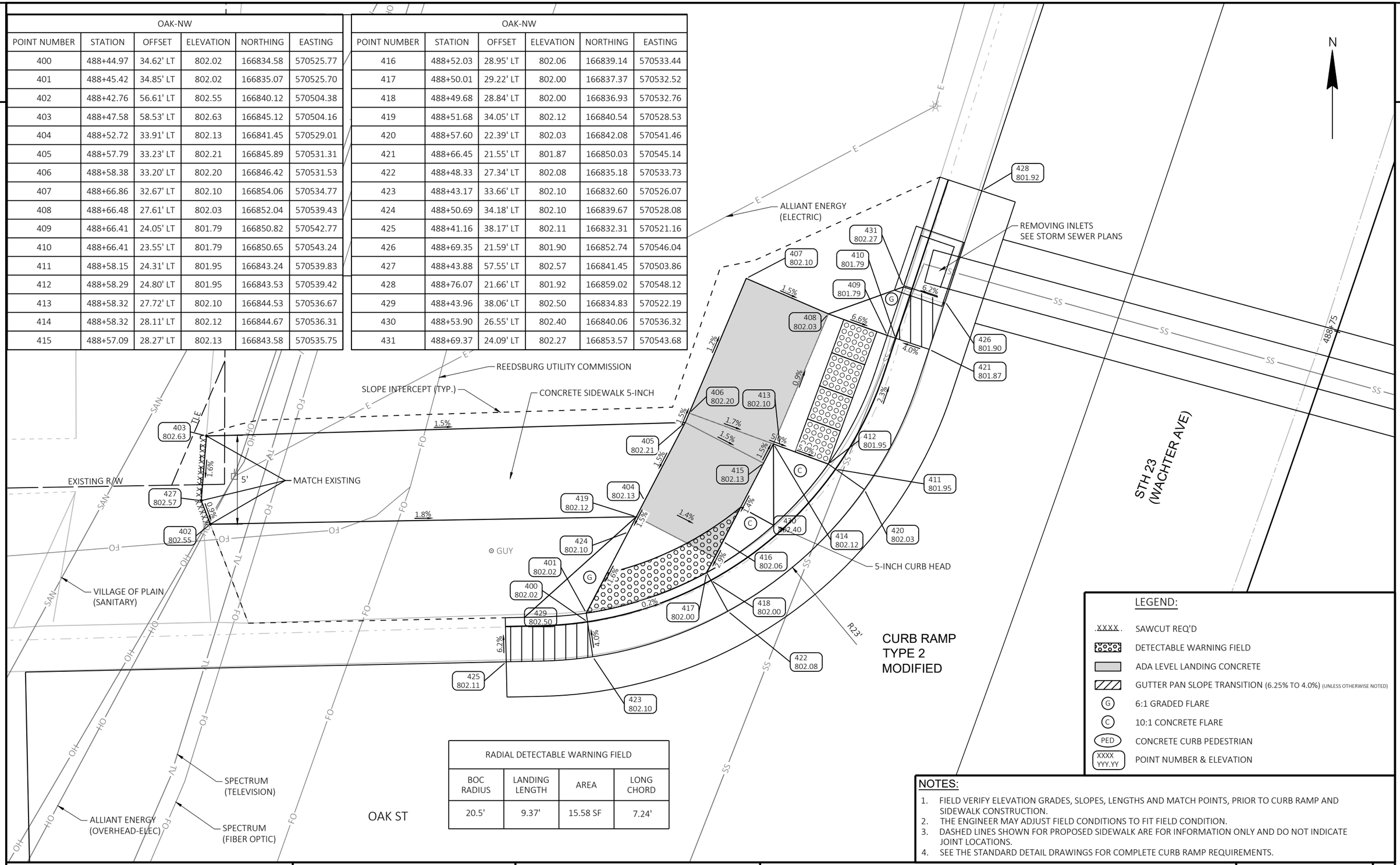
- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

OAK-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
400	488+44.97	34.62' LT	802.02	166834.58	570525.77
401	488+45.42	34.85' LT	802.02	166835.07	570525.70
402	488+42.76	56.61' LT	802.55	166840.12	570504.38
403	488+47.58	58.53' LT	802.63	166845.12	570504.16
404	488+52.72	33.91' LT	802.13	166841.45	570529.01
405	488+57.79	33.23' LT	802.21	166845.89	570531.31
406	488+58.38	33.20' LT	802.20	166846.42	570531.53
407	488+66.86	32.67' LT	802.10	166854.06	570534.77
408	488+66.48	27.61' LT	802.03	166852.04	570539.43
409	488+66.41	24.05' LT	801.79	166850.82	570542.77
410	488+66.41	23.55' LT	801.79	166850.65	570543.24
411	488+58.15	24.31' LT	801.95	166843.24	570539.83
412	488+58.29	24.80' LT	801.95	166843.53	570539.42
413	488+58.32	27.72' LT	802.10	166844.53	570536.67
414	488+58.32	28.11' LT	802.12	166844.67	570536.31
415	488+57.09	28.27' LT	802.13	166843.58	570535.75

OAK-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
416	488+52.03	28.95' LT	802.06	166839.14	570533.44
417	488+50.01	29.22' LT	802.00	166837.37	570532.52
418	488+49.68	28.84' LT	802.00	166836.93	570532.76
419	488+51.68	34.05' LT	802.12	166840.54	570528.53
420	488+57.60	22.39' LT	802.03	166842.08	570541.46
421	488+66.45	21.55' LT	801.87	166850.03	570545.14
422	488+48.33	27.34' LT	802.08	166835.18	570533.73
423	488+43.17	33.66' LT	802.10	166832.60	570526.07
424	488+50.69	34.18' LT	802.10	166839.67	570528.08
425	488+41.16	38.17' LT	802.11	166832.31	570521.16
426	488+69.35	21.59' LT	801.90	166852.74	570546.04
427	488+43.88	57.55' LT	802.57	166841.45	570503.86
428	488+76.07	21.66' LT	801.92	166859.02	570548.12
429	488+43.96	38.06' LT	802.50	166834.83	570522.19
430	488+53.90	26.55' LT	802.40	166840.06	570536.32
431	488+69.37	24.09' LT	802.27	166853.57	570543.68



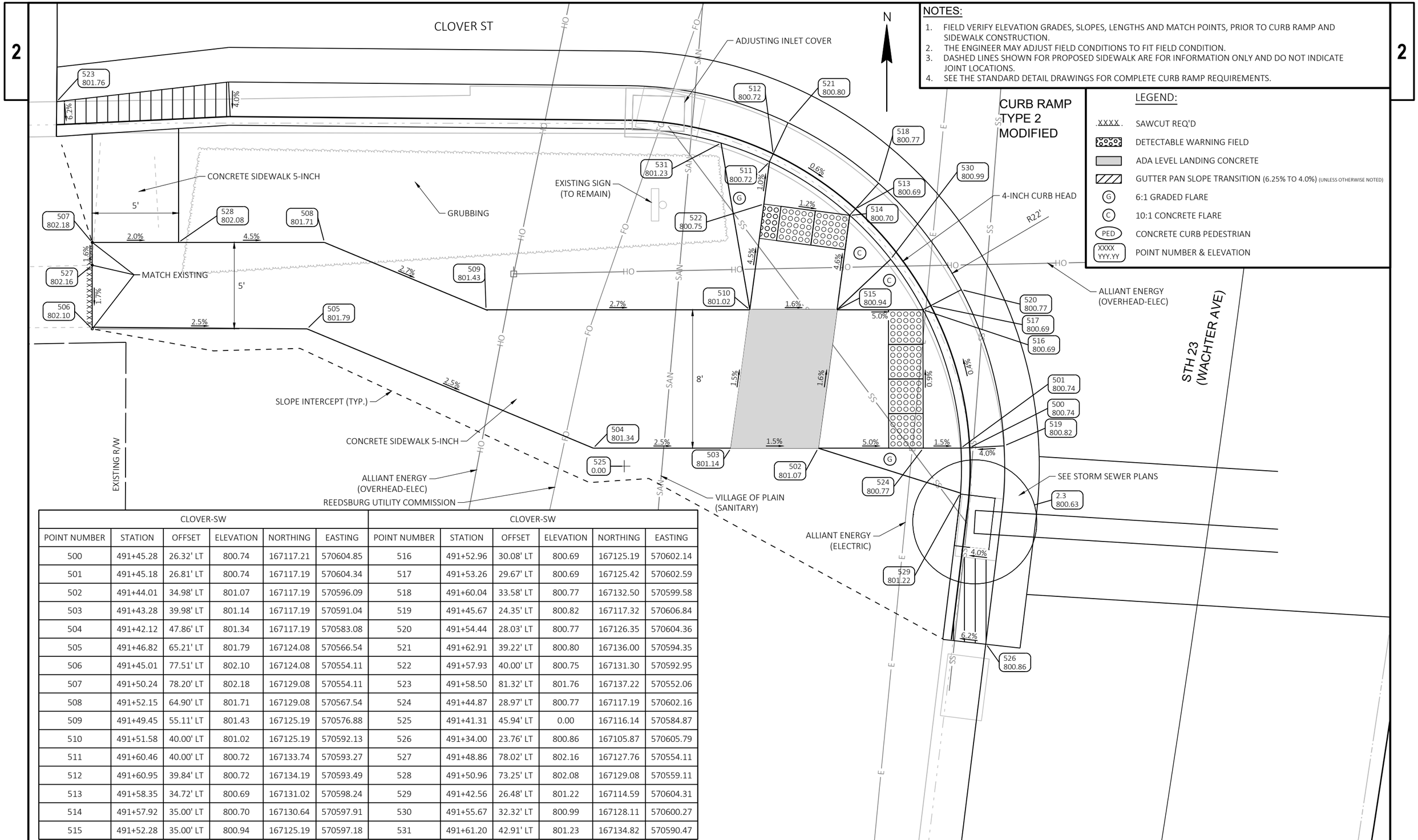
RADIAL DETECTABLE WARNING FIELD			
BOC RADIUS	LANDING LENGTH	AREA	LONG CHORD
20.5'	9.37'	15.58 SF	7.24'

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

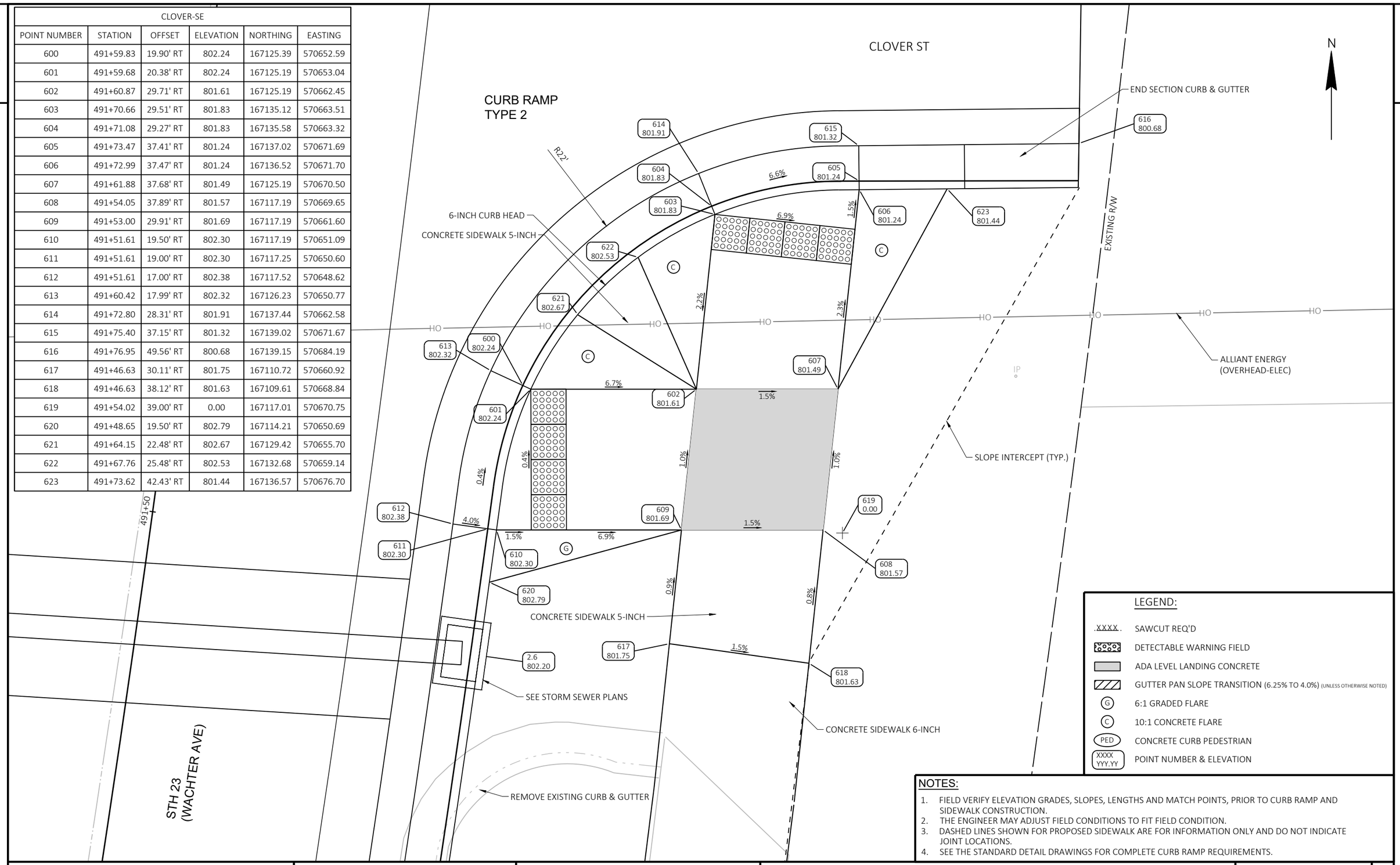
1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



CLOVER-SW						CLOVER-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
500	491+45.28	26.32' LT	800.74	167117.21	570604.85	516	491+52.96	30.08' LT	800.69	167125.19	570602.14
501	491+45.18	26.81' LT	800.74	167117.19	570604.34	517	491+53.26	29.67' LT	800.69	167125.42	570602.59
502	491+44.01	34.98' LT	801.07	167117.19	570596.09	518	491+60.04	33.58' LT	800.77	167132.50	570599.58
503	491+43.28	39.98' LT	801.14	167117.19	570591.04	519	491+45.67	24.35' LT	800.82	167117.32	570606.84
504	491+42.12	47.86' LT	801.34	167117.19	570583.08	520	491+54.44	28.03' LT	800.77	167126.35	570604.36
505	491+46.82	65.21' LT	801.79	167124.08	570566.54	521	491+62.91	39.22' LT	800.80	167136.00	570594.35
506	491+45.01	77.51' LT	802.10	167124.08	570554.11	522	491+57.93	40.00' LT	800.75	167131.30	570592.95
507	491+50.24	78.20' LT	802.18	167129.08	570554.11	523	491+58.50	81.32' LT	801.76	167137.22	570552.06
508	491+52.15	64.90' LT	801.71	167129.08	570567.54	524	491+44.87	28.97' LT	800.77	167117.19	570602.16
509	491+49.45	55.11' LT	801.43	167125.19	570576.88	525	491+41.31	45.94' LT	0.00	167116.14	570584.87
510	491+51.58	40.00' LT	801.02	167125.19	570592.13	526	491+34.00	23.76' LT	800.86	167105.87	570605.79
511	491+60.46	40.00' LT	800.72	167133.74	570593.27	527	491+48.86	78.02' LT	802.16	167127.76	570554.11
512	491+60.95	39.84' LT	800.72	167134.19	570593.49	528	491+50.96	73.25' LT	802.08	167129.08	570559.11
513	491+58.35	34.72' LT	800.69	167131.02	570598.24	529	491+42.56	26.48' LT	801.22	167114.59	570604.31
514	491+57.92	35.00' LT	800.70	167130.64	570597.91	530	491+55.67	32.32' LT	800.99	167128.11	570600.27
515	491+52.28	35.00' LT	800.94	167125.19	570597.18	531	491+61.20	42.91' LT	801.23	167134.82	570590.47

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - CLOVER - SW	SHEET 66	E

CLOVER-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
600	491+59.83	19.90' RT	802.24	167125.39	570652.59
601	491+59.68	20.38' RT	802.24	167125.19	570653.04
602	491+60.87	29.71' RT	801.61	167125.19	570662.45
603	491+70.66	29.51' RT	801.83	167135.12	570663.51
604	491+71.08	29.27' RT	801.83	167135.58	570663.32
605	491+73.47	37.41' RT	801.24	167137.02	570671.69
606	491+72.99	37.47' RT	801.24	167136.52	570671.70
607	491+61.88	37.68' RT	801.49	167125.19	570670.50
608	491+54.05	37.89' RT	801.57	167117.19	570669.65
609	491+53.00	29.91' RT	801.69	167117.19	570661.60
610	491+51.61	19.50' RT	802.30	167117.19	570651.09
611	491+51.61	19.00' RT	802.30	167117.25	570650.60
612	491+51.61	17.00' RT	802.38	167117.52	570648.62
613	491+60.42	17.99' RT	802.32	167126.23	570650.77
614	491+72.80	28.31' RT	801.91	167137.44	570662.58
615	491+75.40	37.15' RT	801.32	167139.02	570671.67
616	491+76.95	49.56' RT	800.68	167139.15	570684.19
617	491+46.63	30.11' RT	801.75	167110.72	570660.92
618	491+46.63	38.12' RT	801.63	167109.61	570668.84
619	491+54.02	39.00' RT	0.00	167117.01	570670.75
620	491+48.65	19.50' RT	802.79	167114.21	570650.69
621	491+64.15	22.48' RT	802.67	167129.42	570655.70
622	491+67.76	25.48' RT	802.53	167132.68	570659.14
623	491+73.62	42.43' RT	801.44	167136.57	570676.70



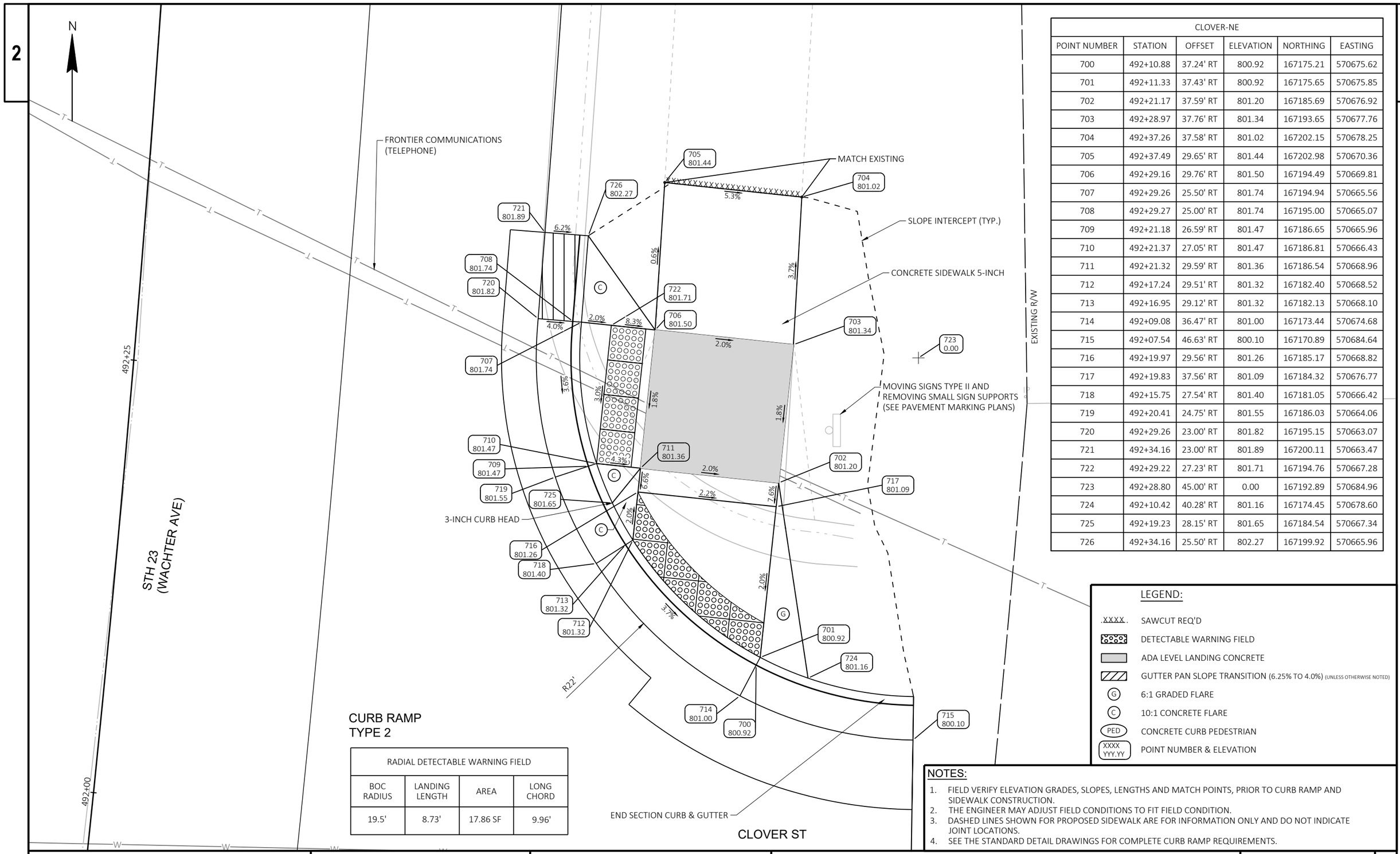
LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - CLOVER - SE	SHEET 67	E



CLOVER-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
700	492+10.88	37.24' RT	800.92	167175.21	570675.62
701	492+11.33	37.43' RT	800.92	167175.65	570675.85
702	492+21.17	37.59' RT	801.20	167185.69	570676.92
703	492+28.97	37.76' RT	801.34	167193.65	570677.76
704	492+37.26	37.58' RT	801.02	167202.15	570678.25
705	492+37.49	29.65' RT	801.44	167202.98	570670.36
706	492+29.16	29.76' RT	801.50	167194.49	570669.81
707	492+29.26	25.50' RT	801.74	167194.94	570665.56
708	492+29.27	25.00' RT	801.74	167195.00	570665.07
709	492+21.18	26.59' RT	801.47	167186.65	570665.96
710	492+21.37	27.05' RT	801.47	167186.81	570666.43
711	492+21.32	29.59' RT	801.36	167186.54	570668.96
712	492+17.24	29.51' RT	801.32	167182.40	570668.52
713	492+16.95	29.12' RT	801.32	167182.13	570668.10
714	492+09.08	36.47' RT	801.00	167173.44	570674.68
715	492+07.54	46.63' RT	800.10	167170.89	570684.64
716	492+19.97	29.56' RT	801.26	167185.17	570668.82
717	492+19.83	37.56' RT	801.09	167184.32	570676.77
718	492+15.75	27.54' RT	801.40	167181.05	570666.42
719	492+20.41	24.75' RT	801.55	167186.03	570664.06
720	492+29.26	23.00' RT	801.82	167195.15	570663.07
721	492+34.16	23.00' RT	801.89	167200.11	570663.47
722	492+29.22	27.23' RT	801.71	167194.76	570667.28
723	492+28.80	45.00' RT	0.00	167192.89	570684.96
724	492+10.42	40.28' RT	801.16	167174.45	570678.60
725	492+19.23	28.15' RT	801.65	167184.54	570667.34
726	492+34.16	25.50' RT	802.27	167199.92	570665.96

CURB RAMP
TYPE 2

RADIAL DETECTABLE WARNING FIELD			
BOC RADIUS	LANDING LENGTH	AREA	LONG CHORD
19.5'	8.73'	17.86 SF	9.96'

LEGEND:

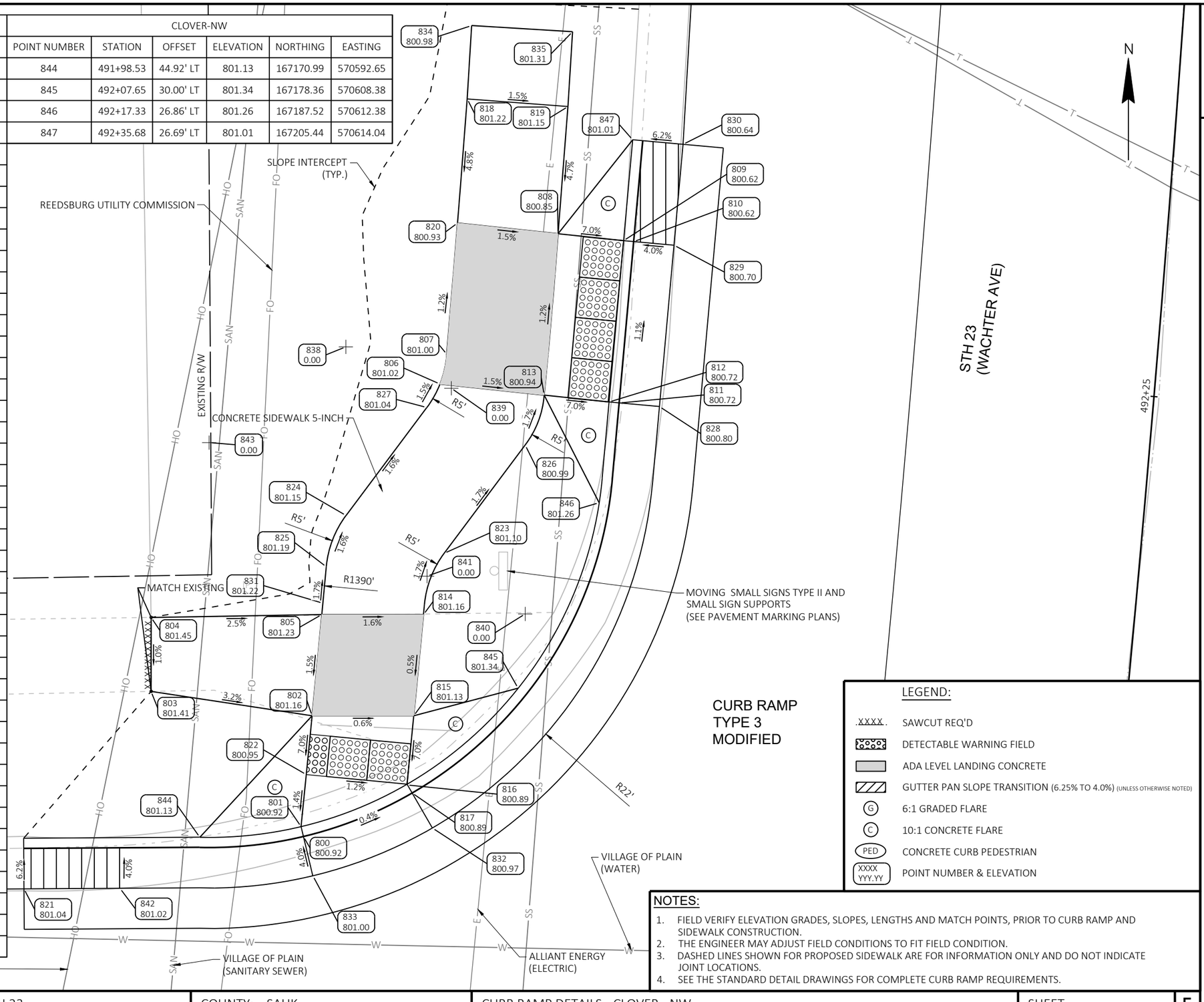
- XXXX — SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- PED — CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY — POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - CLOVER - NE	SHEET 68	E

CLOVER-NW						CLOVER-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
800	491+99.11	39.83' LT	800.92	167171.04	570597.77	844	491+98.53	44.92' LT	801.13	167170.99	570592.65
801	491+99.59	40.00' LT	800.92	167171.52	570597.65	845	492+07.65	30.00' LT	801.34	167178.36	570608.38
802	492+05.25	40.00' LT	801.16	167176.99	570598.20	846	492+17.33	26.86' LT	801.26	167187.52	570612.38
803	492+05.69	48.04' LT	801.41	167178.20	570590.24	847	492+35.68	26.69' LT	801.01	167205.44	570614.04
804	492+09.45	48.38' LT	801.45	167181.85	570590.24						
805	492+10.42	40.00' LT	801.23	167181.99	570598.68						
806	492+22.60	35.21' LT	801.02	167193.38	570604.51						
807	492+24.13	35.00' LT	801.00	167194.85	570604.85						
808	492+30.66	30.01' LT	800.85	167200.80	570610.35						
809	492+30.58	26.75' LT	800.62	167200.46	570613.59						
810	492+30.57	26.25' LT	800.62	167200.41	570614.08						
811	492+22.42	26.31' LT	800.72	167192.44	570613.37						
812	492+22.43	26.81' LT	800.72	167192.49	570612.87						
813	492+22.49	30.03' LT	800.94	167192.83	570609.66						
814	492+10.90	35.00' LT	801.16	167181.99	570603.70						
815	492+05.75	35.00' LT	801.13	167176.99	570603.22						
816	492+02.23	35.00' LT	800.89	167173.58	570602.88						
817	492+01.86	34.71' LT	800.89	167173.18	570603.14						
818	492+37.10	35.00' LT	801.22	167207.46	570605.86						
819	492+37.10	30.00' LT	801.15	167207.08	570610.85						
820	492+30.80	35.00' LT	800.93	167201.33	570605.38						
821	491+94.97	53.30' LT	801.04	167168.44	570583.96						
822	492+02.25	40.00' LT	800.95	167174.09	570597.91						
823	492+14.09	34.26' LT	801.10	167185.02	570604.72						
824	492+15.54	39.26' LT	801.15	167186.89	570599.87						
825	492+12.86	40.00' LT	801.19	167184.35	570598.90						
826	492+19.90	30.75' LT	800.99	167190.37	570608.73						
827	492+21.36	35.76' LT	801.04	167192.22	570603.86						
828	492+22.42	24.31' LT	800.80	167192.27	570615.36						
829	492+30.56	24.25' LT	800.70	167200.24	570616.08						
830	492+35.64	24.19' LT	800.64	167205.22	570616.53						
831	492+11.00	40.00' LT	801.22	167182.56	570598.73						
832	492+00.20	33.54' LT	800.97	167171.45	570604.14						
833	491+97.17	39.17' LT	801.00	167169.09	570598.23						
834	492+40.82	35.05' LT	800.98	167211.08	570606.08						
835	492+40.88	30.05' LT	801.31	167210.78	570611.07						
838	492+24.07	40.00' LT	0.00	167195.21	570599.86						
839	492+22.44	34.63' LT	0.00	167193.17	570605.08						
840	492+11.41	30.00' LT	0.00	167182.02	570608.72						
841	492+12.86	35.00' LT	0.00	167183.89	570603.88						
842	491+95.51	48.59' LT	801.02	167168.47	570588.70						
843	492+18.62	46.32' LT	0.00	167190.49	570593.11						



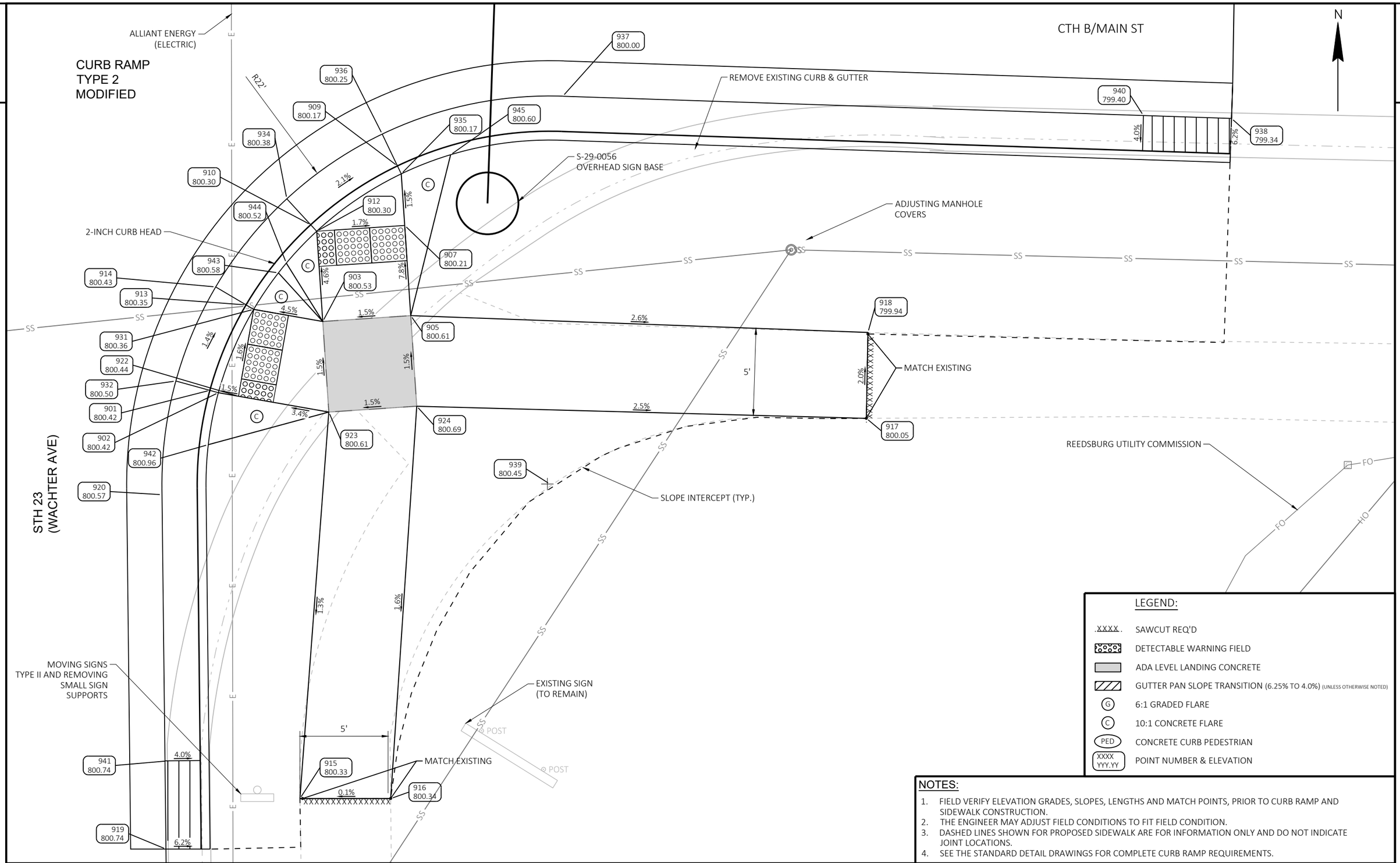
LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- PED CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - CLOVER - NW	SHEET 69	E



LEGEND:

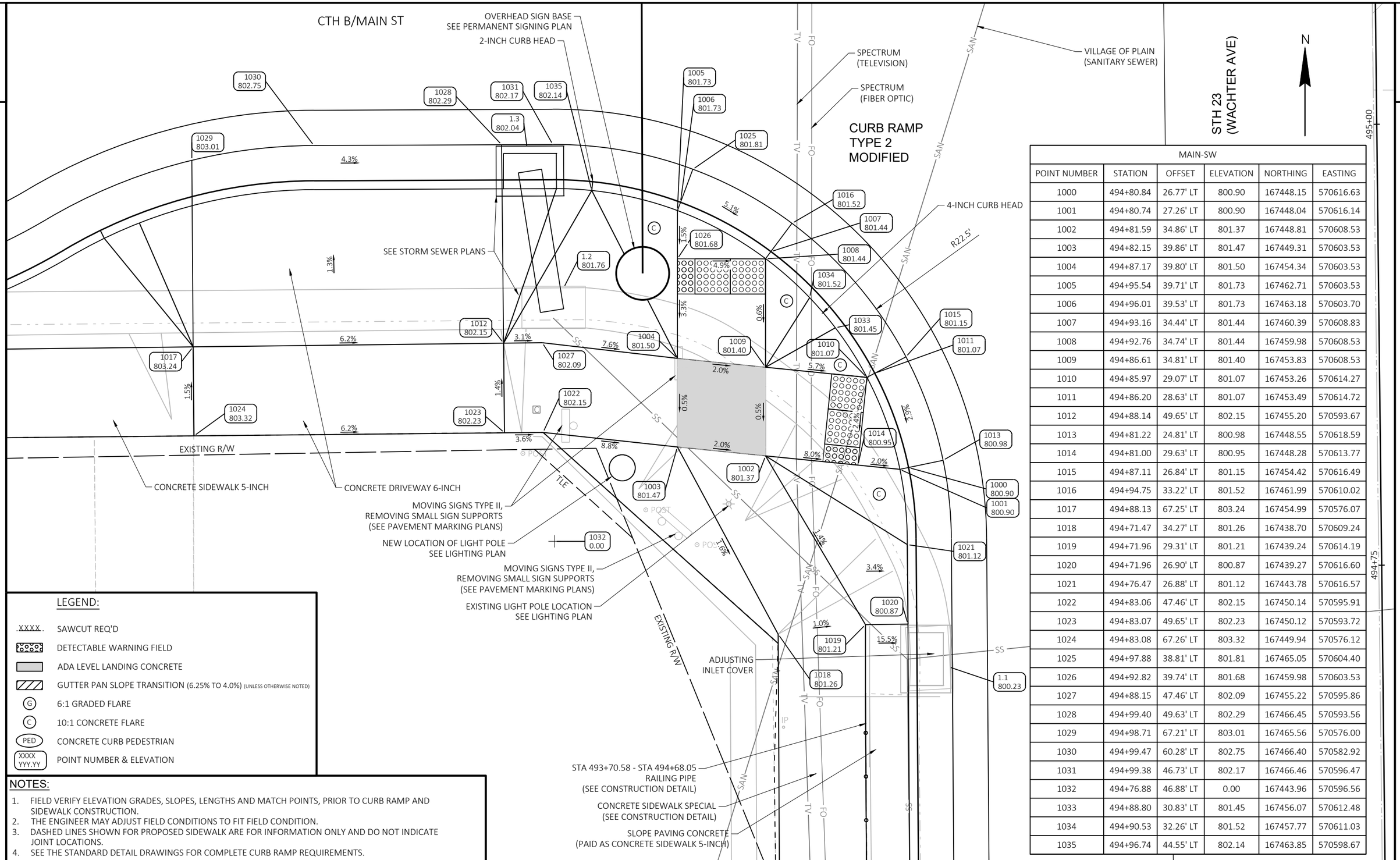
.XXXX.	SAWCUT REQ'D
	DETECTABLE WARNING FIELD
	ADA LEVEL LANDING CONCRETE
	GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
G	6:1 GRADED FLARE
C	10:1 CONCRETE FLARE
PED	CONCRETE CURB PEDESTRIAN
XXXX YYY.YY	POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - MAIN - SE	SHEET 70	E

MAIN-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
901	494+70.25	25.78' RT	800.42	167438.15	570669.30
902	494+70.11	26.26' RT	800.42	167438.02	570669.78
903	494+74.09	32.22' RT	800.53	167442.06	570675.70
905	494+74.36	37.22' RT	800.61	167442.39	570680.68
907	494+79.48	36.93' RT	800.21	167447.50	570680.34
909	494+82.86	36.56' RT	800.17	167450.88	570679.93
910	494+79.58	31.60' RT	800.30	167447.54	570675.02
912	494+79.21	31.94' RT	800.30	167447.17	570675.35
913	494+75.08	27.89' RT	800.35	167443.00	570671.35
914	494+76.11	26.18' RT	800.43	167444.01	570669.63
915	494+47.05	30.62' RT	800.33	167415.01	570674.40
916	494+47.00	35.77' RT	800.34	167415.01	570679.55
917	494+68.25	62.98' RT	800.05	167436.57	570706.52
918	494+73.12	63.13' RT	799.94	167441.43	570706.61
919	494+44.28	23.00' RT	800.74	167412.14	570666.81
920	494+64.37	23.00' RT	800.57	167432.24	570666.58
922	494+69.90	27.40' RT	800.44	167437.82	570670.92
923	494+68.95	32.51' RT	800.61	167436.92	570676.04
924	494+69.22	37.50' RT	800.69	167437.25	570681.03
931	494+74.82	28.31' RT	800.36	167442.74	570671.78
932	494+70.81	23.86' RT	800.50	167438.68	570667.37
934	494+81.06	30.27' RT	800.38	167449.01	570673.66
935	494+82.40	36.77' RT	800.17	167450.42	570680.15
936	494+84.67	35.71' RT	800.25	167452.68	570679.07
937	494+86.70	45.98' RT	800.00	167454.83	570689.31
938	494+85.02	83.88' RT	799.34	167453.57	570727.23
939	494+64.73	45.00' RT	800.45	167432.84	570688.58
940	494+85.24	78.89' RT	799.40	167453.73	570722.23
941	494+49.28	23.14' RT	800.74	167417.15	570666.89
942	494+67.18	25.65' RT	800.96	167435.07	570669.21
943	494+76.87	29.74' RT	800.58	167444.81	570673.18
944	494+77.42	30.19' RT	800.52	167445.36	570673.63
945	494+83.46	39.58' RT	800.60	167451.51	570682.95



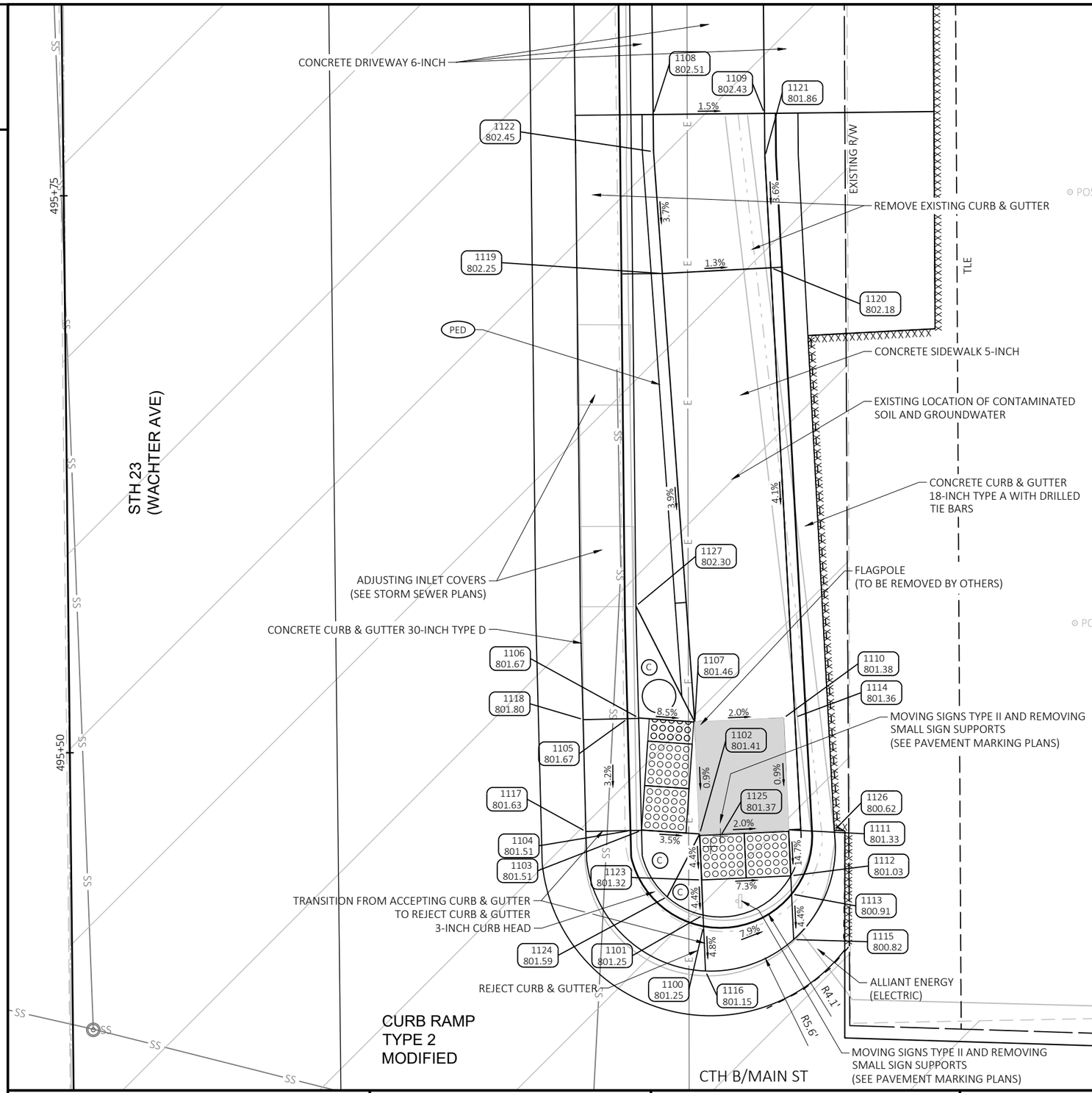
MAIN-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1000	494+80.84	26.77' LT	800.90	167448.15	570616.63
1001	494+80.74	27.26' LT	800.90	167448.04	570616.14
1002	494+81.59	34.86' LT	801.37	167448.81	570608.53
1003	494+82.15	39.86' LT	801.47	167449.31	570603.53
1004	494+87.17	39.80' LT	801.50	167454.34	570603.53
1005	494+95.54	39.71' LT	801.73	167462.71	570603.53
1006	494+96.01	39.53' LT	801.73	167463.18	570603.70
1007	494+93.16	34.44' LT	801.44	167460.39	570608.83
1008	494+92.76	34.74' LT	801.44	167459.98	570608.53
1009	494+86.61	34.81' LT	801.40	167453.83	570608.53
1010	494+85.97	29.07' LT	801.07	167453.26	570614.27
1011	494+86.20	28.63' LT	801.07	167453.49	570614.72
1012	494+88.14	49.65' LT	802.15	167455.20	570593.67
1013	494+81.22	24.81' LT	800.98	167448.55	570618.59
1014	494+81.00	29.63' LT	800.95	167448.28	570613.77
1015	494+87.11	26.84' LT	801.15	167454.42	570616.49
1016	494+94.75	33.22' LT	801.52	167461.99	570610.02
1017	494+88.13	67.25' LT	803.24	167454.99	570576.07
1018	494+71.47	34.27' LT	801.26	167438.70	570609.24
1019	494+71.96	29.31' LT	801.21	167439.24	570614.19
1020	494+71.96	26.90' LT	800.87	167439.27	570616.60
1021	494+76.47	26.88' LT	801.12	167443.78	570616.57
1022	494+83.06	47.46' LT	802.15	167450.14	570595.91
1023	494+83.07	49.65' LT	802.23	167450.12	570593.72
1024	494+83.08	67.26' LT	803.32	167449.94	570576.12
1025	494+97.88	38.81' LT	801.81	167465.05	570604.40
1026	494+92.82	39.74' LT	801.68	167459.98	570603.53
1027	494+88.15	47.46' LT	802.09	167455.22	570595.86
1028	494+99.40	49.63' LT	802.29	167466.45	570593.56
1029	494+98.71	67.21' LT	803.01	167465.56	570576.00
1030	494+99.47	60.28' LT	802.75	167466.40	570582.92
1031	494+99.38	46.73' LT	802.17	167466.46	570596.47
1032	494+76.88	46.88' LT	0.00	167443.96	570596.56
1033	494+88.80	30.83' LT	801.45	167456.07	570612.48
1034	494+90.53	32.26' LT	801.52	167457.77	570611.03
1035	494+96.74	44.55' LT	802.14	167463.85	570598.67

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



MAIN-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1100	495+41.89	28.36' RT	801.25	167509.82	570671.08
1101	495+42.40	28.35' RT	801.25	167510.32	570671.06
1102	495+46.04	28.23' RT	801.41	167513.96	570670.90
1103	495+46.24	25.63' RT	801.51	167514.13	570668.30
1104	495+46.23	25.14' RT	801.51	167514.12	570667.81
1105	495+51.25	25.06' RT	801.67	167519.14	570667.66
1106	495+51.28	25.56' RT	801.67	167519.17	570668.17
1107	495+51.06	28.08' RT	801.46	167518.98	570670.69
1108	495+78.35	26.51' RT	802.51	167546.25	570668.81
1109	495+78.35	31.51' RT	802.43	167546.30	570673.81
1110	495+51.20	32.06' RT	801.38	167519.16	570674.67
1111	495+46.18	32.23' RT	801.33	167514.15	570674.90
1112	495+44.11	32.30' RT	801.03	167512.08	570674.99
1113	495+43.30	32.33' RT	800.91	167511.26	570675.03
1114	495+51.22	32.57' RT	801.36	167519.19	570675.18
1115	495+41.25	32.40' RT	800.82	167509.22	570675.12
1116	495+39.88	28.43' RT	801.15	167507.81	570671.16
1117	495+46.21	23.14' RT	801.63	167514.07	570665.80
1118	495+51.23	23.08' RT	801.80	167519.09	570665.69
1119	495+71.21	26.84' RT	802.25	167539.12	570669.23
1120	495+71.42	31.72' RT	802.18	167539.38	570674.10
1121	495+76.41	31.51' RT	801.86	167544.36	570673.83
1122	495+76.69	26.51' RT	802.45	167544.59	570668.83
1123	495+43.97	28.31' RT	801.32	167511.90	570671.00
1124	495+43.24	26.74' RT	801.59	167511.14	570669.44
1125	495+45.93	29.17' RT	801.37	167513.86	570671.84
1126	495+46.14	34.28' RT	800.62	167514.13	570676.95
1127	495+56.30	25.49' RT	802.30	167524.19	570668.04

LEGEND:

- XXXX — SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- PED — CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY — POINT NUMBER & ELEVATION

NOTES:

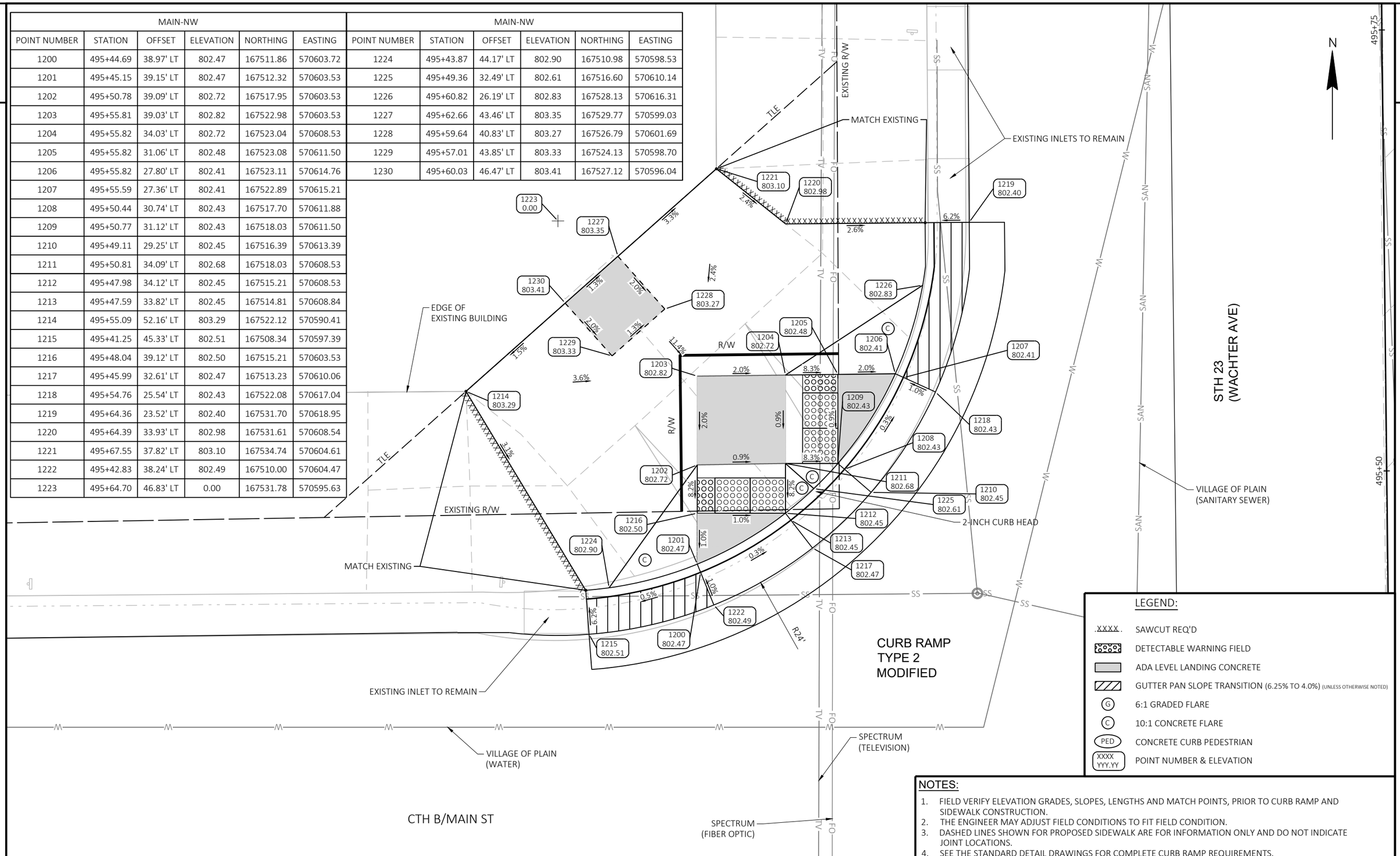
1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - MAIN - NE	SHEET 73	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021301-CR.DWG
LAYOUT NAME - 021312-cr
PLOT DATE : 10/31/2023 10:05 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

MAIN-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1200	495+44.69	38.97' LT	802.47	167511.86	570603.72
1201	495+45.15	39.15' LT	802.47	167512.32	570603.53
1202	495+50.78	39.09' LT	802.72	167517.95	570603.53
1203	495+55.81	39.03' LT	802.82	167522.98	570603.53
1204	495+55.82	34.03' LT	802.72	167523.04	570608.53
1205	495+55.82	31.06' LT	802.48	167523.08	570611.50
1206	495+55.82	27.80' LT	802.41	167523.11	570614.76
1207	495+55.59	27.36' LT	802.41	167522.89	570615.21
1208	495+50.44	30.74' LT	802.43	167517.70	570611.88
1209	495+50.77	31.12' LT	802.43	167518.03	570611.50
1210	495+49.11	29.25' LT	802.45	167516.39	570613.39
1211	495+50.81	34.09' LT	802.68	167518.03	570608.53
1212	495+47.98	34.12' LT	802.45	167515.21	570608.53
1213	495+47.59	33.82' LT	802.45	167514.81	570608.84
1214	495+55.09	52.16' LT	803.29	167522.12	570590.41
1215	495+41.25	45.33' LT	802.51	167508.34	570597.39
1216	495+48.04	39.12' LT	802.50	167515.21	570603.53
1217	495+45.99	32.61' LT	802.47	167513.23	570610.06
1218	495+54.76	25.54' LT	802.43	167522.08	570617.04
1219	495+64.36	23.52' LT	802.40	167531.70	570618.95
1220	495+64.39	33.93' LT	802.98	167531.61	570608.54
1221	495+67.55	37.82' LT	803.10	167534.74	570604.61
1222	495+42.83	38.24' LT	802.49	167510.00	570604.47
1223	495+64.70	46.83' LT	0.00	167531.78	570595.63

MAIN-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1224	495+43.87	44.17' LT	802.90	167510.98	570598.53
1225	495+49.36	32.49' LT	802.61	167516.60	570610.14
1226	495+60.82	26.19' LT	802.83	167528.13	570616.31
1227	495+62.66	43.46' LT	803.35	167529.77	570599.03
1228	495+59.64	40.83' LT	803.27	167526.79	570601.69
1229	495+57.01	43.85' LT	803.33	167524.13	570598.70
1230	495+60.03	46.47' LT	803.41	167527.12	570596.04



LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- (XXXX YYY.YY) POINT NUMBER & ELEVATION

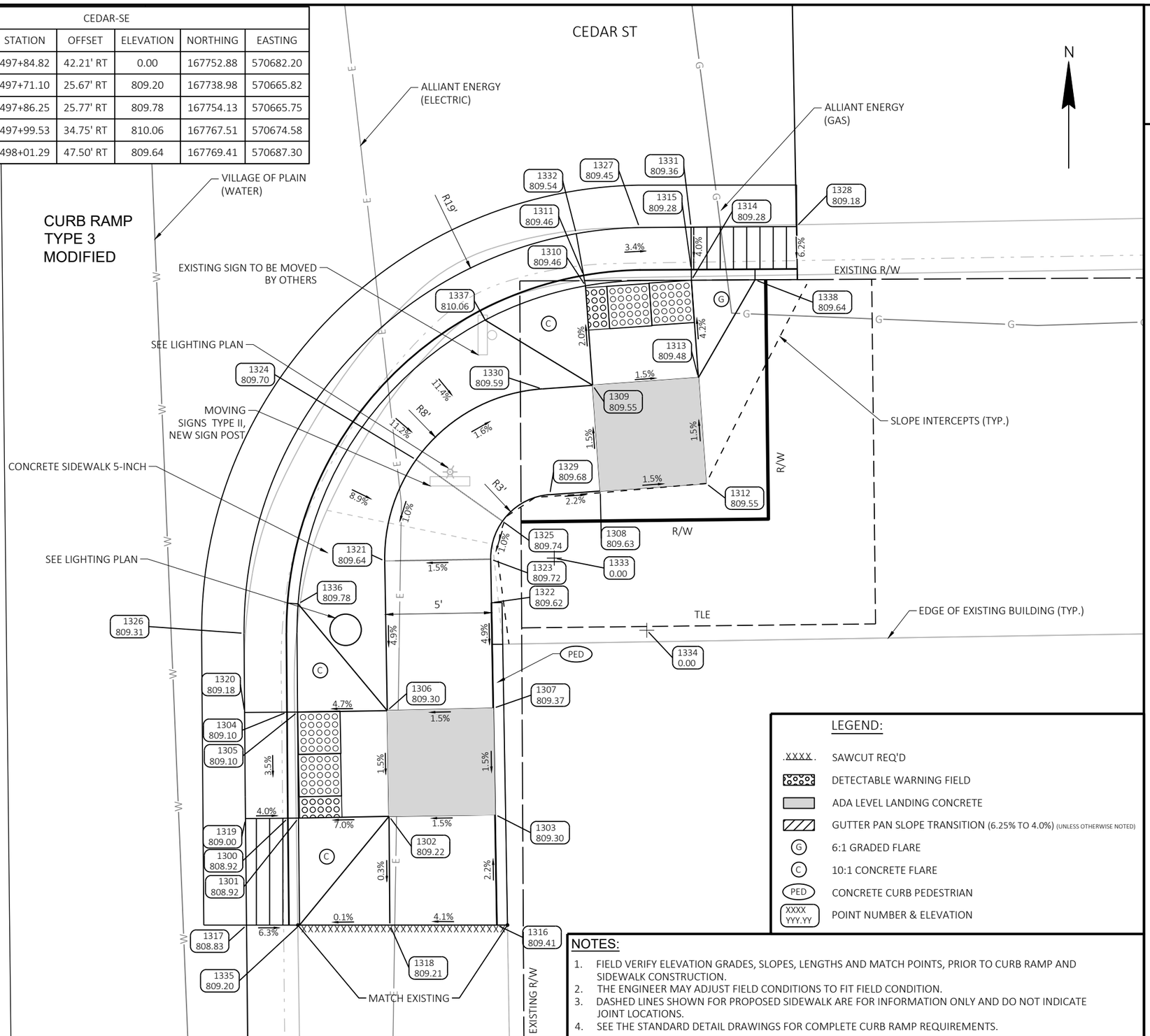
NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - MAIN - NW	SHEET 74	E

CEDAR-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1300	497+76.15	25.18' RT	808.92	167744.02	570665.27
1301	497+76.15	25.68' RT	808.92	167744.03	570665.77
1302	497+76.18	29.95' RT	809.22	167744.11	570670.04
1303	497+76.21	34.95' RT	809.30	167744.19	570675.04
1304	497+81.15	25.19' RT	809.10	167749.02	570665.23
1305	497+81.15	25.69' RT	809.10	167749.03	570665.73
1306	497+81.17	29.92' RT	809.30	167749.09	570669.96
1307	497+81.22	34.92' RT	809.37	167749.21	570674.96
1308	497+91.41	40.09' RT	809.63	167759.45	570680.00
1309	497+96.40	39.78' RT	809.55	167764.44	570679.65
1310	498+01.09	39.50' RT	809.46	167769.13	570679.31
1311	498+01.59	39.42' RT	809.46	167769.62	570679.22
1312	497+91.71	45.08' RT	809.55	167759.81	570684.99
1313	497+96.70	44.77' RT	809.48	167764.79	570684.63
1314	498+01.31	44.49' RT	809.28	167769.39	570684.30
1315	498+01.81	44.50' RT	809.28	167769.89	570684.30
1316	497+71.00	34.98' RT	809.41	167738.98	570675.13
1317	497+71.13	23.17' RT	808.83	167738.98	570663.32
1318	497+71.05	29.93' RT	809.21	167738.98	570670.08
1319	497+76.13	23.18' RT	809.00	167743.98	570663.27
1320	497+81.16	23.19' RT	809.18	167749.01	570663.23
1321	497+88.23	29.88' RT	809.64	167756.15	570669.84
1322	497+86.20	34.89' RT	809.62	167754.18	570674.87
1323	497+88.26	34.88' RT	809.72	167756.24	570674.84
1324	497+92.99	31.42' RT	809.70	167760.93	570671.32
1325	497+90.04	35.46' RT	809.74	167758.03	570675.39
1326	497+84.89	23.21' RT	809.31	167752.74	570663.20
1327	498+03.82	42.07' RT	809.45	167771.88	570681.85
1328	498+03.78	49.48' RT	809.18	167771.92	570689.26
1329	497+91.27	37.70' RT	809.68	167759.28	570677.62
1330	497+96.26	37.40' RT	809.59	167764.27	570677.27
1331	498+03.81	44.51' RT	809.36	167771.89	570684.29
1332	498+03.56	39.09' RT	809.54	167771.59	570678.87
1333	497+88.27	37.88' RT	0.00	167756.29	570677.84

CEDAR-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1334	497+84.82	42.21' RT	0.00	167752.88	570682.20
1335	497+71.10	25.67' RT	809.20	167738.98	570665.82
1336	497+86.25	25.77' RT	809.78	167754.13	570665.75
1337	497+99.53	34.75' RT	810.06	167767.51	570674.58
1338	498+01.29	47.50' RT	809.64	167769.41	570687.30



LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX / YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

2

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

CEDAR-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1400	497+75.87	25.39' LT	810.61	167743.18	570614.71
1401	497+75.77	25.88' LT	810.61	167743.07	570614.22
1402	497+75.74	30.04' LT	810.85	167742.99	570610.06
1403	497+75.72	35.05' LT	810.95	167742.92	570605.05
1404	497+80.74	35.04' LT	811.05	167747.94	570605.01
1405	497+87.66	35.02' LT	811.41	167754.86	570604.95
1406	497+88.10	34.79' LT	811.40	167755.30	570605.17
1407	497+84.18	29.66' LT	811.10	167751.44	570610.34
1408	497+83.84	30.03' LT	811.10	167751.10	570609.98
1409	497+80.77	29.75' LT	810.94	167748.03	570610.29
1410	497+80.79	27.80' LT	810.89	167748.07	570612.24
1411	497+81.03	27.37' LT	810.89	167748.32	570612.67
1412	497+79.09	41.94' LT	811.49	167746.22	570598.12
1413	497+60.23	32.41' LT	810.56	167727.46	570607.86
1414	497+60.24	23.02' LT	810.09	167727.57	570617.25
1415	497+60.24	25.56' LT	810.37	167727.55	570614.71
1416	497+67.36	26.86' LT	810.58	167734.65	570613.33
1417	497+71.99	22.98' LT	810.53	167739.32	570617.16
1418	497+76.30	23.43' LT	810.69	167743.63	570616.66
1419	497+75.76	27.76' LT	810.65	167743.04	570612.34
1420	497+82.03	25.64' LT	810.97	167749.33	570614.39
1421	497+85.52	28.18' LT	811.18	167752.80	570611.80
1422	497+83.85	35.03' LT	811.31	167751.05	570604.98
1423	497+89.88	33.88' LT	811.48	167757.09	570606.06
1424	497+92.13	48.19' LT	812.07	167759.18	570591.72
1425	497+92.03	55.56' LT	812.37	167758.99	570584.36
1426	497+89.58	55.53' LT	812.60	167756.55	570584.42
1427	497+84.58	55.53' LT	812.67	167751.55	570584.47
1428	497+78.48	48.39' LT	812.22	167745.53	570591.68
1429	497+74.48	48.36' LT	812.04	167741.53	570591.75
1431	497+87.84	48.42' LT	812.09	167754.88	570591.54
1432	497+83.56	51.06' LT	812.17	167750.58	570588.95
1433	497+74.58	55.45' LT	0.00	167741.55	570584.66

CEDAR-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1434	497+60.25	45.56' LT	0.00	167727.33	570594.72
1435	497+72.07	42.98' LT	0.00	167739.18	570597.16
1436	497+65.24	23.01' LT	810.28	167732.57	570617.21
1437	497+92.09	50.56' LT	812.17	167759.12	570589.35
1438	497+70.77	25.49' LT	810.91	167738.08	570614.67
1439	497+82.37	28.84' LT	811.16	167749.64	570611.19
1440	497+89.31	40.01' LT	812.15	167756.45	570599.94

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

CEDAR ST

SPECTRUM (TELEVISION)

SPECTRUM (FIBER OPTIC)

CONCRETE SIDEWALK 5-INCH

RECONSTRUCTING INLET

MOVING SIGNS TYPE II, MOVING SMALL SIGN SUPPORTS

CURB RAMP TYPE 2 MODIFIED

MATCH EXISTING

EXISTING SIDEWALK

EXISTING R/W

GRASS

EXISTING CARRIAGE WALK

MATCH EXISTING

TLE

R/W

BACK OF EXISTING SIDEWALK

EXISTING R/W

MATCH EXISTING

EXISTING SIDEWALK

2-INCH CURB HEAD

CONCRETE SIDEWALK 5-INCH

STH 23 (WACHTER AVE)

N

2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - CEDAR - SW	SHEET 76	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021301-CR.DWG
LAYOUT NAME - 021315-cr

PLOT DATE : 10/31/2023 10:06 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

2

2

N

STH 23
(WACHTER AVE)

498+50

498+25

EXISTING R/W

TLE

MATCH EXISTING

VILLAGE OF PLAIN
(WATER)

SLOPE INTERCEPT (TYP.)

CONCRETE
DRIVEWAY
6-INCH

CONCRETE DRIVEWAY 6-INCH

ADJUSTING
INLET COVERS
SEE STORM
SEWER PLANS

3-INCH CURB HEAD

PED

ALLIANT ENERGY
(GAS)

CAUTION

R15'

R18.5'

R20'

CURB RAMP
TYPE 3
MODIFIED

MOVING SIGNS TYPE II,
REMOVING SMALL SIGN SUPPORTS

ALLIANT ENERGY
(ELECTRIC)

VILLAGE OF PLAIN
(WATER)

CEDAR ST

1519 811.79
1520 812.23
1521 812.26
1522 812.27
1523 812.25
1524 811.63
1525 812.20
1526 811.93
1527 811.40
1528 811.37
1529 810.25
1530 810.51
1531 809.84
1532 810.09
1533 810.28
1534 810.71
1535 811.11
1536 811.45
1537 811.69
1538 811.83
1539 811.27
1540 811.30
1541 811.65
1542 811.88
1543 0.00
1544 0.00
1545 810.40
1546 810.59
1547 810.78
1548 811.43
1500 811.05
1501 811.05
1502 810.98
1503 810.90
1504 810.42
1505 810.38
1506 810.29
1507 810.36
1508 810.26
1509 810.19
1510 810.04
1511 810.04
1512 810.23
1513 810.23
1514 810.33
1515 810.38
1516 810.66
1517 810.66
1518 811.61

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

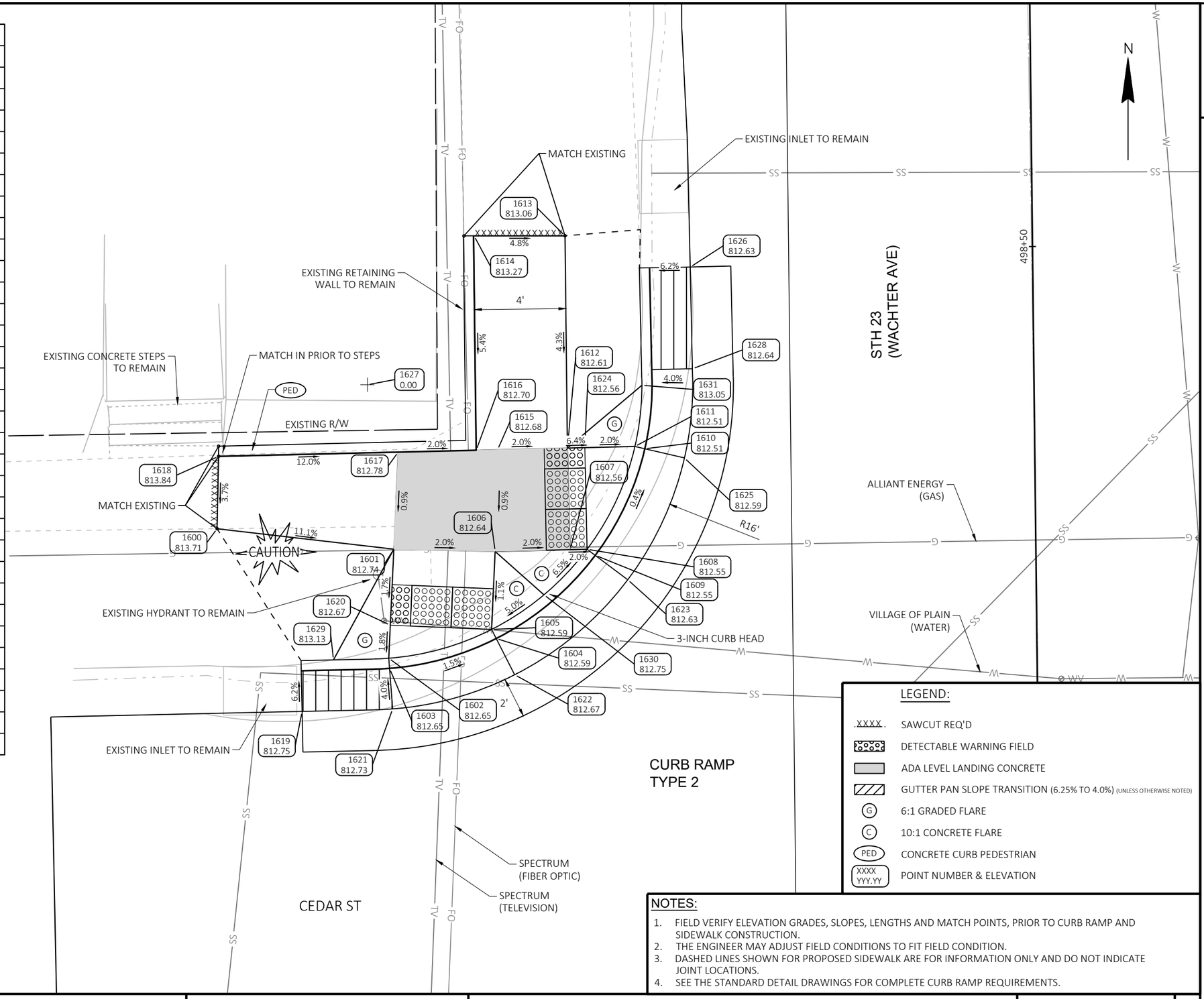
NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - CEDAR - NE	SHEET 77	E

CEDAR-NE						CEDAR-NE						CEDAR-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1500	498+40.61	21.34' RT	811.05	167808.43	570660.71	1517	498+35.45	27.23' RT	810.66	167803.34	570666.66	1534	498+33.67	26.31' RT	810.71	167801.55	570665.75
1501	498+40.89	21.75' RT	811.05	167808.72	570661.11	1518	498+55.31	18.74' RT	811.61	167823.10	570657.94	1535	498+39.46	19.70' RT	811.11	167807.27	570659.08
1502	498+42.81	31.35' RT	810.98	167810.74	570670.69	1519	498+60.84	16.07' RT	811.79	167828.61	570655.21	1536	498+46.71	16.65' RT	811.45	167814.48	570655.95
1503	498+38.45	28.90' RT	810.90	167806.36	570668.29	1520	498+62.65	18.52' RT	812.23	167830.44	570657.65	1537	498+55.23	16.21' RT	811.69	167823.00	570655.41
1504	498+40.97	37.07' RT	810.42	167808.97	570676.43	1521	498+65.93	18.44' RT	812.26	167833.72	570657.53	1538	498+65.94	16.74' RT	811.83	167833.72	570655.83
1505	498+40.88	38.69' RT	810.38	167808.90	570678.05	1522	498+65.87	23.37' RT	812.27	167833.72	570662.46	1539	498+42.63	23.71' RT	811.27	167810.49	570663.06
1506	498+40.88	42.09' RT	810.29	167808.94	570681.45	1523	498+62.77	23.52' RT	812.25	167830.62	570662.64	1540	498+45.95	27.46' RT	811.30	167813.84	570666.77
1507	498+40.87	46.94' RT	810.36	167808.99	570686.31	1524	498+55.25	23.71' RT	811.63	167823.10	570662.92	1541	498+55.50	23.70' RT	811.65	167823.36	570662.91
1508	498+35.87	47.13' RT	810.26	167803.99	570686.55	1525	498+55.51	35.31' RT	812.20	167823.50	570674.51	1542	498+55.20	28.79' RT	811.88	167823.11	570668.00
1509	498+35.89	42.39' RT	810.19	167803.95	570681.81	1526	498+48.09	35.67' RT	811.93	167816.07	570674.96	1543	498+55.88	38.70' RT	0.00	167823.90	570677.90
1510	498+34.14	42.49' RT	810.04	167802.21	570681.93	1527	498+47.56	26.22' RT	811.40	167815.44	570665.51	1544	498+50.08	34.84' RT	0.00	167818.06	570674.11
1511	498+33.61	42.50' RT	810.04	167801.67	570681.94	1528	498+47.25	20.66' RT	811.37	167815.07	570659.95	1545	498+34.12	45.49' RT	810.40	167802.22	570684.94
1512	498+33.59	37.49' RT	810.23	167801.60	570676.94	1529	498+36.82	52.10' RT	810.25	167804.99	570691.51	1546	498+34.09	34.49' RT	810.59	167802.06	570673.93
1513	498+34.10	37.49' RT	810.23	167802.11	570676.93	1530	498+40.65	51.95' RT	810.51	167808.82	570691.31	1547	498+34.76	30.24' RT	810.78	167802.69	570669.67
1514	498+35.88	38.68' RT	810.33	167803.90	570678.10	1531	498+31.63	49.28' RT	809.84	167799.77	570688.75	1548	498+43.50	20.26' RT	811.43	167811.31	570659.60
1515	498+35.92	37.38' RT	810.38	167803.93	570676.80	1532	498+31.61	42.50' RT	810.09	167799.67	570681.97						
1516	498+35.89	27.46' RT	810.66	167803.78	570666.88	1533	498+31.59	37.49' RT	810.28	167799.60	570676.96						

CEDAR-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1600	498+36.57	40.26' LT	813.71	167803.70	570599.15
1601	498+35.46	31.58' LT	812.74	167802.69	570607.85
1602	498+30.10	31.89' LT	812.65	167797.33	570607.60
1603	498+29.60	31.86' LT	812.65	167796.83	570607.64
1604	498+31.01	26.59' LT	812.59	167798.30	570612.89
1605	498+31.46	26.82' LT	812.59	167798.75	570612.66
1606	498+35.29	26.60' LT	812.64	167802.58	570612.83
1607	498+35.34	22.91' LT	812.56	167802.67	570616.52
1608	498+35.35	22.08' LT	812.55	167802.69	570617.35
1609	498+35.05	21.69' LT	812.55	167802.40	570617.75
1610	498+40.26	19.19' LT	812.51	167807.64	570620.19
1611	498+40.38	19.67' LT	812.51	167807.75	570619.70
1612	498+40.34	22.99' LT	812.61	167807.67	570616.39
1613	498+50.78	22.99' LT	813.06	167818.11	570616.27
1614	498+50.84	27.46' LT	813.27	167818.12	570611.79
1615	498+40.30	26.42' LT	812.68	167807.59	570612.95
1616	498+40.28	27.48' LT	812.70	167807.56	570611.90
1617	498+40.24	31.31' LT	812.78	167807.47	570608.06
1618	498+40.12	40.15' LT	813.84	167807.26	570599.23
1619	498+27.53	36.18' LT	812.75	167794.71	570603.34
1620	498+31.72	31.80' LT	812.67	167798.96	570607.67
1621	498+27.60	31.73' LT	812.73	167794.83	570607.79
1622	498+29.22	25.71' LT	812.67	167796.52	570613.79
1623	498+33.83	20.09' LT	812.63	167801.19	570619.35
1624	498+40.35	22.13' LT	812.56	167807.69	570617.24
1625	498+39.79	17.24' LT	812.59	167807.19	570622.14
1626	498+49.17	16.85' LT	812.63	167816.57	570622.43
1627	498+43.57	32.79' LT	0.00	167810.79	570606.55
1628	498+44.18	16.80' LT	812.64	167811.57	570622.54
1629	498+30.05	34.61' LT	813.13	167797.25	570604.88
1630	498+33.13	24.22' LT	812.75	167800.45	570615.23
1631	498+43.39	19.29' LT	813.05	167810.76	570620.05



LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

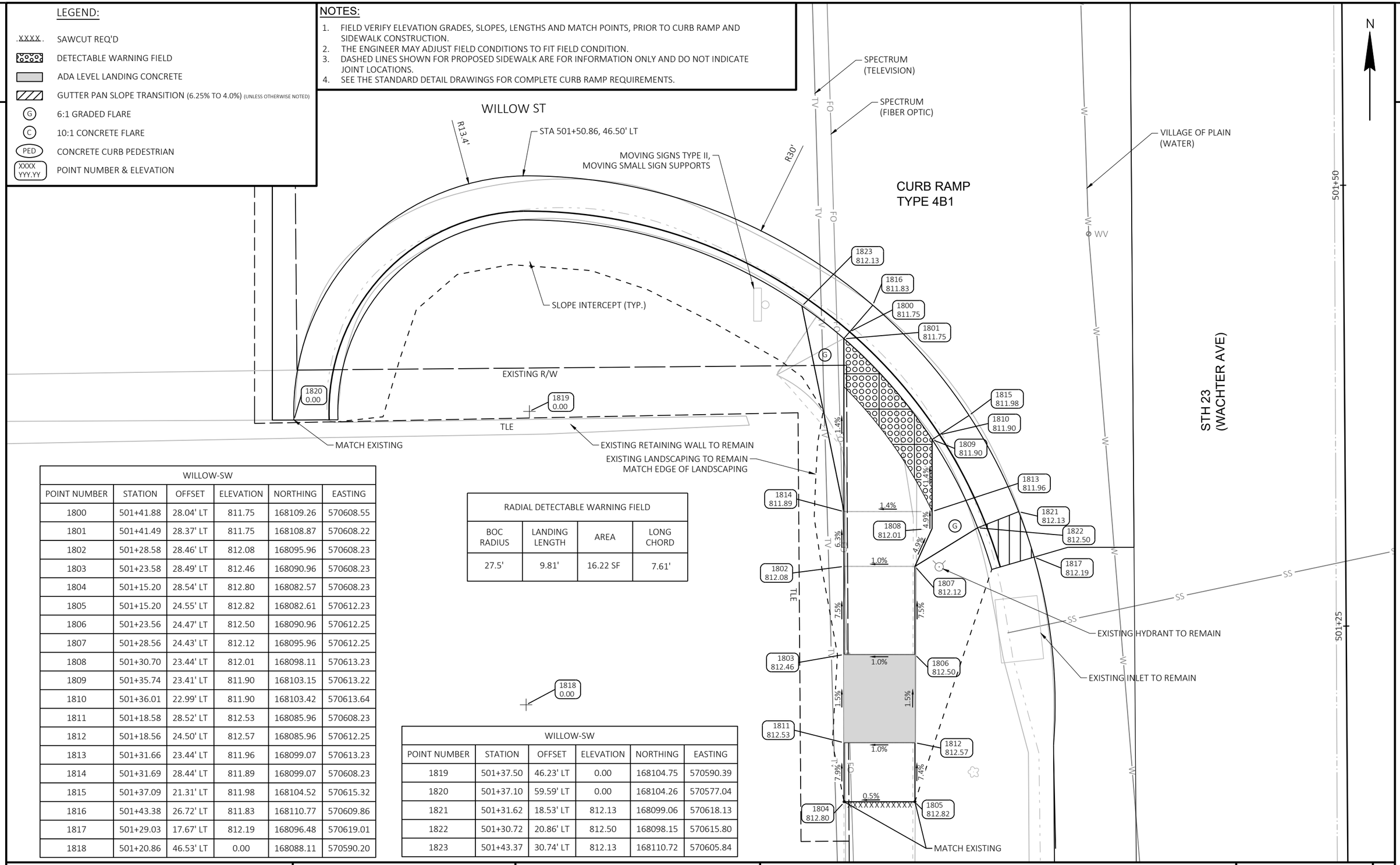
2

LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



WILLOW-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1800	501+41.88	28.04' LT	811.75	168109.26	570608.55
1801	501+41.49	28.37' LT	811.75	168108.87	570608.22
1802	501+28.58	28.46' LT	812.08	168095.96	570608.23
1803	501+23.58	28.49' LT	812.46	168090.96	570608.23
1804	501+15.20	28.54' LT	812.80	168082.57	570608.23
1805	501+15.20	24.55' LT	812.82	168082.61	570612.23
1806	501+23.56	24.47' LT	812.50	168090.96	570612.25
1807	501+28.56	24.43' LT	812.12	168095.96	570612.25
1808	501+30.70	23.44' LT	812.01	168098.11	570613.23
1809	501+35.74	23.41' LT	811.90	168103.15	570613.22
1810	501+36.01	22.99' LT	811.90	168103.42	570613.64
1811	501+18.58	28.52' LT	812.53	168085.96	570608.23
1812	501+18.56	24.50' LT	812.57	168085.96	570612.25
1813	501+31.66	23.44' LT	811.96	168099.07	570613.23
1814	501+31.69	28.44' LT	811.89	168099.07	570608.23
1815	501+37.09	21.31' LT	811.98	168104.52	570615.32
1816	501+43.38	26.72' LT	811.83	168110.77	570609.86
1817	501+29.03	17.67' LT	812.19	168096.48	570619.01
1818	501+20.86	46.53' LT	0.00	168088.11	570590.20

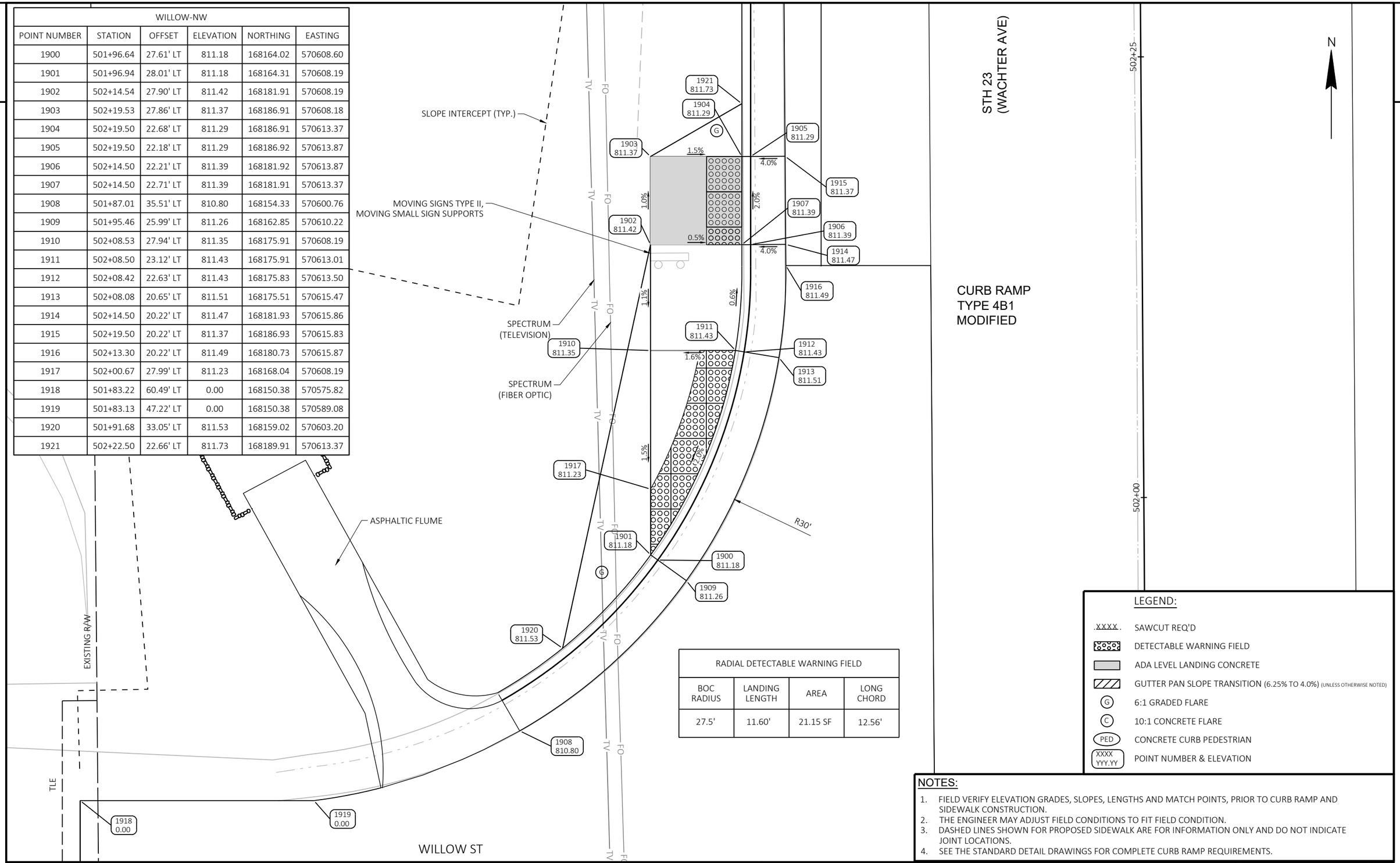
RADIAL DETECTABLE WARNING FIELD			
BOC RADIUS	LANDING LENGTH	AREA	LONG CHORD
27.5'	9.81'	16.22 SF	7.61'

WILLOW-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1819	501+37.50	46.23' LT	0.00	168104.75	570590.39
1820	501+37.10	59.59' LT	0.00	168104.26	570577.04
1821	501+31.62	18.53' LT	812.13	168099.06	570618.13
1822	501+30.72	20.86' LT	812.50	168098.15	570615.80
1823	501+43.37	30.74' LT	812.13	168110.72	570605.84

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - WILLOW - SW	SHEET 80	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021301-CR.DWG
LAYOUT NAME - 021318-cr
PLOT DATE : 10/31/2023 10:06 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

WILLOW-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1900	501+96.64	27.61' LT	811.18	168164.02	570608.60
1901	501+96.94	28.01' LT	811.18	168164.31	570608.19
1902	502+14.54	27.90' LT	811.42	168181.91	570608.19
1903	502+19.53	27.86' LT	811.37	168186.91	570608.18
1904	502+19.50	22.68' LT	811.29	168186.91	570613.37
1905	502+19.50	22.18' LT	811.29	168186.92	570613.87
1906	502+14.50	22.21' LT	811.39	168181.92	570613.87
1907	502+14.50	22.71' LT	811.39	168181.91	570613.37
1908	501+87.01	35.51' LT	810.80	168154.33	570600.76
1909	501+95.46	25.99' LT	811.26	168162.85	570610.22
1910	502+08.53	27.94' LT	811.35	168175.91	570608.19
1911	502+08.50	23.12' LT	811.43	168175.91	570613.01
1912	502+08.42	22.63' LT	811.43	168175.83	570613.50
1913	502+08.08	20.65' LT	811.51	168175.51	570615.47
1914	502+14.50	20.22' LT	811.47	168181.93	570615.86
1915	502+19.50	20.22' LT	811.37	168186.93	570615.83
1916	502+13.30	20.22' LT	811.49	168180.73	570615.87
1917	502+00.67	27.99' LT	811.23	168168.04	570608.19
1918	501+83.22	60.49' LT	0.00	168150.38	570575.82
1919	501+83.13	47.22' LT	0.00	168150.38	570589.08
1920	501+91.68	33.05' LT	811.53	168159.02	570603.20
1921	502+22.50	22.66' LT	811.73	168189.91	570613.37



RADIAL DETECTABLE WARNING FIELD			
BOC RADIUS	LANDING LENGTH	AREA	LONG CHORD
27.5'	11.60'	21.15 SF	12.56'

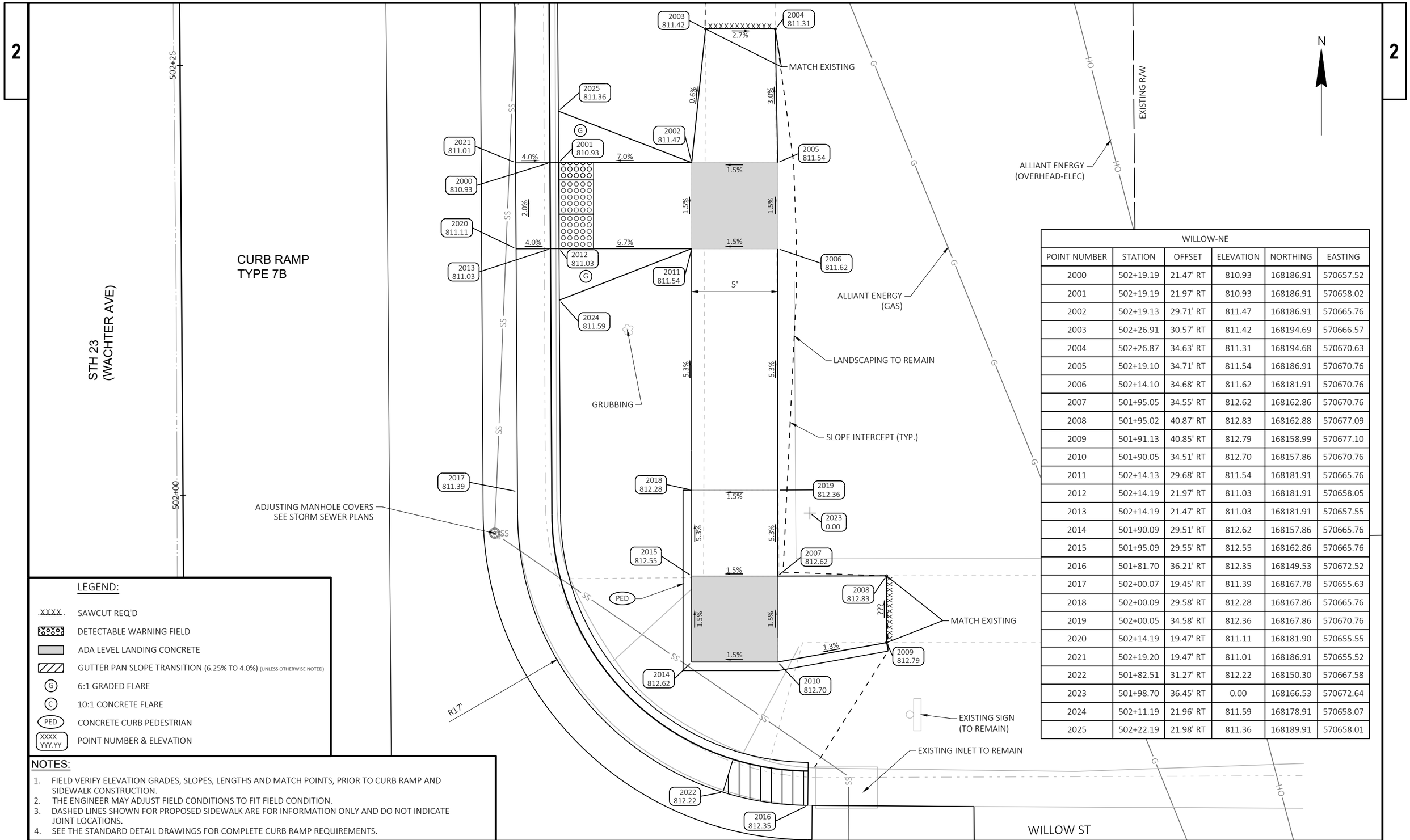
LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - WILLOW - NW	SHEET 81	E



WILLOW-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2000	502+19.19	21.47' RT	810.93	168186.91	570657.52
2001	502+19.19	21.97' RT	810.93	168186.91	570658.02
2002	502+19.13	29.71' RT	811.47	168186.91	570665.76
2003	502+26.91	30.57' RT	811.42	168194.69	570666.57
2004	502+26.87	34.63' RT	811.31	168194.68	570670.63
2005	502+19.10	34.71' RT	811.54	168186.91	570670.76
2006	502+14.10	34.68' RT	811.62	168181.91	570670.76
2007	501+95.05	34.55' RT	812.62	168162.86	570670.76
2008	501+95.02	40.87' RT	812.83	168162.88	570677.09
2009	501+91.13	40.85' RT	812.79	168158.99	570677.10
2010	501+90.05	34.51' RT	812.70	168157.86	570670.76
2011	502+14.13	29.68' RT	811.54	168181.91	570665.76
2012	502+14.19	21.97' RT	811.03	168181.91	570658.05
2013	502+14.19	21.47' RT	811.03	168181.91	570657.55
2014	501+90.09	29.51' RT	812.62	168157.86	570665.76
2015	501+95.09	29.55' RT	812.55	168162.86	570665.76
2016	501+81.70	36.21' RT	812.35	168149.53	570672.52
2017	502+00.07	19.45' RT	811.39	168167.78	570655.63
2018	502+00.09	29.58' RT	812.28	168167.86	570665.76
2019	502+00.05	34.58' RT	812.36	168167.86	570670.76
2020	502+14.19	19.47' RT	811.11	168181.90	570655.55
2021	502+19.20	19.47' RT	811.01	168186.91	570655.52
2022	501+82.51	31.27' RT	812.22	168150.30	570667.58
2023	501+98.70	36.45' RT	0.00	168166.53	570672.64
2024	502+11.19	21.96' RT	811.59	168178.91	570658.07
2025	502+22.19	21.98' RT	811.36	168189.91	570658.01

LEGEND:

- XXXX — SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) — 6:1 GRADED FLARE
- (C) — 10:1 CONCRETE FLARE
- PED — CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY — POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - WILLOW - NE	SHEET 82	E

2

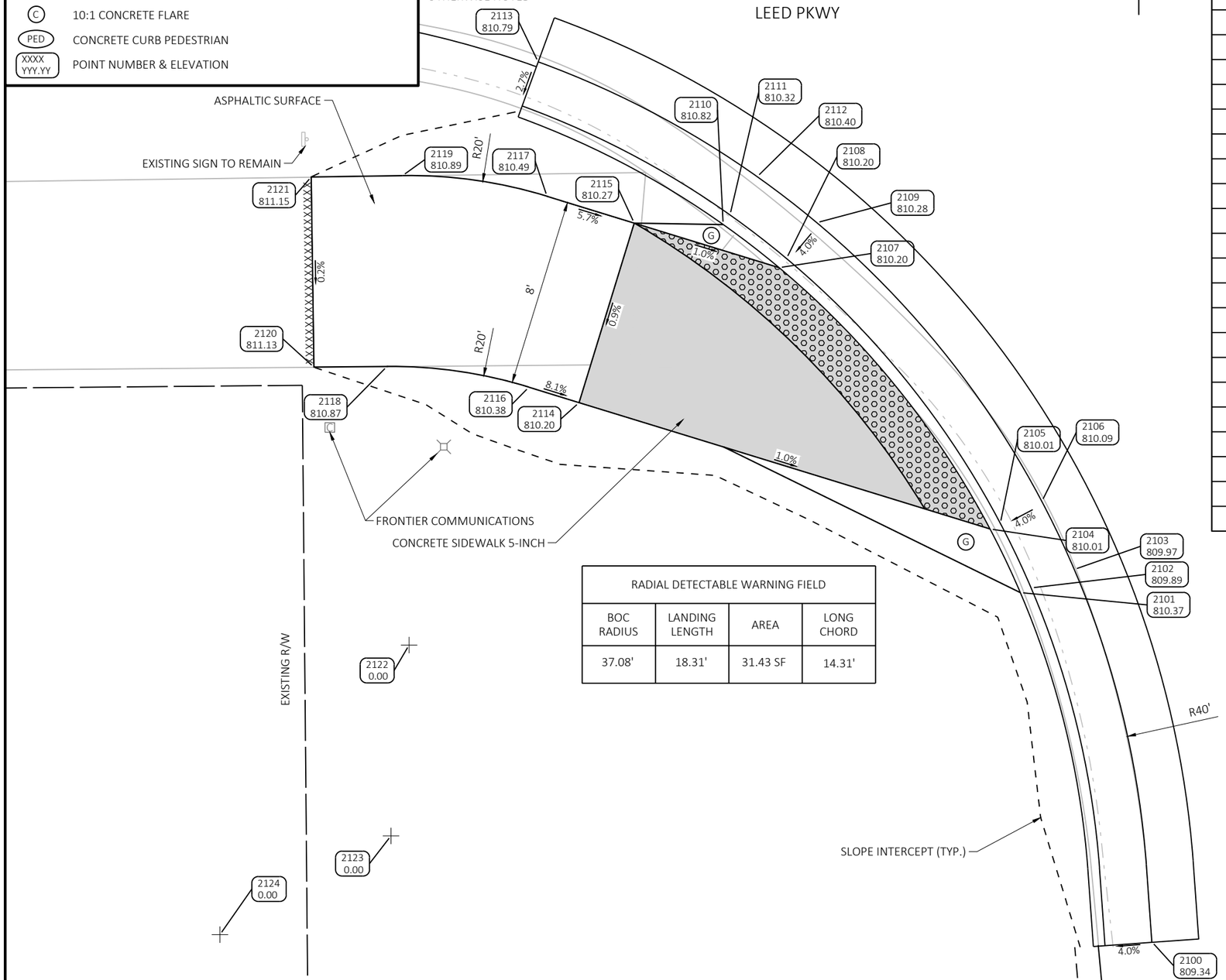
LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- PED CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

NOTE: CURB RAMP DETAILS - ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED



RADIAL DETECTABLE WARNING FIELD			
BOC RADIUS	LANDING LENGTH	AREA	LONG CHORD
37.08'	18.31'	31.43 SF	14.31'

LEED-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2100	507+93.40	24.66' LT	809.34	168760.78	570607.39
2101	508+08.32	30.16' LT	810.37	168775.66	570601.78
2102	508+08.51	29.70' LT	809.89	168775.86	570602.24
2103	508+09.28	27.85' LT	809.97	168776.65	570604.08
2104	508+11.04	31.43' LT	810.01	168778.38	570600.49
2105	508+11.27	30.99' LT	810.01	168778.61	570600.93
2106	508+12.19	29.21' LT	810.09	168779.54	570602.70
2107	508+22.23	40.34' LT	810.20	168789.51	570591.50
2108	508+22.61	40.02' LT	810.20	168789.89	570591.82
2109	508+24.14	38.72' LT	810.28	168791.42	570593.10
2110	508+24.08	42.71' LT	810.82	168791.34	570589.12
2111	508+24.49	42.41' LT	810.32	168791.75	570589.41
2112	508+26.11	41.25' LT	810.40	168793.38	570590.57
2113	508+31.07	50.54' LT	810.79	168798.27	570581.24
2114	508+16.54	48.90' LT	810.20	168783.76	570582.98
2115	508+24.17	46.49' LT	810.27	168791.40	570585.33
2116	508+17.21	51.03' LT	810.38	168784.41	570580.85
2117	508+25.34	50.20' LT	810.49	168792.54	570581.62
2118	508+18.14	57.07' LT	810.87	168785.30	570574.80
2119	508+26.26	56.35' LT	810.89	168793.43	570575.46
2120	508+18.13	60.18' LT	811.13	168785.27	570571.69
2121	508+26.24	60.24' LT	811.15	168793.37	570571.57
2122	508+06.26	56.21' LT	0.00	168773.43	570575.74
2123	507+98.14	57.04' LT	0.00	168765.30	570574.97
2124	507+93.98	64.36' LT	0.00	168761.09	570567.68

2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - LEED - SW	SHEET 83	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\021301-CR.DWG
LAYOUT NAME - 021321-cr
PLOT DATE : 10/31/2023 10:07 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

2

2

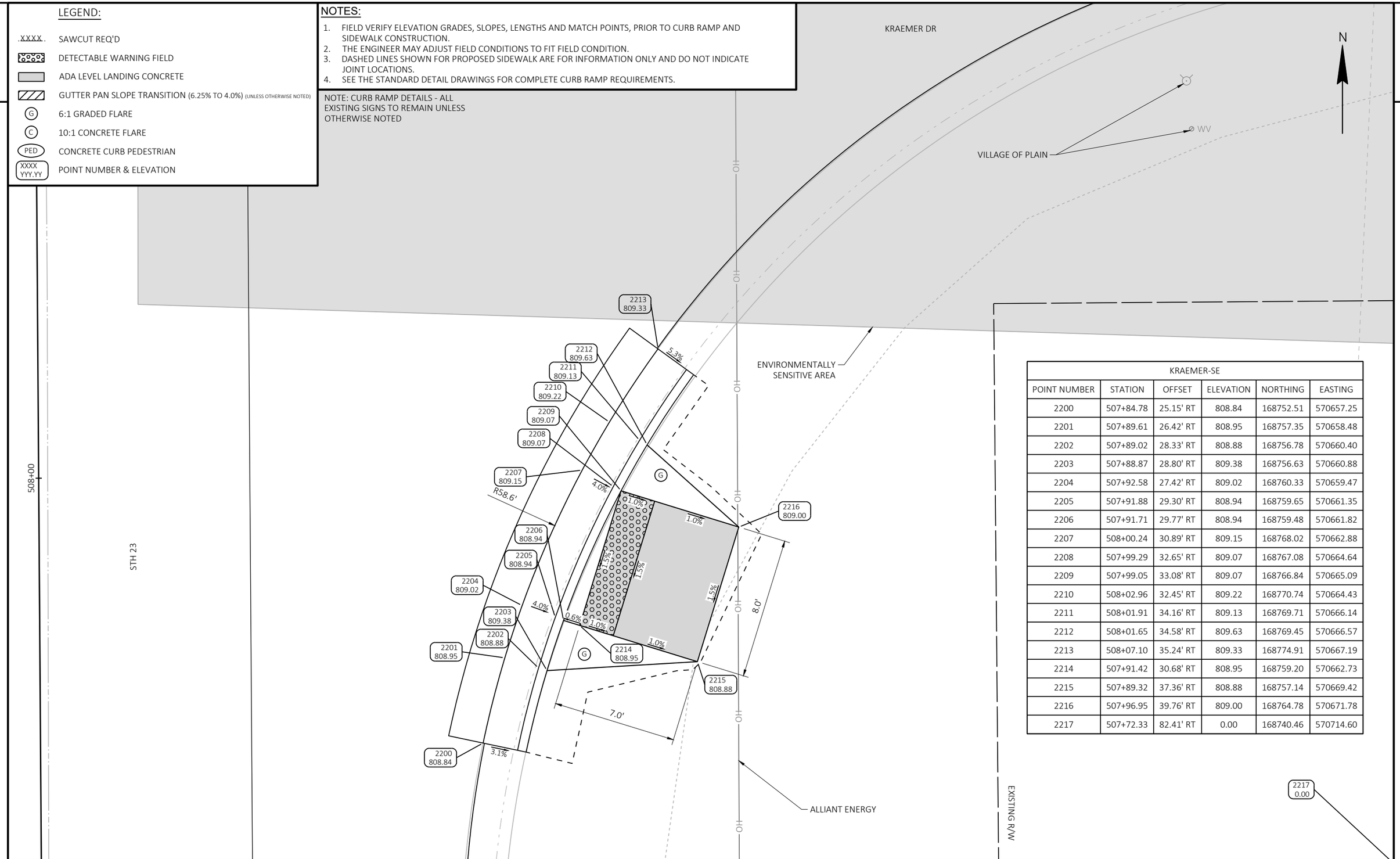
LEGEND:

- .XXXX. SAWCUT REQ'D
- DETECTABLE WARNING FIELD
- ADA LEVEL LANDING CONCRETE
- GUTTER PAN SLOPE TRANSITION (6.25% TO 4.0%) (UNLESS OTHERWISE NOTED)
- (G) 6:1 GRADED FLARE
- (C) 10:1 CONCRETE FLARE
- (PED) CONCRETE CURB PEDESTRIAN
- XXXX YYY.YY POINT NUMBER & ELEVATION

NOTES:

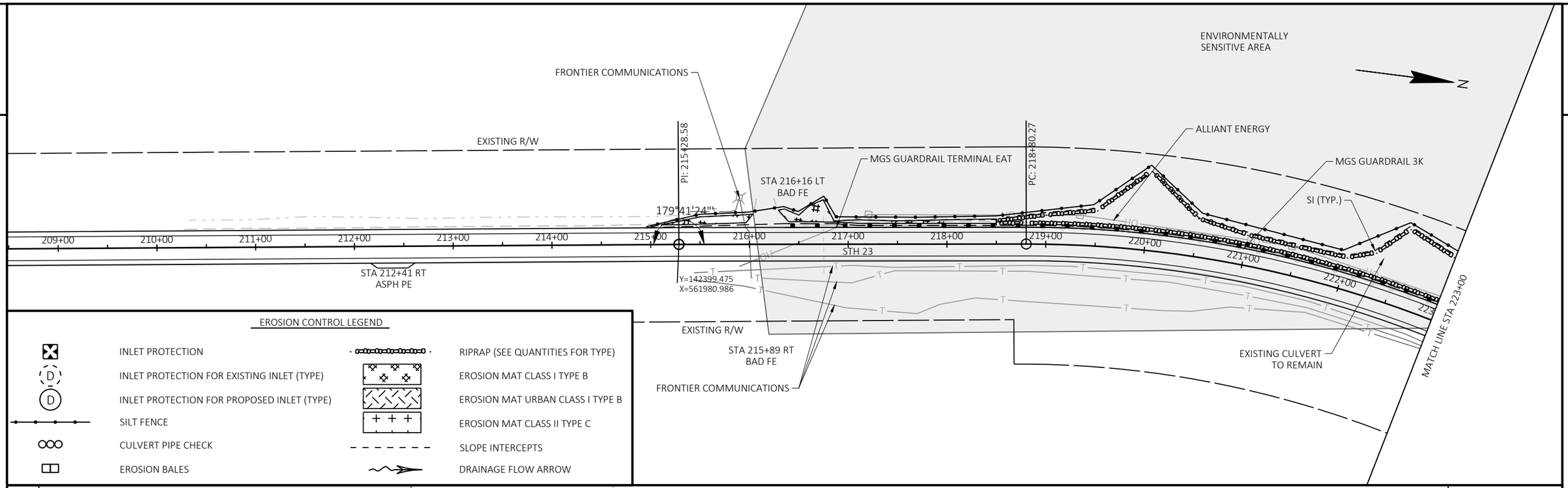
1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST FIELD CONDITIONS TO FIT FIELD CONDITION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

NOTE: CURB RAMP DETAILS - ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED



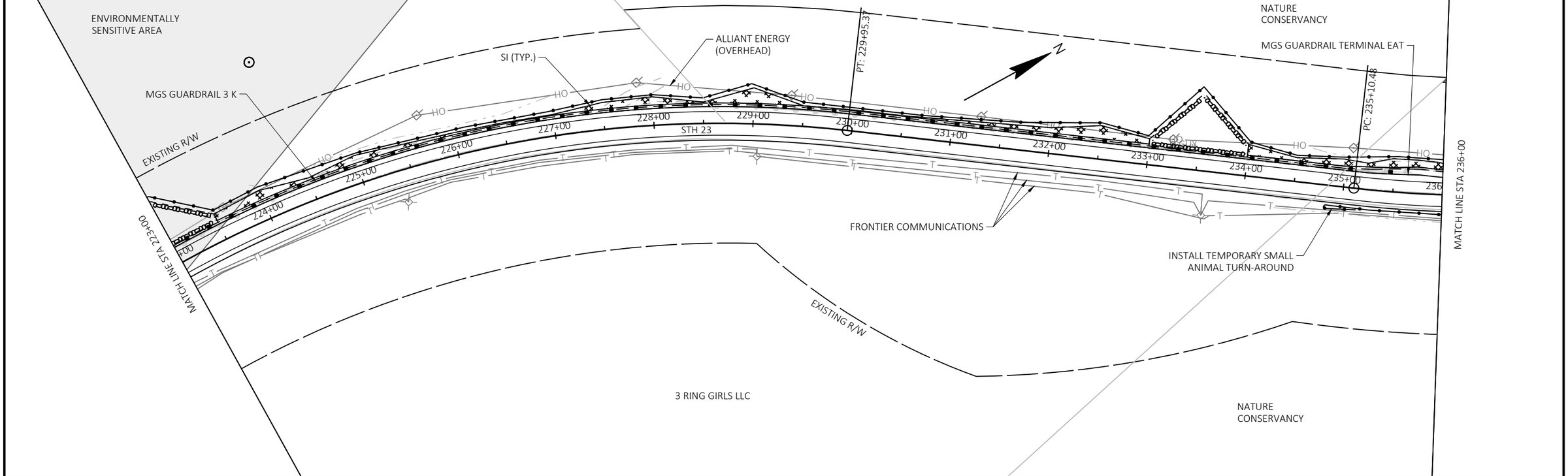
KRAEMER-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2200	507+84.78	25.15' RT	808.84	168752.51	570657.25
2201	507+89.61	26.42' RT	808.95	168757.35	570658.48
2202	507+89.02	28.33' RT	808.88	168756.78	570660.40
2203	507+88.87	28.80' RT	809.38	168756.63	570660.88
2204	507+92.58	27.42' RT	809.02	168760.33	570659.47
2205	507+91.88	29.30' RT	808.94	168759.65	570661.35
2206	507+91.71	29.77' RT	808.94	168759.48	570661.82
2207	508+00.24	30.89' RT	809.15	168768.02	570662.88
2208	507+99.29	32.65' RT	809.07	168767.08	570664.64
2209	507+99.05	33.08' RT	809.07	168766.84	570665.09
2210	508+02.96	32.45' RT	809.22	168770.74	570664.43
2211	508+01.91	34.16' RT	809.13	168769.71	570666.14
2212	508+01.65	34.58' RT	809.63	168769.45	570666.57
2213	508+07.10	35.24' RT	809.33	168774.91	570667.19
2214	507+91.42	30.68' RT	808.95	168759.20	570662.73
2215	507+89.32	37.36' RT	808.88	168757.14	570669.42
2216	507+96.95	39.76' RT	809.00	168764.78	570671.78
2217	507+72.33	82.41' RT	0.00	168740.46	570714.60

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CURB RAMP DETAILS - KRAEMER - SE	SHEET 84	E



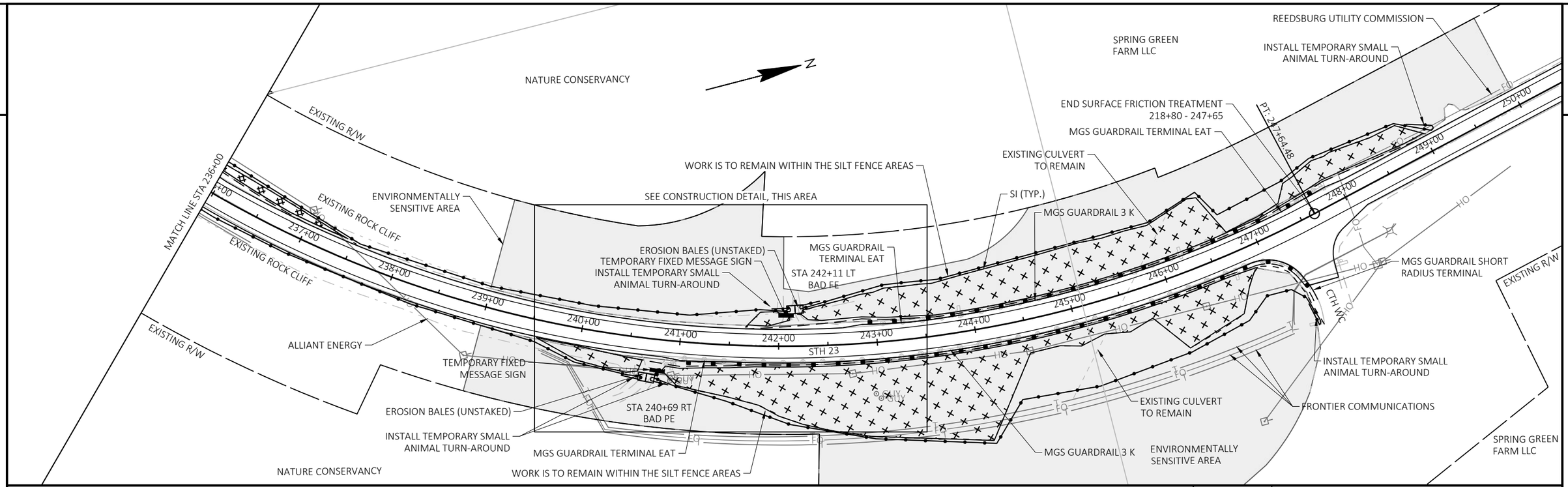
EROSION CONTROL LEGEND

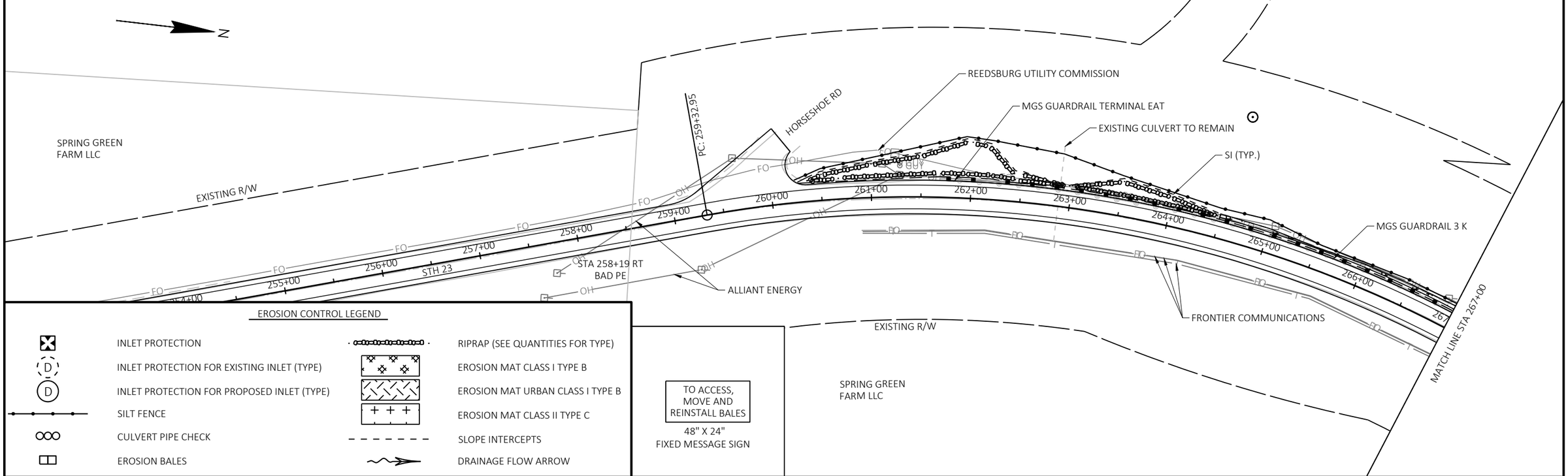
INLET PROTECTION	RIPRAP (SEE QUANTITIES FOR TYPE)
INLET PROTECTION FOR EXISTING INLET (TYPE)	EROSION MAT CLASS I TYPE B
INLET PROTECTION FOR PROPOSED INLET (TYPE)	EROSION MAT URBAN CLASS I TYPE B
SILT FENCE	EROSION MAT CLASS II TYPE C
CULVERT PIPE CHECK	SLOPE INTERCEPTS
EROSION BALES	DRAINAGE FLOW ARROW



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 85	E

2





EROSION CONTROL LEGEND

	INLET PROTECTION		RIPRAP (SEE QUANTITIES FOR TYPE)
D	INLET PROTECTION FOR EXISTING INLET (TYPE)		EROSION MAT CLASS I TYPE B
D	INLET PROTECTION FOR PROPOSED INLET (TYPE)		EROSION MAT URBAN CLASS I TYPE B
	SILT FENCE		EROSION MAT CLASS II TYPE C
	CULVERT PIPE CHECK		SLOPE INTERCEPTS
	EROSION BALES		DRAINAGE FLOW ARROW

TO ACCESS, MOVE AND REINSTALL BALES

48" X 24" FIXED MESSAGE SIGN

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 86 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022001-EC.DWG
LAYOUT NAME - 022002-ec
PLOT DATE : 10/31/2023 10:43 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MGS GUARDRAIL 3 K
SI (TYP.)
PT: 269+76.87
MGS GUARDRAIL TERMINAL EAT
ALLIANT ENERGY
EXISTING R/W
REEDSBURG UTILITY COMMISSION
PI: 274+75.98
179°39'17"
PC: 276+05.24
MGS GUARDRAIL TERMINAL EAT
MGS GUARDRAIL 3 K
WETLANDS
MATCH LINE STA 267+00
MATCH LINE STA 281+00
BAD PE
STH 23
EXISTING CULVERT TO REMAIN
FRONTIER COMMUNICATIONS
WETLANDS
EXISTING R/W

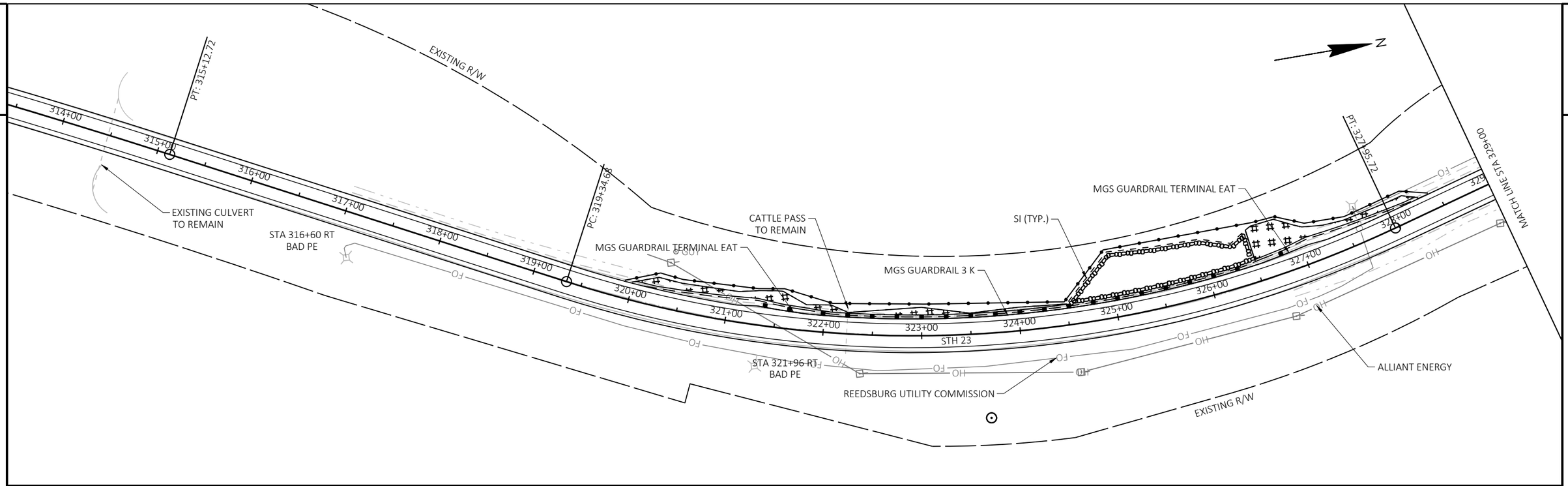
EROSION CONTROL LEGEND

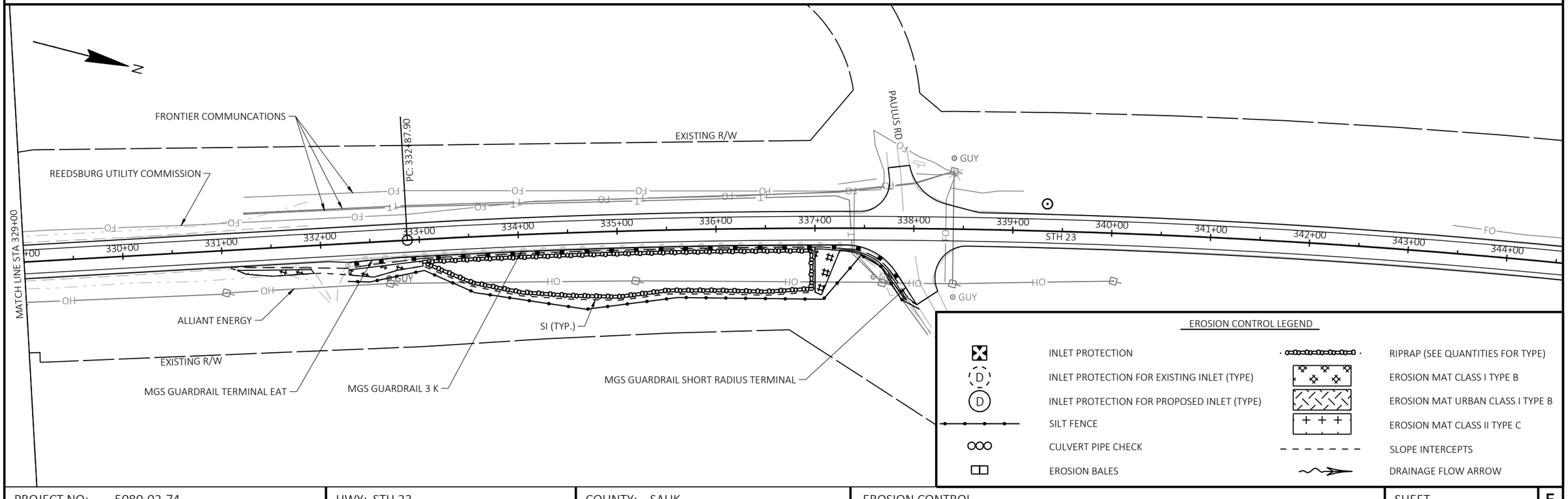
INLET PROTECTION	RIPRAP (SEE QUANTITIES FOR TYPE)
INLET PROTECTION FOR EXISTING INLET (TYPE)	EROSION MAT CLASS I TYPE B
INLET PROTECTION FOR PROPOSED INLET (TYPE)	EROSION MAT URBAN CLASS I TYPE B
SILT FENCE	EROSION MAT CLASS II TYPE C
CULVERT PIPE CHECK	SLOPE INTERCEPTS
EROSION BALES	DRAINAGE FLOW ARROW

MGS GUARDRAIL TERMINAL EAT
PT: 282+20.76
WETLANDS
REEDSBURG UTILITY COMMISSION
ROLLING RIDGE RD
EXISTING R/W
MATCH LINE STA 281+00
STA 279+98 RT
BAD PE
WETLANDS
FRONTIER COMMUNICATIONS
ALLIANT ENERGY
STH 23
EXISTING CULVERT TO REMAIN
MGS GUARDRAIL TERMINAL EAT
MGS GUARDRAIL 3 K
MGS GUARDRAIL TERMINAL EAT
SI (TYP.)
EXISTING R/W

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 87	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022001-EC.DWG
LAYOUT NAME - 022003-ec
PLOT DATE : 10/31/2023 10:43 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





EROSION CONTROL LEGEND

- INLET PROTECTION
- INLET PROTECTION FOR EXISTING INLET (TYPE)
- INLET PROTECTION FOR PROPOSED INLET (TYPE)
- SILT FENCE
- CULVERT PIPE CHECK
- EROSION BALES
- RIPRAP (SEE QUANTITIES FOR TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- SLOPE INTERCEPTS
- DRAINAGE FLOW ARROW

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 88	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022001-EC.DWG
LAYOUT NAME - 022004-ec
PLOT DATE : 10/31/2023 10:43 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

EXISTING R/W

PT: 345+80.67

FRONTIER COMMUNICATIONS

ALLIANT ENERGY

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3 K

PC: 360+21.01

REEDSBURG UTILITY COMMISSION

STA 355+55 LT
ASPH PE

FO

OH

346+00 347+00 348+00 349+00 350+00 351+00 352+00 353+00 354+00 355+00 STH 23 356+00 357+00 358+00 359+00 360+00 361

STH 23

STA 345+25 RT
BAD PE

EXISTING CULVERT
TO REMAIN

EXISTING CULVERT
TO REMAIN

EXISTING CULVERT
TO REMAIN

STA 356+94 RT
PRIVATE TRAIL
ENTRANCE
TO REMAIN

SI (TYP.)

EXISTING R/W

MATCH LINE STA 361+00

2

EROSION CONTROL LEGEND

	INLET PROTECTION		RIPRAP (SEE QUANTITIES FOR TYPE)
D	INLET PROTECTION FOR EXISTING INLET (TYPE)		EROSION MAT CLASS I TYPE B
D	INLET PROTECTION FOR PROPOSED INLET (TYPE)		EROSION MAT URBAN CLASS I TYPE B
	SILT FENCE		EROSION MAT CLASS II TYPE C
	CULVERT PIPE CHECK		SLOPE INTERCEPTS
	EROSION BALES		DRAINAGE FLOW ARROW

N

FRONTIER COMMUNICATIONS

ALLIANT ENERGY

EXISTING R/W

STA 362+65 LT
BAD FE

STA 362+39 LT
BAD FE

MGS GUARDRAIL
SHORT RADIUS
TERMINAL

MATCH LINE STA 361+00

362+00 363+00 364+00 365+00 366+00 367+00 STH 23 368+00 369+00 370+00 371+00 372+00 373+00 374+00 375+00 376+00

MGS GUARDRAIL 3 K

SI (TYP.)

EXISTING CULVERT
TO REMAIN

PT: 369+87.43

PC: 371+32.77

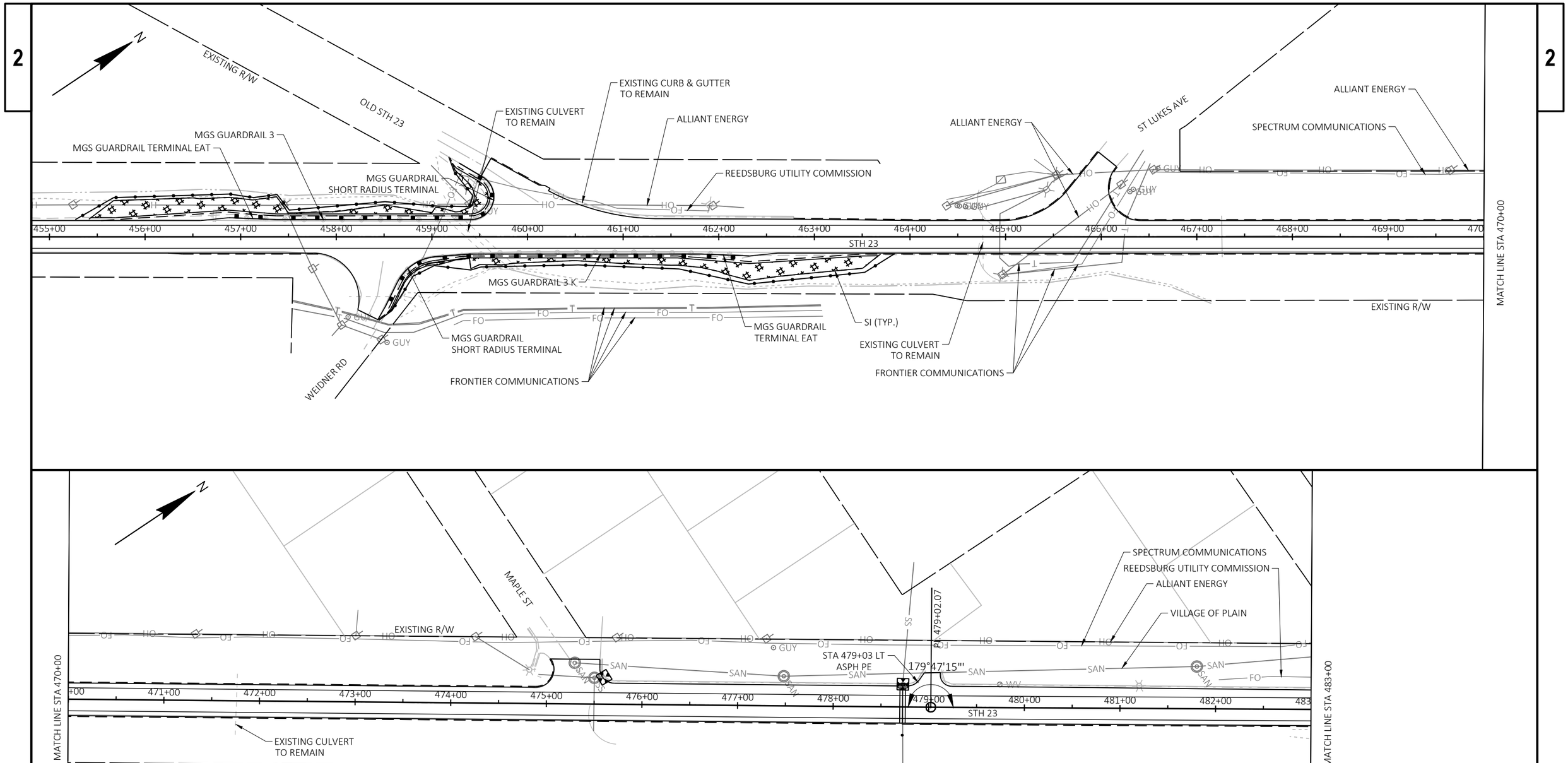
STA 368+95 RT
BAD FE

MGS GUARDRAIL TERMINAL EAT

EXISTING R/W

EXISTING CULVERT
TO REMAIN

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 89	E



EROSION CONTROL LEGEND

	INLET PROTECTION		RIPRAP (SEE QUANTITIES FOR TYPE)
D	INLET PROTECTION FOR EXISTING INLET (TYPE)		EROSION MAT CLASS I TYPE B
D	INLET PROTECTION FOR PROPOSED INLET (TYPE)		EROSION MAT URBAN CLASS I TYPE B
	SILT FENCE		EROSION MAT CLASS II TYPE C
	CULVERT PIPE CHECK		SLOPE INTERCEPTS
	EROSION BALES		DRAINAGE FLOW ARROW

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 90 E

2

CHERRY ST

SPECTRUM COMMUNICATIONS

ALLIANT ENERGY

VILLAGE OF PLAIN

REEDSBURG UTILITY COMMISSION

PC: 484+98.61

MATCH LINE STA 483+00

484+00

485+00

486+00

487+00

MATCH LINE 487+75

WESTBROOK DR

EROSION CONTROL LEGEND

INLET PROTECTION	RIPRAP (SEE QUANTITIES FOR TYPE)
INLET PROTECTION FOR EXISTING INLET (TYPE)	EROSION MAT CLASS I TYPE B
INLET PROTECTION FOR PROPOSED INLET (TYPE)	EROSION MAT URBAN CLASS I TYPE B
SILT FENCE	EROSION MAT CLASS II TYPE C
CULVERT PIPE CHECK	SLOPE INTERCEPTS
EROSION BALES	DRAINAGE FLOW ARROW

OAK ST

ALLIANT ENERGY

VILLAGE OF PLAIN

SPECTRUM COMMUNICATIONS

TLE

REEDSBURG UTILITY COMMISSION

CLOVER ST

MATCH LINE 487+75

488+00

489+00

490+00

491+00

492+00

493

MATCH LINE 493+00

EXISTING SPOT LIGHT TO REMAIN

EXISTING SPOT LIGHT TO REMAIN

SALVAGED TOPSOIL, SEED, FERTILIZER, AND EMAT

SEE STORM SEWER PLANS

EXISTING R/W

PAVE WITH ASPHALTIC SURFACE

FRONTIER COMMUNICATIONS

ALLIANT ENERGY

CLOVER ST

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 91	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022002-EC.DWG
LAYOUT NAME - 022007-ec

PLOT DATE : 11/21/2023 11:26 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

FRONTIER COMMUNICATIONS

STA 493+60 LT ASPH CE

TLE

VILLAGE OF PLAIN

STA 30+44 RT CONC CE

MAIN ST

SPECTRUM COMMUNICATIONS

R/W

EXISTING R/W

MATCH LINE 493+00

494+00

495+00

496+00

497+00

MATCH LINE 497+50

PI: 31+01.72 B

VILLAGE OF PLAIN

TLE

STA 496+69 RT CONC PE

EXISTING LOCATION OF CONTAMINATED SOIL AND GROUNDWATER

STA 496+00 RT CONC CE

ALLIANT ENERGY

EXISTING R/W

REEDSBURG UTILITY COMMISSION

CEDAR ST

TLE

SPECTRUM COMMUNICATIONS

VILLAGE OF PLAIN

STA 499+92 LT CONC PE

PI: 500+01.63

EXISTING HYDRANT TO REMAIN

VILLAGE OF PLAIN

EXISTING R/W

WILLOW ST

RIPRAP MEDIUM OVER GEOTEXTILE TYPE HR

EXISTING R/W

498+00

499+00

500+00

501+00

502+00

EP: 71+31.60 W

MATCH LINE 497+50

MATCH LINE STA 503+00

REMOVING SIDEWALK

STA 499+20 RT ASPH PE

STA 499+94 RT ASPH PE

STA 498+52 RT CONC PE

ALLIANT ENERGY

CRASH CUSHIONS PERMANENT

ALLIANT ENERGY (GAS)

GRUBBING

EROSION CONTROL LEGEND

	INLET PROTECTION		RIPRAP (SEE QUANTITIES FOR TYPE)
D	INLET PROTECTION FOR EXISTING INLET (TYPE)		EROSION MAT CLASS I TYPE B
D	INLET PROTECTION FOR PROPOSED INLET (TYPE)		EROSION MAT URBAN CLASS I TYPE B
	SILT FENCE		EROSION MAT CLASS II TYPE C
	CULVERT PIPE CHECK		SLOPE INTERCEPTS
	EROSION BALES		DRAINAGE FLOW ARROW

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 92	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022002-EC.DWG
LAYOUT NAME - 022008-ec
PLOT DATE : 10/31/2023 10:45 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

N

SPECTRUM COMMUNICATIONS

MGS THRIE BEAM TRANSITION

SI (TYP.)

WETLANDS

LEED PKWY

PI: 510+66.45

EXISTING R/W

179°47'8"'

MATCH LINE STA 503+00

504+00 505+00 506+00 507+00 508+00 509+00 510+00 511+00 512+00 513+00 514+00 515+00 516+00

STH 23

STA 513+17 RT
BAD CE

STA 515+40 RT
BAD PE

EXISTING R/W

STRUCTURE B-56-151
(TO REMAIN)

MGS GUARDRAIL TERMINAL EAT

ALLIANT ENERGY

LEED PKWY

ENVIRONMENTALLY
SENSITIVE AREA

EROSION CONTROL LEGEND

INLET PROTECTION	RIPRAP (SEE QUANTITIES FOR TYPE)
INLET PROTECTION FOR EXISTING INLET (TYPE)	EROSION MAT CLASS I TYPE B
INLET PROTECTION FOR PROPOSED INLET (TYPE)	EROSION MAT URBAN CLASS I TYPE B
SILT FENCE	EROSION MAT CLASS II TYPE C
CULVERT PIPE CHECK	SLOPE INTERCEPTS
EROSION BALES	DRAINAGE FLOW ARROW

N

EXISTING R/W

PI: 525+24.74

SANDSTONE LN

MGS GUARDRAIL TERMINAL EAT

CATTLE PASS
TO REMAIN

REEDSBURG UTILITY COMMISSION

MGS GUARDRAIL TERMINAL EAT

PI: 534+83.96

179°51'3"'

WETLANDS

179°53'24"'

525+00 526+00 527+00 528+00 529+00 530+00 531+00 532+00 533+00 534+00 535+00 536+00 537+00 538+00 539

STH 23

MATCH LINE STA 539+00

MGS GUARDRAIL TERMINAL EAT

WETLANDS

EXISTING R/W

EXISTING CULVERT
TO REMAIN

SI (TYP.)

REMOVING FENCE

MGS GUARDRAIL 3 K

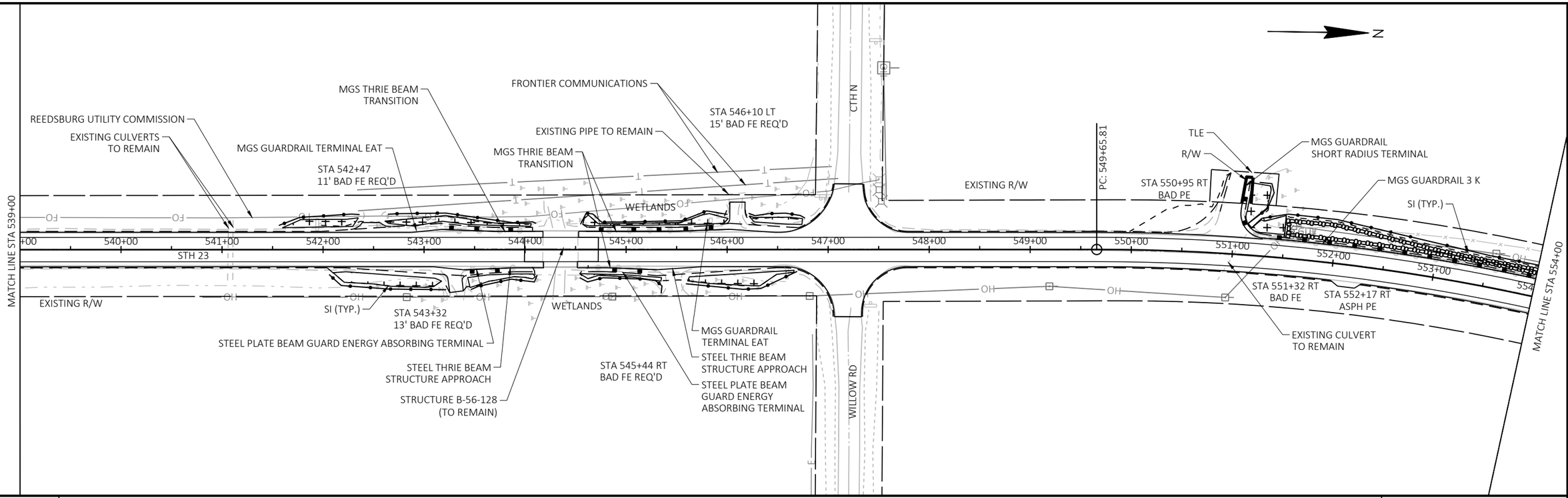
EXISTING 30" LINED CORRUGATED
PLASTIC CULVERT PIPE TO REMAIN

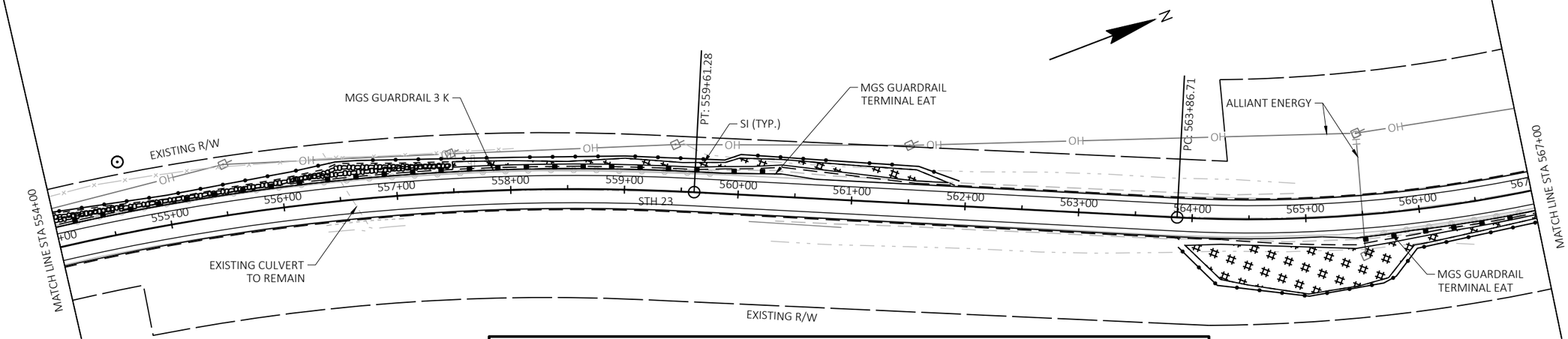
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 93	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022001-EC.DWG
LAYOUT NAME - 022009-ec

PLOT DATE : 10/31/2023 10:45 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





EROSION CONTROL LEGEND

INLET PROTECTION	RIPRAP (SEE QUANTITIES FOR TYPE)
INLET PROTECTION FOR EXISTING INLET (TYPE)	EROSION MAT CLASS I TYPE B
INLET PROTECTION FOR PROPOSED INLET (TYPE)	EROSION MAT URBAN CLASS I TYPE B
SILT FENCE	EROSION MAT CLASS II TYPE C
CULVERT PIPE CHECK	SLOPE INTERCEPTS
EROSION BALES	DRAINAGE FLOW ARROW

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 94	E

2

N

EXISTING R/W

EXISTING R/W

MATCH LINE STA 567+00

OH

EXISTING CULVERT TO REMAIN

OH

PT: 572+79.15

REEDSBURG UTILITY COMMISSION

EXISTING CULVERT TO REMAIN

FO

FO

FO

BAD PE

567+00

568+00

569+00

570+00

571+00

572+00

573+00

574+00

575+00

576+00

577+00

578+00

579+00

580+00

STH 23

STA 776+72 RT
ASPH PE

EXISTING R/W

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3 K

EXISTING CULVERT TO REMAIN

ALLIANT ENERGY

SI (TYP.)

STA. 575+33 RT
1 - CULVERT PIPE CORRUGATED ALUMINUM 24-INCH EXTENSION X 2' @ 6.27%
1 - APRON ENDWALL
INV = 829.70'
(EXTENSION OF EXISTING PIPE)

REMOVING CONCRETE RETAINING WALL AND HEADER

STA 575+33 RT
RIPRAP HEAVY OVER GEOTEXTILE TYPE HR
(SEE DETAIL)

N

DAWN RD

RIPRAP HEAVY OVER GEOTEXTILE TYPE HR
(SEE DETAIL)

REMOVING GUARDRAIL

STA. 730+59, SKEW 42.9° LHF
1 - CPRC CL IV 84-INCH X 98' @ 0.85%
CONCRETE MASONRY ENDWALL REQ'D
INV (I) = 849.94' LT
INV (E) = 849.11' RT

R/W

TLE

REEDSBURG UTILITY COMMISSION

PT: 723+45.92

EXISTING R/W

FRONTIER COMMUNICATIONS

OH

FO

FO

FO

PC: 736+59.18

ASPH PE

WETLANDS

723+00

724+00

725+00

726+00

727+00

728+00

729+00

730+00

731+00

732+00

733+00

734+00

735+00

736+00

737+00

738+00

STH 23

REMOVING GUARDRAIL

OH

OH

OH

OH

OH

RIPRAP HEAVY OVER GEOTEXTILE TYPE HR
(SEE DETAIL)

WETLANDS

EXISTING R/W

TLE

R/W

SI (TYP.)

STA. 730+74, SKEW 42.9° LHF
1 - CPRC CL IV 84-INCH X 98' @ 0.58%
CONCRETE MASONRY ENDWALL REQ'D
INV (I) = 850.27' LT
INV (E) = 849.70' RT

EROSION CONTROL LEGEND

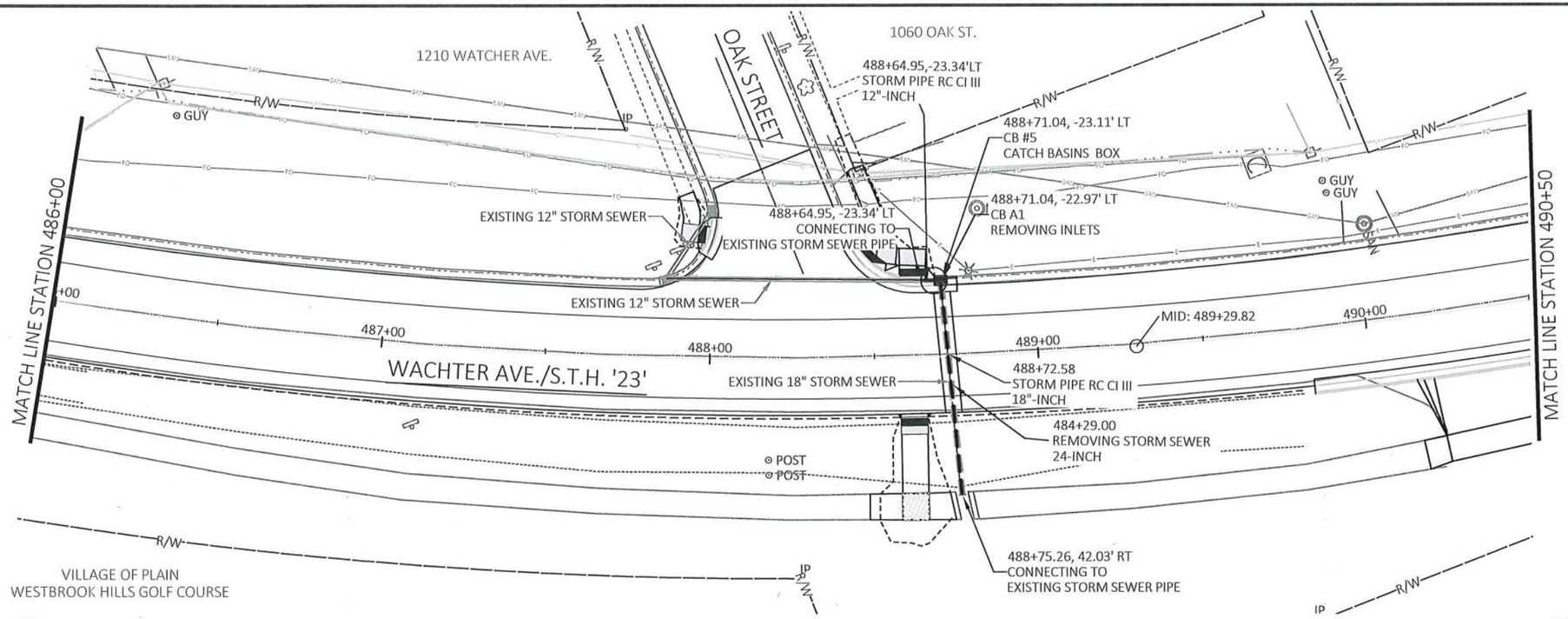
INLET PROTECTION	RIPRAP (SEE QUANTITIES FOR TYPE)
(D) INLET PROTECTION FOR EXISTING INLET (TYPE)	EROSION MAT CLASS I TYPE B
(D) INLET PROTECTION FOR PROPOSED INLET (TYPE)	EROSION MAT URBAN CLASS I TYPE B
SILT FENCE	EROSION MAT CLASS II TYPE C
CULVERT PIPE CHECK	SLOPE INTERCEPTS
EROSION BALES	DRAINAGE FLOW ARROW

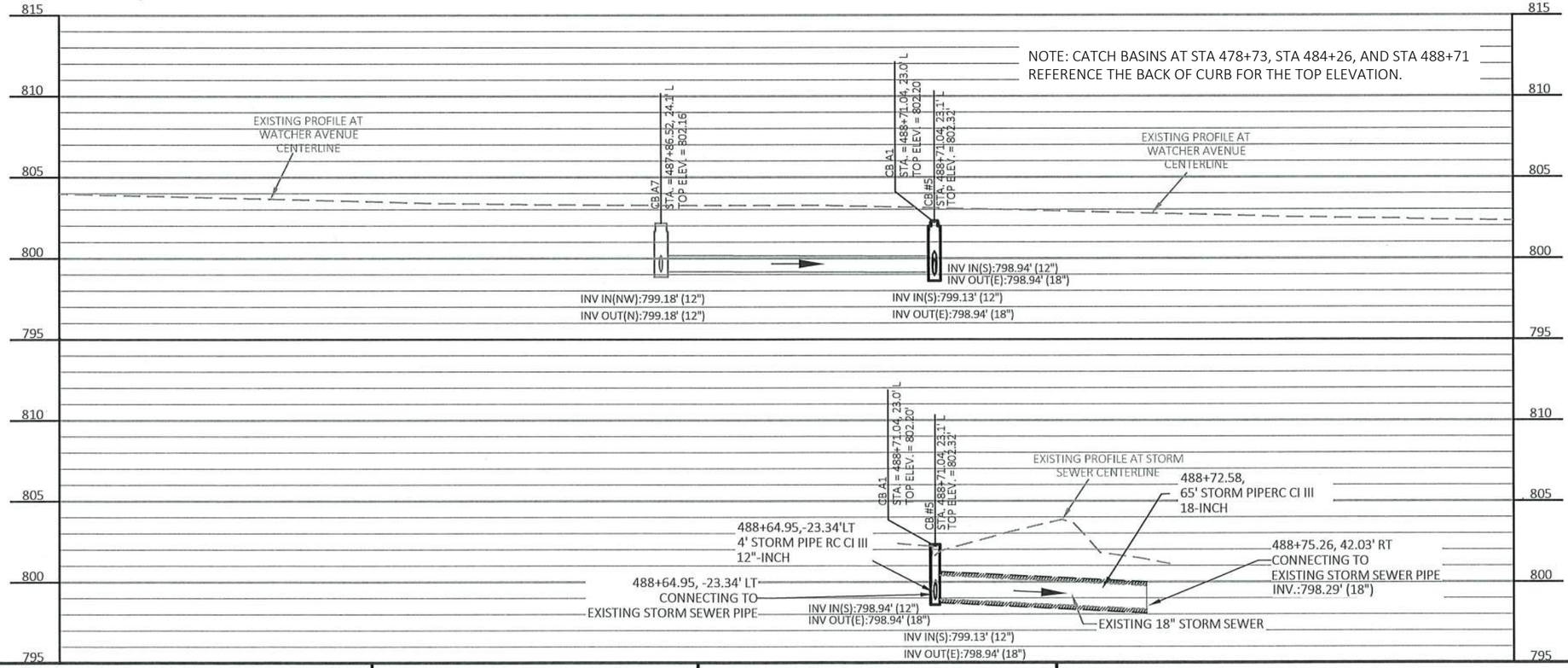
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 95	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\022001-EC.DWG
LAYOUT NAME - 022011-ec

PLOT DATE : 10/31/2023 10:46 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





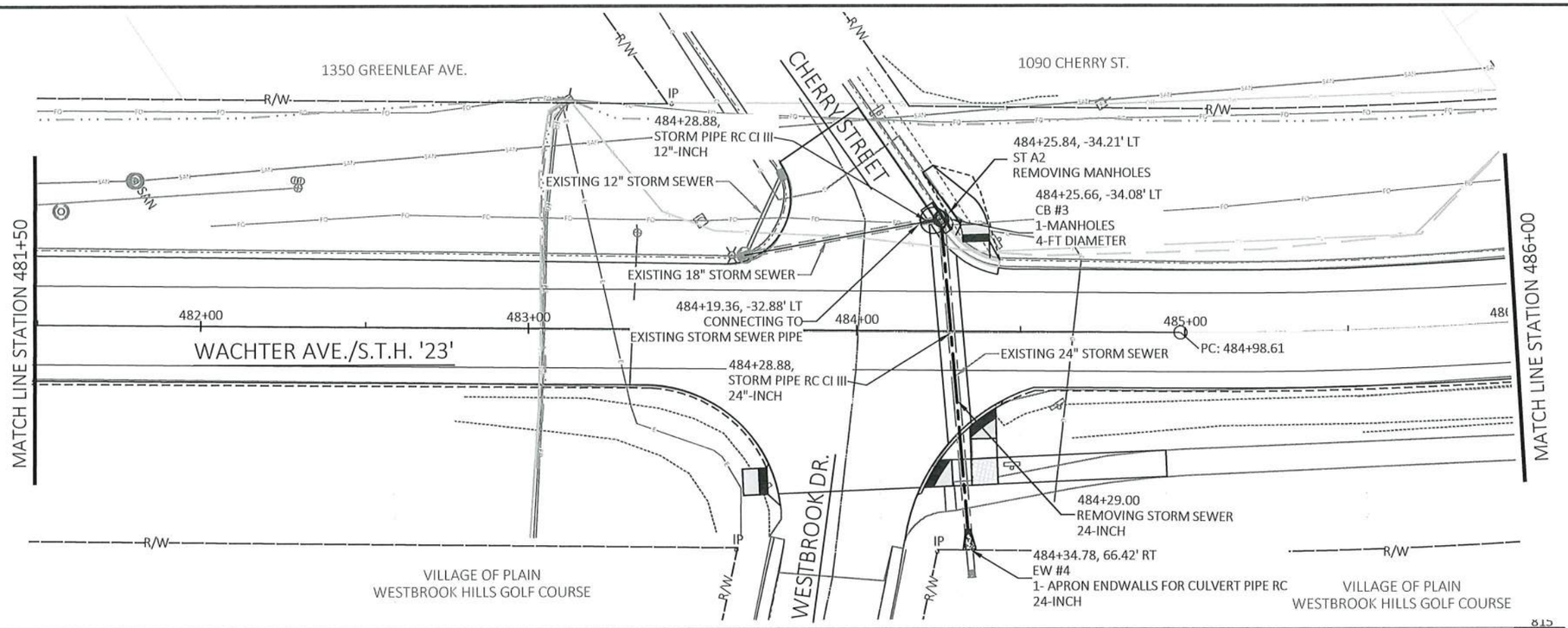
DELTA 3
EVERY ANGLE COVERED
PROFESSIONAL CIVIL, MUNICIPAL, & STRUCTURAL ENGINEERING
GRANT WRITING • LAND DEVELOPMENT • PLANNING & CADD SERVICES
875 SOUTH CHESTNUT STREET
PLATTEVILLE, WISCONSIN 53818
PHONE: (608) 348-5355
898 JACKSON STREET
DUBUQUE, IOWA 52001
PHONE: (563) 542-9005

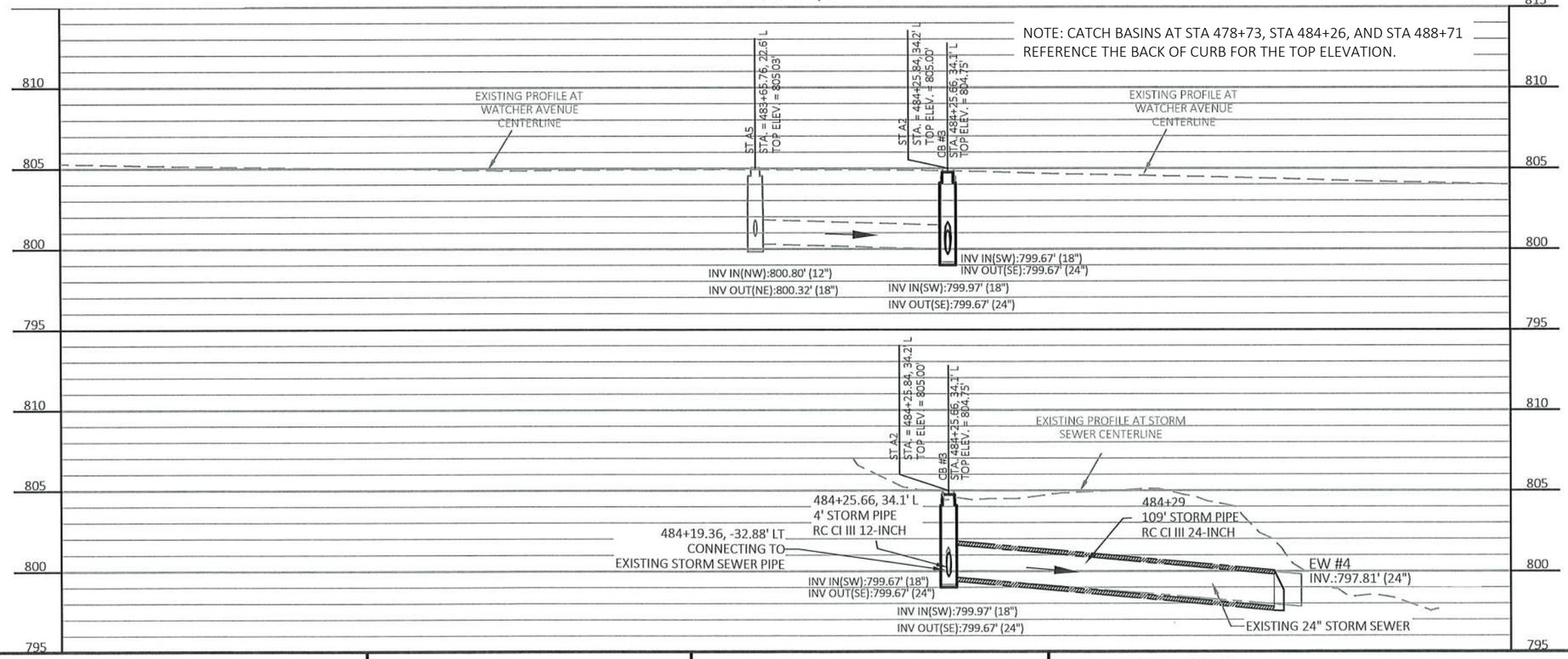
WISCONSIN
MARK L. DIGMAN
E-42464
PLATTEVILLE
WI
PROFESSIONAL ENGINEER
10/24/2023

C - Civil

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	STORM SEWER - STH 23	SHEET 96	E

FILE NAME : G:\PROJECTS\2019\D19-061 VILLAGE OF PLAIN 'ST H 23' VILLAGE WATER MAIN\CIVIL\CAD\PLAN SHEETS\PNP - VFG - D3-ALIPROF-STH23-BESTFIT (1).DWG
LAYOUT NAME - C103
PLOT DATE : 10/24/2023 9:46 AM PLOT BY : CHAD COYIER PLOT NAME : PLOT SCALE : 1 IN:40 FT





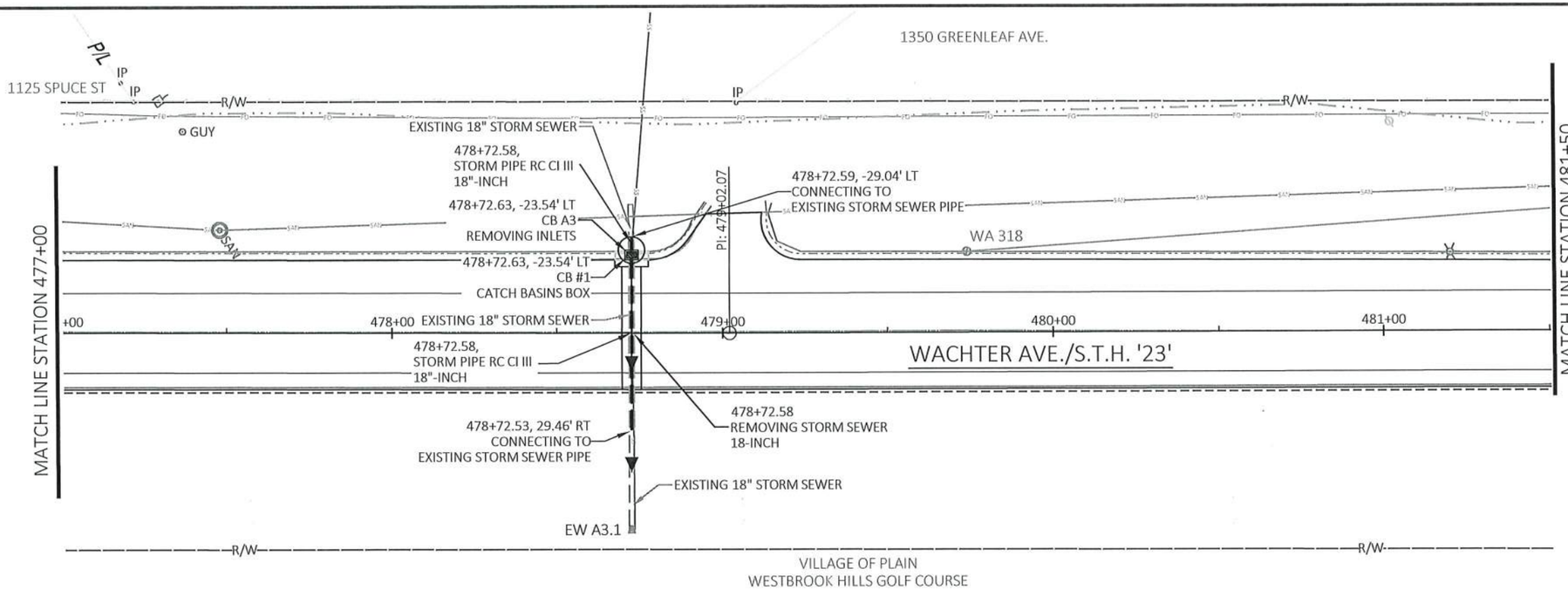
DELTA 3
EVERY ANGLE COVERED
PROFESSIONAL CIVIL, MUNICIPAL, & STRUCTURAL ENGINEERING
GRANT WRITING • LAND DEVELOPMENT • PLANNING & CADD SERVICES
875 SOUTH CHESTNUT STREET PHONE: (608) 348-5355
PLATTEVILLE, WISCONSIN 53818
898 JACKSON STREET PHONE: (563) 542-9005
DUBUQUE, IOWA 52001

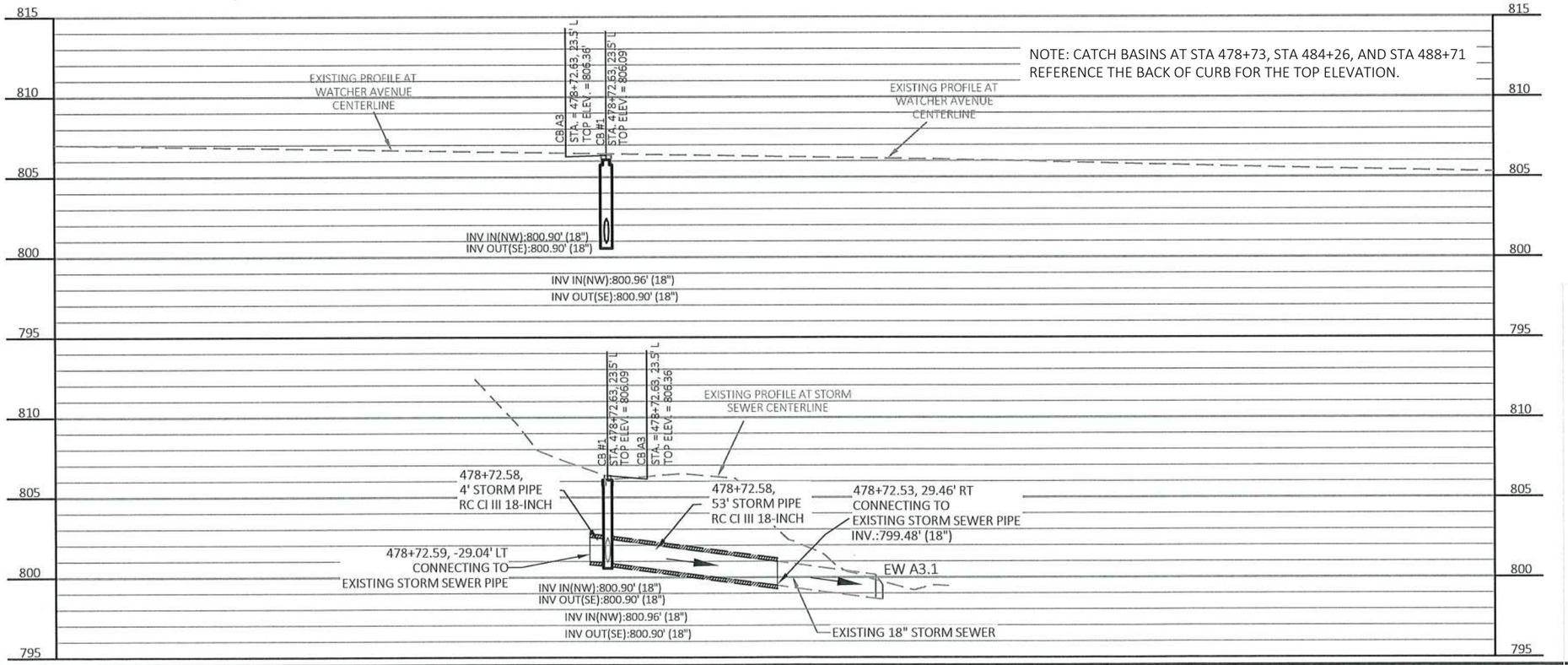
WISCONSIN
MARK L. DIGMAN
E-42454
PLATTEVILLE
WI
PROFESSIONAL ENGINEER
10/24/2023

C - Civil

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	STORM SEWER - STH 23	SHEET E

FILE NAME : G:\PROJECTS\2019\D19-061 VILLAGE OF PLAIN 'ST H 23' VILLAGE WATER MAIN\CIVIL\CAD\PLAN SHEETS\PNP - VFG - D3-ALIPROF-STH23-BESTFIT (1).DWG
LAYOUT NAME - C102
PLOT DATE : 10/24/2023 9:47 AM PLOT BY : CHAD COYIER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42





DELTA 3
EVERY ANGLE COVERED
PROFESSIONAL CIVIL, MUNICIPAL, & STRUCTURAL ENGINEERING
GRANT WRITING • LAND DEVELOPMENT • PLANNING & CADD SERVICES
875 SOUTH CHESTNUT STREET
PLATTEVILLE, WISCONSIN 53818
PHONE: (608) 348-5355
898 JACKSON STREET
DUBUQUE, IOWA 52001
PHONE: (563) 542-9005

WISCONSIN
MARK L. DIGMAN
E-42464
PLATTEVILLE WI
PROFESSIONAL ENGINEER
10/24/2023

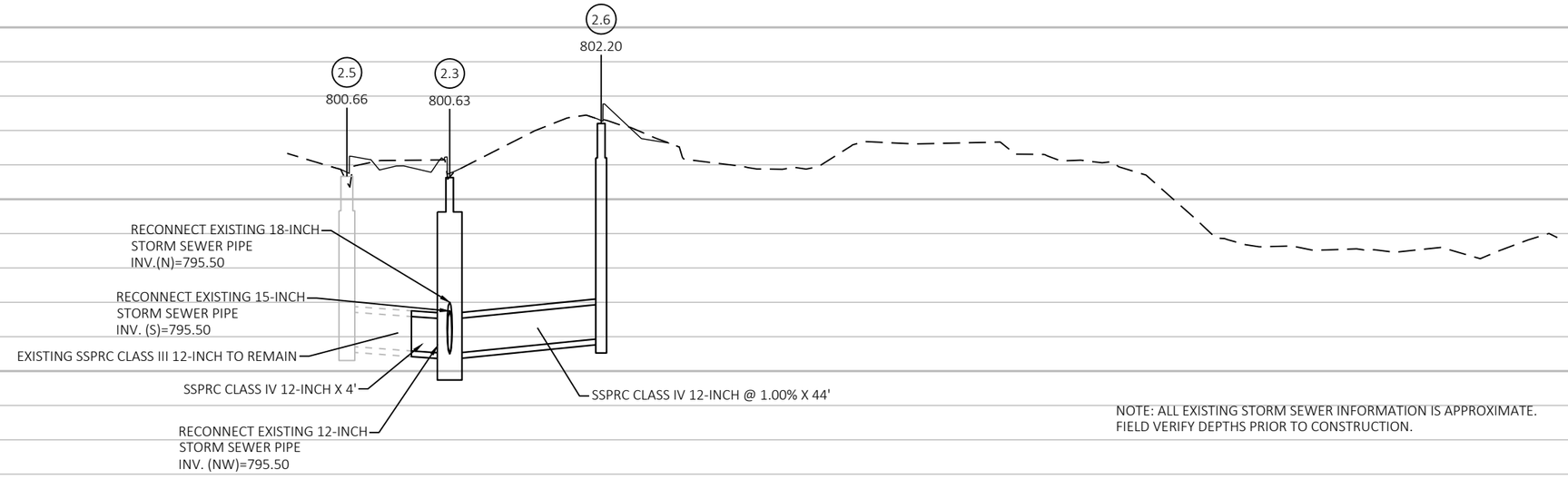
C - Civil

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	STORM SEWER - STH 23	SHEET	E

FILE NAME : G:\PROJECTS\2019\D19-061 VILLAGE OF PLAIN 'ST H 23' VILLAGE WATER MAIN\CIVIL\CAD\PLAN SHEETS\PNP - VFG - D3-ALIPROF-STH23-BESTFIT (1).DWG
LAYOUT NAME - C101
PLOT DATE : 10/24/2023 9:47 AM
PLOT BY : CHAD COYIER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

NOTE: ALL EXISTING STORM SEWER WITHIN THE PROJECT LIMITS TO REMAIN UNLESS OTHERWISE SHOWN.

CHARTER COMMUNICATIONS (FIBER OPTIC)
CHARTER COMMUNICATIONS (TELEVISION)
REEDSBURG UTILITY COMMISSION (FIBER OPTIC)
ALLIANT ENERGY (OVERHEAD-ELEC)
EXISTING STORM SEWER TO REMAIN
RECONNECT EXISTING 12-INCH STORM SEWER PIPE
RECONNECT EXISTING 15-INCH STORM SEWER PIPE
RECONNECT EXISTING 18-INCH STORM SEWER PIPE
REMOVING INLETS
ADJUSTING INLET COVERS
NO WORK ON INLETS
TLE (TYP.)
SI (TYP.)
ADJUSTING MANHOLE COVERS
FRONTIER COMMUNICATIONS (TELEPHONE)
VILLAGE OF PLAIN (WATER)
VILLAGE OF PLAIN (SANITARY SEWER)
ALLIANT ENERGY (ELECTRIC)
ALLIANT ENERGY (OVERHEAD-ELEC)
STA 491+62.49', 46.7' LT
2.5 ADJUSTING INLET COVERS
STA 491+41.00', 25.4' LT
2.3 MANHOLES 6-H
STA 491+44.50', 18.5' RT
2.6 INLETS 2x3-H
OAK ST
CLOVER ST
EXISTING R/W
STH 23 (WATCHER AVE)
MATCH LINE 494+00
488+00
489+00
490+00
491+00
492+00
493+00
494



NOTE: ALL EXISTING STORM SEWER INFORMATION IS APPROXIMATE.
FIELD VERIFY DEPTHS PRIOR TO CONSTRUCTION.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	STORM SEWER	SHEET 99 E

NOTE: ALL EXISTING STORM SEWER WITHIN THE PROJECT LIMITS TO REMAIN UNLESS OTHERWISE SHOWN.

N

STA 494+89.96', 46.9' LT
EXISTING INLET TO REMAIN
REMOVING INLET COVERS
COVER PLATES LEFT IN PLACE
1.2

STA 494+97.88', 48.0' LT
INLETS 2x3-HM-S
1.3

SEE LIGHTING PLAN

OVERHEAD SIGN BASE

STA 494+69.97', 25.9' LT
ADJUSTING INLET COVERS
1.1

ADJUSTING SANITARY MANHOLE COVERS

CTH B/MAIN STREET

VILLAGE OF PLAIN (WATER)

VILLAGE OF PLAIN (SANITARY SEWER)

ADJUSTING WATER VALVES

STA 497+90.56', 42.7' LT
RECONSTRUCTING INLETS
3.0

R/W

CEDAR STREET

CHARTER COMMUNICATIONS (FIBER OPTIC)

CHARTER COMMUNICATIONS (TELEVISION)

EXISTING R/W (TYP.)

MATCH LINE 500+00

ADJUSTING SANITARY MANHOLE COVERS

EXISTING HYDRANT TO REMAIN

ADJUSTING MANHOLE COVERS

ALLIANT ENERGY (GAS)

STH 23 (WATCHER AVE)

+00 495+00 496+00 497+00 498+00 499+00 500

PI: 31+01.72 B

ADJUSTING WATER VALVES

ADJUSTING MANHOLE COVERS

ADJUSTING WATER VALVES

ADJUSTING INLET COVERS

PI: 30+28.17 B

ADJUSTING INLET COVERS

TLE (TYP.)

ALLIANT ENERGY (ELECTRIC)

SEE LIGHTING PLAN

R/W TLE

TLE

SI (TYP.)

CEDAR STREET

MATCH LINE 494+00

S-56-0029 OVERHEAD SIGN BASE

STA 494+77.85', 58.8' RT
ADJUSTING MANHOLE COVERS
1.0

EXISTING LOCATION OF CONTAMINATED SOIL AND GROUNDWATER

REEDSBURG UTILITY COMMISSION (FIBER OPTIC)

ALLIANT ENERGY (OVERHEAD)

CTH B/MAIN STREET

32+00

805

800

795

790

1.3
802.04

1.2

1.1
800.23

1.0
800.08

COVER PLATES TEMPORARY LEFT IN PLACE

CONNECT INTO EXISTING INLET

(S)798.68

SSPRC CLASS III 12-INCH @ 2.59% X 8'

(N)798.47

(SE)798.47

EXISTING SSPRC CLASS III 12-INCH TO REMAIN @ 2.59%

EXISTING SSPRC CLASS III 24-INCH TO REMAIN

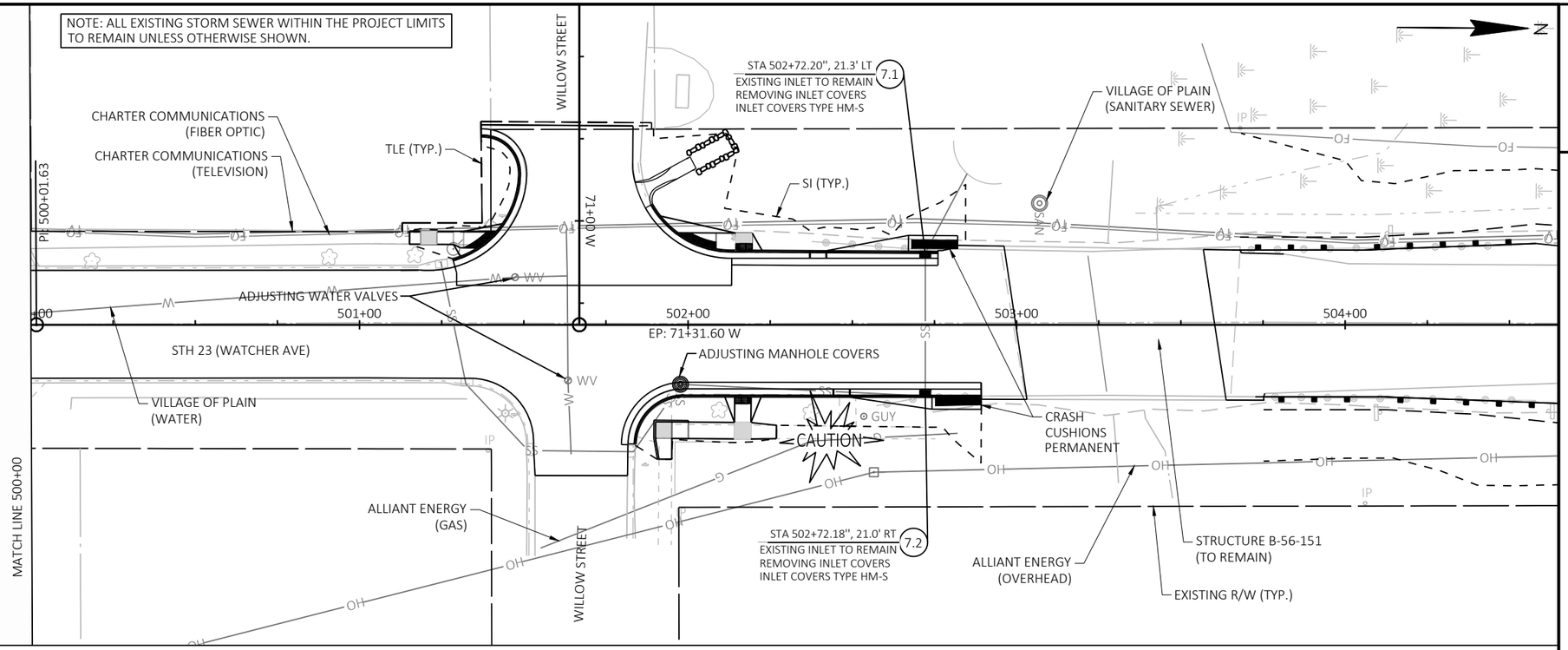
EXISTING SSPRC CLASS III 24-INCH TO REMAIN

NOTE: ALL EXISTING STORM SEWER INFORMATION IS APPROXIMATE.
FIELD VERIFY DEPTHS PRIOR TO CONSTRUCTION.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	STORM SEWER	SHEET 100	E

2

NOTE: ALL EXISTING STORM SEWER WITHIN THE PROJECT LIMITS TO REMAIN UNLESS OTHERWISE SHOWN.



2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	STORM SEWER	SHEET 101	E

2

2

N

EXISTING CURB & GUTTER

CONCRETE CURB & GUTTER 30-INCH TYPE D

POLE FOR TROMBONE OVERHEAD STRUCTURE

POLES, TYPE 2

SHIFTED CROSSWALK

SIGN MOUNTED TO TROMBONE ARM

REMOVING SIGN

100A STOP R1-1 36"X36"

100C CROSS TRAFFIC DOES NOT STOP W4-4P 24"X12"

100B STOP R1-1 36"X36"

CTH B / MAIN ST.

CEDAR ST

494+00

495+00

496+00

PI: 31+01.72 B

STH 23 / WACHTER AVE.

SIGN MOUNTED TO MONOTUBE CANTILEVER TYPE III ARM

PI: 31+28.17 B

40.00'

M1-6 24"X24" 23 104

M6-4 21"X21" 105

J13-1 24"X45"

S-56-0029 POLE FOR MONOTUBE OVERHEAD STRUCTURE

EXISTING LOCATION OF CONTAMINATED SOIL AND GROUNDWATER

102 STOP R1-1 36"X36"

103 CROSS TRAFFIC DOES NOT STOP W4-4P 24"X12"

101 STOP R1-1 36"X36"

EXISTING CURB & GUTTER

REMOVING SIGN

FINISHED PAINTED CENTERLINE

EXISTING CENTERLINE

LEGEND

(XX) TROMBONE ARM WITH SIGN

MONOTUBE WITH SIGN

SIGN MOUNTED ON POST(S)

SIGN MOUNTED ON ARM OR UPRIGHT

XXX DENOTES SIGN NUMBER

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PERMANENT SIGNING	SHEET 102	E

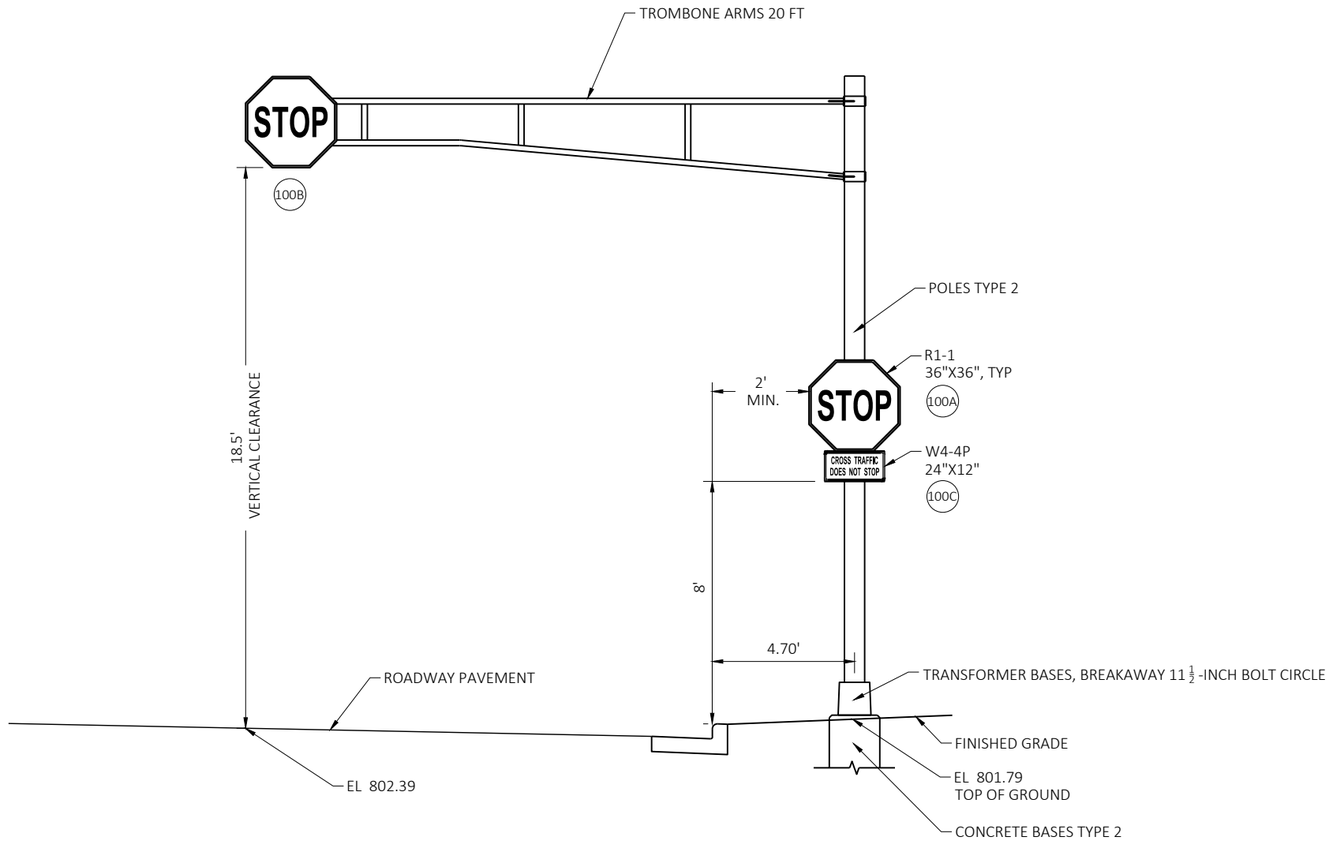
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\023201-PS.DWG
LAYOUT NAME - 023201-ps

PLOT DATE : 10/31/2023 10:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

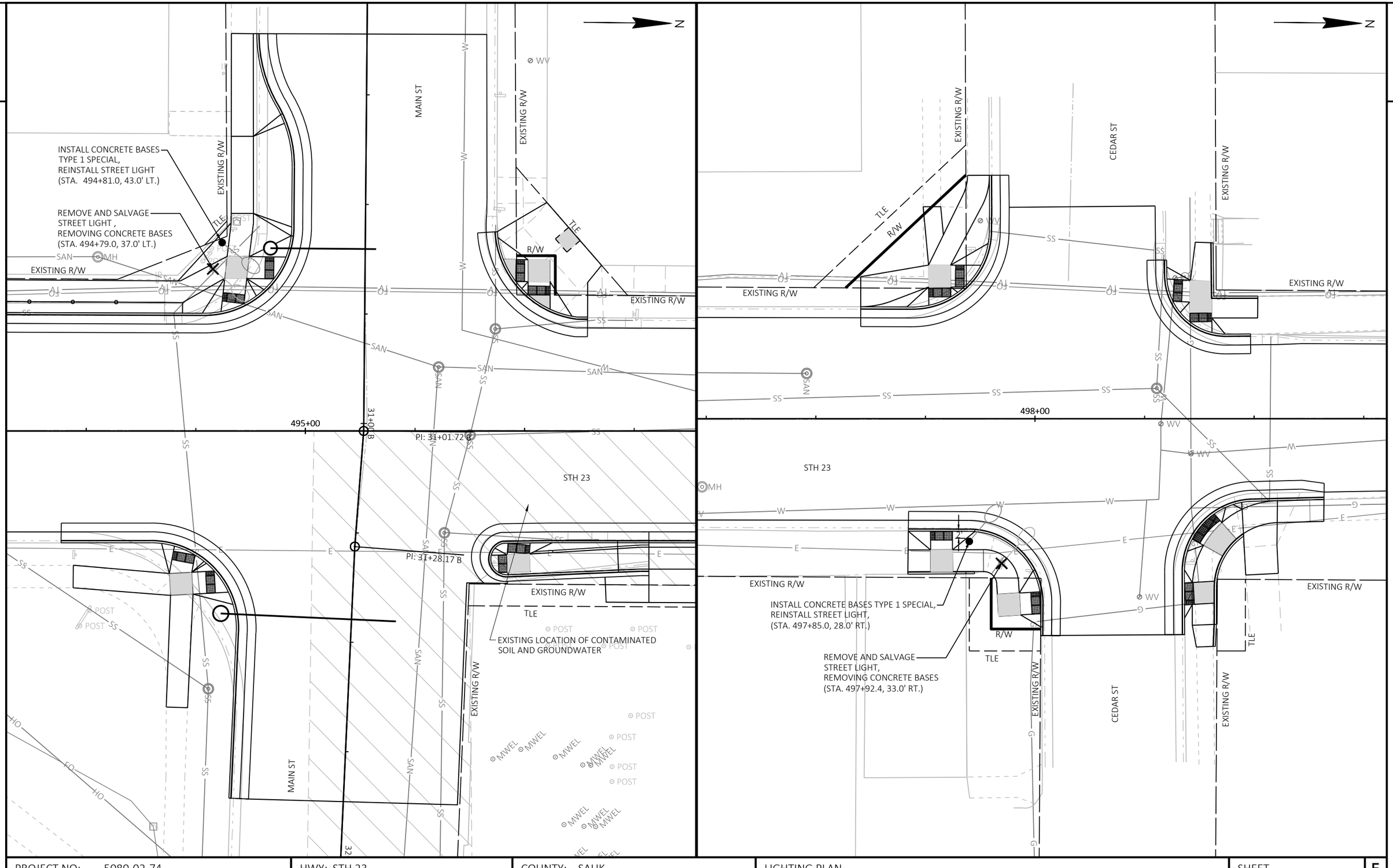
NOTES:

1. SIGNS SHOWN ON THIS DETAIL ARE FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO PLAN SHEET FOR SIGN LOCATIONS AND SIZES.
2. DRAWING NOT TO SCALE.



ELEVATION

STA 30+60.19 B
(LOOKING DOWNSTATION AT FRONT OF SIGN)



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	LIGHTING PLAN	SHEET 104	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\023601-LP.DWG
LAYOUT NAME - 023601-lp
PLOT DATE : 10/31/2023 10:53 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

SIGN TO REMAIN

SIGN TO REMAIN

SIGN TO REMAIN

SIGN TO REMAIN

MOVING TYPE II SIGN AND REMOVING SMALL SIGN SUPPORT

SIGNS TO BE MOVED BY OTHERS

SIGN TO BE MOVED BY OTHERS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

STA 487+50
BEGIN DOUBLE YELLOW

MATCH LINE 489+00

STH 23

CHERRY ST

WESTBROOK DR

OAK ST

484+00 485+00 486+00 487+00 488+00 489

WCW6 E

W6 E

Y6 E

LEGEND

MARKING		MATERIAL	
WCW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE	E	EPOXY
SL18	MARKING STOP LINE 18-INCH, WHITE		
W6	MARKING LINE 6-INCH, WHITE		
Y6	MARKING LINE 6-INCH, YELLOW		
W10	MARKING LINE 10-INCH, WHITE		

NOTE:
SEE SDD PERMANENT LONGITUDINAL PAVEMENT MARKINGS
SEE SDD PAVEMENT MARKING (TURN LANES)
SEE SDD STOP LINE AND CROSS WALK PAVEMENT MARKING
SEE SDD PARKING STALL MARKING

SIGN TO REMAIN

CLOVER ST

SIGNS TO BE REMOVED BY OTHERS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MATCH LINE 489+00

MATCH LINE 494+75

STH 23

490+00 491+00 492+00 493+00 494+00

WCW6 E

W6 E

Y6 E

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PAVEMENT MARKING	SHEET 105	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\024501-PM.DWG
LAYOUT NAME - 024501-pm

PLOT DATE : 10/31/2023 11:00 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

Business District

COUNTY B

STOP

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MAIN ST

CEDAR ST

MATCH LINE 494+75

MATCH LINE 500+75

495+00

496+00

497+00

498+00

499+00

500+00

STH 23

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

EXISTING LOCATION OF CONTAMINATED SOIL AND GROUNDWATER

SIGNS TO BE MOVED BY OTHERS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

STA 500+70
END DOUBLE YELLOW
BEGIN NB SKIPS, SB SOLID

MATCH LINE STA 31+90'B'

2

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

CEDAR GROVE CHEESE FCTY 1

STRAKA MEATS 1

WILLOW ST

MATCH LINE 500+75

MATCH LINE 506+75

501+00

502+00

503+00

504+00

505+00

506+00

STH 23

STRUCTURE B-56-151
(TO REMAIN)

SIGN TO REMAIN

STOP

LEGEND

MARKING		MATERIAL	
WCW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE	E	EPOXY
SL18	MARKING STOP LINE 18-INCH, WHITE		
W6	MARKING LINE 6-INCH, WHITE		
Y6	MARKING LINE 6-INCH, YELLOW		
W10	MARKING LINE 10-INCH, WHITE		

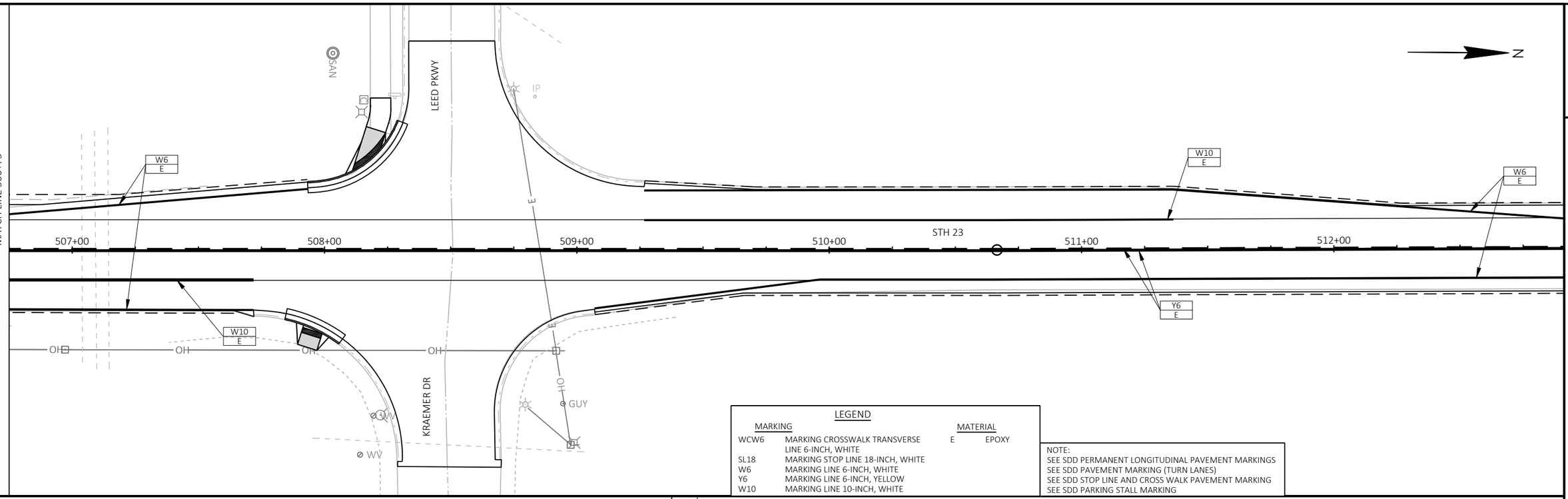
NOTE:
SEE SDD PERMANENT LONGITUDINAL PAVEMENT MARKINGS
SEE SDD PAVEMENT MARKING (TURN LANES)
SEE SDD STOP LINE AND CROSS WALK PAVEMENT MARKING
SEE SDD PARKING STALL MARKING

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PAVEMENT MARKING	SHEET 106 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\024501-PM.DWG
LAYOUT NAME - 024502-pm

PLOT DATE : 10/31/2023 11:00 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

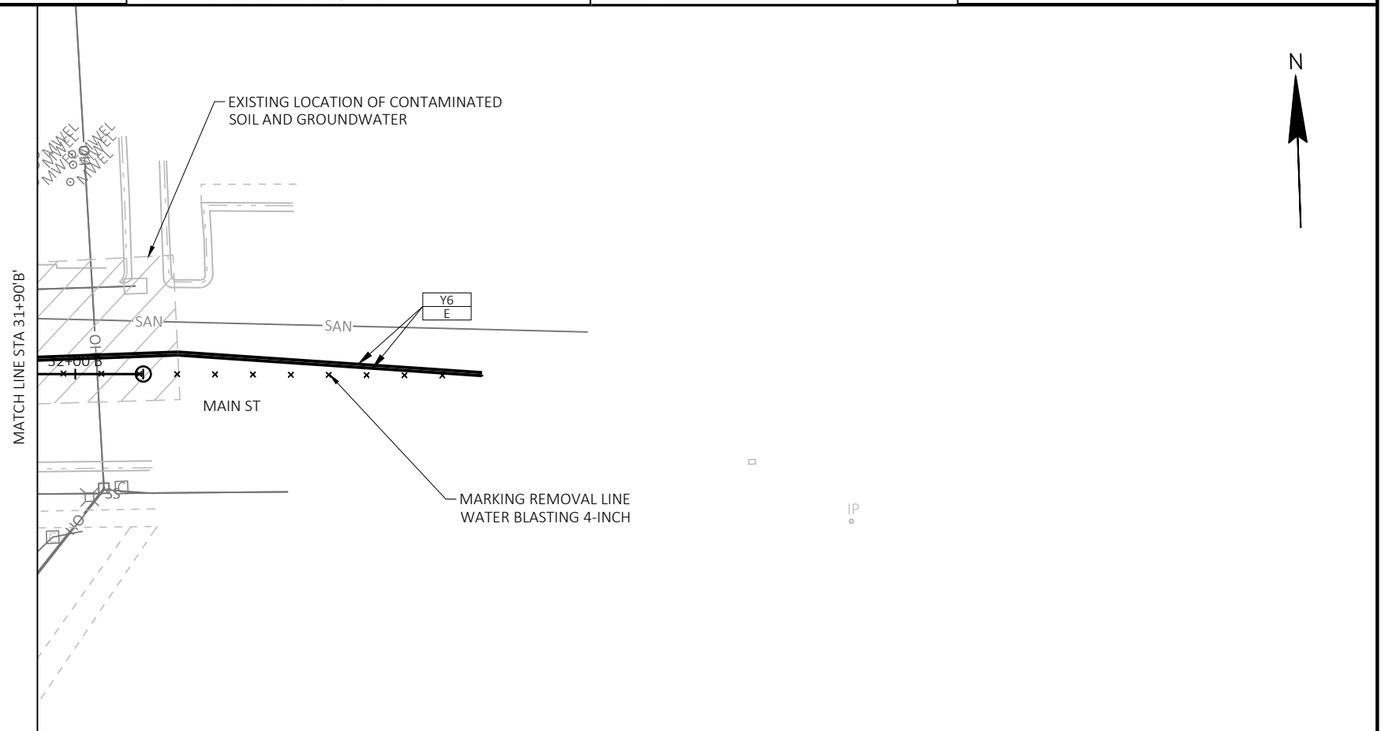
2



2

LEGEND			
MARKING		MATERIAL	
WCW6	MARKING CROSSWALK TRANSVERSE LINE 6-INCH, WHITE	E	EPOXY
SL18	MARKING STOP LINE 18-INCH, WHITE		
W6	MARKING LINE 6-INCH, WHITE		
Y6	MARKING LINE 6-INCH, YELLOW		
W10	MARKING LINE 10-INCH, WHITE		

NOTE:
SEE SDD PERMANENT LONGITUDINAL PAVEMENT MARKINGS
SEE SDD PAVEMENT MARKING (TURN LANES)
SEE SDD STOP LINE AND CROSS WALK PAVEMENT MARKING
SEE SDD PARKING STALL MARKING



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PAVEMENT MARKING	SHEET 107	E

2

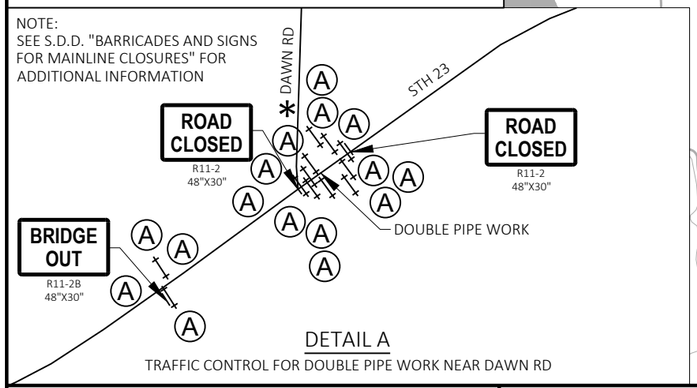
GENERAL NOTES:

- TRAFFIC CONTROL FOR ALL MILLING, PAVING, AGGREGATE SHOULDER AND RUMBLE STRIP WORK SHALL FOLLOW S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". (TRAFFIC CONTROL SHOWN AT THIS LOCATION FOR PLAN SHEET PURPOSES ONLY)
- TRAFFIC CONTROL FOR ALL PAVEMENT MARKING WORK SHALL FOLLOW S.D.D. "MOVING PAVEMENT MARKING OPERATION-TWO LANE TWO-WAY ROADWAY."
- TRAFFIC CONTROL FOR ANY WORK REQUIRING A SHOULDER CLOSURE SHALL FOLLOW S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY."
- SIGN FACES SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE NOTED.
- TRAFFIC CONTROL PLANS ARE NOT TO SCALE.
- MAINTAIN ACCESS TO DRIVEWAYS AND SIDE ROADS AT ALL TIMES.
- WO SIGNS ARE THE SAME AS W SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND

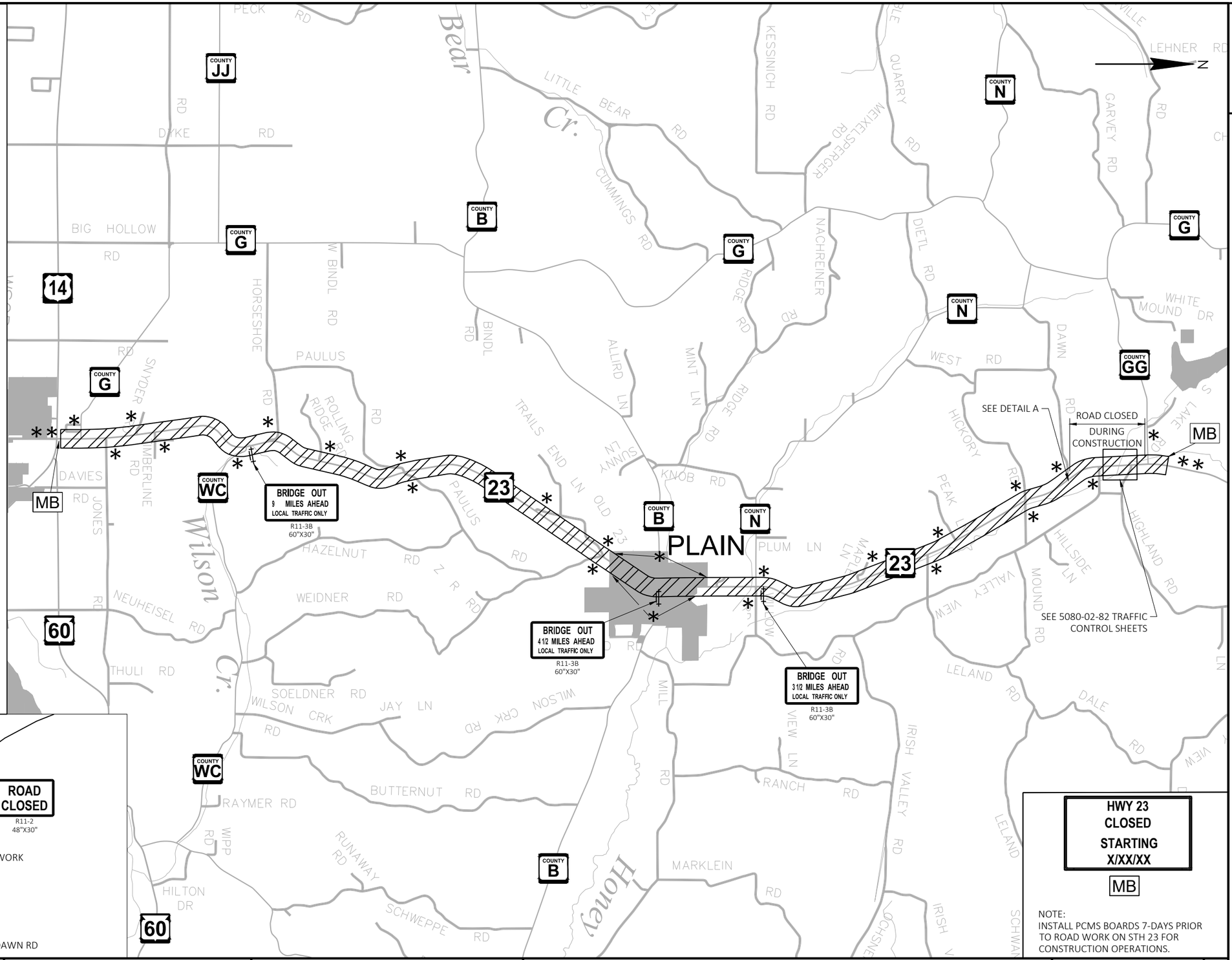
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN
- MB — PCMS MESSAGE BOARDS (SEE MESSAGE IN RIGHT CORNER)
- WORK ZONE
- * — S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
- ** — S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- A — TRAFFIC CONTROL WARNING LIGHT TYPE A

NOTE:
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR ADDITIONAL INFORMATION



DETAIL A

TRAFFIC CONTROL FOR DOUBLE PIPE WORK NEAR DAWN RD

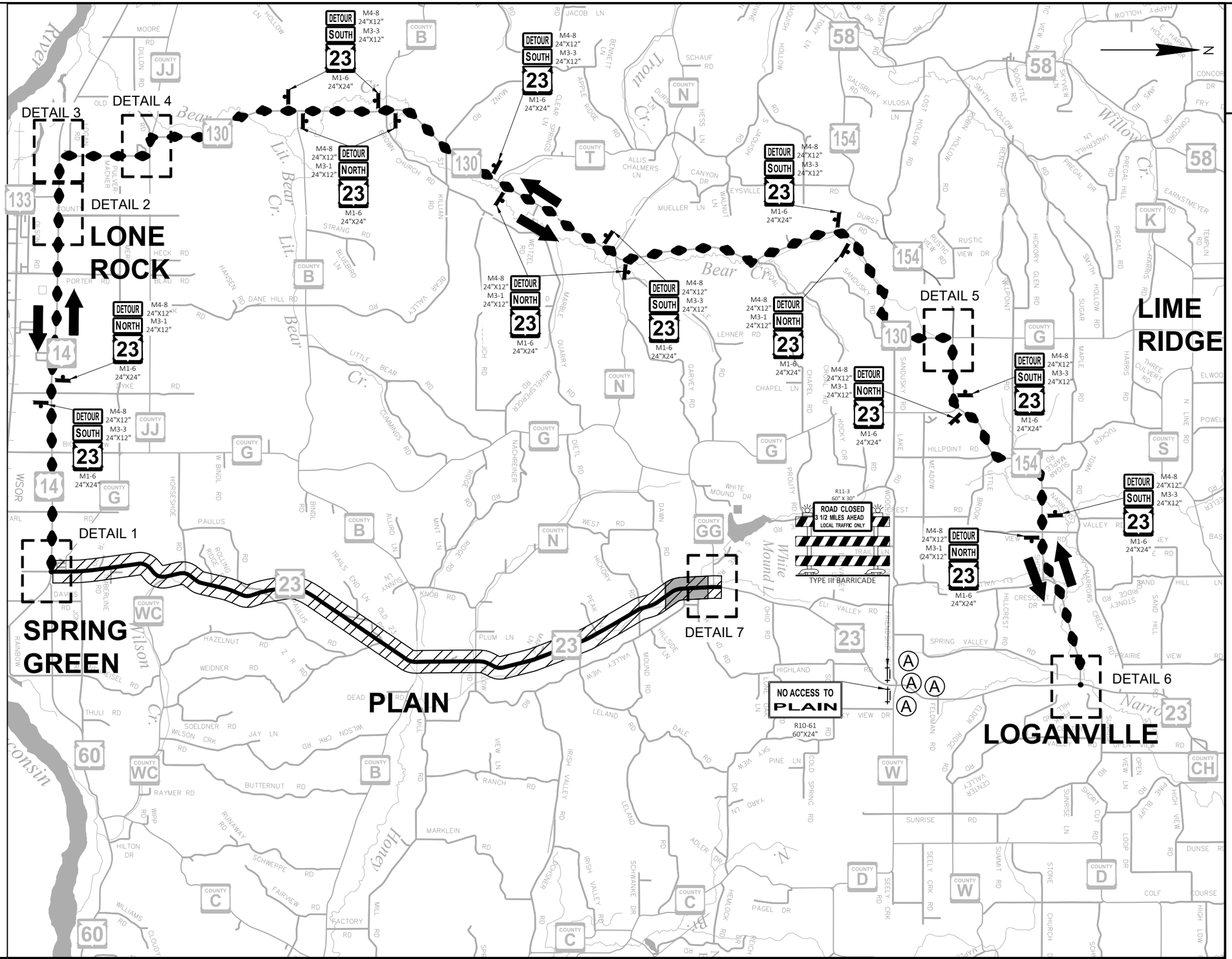


NOTE:
INSTALL PCMS BOARDS 7-DAYS PRIOR TO ROAD WORK ON STH 23 FOR CONSTRUCTION OPERATIONS.

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	TRAFFIC CONTROL OVERVIEW	SHEET 108	E

GENERAL NOTES:

1. ALL TC COVERING SIGNS TYPE II SHALL BE PAID AS EACH CONTIGUOUS SIGN(S) COVERED PER LOCATION PER CYCLE NOT AS INDIVIDUAL CLUSTER.
2. REFER TO S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR SIGN SIZE AND COLOR SPECIFICATIONS.
3. REFER TO PLATE A4-12 WHEN COVERING ARROWS FOR DESTINATION DIRECTIONAL ARROWS.
4. DRAWINGS SHOW TC DETOUR FOR A TYPICAL SITUATION. ADDITIONAL TC DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL CHANGES TO THE TC DETOUR PLAN SHALL BE REVIEWED WITH THE PROJECT ENGINEER.
5. SIGN FACES SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE NOTED.
6. TRAFFIC CONTROL PLANS ARE NOT TO SCALE.
7. COVER, REMOVE, OR ALTER ANY EXISTING OR PROPOSED SIGNS THAT DISPLAY A CONFLICTING MESSAGE WITH THE PROPOSED DETOUR ROUTE FOR THE PHASE THAT IS ACTIVE.
8. MAINTAIN ACCESS TO DRIVEWAYS AND SIDE ROADS AT ALL TIMES.
9. WO SIGNS ARE THE SAME AS W SIGNS EXCEPT THE BACKGROUND IS ORANGE.
10. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.



LEGEND

- DETOUR ROUTE
- EXISTING TC SIGNS
- TC SIGNS
- TC BARRICADES TYPE III WITH MOUNTED TC SIGNS
- DIRECTION OF TRAFFIC
- WORK ZONE
- ROAD CLOSURE
- (A) TRAFFIC CONTROL WARNING LIGHT TYPE A

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR	SHEET 109 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027001-dt
PLOT DATE : 10/31/2023 11:02 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : Custom

2

LEGEND

COVERING TYPE II SIGNS

WORK AREA

NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

EXISTING TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN

TRAFFIC FLOW ARROW

TRAFFIC CONTROL WARNING LIGHT TYPE A

N

PRAIRIE VIEW RD

STH 23

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

BRIDGE OUT 10 MILES AHEAD R11-3C 60"X24"

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

DETOUR M4-9L 30"X24" ROAD OPEN TO PLAIN R10-61 60"X30"

SOUTH M3-3 24"X12" 23 M1-6 24"X24" MO6-1 21"X21"

M4-8 24"X12" DETOUR NORTH COUNTY G 23 MO6-1 21"X21"

ROAD CLOSED 500 FT W20-3D

M4-8 24"X12" DETOUR WEST WEST NORTH 14 60 23 MO6-1 21"X21"

DETOUR NEXT 32 MILES G20-51 60"X24"

USH 14

Lone Rock Plain Reedsburg

REFER TO PLATE A4-12

M4-8A 24"X18" END DETOUR

NORTH SOUTH 23

Arena Sauk City Reedsburg

N WESTMOR ST

M4-8 24"X12" DETOUR NORTH M3-1 24"X12" M1-6 24"X24" 23 MO6-1 21"X21"

60 G 23 14

M3-1 24"X12" NORTH M1-6 24"X24" 23 DETOUR AHEAD W20-2A 48"X48"

STH 60

M3-1 24"X12" NORTH M1-6 24"X24" 23 DETOUR AHEAD W20-2A 48"X48"

SOMMERSET RD

CTH G

SPRING GREEN

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR - DETAIL 1	SHEET 110	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027002-dt

PLOT DATE : 10/31/2023 11:02 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

USH 14/STH 60

USH 14/STH 60

N PRAIRIE ST

N DUKE DR

SUNFLOWER RD

N DUKE DR

N CACTUS DR

STH 133

BROADWAY ST

BROADWAY ST

BUCK RUN RD

E FOREST ST

M4-8 24"X12" DETOUR NORTH 23 M3-1 24"X12" M1-6 24"X24" MO6-1 21"X21"

M4-8 24"X12" DETOUR SOUTH 23 M3-3 24"X12" M1-6 24"X24" MO6-1 21"X21"

M4-8 24"X12" DETOUR NORTH 23 M3-1 24"X12" M1-6 24"X24" MO5-1L 21"X21"

M3-1 24"X12" NORTH 23 M1-6 24"X24"

DETOUR AHEAD W20-2A 48"X48"

500'

LEGEND

COVERING TYPE II SIGNS

WORK AREA

NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

EXISTING TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN

TRAFFIC FLOW ARROW

TRAFFIC CONTROL WARNING LIGHT TYPE A

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR - DETAIL 2	SHEET 111	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027003-dt

PLOT DATE : 10/31/2023 11:02 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

N

LOGAN RD

CHAD RD

STH 130

USH 14/STH 60

N MILLS ST

M3-1
24"X12"
NORTH
M1-6
24"X24"
23
DETOUR AHEAD
W2D-2A
48"X48"
1000'
M4-8
24"X12"
DETOUR
NORTH
M3-1
24"X12"
M1-6
24"X24"
MO5-1L
21"X21"

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

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

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

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

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

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

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

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

Bear Valley 9

LEGEND

- COVERING TYPE II SIGNS
- WORK AREA
- NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- EXISTING TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC FLOW ARROW
- (A) TRAFFIC CONTROL WARNING LIGHT TYPE A

LONE ROCK

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR - DETAIL 3	SHEET 112	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027004-dt

PLOT DATE : 10/31/2023 11:03 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

N

STH 130

CTH JJ

1000'

OLD MILL DR

ANN ST

M4-8 24"X12" DETOUR
M3-3 24"X12" SOUTH
M1-6 24"X24" 23
MO5-1L 21"X21"

M4-8 24"X12" DETOUR
M3-1 24"X12" NORTH
M1-6 24"X24" 23
MO6-1 21"X21"

M4-8 24"X12" DETOUR
M3-3 24"X12" SOUTH
M1-6 24"X24" 23
MO6-1 21"X21"
COUNTY JJ

M4-8 24"X12" DETOUR
M3-1 24"X12" NORTH
M1-6 24"X24" 23
MO5-1R 21"X21"

M3-1 24"X12" NORTH
M1-6 24"X24" 23
DETOUR AHEAD
W20-2A 48"X48"

LEGEND

- COVERING TYPE II SIGNS
- WORK AREA
- NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- EXISTING TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC FLOW ARROW
- Ⓐ TRAFFIC CONTROL WARNING LIGHT TYPE A

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR -DETAIL 4	SHEET 113	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027005-dt

PLOT DATE : 10/31/2023 11:03 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

M3-3 24"X12" SOUTH 23 M1-6 24"X24"
DETOUR AHEAD W20-2A 48"X48"
1000'
CTH G
M4-8 24"X12" DETOUR
M3-3 24"X12" SOUTH
M1-6 24"X24" 23
MO6-1 21"X21"

M4-8 24"X12" DETOUR SOUTH 23 M3-3 24"X12" M1-6 24"X24" MO6-1 21"X21"
COUNTY G 154 130

M4-8 24"X12" DETOUR SOUTH 23 M3-3 24"X12" M1-6 24"X24" MO6-1 21"X21"
SOUTH WEST 130 154 COUNTY G

M4-8 24"X12" DETOUR SOUTH 23 M3-3 24"X12" M1-6 24"X24" MO5-1L 21"X21"
Lime Ridge
Lone Rock
200'

STH 154

1000'
200'
M3-3 24"X12" SOUTH 23 M1-6 24"X24"
DETOUR AHEAD W20-2A 48"X48"
M4-8 24"X12" DETOUR
M3-3 24"X12" SOUTH
M1-6 24"X24" 23
MO5-1R 21"X21"
Loganville
Lime Ridge
Lone Rock

M4-8 24"X12" DETOUR SOUTH 23 M3-3 24"X12" M1-6 24"X24" MO6-1 21"X21"
EAST SOUTH 154 130 COUNTY G

M4-8 24"X12" DETOUR SOUTH 23 M3-3 24"X12" M1-6 24"X24"
SOUTH 130

Loganville 7

M4-8 24"X12" DETOUR NORTH 23 M3-1 24"X12" M1-6 24"X24"
WEST EAST 154 154 COUNTY G

M4-8 24"X12" DETOUR NORTH 23 M3-1 24"X12" M1-6 24"X24" MO6-1 21"X21"

M4-8 24"X12" DETOUR NORTH 23 M3-1 24"X12" M1-6 24"X24" MO5-1R 21"X21"

STH 130

LEGEND

- COVERING TYPE II SIGNS
- WORK AREA
- NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- EXISTING TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC FLOW ARROW
- (A) TRAFFIC CONTROL WARNING LIGHT TYPE A

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR - DETAIL 5	SHEET 114	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027006-dt
PLOT DATE : 10/31/2023 11:03 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

2

N

LOGANVILLE

M3-3 24"X12" SOUTH
M1-6 24"X24" 23
DETOUR AHEAD W20-2A 48"X48"
1000'

M4-8 24"X12" DETOUR
M3-3 24"X12" SOUTH
M1-6 24"X24" 23
MO5-1R 21"X21"

M4-8 24"X12" DETOUR
M3-3 24"X12" SOUTH WEST
M1-6 24"X24" 23 154

M4-8A 24"X18" END DETOUR
NORTH EAST 23 154

MILL ST
MILL ST
MILL ST
OAK ST
EAST ST
STH 154
WALNUT ST
WALNUT ST

Reedsburg
Rock Springs
Prairie du Sac

EAST 154
M4-8 24"X12" DETOUR
M3-3 24"X12" SOUTH WEST
M1-6 24"X24" 23 154
NORTH 23
MO6-1 21"X21"

NO ACCESS TO PLAIN
R10-61 60"X24"

STATE ST
STH 23
STATE ST

BRIDGE OUT 6 MILES AHEAD
R11-3C 60"X24"

WEST ST
EAST ST

LEGEND

- COVERING TYPE II SIGNS
- WORK AREA
- NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- EXISTING TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC FLOW ARROW
- (A) TRAFFIC CONTROL WARNING LIGHT TYPE A

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR -DETAIL 6	SHEET 115	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027007-dt
PLOT DATE : 10/31/2023 11:03 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

2

N

S LAKE RD

CTH GG

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

BRIDGE OUT 1 MILES AHEAD
R11-3C
60"X24"

PLACE BARRICADES AT OHIO RD

STH 23

1000'

ROAD CLOSED AHEAD
W20-3A

ROAD CLOSED 1000 FT
W20-3C

500'

ROAD CLOSED 500 FT
W20-3D

500'

BRIDGE OUT
R11-2B
48"X30"

BRIDGE OUT
R11-2B
48"X30"

Hwy 23
Spring Green 27
Loganville 6
Reedsburg 12

23

MO6-1
21"X21"

STH 23

SEE ADDITIONAL TRAFFIC CONTROL FOR ID 5080-02-82

HIGHLAND RD

LEGEND

COVERING TYPE II SIGNS

WORK AREA

NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

EXISTING TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN

TRAFFIC FLOW ARROW

TRAFFIC CONTROL WARNING LIGHT TYPE A

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	DETOUR -DETAIL 7	SHEET 116	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\027001-DT.DWG
LAYOUT NAME - 027008-dt

PLOT DATE : 10/31/2023 11:03 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

CHERRY ST
WESTBROOK DR
OAK ST
CLOVER ST
LIEGEL AVE
MAIN ST
ALMA AVE
CEDAR ST
STH 23
WILLOW ST
PARK AVE
LEED PKWY
KRAEMER DR
N

LEGEND

SIGN ON TEMPORARY SUPPORT

A — SIDEWALK CLOSED AHEAD R9-9A 30"X18" / M4-60L 30"X24"

B — SIDEWALK CLOSED AHEAD R9-9A 30"X18" / M4-60R 30"X24"

* SEE PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 1 OVERVIEW	SHEET 117	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025001-tc ped

PLOT DATE : 10/31/2023 11:09 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:150 FT

WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

CHERRY ST

M4-60L
30"X24"

4'

TEMPORARY MARKING CROSSWALK
REMOVABLE TAPE 6-INCH (TYP.)

482+00
483+00
484+00
485+00
486+00
487+00

STH 23

12' MIN.

10' TYP.

MATCH LINE STA 487+30

24'

WESTBROOK DR

EXISTING R/W

M4-60R
30"X24"

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 1	SHEET 118	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025002-tc ped

PLOT DATE : 11/21/2023 11:33 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

PLACE SIGN AT INTERSECTION WITH LIEGEL AVE
(SEE OVERVIEW)

CLOVER ST

TEMPORARY MARKING CROSSWALK
REMOVABLE TAPE 6-INCH (TYP.)

OAK ST

21'

M4-60L
30"X24"

M4-60R
30"X24"

MATCH LINE STA 487+30

R9-9
24"X12"

SIDEWALK
CLOSED

TEMPORARY MARKING
CROSSWALK REMOVABLE TAPE
6-INCH (TYP.)

EXISTING R/W

MATCH LINE STA 493+40

488+00

489+00

490+00

491+00

492+00

493+00

12' MIN.

10' TYP.

STH 23

M4-60R
30"X24"

M4-60L
30"X24"

M4-60R
30"X24"

M4-60R
30"X24"

MAINTAIN EXISTING DRAINAGE

R9-9
24"X12"

SIDEWALK
CLOSED

20'

CLOVER ST

EXISTING R/W

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 1	SHEET 119	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025003-tc ped

PLOT DATE : 11/21/2023 11:33 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PLACE SIGN AT INTERSECTION WITH LIEGEL AVE
(SEE OVERVIEW)

N

TEMPORARY MARKING CROSSWALK
REMOVABLE TAPE 6-INCH (TYP.)

MAIN ST

M4-60D
30"X24"

TLE

SIDEWALK
CLOSED
R9-9
24"X12"

M4-60L
30"X24"

R/W

EXISTING R/W

UTILIZE EXISTING
CROSSWALK

10' TYP.

CEDAR ST

M4-60D
30"X24"

4'

25'

TEMPORARY MARKING
CROSSWALK REMOVABLE TAPE
6-INCH (TYP.)

SIDEWALK
CLOSED
R9-9
24"X12"

TEMPORARY
MARKING
CROSSWALK
REMOVABLE
TAPE 6-INCH
(TYP.)

MATCH LINE STA 493+40

494+00

495+00

496+00

497+00

498+00

499+00

MATCH LINE STA 499+25

12' MIN.

STH 23

TEMPORARY MARKING CROSSWALK
REMOVABLE TAPE 6-INCH (TYP.)

EXISTING R/W

SIDEWALK
CLOSED
R9-9
24"X12"

TLE

R/W

M4-60R
30"X24"

21'

M4-60L
30"X24"

M4-60L
30"X24"

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 1	SHEET 120	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025004-tc ped

PLOT DATE : 11/21/2023 11:34 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

M4-60R
30"X24"

TLE

WILLOW ST

EXISTING R/W

FO

STH 23

MATCH LINE STA 499+25

500+00

501+00

502+00

503+00

504+00

505+00

10' TYP.

11' MIN.

12' MIN.

5'

TEMPORARY MARKING CROSSWALK
REMOVABLE TAPE 6-INCH (TYP.)

TEMPORARY MARKING CROSSWALK
REMOVABLE TAPE 6-INCH (TYP.)

21'

WILLOW ST

EXISTING R/W

M4-60L
30"X24"

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 1	SHEET 121	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025005-tc ped
PLOT DATE : 11/21/2023 11:34 AM
PLOT BY : CONNOR GIRTEN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

R9-9
24"X12"

SIDEWALK CLOSED

LEED PKWY

12' MIN.

EXISTING R/W

FO

10' TYP.

12' MIN.

STH 23

504+00 505+00 506+00 507+00 508+00 509+00 510+00

12' MIN.

11' MIN.

HO

EXISTING R/W

12' MIN.

KRAEMER DR

ENVIRONMENTALLY SENSITIVE AREA

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 1	SHEET 122 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025006-tc ped

PLOT DATE : 11/21/2023 11:34 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

CHERRY ST
WESTBROOK DR
OAK ST
CLOVER ST
LIEGEL AVE
MAIN ST
ALMA AVE
CEDAR ST
STH 23
WILLOW ST
PARK AVE
LEED PKWY
KRAEMER DR
N

B
A
*
SS

LEGEND

SIGN ON TEMPORARY SUPPORT

A — SIDEWALK CLOSED AHEAD R9-9A 30"X18" / M4-60L 30"X24"

B — SIDEWALK CLOSED AHEAD R9-9A 30"X18" / M4-60R 30"X24"

* SEE PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2 OVERVIEW	SHEET 123	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025001-tc ped (2)

PLOT DATE : 10/31/2023 11:10 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:150 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

CHERRY ST

STH 23

482+00

483+00

484+00

485+00

486+00

487+00

MATCH LINE STA 487+30

WESTBROOK DR

EXISTING R/W

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2	SHEET 124	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025002-tc ped (2)

PLOT DATE : 11/21/2023 11:34 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

PLACE SIGN AT INTERSECTION WITH LIEGEL AVE
(SEE OVERVIEW)

MATCH LINE STA 487+30

OAK ST

CLOVER ST

EXISTING R/W

R9-9
24"X12"

SIDEWALK CLOSED

M4-60D
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

20'

MATCH LINE STA 493+40

488+00

489+00

490+00

491+00

492+00

493+00

STH 23

12' MIN.

10' TYP.

12' MIN.

12' MIN.

TEMPORARY MARKING
CROSSWALK REMOVABLE TAPE
6-INCH (TYP.)

21'

CLOVER ST

R9-9
24"X12"

SIDEWALK CLOSED

M4-60R
30"X24"

M4-60L
30"X24"

EXISTING R/W

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2	SHEET 125	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025003-tc ped (2)
PLOT DATE : 11/21/2023 11:34 AM
PLOT BY : CONNOR GIRTEN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

PLACE SIGN AT INTERSECTION WITH LIEGEL AVE
(SEE OVERVIEW)

N

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED
R9-9
24"X12"

MAIN ST

11'

TLE

R/W

EXISTING R/W

CEDAR ST

25'

M4-60R
30"X24"

M4-60L
30"X24"

40' TYP.

TEMPORARY MARKING
CROSSWALK REMOVABLE TAPE
6-INCH (TYP.)

494+00

495+00

496+00

497+00

498+00

499+00

12' MIN.

STH 23

MATCH LINE STA 493+40

MATCH LINE STA 499+25

MAINTAIN BUILDING ACCESS

20'

M4-60L
30"X24"

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2	SHEET 126	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025004-tc ped (2)

PLOT DATE : 11/21/2023 11:35 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCH LINE STA 499+25

STH 23

WILLOW ST

TLE

EXISTING R/W

500+00

501+00

502+00

503+00

504+00

505+00

WILLOW ST

EXISTING R/W

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2	SHEET 127	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025005-tc ped (2)

PLOT DATE : 11/21/2023 11:35 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

FO

FO

FO

LEED PKWY

STH 23

504+00

505+00

506+00

507+00

508+00

509+00

510+00

HO

HO

HO

HO

HO

HO

HO

HO

HO

HO

EXISTING R/W

KRAEMER DR

ENVIRONMENTALLY SENSITIVE AREA

LEGEND

TYPE III BARRICADE WTH ATTACHED SIGN

TRAFFIC CONTROL DRUM

SIGN ON TEMPORARY SUPPORT

WORK AREA

DIRECTION OF TRAFFIC

TEMPORARY PEDESTRIAN BARRICADE

TEMPORARY PEDESTRIAN SURFACE "A"

TEMPORARY PEDESTRIAN SURFACE "B"

TEMPORARY TEMPORARY CURB RAMP

TEMPORARY DETECTABLE WARNING FIELD

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PEDESTRIAN ACCESS - PEDESTRIAN STAGE 2	SHEET 128	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\025001-TC PED NEW.DWG
LAYOUT NAME - 025006-tc ped (2)

PLOT DATE : 11/21/2023 11:35 AM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

BEGIN PROJECT ID 5080-02-74
STA 141+73.42

BP: 139+81.08
PI: 150+06.52
PI: 154+64.99
PC: 157+46.13
PT: 180+19.48
PI: 183+86.92
PI: 189+64.51
PI: 197+92.36
PC: 218+80.27
PI: 215+28.58
PT: 229+95.37
PC: 235+10.48
PT: 247+64.48
PC: 259+32.95
PT: 269+76.87
PI: 274+75.98
PC: 276+05.24
PT: 282+20.76
PC: 300+12.72
PT: 315+12.72
PC: 319+34.68
PC: 332+87.90
PT: 327+95.72
PT: 345+80.67
PC: 360+21.01
PT: 369+87.43
PC: 371+32.77
PT: 385+62.21
PI: 392+81.80
PI: 417+95.29
PI: 435+27.68
STH 23
MATCH LINE STA 460+00

PI STA = 139+81.08
Y = 134,893.00
X = 562,632.43

PI STA = 150+06.52
Y = 135,918.41
X = 562,639.87

PI STA = 154+64.99
Y = 136,376.89
X = 562,639.54

PI STA = 183+86.92
Y = 139,288.72
X = 562,420.55

PI STA = 189+64.51
Y = 139,860.54
X = 562,339.11

PI STA = 197+92.36
Y = 140,680.38
X = 562,224.26

PI STA = 215+28.58
Y = 142,399.47
X = 561,980.99

PI STA = 274+75.98
Y = 147,739.18
X = 563,314.04

PI STA = 392+81.83
Y = 158,884.21
X = 565,232.12

PI STA = 417+95.29
Y = 160,965.12
X = 566,641.83

PI STA = 435+27.68
Y = 162,398.54
X = 567,614.70

PI STA = 168+83.82
Y = 137795.374
X = 562608.510
DELTA = 5°55'14" LT
D = 0°15'38"
T = 1137.69'
L = 2273.35'
R = 22000.00'
PC STA = 157+46.13
Y = 136657.959
X = 562633.393
PT STA = 180+19.48
Y = 138924.155
X = 562466.435
SE = NC
DS = 55 MPH

PI STA = 224+88.45
Y = 143350.588
X = 561851.632
DELTA = 56°47'30" RT
D = 5°05'35"
T = 608.18'
L = 1115.10'
R = 1125.00'
PC STA = 218+80.27
Y = 142747.956
X = 561933.592
PT STA = 229+95.37
Y = 143749.214
X = 562310.957
SE = 7.5%
DS = 55 MPH

PI STA = 242+08.01
Y = 144544.028
X = 563226.797
DELTA = 62°28'39" LT
D = 4°58'56"
T = 697.53'
L = 1254.00'
R = 1150.00'
PC STA = 235+10.48
Y = 144086.840
X = 562699.993
PT STA = 247+64.48
Y = 145222.479
X = 563064.785
SE = 7.5%
DS = 55 MPH

PI STA = 264+92.89
Y = 146903.617
X = 562663.334
DELTA = 51°20'28" RT
D = 4°55'05"
T = 559.94'
L = 1043.92'
R = 1165.00'
PC STA = 259+32.95
Y = 146358.992
X = 562793.389
PT STA = 269+76.87
Y = 147345.392
X = 563007.376
SE = 7.5%
DS = 55 MPH

PI STA = 279+17.84
Y = 148089.420
X = 563583.428
DELTA = 24°39'44" LT
D = 4°00'24"
T = 312.60'
L = 615.52'
R = 1430.00'
PC STA = 276+05.24
Y = 147841.631
X = 563392.845
PT STA = 282+20.76
Y = 148394.130
X = 563653.231
SE = 6.0%
DS = 55 MPH

PI STA = 307+65.14
Y = 150874.265
X = 564221.387
DELTA = 11°14'57" RT
D = 0°45'00"
T = 752.42'
L = 1500.00'
R = 7640.00'
PC STA = 300+12.72
Y = 150140.845
X = 564053.374
PT STA = 315+12.72
Y = 151560.820
X = 564529.246
SE = 1.25%
DS = 55 MPH

PI STA = 323+86.51
Y = 152358.120
X = 564886.765
DELTA = 42°53'57" LT
D = 4°58'56"
T = 451.83'
L = 861.04'
R = 1150.00'
PC STA = 319+34.68
Y = 151945.843
X = 564701.895
PT STA = 327+95.72
Y = 152785.978
X = 564741.550
SE = 7.5%
DS = 55 MPH

PI STA = 339+35.83
Y = 153865.597
X = 564375.127
DELTA = 9°41'42" RT
D = 0°45'00"
T = 647.93'
L = 1292.76'
R = 7640.00'
PC STA = 332+87.90
Y = 153252.044
X = 564583.367
PT STA = 345+80.67
Y = 154505.456
X = 564273.186
SE = 1.25%
DS = 55 MPH

PI STA = 365+14.58
Y = 156415.281
X = 563968.916
DELTA = 28°41'24" RT
D = 2°58'07"
T = 493.57'
L = 966.42'
R = 1930.00'
PC STA = 360+21.01
Y = 155927.863
X = 564046.571
PT STA = 369+87.43
Y = 156880.139
X = 564134.790
SE = 4.5%
DS = 55 MPH

PI STA = 378+51.33
Y = 157693.786
X = 564425.122
DELTA = 14°29'45" RT
D = 1°00'51"
T = 718.56'
L = 1429.44'
R = 5650.00'
PC STA = 371+32.77
Y = 157017.022
X = 564183.634
PT STA = 385+62.21
Y = 158288.559
X = 564828.322
SE = 3.3%
DS = 55 MPH

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	ALIGNMENT DIAGRAM	SHEET 129	E

2

PI STA = 489+43.38
Y = 166883.901
X = 570649.721
DELTA = 34°33'15" LT
D = 4°00'24"
T = 444.77'
L = 862.41'
R = 1430.00'
PC STA = 484+98.61
Y = 166514.792
X = 570401.571
PT STA = 493+61.02
Y = 167328.642
X = 570644.741
SE = 4.0%
DS = 40 MPH

PI STA = 554+73.87
Y = 173441.277
X = 570594.896
DELTA = 28°14'09" RT
D = 2°50'11"
T = 508.06'
L = 995.47'
R = 2020.00'
PC STA = 549+65.81
Y = 172933.232
X = 570598.897
PT STA = 559+61.28
Y = 173890.762
X = 570831.728
SE = 6.4%
DS = 55 MPH

PI STA = 568+53.77
Y = 174680.350
X = 571247.761
DELTA = 41°44'29" LT
D = 4°40'38"
T = 467.07'
L = 892.45'
R = 1225.00'
PC STA = 563+86.71
Y = 174267.135
X = 571030.039
PT STA = 572+79.15
Y = 175133.627
X = 571135.110
SE = 7.5%
DS = 55 MPH

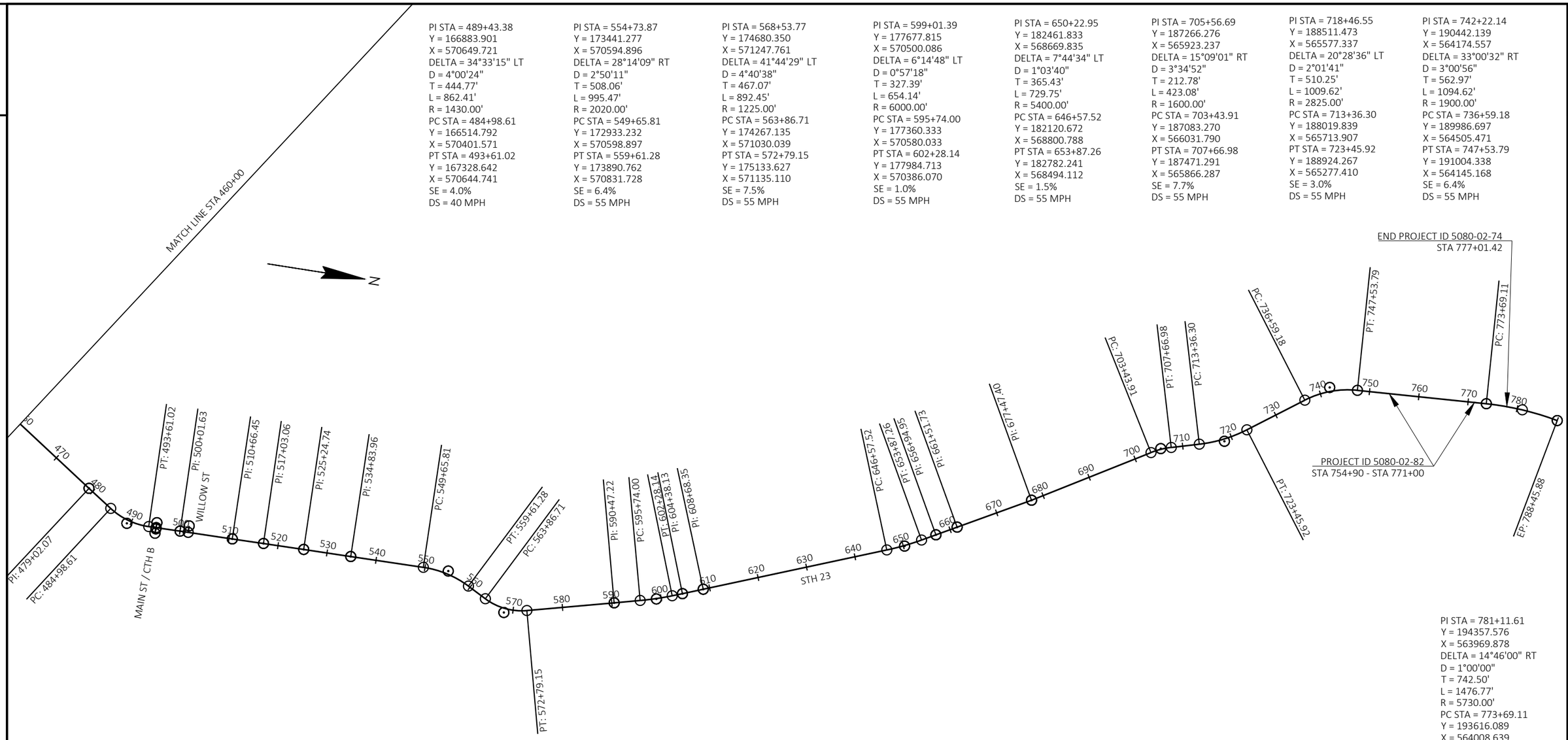
PI STA = 599+01.39
Y = 177677.815
X = 570500.086
DELTA = 6°14'48" LT
D = 0°57'18"
T = 327.39'
L = 654.14'
R = 6000.00'
PC STA = 595+74.00
Y = 177360.333
X = 570580.033
PT STA = 602+28.14
Y = 177984.713
X = 570386.070
SE = 1.0%
DS = 55 MPH

PI STA = 650+22.95
Y = 182461.833
X = 568669.835
DELTA = 7°44'34" LT
D = 1°03'40"
T = 365.43'
L = 729.75'
R = 5400.00'
PC STA = 646+57.52
Y = 182120.672
X = 568800.788
PT STA = 653+87.26
Y = 182782.241
X = 568494.112
SE = 1.5%
DS = 55 MPH

PI STA = 705+56.69
Y = 187266.276
X = 565923.237
DELTA = 15°09'01" RT
D = 3°34'52"
T = 212.78'
L = 423.08'
R = 1600.00'
PC STA = 703+43.91
Y = 187083.270
X = 566031.790
PT STA = 707+66.98
Y = 187471.291
X = 565866.287
SE = 7.7%
DS = 55 MPH

PI STA = 718+46.55
Y = 188511.473
X = 565577.337
DELTA = 20°28'36" LT
D = 2°01'41"
T = 510.25'
L = 1009.62'
R = 2825.00'
PC STA = 713+36.30
Y = 188019.839
X = 565713.907
PT STA = 723+45.92
Y = 188924.267
X = 565277.410
SE = 3.0%
DS = 55 MPH

PI STA = 742+22.14
Y = 190442.139
X = 564174.557
DELTA = 33°00'32" RT
D = 3°00'56"
T = 562.97'
L = 1094.62'
R = 1900.00'
PC STA = 736+59.18
Y = 189986.697
X = 564505.471
PT STA = 747+53.79
Y = 191004.338
X = 564145.168
SE = 6.4%
DS = 55 MPH



PI STA = 781+11.61
Y = 194357.576
X = 563969.878
DELTA = 14°46'00" RT
D = 1°00'00"
T = 742.50'
L = 1476.77'
R = 5730.00'
PC STA = 773+69.11
Y = 193616.089
X = 564008.639
PT STA = 788+45.88
Y = 195084.453
X = 564121.389
SE = 3.3%
DS = 55 MPH

PI STA = 479+02.07
Y = 166,019.73
X = 570,068.74

PI STA = 500+01.63
Y = 167,969.20
X = 570,637.57

PI STA = 510+66.45
Y = 169,034.00
X = 570,630.14

PI STA = 517+03.06
Y = 169,670.57
X = 570,623.31

PI STA = 525+24.74
Y = 170,492.22
X = 570,616.28

PI STA = 534+83.96
Y = 171,451.42
X = 570,610.57

PI STA = 590+47.22
Y = 176,849.50
X = 570,708.67

PI STA = 604+38.13
Y = 178,181.56
X = 570,312.94

PI STA = 608+68.35
Y = 178,583.16
X = 570,158.64

PI STA = 656+94.95
Y = 183,052.02
X = 568,346.16

PI STA = 661+51.73
Y = 183,452.04
X = 568,125.64

PI STA = 677+47.40
Y = 184,850.08
X = 567,356.44

PI STA = 788+45.88
Y = 195,084.45
X = 564,121.39

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	ALIGNMENT DIAGRAM	SHEET 130	E

2

N

PI STA = 70+00.00W
Y = 168,133.55
X = 570,504.82

BP: 70+00.00 W

WILLOW ST

71+00 W

PI STA = 71+31.60W
Y = 168,134.47
X = 570,636.41

EP: 71+31.60 W

PI STA = 30+00.00B
Y = 167,480.64
X = 570,541.32

BP: 30+00.00 B

MAIN ST / CTH B

PI: 500+01.63

495+00

496+00

497+00

498+00

STH 23

499+00

500+00

501+00

502+00

31+00 B

PI STA = 31+01.72B
Y = 167,480.89
X = 570,643.04

PI: 31+01.72 B

PI STA = 31+28.17B
Y = 167,479.16
X = 570,669.43

PI: 31+28.17 B

32+00 B

PI STA = 32+17.96B
Y = 167,476.12
X = 570,759.17

EP: 32+17.96 B

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	ALIGNMENT DIAGRAM	SHEET 131	E

5080-02-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	36.000	36.000
0006	203.0220	Removing Structure (structure) 01. STA 730+57	EACH	1.000	1.000
0008	203.0220	Removing Structure (structure) 02. STA 730+74	EACH	1.000	1.000
0014	204.0100	Removing Concrete Pavement	SY	79.000	79.000
0016	204.0110	Removing Asphaltic Surface	SY	1,270.000	1,270.000
0018	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,117.000	2,117.000
0020	204.0120	Removing Asphaltic Surface Milling	SY	239,885.000	239,885.000
0022	204.0130	Removing Curb	LF	9.000	9.000
0024	204.0150	Removing Curb & Gutter	LF	1,371.000	1,371.000
0026	204.0155	Removing Concrete Sidewalk	SY	471.000	471.000
0028	204.0165	Removing Guardrail	LF	12,289.000	12,289.000
0030	204.0195	Removing Concrete Bases	EACH	2.000	2.000
0032	204.0210	Removing Manholes	EACH	1.000	1.000
0034	204.0220	Removing Inlets	EACH	4.000	4.000
0036	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	8.000	8.000
0038	204.0245	Removing Storm Sewer (size) 02. 15-Inch	LF	4.000	4.000
0040	204.0245	Removing Storm Sewer (size) 03. 18-Inch	LF	77.000	77.000
0042	204.0245	Removing Storm Sewer (size) 04. 24-Inch	LF	162.000	162.000
0044	204.9060.S	Removing (item description) 01. Inlet Covers	EACH	4.000	4.000
0048	204.9180.S	Removing (item description) 01. Concrete Retaining Wall and Header	SY	13.000	13.000
0050	205.0100	Excavation Common	CY	8,526.000	8,526.000
0056	208.0100	Borrow	CY	5,642.000	5,642.000
0060	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5080-02-74	EACH	1.000	1.000
0062	211.0700.S	Prepare Foundation for CIR Base Layer (project) 01. 5080-02-74	EACH	1.000	1.000
0064	211.0800.S	Base Repair for CIR Layer	CY	562.000	562.000
0066	213.0100	Finishing Roadway (project) 01. 5080-02-74	EACH	1.000	1.000
0070	305.0110	Base Aggregate Dense 3/4-Inch	TON	11,114.000	11,114.000
0072	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,265.000	2,265.000
0074	305.0500	Shaping Shoulders	STA	481.000	481.000
0076	311.0110	Breaker Run	TON	260.000	260.000
0080	327.1000.S	CIR Asphaltic Base Layer	SY	222,485.000	222,485.000
0086	416.0610	Drilled Tie Bars	EACH	33.000	33.000
0090	455.0605	Tack Coat	GAL	25,204.000	25,204.000
0092	455.0770.S	Asphalt Stabilizing Agent	TON	886.000	886.000
0094	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0096	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	4.000	4.000
0100	460.2005	Incentive Density PWL HMA Pavement	DOL	28,042.000	28,042.000
0102	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	12,380.000	12,380.000
0104	460.2010	Incentive Air Voids HMA Pavement	DOL	42,307.000	42,307.000
0106	460.6224	HMA Pavement 4 MT 58-28 S	TON	25,023.000	25,023.000
0108	460.6225	HMA Pavement 5 MT 58-28 S	TON	17,284.000	17,284.000
0110	465.0105	Asphaltic Surface	TON	389.000	389.000
0112	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	75.000	75.000
0114	465.0315	Asphaltic Flumes	SY	10.000	10.000
0116	465.0520	Asphaltic Rumble Strips, Shoulder	LF	104,853.000	104,853.000
0118	465.0560	Asphaltic Rumble Strips, Centerline	LF	49,040.000	49,040.000
0128	504.0900	Concrete Masonry Endwalls	CY	39.000	39.000
0138	513.2001	Railing Pipe	LF	98.000	98.000
0150	522.0484	Culvert Pipe Reinforced Concrete Class IV 84-Inch	LF	196.000	196.000
0152	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000

5080-02-74

Line	Item	Item Description	Unit	Total	Qty
0154	525.0124	Culvert Pipe Corrugated Aluminum 24-Inch	LF	2.000	2.000
0156	525.0324	Apron Endwalls for Culvert Pipe Aluminum 24-Inch	EACH	1.000	1.000
0158	531.2042	Drilling Shaft 42-Inch	LF	18.000	18.000
0160	531.5130	Foundation Single-Shaft Type MC-III (structure) 01. S-56-0029	EACH	1.000	1.000
0162	531.8990	Anchor Assemblies Poles on Structures	EACH	1.000	1.000
0164	532.5130	Monotube Cantilever Type III (structure) 01. S-56-0029	EACH	1.000	1.000
0168	601.0105	Concrete Curb Type A	LF	8.000	8.000
0170	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	33.000	33.000
0172	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,474.000	1,474.000
0178	601.0600	Concrete Curb Pedestrian	LF	88.000	88.000
0180	602.0410	Concrete Sidewalk 5-Inch	SF	5,548.000	5,548.000
0182	602.0415	Concrete Sidewalk 6-Inch	SF	683.000	683.000
0184	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	358.000	358.000
0186	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	158.000	158.000
0188	602.0810	Concrete Driveway 6-Inch	SY	254.000	254.000
0192	606.0100	Riprap Light	CY	2,935.000	2,935.000
0194	606.0200	Riprap Medium	CY	5.000	5.000
0196	606.0300	Riprap Heavy	CY	229.000	229.000
0198	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	16.000	16.000
0200	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	4.000	4.000
0202	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	130.000	130.000
0204	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	109.000	109.000
0206	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	44.000	44.000
0208	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0210	611.0624	Inlet Covers Type H	EACH	5.000	5.000
0212	611.0636	Inlet Covers Type HM-S	EACH	3.000	3.000
0214	611.1230	Catch Basins 2x3-FT	EACH	2.000	2.000
0216	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0218	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0220	611.3230	Inlets 2x3-FT	EACH	1.000	1.000
0222	611.8110	Adjusting Manhole Covers	EACH	9.000	9.000
0224	611.8115	Adjusting Inlet Covers	EACH	6.000	6.000
0230	614.0200	Steel Thrie Beam Structure Approach	LF	41.200	41.200
0232	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000
0234	614.0800	Crash Cushions Permanent	EACH	2.000	2.000
0236	614.2300	MGS Guardrail 3	LF	1,200.000	1,200.000
0238	614.2330	MGS Guardrail 3 K	LF	9,162.500	9,162.500
0240	614.2350	MGS Guardrail Short Radius	LF	485.500	485.500
0242	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0244	614.2610	MGS Guardrail Terminal EAT	EACH	30.000	30.000
0246	614.2630	MGS Guardrail Short Radius Terminal	EACH	6.000	6.000
0248	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5080-02-74	EACH	1.000	1.000
0252	619.1000	Mobilization 01. 5080-02-74	EACH	1.000	1.000
0256	624.0100	Water	MGAL	220.000	220.000
0258	625.0500	Salvaged Topsoil	SY	19,842.000	19,842.000
0260	628.1104	Erosion Bales	EACH	10.000	10.000
0262	628.1504	Silt Fence	LF	23,759.000	23,759.000
0264	628.1520	Silt Fence Maintenance	LF	23,759.000	23,759.000
0266	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0268	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000

5080-02-74

Line	Item	Item Description	Unit	Total	Qty
0270	628.2004	Erosion Mat Class I Type B	SY	6,912.000	6,912.000
0272	628.2008	Erosion Mat Urban Class I Type B	SY	1,232.000	1,232.000
0274	628.2027	Erosion Mat Class II Type C	SY	11,699.000	11,699.000
0278	628.7015	Inlet Protection Type C	EACH	34.000	34.000
0284	629.0210	Fertilizer Type B	CWT	17.200	17.200
0286	630.0120	Seeding Mixture No. 20	LB	858.900	858.900
0288	630.0140	Seeding Mixture No. 40	LB	23.500	23.500
0290	630.0200	Seeding Temporary	LB	858.900	858.900
0292	630.0500	Seed Water	MGAL	795.000	795.000
0294	633.5100	Markers ROW	EACH	8.000	8.000
0296	633.5200	Markers Culvert End	EACH	5.000	5.000
0298	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	34.000	34.000
0300	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0302	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	1.000	1.000
0304	637.2210	Signs Type II Reflective H	SF	29.840	29.840
0306	637.2230	Signs Type II Reflective F	SF	19.000	19.000
0308	638.2102	Moving Signs Type II	EACH	50.000	50.000
0310	638.2602	Removing Signs Type II	EACH	6.000	6.000
0312	638.3000	Removing Small Sign Supports	EACH	43.000	43.000
0316	642.5201	Field Office Type C	EACH	1.000	1.000
0318	643.0300	Traffic Control Drums	DAY	7,120.000	7,120.000
0320	643.0420	Traffic Control Barricades Type III	DAY	11,621.000	11,621.000
0322	643.0705	Traffic Control Warning Lights Type A	DAY	19,824.000	19,824.000
0324	643.0900	Traffic Control Signs	DAY	83,207.000	83,207.000
0326	643.0920	Traffic Control Covering Signs Type II	EACH	16.000	16.000
0328	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0330	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0332	643.3165	Temporary Marking Line Paint 6-Inch	LF	39,919.000	39,919.000
0334	643.3170	Temporary Marking Line Epoxy 6-Inch	LF	39,919.000	39,919.000
0336	643.3350	Temporary Marking Crosswalk Removable Tape 6-inch	LF	1,272.000	1,272.000
0338	643.3770	Temporary Marking Raised Pavement Marker Type II	EACH	529.000	529.000
0340	643.5000	Traffic Control 01. 5080-02-74	EACH	1.000	1.000
0344	644.1410	Temporary Pedestrian Surface Asphalt	SF	1,617.000	1,617.000
0346	644.1430	Temporary Pedestrian Surface Plate	SF	194.000	194.000
0348	644.1440	Temporary Pedestrian Surface Matting	SF	1,617.000	1,617.000
0350	644.1601	Temporary Pedestrian Curb Ramp	DAY	344.000	344.000
0352	644.1605	Temporary Pedestrian Detectable Warning Field	SF	184.000	184.000
0354	644.1810	Temporary Pedestrian Barricade	LF	2,308.000	2,308.000
0358	645.0120	Geotextile Type HR	SY	513.000	513.000
0360	645.0130	Geotextile Type R	SY	9,772.000	9,772.000
0362	646.2020	Marking Line Epoxy 6-Inch	LF	441.000	441.000
0364	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	190,796.000	190,796.000
0366	646.4020	Marking Line Epoxy 10-Inch	LF	390.000	390.000
0368	646.6120	Marking Stop Line Epoxy 18-Inch	LF	120.000	120.000
0370	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	47,699.000	47,699.000
0372	646.6470	Cold Weather Marking Epoxy 10-Inch	LF	98.000	98.000
0374	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,402.000	1,402.000
0376	646.8320	Marking Parking Stall Epoxy	LF	144.000	144.000
0378	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	245.000	245.000
0380	650.4000	Construction Staking Storm Sewer	EACH	6.000	6.000

5080-02-74

Line	Item	Item Description	Unit	Total	Qty
0382	650.4500	Construction Staking Subgrade	LF	222.000	222.000
0384	650.5000	Construction Staking Base	LF	222.000	222.000
0386	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,515.000	1,515.000
0388	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0390	650.6501	Construction Staking Structure Layout (structure) 01. S-56-0029	EACH	1.000	1.000
0396	650.8000	Construction Staking Resurfacing Reference	LF	61,823.000	61,823.000
0398	650.8501	Construction Staking Electrical Installations (project) 01. 5080-02-74	EACH	1.000	1.000
0400	650.9000	Construction Staking Curb Ramps	EACH	38.000	38.000
0402	650.9500	Construction Staking Sidewalk (project) 01. 5080-02-74	EACH	1.000	1.000
0404	650.9911	Construction Staking Supplemental Control (project) 01. 5080-02-74	EACH	1.000	1.000
0408	650.9920	Construction Staking Slope Stakes	LF	17,193.000	17,193.000
0410	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0412	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0414	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	1.000	1.000
0416	657.0305	Poles Type 2	EACH	1.000	1.000
0418	657.0356	Poles Type 12-Over Height	EACH	1.000	1.000
0420	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0422	657.0590	Trombone Arms 20-FT	EACH	1.000	1.000
0424	690.0150	Sawing Asphalt	LF	2,925.000	2,925.000
0426	690.0250	Sawing Concrete	LF	309.000	309.000
0430	740.0440	Incentive IRI Ride	DOL	46,352.000	46,352.000
0436	SPV.0060	Special 01. Adjusting Water Valves	EACH	8.000	8.000
0438	SPV.0060	Special 02. Adjusting Sanitary Manhole Covers	EACH	4.000	4.000
0440	SPV.0060	Special 03. Cover Plates Left In Place	EACH	1.000	1.000
0442	SPV.0060	Special 04. Concrete Base Type 1 Special	EACH	2.000	2.000
0444	SPV.0060	Special 05. Management of Contaminated Groundwater	EACH	1.000	1.000
0446	SPV.0060	Special 06. Remove and Salvage Street Light	EACH	2.000	2.000
0448	SPV.0060	Special 07. Reinstall Street Light	EACH	2.000	2.000
0450	SPV.0060	Special 08. Connect to Existing Storm Sewer Pipe	EACH	8.000	8.000
0452	SPV.0060	Special 09. Grading and Shaping for Curb Ramps	EACH	23.000	23.000
0454	SPV.0060	Special 10. Verify Landmark Reference Monuments	EACH	2.000	2.000
0456	SPV.0060	Special 11. Research and Locate Existing Land Parcel Monuments	EACH	8.000	8.000
0458	SPV.0060	Special 12. Verify and Replace Existing Land Parcel Monuments	EACH	8.000	8.000
0460	SPV.0070	Special 01. Sprayed Asphaltic Surface Treatment	GAL	2,604.000	2,604.000
0462	SPV.0165	Special 01. Concrete Sidewalk Special	SF	757.000	757.000
0464	SPV.0180	Special 01. High Friction Surface Treatment	SY	14,188.000	14,188.000
0466	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Petroleum-Contaminated Soil	TON	20.000	20.000

GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0205 GRUBBING STA
0010	219+50	-	220+52	LT	1
0010	221+96	-	223+49	LT	3
0010	241+75	-	244+41	RT	3
0010	244+00	-	246+67	LT	3
0010	245+75	-	246+68	RT	1
0010	251+65	-	251+70	RT	1
0010	261+03	-	262+41	LT	2
0010	262+57	-	262+96	LT	1
0010	290+56	-	291+64	RT	2
0010	324+61	-	327+08	LT	3
0010	333+07	-	337+20	RT	4
0010	357+29	-	357+79	LT	1
0010	357+44	-	358+09	RT	1
0010	359+05	-	359+83	RT	1
0010	361+58	-	363+75	RT	3
0010	502+00	-	503+00	RT	1
0010	564+09	-	565+78	RT	2
0010	575+20	-	575+44	RT	1
0010	729+86	-	730+86	RT	1
0010	730+86	-	731+67	LT	1
				TOTAL 0010	36

REMOVING STRUCTURES

CATEGORY	STATION	LOCATION	203.0220.01 REMOVING STRUCTURE (01. STA 730+57) EACH	203.0220.02 REMOVING STRUCTURE (02. STA 730+74) EACH	REMARKS
0010	730+57	LT & RT	1	-	EXISTING 84-INCH CMCP
0010	730+74	LT & RT	-	1	EXISTING 84-INCH CMCP
		TOTAL 0010	1	1	

REMOVING CONCRETE

CATEGORY	STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	REMARKS
0010	495+39	-	495+46	GAS STATION	1	NEAR ISLAND NOSE
0010	495+46	-	496+22	GAS STATION	78	DRIVEWAY
				TOTAL 0010	79	

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
0010	142+23	-	---	RT	13	---	DRIVEWAY
0010	142+23	-	474+88	STH 23	---	123,640	
0010	143+30	-	---	LT	22	---	DRIVEWAY
0010	152+72	-	155+67	LT	---	377	CTH G
0010	162+07	-	---	RT	22	---	DRIVEWAY
0010	166+70	-	168+15	RT	---	347	JONES RD
0010	180+56	-	---	RT	37	---	DRIVEWAY
0010	183+26	-	184+53	LT	---	100	SNYDER RD
0010	193+63	-	194+30	RT	---	101	TIMBERLINE RD
0010	212+41	-	---	RT	22	---	DRIVEWAY
0010	246+84	-	248+15	RT	---	256	CTH WC
0010	258+96	-	260+36	LT	---	351	HORSESHOE RD
0010	289+34	-	290+37	LT	---	172	ROLLING RIDGE RD
0010	337+32	-	338+54	RT	---	254	PAULUS RD
0010	337+45	-	338+66	LT	---	199	PAULUS RD
0010	355+55	-	---	LT	17	---	DRIVEWAY
0010	415+37	-	416+40	LT	---	204	OLD HWY 23
0010	457+76	-	459+01	RT	---	314	PAULUS RD
0010	459+48	-	461+43	LT	---	438	OLD HWY 23
0010	495+11	-	466+42	LT	---	344	ST. LUKE AVE
0010	474+88	-	502+90	STH 23	---	11,640	
0010	474+85	-	475+70	LT	---	149	MAPLE ST
0010	479+03	-	---	LT	18	---	DRIVEWAY
0010	483+43	-	484+54	RT	---	218	WESTBROOK DR
0010	483+59	-	484+47	LT	---	193	CHERRY ST
0010	484+16	-	484+94	RT	88	---	BIKE PATH
0010	484+20	-	484+43	LT	7	---	CURB & GUTTER, CURB RAMPS
0010	487+96	-	488+04	LT	3	---	CURB & GUTTER, CURB RAMPS
0010	487+79	-	488+64	LT	---	161	OAK ST
0010	488+39	-	488+76	LT	10	---	CURB & GUTTER, CURB RAMPS
0010	488+48	-	488+73	RT	23	---	BIKE PATH
0010	489+82	-	491+79	RT	168	---	CURB & GUTTER/ASPH LOT
0010	490+13	-	490+20	RT	7	---	BIKE PATH
0010	490+40	-	---	RT	155	---	DRIVEWAY
0010	491+34	-	491+66	LT	18	---	CURB & GUTTER, CURB RAMPS
0010	491+42	-	492+16	LT	---	222	CLOVER ST
0010	491+54	-	492+29	RT	---	120	CLOVER ST
0010	491+93	-	492+36	LT	14	---	CURB & GUTTER, CURB RAMPS
0010	492+03	-	492+34	RT	33	---	CURB & GUTTER/SIDEWALK
0010	493+46	-	495+01	LT	94	---	CURB & GUTTER/BUMPOUT
0010	493+60	-	---	LT	22	---	DRIVEWAY
0010	494+44	-	494+89	RT	51	---	CURB & GUTTER/BUMPOUT
0010	494+64	-	495+46	RT	---	344	MAIN ST
0010	494+86	-	495+61	LT	---	338	MAIN ST
0010	495+37	-	496+82	RT	34	---	CURB & GUTTER
0010	495+39	-	495+64	LT	9	---	CURB & GUTTER, CURB RAMPS
0010	496+69	-	---	RT	19	---	DRIVEWAY
0010	497+60	-	497+94	LT	17	---	CURB & GUTTER, CURB RAMPS
0010	497+71	-	498+06	RT	12	---	CURB & GUTTER, CURB RAMPS
0010	497+68	-	498+41	LT	---	120	CEDAR ST

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
0010	497+85	-	498+49	RT	---	103	CEDAR ST
0010	498+25	-	498+49	LT	11	---	CURB & GUTTER, CURB RAMPS
0010	498+29	-	468+66	RT	18	---	CURB & GUTTER, CURB RAMPS
0010	501+34	-	501+99	RT	---	99	WILLOW ST
0010	501+79	-	502+89	RT	27	---	CURB & GUTTER, CURB RAMPS
0010	502+13	-	502+76	LT	15	---	CURB & GUTTER
0010	504+10	-	543+49	STH 23	---	15,421	
0010	507+84	-	508+08	RT	6	---	CURB & GUTTER
0010	507+93	-	508+33	LT	12	---	CURB & GUTTER
0010	508+18	-	508+26	LT	13		BIKE PATH
0010	507+71	-	509+06	RT	---	332	KRAEMER DR
0010	507+93	-	509+27	LT	---	302	LEED PKWY
0010	525+65	-	526+35	LT	---	33	SANDSTONE LN
0010	545+22	-	754+90	STH 23	---	78,222	
0010	546+68	-	547+66	RT	---	225	WILLOW RD
0010	546+59	-	547+66	LT	---	230	CTH N
0010	552+17	-	---	RT	14	---	DRIVEWAY
0010	576+72	-	---	RT	58	---	DRIVEWAY
0010	604+38	-	605+17	LT	---	72	MAPLE LN
0010	624+02	-	---	LT	37	---	DRIVEWAY
0010	644+05	-	645+01	RT	---	179	LELAND RD
0010	661+14	-	662+00	LT	---	137	PEAK LN
0010	689+00	-	---	LT	15	---	DRIVEWAY
0010	690+55	-	---	RT	23	---	DRIVEWAY
0010	692+29	-	---	LT	18	---	DRIVEWAY
0010	703+80	-	705+07	RT	---	255	HICKORY RD
0010	704+47	-	705+76	LT	---	324	HICKORY RD
0010	729+92	-	730+89	LT	---	209	DAWN RD
0010	736+29	-	---	LT	18	---	DRIVEWAY
0010	738+36	-	---	LT	17	---	DRIVEWAY
0010	747+57	-	---	LT	33	---	DRIVEWAY
0010	748+80	-	749+83	RT	---	226	VALLEY VIEW RD
0010	771+00	-	776+51	STH 23	---	2,130	
0010	775+24	-	776+31	LT	---	227	CTH GG
				TOTAL 0010	1,270	239,328	
0020	490+13	-	491+38	LT	---	82	PARKING LANES
0020	492+34	-	494+23	RT	---	130	PARKING LANES
0020	492+35	-	494+02	LT	---	109	PARKING LANES
0020	496+22	-	497+85	RT	---	110	PARKING LANES
0020	495+75	-	497+60	LT	---	126	PARKING LANES
				TOTAL 0020	0	557	
				PROJECT TOTAL	1,270	239,885	

3

BUTT JOINTS

204.0115

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMARKS
0010	141+73	-	142+23	STH 23	257	BEGIN PROJECT
0010	153+73	-	154+10	LT	38	CTH G
0010	167+34	-	167+58	RT	26	JONES RD
0010	183+78	-	184+05	LT	26	SNYDER RD
0010	193+89	-	194+12	RT	25	TIMBERLINE RD
0010	247+26	-	247+59	RT	37	CTH WC
0010	259+99	-	260+23	LT	36	HORSESHOE RD
0010	289+58	-	289+88	LT	32	ROLLING RIDGE RD
0010	337+74	-	337+98	LT	26	PAULUS RD
0010	337+98	-	338+22	RT	30	PAULUS RD
0010	415+78	-	416+07	LT	30	OLD HWY 23
0010	458+22	-	458+49	RT	29	WEIDNER RD
0010	459+52	-	459+70	LT	24	OLD HWY 23
0010	465+91	-	466+16	LT	28	ST. LUKES AVE
0010	475+04	-	475+56	LT	12	MAPLE ST
0010	483+75	-	484+20	RT	10	WESTBROOK DR
0010	483+76	-	484+01	LT	7	CHERRY ST
0010	488+00	-	488+32	LT	8	OAK ST
0010	491+76	-	492+07	RT	8	CLOVER ST
0010	491+58	-	491+91	LT	7	CLOVER ST
0010	31+84'B'	-	31+86'B'	MAIN ST	11	MAIN ST
0010	30+11'B'	-	30+13'B'	MAIN ST	12	MAIN ST
0010	497+94	-	498+27	LT	8	CEDAR ST
0010	498+03	-	498+32	RT	7	CEDAR ST
0010	501+37	-	501+83	LT	10	WILLOW ST
0010	501+53	-	501+82	RT	7	WILLOW ST
0010	502+90	-	503+00	STH 23	53	B-56-151
0010	503+60	-	504+10	STH 23	234	B-56-151
0010	508+29	-	508+70	RT	43	KRAEMER DR
0010	508+33	-	508+68	LT	39	LEED PKWY
0010	525+72	-	526+27	LT	50	SANDSTONE LN
0010	543+49	-	544+18	STH 23	231	B-56-128
0010	544+51	-	545+22	STH 23	229	B-56-128
0010	547+04	-	547+35	LT	33	CTH N
0010	547+05	-	547+34	RT	32	WILLOW RD
0010	604+68	-	604+94	LT	25	MAPLE LN
0010	644+30	-	644+60	RT	32	LELAND RD
0010	661+42	-	661+62	LT	21	PEAK LN
0010	704+34	-	704+65	RT	32	HICKORY RD
0010	705+02	-	705+26	LT	27	HICKORY RD
0010	730+61	-	730+84	LT	24	DAWN RD
0010	749+19	-	749+44	RT	25	VALLEY VIEW RD
0010	775+59	-	775+89	LT	33	CTH GG
0010	776+51	-	777+01	STH 23	203	END PROJECT
				TOTAL 0010	2,117	

REMOVING CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF	REMARKS
0010	478+67		478+78	LT	---	10	
0010	484+23	-	484+44	LT	---	28	
0010	487+97	-	488+00	LT	---	11	
0010	488+43	-	488+76	LT	---	40	
0010	490+64	-	491+40	RT	---	97	
0010	491+34	-	491+62	LT	---	74	
0010	491+97	-	492+36	LT	---	55	
0010	492+18	-	492+34	RT	---	27	
0010	493+46	-	494+90	LT	---	199	
0010	494+44	-	494+84	RT	---	83	
0010	495+42	-	495+64	LT	---	33	
0010	495+41	-	496+82	RT	---	182	
0010	496+21	-	496+22	RT	9	---	GAS STATION DRIVEWAY CURB
0010	497+60	-	497+90	LT	---	52	
0010	497+71	-	498+02	RT	---	48	
0010	498+29	-	498+49	LT	---	30	
0010	498+31	-	498+66	RT	---	55	
0010	501+28	-	501+49	LT	---	54	
0010	501+83	-	502+89	RT	---	115	
0010	501+85	-	502+76	LT	---	107	
0010	507+84	-	508+08	RT	---	24	
0010	507+93	-	508+33	LT	---	47	
				TOTAL 0010	9	1,371	

REMOVING SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY
0010	484+20	-	484+41	LT	15
0010	487+89	-	487+99	LT	8
0010	490+64	-	491+42	RT	64
0010	491+45	-	491+60	LT	3
0010	492+03	-	492+12	LT	11
0010	492+19	-	492+37	RT	17
0010	493+70	-	494+89	LT	108
0010	494+47	-	494+76	RT	34
0010	495+44	-	495+68	LT	42
0010	497+60	-	497+89	LT	43
0010	496+74	-	496+79	RT	6
0010	497+71	-	497+91	RT	20
0010	498+31	-	498+51	LT	21
0010	498+35	-	498+66	RT	27
0010	501+15	-	501+42	LT	13
0010	501+84	-	502+27	RT	28
0010	502+46	-	502+51	RT	5
0010	508+17	-	508+26	LT	6
				TOTAL 0010	471

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010	216+36	-	224+79	LT	850
0010	228+47	-	235+68	LT	725
0010	240+83	-	247+27	RT	688
0010	242+86	-	247+86	LT	488
0010	261+69	-	274+46	LT	1,288
0010	278+25	-	282+08	LT	375
0010	288+80	-	291+21	RT	238
0010	321+81	-	327+06	LT	513
0010	332+20	-	337+88	RT	588
0010	357+11	-	368+28	RT	1,113
0010	357+45	-	362+31	LT	500
0010	456+93	-	459+39	LT	317
0010	458+64	-	462+26	RT	375
0010	502+38	-	502+82	LT	45
0010	502+57	-	502+89	RT	34
0010	503+68	-	504+51	LT	83
0010	503+75	-	504+58	RT	83
0010	526+96	-	534+87	LT	788
0010	528+32	-	534+35	RT	600
0010	543+12	-	544+07	LT	95
0010	543+39	-	544+07	RT	69
0010	544+63	-	545+94	LT	130
0010	544+62	-	545+31	RT	70
0010	551+08	-	559+88	LT	900
0010	565+46	-	575+88	RT	1,050
0010	729+18	-	730+96	RT	175
0010	730+68	-	731+75	LT	113
				TOTAL 0010	12,289

REMOVING BASES

CATEGORY	STATION	LOCATION	204.0195 REMOVING CONCRETE BASES EACH	SPV.0060.06 REMOVE AND SALVAGE STREET LIGHT) EACH
0010	494+79	37' LT	1	1
0010	497+92	33' RT	1	1
		TOTAL 0010	2	2

REMOVING INLETS

CATEGORY	STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.9060.S.01 REMOVING (01. INLET COVERS) EACH
0010	478+73	23.4' LT	---	1	---
0010	484+26	34.1' LT	1	1	---
0010	488+71	22.9' LT	---	1	---
0010	491+41	25.4' LT	---	1	---
0010	493+45	26.3' LT	---	---	1
0010	494+90	46.9' LT	---	---	1
0010	502+72	21.3' LT	---	---	1
0010	502+72	21' RT	---	---	1
		TOTAL 0010	1	4	4

REMOVING STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	204.0245.01 REMOVING STORM SEWER (SIZE) (01. 12-INCH) LF	204.0245.02 REMOVING STORM SEWER (SIZE) (02. 15-INCH) LF	204.0245.03 REMOVING STORM SEWER (SIZE) (03. 18-INCH) LF	204.0245.04 REMOVING STORM SEWER (SIZE) (04. 24-INCH) LF
0010	478+73	-	---	23.4' LT	---	---	4	---
0010	484+23	-	484+26	34.1' LT	---	---	4	---
0010	488+67	-	488+71	22.9' LT	4	---	---	---
0010	491+41	-	491+45	24.9' LT	4	---	---	---
0010	491+38	-	491+41	24.9' LT	---	4	---	---
0010	491+41	-	491+44	24.9' LT	---	---	4	---
				TOTAL 0010	8	4	12	0
0040	478+73	-	---	ACROSS STH 23	---	---	---	53
0040	484+25	-	484+36	ACROSS STH 23	---	---	---	109
0040	488+71	-	488+75	ACROSS STH 23	---	---	65	---
				TOTAL 0040	0	0	65	162
				PROJECT TOTAL	8	4	77	162

REMOVING RETAINING WALL & HEADER

CATEGORY	STATION	TO	STATION	LOCATION	204.9180.S.01 REMOVING (01. CONCRETE RETAINING WALL AND HEADER) SY
0010	575+30	-	575+40	RT	13
				TOTAL 0010	13

PREPARE FOUNDATION FOR CIR BASE LAYER

CATEGORY	STATION	TO	STATION	LOCATION	211.0700.S.01 PREPARE FOUNDATION FOR CIR BASE LAYER (PROJECT) (01. 5080-02-74) EACH	REMARKS
0010	---	-	---	PROJECT 5080-02-74	1	
0010	142+73	-	474+88	STH 23	---	FOR INFORMATION ONLY
0010	504+60	-	542+99	STH 23	---	FOR INFORMATION ONLY
0010	545+72	-	754+90	STH 23	---	FOR INFORMATION ONLY
0010	771+00	-	776+01	STH 23	---	FOR INFORMATION ONLY
				TOTAL 0010	1	

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.30	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
DIVISION 01											
STH 23 - GUARDRAIL SECTION #1	215+32.20/236+81.92		1,414	0	1,414	33	43	1,371	1,371	0	
DIVISION 01 SUBTOTAL			1,414	0	1,414	33	43	1,371	1,371	0	
DIVISION 02											
STH 23 - GUARDRAIL SECTION #2	240+00.33/248+77.85		109	0	109	3,780	4,914	-4,805	0	4,805	
DIVISION 02 SUBTOTAL			109	0	109	3,780	4,914	-4,805	0	4,805	
DIVISION 03											
STH 23 - GUARDRAIL SECTION #3	260+36.16/283+13.98		444	0	444	337	438	6	6	0	
DIVISION 03 SUBTOTAL			444	0	444	337	438	6	6	0	
DIVISION 04											
STH 23 - GUARDRAIL SECTION #4	287+76.90/292+27.53		247	0	247	125	163	85	85	0	
DIVISION 04 SUBTOTAL			247	0	247	125	163	85	85	0	
DIVISION 05											
STH 23 - GUARDRAIL SECTION #5	320+24.94/328+14.45		404	0	404	182	237	167	167	0	
DIVISION 05 SUBTOTAL			404	0	404	182	237	167	167	0	
DIVISION 06											
STH 23 - GUARDRAIL SECTION #6	331+23.84/337+92.11		388	0	388	45	59	330	330	0	
DIVISION 06 SUBTOTAL			388	0	388	45	59	330	330	0	
DIVISION 07											
STH 23 - GUARDRAIL SECTION #7	356+30.99/369+36.28		1,263	0	1,263	373	485	778	778	0	
DIVISION 07 SUBTOTAL			1,263	0	1,263	373	485	778	778	0	
DIVISION 08											
STH 23 - GUARDRAIL SECTION #8	455+67.19/463+50.47		90	0	90	188	244	-154	0	154	
DIVISION 08 SUBTOTAL			90	0	90	188	244	-154	0	154	
DIVISION 09											
STH 23 - WILLOW ST TO B-56-151	502+13.24/502+89.17		65	0	65	33	43	22	22	0	
WILLOW ST	70+71.00/71+19.60		311	0	311	8	10	301	301	0	
STH 23 - GUARDRAIL SECTION #10	503+68.33/505+89.95		53	0	53	273	355	-302	0	302	
DIVISION 09 SUBTOTAL			429	0	429	314	408	21	323	302	
DIVISION 10											
STH 23 - GUARDRAIL SECTION #11	526+30.95/536+08.63		123	0	123	362	471	-348	0	348	
DIVISION 10 SUBTOTAL			123	0	123	362	471	-348	0	348	
DIVISION 11											
STH 23 - GUARDRAIL SECTION #12	541+98.28/544+07.34		31	0	31	49	64	-33	0	33	
STH 23 - GUARDRAIL SECTION #13	544+62.52/546+70.75		39	0	39	28	36	3	3	0	
DIVISION 11 SUBTOTAL			70	0	70	77	100	-30	3	33	
DIVISION 12											
STH 23 - GUARDRAIL SECTION #14	550+30.07/561+55.90		321	0	321	183	238	83	83	0	
DIVISION 12 SUBTOTAL			321	0	321	183	238	83	83	0	
DIVISION 13											
STH 23 - GUARDRAIL SECTION #15	564+26.25/577+06.85		765	0	765	242	315	450	450	0	
DIVISION 13 SUBTOTAL			765	0	765	242	315	450	450	0	
DIVISION 14											
STH 23 - DAWN RD CULVERTS	729+00.00/732+00.00		2,459	0	2,459	119	155	2,304	2,304	0	
DIVISION 14 SUBTOTAL			2,459	0	2,459	119	155	2,304	2,304	0	
GRAND TOTAL			8,526	0	8,526	6,360	8,268	258	5,900	5,642	
TOTAL COMMON EXC			8,526								

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT

(13) EXPANDED FILL FACTOR = 1.30

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

					BASE ITEMS				
					* 305.0110 BASE AGGREGATE DENSE 3/4-INCH	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	311.0110 BREAKER RUN	* 624.0100 WATER	
CATEGORY	STATION	TO	STATION	LOCATION	TON	TON	TON	MGAL	REMARKS
0010	729+78	-	731+52	STH 23	74	1066	---	17.1	DOUBLE PIPES PRIOR TO CIR
0010	484+16	-	508+50	LT & RT	---	60	---	0.9	TEMP PED ACCESS
0010	484+16	-	484+70	RT	---	13	---	0.2	BIKE PATH
0010	488+48	-	488+72	RT	---	8	---	0.2	BIKE PATH
0010	478+67	-	478+78	LT	---	10	---	0.2	CURB & GUTTER REPLACEMENT & PIPE
0010	484+21	-	484+44	LT	---	22	---	0.4	CURB & GUTTER REPLACEMENT & PIPE
0010	487+97	-	488+00	LT	---	3	---	0.1	CURB & GUTTER REPLACEMENT
0010	488+43	-	488+76	LT	---	15	---	0.3	CURB & GUTTER REPLACEMENT & PIPE
0010	489+82	-	491+74	RT	---	40	---	0.6	CURB & GUTTER REPLACEMENT
0010	491+39		491+47	LT & RT	---	12	---	0.2	PIPE
0010	491+34	-	491+62	LT	---	14	---	0.3	CURB & GUTTER REPLACEMENT
0010	491+97	-	492+36	LT	---	11	---	0.2	CURB & GUTTER REPLACEMENT
0010	492+09	-	492+34	RT	---	8	---	0.2	CURB & GUTTER REPLACEMENT
0010	493+46	-	495+00	LT	---	39	---	0.6	CURB & GUTTER REPLACEMENT
0010	494+44	-	494+84	RT	---	17	---	0.3	CURB & GUTTER REPLACEMENT
0010	495+42	-	495+64	LT	---	7	---	0.2	CURB & GUTTER REPLACEMENT
0010	495+41	-	496+82	RT	---	28	---	0.5	CURB & GUTTER REPLACEMENT
0010	495+46	-	495+78	RT	---	7	---	0.2	CURB & GUTTER REPLACEMENT
0010	496+22	-	496+23	RT	---	2	---	0.1	CURB & GUTTER REPLACEMENT
0010	497+60	-	497+90	LT	---	10	---	0.2	CURB & GUTTER REPLACEMENT
0010	497+71	-	498+02	RT	---	9	---	0.2	CURB & GUTTER REPLACEMENT
0010	498+28	-	498+49	LT	---	6	---	0.1	CURB & GUTTER REPLACEMENT
0010	498+34	-	498+66	RT	---	11	---	0.2	CURB & GUTTER REPLACEMENT
0010	501+28	-	501+49	LT	---	10	---	0.2	CURB & GUTTER REPLACEMENT
0010	501+83	-	502+89	RT	---	22	---	0.4	CURB & GUTTER REPLACEMENT
0010	501+83	-	502+76	LT	---	18	---	0.3	CURB & GUTTER REPLACEMENT
0010	501+29	-	502+13	LT	1	209	236	3.2	WILLOW ST
0010	507+84	-	508+08	RT	---	5	---	0.1	CURB & GUTTER REPLACEMENT
0010	507+93	-	508+33	LT	---	9	---	0.2	CURB & GUTTER REPLACEMENT
0010	141+73	-	214+95	LT	285	---	---	4.3	SHOULDER
0010	214+95	-	236+82	LT	424	---	---	6.4	BEAM GUARD SHOULDER
0010	236+82	-	241+81	LT	20	---	---	0.3	SHOULDER
0010	241+81	-	248+91	LT	198	---	---	3.0	BEAM GUARD SHOULDER
0010	248+91	-	260+27	LT	45	---	---	0.7	SHOULDER
0010	260+27	-	275+58	LT	309	---	---	4.7	BEAM GUARD SHOULDER
0010	275+58	-	276+33	LT	3	---	---	0.1	SHOULDER
0010	276+33	-	283+29	LT	182	---	---	2.8	BEAM GUARD SHOULDER
0010	283+29	-	320+09	LT	144	---	---	2.2	SHOULDER
0010	320+09	-	328+40	LT	203	---	---	3.1	BEAM GUARD SHOULDER
0010	328+40	-	356+16	LT	108	---	---	1.7	SHOULDER
0010	356+16	-	362+28	LT	134	---	---	2.1	BEAM GUARD SHOULDER
0010	362+28	-	455+54	LT	363	---	---	5.5	SHOULDER
0010	455+54	-	459+64	LT	135	---	---	2.1	BEAM GUARD SHOULDER
0010	459+62	-	460+15	LT	5	---	---	0.1	SHOULDER
0010	462+78	-	475+07	LT	98	---	---	1.5	SHOULDER
0010	503+68	-	505+90	LT	100	---	---	1.5	BEAM GUARD SHOULDER
0010	505+90	-	525+40	LT	155	---	---	2.4	SHOULDER
0010	525+40	-	536+09	LT	220	---	---	3.3	BEAM GUARD SHOULDER
0010	536+09	-	541+98	LT	47	---	---	0.8	SHOULDER
0010	541+98	-	544+08	LT	74	---	---	1.2	BEAM GUARD SHOULDER
0010	544+62	-	546+71	LT	73	---	---	1.1	BEAM GUARD SHOULDER
0010	546+71	-	551+05	LT	35	---	---	0.6	SHOULDER
0010	551+05	-	561+56	LT	214	---	---	3.3	BEAM GUARD SHOULDER
0010	561+56	-	754+90	LT	1,534	---	---	23.1	SHOULDER
0010	771+00	-	777+01	LT	48	---	---	0.8	SHOULDER

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

					BASE ITEMS				
					* 305.0110 BASE AGGREGATE DENSE 3/4-INCH	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	311.0110 BREAKER RUN	* 624.0100 WATER	
CATEGORY	STATION	TO	STATION	LOCATION	TON	TON	TON	MGAL	REMARKS
0010	141+73	-	239+85	RT	382	---	---	5.8	SHOULDER
0010	239+85	-	247+29	RT	189	---	---	2.9	BEAM GUARD SHOULDER
0010	247+56	-	287+63	RT	156	---	---	2.4	SHOULDER
0010	287+63	-	292+42	RT	143	---	---	2.2	BEAM GUARD SHOULDER
0010	292+42	-	331+08	RT	151	---	---	2.3	SHOULDER
0010	331+08	-	338+03	RT	168	---	---	2.6	BEAM GUARD SHOULDER
0010	338+25	-	356+25	RT	70	---	---	1.1	SHOULDER
0010	356+25	-	369+48	RT	294	---	---	4.5	BEAM GUARD SHOULDER
0010	369+48	-	456+39	RT	338	---	---	5.1	SHOULDER
0010	456+39	-	458+51	RT	17	---	---	0.3	SHOULDER
0010	458+51	-	463+51	RT	147	---	---	2.3	BEAM GUARD SHOULDER
0010	463+51	-	475+56	RT	96	---	---	1.5	SHOULDER
0010	475+56	-	489+82	RT	45	---	---	0.7	SHOULDER
0010	503+75	-	505+86	RT	72	---	---	1.1	BEAM GUARD SHOULDER
0010	505+86	-	527+10	RT	169	---	---	2.6	SHOULDER
0010	527+10	-	536+01	RT	218	---	---	3.3	BEAM GUARD SHOULDER
0010	536+01	-	542+20	RT	50	---	---	0.8	SHOULDER
0010	542+20	-	544+08	RT	71	---	---	1.1	BEAM GUARD SHOULDER
0010	544+62	-	546+49	RT	66	---	---	1.0	BEAM GUARD SHOULDER
0010	546+49	-	564+26	RT	141	---	---	2.2	SHOULDER
0010	564+26	-	577+07	RT	299	---	---	4.5	BEAM GUARD SHOULDER
0010	577+07	-	754+90	RT	1,411	---	---	21.2	SHOULDER
0010	771+00	-	777+01	RT	48	---	---	0.8	SHOULDER
0010	UNDISTRIBUTED				998	339	24	21.1	LOW SHLDS
				TOTAL 0010	10,970	2,030	260	200.0	

*ADDITIONAL QUANTITY LISTED WITH DRIVEWAY AND SIDEWALK ITEMS

SHAPING SHOULDERS

CATEGORY	STATION	TO	STATION	LOCATION	305.0500 SHAPING SHOULDERS STA
0010	462+78	-	464+96	LT	3
0010	466+42	-	474+89	LT	9
0010	505+90	-	507+93	LT	3
0010	509+27	-	525+40	LT	17
0010	536+09	-	541+98	LT	6
0010	547+80	-	550+32	LT	3
0010	561+56	-	604+38	LT	43
0010	605+17	-	661+14	LT	56
0010	662+00	-	704+47	LT	43
0010	705+76	-	729+99	LT	25
0010	730+89	-	754+90	LT	25
0010	771+00	-	775+22	LT	5
0010	776+31	-	777+01	LT	1
0010	456+39	-	457+81	RT	2
0010	463+50	-	475+38	RT	12
0010	505+90	-	507+72	RT	2
0010	509+07	-	527+10	RT	19
0010	535+74	-	542+21	RT	7
0010	547+78	-	564+26	RT	17
0010	577+07	-	644+03	RT	67
0010	645+01	-	703+80	RT	59
0010	705+08	-	748+78	RT	44
0010	749+83	-	754+90	RT	6
0010	771+00	-	777+01	RT	7
				TOTAL 0010	481

CIR LAYER

CATEGORY	STATION	TO	STATION	LOCATION	211.0800.S BASE REPAIR FOR CIR LAYER CY	327.1000.S CIR ASPHALTIC BASE LAYER SY	455.0770.S ASPHALT STABILIZING AGENT TON
0010	142+73	-	474+88	TRAVEL LANES	222	88,575	350
0010	142+73	-	474+88	LT SHOULDER	47	18,669	74
0010	142+73	-	474+88	RT SHOULDER	47	18,570	74
0010	504+60	-	542+99	LT SHOULDER	7	2,676	11
0010	504+60	-	542+99	TRAVEL LANES	26	10,237	41
0010	504+60	-	542+99	RT SHOULDER	7	2,552	11
0010	545+72	-	754+90	LT SHOULDER	30	11,749	47
0010	545+72	-	754+90	RT SHOULDER	30	11,778	47
0010	545+72	-	754+90	TRAVEL LANES	140	55,761	221
0010	771+00	-	776+01	LT SHOULDER	1	296	2
0010	771+00	-	776+01	RT SHOULDER	1	284	2
0010	771+00	-	776+01	TRAVEL LANES	4	1,338	6
				TOTAL 0010	562	222,485	886

ASPHALTIC PAVEMENT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	UPPER OR LOWER LAYER	THICKNESS	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.6225 HMA PAVEMENT 5 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	141+73	-	474+88	STH 23	UPPER LAYER	1.25	6,315	---	8,841	---	CIR SECTION
0010	141+73	-	474+88	STH 23	LOWER LAYER	1.75	6,315	12,377	---	---	CIR SECTION
0010	474+88	-	503+00	STH 23	UPPER LAYER	1.25	589	---	825	---	MILL & OVERLAY
0010	474+88	-	503+00	STH 23	LOWER LAYER	2.75	825	1,814	---	---	MILL & OVERLAY
0010	503+60	-	544+17	STH 23	UPPER LAYER	1.25	817	---	1,144	---	CIR SECTION
0010	503+60	-	544+17	STH 23	LOWER LAYER	1.75	817	1,601	---	---	CIR SECTION
0010	544+72	-	754+90	STH 23	UPPER LAYER	1.25	3,987	---	5,582	---	CIR SECTION
0010	544+72	-	754+90	STH 23	LOWER LAYER	1.75	3,987	7,815	---	---	CIR SECTION
0010	771+00	-	777+01	STH 23	UPPER LAYER	1.25	117	---	163	---	CIR SECTION
0010	771+00	-	777+01	STH 23	LOWER LAYER	1.75	117	228	---	---	CIR SECTION
0010	152+72	-	155+67	LT	UPPER LAYER	1.25	21	---	30	---	CTH G
0010	152+72	-	155+67	LT	LOWER LAYER	1.75	30	41	---	---	CTH G
0010	166+70	-	168+21	RT	UPPER LAYER	1.25	19	---	27	---	JONES RD
0010	166+70	-	168+21	RT	LOWER LAYER	1.75	27	38	---	---	JONES RD
0010	183+26	-	184+53	LT	UPPER LAYER	1.25	7	---	9	---	SYNDER RD
0010	183+26	-	184+53	LT	LOWER LAYER	1.75	9	13	---	---	SYNDER RD
0010	193+59	-	194+37	RT	UPPER LAYER	1.25	6	---	9	---	TIMBERLINE RD
0010	193+59	-	194+37	RT	LOWER LAYER	1.75	9	12	---	---	TIMBERLINE RD
0010	246+86	-	248+17	RT	UPPER LAYER	1.25	15	---	21	---	CTH WC
0010	246+86	-	248+17	RT	LOWER LAYER	1.75	21	29	---	---	CTH WC
0010	259+96	-	260+36	LT	UPPER LAYER	1.25	20	---	28	---	HORSESHOE RD
0010	259+96	-	260+36	LT	LOWER LAYER	1.75	28	38	---	---	HORSESHOE RD
0010	289+33	-	290+38	LT	UPPER LAYER	1.25	11	---	15	---	ROLLING RIDGE RD
0010	289+33	-	290+38	LT	LOWER LAYER	1.75	15	20	---	---	ROLLING RIDGE RD
0010	337+45	-	338+66	LT	UPPER LAYER	1.25	12	---	16	---	PAULUS RD
0010	337+45	-	338+66	LT	LOWER LAYER	1.75	16	22	---	---	PAULUS RD
0010	337+32	-	338+54	RT	UPPER LAYER	1.25	15	---	20	---	PAULUS RD
0010	337+32	-	338+54	RT	LOWER LAYER	1.75	20	28	---	---	PAULUS RD
0010	415+37	-	416+53	LT	UPPER LAYER	1.25	12	---	17	---	OLD HWY 23
0010	415+37	-	416+53	LT	LOWER LAYER	1.75	17	24	---	---	OLD HWY 23
0010	457+77	-	459+03	RT	UPPER LAYER	1.25	17	---	24	---	WEIDNER RD
0010	457+77	-	459+03	RT	LOWER LAYER	1.75	24	34	---	---	WEIDNER RD
0010	459+41	-	461+43	LT	UPPER LAYER	1.25	24	---	33	---	OLD HWY 23
0010	459+41	-	461+43	LT	LOWER LAYER	1.75	33	46	---	---	OLD HWY 23
0010	464+96	-	466+42	LT	UPPER LAYER	1.25	19	---	27	---	ST. LUKE AVE
0010	464+96	-	466+42	LT	LOWER LAYER	2.75	27	58	---	---	ST. LUKE AVE
0010	474+91	-	475+71	LT	UPPER LAYER	1.25	8	---	11	---	MAPLE ST
0010	474+91	-	475+71	LT	LOWER LAYER	2.75	11	23	---	---	MAPLE ST
0010	483+43	-	484+54	RT	UPPER LAYER	1.25	12	---	17	---	WESTBROOK DR
0010	483+43	-	484+54	RT	LOWER LAYER	2.75	17	37	---	---	WESTBROOK DR
0010	483+59	-	484+47	LT	UPPER LAYER	1.25	10	---	14	---	CHERRY ST
0010	483+59	-	484+47	LT	LOWER LAYER	2.75	14	31	---	---	CHERRY ST
0010	487+79	-	488+65	LT	UPPER LAYER	1.25	9	---	12	---	OAK ST
0010	487+79	-	488+65	LT	LOWER LAYER	2.75	12	26	---	---	OAK ST
0010	491+42	-	492+19	LT	UPPER LAYER	1.25	12	---	16	---	CLOVER ST
0010	491+42	-	492+19	LT	LOWER LAYER	2.75	16	35	---	---	CLOVER ST
0010	491+54	-	492+29	RT	UPPER LAYER	1.25	7	---	9	---	CLOVER ST
0010	491+54	-	492+29	RT	LOWER LAYER	2.75	9	20	---	---	CLOVER ST
0010	494+64	-	495+45	RT	UPPER LAYER	1.25	18	---	25	---	MAIN ST
0010	494+64	-	495+45	RT	LOWER LAYER	2.75	25	55	---	---	MAIN ST
0010	494+76	-	495+61	LT	UPPER LAYER	1.25	18	---	25	---	MAIN ST
0010	494+76	-	495+61	LT	LOWER LAYER	2.75	25	54	---	---	MAIN ST
0010	497+68	-	498+41	LT	UPPER LAYER	1.25	7	---	10	---	CEDAR ST
0010	497+68	-	498+41	LT	LOWER LAYER	2.75	10	21	---	---	CEDAR ST
0010	497+92	-	498+49	RT	UPPER LAYER	1.25	6	---	8	---	CEDAR ST

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

ASPHALTIC PAVEMENT ITEMS

							455.0605	460.6224	460.6225	465.0105	
CATEGORY	STATION	TO	STATION	LOCATION	UPPER OR LOWER LAYER	THICKNESS	TACK COAT GAL	HMA PAVEMENT 4 MT 58-28 S TON	HMA PAVEMENT 5 MT 58-28 S TON	ASPHALTIC SURFACE TON	REMARKS
0010	497+92	-	498+49	RT	LOWER LAYER	2.75	8	17	---	---	CEDAR ST
0010	501+35	-	501+99	RT	UPPER LAYER	1.25	6	---	8	---	WILLOW ST
0010	501+35	-	501+99	RT	LOWER LAYER	2.75	8	17	---	---	WILLOW ST
0010	70+71'W'	-	71+20'W'	LT	UPPER LAYER	2.00	14	---	30	---	WILLOW ST
0010	70+71'W'	-	71+20'W'	LT	LOWER LAYER	3.00	19	44	---	---	WILLOW ST
0010	507+71	-	509+07	RT	UPPER LAYER	1.25	19	---	27	---	KRAEMER DR
0010	507+71	-	509+07	RT	LOWER LAYER	1.75	27	37	---	---	KRAEMER DR
0010	507+93	-	509+27	LT	UPPER LAYER	1.25	17	---	24	---	LEED PKWY
0010	507+93	-	509+27	LT	LOWER LAYER	1.75	24	34	---	---	LEED PKWY
0010	525+65	-	526+35	LT	UPPER LAYER	1.25	5	---	6	---	SANDSTONE LN
0010	525+65	-	526+35	LT	LOWER LAYER	1.75	6	8	---	---	SANDSTONE LN
0010	546+56	-	547+78	RT	UPPER LAYER	1.25	13	---	19	---	WILLOW RD
0010	546+56	-	547+78	RT	LOWER LAYER	1.75	19	26	---	---	WILLOW RD
0010	546+51	-	547+80	LT	UPPER LAYER	1.25	14	---	19	---	CTH N
0010	546+51	-	547+80	LT	LOWER LAYER	1.75	19	27	---	---	CTH N
0010	604+38	-	605+17	LT	UPPER LAYER	1.25	5	---	7	---	MAPLE LN
0010	604+38	-	605+17	LT	LOWER LAYER	1.75	7	10	---	---	MAPLE LN
0010	644+05	-	645+01	RT	UPPER LAYER	1.25	11	---	15	---	LELAND RD
0010	644+05	-	645+01	RT	LOWER LAYER	1.75	15	21	---	---	LELAND RD
0010	661+14	-	662+00	LT	UPPER LAYER	1.25	8	---	11	---	PEAK LN
0010	661+14	-	662+00	LT	LOWER LAYER	1.75	11	16	---	---	PEAK LN
0010	703+79	-	705+08	RT	UPPER LAYER	1.25	15	---	21	---	HICKORY RD
0010	703+79	-	705+08	RT	LOWER LAYER	1.75	21	29	---	---	HICKORY RD
0010	704+47	-	705+76	LT	UPPER LAYER	1.25	17	---	24	---	HICKORY RD
0010	704+47	-	705+76	LT	LOWER LAYER	1.75	24	34	---	---	HICKORY RD
0010	729+79	-	731+52	STH 23	ASPHALT PATCH	6.00	46	---	---	220	DOUBLE PIPES
0010	729+91	-	730+89	LT	UPPER LAYER	1.25	12	---	16	---	DAWN RD
0010	729+91	-	730+89	LT	LOWER LAYER	1.75	16	23	---	---	DAWN RD
0010	748+79	-	749+83	RT	UPPER LAYER	1.25	14	---	19	---	VALLEY VIEW RD
0010	748+79	-	749+83	RT	LOWER LAYER	1.75	19	27	---	---	VALLEY VIEW RD
0010	775+23	-	776+31	LT	UPPER LAYER	1.25	13	---	19	---	CTH GG
0010	775+23	-	776+31	LT	LOWER LAYER	1.75	19	26	---	---	CTH GG
0010	478+67	-	478+78	LT	UPPER LAYER	2.00	1	---	---	1	CURB & GUTTER
0010	478+67	-	478+78	LT	LOWER LAYER	3.00	---	---	---	1	CURB & GUTTER
0010	484+17	-	484+95	RT	SINGLE LAYER	4.00	---	---	---	15	BIKE PATH
0010	484+19	-	484+43	LT	UPPER LAYER	2.00	1	---	---	1	CURB & GUTTER
0010	484+19	-	484+43	LT	LOWER LAYER	3.00	---	---	---	2	CURB & GUTTER
0010	488+47	-	488+73	RT	SINGLE LAYER	4.00	---	---	---	10	BIKE PATH
0010	487+98	-	488+04	LT	UPPER LAYER	2.00	1	---	---	1	CURB & GUTTER
0010	487+98	-	488+04	LT	LOWER LAYER	3.00	---	---	---	1	CURB & GUTTER
0010	488+39	-	488+76	LT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	488+39	-	488+76	LT	LOWER LAYER	3.00	---	---	---	2	CURB & GUTTER
0010	489+82	-	491+79	RT	UPPER LAYER	2.00	3	---	---	6	CURB & GUTTER
0010	489+82	-	491+79	RT	LOWER LAYER	3.00	---	---	---	8	CURB & GUTTER
0010	491+34	-	491+66	LT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	491+34	-	491+66	LT	LOWER LAYER	3.00	---	---	---	3	CURB & GUTTER
0010	491+92	-	492+36	LT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	491+92	-	492+36	LT	LOWER LAYER	3.00	---	---	---	3	CURB & GUTTER
0010	492+03	-	492+34	RT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	492+03	-	492+34	RT	LOWER LAYER	3.00	---	---	---	3	CURB & GUTTER
0010	493+46	-	495+01	LT	UPPER LAYER	2.00	3	---	---	6	CURB & GUTTER
0010	493+46	-	495+01	LT	LOWER LAYER	3.00	---	---	---	8	CURB & GUTTER
0010	494+44	-	494+88	RT	UPPER LAYER	2.00	2	---	---	3	CURB & GUTTER
0010	494+44	-	494+88	RT	LOWER LAYER	3.00	---	---	---	4	CURB & GUTTER
0010	495+37	-	496+82	RT	UPPER LAYER	2.00	2	---	---	4	CURB & GUTTER

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

ASPHALTIC PAVEMENT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	UPPER OR LOWER LAYER	THICKNESS	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.6225 HMA PAVEMENT 5 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	495+37	-	496+82	RT	LOWER LAYER	3.00	---	---	---	6	CURB & GUTTER
0010	495+39	-	495+64	LT	UPPER LAYER	2.00	1	---	---	1	CURB & GUTTER
0010	495+39	-	495+64	LT	LOWER LAYER	3.00	---	---	---	2	CURB & GUTTER
0010	497+60	-	497+94	LT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	497+60	-	497+94	LT	LOWER LAYER	3.00	---	---	---	3	CURB & GUTTER
0010	497+71	-	498+06	RT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	497+71	-	498+06	RT	LOWER LAYER	3.00	---	---	---	2	CURB & GUTTER
0010	498+25	-	498+49	LT	UPPER LAYER	2.00	1	---	---	1	CURB & GUTTER
0010	498+25	-	498+49	LT	LOWER LAYER	3.00	---	---	---	2	CURB & GUTTER
0010	498+29	-	498+66	RT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	498+29	-	498+66	RT	LOWER LAYER	3.00	---	---	---	3	CURB & GUTTER
0010	501+79	-	502+89	RT	UPPER LAYER	2.00	2	---	---	3	CURB & GUTTER
0010	501+79	-	502+89	RT	LOWER LAYER	3.00	---	---	---	5	CURB & GUTTER
0010	502+13	-	502+76	LT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	502+13	-	502+76	LT	LOWER LAYER	3.00	---	---	---	3	CURB & GUTTER
0010	478+69	-	478+75	STH 23	ASPHALT PATCH	6.00	2	---	---	8	STORM SEWER
0010	484+22	-	484+35	STH 23	ASPHALT PATCH	6.00	4	---	---	17	STORM SEWER
0010	488+68	-	488+76	STH 23	ASPHALT PATCH	6.00	2	---	---	7	STORM SEWER
0010	490+12	-	490+20	RT	UPPER LAYER	4.00	---	---	---	2	PATH
0010	507+84	-	508+08	RT	UPPER LAYER	2.00	1	---	---	1	CURB & GUTTER
0010	507+84	-	508+08	RT	LOWER LAYER	3.00	---	---	---	1	CURB & GUTTER
0010	507+93	-	508+33	LT	UPPER LAYER	2.00	1	---	---	2	CURB & GUTTER
0010	507+93	-	508+33	LT	LOWER LAYER	3.00	---	---	---	2	CURB & GUTTER
						TOTAL 0010	25,132	24,936	17,243	389	
0020	490+13	-	491+38	LT	UPPER LAYER	1.25	5	---	6	---	PARKING LANES
0020	490+13	-	491+38	LT	LOWER LAYER	2.75	6	13	---	---	PARKING LANES
0020	492+34	-	494+23	RT	UPPER LAYER	1.25	7	---	10	---	PARKING LANES
0020	492+34	-	494+23	RT	LOWER LAYER	2.75	10	20	---	---	PARKING LANES
0020	492+35	-	494+01	LT	UPPER LAYER	1.25	6	---	8	---	PARKING LANES
0020	492+35	-	494+01	LT	LOWER LAYER	2.75	8	17	---	---	PARKING LANES
0020	495+74	-	497+60	LT	UPPER LAYER	1.25	7	---	9	---	PARKING LANES
0020	495+74	-	497+60	LT	LOWER LAYER	2.75	9	20	---	---	PARKING LANES
0020	496+22	-	497+85	RT	UPPER LAYER	1.25	6	---	8	---	PARKING LANES
0020	496+22	-	497+85	RT	LOWER LAYER	2.75	8	17	---	---	PARKING LANES
						TOTAL 0020	72	87	41	0	
						PROJECT TOTAL	25,204	25,023	17,284	389	

PERCENT WITHIN LIMITS (PWL) MIXTURE USE TABLE

							QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
LOCATION	STATION	MIXTURE USE:	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANE	141+73 - 456+39; 503+60 - 543+99; 544+72 - 754+90; 771+00 - 777+01	UPPER LAYER	4 MT 58-28 S	5 MT 58-28 S	11,010	1.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	141+73 - 456+39; 503+60 - 543+99; 544+72 - 754+90; 771+00 - 777+01	LOWER LAYER	CIR PAVEMENT	4 MT 58-28-S	15,410	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	456+39 - 503+00	UPPER LAYER	4 MT 58-28 S	5 MT 58-28 S	525	1.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	456+39 - 503+00	LOWER LAYER	EXISTING HMA SURFACE / EXISTING GRAVEL SURFACE	4 MT 58-28-S	1,155	2.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
VARYING SHOULDER WIDTH	141+73 - 456+39; 503+60 - 543+99; 544+72 - 754+90; 771+00 - 777+01	UPPER LAYER	4 MT 58-28 S	5 MT 58-28 S	4,738	1.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARYING SHOULDER WIDTH	141+73 - 456+39; 503+60 - 543+99; 544+72 - 754+90; 771+00 - 777+01	LOWER LAYER	CIR PAVEMENT	4 MT 58-28-S	6,623	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARYING SHOULDER WIDTH	456+39 - 503+00	UPPER LAYER	4 MT 58-28 S	5 MT 58-28 S	319	1.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARYING SHOULDER WIDTH	456+39 - 503+00	LOWER LAYER	EXISTING HMA SURFACE / EXISTING GRAVEL SURFACE	4 MT 58-28-S	675	2.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	RURAL SIDEROADS	UPPER LAYER	4 MT 58-28 S	5 MT 58-28 S	514	1.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	RURAL SIDEROADS	LOWER LAYER	EXISTING GRAVEL	4 MT 58-28-S	663	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	ST. LUKES AVE, MAPLE ST, WESTBROOK DR, CHERRY ST, OAK ST, CLOVER ST, MAIN ST, CEDAR ST	UPPER LAYER	4 MT 58-28 S	5 MT 58-28 S	174	1.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	ST. LUKES AVE, MAPLE ST, WESTBROOK DR, CHERRY ST, OAK ST, CLOVER ST, MAIN ST, CEDAR ST	LOWER LAYER	EXISTING HMA SURFACE / EXISTING GRAVEL SURFACE	4 MT 58-28-S	377	2.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	WILLOW ST. RECONST	UPPER LAYER	4 MT 58-28 S	5 MT 58-28 S	38	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	WILLOW ST. RECONST	LOWER LAYER	BASE AGGREGATE	4 MT 58-28-S	61	3"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS		PATH	BASE AGGREGATE	ASPHALTIC SURFACE	27	4" TOTAL	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS		C&G AREAS	BASE AGGREGATE	ASPHALTIC SURFACE	135	5" TOTAL	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS		CULVERT PATCHES	BASE AGGREGATE	ASPHALTIC SURFACE	252	6" TOTAL	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION

DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	602.0810 CONCRETE DRIVEWAY 6-INCH SY	* 624.0100 WATER MGAL	REMARKS
0010	142+23	RT	---	---	2	---	---	ASPH CE
0010	143+06	RT	2	---	---	---	0.1	BAD CE
0010	143+30	LT	---	---	3	---	---	ASPH CE
0010	148+93	RT	3	---	---	---	0.1	BAD CE
0010	162+07	RT	---	---	3	---	---	ASPH PE
0010	180+56	RT	---	---	5	---	---	ASPH CE
0010	184+23	RT	1	---	---	---	0.1	BAD FE
0010	186+07	RT	1	---	---	---	0.1	BAD FE
0010	204+90	LT	1	---	---	---	0.1	BAD FE
0010	212+41	RT	---	---	3	---	---	ASPH PE
0010	215+89	RT	2	---	---	---	0.1	BAD FE
0010	216+16	LT	2	---	---	---	0.1	BAD FE
0010	240+69	RT	2	---	---	---	0.1	BAD PE
0010	242+11	LT	1	---	---	---	0.1	BAD FE
0010	258+19	RT	1	---	---	---	0.1	BAD PE
0010	276+13	LT	2	---	---	---	0.1	BAD PE
0010	279+98	RT	1	---	---	---	0.1	BAD FE
0010	282+16	RT	2	---	---	---	0.1	BAD PE
0010	282+23	LT	1	---	---	---	0.1	BAD FE
0010	287+33	RT	1	---	---	---	0.1	BAD FE
0010	305+26	RT	1	---	---	---	0.1	BAD FE
0010	316+60	RT	2	---	---	---	0.1	BAD PE
0010	321+96	RT	2	---	---	---	0.1	BAD PE
0010	331+98	RT	2	---	---	---	0.1	BAD FE
0010	345+25	RT	1	---	---	---	0.1	BAD FE
0010	355+55	LT	---	---	2	---	---	ASPH PE
0010	355+58	RT	1	---	---	---	0.1	BAD FE
0010	356+94	RT	2	---	---	---	0.1	BAD PE
0010	362+39	LT	1	---	---	---	0.1	BAD PE
0010	362+65	LT	1	---	---	---	0.1	BAD FE
0010	368+95	RT	1	---	---	---	0.1	BAD FE
0010	377+34	LT	2	---	---	---	0.1	BAD PE
0010	378+69	RT	1	---	---	---	0.1	BAD FE
0010	385+95	LT	2	---	---	---	0.1	BAD PE
0010	388+02	LT	2	---	---	---	0.1	BAD PE
0010	398+18	LT	1	---	---	---	0.1	BAD FE
0010	400+24	LT	1	---	---	---	0.1	BAD FE
0010	400+42	RT	4	---	---	---	0.1	BAD PE
0010	403+38	RT	2	---	---	---	0.1	BAD PE
0010	421+77	LT	1	---	---	---	0.1	BAD FE
0010	425+25	RT	2	---	---	---	0.1	BAD FE
0010	441+48	LT	1	---	---	---	0.1	BAD FE
0010	441+93	RT	1	---	---	---	0.1	BAD FE
0010	470+33	LT	1	---	---	---	0.1	BAD FE
0010	479+03	LT	---	---	3	---	---	ASPH PE
0010	490+40	RT	---	43	---	129	0.7	CONC TYPE Y
0010	491+00	RT	---	---	6	---	---	ASP MATCH IN
0010	493+60	LT	---	---	3	---	---	ASP CE
0010	30+44	RT	---	11	---	32	0.2	CONC TYPE Y
0010	496+00	RT	---	25	---	73	0.4	CONC TYPE Y
0010	496+69	RT	---	5	1	14	0.1	CONC TYPE Y
0010	498+52	RT	---	2	1	6	0.1	CONC TYPE Y
0010	513+17	RT	2	---	---	---	0.1	BAD CE
0010	515+40	RT	2	---	---	---	0.1	BAD PE
0010	526+07	RT	1	---	---	---	0.1	BAD FE

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	602.0810 CONCRETE DRIVEWAY 6-INCH SY	* 624.0100 WATER MGAL	REMARKS
0010	537+04	RT	2	---	---	---	0.1	BAD PE
0010	542+47	LT	3	---	---	---	0.1	BAD FE
0010	543+32	RT	2	---	---	---	0.1	BAD FE
0010	545+44	RT	4	---	---	---	0.1	BAD FE
0010	546+10	LT	3	---	---	---	0.1	BAD FE
0010	550+95	LT	24	---	---	---	0.4	BAD PE
0010	551+32	RT	1	---	---	---	0.1	BAD FE
0010	552+17	RT	---	---	2	---	---	ASPH PE
0010	576+72	RT	---	---	8	---	---	ASPH PE
0010	577+18	LT	2	---	---	---	0.1	BAD PE
0010	589+06	LT	2	---	---	---	0.1	BAD PE
0010	589+08	RT	1	---	---	---	0.1	BAD FE
0010	603+51	LT	1	---	---	---	0.1	BAD PE
0010	604+57	RT	1	---	---	---	0.1	BAD FE
0010	624+02	LT	---	---	5	---	---	ASPH PE
0010	627+84	LT	1	---	---	---	0.1	BAD PE
0010	634+52	LT	1	---	---	---	0.1	BAD FE
0010	644+63	LT	4	---	---	---	0.1	BAD PE
0010	656+03	RT	1	---	---	---	0.1	BAD FE
0010	664+97	LT	2	---	---	---	0.1	BAD PE
0010	666+16	LT	3	---	---	---	0.1	BAD PE
0010	677+56	RT	1	---	---	---	0.1	BAD FE
0010	681+73	LT	2	---	---	---	0.1	BAD PE
0010	681+74	RT	1	---	---	---	0.1	BAD FE
0010	689+00	LT	---	---	2	---	---	ASPH PE
0010	690+55	RT	---	---	3	---	---	ASPH PE
0010	690+99	RT	1	---	---	---	0.1	BAD FE
0010	692+29	LT	---	---	2	---	---	ASPH PE
0010	699+20	RT	1	---	---	---	0.1	BAD FE
0010	700+49	LT	1	---	---	---	0.1	BAD PE
0010	702+36	LT	1	---	---	---	0.1	BAD PE
0010	719+00	LT	1	---	---	---	0.1	BAD FE
0010	731+50	RT	2	---	---	---	0.1	BAD FE
0010	733+01	LT	1	---	---	---	0.1	BAD FE
0010	736+29	LT	---	---	2	---	---	ASPH PE
0010	738+36	LT	---	---	2	---	---	ASPH PE
0010	747+57	LT	---	---	5	---	---	ASPH PE
0010	751+39	LT	1	---	---	---	0.1	BAD FE
0010	UNDISTRIBUTED	LT & RT	10	---	10	---	1.2	
		TOTAL 0010	144	86	75	254	10.0	

*ADDITIONAL QUANTITIES LISTED WITH BASE AND SIDEWALK ITEMS

FLUMES

CATEGORY	STATION	TO	STATION	LOCATION	465.0315 ASPHALTIC FLUMES SY
0010	501+84	-	502+02	LT	10
				TOTAL 0010	10

SHOULDER RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0520 ASPHALTIC RUMBLE STRIPS, SHOULDER LF
0010	143+80	-	147+55	RT	375
0010	143+80	-	151+74	LT	794
0010	149+75	-	161+54	RT	1,179
0010	156+47	-	182+35	LT	2,588
0010	162+51	-	165+70	RT	319
0010	168+72	-	179+29	RT	1,057
0010	181+35	-	192+60	RT	1,125
0010	185+23	-	258+46	LT	7,323
0010	194+87	-	211+91	RT	1,704
0010	212+86	-	240+37	RT	2,751
0010	241+16	-	245+85	RT	469
0010	248+67	-	257+82	RT	915
0010	258+62	-	281+59	RT	2,297
0010	261+35	-	275+68	LT	1,433
0010	276+57	-	288+89	LT	1,232
0010	282+66	-	316+20	RT	3,354
0010	291+38	-	336+95	LT	4,557
0010	317+13	-	321+55	RT	442
0010	322+42	-	336+31	RT	1,389
0010	339+04	-	399+56	RT	6,052
0010	339+32	-	355+16	LT	1,584
0010	355+98	-	376+84	LT	2,086
0010	377+81	-	385+57	LT	776
0010	386+39	-	387+63	LT	124
0010	388+46	-	414+87	LT	2,641
0010	401+07	-	402+92	RT	185
0010	403+94	-	456+76	RT	5,282
0010	417+55	-	458+91	LT	4,136
0010	460+66	-	473+57	RT	1,291
0010	462+43	-	464+46	LT	203
0010	467+42	-	473+57	LT	615
0010	504+10	-	505+67	LT	157
0010	510+55	-	511+88	RT	133
0010	512+91	-	525+15	LT	1,224
0010	513+91	-	514+94	RT	103
0010	515+78	-	536+48	RT	2,070
0010	527+35	-	543+74	LT	1,639
0010	537+62	-	543+74	RT	612
0010	544+97	-	545+62	LT	65
0010	544+97	-	545+57	RT	60
0010	548+66	-	550+46	LT	180
0010	548+28	-	551+74	RT	346
0010	551+54	-	576+66	LT	2,512
0010	552+55	-	575+79	RT	2,324
0010	576+77	-	642+98	RT	6,621
0010	577+61	-	588+53	LT	1,092
0010	589+58	-	603+10	LT	1,352
0010	606+17	-	623+43	LT	1,726
0010	624+71	-	627+49	LT	278
0010	628+20	-	643+97	LT	1,577
0010	645+48	-	660+64	LT	1,516
0010	645+51	-	690+04	RT	4,453
0010	663+00	-	664+46	LT	146
0010	666+70	-	681+28	LT	1,458
0010	682+14	-	688+56	LT	642

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

SHOULDER RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0520 ASPHALTIC RUMBLE STRIPS, SHOULDER LF
0010	689+39	-	691+83	LT	244
0010	691+10	-	702+80	RT	1,170
0010	692+72	-	700+15	LT	743
0010	700+82	-	701+97	LT	115
0010	702+79	-	703+97	LT	118
0010	705+58	-	747+80	RT	4,222
0010	706+75	-	729+41	LT	2,266
0010	731+87	-	735+89	LT	402
0010	736+77	-	737+98	LT	121
0010	738+83	-	747+07	LT	824
0010	748+06	-	754+90	LT	684
0010	750+33	-	754+90	RT	457
0010	771+00	-	774+22	LT	322
0010	771+00	-	777+01	RT	601
				TOTAL 0010	104,853

CENTERLINE RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	156+48	-	165+52	CENTERLINE	904
0010	169+52	-	179+56	CENTERLINE	1,004
0010	185+94	-	192+04	CENTERLINE	610
0010	196+04	-	245+56	CENTERLINE	4,952
0010	249+57	-	257+67	CENTERLINE	810
0010	261+67	-	287+73	CENTERLINE	2,606
0010	291+74	-	335+90	CENTERLINE	4,416
0010	339+97	-	413+86	CENTERLINE	7,389
0010	417+86	-	456+53	CENTERLINE	3,867
0010	462+53	-	463+75	CENTERLINE	122
0010	467+75	-	473+57	CENTERLINE	582
0010	504+10	-	506+50	CENTERLINE	240
0010	510+50	-	525+00	CENTERLINE	1,450
0010	527+00	-	543+74	CENTERLINE	1,674
0010	549+20	-	602+81	CENTERLINE	5,361
0010	606+82	-	642+51	CENTERLINE	3,569
0010	646+52	-	659+52	CENTERLINE	1,300
0010	663+53	-	702+53	CENTERLINE	3,900
0010	706+81	-	728+19	CENTERLINE	2,138
0010	732+19	-	747+33	CENTERLINE	1,514
0010	751+33	-	754+90	CENTERLINE	357
0010	771+00	-	773+75	CENTERLINE	275
				TOTAL 0010	49,040

RAILING

CATEGORY	STATION	TO	STATION	LOCATION	513.2001 RAILING PIPE LF
0010	493+70	-	494+68	LT	98
				TOTAL 0010	98

CULVERT PIPES

CATEGORY	STATION	LOCATION	504.0900 CONCRETE MASONRY ENDWALLS CY	522.0484 CULVERT PIPE REINFORCED CONCRETE CLASS IV 84-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	525.0124 CULVERT PIPE CORRUGATED ALUMINUM 24-INCH LF	525.0324 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 24-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	REMARKS
0010	575+33	RT	---	---	---	2	1	1	---	EXTENSION OF EXISTING CULVERT PIPE
0010	730+59	LT & RT	---	98	---	---	---	2	1	
0010	730+74	LT & RT	39	98	---	---	---	2	1	
		TOTAL 0010	39	196	0	2	1	5	2	
0040	484+35	66.4' RT	---	---	1	---	---	---	---	
		TOTAL 0040	0	0	1	0	0	0	0	
		PROJECT TOTAL	39	196	1	2	1	5	2	

CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	601.0105 CONCRETE CURB TYPE A LF	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	REMARKS
0010	478+67	-	478+78	LT	---	---	---	10	10	
0010	484+21	-	484+44	LT	---	---	---	28	28	
0010	487+97	-	488+00	LT	---	---	---	11	11	
0010	488+43	-	488+76	LT	---	---	---	40	40	
0010	489+82	-	491+74	RT	---	---	---	216	216	
0010	491+34	-	491+62	LT	---	---	---	74	74	
0010	491+97	-	492+36	LT	---	---	---	55	55	
0010	492+09	-	492+34	RT	---	---	---	38	38	
0010	493+46	-	495+00	LT	---	---	---	208	208	
0010	494+44	-	494+84	RT	---	---	---	91	91	
0010	495+42	-	495+64	LT	---	---	---	33	33	
0010	495+41	-	496+82	RT	---	---	---	149	149	
0010	495+46	-	495+78	RT	7	---	33	---	33	CURB TO CONCRETE
0010	495+68	-	496+21	RT	23	---	---	---	---	TO DRIVEWAY PAVEMENT
0010	496+22	-	496+23	RT	3	8	---	---	8	
0010	497+60	-	497+90	LT	---	---	---	53	53	
0010	497+71	-	498+02	RT	---	---	---	48	48	
0010	498+28	-	498+49	LT	---	---	---	31	31	
0010	498+34	-	498+66	RT	---	---	---	56	56	
0010	501+28	-	501+49	LT	---	---	---	54	54	
0010	501+83	-	502+89	RT	---	---	---	115	115	
0010	501+83	-	502+76	LT	---	---	---	93	93	
0010	507+84	-	508+08	RT	---	---	---	24	24	
0010	507+93	-	508+33	LT	---	---	---	47	47	
				TOTAL 0010	33	8	33	1,474	1,515	

SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF	* 624.0100 WATER MGAL	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	SPV.0165.01 SPECIAL (01. CONCRETE SIDEWALK SPECIAL) SF	FOR INFORMATION ONLY CUT CY	FOR INFORMATION ONLY FILL CY
0010	483+65	-	483+73	RT	1.4	---	60	---	16	---	0.1	1	---	1	3
0010	484+20	-	484+40	LT	4.4	---	208	---	16	---	0.1	1	---	21	0
0010	484+20	-	484+29	RT	1.2	---	52	---	---	19	0.1	1	---	15	3
0010	484+34	-	484+43	RT	1.2	---	54	---	---	20	0.1	1	---		
0010	488+57	-	488+66	RT	0.9	---	40	---	16	---	0.1	1	---	4	11
0010	487+90	-	487+99	LT	2.0	---	85	---	10	---	0.1	1	---	8	0
0010	488+42	-	488+67	LT	6.3	---	275	---	16	16	0.1	2	---	25	0
0010	491+42	-	491+61	LT	9.5	---	407	---	26	---	0.2	2	---	42	0
0010	490+63	-	491+46	RT	15.5	---	---	683	---	---	0.3	---	---	169	3
0010	491+46	-	491+74	RT	8.0	---	323	---	32	---	0.2	2	---		
0010	491+98	-	492+41	LT	7.1	---	305	---	26	---	0.2	2	---	32	0
0010	492+11	-	492+37	RT	4.9	---	241	---	16	18	0.1	2	---	25	1
0010	493+70	-	494+72	LT	14.0	---	---	---	---	---	0.3	---	757		
0010	494+72	-	494+97	LT	6.9	---	371	---	20	---	0.2	2	---	126	0
0010	30+11'B'	-	30+35'B'	RT	3.4	---	181	---	---	---	0.1	---	---		
0010	494+47	-	494+82	RT	8.5	---	347	---	20	---	0.2	2	---	57	0
0010	495+43	-	495+68	LT	6.9	---	374	---	20	---	0.2	2	---	23	0
0010	495+42	-	495+78	RT	4.3	---	234	---	18	---	0.1	2	---		
0010	496+22	-	496+62	RT	5.3	---	236	---	---	---	0.1	---	---	111	1
0010	496+74	-	496+79	RT	0.7	---	40	---	---	---	0.1	---	---		
0010	497+60	-	497+90	LT	8.5	---	418	---	20	---	0.2	2	---	33	0
0010	497+71	-	498+01	RT	5.4	13	243	---	20	---	0.1	2	---	28	0
0010	498+30	-	498+51	LT	3.6	24	171	---	20	---	0.1	2	---	21	---
0010	498+34	-	498+48	RT	4.1	28	221	---	10	15	0.1	2	---	37	0
0010	498+55	-	498+66	RT	1.1	---	53	---	---	---	0.1	---	---		
0010	501+15	-	501+42	LT	2.6	---	104	---	---	17	0.1	1	---	---	---
0010	501+90	-	502+27	RT	5.6	23	247	---	10	---	0.1	1	---	29	0
0010	501+97	-	502+20	LT	2.1	---	91	---	10	21	0.1	2	---	---	---
0010	507+88	-	507+99	RT	1.4	---	61	---	16	---	0.1	1	---	11	0
0010	508+11	-	508+25	LT	2.4	---	106	---	---	32	0.1	1	---	16	0
0010	UNDISTRIBUTED			---	---	---	---	---	---	---	5.9	---	---	---	---
				TOTAL 0010	149	88	5,548	683	358	158	10.0	38	757		

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

RIPRAP ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE TYPE HR SY	645.0130 GEOTEXTILE TYPE R SY
0010	218+50	-	223+50	LT	496	---	---	---	1,609
0010	233+00	-	234+00	LT	122	---	---	---	394
0010	260+25	-	264+50	LT	252	---	---	---	854
0010	278+50	-	279+50	LT	73	---	---	---	241
0010	290+00	-	291+50	RT	162	---	---	---	528
0010	324+50	-	326+50	LT	246	---	---	---	787
0010	333+00	-	337+00	RT	600	---	---	---	1,892
0010	357+23	-	357+85	LT	62	---	---	---	205
0010	358+18	-	367+50	RT	503	---	---	---	1,721
0010	359+00	-	361+98	LT	92	---	---	---	344
0010	501+99	-	502+14	LT	---	5	---	17	---
0010	551+50	-	557+50	LT	198	---	---	---	732
0010	572+50	-	575+50	RT	129	---	---	---	465
0010	575+36	-	575+36	RT	---	---	22	54	---
0010	729+98	-	730+59	RT	---	---	85	178	---
0010	730+78	-	731+76	LT	---	---	122	264	---
				TOTAL 0010	2,935	5	229	513	9,772

STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	SPV.0060.08 SPECIAL (08. CONNECT TO EXISTING STORM SEWER PIPE) EACH
0010	478+73	-	---	29.04' LT	---	---	4	---	---	1
0010	484+19	-	484+29	32.9' LT	---	---	4	---	---	1
0010	488+65	-	488+71	23.3' LT	4	---	---	---	---	1
0010	491+41	-	491+44	24.9' LT	---	---	4	---	---	1
0010	491+38	-	491+41	24.9' LT	---	4	---	---	---	1
0010	491+41	-	491+45	24.9' LT	4	---	---	---	---	1
0010	491+41	-	491+45	STH 23	---	---	---	---	44	---
0010	494+90	-	494+98	LT	8	---	---	---	---	---
				TOTAL 0010	16	4	12	0	44	6
0040	478+73	-	---	ACROSS STH 23	---	---	53	---	---	---
0040	478+73	-	---	29.5' RT	---	---	---	---	---	1
0040	484+26	-	484+35	ACROSS STH 23	---	---	---	109	---	---
0040	488+71	-	488+75	ACROSS STH 23	---	---	65	---	---	1
				TOTAL 0040	0	0	118	109	0	2
				PROJECT TOTAL	16	4	130	109	44	8

ADJUSTING INLETS

CATEGORY	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.01 SPECIAL (01. ADJUSTING WATER VALVES) EACH	SPV.0060.02 SPECIAL (02. ADJUSTING SANITARY MANHOLE COVERS) EACH	REMARKS
0010	475+50	LT	1	---	---	---	
0010	491+62	LT	---	1	---	---	
0010	493+20	RT	1	---	---	---	
0010	493+45	LT	---	1	---	---	
0010	494+70	LT	---	1	---	---	
0010	494+78	RT	1	---	---	---	
0010	495+32	RT	1	---	---	---	
0010	495+38	RT	1	---	---	---	
0010	495+43	LT	1	---	---	---	
0010	495+58	RT	---	1	---	---	
0010	495+67	RT	---	1	---	---	
0010	497+24	RT	1	---	---	---	
0010	498+28	LT	1	---	---	---	
0010	498+54	RT	---	1	---	---	
0010	501+98	RT	1	---	---	---	
		TOTAL 0010	9	6	0	0	
0030	475+29	LT	---	---	---	1	SANITARY
0030	495+30	LT	---	---	---	1	SANITARY
0030	496+43	LT	---	---	---	1	SANITARY
0030	497+05	RT	---	---	1	---	
0030	497+20	RT	---	---	1	---	
0030	497+48	LT	---	---	---	1	SANITARY
0030	498+24	RT	---	---	1	---	
0030	498+29	RT	---	---	1	---	
0030	498+32	LT	---	---	1	---	
0030	498+36	RT	---	---	1	---	
0030	501+47	LT	---	---	1	---	
0030	501+63	RT	---	---	1	---	
		TOTAL 0030	0	0	8	4	
		PROJECT TOTAL	9	6	8	4	

STORM SEWER STRUCTURES

CATEGORY	STATION	LOCATION	STRUCTURE	GRATE	STRUCTURE DEPTH	INVERT	611.0430 RECONSTRUCTING INLETS EACH	611.0624 INLET COVERS TYPE H EACH	611.0636 INLET COVERS TYPE HM-S EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.03 SPECIAL (03. COVER PLATES LEFT IN PLACE) EACH
0010	478+73	23.5' LT	CB#1*	806.09	4.19	800.90	---	1	---	1	---	---	---	1	---
0010	484+26	34.1' LT	CB#3*	804.75	4.08	799.67	---	1	---	---	1	---	---	1	---
0010	488+71	23.1' LT	CB#5*	802.32	2.38	798.94	---	1	---	1	---	---	---	1	---
0010	491+41	25.4' LT	2.3	800.63	3.88	795.50	---	1	---	---	---	1	---	1	---
0010	491+44	18.5' RT	2.6	802.20	---	795.95	---	1	---	---	---	---	1	1	---
0010	494+90	46.9' LT	1.2	---	---	---	---	---	---	---	---	---	---	---	1
0010	494+98	48.0' LT	1.3	802.04	2.4	798.68	---	---	1	---	---	---	---	1	---
0010	497+91	42.7' LT	3.0	811.80	---	---	1	---	---	---	---	---	---	---	---
0010	502+72	21.3' LT	7.1	810.09	---	---	---	---	1	---	---	---	---	---	---
0010	502+72	21.0' RT	7.2	809.93	---	---	---	---	1	---	---	---	---	---	---
		TOTAL 0010					1	5	3	2	1	1	1	6	1

* GRATE ELEVATION REFERENCES THE BACK OF CURB, NOT FLOW LINE ELEVATION

GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH
0010	216+36	-	216+89	LT	---	---	---	---	---	---	1	---
0010	216+89	-	235+22	LT	---	---	---	1,850	---	---	---	---
0010	235+22	-	235+76	LT	---	---	---	---	---	---	1	---
0010	241+02	-	241+55	RT	---	---	---	---	---	---	1	---
0010	241+55	-	246+84	RT	---	---	---	537.5	---	---	---	---
0010	246+84	-	247+29	RT	---	---	---	---	87	---	---	1
0010	242+86	-	243+40	LT	---	---	---	---	---	---	1	---
0010	243+40	-	247+33	LT	---	---	---	387.5	---	---	---	---
0010	247+33	-	247+87	LT	---	---	---	---	---	---	1	---
0010	261+69	-	262+22	LT	---	---	---	---	---	---	1	---
0010	262+22	-	273+98	LT	---	---	---	1,187.5	---	---	---	---
0010	273+98	-	274+51	LT	---	---	---	---	---	---	1	---
0010	277+49	-	278+03	LT	---	---	---	---	---	---	1	---
0010	278+03	-	281+57	LT	---	---	---	350	---	---	---	---
0010	281+57	-	282+11	LT	---	---	---	---	---	---	1	---
0010	288+80	-	289+33	RT	---	---	---	---	---	---	1	---
0010	289+33	-	290+71	RT	---	---	---	137.5	---	---	---	---
0010	290+71	-	291+24	RT	---	---	---	---	---	---	1	---
0010	321+30	-	321+84	LT	---	---	---	---	---	---	1	---
0010	321+84	-	326+53	LT	---	---	---	462.5	---	---	---	---
0010	326+53	-	327+07	LT	---	---	---	---	---	---	1	---
0010	332+27	-	332+80	RT	---	---	---	---	---	---	1	---
0010	332+80	-	337+31	RT	---	---	---	450	---	---	---	---
0010	337+31	-	337+98	RT	---	---	---	---	87.8	---	---	1
0010	357+34	-	357+88	LT	---	---	---	---	---	---	1	---
0010	357+88	-	361+98	LT	---	---	---	412.5	---	---	---	---
0010	361+98	-	362+29	LT	---	---	---	---	73.1	---	---	1
0010	357+44	-	357+97	RT	---	---	---	---	---	---	1	---
0010	357+97	-	367+78	RT	---	---	---	975	---	---	---	---
0010	367+78	-	368+32	RT	---	---	---	---	---	---	1	---
0010	456+88	-	457+41	LT	---	---	---	---	---	---	1	---
0010	457+41	-	459+41	LT	---	---	200	---	---	---	---	---
0010	459+41	-	459+29	LT	---	---	---	---	90.6	---	---	1
0010	458+51	-	459+04	RT	---	---	---	---	78.8	---	---	1
0010	459+04	-	461+79	RT	---	---	---	275	---	---	---	---
0010	461+79	-	462+32	RT	---	---	---	---	---	---	1	---
0010	503+66	-	504+58	LT	---	---	---	---	---	39.4	1	---
0010	503+73	-	504+65	RT	---	---	---	---	---	39.4	1	---
0010	526+59	-	527+12	LT	---	---	---	---	---	---	1	---
0010	527+12	-	534+37	LT	---	---	---	725	---	---	---	---
0010	534+37	-	534+90	LT	---	---	---	---	---	---	1	---
0010	528+29	-	528+82	RT	---	---	---	---	---	---	1	---
0010	528+82	-	534+32	RT	---	---	---	550	---	---	---	---
0010	534+32	-	534+85	RT	---	---	---	---	---	---	1	---
0010	543+17	-	543+70	LT	---	---	---	---	---	---	1	---
0010	543+70	-	544+10	LT	---	---	---	---	---	39.4	---	---
0010	543+39	-	543+89	RT	---	1	---	---	---	---	---	---
0010	543+89	-	544+10	RT	20.6	---	---	---	---	---	---	---
0010	544+60	-	544+80	RT	20.6	---	---	---	---	---	---	---
0010	544+80	-	545+30	RT	---	1	---	---	---	---	---	---
0010	544+60	-	544+99	LT	---	---	---	---	---	39.4	---	---
0010	544+99	-	545+49	LT	---	---	50	---	---	---	---	---
0010	545+49	-	546+03	LT	---	---	---	---	---	---	1	---
0010	551+09	-	551+29	LT	---	---	---	---	68.2	---	---	1
0010	551+29	-	559+84	LT	---	---	---	862.5	---	---	---	---
0010	559+84	-	560+37	LT	---	---	---	---	---	---	1	---
0010	565+43	-	565+95	RT	---	---	---	---	---	---	1	---
0010	565+95	-	575+35	RT	---	---	950	---	---	---	---	---
0010	575+35	-	575+88	RT	---	---	---	---	---	---	1	---
				TOTAL 0010	41.2	2	1,200.0	9,162.5	485.5	157.6	30	6

CRASH CUSHIONS

CATEGORY	STATION	LOCATION	614.0800 CRASH CUSHIONS PERMANENT EACH	REMARKS
0010	502+78	LT	1	B-56-151, TL-2
0010	502+85	RT	1	B-56-151, TL-2
		TOTAL 0010	2	

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.1104 EROSION BALES EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	141+73	-	215+00	LT	---	---	---	---	---	0.3	20.5	---	20.5	18
0010	141+73	-	235+00	RT	---	---	---	---	---	0.4	26.1	---	26.1	22
0010	235+00	-	239+62	RT	---	---	---	---	---	0.1	1.3	---	1.3	2
0010	215+00	-	218+50	LT	195	---	195	---	---	0.1	5.3	---	5.3	5
0010	223+50	-	233+00	LT	502	---	502	---	---	0.2	13.6	---	13.6	12
0010	234+00		237+50	LT	240	---	240	---	---	0.1	6.5	---	6.5	6
0010	237+50	-	241+65	LT	---	---	---	---	---	0.1	1.2	---	1.2	1
0010	239+62	-	247+25	RT	3,208	4	---	---	3,208	1.1	86.7	---	86.7	73
0010	247+25	-	287+50	RT	---	---	---	---	---	0.2	11.3	---	11.3	10
0010	241+65	-	249+00	LT	2,043	4	---	---	2,043	0.7	55.2	---	55.2	46
0010	249+00	-	260+25	LT	---	---	---	---	---	0.1	3.2	---	3.2	3
0010	264+50	-	275+72	LT	570	---	570	---	---	0.2	15.4	---	15.4	13
0010	275+72	-	276+00	LT	---	---	---	---	---	0.1	0.1	---	0.1	1
0010	276+30	-	278+50	LT	170	---	---	---	170	0.1	4.6	---	4.6	4
0010	279+50	-	283+25	LT	440	---	---	---	440	0.2	11.9	---	11.9	10
0010	283+25	-	320+00	LT	---	---	---	---	---	0.2	10.3	---	10.3	9
0010	287+50	-	290+00	RT	199	---	199	---	---	0.1	5.4	---	5.4	5
0010	291+50	-	292+50	RT	126	---	126	---	---	0.1	3.4	---	3.4	3
0010	292+50	-	331+00	RT	---	---	---	---	---	0.2	10.8	---	10.8	9
0010	320+00	-	324+50	LT	244	---	244	---	---	0.1	6.6	---	6.6	6
0010	326+50	-	328+25	LT	247	---	247	---	---	0.1	6.7	---	6.7	6
0010	328+25	-	356+25	LT	---	---	---	---	---	0.1	7.9	---	7.9	7
0010	331+00	-	333+00	RT	100	---	100	---	---	0.1	2.7	---	2.7	3
0010	337+00	-	338+00	RT	99	---	99	---	---	0.1	2.7	---	2.7	3
0010	338+25	-	356+25	RT	---	---	---	---	---	0.1	5.1	---	5.1	5
0010	356+25	-	357+25	LT	59	---	59	---	---	0.1	1.6	---	1.6	2
0010	357+84	-	359+00	LT	38	---	38	---	---	0.1	1.1	---	1.1	1
0010	362+00	-	362+25	LT	21	---	21	---	---	0.1	0.6	---	0.6	1
0010	362+60	-	455+45	LT	---	---	---	---	---	0.4	26.0	---	26.0	22
0010	356+25	-	358+15	RT	310	---	310	---	---	0.1	8.4	---	8.4	7
0010	367+50	-	369+75	RT	256	---	256	---	---	0.1	7.0	---	7.0	6
0010	369+75	-	458+25	RT	---	---	---	---	---	0.3	24.7	---	24.7	21
0010	455+45	-	459+55	LT	484	---	484	---	---	0.2	13.1	---	13.1	11
0010	462+78	-	475+05	LT	---	---	---	---	---	0.1	3.5	---	3.5	3
0010	458+50	-	463+75	RT	453	---	453	---	---	0.2	12.3	---	12.3	11
0010	463+75	-	489+82	RT	---	---	---	---	---	0.1	7.3	---	7.3	7
0010	483+54	-	483+77	RT	18	---	---	18	---	0.1	---	0.4	---	1
0010	484+15	-	484+94	RT	96	---	---	96	---	0.1	---	1.8	---	3
0010	484+18	-	484+45	LT	25	---	---	25	---	0.1	---	0.5	---	1
0010	487+87	-	488+00	LT	9	---	---	9	---	0.1	---	0.2	---	1
0010	488+37	-	488+70	LT	29	---	---	29	---	0.1	---	0.6	---	1
0010	488+47	-	488+74	RT	83	---	---	83	---	0.1	---	1.5	---	2
0010	489+80	-	490+20	RT	34	---	---	34	---	0.1	---	0.7	---	1
0010	490+62	-	491+52	RT	121	---	---	121	---	0.1	---	2.2	---	3
0010	491+34	-	491+62	LT	52	---	---	52	---	0.1	---	1.0	---	2
0010	491+97	-	492+43	LT	29	---	---	29	---	0.1	---	0.6	---	1
0010	492+10	-	492+39	RT	20	---	---	20	---	0.1	---	0.4	---	1
0010	493+44	-	493+48	LT	4	---	---	4	---	0.1	---	0.1	---	1
0010	494+44	-	494+93	RT	80	---	---	80	---	0.1	---	1.5	---	2
0010	496+22	-	496+62	RT	23	---	---	23	---	0.1	---	0.5	---	1
0010	497+60	-	497+86	LT	16	---	---	16	---	0.1	---	0.3	---	1
0010	497+86	-	498+03	RT	10	---	---	10	---	0.1	---	0.2	---	1
0010	498+29	-	498+53	LT	11	---	---	11	---	0.1	---	0.2	---	1
0010	498+33	-	498+67	RT	22	---	---	22	---	0.1	---	0.4	---	1
0010	501+13	-	501+50	LT	24	---	---	24	---	0.1	---	0.5	---	1

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.1104 EROSION BALES EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	501+82	-	502+90	RT	105	---	---	105	---	0.1	---	1.9	---	3
0010	501+83	-	502+84	LT	147	---	---	147	---	0.1	---	2.7	---	4
0010	503+68	-	505+90	LT	334	---	---	---	334	0.2	9.1	---	9.1	8
0010	503+75	-	506+07	RT	334	---	---	---	334	0.2	9.1	---	9.1	8
0010	506+07	-	507+83	RT	8	---	---	8	---	0.1	---	0.2	---	1
0010	505+90	-	507+93	LT	19	---	---	19	---	0.1	---	0.4	---	1
0010	509+07	-	526+95	RT	---	---	---	---	---	0.1	5.0	---	5.0	5
0010	509+26	-	526+26	LT	---	---	---	---	---	0.1	4.8	---	4.8	4
0010	526+26	-	536+50	LT	615	---	---	---	615	0.2	16.7	---	16.7	14
0010	536+50	-	541+58	LT	---	---	---	---	---	0.1	1.5	---	1.5	2
0010	527+05	-	536+00	RT	1,029	---	---	---	1,029	0.4	27.8	---	27.8	24
0010	536+00	-	542+09	RT	---	---	---	---	---	0.1	1.7	---	1.7	2
0010	541+58	-	544+10	LT	125	---	---	---	125	0.1	3.4	---	3.4	3
0010	542+09	-	544+10	RT	152	---	---	---	152	0.1	4.1	---	4.1	4
0010	544+54	-	546+68	RT	113	---	---	---	113	0.1	3.1	---	3.1	3
0010	547+40	-	563+95	RT	---	---	---	---	---	0.1	4.7	---	4.7	4
0010	544+57	-	546+75	LT	98	---	---	---	98	0.1	2.7	---	2.7	3
0010	547+50	-	551+00	LT	---	---	---	---	---	0.1	1.0	---	1.0	1
0010	551+00	-	551+50	LT	116	---	---	---	116	0.1	3.2	---	3.2	3
0010	557+50	-	561+84	LT	248	---	248	---	---	0.1	6.7	---	6.7	6
0010	561+84	-	730+44	LT	---	---	---	---	---	0.6	47.1	---	47.1	40
0010	563+95	-	572+50	RT	1,042	---	1,042	---	---	0.4	28.2	---	28.2	24
0010	575+50	-	577+34	RT	96	---	96	---	---	0.1	2.6	---	2.6	3
0010	577+34	-	728+97	RT	---	---	---	---	---	0.5	42.4	---	42.4	36
0010	728+97	-	731+75	RT	309	---	---	---	309	0.1	8.4	---	8.4	7
0010	731+75	-	754+90	RT	---	---	---	---	---	0.1	6.5	---	6.5	6
0010	730+73	-	732+15	LT	273	---	---	---	273	0.1	7.4	---	7.4	7
0010	732+15	-	754+90	LT	---	---	---	---	---	0.1	6.4	---	6.4	6
0010	771+00	-	777+01	LT	---	---	---	---	---	0.1	1.7	---	1.7	2
0010	771+00	-	777+01	RT	---	---	---	---	---	0.1	1.7	---	1.7	2
0010	UNDISTRIBUTED				3,969	2	1,383	247	2,340	3.5	171.8	4.7	171.8	159
				TOTAL 0010	19,842	10	6,912	1,232	11,699	17.2	858.9	23.5	858.9	795

INLET PROTECTION

CATEGORY	STATION	LOCATION	628.7015 INLET PROTECTION TYPE C EACH	REMARKS
0010	475+61	LT	1	MAPLE ST
0010	478+72	LT	1	STH 23
0010	483+65	LT	1	CHERRY ST
0010	483+77	LT	1	CHERRY ST
0010	484+26	LT	1	CHERRY ST
0010	487+86	LT	1	OAK ST
0010	487+99	LT	1	OAK ST
0010	488+71	LT	1	OAK ST
0010	491+31	LT	1	CLOVER ST
0010	491+41	LT	1	CLOVER ST
0010	491+45	RT	1	CLOVER ST
0010	491+62	LT	1	CLOVER ST
0010	493+20	LT	1	STH 23
0010	493+28	LT	1	STH 23
0010	493+36	LT	1	STH 23
0010	493+45	LT	1	STH 23
0010	494+28	RT	1	STH 23
0010	494+70	LT	1	STH 23
0010	30+54	RT	1	MAIN ST
0010	30+54	LT	1	MAIN ST
0010	495+58	RT	1	STH 23
0010	495+67	RT	1	STH 23
0010	495+66	LT	1	STH 23
0010	495+75	LT	1	STH 23
0010	497+90	LT	1	CEDAR ST
0010	498+29	LT	1	CEDAR ST
0010	498+53	LT	1	STH 23
0010	498+53	RT	1	STH 23
0010	501+25	LT	1	STH 23
0010	501+33	RT	1	STH 23
0010	501+52	RT	1	WILLOW ST
0010	501+82	RT	1	WILLOW ST
0010	502+72	LT	1	STH 23
0010	502+73	RT	1	STH 23
		TOTAL 0010	34	

MOBILIZATIONS EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	141+73	-	777+01	PROJECT	8	6
				TOTAL 0010	8	6

SILT FENCE

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
0010	214+95	-	242+12	LT	2,897	2,897
0010	234+82	-	240+65	RT	653	653
0010	240+74	-	247+23	RT	807	807
0010	242+22	-	249+12	LT	749	749
0010	260+23	-	275+80	LT	1,610	1,610
0010	276+21	-	283+41	LT	733	733
0010	287+37	-	292+56	RT	569	569
0010	319+91	-	328+41	LT	855	855
0010	332+25	-	338+07	RT	630	630
0010	356+10	-	362+29	LT	722	722
0010	357+05	-	368+79	RT	1,300	1,300
0010	369+07	-	369+69	RT	65	65
0010	455+27	-	459+44	LT	488	488
0010	458+44	-	463+84	RT	571	571
0010	503+52	-	507+37	LT	413	413
0010	503+64	-	506+24	RT	267	267
0010	526+31	-	536+53	LT	1,056	1,056
0010	526+81	-	536+16	RT	1,009	1,009
0010	541+50	-	544+12	LT	243	243
0010	542+05	-	544+13	RT	206	206
0010	544+52	-	546+74	RT	209	209
0010	544+54	-	546+77	LT	218	218
0010	551+13	-	561+78	LT	1,153	1,153
0010	563+90	-	576+18	RT	1,254	1,254
0010	728+97	-	731+71	RT	210	210
0010	731+29	-	732+20	LT	120	120
0010	UNDISTRIBUTED				4,752	4,752
				TOTAL 0010	23,759	23,759

PERMANENT SIGNS

CATEGORY	STATION	LOCATION	SIZE	NUMBER	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	REMARKS
0010	30+60'B'	RT	36"X36"	100A	7.46	---	R1-1
0010	30+60'B'	RT	36"X36"	100B	7.46	---	R1-1
0010	30+60'B'	RT	24"X12"	100C	---	2.00	W4-4P
0010	31+45'B'	LT	36"X36"	101	7.46	---	R1-1, OVERHEAD
0010	495+43	RT	36"X36"	102	7.46	---	R1-1
0010	495+43	RT	24"X12"	103	---	2.00	W4-4P
0010	31+45'B'	RT	24"X45"	104	---	7.50	J13-1
			24"X24"	---	---	---	M1-6
			21"X21"	---	---	---	M6-4
0010	31+45'B'	RT	24"X45"	105	---	7.50	J13-1
			24"X24"	---	---	---	M1-6
			21"X21"	---	---	---	M6-4
				TOTAL 0010	29.84	19.00	

MARKERS ROW

CATEGORY	STATION	POINT	LOCATION	633.5100 MARKERS ROW EACH
0010	551+15	204	77.00' LT	1
0010	551+15	205	50.74' LT	1
0010	729+75	308	50.89' RT	1
0010	729+95	307	62.00' RT	1
0010	730+60	306	62.00' RT	1
0010	730+80	305	50.73' RT	1
0010	731+22	301	75.41' LT	1
0010	731+75	302	49.41' LT	1
			TOTAL 0010	8

SIGNING

CATEGORY	STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-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	REMARKS
0010	224+75	LT	1	---	---	1	---	1	SCHOOL BUS STOP AHEAD
0010	240+96	RT	1	---	---	2	---	1	JUNCTION CTH WC
0010	246+20	LT	1	---	---	2	---	1	SOUTH STH 23
0010	246+70	RT	1	---	---	2	---	1	CTH WC RT
0010	247+53	LT	1	---	---	1	---	1	TWO-DIRECTION LARGE ARROW
0010	247+83	LT	1	---	---	2	---	1	CTH WC LT
0010	253+06	RT	---	---	---	---	2	1	CENTERLINE RUMBLE STRIPS - NEXT 4 MILES
0010	268+48	LT	1	---	---	1	---	1	SIDE ROAD (RIGHT ANGLE)
0010	331+78	RT	---	1	---	2	---	1	HILL SYMBOL (6% GRADE)
0010	357+60	RT	1	---	---	1	---	1	ADOPT-A-HIGHWAY
0010	456+70	LT	---	---	---	---	2	1	CENTERLINE RUMBLE STRIPS - NEXT 6 MILES
0010	458+78	RT	1	---	---	1	---	1	STOP (WEIDNER RD)
0010	459+49	LT	1	---	---	1	---	1	STOP (OLD HWY 23)
0010	484+27	RT	1	---	---	1	---	1	STOP (WESTBROOK DR)
0010	487+94	LT	1	---	---	1	---	1	STOP (OAK ST)
0010	492+24	RT	1	---	---	1	---	1	STOP (CLOVER ST)
0010	494+01	LT	---	1	---	2	---	1	SOUTH STH 23
0010	494+15	LT	1	---	---	1	---	1	NO PARKING ANYTIME
0010	494+48	RT	---	1	---	2	---	1	CTH B LT & RT
0010	494+78	LT	2	---	---	1	---	2	BUSINESS DISTRICT
0010	494+83	LT	---	1	---	2	---	1	CTH B LT & RT
0010	494+87	LT	---	---	---	---	1	1	STOP (CTH B)
0010	495+45	LT	---	---	---	---	1	1	STOP (CTH B)
0010	495+43	RT	---	---	1	1	---	1	STOP (CTH B)
0010	495+52	RT	---	1	---	2	---	1	STH 23 LT & RT
0010	497+85	LT	1	---	---	1	---	1	STOP (CEDAR ST)
0010	497+92	RT	1	---	---	1	---	---	NO U-TURN
0010	498+36	RT	1	---	---	1	---	1	STOP (CEDAR ST)
0010	501+43	LT	1	---	---	1	---	1	STOP (WILLOW ST)
0010	502+14	LT	2	---	---	2	---	2	TOURIST ORIENTED DIRECTIONAL SIGN
0010	504+10	RT	1	---	---	1	---	1	55 MPH
0010	504+10	LT	1	---	---	1	---	1	30 MPH
0010	504+62	RT	1	---	---	1	---	1	NO PASSING ZONE
0010	505+10	RT	1	---	---	1	---	1	ADOPT-A-HIGHWAY
0010	505+91	RT	1	---	---	2	---	1	STH 23 NORTH
0010	506+29	LT	1	---	---	1	---	1	NO PASSING ZONE
0010	511+25	RT	2	---	---	1	---	2	MILEAGE SIGN
0010	534+80	RT	1	---	---	1	---	1	NO PASSING ZONE
0010	545+81	LT	1	---	---	2	---	1	SOUTH STH 23
0010	557+64	LT	1	---	---	2	---	1	JUNCTION CTH N
0010	731+03	RT	1	---	---	1	---	1	NO PASSING ZONE
		TOTAL 0010	34	5	1	50	6	43	

TRAFFIC CONTROL SIGNS

CATEGORY	STATION	LOCATION	DAYS	TRAFFIC CONTROL SIGNS EACH	* 643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	NUMBER OF CYCLES	NUMBER OF SIGNS	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	REMARKS
0010	SIDEROADS	36 TOTAL	196	108	21,168	---	---	---	---	W20-3A, W20-3D, R11-4
0010	BRIDGE OUT ADVANCE WARNING SIGNS	CTH WC	159	1	159	---	---	---	---	R11-3B
0010	BRIDGE OUT ADVANCE WARNING SIGNS	CTH B	159	1	159	---	---	---	---	R11-3B
0010	BRIDGE OUT ADVANCE WARNING SIGNS	WILLOW RD	159	1	159	---	---	---	---	R11-3B
0010	MAINLINE CLOSURE AT DOUBLE PIPES	DAWN RD	14	3	42	---	---	---	---	R11-2, R11-2, R11-2B
0010	REASSURANCE SIGNS AT MAJOR INTERSEC	DETOUR - OVERVIEW	196	48	9,408	---	---	---	---	16 SETS
0010	CTH W	---	196	---	---	---	---	---	10	NO ACCESS TO PLAIN
0010	CTH W	---	196	1	196	---	---	---	---	R11-3
0010	WESTBOUND USH 14 FROM STH 23	DETOUR - DETAIL 1	196	5	980	7	1	7	---	
0010	EASTBOUND USH 14 FROM STH 23	DETOUR - DETAIL 1	196	10	1,960	---	---	---	---	
0010	NORTH ON STH 23 FROM USH 14	DETOUR - DETAIL 1	196	7	1,372	1	1	1	---	
0010	SOUTH ON STH 23 FROM USH 14	DETOUR - DETAIL 1	196	7	1,372	3	1	3	---	
0010	USH 14/STH 60	DETOUR - DETAIL 2	196	26	5,096	---	---	---	---	
0010	STH 133	DETOUR - DETAIL 2	196	7	1,372	---	---	---	---	
0010	USH 14 AT STH 130	DETOUR - DETAIL 3	196	33	6,468	---	---	---	---	
0010	STH 130 AT CTH JJ	DETOUR - DETAIL 4	196	58	11,368	---	---	---	---	
0010	STH 130/STH 154	DETOUR - DETAIL 5	196	44	8,624	---	---	---	---	
0010	STH 154/STH 23	DETOUR - DETAIL 6	196	16	3,136	4	1	4	10	NO ACCESS TO PLAIN
0010	CTH GG AT STH 23	DETOUR - DETAIL 7	196	8	1,568	1	1	1	---	
0010	240+50	---	196	---	---	---	---	---	16	TO ACCESS MOVE AND REINSTALL BALES
0010	504+63	---	146	1	146	---	---	---	---	W8-12
0010	505+85 - 517+10	---	146	5	730	---	---	---	---	R4-2, W8-12, R4-1**
0010	523+90 - 534+88	---	146	5	730	---	---	---	---	R4-2, W8-12, R4-1**
0010	541+94 - 553+26	---	146	9	1,314	---	---	---	---	R4-2, W8-12, R4-1**
0010	570+05 - 582+67	---	146	6	876	---	---	---	---	R4-2, W8-12, R4-1**
0010	671+35 - 682+61	---	146	6	876	---	---	---	---	R4-2, W8-12, R4-1**
0010	718+84 - 728+37	---	146	5	730	---	---	---	---	R4-2, W8-12, R4-1**
0010	731+00 - 739+47	---	146	5	730	---	---	---	---	R4-2, W8-12, R4-1**
0010	744+59 - 754+90	---	146	6	876	---	---	---	---	R4-2, W8-12, R4-1**
0010	771+00 - 777+01	---	146	5	730	---	---	---	---	R4-2, W8-12, R4-1**
0010	777+01	---	146	1	146	---	---	---	---	W8-12
			TOTAL 0010		82,491	16			36	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

** SEE SDD STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

TRAFFIC CONTROL

CATEGORY	STATION	LOCATION	DETOUR DURATION DAYS	TRAFFIC CONTROL DRUMS EACH	* 643.0300 TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	REMARKS
0010	141+73	STH 23 NORTHBOUND AT USH 14	7	---	---	---	---	---	---	1	7	
0010	777+01	STH 23 SOUTHBOUND AT CTH GG	7	---	---	---	---	---	---	1	7	
0010	SIDEROADS	OVERVIEW	196	---	---	36	7,056	72	14,112	---	---	36 INTERSECTIONS
0010	BRIDGE OUT WARNING SIGNS	CTH WC	159	---	---	1	159	---	---	---	---	
0010	BRIDGE OUT WARNING SIGNS	CTH B	159	---	---	1	159	---	---	---	---	
0010	BRIDGE OUT WARNING SIGNS	WILLOW RD	159	---	---	1	159	---	---	---	---	
0010	MAINLINE CLOSURE AT DOUBLE PIPES	---	14	---	---	12	168	16	224	---	---	DETAIL A
0010	CTH W & STH 23	---	196	---	---	2	392	4	784	---	---	
0010	GUARDRAIL REPLACEMENT	---	40	40	1,600	---	---	---	---	---	---	
0010	NORTH ON STH 23 FROM USH 14	DETOUR - DETAIL 1	196	---	---	7	1372	10	1960	---	---	
0010	STH 23	DETOUR - DETAIL 6	196	---	---	2	392	4	784	---	---	
0010	CTH GG AT STH 23	DETOUR - DETAIL 7	196	---	---	9	1,764	10	1,960	---	---	
0010	UNDISTRIBUTED	---	196	---	---	---	---	---	---	---	---	
			TOTAL 0010		1,600		11,621		19,824		14	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

PEDESTRIAN ACCESS ITEMS

CATEGORY	INTERSECTION EAST-WEST	/	NORTH-SOUTH	STAGE	DAYS	TRAFFIC CONTROL DRUMS EACH	* 643.0300 TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL SIGNS EACH	* 643.0900 TRAFFIC CONTROL SIGNS DAY	643.3350 TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH LF	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING SF	TEMPORARY PEDESTRIAN CURB RAMP EACH	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
0010	STAGE 1 OVERVIEW			1	18	---	---	4	72	---	---	---	---	---	---	---	---
0010	CHERRY ST & WESTBROOK DR	/	STH 23	1	18	31	558	2	36	74	422	---	422	1	18	16	140
0010	OAK ST	/	STH 23	1	18	31	558	4	72	66	596	80	596	2	36	16	131
0010	CLOVER ST	/	STH 23	1	18	40	720	4	72	166	214	---	214	1	18	24	535
0010	MAIN ST	/	STH 23	1	18	51	918	6	108	128	---	---	---	2	36	16	302
0010	CEDAR ST	/	STH 23	1	18	42	756	5	90	276	182	57	182	7	126	56	265
0010	WILLOW ST	/	STH 23	1	18	36	648	2	36	111	56	19	56	2	36	16	185
0010	LEED PKWY & KRAEMER DR	/	STH 23	1	18	18	324	1	18	---	---	---	---	---	---	---	20
0010	STAGE 2 OVERVIEW			2	8	---	---	4	32	---	---	---	---	---	---	---	---
0010	CLOVER ST	/	STH 23	2	8	19	152	6	48	249	---	---	---	---	---	16	168
0010	MAIN ST	/	STH 23	2	8	23	184	4	32	---	---	---	---	---	---	---	36
0010	CEDAR ST	/	STH 23	2	8	39	312	6	48	86	---	20	---	6	48	8	316
0010	UNDISTRIBUTED			---	13	30	390	4	52	116	147	18	147	2	26	16	210
			TOTAL 0010				5,520		716	1,272	1,617	194	1,617		344	184	2,308

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	*** 643.3165 TEMPORARY MARKING LINE PAINT 6-INCH LF	**** 643.3170 TEMPORARY MARKING LINE EPOXY 6-INCH LF	643.3770 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE II EACH	646.2020 MARKING LINE EPOXY 6-INCH LF	** 646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	646.4020 MARKING LINE EPOXY 10-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	646.6470 COLD WEATHER MARKING EPOXY 10-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8320 MARKING PARKING STALL EPOXY LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	REMARKS
0010	141+73	-	153+32	LT	---	---	---	---	1,160	---	---	---	---	---	---	---	WHITE, SOLID
0010	153+75	-	153+88	LT	---	---	---	---	---	---	13	---	---	---	---	---	WHITE
0010	141+73	-	145+00	CL	654	654	---	---	654	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	145+00	-	147+12	CL	229	229	---	---	265	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	147+12	-	209+61	CL	500	500	---	---	1,563	---	---	---	---	---	---	---	YELLOW, SKIPS
0010	141+81	-	166+70	RT	---	---	---	---	2,489	---	---	---	---	---	---	---	WHITE, SOLID
0010	154+30	-	155+68	LT	---	---	---	---	35	---	---	---	---	---	---	---	WHITE, SOLID & 3' SKIPS
0010	155+68	-	183+65	LT	---	---	---	---	2,797	---	---	---	---	---	---	---	WHITE, SOLID
0010	167+46	-	167+58	RT	---	---	---	---	---	---	13	---	---	---	---	---	WHITE
0010	168+21	-	193+60	RT	---	---	---	---	2,539	---	---	---	---	---	---	---	WHITE, SOLID
0010	183+81	-	183+93	LT	---	---	---	---	---	---	12	---	---	---	---	---	WHITE
0010	184+52	-	258+96	LT	---	---	---	---	7,444	---	---	---	---	---	---	---	WHITE, SOLID
0010	194+02	-	194+13	RT	---	---	---	---	---	---	11	---	---	---	---	---	WHITE
0010	194+36	-	246+84	RT	---	---	---	---	5,248	---	---	---	---	---	---	---	WHITE, SOLID
0010	209+61	-	220+78	CL	1,206	1,206	---	---	1,397	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	220+78	-	285+50	CL	12,944	12,944	---	---	12,944	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	247+51	-	247+62	RT	---	---	---	---	---	---	11	---	---	---	---	---	WHITE
0010	247+82	-	337+36	RT	---	---	---	---	8,954	---	---	---	---	---	---	---	WHITE, SOLID
0010	338+06	-	338+21	RT	---	---	---	---	---	---	15	---	---	---	---	---	WHITE, SOLID
0010	259+84	-	259+97	LT	---	---	---	---	---	---	15	---	---	---	---	---	WHITE, SOLID
0010	260+35	-	289+34	LT	---	---	---	---	2,899	---	---	---	---	---	---	---	WHITE, SOLID
0010	289+55	-	289+73	LT	---	---	---	---	---	---	18	---	---	---	---	---	WHITE, SOLID
0010	285+50	-	294+99	CL	1,025	1,025	---	---	1,187	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	290+38	-	337+45	LT	---	---	---	---	4,707	---	---	---	---	---	---	---	WHITE, SOLID
0010	294+99	-	296+17	CL	236	236	---	---	236	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	296+17	-	306+25	CL	1,089	1,089	---	---	1,260	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	306+25	-	341+75	CL	7,100	7,100	---	---	7,100	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	337+75	-	337+87	LT	---	---	---	---	---	---	12	---	---	---	---	---	WHITE
0010	338+54	-	457+76	RT	---	---	---	---	11,922	---	---	---	---	---	---	---	WHITE, SOLID
0010	338+65	-	415+37	LT	---	---	---	---	7,672	---	---	---	---	---	---	---	WHITE, SOLID
0010	341+75	-	351+94	CL	1,101	1,101	---	---	1,274	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	351+94	-	352+95	CL	202	202	---	---	202	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	352+95	-	363+03	CL	1,089	1,089	---	---	1,260	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	363+03	-	380+77	CL	3,548	3,548	---	---	3,548	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	380+77	-	391+52	CL	1,161	1,161	---	---	1,344	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	391+52	-	396+23	CL	38	38	---	---	118	---	---	---	---	---	---	---	YELLOW, SKIPS
0010	396+23	-	407+16	CL	1,180	1,180	---	---	1,367	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	407+16	-	413+20	CL	1,208	1,208	---	---	1,208	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	413+20	-	424+24	CL	1,192	1,192	---	---	1,380	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	416+55	-	459+40	LT	---	---	---	---	4,285	---	---	---	---	---	---	---	WHITE, SOLID
0010	424+24	-	481+16	CL	455	455	---	---	1,423	---	---	---	---	---	---	---	YELLOW, SKIPS
0010	459+03	-	483+38	RT	---	---	---	---	2,435	---	---	---	---	---	---	---	WHITE, SOLID
0010	460+76	-	464+96	LT	---	---	---	---	420	---	---	---	---	---	---	---	WHITE, SOLID
0010	466+41	-	474+89	LT	---	---	---	---	848	---	---	---	---	---	---	---	WHITE, SOLID
0010	481+16	-	484+33	CL	342	342	---	---	397	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	475+70	-	483+59	LT	---	---	---	---	789	---	---	---	---	---	---	---	WHITE, SOLID
0010	484+42	-	487+50	CL	333	333	---	---	385	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	484+34	-	---	LT & RT	---	---	---	---	---	---	---	---	---	52	---	---	WHITE
0010	484+41	-	---	LT & RT	---	---	---	---	---	---	---	---	---	42	---	---	WHITE
0010	484+11	-	484+34	RT	---	---	---	---	45	---	---	---	---	---	---	---	WHITE
0010	484+41	-	487+79	LT	---	---	---	---	338	---	---	---	---	---	---	---	WHITE
0010	484+42	-	488+58	RT	---	---	---	---	416	---	---	---	---	---	---	---	WHITE
0010	487+50	-	488+58	CL	216	216	---	---	216	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	488+66	-	491+49	CL	566	566	---	---	566	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	491+57	-	492+22	CL	130	130	---	---	130	---	---	---	---	---	---	---	DOUBLE YELLOW

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	*** 643.3165 TEMPORARY MARKING LINE PAINT 6-INCH LF	**** 643.3170 TEMPORARY MARKING LINE EPOXY 6-INCH LF	643.3770 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE II EACH	646.2020 MARKING LINE EPOXY 6-INCH LF	** 646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	646.4020 MARKING LINE EPOXY 10-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	646.6470 COLD WEATHER MARKING EPOXY 10-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8320 MARKING PARKING STALL EPOXY LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	REMARKS
0010	492+30	-	494+75	CL	490	490	---	---	490	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	494+81	-	495+48	CL	134	134	---	---	134	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	495+54	-	497+75	CL	442	442	---	---	442	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	497+82	-	498+35	CL	106	106	---	---	106	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	498+41	-	500+70	CL	458	458	---	---	458	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	500+70	-	502+14	CL	156	156	---	---	180	---	---	---	---	---	---	---	YELLOW, SKIPS (RT), SOLID (LT)
0010	502+20	-	503+00	CL	86	86	---	---	100	---	---	---	---	---	---	---	YELLOW, SKIPS (RT), SOLID (LT)
0010	503+00	-	503+60	CL	---	---	---	75	---	---	---	---	---	---	---	---	YELLOW, SKIPS (RT), SOLID (LT)
0010	503+60	-	504+63	CL	111	111	---	---	128	---	---	---	---	---	---	---	YELLOW, SKIPS (RT), SOLID (LT)
0010	488+00	-	488+47	LT	---	---	---	---	---	---	---	---	---	85	---	---	WHITE, SOLID
0010	488+57	-	---	LT & RT	---	---	---	---	---	---	---	---	---	39	---	---	WHITE, SOLID
0010	488+66	-	---	LT & RT	---	---	---	---	---	---	---	---	---	39	---	---	WHITE, SOLID
0010	488+66	-	491+50	RT	---	---	---	---	284	---	---	---	---	---	---	---	WHITE, SOLID
0010	488+66	-	491+47	LT	---	---	---	---	281	---	---	---	---	---	---	---	WHITE, SOLID
0010	491+49	-	---	LT & RT	---	---	---	---	---	---	---	---	---	42	---	---	WHITE, SOLID
0010	491+57	-	---	LT & RT	---	---	---	---	---	---	---	---	---	46	---	---	WHITE, SOLID
0010	491+60	-	492+00	LT	---	---	---	---	---	---	---	---	---	70	---	---	WHITE, SOLID
0010	491+73	-	492+14	RT	---	---	---	---	---	---	---	---	---	75	---	---	WHITE, SOLID
0010	492+22	-	---	LT & RT	---	---	---	---	---	---	---	---	---	49	---	---	WHITE, SOLID
0010	492+30	-	---	LT & RT	---	---	---	---	---	---	---	---	---	47	---	---	WHITE, SOLID
0010	492+30	-	494+72	RT	---	---	---	---	242	---	---	---	---	---	---	---	WHITE, SOLID
0010	492+30	-	494+77	LT	---	---	---	---	247	---	---	---	---	---	---	---	WHITE, SOLID
0010	494+75	-	---	LT & RT	---	---	---	---	---	---	---	---	---	49	---	---	WHITE, SOLID
0010	494+81	-	---	LT & RT	---	---	---	---	---	---	---	---	---	55	---	---	WHITE, SOLID
0010	494+82	-	495+43	RT	---	---	---	---	---	---	---	---	---	116	---	---	WHITE, SOLID
0010	494+95	-	495+45	LT	---	---	---	---	---	---	---	---	---	94	---	---	WHITE, SOLID
0010	30+09'B'	-	30+62'B'	CL	104	104	---	---	104	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	31+42'B'	-	33+07'B'	CL	88	88	---	---	330	---	---	---	---	---	---	245	DOUBLE YELLOW
0010	495+53	-	497+75	RT	---	---	---	---	222	---	---	---	---	---	---	---	WHITE, SOLID
0010	495+55	-	497+75	LT	---	---	---	---	220	---	---	---	---	---	---	---	WHITE, SOLID
0010	497+75	-	---	LT & RT	---	---	---	---	---	---	---	---	---	46	---	---	WHITE, SOLID
0010	497+82	-	---	LT & RT	---	---	---	---	---	---	---	---	---	49	---	---	WHITE, SOLID
0010	497+86	-	498+29	LT	---	---	---	---	---	---	---	---	---	80	---	---	WHITE, SOLID
0010	498+03	-	498+32	RT	---	---	---	---	---	---	---	---	---	56	---	---	WHITE, SOLID
0010	498+35	-	---	RT & LT	---	---	---	---	---	---	---	---	---	43	---	---	WHITE, SOLID
0010	498+41	-	---	RT & LT	---	---	---	---	---	---	---	---	---	35	---	---	WHITE, SOLID
0010	498+41	-	501+18	LT	---	---	---	---	277	---	---	---	---	---	---	---	WHITE, SOLID
0010	498+41	-	501+35	RT	---	---	---	---	294	---	---	---	---	---	---	---	WHITE, SOLID
0010	501+38	-	502+04	LT	---	---	---	---	---	---	---	---	---	113	---	---	WHITE, SOLID
0010	502+13	-	---	LT & RT	---	---	---	---	---	---	---	---	---	40	---	---	WHITE, SOLID
0010	502+20	-	---	LT & RT	---	---	---	---	---	---	---	---	---	40	---	---	WHITE, SOLID
0010	502+20	-	503+02	RT	---	---	---	---	82	---	---	---	---	---	---	---	WHITE, SOLID
0010	503+02	-	503+62	RT	---	---	---	60	---	---	---	---	---	---	---	---	WHITE, SOLID
0010	503+62	-	507+72	RT	---	---	---	---	410	---	---	---	---	---	---	---	WHITE, SOLID
0010	502+20	-	502+98	LT	---	---	---	---	78	---	---	---	---	---	---	---	WHITE, SOLID
0010	502+98	-	503+67	LT	---	---	---	69	---	---	---	---	---	---	---	---	WHITE, SOLID
0010	503+67	-	507+93	LT	---	---	---	---	426	---	---	---	---	---	---	---	WHITE, SOLID
0010	504+63	-	505+85	CL	---	---	3	---	31	---	---	---	---	---	---	---	YELLOW, SKIPS
0010	505+92	-	507+72	RT	---	---	---	---	---	180	---	---	---	---	---	---	WHITE, SOLID
0010	505+85	-	517+10	CL	---	---	24	---	1,407	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	509+27	-	543+99	LT	---	---	---	---	3,472	---	---	---	---	---	---	---	WHITE, SOLID
0010	543+99	-	544+72	LT	---	---	---	73	---	---	---	---	---	---	---	---	WHITE, SOLID
0010	544+72	-	546+51	LT	---	---	---	---	179	---	---	---	---	---	---	---	WHITE, SOLID
0010	509+07	-	543+99	RT	---	---	---	---	3,492	---	---	---	---	---	---	---	WHITE, SOLID
0010	543+99	-	544+72	RT	---	---	---	73	---	---	---	---	---	---	---	---	WHITE, SOLID

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	*** 643.3165 TEMPORARY MARKING LINE PAINT 6-INCH LF	**** 643.3170 TEMPORARY MARKING LINE EPOXY 6-INCH LF	643.3770 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE II EACH	646.2020 MARKING LINE EPOXY 6-INCH LF	** 646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	646.4020 MARKING LINE EPOXY 10-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	646.6470 COLD WEATHER MARKING EPOXY 10-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8320 MARKING PARKING STALL EPOXY LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	REMARKS
0010	544+72	-	546+57	RT	---	---	---	---	185	---	---	---	---	---	---	---	WHITE, SOLID
0010	509+26	-	511+36	LT	---	---	---	---	---	210	---	---	---	---	---	---	WHITE, SOLID
0010	517+10	-	523+90	CL	---	---	15	---	1,360	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	523+90	-	534+88	CL	---	---	23	---	1,373	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	534+88	-	541+94	CL	---	---	15	---	177	---	---	---	---	---	---	---	YELLOW, SKIPS
0010	541+94	-	543+99	CL	---	---	5	---	257	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	543+99	-	544+72	CL	---	---	---	91	---	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	544+72	-	553+26	CL	---	---	18	---	1,068	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	547+78	-	643+99	RT	---	---	---	---	9,621	---	---	---	---	---	---	---	WHITE, SOLID
0010	547+79	-	604+38	LT	---	---	---	---	5,659	---	---	---	---	---	---	---	WHITE, SOLID
0010	553+26	-	570+05	CL	---	---	35	---	3,358	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	570+05	-	582+67	CL	---	---	26	---	1,578	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	582+67	-	671+35	CL	---	---	178	---	2,217	---	---	---	---	---	---	---	YELLOW, SKIPS
0010	605+17	-	661+14	LT	---	---	---	---	5,597	---	---	---	---	---	---	---	WHITE, SOLID
0010	645+00	-	703+80	RT	---	---	---	---	5,880	---	---	---	---	---	---	---	WHITE, SOLID
0010	662+00	-	704+47	LT	---	---	---	---	4,247	---	---	---	---	---	---	---	WHITE, SOLID
0010	671+35	-	682+61	CL	---	---	24	---	1,408	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	682+61	-	718+84	CL	---	---	73	---	7,246	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	705+07	-	748+80	RT	---	---	---	---	4,373	---	---	---	---	---	---	---	WHITE, SOLID
0010	718+84	-	728+37	CL	---	---	20	---	1,192	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	728+37	-	731+00	CL	---	---	6	---	526	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	705+76	-	729+92	LT	---	---	---	---	2,416	---	---	---	---	---	---	---	WHITE, SOLID
0010	730+87	-	754+90	LT	---	---	---	---	2,403	---	---	---	---	---	---	---	WHITE, SOLID
0010	731+00	-	739+47	CL	---	---	18	---	1,059	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	739+47	-	744+59	CL	---	---	11	---	1,024	---	---	---	---	---	---	---	DOUBLE YELLOW
0010	744+59	-	754+90	CL	---	---	22	---	1,289	---	---	---	---	---	---	---	YELLOW, SOLID (LT), SKIPS (RT)
0010	749+83	-	754+90	RT	---	---	---	---	507	---	---	---	---	---	---	---	WHITE, SOLID
0010	771+00	-	775+23	LT	---	---	---	---	423	---	---	---	---	---	---	---	WHITE, SOLID
0010	771+00	-	777+01	CL	---	---	13	---	752	---	---	---	---	---	---	---	YELLOW, SKIPS (LT), SOLID (RT)
0010	771+00	-	777+01	RT	---	---	---	---	601	---	---	---	---	---	---	---	WHITE, SOLID
0010	776+30	-	777+01	LT	---	---	---	---	18	---	---	---	---	---	---	---	WHITE, SKIPS, 9' GAP 3' LINE
0010	UNDISTRIBUTED			---	---	---	---	---	---	---	---	47,699	98	---	---	---	CENTERLINE / EDGELINES
				TOTAL 0010	39,919	39,919	529	441	190,796	390	120	47,699	98	1,402	0	245	
0020	490+14	-	491+25	LT	---	---	---	---	---	---	---	---	---	---	22	---	WHITE, SOLID, PARKING STALL
0020	492+42	-	494+17	RT	---	---	---	---	---	---	---	---	---	---	34	---	WHITE, SOLID, PARKING STALL
0020	492+51	-	493+39	LT	---	---	---	---	---	---	---	---	---	---	18	---	WHITE, SOLID, PARKING STALL
0020	493+71	-	493+95	LT	---	---	---	---	---	---	---	---	---	---	3	---	WHITE, SOLID, PARKING STALL
0020	493+92	-	493+95	LT	---	---	---	---	---	---	---	---	---	---	4	---	WHITE, SOLID, PARKING STALL
0020	494+14	-	494+16	LT	---	---	---	---	---	---	---	---	---	---	3	---	WHITE, SOLID, PARKING STALL
0020	495+75	-	496+65	LT	---	---	---	---	---	---	---	---	---	---	19	---	WHITE, SOLID, PARKING STALL
0020	496+79	-	497+23	RT	---	---	---	---	---	---	---	---	---	---	10	---	WHITE, SOLID, PARKING STALL
0020	495+75	-	497+51	LT	---	---	---	---	---	---	---	---	---	---	34	---	WHITE, SOLID, PARKING STALL
				TOTAL 0020	0	0	0	0	0	0	0	0	0	0	144	0	
				PROJECT TOTAL	39,919	39,919	529	441	190,796	390	120	47,699	98	1,402	144	245	

NOTES:
** TO BE PLACED FOLLOWING CENTERLINE RUMBLE STRIP MILLING
*** TO BE PLACED FOLLOWING LOWER LAYER OF PAVEMENT
**** TO BE PLACE FOLLOWING UPPER LAYER OF PAVEMENT, PRIOR TO CENTERLINE RUMBLE STRIP INSTALLATION

3

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	70+71	-	71+20	WILLOW ST	49	49	---	49	WILLOW ST
0010	729+79	-	731+52	STH 23	173	173	---	173	DOUBLE PIPES
0010	215+00	-	237+55	LT	---	---	---	2,255	
0010	239+56	-	247+30	RT	---	---	---	774	
0010	241+65	-	249+02	LT	---	---	---	737	
0010	260+26	-	275+77	LT	---	---	---	1,551	
0010	276+27	-	283+28	LT	---	---	---	701	
0010	287+51	-	292+46	RT	---	---	---	495	
0010	319+99	-	328+30	LT	---	---	---	831	
0010	331+08	-	338+04	RT	---	---	---	696	
0010	356+24	-	362+26	LT	---	---	---	602	
0010	356+29	-	369+77	RT	---	---	---	1,348	
0010	455+41	-	459+60	LT	---	---	---	419	
0010	458+43	-	463+69	RT	---	---	---	526	
0010	503+68	-	507+27	LT	---	---	---	359	
0010	503+75	-	506+09	RT	---	---	---	234	
0010	526+26	-	536+47	LT	---	---	---	1,021	
0010	526+92	-	536+02	RT	---	---	---	910	
0010	541+23	-	544+07	LT	---	---	---	284	
0010	542+04	-	544+10	RT	---	---	---	206	
0010	544+54	-	546+68	RT	---	---	---	214	
0010	544+57	-	546+74	LT	---	---	---	217	
0010	551+05	-	561+90	LT	---	---	---	1,085	
0010	563+87	-	577+49	RT	---	---	---	1,362	
0010	728+98	-	729+79	RT	---	---	---	81	
0010	731+52	-	732+15	LT	---	---	---	63	
0010	141+73	-	502+99	PROJECT	---	---	36,126	---	
0010	503+60	-	544+18	PROJECT	---	---	4,058	---	
0010	544+52	-	754+90	PROJECT	---	---	21,038	---	
0010	771+00	-	777+01	PROJECT	---	---	601	---	
				TOTAL 0010	222	222	61,823	17,193	

TROMBONE AND MONOTUBE SIGNING

CATEGORY	STATION	LOCATION	531.2042 DRILLING SHAFT 42-INCH LF	531.5130.01 FOUNDATION SINGLE-SHAFT TYPE MC-III (STRUCTURE) (01. S-56-0029) EACH	531.8990 ANCHOR ASSEMBLIES POLES ON STRUCTURES EACH	532.5130.01 MONOTUBE CANTILEVER TYPE III (STRUCTURE) (01. S-56-0029) EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 POLES TYPE 2 EACH	657.0356 POLES TYPE 12-OVER HEIGHT EACH	657.0540 MONOTUBE ARMS 40-FT EACH	657.0590 TROMBONE ARMS 20-FT EACH	REMARKS
0010	30+60B	21.6' RT	---	---	---	---	1	---	1	1	---	---	1	
0010	494+81	41.6' RT	18	1	1	1	---	1	---	---	1	1	---	S-56-0029
		TOTAL 0010	18	1	1	1	1	1	1	1	1	1	1	

SAWING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0010	142+23	-	---	RT	17	---	DRIVEWAY
0010	143+30	-	---	LT	35	---	DRIVEWAY
0010	162+07	-	---	RT	31	---	DRIVEWAY
0010	180+56	-	---	RT	45	---	DRIVEWAY
0010	212+41	-	---	RT	31	---	DRIVEWAY
0010	355+55	-	---	LT	29	---	DRIVEWAY
0010	474+88	-	---	STH 23	34	---	CIR TO MILL & OVERLAY TRANSITION
0010	479+03	-	---	LT	17	---	DRIVEWAY
0010	484+20	-	484+23	LT	---	4	SIDEWALK
0010	484+20	-	484+44	LT	36	5	CURB & GUTTER
0010	484+19	-	---	RT	17	---	EXISTING BIKE PATH
0010	484+25	-	484+33	STH 23	119	---	PIPE REPLACEMENT
0010	484+94	-	---	RT	8	---	BIKE PATH
0010	487+89	-	487+95	LT	---	5	SIDEWALK
0010	487+96	-	488+04	LT	18	5	CURB & GUTTER
0010	488+39	-	488+70	LT	48	5	CURB & GUTTER
0010	488+70		488+75	STH 23	74	---	PIPE REPLACEMENT
0010	488+48	-	---	RT	8	---	BIKE PATH
0010	489+82	-	491+79	RT	228	---	CURB & GUTTER
0010	490+13	-	---	RT	9	---	BIKE PATH
0010	490+13	-	491+75	RT	170	---	DRIVEWAY/SIDEWALK/LOT
0010	491+39	-	---	STH 23	37	---	STORM SEWER
0010	491+47	-	---	STH 23	37	---	STORM SEWER
0010	491+34	-	491+66	LT	85	5	CURB & GUTTER
0010	491+45	-	491+51	LT	---	8	SIDEWALK
0010	491+92	-	492+36	LT	66	5	CURB & GUTTER
0010	492+05	-	492+10	LT	---	4	SIDEWALK
0010	492+02		492+34	RT	67	3	CURB & GUTTER
0010	492+37	-	---	RT	---	8	SIDEWALK
0010	493+47	-	30+11'B'	LT	218	5	CURB & GUTTER
0010	493+47	-	493+70	LT	25	---	DRIVEWAY
0010	30+11'B'	-	---	RT	---	5	SIDEWALK
0010	30+29'B'	-	30+45'B'	RT	---	6	SIDEWALK
0010	494+44	-	31+87'B'	RT	101	5	CURB & GUTTER
0010	494+47	-	---	RT	---	5	SIDEWALK
0010	31+67'B'	-	---	RT	---	5	SIDEWALK
0010	495+39	-	495+64	LT	42	5	CURB & GUTTER
0010	495+44	-	495+55	LT	---	13	SIDEWALK
0010	495+61	-	495+68	LT	---	13	SIDEWALK
0010	495+41	-	496+82	RT	163	---	CURB & GUTTER
0010	495+41	-	495+78	RT	---	37	CONCRETE CURB DWY
0010	495+78	-	496+21	RT	---	47	DRIVEWAY
0010	496+55	-	496+74	RT	22	---	DRIVEWAY
0010	496+74	-	496+79	RT	---	14	SIDEWALK
0010	497+60	-	---	LT	---	7	SIDEWALK
0010	497+74	-	497+90	LT	---	9	SIDEWALK
0010	497+60	-	497+94	LT	63	5	CURB & GUTTER
0010	497+71	-	---	RT	---	10	SIDEWALK
0010	497+71	-	498+06	RT	58	5	CURB & GUTTER
0010	498+25	-	498+49	LT	41	5	CURB & GUTTER
0010	498+36	-	498+40	LT	---	4	SIDEWALK
0010	498+51	-	---	LT	---	5	SIDEWALK
0010	498+29	-	468+66	RT	67	5	CURB & GUTTER
0010	498+37	-	498+41	RT	---	4	SIDEWALK
0010	498+66	-	498+66	RT	---	5	SIDEWALK

CONTINUED IN NEXT COLUMN

CONTINUED FROM PREVIOUS COLUMN

SAWING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0010	501+15	-	---	LT	---	4	SIDEWALK
0010	501+30	-	502+13	LT	98	5	WILLOW ST
0010	501+37	-	501+83	LT	46	---	WILLOW ST
0010	501+79	-	502+89	RT	128	3	CURB & GUTTER
0010	501+91	-	501+95	RT	---	4	SIDEWALK
0010	502+27	-	---	RT	---	4	SIDEWALK
0010	502+13	-	502+76	LT	67	---	CURB & GUTTER
0010	507+84	-	508+08	RT	30	5	CURB & GUTTER
0010	507+93	-	508+33	LT	55	3.0	CURB & GUTTER
0010	508+18	-	508+26	LT	8	---	BIKE PATH
0010	552+17	-	---	RT	17	---	DRIVEWAY
0010	576+72	-	---	RT	38	---	DRIVEWAY
0010	624+02	-	---	LT	54	---	DRIVEWAY
0010	689+00	-	---	LT	20	---	DRIVEWAY
0010	690+55	-	---	RT	36	---	DRIVEWAY
0010	692+29	-	---	LT	24	---	DRIVEWAY
0010	729+80	-	---	STH 23	35	---	DOUBLE PIPES
0010	729+91	-	730+70	LT	80	---	DOUBLE PIPES, DAWN RD
0010	731+52	-	---	STH 23	34	---	DOUBLE PIPES
0010	736+29	-	---	LT	32	---	DRIVEWAY
0010	738+36	-	---	LT	25	---	DRIVEWAY
0010	747+57	-	---	LT	32	---	DRIVEWAY
				TOTAL 0010	2,925	309	

3

3

LIGHTING AND BASES

CATEGORY	STATION	LOCATION	SPV.0060.04 SPECIAL (04. CONCRETE BASE TYPE 1 SPECIAL) EACH	SPV.0060.07 SPECIAL (07. REINSTALL STREET LIGHT) EACH
0010	494+81	43.0' LT	1	1
0010	497+85	28.0' RT	1	1
		TOTAL 0010	2	2

HAZARDOUS MATERIAL

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.05 SPECIAL (05. MANAGEMENT OF CONTAMINATED GROUNDWATER) EACH	SPV.0195.01 SPECIAL (01. EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM-CONTAMINATED SOIL) TON
0010	495+00	-	496+00	RT	1	20
				TOTAL 0010	1	20

GRADING CURB RAMPS

CATEGORY	STATION		STATION	LOCATION	SPV.0060.09 SPECIAL (09. GRADING AND SHAPING FOR CURB RAMPS) EACH	REMARKS
0010	483+65	-	483+73	RT	1	WESTBROOK - SE
0010	484+20	-	484+40	LT	1	CHERRY - NW
0010	484+19	-	484+43	RT	1	WESTBROOK - NE
0010	488+57	-	488+66	RT	1	OAK - NE
0010	487+90	-	487+99	LT	1	OAK - SW
0010	488+45	-	488+67	LT	1	OAK - NW
0010	491+34	-	491+61	LT	1	CLOVER - SW
0010	491+51	-	491+74	RT	1	CLOVER - SE
0010	491+94	-	492+41	LT	1	CLOVER - NW
0010	492+07	-	492+37	RT	1	CLOVER - NE
0010	494+71	-	494+99	LT	1	MAIN - SW
0010	494+47	-	494+86	RT	1	MAIN - SE
0010	495+41	-	495+68	LT	1	MAIN - NW
0010	495+40	-	495+56	RT	1	MAIN - NE
0010	497+60	-	497+90	LT	1	CEDAR - SW
0010	497+71	-	498+01	RT	1	CEDAR - SE
0010	498+27	-	498+51	LT	1	CEDAR - NW
0010	498+30	-	498+66	RT	1	CEDAR - NE
0010	501+15	-	501+42	LT	1	WILLOW - SW
0010	501+81	-	502+27	RT	1	WILLOW - NE
0010	501+83	-	502+22	LT	1	WILLOW - NW
0010	507+84	-	508+07	RT	1	KRAEMER - SE
0010	507+93	-	508+31	LT	1	LEED - SW
				TOTAL 0010	23	

MONUMENTS

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.10 SPECIAL (10. VERIFY LANDMARK REFERENCE MONUMENTS) EACH	SPV.0060.11 SPECIAL (11. RESEARCH AND LOCATE EXISTING LAND PARCEL MONUMENTS) EACH	SPV.0060.12 SPECIAL (12. VERIFY AND REPLACE EXISTING LAND PARCEL MONUMENTS) EACH	REMARKS
0010	484+25	-	---	67.24' RT	---	1	1	IRON PIPE
0010	491+63	-	---	47.61' RT	---	1	1	IRON PIPE
0010	492+11	-	---	43.88' LT	---	1	1	IRON PIPE
0010	493+66	-	---	36.73' LT	---	1	1	IRON PIPE
0010	494+66	-	---	34.02' LT	---	1	1	IRON PIPE
0010	30+20'B'	-	---	32.72' RT	---	1	1	IRON PIPE
0010	495+04	-	---	1.69' RT	1	---	---	1/4 SECTION
0010	498+41	-	---	36.57' RT	---	1	1	IRON PIPE
0010	503+68	-	---	59.83' LT	---	1	1	IRON PIPE
0010	547+15	-	---	23.13' RT	1	---	---	1/4 SECTION
				TOTAL 0010	2	8	8	

SPRAYED ASPHALTIC SURFACE TREATMENT

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0070.01 SPECIAL (01. SPRAYED ASHAPLTIC SURFACE TREATMENT) GAL
0010	216+85	-	235+26	LT	430
0010	241+51	-	246+85	RT	125
0010	243+36	-	247+36	LT	94
0010	262+19	-	274+01	LT	276
0010	278+00	-	281+60	LT	84
0010	289+30	-	290+74	RT	34
0010	321+80	-	326+56	LT	112
0010	332+77	-	337+31	RT	106
0010	357+84	-	361+98	LT	97
0010	357+94	-	367+81	RT	231
0010	457+38	-	459+41	LT	56
0010	459+01	-	461+82	RT	77
0010	503+68	-	504+08	LT	10
0010	503+75	-	504+15	RT	10
0010	527+09	-	534+40	LT	171
0010	528+79	-	534+35	RT	130
0010	542+42	-	544+08	LT	46
0010	543+64	-	544+08	RT	12
0010	544+62	-	545+05	RT	12
0010	544+62	-	545+78	LT	32
0010	551+29	-	559+87	LT	201
0010	565+92	-	575+38	RT	258
				TOTAL 0010	2,604

HIGH FRICTION SURFACE TREATMENT

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0180.01 SPECIAL (01. HIGH FRICTION SURFACE TREATMENT) SY
0010	218+80	-	247+65	TRAVEL LANES	7,694
0010	549+65	-	574+00	TRAVEL LANES	6,494
				TOTAL 0010	14,188

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
5080-02-23
SPRING GREEN - REEDSBURG
(USH 14 TO CTH GG)
STH 23
SAUK 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)
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
GLODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
R/W MONUMENT (TYP OF SPT)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLL		
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

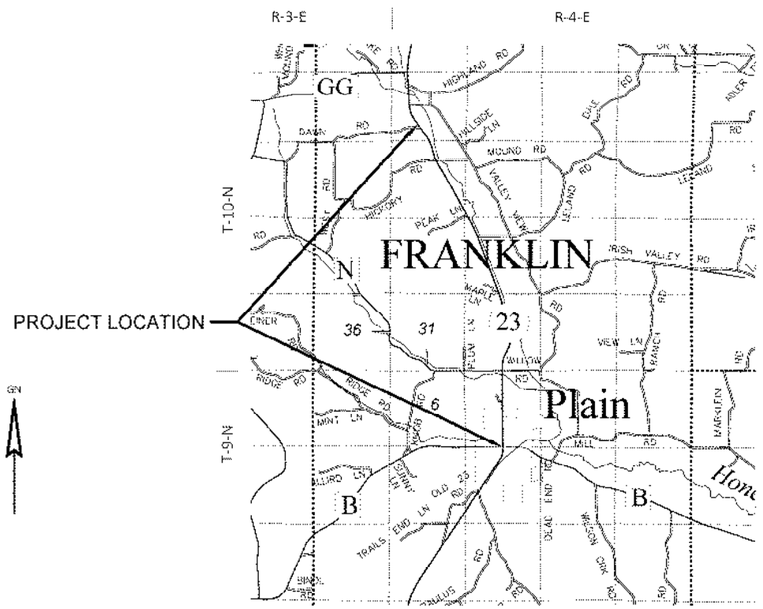
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDL
CERTIFIED SURVEY MAP	CSM	RIGHT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

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL UTILITY SYMBOLS

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


R-3-E
R-4-E
T-10-N
T-9-N
PROJECT LOCATION
GN
GG
FRANKLIN
Plain
N
36
31
23
6
B
B
HIGHLAND RD
DAWN RD
HILLSIDE LN
MOUND RD
VALLEY VIEW RD
IRISH VALLEY RD
RIDGE RD
MILL RD
OLD 23
MARTIN
LAYTON
LAYTON
LAYTON

DOCUMENT #: 1237126
Recorded: 06-21-2022 At 8:17 AM
BRENT BAILEY
SAUK COUNTY REGISTER OF DEEDS
REGISTRAR'S OFFICE
Sauk Co, WI
Received For Record
Fee Amount: $30.00
This document has been filed electronically.

TRANSPORTATION PROJECT PLAT NO: 5080-02-23 - 4.01

PART OF LOTS 1 AND 12 OF BLOCK 6 OF THE ORIGINAL PLAT OF THE VILLAGE OF PLAIN, PART OF LOT 2 OF CSM NO. 3859, V.19, P.3859 RECORDED AS DOCUMENT NO. 674840, PART OF LOT 1 OF CSM NO. 5629, V.32, P.5629 RECORDED AS DOCUMENT NO. 944174 ALL LOCATED IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 5 AND PART OF LOT 5 OF BLOCK 9 AND PART LOTS 1 AND 2 OF BLOCK 10 OF THE ORIGINAL PLAT OF THE VILLAGE OF PLAIN, ALL LOCATED IN THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 5 ALL LOCATED IN TOWN 9 NORTH, RANGE 4 EAST, VILLAGE OF PLAIN, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER: STH 23 SPRING GREEN - REEDSBURG, (USH 14 TO CTH CG), SAUK COUNTY, WISCONSIN

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

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

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

ALL HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
WACHTER AVENUE: PREVIOUS PROJECT DIVISION JOB NO. 1572, ORIGINAL PLAT OF THE VILLAGE OF PLAIN, CSM NO. 3859, CSM NO. 5629 AND CSM NO. 5953.
MAIN STREET (CTH B), CEDAR STREET, PLATTED ALLEY AND WILLOW STREET: ORIGINAL PLAT OF THE VILLAGE OF PLAIN.

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

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	R/W SQ FT REQUIRED			TLE SQ FT
			NEW	EXISTING	TOTAL	
3	BRUCE A. BALLWEG AND KIMBERLY A. BALLWEG	FEE/TLE	79	--	79	291
4	VILLAGE OF PLAIN, A WISCONSIN MUNICIPAL CORPORATION, AS VENDOR, AND PLAIN FIRE PROTECTION DISTRICT, AS PURCHASER, OF A LAND CONTRACT RECORDED JANUARY 29, 2016 AS DOCUMENT NO. 1123285	FEE/TLE	357	--	357	213
5	ROBERT L. AND RUTH ANN E. BERRY REVOCABLE TRUST DATED JUNE 3, 2019	TLE	--	--	--	161
6	EDWARD KRAEMER & SONS, INC., AS LESSOR, AND TKC REAL ESTATE HOLDINGS, LLC, AS LESSEE	TLE	--	--	--	107
7	HOLLY ABEL	TLE	--	--	--	105
8	TOWN OF FRANKLIN	FEE/TLE	132	--	132	140
9	WILLIAM HAAG, SYLVIA JORDAN, CECILIA HAAG, CYNTHIA HAAG AND PAULINE KRAEMER, AS TENANTS IN COMMON, SUBJECT TO EVANGELINE HAAG LIFE ESTATE	TLE	--	--	--	322
10	DWAYNE E. FABER AND CATHIE L FABER REVOCABLE TRUST DATED FEBRUARY 20, 2017, AS VENDOR, AND TNT KWIK STOP, LLC, A WISCONSIN LIMITED LIABILITY COMPANY, AS PURCHASER, EXECUTED ON MARCH 3, 2020, AND RECORDED ON JULY 17, 2020, AS DOCUMENT NO. 1201474	TLE	--	--	--	388

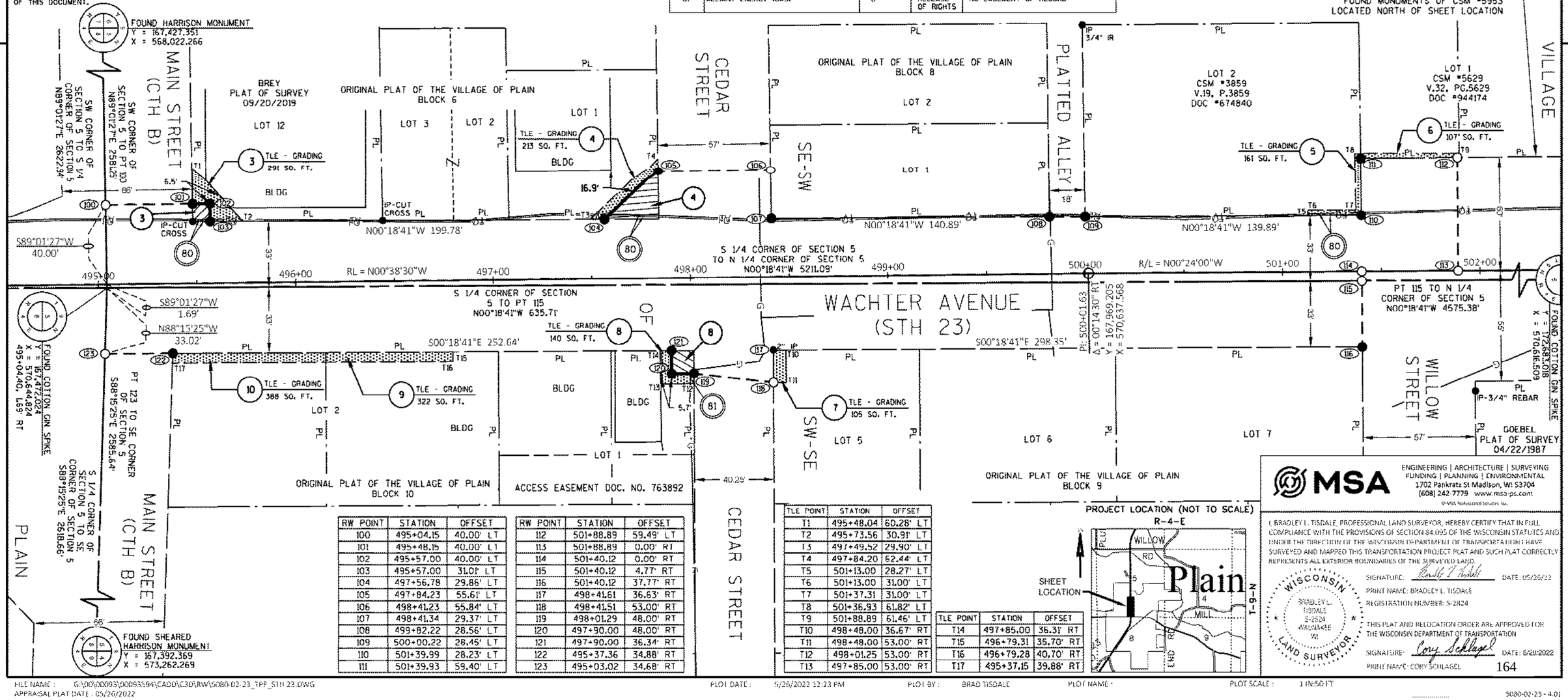
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	PARCEL AFFECTED	INTEREST REQUIRED	EASEMENT AFFECTING
80	CHARTER COMMUNICATIONS (TV & FO)	3, 4, 5	RELEASE OF RIGHTS	NO EASEMENT OF RECORD
81	ALLIANT ENERGY (GAS)	8	RELEASE OF RIGHTS	NO EASEMENT OF RECORD

LINE	BEARING	DISTANCE
100-101	N00°38'30"W	44.00'
101-102	N00°38'30"W	8.85'
102-103	N89°21'30"E	8.99'
104-105	N43°48'55"W	37.63'
105-106	N00°52'44"W	57.00'
106-107	N89°07'16"E	26.47'
108-109	N00°18'41"W	18.00'
110-111	S89°29'28"W	31.16'
111-112	N00°30'32"W	48.96'
112-113	N89°36'00"E	59.49'
113-114	S00°24'00"E	48.78'
114-115	N89°36'00"E	4.77
115-116	N89°36'00"E	33.00
117-118	N89°43'10"E	16.37'
118-119	S06°26'42"W	40.53'
119-120	S00°38'30"E	11.29'
120-121	S89°21'30"W	11.66'
122-123	S00°18'41"E	34.34'

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5080-02-23 - 4.01
SHEET 1 OF 2
AMENDMENT NO:__

GN
0 25 50
SCALE, FEET



RW POINT	STATION	OFFSET
100	495+04.15	40.00' LT
101	495+48.15	40.00' LT
102	495+57.00	40.00' LT
103	495+57.00	31.01' LT
104	497+56.78	29.86' LT
105	497+84.23	55.61' LT
106	498+41.23	55.84' LT
107	498+41.34	29.37' LT
108	499+82.22	28.56' LT
109	500+00.22	28.45' LT
110	501+39.99	28.23' LT
111	501+39.93	59.40' LT

RW POINT	STATION	OFFSET
112	501+88.89	59.49' LT
113	501+88.89	0.00' RT
114	501+40.12	0.00' RT
115	501+40.12	4.77' RT
116	501+40.12	37.77' RT
117	498+41.61	36.63' RT
118	498+41.51	53.00' RT
119	498+01.29	48.00' RT
120	497+90.00	48.00' RT
121	497+90.00	36.34' RT
122	495+37.36	34.88' RT
123	495+03.02	34.68' RT

TLE POINT	STATION	OFFSET
T1	495+48.04	60.28' LT
T2	495+73.56	30.91' LT
T3	497+49.52	29.90' LT
T4	497+84.20	62.44' LT
T5	501+13.00	28.27' LT
T6	501+13.00	31.00' LT
T7	501+37.31	31.00' LT
T8	501+36.93	61.82' LT
T9	501+88.89	61.46' LT
T10	498+48.00	36.67' RT
T11	498+48.00	53.00' RT
T12	498+01.25	53.00' RT
T13	497+85.00	53.00' RT

TLE POINT	STATION	OFFSET
T14	497+85.00	36.31' RT
T15	496+79.31	35.70' RT
T16	496+79.28	40.70' RT
T17	495+37.15	39.88' RT

PROJECT LOCATION (NOT TO SCALE)
R-4-E

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

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

WISCONSIN BRADLEY L. TISDALE S-2824 WAUSAUKEE WI LAND SURVEYOR

SIGNATURE: Bradley L Tisdale DATE: 05/26/22
PRINT NAME: BRADLEY L. TISDALE
REGISTRATION NUMBER: S-2824

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE: Cory Schlagel DATE: 6/28/2022
PRINT NAME: CORY SCHLAGEL

FILE NAME : G:\00\00093\00093594\CADD\C3D\RW\5080-02-23_TPP_STH 23.DWG
APPRAISAL PLAT DATE : 05/26/2022
PLOT DATE : 5/26/2022 12:23 PM
PLOT BY : BRAD TISDALE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

5080-02-23 - 4.01

TRANSPORTATION PROJECT PLAT NO: 5080-02-23 - 4.02

PART THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 AND PART OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 32 LOCATED IN TOWN 10 NORTH, RANGE 4 EAST, TOWN OF FRANKLIN, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER: STH 23 SPRING GREEN - REEDSBURG, (USH 14 TO CTH GG), SAUK COUNTY, WISCONSIN

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

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

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: PREVIOUS PROJECT DIVISION JOB NO. 1572 AND EXISTING PAVED CENTERLINE OF STH 23.

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

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN SAUK COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 1237126.

RW POINT	STATION	OFFSET
200	549+85.99	0.00' LT
201	549+85.38	49.32' LT
202	551+06.06	50.65' LT
203	551+08.91	77.00' LT
204	551+15.00	77.00' LT
205	551+15.00	50.74' LT
206	552+00.00	51.40' LT
207	552+00.00	0.00' LT
208	552+00.00	48.60' RT
209	549+86.66	50.67' RT

TLE POINT	STATION	OFFSET
T20	550+75.00	50.35' LT
T21	550+75.00	82.13' LT
T22	551+39.44	82.38' LT
T23	551+39.25	50.95' LT

CURVE	LENGTH	RADIUS	DELTA	CHORD DISTANCE	CHORD BEARING
201-202	123.67'	1960.00'	03°36'55" RT	123.65'	N01°12'01"E
205-206	87.15'	1960.00'	02°32'52" RT	87.14'	N04°32'58"E
208-209	208.12'	1860.00'	06°24'40" LT	208.02'	S02°35'53"W

LINE	BEARING	DISTANCE
202-203	N80°03'29"W	26.51'
203-204	N03°41'39"E	6.32'
204-205	S86°13'10"E	26.26'

DOCUMENT #: 1237431
Recorded: 06-28-2022 At 8:18 AM
WRIGHT BAILEY
SAUK COUNTY REGISTER OF DEEDS
REGISTRAR'S OFFICE
Sauk Co, WI
Received For Record
Fee Amount: $25.00
This document has been filed electronically

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5080-02-23 - 4.02
AMENDMENT NO:___

4

4

ALIGNMENT INFORMATION PC TO PT

PI = STA 554+73.87
Y = 173,441.277
X = 570,594.896
Δ = 28°14'09" RT
D = 2°50'11"
T = 508.06'
L = 995.47'
R = 2020.00'
LCH = 985.43'
LCB = N13°40'00"E
PC = 549+65.81
PT = 559+61.28

DA = N27°47'05"E

ALIGNMENT INFORMATION PC TO 200

L = 20.18'
LCH = 20.18'
LCB = N00°09'54"W
R = 2020.00'

ALIGNMENT INFORMATION 200 TO 207

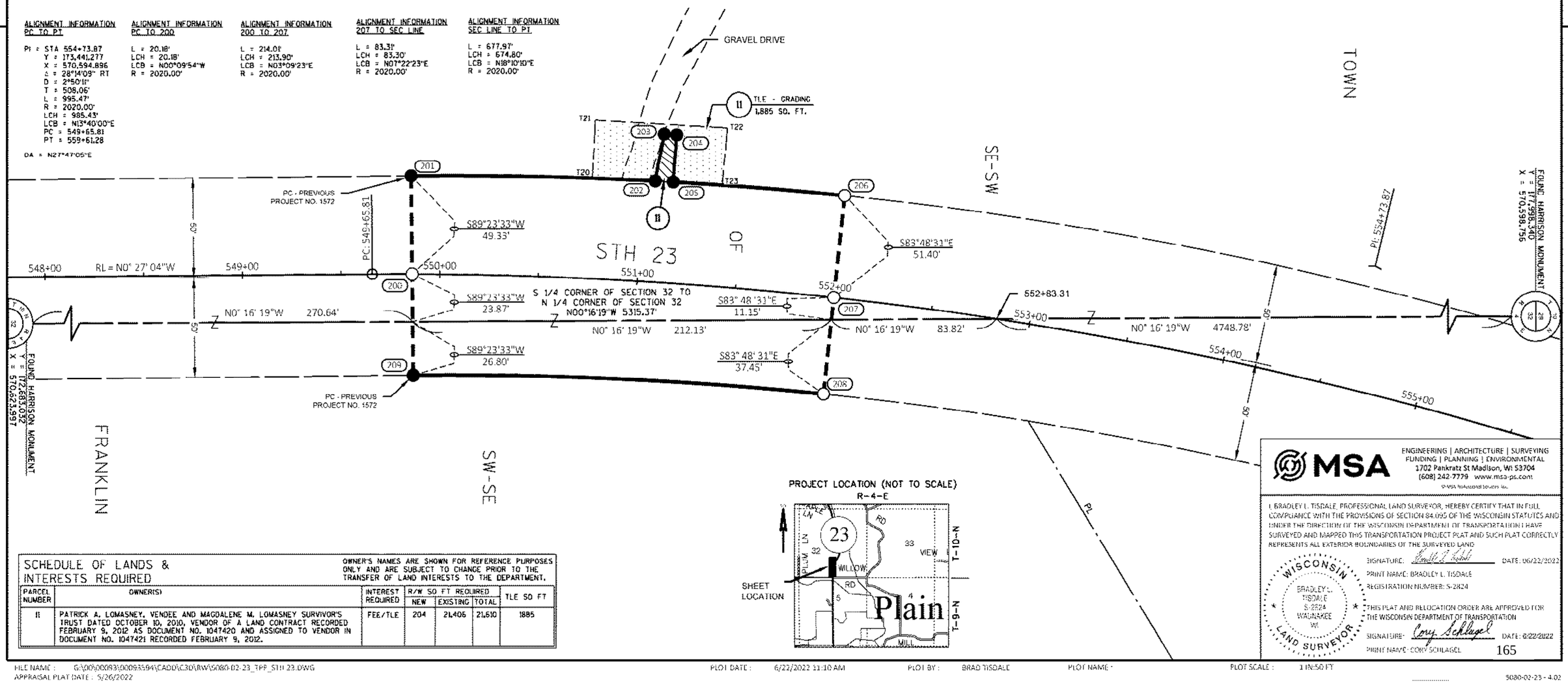
L = 214.01'
LCH = 213.90'
LCB = N03°09'23"E
R = 2020.00'

ALIGNMENT INFORMATION 207 TO SEC LINE

L = 83.31'
LCH = 83.30'
LCB = N07°22'23"E
R = 2020.00'

ALIGNMENT INFORMATION SEC LINE TO PT

L = 677.97'
LCH = 674.80'
LCB = N18°10'10"E
R = 2020.00'



PROJECT LOCATION (NOT TO SCALE)
R-4-E

0 25 50
SCALE, FEET

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQ FT REQUIRED			TLE SQ FT
			NEW	EXISTING	TOTAL	
11	PATRICK A. LOMASNEY, VENDEE AND MAGDALENE M. LOMASNEY SURVIVOR'S TRUST DATED OCTOBER 10, 2010, VENDOR OF A LAND CONTRACT RECORDED FEBRUARY 9, 2012 AS DOCUMENT NO. 1047420 AND ASSIGNED TO VENDOR IN DOCUMENT NO. 1047421 RECORDED FEBRUARY 9, 2012.	FEE/TLE	204	21,406	21,610	1885

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

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

SIGNATURE: _____ DATE: 06/22/2022
PRINT NAME: BRADLEY L. TISDALE
REGISTRATION NUMBER: S-2824

WISCONSIN BRADLEY L. TISDALE S-2824 WAUNAKEE WI LAND SURVEYOR

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

SIGNATURE: _____ DATE: 6/22/2022
PRINT NAME: CORY SCHLAGEL

FILE NAME : G:\00\00093\000935941\CADD\C3D\RW\5080-02-23_TPP_STH 23.DWG
APPRAISAL PLAT DATE : 5/26/2022
PLOT DATE : 6/22/2022 11:10 AM
PLOT BY : BRAD TISDALE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

5080-02-23 - 4.02

DOCUMENT #: 1237432
Recorded: 06-28-2022 At 8:19 AM
WRIGHT BAILEY
SAUK COUNTY REGISTER OF DEEDS
REGISTRAR'S OFFICE
Sauk Co, WI
Received For Record
Fee Amount: $25.00
This document has been filed electronically

TRANSPORTATION PROJECT PLAT NO: 5080-02-23 - 4.03

PART THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 18, TOWN 10 NORTH, RANGE 4 EAST, TOWN OF FRANKLIN, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER: STH 23 SPRING GREEN - REEDSBURG, (USH 14 TO CTH GG), SAUK COUNTY, WISCONSIN

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

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

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

ALL HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
STH 23 - PREVIOUS PROJECT DIVISION JOB NO. 1572 AND RUMMLER PLAT OF SURVEY.
DAWN ROAD - RUMMLER PLAT OF SURVEY.

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

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

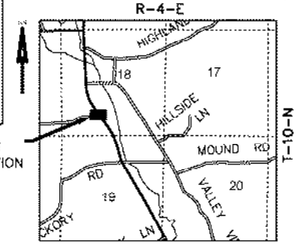
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN SAUK COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 1237126.

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQ FT REQUIRED			TLE SQ FT
			NEW	EXISTING	TOTAL	
12	THE BINDL 2006 JOINT REVOCABLE TRUST DATED AUGUST 17, 2006	FEE/TLE	1,923	21,297	23,220	1,401

PROJECT LOCATION (NOT TO SCALE)
R-4-E



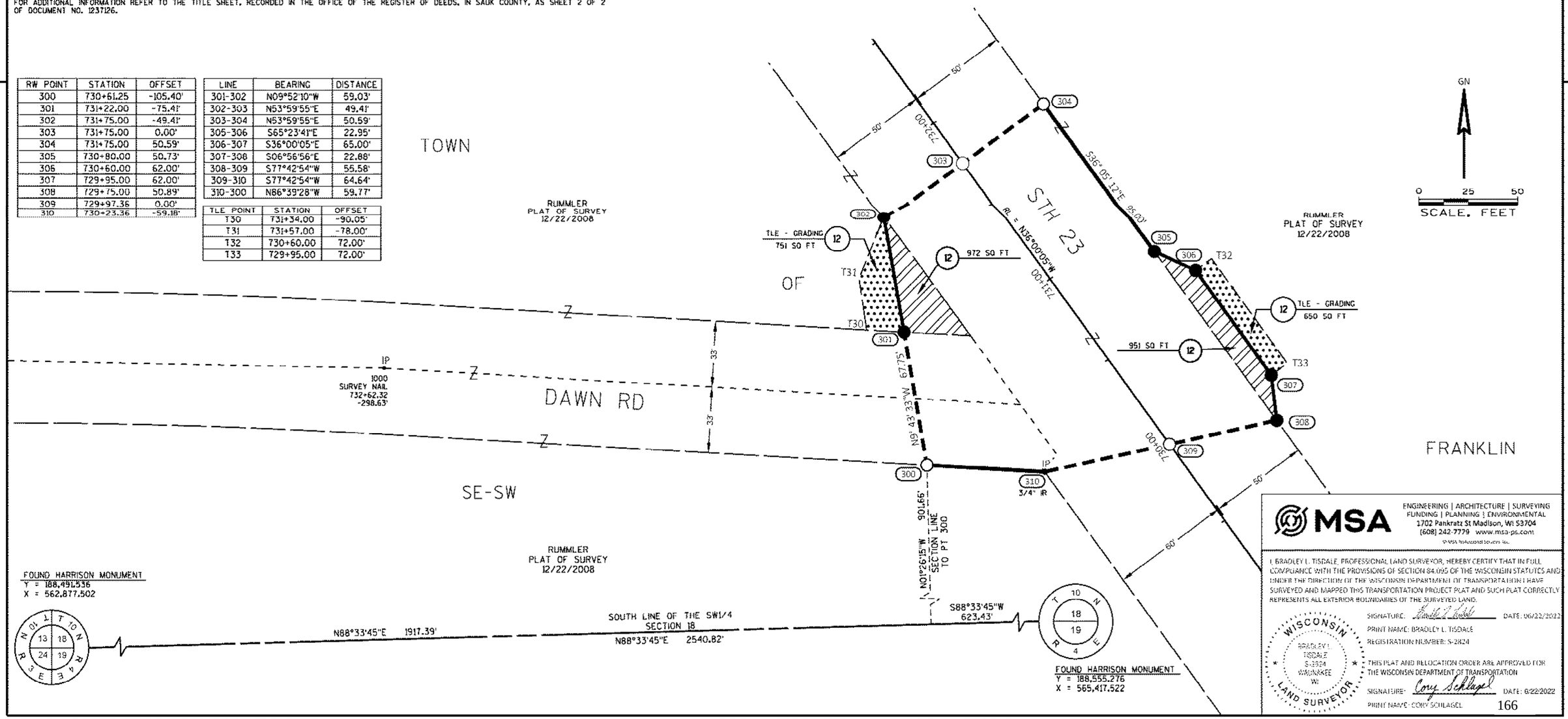
SHEET LOCATION

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5080-02-23 - 4.03
AMENDMENT NO:__

RW POINT	STATION	OFFSET
300	730+61.25	-105.40'
301	731+22.00	-75.41'
302	731+75.00	-49.41'
303	731+75.00	0.00'
304	731+75.00	50.59'
305	730+80.00	50.73'
306	730+60.00	62.00'
307	729+95.00	62.00'
308	729+75.00	50.89'
309	729+97.36	0.00'
310	730+23.36	-59.18'

LINE	BEARING	DISTANCE
301-302	N09°52'10"W	59.03'
302-303	N53°59'55"E	49.41'
303-304	N53°59'55"E	50.59'
305-306	S65°23'41"E	22.95'
306-307	S36°00'05"E	65.00'
307-308	S06°56'56"E	22.88'
308-309	S77°42'54"W	55.58'
309-310	S77°42'54"W	64.64'
310-300	N86°39'28"W	59.77'

TLE POINT	STATION	OFFSET
T30	731+34.00	-90.05'
T31	731+57.00	-78.00'
T32	730+60.00	72.00'
T33	729+95.00	72.00'



FOUND HARRISON MONUMENT
Y = 188,491.536
X = 562,877.502

FOUND HARRISON MONUMENT
Y = 188,555.276
X = 565,417.522

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

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

SIGNATURE: _____ DATE: 06/22/2022
PRINT NAME: BRADLEY L. TISDALE
REGISTRATION NUMBER: S-2824

WISCONSIN
BRADLEY L TISDALE S-2824 WAUNAKEE WI
LAND SURVEYOR

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

SIGNATURE: _____ DATE: 6/22/2022
PRINT NAME: CORY SCHLAGEL

FILE NAME : G:\00\00093\00093594\CADD\C3D\RW\5080-02-23_TPP_STH 23.DWG
APPRAISAL PLAT DATE : 6/22/2022
PLOT DATE : 6/22/2022 10:32 AM
PLOT BY : BRAD TISDALE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

5080-02-23 - 4.03

R/W PROJECT NUMBER: 5080-02-23	EXHIBIT NUMBER: 1

TLE ACQUISITION EXHIBIT
SPRING GREEN - REEDSBURG
(USH 14 TO CTH GG)

STH 23 — SAUK COUNTY

PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 8, TOWN 9 NORTH, RANGE 4 EAST, VILLAGE OF PLAIN, SAUK COUNTY, WI

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE OF TLE IS GRADING.

4

LOT 8
BLOCK 1
VILLAGE OF PLAIN
ORIGINAL PLAT

SUSAN L VAN HORN LIVING TRUST
TAX ID:
171-0006-00000

PL

1
7.67'
7.00'
3.00'

OAK ROAD

NE-NW

STH 23
(WACHTER AVENUE)

GN

SCALE, FEET
0 5 10

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
1	SUSAN L VAN HORN LIVING TRUST	TLE	11

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION - MADISON

SIGNATURE: Cory Schlagel DATE: 6/22/2022

PRINT NAME: Cory Schlagel

FILE NAME : 5080-02-23_TPP_STH 23.DWG PLOT DATE : 5/26/2022 10:49 AM R/W PROJECT: R/W PROJ NO

R/W PROJECT NUMBER: 5080-02-23	EXHIBIT NUMBER: 2

TLE ACQUISITION EXHIBIT
SPRING GREEN - REEDSBURG
(USH 14 TO CTH GG)

STH 23 — SAUK COUNTY

PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 8, TOWN 9 NORTH, RANGE 4 EAST, VILLAGE OF PLAIN, SAUK COUNTY, WI

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE OF TLE IS GRADING

4

SE-SW

MAIN ST
(CTH B)

NORTH LINE OF THE NW 1/4 OF SECTION 8

9 SQ. FT.
2
3.50'
5.50'
7.51'

PL

WOOD RETAINING WALL

NE-NW

NW-NE

NUCNAC HOLDINGS LLC, 1/2 INTEREST AND ROBERT V. AND CONSTANCE J. SCHWEISS, 1/2 INTEREST
TAX ID:
171-0050-20000

EAST LINE OF THE NW 1/4 OF SECTION 8

LOT 3
CSM #1466
V.6, P.1466
DOC #466547

64 SQ. FT.
2
8.00'
8.00'

STH 23
(WACHTER AVENUE)

GN

SCALE, FEET
0 10 20

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
2	NUCNAC HOLDINGS LLC, 1/2 INTEREST AND ROBERT V. AND CONSTANCE J. SCHWEISS, 1/2 INTEREST	TLE	73

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION - MADISON

SIGNATURE: Cory Schlagel DATE: 6/22/2022

PRINT NAME: Cory Schlagel

FILE NAME : 5080-02-23_TPP_STH 23.DWG PLOT DATE : 5/26/2022 10:49 AM R/W PROJECT: R/W PROJ NO

BENCHMARKS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
BM#920	144+73.49	44.412' RT	FENO MONUMENT	135,358.079	562,680.413	723.294'

USH 14

CHARTER COMMUNICATIONS

BP: 139+81.08

BEGIN PROJECT 5080-02-74
STA 141+73.42
Y = 135,085.34
X = 562,633.82
BUTT JOINT REQ'D

EXISTING R/W

STA 143+30 LT
ASPH CE

140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155

CTH G

STH 23

N0°24'58"E

PI: 150+06.52

N0°02'29"W

CTH G

PI: 154+64.99

MATCH LINE STA 155+00

STA 142+23 RT
ASPH CE

STA 143+06 RT
BAD CE

STA 148+93 RT
BAD CE

EXISTING R/W

BM#920

USH 14
STH 23

ALLIANT ENERGY

5

5

N

MATCH LINE STA 155+00

PC: 157+46.13

EXISTING R/W

156+00 157+00 158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170

N1°15'12"W

STH 23

MATCH LINE STA 170+00

STA 162+07 RT
ASPH PE

JONES RD

EXISTING R/W

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050201-pn
PLOT DATE : 10/31/2023 11:21 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 169 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050202-pn

PLOT DATE : 10/31/2023 11:21 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

MATCH LINE STA 200+00

MATCH LINE STA 215+00

EXISTING R/W

STA 204+90 LT
BAD FE

+00 201+00 202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00 214+00 215

N8°03'17"W

STH 23

STA 212+41 RT
ASPH PE

EXISTING R/W

LEGEND

GRUBBING AREAS

5

5

BEGIN HIGH SURFACE FRICTION TREATMENT
218+80 - 247+65

ENVIRONMENTALLY
SENSITIVE AREA

EXISTING R/W

ALLIANT ENERGY

GRUBBING

MGS GUARDRAIL 3K

GRUBBING

REMOVING GUARDRAIL

MOVING TYPE II SIGN
REMOVE AND INSTALL NEW SMALL SIGN SUPPORT

FRONTIER COMMUNICATIONS

SI (TYP.)

CP#960

MGS GUARDRAIL
TERMINAL EAT

STA 216+16 LT
BAD FE

PI: 215+28.58

+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00

N7°44'41"W

ENVIRONMENTALLY SENSITIVE AREA

MATCH LINE STA 215+00

STA 215+89 RT
BAD FE

FRONTIER COMMUNICATIONS

EXISTING CULVERT
TO REMAIN

EXISTING R/W

MATCH LINE STA 230+00

CONTROL POINTS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#960	225+70.63	38.032' LT	CP *3/4" REBAR	143,435.520	562,015.024	891.140'

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 170	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050203-pn

PLOT DATE : 10/31/2023 11:22 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

GRUBBING AREAS

N

MATCH LINE STA 230+00

EXISTING R/W

REMOVING GUARDRAIL

MGS GUARDRAIL 3 K

MGS GUARDRAIL TERMINAL EAT

FRONTIER COMMUNICATIONS

PC: 235+10.48

ENVIRONMENTALLY SENSITIVE AREA

ALLIANT ENERGY

STH 23

N49°02'49"E

GRUBBING

SI (TYP.)

MGS GUARDRAIL TERMINAL EAT
STA 242+11 LT
BAD FE

STA 240+69 RT
BAD PE

MOVING TYPE II SIGN
REMOVE AND INSTALL NEW SMALL SIGN SUPPORT

MATCH LINE STA 245+00

BENCHMARKS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
BM#921	247+94.54	73.745' RT	FENO MONUMENT	145,267.851	563,129.700	927.370'

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

EXISTING CULVERT
TO REMAIN

64.48

REEDSBURG UTILITY COMMISSION

END HIGH SURFACE FRICTION TREATMENT
217+00 - 247+65

MGS GUARDRAIL SHORT
RADIUS TERMINAL

BM#921

CTH WC

GRUBBING (DEAD TREE)

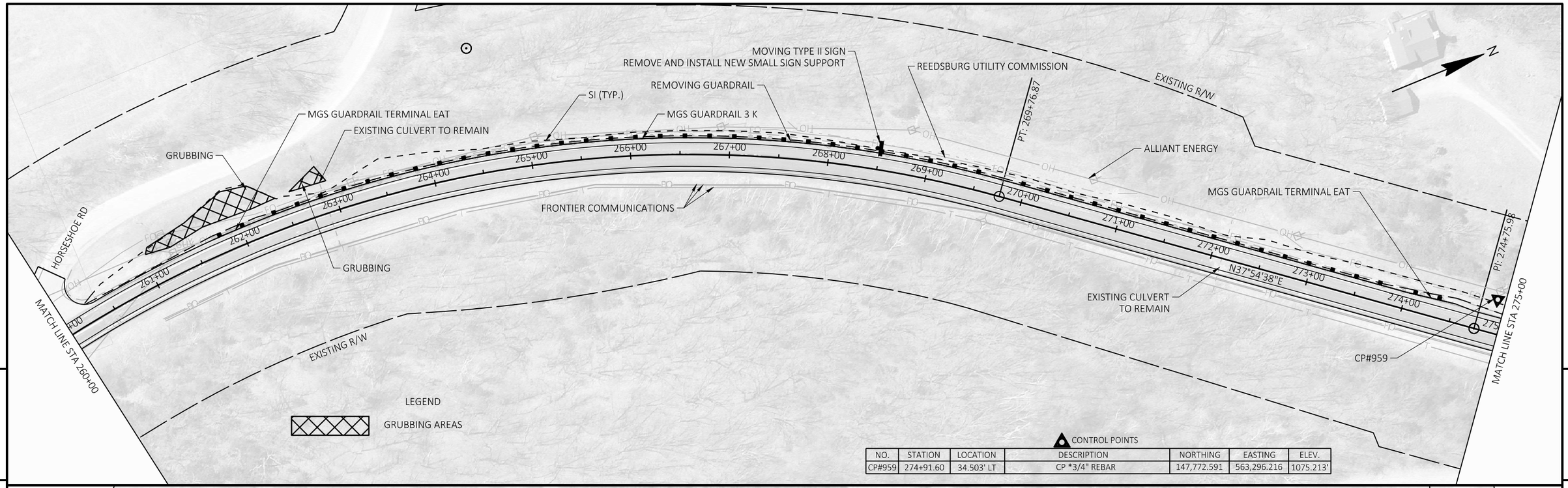
REMOVING TYPE II SIGN
AND SMALL SIGN
SUPPORT

N13°25'50"W

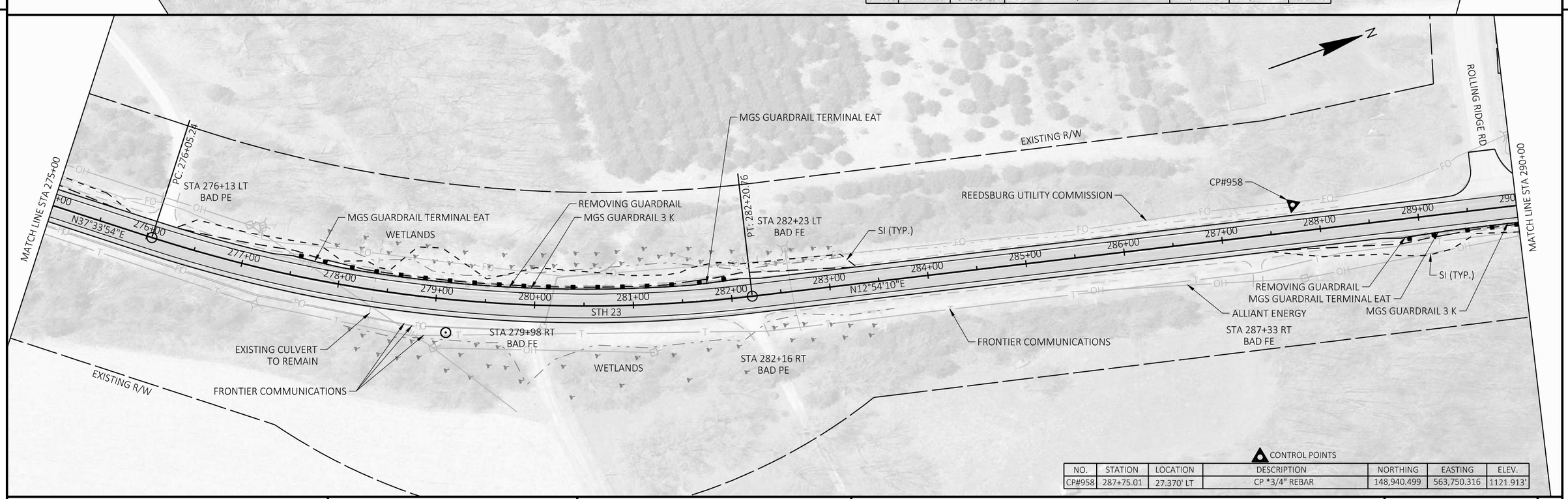
PC: 259+32.95

MATCH LINE STA 260+00

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 171	E



NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#959	274+91.60	34.503' LT	CP *3/4" REBAR	147,772.591	563,296.216	1075.213'



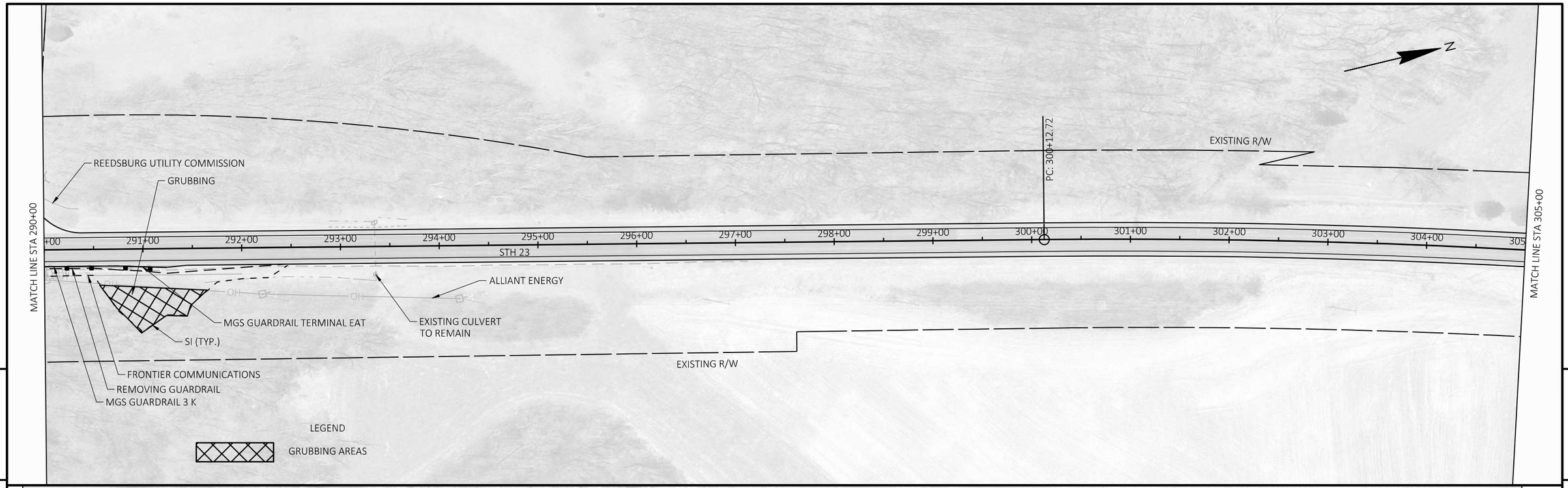
NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#958	287+75.01	27.370' LT	CP *3/4" REBAR	148,940.499	563,750.316	1121.913'

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 172 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050205-pn

PLOT DATE : 10/31/2023 11:22 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



5

5

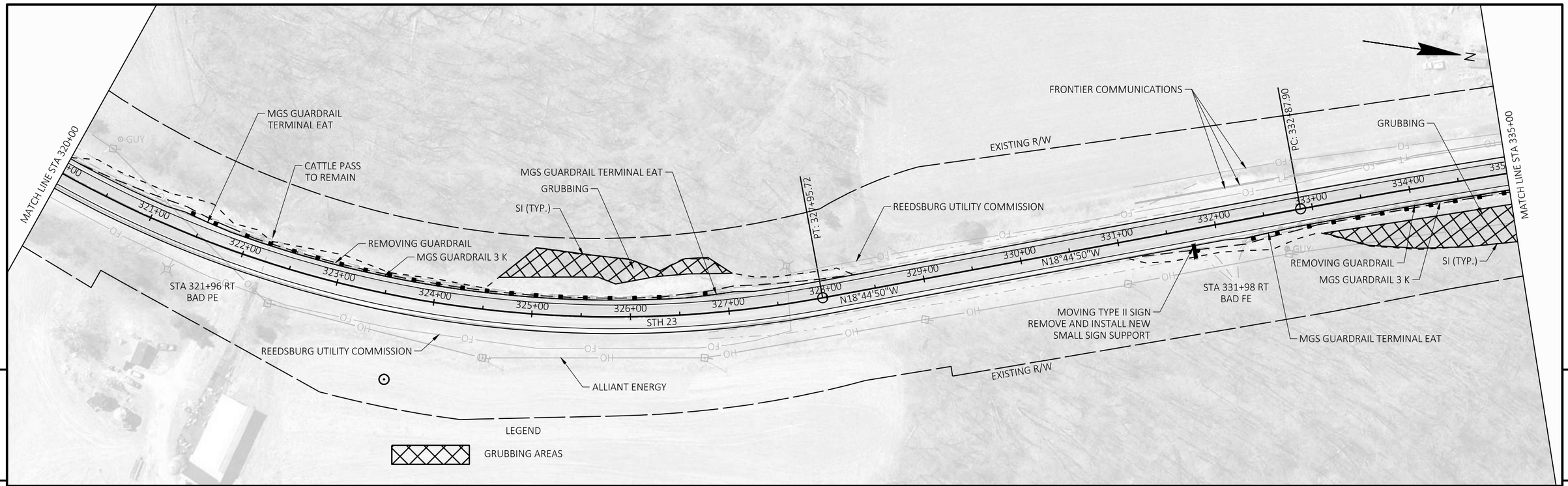
CONTROL POINTS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#957	315+87.38	28.825' LT	CP *3/4" REBAR	151,640.738	564,533.492	1092.436'

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 173	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050206-pn

PLOT DATE : 10/31/2023 11:22 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT



BENCHMARKS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
BM#922	338+35.39	72.558' LT	FENO MONUMENT	153,758.005	564,355.925	1102.477'

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 174	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050207-pn

PLOT DATE : 10/31/2023 11:23 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

GRUBBING AREAS

FRONTIER COMMUNICATIONS

GRUBBING

ALLIANT ENERGY

SI (TYP.)

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3 K

PC: 360+21.01

STA 362+39 LT
BAD PE

MGS GUARDRAIL
SHORT RADIUS TERMINAL

STA 362+65 LT
BAD FE

CP#956

ALLIANT ENERGY

REEDSBURG UTILITY COMMISSION

STA 355+55 LT
ASPH PE

MATCH LINE STA 350+00

MATCH LINE STA 365+00

N9°03'08"W

STH 23

EXISTING CULVERT
TO REMAIN

STA 356+94 RT
PRIVATE TRAIL
ENTRANCE
TO REMAIN

REMOVING GUARDRAIL

SI (TYP.)

STA 355+58 RT
BAD FE

EXISTING R/W

GRUBBING

GRUBBING

EXISTING CULVERT
TO REMAIN

MOVING TYPE II SIGN
REMOVE AND INSTALL
NEW SMALL SIGN SUPPORT

CONTROL POINTS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#956	362+52.76	39.716' LT	CP *3/4" REBAR	156,156.857	563,984.233	966.550'

EXISTING CULVERT
TO REMAIN

PT: 369+87.43

PC: 371+32.77

ALLIANT ENERGY

EXISTING R/W

STA 377+34 LT
BAD PE

MATCH LINE STA 365+00

N19°38'16"E

STH 23

STA 368+95 RT
BAD FE

MATCH LINE STA 380+00

REMOVING GUARDRAIL

MGS GUARDRAIL 3 K

STA 378+69 RT
BAD FE

EXISTING CULVERT
TO REMAIN

EXISTING R/W

MGS GUARDRAIL TERMINAL EAT

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 175	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050208-pn

PLOT DATE : 11/27/2023 1:35 PM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

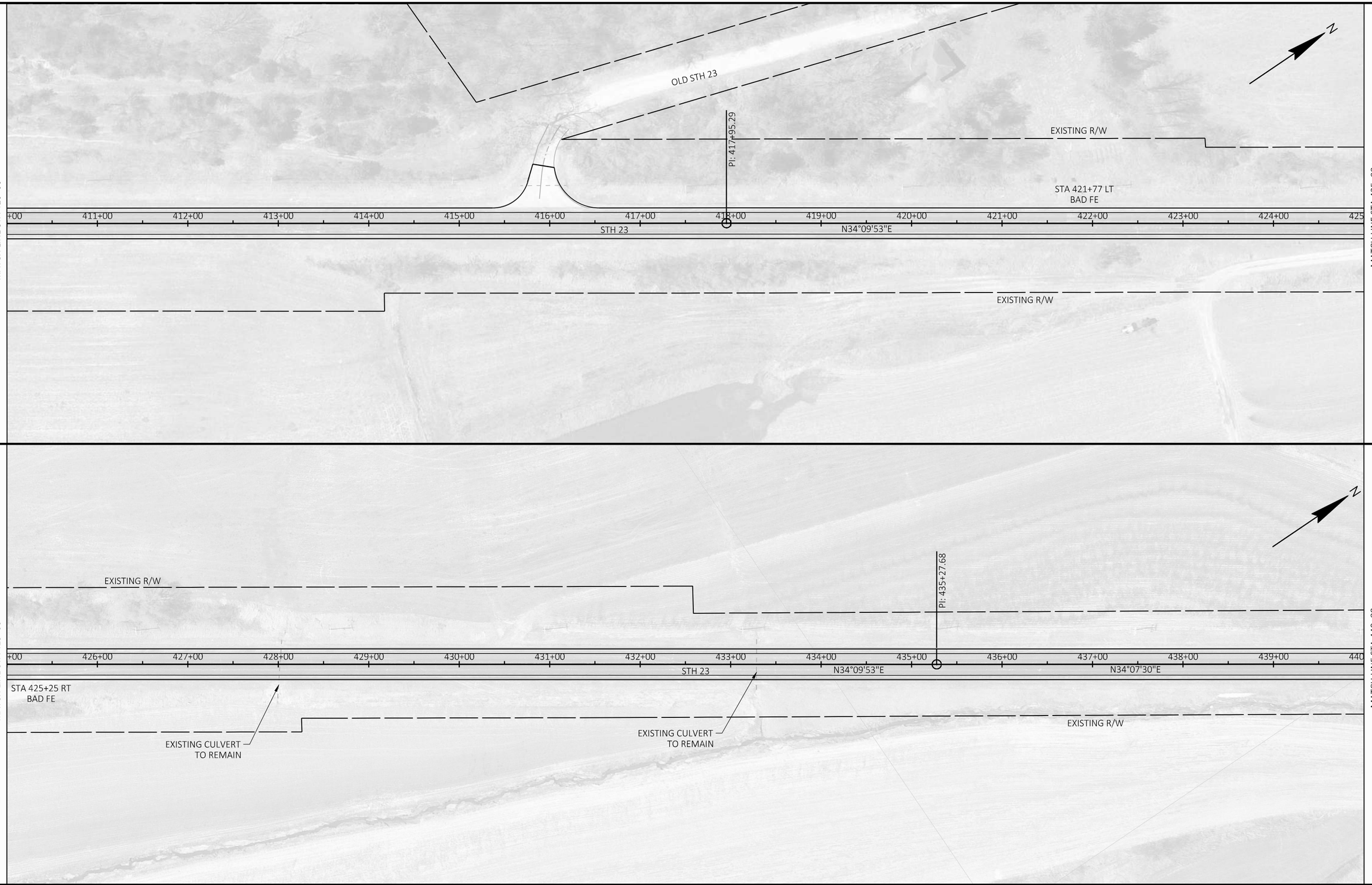
5

5

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 176	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050209-pn

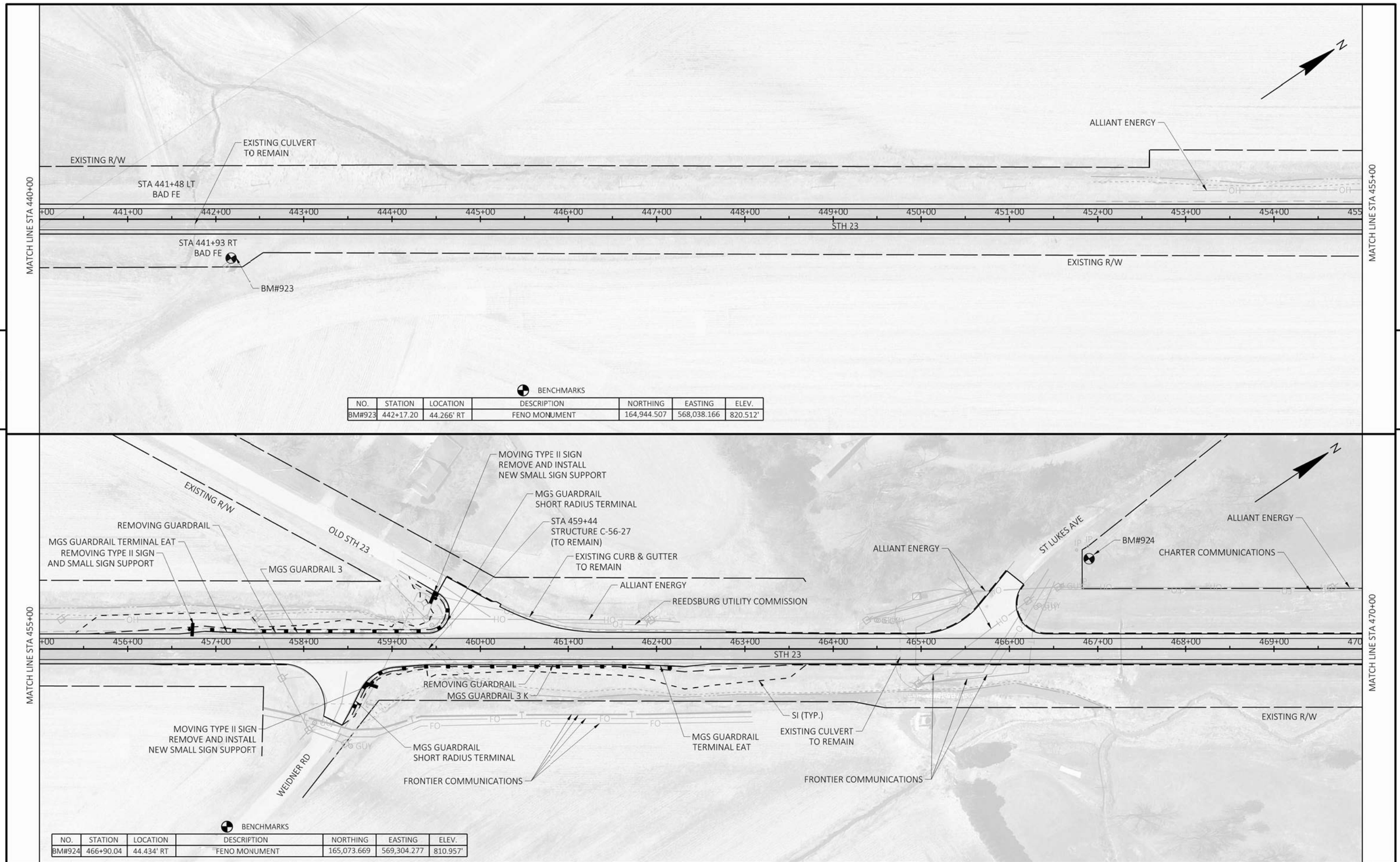
PLOT DATE : 10/31/2023 11:23 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 177	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050210-pn

PLOT DATE : 10/31/2023 11:23 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT



5

5

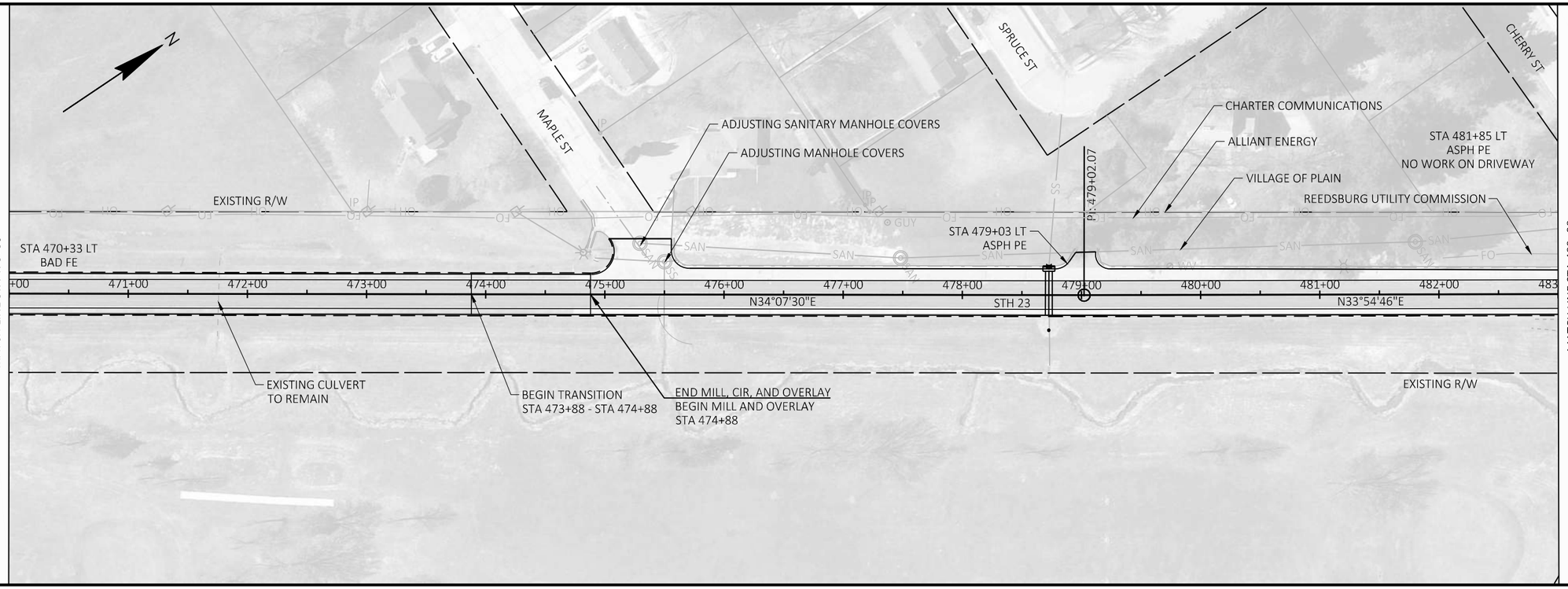
BENCHMARKS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
BM#923	442+17.20	44.266' RT	FENO MONUMENT	164,944.507	568,038.166	820.512'

BENCHMARKS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
BM#924	466+90.04	44.434' RT	FENO MONUMENT	165,073.669	569,304.277	810.957'

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 178	E



5

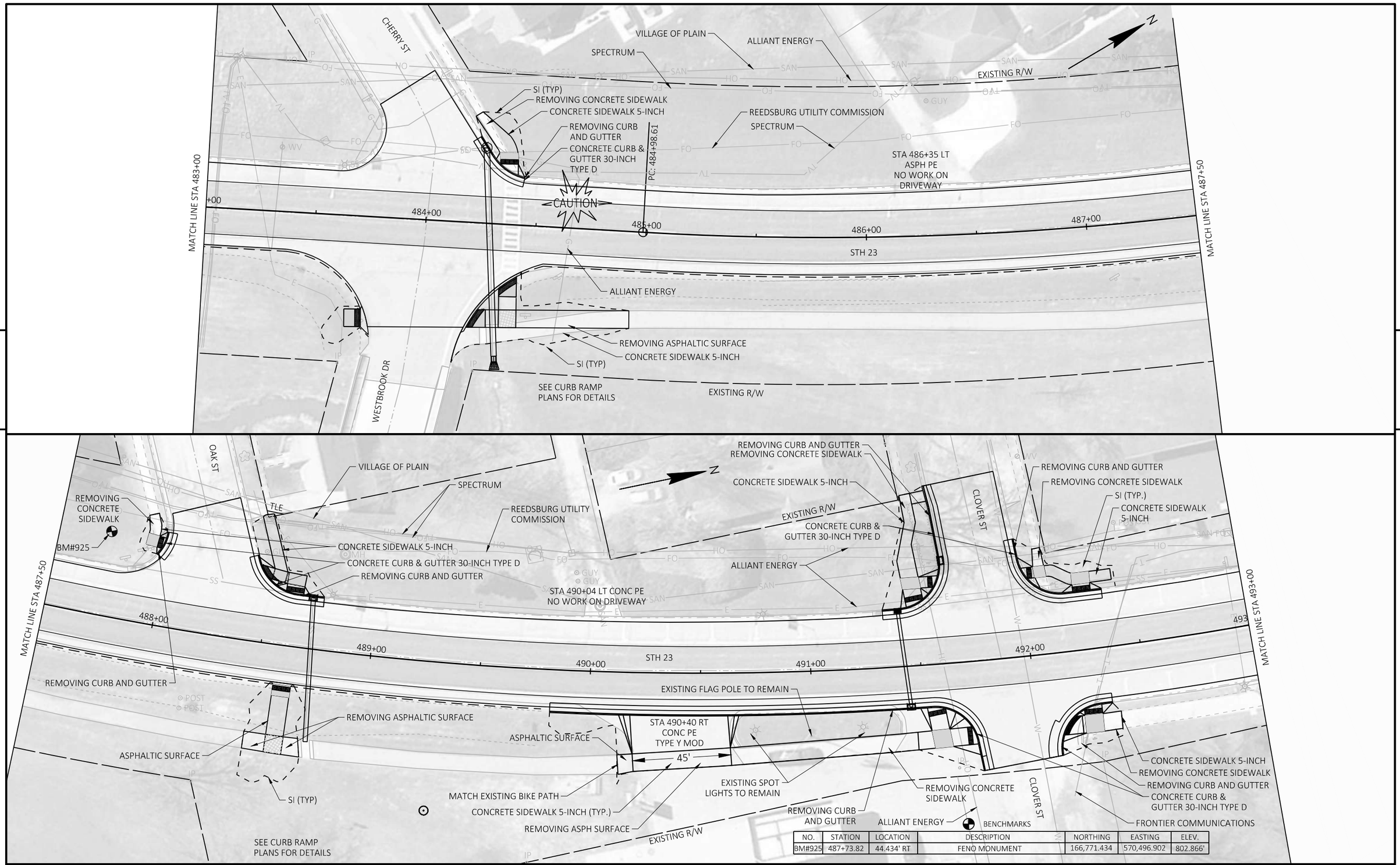
5

THIS FRAME INTENTIONALLY LEFT BLANK

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 179	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050212-pn

PLOT DATE : 10/31/2023 11:24 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT



NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
BM#925	487+73.82	44.434' RT	FENO MONUMENT	166,771.434	570,496.902	802.866'

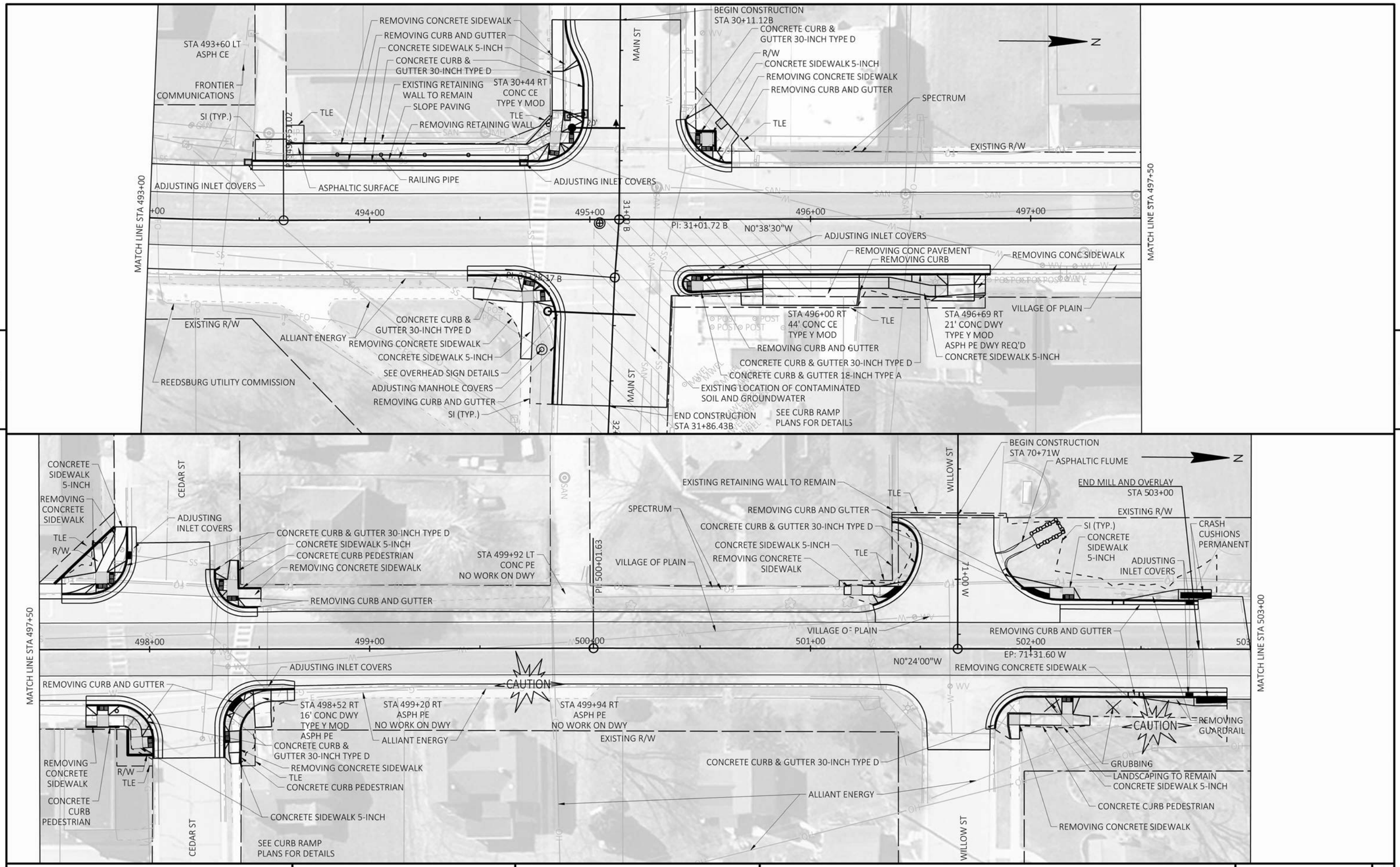
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 180	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050202-PN.DWG
LAYOUT NAME - 050213-pn

PLOT DATE : 10/31/2023 11:25 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

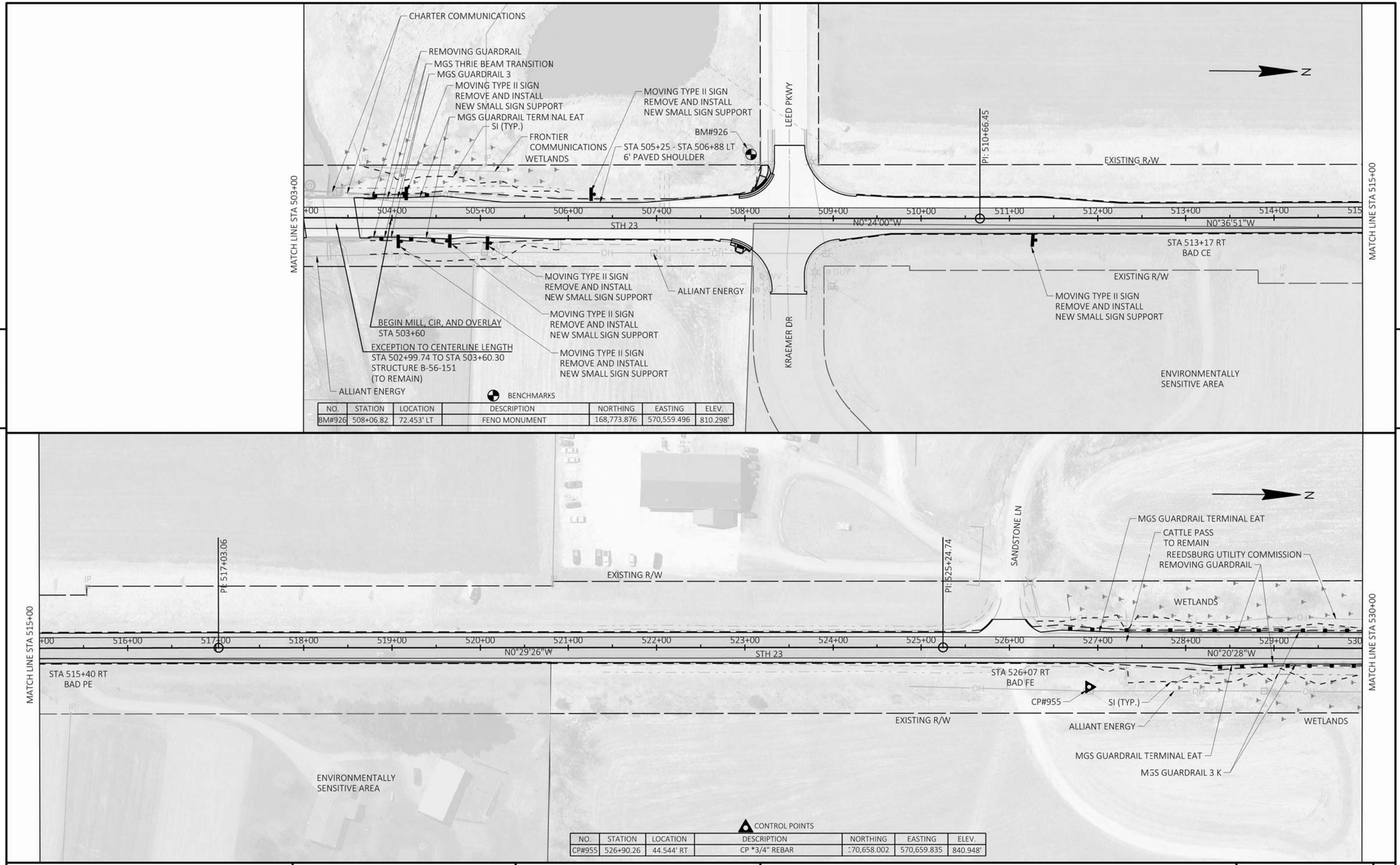
WISDOT/CADDS SHEET 44

5



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 181 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050202-PN.DWG
LAYOUT NAME - 050214-pn
PLOT DATE : 11/21/2023 11:49 AM
PLOT BY : CONNOR GIRTEN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

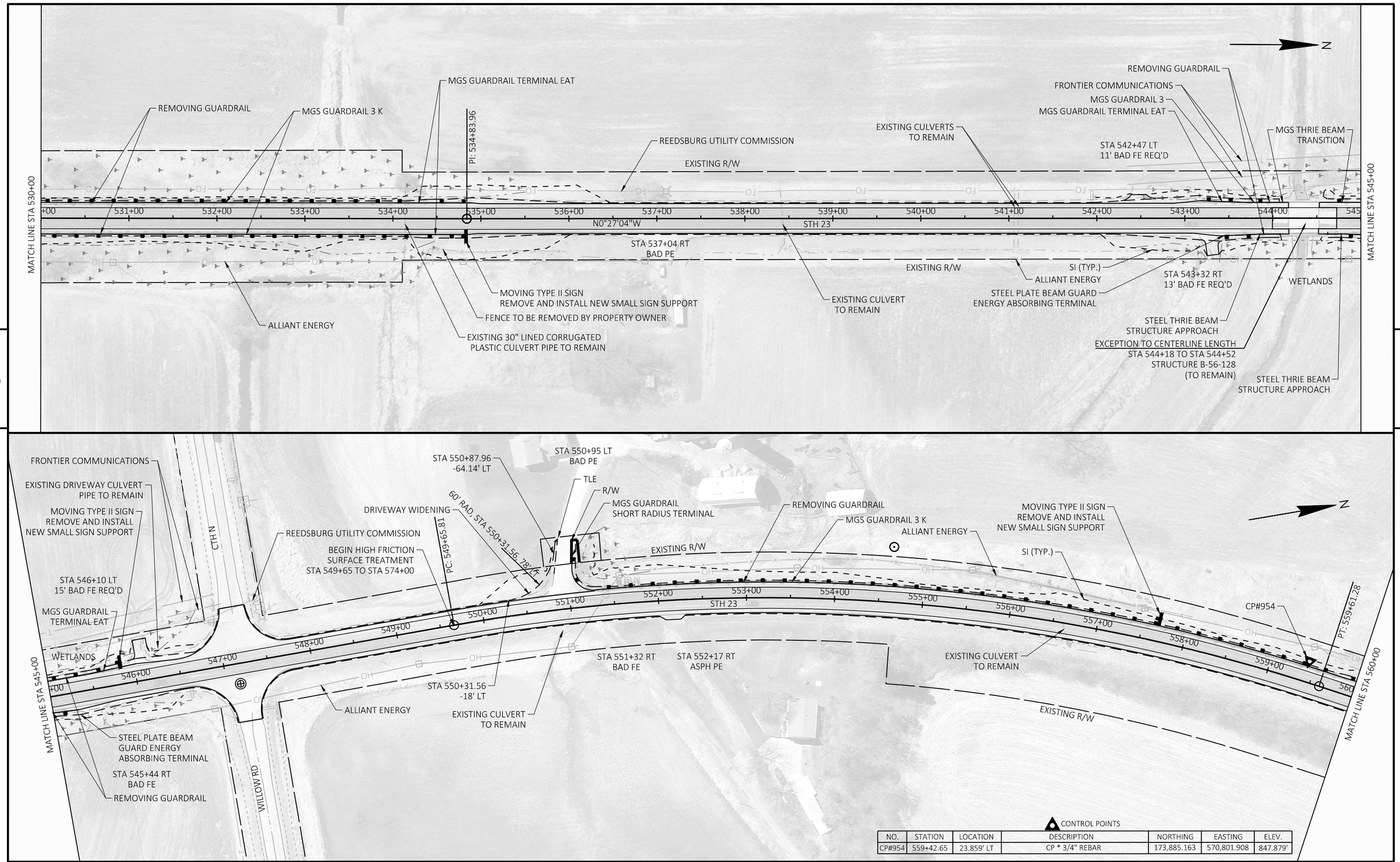


5

5

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050215-pn
PLOT DATE : 11/27/2023 1:32 PM
PLOT BY : CONNOR GIRTEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

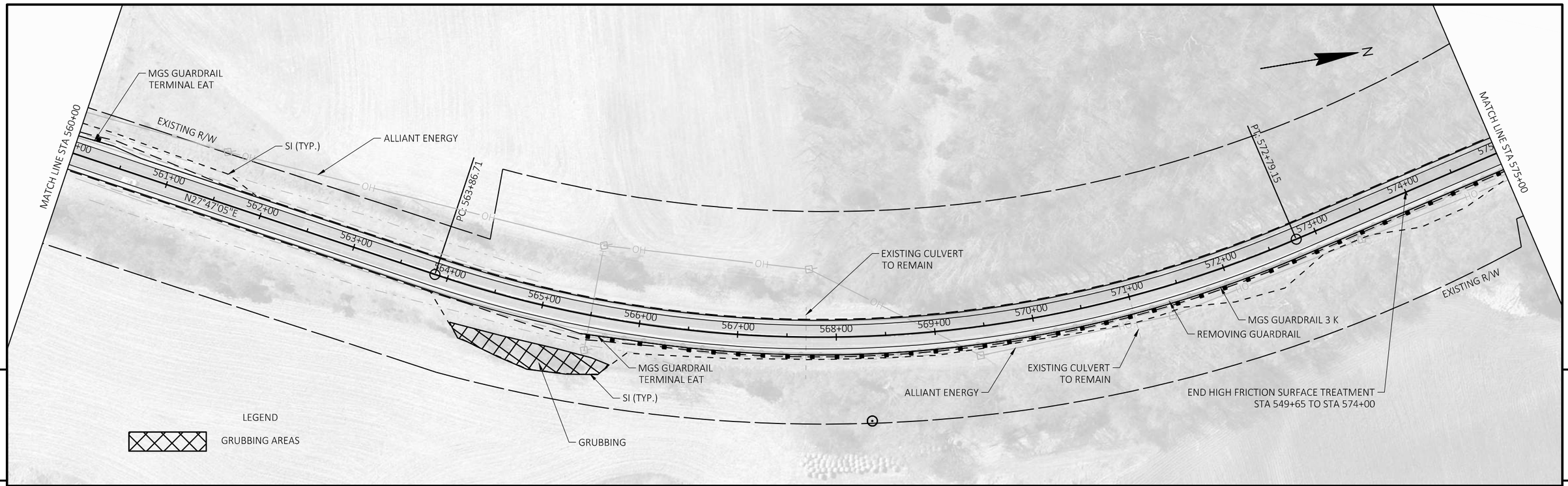


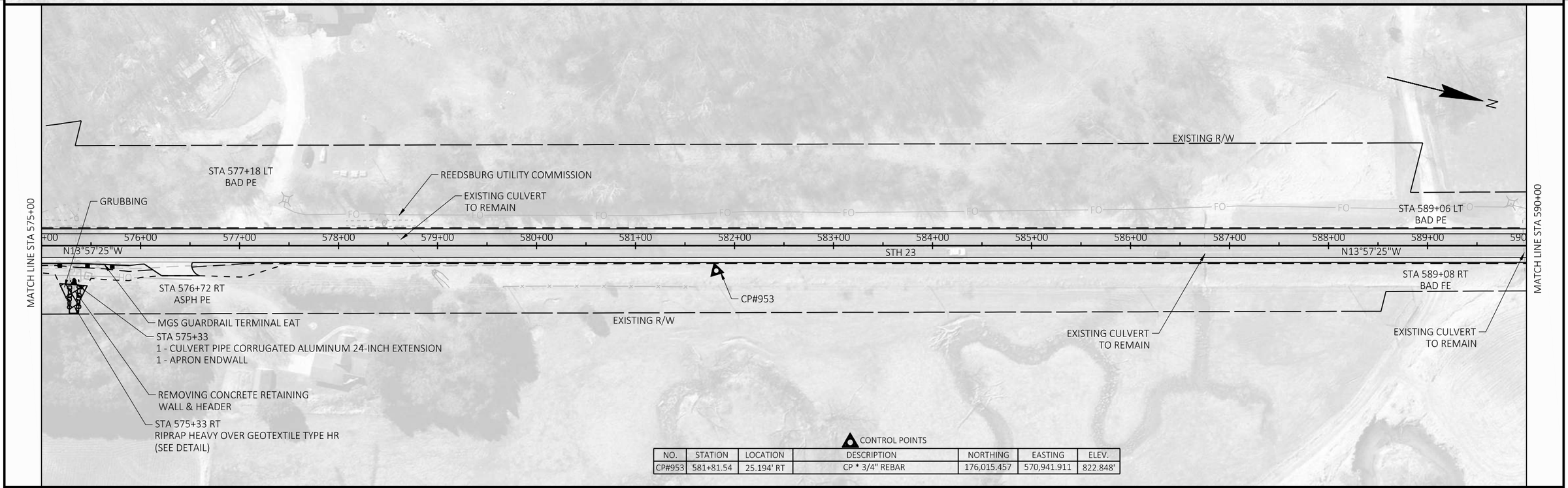
CONTROL POINTS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#954	559+42.65	23.859' LT	CP * 3/4" REBAR	173,885.163	570,801.908	847.879'

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 183	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050216-pn
PLOT DATE : 10/31/2023 11:26 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





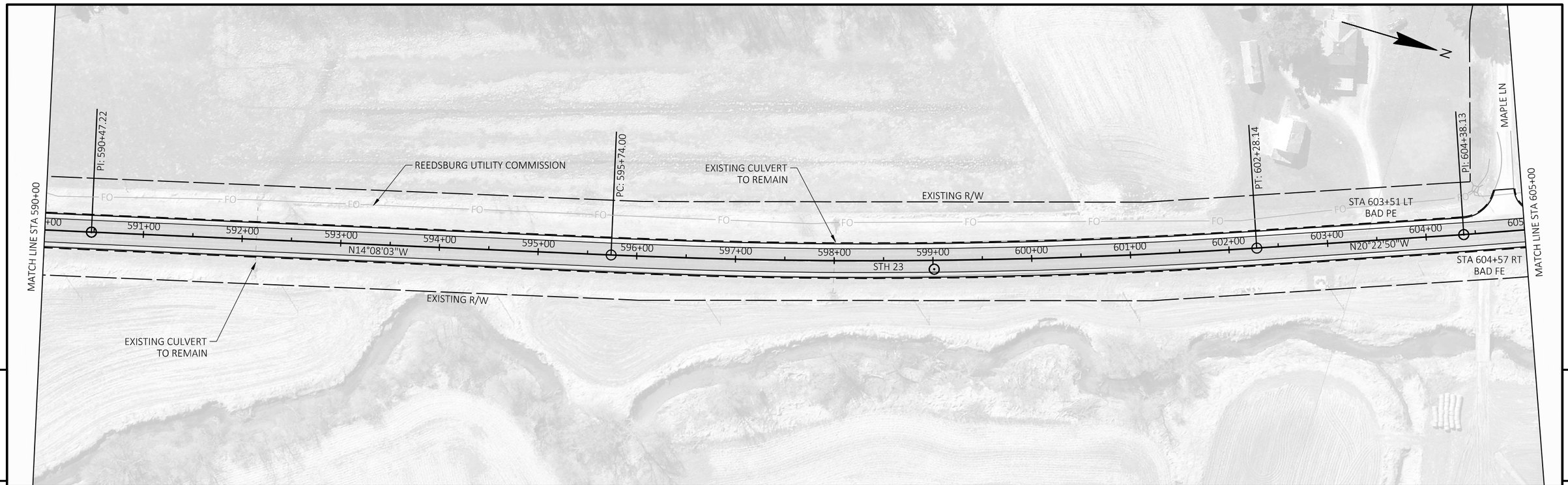
CONTROL POINTS

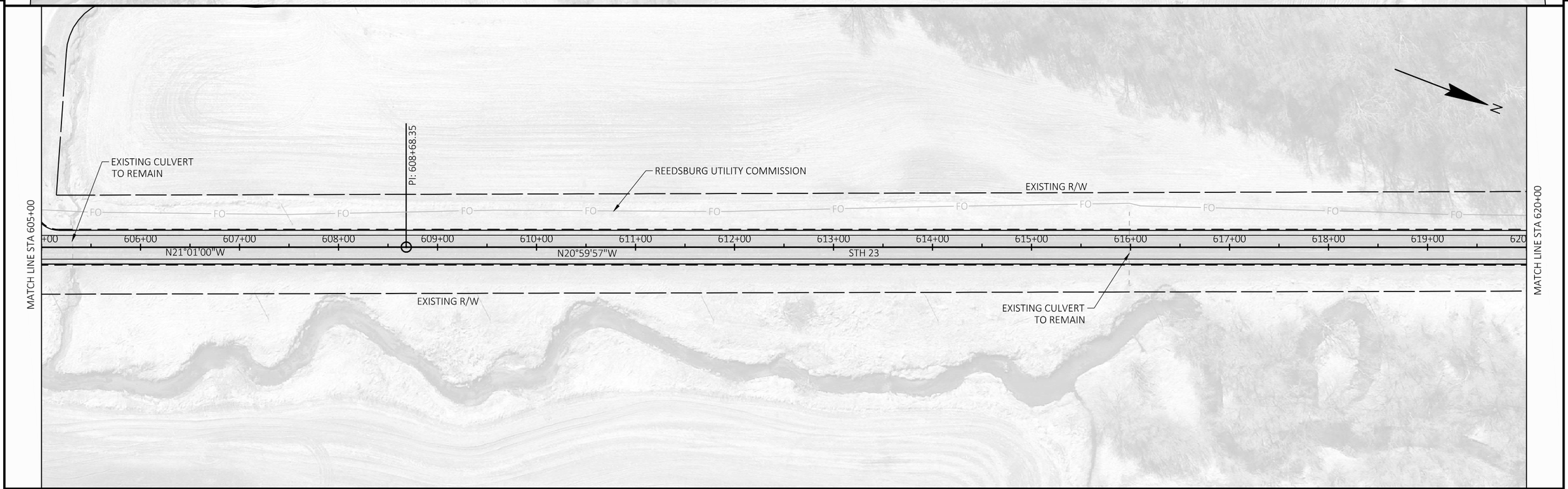
NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#953	581+81.54	25.194' RT	CP * 3/4" REBAR	176,015.457	570,941.911	822.848'

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 184 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050217-pn

PLOT DATE : 10/31/2023 11:26 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 185	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050218-pn

PLOT DATE : 10/31/2023 11:26 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

BENCHMARKS

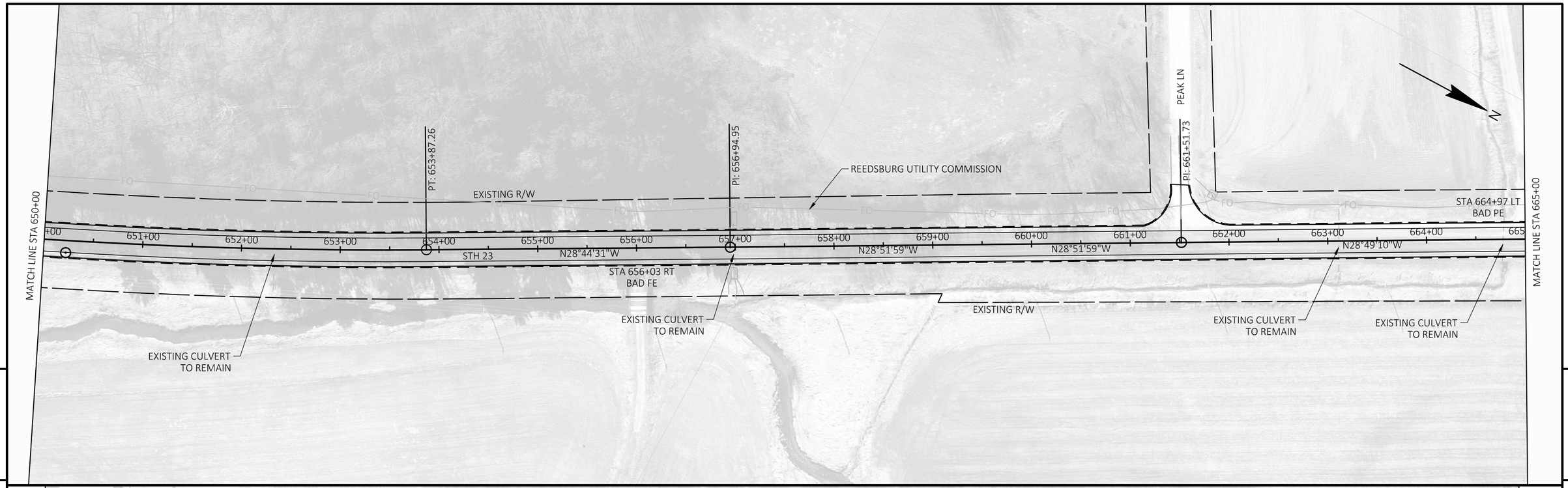
NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
BM#927	644+53.42	125.888' RT	FENO MONUMENT	181,975.248	568,991.452	818.821'

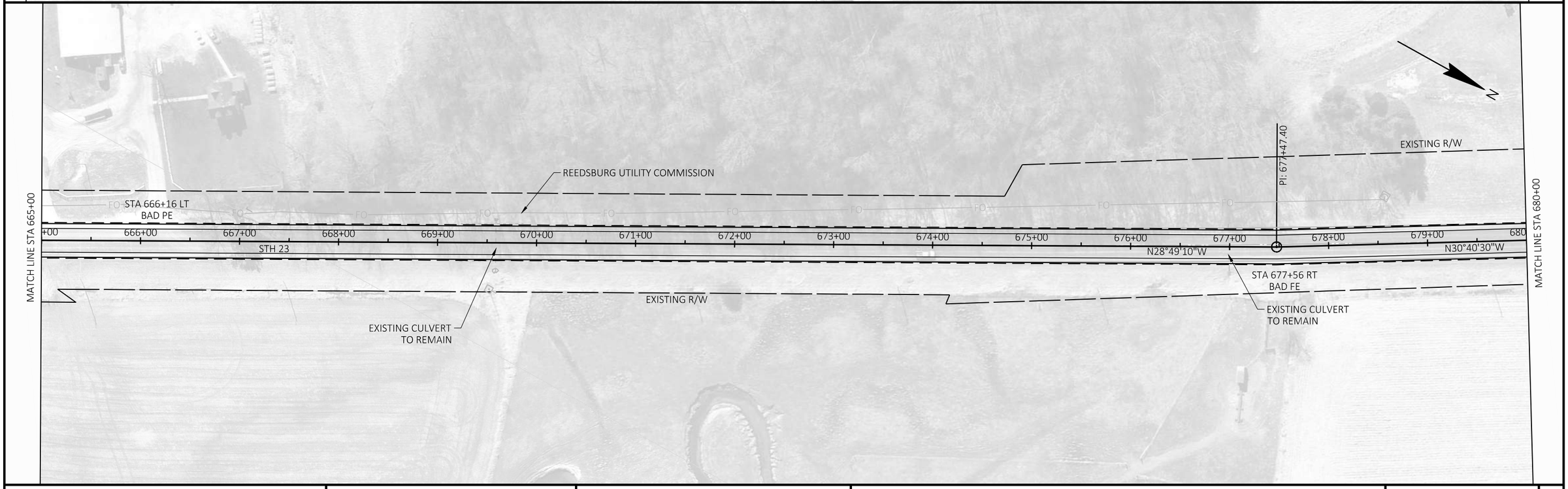
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 186	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050219-pn

PLOT DATE : 10/31/2023 11:26 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 187	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050220-pn

PLOT DATE : 10/31/2023 11:27 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

5

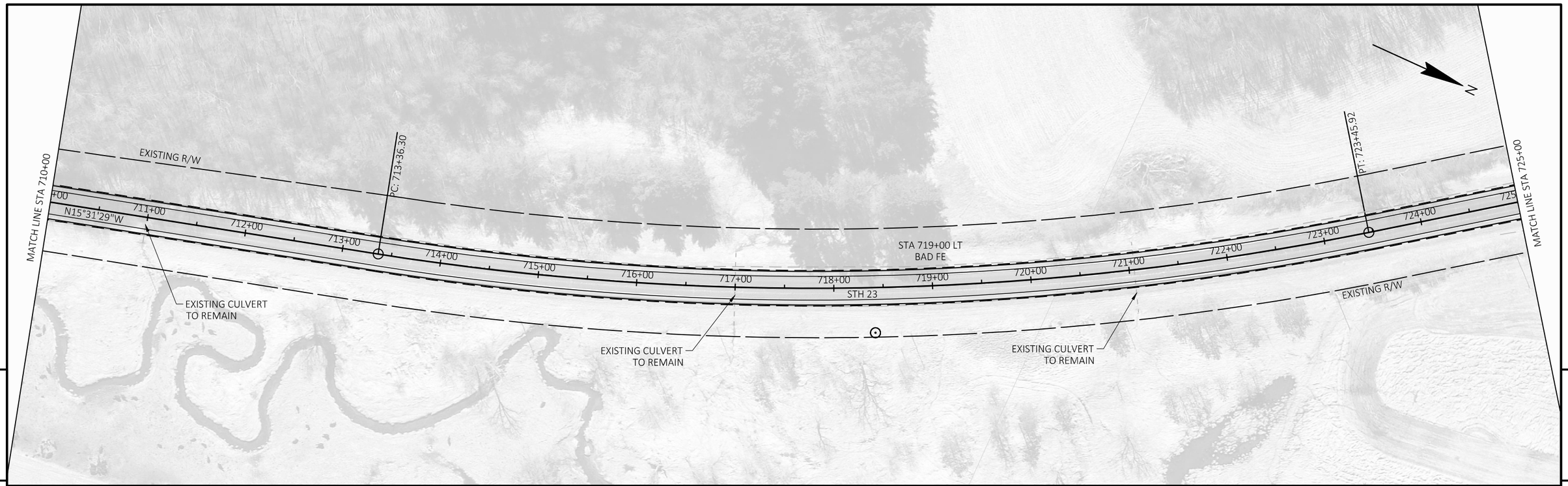
5

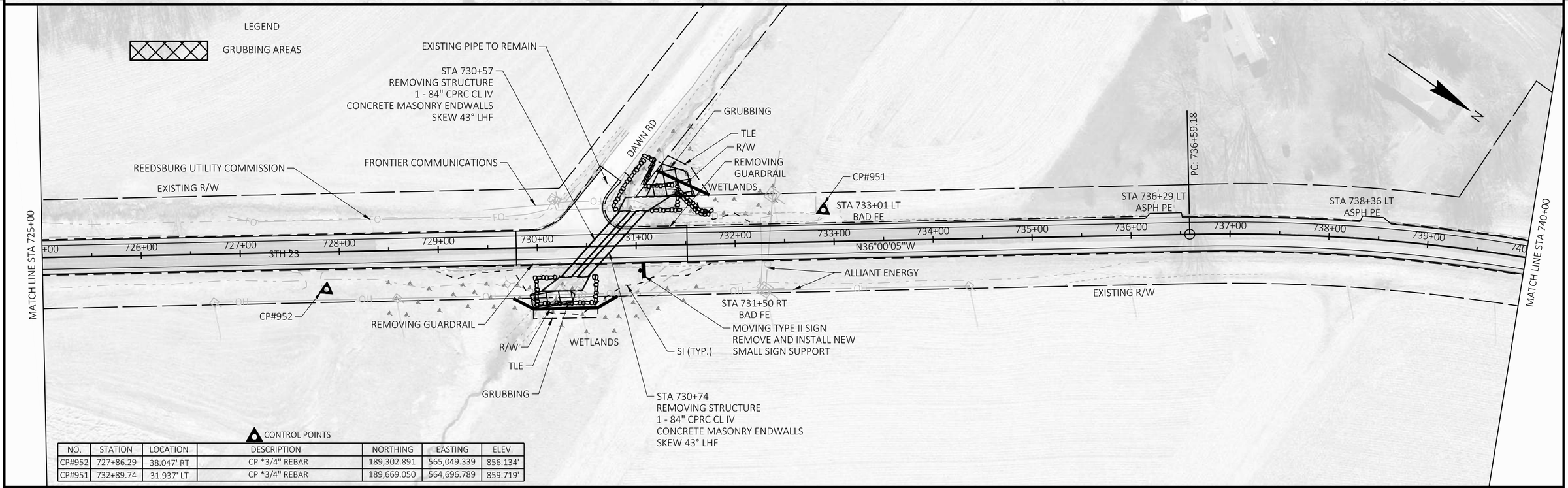
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 188 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050221-pn

PLOT DATE : 10/31/2023 11:27 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

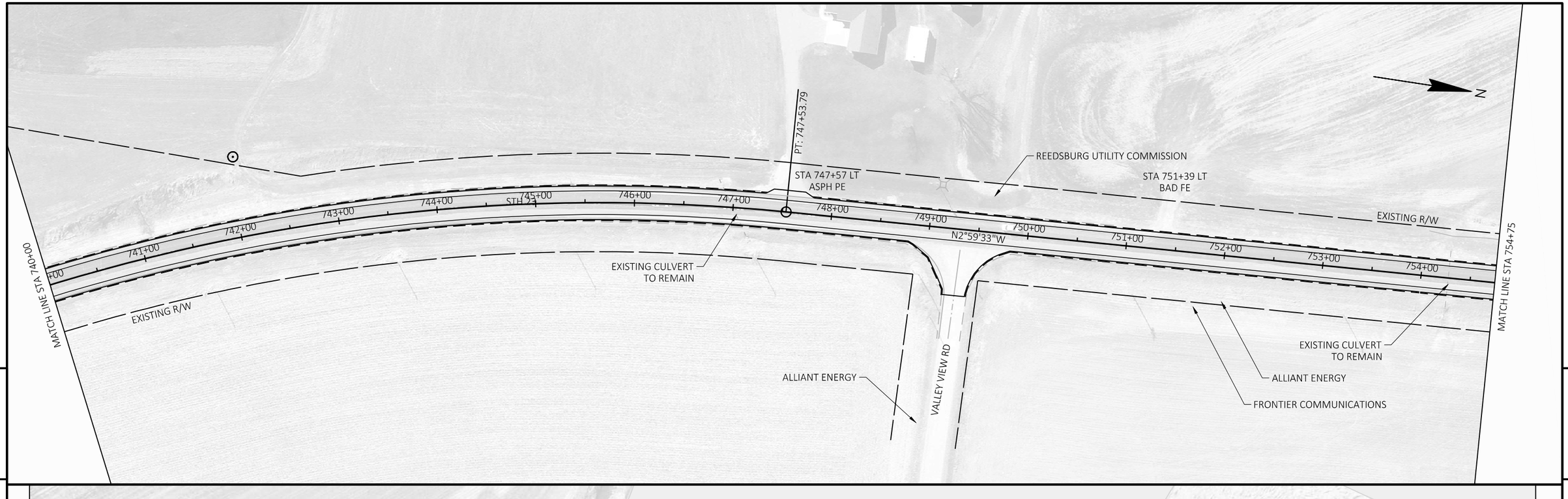
WISDOT/CADDS SHEET 44

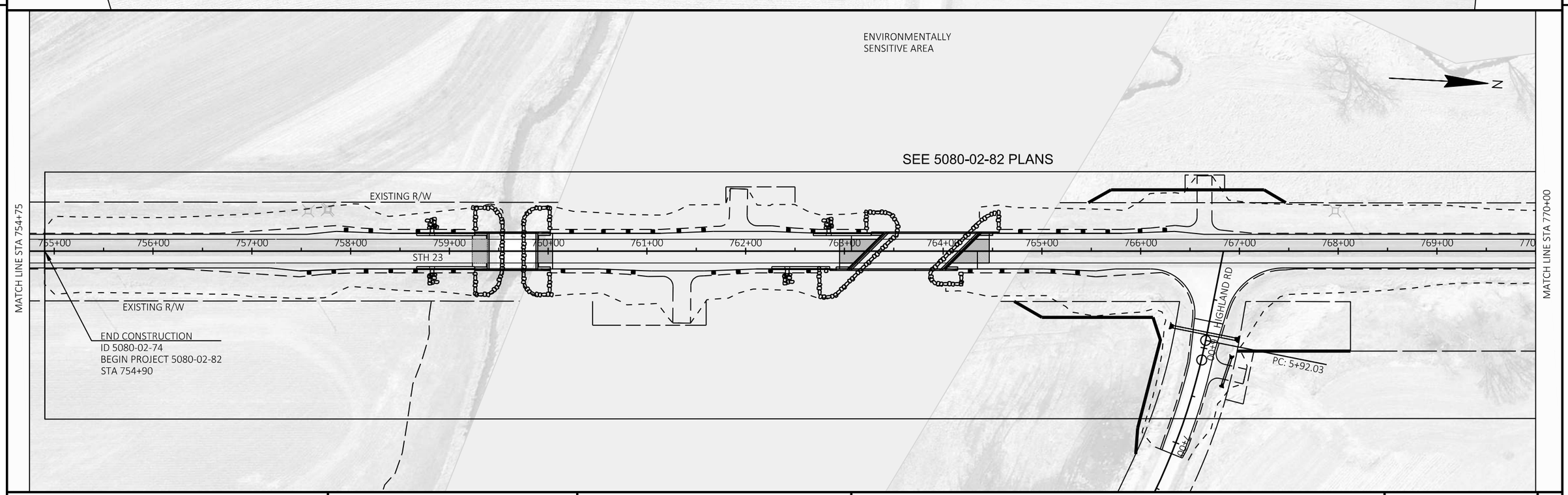




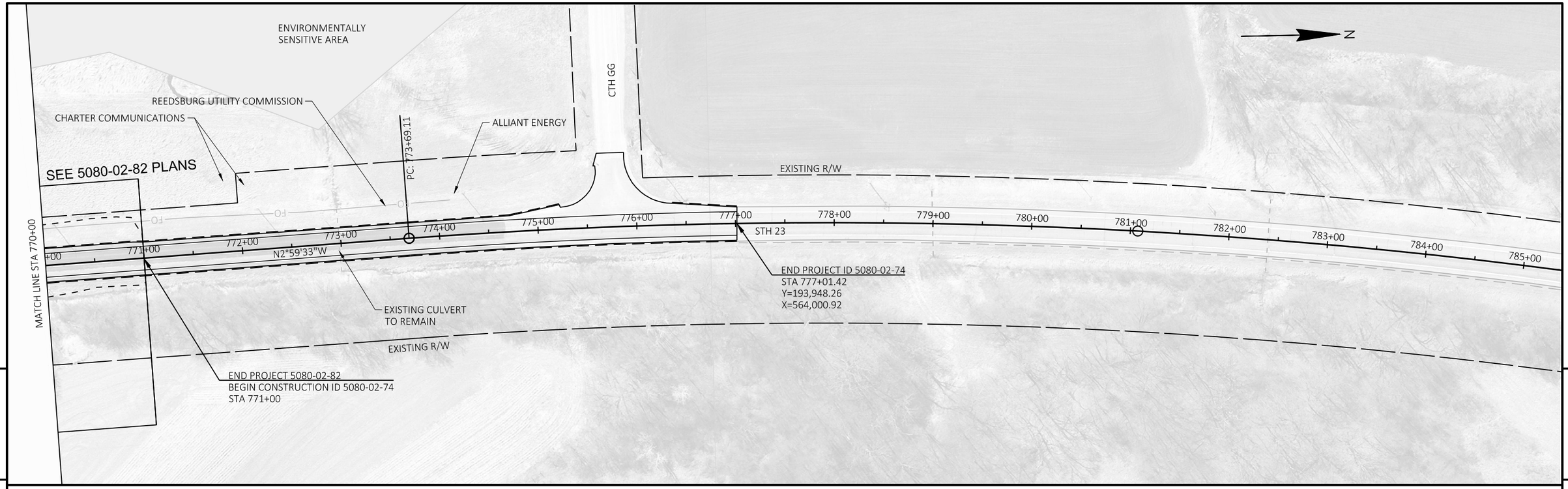
CONTROL POINTS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#952	727+86.29	38.047' RT	CP *3/4" REBAR	189,302.891	565,049.339	856.134'
CP#951	732+89.74	31.937' LT	CP *3/4" REBAR	189,669.050	564,696.789	859.719'





PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 190	E



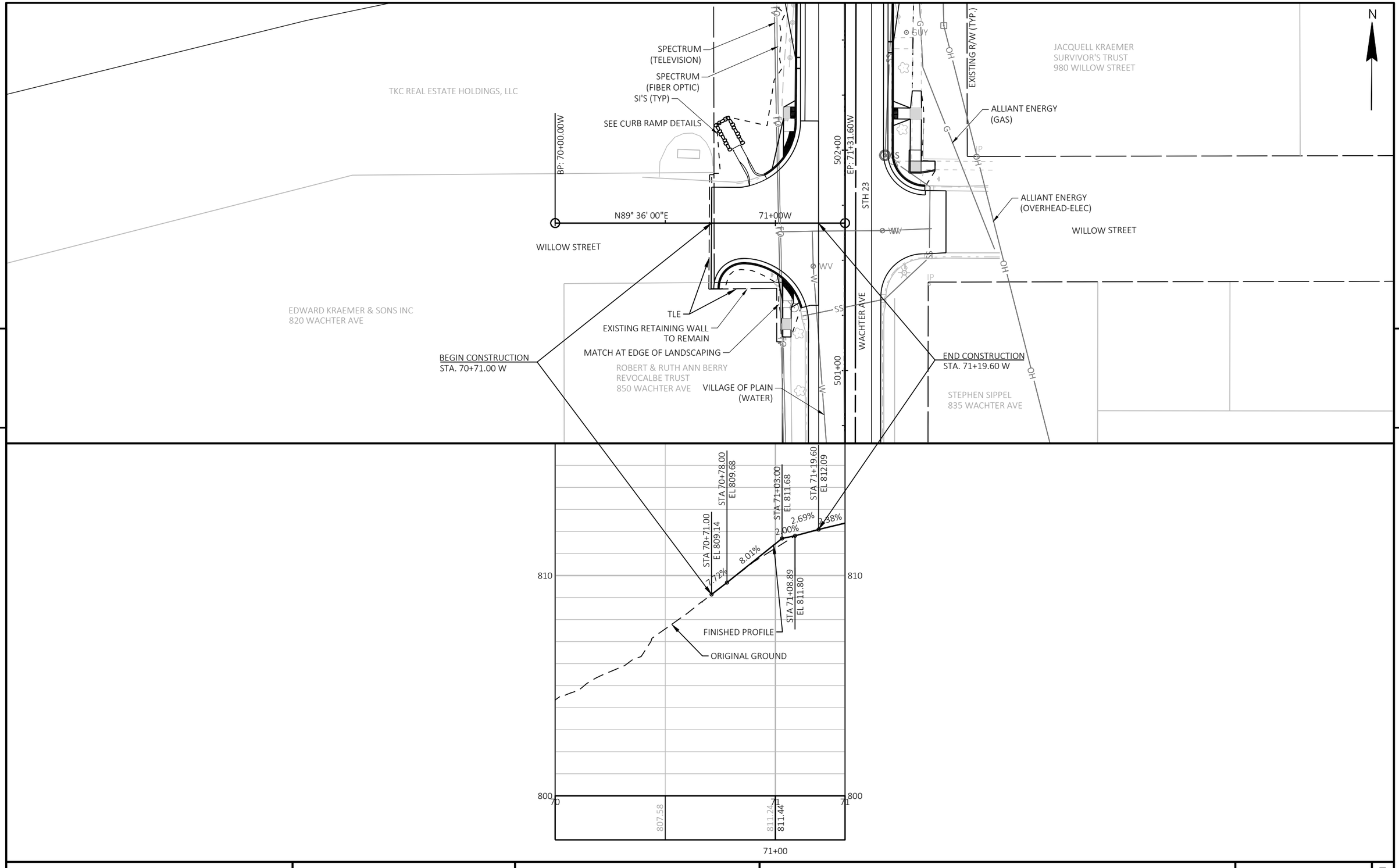
5

5

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN	SHEET 191	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050201-PN.DWG
LAYOUT NAME - 050224-pn

PLOT DATE : 10/31/2023 11:28 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: WILLOW STREET	SHEET 192	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\050101-PP.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2023 12:25 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

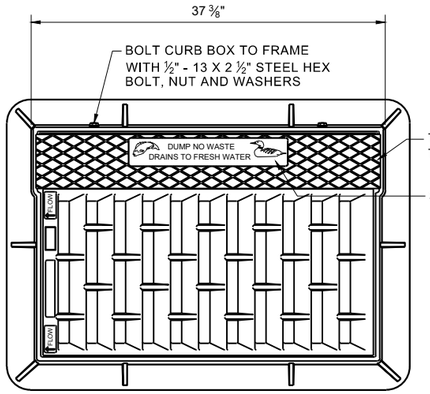
08A05-20A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-20C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08D18-04	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-04	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-02	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C12-09A	CONCRETE BASE TYPE 13
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E12-01C	OVER HEIGHT TYPE 12 POLE 35'-55' MONOTUBE ARM
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
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
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
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)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

6

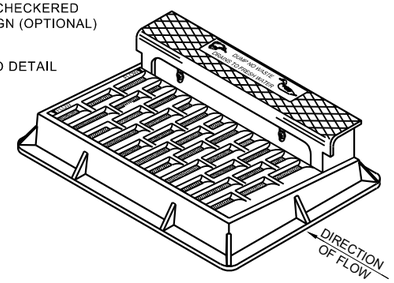
Standard Detail Drawing List

14B53-02A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15C36-01	PARKING STALL MARKING
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

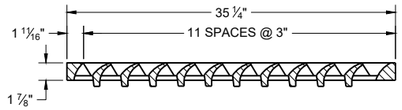
6

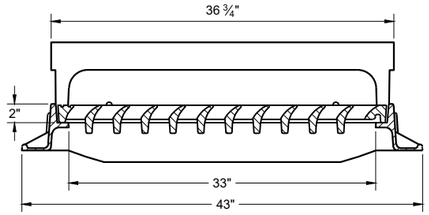


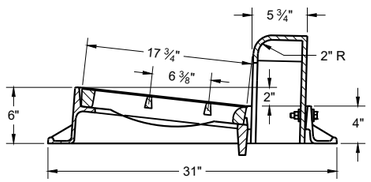
NOTE: EITHER CASTING IS ACCEPTABLE

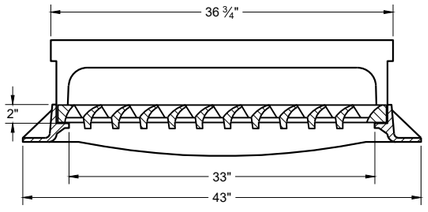


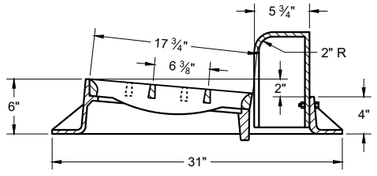
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







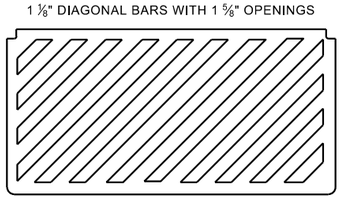




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

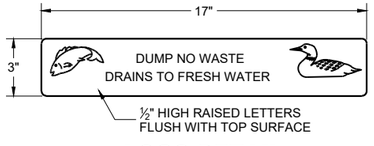
1 ⅛" DIAGONAL BARS WITH 1 ⅝" OPENINGS



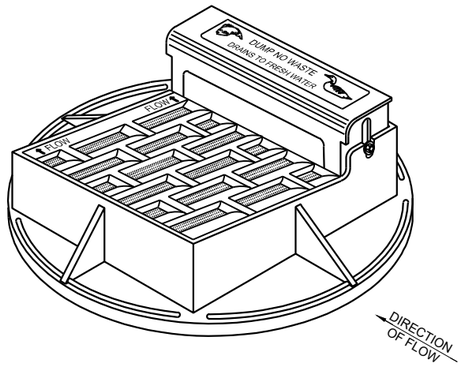
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 ¾" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

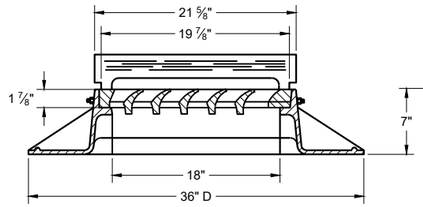


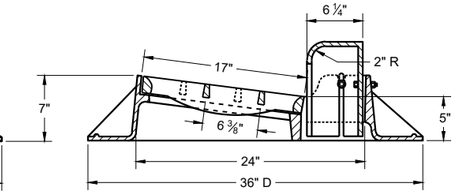
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





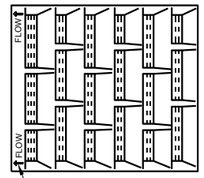
TYPE "A"

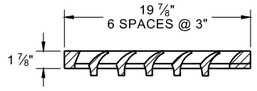
GENERAL NOTES

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.

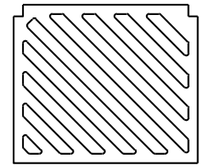
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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





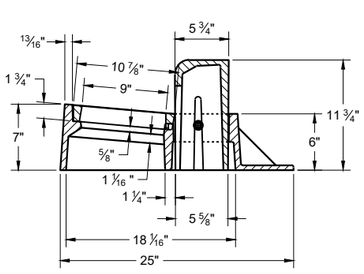
1" DIAGONAL BARS WITH 1 ½" OPENINGS



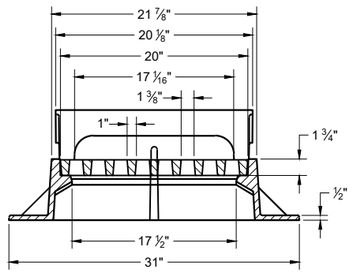
SPECIAL GRATE FOR TYPE "A" COVER

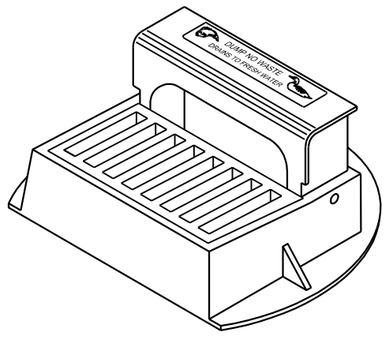
(MEASURES 19 ¾" X 17" X 1 ⅞")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023
DATE

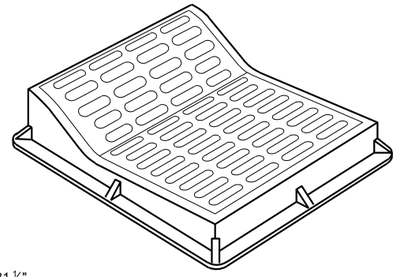
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

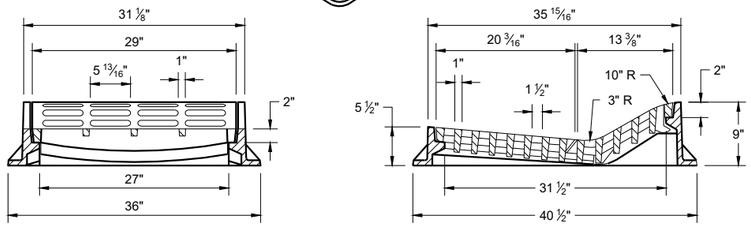
FHWA

GENERAL NOTES

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

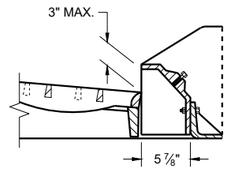
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

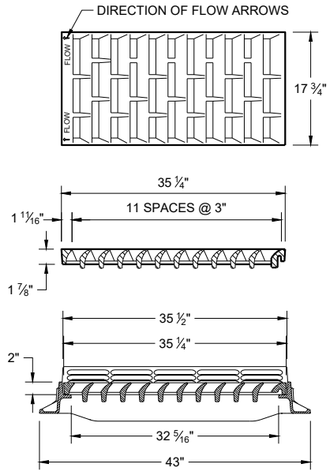


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

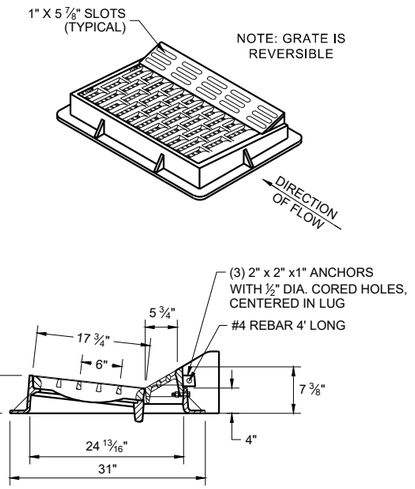
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



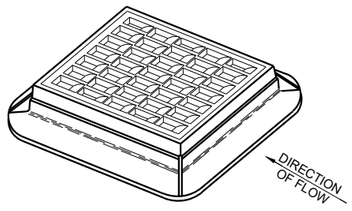
TYPE "HM"

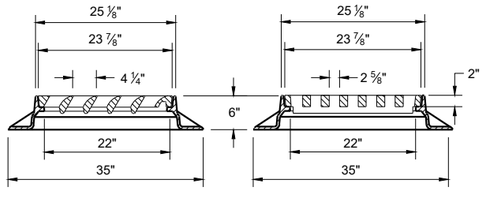
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



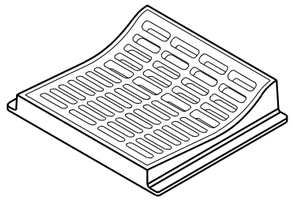
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

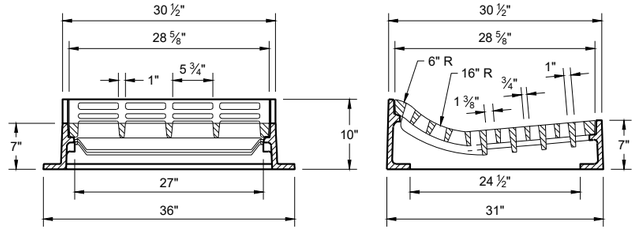
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





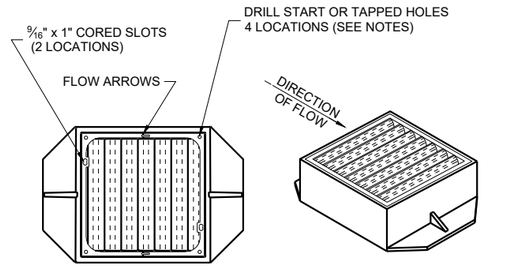
TYPE "S"

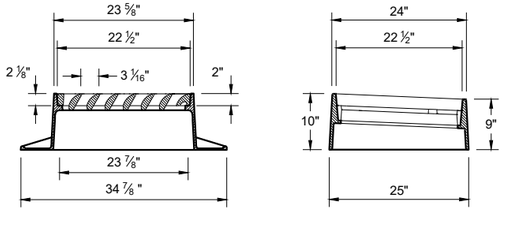




TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

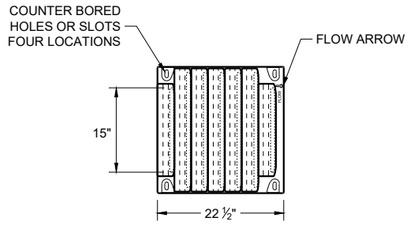




TYPE "V"

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
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

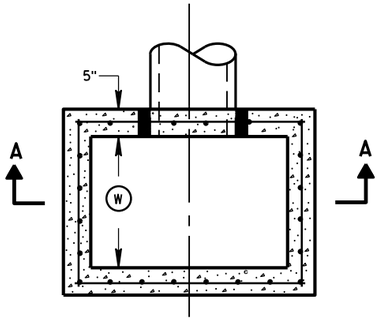
GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS TYPES F, HM, HM-S, S, T, V, HM-GJ AND HM-GJ-S

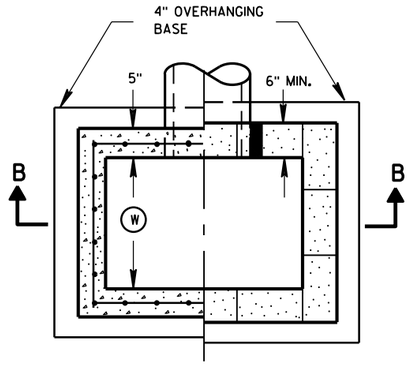
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

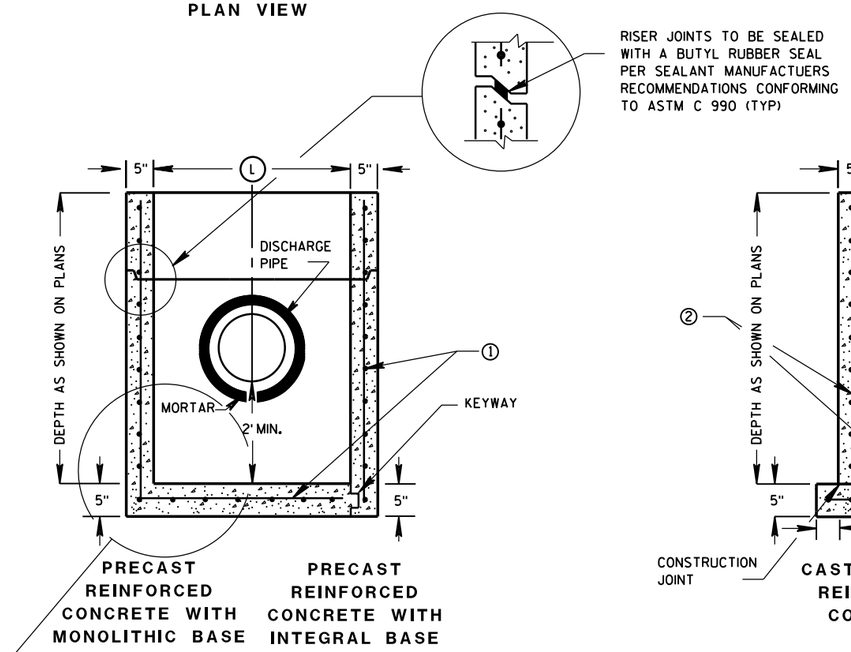
FHWA



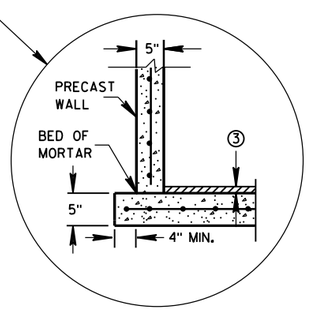
PLAN VIEW



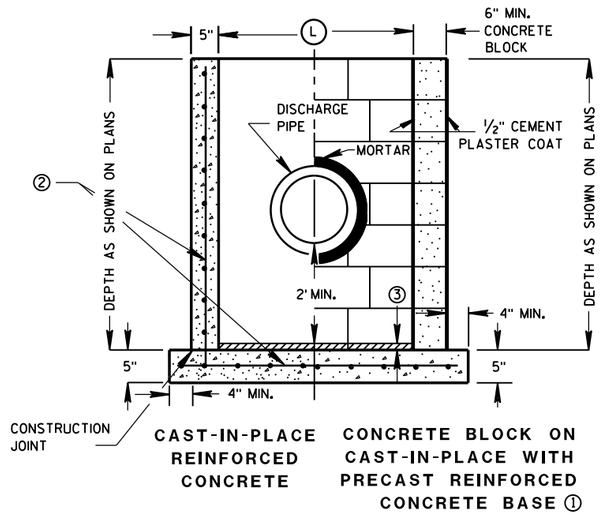
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN 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 CATCH BASIN 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 CATCH BASINS 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.

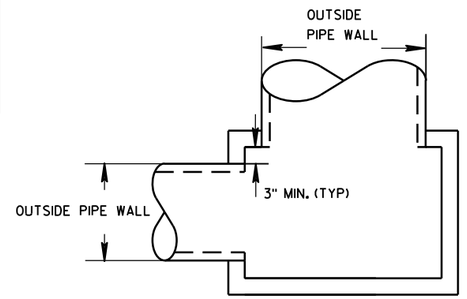
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

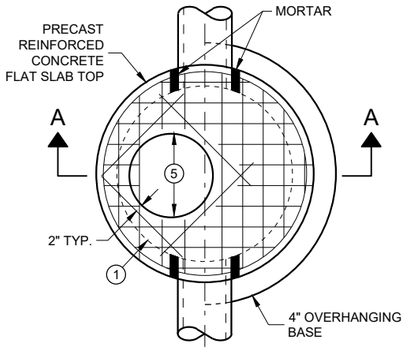
CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

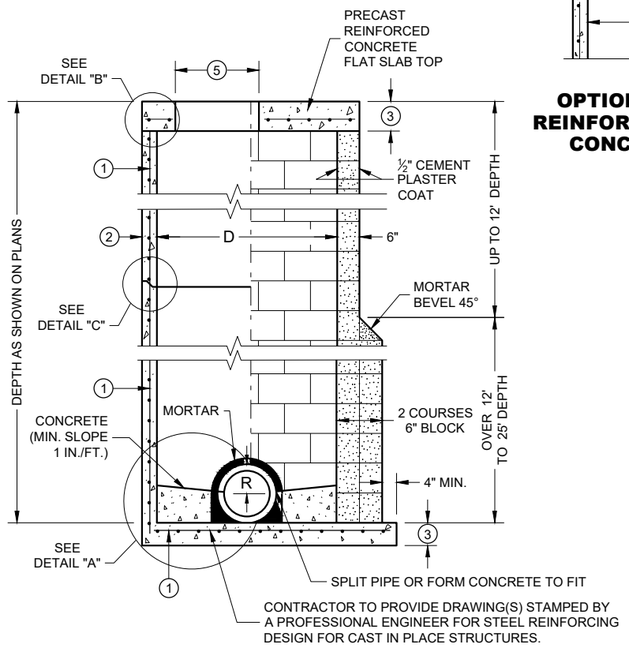
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

S.D.D. 8 A 9-2



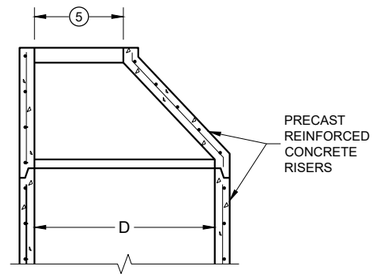
PLAN VIEW
CIRCULAR OPENING



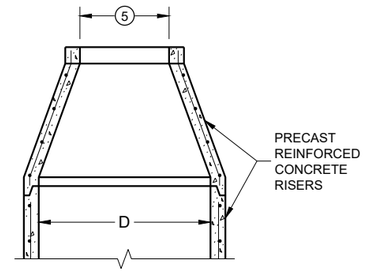
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

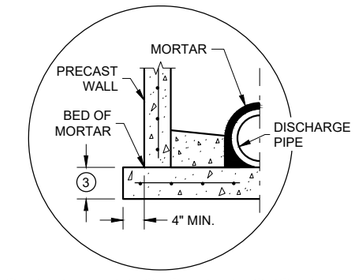
MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

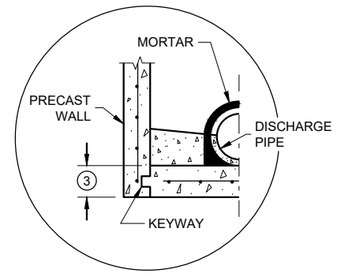
PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

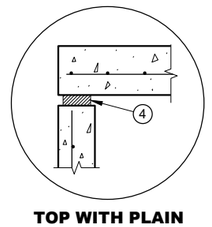


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

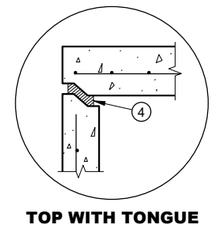


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

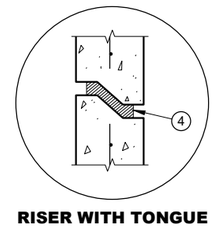
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE 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 DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE 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.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL 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.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

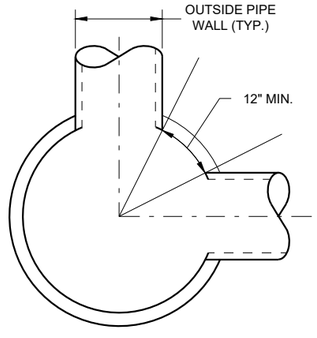
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

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

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

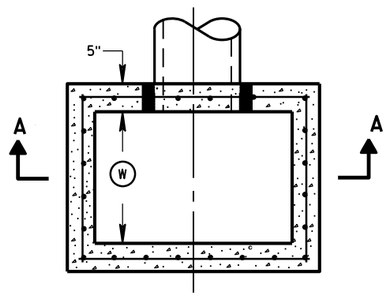
MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

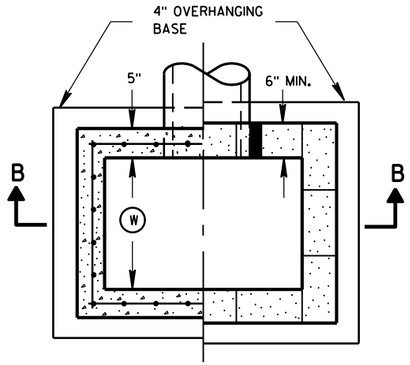
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
198
FHWA

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

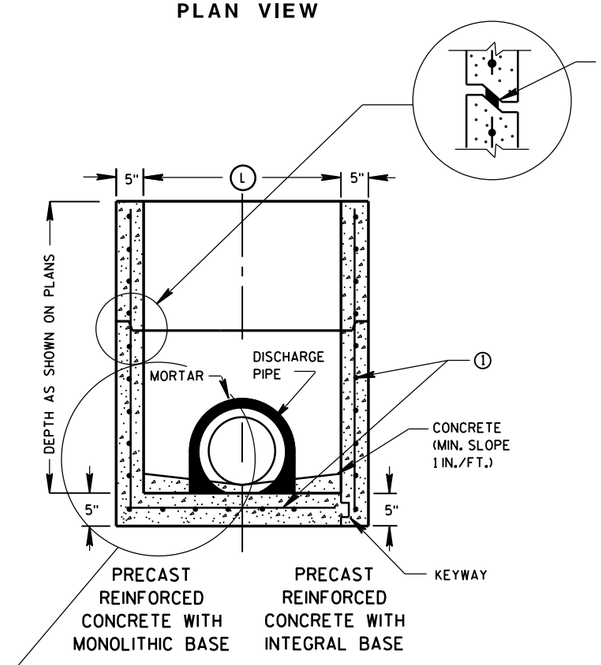
6
SDD 08B09 - 03



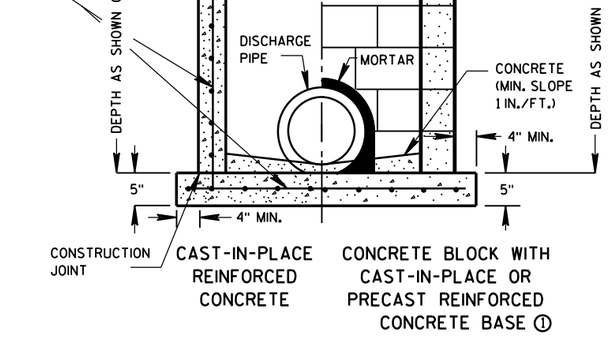
PLAN VIEW



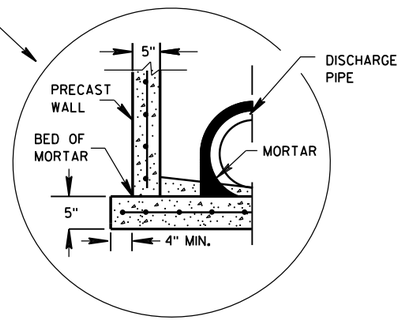
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR 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 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

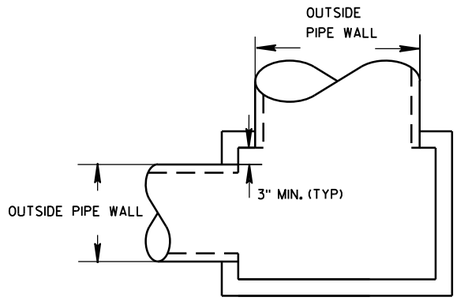
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



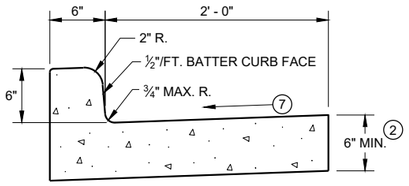
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

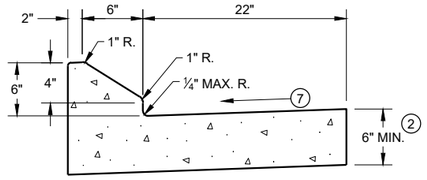
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT UNIT SUPERVIS
FHWA

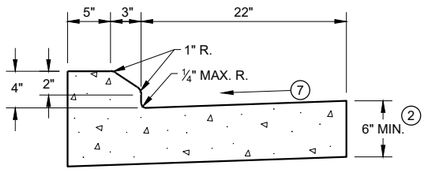
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT



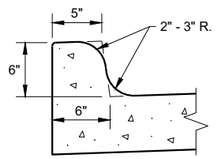
TYPES A (1) & D



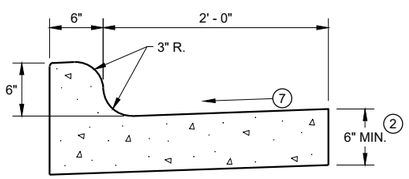
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

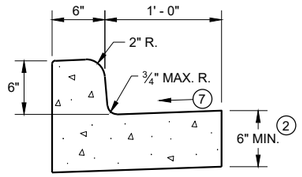


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



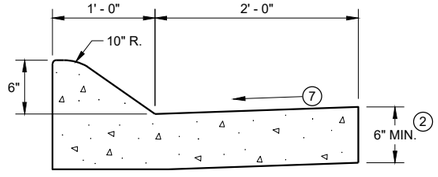
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

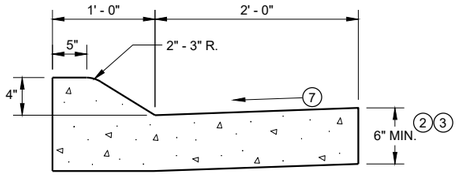


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

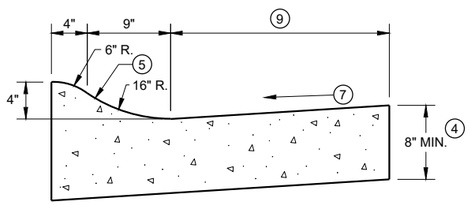


6" SLOPED CURB TYPES A (1) & D



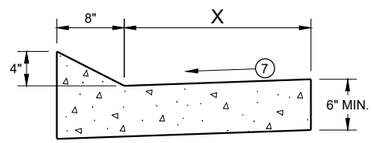
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

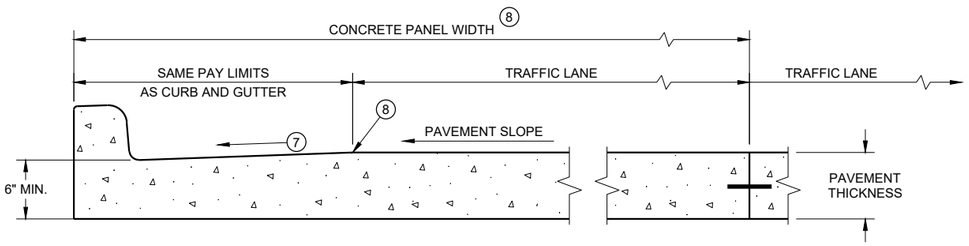


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

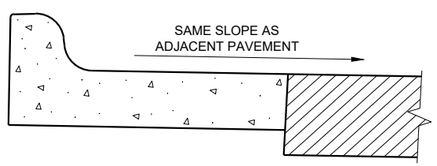
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

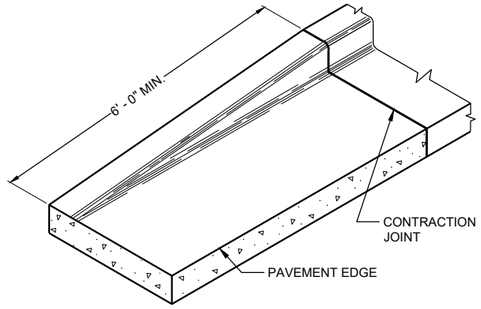
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(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

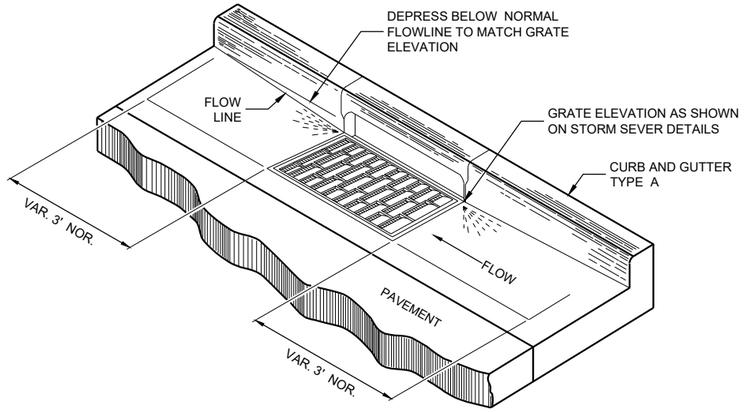
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 23a



END SECTIONCURB 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.

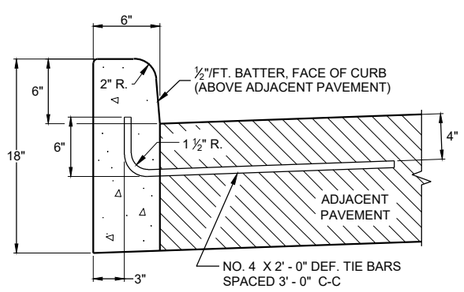
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

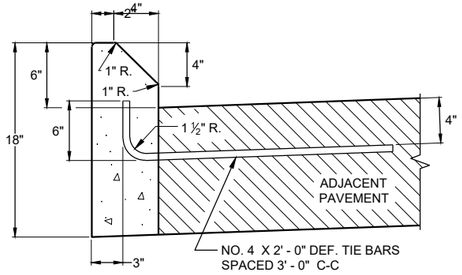
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

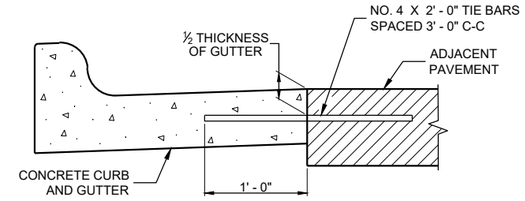


TYPES A (1) & D

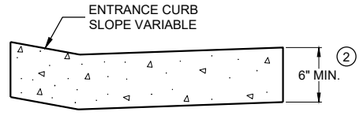


TYPES G (1) & J

CONCRETE CURB

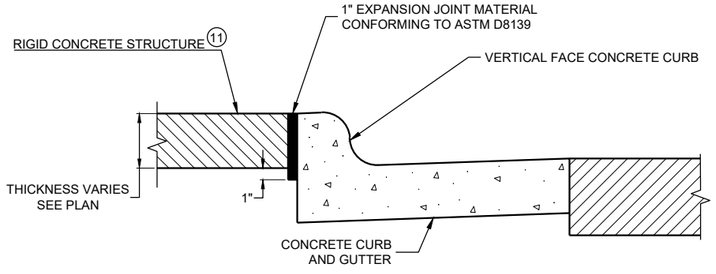


TYPICAL TIE BAR LOCATION (1)

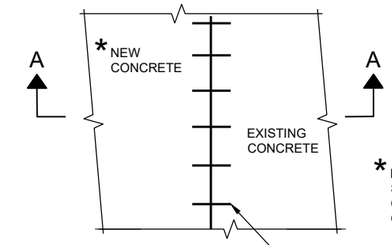


DRIVEWAY ENTRANCE CURB (10)

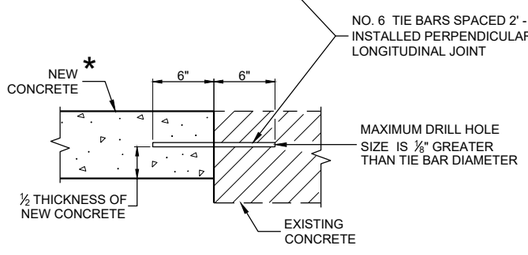
(WHEN DIRECTED BY THE ENGINEER)



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



PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

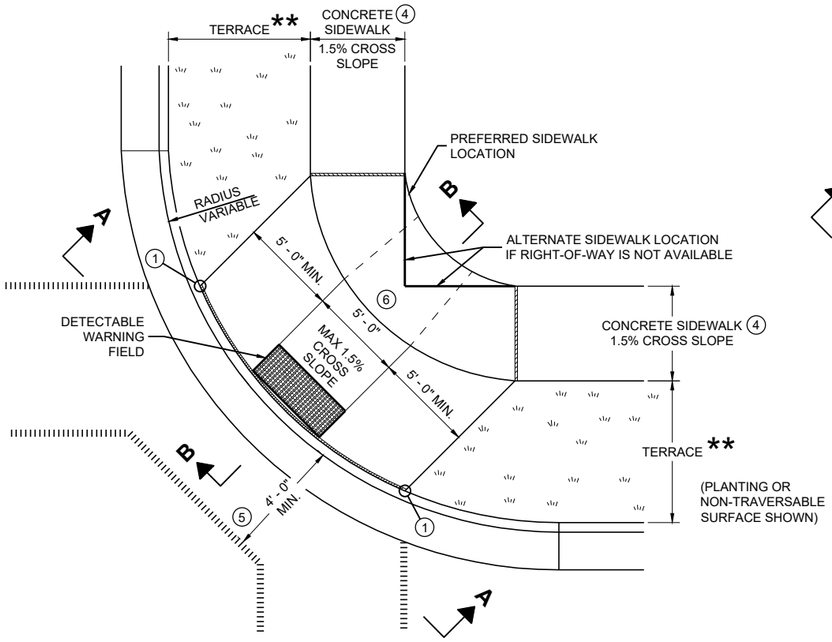
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

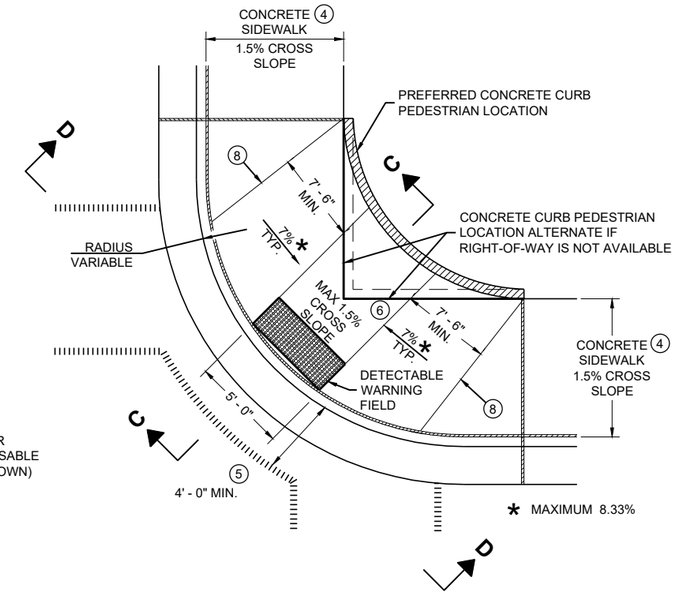
SDD08D01 - 23b



PLAN VIEW

CURB RAMP TYPE 1

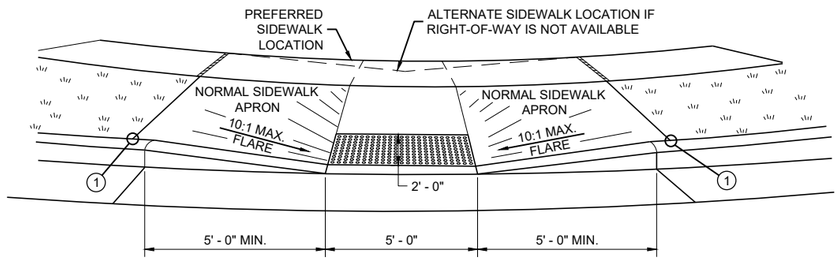
(CENTER OF CORNER RADIUS)



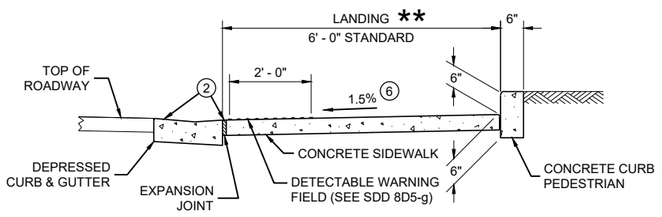
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

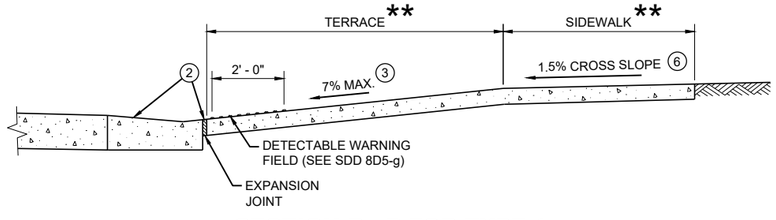


VIEW A - A FOR TYPE 1

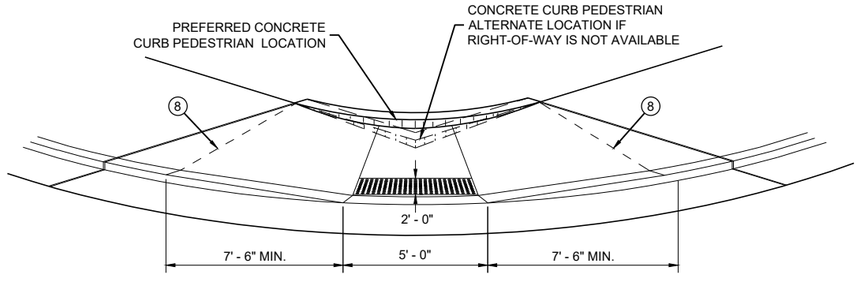


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

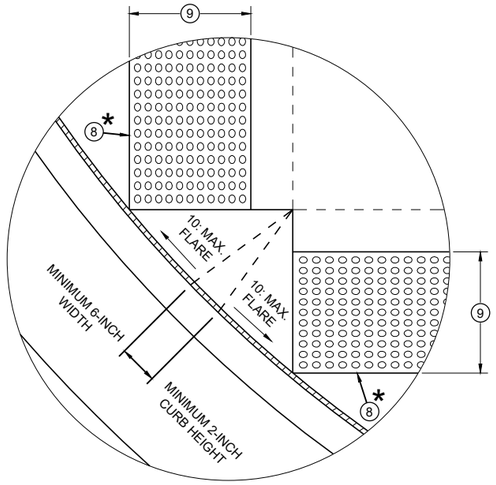
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

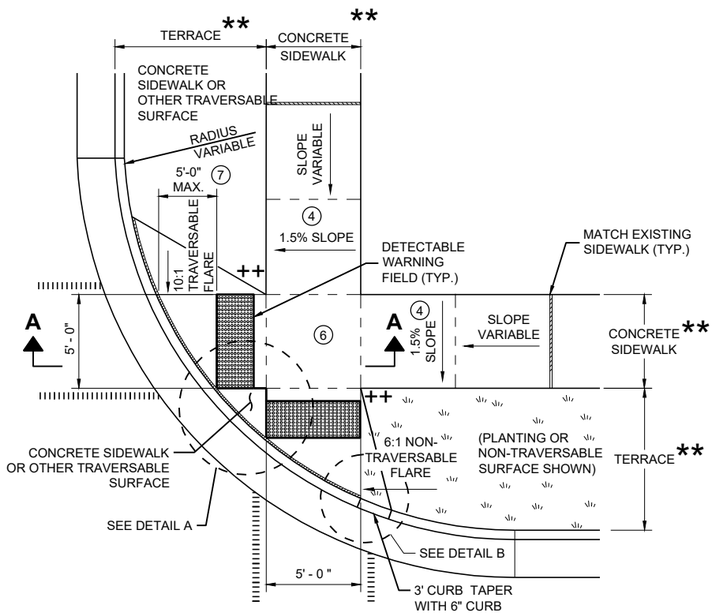
CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D05-21a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

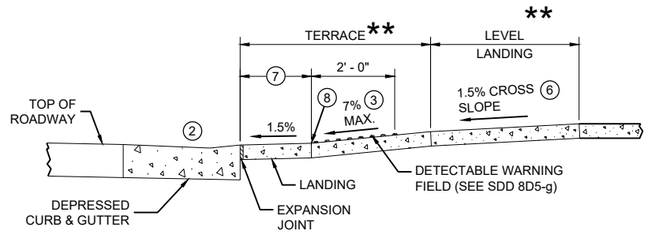
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

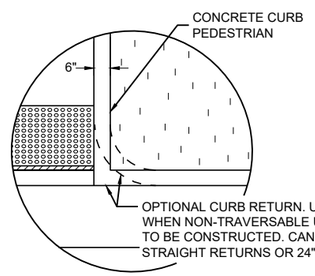


SECTION A - A FOR TYPE 2

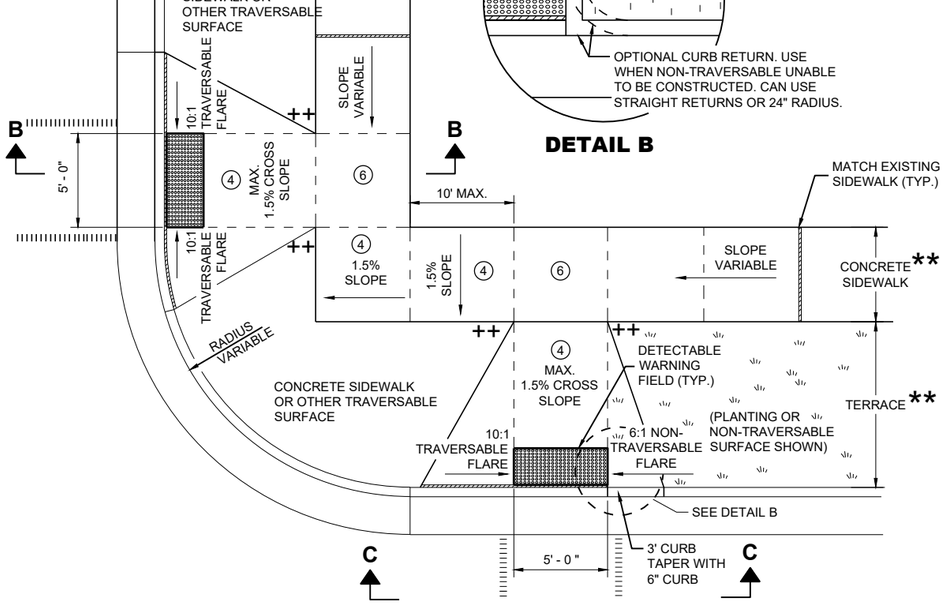
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

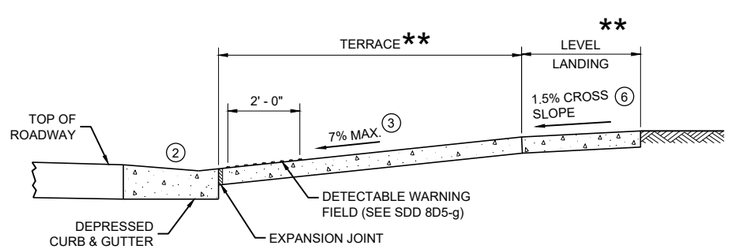
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



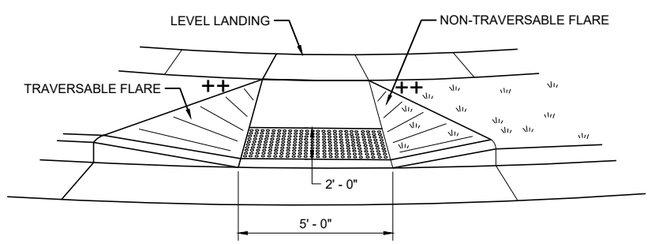
DETAIL B



PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



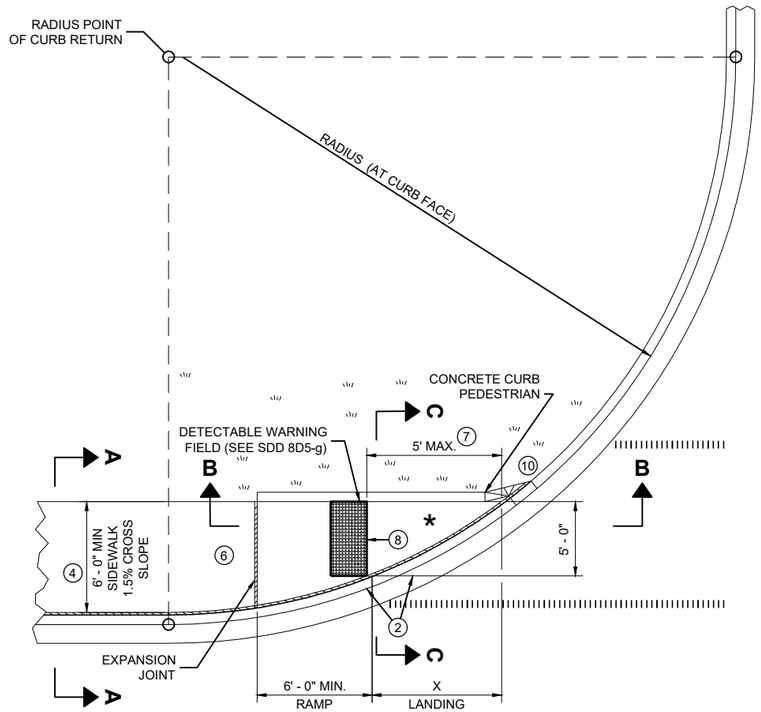
VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

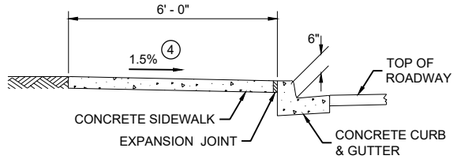


PLAN VIEW

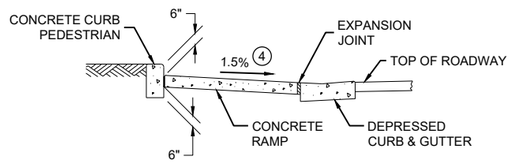
CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

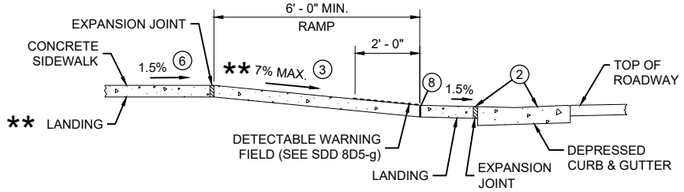
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

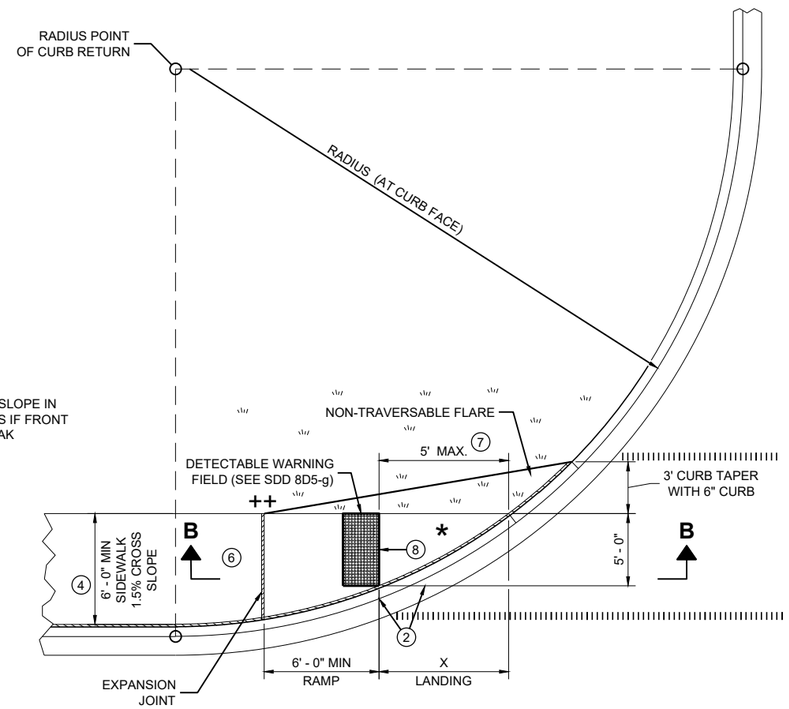


SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

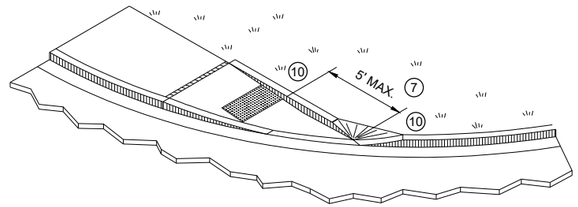


PLAN VIEW

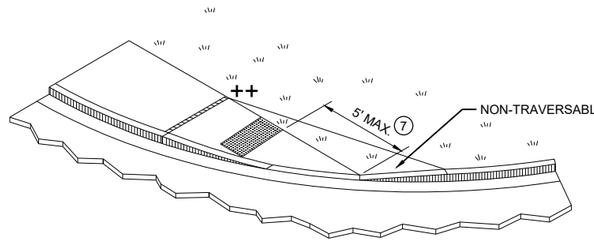
CURB RAMP TYPE 4A1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

½" EXPANSION JOINT SIDEWALK

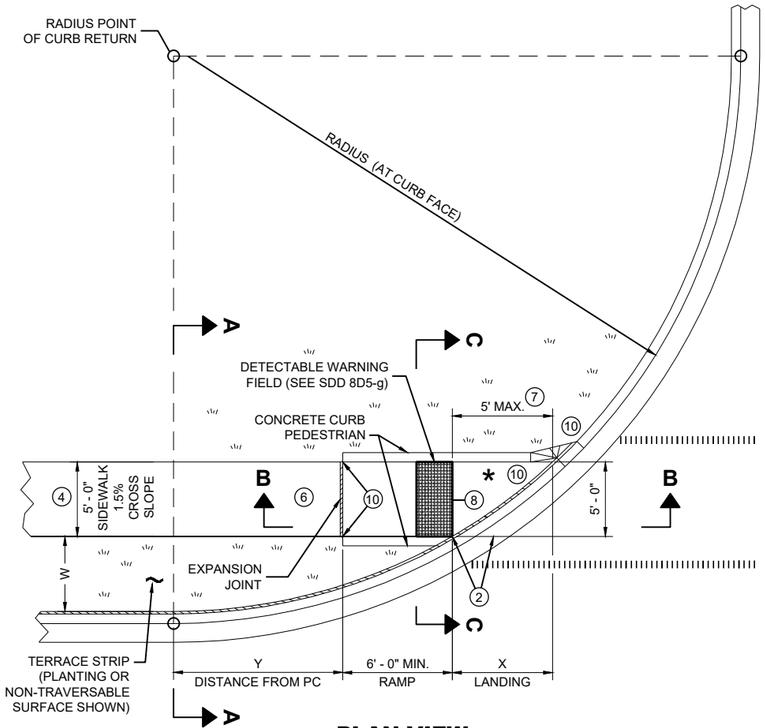
CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

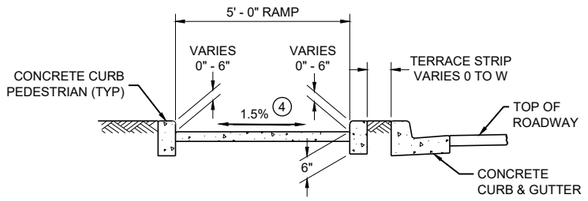
6
SDD 08D05-21c



PLAN VIEW
CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET															4' - 10 3/4"	19' - 8 1/4"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

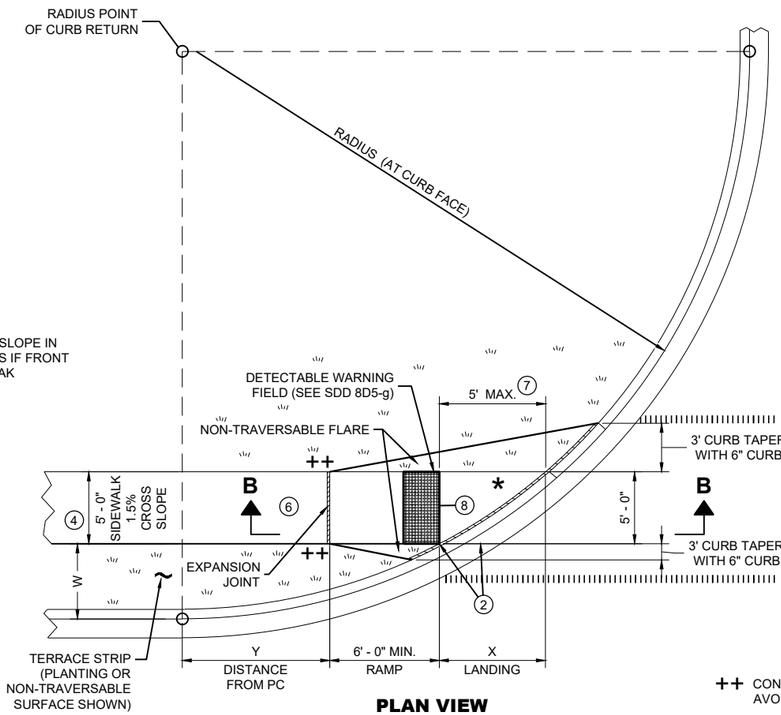
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

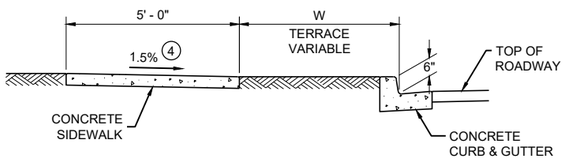
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

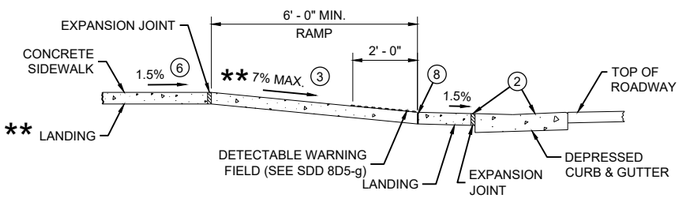
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



PLAN VIEW
CURB RAMP TYPE 4B1



SECTION A - A FOR TYPE 4B

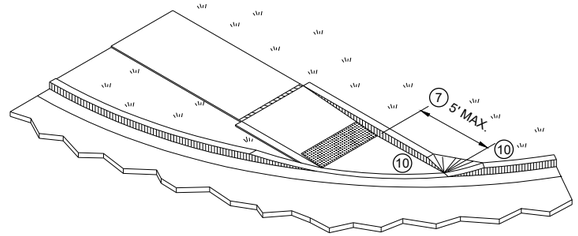


SECTION B - B FOR TYPE 4B AND TYPE 4B1

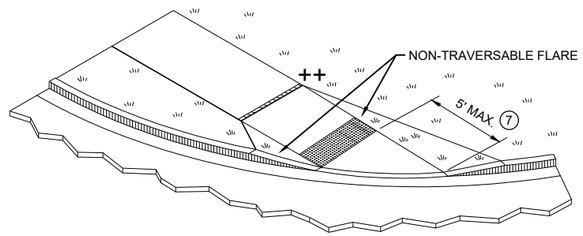
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4B

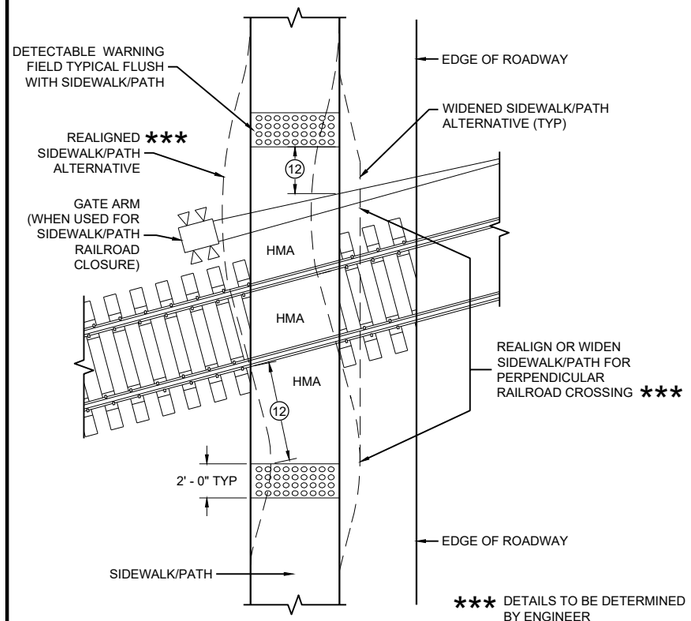


ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

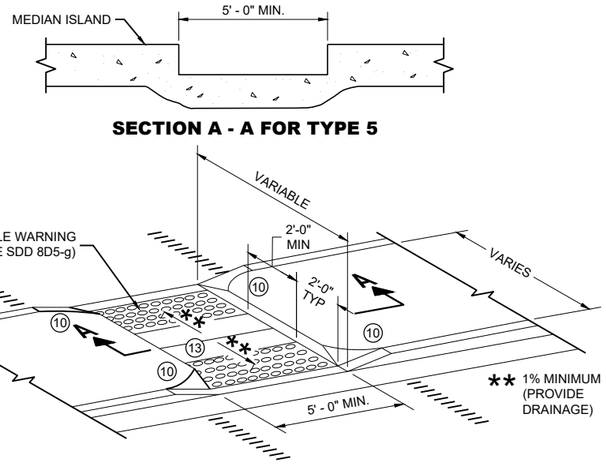
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05-21d



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

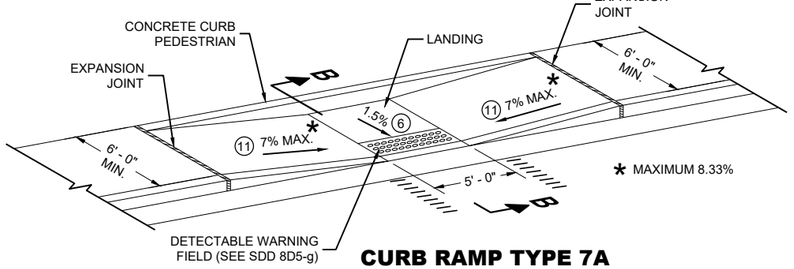
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

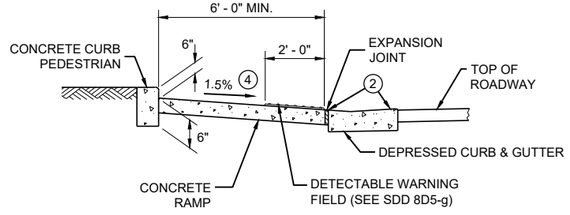
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

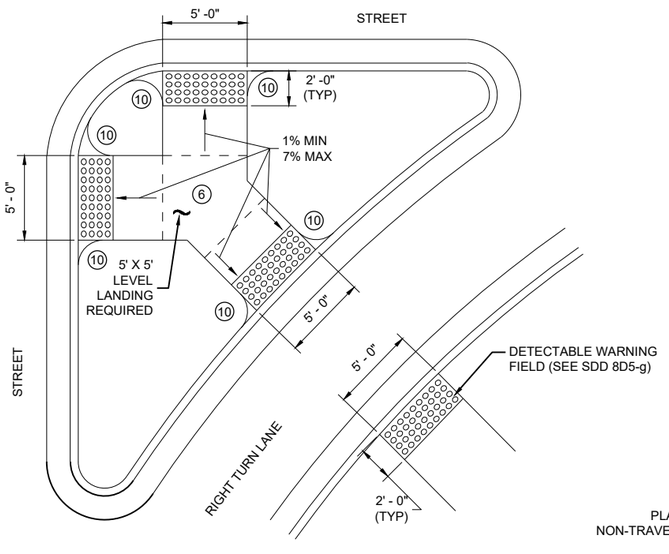


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



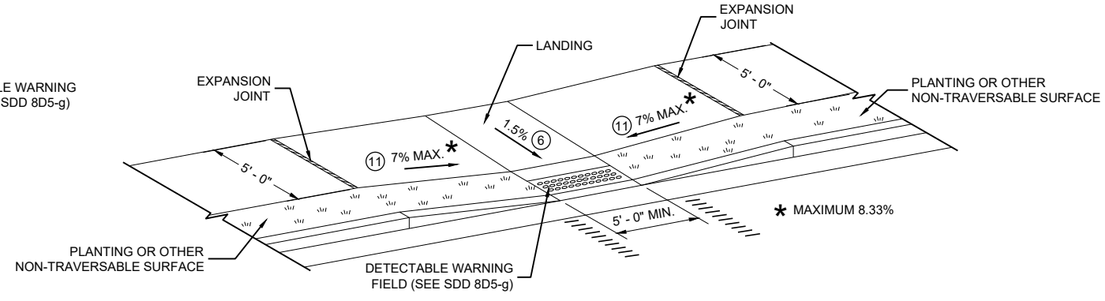
SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

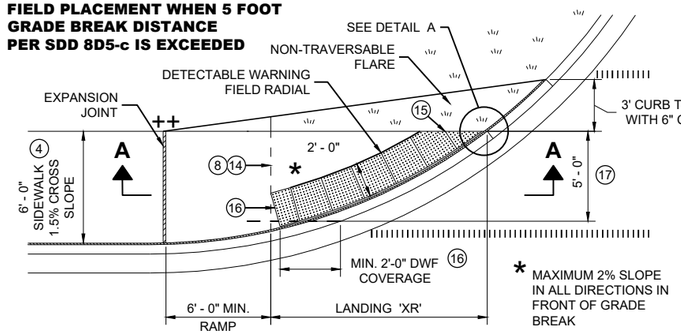
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05-21e

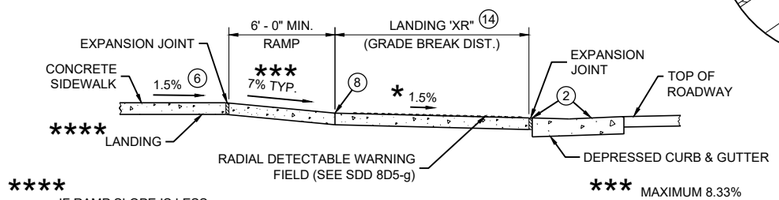
6

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

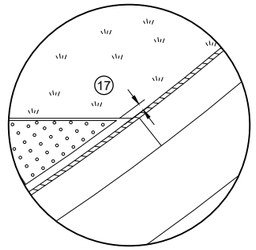
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

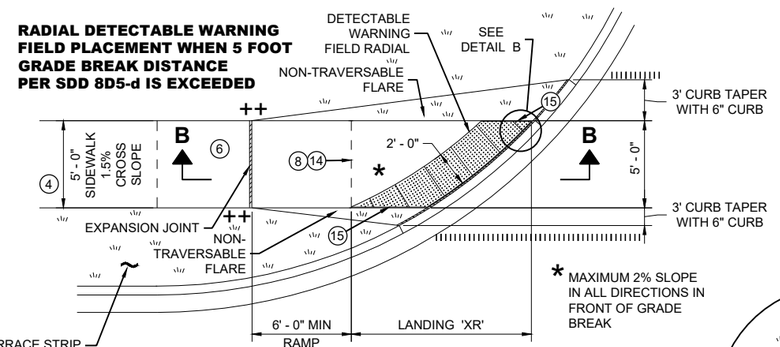
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

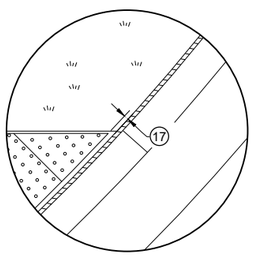
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED

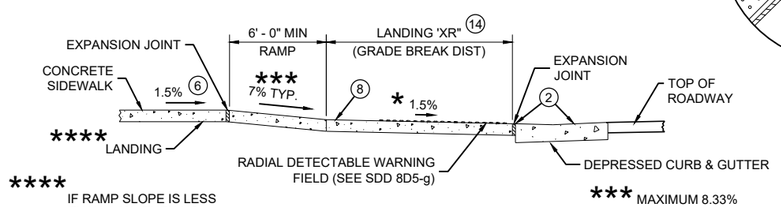


PLAN VIEW

CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

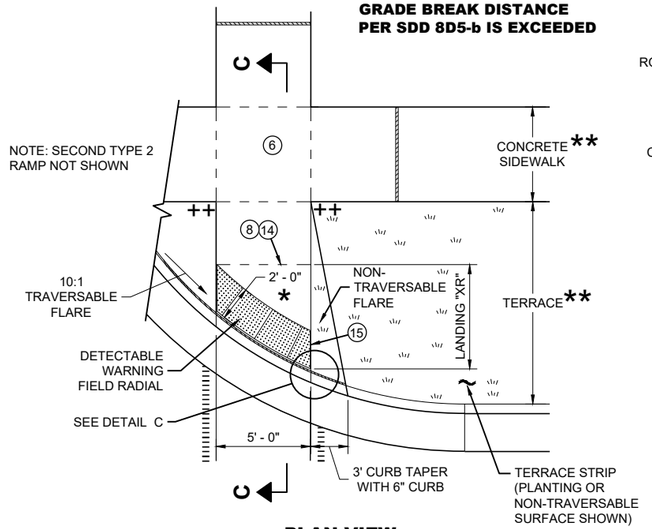


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

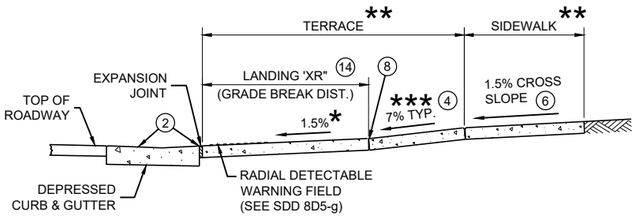
SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

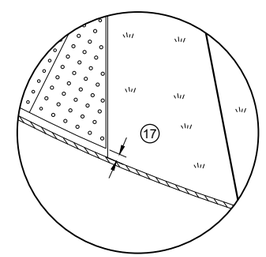


PLAN VIEW

CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)



SECTION C - C FOR TYPE 2



DETAIL C

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

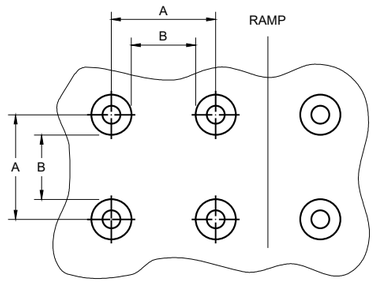
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

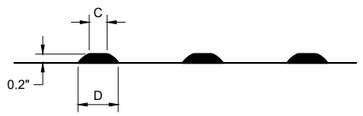
SDD 08D05-21f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

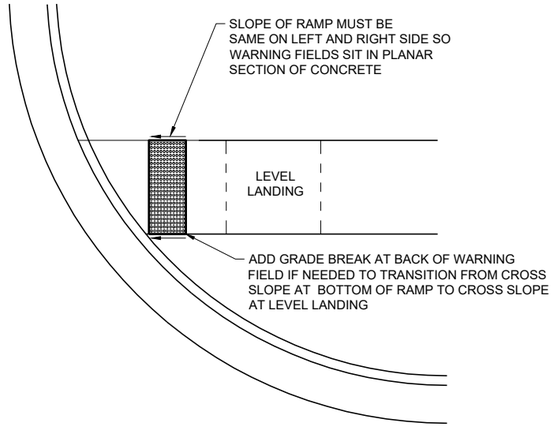
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD

PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

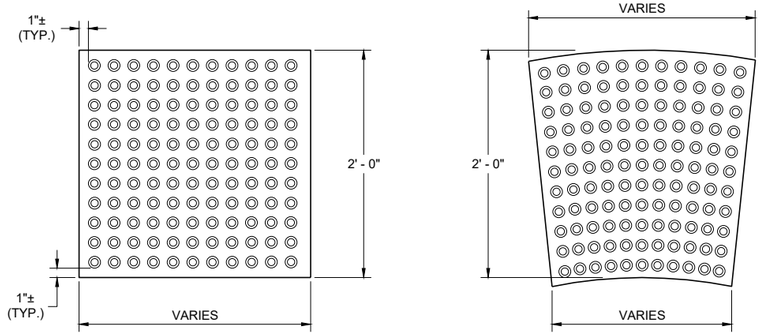
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

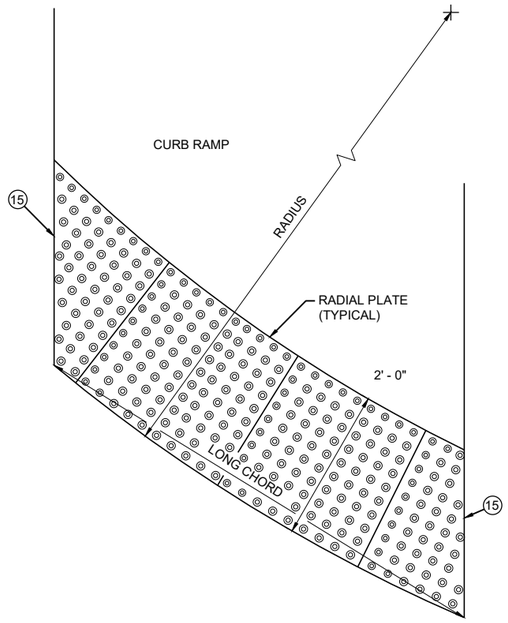


RECTANGULAR PLATES

RADIAL PLATES

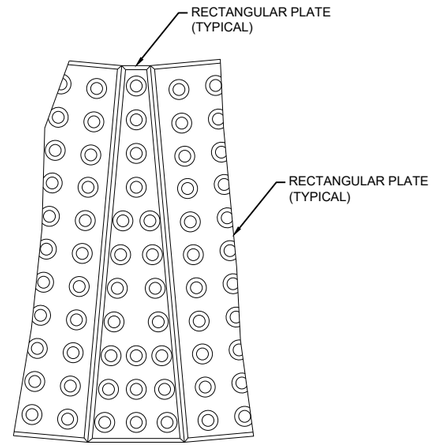
PLAN VIEW

DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW

RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW

RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

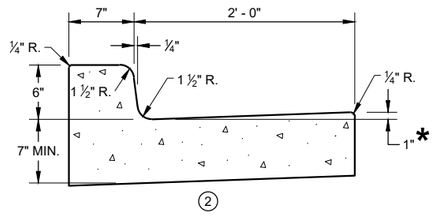
APPROVED

July 2023 — DATE

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

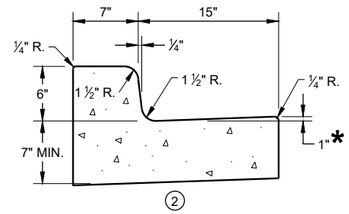
FHWA

6
SDD 08D05-21g

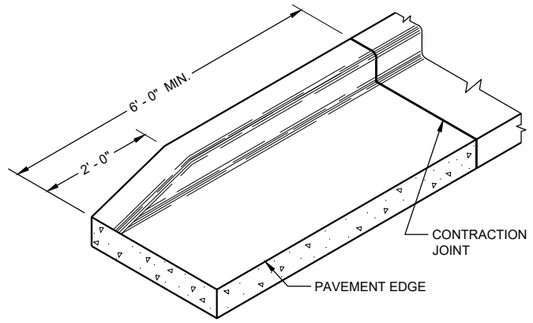


CONCRETE CURB AND GUTTER 31" ①

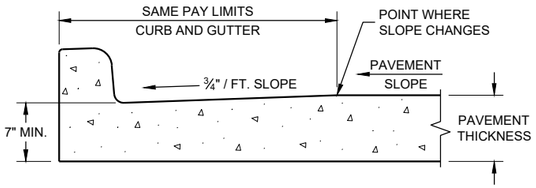
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



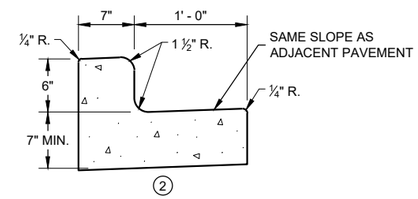
CONCRETE CURB AND GUTTER 22" ①



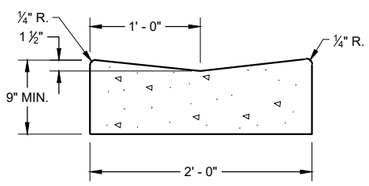
END SECTIONCURB AND GUTTER



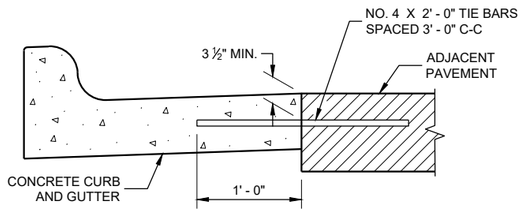
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



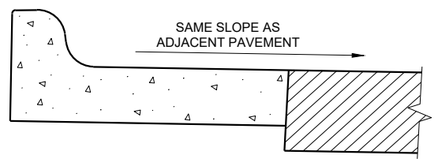
CONCRETE CURB AND GUTTER 19" ①



CONCRETE GUTTER 24" ①



TYPICAL TIE BAR LOCATION ①



HIGH SIDE SECTION ③

(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.

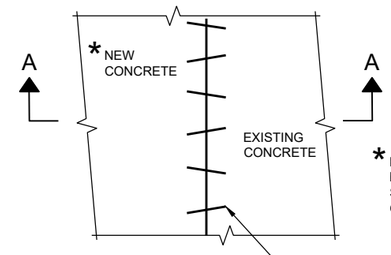
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

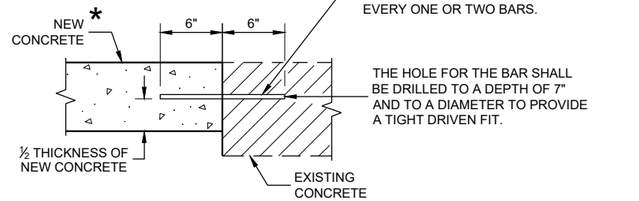
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

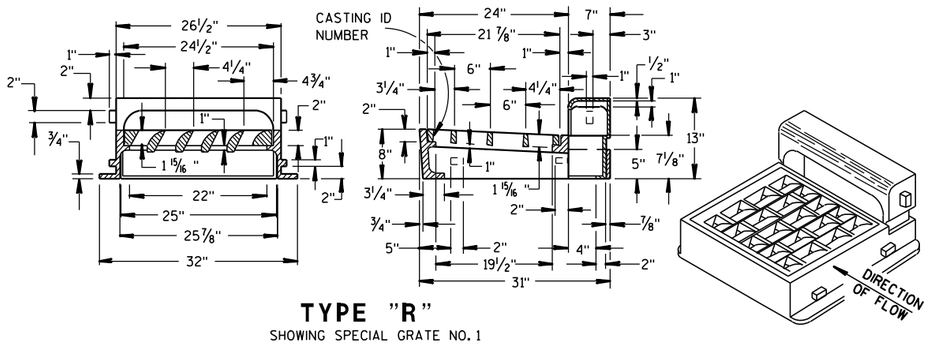
APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD 08D16 - 11

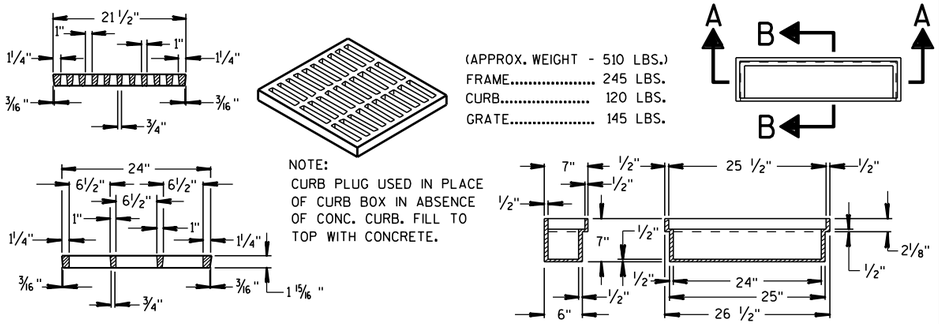
SDD 08D16 - 11

INLET COVERS



TYPE "R"

SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)



(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.

NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.

SECTION B-B SECTION A-A

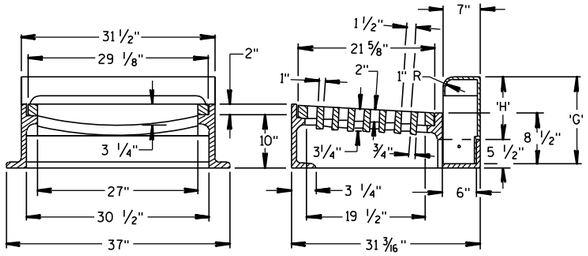
GRATE FOR TYPE "R" INLET COVER

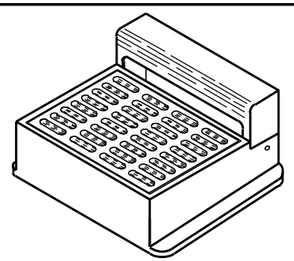
(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

SPECIAL CURB PLUG "P"

(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

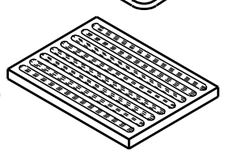
'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB
'G' = 13 ¾" FOR 6" CURB
'G' = 15 ¾" FOR 8" CURB



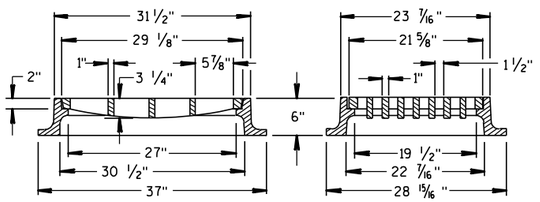


TYPE "W"

(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.



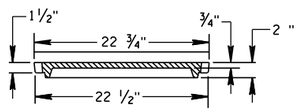
ALTERNATE GRATE
(FOR EXPRESSWAY RAMPS)
TYPES "W" & "X"



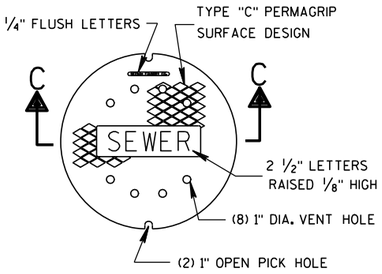
TYPE "X"

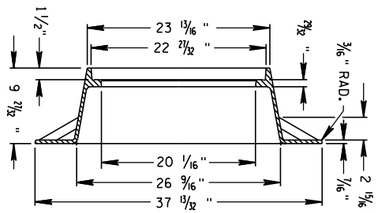
(APPROX. WEIGHT - 470 LBS.)

MANHOLE COVER



SECTION C-C





TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

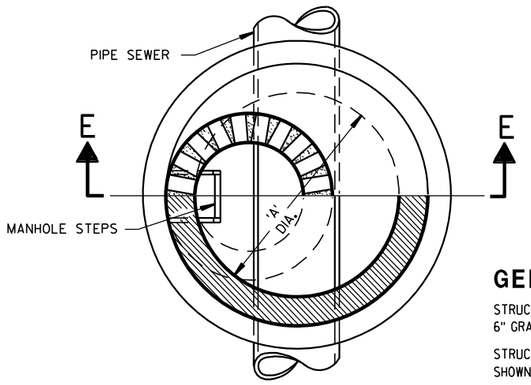
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

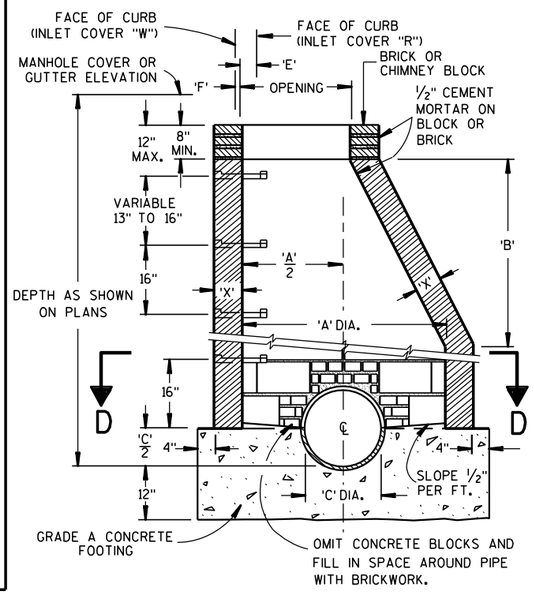
MANHOLE



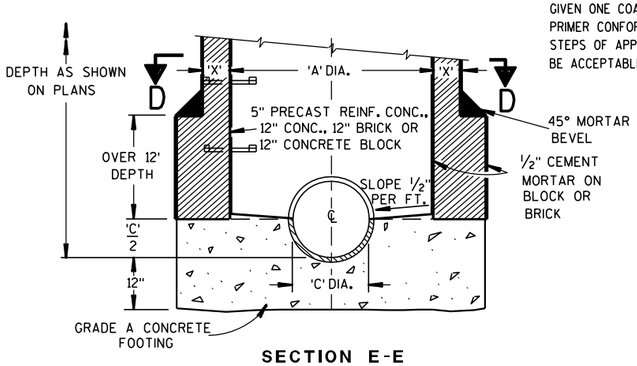
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

COVER TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF ¾ INCH HIGH BY ¾ INCH WIDE HAVING A MINIMUM THICKNESS OF ⅜ INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

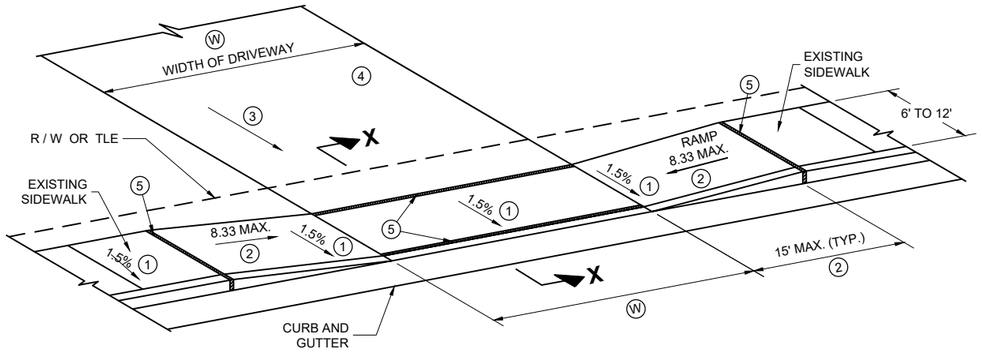
SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

MANHOLES, MANHOLE & INLET COVERS

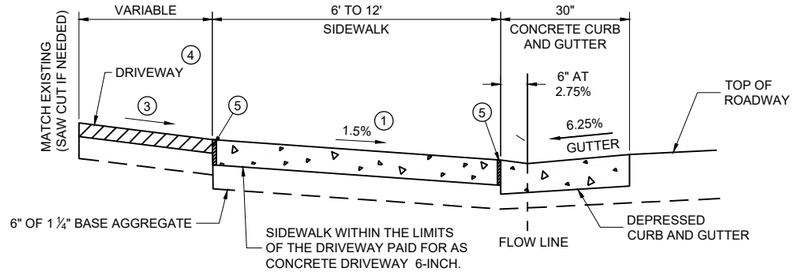
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
FHWA

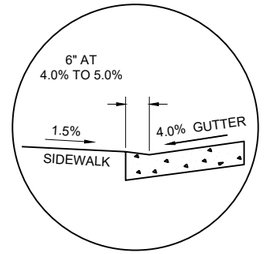
6
S.D.D. 8 D 17-6



TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X - X



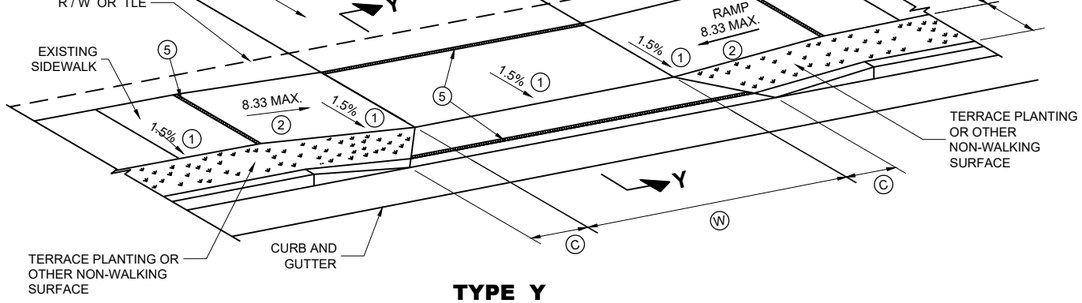
SECTION X - X
4% GUTTER SLOPE

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

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

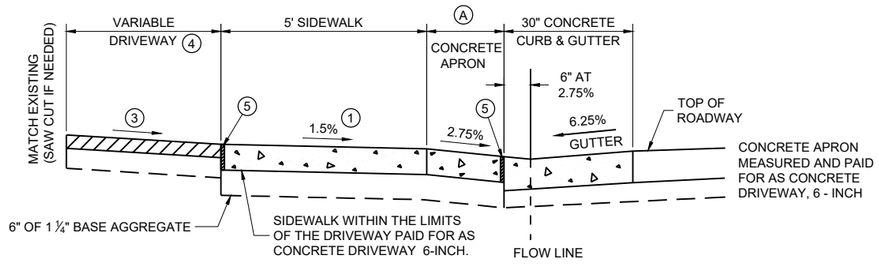
TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

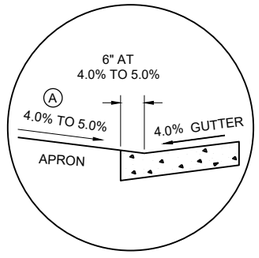


TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

Ⓐ:MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS



SECTION Y - Y
4% GUTTER SLOPE

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

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.

Ⓦ 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. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

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

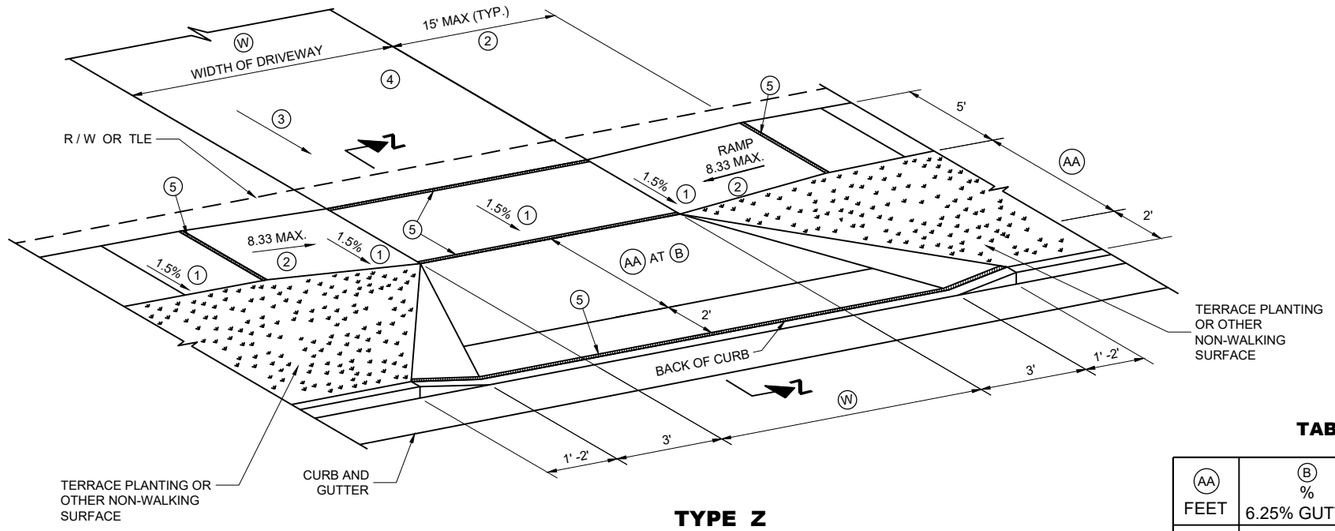
DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6
SDD 08D18-04



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.)

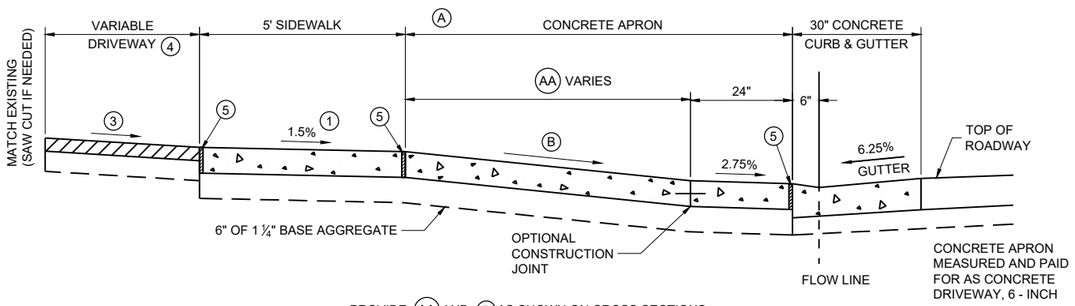
(5) ½" EXPANSION JOINT FILLER.

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%

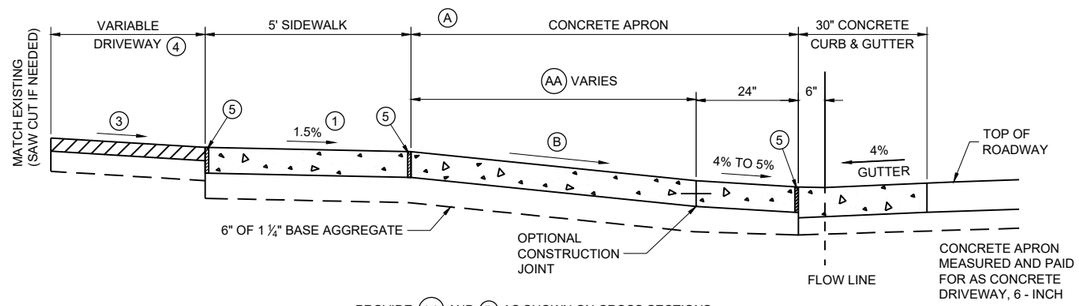
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

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

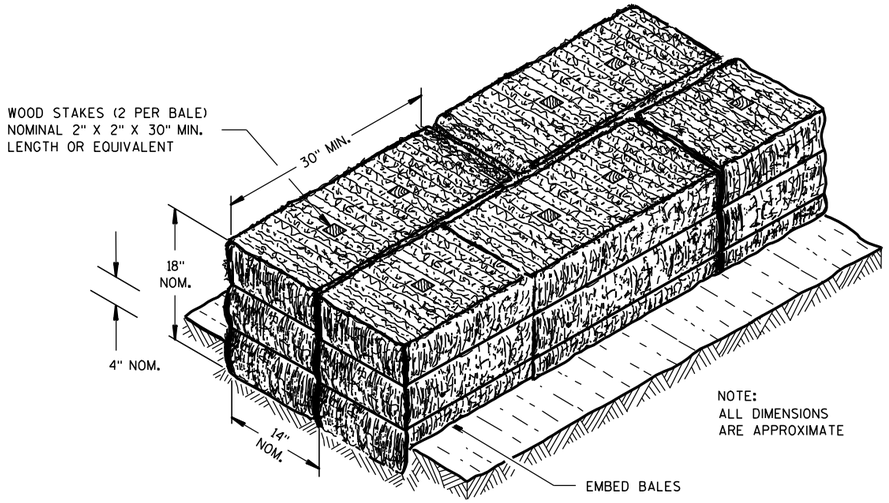
(URBAN AND SUBURBAN)

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

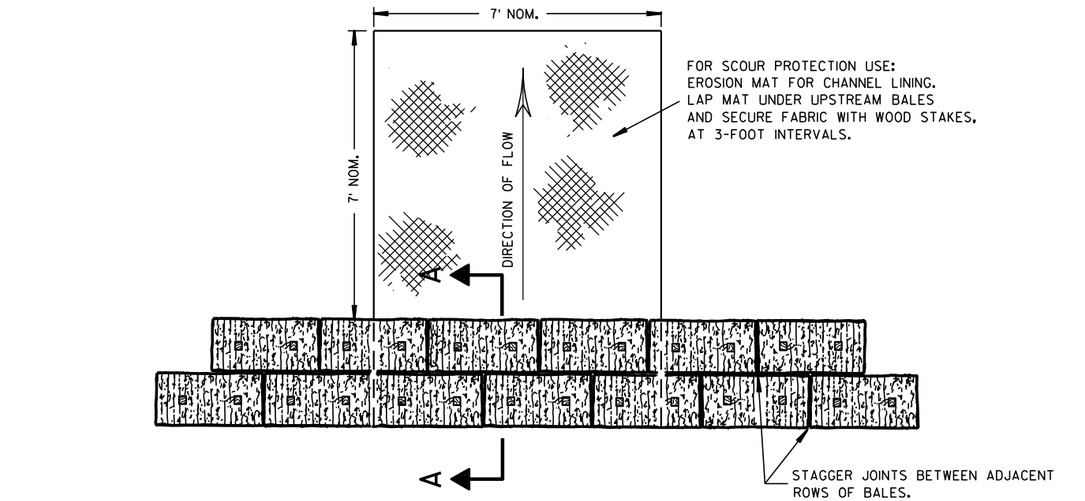
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

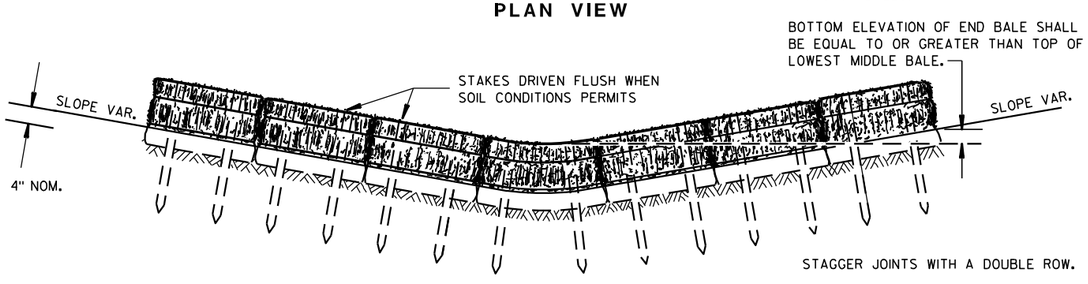
FHWA



SECTION A-A



PLAN VIEW



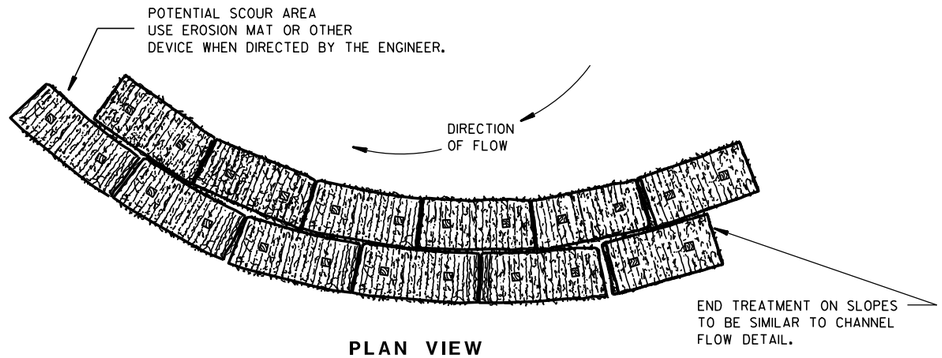
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

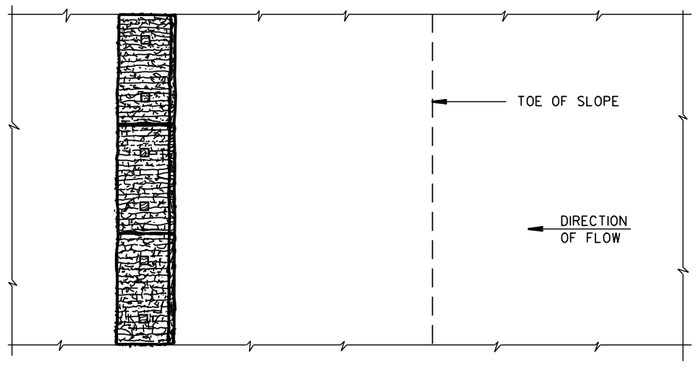
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

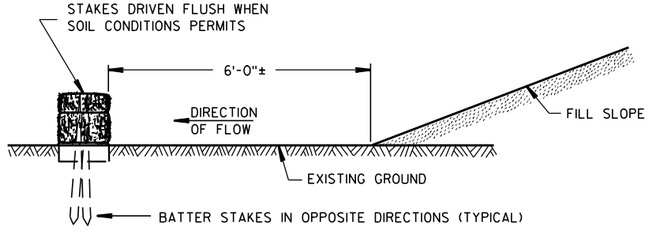


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

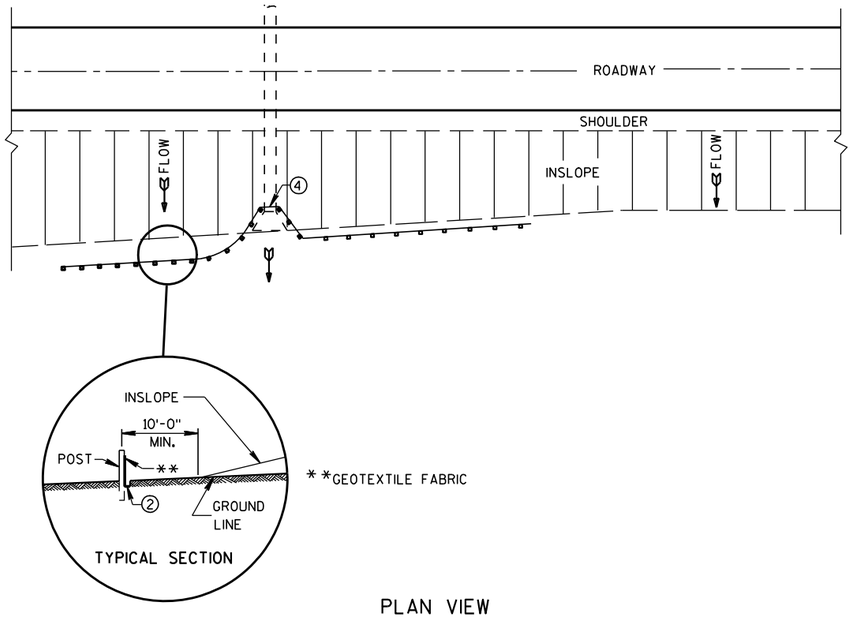
FHWA

6

S.D.D. 8 E 8-3

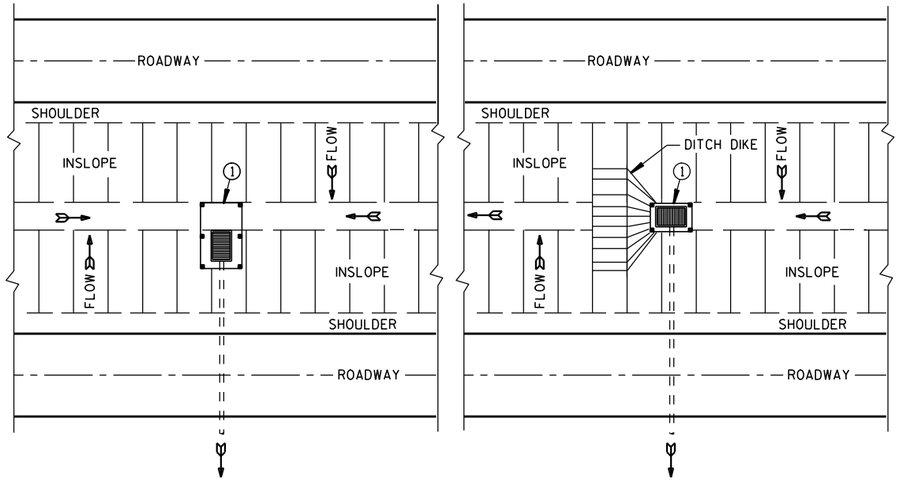
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



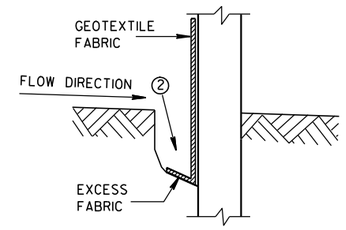
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

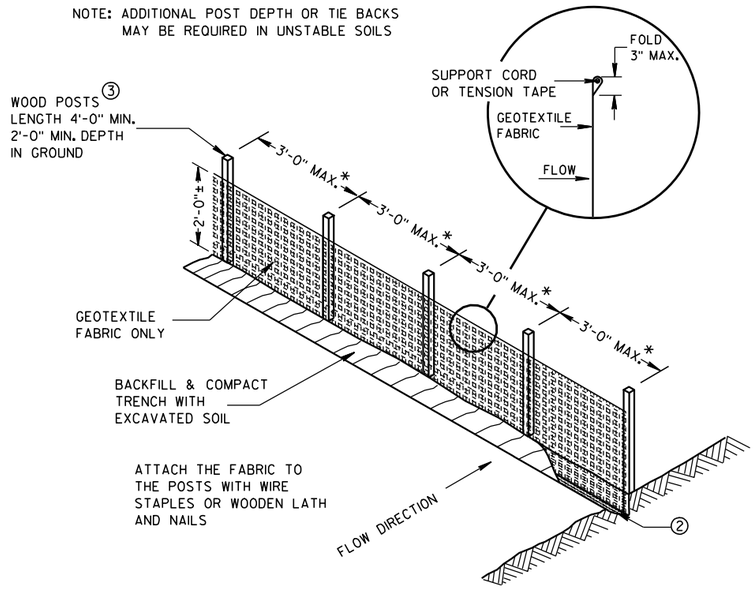
GENERAL NOTES

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

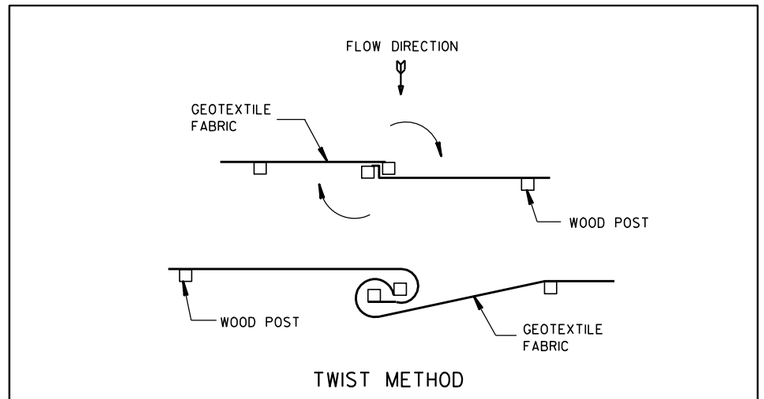
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



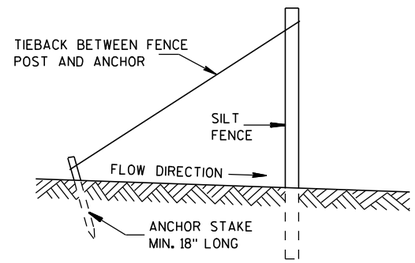
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

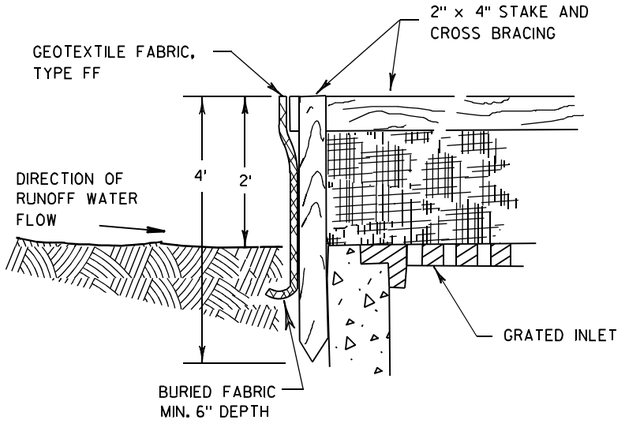
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

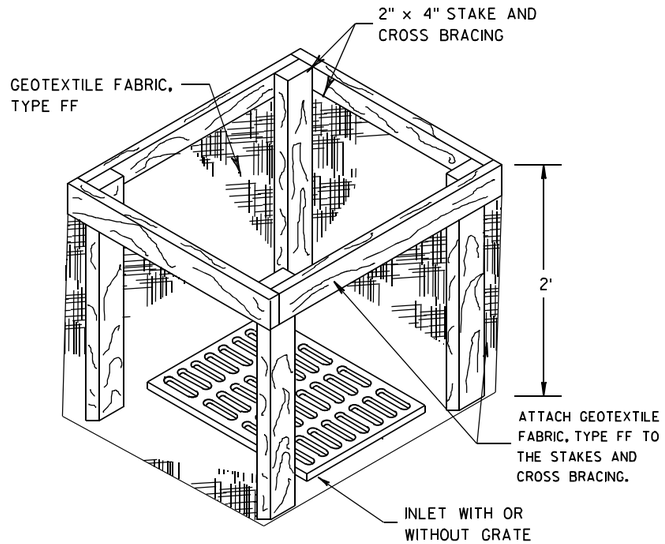
6

S.D.D. 8 E 9-6

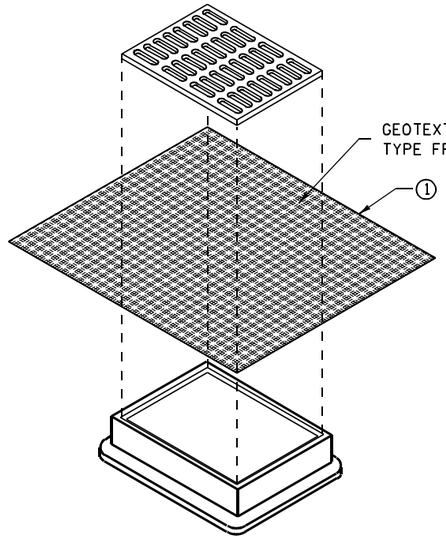
6

S.D.D. 8 E 9-6



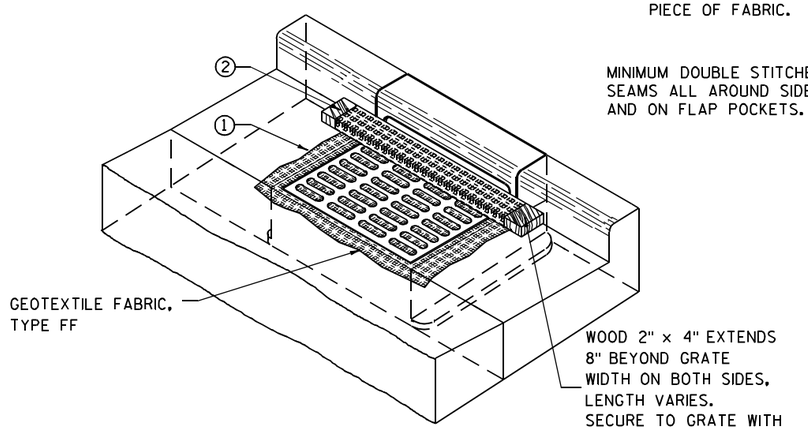


INLET PROTECTION, TYPE A

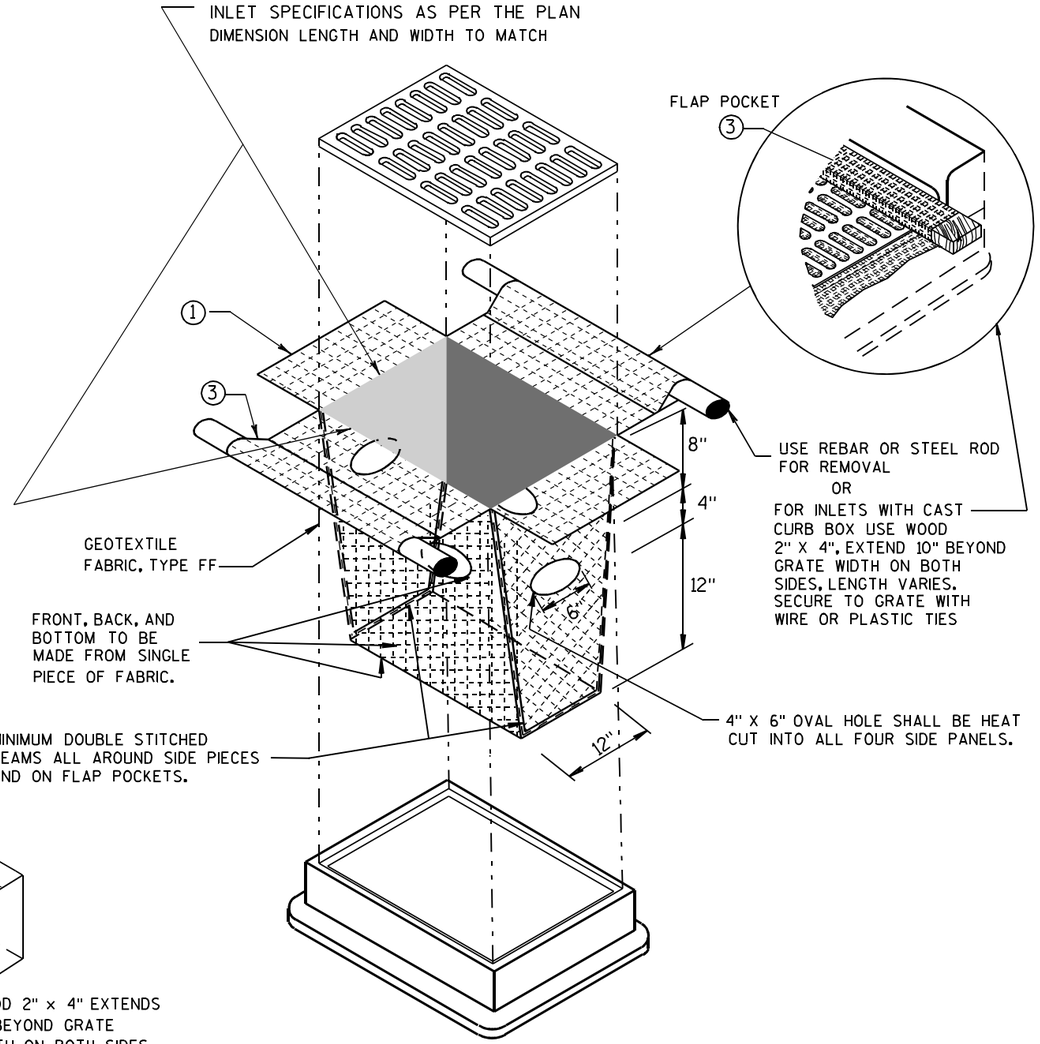


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

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

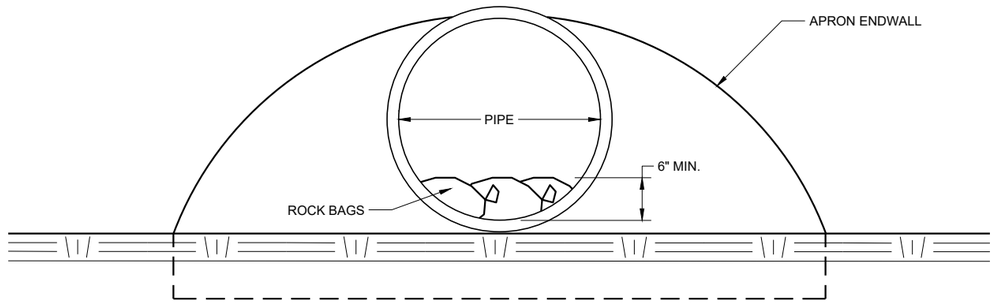
FHWA

6

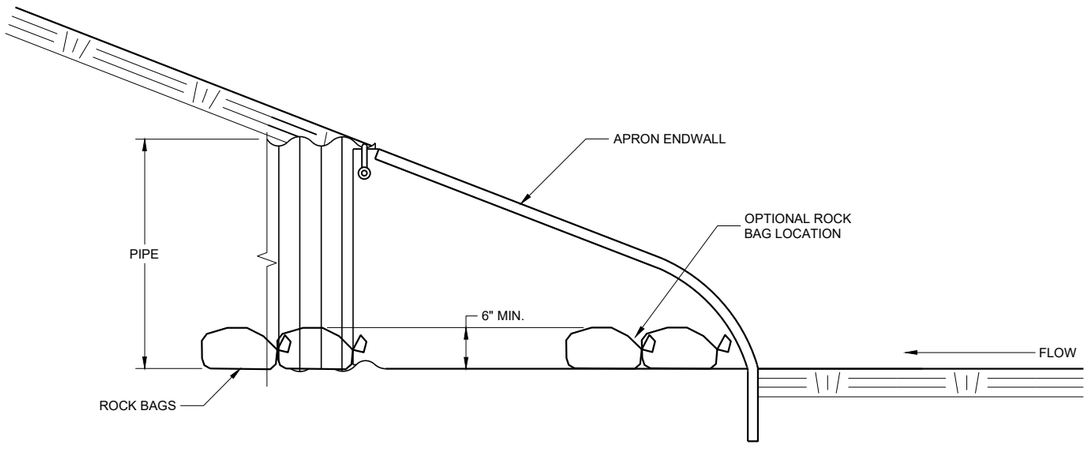
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

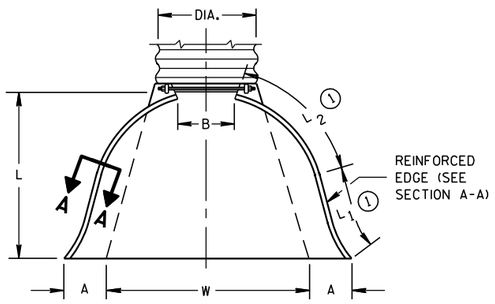
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

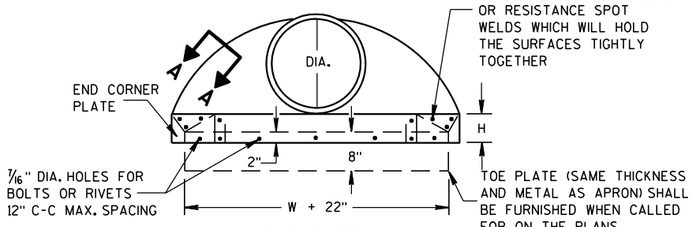
REINFORCED CONCRETE APRON ENDWALLS

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

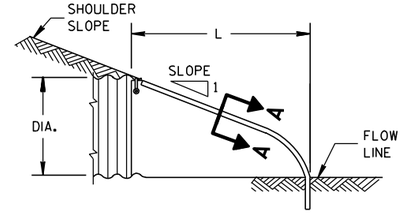
*MINIMUM
**MAXIMUM



PLAN VIEW

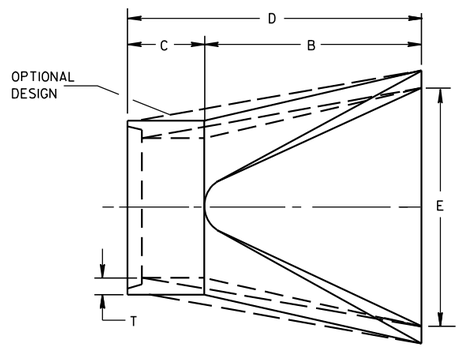


END VIEW

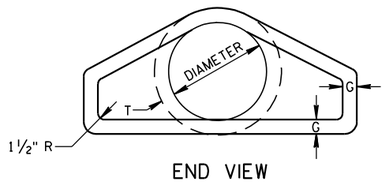


SIDE ELEVATION

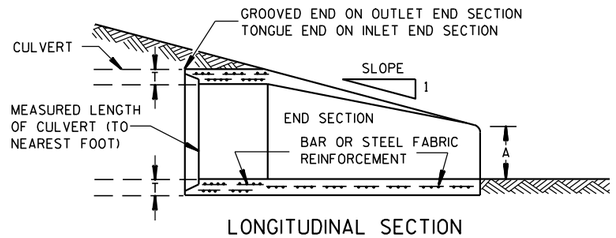
METAL ENDWALLS



PLAN

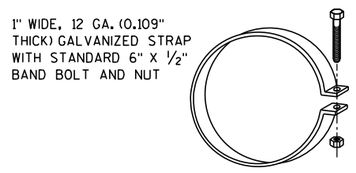


END VIEW



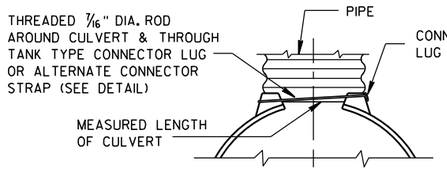
LONGITUDINAL SECTION

CONCRETE ENDWALLS

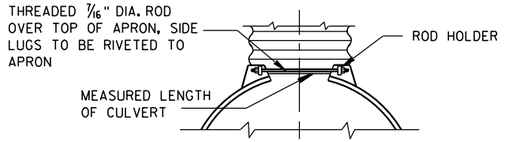


ALTERNATE FOR TYPE 1 CONNECTION

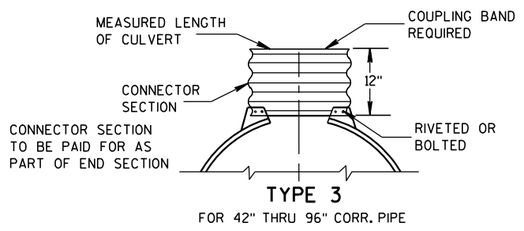
END SECTION CONNECTOR STRAP



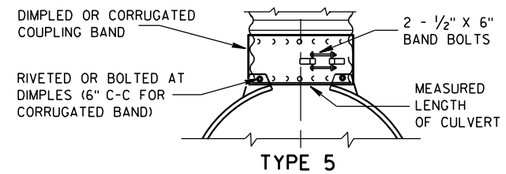
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

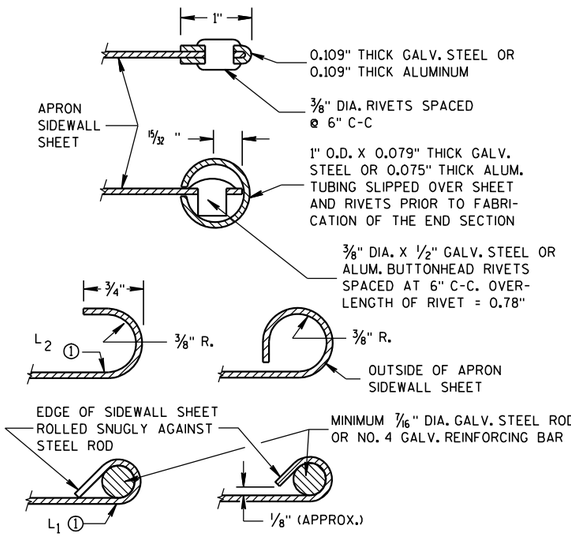
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

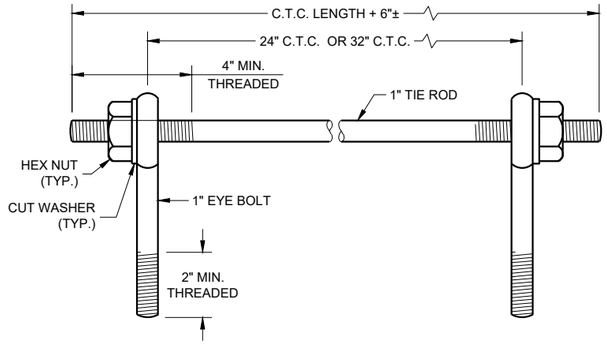
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

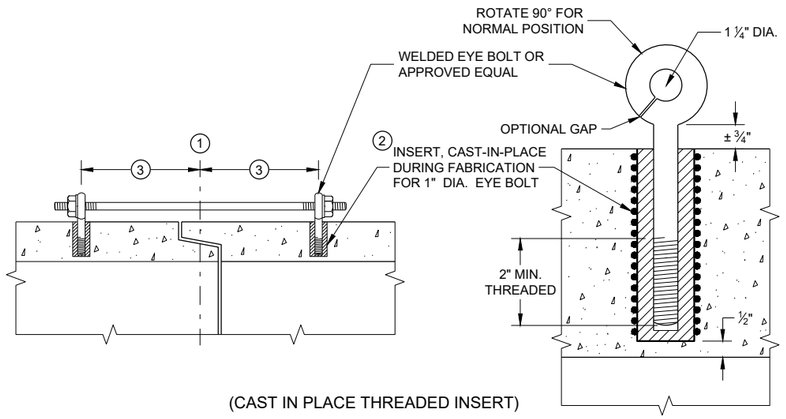
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

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

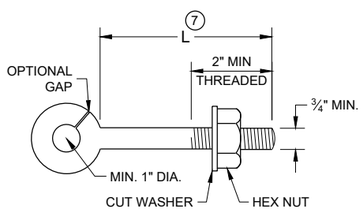
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

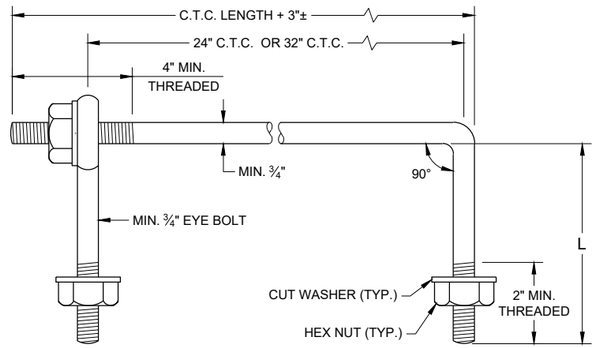
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

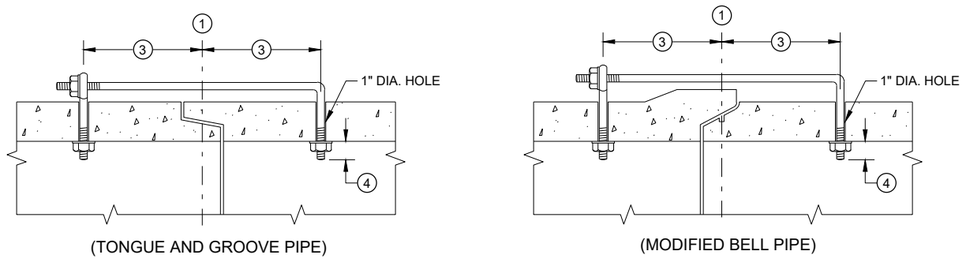


EYE BOLT (7)

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



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE) (MODIFIED BELL PIPE)

LONGITUDINAL SECTION

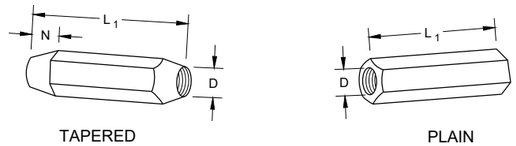
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

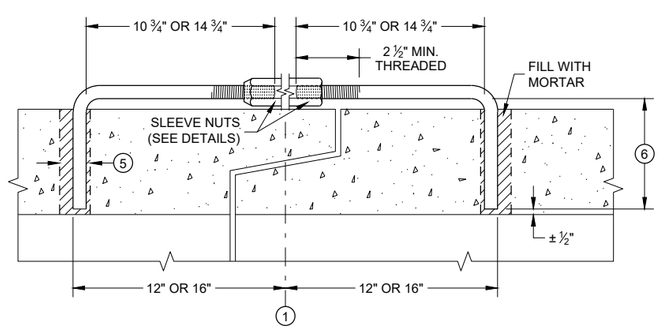
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

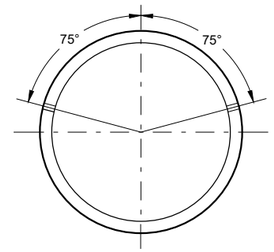
RIGHT AND LEFT THREADS

SLEEVE NUTS



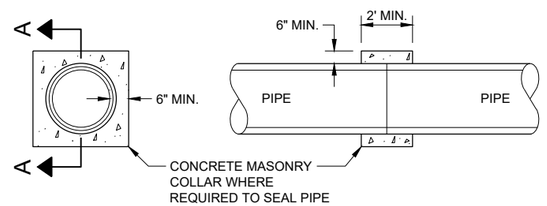
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08F04 - 08

SDD 08F04 - 08

GENERAL NOTES

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

FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

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

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2' - 0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3' - 0"

(3) LIMITS OF TRENCH BACKFILL

(4) LIMITS OF FOUNDATION BACKFILL

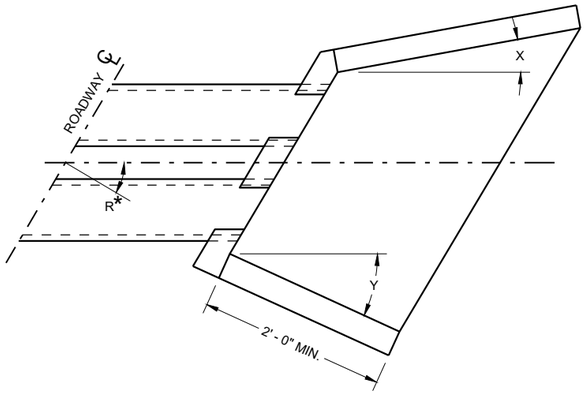
(5) FOUNDATION AND TRENCH BACKFILL ARE MATERIALS INCLUDED IN PAYMENT FOR CULVERT PIPE, PIPE ARCH, CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPSE OR CONCRETE MASONRY ENDWALLS.

(6) DO NOT PLACE FOUNDATION BACK FILL OR ANY OTHER GRANULAR BACKFILL AROUND OR BELOW CUT OFF WALL. POUR CUT OFF WALL AGAINST NATIVE SOIL

(7) MINIMUM HEIGHT SHALL BE THE GREATER OF 1'- 0" OR ¼ HEIGHT OF CULVERT PIPE.

TRENCH BACKFILL

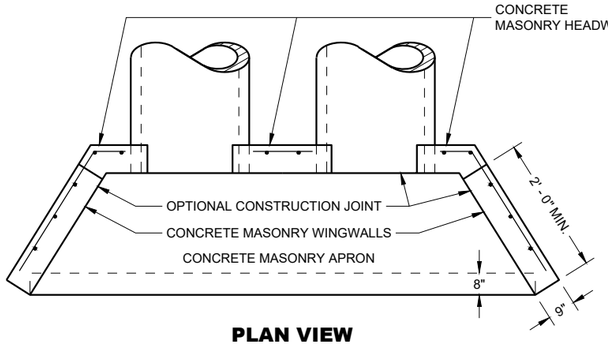
FOUNDATION BACKFILL



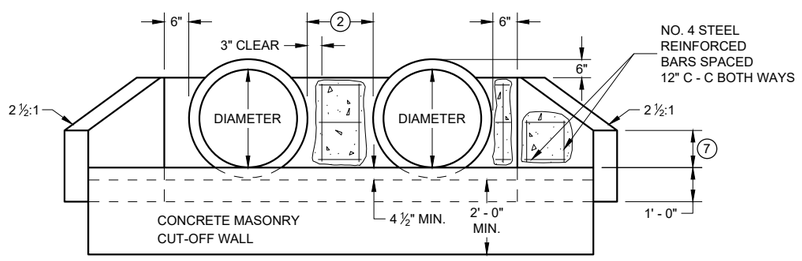
WINGWALL ANGLE DETAILS

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

R* = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

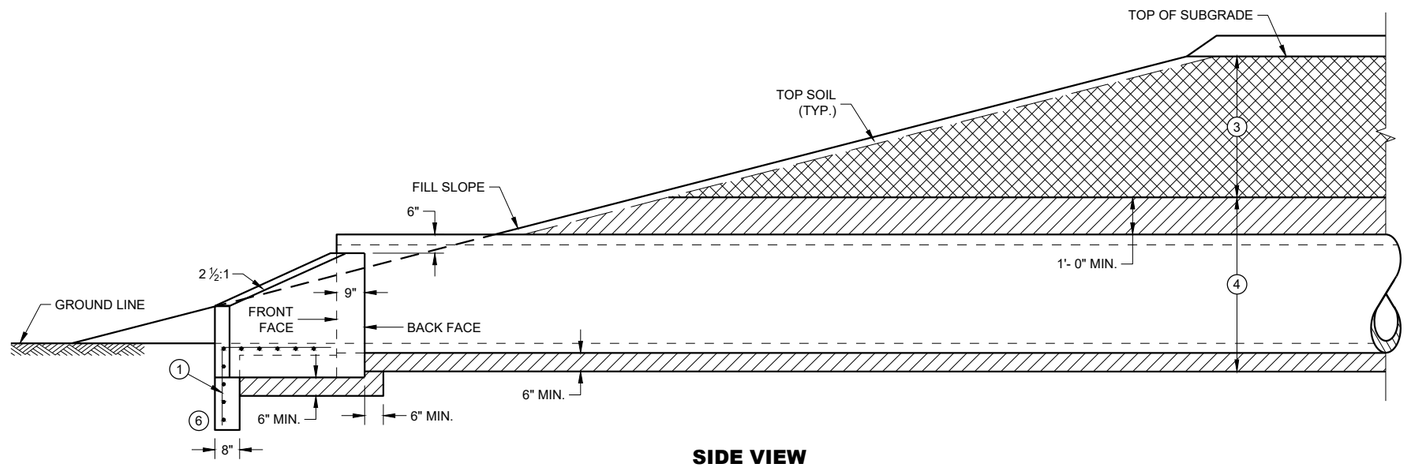


PLAN VIEW



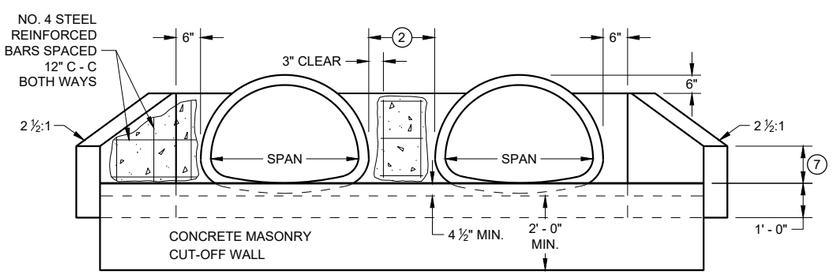
END VIEW

CIRCULAR PIPE



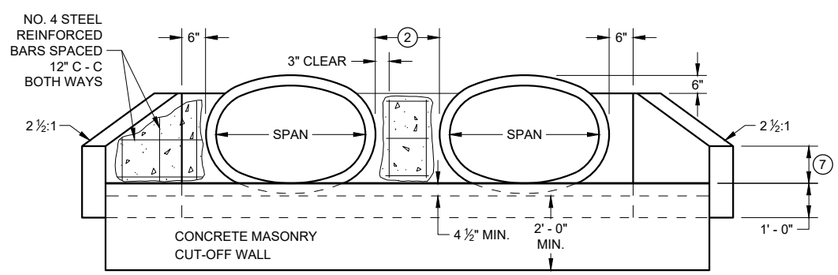
SIDE VIEW

CIRCULAR PIPE, PIPE ARCH OR HORIZONTAL ELLIPSE



END VIEW

PIPE ARCH



END VIEW

HORIZONTAL ELLIPSE

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

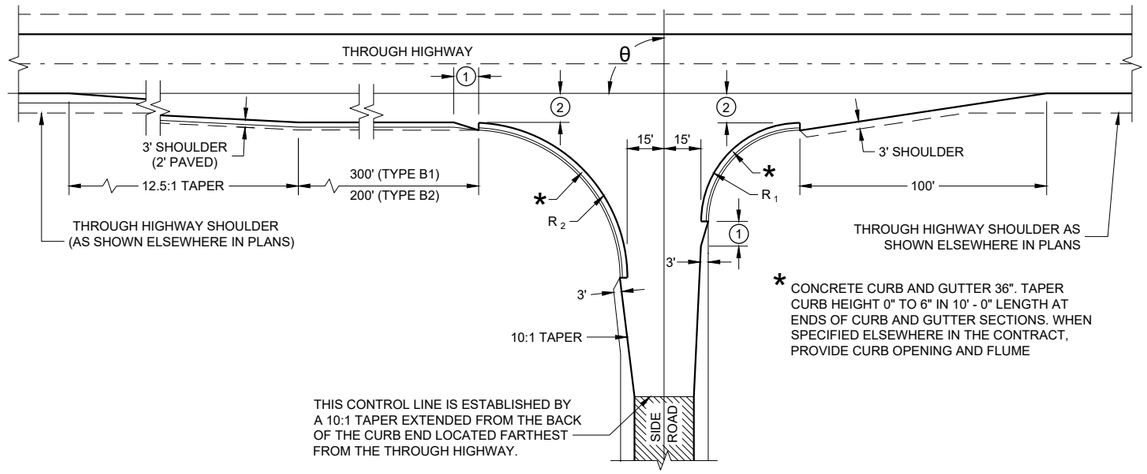
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 08F10 - 02



* 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.

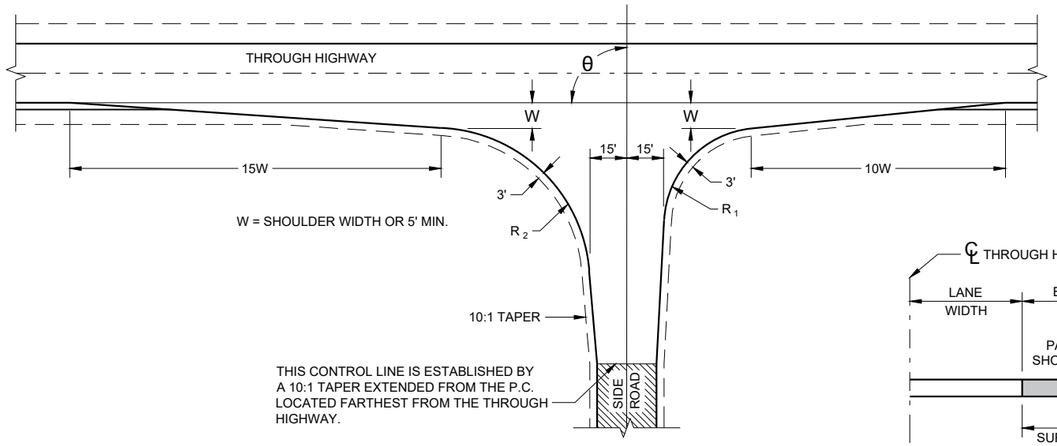
(1) 10-FT TYPICAL.

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

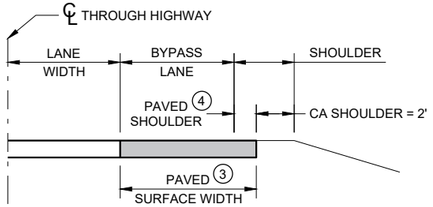
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(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

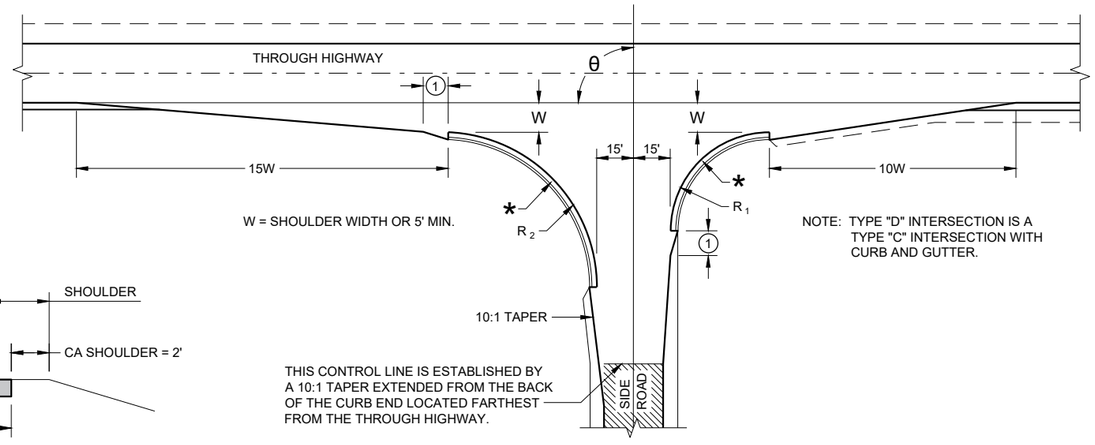
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

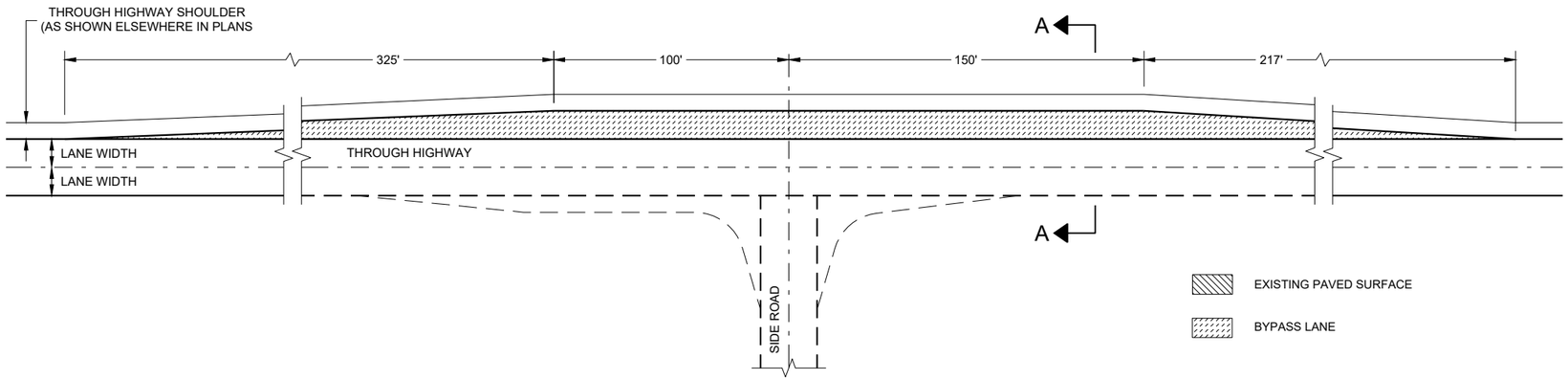


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



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

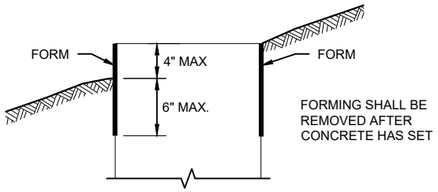
6

SDD 09A01 - 14a

6

SDD 09A01 - 14a

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

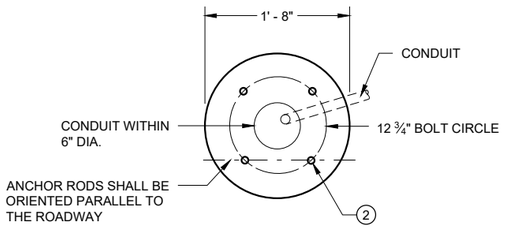
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

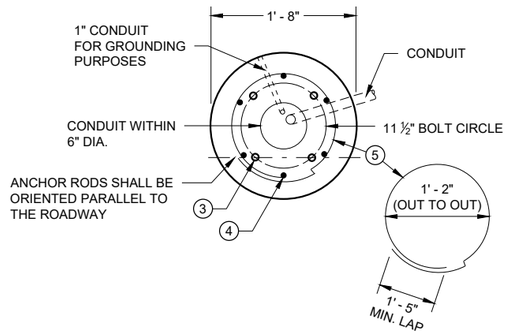
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

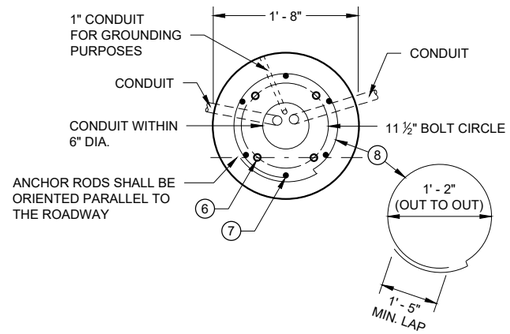
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

(2) (4) 1" DIA. X 3' - 6" ANCHOR RODS.

(3) (4) 1" DIA. X 5' - 0" ANCHOR RODS.

(4) (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

(5) (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

(6) (4) 1" DIA. X 3' - 6" ANCHOR RODS.

(7) (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

(9) EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

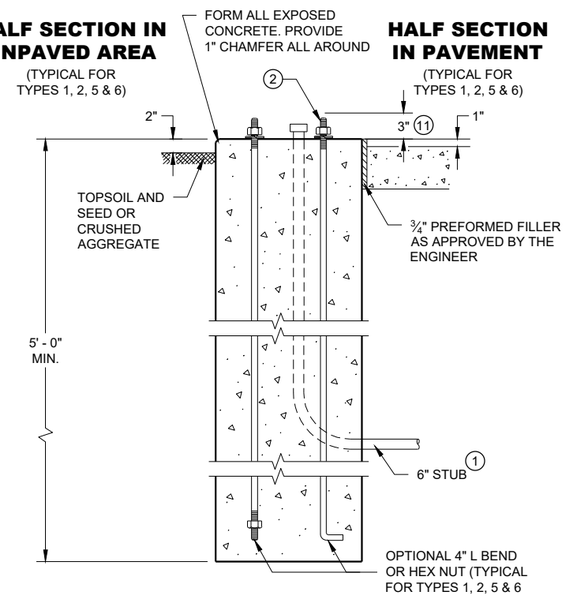
(10) ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

(11) ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

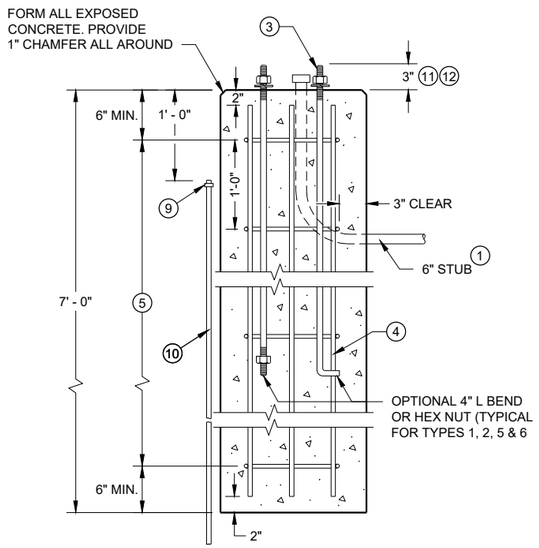
(12) FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

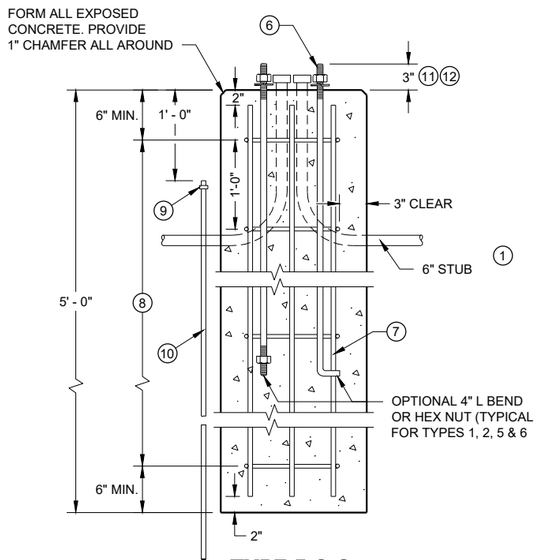
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI
FHWA

GENERAL NOTES

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4 ½ INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

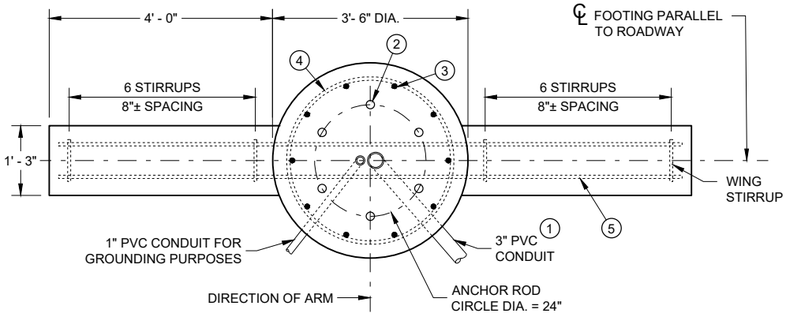
(2) (6) 1 ¾" DIA. X 7' - 2" ANCHOR RODS

(3) (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.

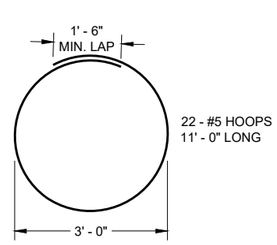
(4) (22) NO. 5 X 11'- 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

(5) (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

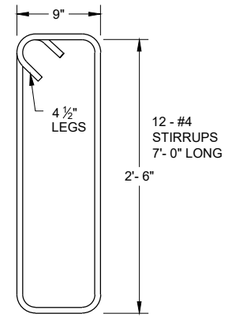
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



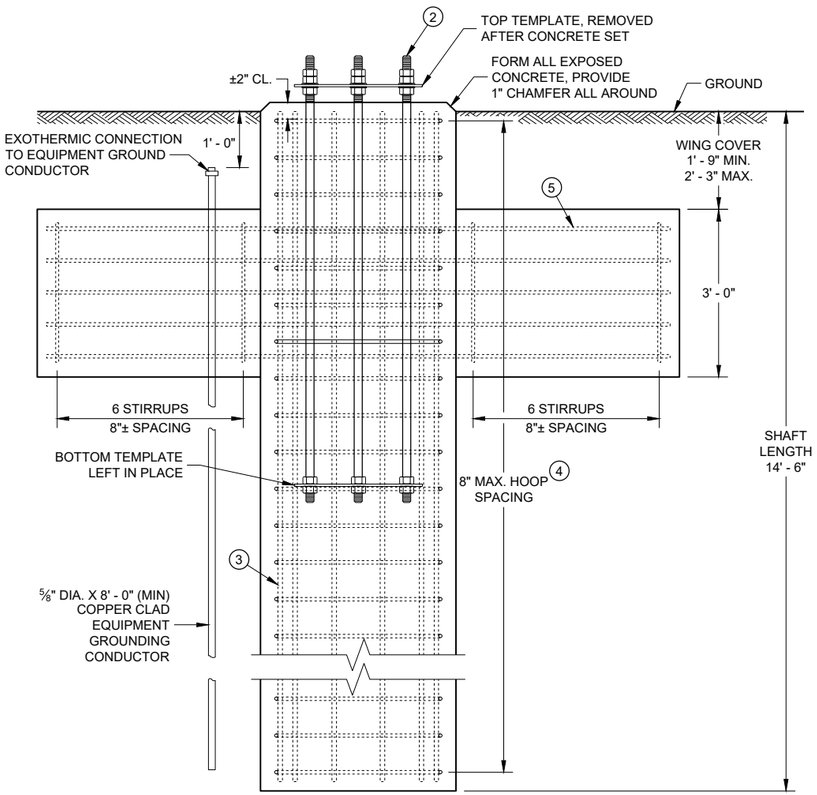
PLAN VIEW



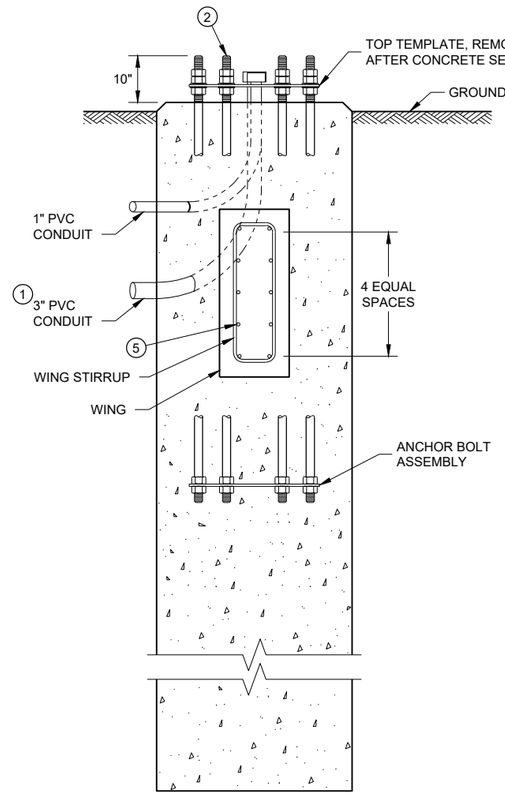
HOOP DETAIL



WING STIRRUP DETAIL



ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)

CONCRETE BASE, TYPE 13
(FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
H.S. REINFORCEMENT = 635 LBS.

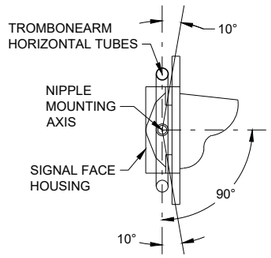
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 09C12 - 09a

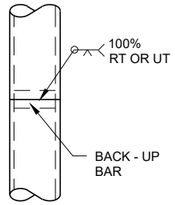


SECTION A-A

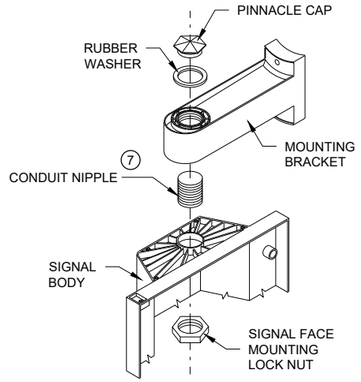
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

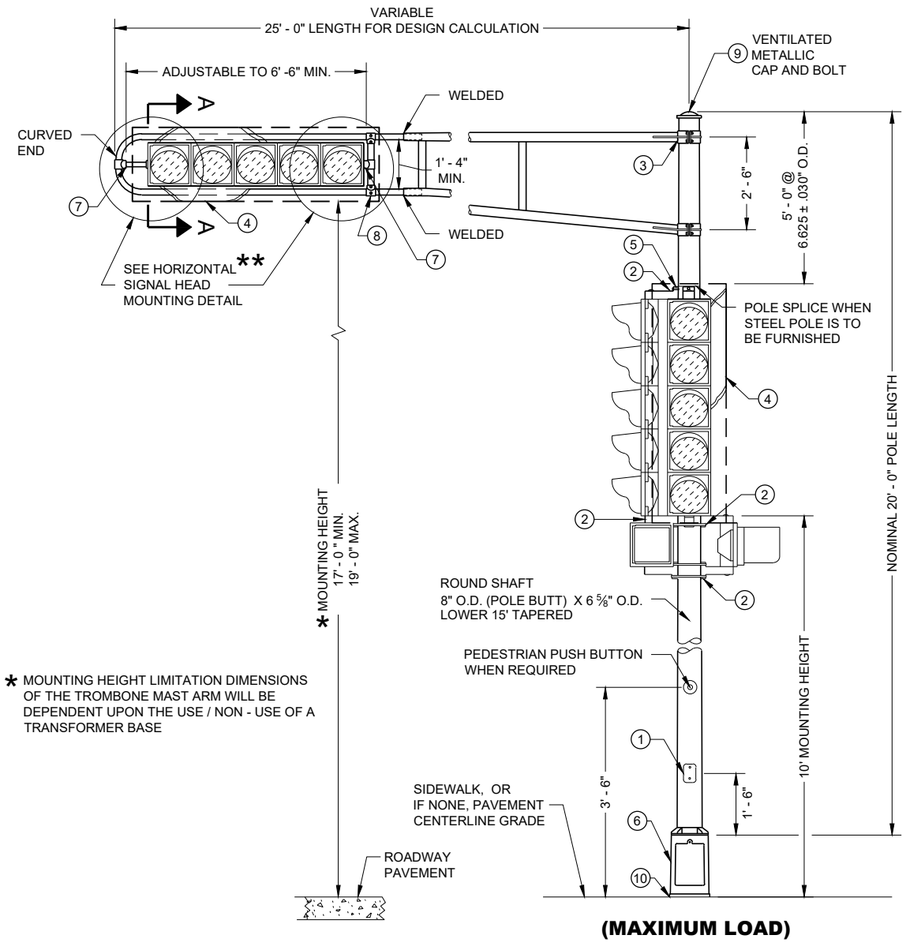
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

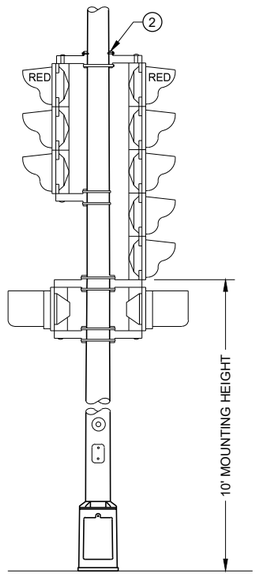
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

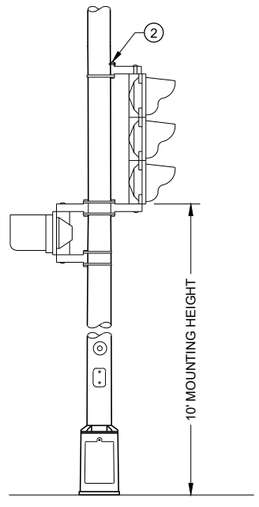


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

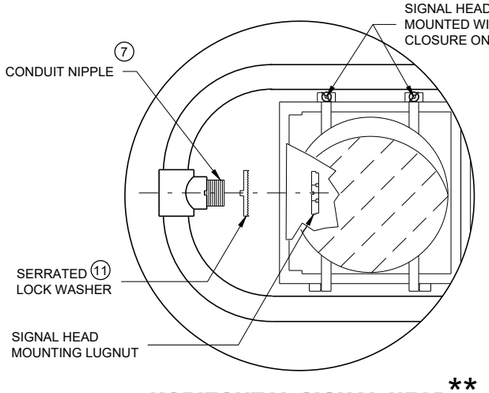
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

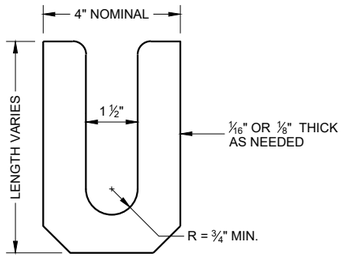
TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

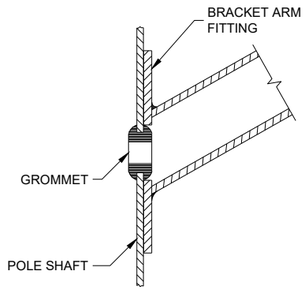
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 09E01 - 15a

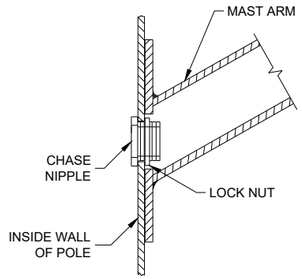
SDD 09E01 - 15a



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

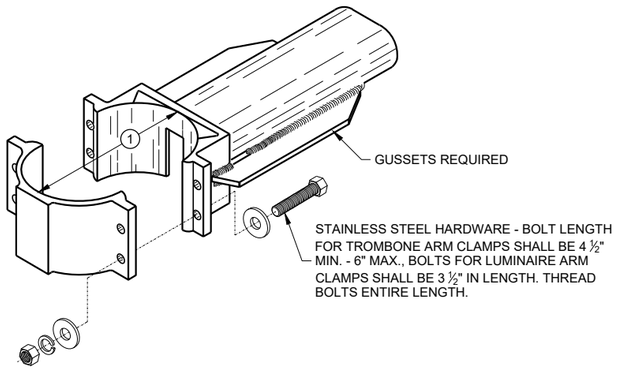
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

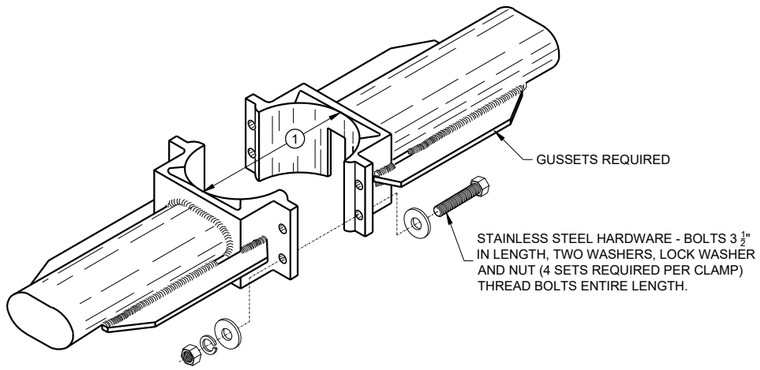
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

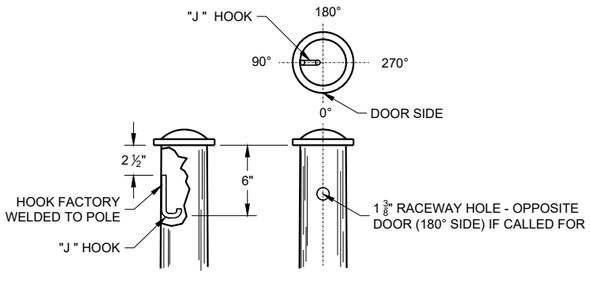
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



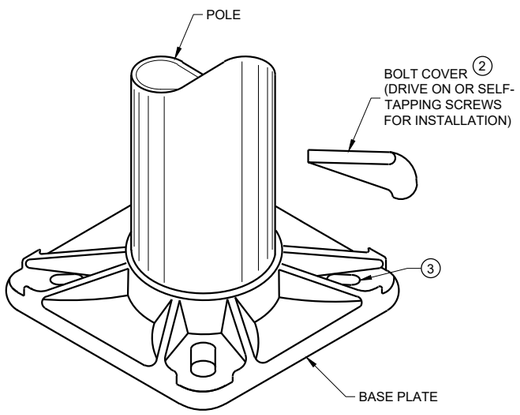
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



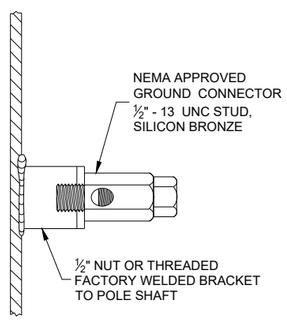
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

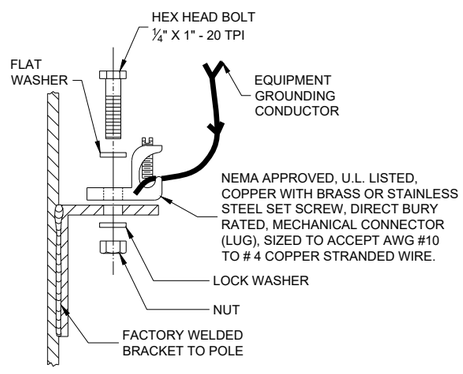


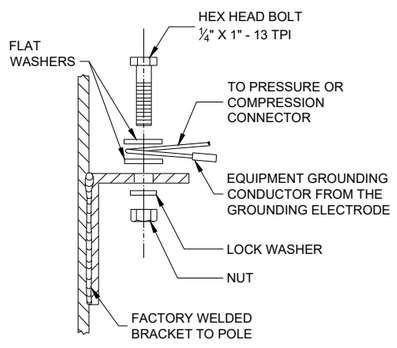
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

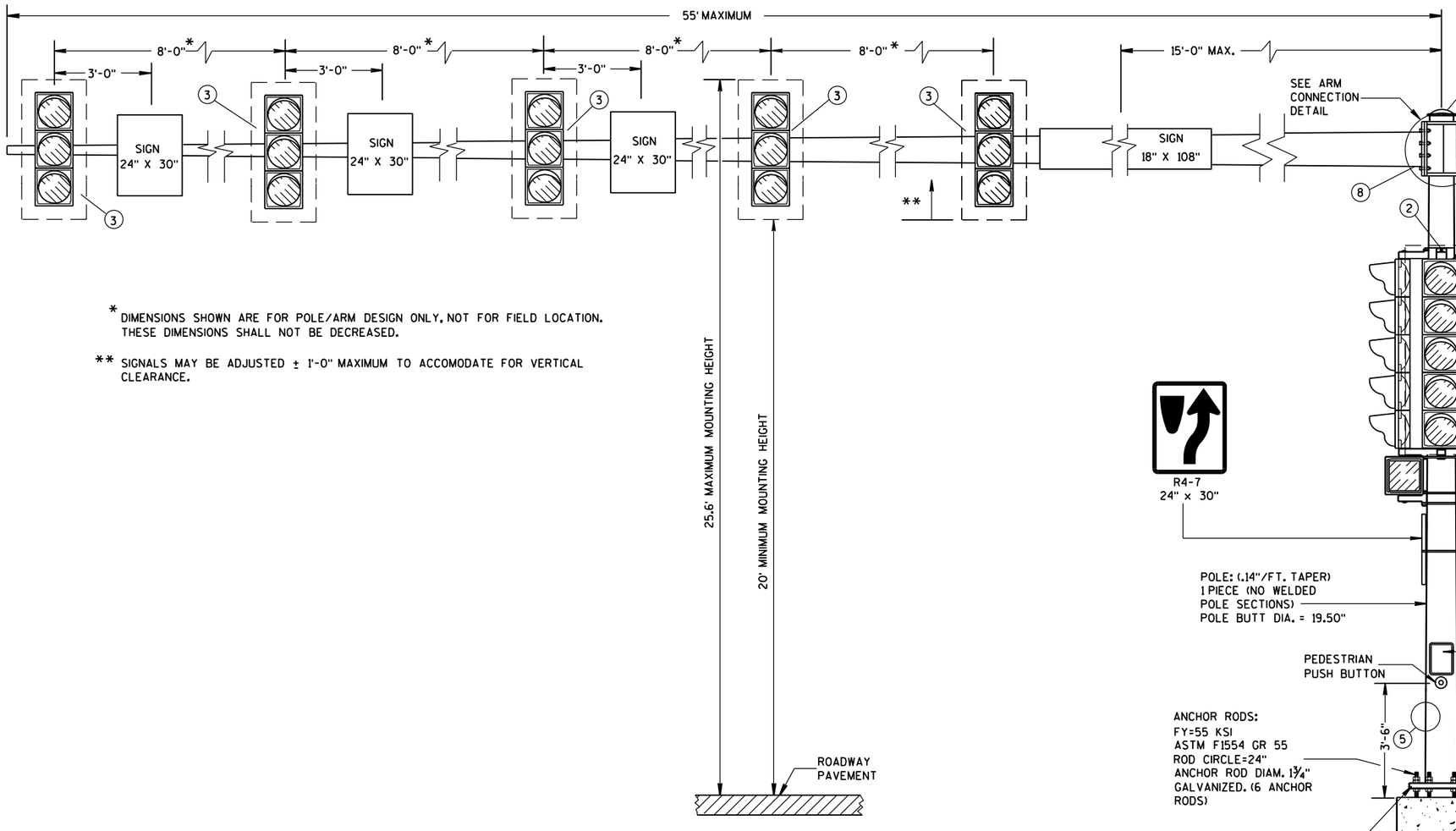
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 224

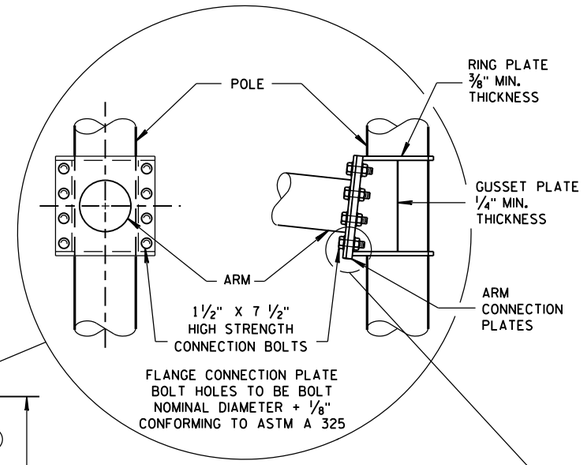
FHWA

6
SDD 09E01 - 15g

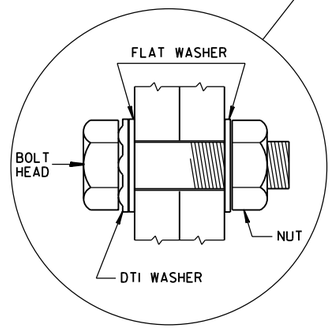


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

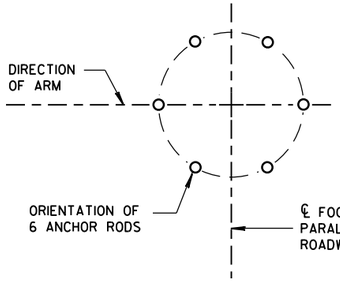
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

OVER HEIGHT TYPE 12 POLE 35'- 55' MONOTUBE ARM

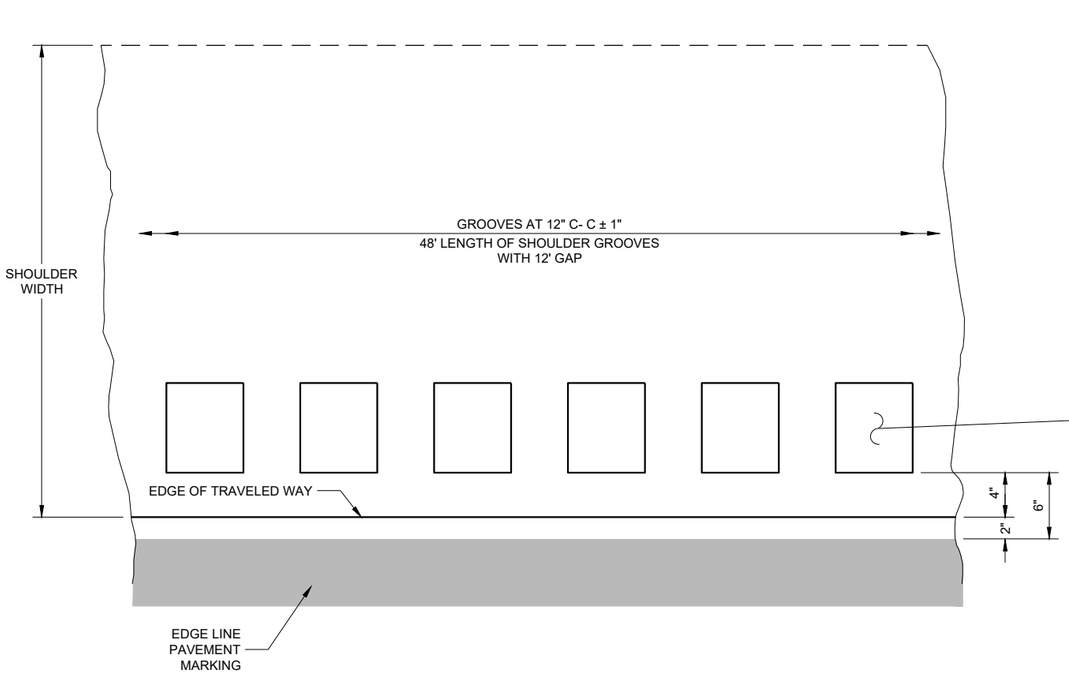
OVER HEIGHT TYPE 12 POLE 35' - 55' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May, 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL 225

6

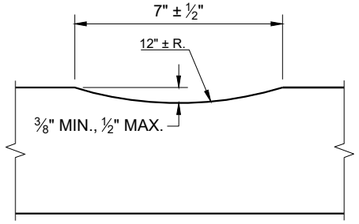
S.D.D. 9 E 12-1c

6

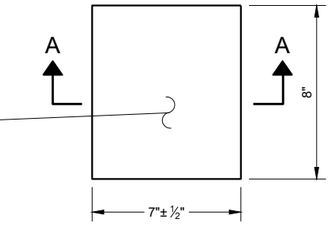
S.D.D. 9 E 12-1c



PLAN DETAIL VIEW
SHOULDER WITH GROOVES



SECTION A - A

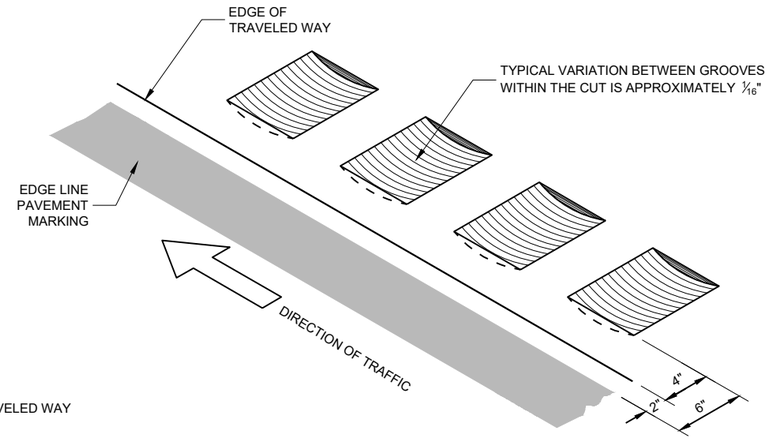


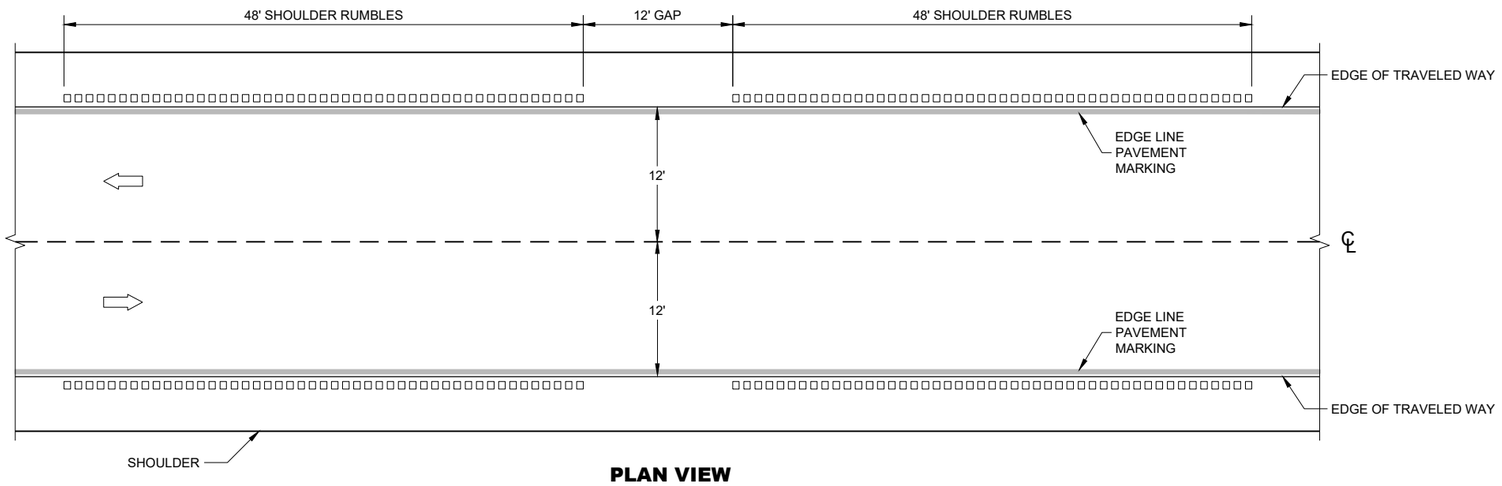
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.





PLAN VIEW

SHOULDER RUMBLE STRIPS - ASPHALT

6

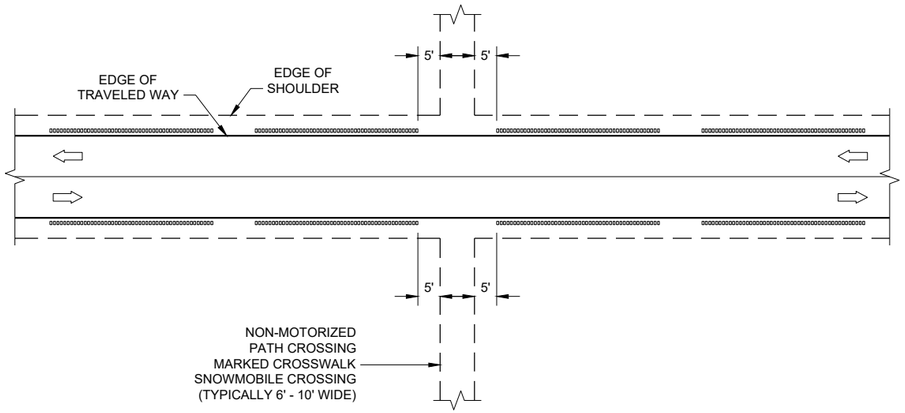
SDD 13A10 - 03a

SHOULDER RUMBLE STRIPS ASPHALT

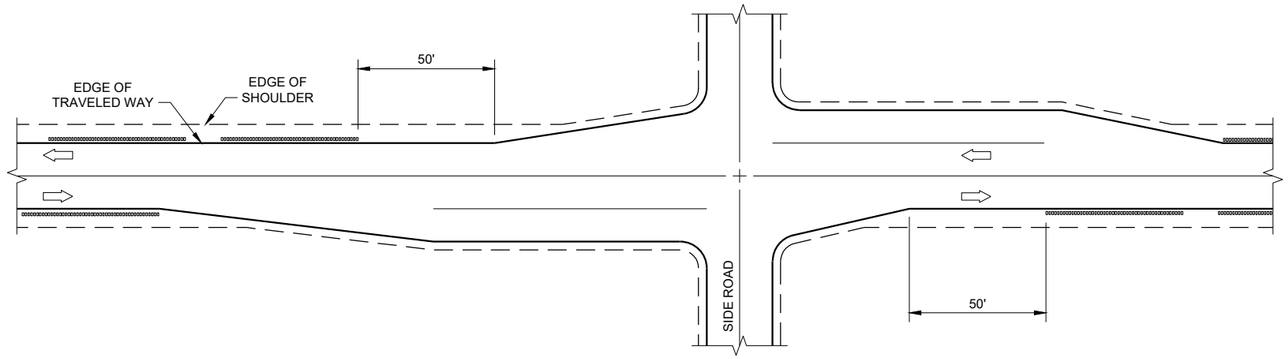
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

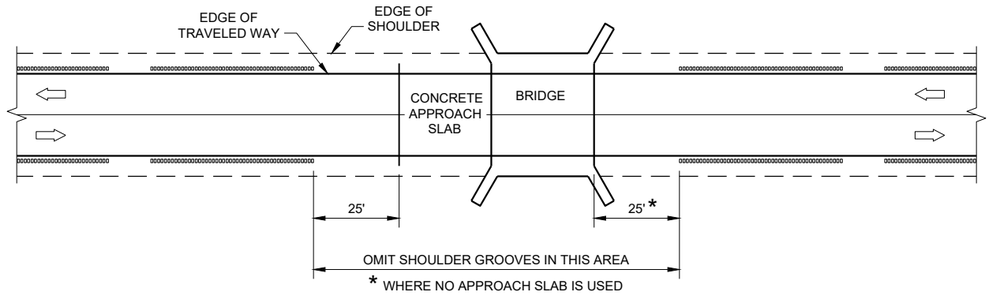
SDD 13A10 - 03a



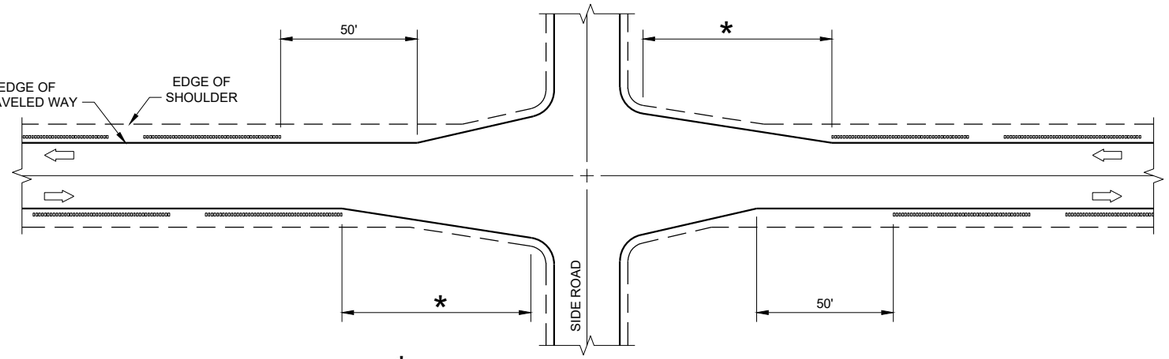
GROOVES AT MISCELLANEOUS CROSSINGS



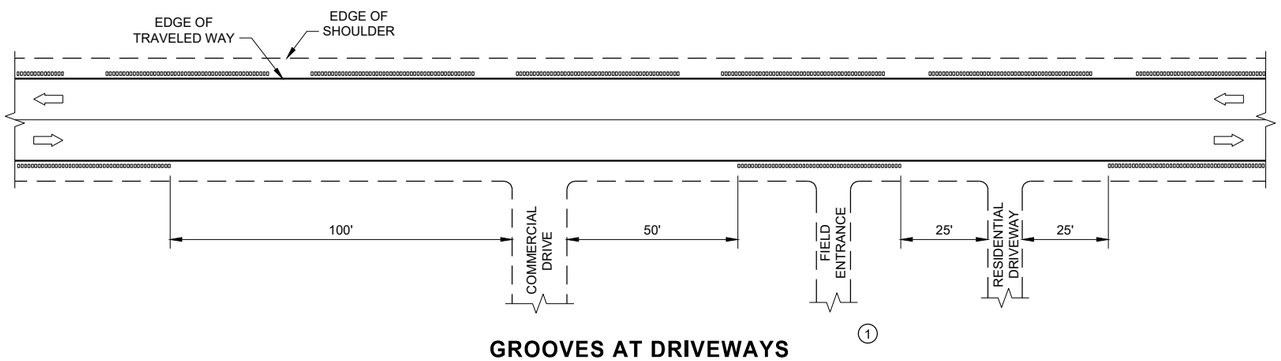
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



GROOVES AT DRIVEWAYS ①

GENERAL NOTES

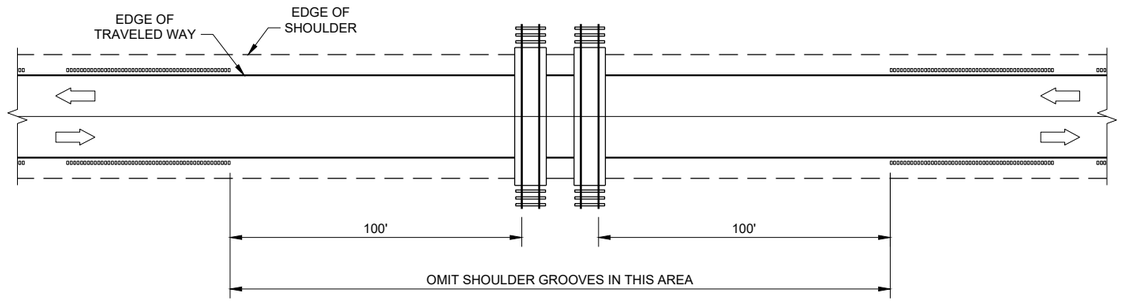
① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

SHOULDER AND EDGE LINE RUMBLE STRIPS CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS

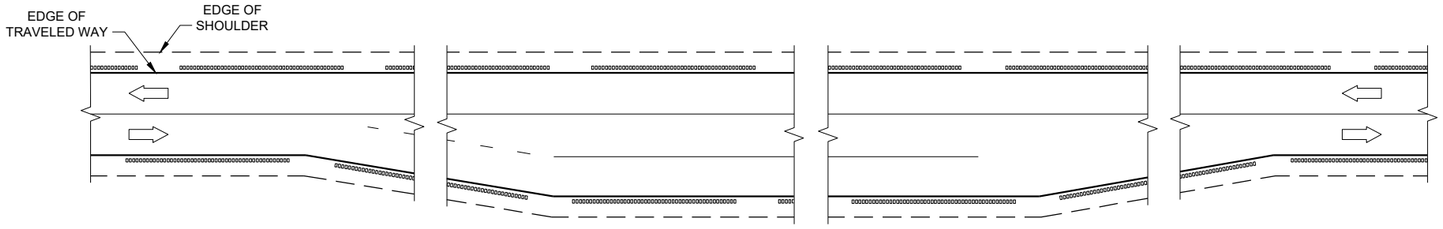
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

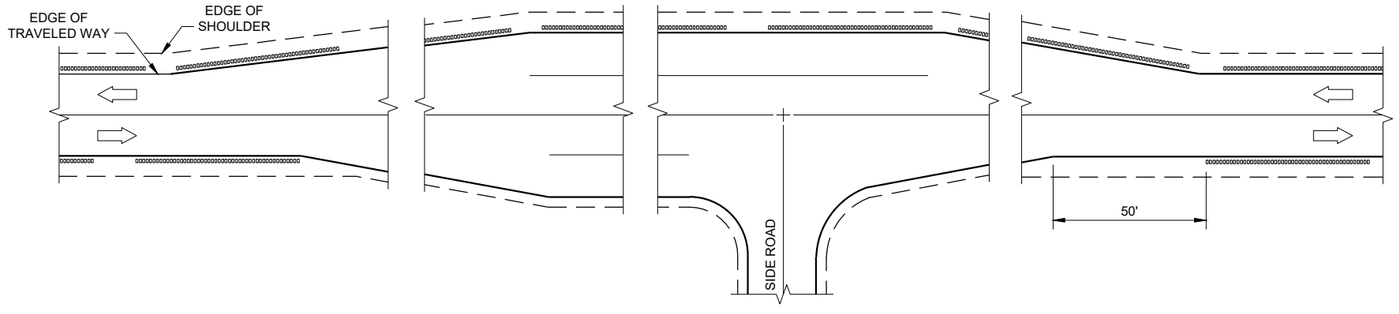
SDD 13A10 - 03g
SDD 13A10 - 03g



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



GROOVES AT BYPASS LANES

6

SDD 13A10 - 03h

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ John Jenkins
ROADWAY STANDARDS DEVE ENGINEER

FHWA

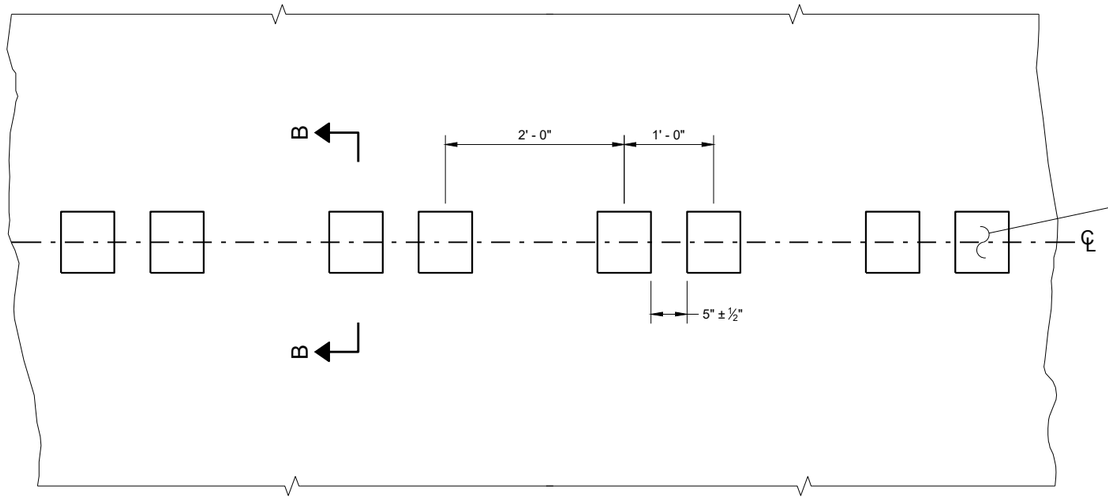
6

SDD 13A10 - 03h

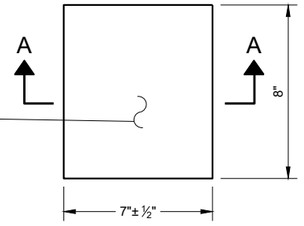
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

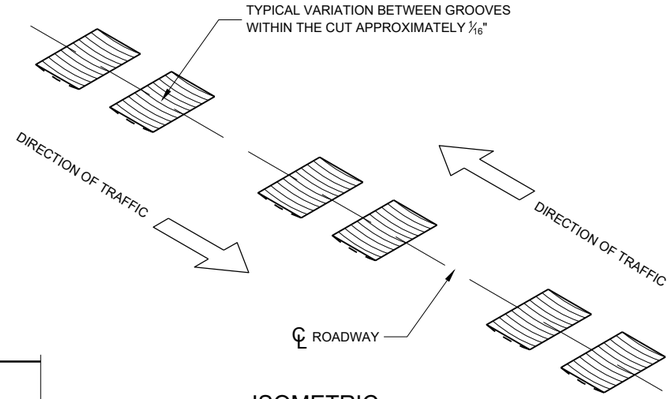
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



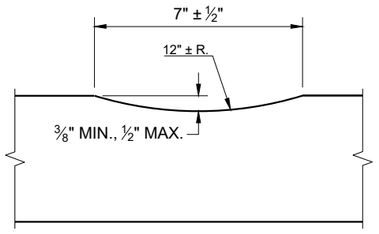
PLAN DETAIL VIEW



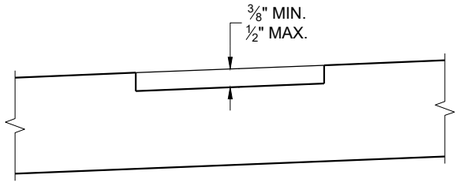
PLAN VIEW
(SINGLE GROOVE)



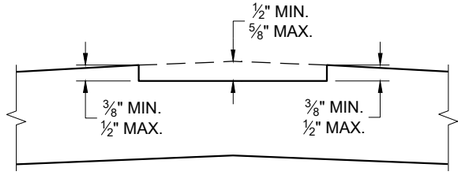
ISOMETRIC



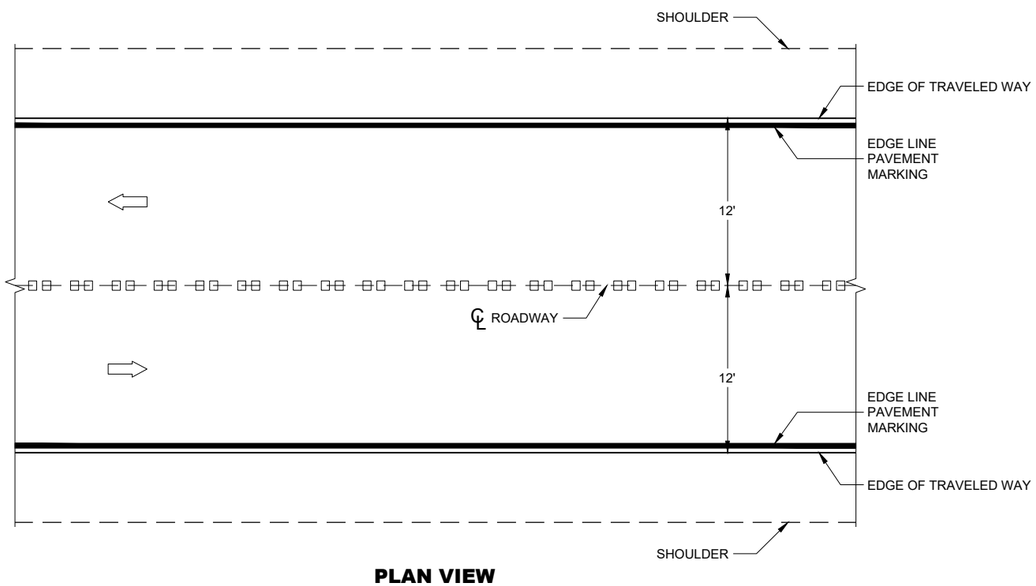
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

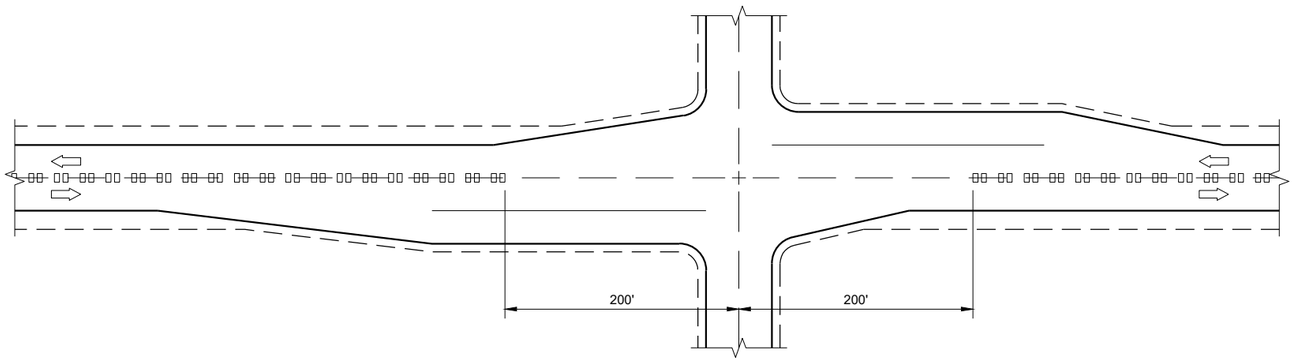
CENTERLINE RUMBLE STRIPS - ASPHALT

CENTERLINE RUMBLE STRIPS - ASPHALT

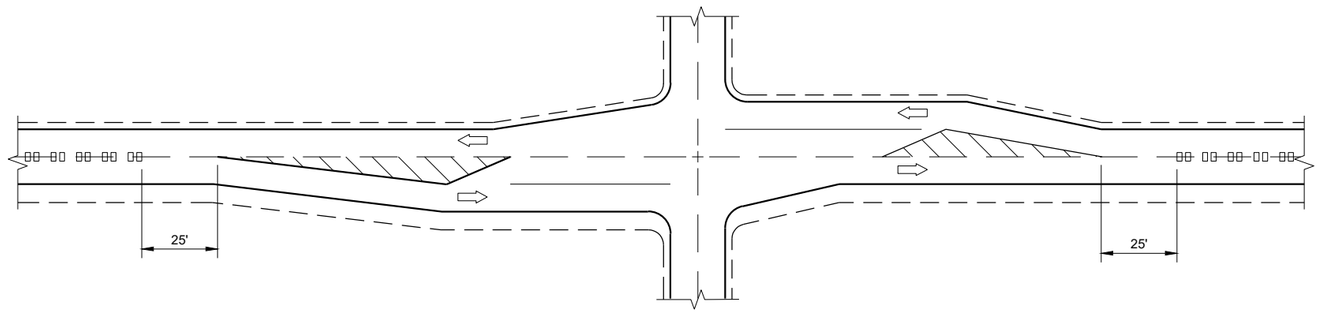
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

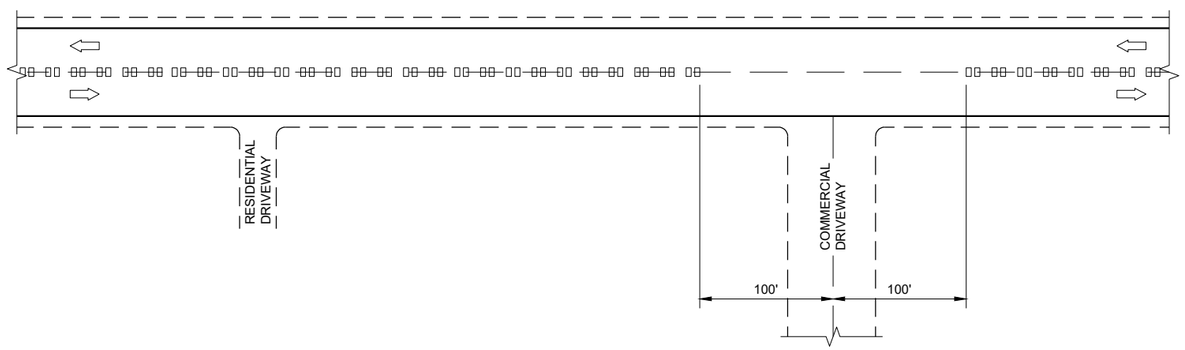
SDD 13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS



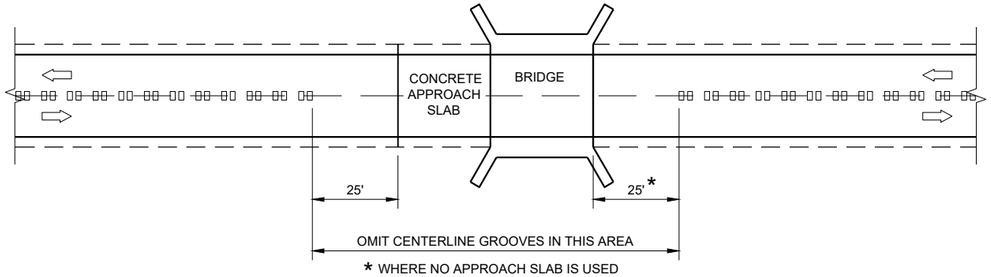
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



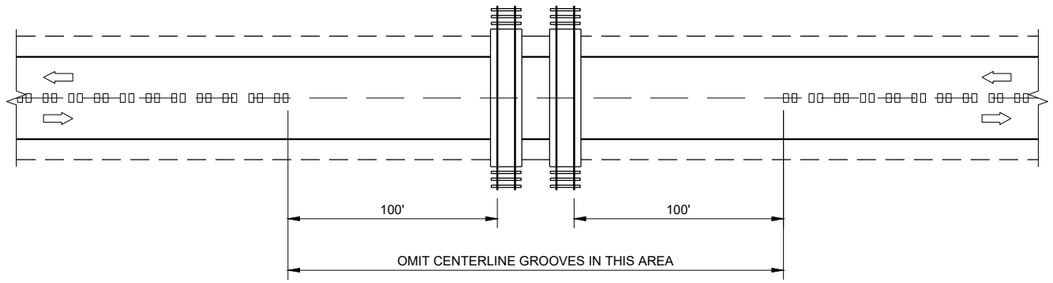
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

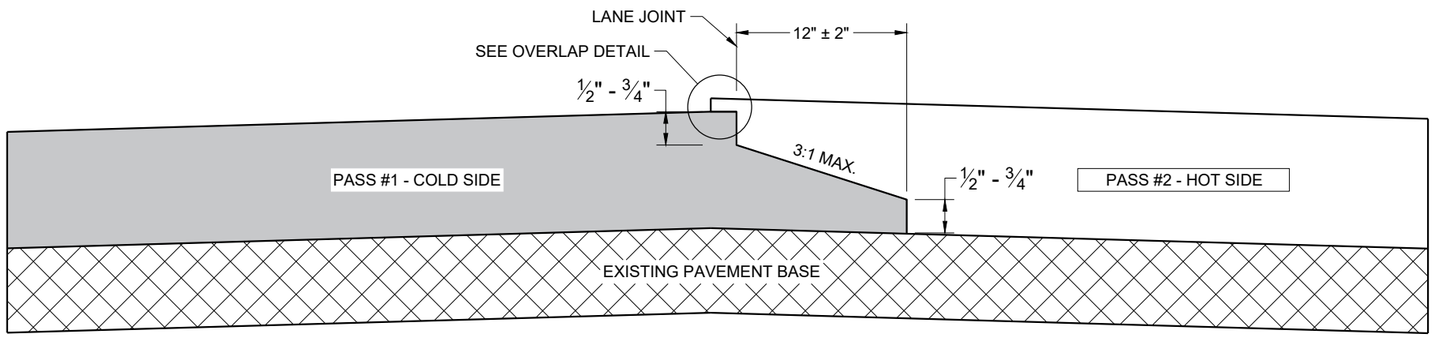
FHWA

6

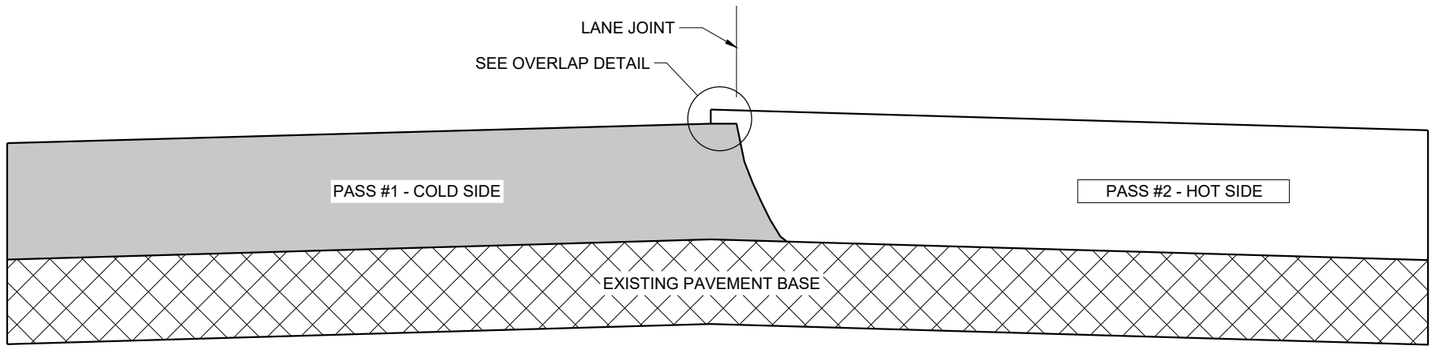
SDD 13A11 - 04d

6

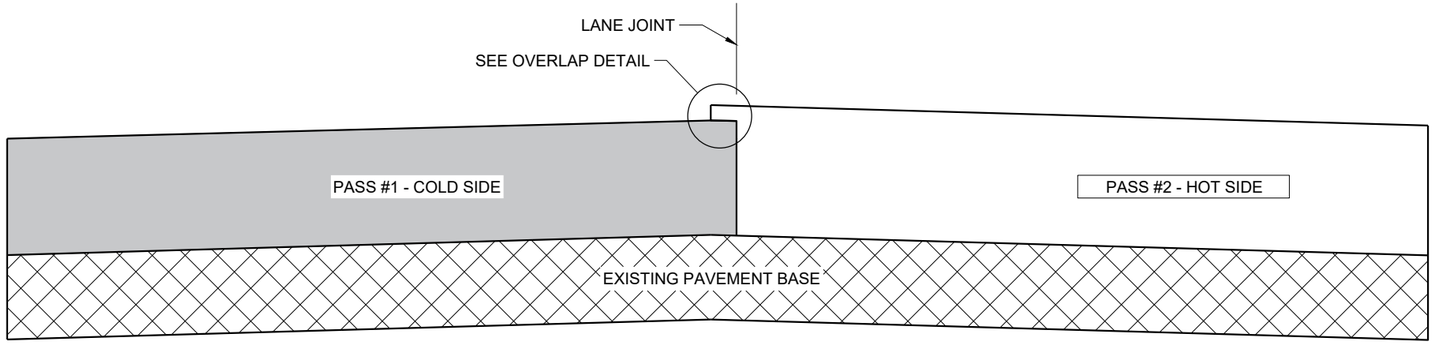
SDD 13A11 - 04d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

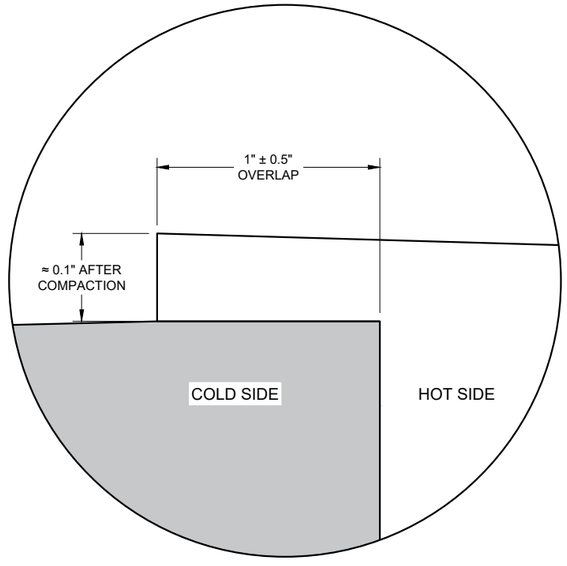
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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.

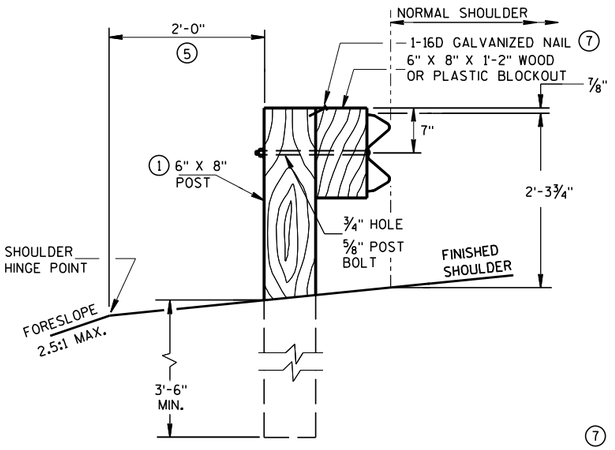
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(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.

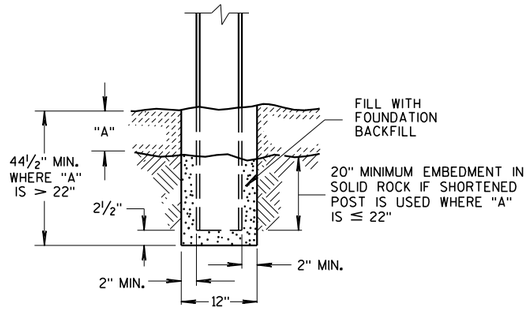
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

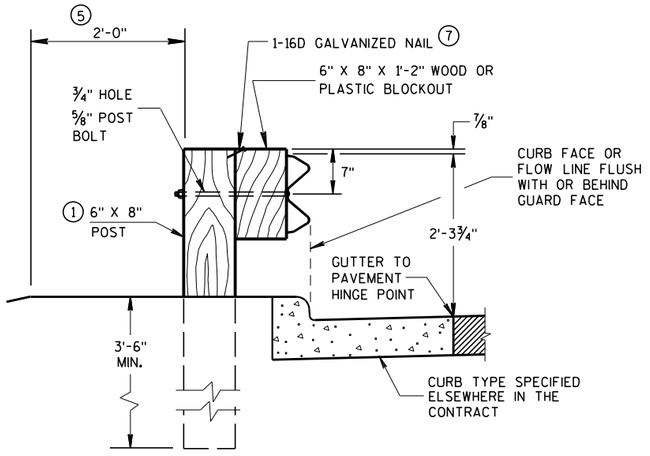
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



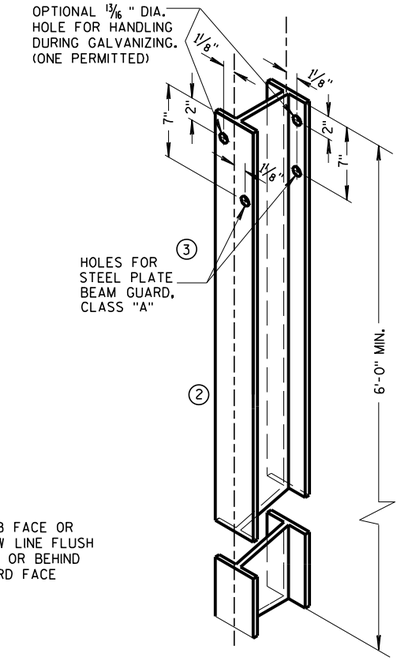
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



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

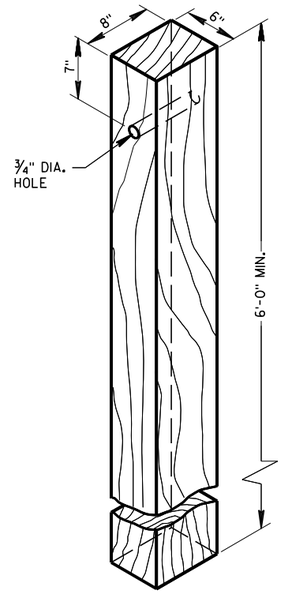


END VIEW
LOCATED ALONG A CURBED ROADWAY

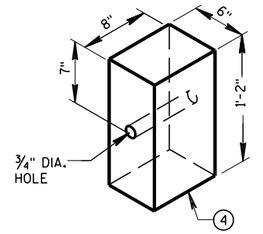


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

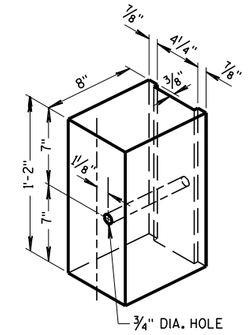
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



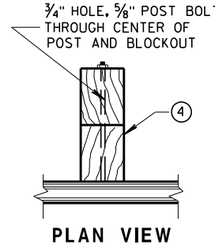
WOOD POST
(6"X8") NOMINAL



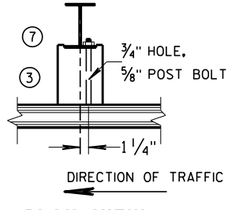
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



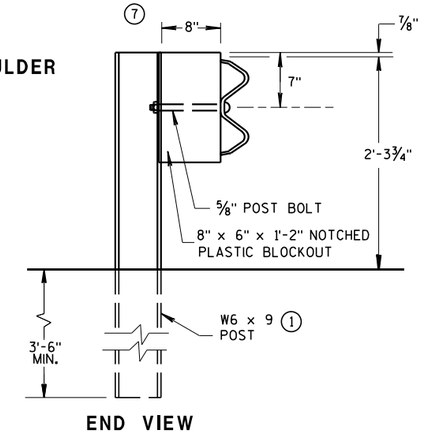
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



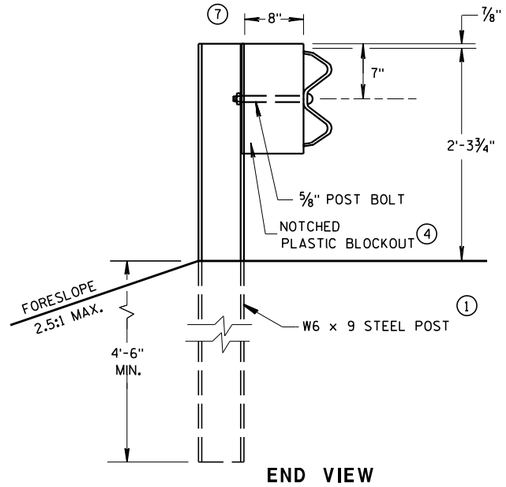
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



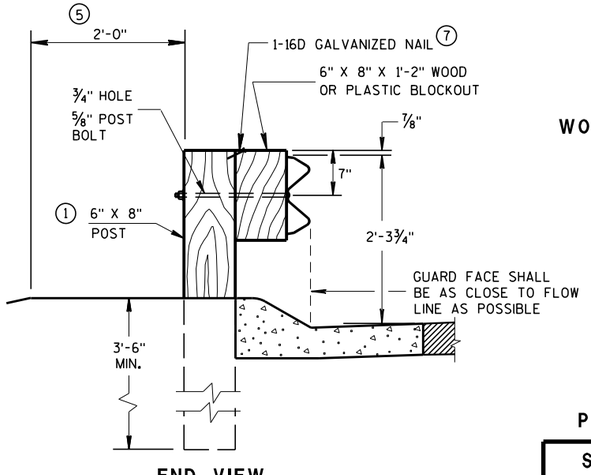
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



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



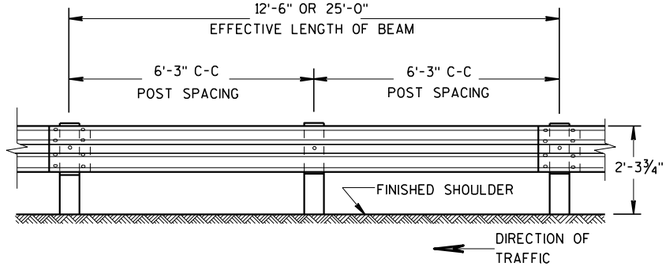
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

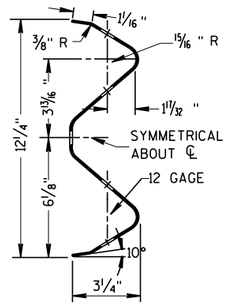
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

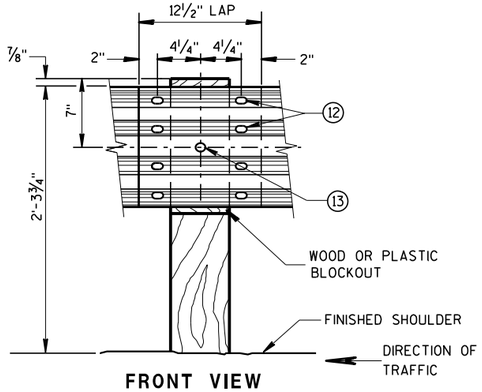


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

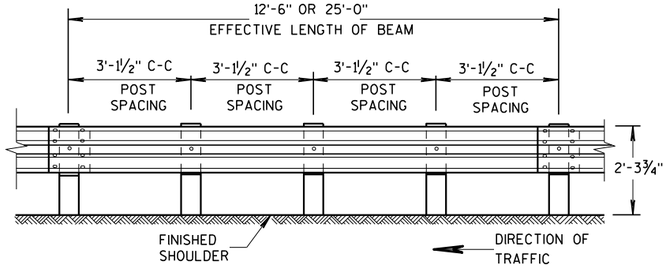
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

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

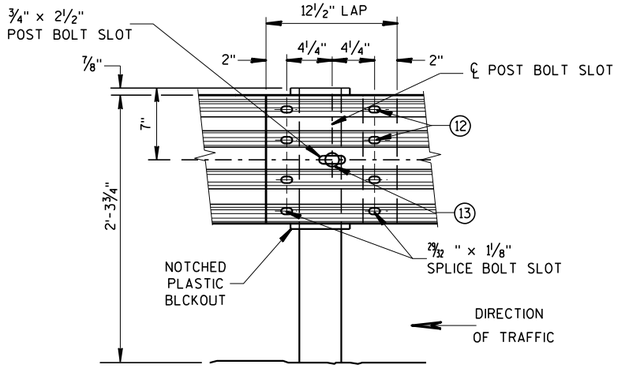
(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

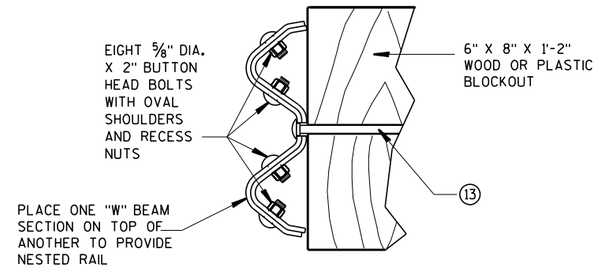
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

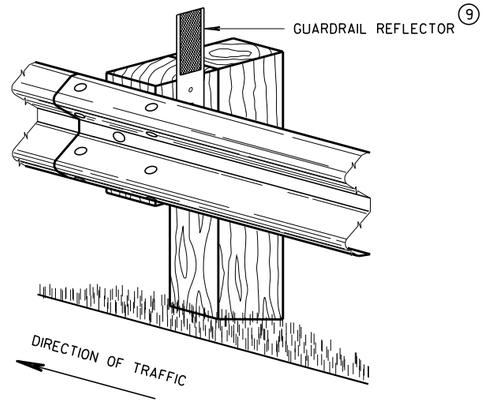
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



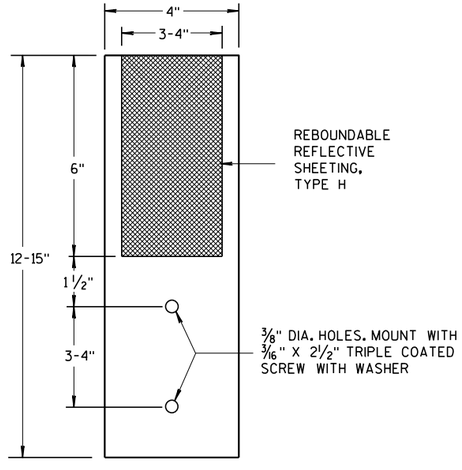
NESTED W BEAM (NW)

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

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



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



4"x 12" GUARDRAIL REFLECTOR

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

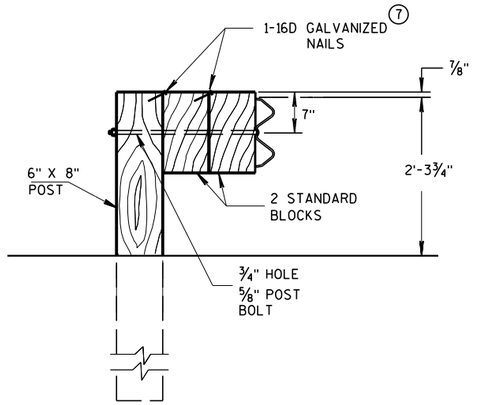
STATE OF WISCO 233
DEPARTMENT OF TRANSPORTATION

6

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

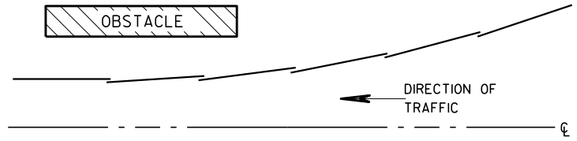
6

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

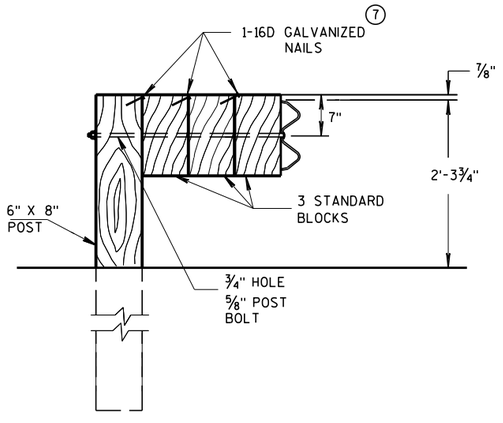


DETAIL FOR DOUBLE BLOCKS

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

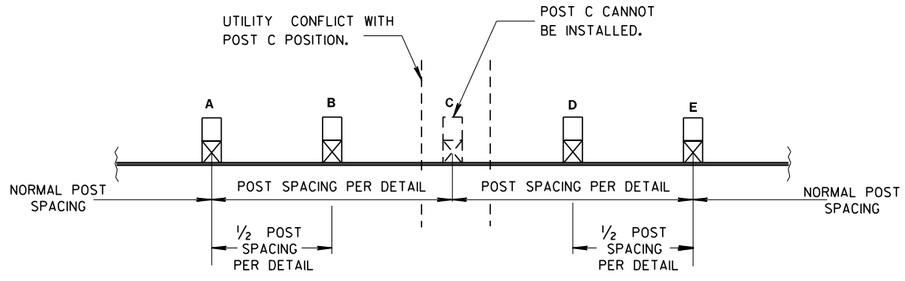


PLAN VIEW
BEAM LAPPING DETAIL



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.

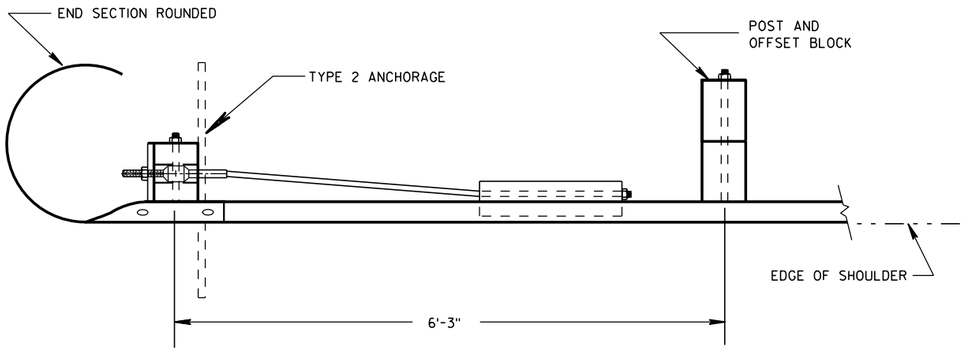
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

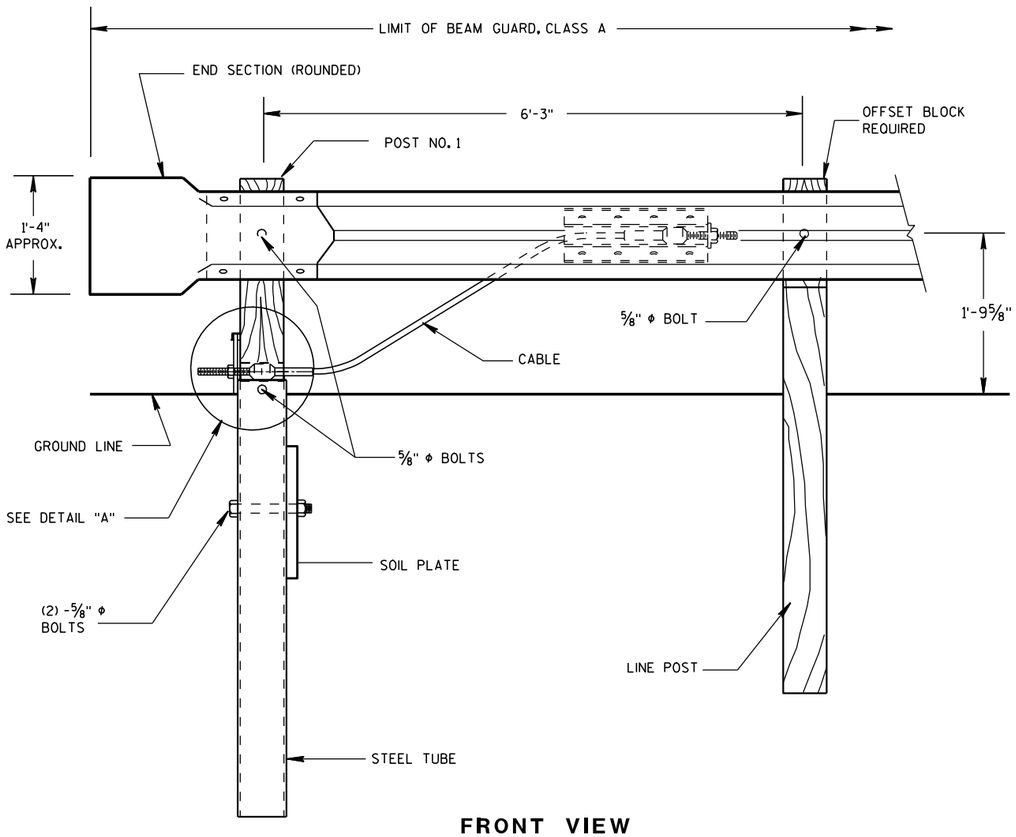
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



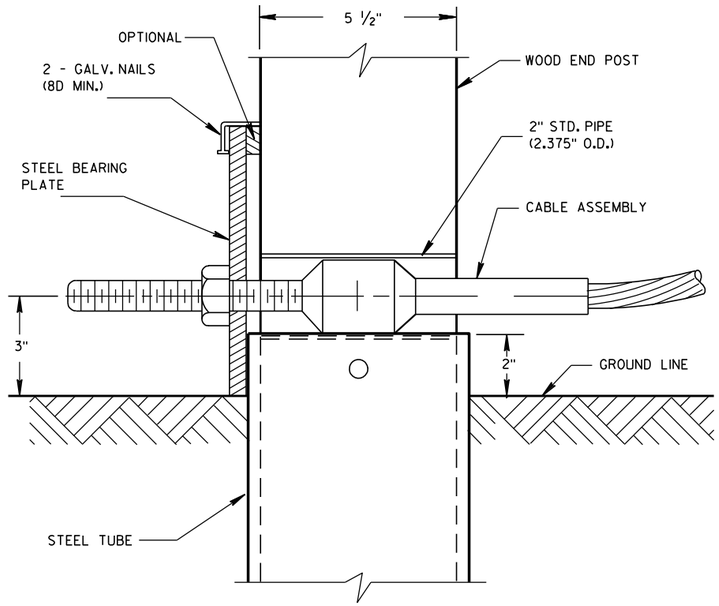
PLAN VIEW



FRONT VIEW

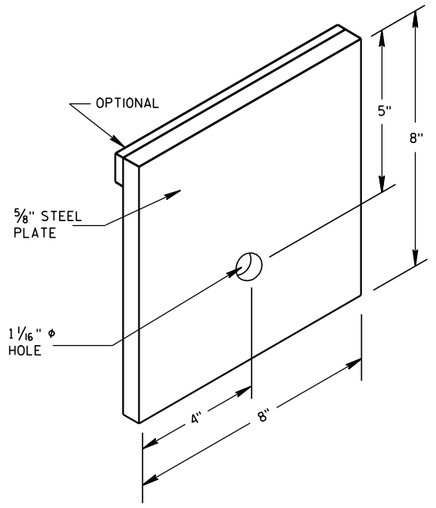
END TREATMENT WITH TYPE 2 ANCHORAGE

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



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

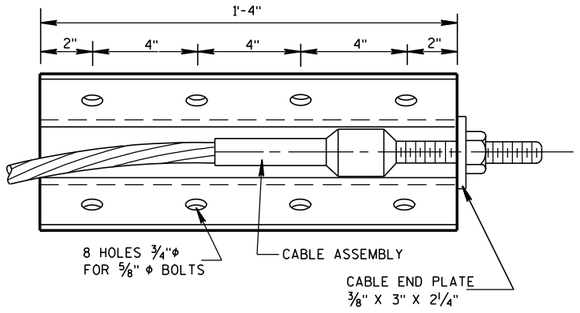
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

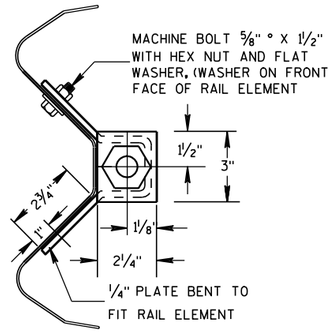
S.D.D. 14 B 16-4a

6

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

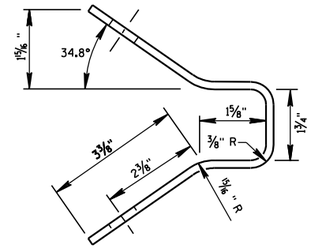


FRONT VIEW

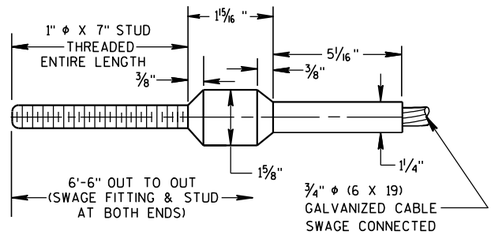


END VIEW

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)

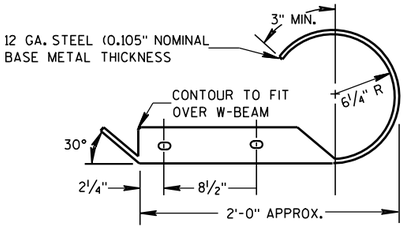
GENERAL NOTES

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.

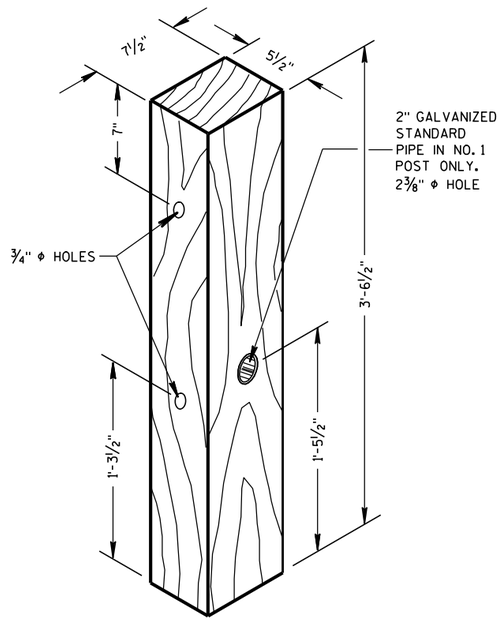
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

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

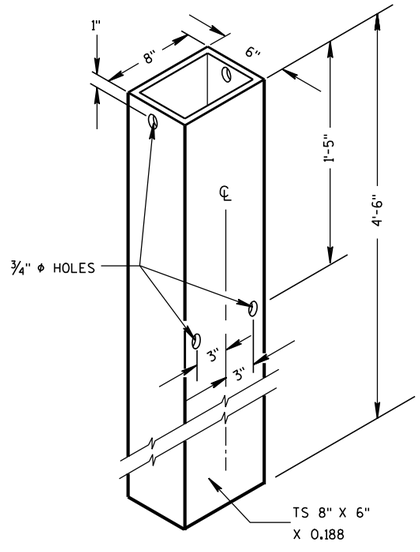
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

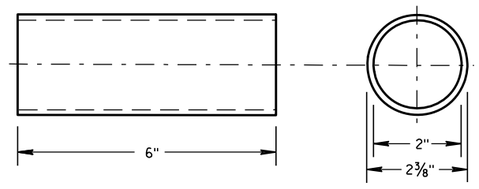


WOOD BREAKAWAY POST



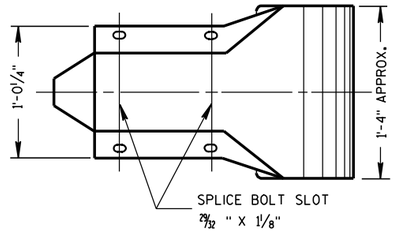
STEEL TUBE

STEEL TUBE SHALL CONFORM TO
REQUIREMENTS OF ASTM A500

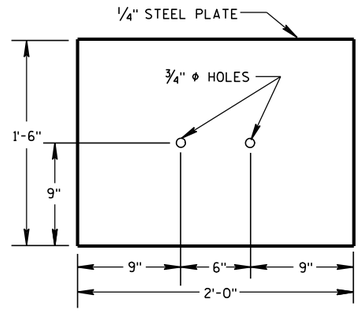


BREAKAWAY TERMINAL POST SLEEVE

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

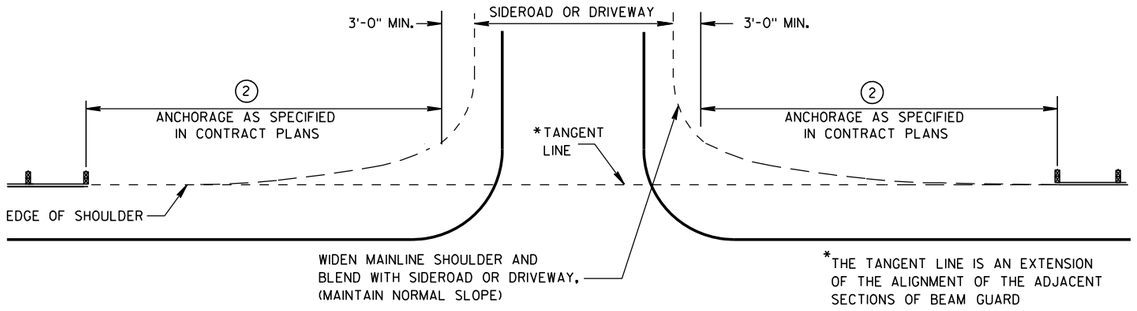
APPROVED
8/21/2007
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
236
FHWA

6

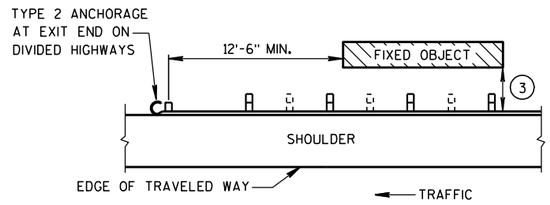
S.D.D. 14 B 16-4b

6

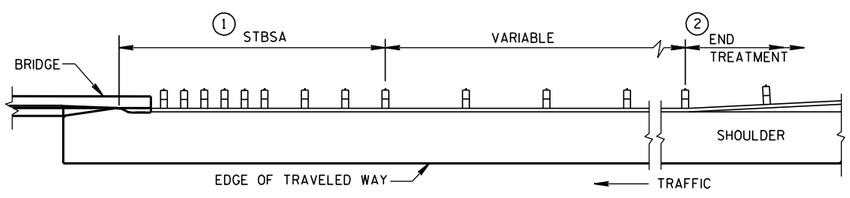
S.D.D. 14 B 16-4b



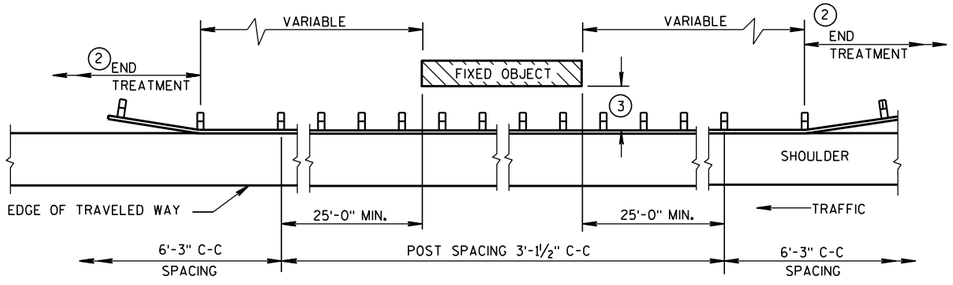
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

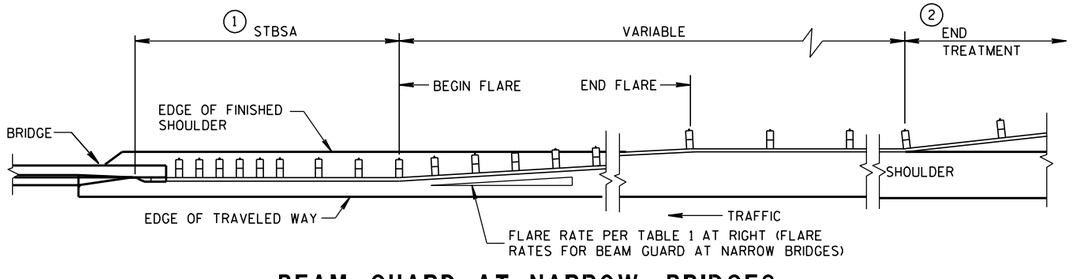


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



BEAM GUARD AT NARROW BRIDGES

(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

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

GENERAL NOTES

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

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

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

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

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

(3)

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

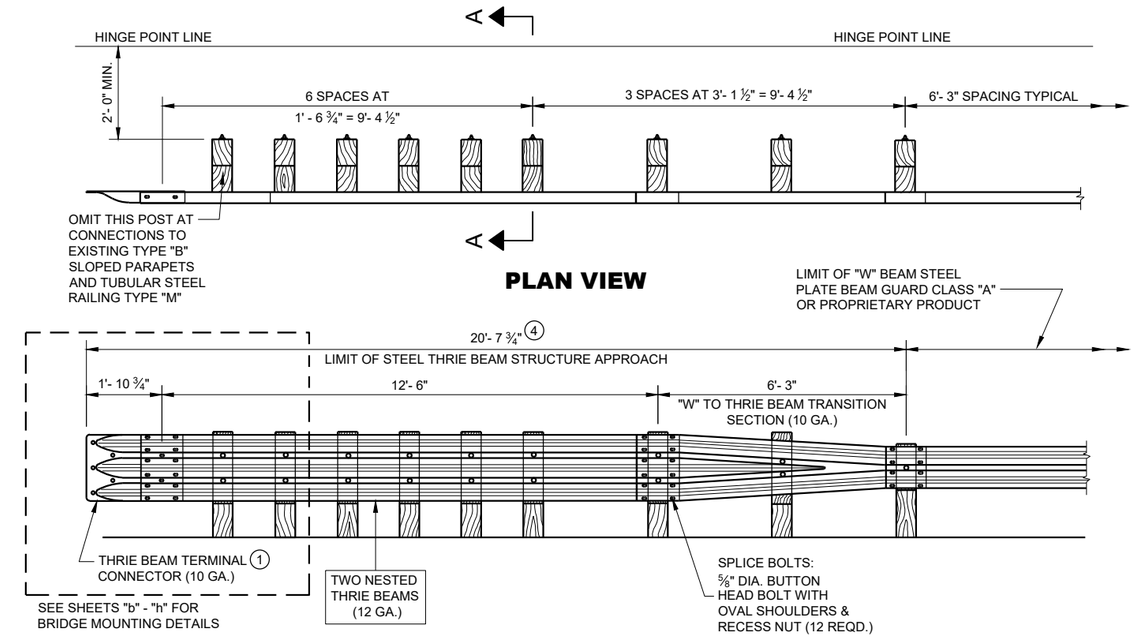
8-21-07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

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



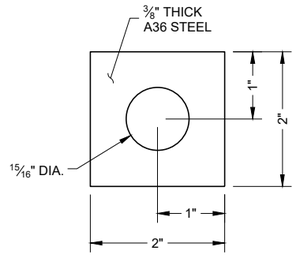


PLATE WASHER DETAIL

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.

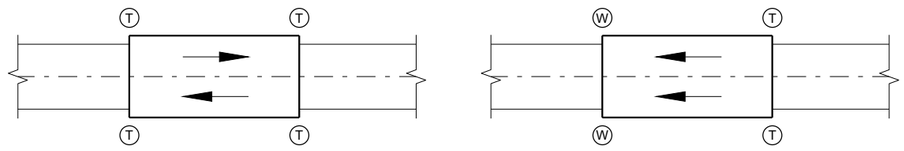
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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

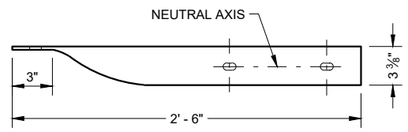
(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

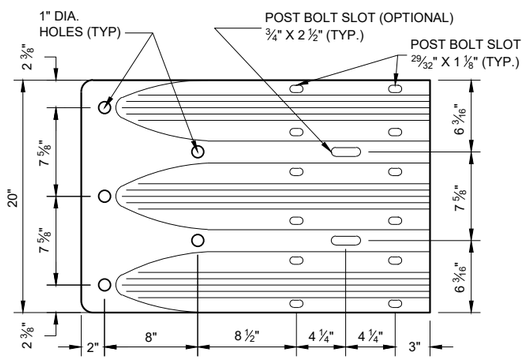
(3) POST BOLTS ARE ⅝" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A ⅝" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

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

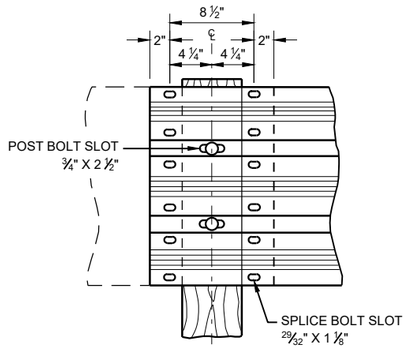


TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

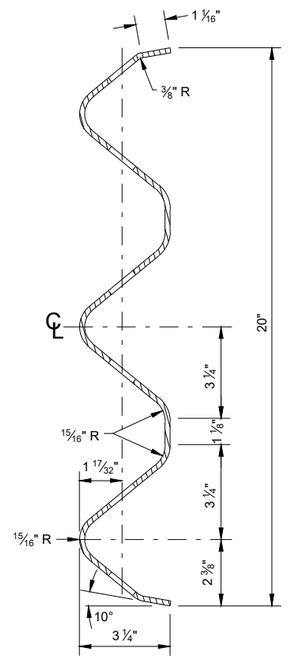




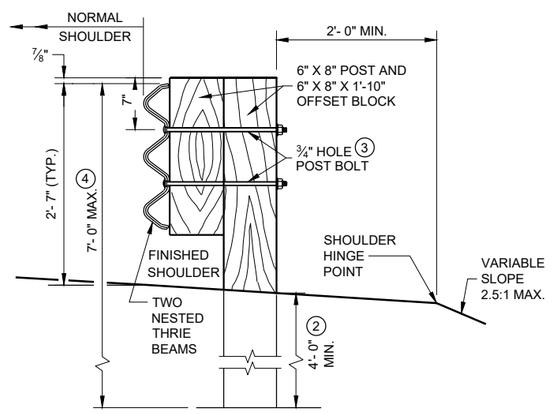
THRIE BEAM TERMINAL CONNECTOR



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.

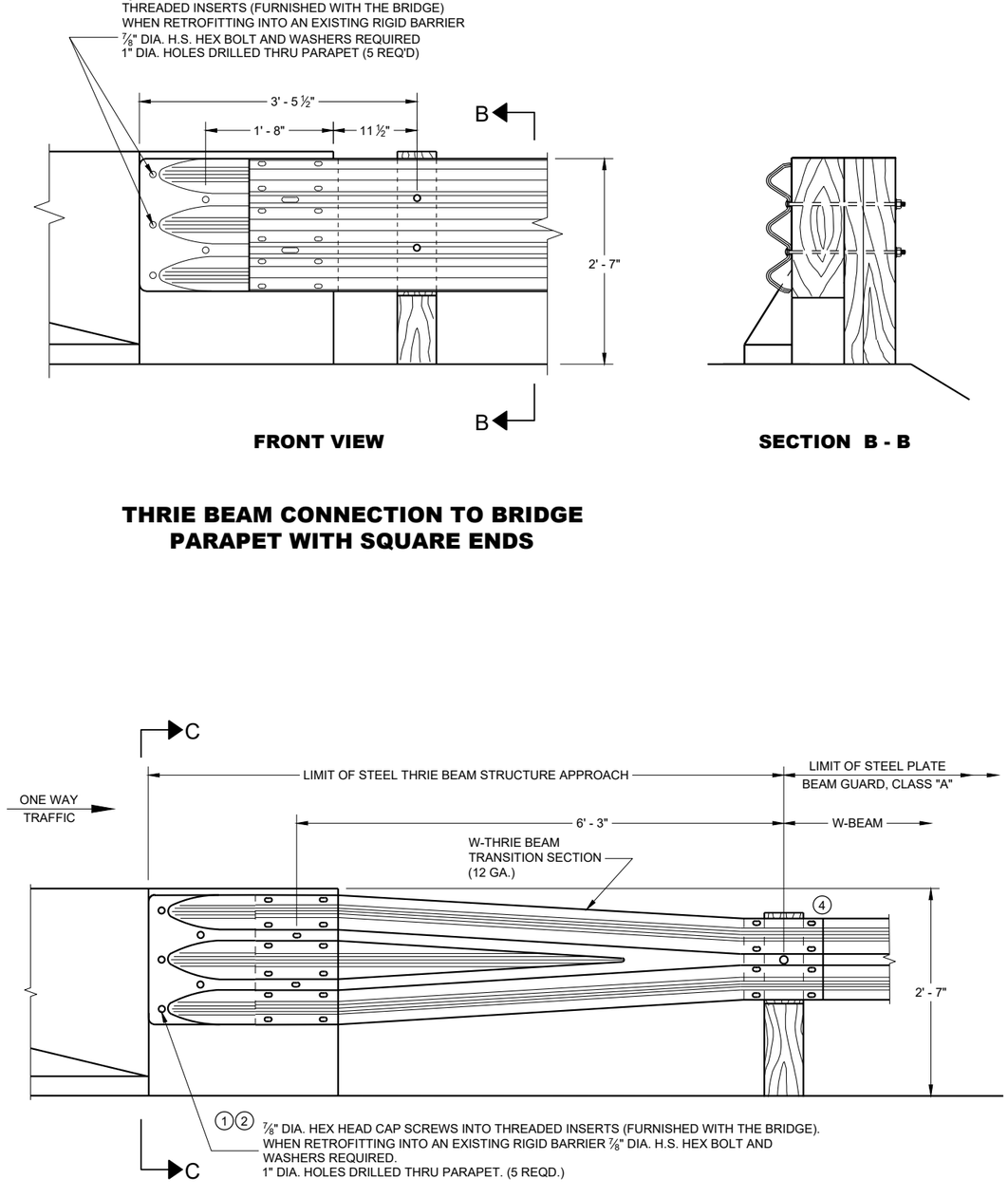
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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.

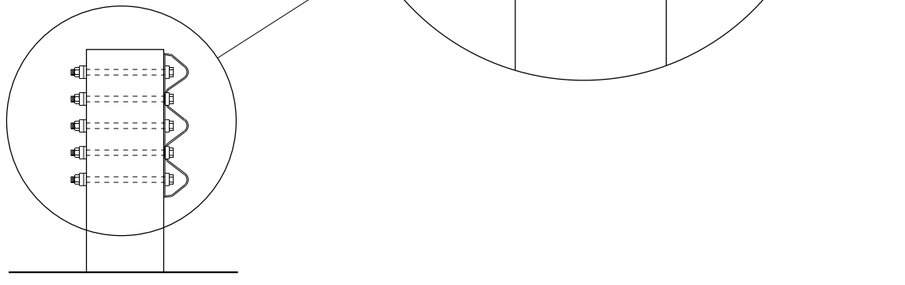
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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



SECTION C - C

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

FHWA

6

SDD 14B20 - 12b

BILL OF MATERIALS

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

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

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

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

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

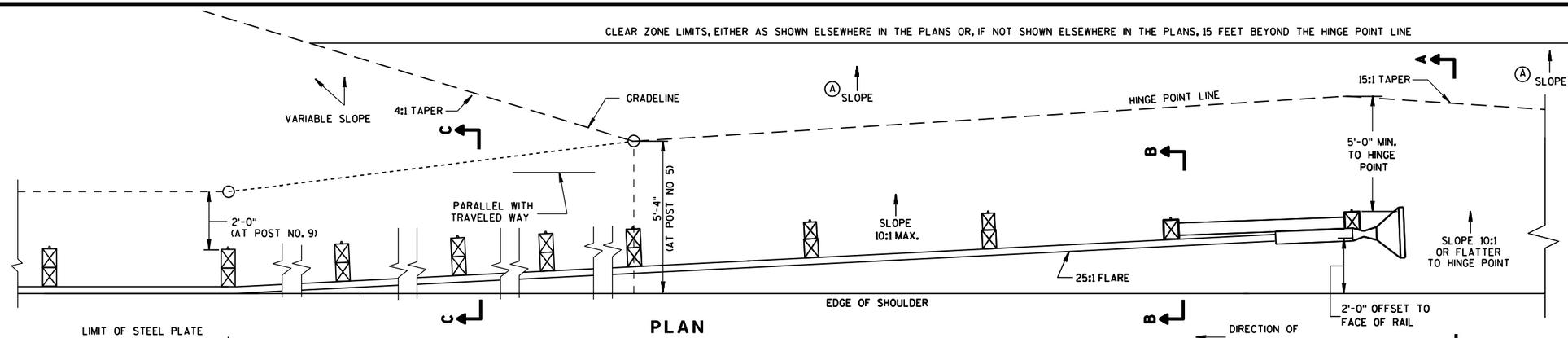
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

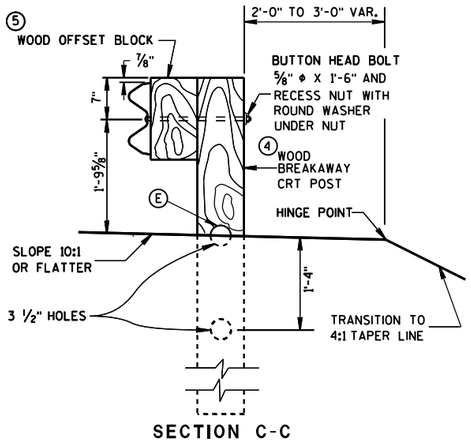
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

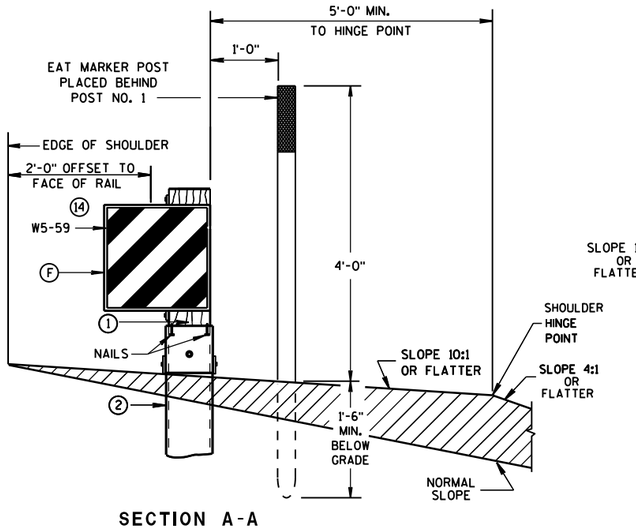
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

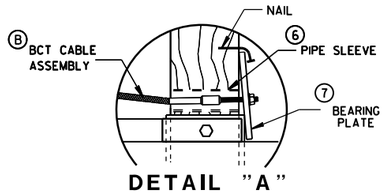
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

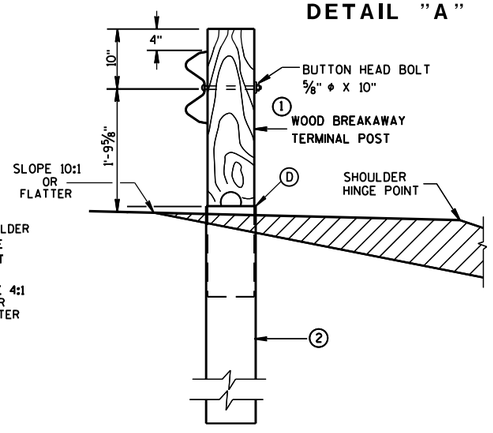
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

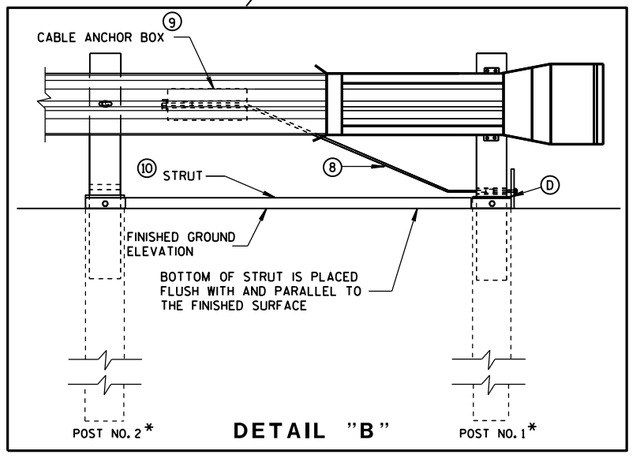










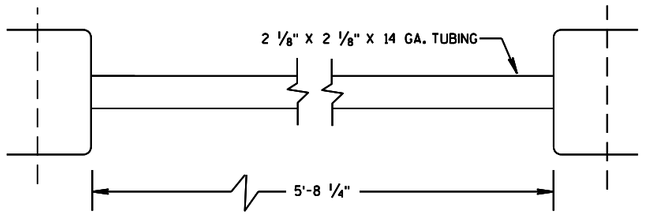


STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

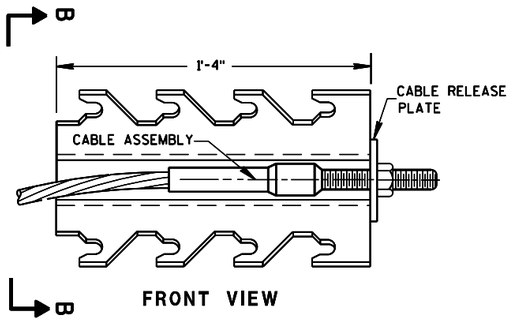
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

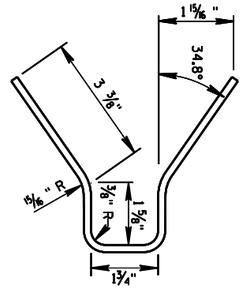
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

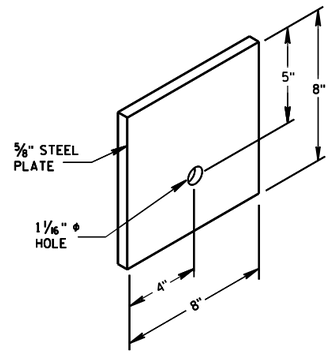


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

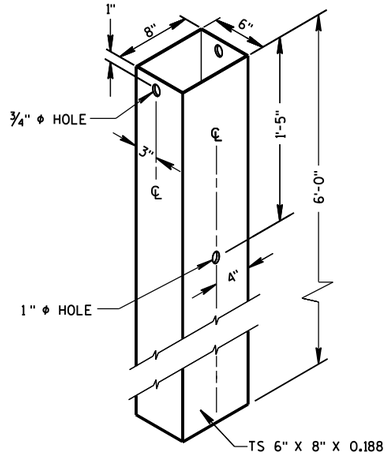
6

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

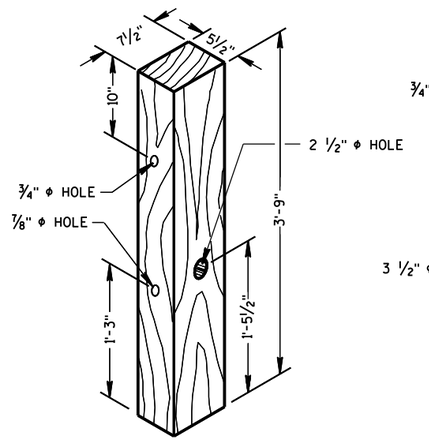
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

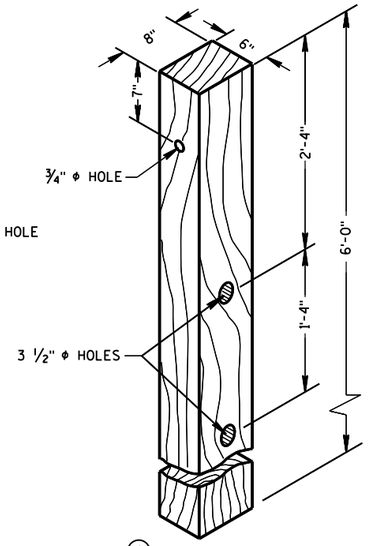
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

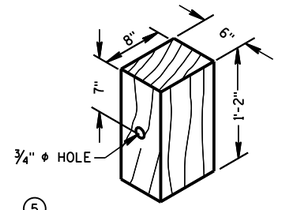


④ CRT POST
(POSTS NO'S 5-8

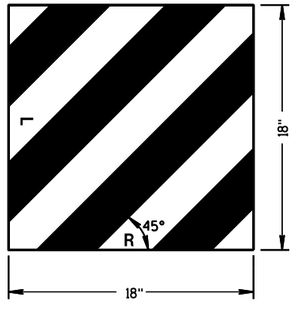
WOOD BREAKAWAY POSTS

GENERAL NOTES

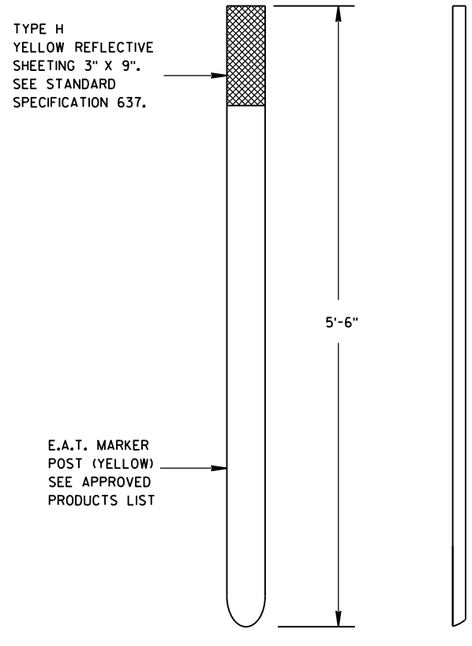
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH,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



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



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
ENT

6

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

6

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

(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.

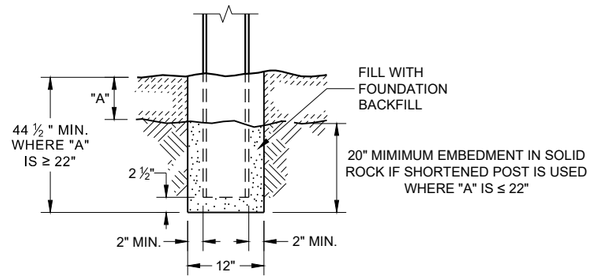
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

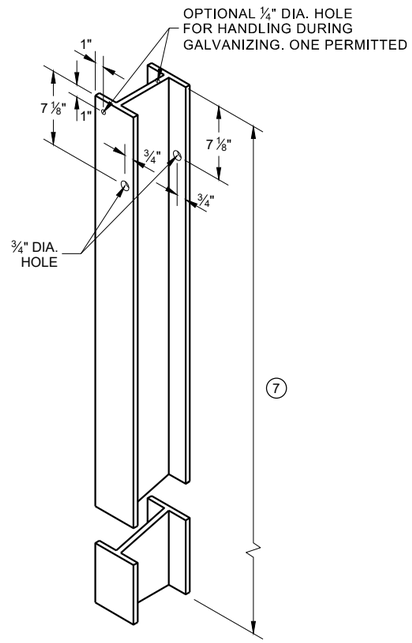
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

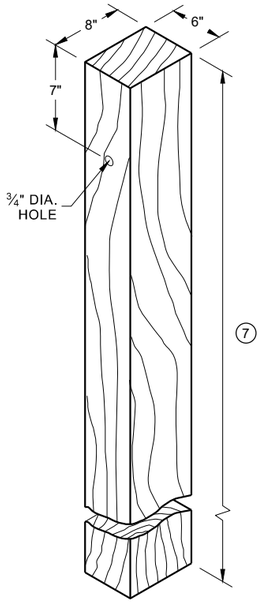
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



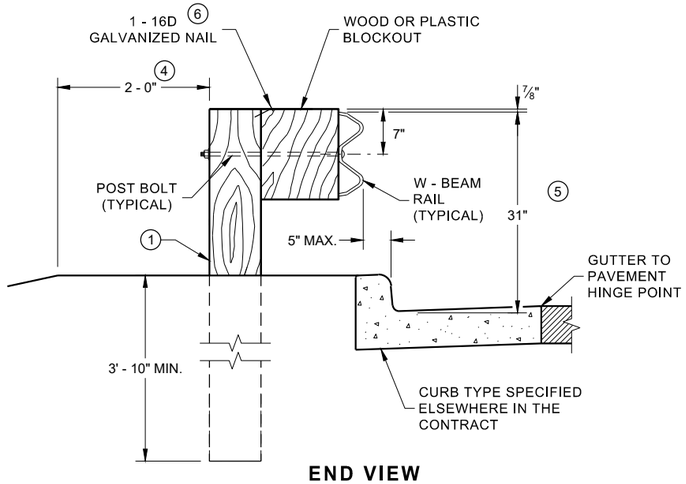
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



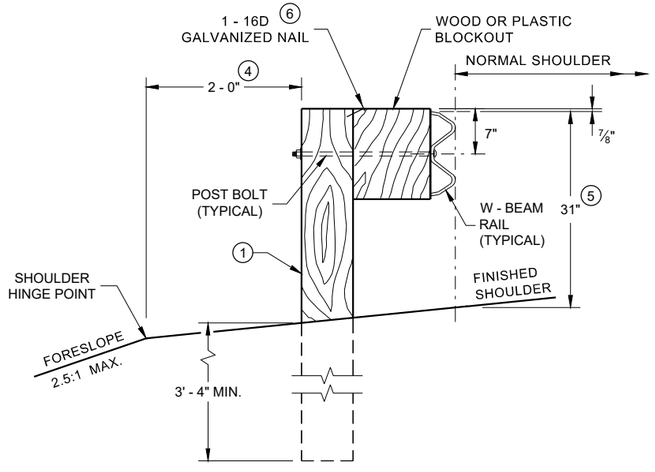
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



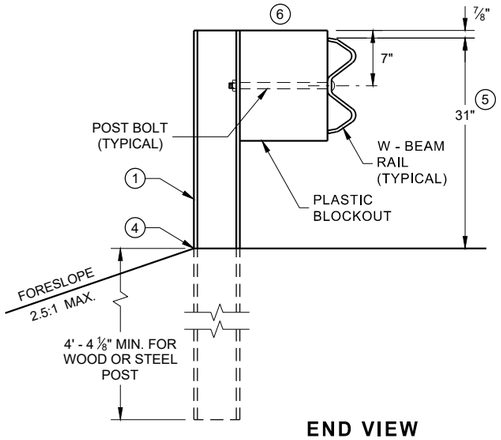
WOOD POST (6" X 8") NOMINAL (1)



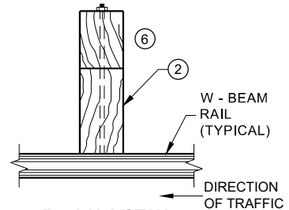
END VIEW
LOCATED ALONG A CURBED ROADWAY



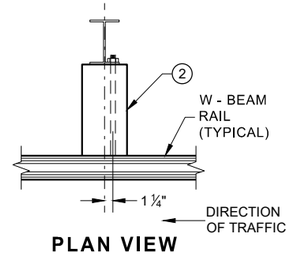
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



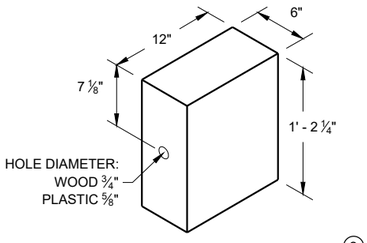
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

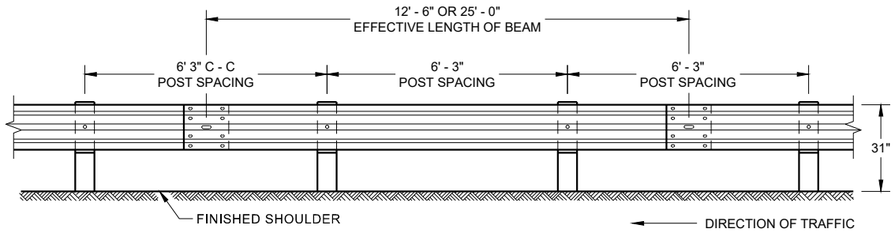
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

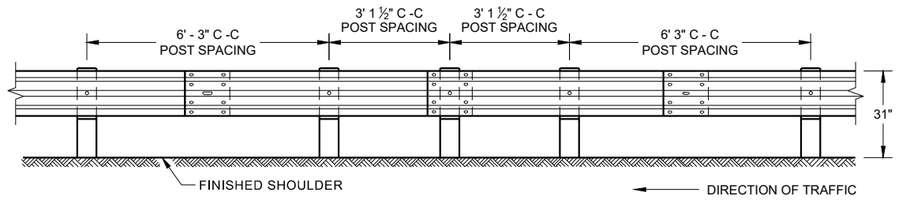
SDD 14B42 - 07a

6

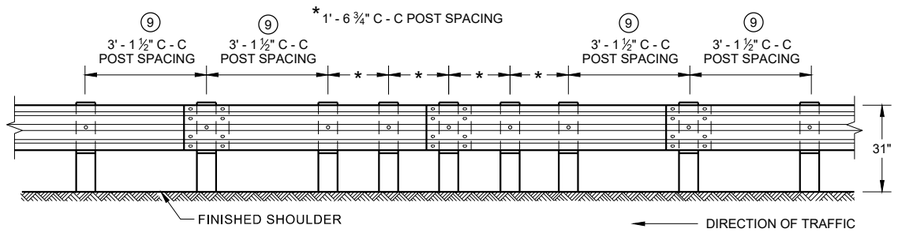
SDD 14B42 - 07a



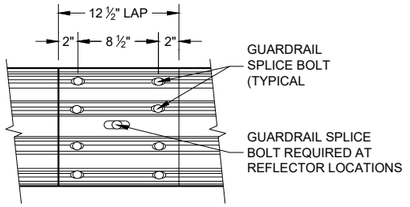
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

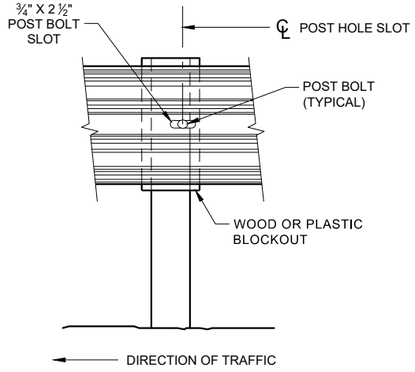
GENERAL NOTES

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

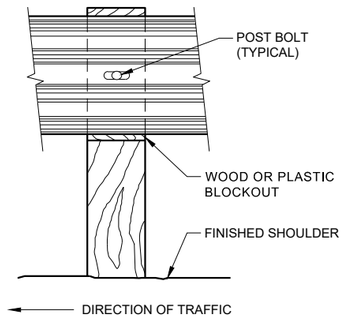
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

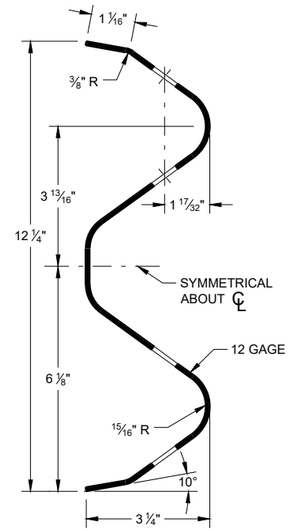
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



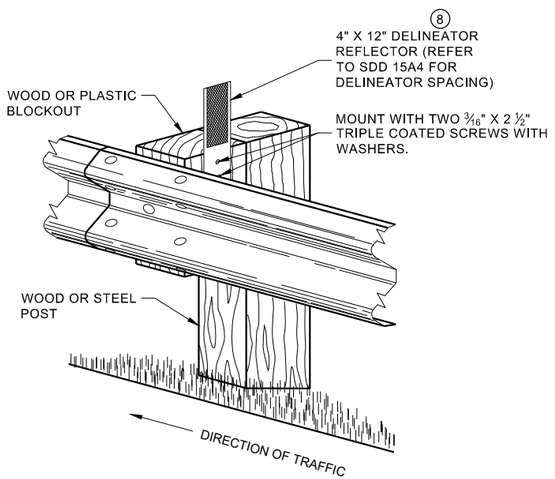
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



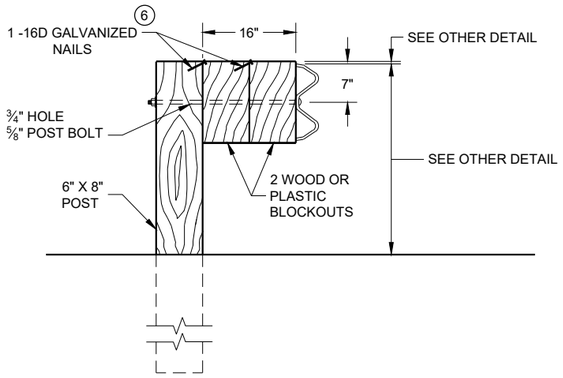
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

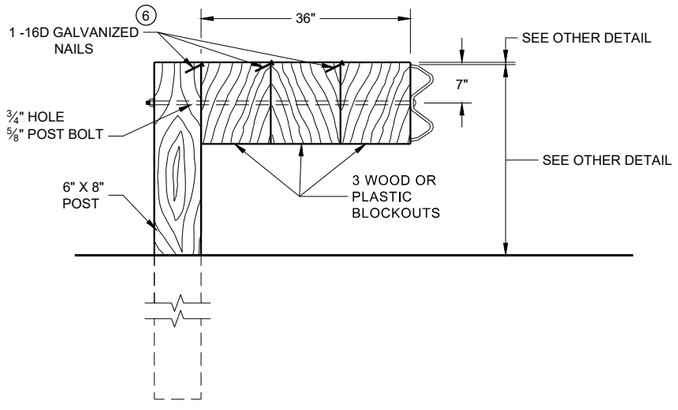
6

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.



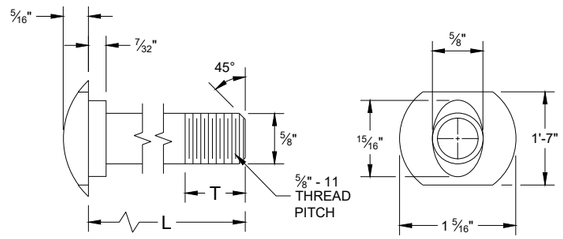
DETAIL FOR 36" BLOCKOUT DEPTH

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

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

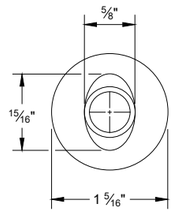
NOTE:

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.

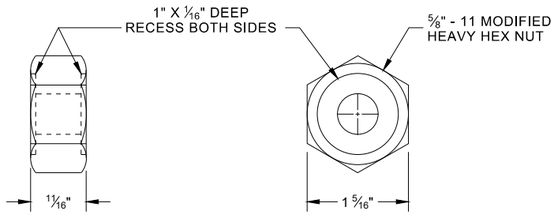


POST BOLT TABLE

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

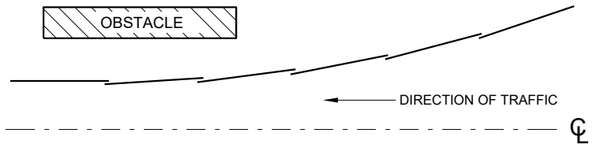


ALTERNATE BOLT HEAD

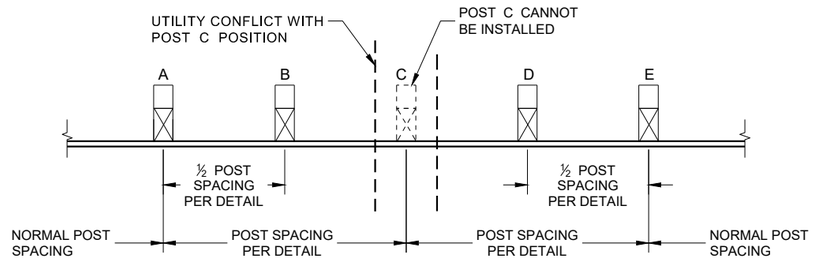


POST BOLT, SPLICE BOLT AND RECESS NUT

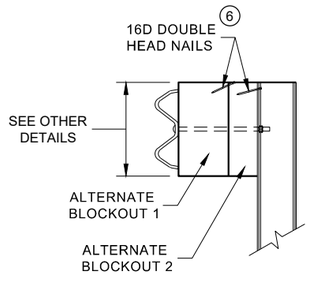
6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



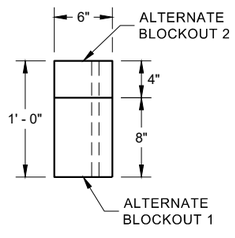
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

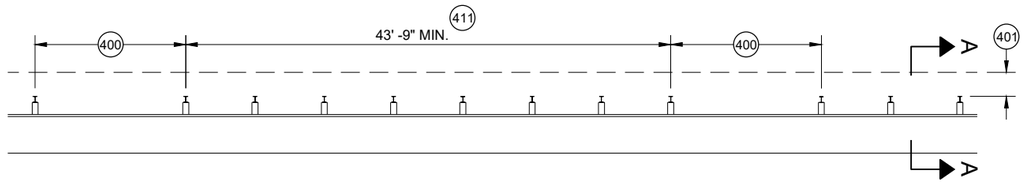
6

SDD 14B42 - 07c

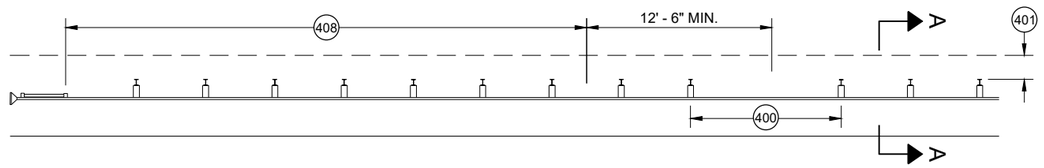
6

SDD 14B42 - 07c

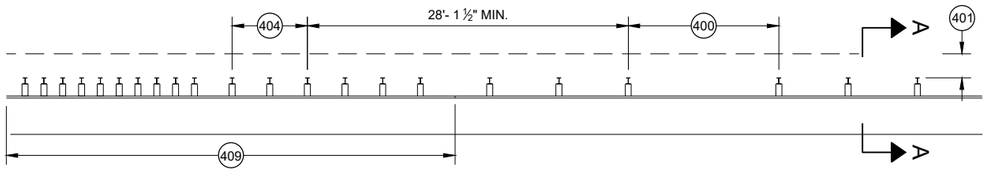
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



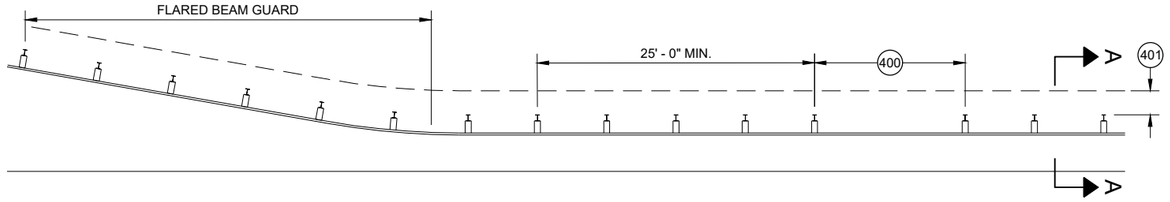
MISSING POST IN MGS GUARDRAIL



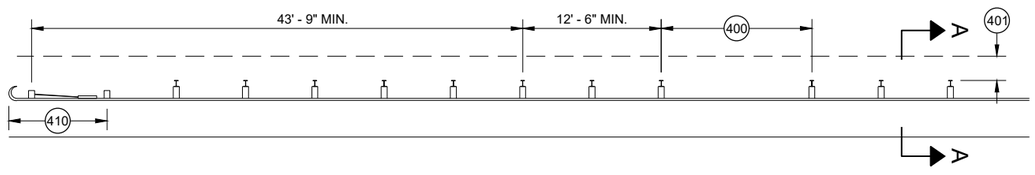
MISSING POST IN MGS GUARDRAIL NEAR EAT



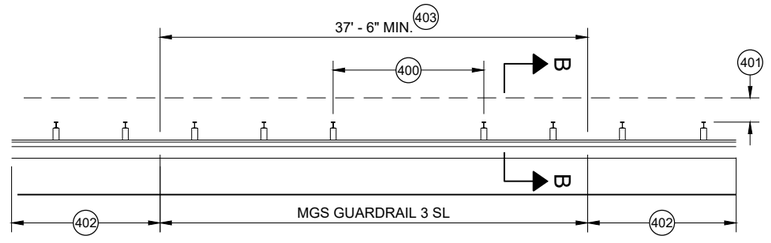
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

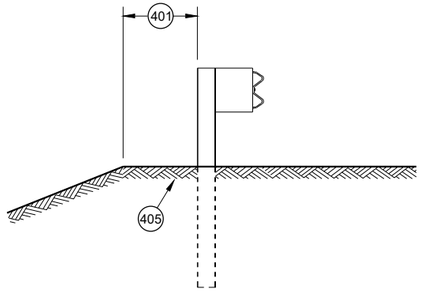


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

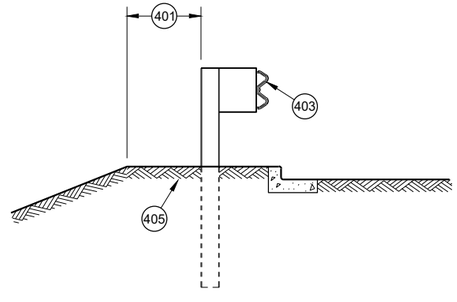


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

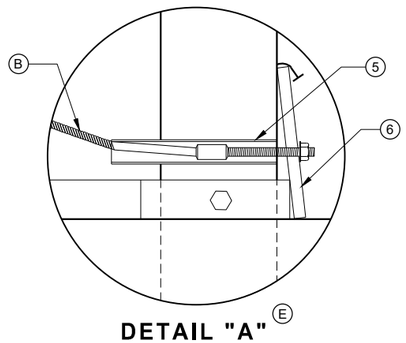
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

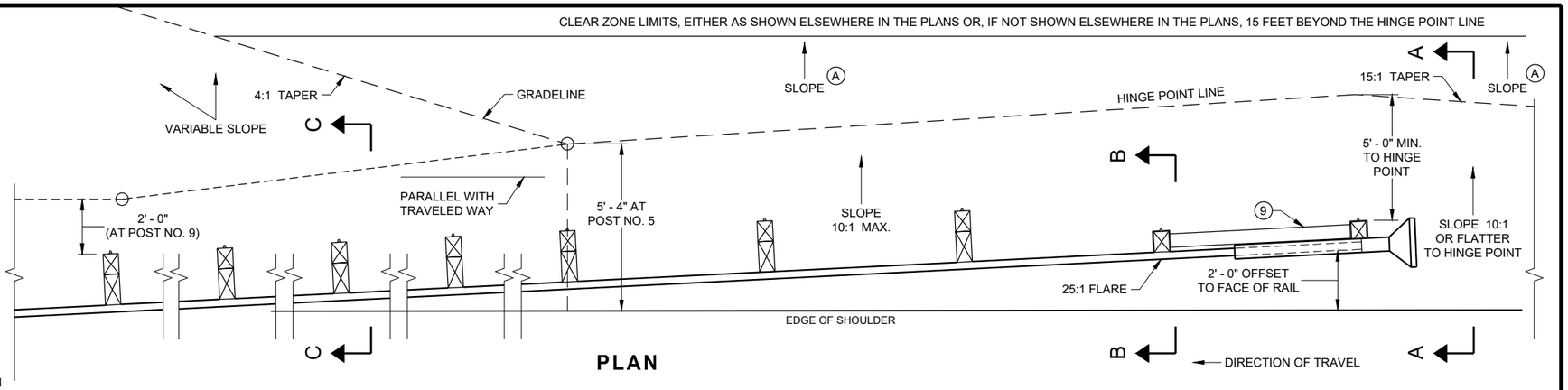
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

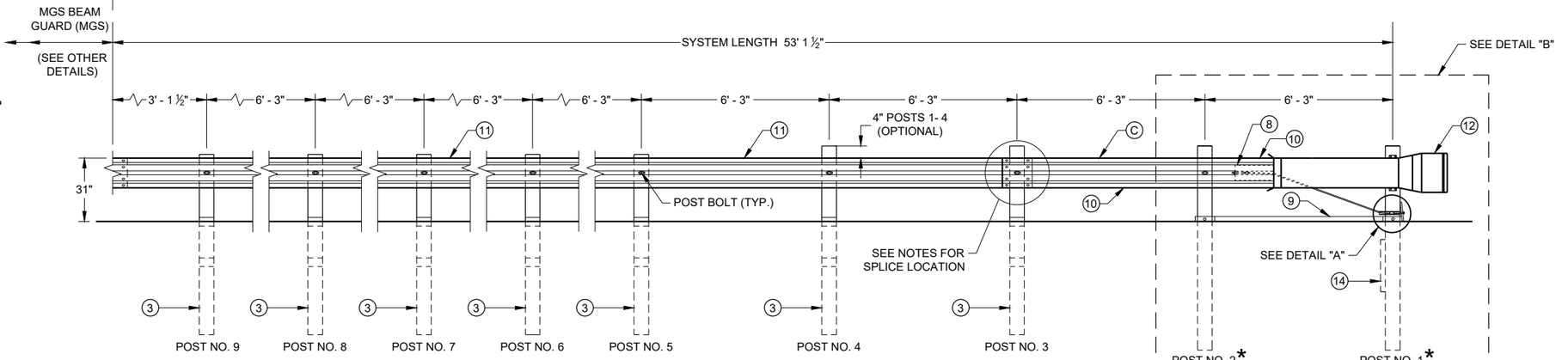
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



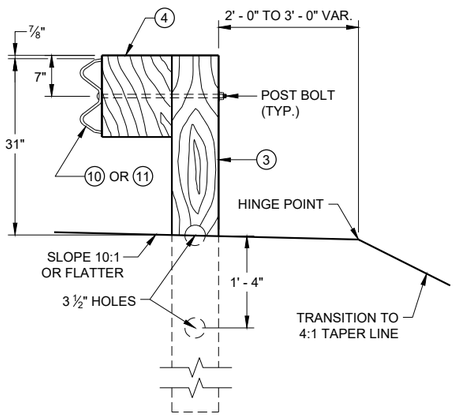
DETAIL "A" (E)



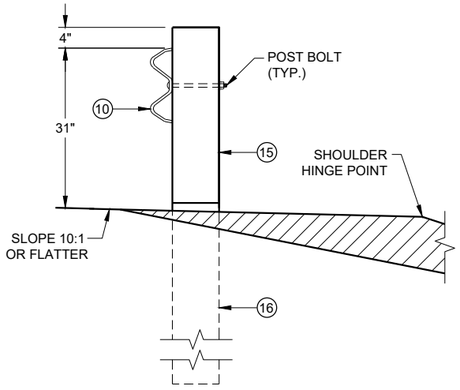
PLAN



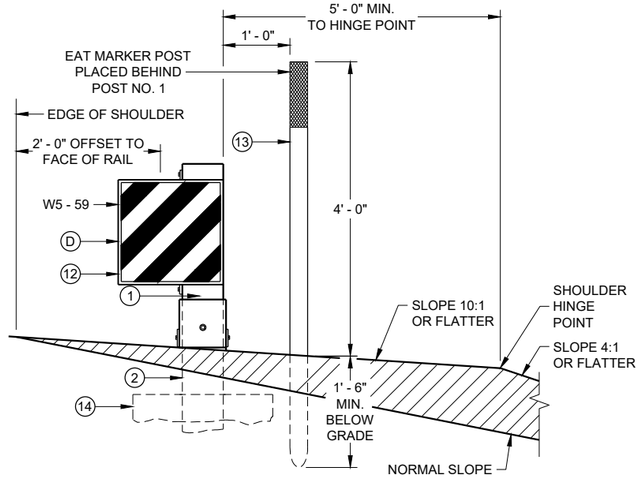
ELEVATION



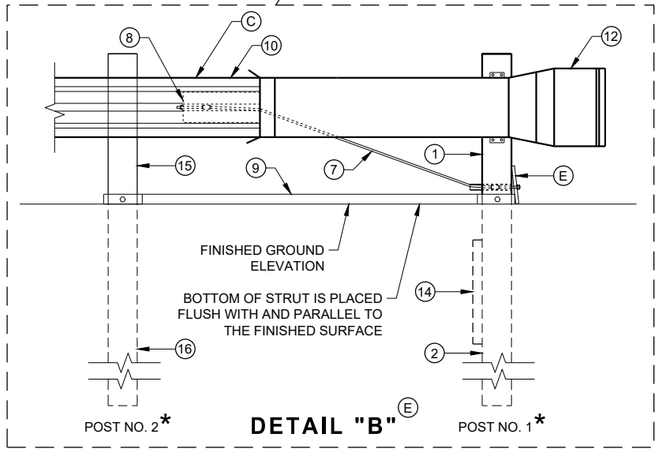
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

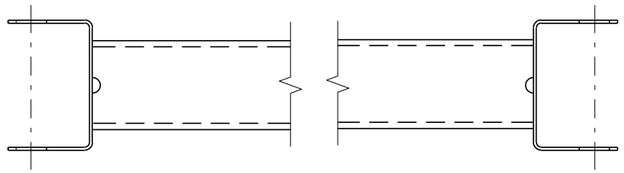
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

SDD 14B44 - 04a

6

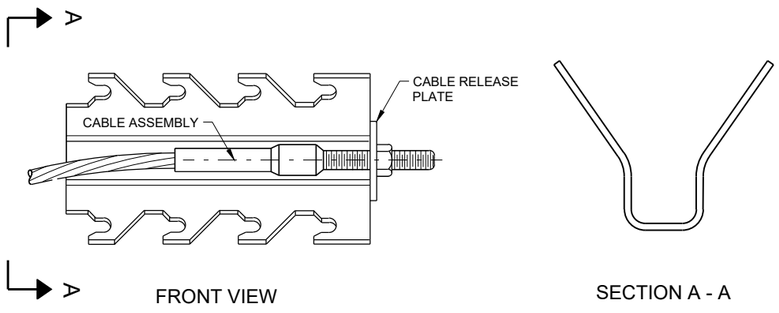
6



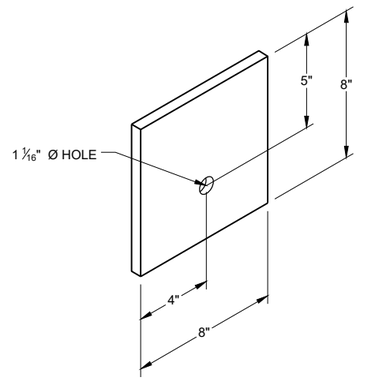
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

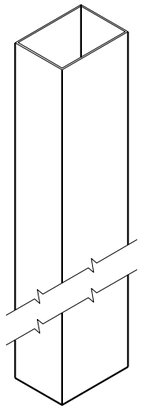
6

SDD 14B44 - 04b

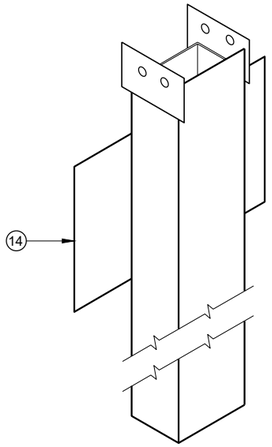
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

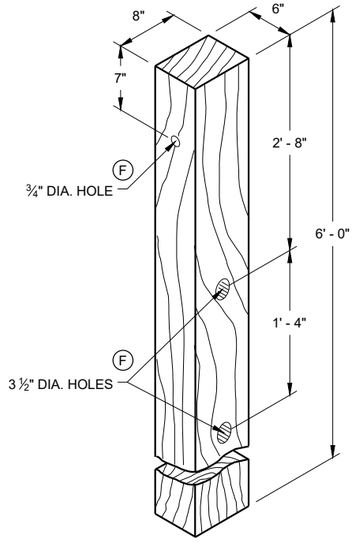
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



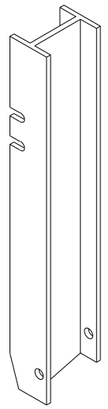
UPPER POST NO. 1 (1) (E)



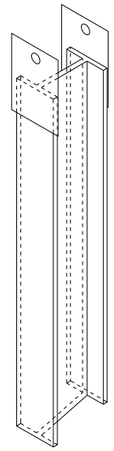
LOWER POST NO. 1 (2) (E)



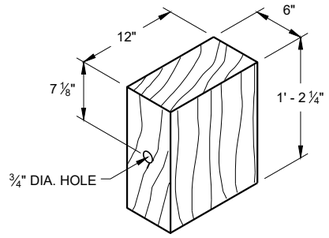
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



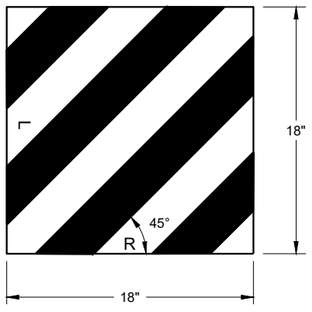
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

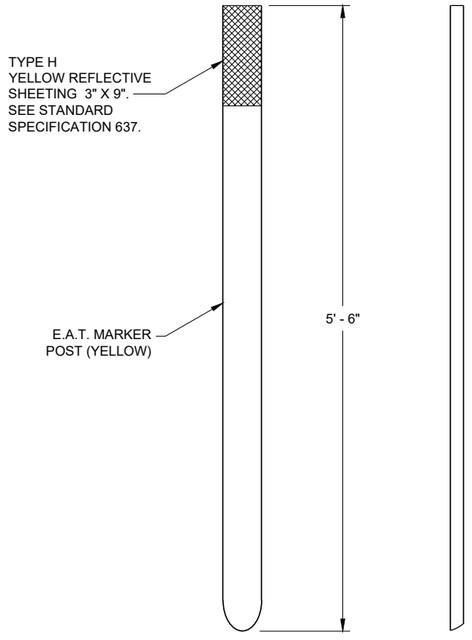


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



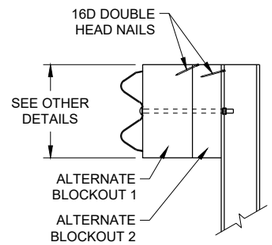
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

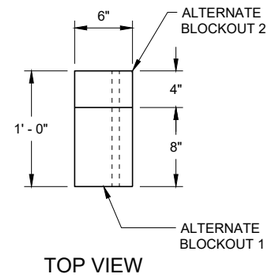


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

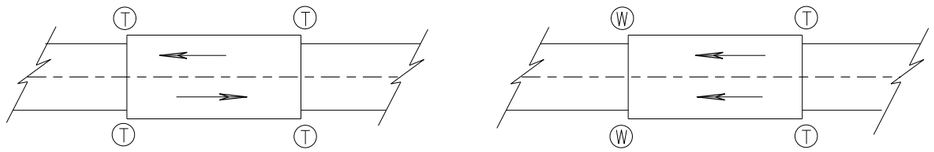
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

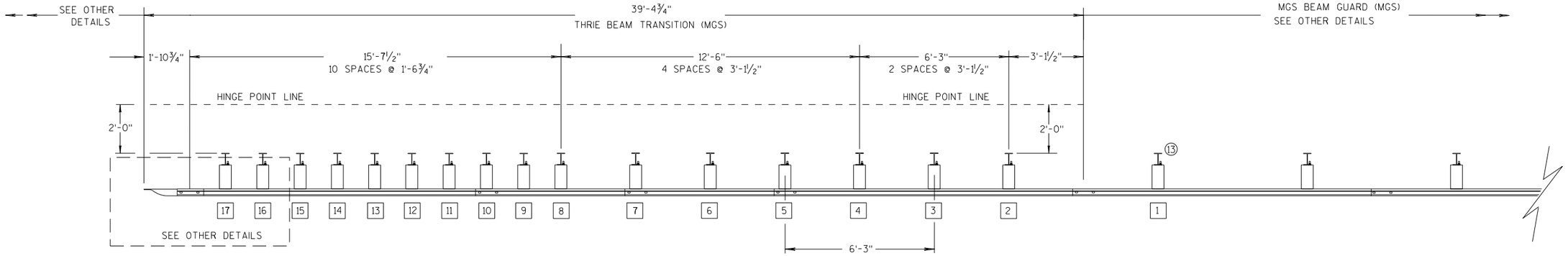
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

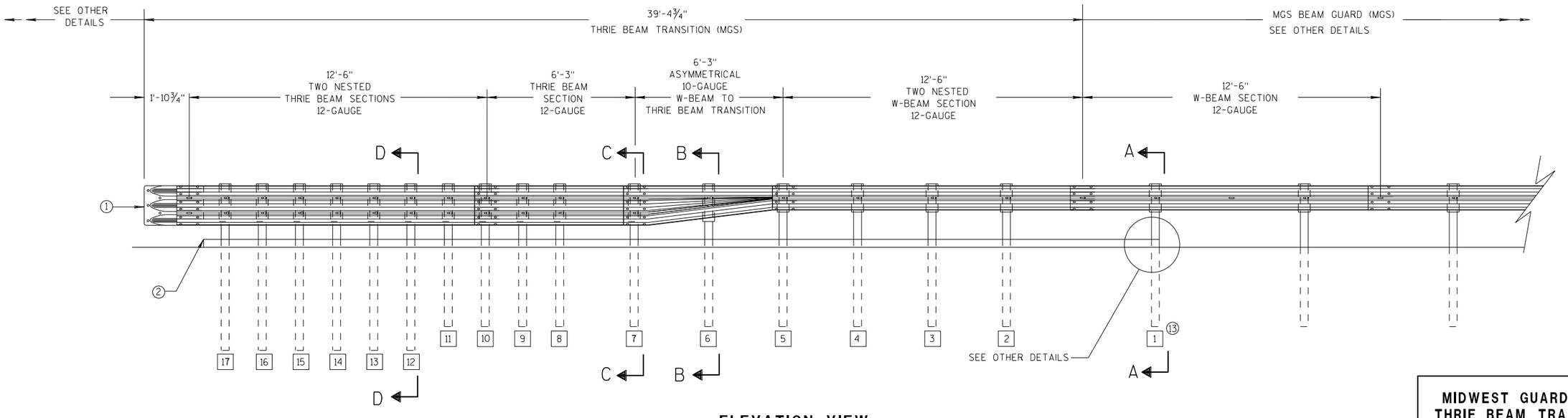
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 250

6

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

6

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

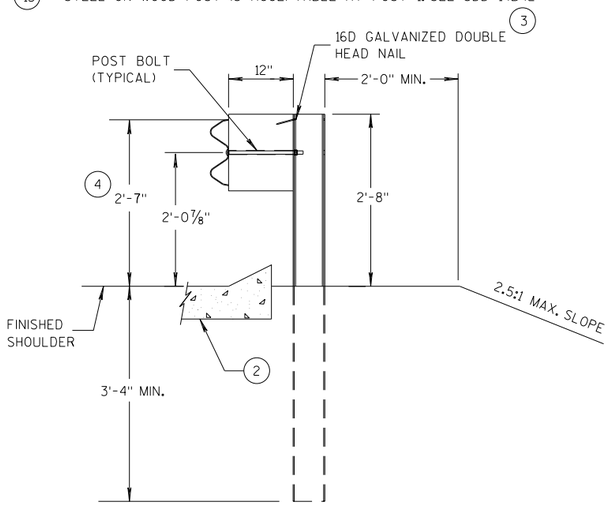
GENERAL NOTES

(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.

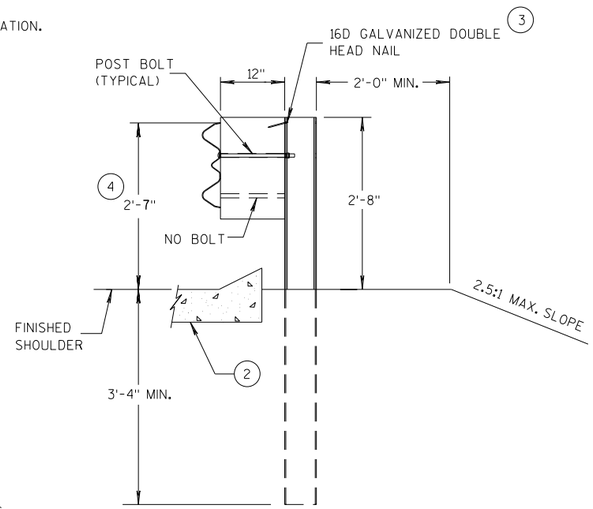
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



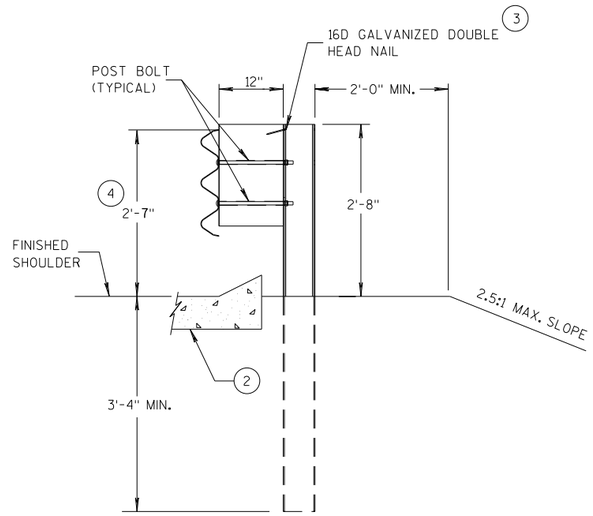
SECTION A-A (13)

POSTS 1-5



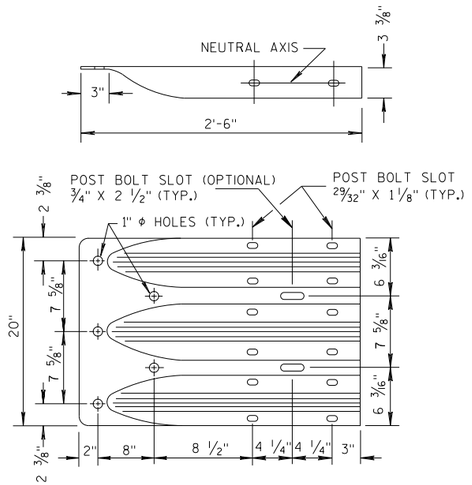
SECTION B-B

POST 6

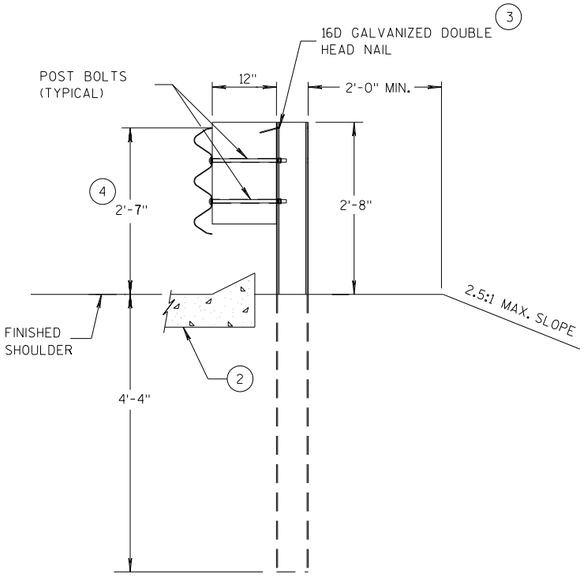


SECTION C-C

POSTS 7-11

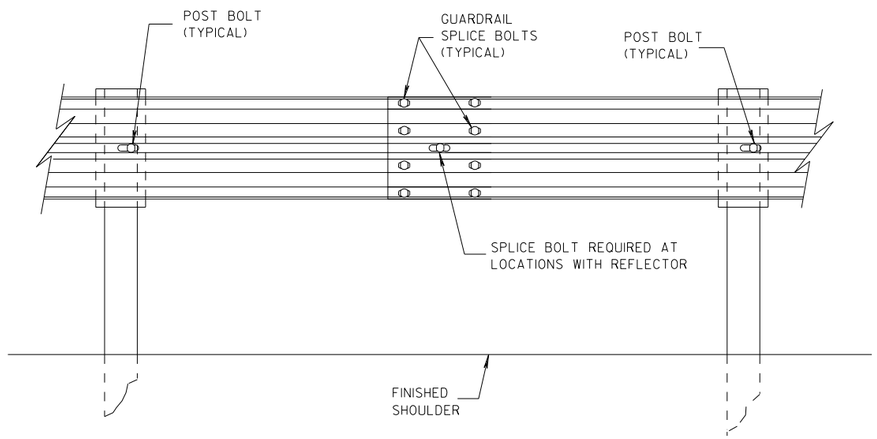


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

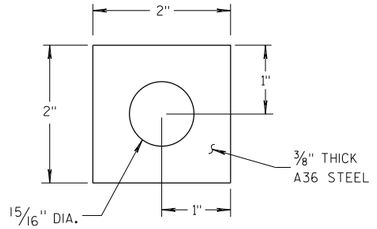
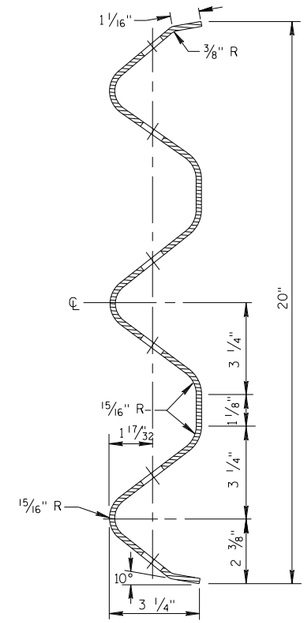


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

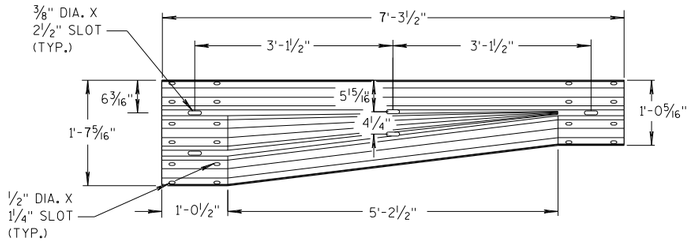
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 251

6

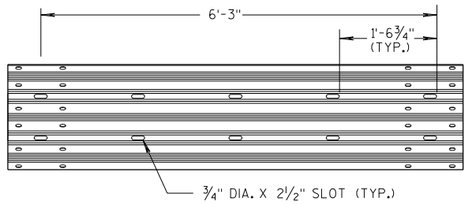
S.D.D. 14 B 45-5b

6

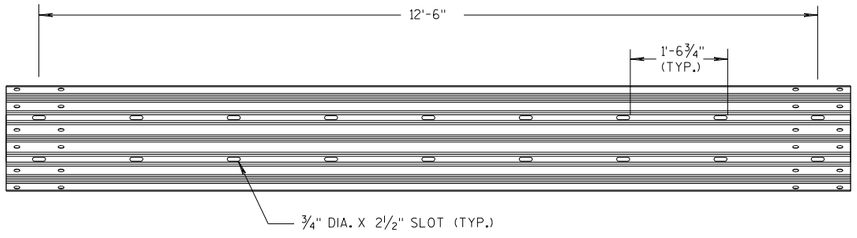
S.D.D. 14 B 45-5b



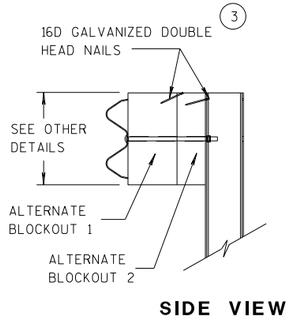
W-BEAM TO THRIE BEAM TRANSITION SECTION



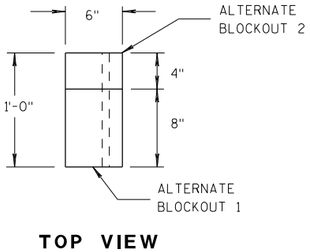
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

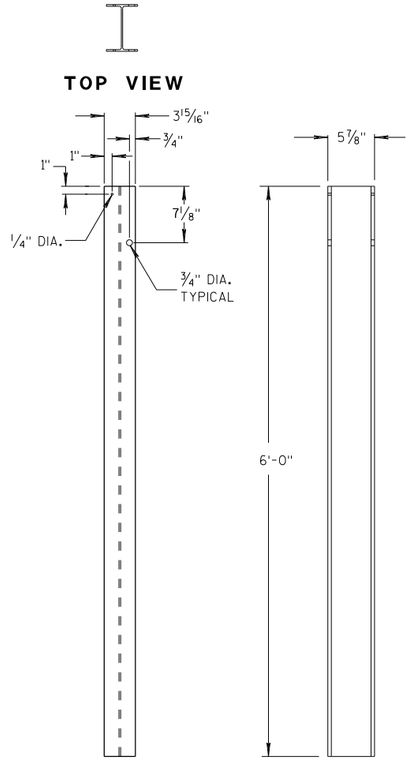


SIDE VIEW



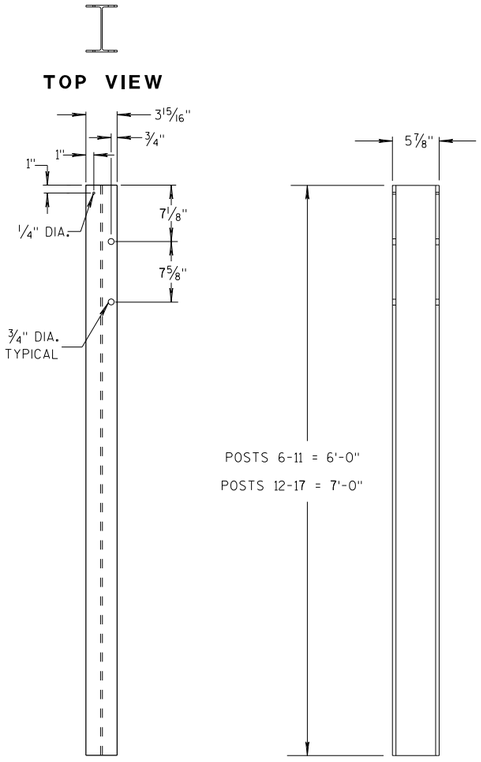
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



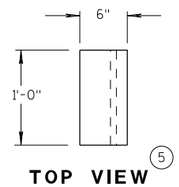
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

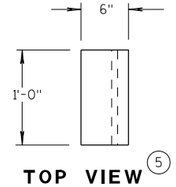


FRONT VIEW SIDE VIEW

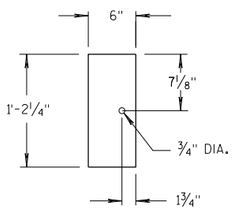
STEEL POSTS 6-17



TOP VIEW (5)

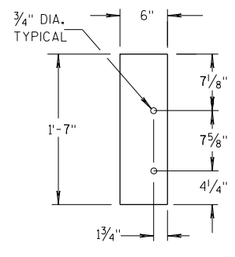


TOP VIEW (5)



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.

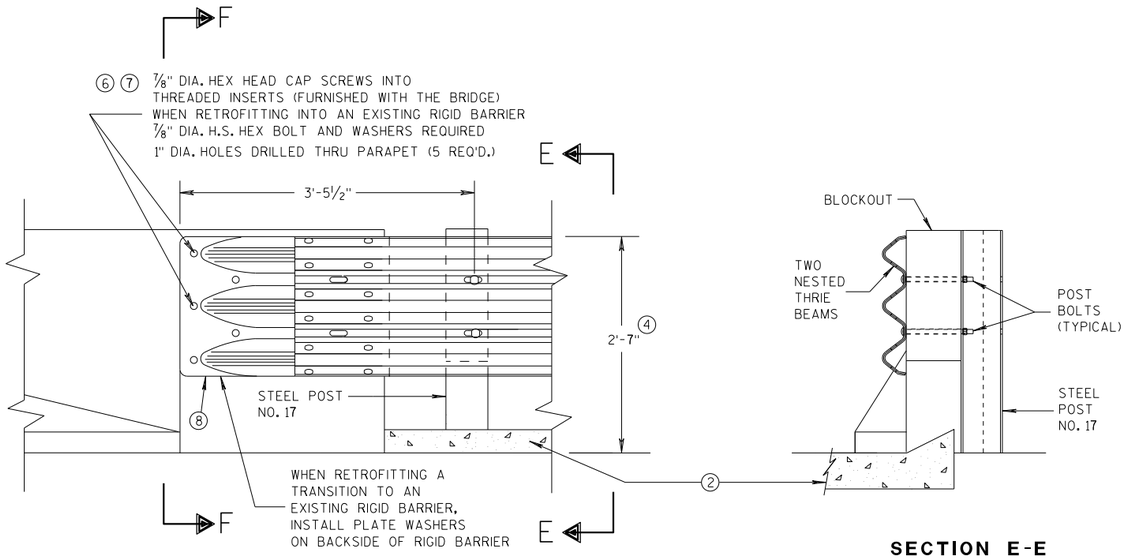
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(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 TRANSPOR 252

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.

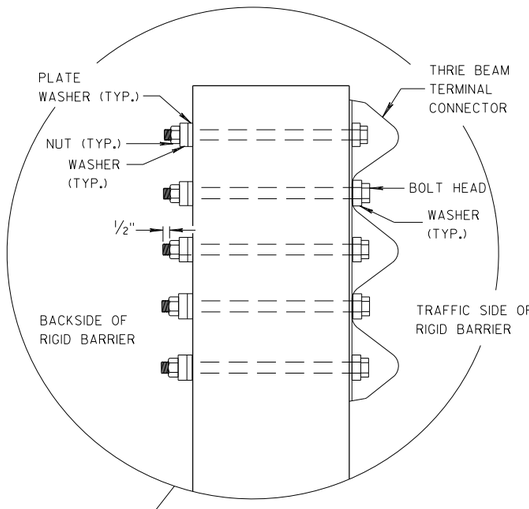
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

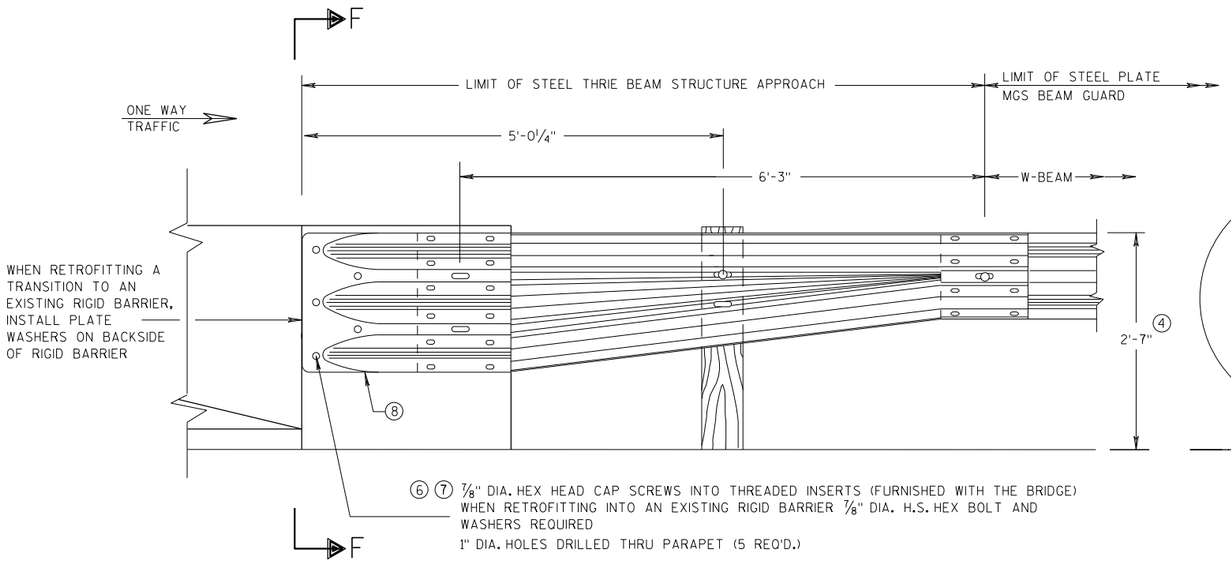
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

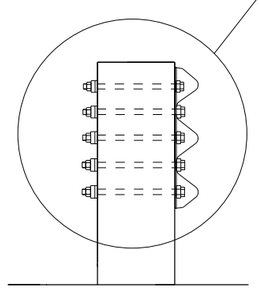
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

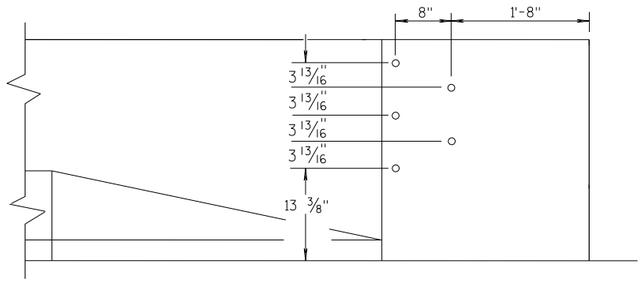




FRONT VIEW



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 SUPERVI NT
FHWA

6

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

6

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.

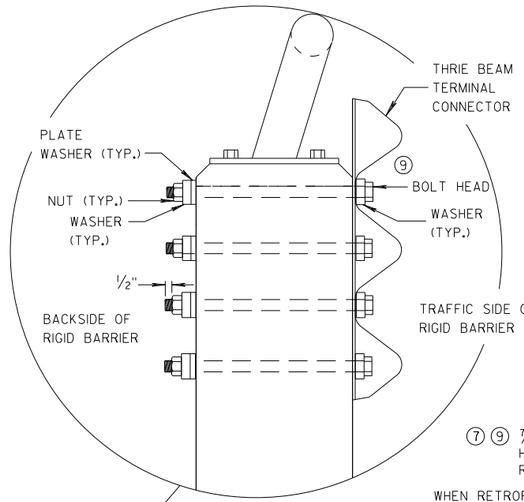
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

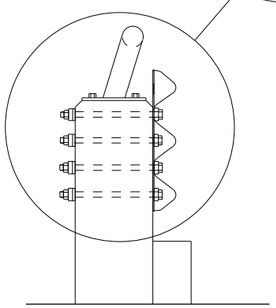
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

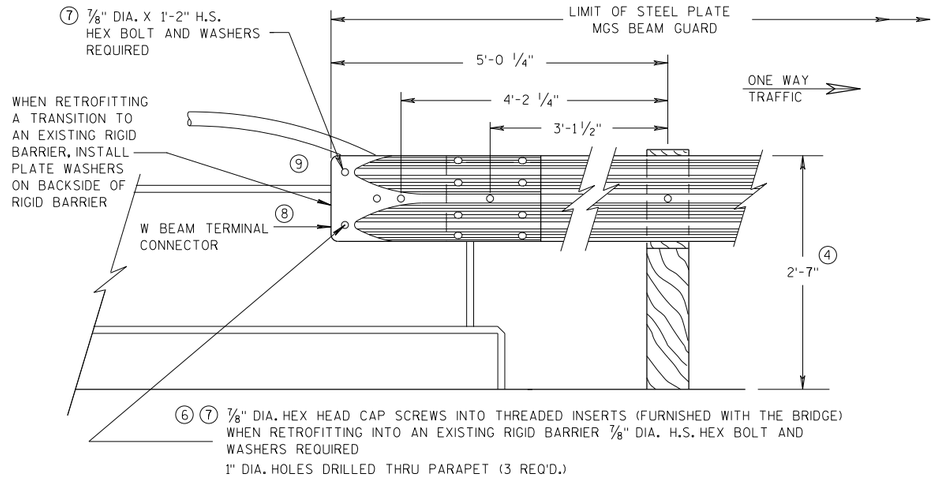
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





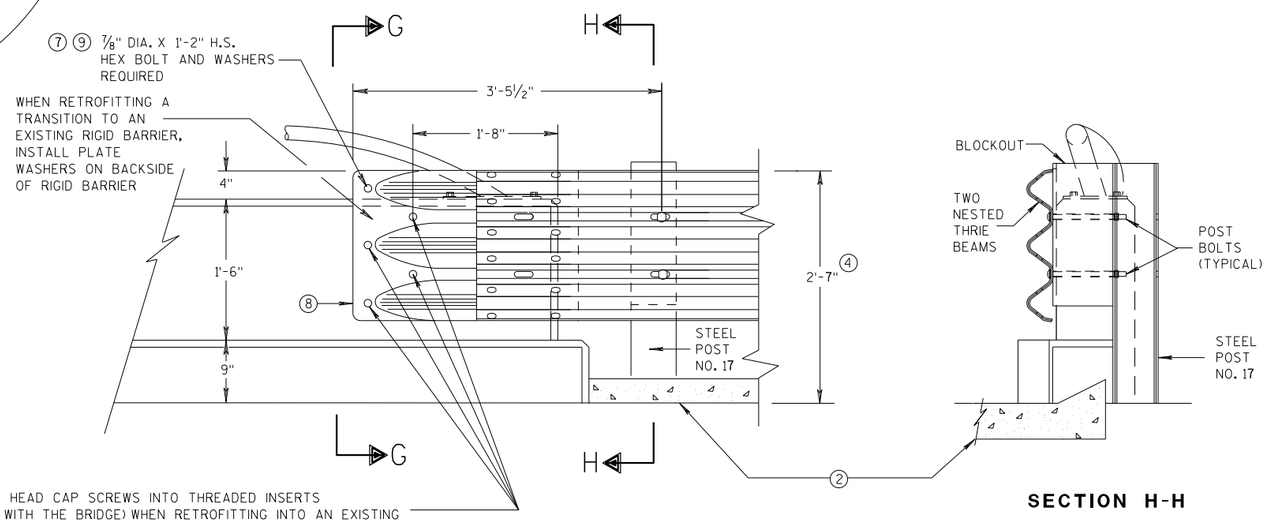
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

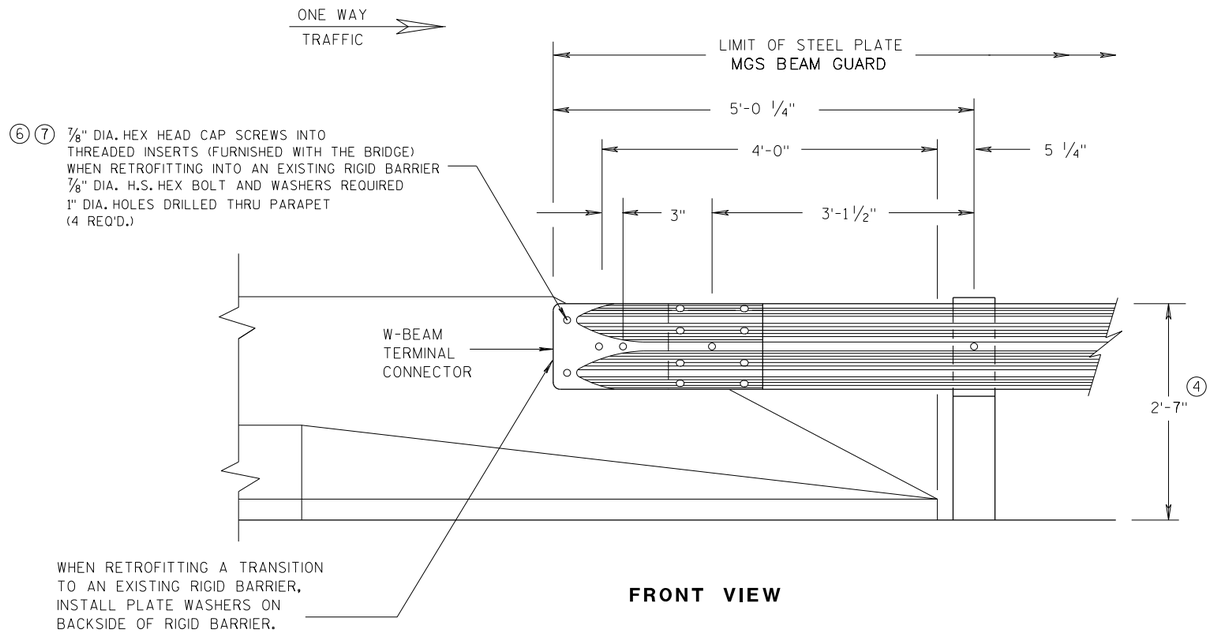
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS — FHWA

6

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

6

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)

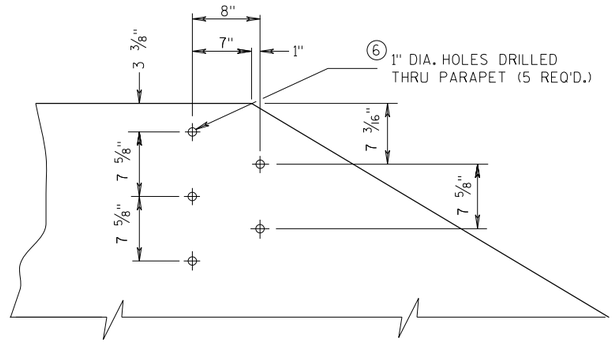
GENERAL NOTES

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

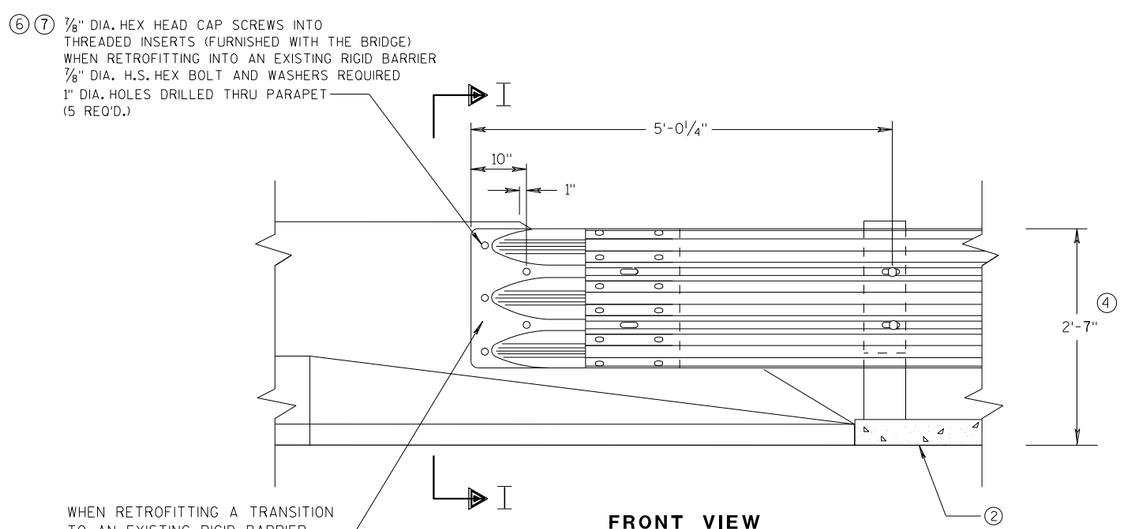
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

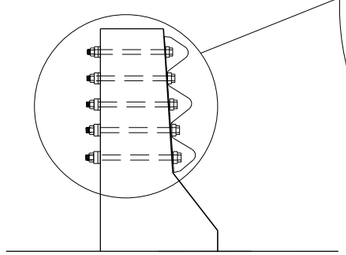
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



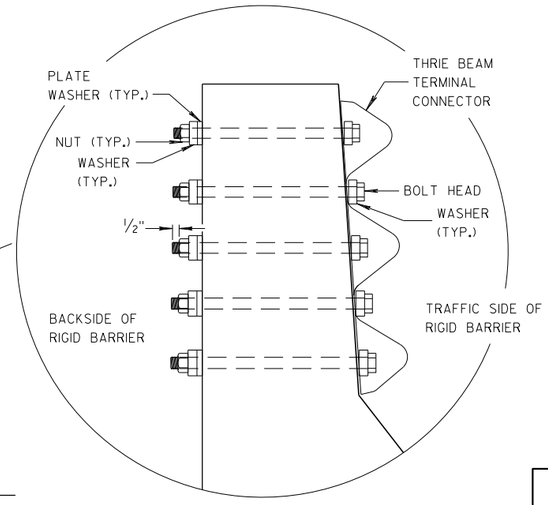
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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

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

FHWA

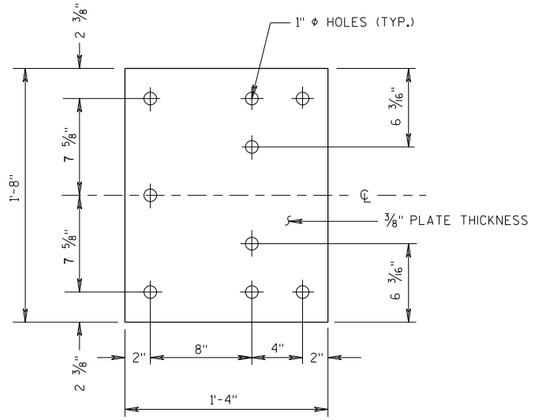
255

6

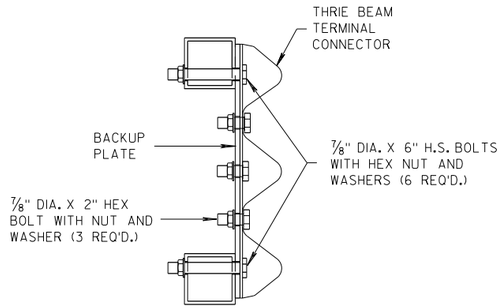
S.D.D. 14 B 45-5f

6

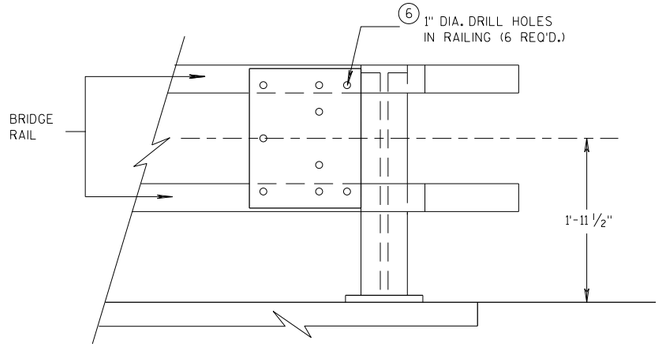
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

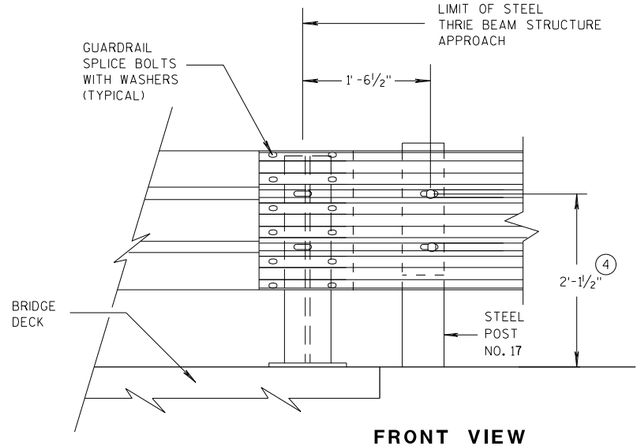


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

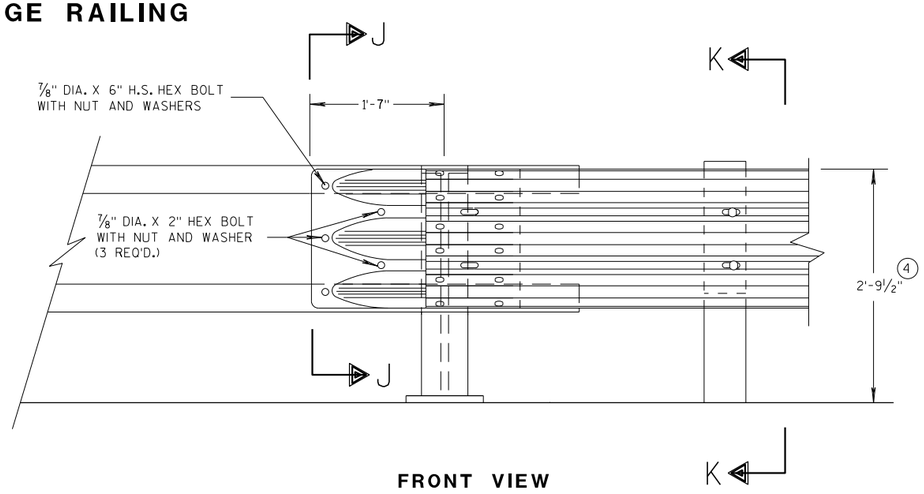
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

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

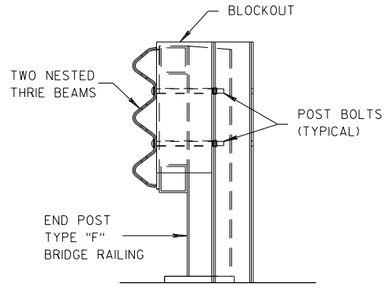


FRONT VIEW

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 256
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

6

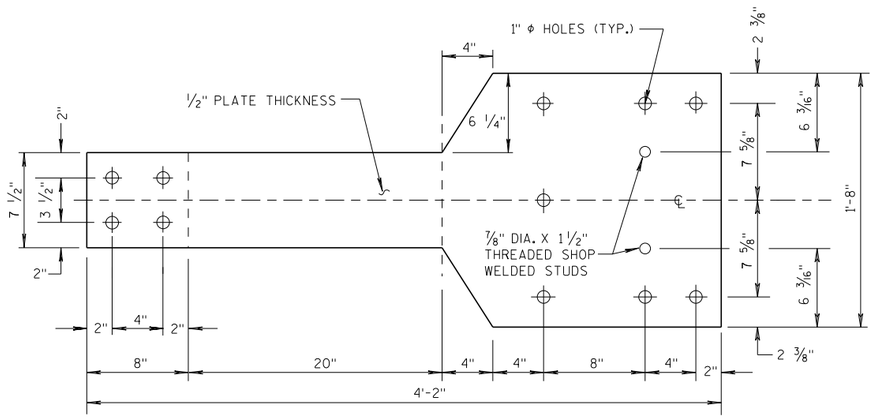
S.D.D. 14 B 45-5g

6

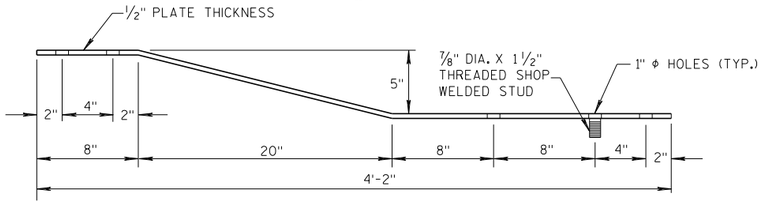
S.D.D. 14 B 45-5g

GENERAL NOTES

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

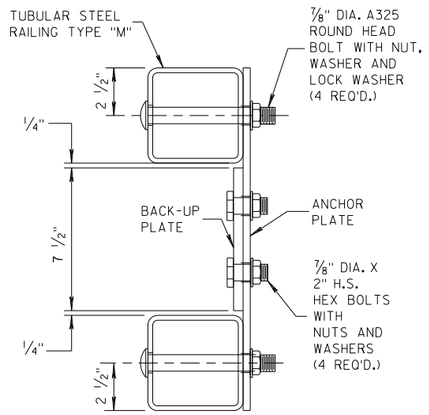


FRONT VIEW

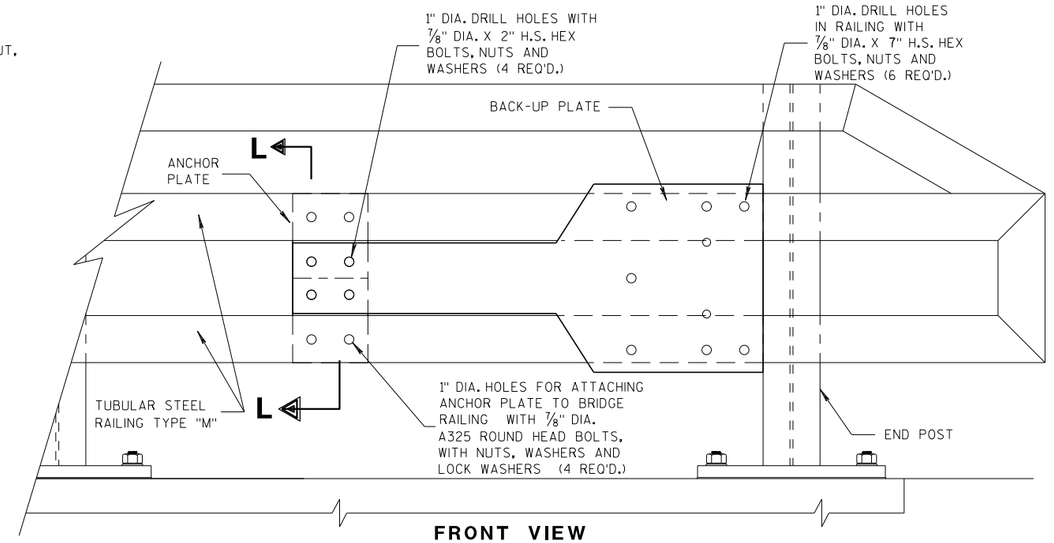


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

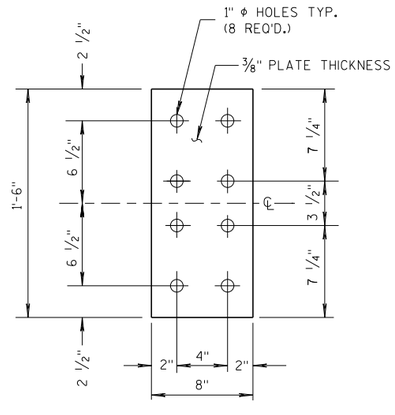


SECTION L-L



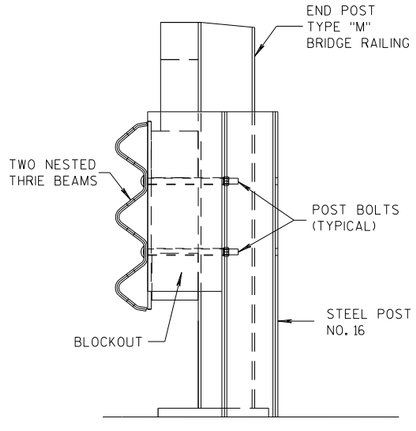
FRONT VIEW

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

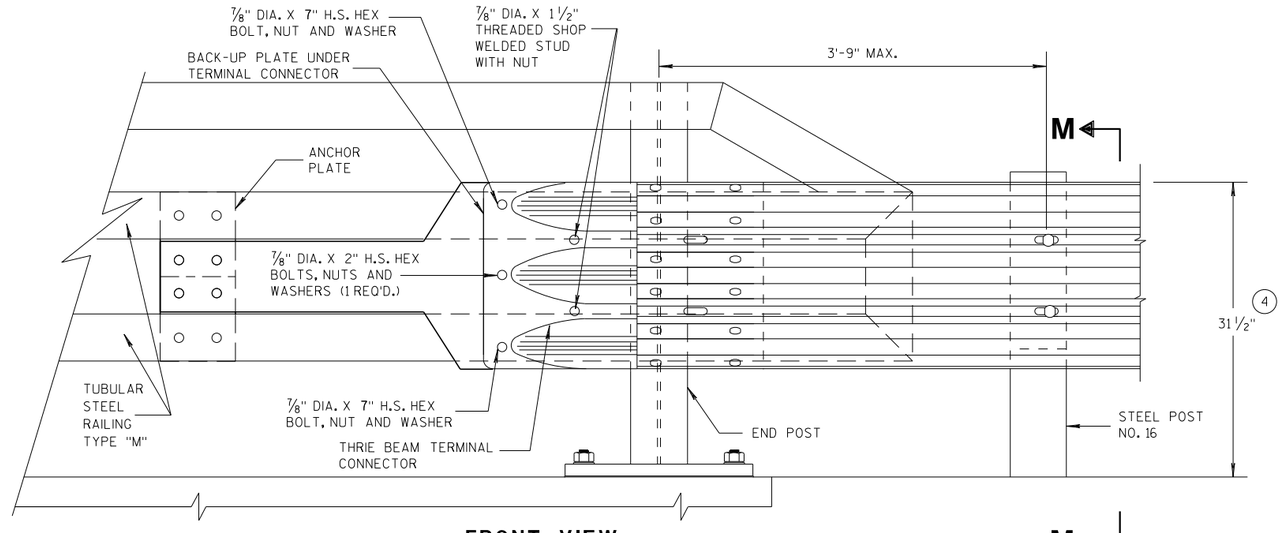


FRONT VIEW

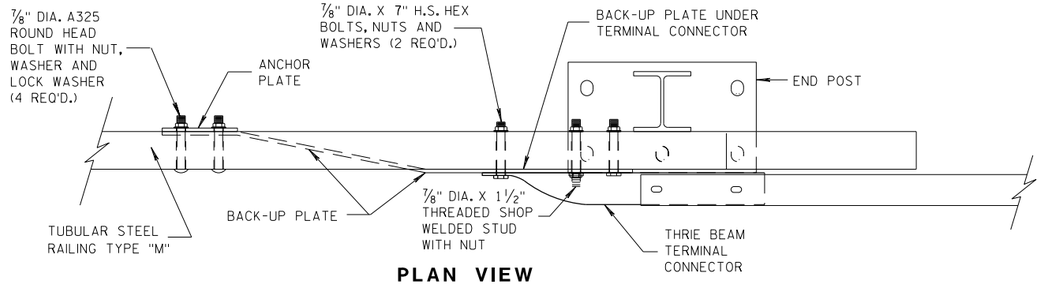
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-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

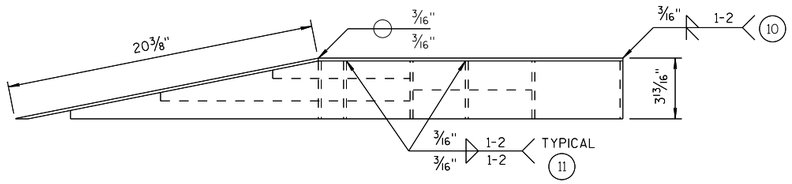
FHWA

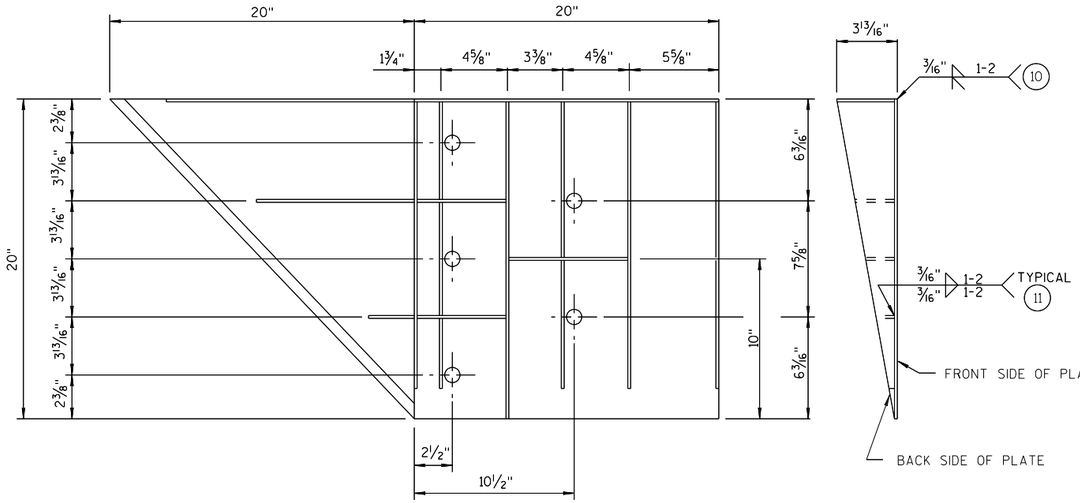
6

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

6

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





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

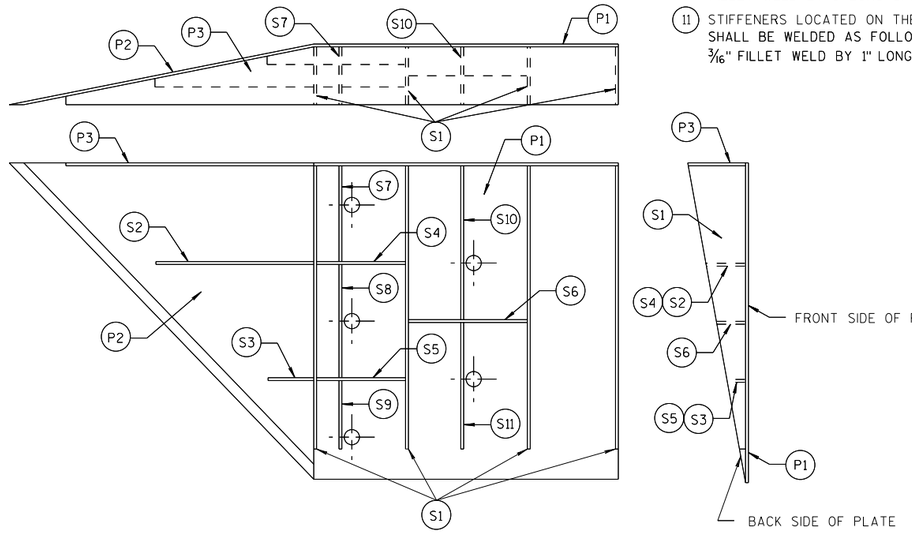


PLATE AND STIFFENER IDENTIFICATION

(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.

(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".

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

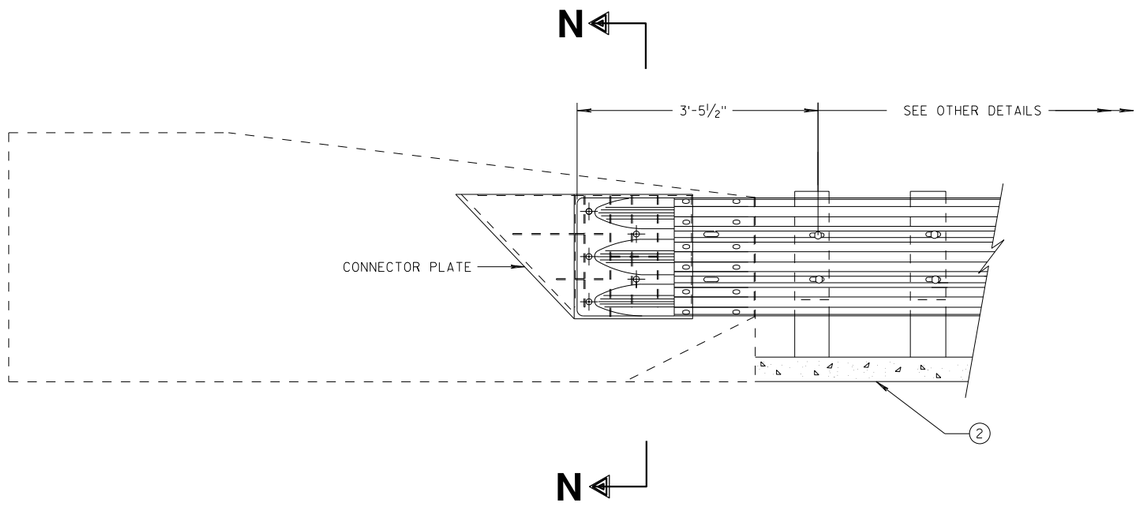
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

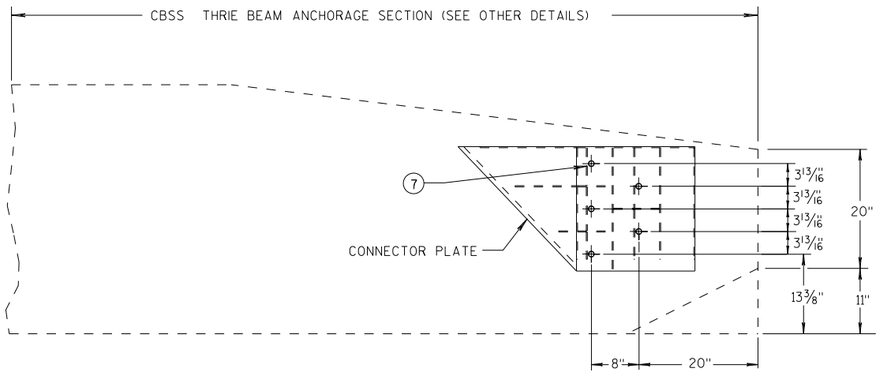
APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI

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



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



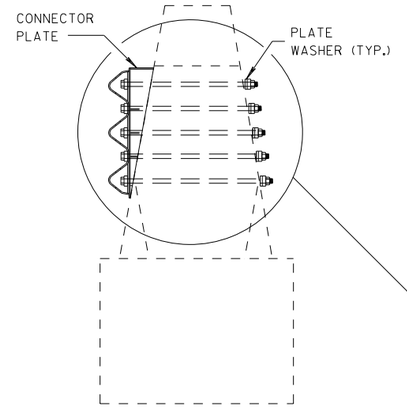
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

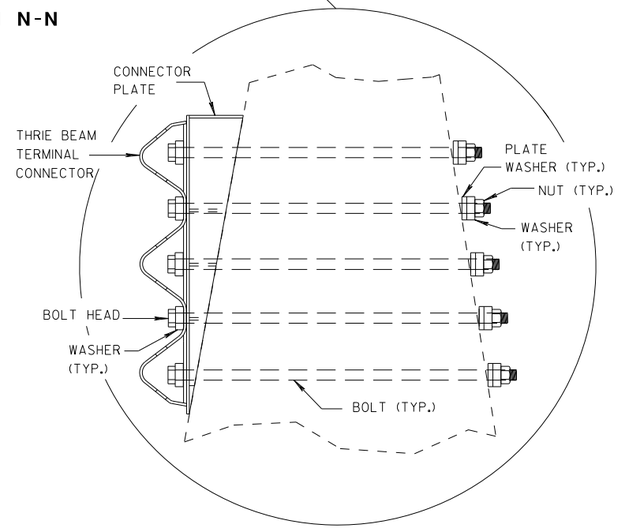
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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

APPROVED
7/2018
DATE
FHWA

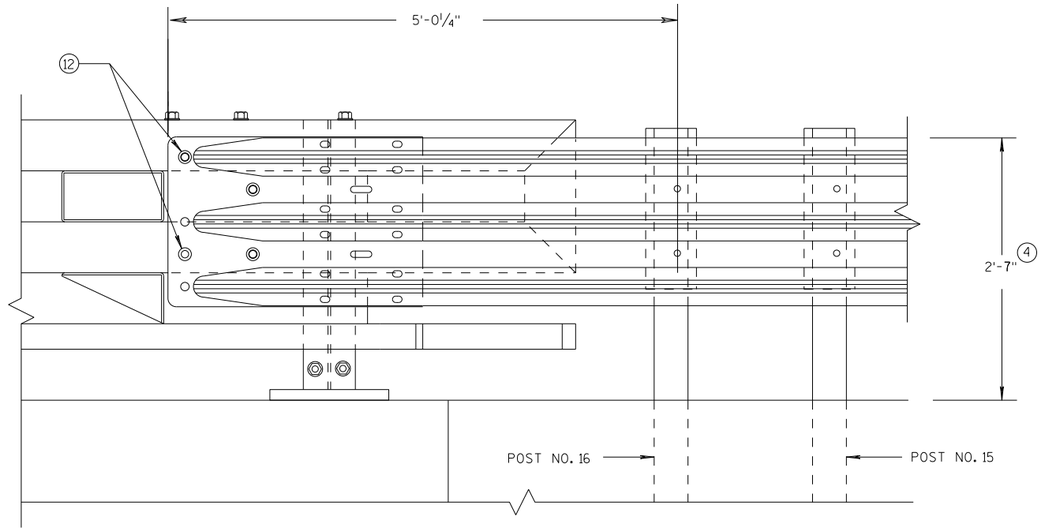
/S/ Rodney Taylor
ROADWAY STANDARDS DI
UNIT SUPERVIS

6

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

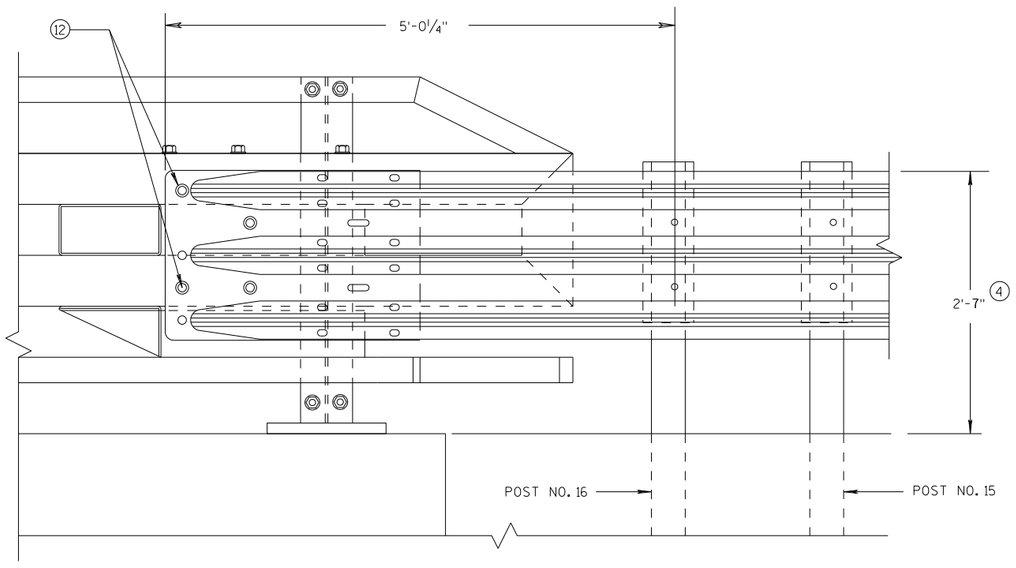
6

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



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 ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

260

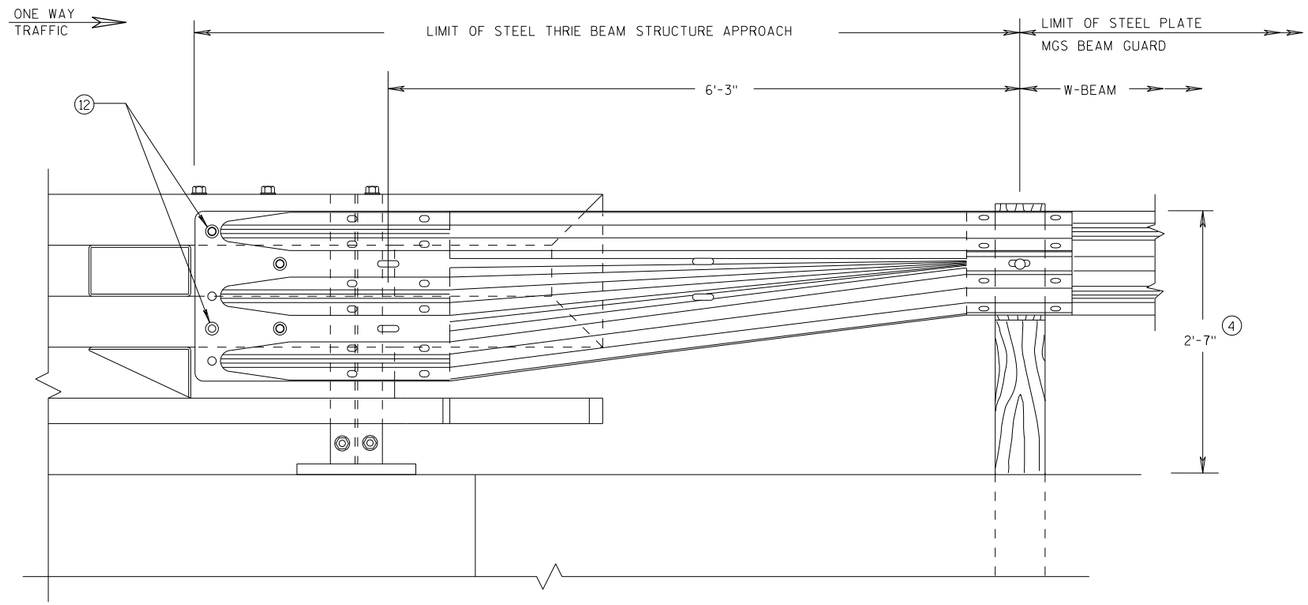
NT

6

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

6

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



FRONT VIEW

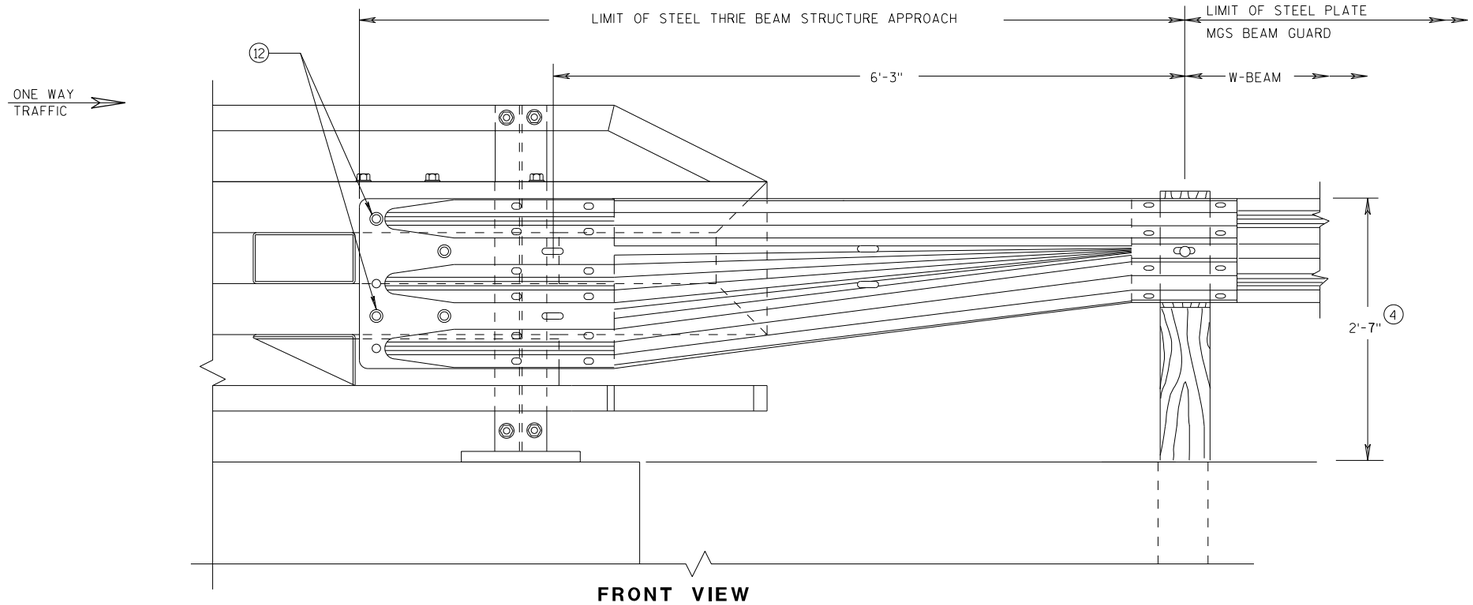
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(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

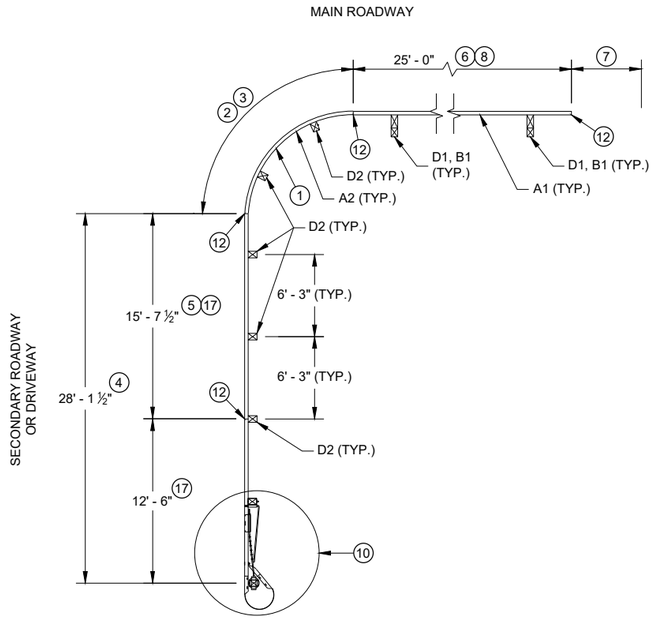
APPROVED
7/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS
NT
FHWA

6

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

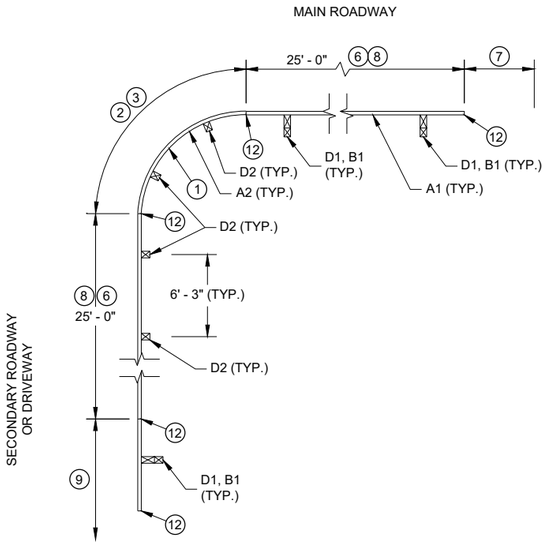
6

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



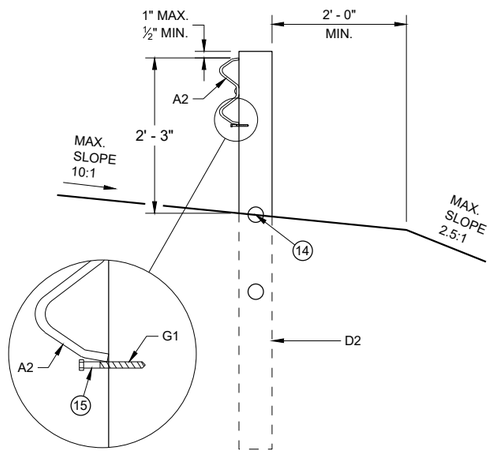
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

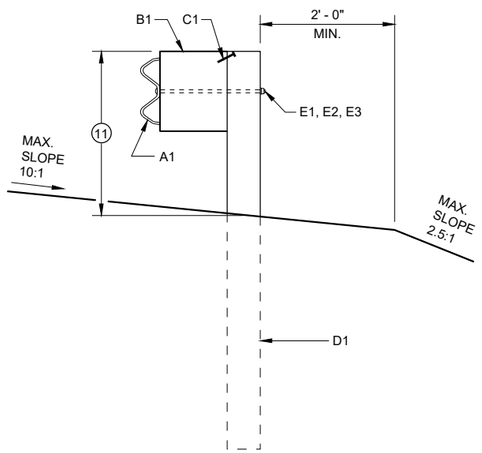


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



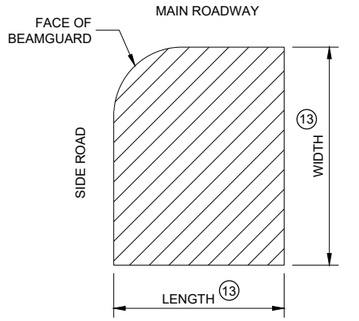
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



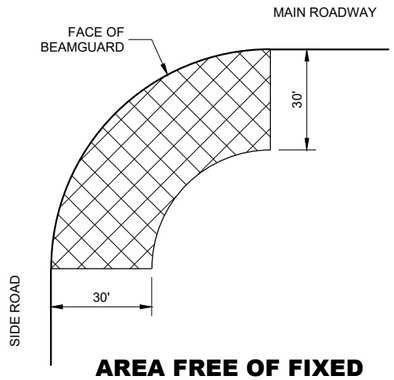
BEAM GUARD POSTS IN HEIGHT TRANSITION

TABLE FOR RADIUS OF 32' AND LESS

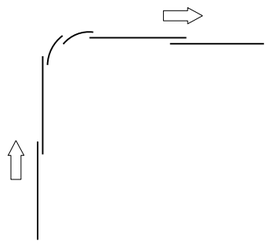
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS (16)



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (8).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

(15) DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

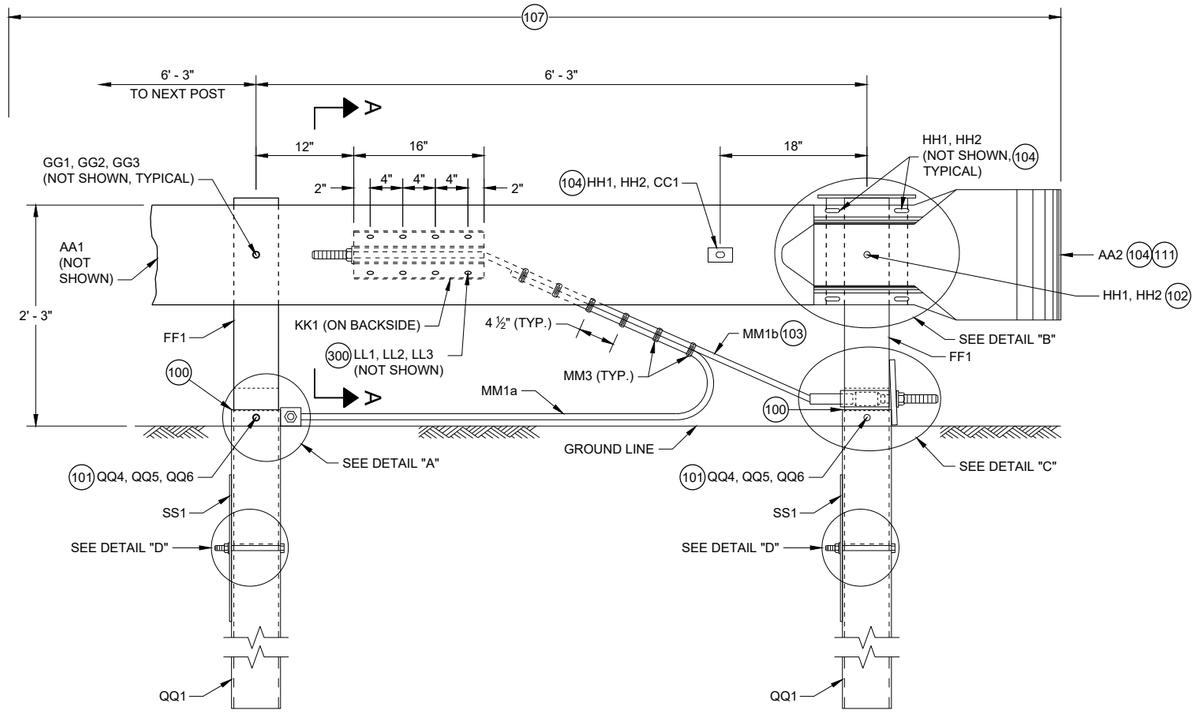
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B53 - 02a

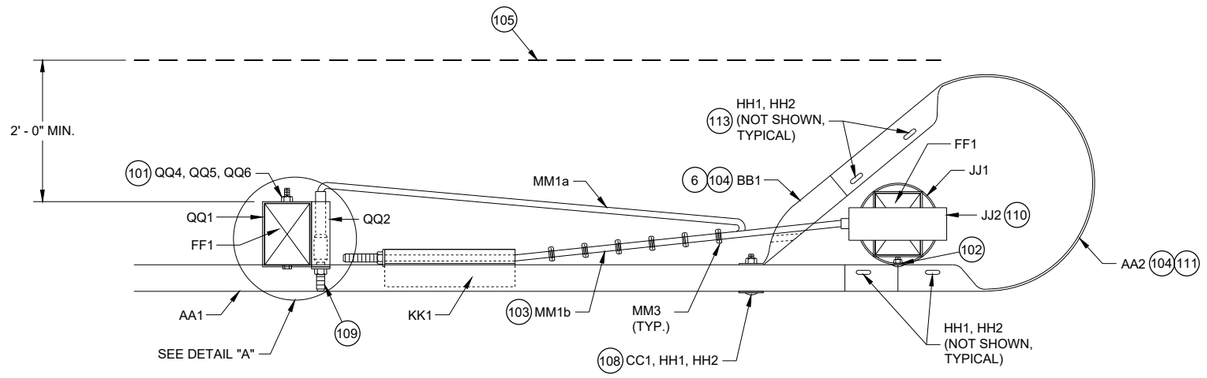
6

SDD 14B53 - 02a



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

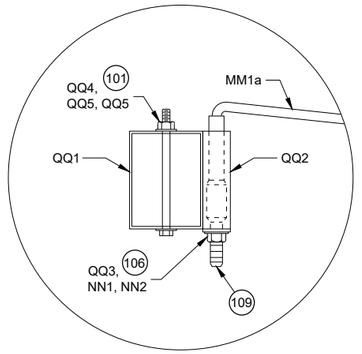
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

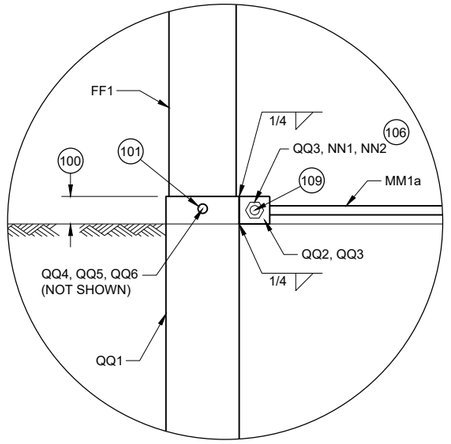
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

6

SDD 14B53 - 02b

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

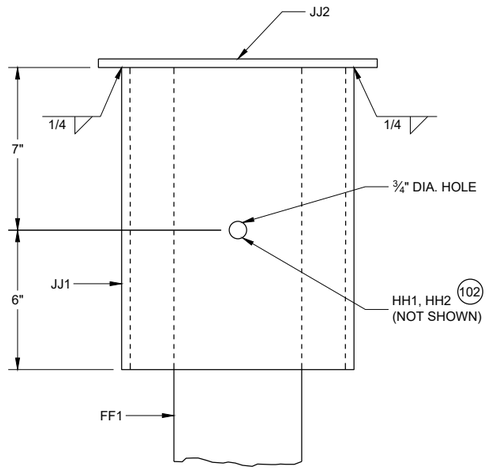
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B53 - 02b

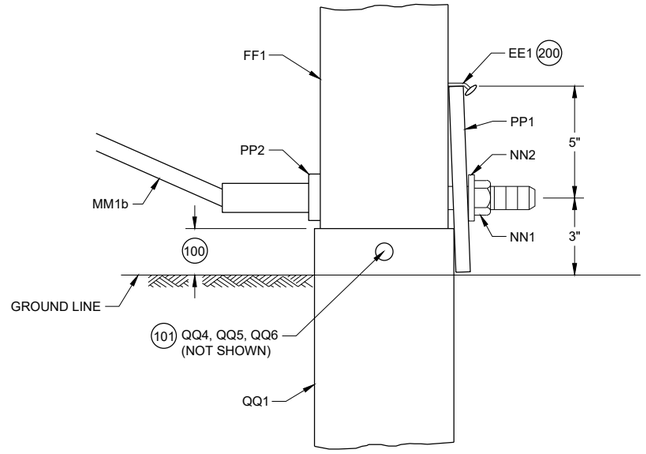
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



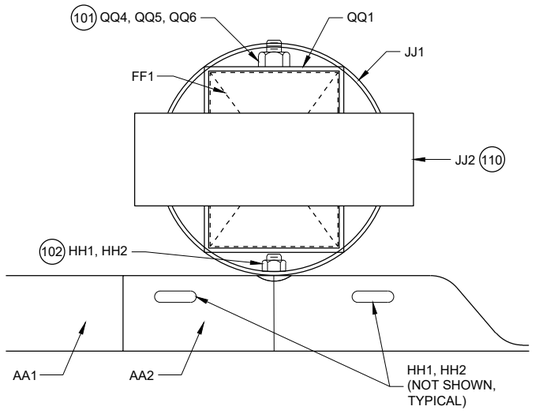
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



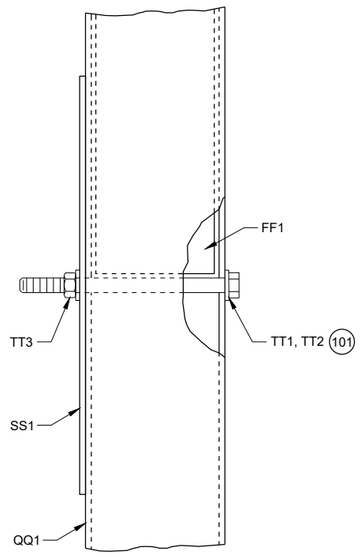
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

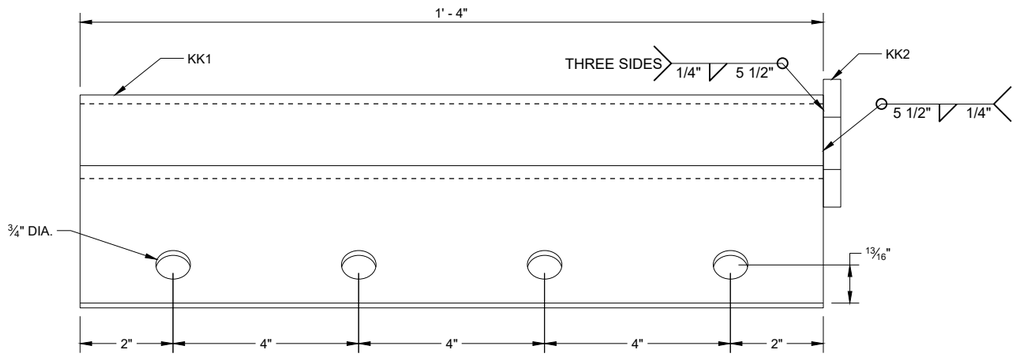
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

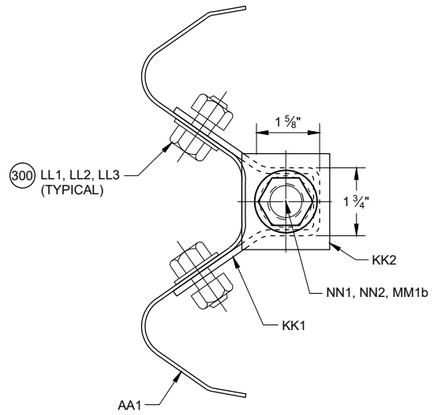
6

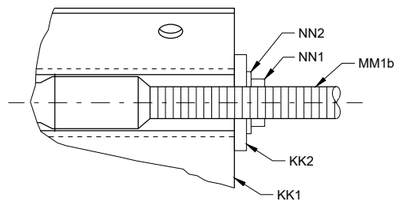
SDD 14B53 - 02c

GENERAL NOTES

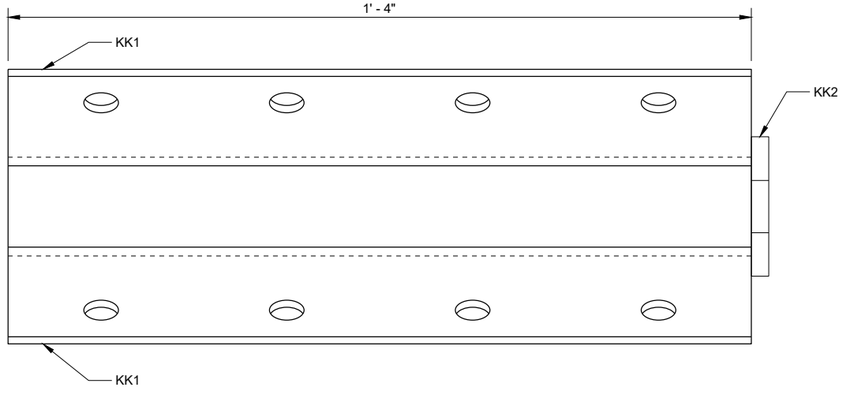
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

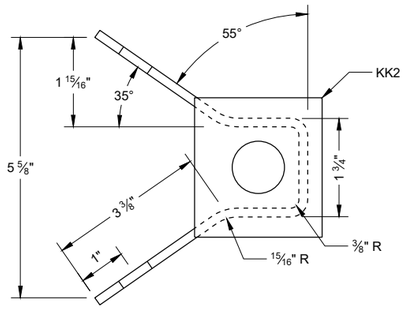




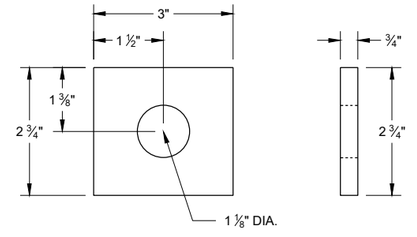


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

SDD 14B53 - 02d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

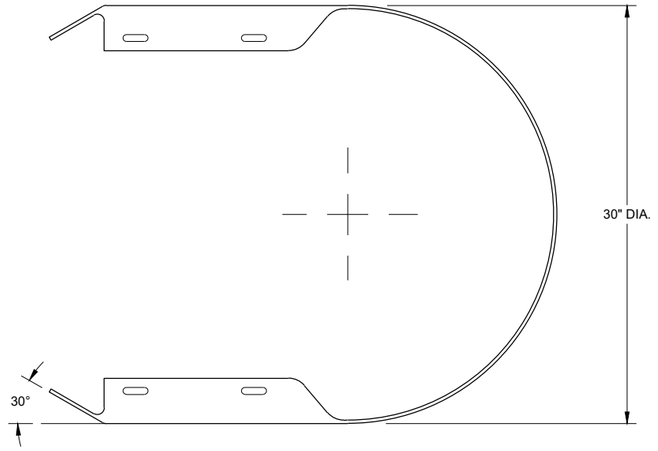
6

SDD 14B53 - 02d

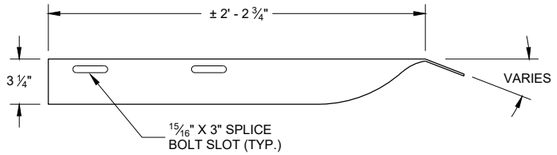
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

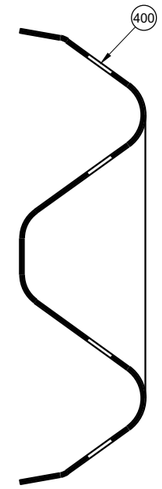
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



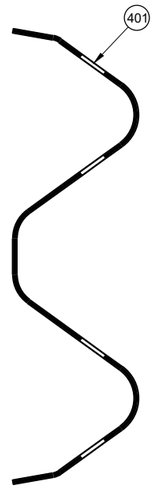
TOP VIEW



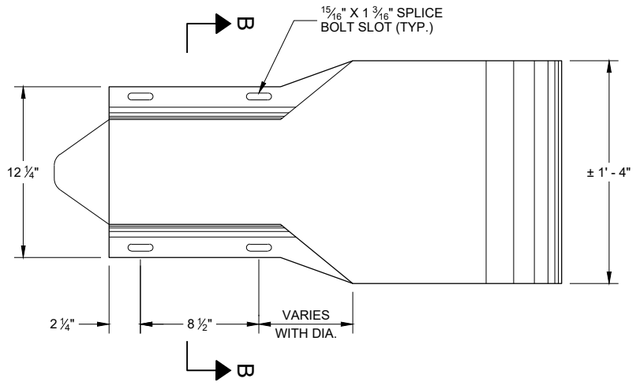
TOP VIEW



SECTION B -B

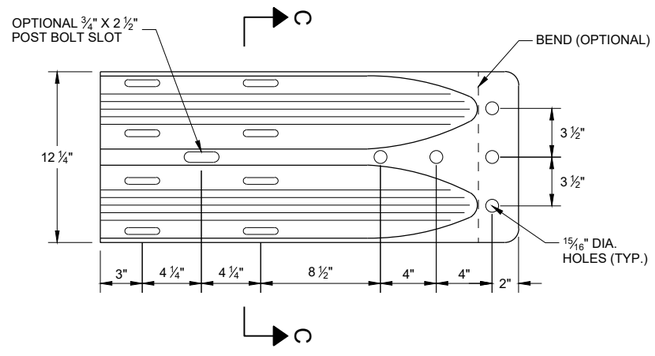


SECTION C -C



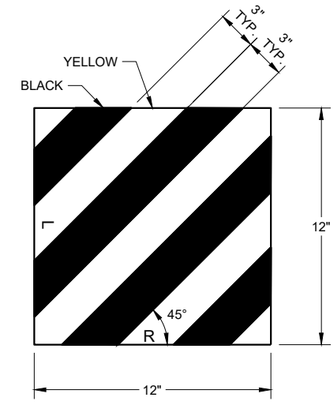
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)

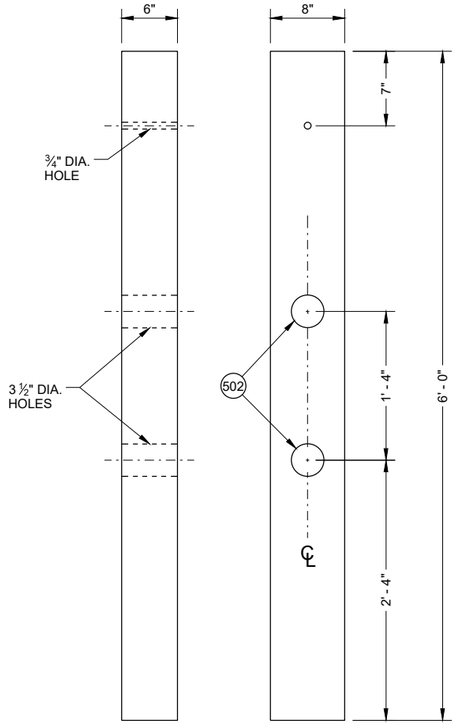


REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

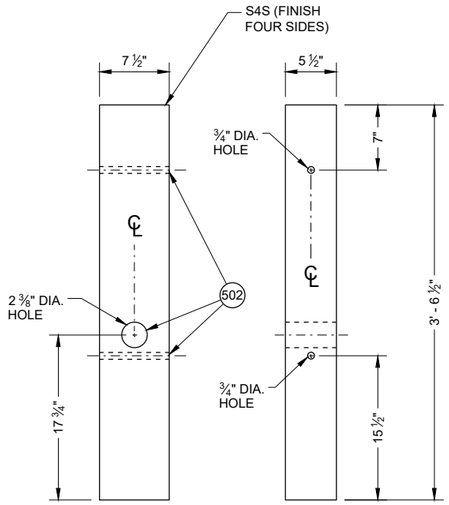
SDD 14B53 - 02e

6



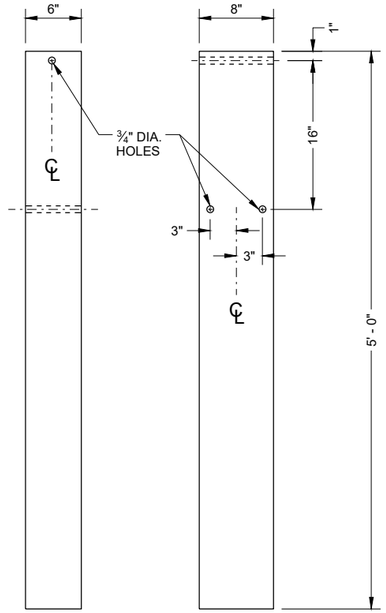
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

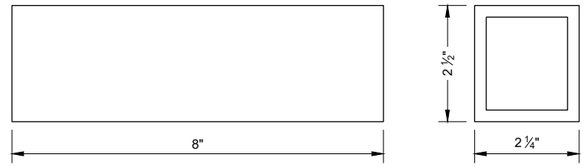
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

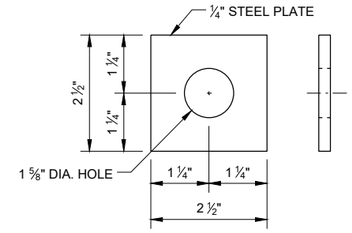
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

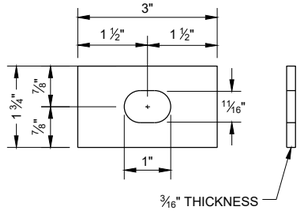
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



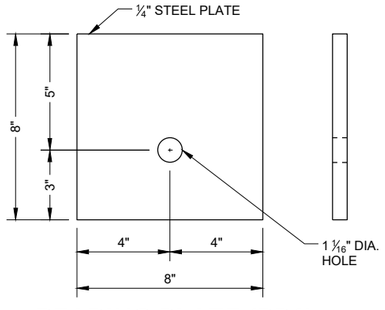
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



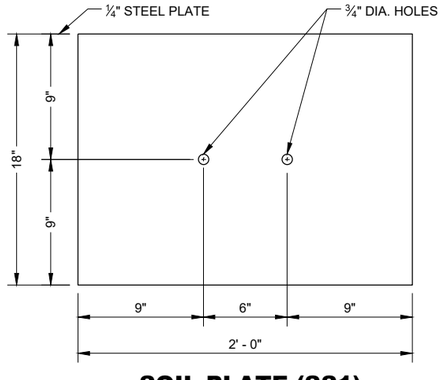
ANCHOR CABLE TUBE END PLATE (QQ3)



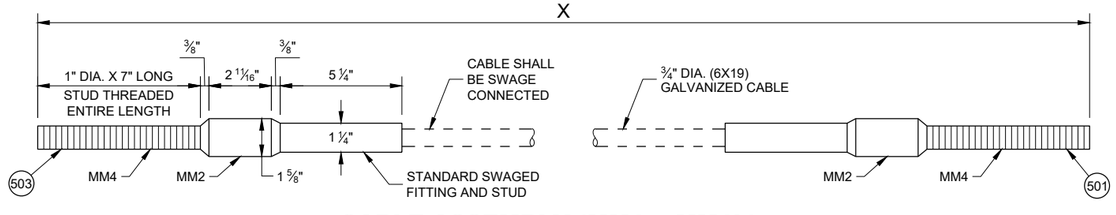
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B53 - 02f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

6

SDD 14B53 - 02g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

6

SDD 14B53 - 02h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

6

6

SDD 14B53 - 02i

SDD 14B53 - 02i

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

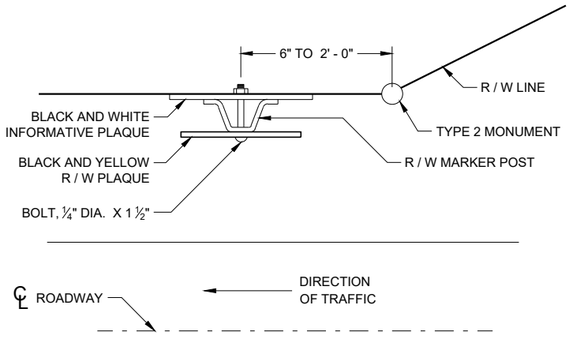
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

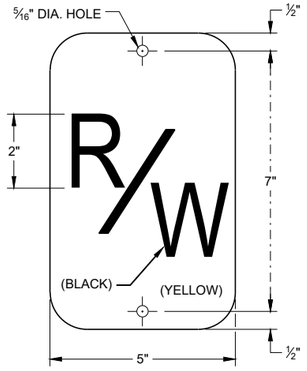
May 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

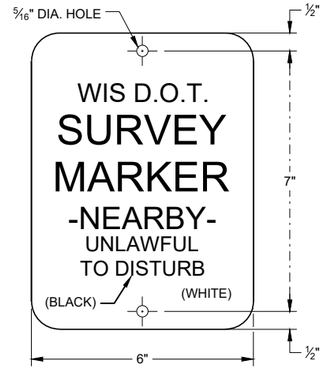


PLAN VIEW
STEEL MARKER POST



R / W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

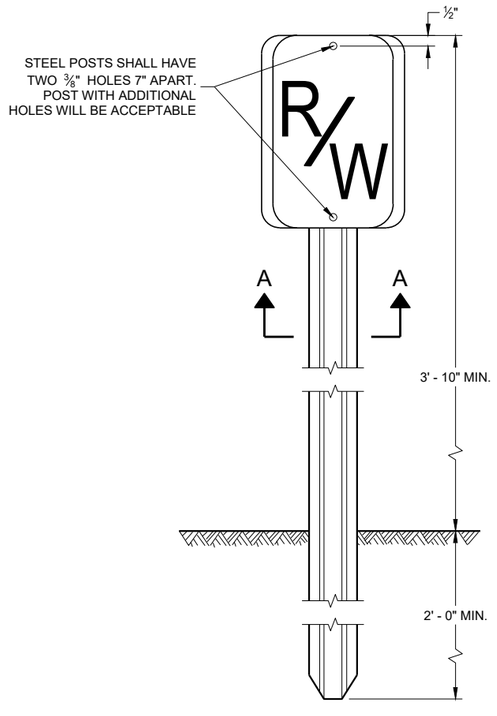
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

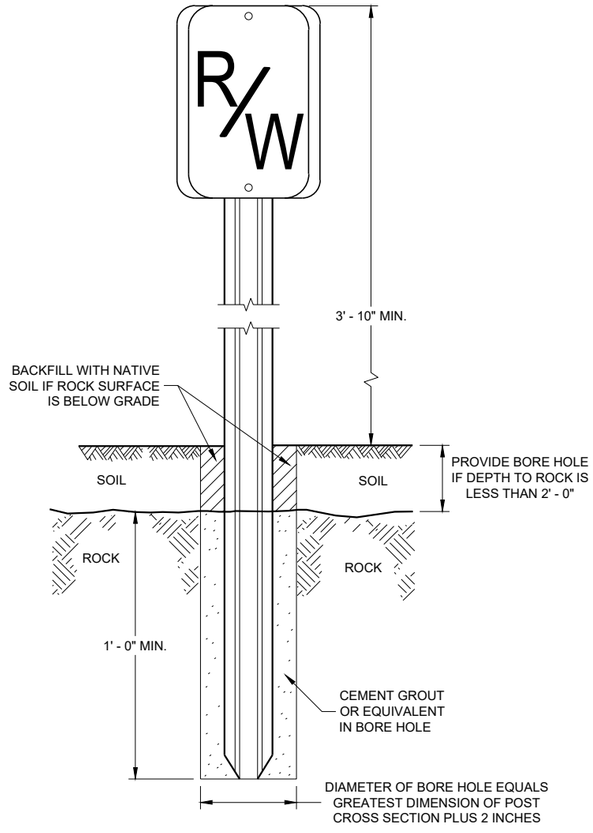
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFROMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

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

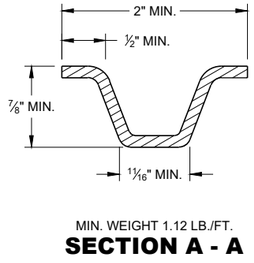
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL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



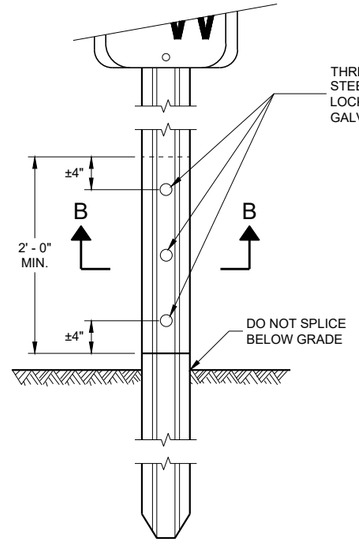
FRONT VIEW
STEEL MARKER POST



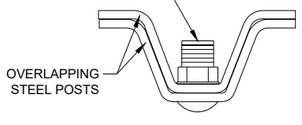
FRONT VIEW
ROCK INSTALLATION (1)



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



FRONT VIEW
SPLICE DETAIL



SECTION B - B

MARKER POST FOR RIGHT - OF - WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

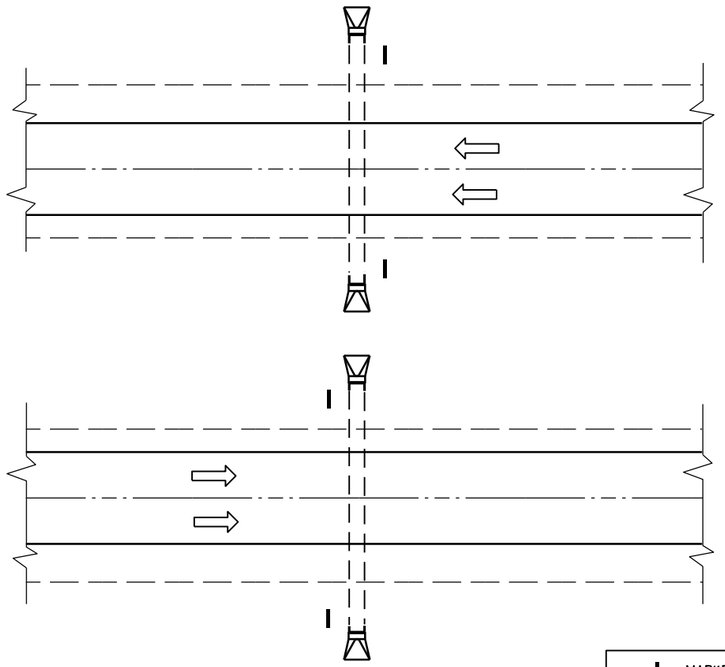
FHWA

6

SDD 15A01 - 13a

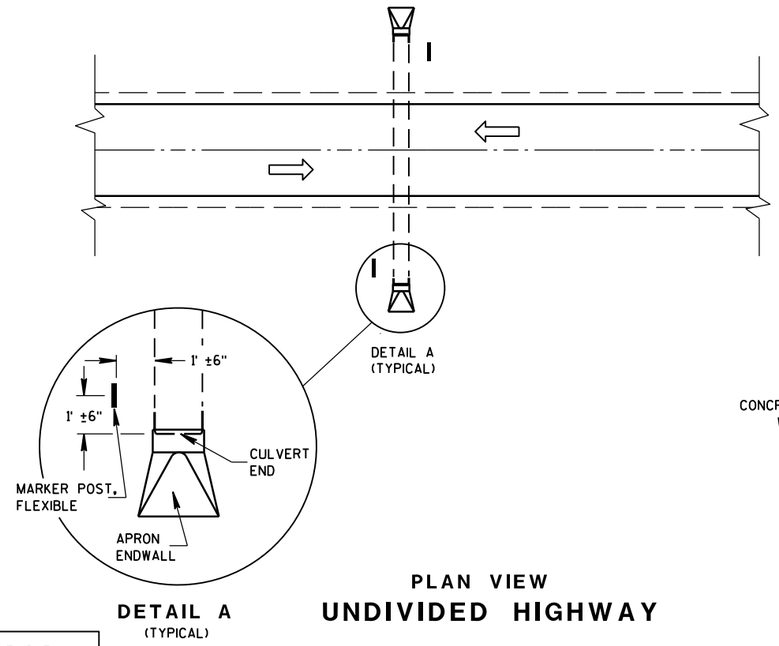
6

SDD15A01 - 13a



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

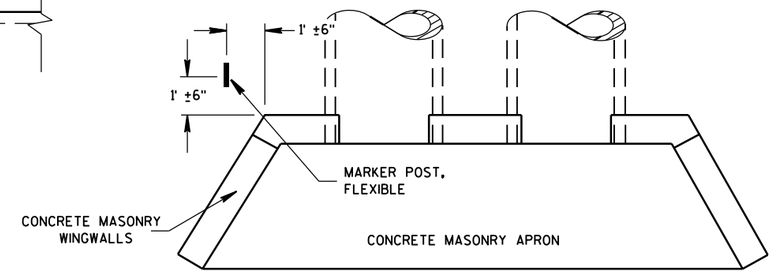
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

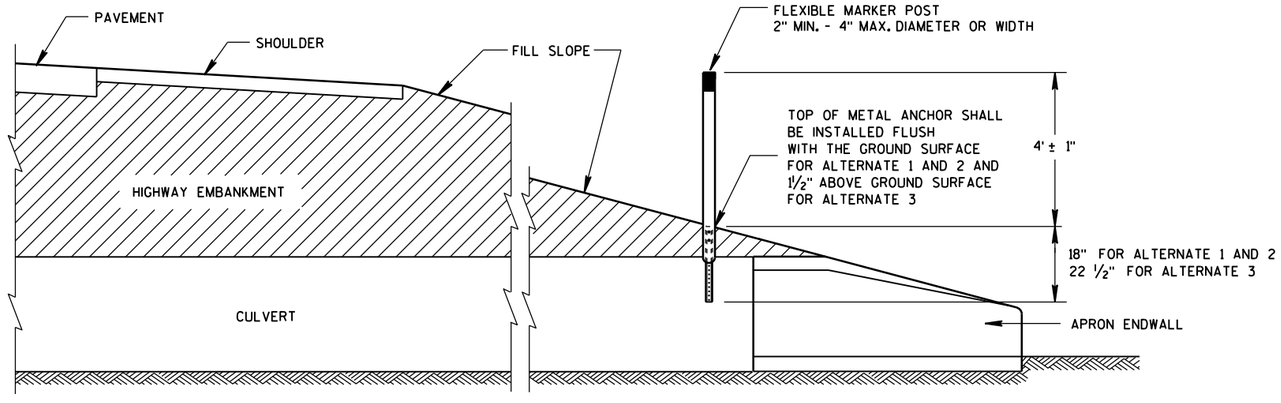
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

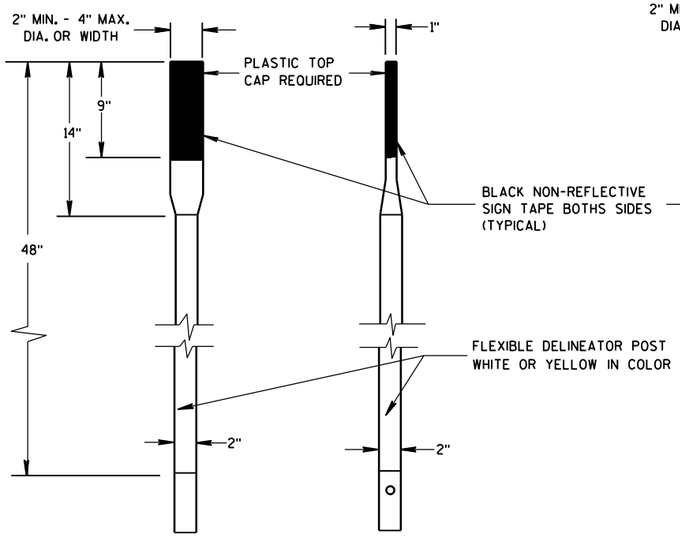
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

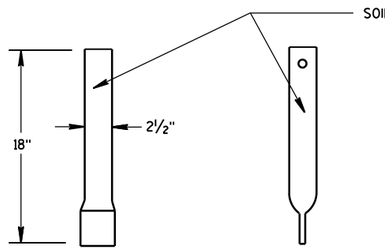
6

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

6

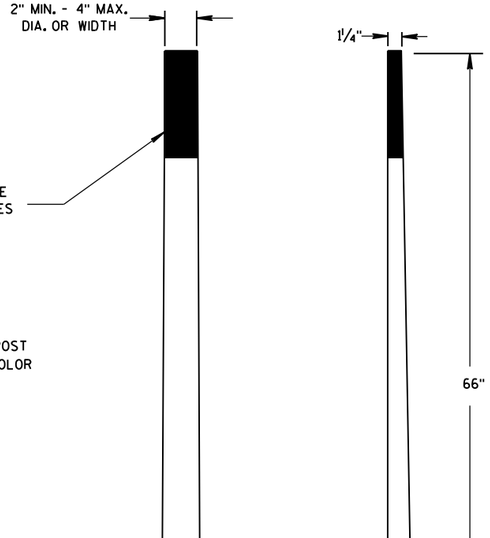
S.D.D. 15 A 3-2a





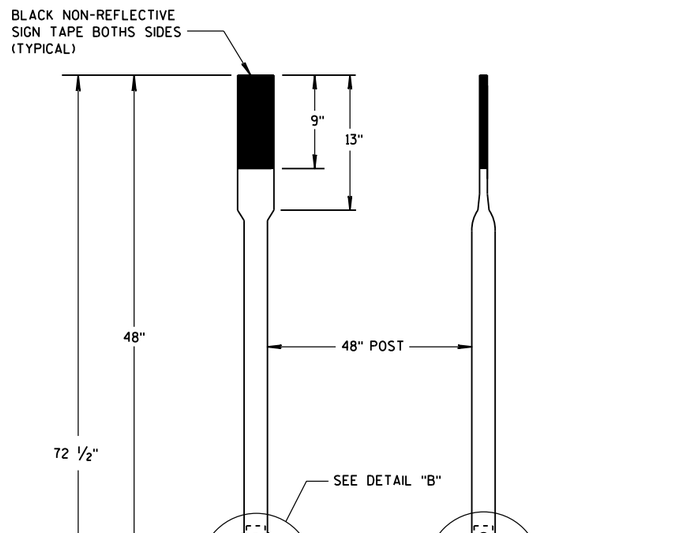
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

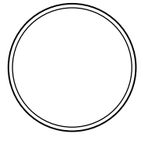
ALTERNATE 2



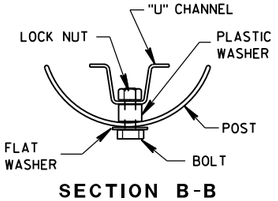
FRONT VIEW SIDE VIEW

ALTERNATE 3

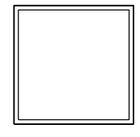
FLEXIBLE MARKER POSTS



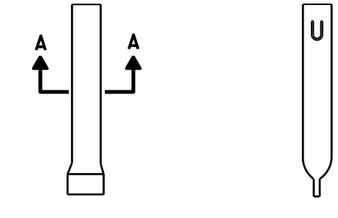
SECTION A-A



SECTION B-B

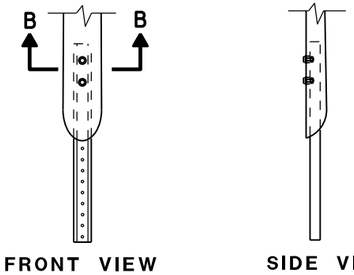


SECTION C-C



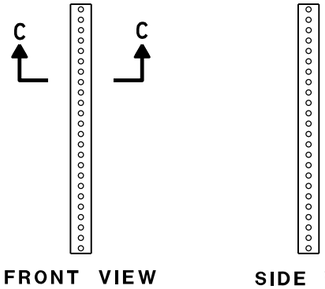
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

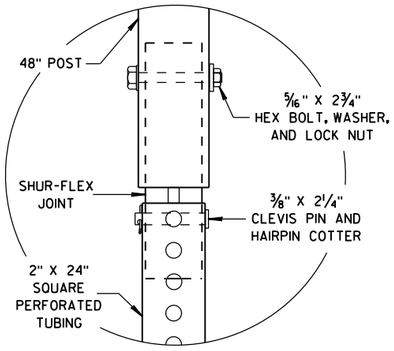
ALTERNATE 2



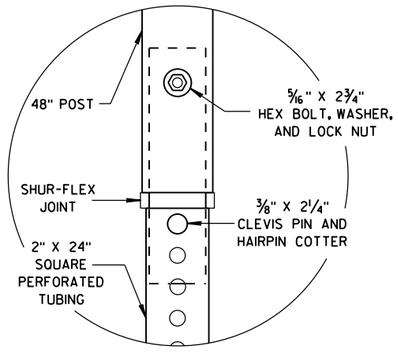
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

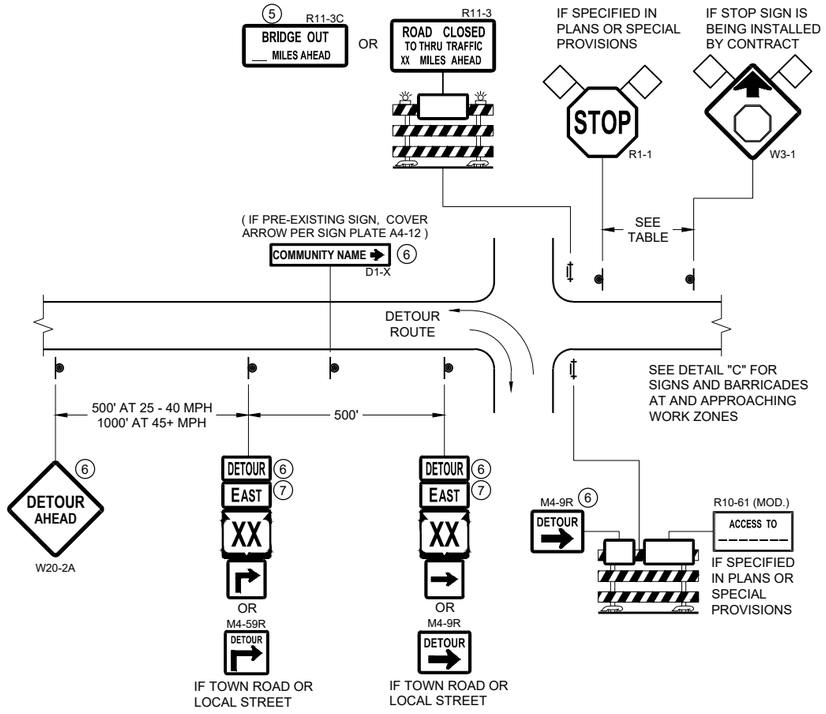
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

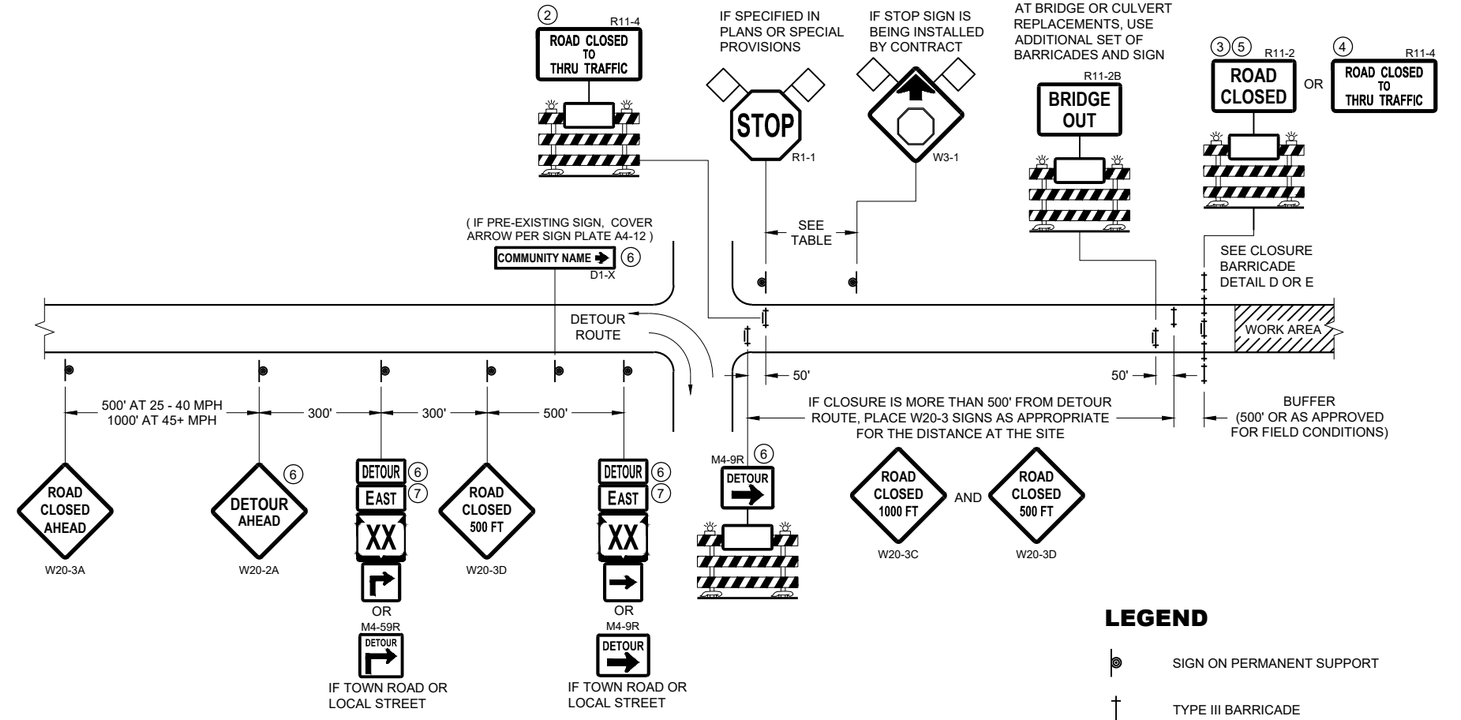
6

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



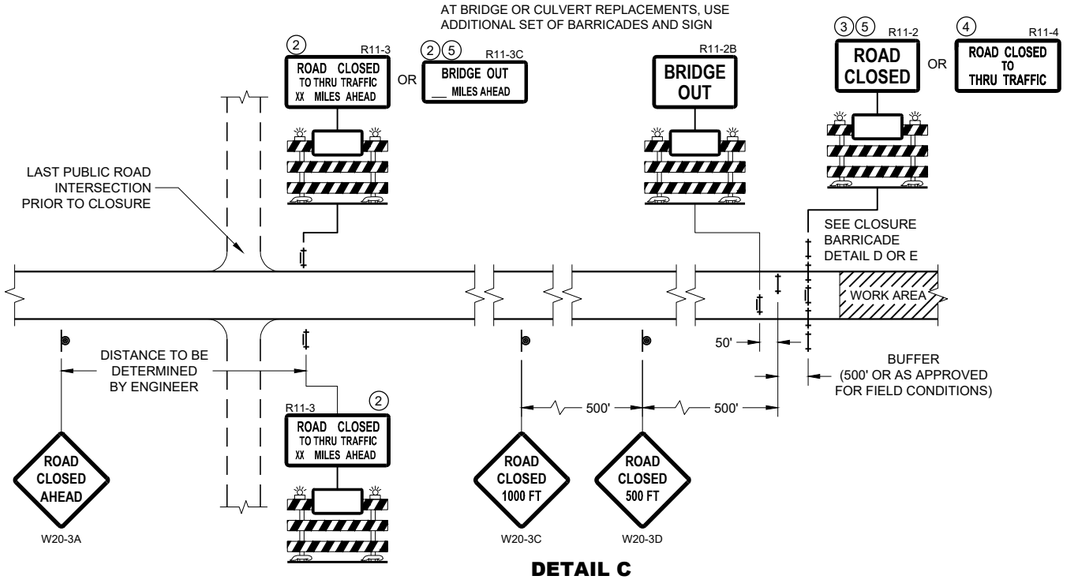
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



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

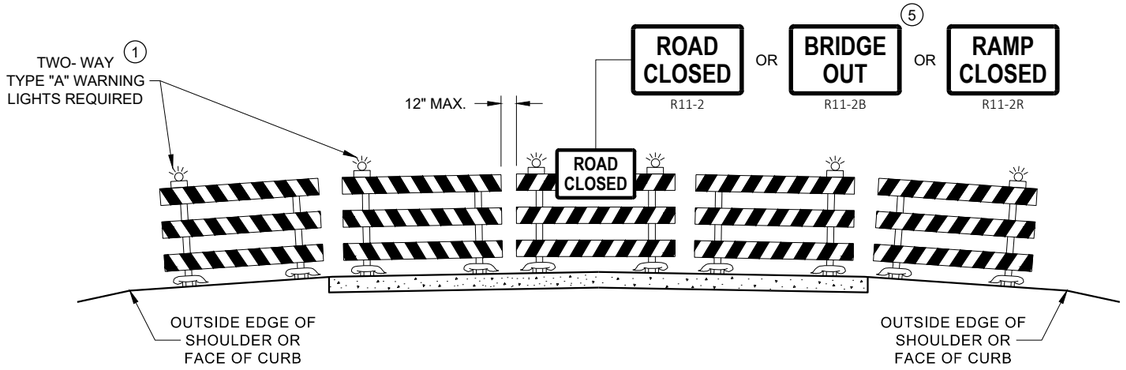
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

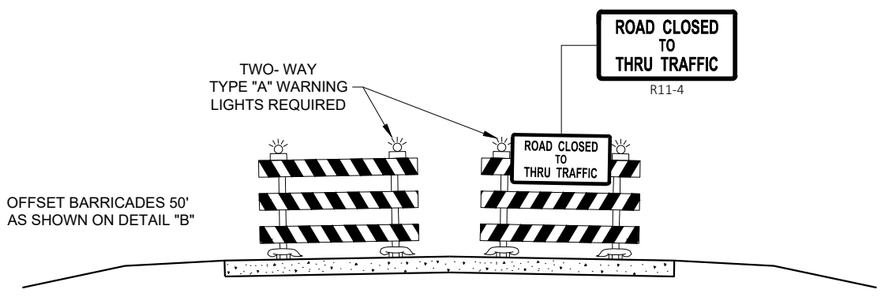
6

SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4; 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.

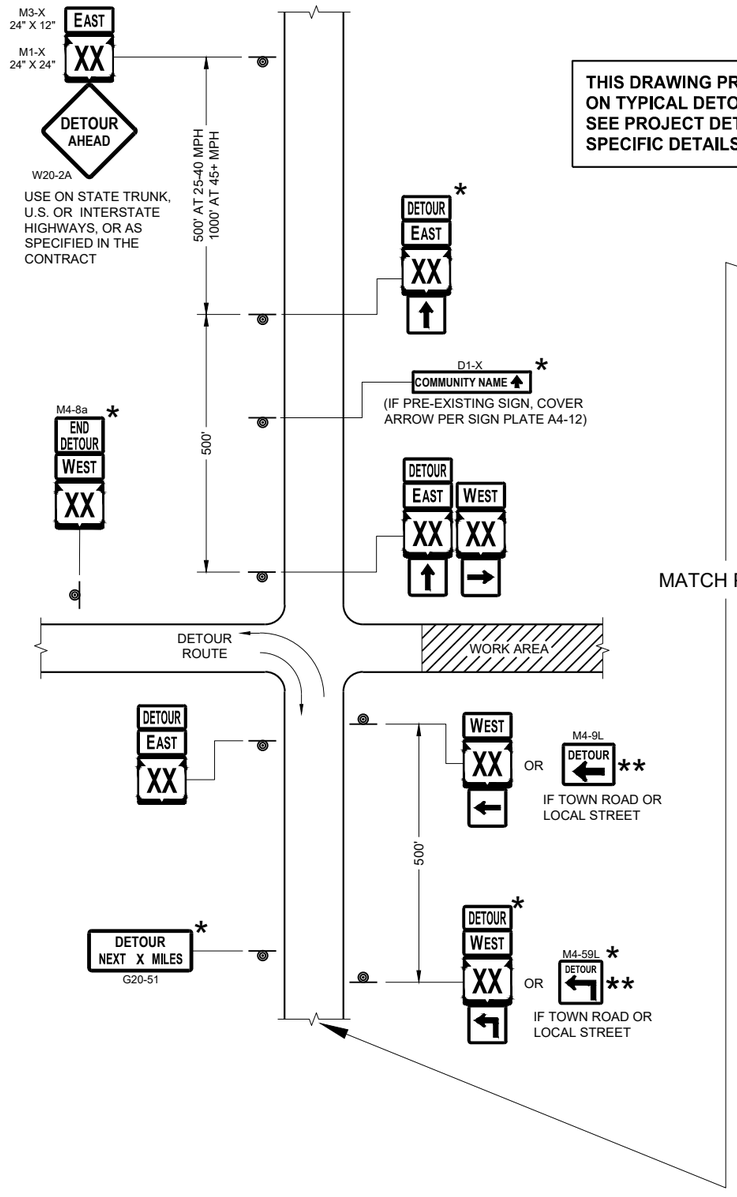
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

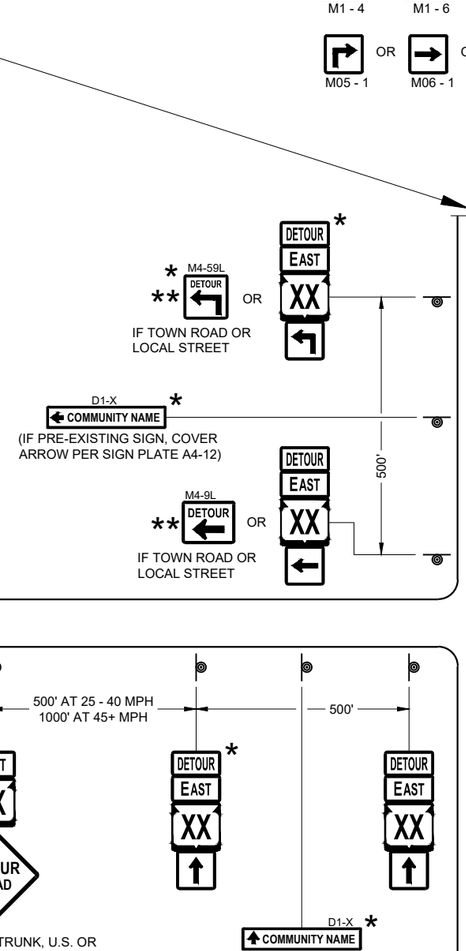
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING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

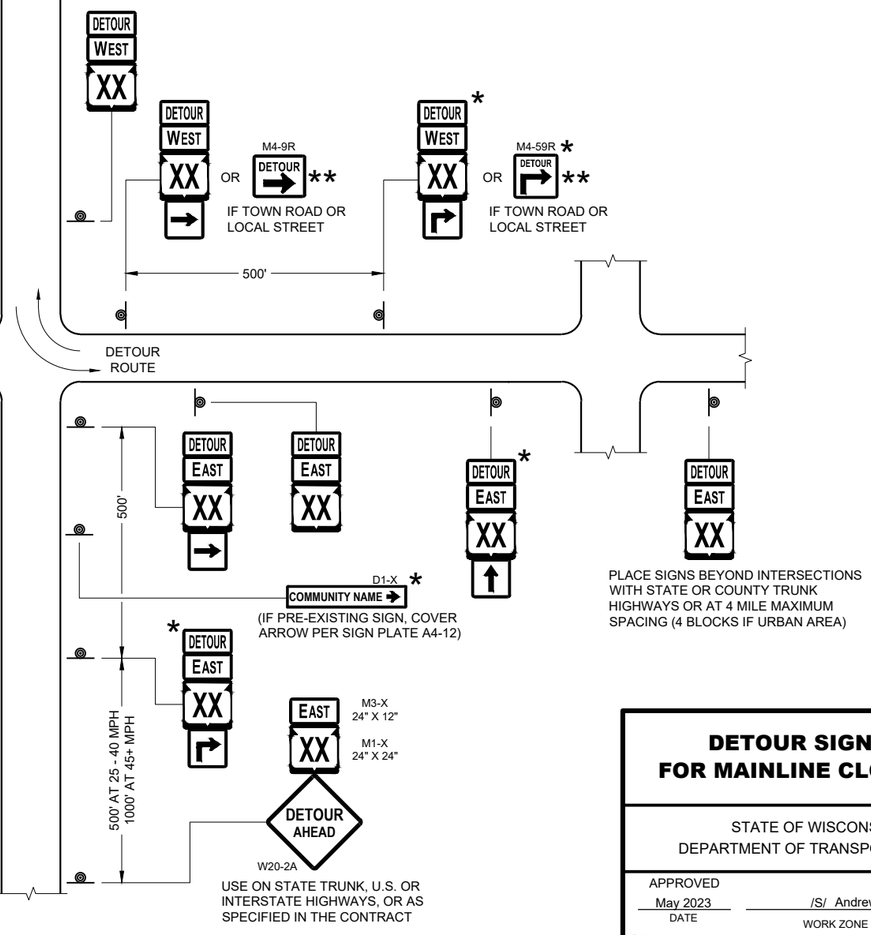
* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** 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.



MATCH POINT





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

6

SDD 15C02 - 09c

GENERAL NOTES

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

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

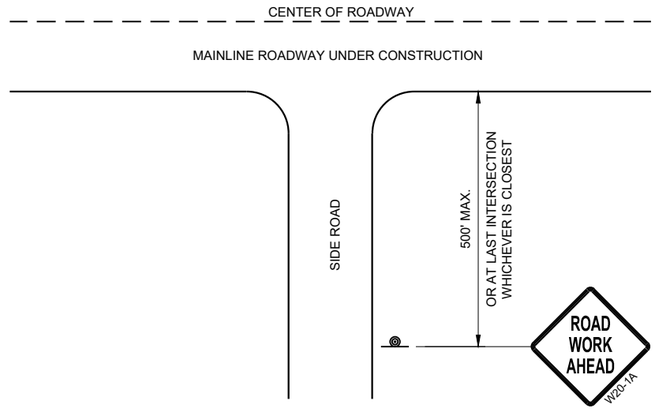
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

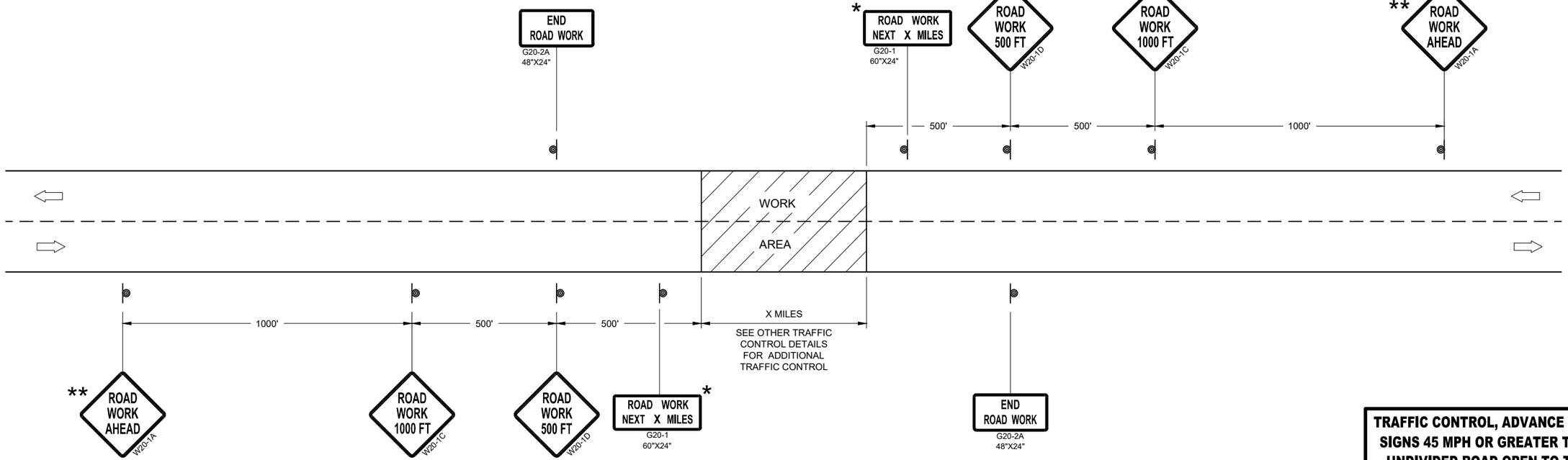
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

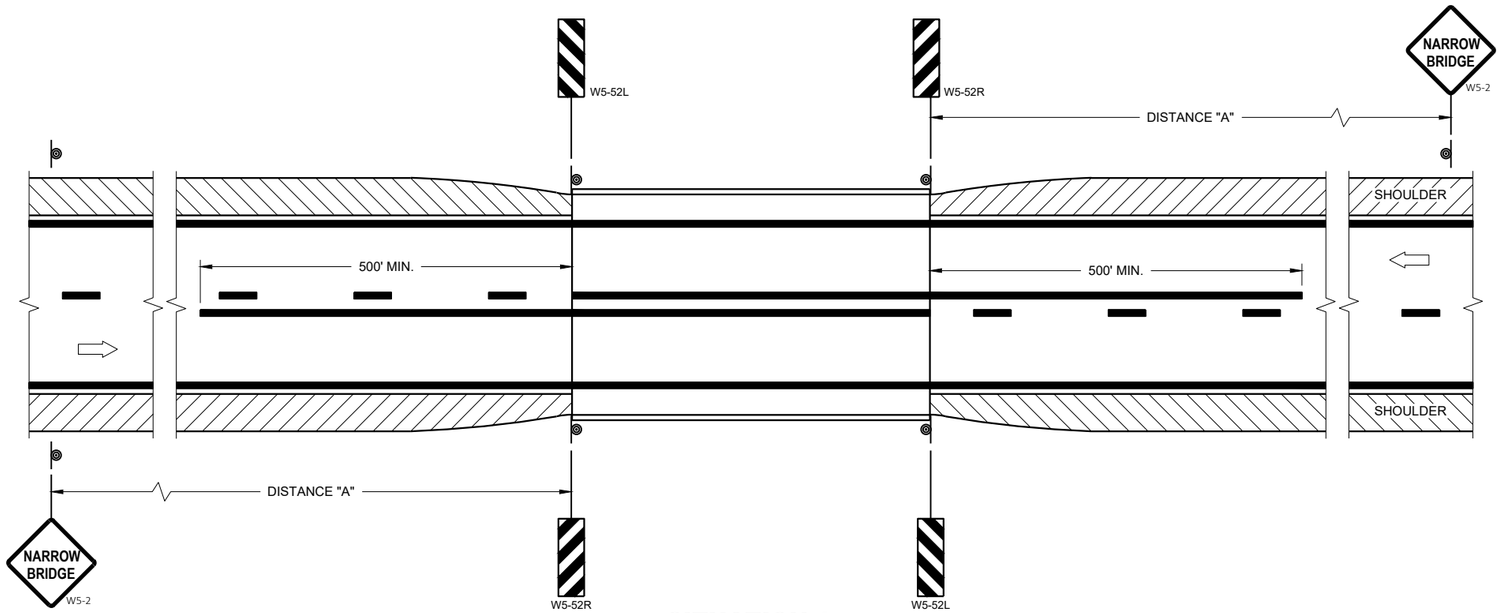
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

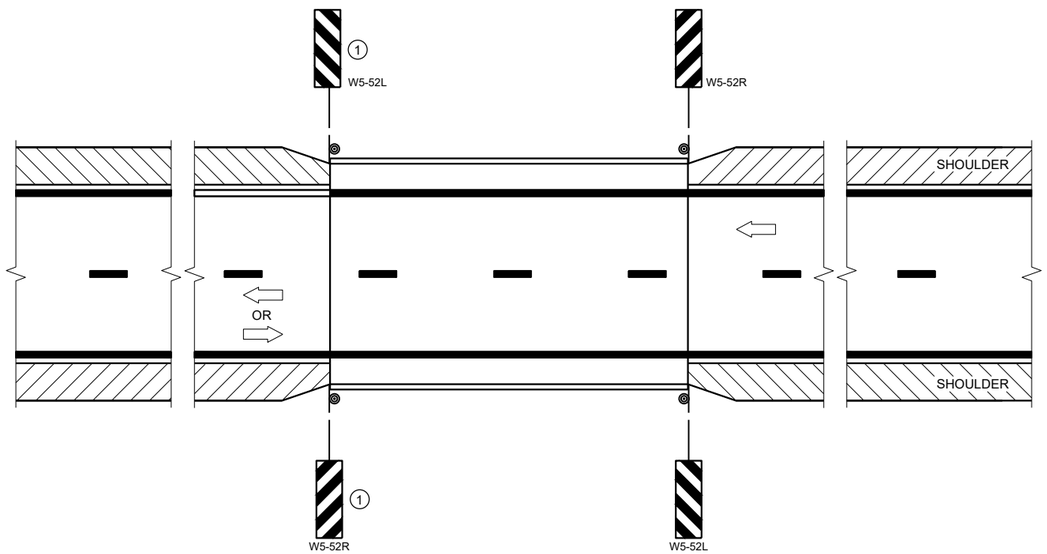
6

SDD 15C04 - 05



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 — STATE SIGNING AND MARKING ENGINEER
FHWA

6
SDD 15C06-12

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

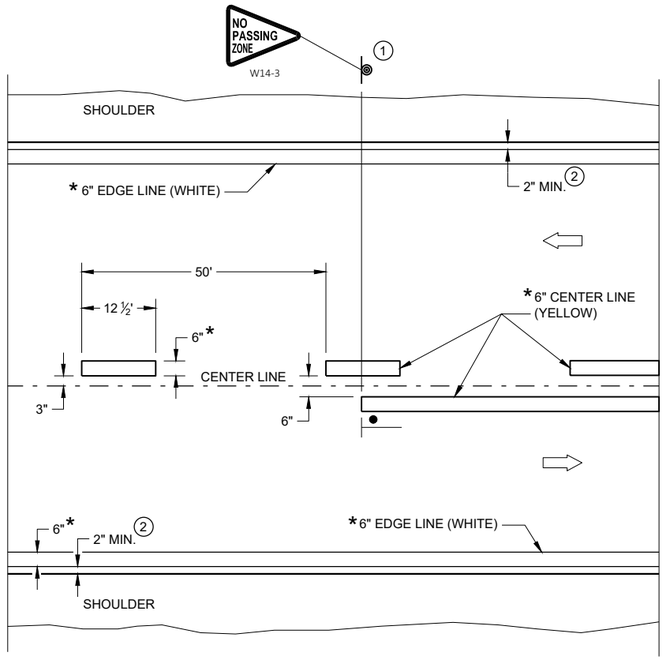
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

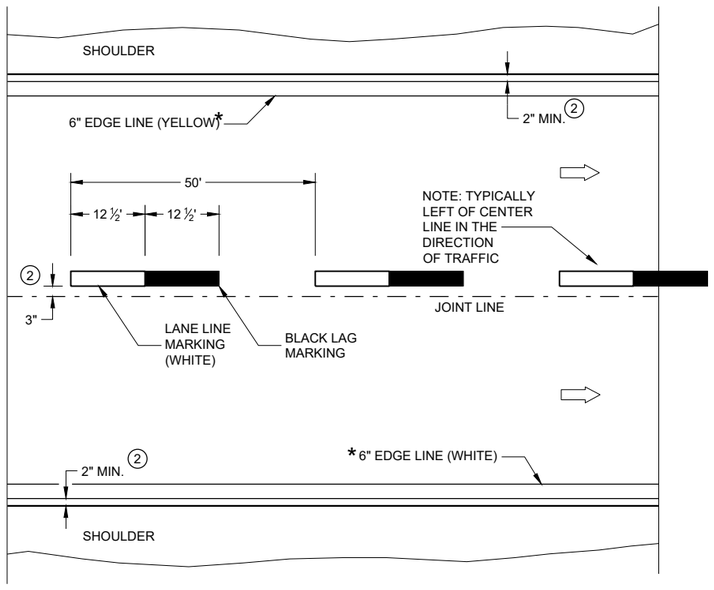
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

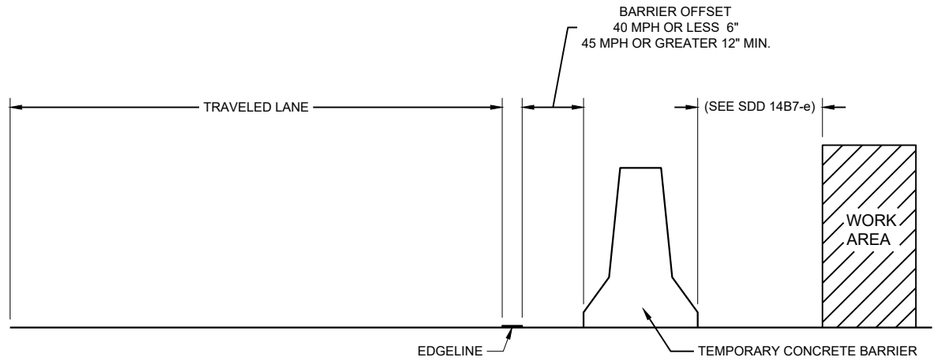
PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER
FHWA

6

SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

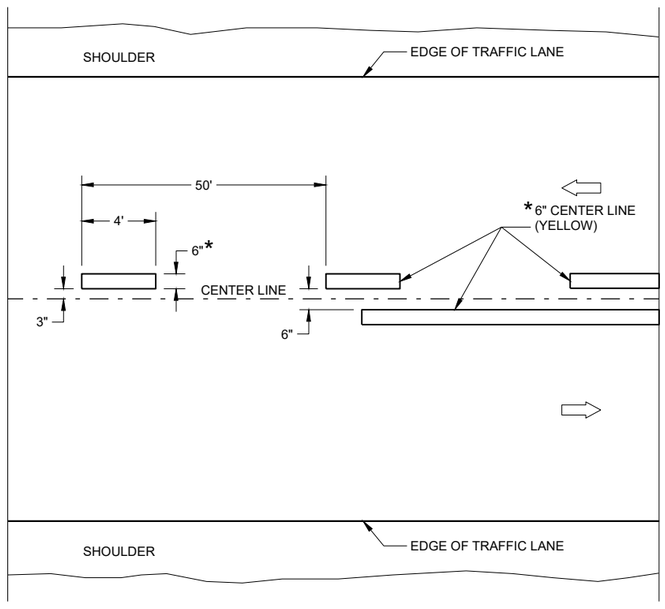
GENERAL NOTES

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

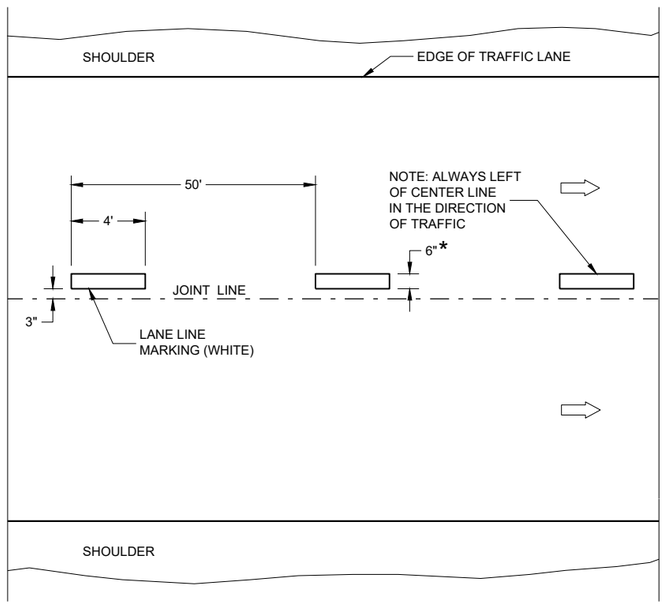
LEGEND

⇨ DIRECTION OF TRAFFIC

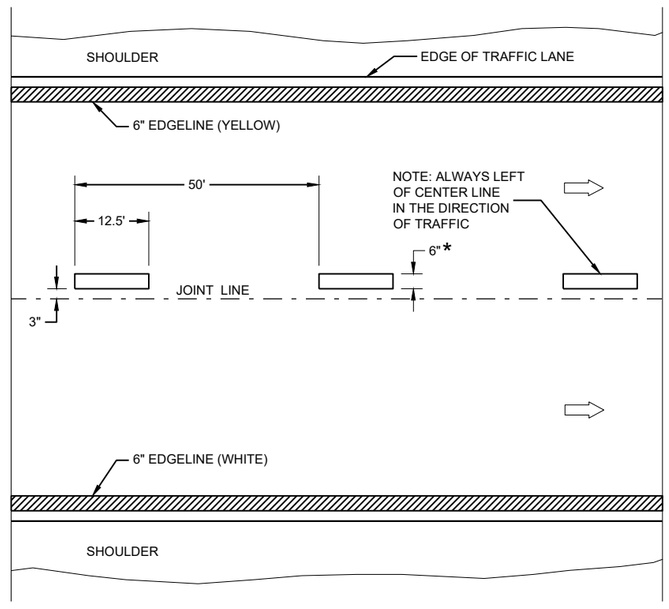
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C08-23b

6

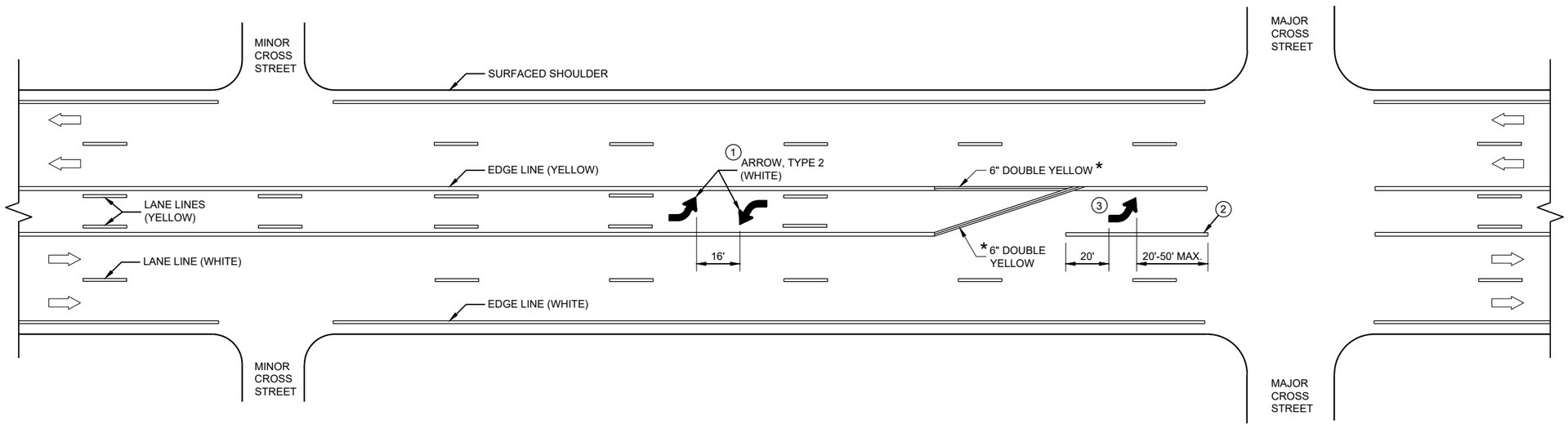
SDD 15C08-23b

GENERAL NOTES

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

DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



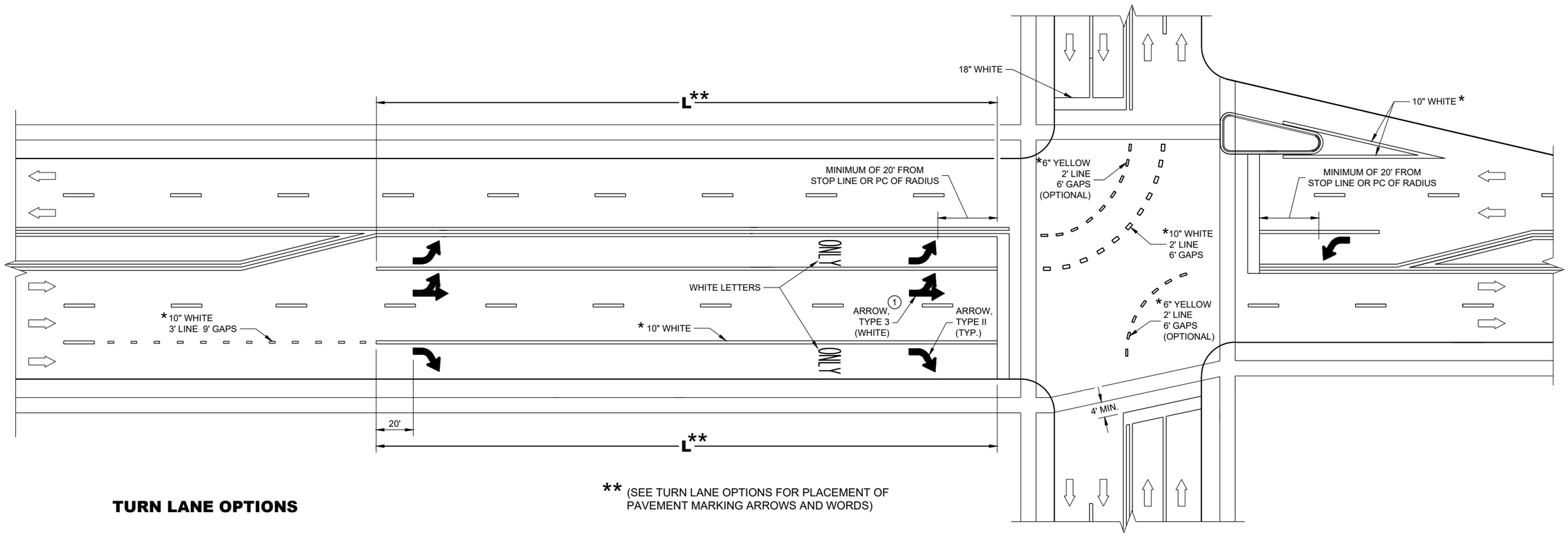
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 281

SDD 15C08-23c

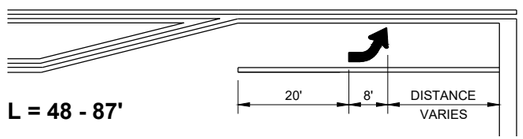
6



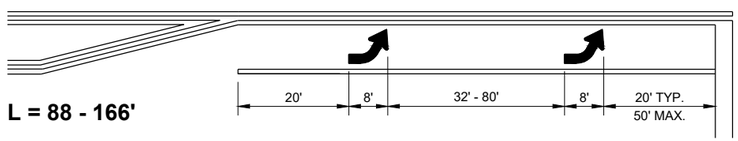
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

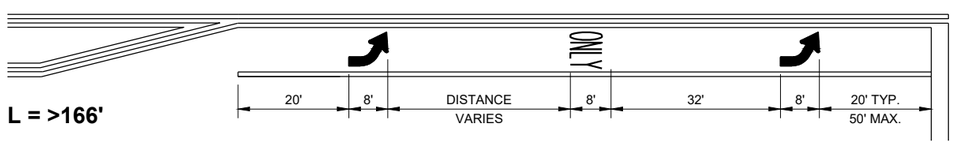
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08-23d

SDD 15C08-23d

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

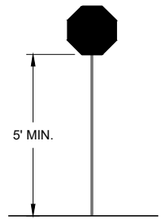
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



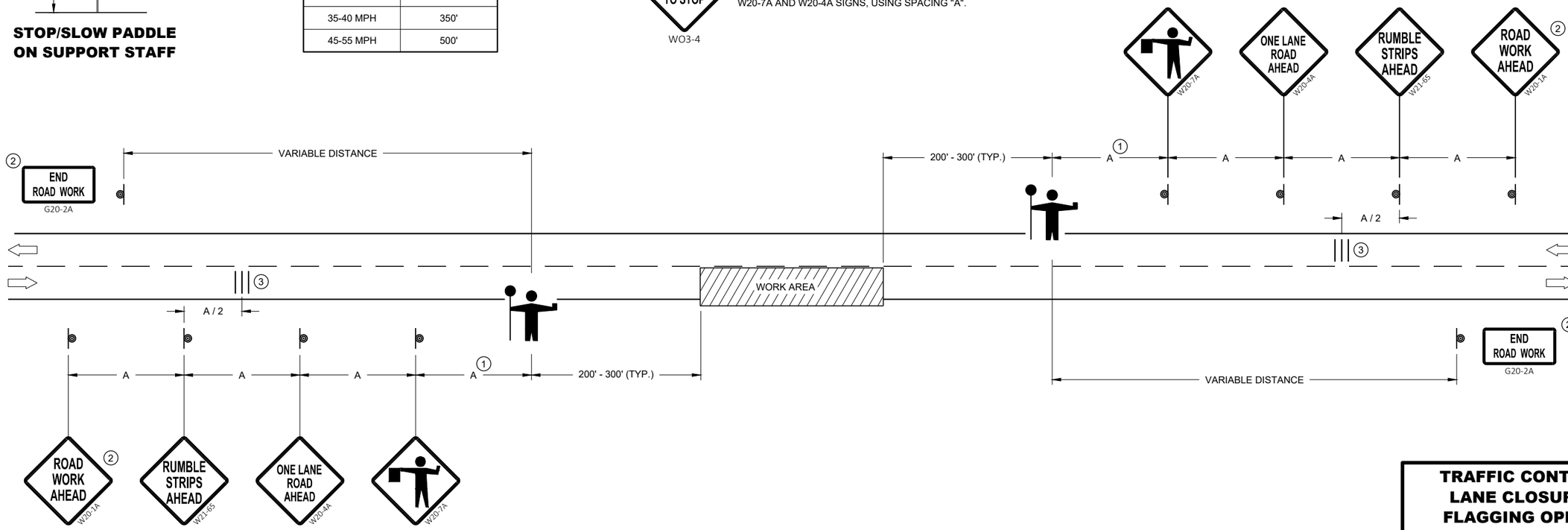
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 09a

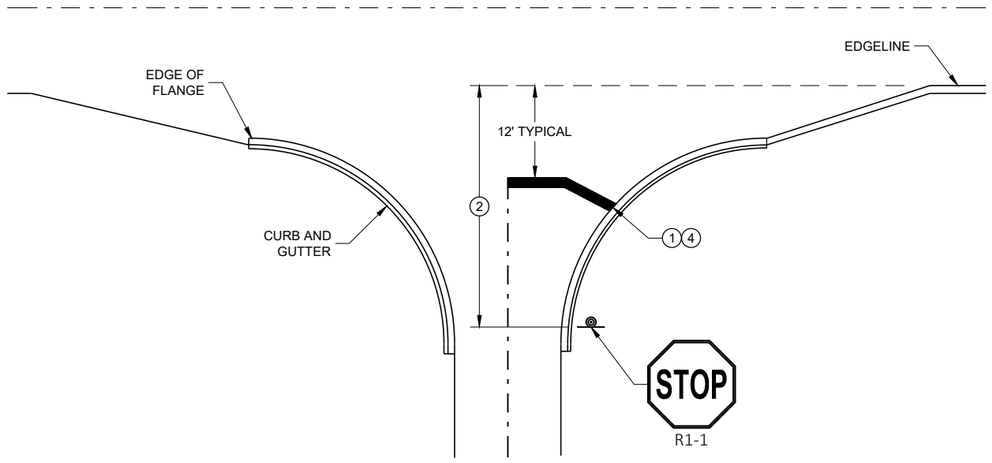
6

SDD 15C12 - 09a

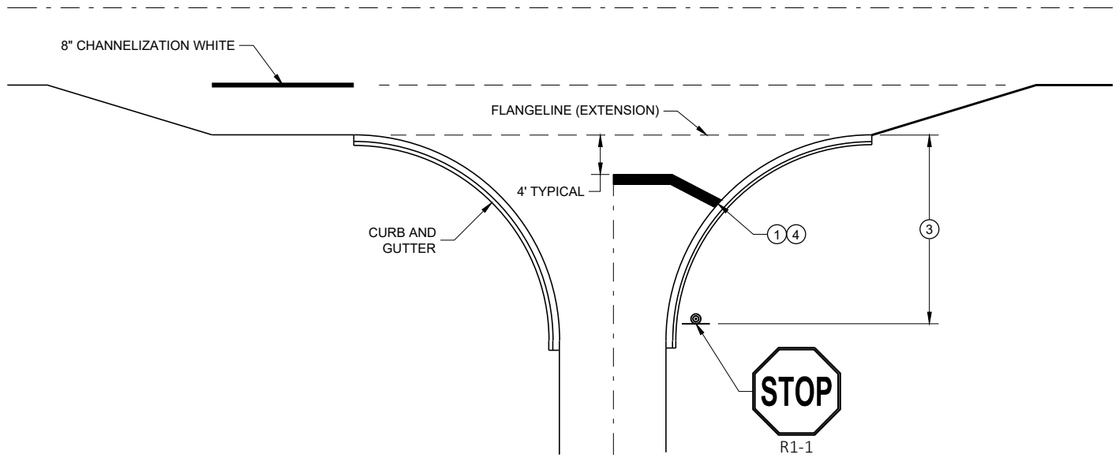
GENERAL NOTES

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

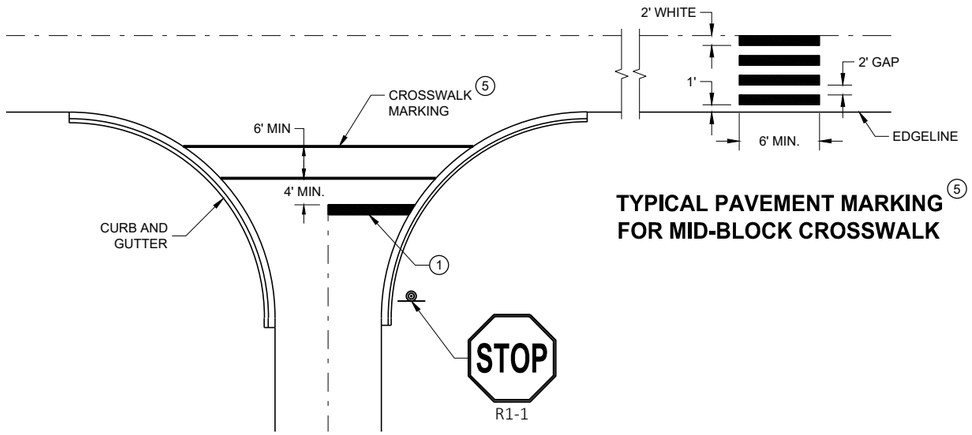
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

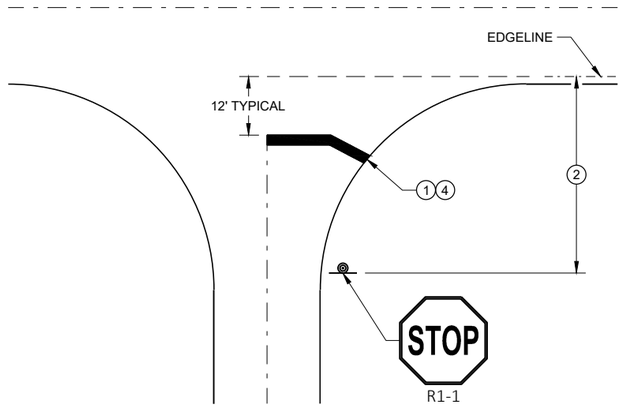


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS 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
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

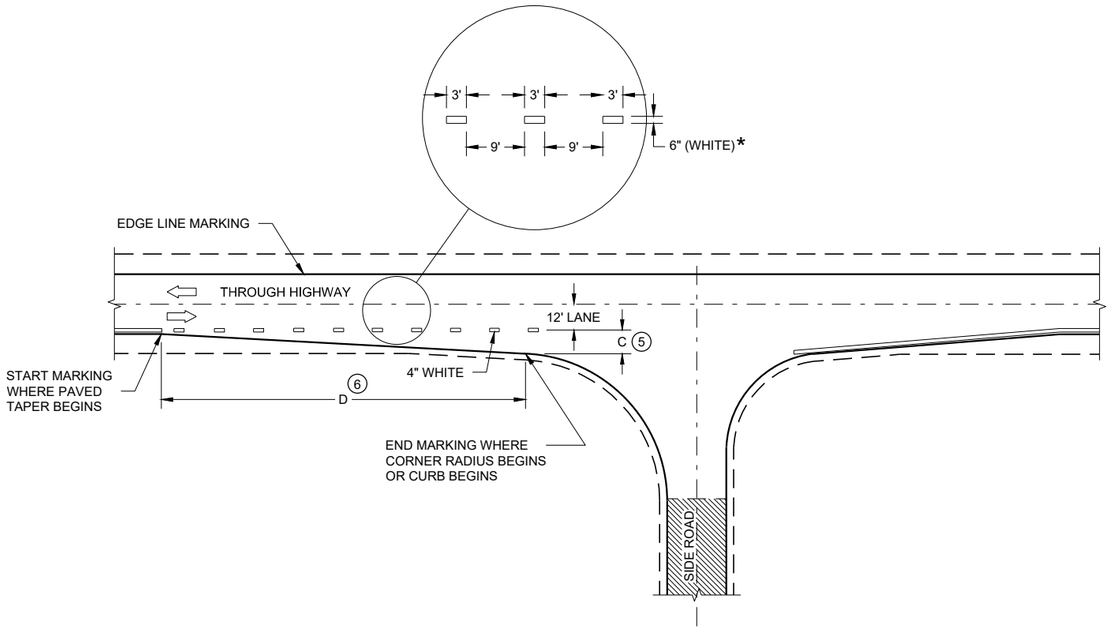
FHWA

6

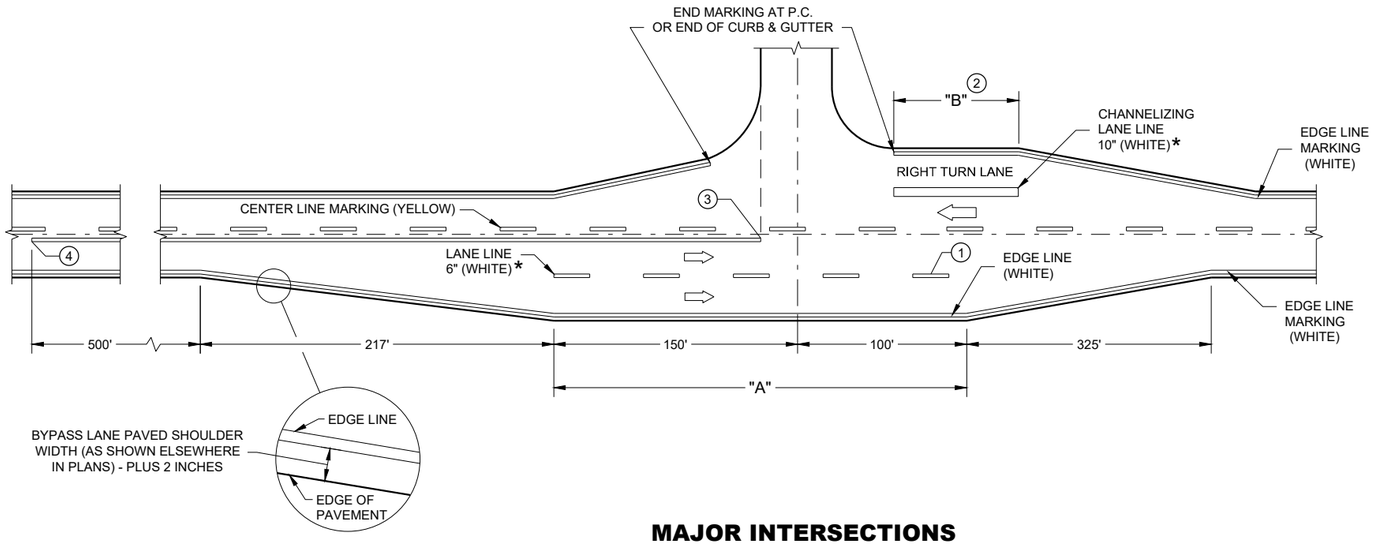
SDD 15C33 - 04

6

SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

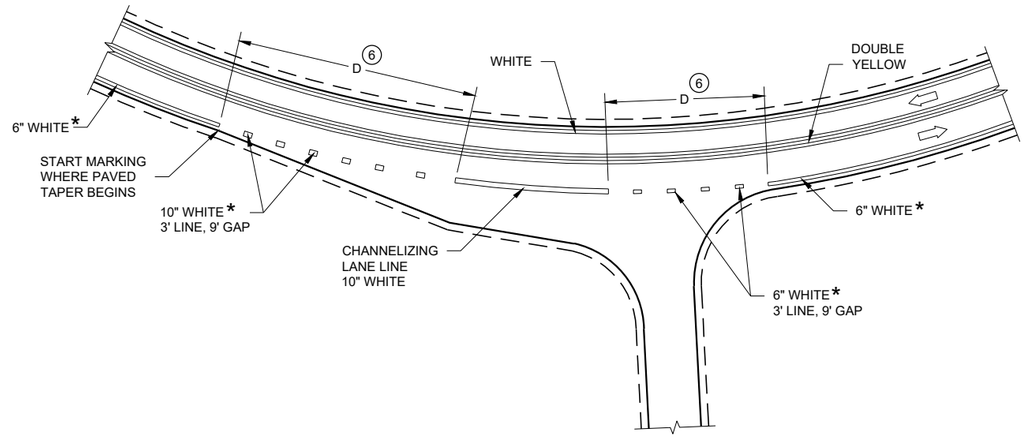
GENERAL NOTES

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

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

LEGEND

DIRECTION OF TRAVEL



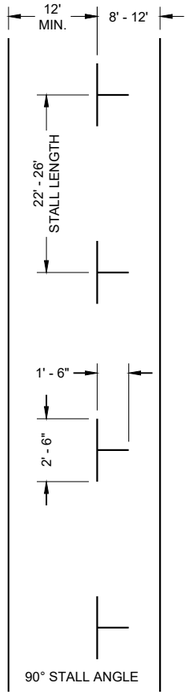
INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

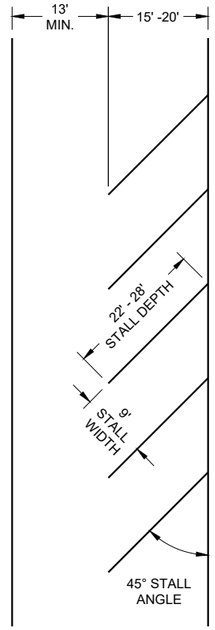
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

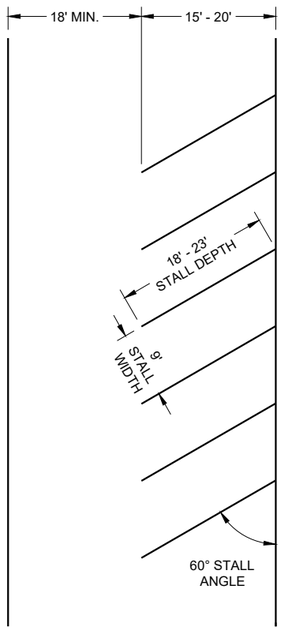
6

SDD 15C35-06a



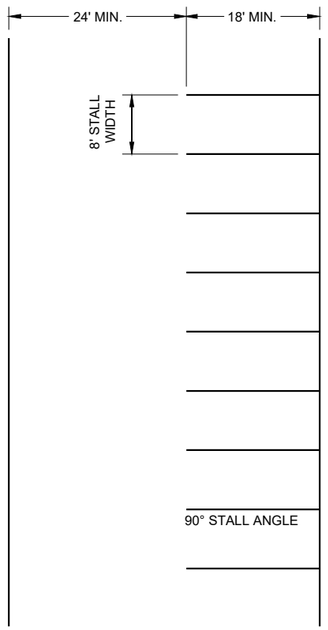
PARALLEL PARKING





ANGLED PARKING

(ANGLED PARKING IS NOT ALLOWED ON STATE HIGHWAYS UNLESS A DESIGN JUSTIFICATION HAS BEEN COMPLETED.)



PARKING LOTS

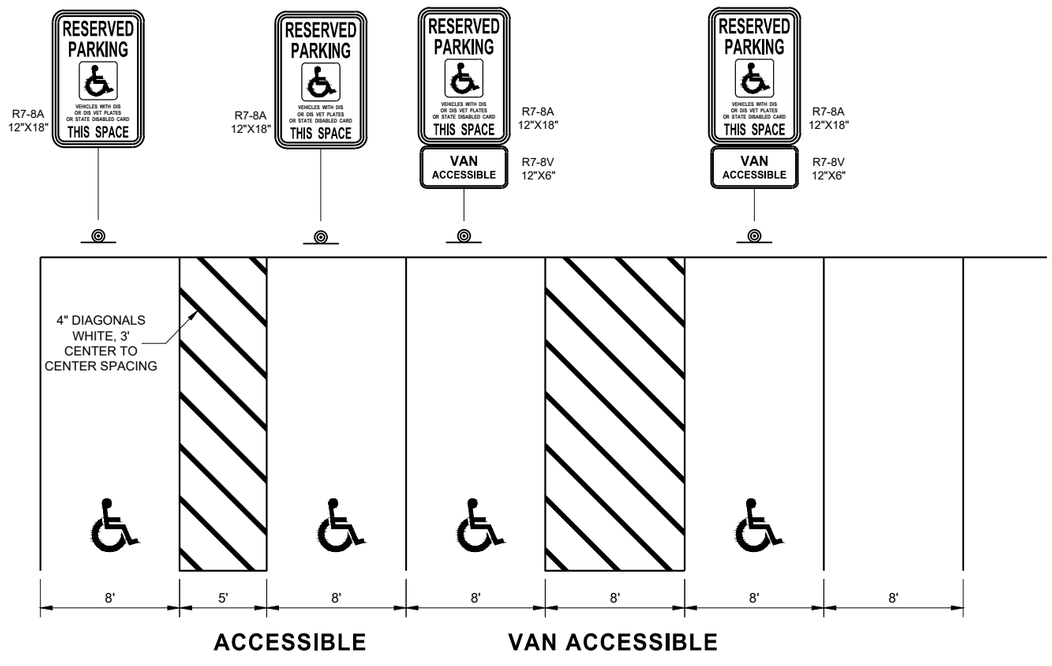
GENERAL NOTES

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

LAST PARKING STALL IS A MINIMUM OF 15' FROM THE CROSSWALK.

LEGEND

SIGN ON PERMANENT SUPPORT



ACCESSIBLE VAN ACCESSIBLE

PARKING STALL MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAR ENGINEER

FHWA

6

SDD 15C36 - 01

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

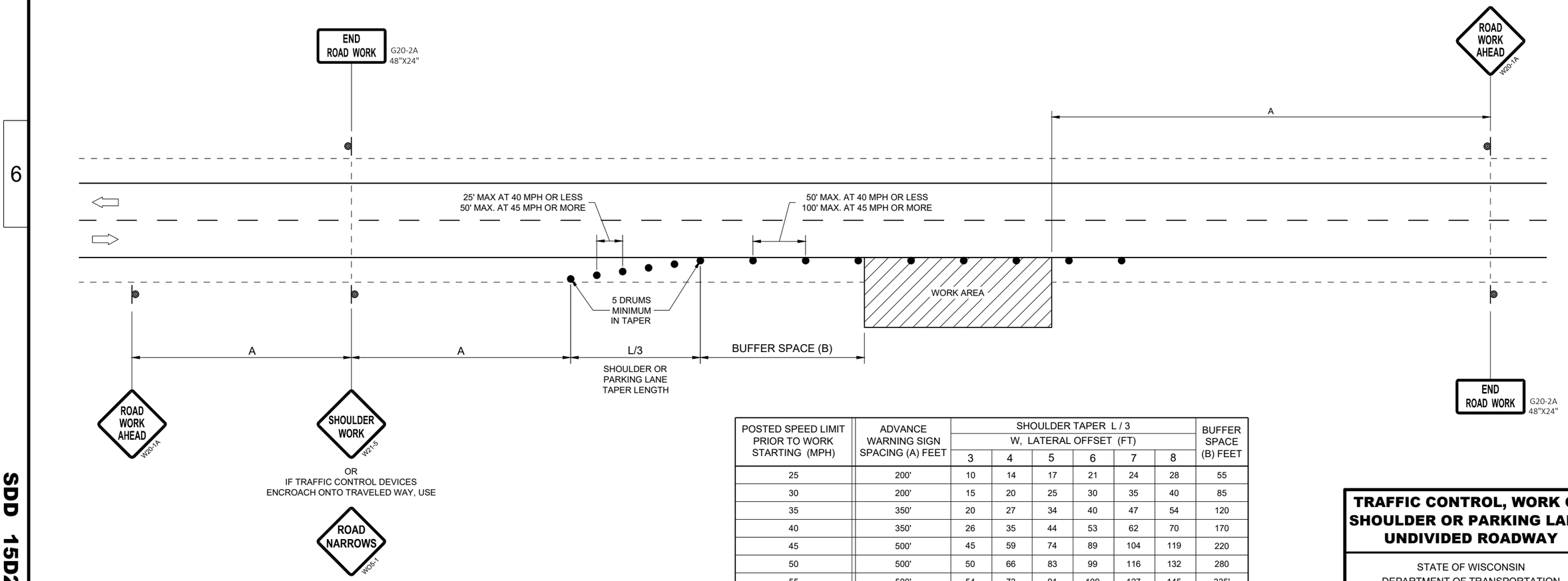
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04

GENERAL NOTES

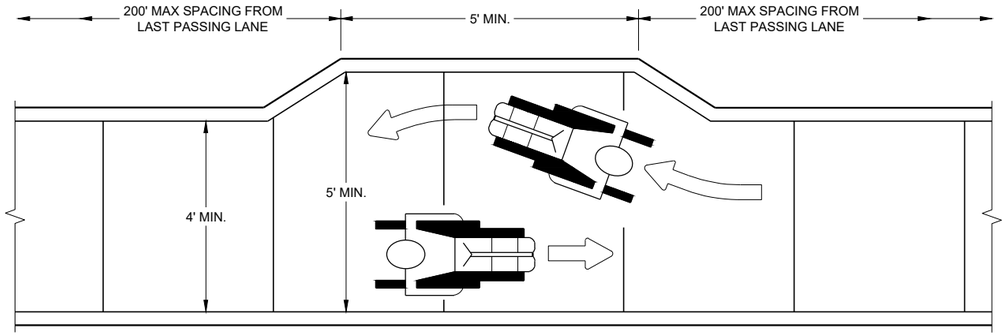
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

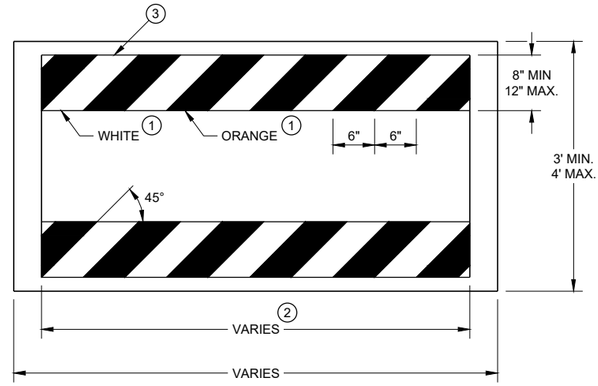
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

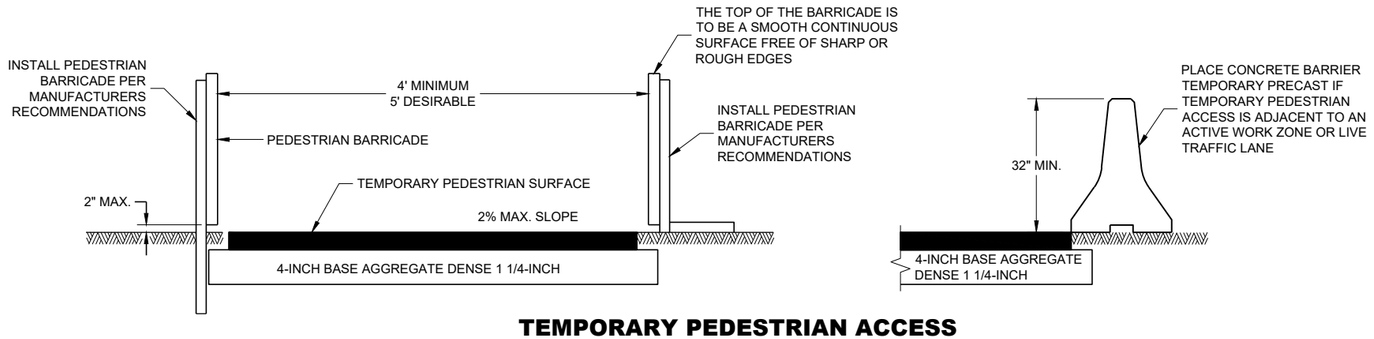
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN BARRICADE*



TEMPORARY PEDESTRIAN ACCESS

6

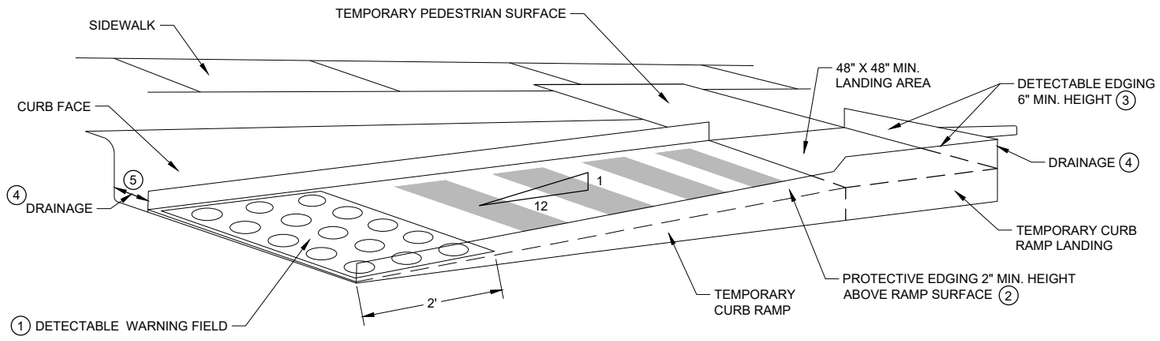
6

SDD 15D30 - 09a

SDD 15D30 - 09a

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PERSPECTIVE VIEW

GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.

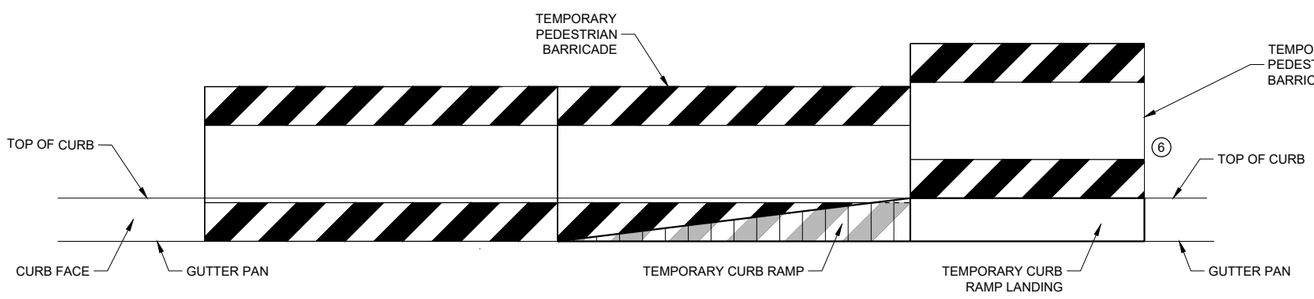
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

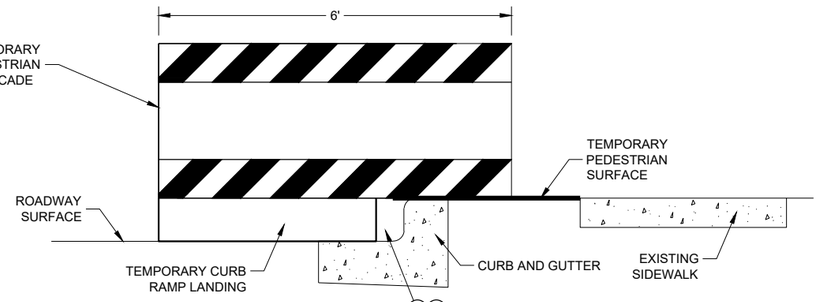
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

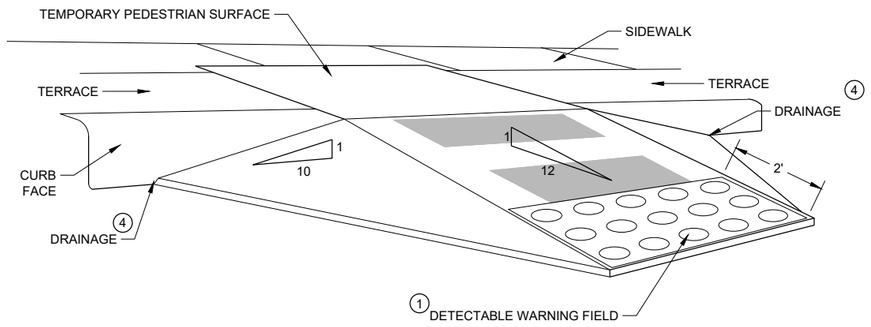
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

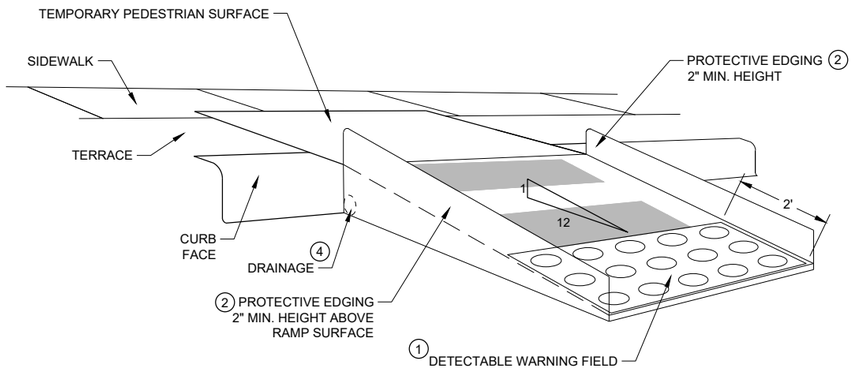
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

GENERAL NOTES

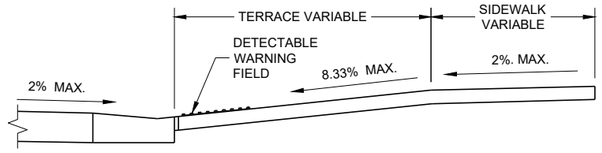
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

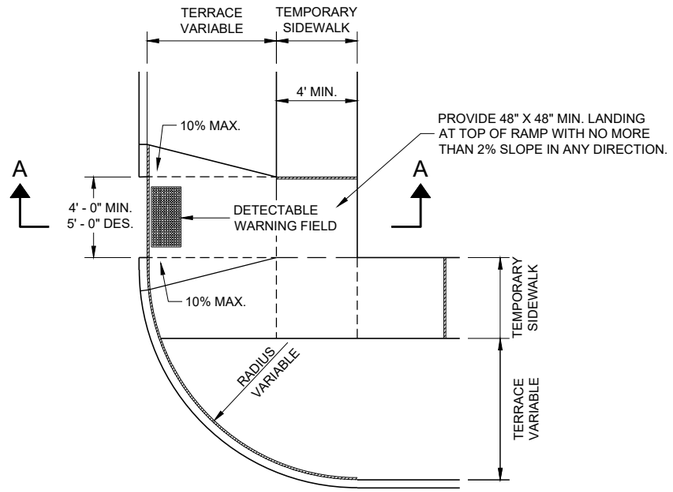
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



SECTION A - A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

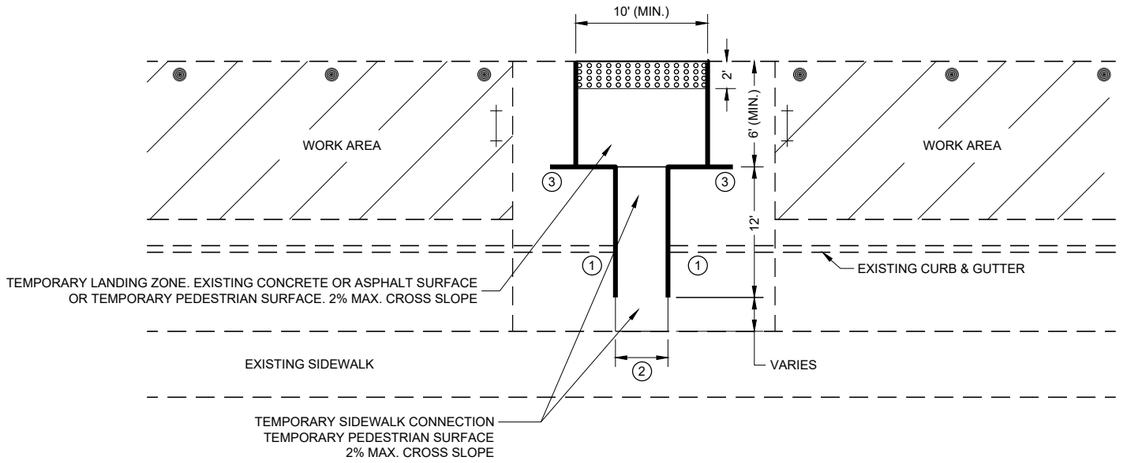
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

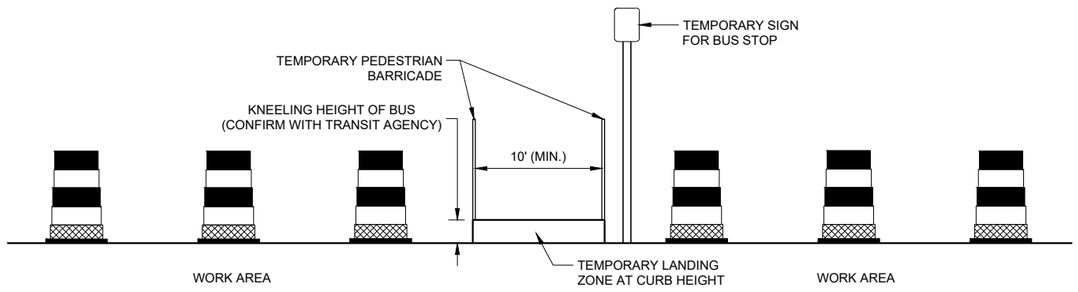
FHWA

6

SDD 15D30-09d



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

(1) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA

6

SDD 15D30 - 09e

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

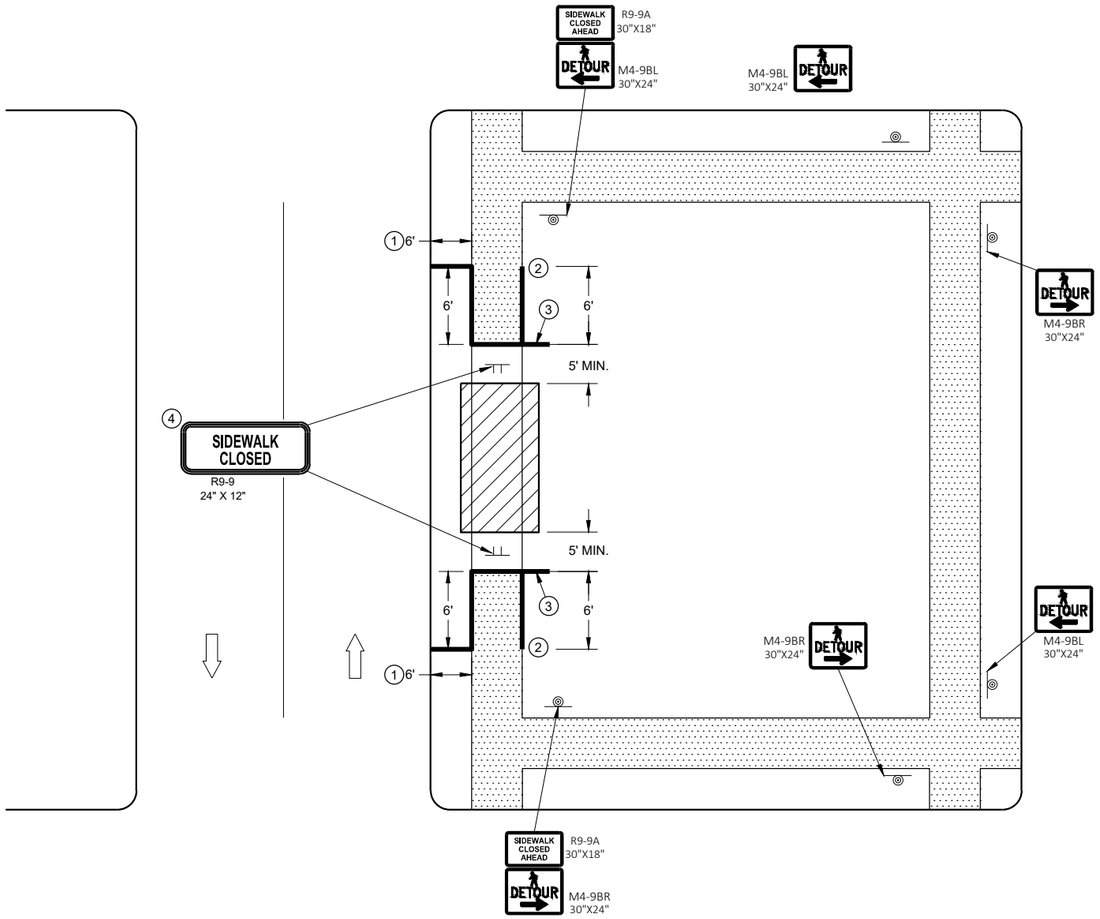
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09e

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

SDD 15D30 - 09f

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

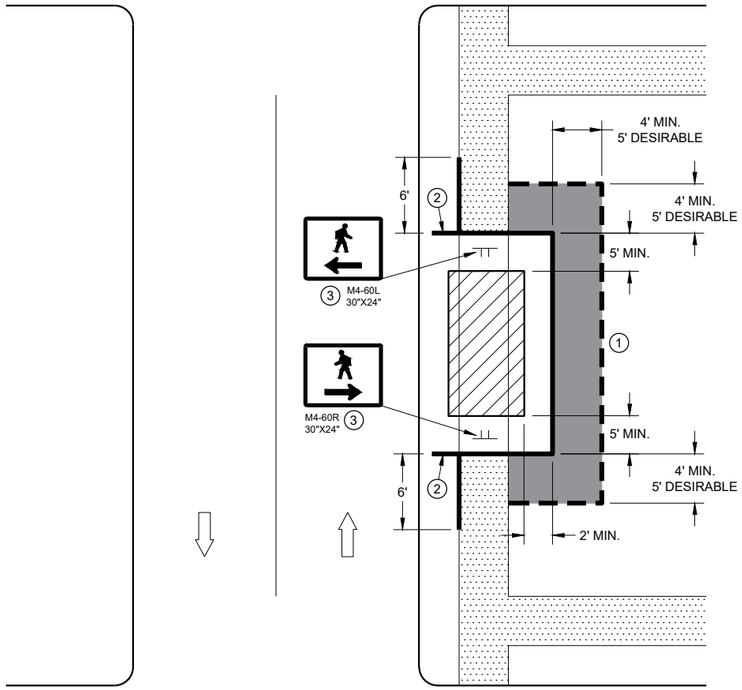
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

1. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
2. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DIVERSION
SINGLE SIDE

6

SDD 15D30 - 09g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD15D30 - 09g

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

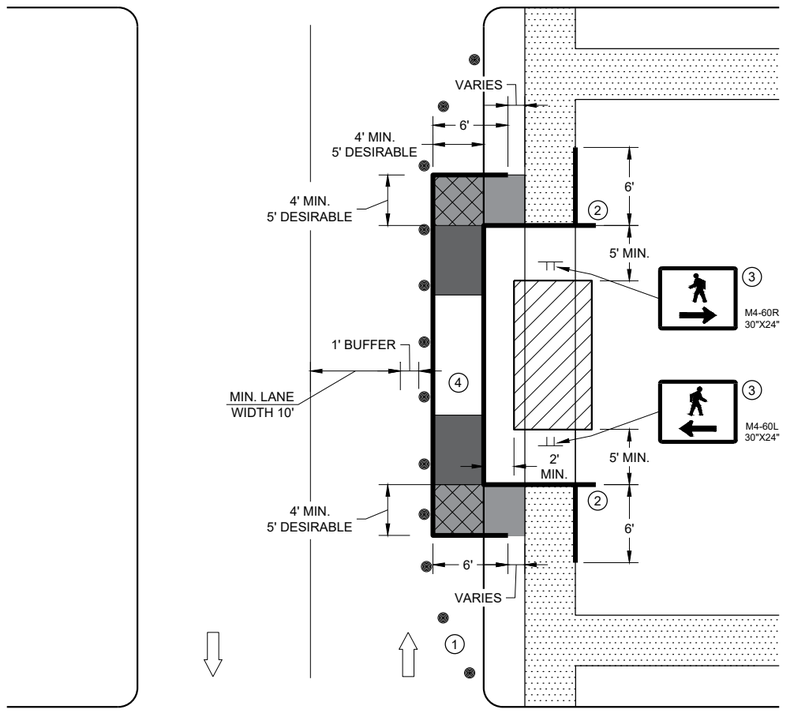
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
2. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
4. USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



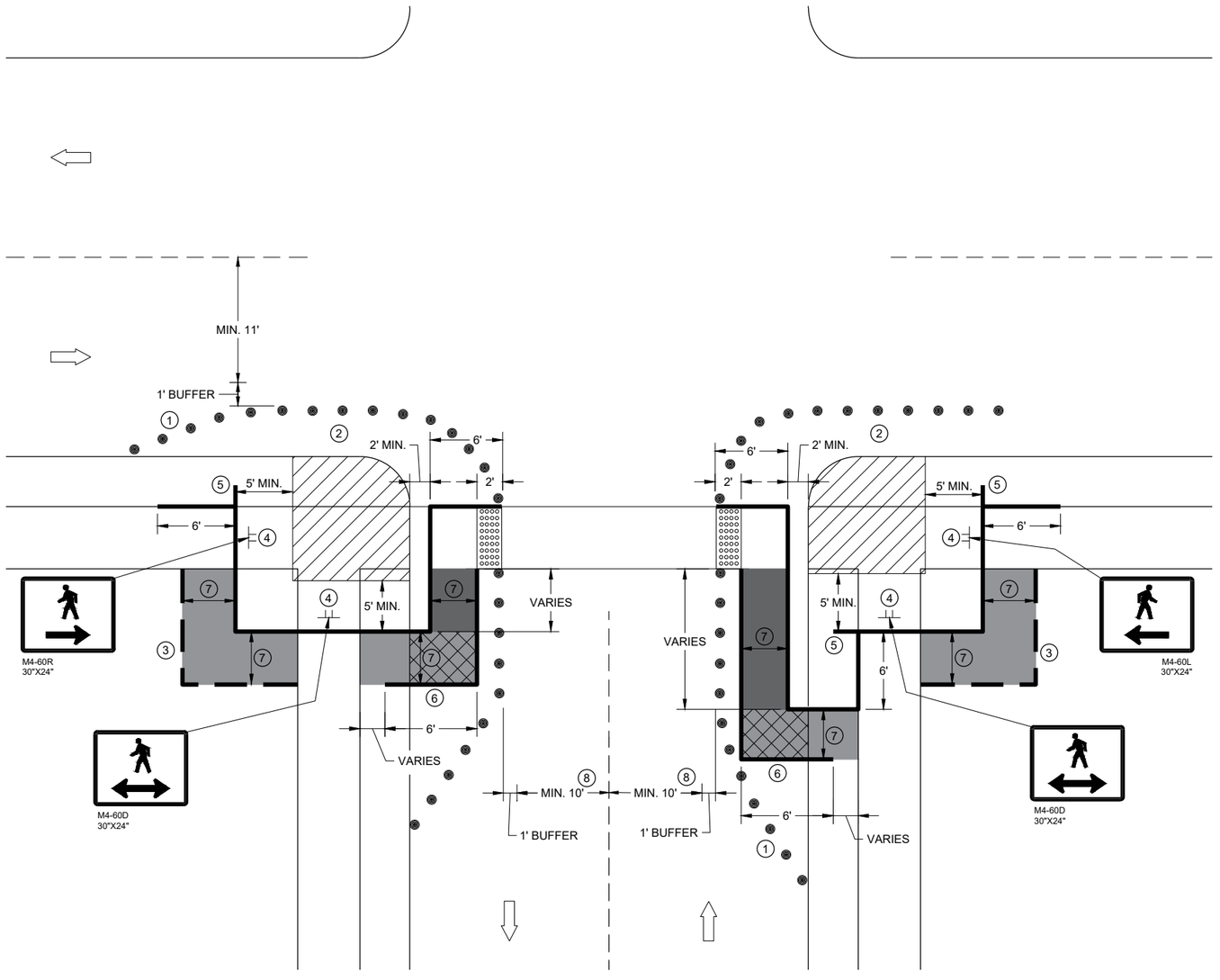
SIDEWALK DIVERSION, SINGLE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09h



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS

(3) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(4) MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.

(5) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.

(6) IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.

(7) 4 FEET MINIMUM, 5 FEET DESIRABLE

(8) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

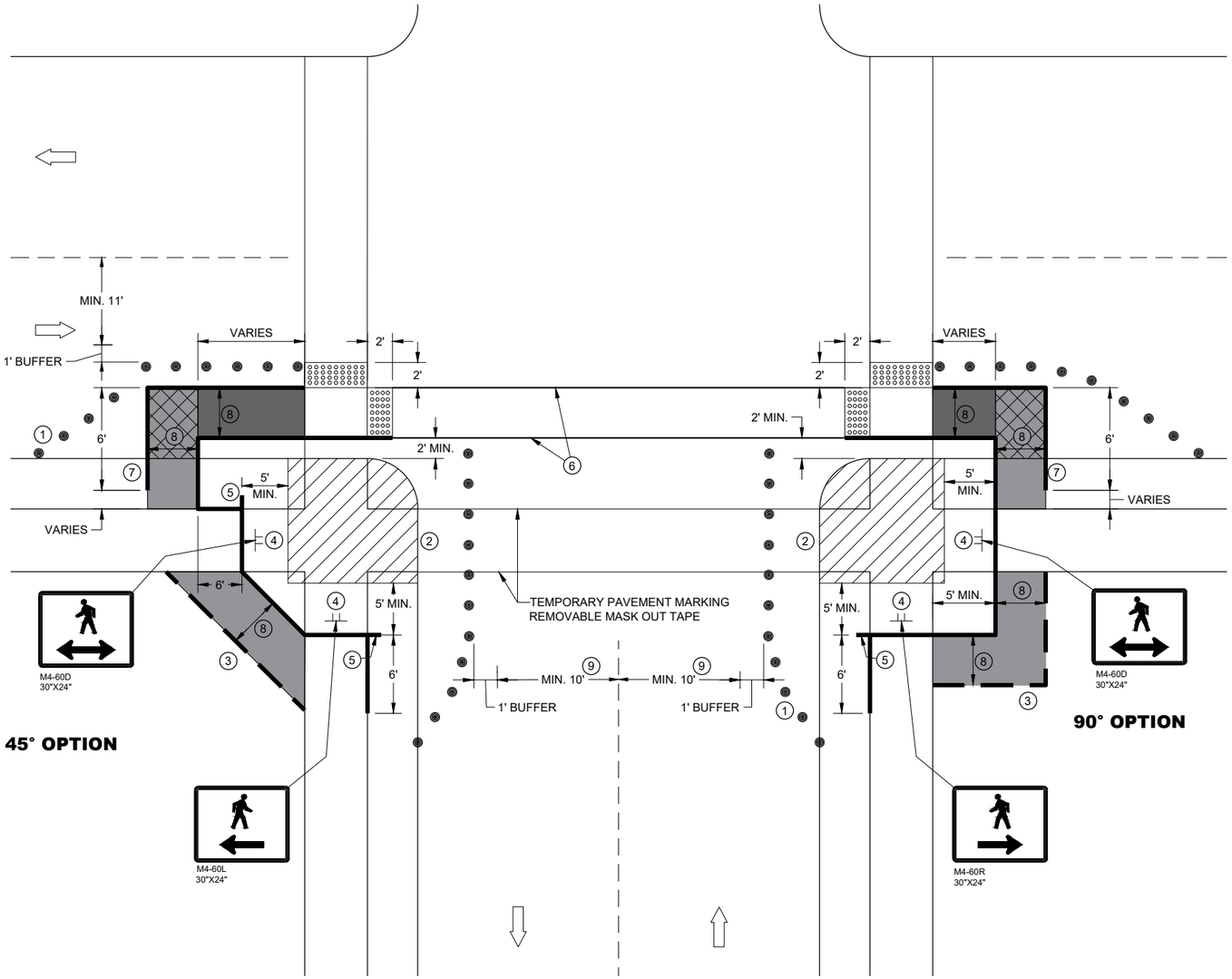
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

SDD 15D30 - 09i

6



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. WHITE 6" TEMPORARY PAVEMENT MARKING
7. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
8. 4 FEET MINIMUM, 5 FEET DESIRABLE
9. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

SDD 15D30 - 09j

6

LEGEND

SIGN ON PERMANENT SUPPORT

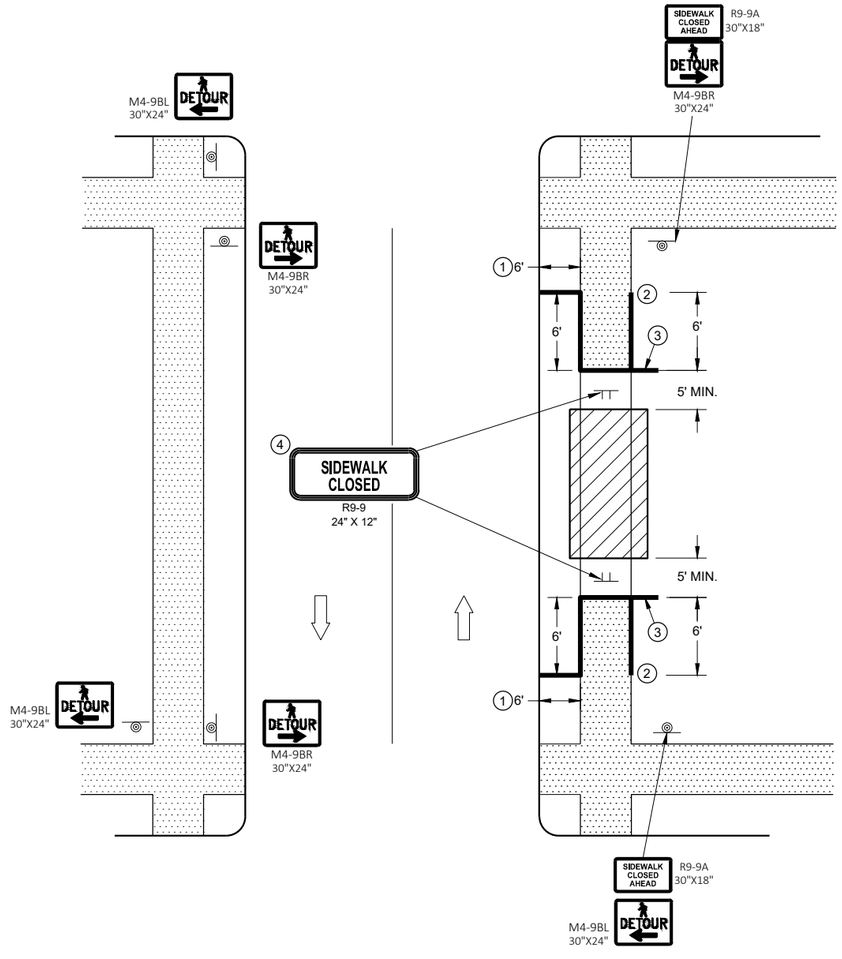
SIGN ON TEMPORARY SUPPORT

UNDER PEDESTRIAN TRAFFIC

WORK AREA

TEMPORARY PEDESTRIAN BARRICADE

DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

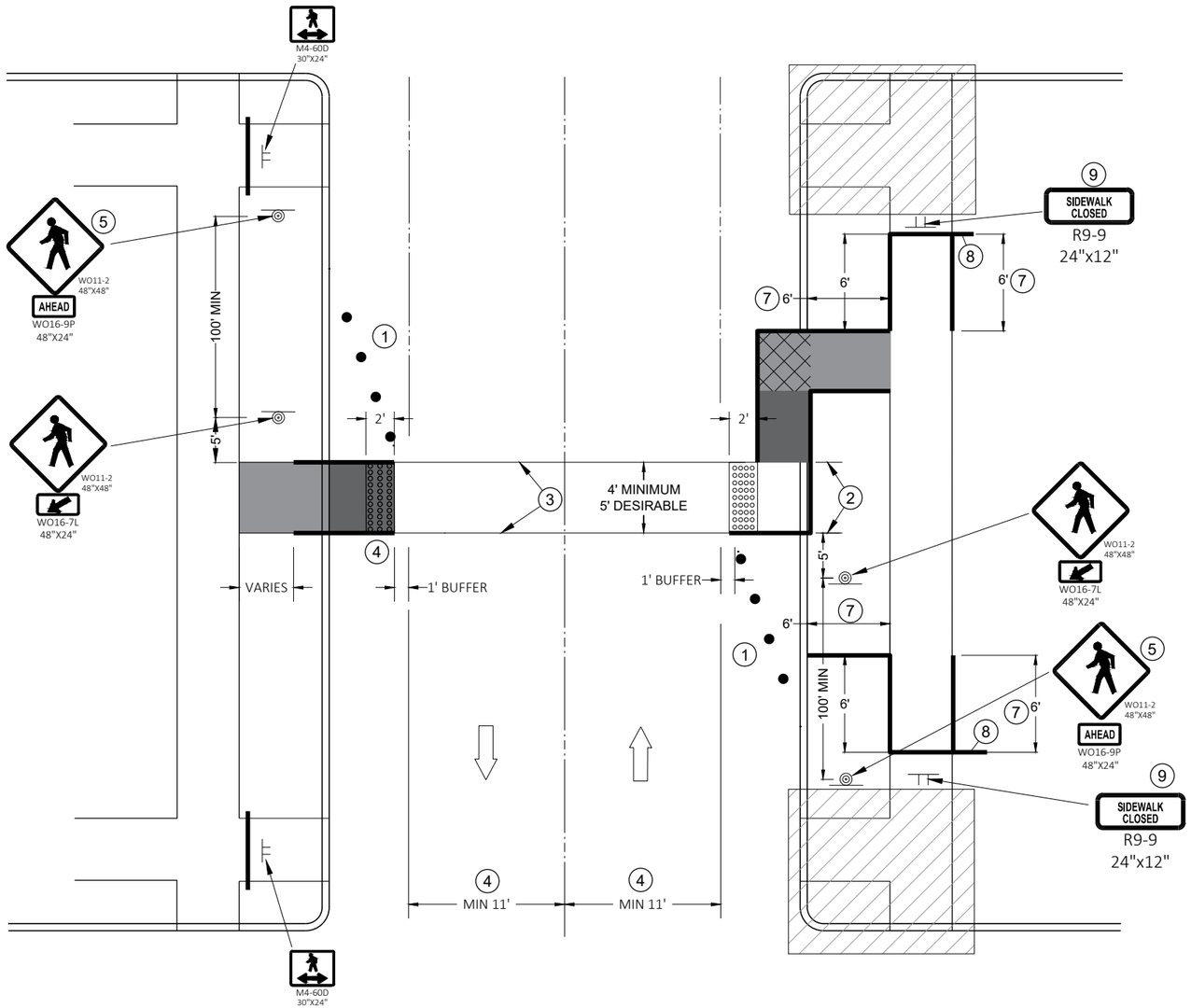
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

(1) SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) 4 FEET MINIMUM, 5 FEET DESIRABLE.

(3) WHITE 6" TEMPORARY PAVEMENT MARKING.

(4) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.

(5) IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.

(6) IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.

(7) PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.

(8) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(9) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

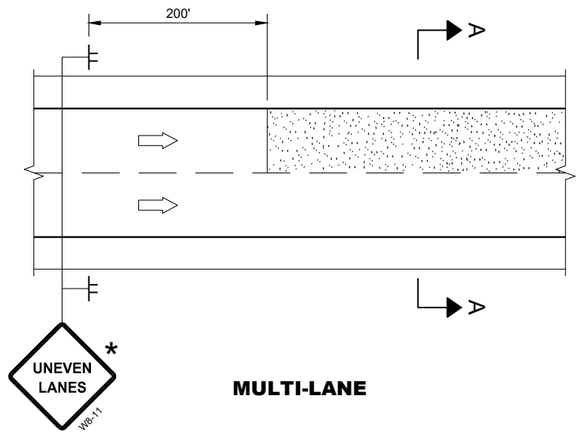
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

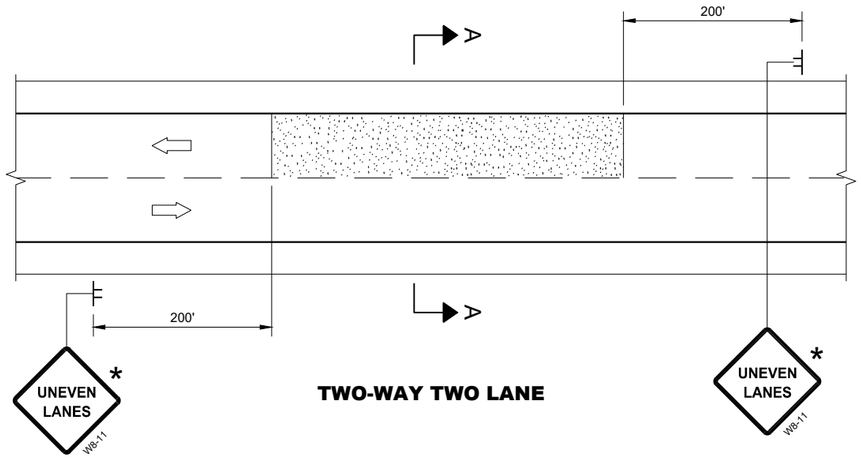
6

SDD 15D30 - 09L

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

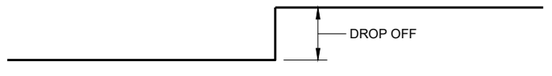
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

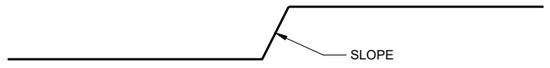
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

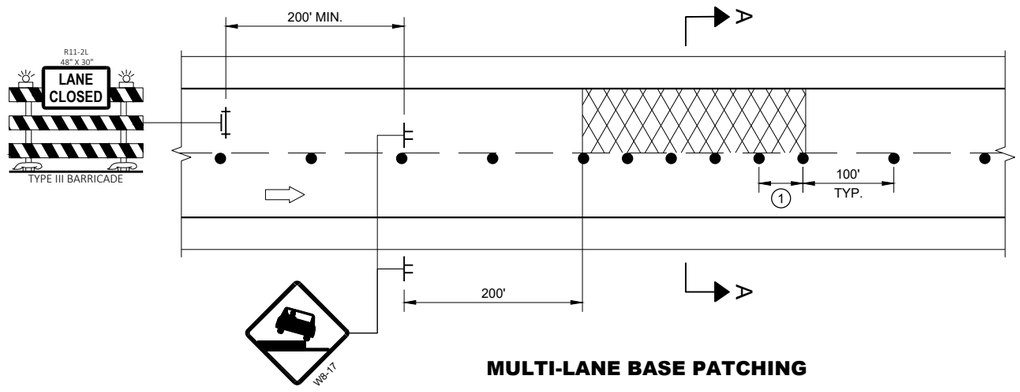


SECTION A - A

OR

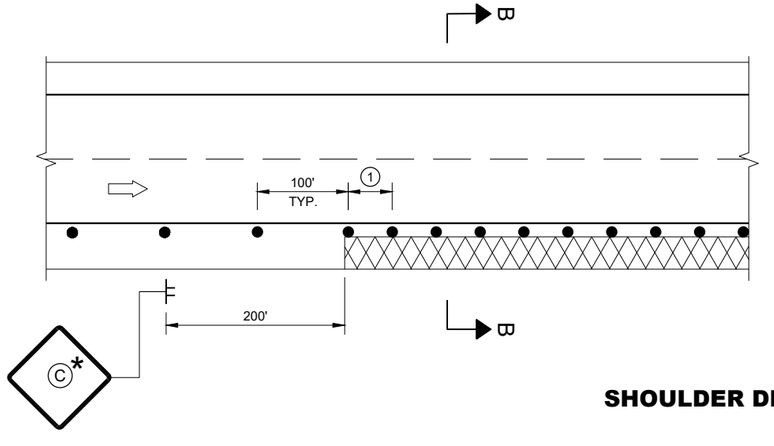


SECTION A - A

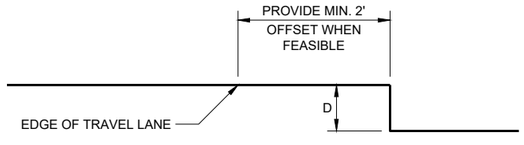


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

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

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

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

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

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

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

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

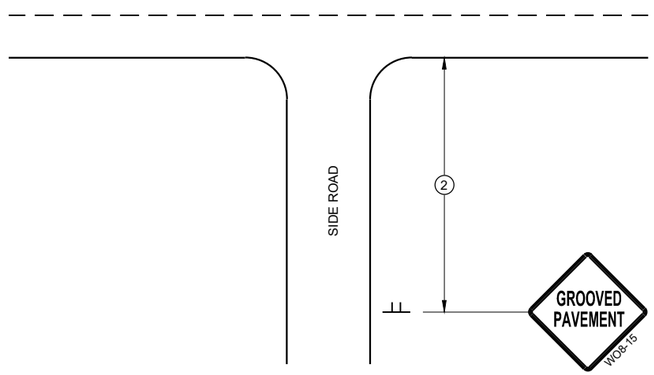
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

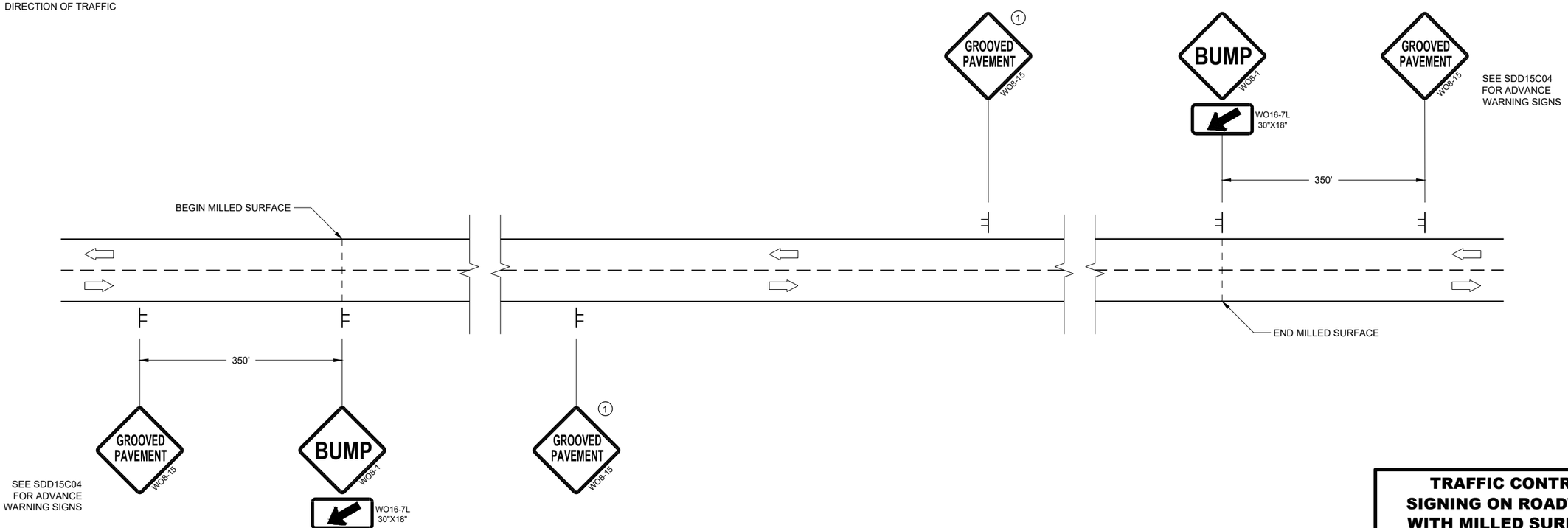
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

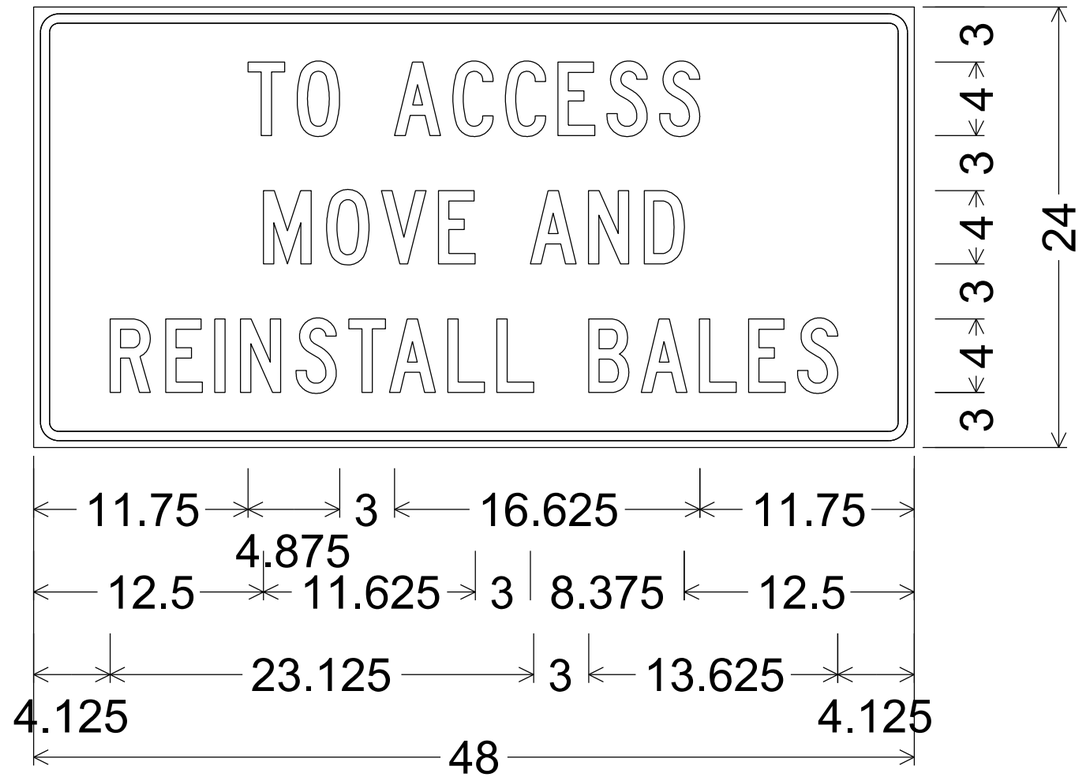
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15D44 - 02

NOTES

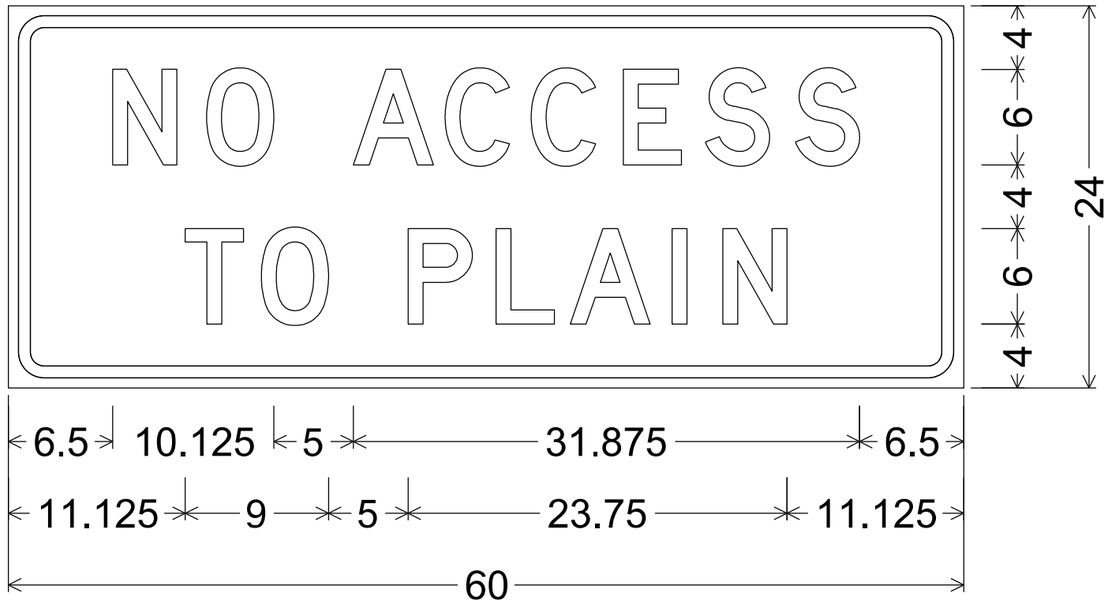
1. Fixed Message Sign Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



1.375" Radius, 0.500" Border, 0.375" Indent

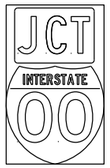
NOTES

1. Fixed Message Sign Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

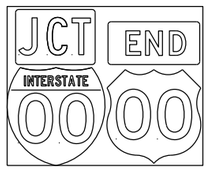


2.250" Radius, 0.750" Border, 0.625" Indent

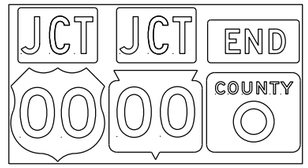
TYPICAL ASSEMBLIES



J1-1



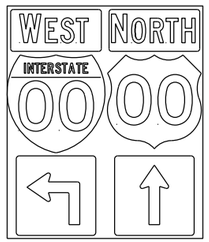
J1-2



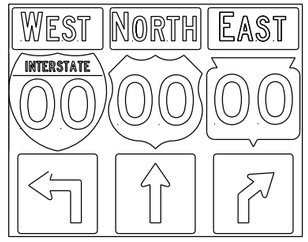
J1-3

JR1-1

J2-1

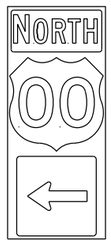


J2-2

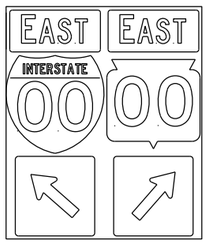


J2-3

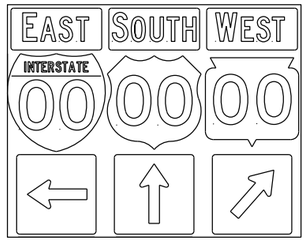
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



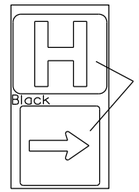
J3-1



J3-2

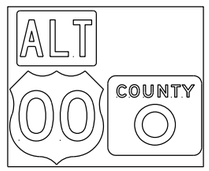


J3-3

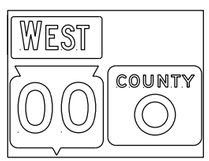


Blue Background
JH-1

J4-1

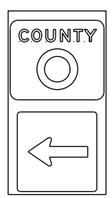


J4-2



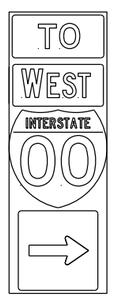
J4-2

J12-1

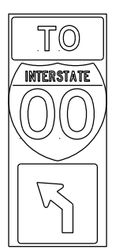


J13-1

J32-1



J33-1



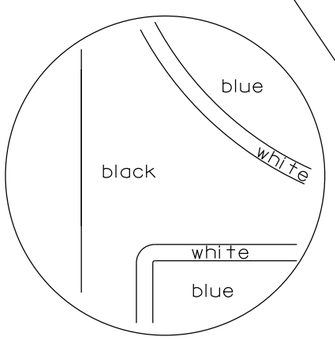
J22-1

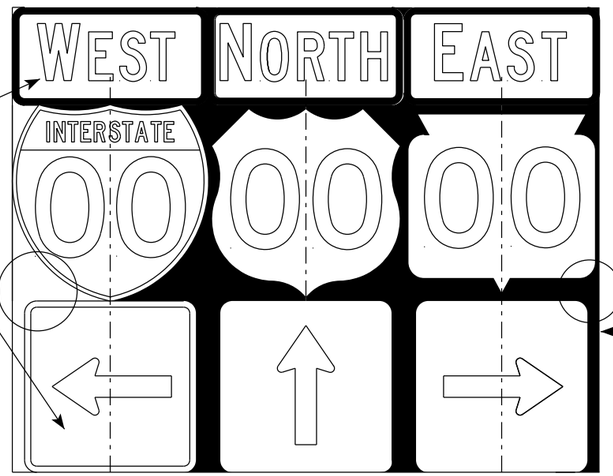
J23-1

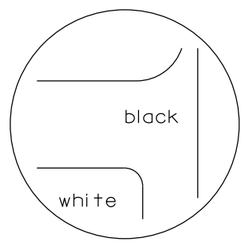
JR13-1

JR23-1

JR99-1







black background

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

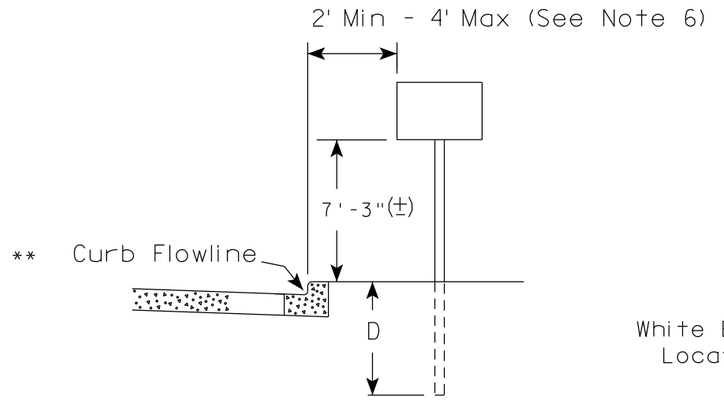
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

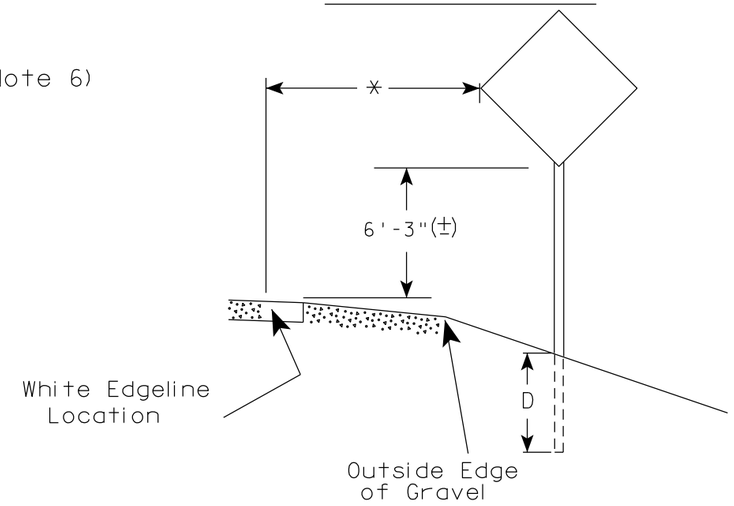
PROJECT NO:

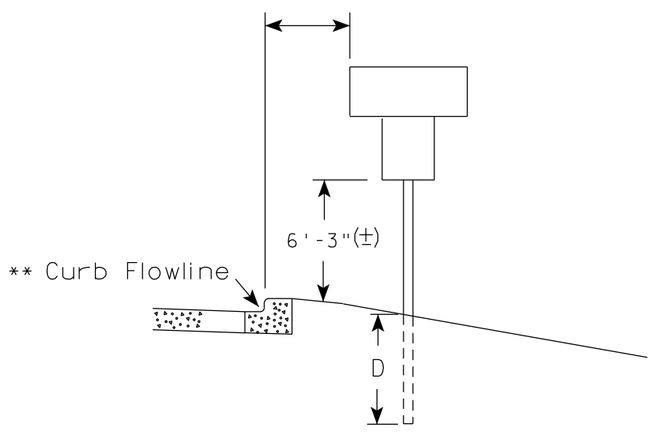
SHEET NO: 304 **E**

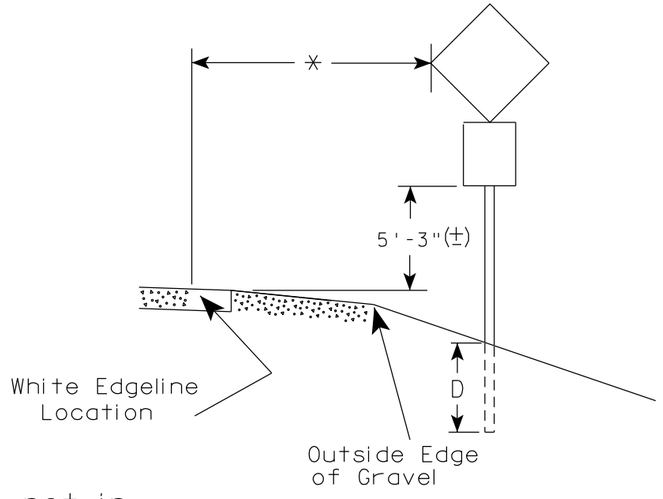
URBAN AREA



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" (±). 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. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

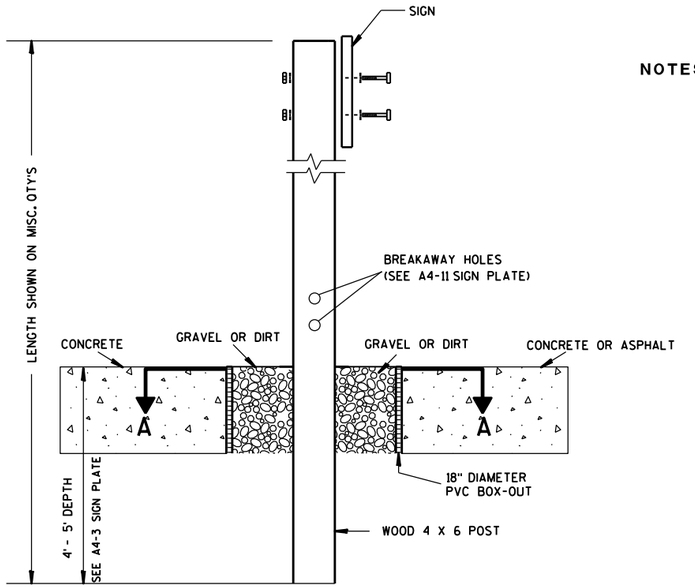
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

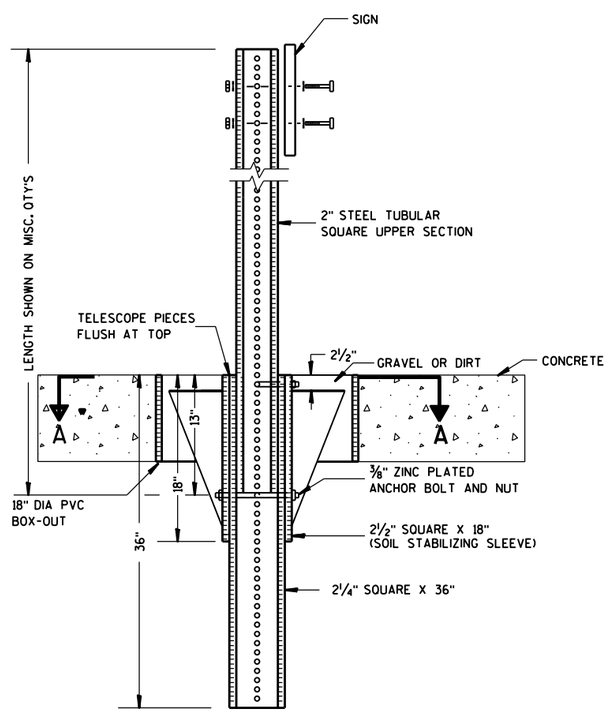
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 305	E



ELEVATION VIEW

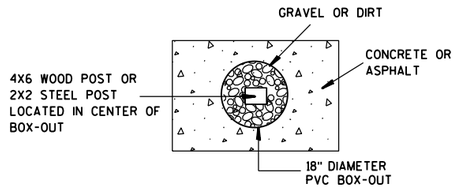
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

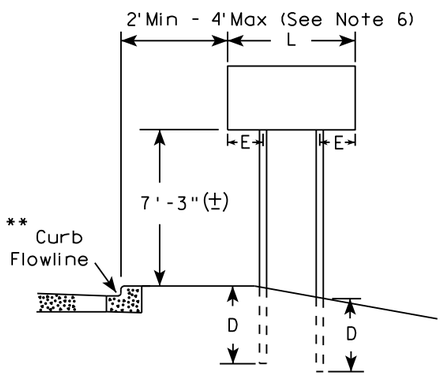
APPROVED Matthew R Rauch
for State Traffic Engineer

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

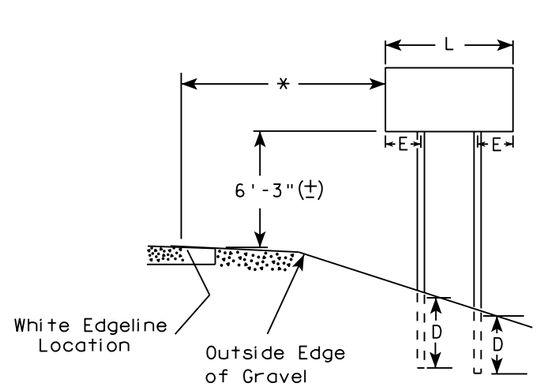
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

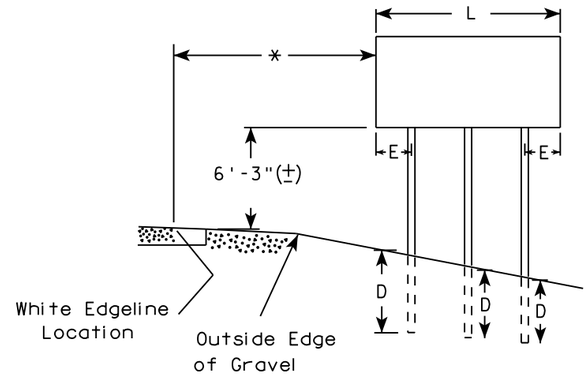
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

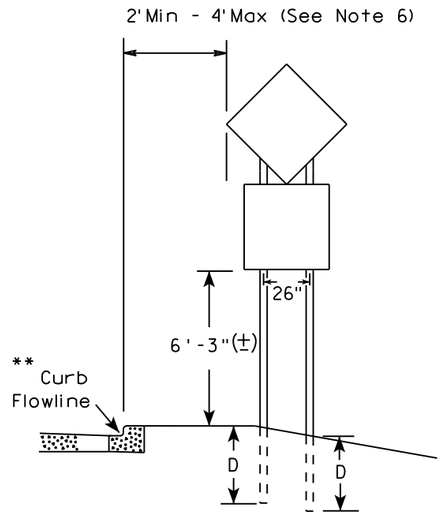
URBAN AREA



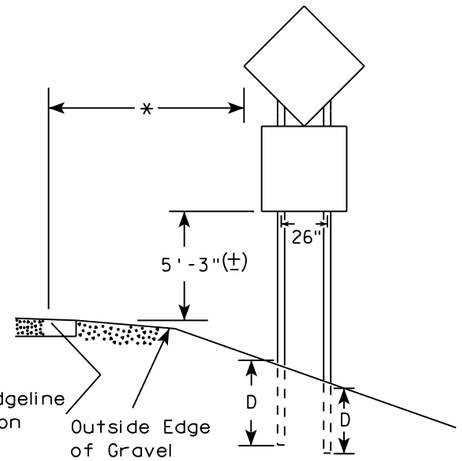
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

***

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

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-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" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

POST EMBEDMENT DEPTH

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

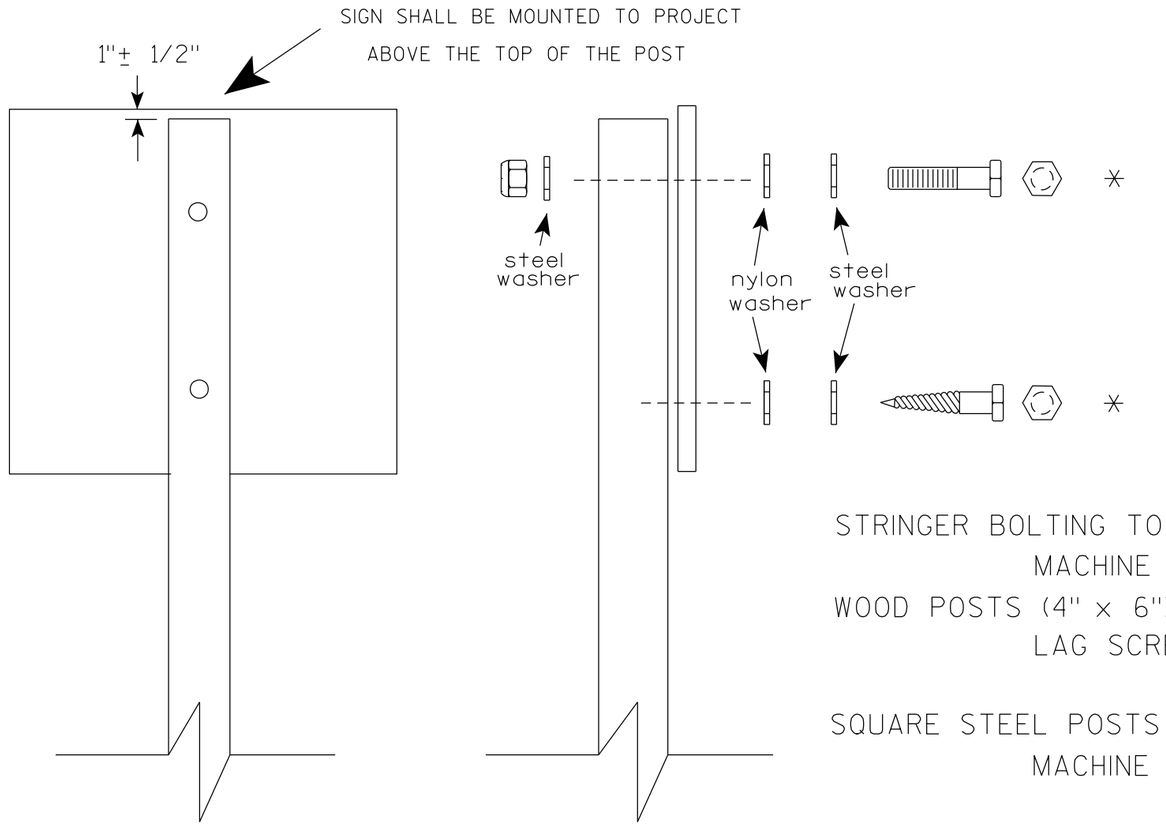
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 307	E



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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

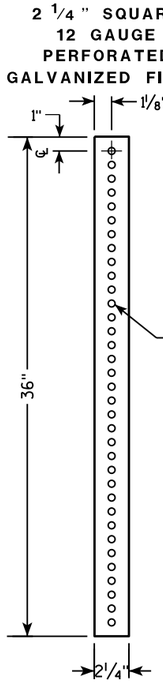
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

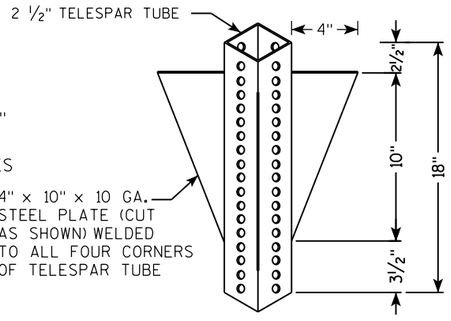
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

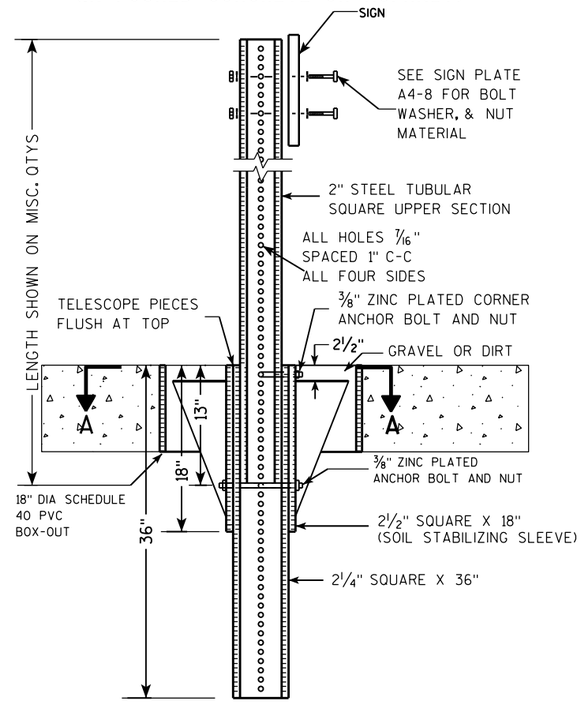
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



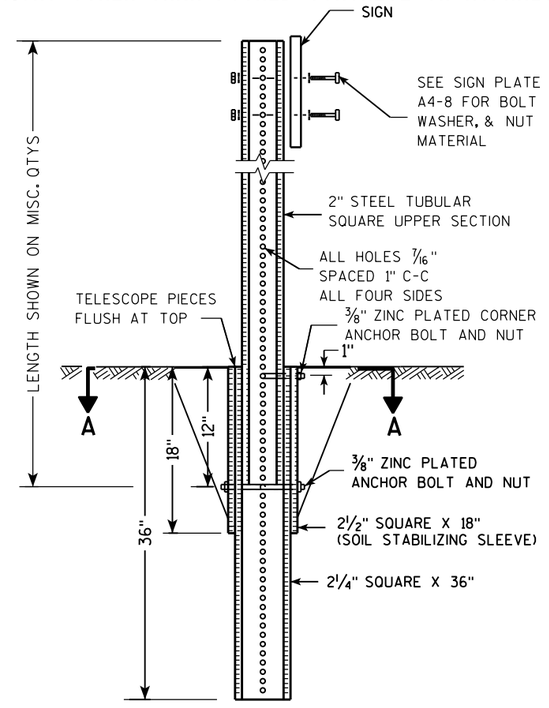
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

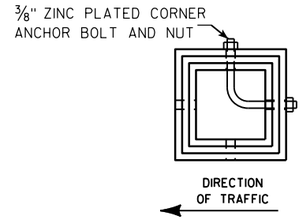


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

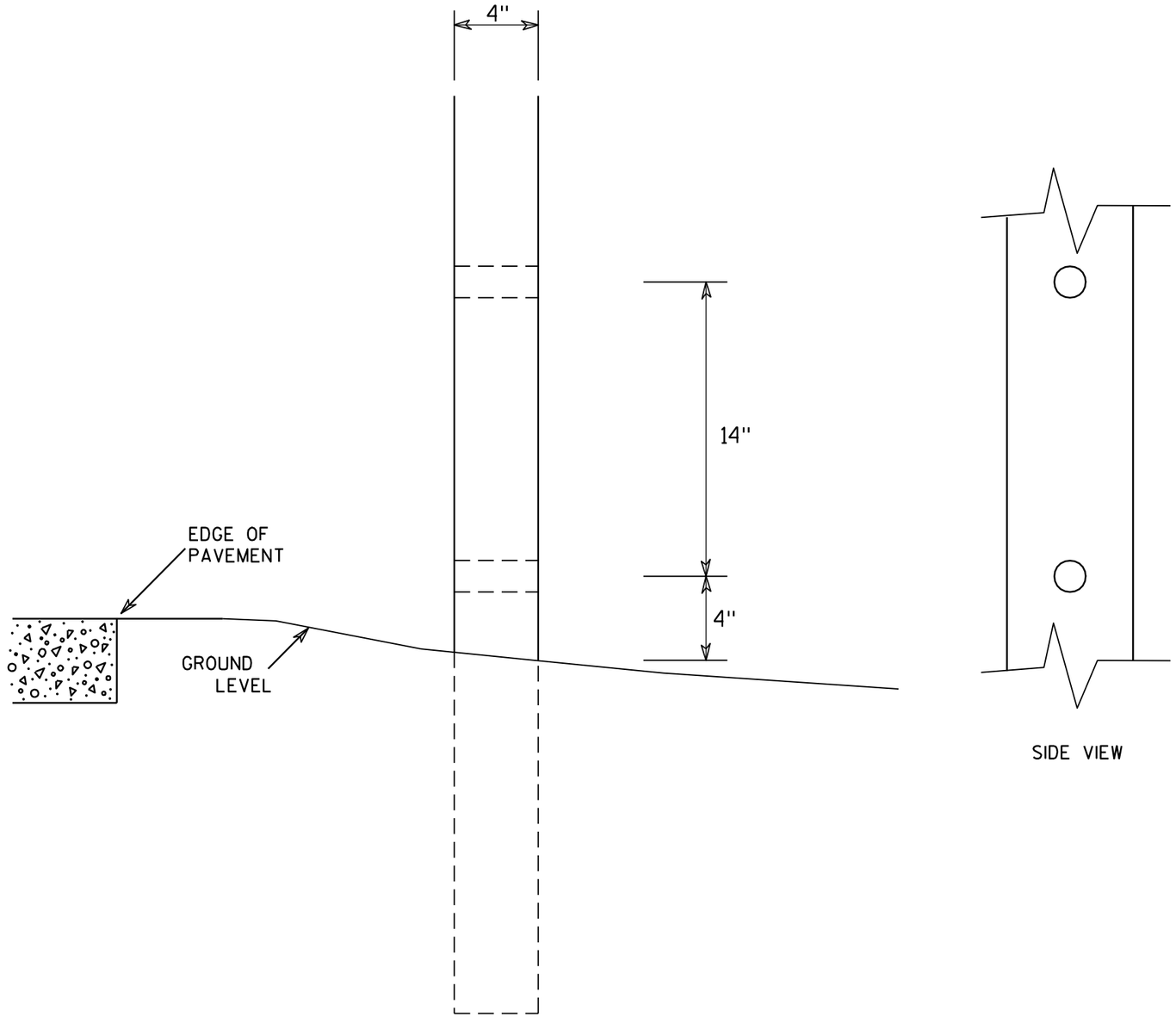
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 309 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

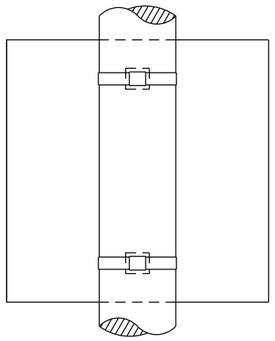
APPROVED Chester J Spang for State Traffic Engineer

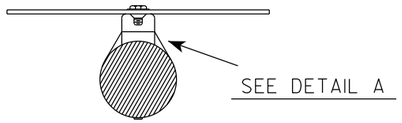
DATE 3/27/97 PLATE NO. A4-11.2

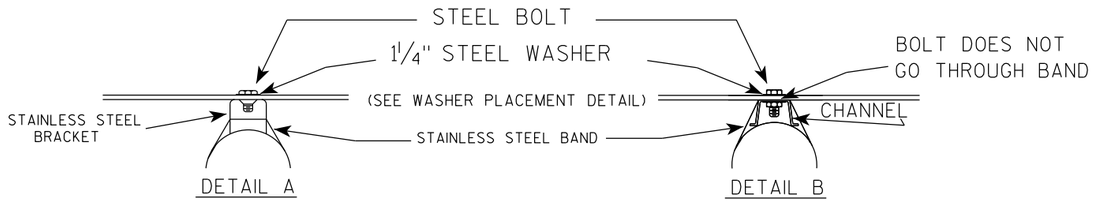
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 310	E

BANDING

SINGLE SIGN



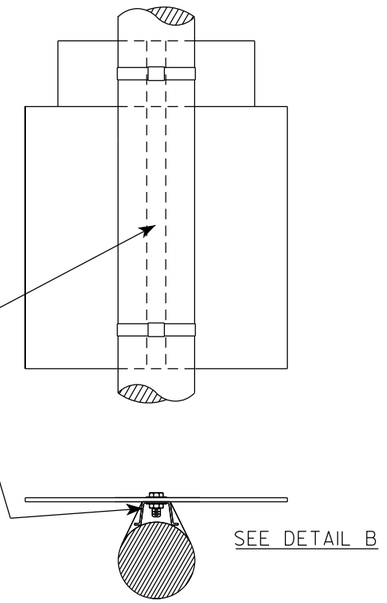




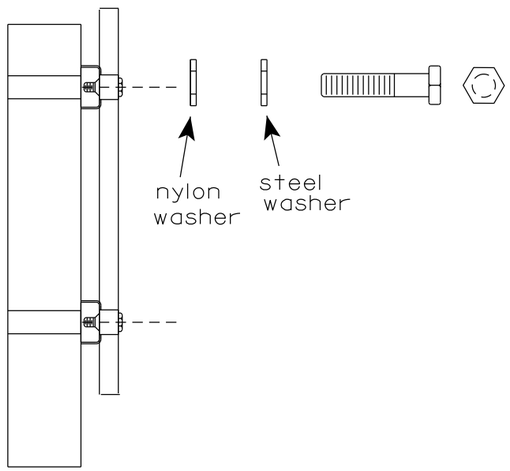
GENERAL NOTES

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

"J" ASSEMBLY



WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

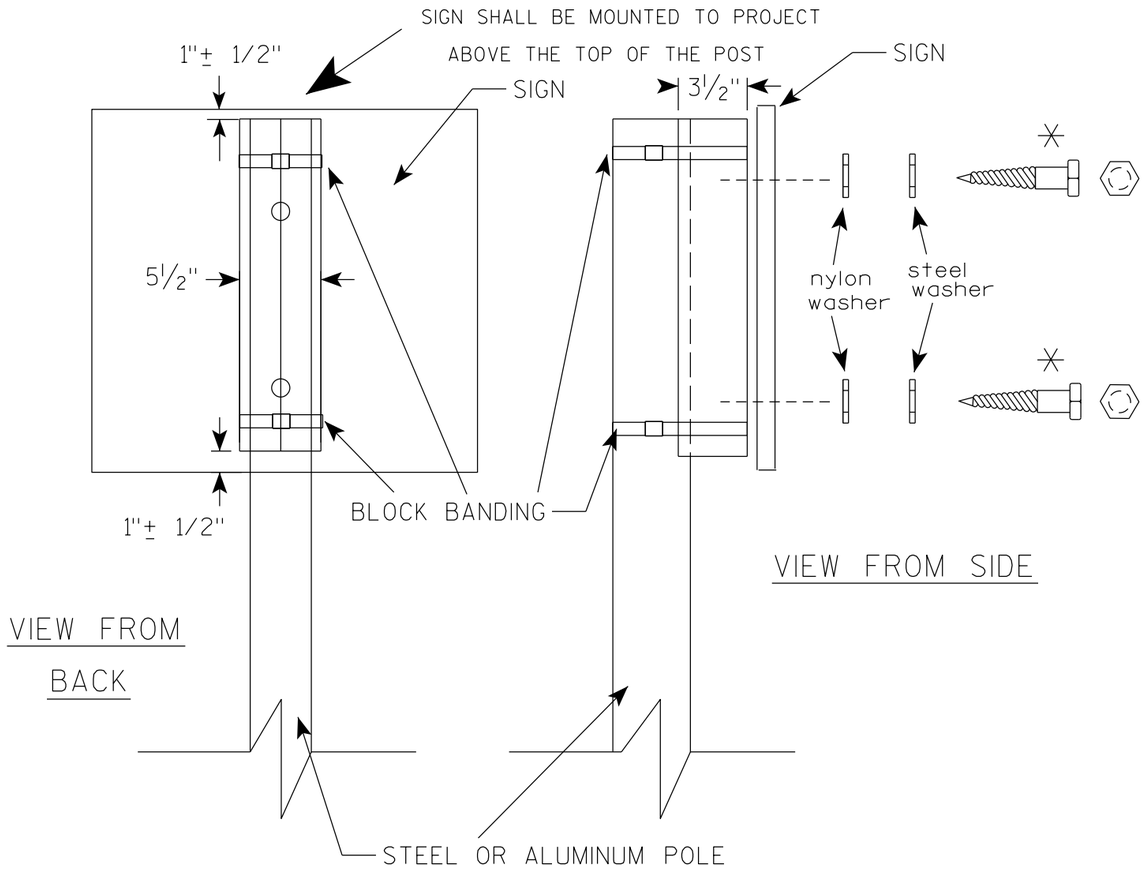
DATE 6/10/19 PLATE NO. A5-9.4

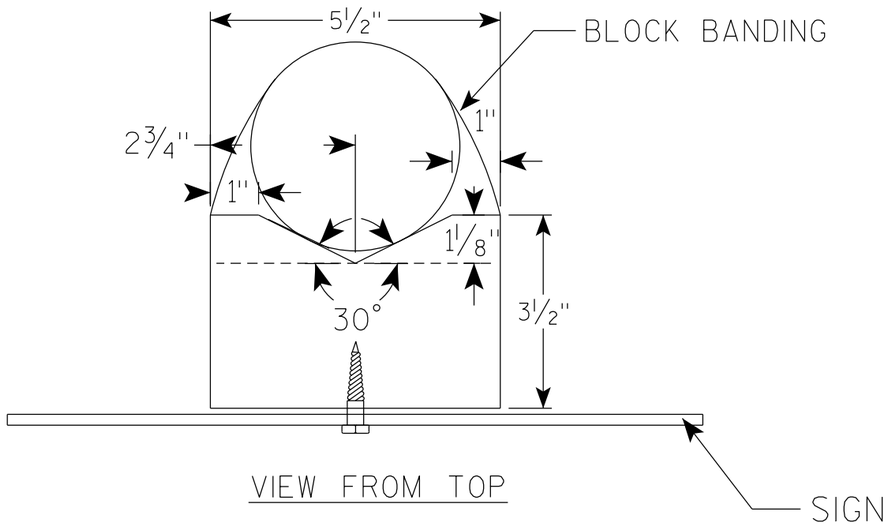
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 311	E

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)

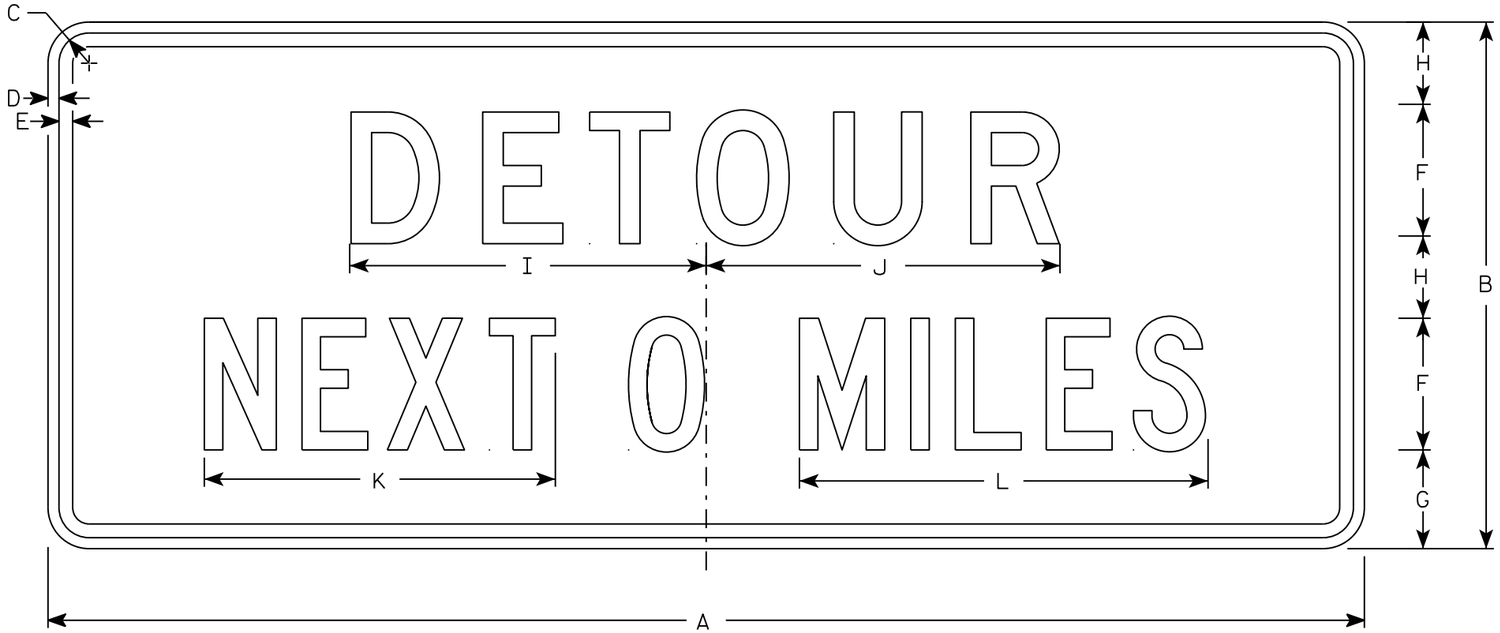
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 312 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 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

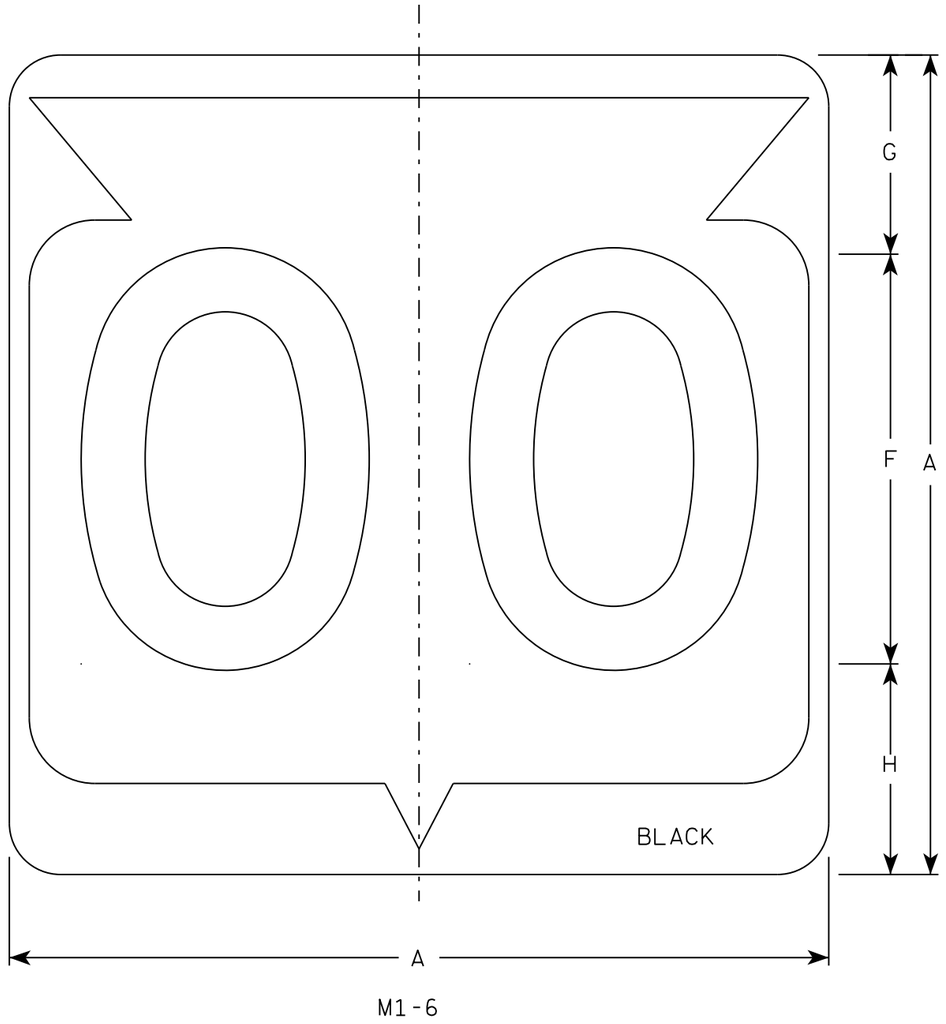
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-51.2

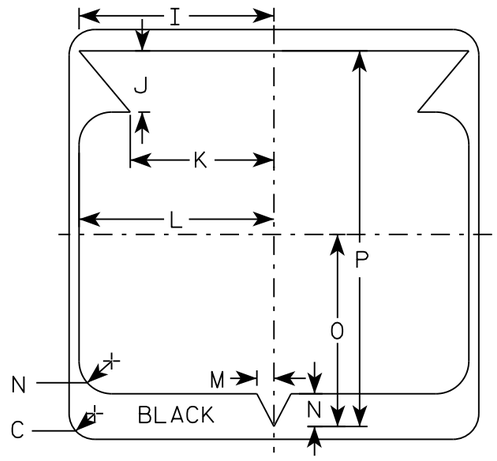
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 313	E



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
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		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

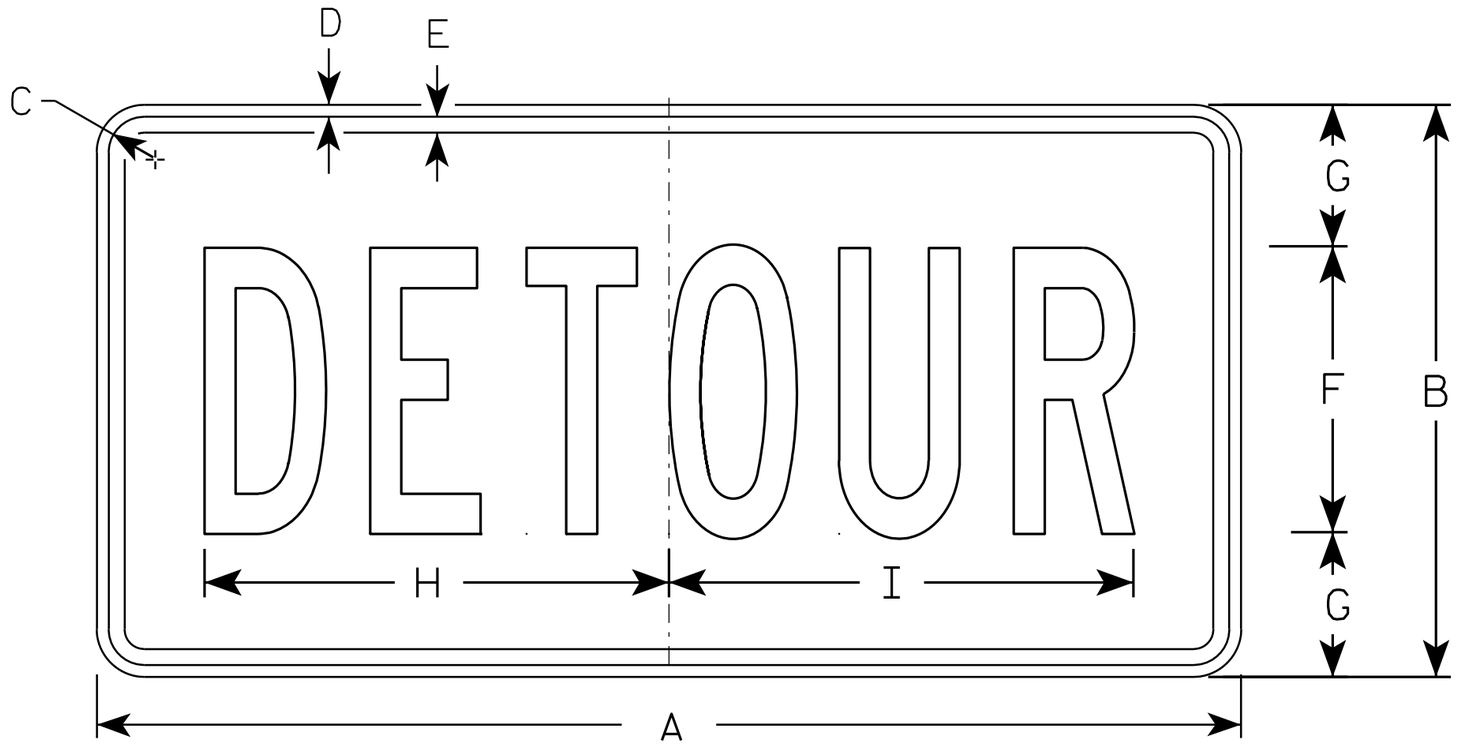
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 314 | E



M4-8

NOTES

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

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

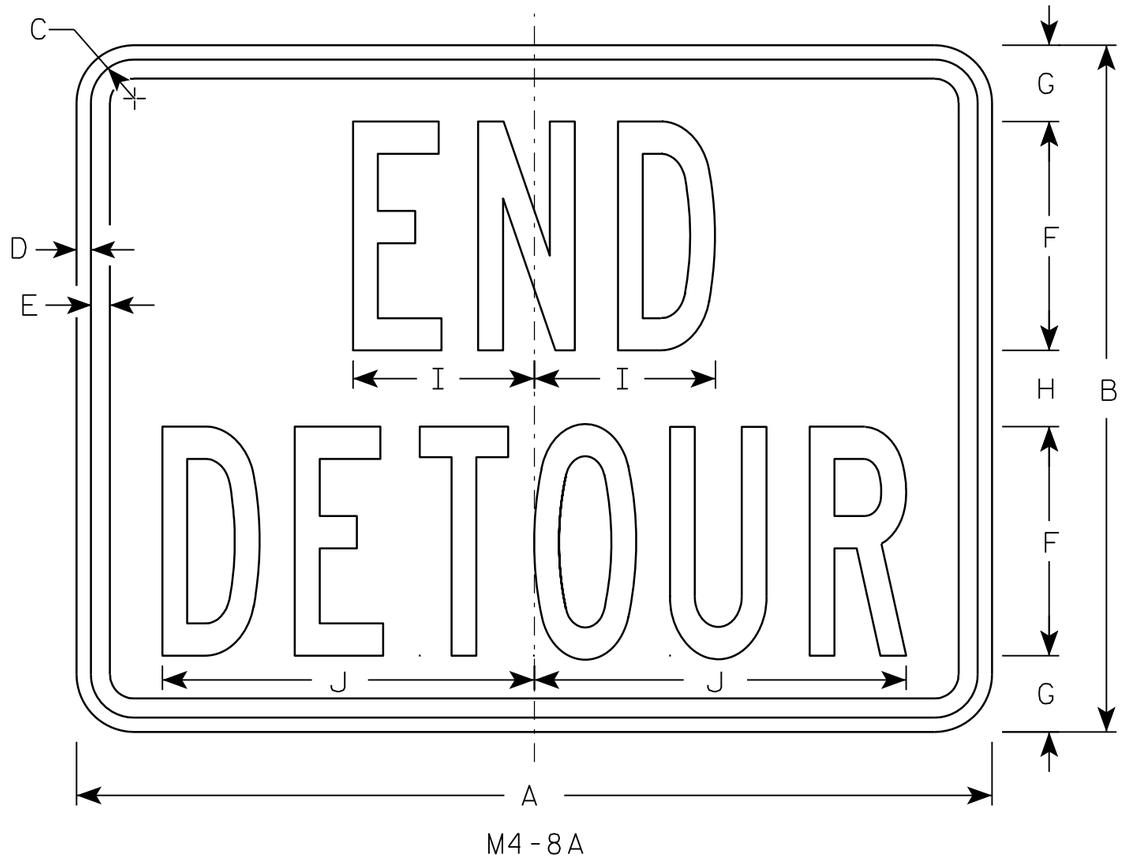
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 315	E



M4-8A

NOTES

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

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

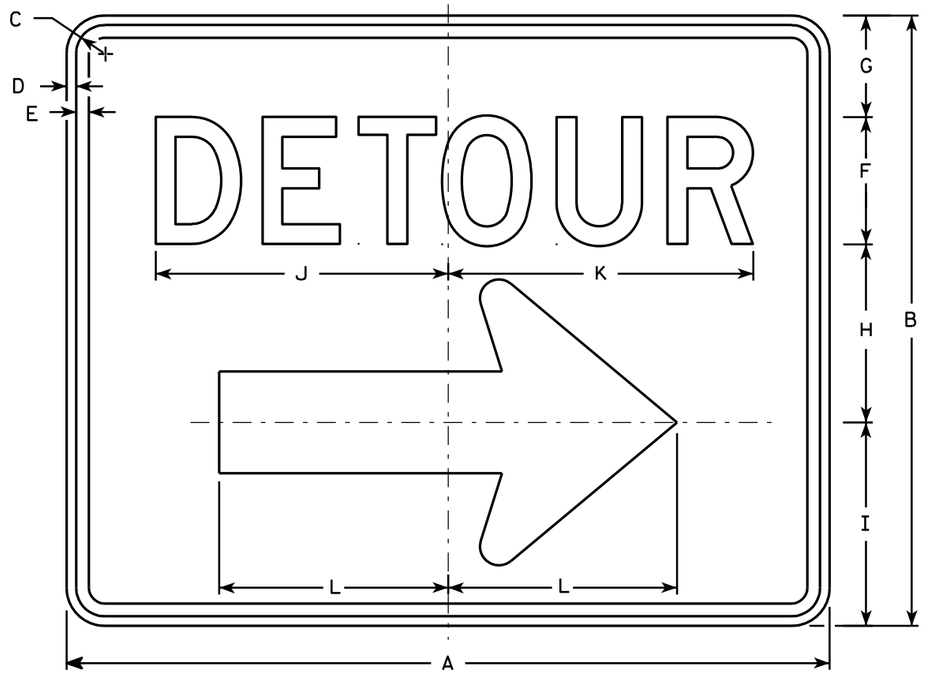
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

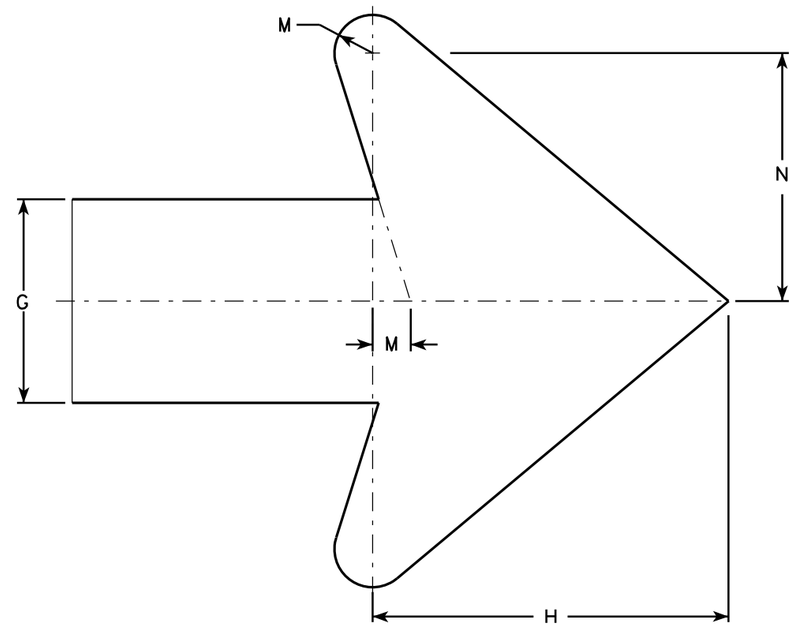
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 316	E



M4-9R

NOTES

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



Arrow Detail

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

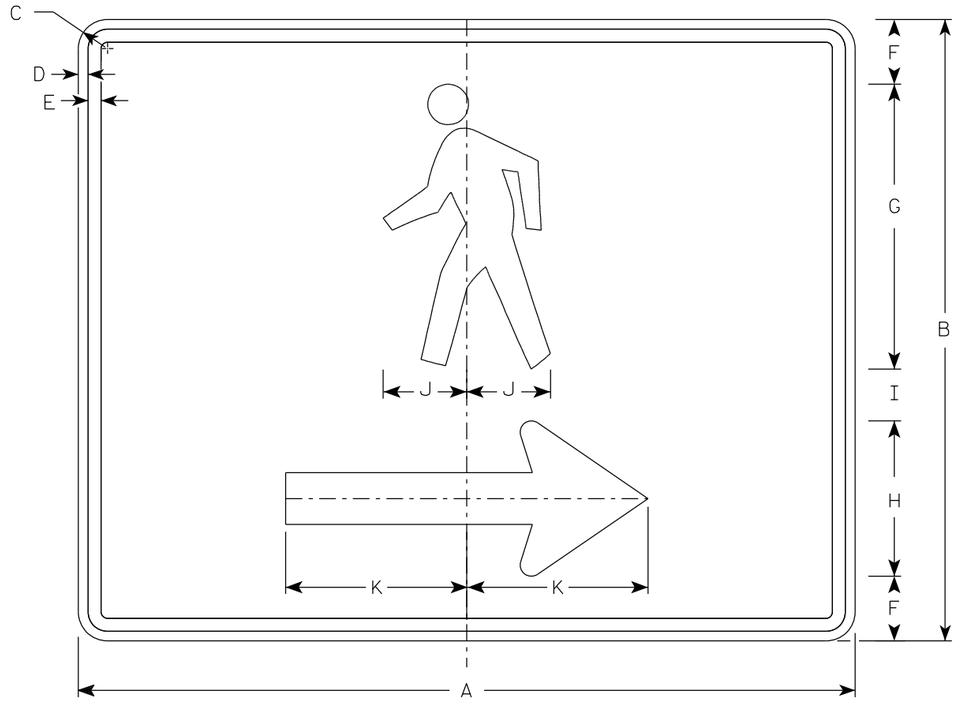
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

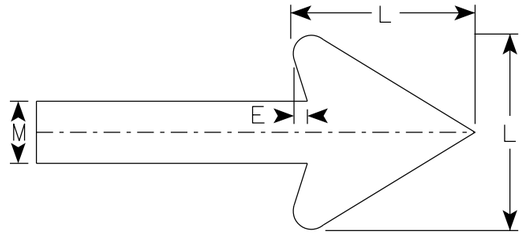
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 317 | E



M4-60R

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



Arrow Detail

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

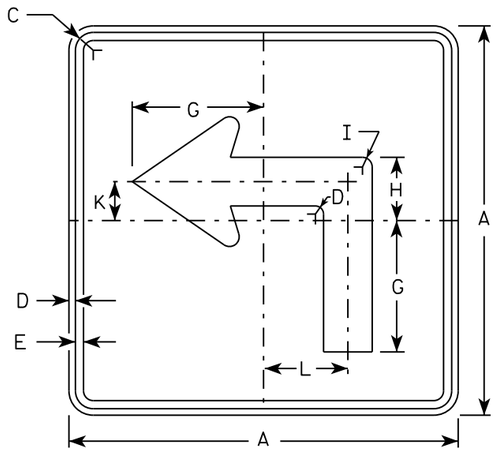
STANDARD SIGN
M4-60 L&R

WISCONSIN DEPT OF TRANSPORTATION

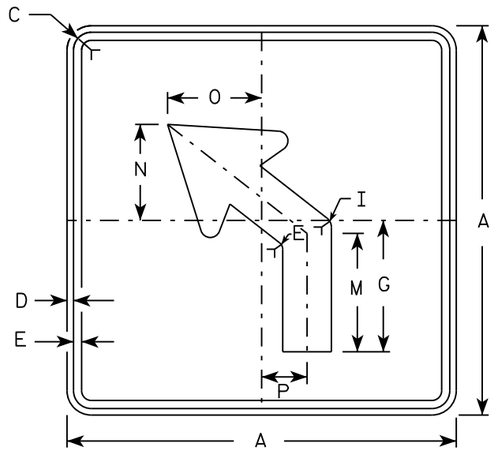
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/16/2021 PLATE NO. M4-60.1

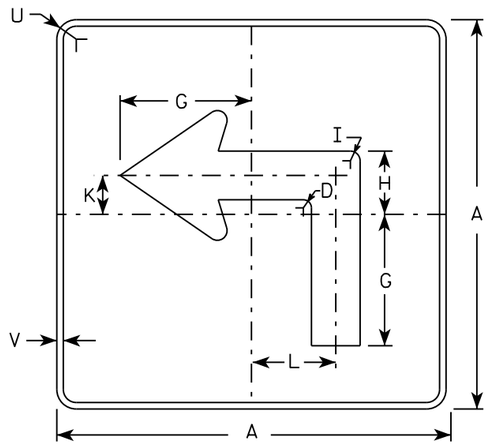
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 318 | E



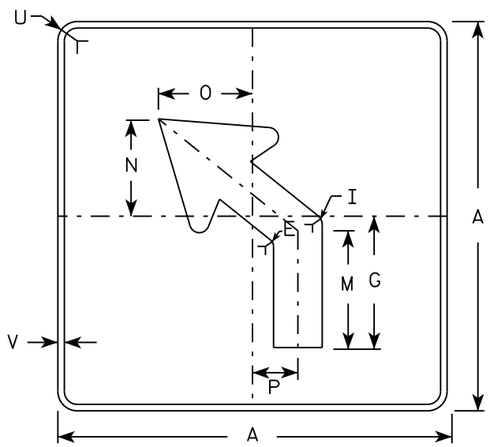
M5-1L
MM5-1L
MO5-1L
MP5-1L



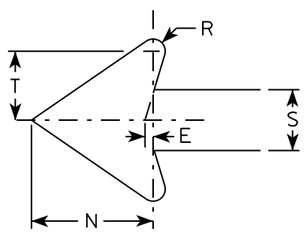
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

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

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

STANDARD SIGN
M5-1 & M5-2

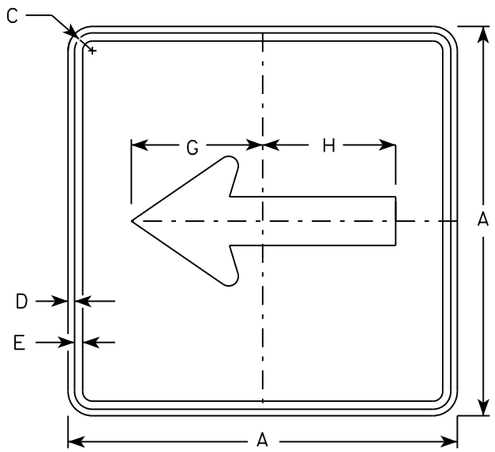
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

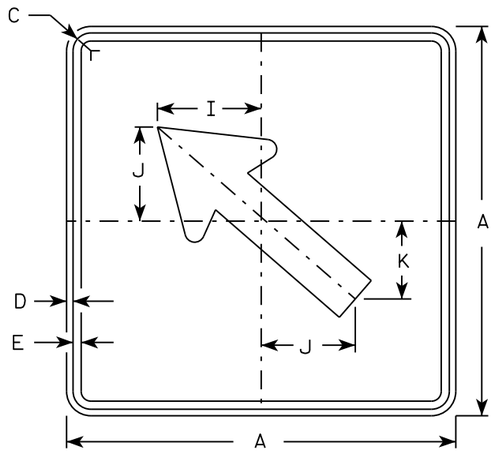
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



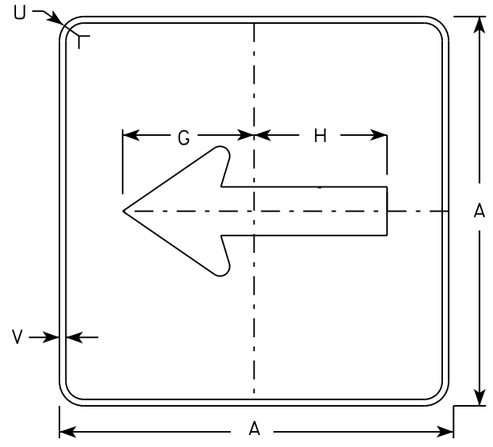
M6-1
MM6-1
MO6-1
MP6-1



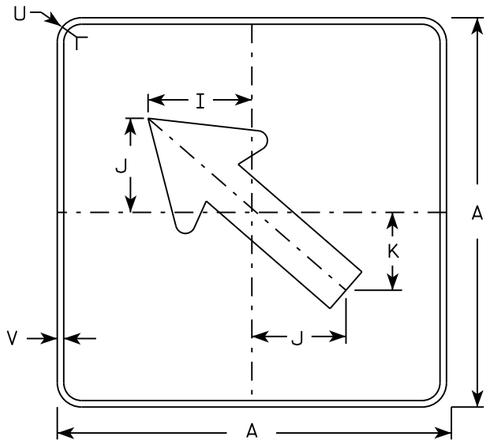
M6-2
MM6-2
MO6-2
MP6-2

NOTES

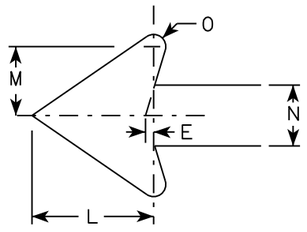
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

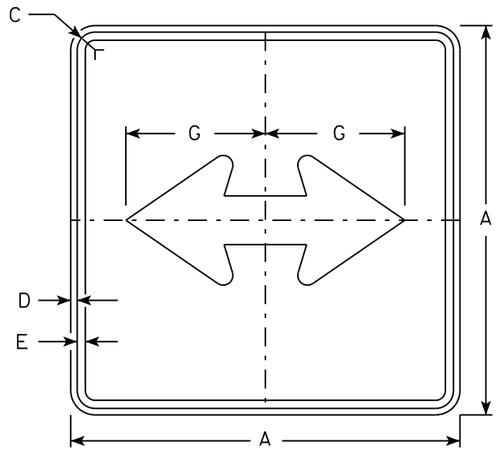
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

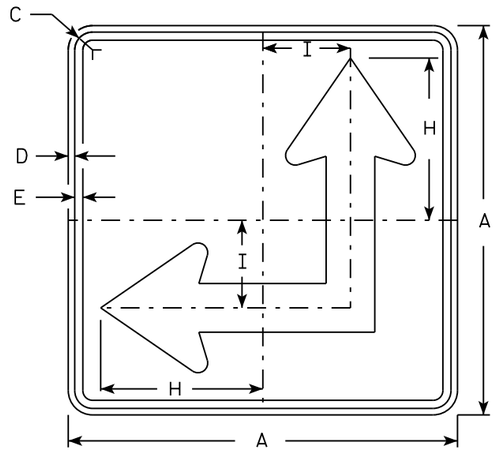
DATE 10/15/15 PLATE 320 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



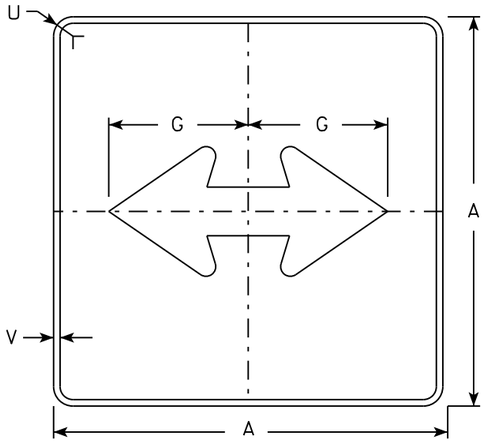
M6-4
MM6-4
MO6-4
MP6-4



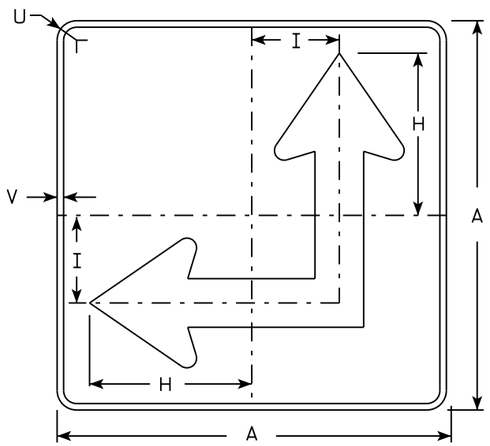
M6-6
MM6-6
MO6-6
MP6-6

NOTES

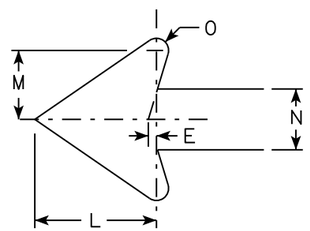
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



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

STANDARD SIGN
M6-4 & M6-6
SERIES

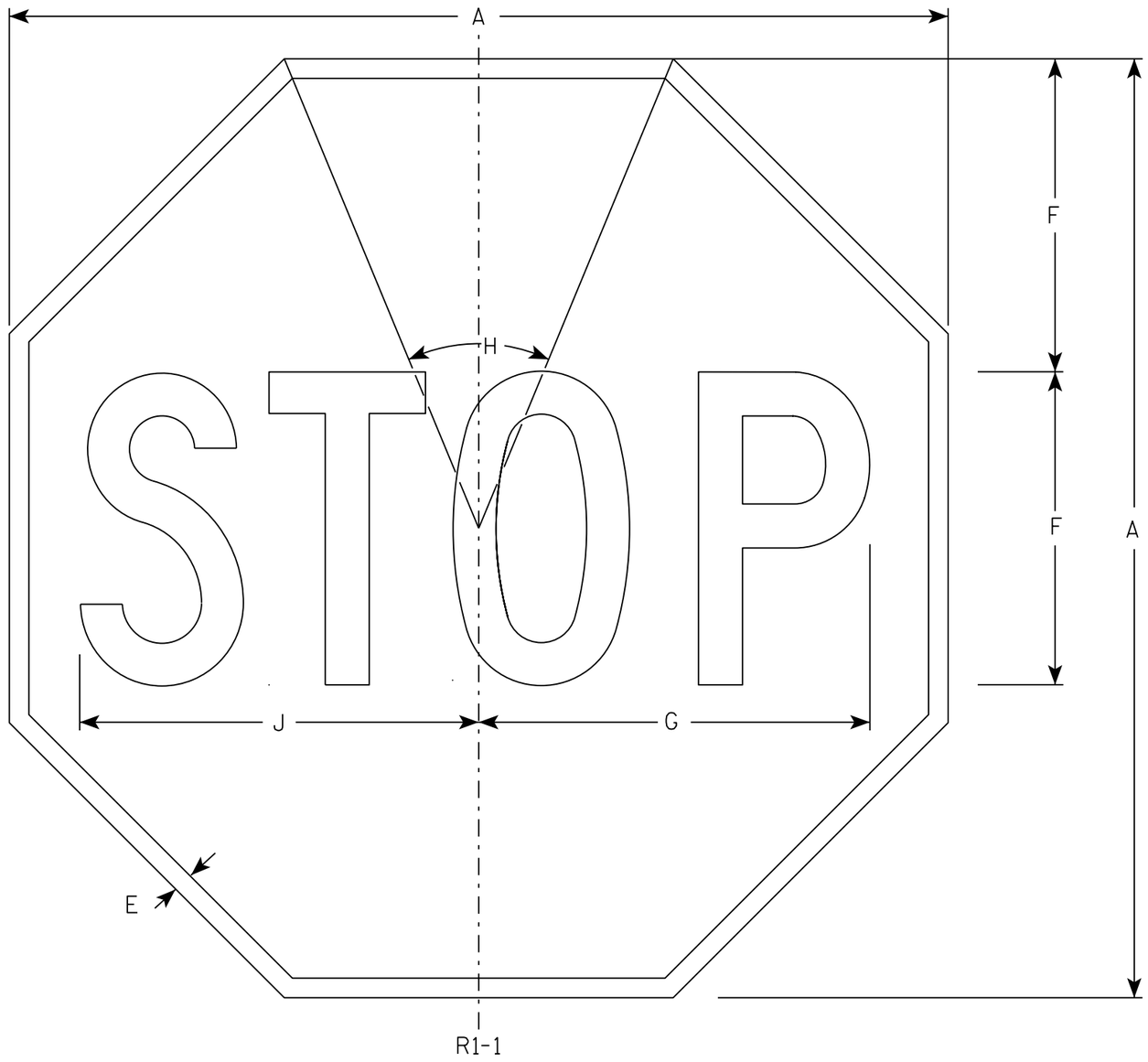
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 321 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

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

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

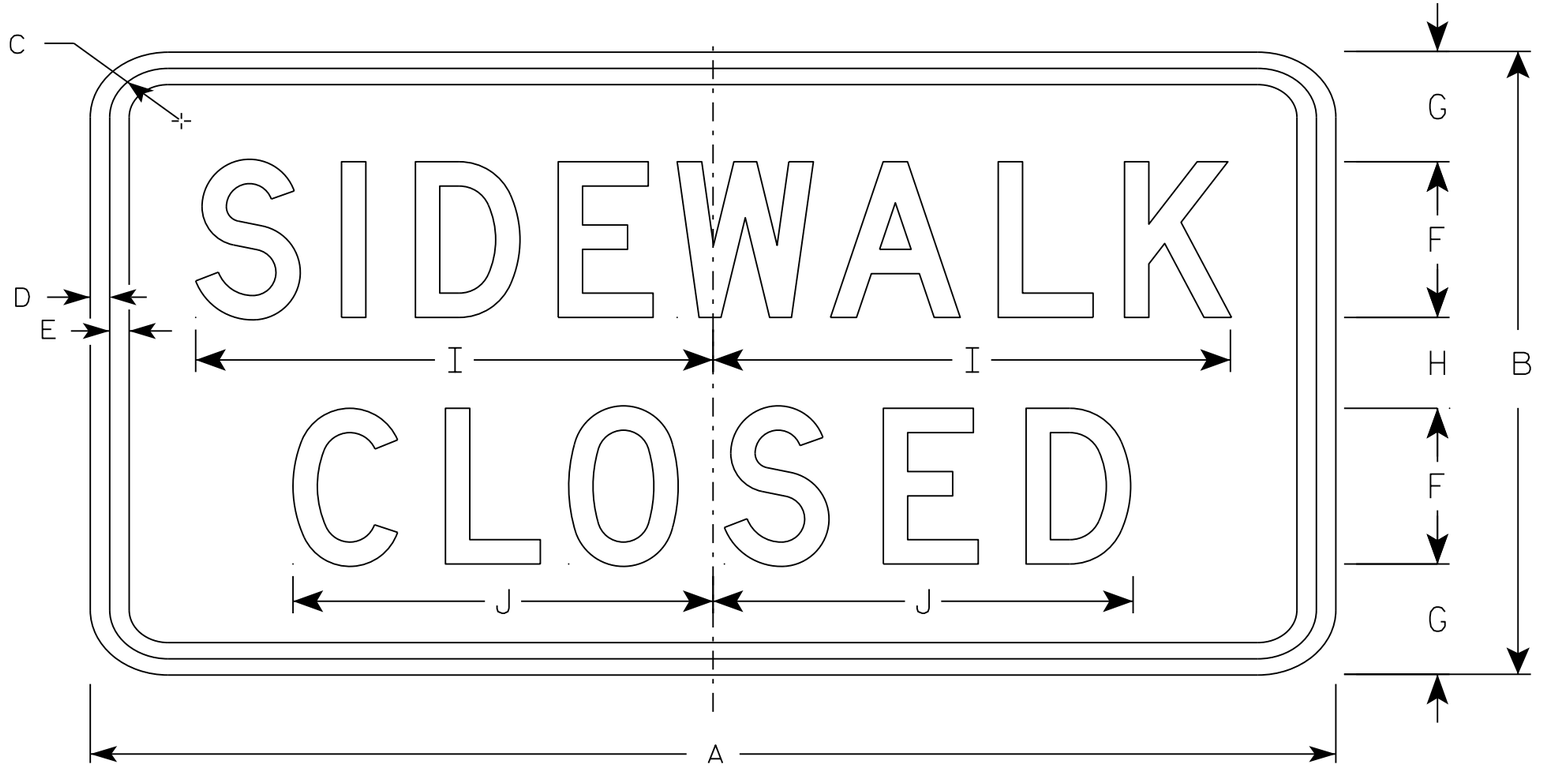
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 322	E



R9-9

NOTES

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

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 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

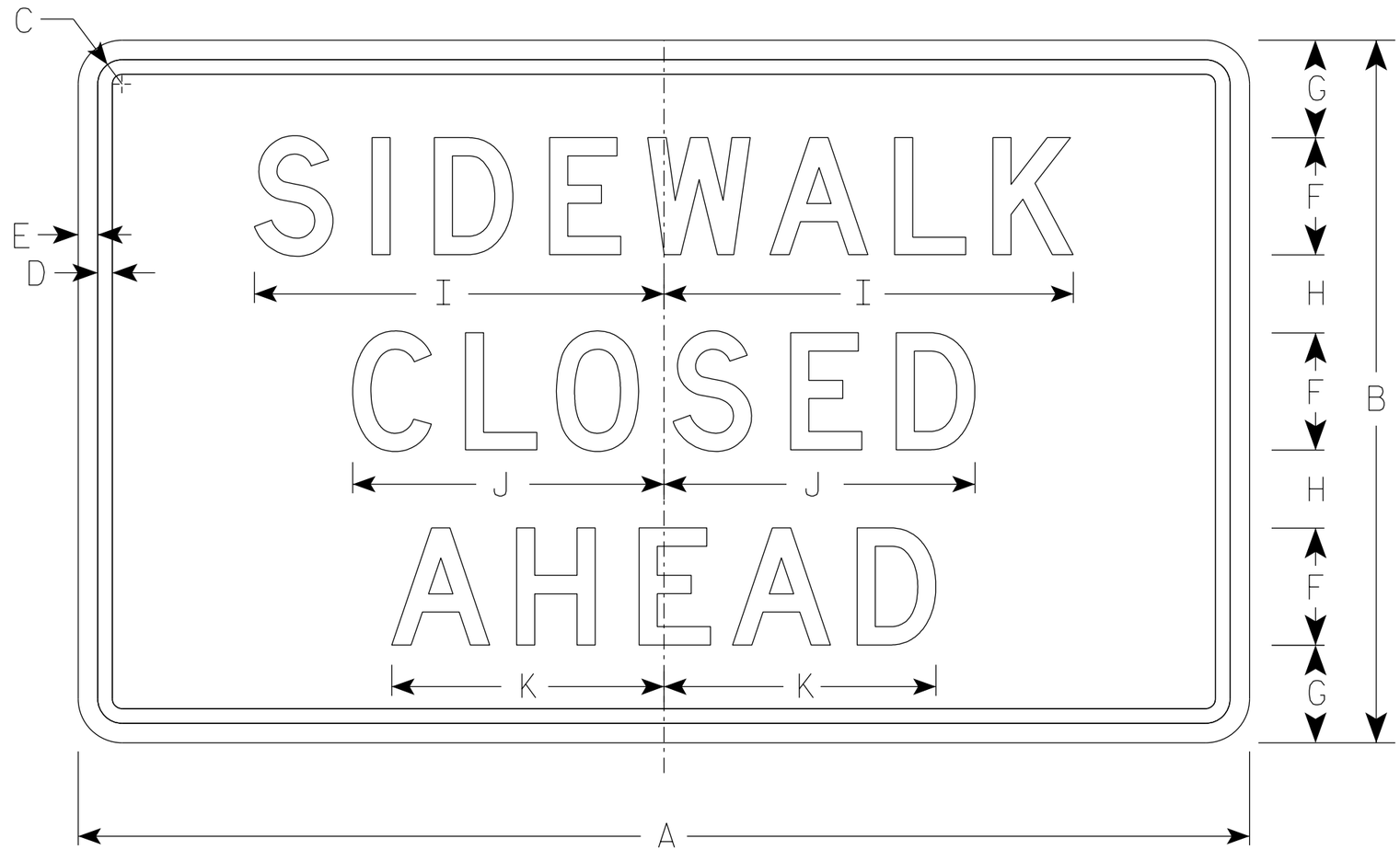
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 323 R9-9.6

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-9A

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	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

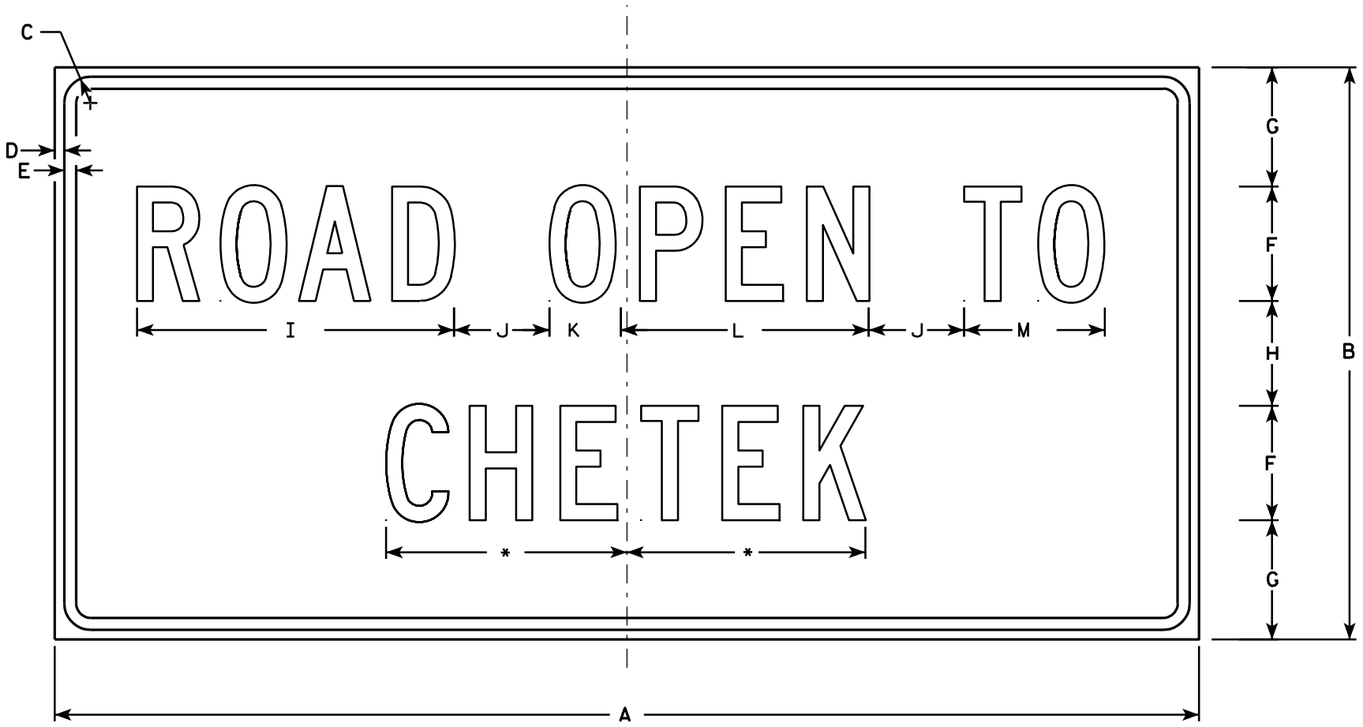
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 324 | E



R10-61

NOTES

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

*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	24	1 3/8	1/2	5/8	4	5 1/2	5	10 3/4	2	2 1/8	8 3/8	4 5/8														6.0
2S	60	30	1 3/8	1/2	5/8	6	6 1/4	5 1/2	16 5/8	5	3 3/4	13	7 3/8														12.5
2M	60	30	1 3/8	1/2	5/8	6	6 1/4	5 1/2	16 5/8	5	3 3/4	13	7 3/8														12.5
3																											
4																											
5																											

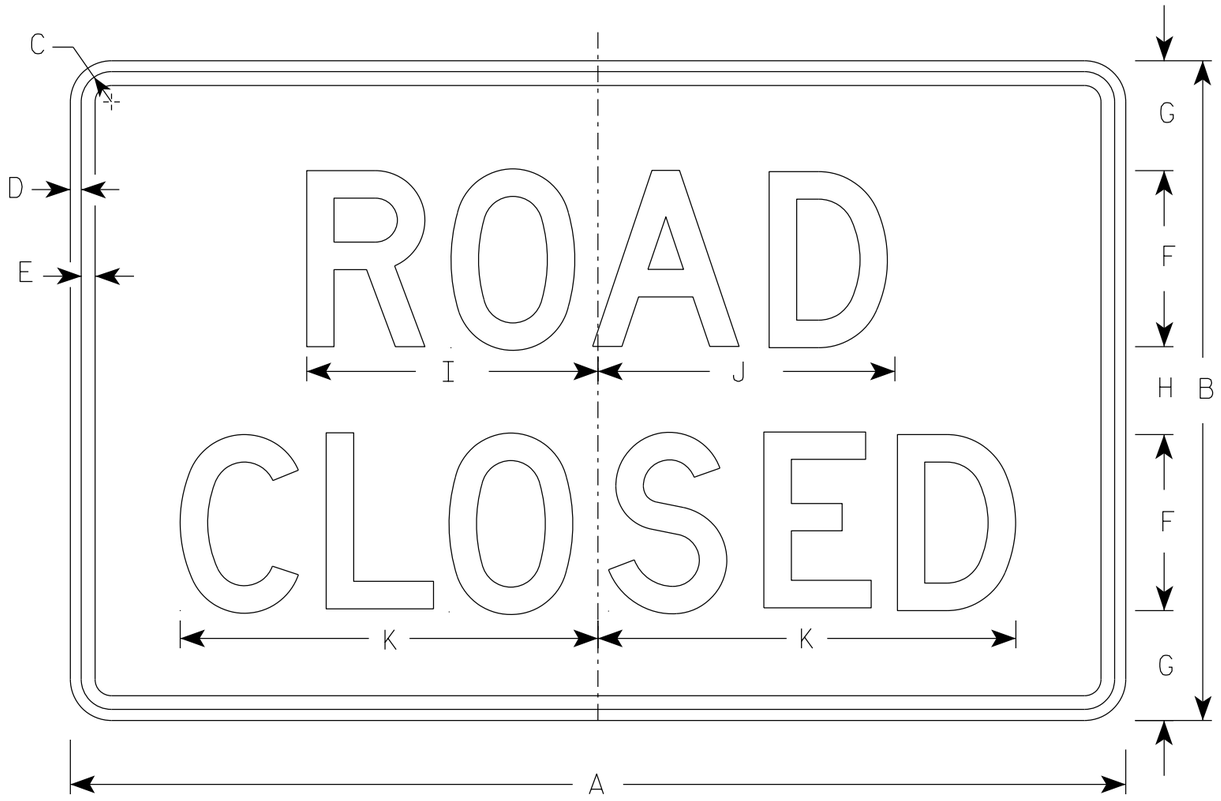
STANDARD SIGN
R10-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-61.5

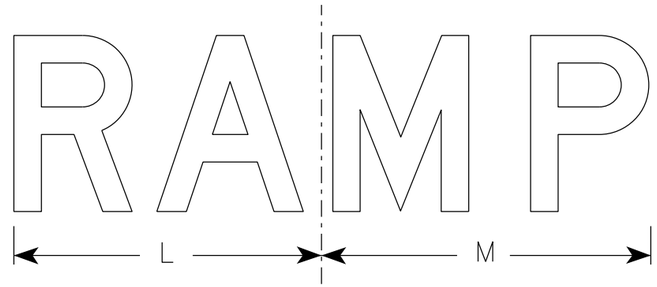
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 325	E



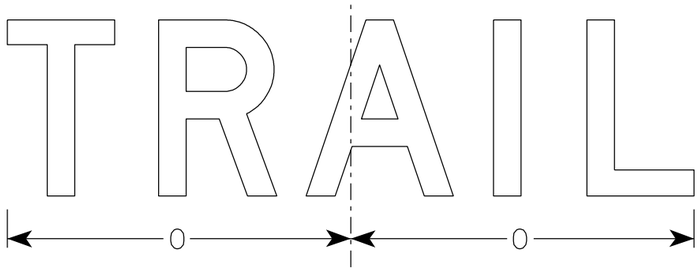
R11-2

NOTES

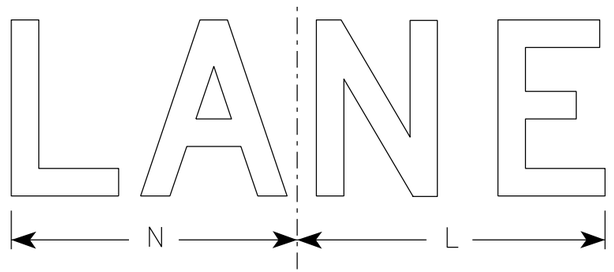
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the 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 3/8	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 3/8	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 3/8	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 3/8	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 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

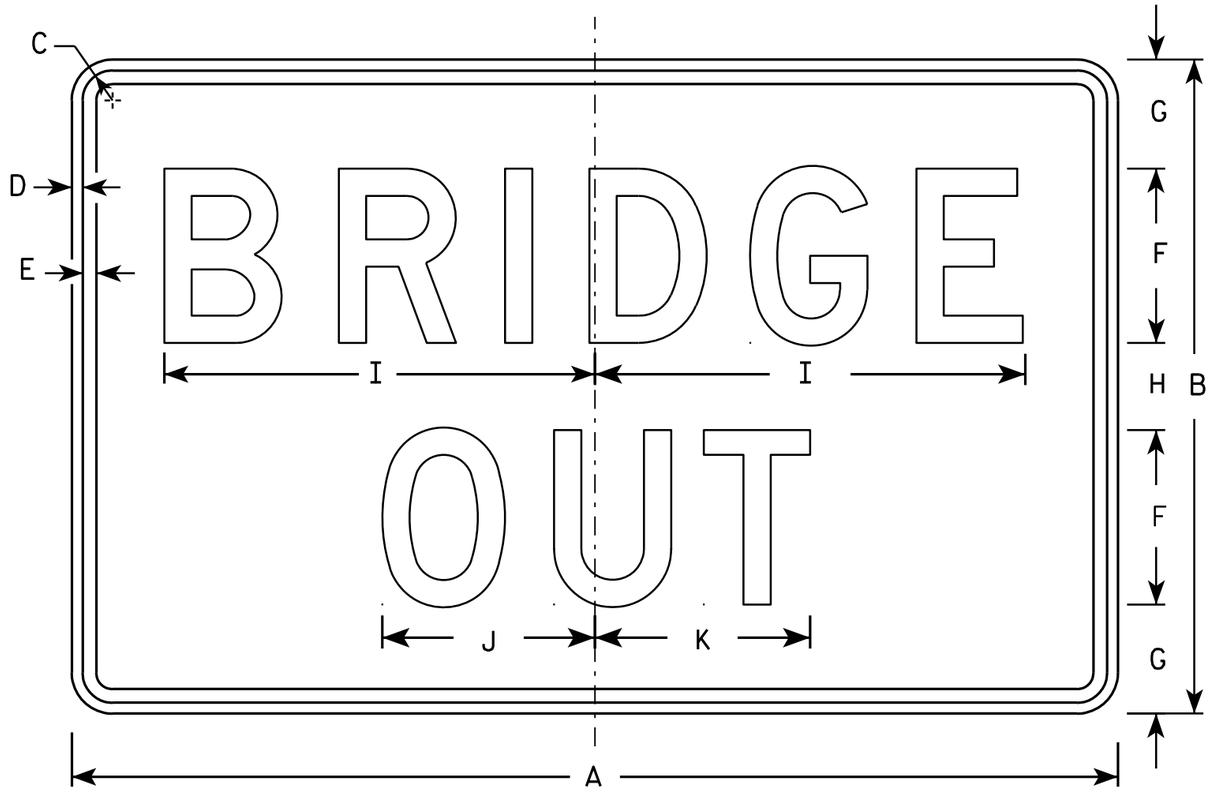
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 326 E



R11-2B

NOTES

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

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

STANDARD SIGN
R11-2B

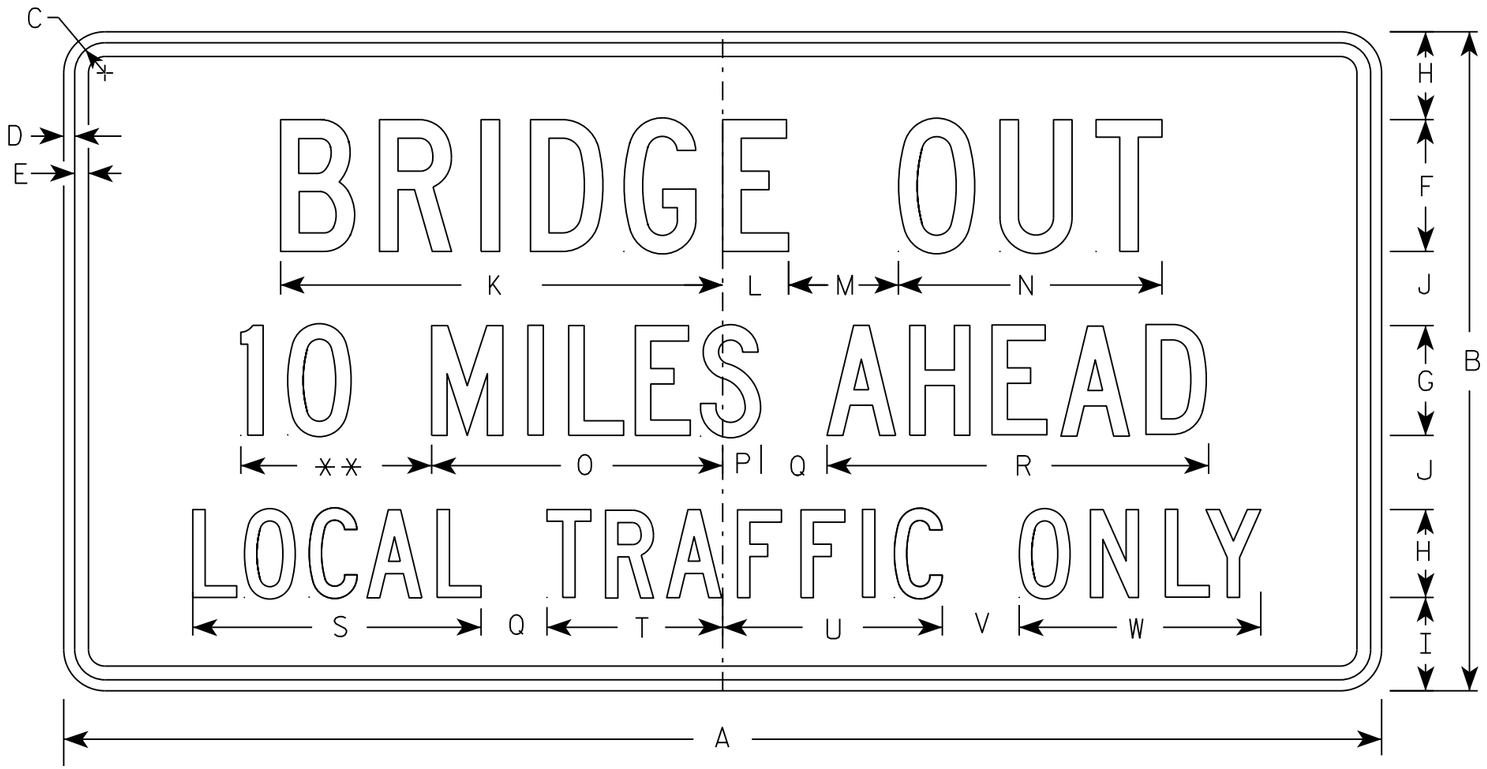
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

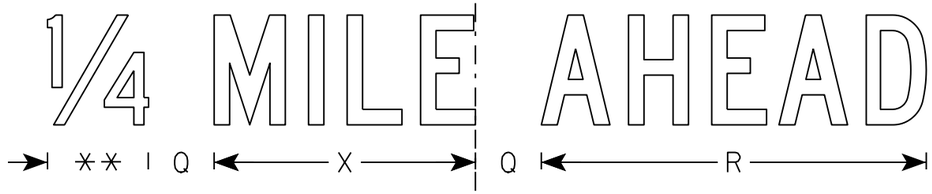
PROJECT NO:

SHEET NO: 327 E



R11-3B

** 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 numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

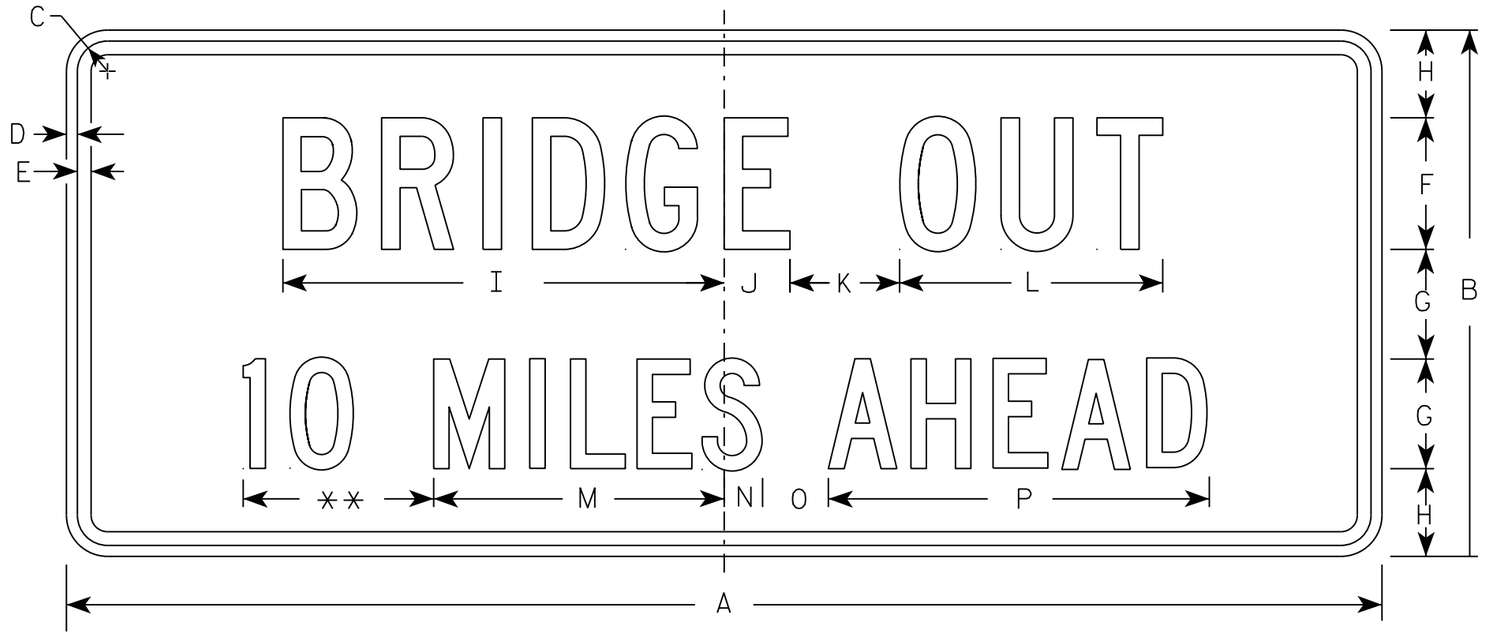
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. R11-3B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 328	E

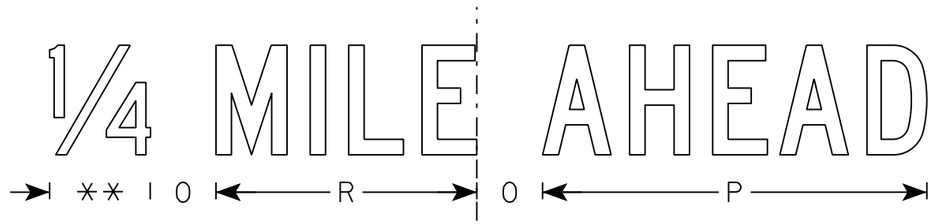
NOTES

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 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

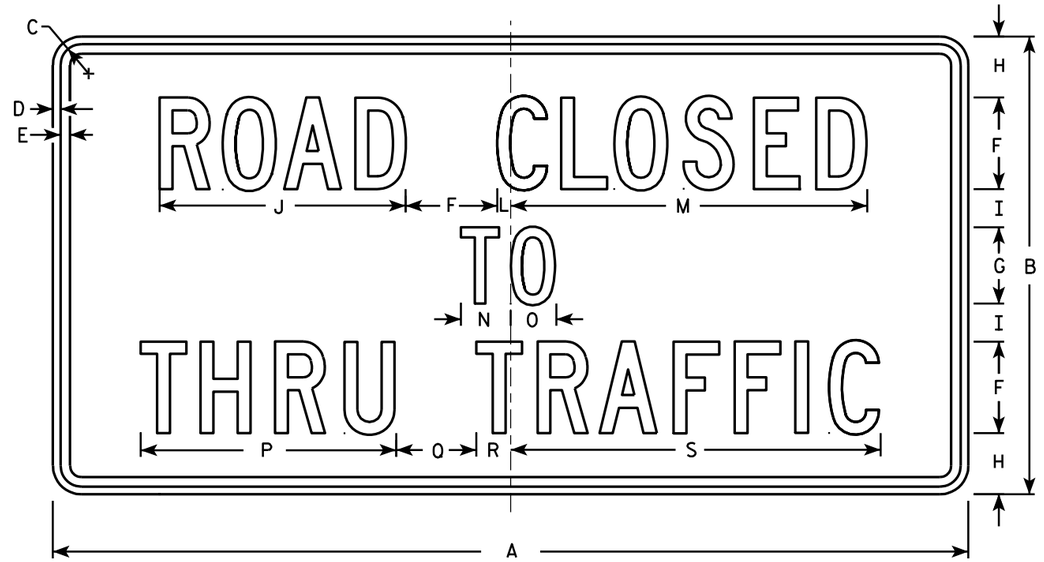
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 329 E



R11-4

NOTES

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

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

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 330 | E

W4-4P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - 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																											
2S	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	10 3/4	2 3/8	3/8	13 1/2	8 3/8	3	3 1/8	8 3/8											3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	13 3/8	3 1/8	3/8	16 7/8	10 1/2	3 5/8	3 7/8	10 3/8											5.25
5																											

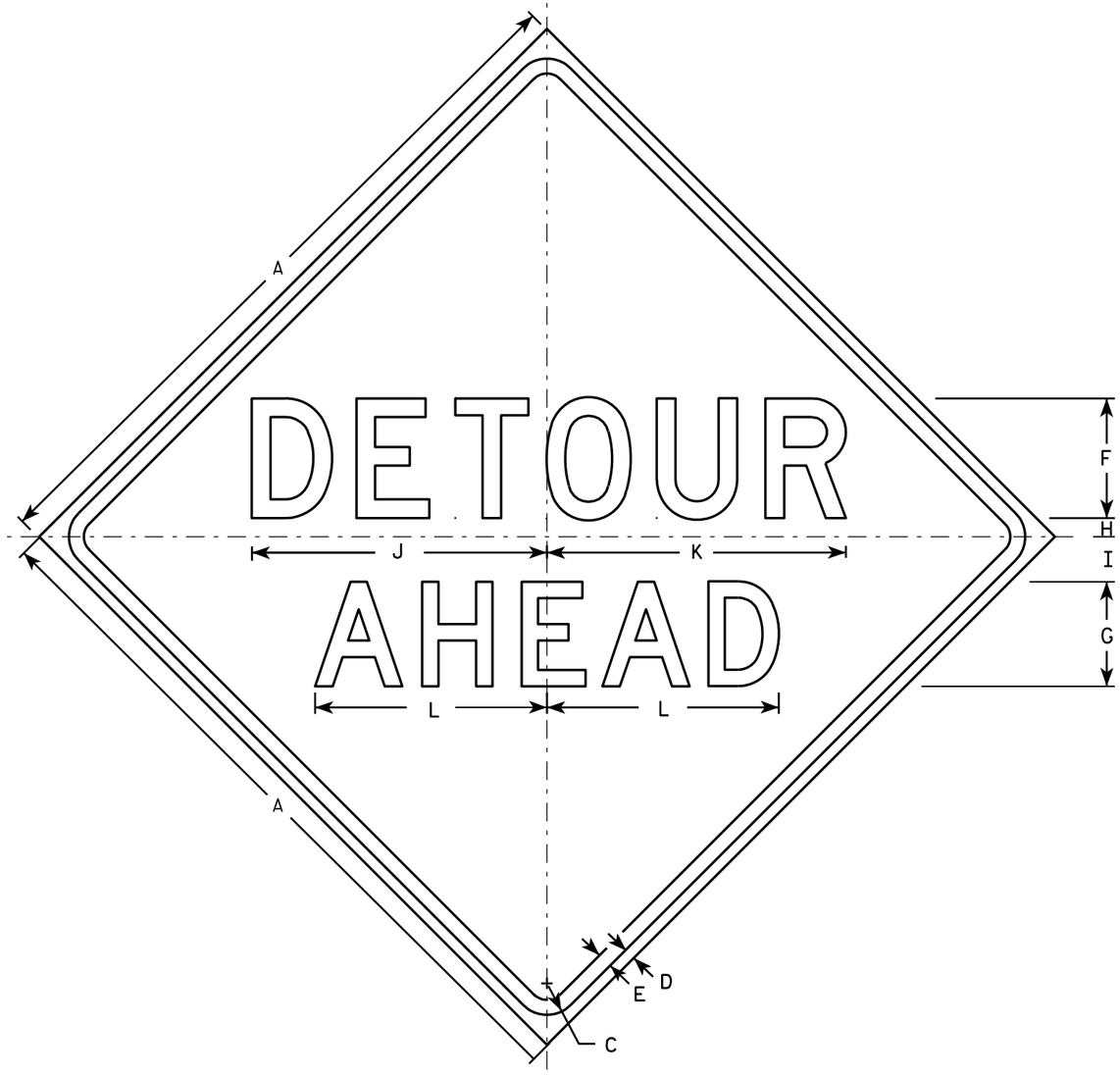
STANDARD SIGN
W4-4P

WISCONSIN DEPT OF TRANSPORTATION

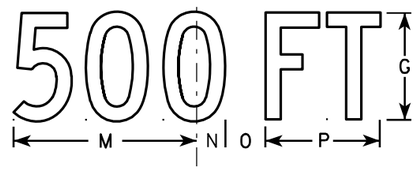
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4P.2

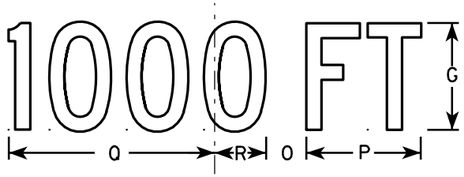
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 331 | E



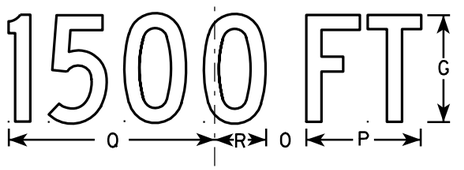
W20-2A



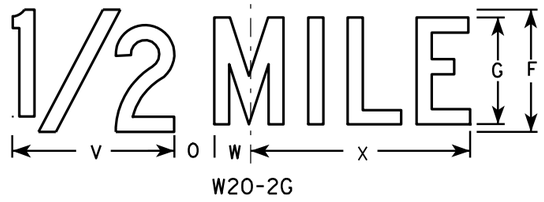
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

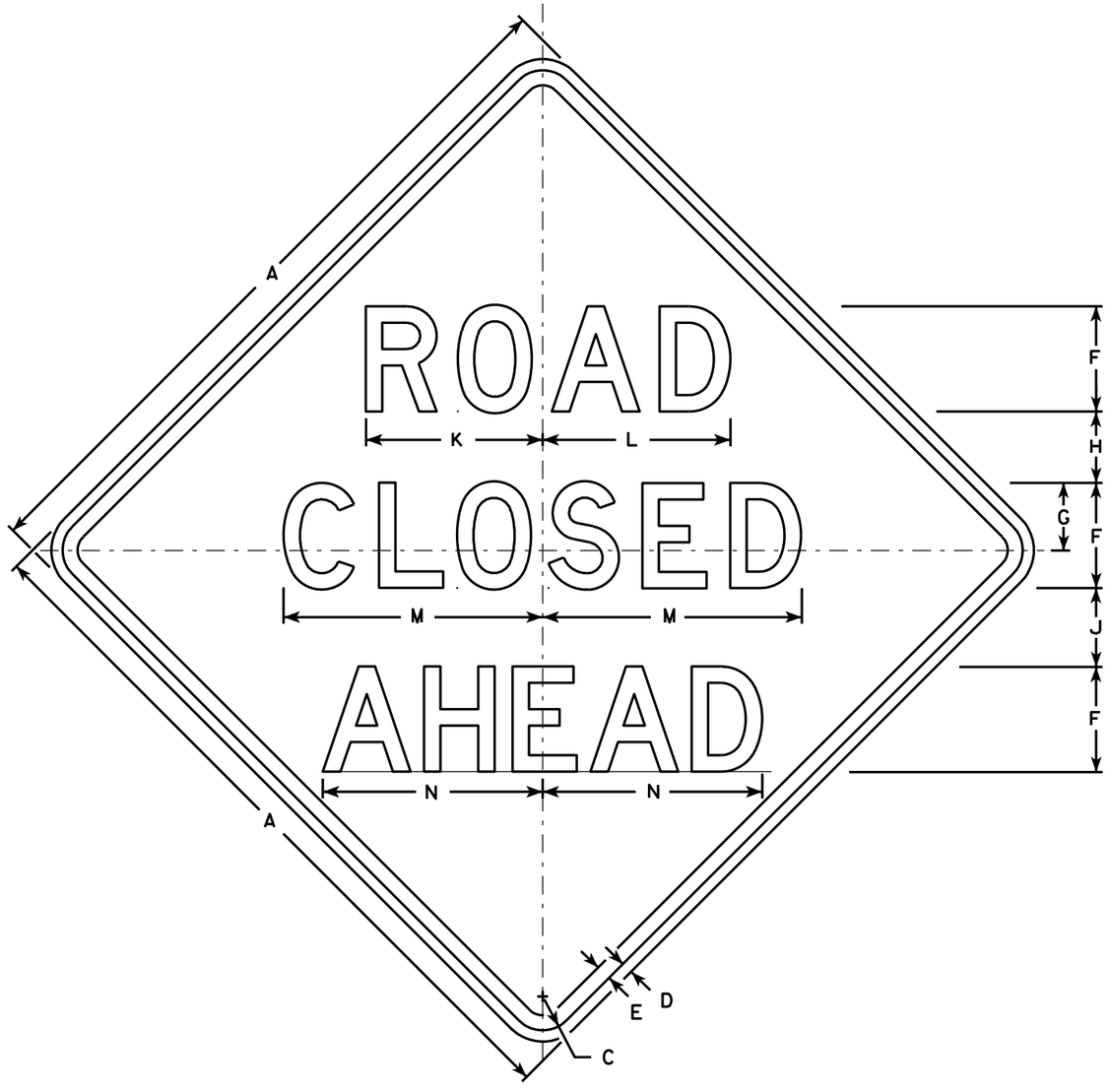
APPROVED Matthew R Rauch
for State Traffic Engineer

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

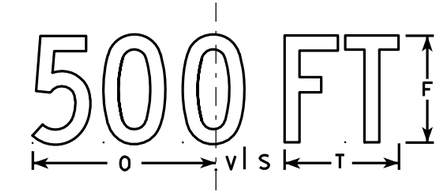
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 332 | E

7

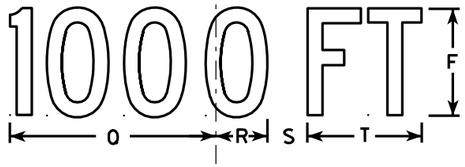
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



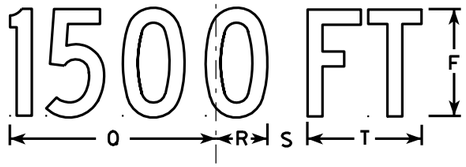
W20-3A



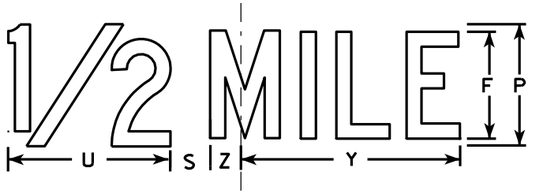
W20-3D



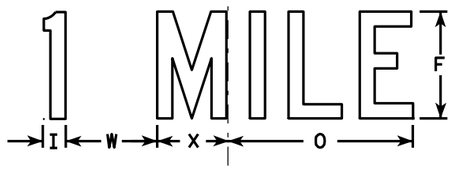
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 333 | E

DESIGN DATA

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

STANDARD FOUNDATIONs DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD:	WT. OF SIGN AND SUPPORTING STRUCTURE
ICE LOAD:	3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS
WIND PRESSURE:	115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS	
STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE:	1.0 NW (NATURAL WIND GUST)
	1.0 TrG (TRUCK INDUCED GUST)
	1.0 GVW (GALLOPING - CANTILEVER ONLY)

MATERIAL PROPERTIES

CONCRETE MASONRY ——— f'_c = 3,500 PSI

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ——— f_y = 60,000 PSI

STRUCTURAL ANGLES, PLATES & BARS - ASTM A709 GRADE 36 ——— f_y = 36,000 PSI

HIGH STRENGTH BOLTS - ASTM A3125 GRADE A325 ——— f_y = 92,000 PSI

ANCHOR RODS - ASTM F1554 GRADE 55 ——— f_y = 55,000 PSI

HEAVY HEX NUTS - ASTM A563 GRADE DH OR ASTM A194 GRADE 2H

WASHERS - ASTM F436

DTI WASHERS - ASTM F959 TYPE 325

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGN FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING THE DRILLING OF THE SHAFT HOLE TO CONFRIM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

TOTAL ESTIMATED QUANTITES

BID ITEM NO.	BID ITEM	UNIT	S-56-0029
531.2042	DRILLING SHAFT 42-INCH	LF	18
531.5130	FOUNDATION SINGLE-SHAFT TYPE MC-III (S-56-0029)	EA	1
532.5130	MONOTUBE CANTILEVER TYPE III (S-56-0029)	EA	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM (WISCORS), SAUK COUNTY, NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS OR MONOTUBE BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE 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 HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

STRUCTURE DATA

STRUCTURE ID	SIGN AREA	SIGN DEPTH	FOUNDATION TYPE	TRUSS TYPE
S-56-0029	13.25 SF	4'-0"	TYPE MCIII	

LIST OF DRAWINGS:

1. GENERAL NOTES & DESIGN DATA
2. LAYOUT S-56-0029

LIST OF STANDARD DESIGN DRAWINGS

3. I. MONOTUBE & 2-CHORD TRUSS CONNECTIONS 1
4. II. MONOTUBE & 2-CHORD TRUSS CONNECTIONS 2
5. III. MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS
6. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

STATE PROJECT NUMBER

5080-02-74

TRAFFIC VOLUME (CTH B)

A.D.T. (2021) = 1,500
R.D.S. = 30 MPH

STRUCTURE DESIGN CONTACTS:

AARON BONK 608-261-0261
ERIC FRAILING 608-216-2054

NO.	DATE	REVISION	BY

THESE ARE STANDARD DESIGN PLANS DEVELOPED AND MAINTAINED BY THE WISDOT. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISDOT BRIDGE MANUAL CHAPTER 39.

WISCONSIN
ERIC R. FRAILING
42386
SUN PRAIRIE, WI
PROFESSIONAL ENGINEER

9-15-2023

MSA

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/14/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

MONOTUBE & 2-CHORD

LOCATION DESCRIPTION

COUNTY	VILLAGE
SAUK	PLAIN

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
ERF	JTD	ERF	JTD

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 6
334

I.D. 5080-02-74 DATE: JULY 2023

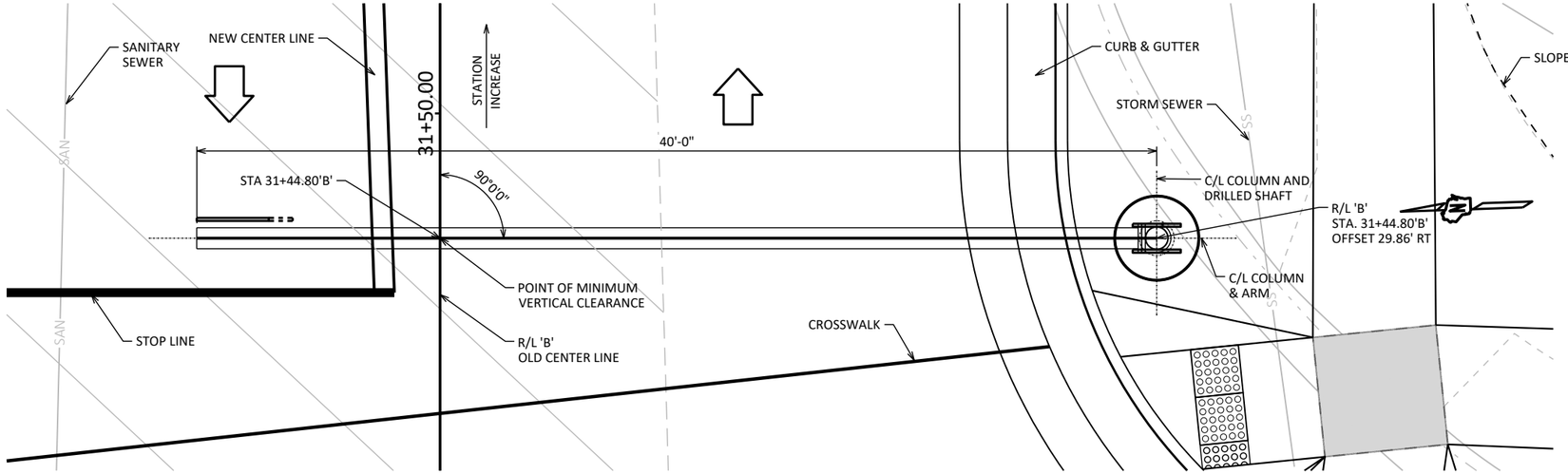
SCALE = 0.50

8

8

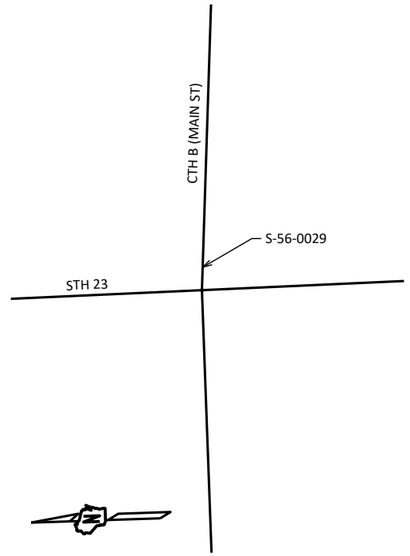
STATE PROJECT NUMBER

5080-02-74

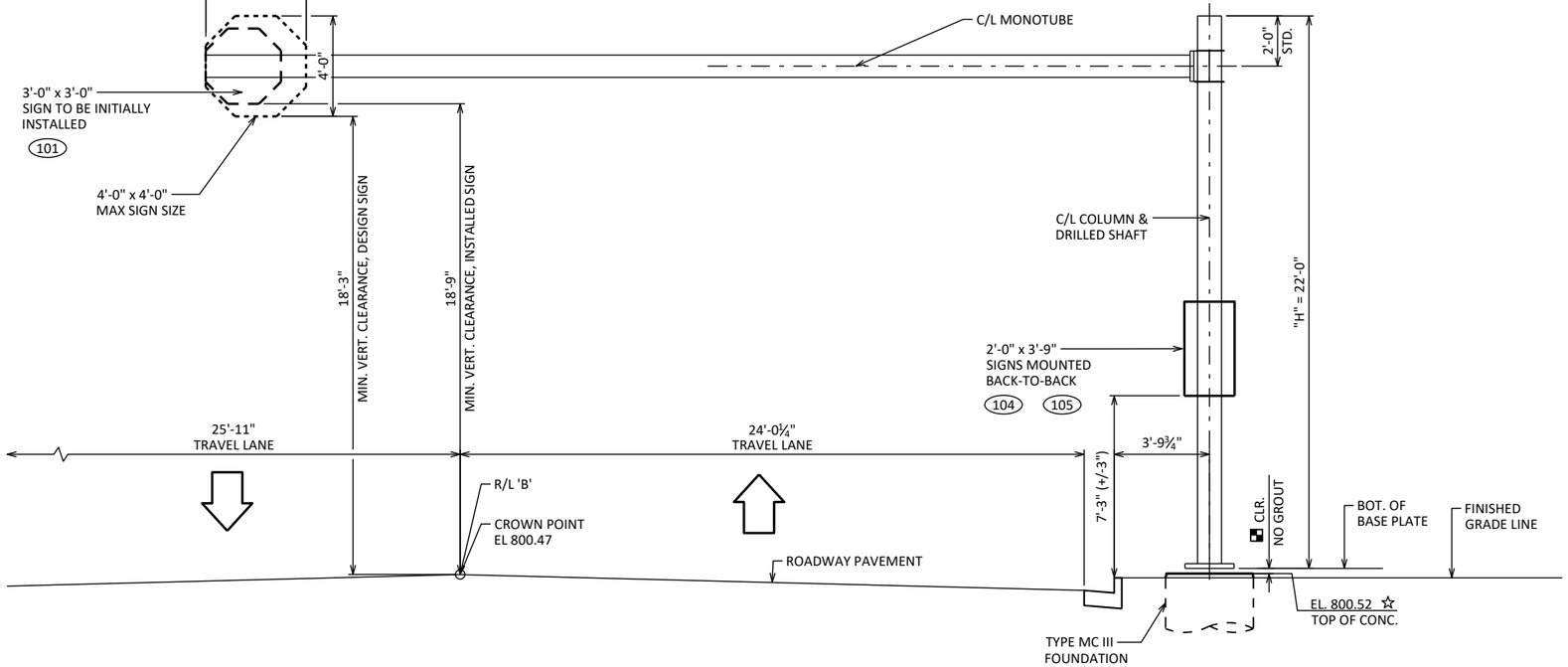


PLAN

STA. 31+44.80'B' (CTH B EASTBOUND)
STH 23 AT CTH B (MAIN ST)



LOCATION MAP



ELEVATION

LOOKING (EASTBOUND) AT BACK OF SIGN

DESIGN NOTE

A 3'-0" x 3'-0" STOP SIGN WILL BE INSTALLED ON THE STRUCTURE AS SHOWN. THE STRUCTURE HAS BEEN DESIGNED TO ACCOMMODATE THE MAXIMUM STOP SIGN SIZE OF 4'-0" x 4'-0".

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L STRUCTURE

(XXX) SIGN NUMBER, SEE PERMANENT SIGNING PLAN

▪ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAX. OF 2 x ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-56-29

DRAWN BY ERF | PLANS CK'D JTD

LAYOUT

SHEET 2
335

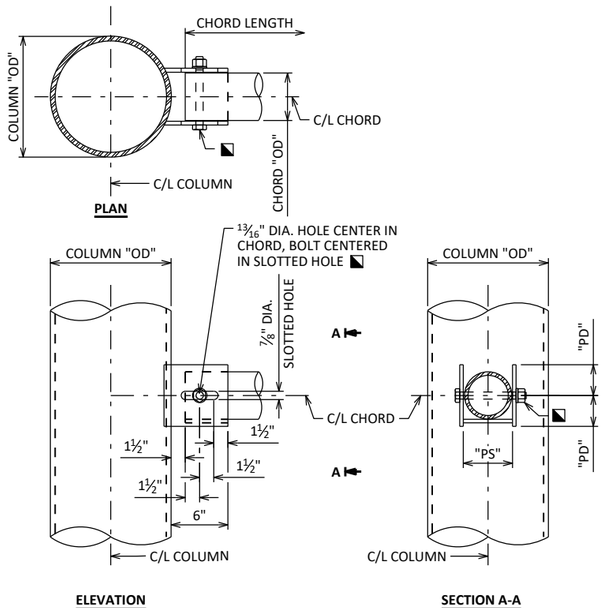
SCALE = 6.00

8

8

STATE PROJECT NUMBER

STANDARD



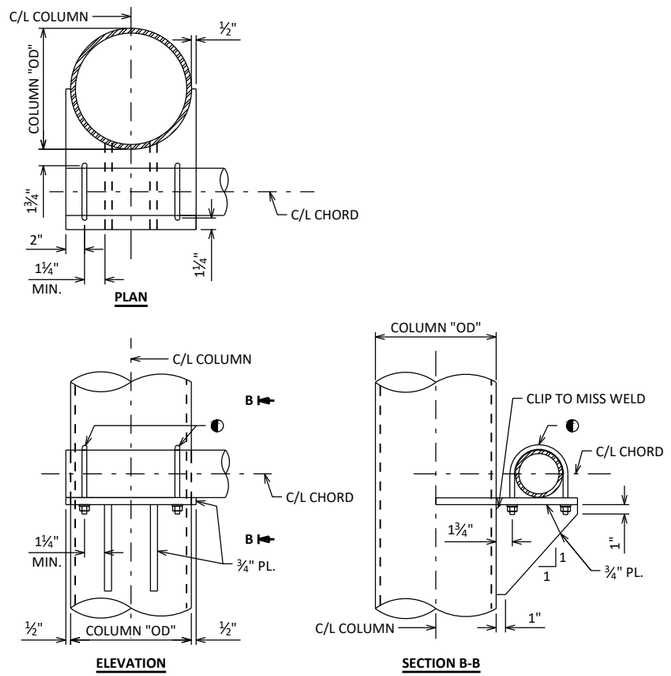
FULL SPAN SADDLE CONNECTION

PREFERRED OPTION

◪ ¾" GALVANIZED A325 OR A449 HEAVY HEX BOLT, NUT AND WASHER SNUG TIGHT ONLY, DO NOT OVER TIGHTEN

"PD" = CHORD "OD"/2 + ¾"

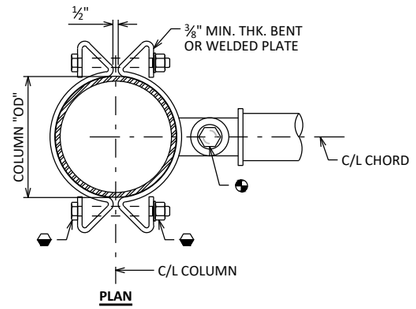
"PS" = CHORD "OD" + 1/16"

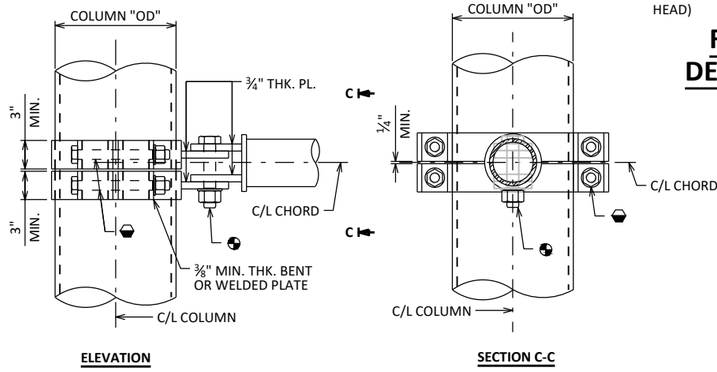


FULL SPAN STIFFENED BEARING CONNECTION

ALTERNATE 1

◐ MIN. (2) ½" MIN. GALVANIZED OR STAINLESS U-BOLT, LOCK NUT AND WASHER



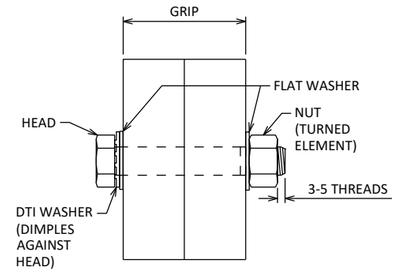


FULL SPAN CLAMP CONNECTION

ALTERNATE 2 - TAPERED COLUMNS ONLY

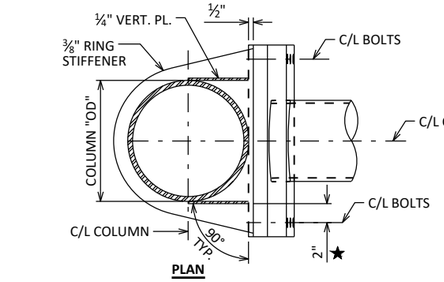
◓ 1¼" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

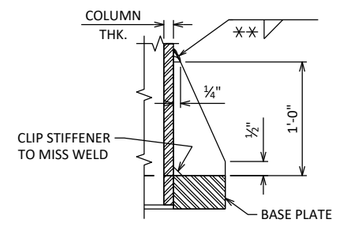
◒ 1" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

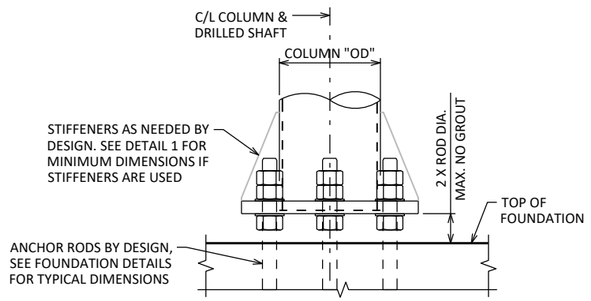


RECOMMENDED BOLT DETAIL WITH DTI WASHER

NUT IS TURNED ELEMENT

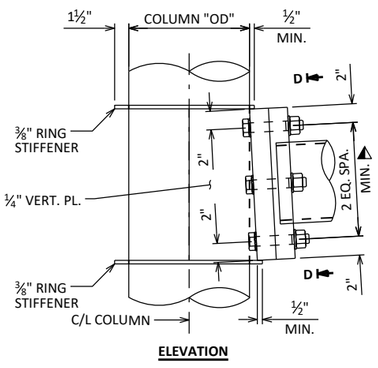


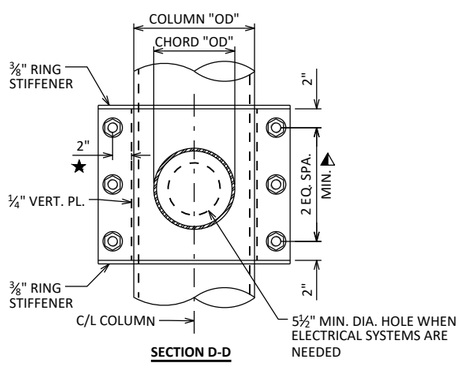




PREFERRED BASE PLATE CONNECTION

LOOKING AT F.F. OF STRUCTURE.
ALTERNATE BASE PLATE DESIGNS ALLOWED.

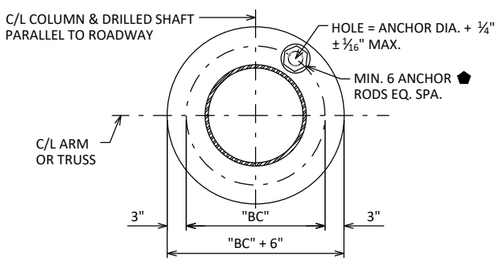




CANTILEVER POST TO CHORD CONNECTION

◭ MIN. (6) 1" GALVANIZED A325 HEAVY HEX BOLT, NUT, DTI WASHER AND WASHER

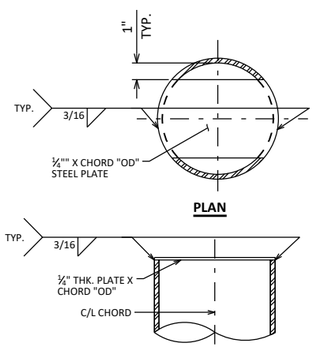
★ MIN. DIMENSIONS MEASURED FROM EXT. FACE OF VERTICAL PLATE.



BASE PLATE

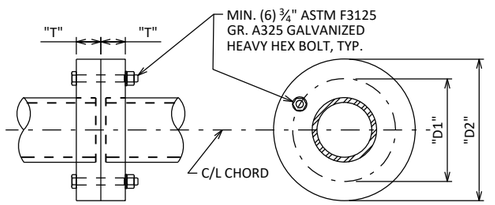
"BC" = COLUMN "OD" + 6"

⬟ ANCHOR SIZE AND ORIENTATION TO BE VERIFIED WITH SHOP DRAWINGS.



CHORD CAP DETAIL

CANTILEVERS ONLY



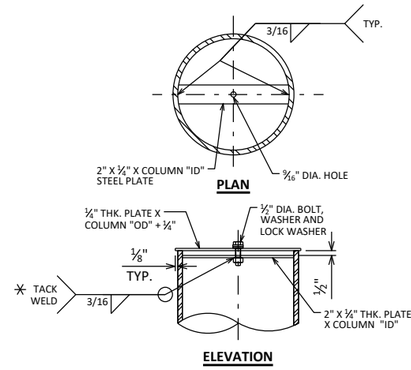
CHORD SPLICE DETAIL

"D1" = COLUMN "OD" + (1.5 x DB)

"D2" = COLUMN "OD" + (3 x DB)

"T" = (BY DESIGN)

DB = BOLT DIAMETER (BY DESIGN)



TOWER CAP DETAIL

✳ PLACE TACK WELD EVERY OTHER FLAT TO SECURE NUT.
ALTERNATE: USE ½" THK. PL. AND DRILL AND TAP HOLE FOR BOLT.

NOTES:

MINIMUM VALUES SHOWN. ALL CONNECTIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURAL LOADS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY: BOS | PLANS CK'D: BOS

MONOTUBE & 2-CHORD TRUSS CONNECTIONS 1

SHEET 1 — 336

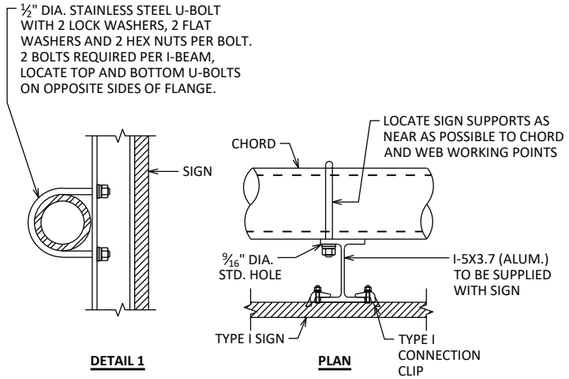
SCALE = 2.0

8

8

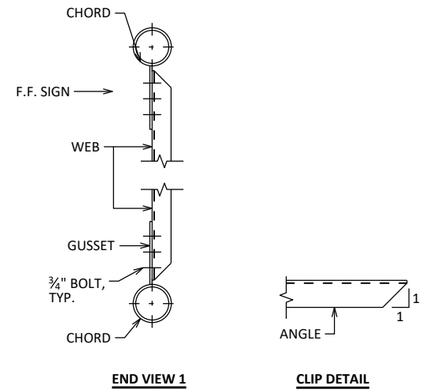
STATE PROJECT NUMBER

STANDARD



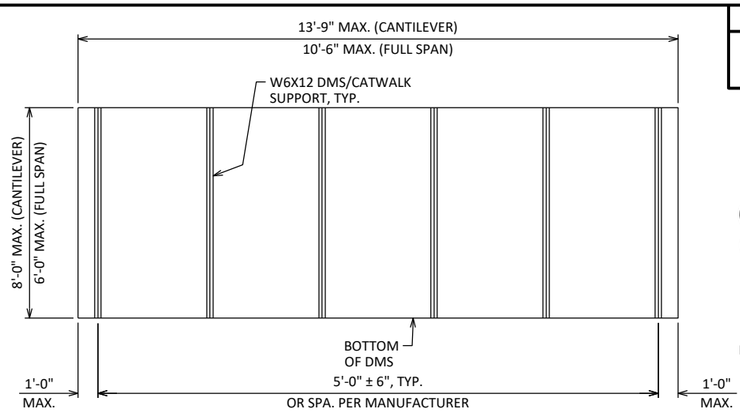
2-CHORD TRUSS SIGN CONNECTION

TYPE I SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7BFOR DETAILS.
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH SIGN PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



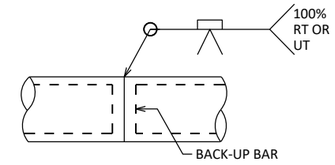
TRUSS CONNECTION DETAILS

MEMBER ORIENTATION FOR BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR



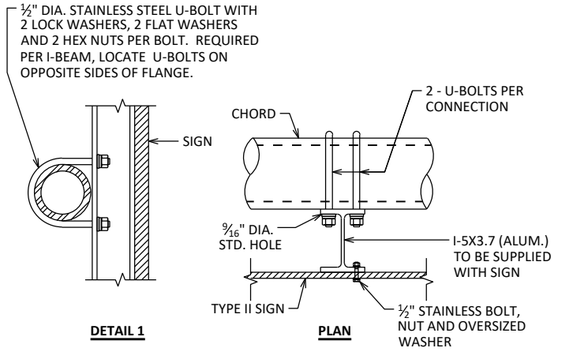
DMS MOUNTING POST DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



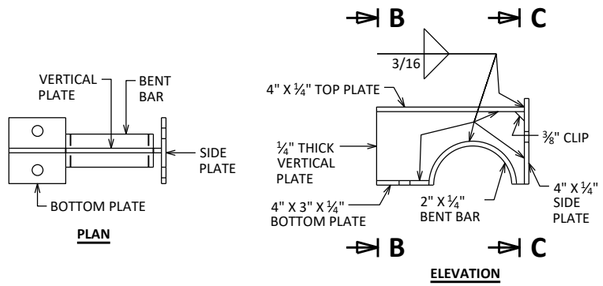
CHORD SPLICE

SEPARATE OPTIONAL SPLICE FROM GUSSET PLATES BY 6" MIN.



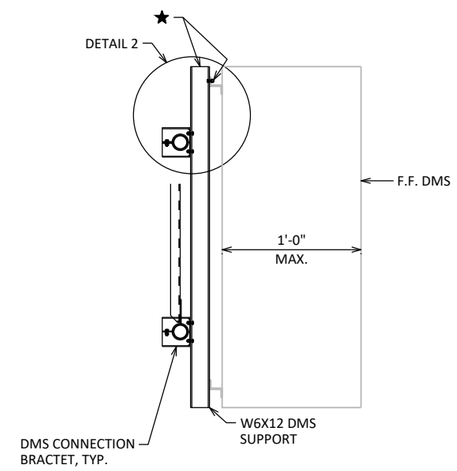
MONOTUBE SIGN CONNECTION

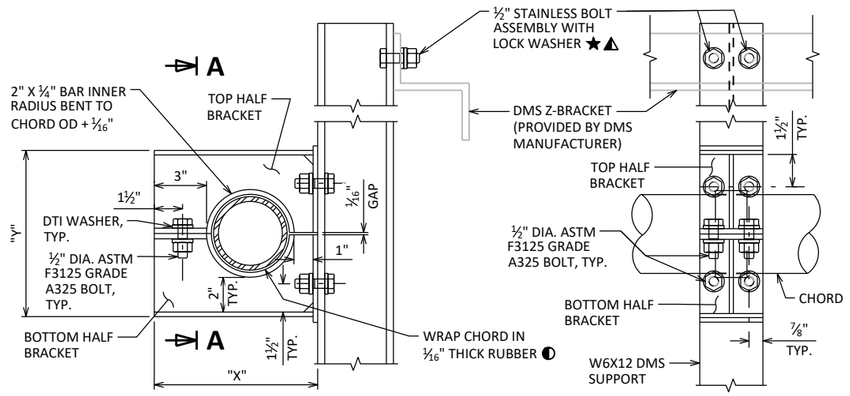
TYPE II SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH SIGN PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



DMS WELDED PLATE CONNECTION DETAILS

TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.





CHORD "OD"	"X"	"Y"
"OD"	"OD" + $4\frac{13}{16}$"	"OD" + $5\frac{5}{16}$"

TYPICAL DMS CONNECTION

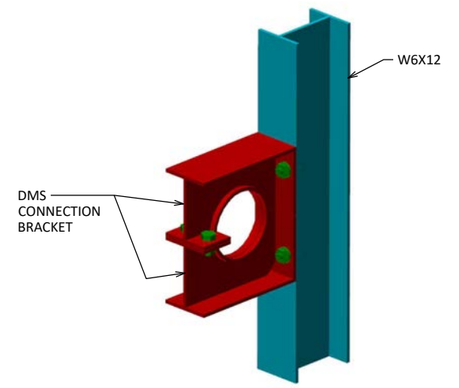
◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD. SPEC. 506.2.6.1

⚠ IF DMS CONNECTION BRACKET IS USED WITH A TYPE II SIGN PANEL, THE BOLT HOLE MUST BE GALVANIZED AND A STAINLESS WASHER USED BETWEEN THE I-BEAM AND SIGN PANEL.

SECTION THRU TRUSS - DMS

FOR DMS/CATWALK CONNECTIONS

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12



3-D VIEW OF DMS CONNECTION

CHORD NOT SHOW FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY BOS | PLANS CK'D BOS

MONOTUBE & 2-CHORD TRUSS CONNECTIONS 2

SHEET II
337

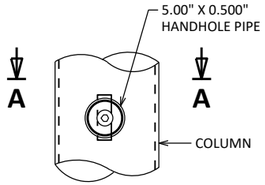
SCALE = 4.0

8

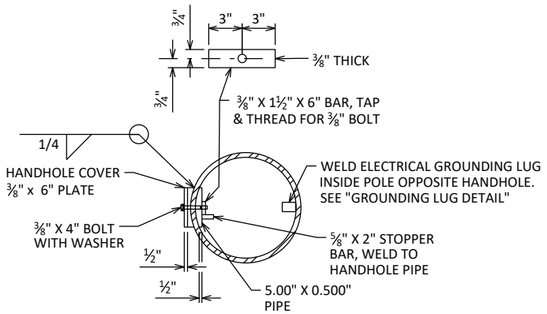
8

STATE PROJECT NUMBER

STANDARD



ELEVATION

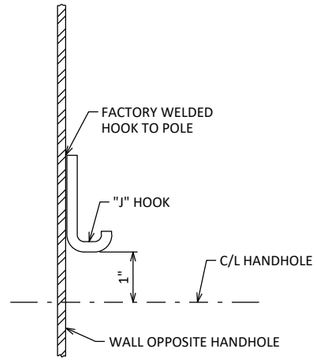


SECTION A-A

HANDHOLE DETAILS

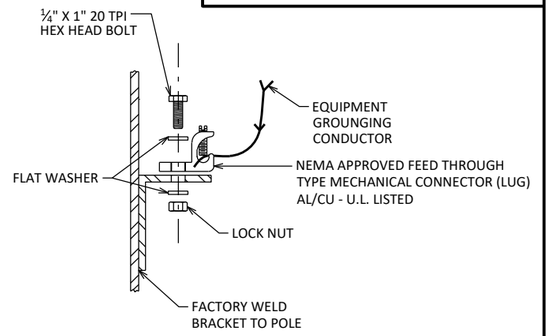
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS OTHERWISE NOTED, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



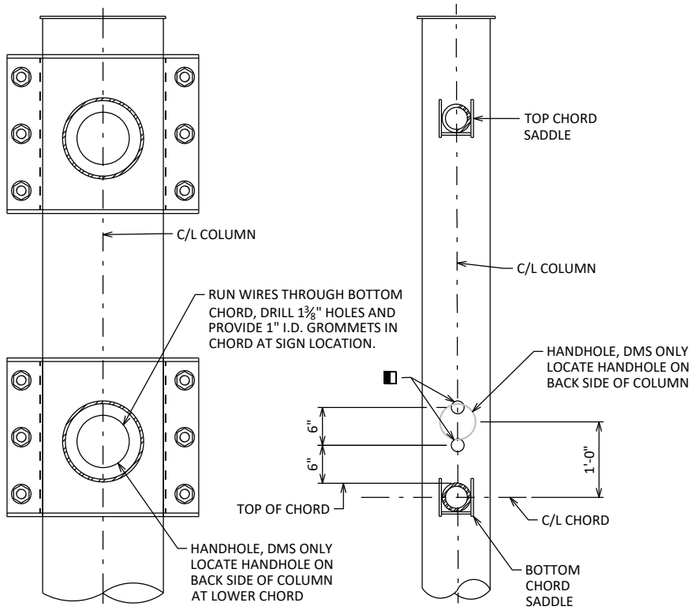
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF THE COLUMN CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



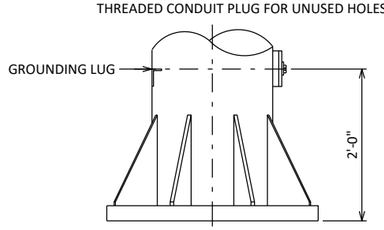
2-CHORD CANTILEVER

2-CHORD FULL SPAN

SADDLE CONNECTION SHOWN, OTHERS SIMILAR

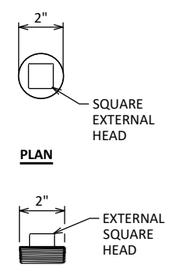
CONDUIT HOLE LOCATIONS

◧ 2" HOLE WITH STANDARD PIPE THREADS, USE THREADED CONDUIT PLUG FOR UNUSED HOLES



GROUNDING LUG LOCATION

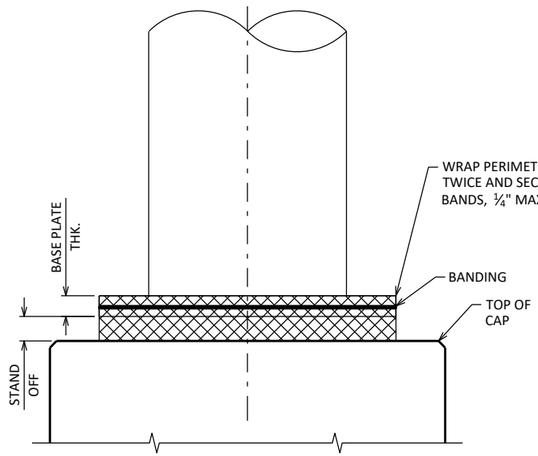
LOOKING AT THE F.F. OF STRUCTURE



PLAN

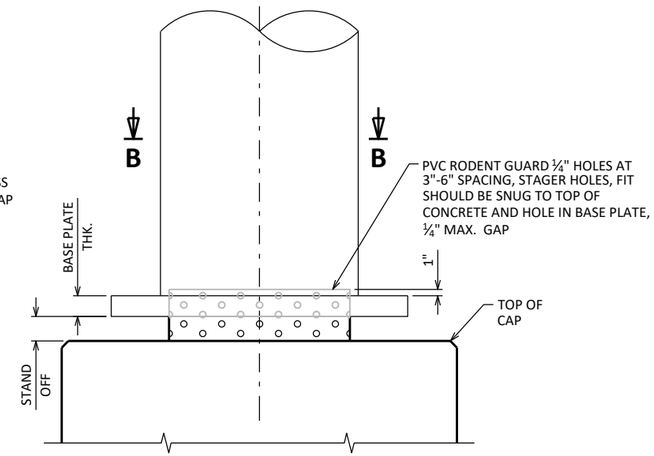
ELEVATION

CONDUIT PLUG DETAILS



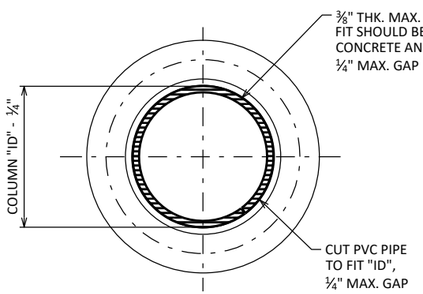
RODENT SCREEN

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



RODENT SCREEN - ALTERNATE

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JAN. 2023

DRAWN BY: BOS | PLANS CK'D: BOS

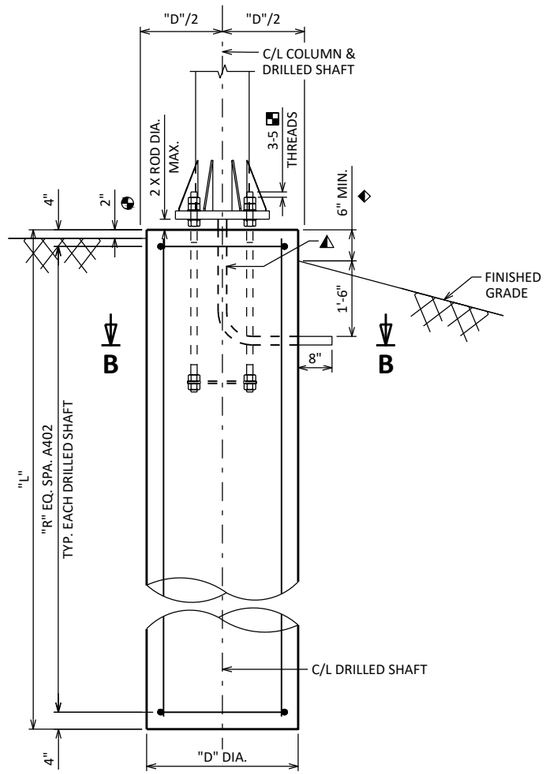
MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS

SHEET III
338

SCALE = 2.0

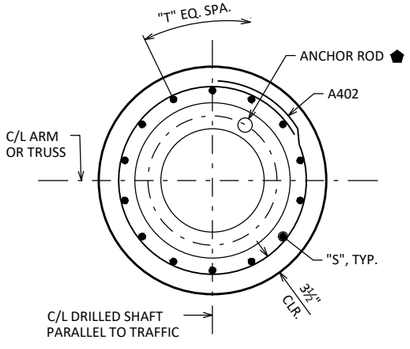
8

8



ELEVATION

- TYPICAL FOR DRILLED SHAFT FOOTINGS INSTALLED ADJACENT TO SIDEWALKS OR BEHIND CURB AND GUTTER ON LOW SPEED ROADS. TOP OF SHAFT SHALL BE FLUSH IF SURROUNDED BY CONCRETE AND 2" ABOVE FINISHED GRADE FOR ALL OTHER SURFACES.
- TYPICAL FOR EACH DRILLED SHAFT FOOTING INSTALLED ADJACENT TO ROADWAY FACILITIES OR ON SIDE SLOPES WITHIN CLEAR ZONE. BARRIER OR BEAMGUARD MAY BE REQUIRED.



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

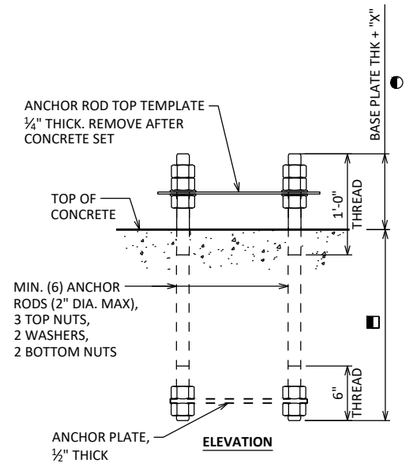
FOUNDATION DIMENSION DATA

STANDARD DESIGN TYPE	FOUNDATION DIMENSIONS					
	"D"	"L"	"R"	"S"	"T"	"BC" MAX.
MFI	2'-0"	12'-0"	12	A801	6	1'-0"
MFII	2'-6"	13'-0"	13	A801	10	1'-5"
MCI/MCII/TFI	2'-6"	17'-0"	17	A801	10	1'-5"
TCI	3'-0"	18'-0"	18	A801	14	1'-10"
TFII	3'-0"	20'-0"	20	A801	14	1'-10"
MCIII/TCII/TFIII	3'-6"	18'-0"	18	A901	14	2'-4"
MCIV/TFIV	3'-6"	23'-0"	23	A901	14	2'-4"
TCIII	4'-0"	23'-0"	23	A1001	14	2'-10"
TCIV	4'-0"	28'-0"	28	A1001	14	2'-10"

ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY	STEEL REINFORCEMENT HS	FOUNDATION DRILLING (DIA.) (LF)				
	(CY)	(LBS)	24"	30"	36"	42"	48
MFI	2	240	12	---	---	---	---
MFII	3	410	88	13	---	---	---
MCI/MCII/TFI	4	540	---	17	---	---	---
TCI	5	780	---	---	18	---	---
TFII	6	860	---	---	20	---	---
MCIII/TCII/TFIII	7	970	---	---	---	18	---
MCIV/TFIV	9	1,250	---	---	---	23	---
TCIII	11	1,560	---	---	---	---	23
TCIV	13	1,900	---	---	---	---	28

✶✶ QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON A SINGLE DRILLED SHAFT. MULTIPLY BY 2 FOR FULL SPAN STRUCTURES.



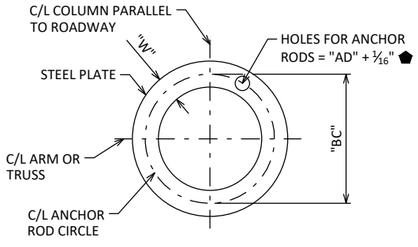
ANCHOR ROD ASSEMBLY DETAILS

◧ ANCHOR RODS PER ASSEMBLY TO BE DESIGNED BY CONTRACTOR AND SHOWN ON SHOP DRAWINGS. SHOW DIAMETER, NUMBER, ORIENTATION AND EMBEDMENT OF ANCHOR RODS.

CENTER ANCHOR ROD ASSEMBLY AND ENSURE ASSEMBLY IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHORS.

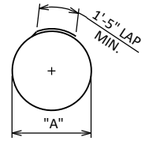
ANCHOR DIAMETER	MAX. STICK OUT ◐
	"X"
1"	5"
1¼"	6"
1½"	7"
1¾"	8"
2"	9"

◐ ADD BASE PLATE THICKNESS TO VALUE SHOWN FOR MAX. STICK OUT DIMENSION. CONTRACTOR TO COORDINATE WITH FABRICATOR FOR PROPER ANCHOR PLACEMENT.



ANCHOR PLATE & TOP TEMPLATE

⬟ ANCHOR SIZE AND POSITION TO BE VERIFIED WITH SHOP DRAWINGS.



A402

LEGEND

◧ ANCHOR ROD STICK OUT IN FINAL CONDITION. EXCESSIVE STICK OUT BEYOND DIMENSION SHOWN TO BE CUT OFF AFTER PLACING STRUCTURE. ANCHORS TO BE ULTRASONIC TESTED TO DETERMINE EMBEDDED LENGTH MEETS REQUIREMENTS PRIOR TO CUTTING. NOTE REMAINING LENGTH ON AS-BUILT.

◭ 2 - 2" DIA. NON-METALLIC CONDUITS. INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

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

BILL OF BARS

STANDARD TYPE MFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		6	11'-8"			DRILLED SHAFT - VERTICAL
A402		13	5'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE MFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	12'-8"			DRILLED SHAFT - VERTICAL
A402		14	9'-4"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCI/MCII/TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		10	16'-8"			DRILLED SHAFT - VERTICAL
A402		18	9'-4"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-8"			DRILLED SHAFT - VERTICAL
A402		19	10'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	19'-8"			DRILLED SHAFT - VERTICAL
A402		21	10'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCIII/TCII/TFIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	17'-8"			DRILLED SHAFT - VERTICAL
A402		19	12'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCIV/TFIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-8"			DRILLED SHAFT - VERTICAL
A402		24	12'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-8"			DRILLED SHAFT - VERTICAL
A402		24	14'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-8"			DRILLED SHAFT - VERTICAL
A402		29	14'-0"	X		DRILLED SHAFT - HORIZONTAL

✶✶ VALUES IN BAR TABLES ARE FOR A SINGLE FOUNDATION ONLY. MULTIPLY BY 2 FOR FULL ✶✶ SPAN STRUCTURES.

STATE PROJECT NUMBER

STANDARD

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: JUNE 2023

DRAWN BY BOS | PLANS CK'D BOS

MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

SHEET IV
339

SCALE = 3.0

8

8

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

DIVISION 01 - STH 23 GUARDRAIL SECTION #1

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
215+32.20	21532.20	0.00	1.63	0.48	0	0	0	0	0
216+00.00	21600.00	67.80	9.77	0.00	14	1	14	1	13
216+35.64	21635.64	35.64	9.59	0.00	13	0	27	1	26
216+60.64	21660.64	25.00	14.74	5.02	11	2	38	4	34
216+74.82	21674.82	14.18	3.42	0.00	5	1	43	5	38
216+85.64	21685.64	10.82	3.59	0.00	1	0	44	5	39
217+00.00	21700.00	14.36	3.67	0.00	2	0	46	5	41
218+00.00	21800.00	100.00	3.22	0.00	13	0	59	5	54
219+00.00	21900.00	100.00	22.08	0.00	47	0	106	5	101
220+00.00	22000.00	100.00	87.33	0.25	203	0	309	5	304
221+00.00	22100.00	100.00	20.19	0.27	199	1	508	7	502
222+00.00	22200.00	100.00	22.67	0.35	79	1	587	8	579
222+50.00	22250.00	50.00	81.29	0.31	96	1	683	9	674
223+00.00	22300.00	50.00	67.43	0.55	138	1	821	10	811
224+00.00	22400.00	100.00	1.12	1.69	127	4	948	16	932
225+00.00	22500.00	100.00	6.32	0.00	14	3	962	20	943
226+00.00	22600.00	100.00	2.57	0.00	16	0	978	20	959
227+00.00	22700.00	100.00	1.48	0.00	8	0	986	20	967
228+00.00	22800.00	100.00	6.49	0.00	15	0	1,001	20	982
229+00.00	22900.00	100.00	28.74	0.00	65	0	1,066	20	1,047
230+00.00	23000.00	100.00	1.71	0.00	56	0	1,122	20	1,103
231+00.00	23100.00	100.00	2.88	0.00	9	0	1,131	20	1,112
232+00.00	23200.00	100.00	3.16	0.00	11	0	1,142	20	1,123
233+00.00	23300.00	100.00	11.13	0.25	26	0	1,168	20	1,149
233+50.00	23350.00	50.00	81.11	0.00	85	0	1,253	20	1,234
234+00.00	23400.00	50.00	19.95	0.00	94	0	1,347	20	1,328
235+00.00	23500.00	100.00	4.55	0.00	45	0	1,392	20	1,373
235+25.26	23525.26	25.26	3.83	0.00	4	0	1,396	20	1,377
235+50.64	23550.64	25.38	3.99	7.14	4	3	1,400	23	1,377
235+76.01	23576.01	25.37	3.18	6.68	3	6	1,403	31	1,372
236+00.00	23600.00	23.99	4.24	1.73	3	4	1,406	36	1,370
236+81.92	23681.92	81.92	1.35	1.30	8	5	1,414	43	1,371

DIVISION 02 - STH 23 GUARDRAIL SECTION #2

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
240+00.33	24000.33	0.00	1.22	6.92	0	0	0	0	0
240+50.00	24050.00	49.67	1.92	11.22	3	17	3	22	-19
241+02.24	24102.24	52.24	0.00	56.61	2	66	5	108	-103
241+26.87	24126.87	24.63	0.02	68.61	0	57	5	182	-177
241+51.47	24151.47	24.60	0.67	50.63	0	54	5	252	-247
241+81.04	24181.04	29.57	2.22	81.46	2	72	7	346	-339
242+00.00	24200.00	18.96	2.56	120.87	2	71	9	438	-429
242+85.79	24285.79	85.79	2.86	268.79	9	619	18	1,243	-1,225
243+11.23	24311.23	25.44	2.31	304.44	2	270	20	1,594	-1,574
243+36.60	24336.60	25.37	2.39	280.78	2	275	22	1,951	-1,929
244+00.00	24400.00	63.40	2.73	330.54	6	718	28	2,885	-2,857
244+80.01	24480.01	80.01	3.32	104.08	9	644	37	3,722	-3,685
245+00.00	24500.00	19.99	2.68	117.23	2	82	39	3,829	-3,790
246+00.00	24600.00	100.00	2.84	129.99	10	458	49	4,424	-4,375
246+30.25	24630.25	30.25	2.98	149.34	3	156	52	4,627	-4,575
246+84.25	24684.25	54.00	4.58	0.50	8	150	60	4,822	-4,762
247+25.00	24725.00	40.75	25.97	0.23	23	1	83	4,823	-4,740
247+36.26	24736.26	11.26	4.06	0.00	6	0	89	4,823	-4,734
247+61.67	24761.67	25.41	5.38	8.56	4	4	93	4,828	-4,735
247+86.70	24786.70	25.03	5.46	11.96	5	10	98	4,841	-4,743
248+77.85	24877.85	91.15	1.19	21.11	11	56	109	4,914	-4,805

DIVISION 03 - STH 23 GUARDRAIL SECTION #3

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
260+36.16	26036.16	0.00	1.93	0.00	0	0	0	0	0
261+00.00	26100.00	63.84	0.82	13.78	3	16	3	21	-18
261+69.37	26169.37	69.37	13.08	27.93	18	54	21	91	-70
261+94.01	26194.01	24.64	10.43	36.67	11	29	32	129	-97
262+18.65	26218.65	24.64	28.87	14.91	18	24	50	160	-110
262+88.49	26288.49	69.84	0.96	0.00	39	19	89	185	-96
263+00.00	26300.00	11.51	6.27	0.04	2	0	91	185	-94
264+00.00	26400.00	100.00	21.07	0.36	51	1	142	186	-44
265+00.00	26500.00	100.00	1.93	0.00	43	1	185	187	-2
266+00.00	26600.00	100.00	2.79	0.00	9	0	194	187	7
267+00.00	26700.00	100.00	3.44	0.00	12	0	206	187	19
268+00.00	26800.00	100.00	2.39	0.00	11	0	217	187	30
269+00.00	26900.00	100.00	2.56	0.00	9	0	226	187	39
270+00.00	27000.00	100.00	3.36	0.00	11	0	237	187	50
271+00.00	27100.00	100.00	5.38	0.00	16	0	253	187	66
272+00.00	27200.00	100.00	4.20	0.00	18	0	271	187	84
272+10.91	27210.91	10.91	4.38	0.00	2	0	273	187	86
273+00.00	27300.00	89.09	1.81	1.59	10	3	283	191	92
274+01.34	27401.34	101.34	3.05	8.21	9	18	292	215	78
274+26.34	27426.34	25.00	3.43	7.82	3	7	295	224	71
274+51.33	27451.33	24.99	3.59	6.38	3	7	298	233	65
275+00.00	27500.00	48.67	3.21	4.59	6	10	304	246	58
275+48.35	27548.35	48.35	2.00	2.47	5	6	309	254	56
276+44.42	27644.42	0.00	2.04	1.82	0	0	309	254	56
277+49.12	27749.12	104.70	0.44	12.59	5	28	314	290	24
277+74.42	27774.42	25.30	1.39	7.69	1	10	315	303	12
277+99.72	27799.72	25.30	2.61	0.00	2	4	317	308	9
278+38.07	27838.07	38.35	2.57	0.00	4	0	321	308	13
279+00.00	27900.00	61.93	33.34	0.20	41	0	362	308	54
280+00.00	28000.00	100.00	1.80	10.20	65	19	427	333	94
281+00.00	28100.00	100.00	1.61	3.86	6	26	433	367	66
281+60.32	28160.32	60.32	1.77	4.08	4	9	437	378	59
281+85.62	28185.62	25.30	1.27	19.72	1	11	438	393	45
282+10.92	28210.92	25.30	1.43	3.22	1	11	439	407	32
283+13.98	28313.98	103.06	1.07	9.36	5	24	444	438	6

DIVISION 04 - STH 23 GUARDRAIL SECTION #4

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
287+76.90	28776.90	0.00	2.74	0.02	0	0	0	0	0
288+80.33	28880.33	103.43	0.65	13.72	6	26	6	34	-28
289+05.34	28905.34	25.01	1.23	17.56	1	14	7	52	-45
289+30.34	28930.34	25.00	1.94	6.78	1	11	8	66	-58
290+00.00	29000.00	69.66	12.25	0.16	18	9	26	78	-52
290+74.09	29074.09	74.09	52.75	10.14	89	14	115	96	19
290+99.09	29099.09	25.00	46.58	14.37	46	11	161	111	51
291+24.09	29124.09	25.00	32.64	11.74	37	12	198	126	72
292+00.00	29200.00	75.91	1.62	5.11	48	24	246	157	89
292+27.53	29227.53	27.53	0.90	2.35	1	4	247	163	85

DIVISION 05 - STH 23 GUARDRAIL SECTION #5

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
320+24.94	32024.94	0.00	3.00	0.94	0	0	0	0	0
321+29.89	32129.89	104.95	2.29	3.06	10	8	10	10	0
321+55.32	32155.32	25.43	5.69	6.03	4	4	14	16	-2
321+80.70	32180.70	25.38	6.38	0.00	6	3	20	20	0
322+00.00	32200.00	19.30	6.26	0.00	5	0	25	20	6
322+24.29	32224.29	24.29	1.80	0.00	4	0	29	20	10
323+00.00	32300.00	75.71	16.61	0.00	26	0	55	20	36
324+00.00	32400.00	100.00	8.04	0.00	46	0	101	20	82
325+00.00	32500.00	100.00	48.47	0.20	105	0	206	20	187
326+00.00	32600.00	100.00	32.58	0.35	150	1	356	21	335
326+56.53	32656.53	56.53	1.61	59.63	36	63	392	103	289
326+81.91	32681.91	25.38	2.22	43.57	2	49	394	166	228
327+07.28	32707.28	25.37	2.63	12.33	2	26	396	200	196
328+14.45	32814.45	107.17	1.22	1.65	8	28	404	237	167

DIVISION 06 - STH 23 GUARDRAIL SECTION #6

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
331+23.84	33123.84	0.00	0.93	0.57	0	0	0	0	0
332+27.28	33227.28	103.44	0.20	2.83	2	7	2	9	-7
332+52.28	33252.28	25.00	0.74	7.04	0	5	2	16	-14
332+77.28	33277.28	25.00	1.36	4.31	1	5	3	22	-19
333+00.00	33300.00	22.72	11.74	0.15	6	2	9	25	-16
334+00.00	33400.00	100.00	10.23	5.21	41	10	50	38	12
335+00.00	33500.00	100.00	25.00	0.83	65	11	115	52	63
336+00.00	33600.00	100.00	34.52	0.64	110	3	225	56	169
337+00.00	33700.00	100.00	34.96	0.51	129	2	354	59	296
337+31.40	33731.40	31.40	2.00	0.05	21	0	375	59	317
337+50.00	33750.00	18.60	4.58	0.00	2	0	377	59	319
337+75.00	33775.00	25.00	8.15	0.00	6	0	383	59	325
337+92.11	33792.11	17.11	8.18	0.00	5	0	388	59	330

DIVISION 07 - STH 23 GUARDRAIL SECTION #7

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
356+30.99	35630.99	0.00	2.66	0.00	0	0	0	0	0
356+40.07	35640.07	9.08	5.43	4.51	1	1	1	1	0
357+34.43	35734.43	94.36	18.39	20.74	42	44	43	59	-16
357+43.51	35743.51	9.08	19.64	28.38	6	8	49	69	-20
357+59.43	35759.43	15.92	21.89	63.33	12	27	61	104	-43
357+68.51	35768.51	9.08	17.19	66.72	7	22	68	133	-65
357+84.43	35784.43	15.92	5.83	55.74	7	36	75	179	-104
357+93.52	35793.52	9.09	5.63	55.46	2	19	77	204	-127
359+00.00	35900.00	106.48	23.67	0.26	58	110	135	347	-212
359+50.00	35950.00	50.00	22.16	0.49	42	1	177	348	-171
360+00.00	36000.00	50.00	27.45	0.15	46	1	223	350	-127
361+00.00	36100.00	100.00	39.16	0.20	123	1	346	351	-5
361+73.78	36173.78	73.78	141.89	0.00	247	0	593	351	242
361+98.49	36198.49	24.71	28.43	4.77	78	2	671	354	317
362+00.00	36200.00	1.51	25.80	3.37	2	0	673	354	319
362+25.00	36225.00	25.00	116.93	0.33	66	2	739	356	383
362+50.00	36250.00	25.00	86.61	0.12	94	0	833	356	477
363+00.00	36300.00	50.00	40.06	0.25	117	0	950	356	594
364+00.00	36400.00	100.00	17.33	0.40	106	1	1,056	358	699
365+00.00	36500.00	100.00	9.29	0.00	49	1	1,105	359	746
366+00.00	36600.00	100.00	9.50	0.00	35	0	1,140	359	781
367+00.00	36700.00	100.00	24.33	0.00	63	0	1,203	359	844
367+81.46	36781.46	81.46	3.27	15.93	42	24	1,245	390	855
368+06.69	36806.69	25.23	3.69	20.81	3	17	1,248	412	836
368+31.97	36831.97	25.28	3.79	15.57	4	17	1,252	434	818
369+36.28	36936.28	104.31	2.07	4.66	11	39	1,263	485	778

DIVISION 08 - STH 23 GUARDRAIL SECTION #8

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
455+67.19	45567.19	0.00	1.76	9.49	0	0	0	0	0
456+87.58	45687.58	120.39	2.00	13.78	8	52	8	68	-60
457+12.58	45712.58	25.00	3.65	3.72	3	8	11	78	-67
457+37.58	45737.58	25.00	3.35	0.00	3	2	14	81	-67
458+00.00	45800.00	62.42	1.58	0.52	6	1	20	82	-62
458+50.00	45850.00	50.00	2.28	2.61	4	3	24	86	-62
458+57.75	45857.75	7.75	13.54	5.13	2	1	26	87	-61
458+75.00	45875.00	17.25	9.36	0.98	7	2	33	90	-57
459+03.84	45903.84	28.84	7.06	0.12	9	1	42	91	-49
459+07.02	45907.02	3.18	7.09	0.51	1	0	43	91	-48
459+40.70	45940.70	33.68	18.05	2.64	16	2	59	94	-35
459+50.00	45950.00	9.30	21.83	2.09	7	1	66	95	-29
459+82.97	45982.97	32.97	0.77	2.65	14	3	80	99	-19
460+00.00	46000.00	17.03	0.93	2.25	1	2	81	101	-20
461+00.00	46100.00	100.00	0.19	3.10	2	10	83	114	-31
461+81.86	46181.86	81.86	0.58	5.48	1	13	84	131	-47
462+06.86	46206.86	25.00	1.24	10.07	1	7	85	140	-55
462+31.86	46231.86	25.00	0.73	24.37	1	16	86	161	-75
463+50.47	46350.47	118.61	1.20	4.95	4	64	90	244	-154

DIVISION 09 - STH 23 - WILLOW ST TO B-56-151

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
502+13.24	50213.24	0.00	14.01	17.33	0	0	0	0	0
502+25.00	50225.00	11.76	26.52	18.85	9	8	9	10	-1
502+26.93	50226.93	1.93	22.79	16.99	2	1	11	12	-1
502+50.00	50250.00	23.07	25.29	0.00	21	7	32	21	11
502+71.84	50271.84	21.84	22.71	4.30	19	2	51	23	28
502+75.00	50275.00	3.16	22.47	5.64	3	1	54	25	29
502+84.47	50284.47	9.47	21.46	44.07	8	9	62	36	26
502+89.17	50289.17	4.70	10.30	14.92	3	5	65	43	22

DIVISION 09 - WILLOW ST

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
70+71.00	7071.00	0.00	148.37	0.14	0	0	0	0	0
70+75.00	7075.00	4.00	148.93	0.49	22	0	22	0	22
70+88.25	7088.25	13.25	123.98	3.74	67	1	89	1	88
71+00.00	7100.00	11.75	150.79	15.05	60	4	149	7	143
71+05.07	7105.07	5.07	216.91	5.96	35	2	184	9	175
71+13.93	7113.93	8.86	244.85	0.00	76	1	260	10	250
71+19.60	7119.60	5.67	240.21	0.00	51	0	311	10	301

DIVISION 09 - STH 23 GUARDRAIL SECTION #10

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
503+68.33	50368.33	0.00	18.67	51.64	0	0	0	0	0
503+75.14	50375.14	6.81	11.87	61.32	4	14	4	18	-14
504+00.00	50400.00	24.86	2.28	28.39	7	41	11	72	-61
504+08.05	50408.05	8.05	1.77	19.95	1	7	12	81	-69
504+15.16	50415.16	7.11	2.05	18.31	1	5	13	87	-74
504+33.03	50433.03	17.87	2.52	45.77	2	21	15	114	-99
504+40.14	50440.14	7.11	2.56	59.40	1	14	16	133	-117
504+58.01	50458.01	17.87	2.46	62.58	2	40	18	185	-167
504+65.12	50465.12	7.11	2.76	59.74	1	16	19	205	-186
505+00.00	50500.00	34.88	4.92	34.19	5	61	24	285	-261
505+86.02	50586.02	86.02	11.73	0.00	27	54	51	355	-304
505+89.95	50589.95	3.93	10.77	0.00	2	0	53	355	-302

DIVISION 10 - STH 23 GUARDRAIL SECTION #11

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
526+30.95	52630.95	0.00	7.81	0.00	0	0	0	0	0
526+58.96	52658.96	28.01	3.12	0.00	6	0	6	0	6
526+83.94	52683.94	24.98	1.52	5.62	2	3	8	4	4
527+08.92	52708.92	24.98	1.98	8.90	2	7	10	13	-3
527+10.05	52710.05	1.13	5.54	8.69	0	0	10	13	-3
527+32.49	52732.49	22.44	4.79	0.00	4	4	14	18	-4
528+00.00	52800.00	67.51	4.95	19.23	12	24	26	49	-23
528+29.13	52829.13	29.13	2.84	24.53	4	24	30	81	-51
528+54.11	52854.11	24.98	2.81	13.52	3	18	33	104	-71
528+79.09	52879.09	24.98	3.28	1.02	3	7	36	113	-77
529+00.00	52900.00	20.91	3.30	0.05	3	0	39	113	-74
530+00.00	53000.00	100.00	2.75	0.93	11	2	50	116	-66
531+00.00	53100.00	100.00	2.32	1.08	9	4	59	121	-62
532+00.00	53200.00	100.00	1.71	2.46	7	7	66	130	-64
533+00.00	53300.00	100.00	2.61	11.35	8	26	74	164	-90
534+00.00	53400.00	100.00	4.63	0.00	13	21	87	191	-104
534+14.29	53414.29	14.29	4.78	0.34	2	0	89	191	-102
534+35.34	53435.34	21.05	5.08	24.90	4	10	93	204	-111
534+40.17	53440.17	4.83	5.22	20.68	1	4	94	209	-115
534+60.32	53460.32	20.15	5.74	40.67	4	23	98	239	-141
534+65.17	53465.17	4.85	5.67	42.87	1	8	99	250	-151
534+85.31	53485.31	20.14	5.20	49.06	4	34	103	294	-191
534+90.15	53490.15	4.84	5.37	51.74	1	9	104	306	-202
535+74.37	53574.37	84.22	4.48	18.00	15	109	119	447	-328
536+08.63	53608.63	34.26	2.43	10.10	4	18	123	471	-348

DIVISION 11 - STH 23 GUARDRAIL SECTION #12

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.30	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
541+98.28	54198.28	0.00	2.85	0.00	0	0	0	0	0
542+20.91	54220.91	22.63	4.58	2.04	3	1	3	1	2
542+46.56	54246.56	25.65	4.44	4.79	4	3	7	5	2
543+00.00	54300.00	53.44	5.87	20.41	10	25	17	38	-21
543+00.00	54300.00	0.00	0.00	0.00	0	0	17	38	-21
543+17.35	54317.35	17.35	6.35	7.63	2	2	19	40	-21
543+32.12	54332.12	14.77	7.06	6.25	4	4	23	46	-23
543+39.35	54339.35	7.23	3.18	5.42	1	2	24	48	-24
543+42.34	54342.34	2.99	2.87	7.40	0	1	24	49	-25
543+64.35	54364.35	22.01	2.74	3.79	2	5	26	56	-30
543+67.32	54367.32	2.97	2.80	3.47	0	0	26	56	-30
543+89.35	54389.35	22.03	3.47	2.19	3	2	29	59	-30
544+07.34	54407.34	17.99	1.57	9.17	2	4	31	64	-33

DIVISION 11 - STH 23 GUARDRAIL SECTION #13

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
544+62.52	54462.52	0.00	3.57	5.96	0	0	0	0	0
544+80.49	54480.49	17.97	5.01	0.77	3	2	3	3	0
545+00.00	54500.00	19.51	5.52	0.04	4	0	7	3	4
545+05.49	54505.49	5.49	5.94	0.07	1	0	8	3	5
545+30.49	54530.49	25.00	4.52	0.93	5	0	13	3	10
545+49.46	54549.46	18.97	4.71	0.73	3	1	16	4	12
545+52.59	54552.59	3.13	4.70	0.72	1	0	17	4	13
545+77.59	54577.59	25.00	4.95	11.59	4	6	21	12	9
546+02.55	54602.55	24.96	5.04	5.76	5	8	26	22	4
546+15.10	54615.10	12.55	5.03	8.53	2	3	28	26	2
546+48.99	54648.99	33.89	5.37	2.87	7	7	35	35	0
546+70.75	54670.75	21.76	4.98	0.00	4	1	39	36	3

DIVISION 12 - STH 23 GUARDRAIL SECTION #14

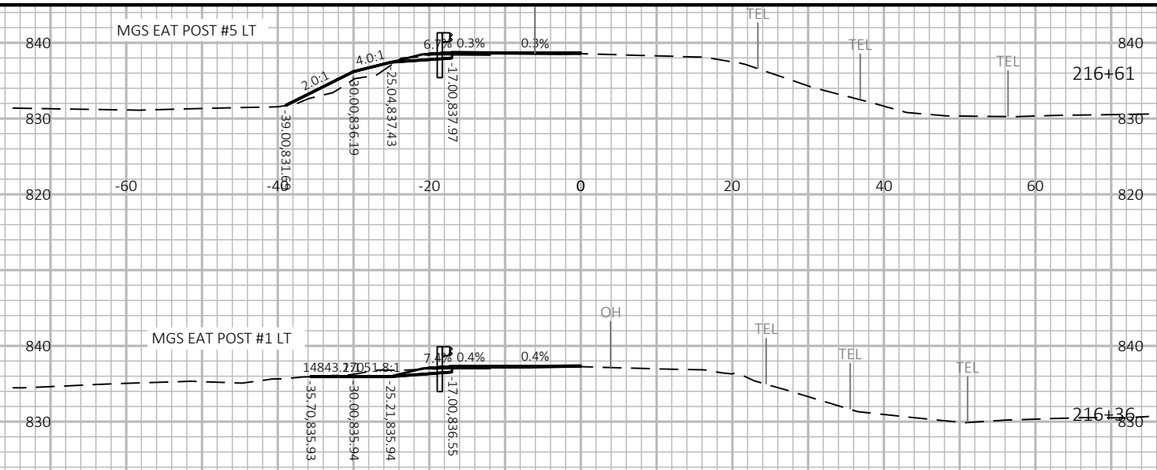
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
550+30.07	55030.07	0.00	0.00	0.00	0	0	0	0	0
550+50.00	55050.00	19.93	0.82	38.44	0	14	0	18	-18
550+75.00	55075.00	25.00	5.69	4.26	3	20	3	44	-41
551+08.92	55108.92	33.92	32.35	0.00	24	3	27	48	-21
551+25.00	55125.00	16.08	2.73	31.30	10	9	37	60	-23
551+29.25	55129.25	4.25	1.57	28.86	0	5	37	66	-29
552+00.00	55200.00	70.75	24.76	1.44	34	40	71	118	-47
553+00.00	55300.00	100.00	14.85	1.00	73	5	144	125	19
554+00.00	55400.00	100.00	15.66	0.60	57	3	201	129	72
555+00.00	55500.00	100.00	3.65	0.10	36	1	237	130	107
556+00.00	55600.00	100.00	7.00	0.45	20	1	257	131	126
556+38.87	55638.87	38.87	10.64	1.97	13	2	270	134	136
557+00.00	55700.00	61.13	9.04	2.11	22	5	292	140	152
558+00.00	55800.00	100.00	0.38	1.61	17	7	309	150	160
559+00.00	55900.00	100.00	0.13	4.66	1	12	310	165	145
559+87.46	55987.46	87.46	1.36	1.93	2	11	312	179	133
560+12.46	56012.46	25.00	0.56	8.53	1	5	313	186	127
560+37.46	56037.46	25.00	0.29	9.63	0	8	313	196	117
561+00.00	56100.00	62.54	2.34	7.46	3	20	316	222	94
561+55.90	56155.90	55.90	2.05	3.90	5	12	321	238	83

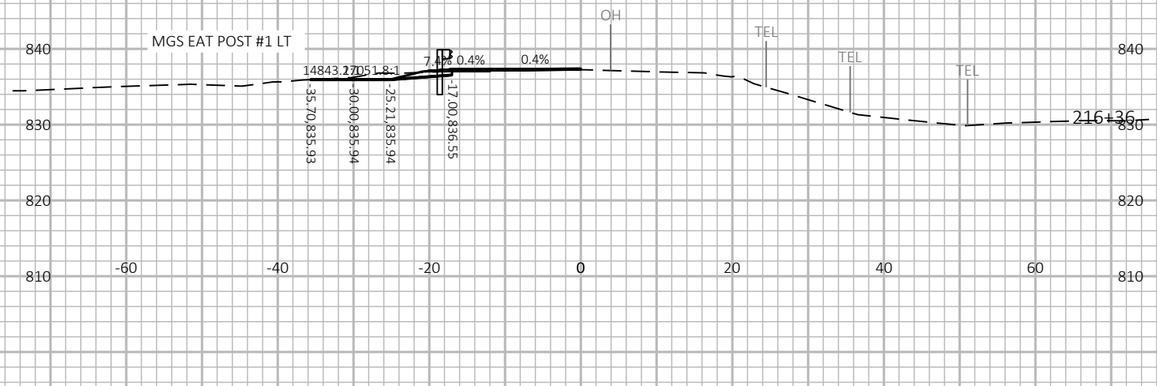
DIVISION 13 - STH 23 GUARDRAIL SECTION #15

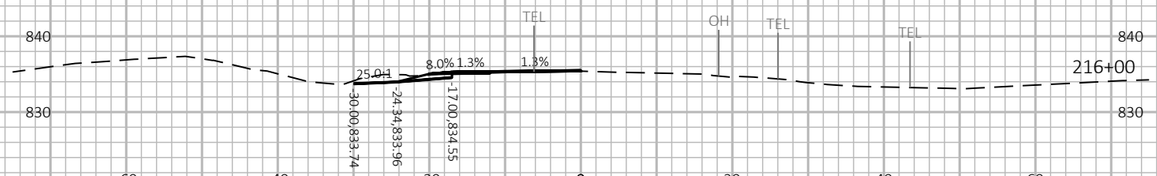
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
564+26.25	56426.25	0.00	46.05	10.86	0	0	0	0	0
565+00.00	56500.00	73.75	155.42	22.41	275	45	275	59	217
565+42.98	56542.98	42.98	91.64	22.54	197	36	472	105	367
565+67.61	56567.61	24.63	71.17	18.42	74	19	546	130	416
565+92.25	56592.25	24.64	0.32	11.02	33	13	579	147	432
566+00.00	56600.00	7.75	0.22	9.68	0	3	579	151	428
567+00.00	56700.00	100.00	0.67	0.90	2	20	581	177	404
567+69.56	56769.56	69.56	1.62	0.03	3	1	584	178	406
568+00.00	56800.00	30.44	1.71	0.00	2	0	586	178	408
569+00.00	56900.00	100.00	1.05	0.31	5	1	591	179	412
570+00.00	57000.00	100.00	1.17	0.00	4	1	595	181	414
571+00.00	57100.00	100.00	0.50	1.39	3	3	598	185	413
572+00.00	57200.00	100.00	0.71	6.55	2	15	600	204	396
573+00.00	57300.00	100.00	6.04	0.13	12	12	612	220	392
574+00.00	57400.00	100.00	23.91	1.60	55	3	667	224	443
575+00.00	57500.00	100.00	7.66	8.22	58	18	725	247	478
575+34.49	57534.49	34.49	8.83	31.60	11	25	736	280	457
575+38.37	57538.37	3.88	33.71	5.58	3	3	739	283	456
575+63.41	57563.41	25.04	2.02	6.22	17	5	756	290	466
575+88.41	57588.41	25.00	1.32	5.37	2	5	758	296	462
577+06.85	57706.85	118.44	1.99	1.01	7	14	765	315	450

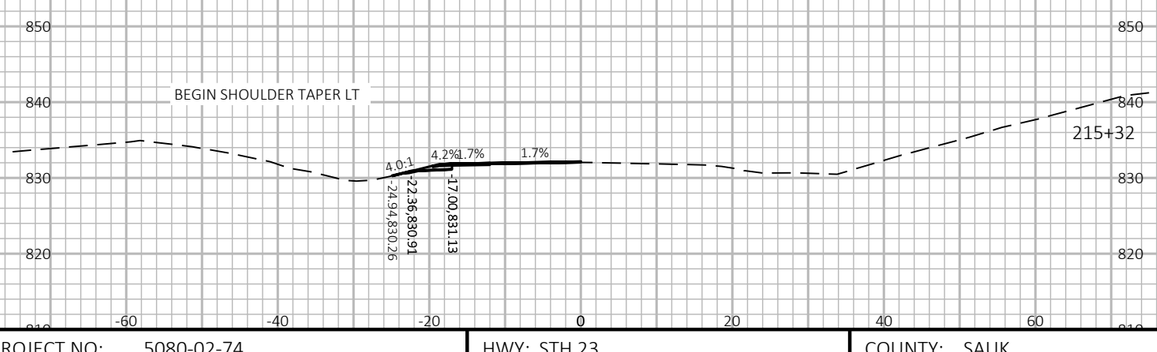
DIVISION 14 - STH 23 DAWN RD CULVERTS

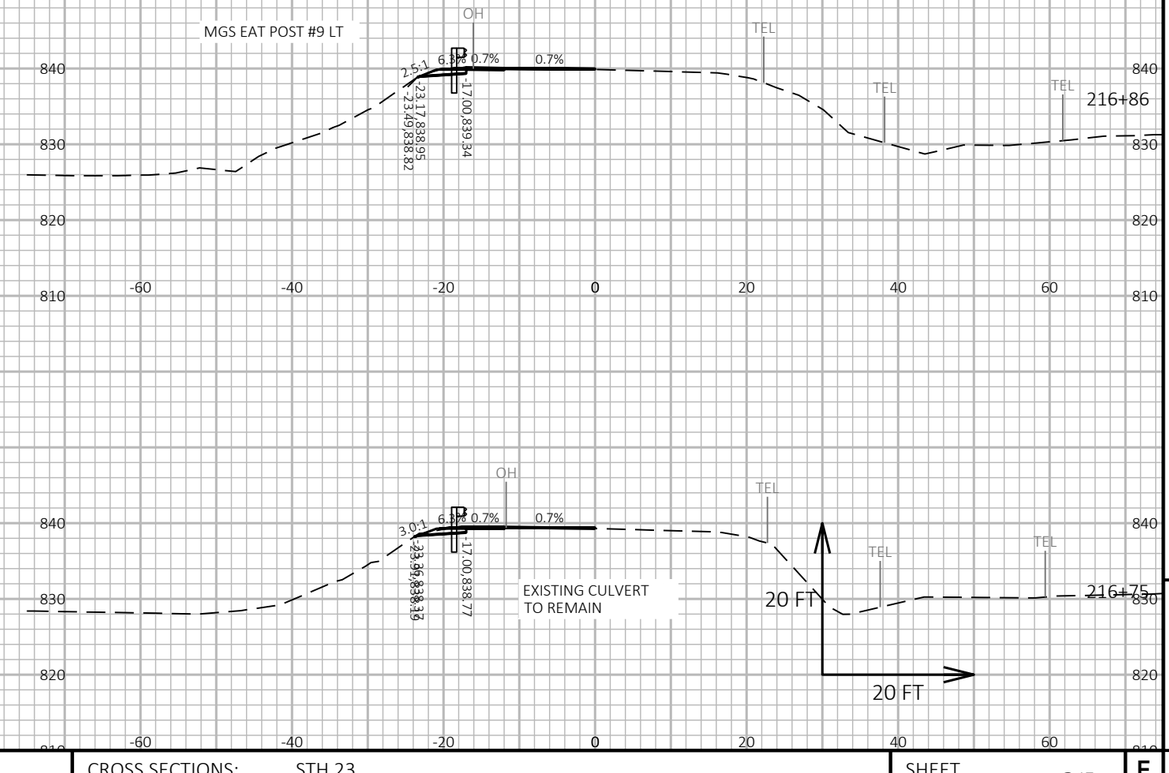
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
729+00.00	72900.00	0.00	1.68	0.00	0	0	0	0	0
729+78.80	72978.80	78.80	87.70	0.00	130	0	130	0	130
730+50.00	73050.00	71.20	473.95	0.00	741	0	871	0	871
730+56.92	73056.92	6.92	359.63	37.08	107	5	978	7	972
730+73.74	73073.74	16.82	651.88	31.57	315	21	1,293	34	1,259
731+00.00	73100.00	26.26	392.75	53.05	508	41	1,801	87	1,714
731+51.51	73151.51	51.51	197.58	0.00	563	51	2,364	153	2,211
731+75.80	73175.80	24.29	6.02	0.00	92	0	2,456	153	2,303
732+00.00	73200.00	24.20	1.57	2.22	3	1	2,459	155	2,304











9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 345	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090201-xs

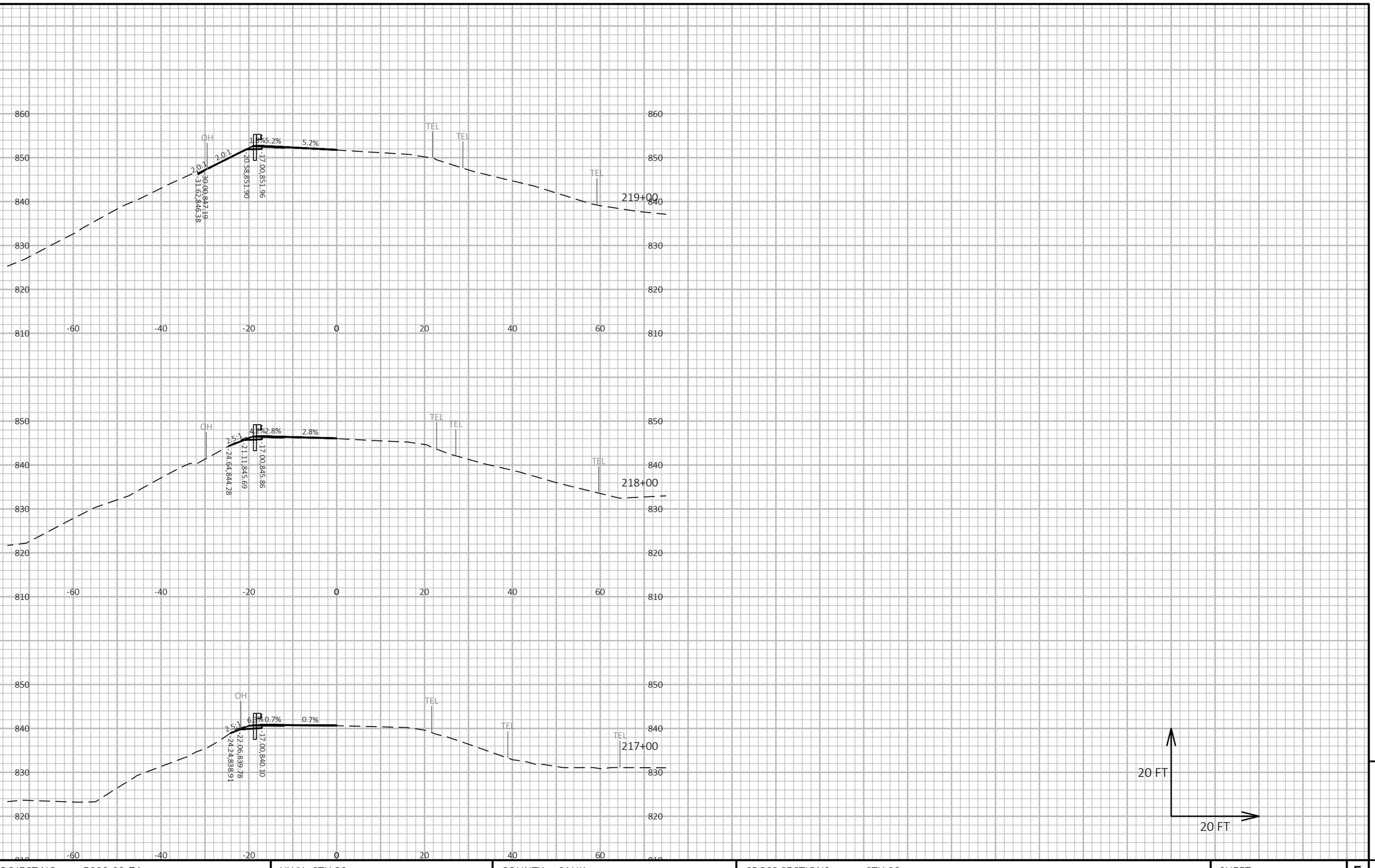
PLOT DATE : 10/31/2023 11:51 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



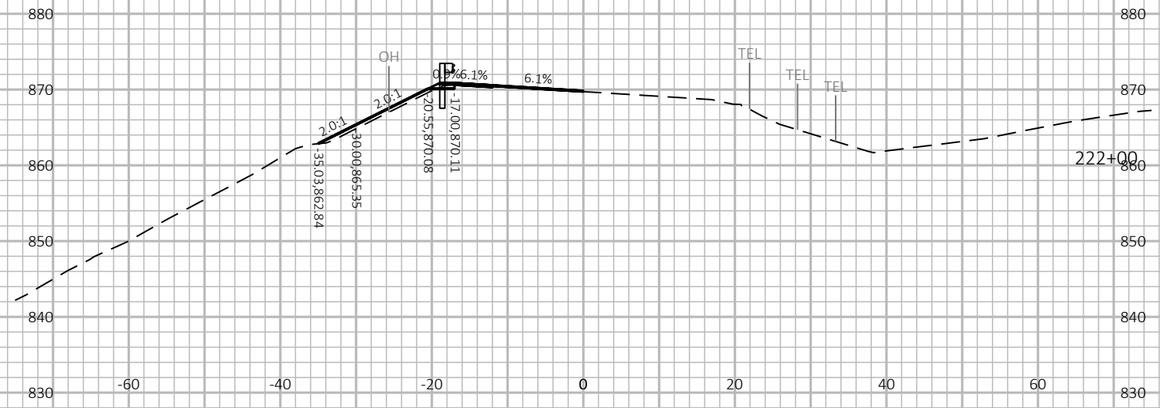
9

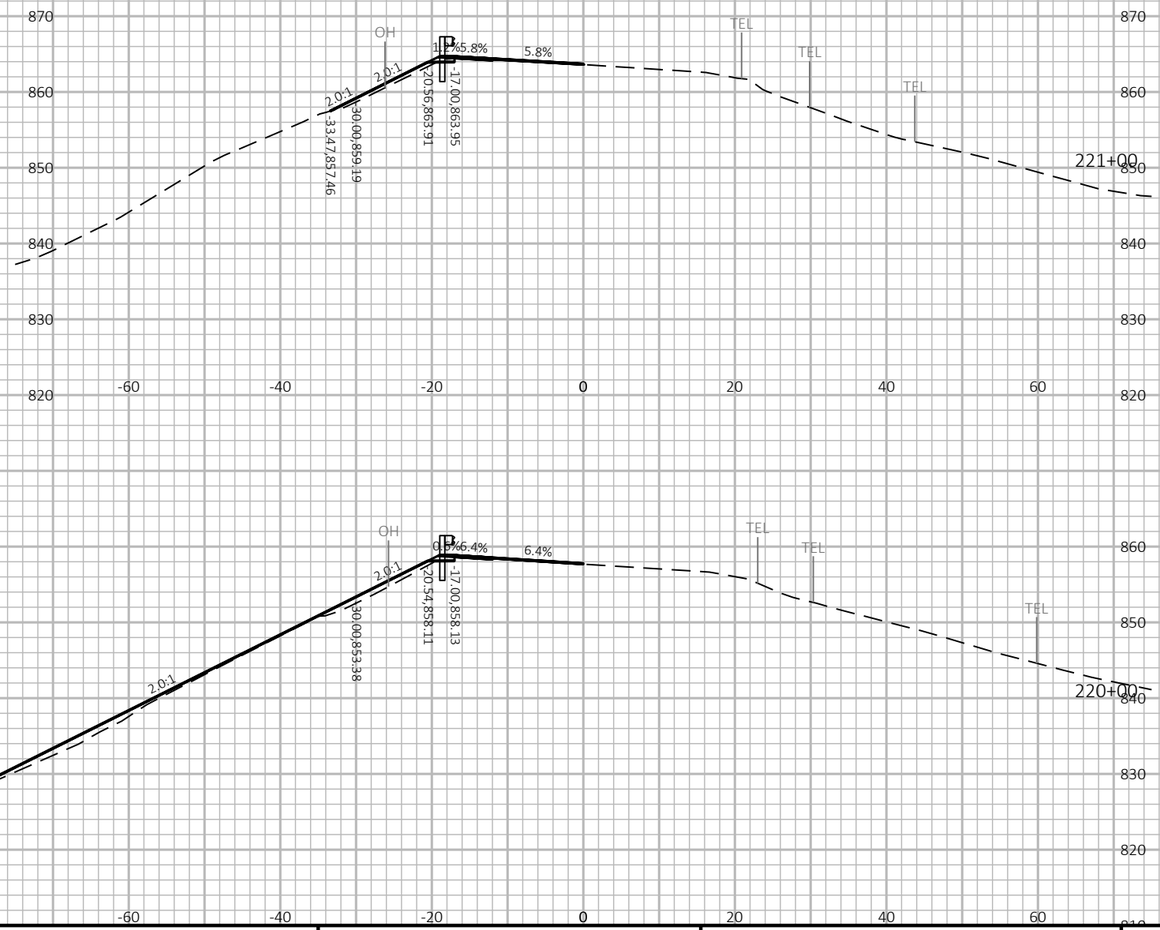
9

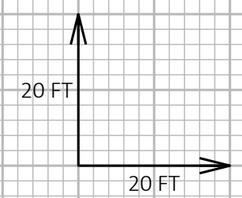
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 346	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090202-xs

PLOT DATE : 10/31/2023 11:51 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.







9

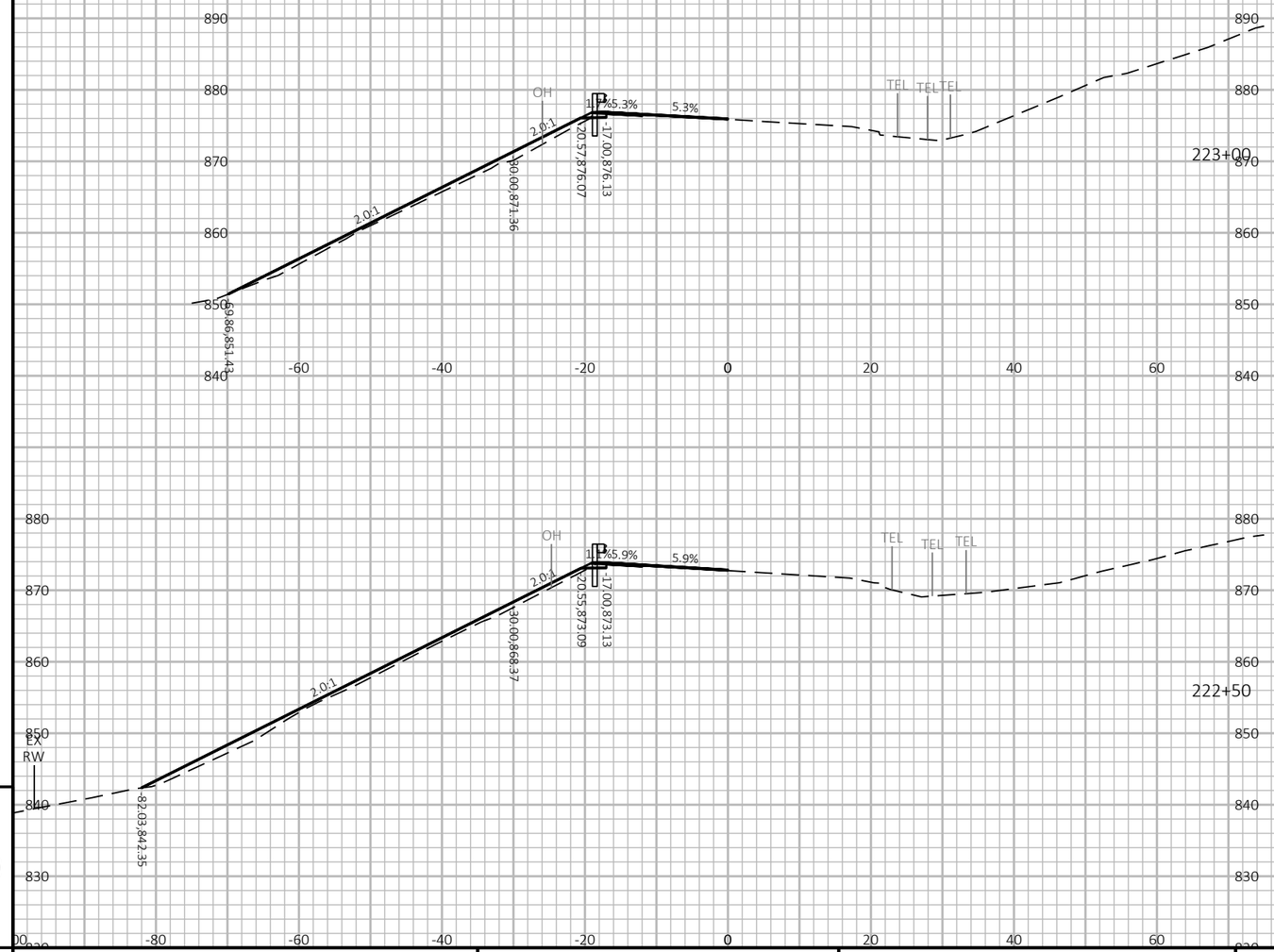
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 347	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090203-xs

PLOT DATE : 10/31/2023 11:51 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



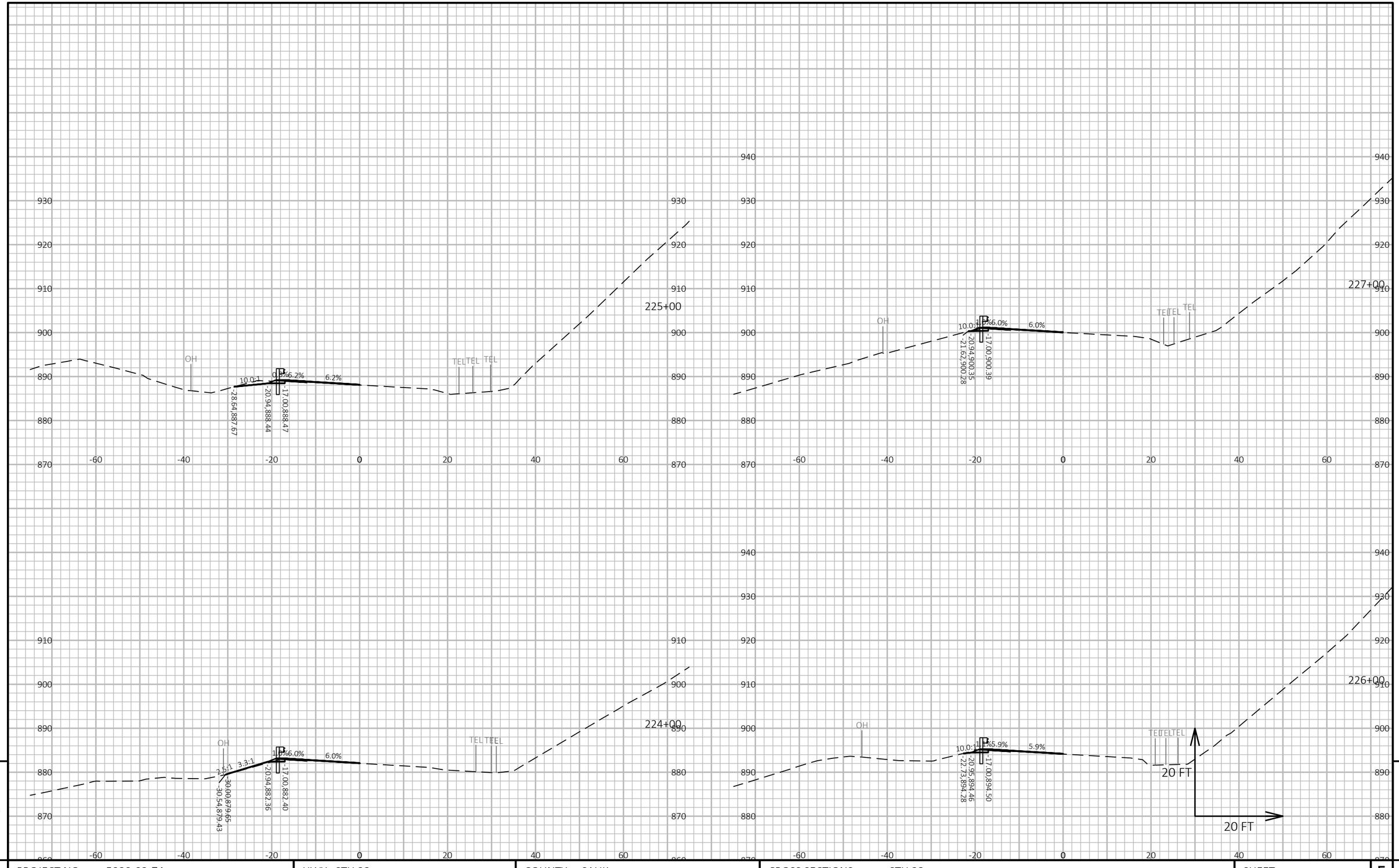
9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 348	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090204-xs

PLOT DATE : 10/31/2023 11:51 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

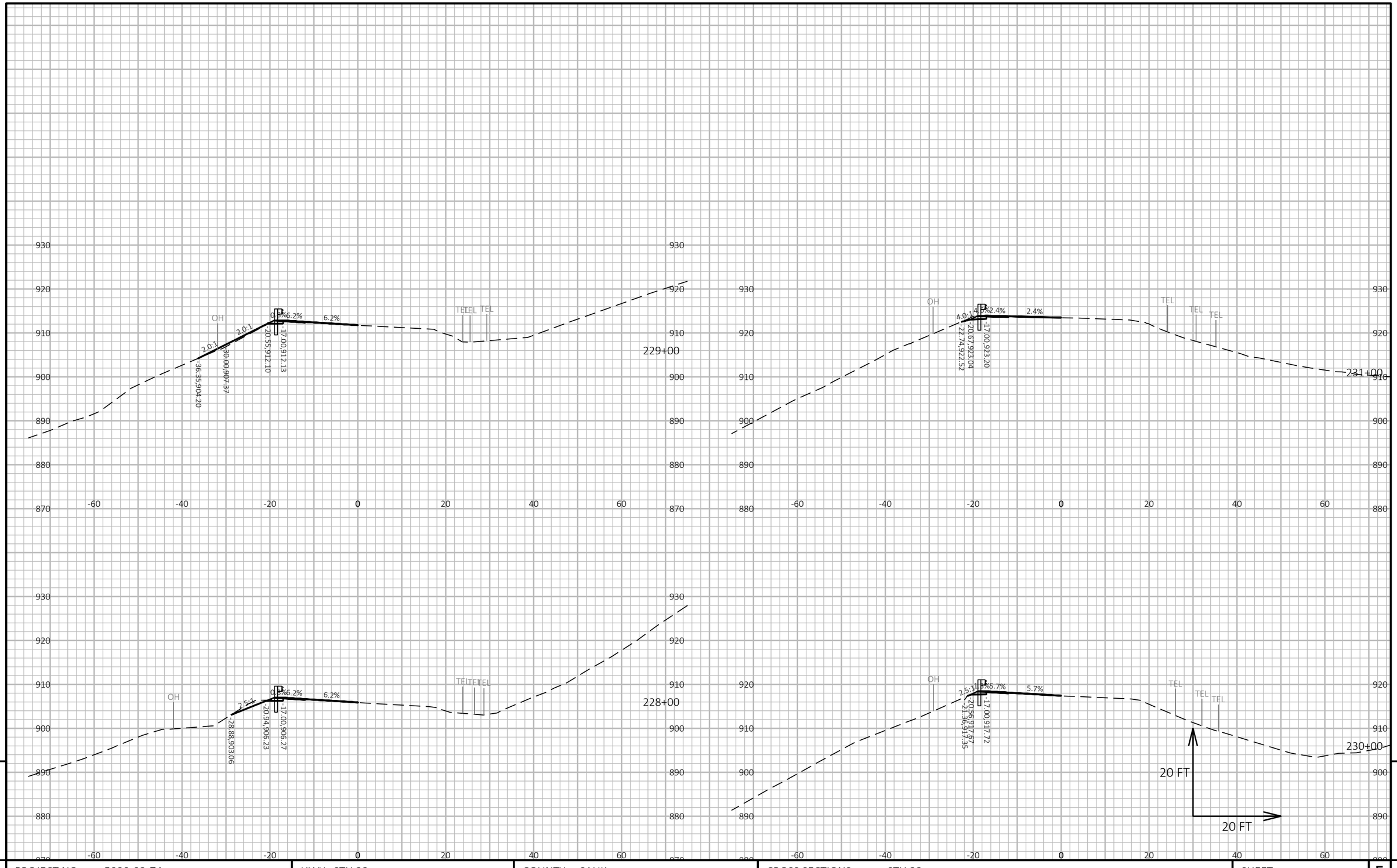


PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 349 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090205-xs

PLOT DATE : 10/31/2023 11:52 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

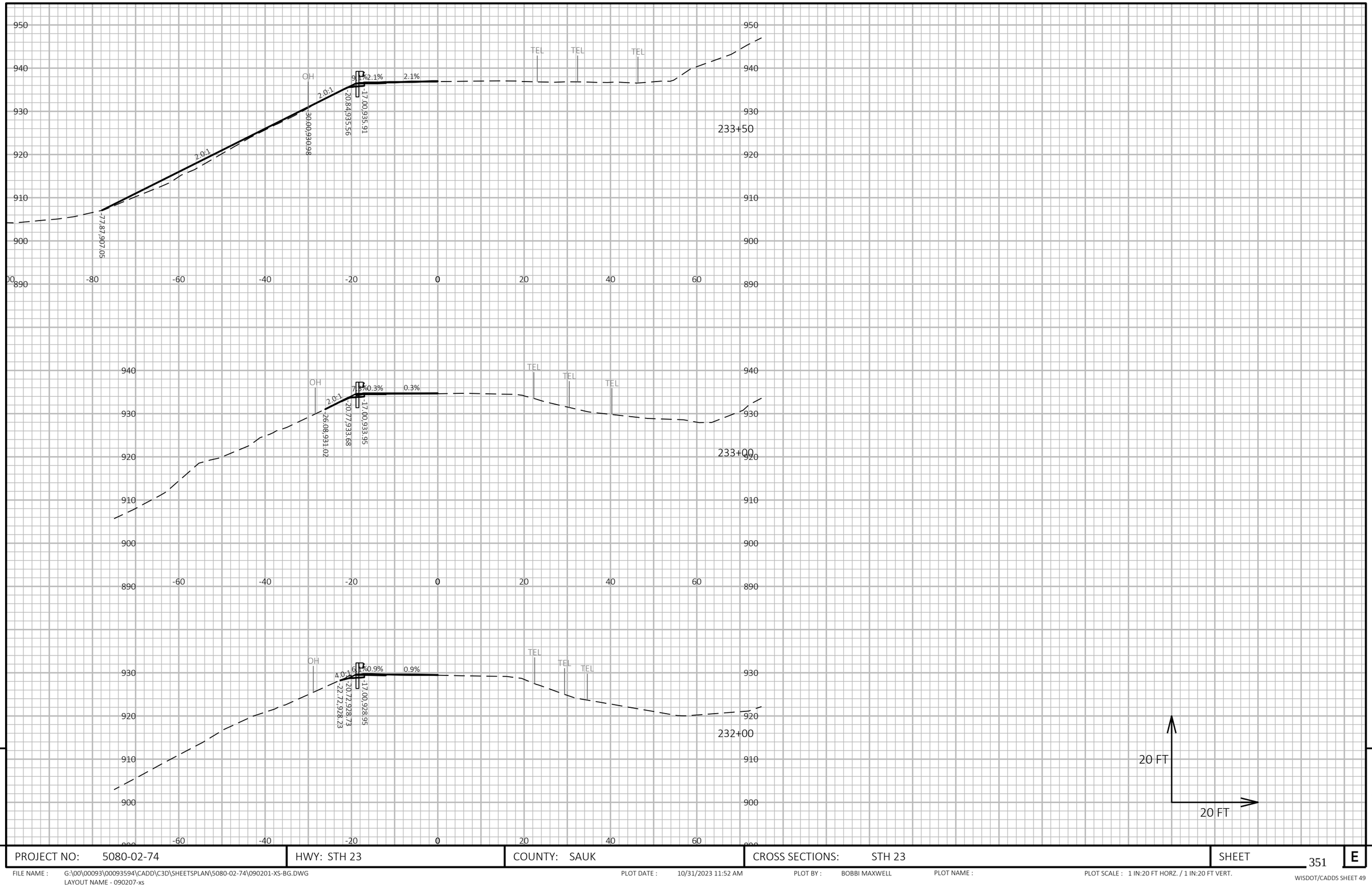


PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 350 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090206-xs

PLOT DATE : 10/31/2023 11:52 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



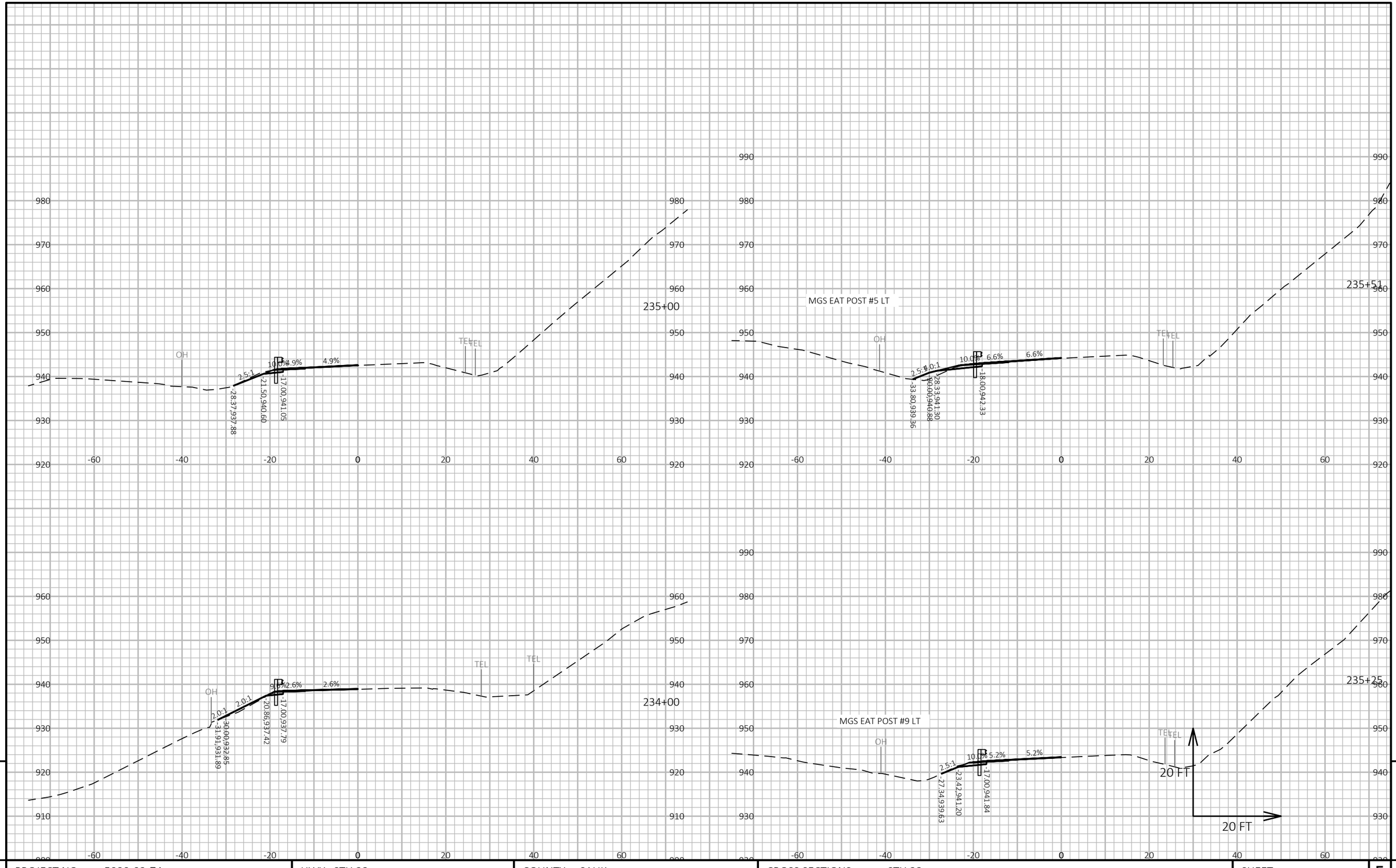
9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 351	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090207-xs

PLOT DATE : 10/31/2023 11:52 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



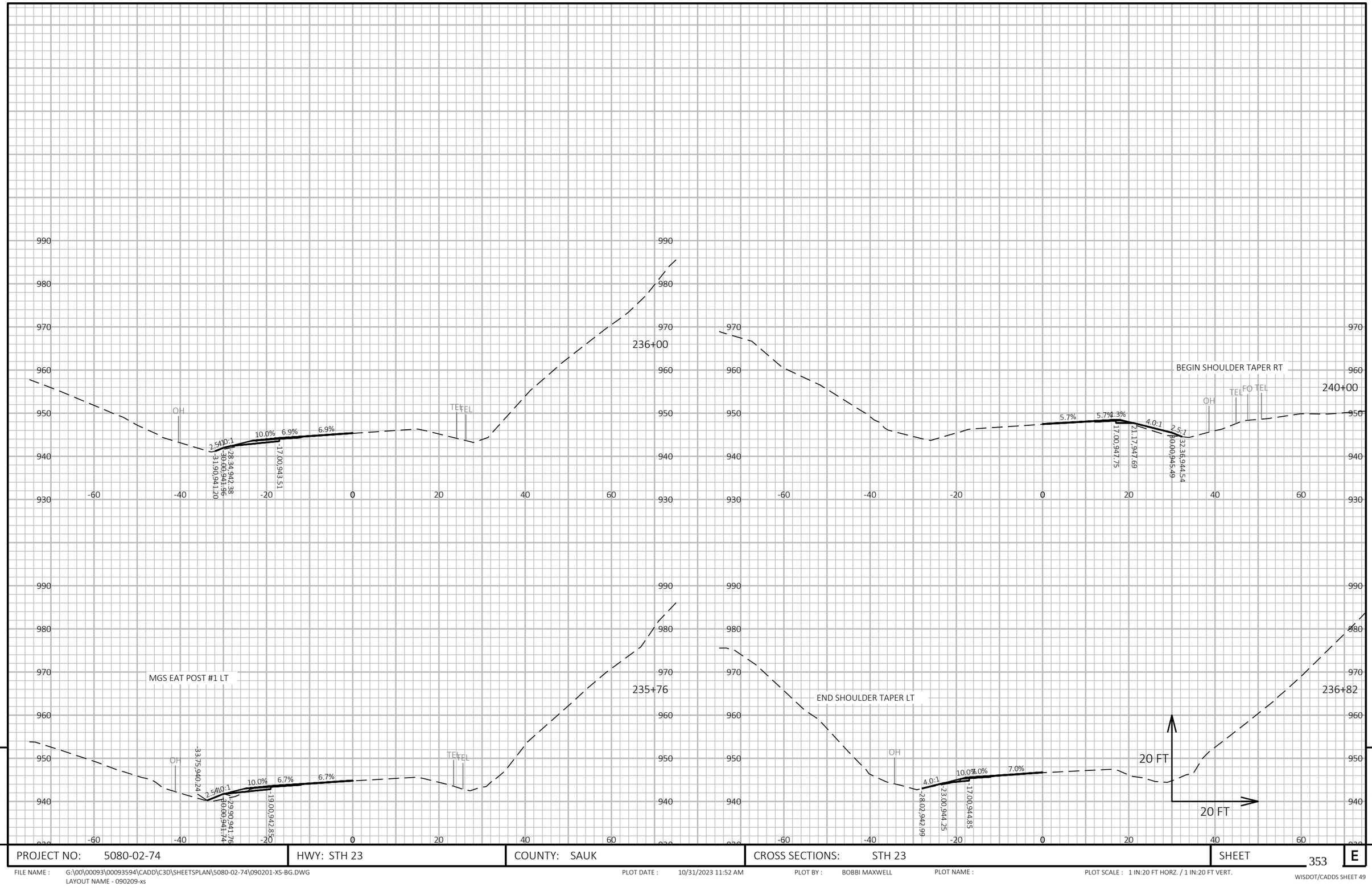
9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 352	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090208-xs

PLOT DATE : 10/31/2023 11:52 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



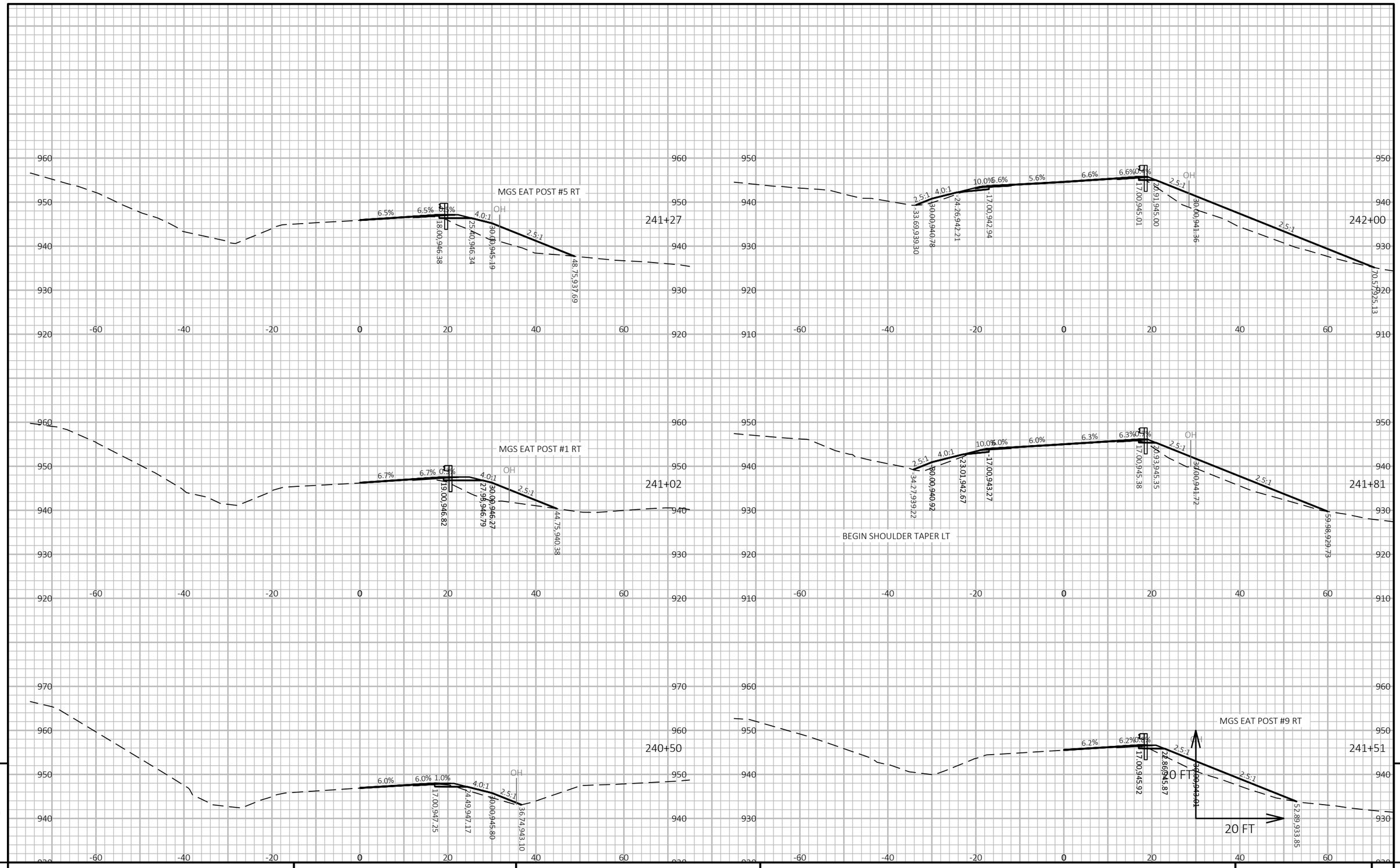
9 9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 353 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090209-xs

PLOT DATE : 10/31/2023 11:52 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



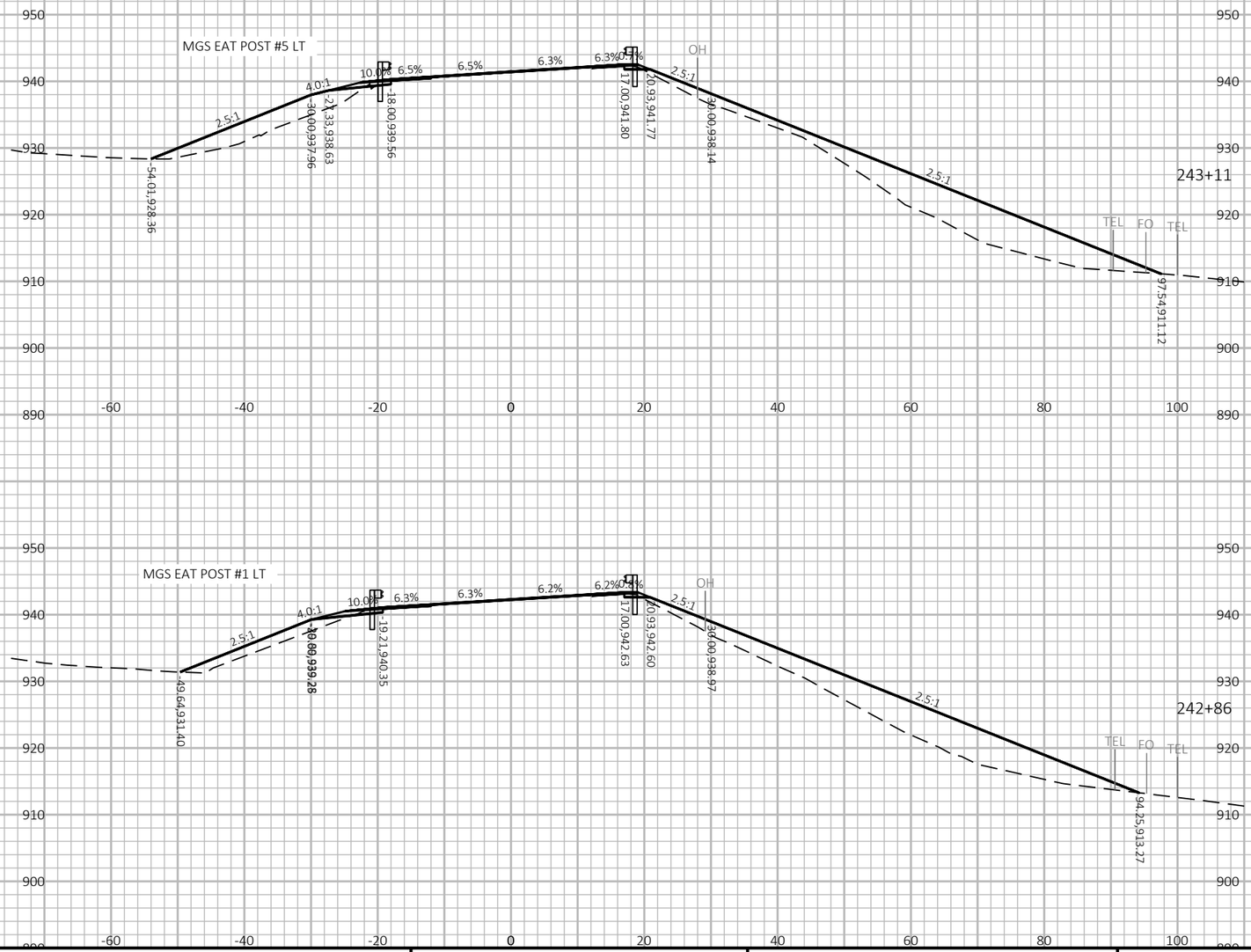
9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 354	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090210-xs

PLOT DATE : 10/31/2023 11:53 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

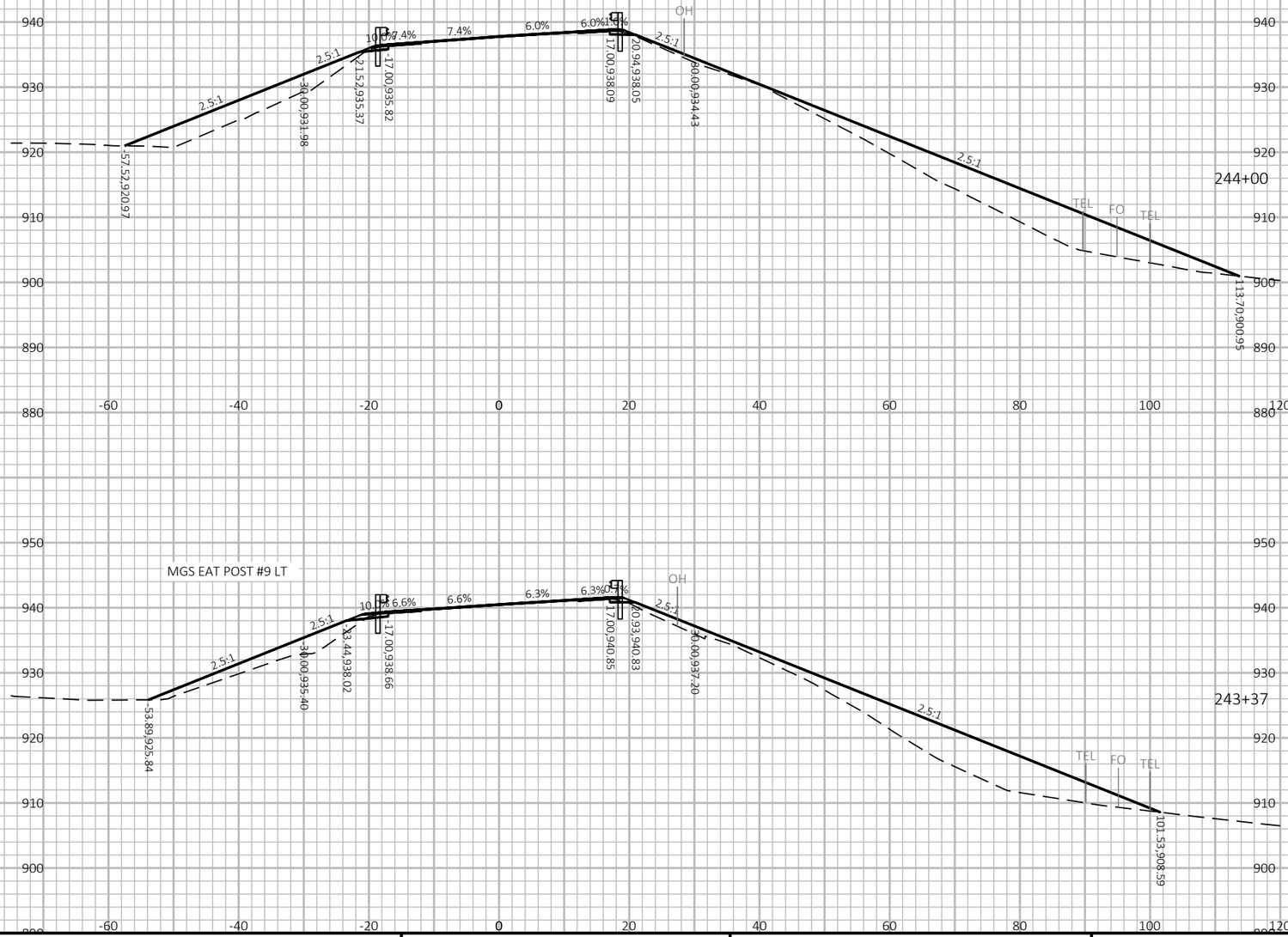
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 355	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090211-xs

PLOT DATE : 10/31/2023 11:53 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



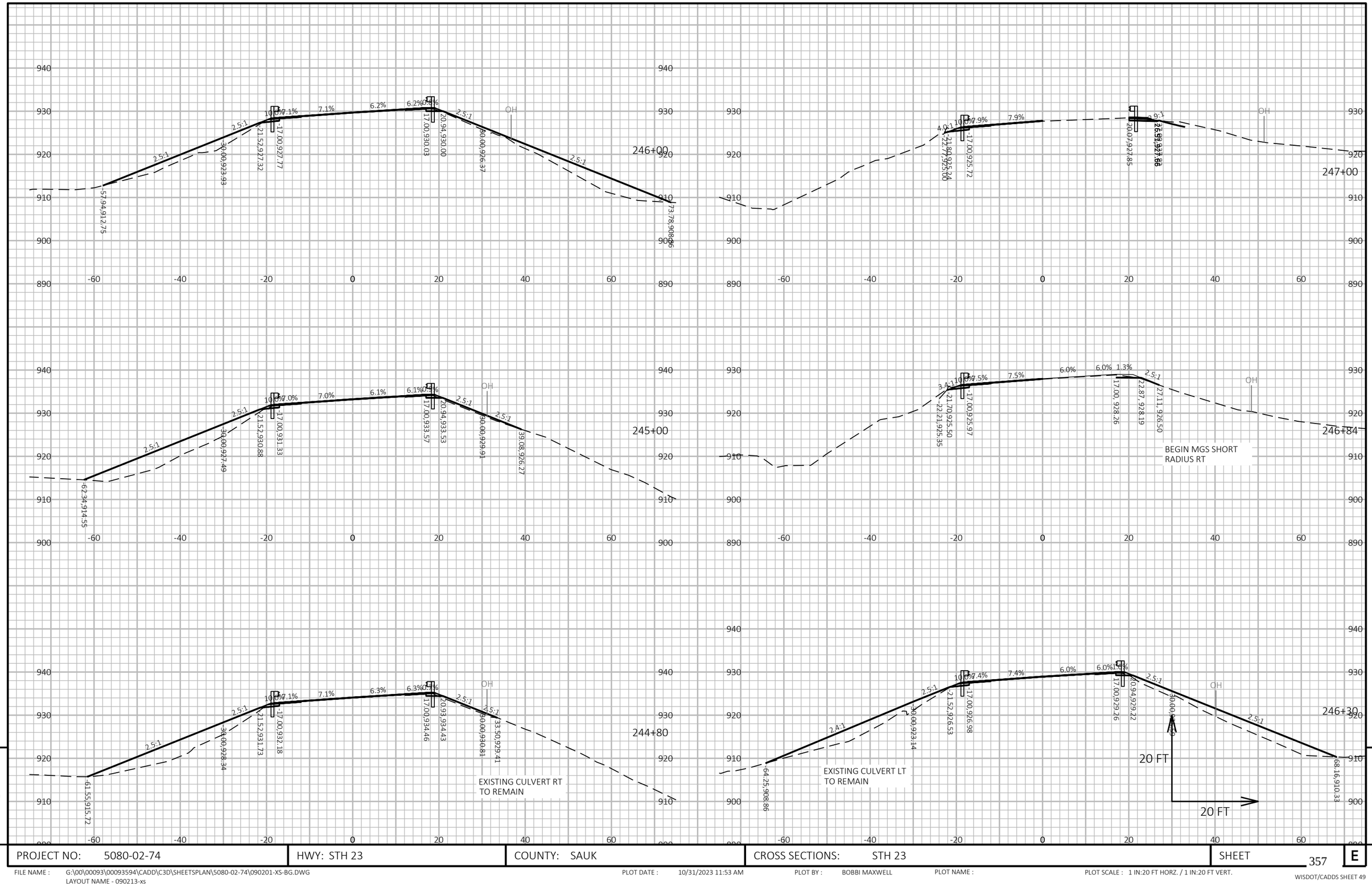
9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 356	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090212-xs

PLOT DATE : 10/31/2023 11:53 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 357	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090213-xs

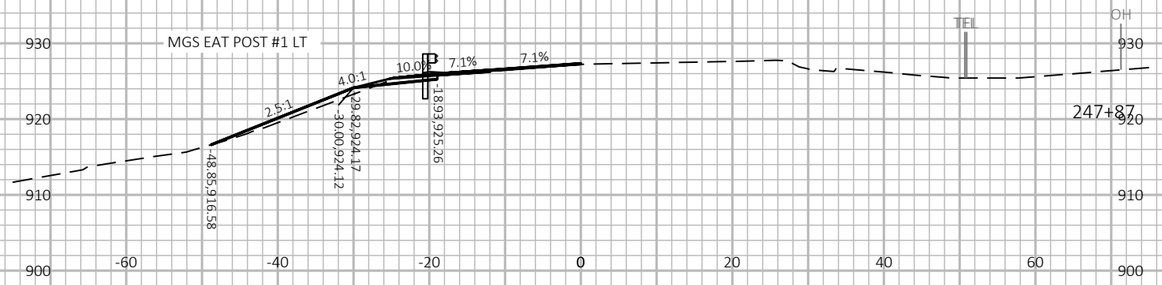
PLOT DATE : 10/31/2023 11:53 AM

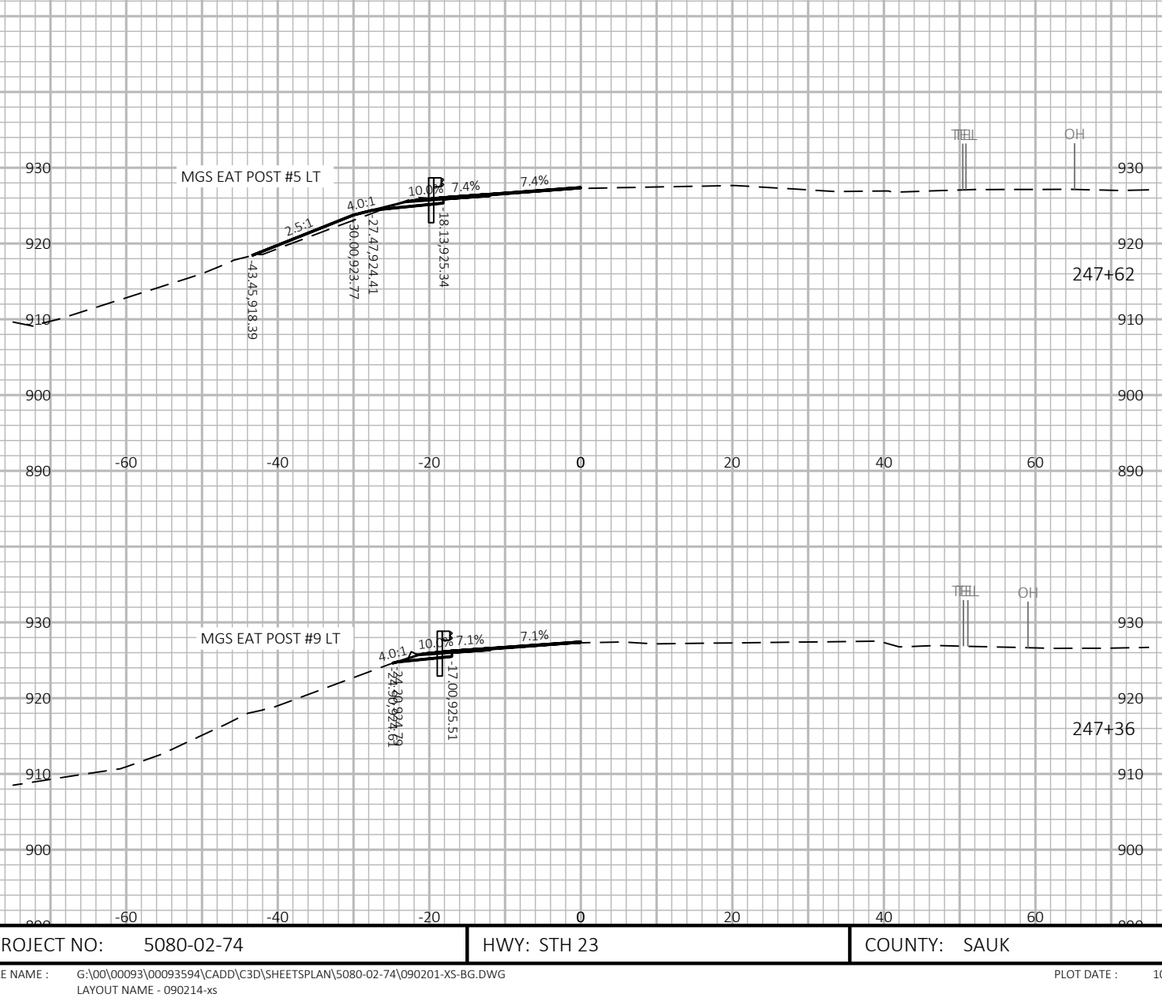
PLOT BY : BOBBI MAXWELL

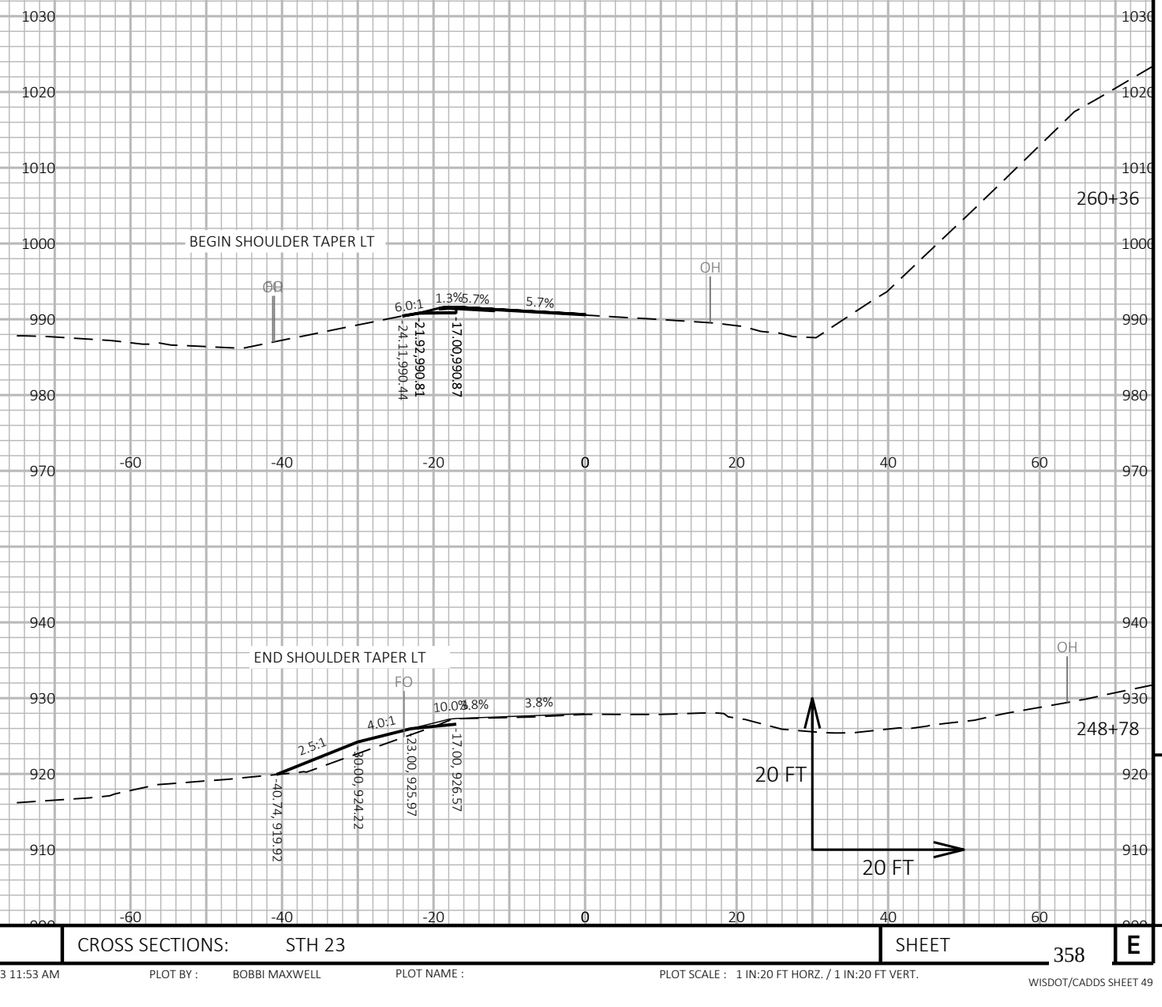
PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49







9

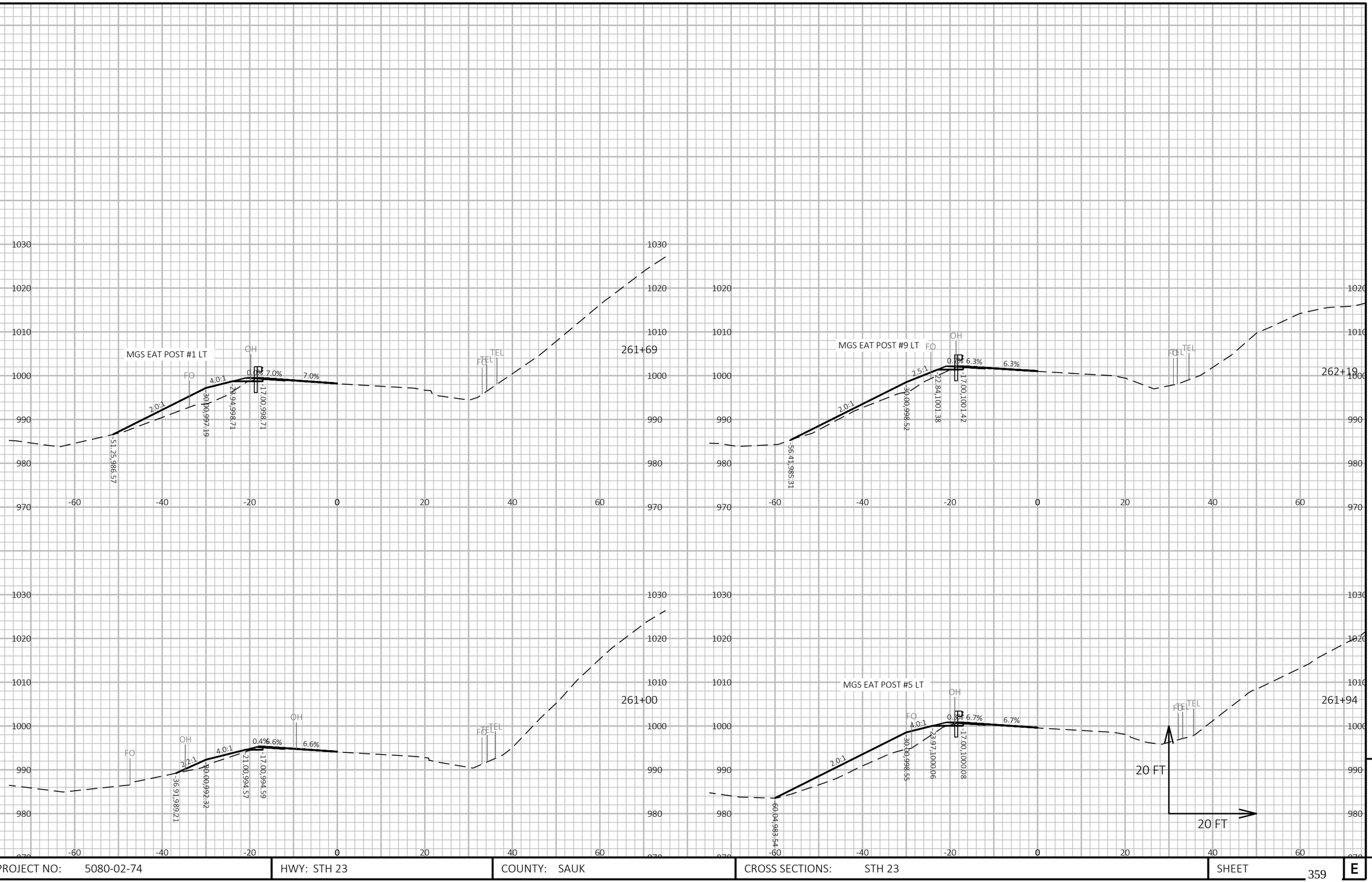
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 358	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090214-xs

PLOT DATE : 10/31/2023 11:53 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



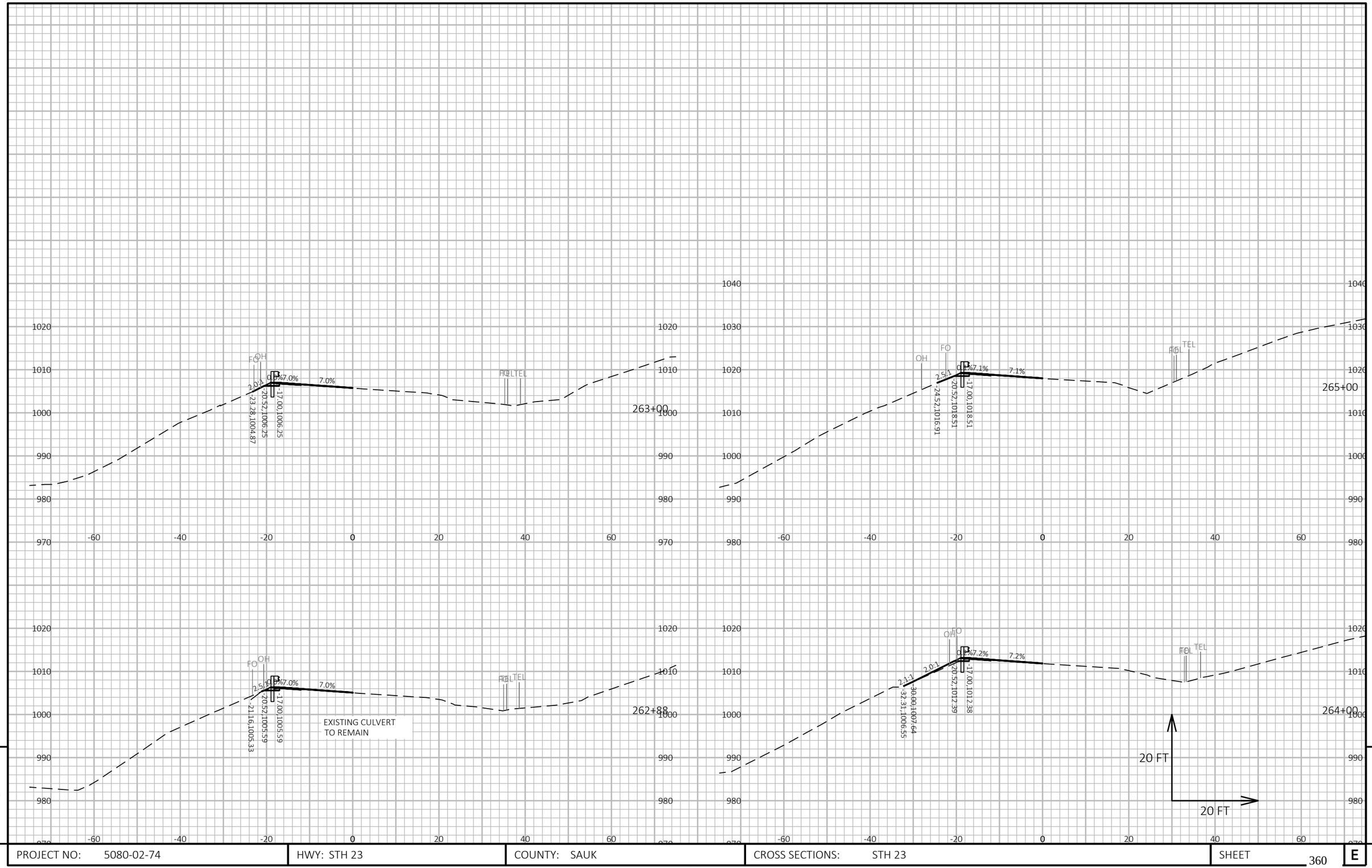
9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 359	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090215-xs

PLOT DATE : 10/31/2023 11:54 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

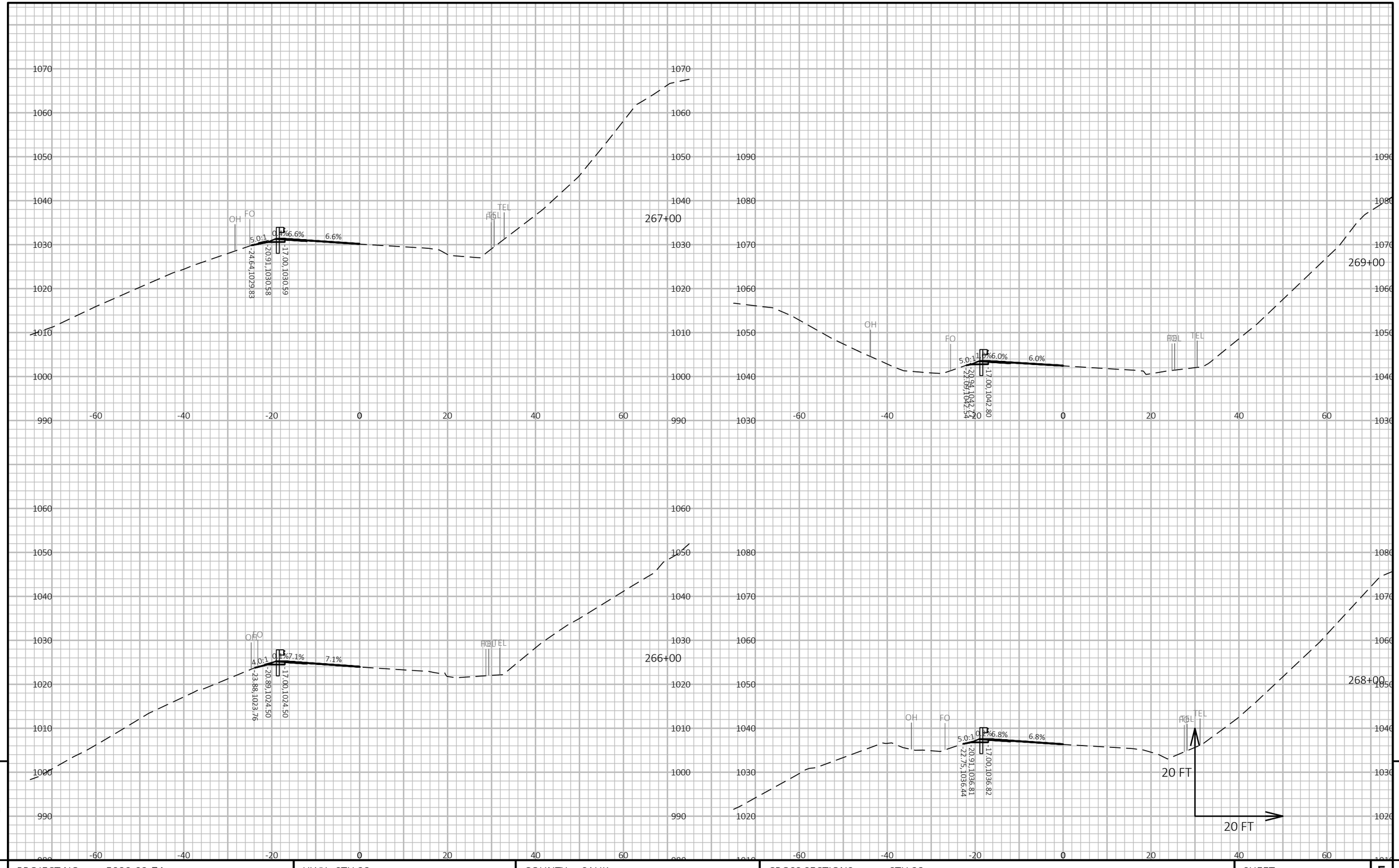
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 360	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090216-xs

PLOT DATE : 10/31/2023 11:54 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 361	E

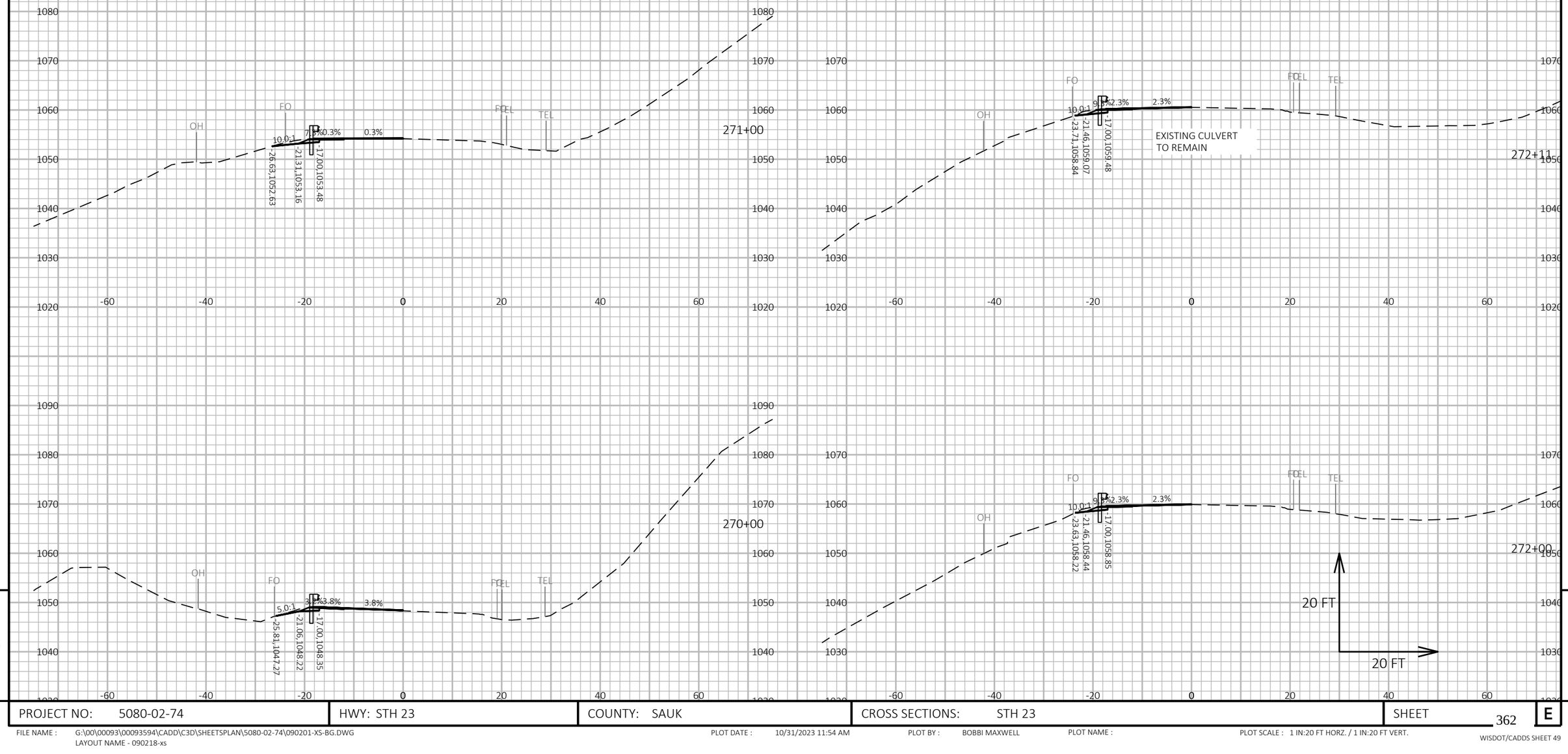
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090217-xs

PLOT DATE : 10/31/2023 11:54 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

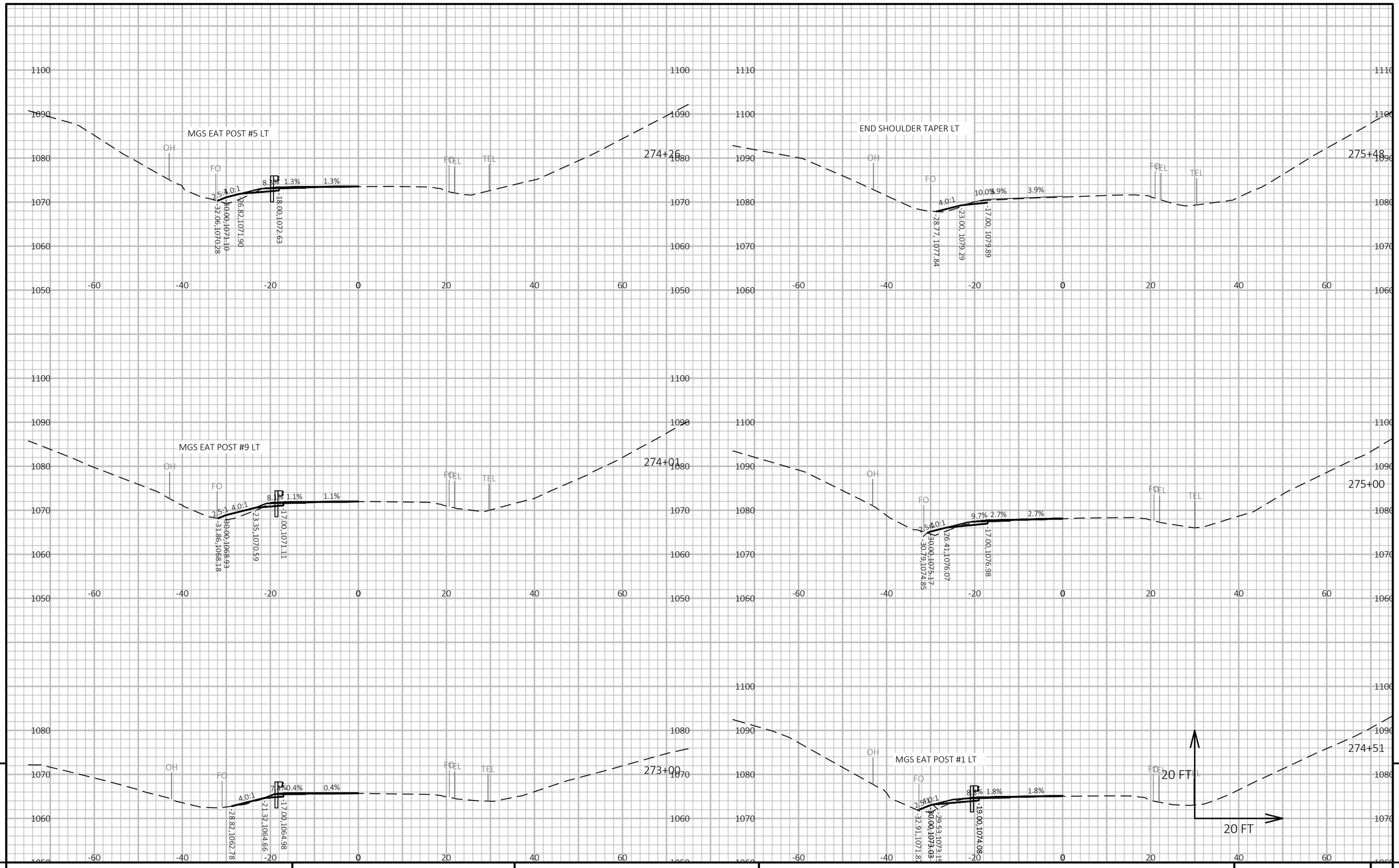


PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 362	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090218-xs

PLOT DATE : 10/31/2023 11:54 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 363	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090219-xs

PLOT DATE : 10/31/2023 11:54 AM

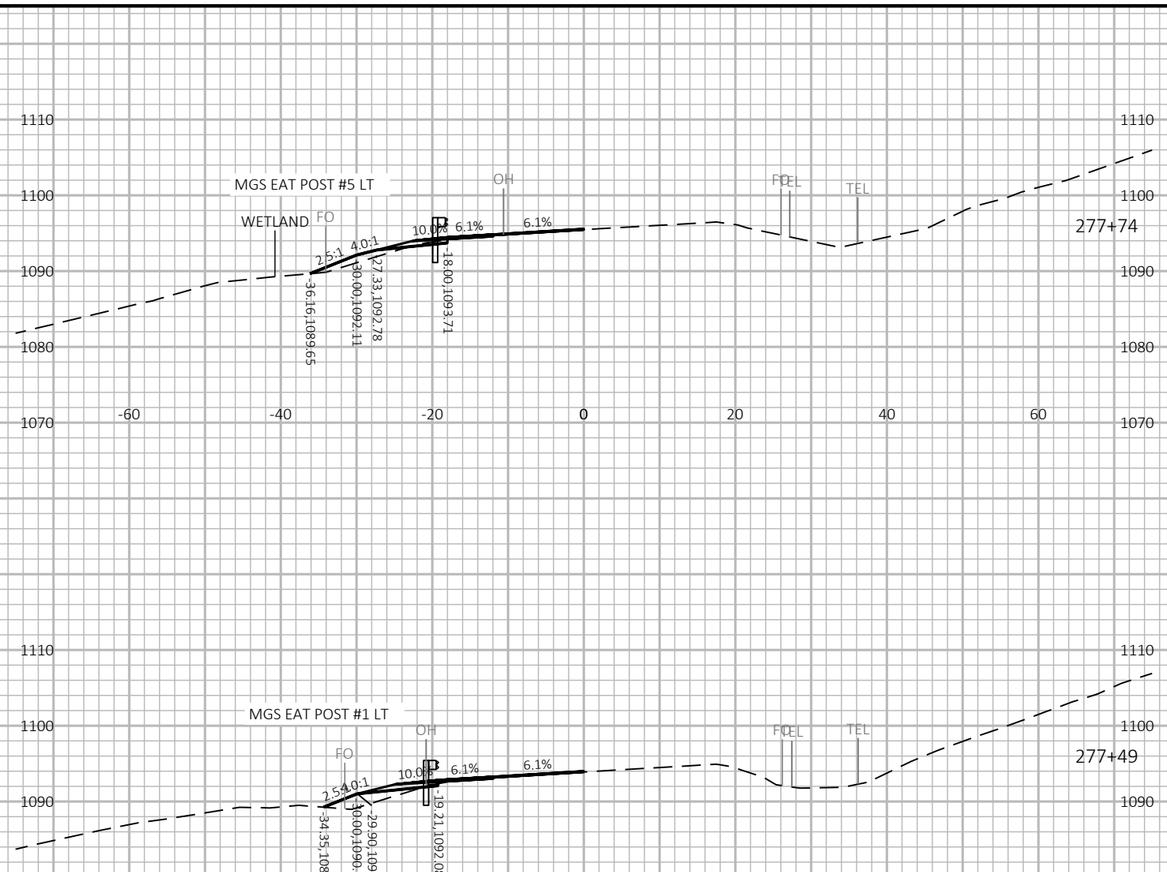
PLOT BY : BOBBI MAXWELL

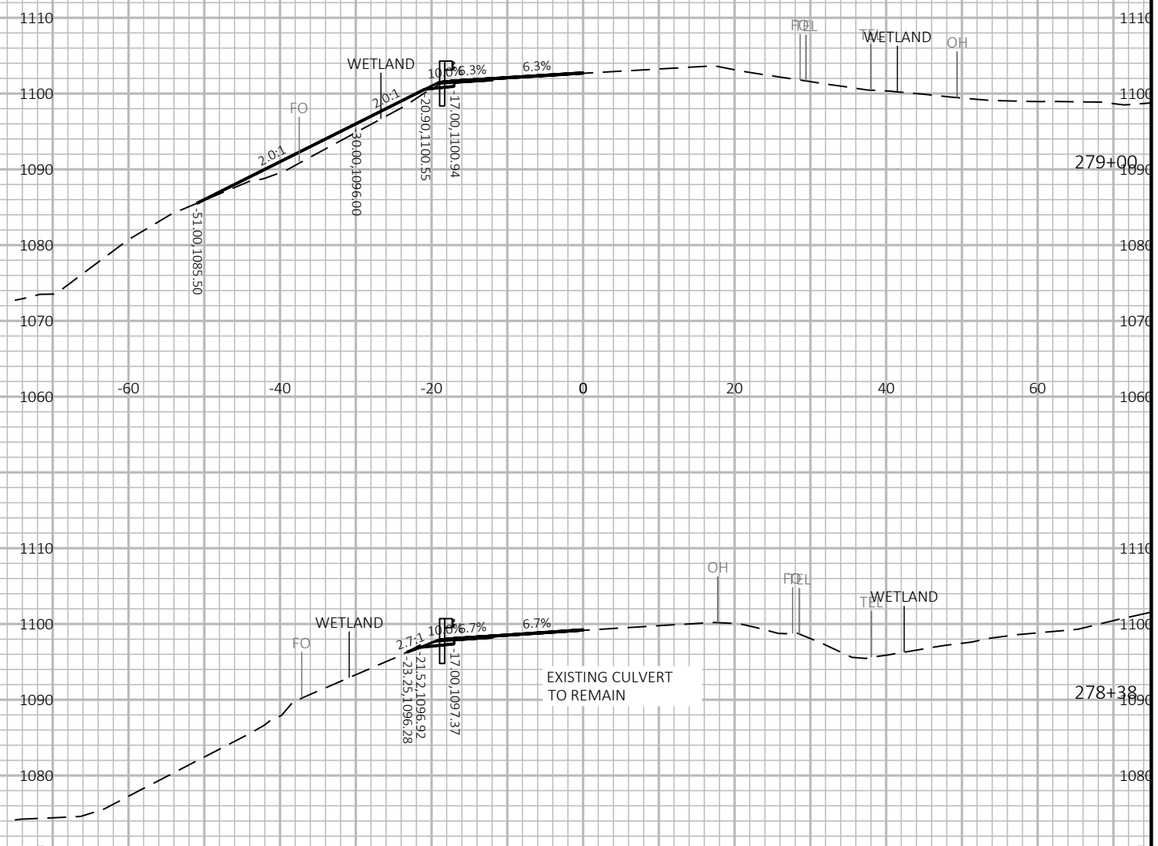
PLOT NAME :

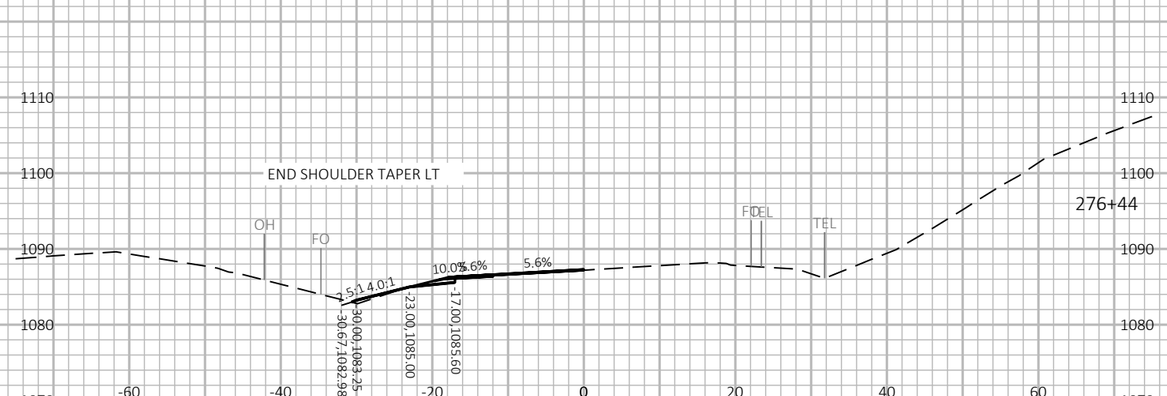
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

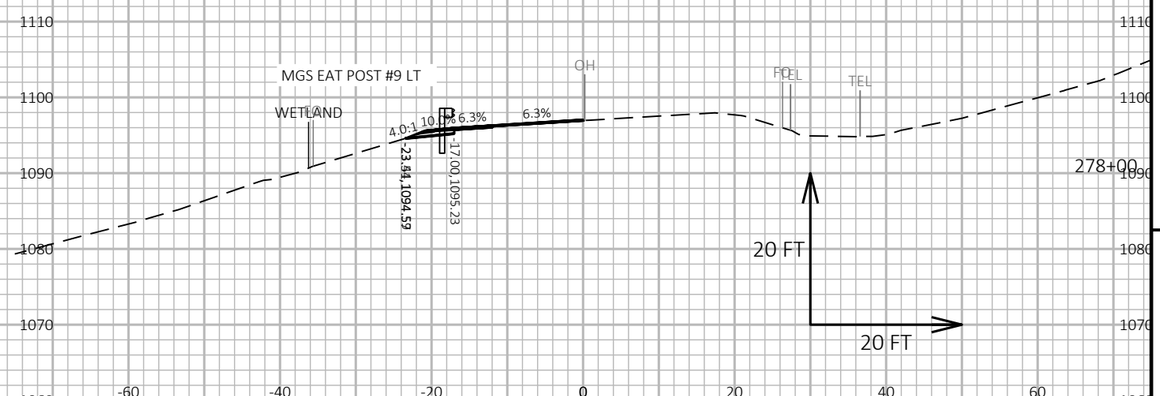
WISDOT/CADDS SHEET 49

9









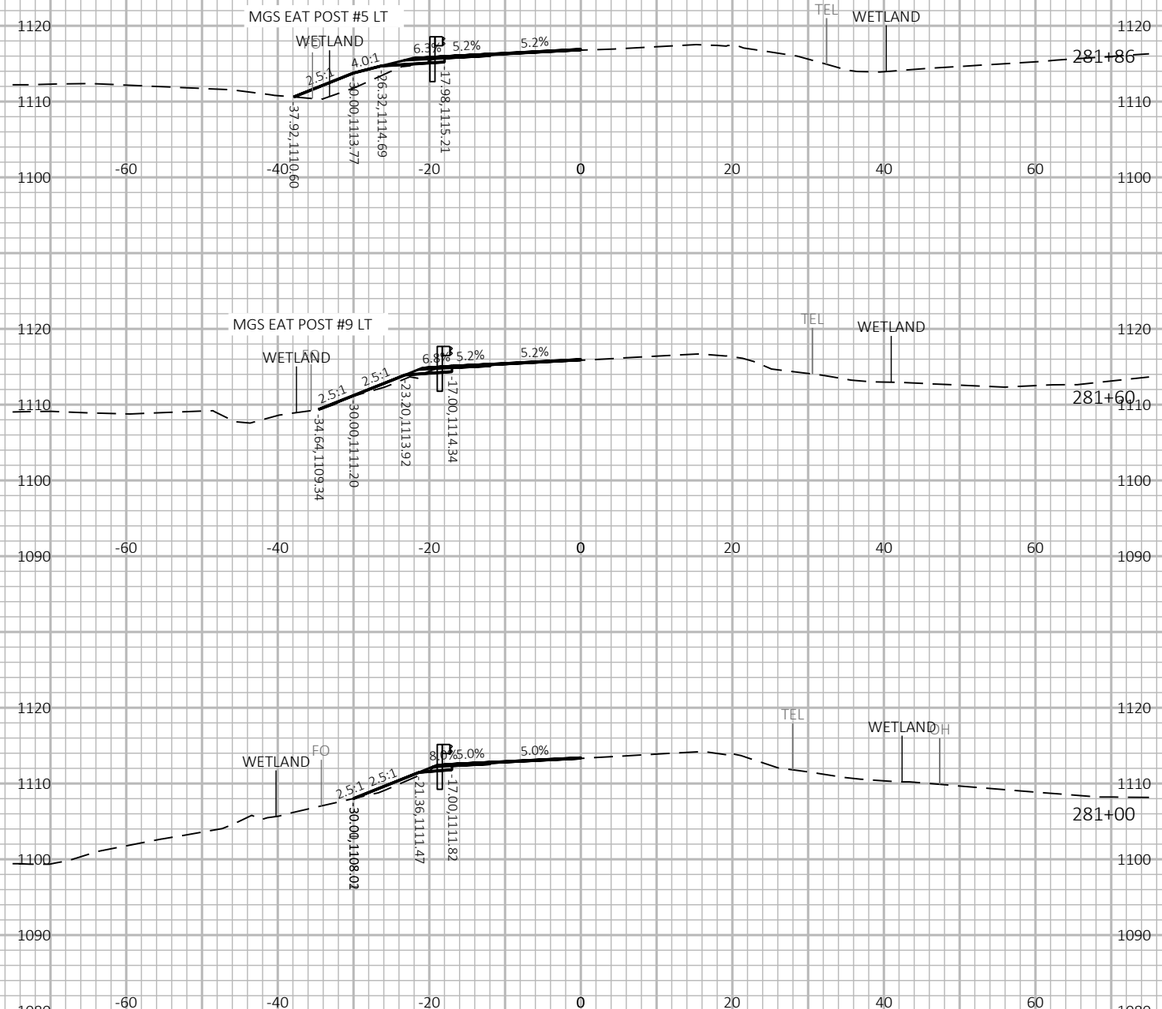
9

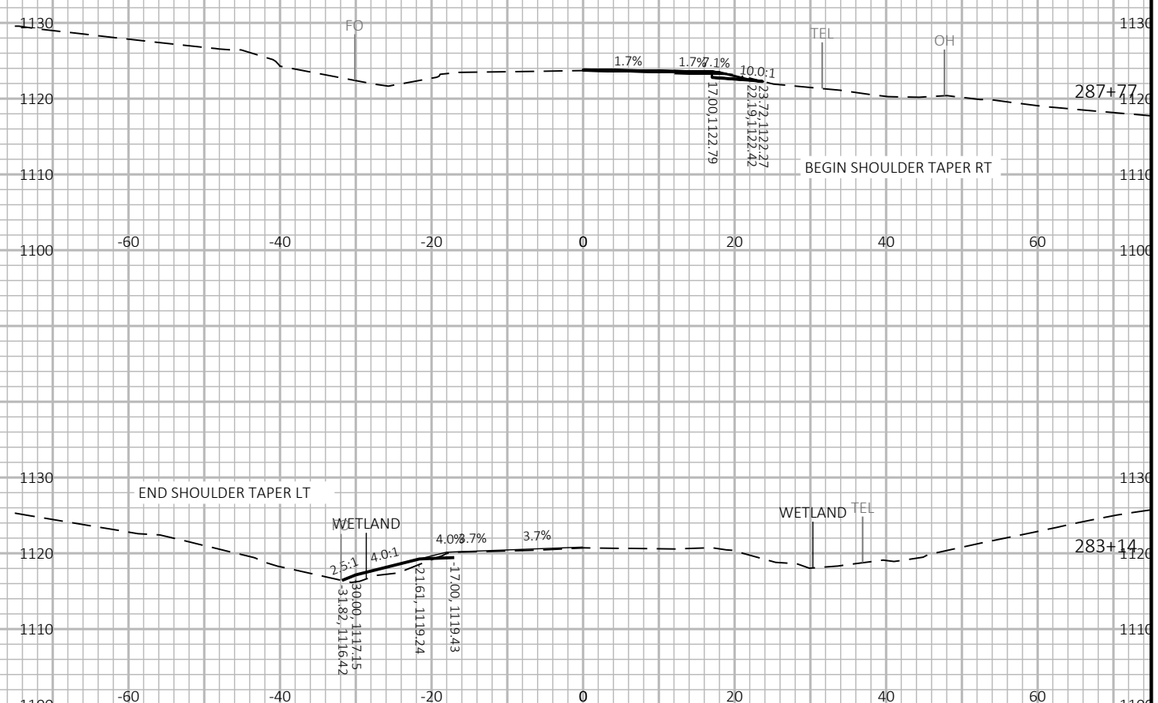
9

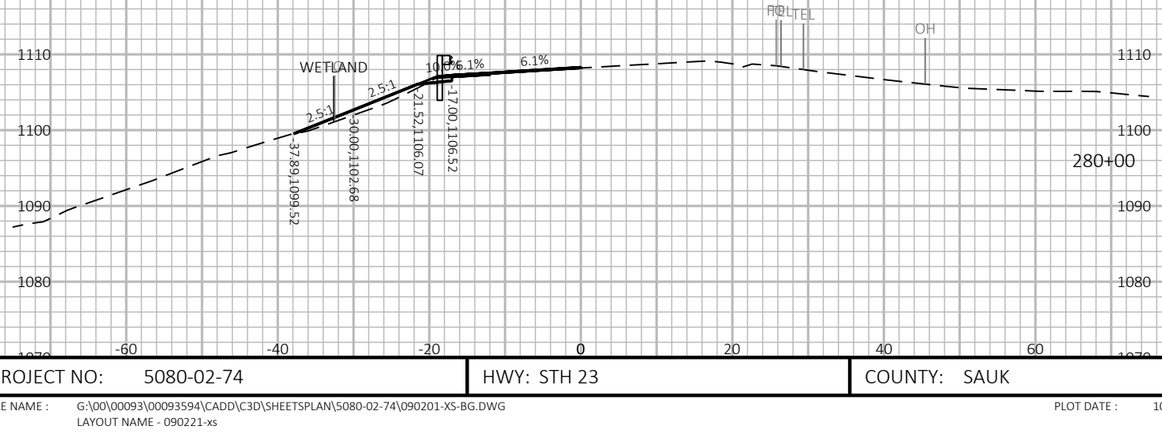
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 364	E

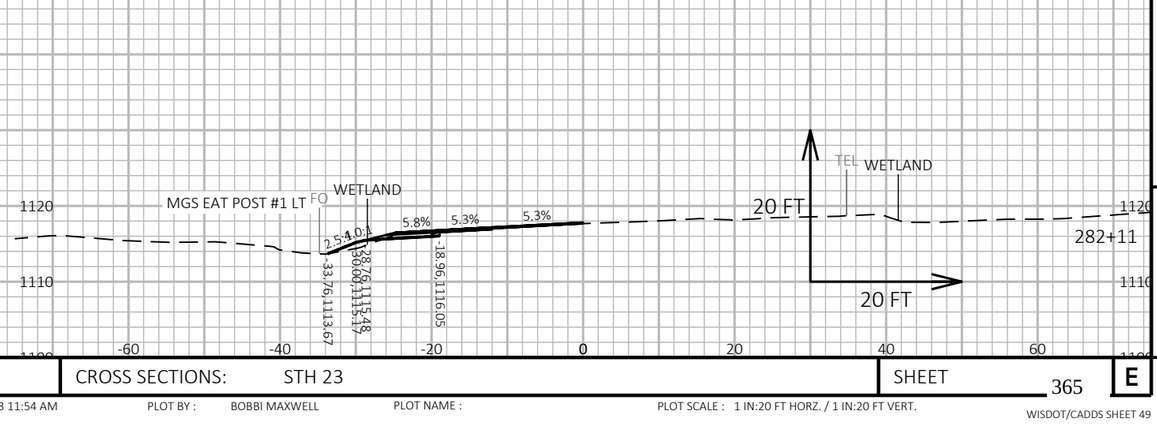
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090220-xs

PLOT DATE : 10/31/2023 11:54 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.









9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 365	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090221-xs

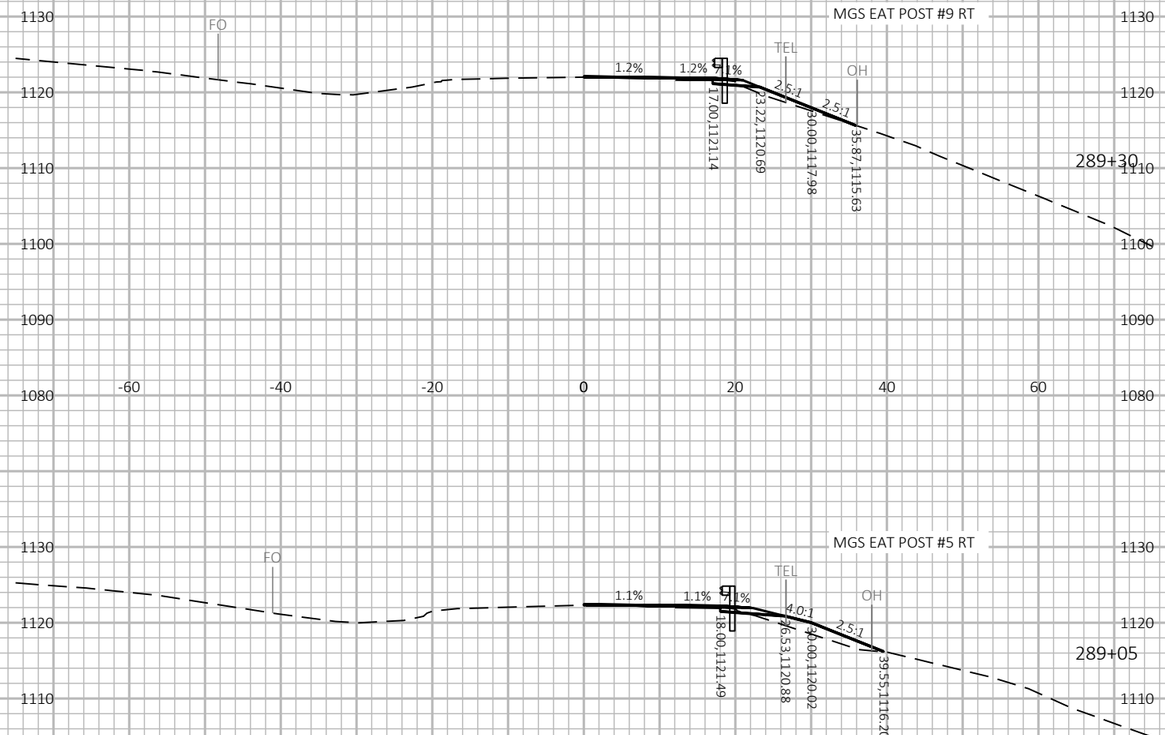
PLOT DATE : 10/31/2023 11:54 AM

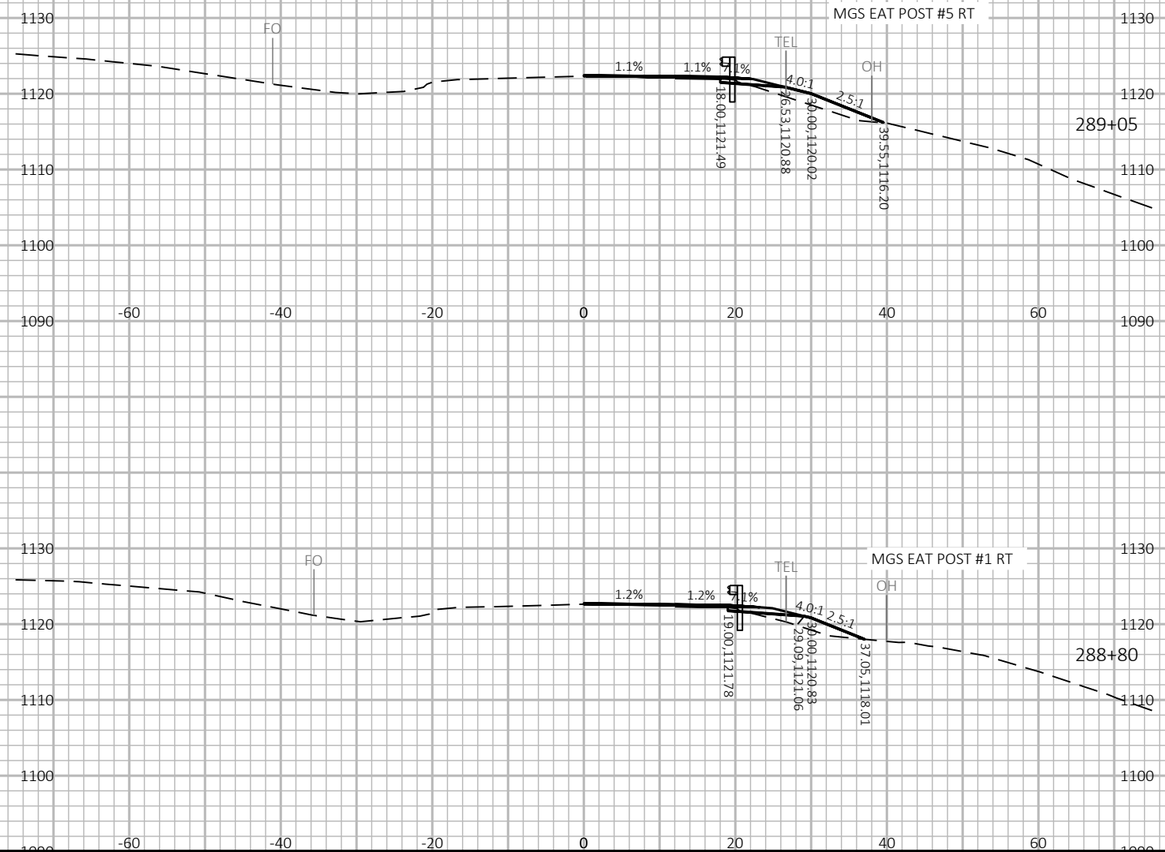
PLOT BY : BOBBI MAXWELL

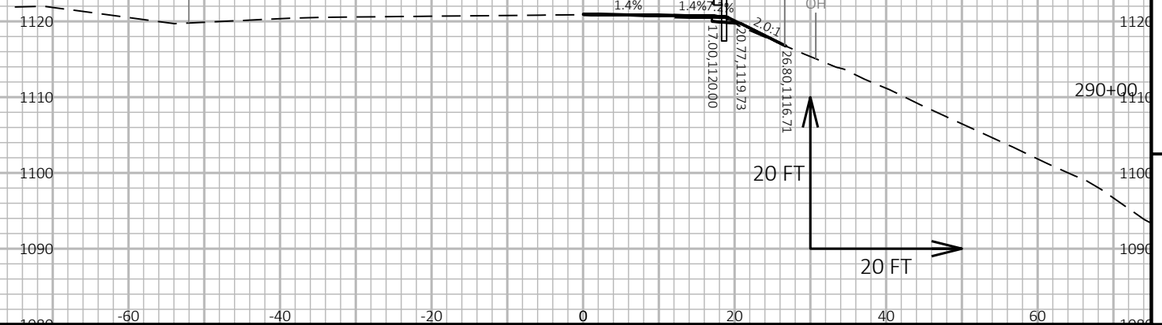
PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49







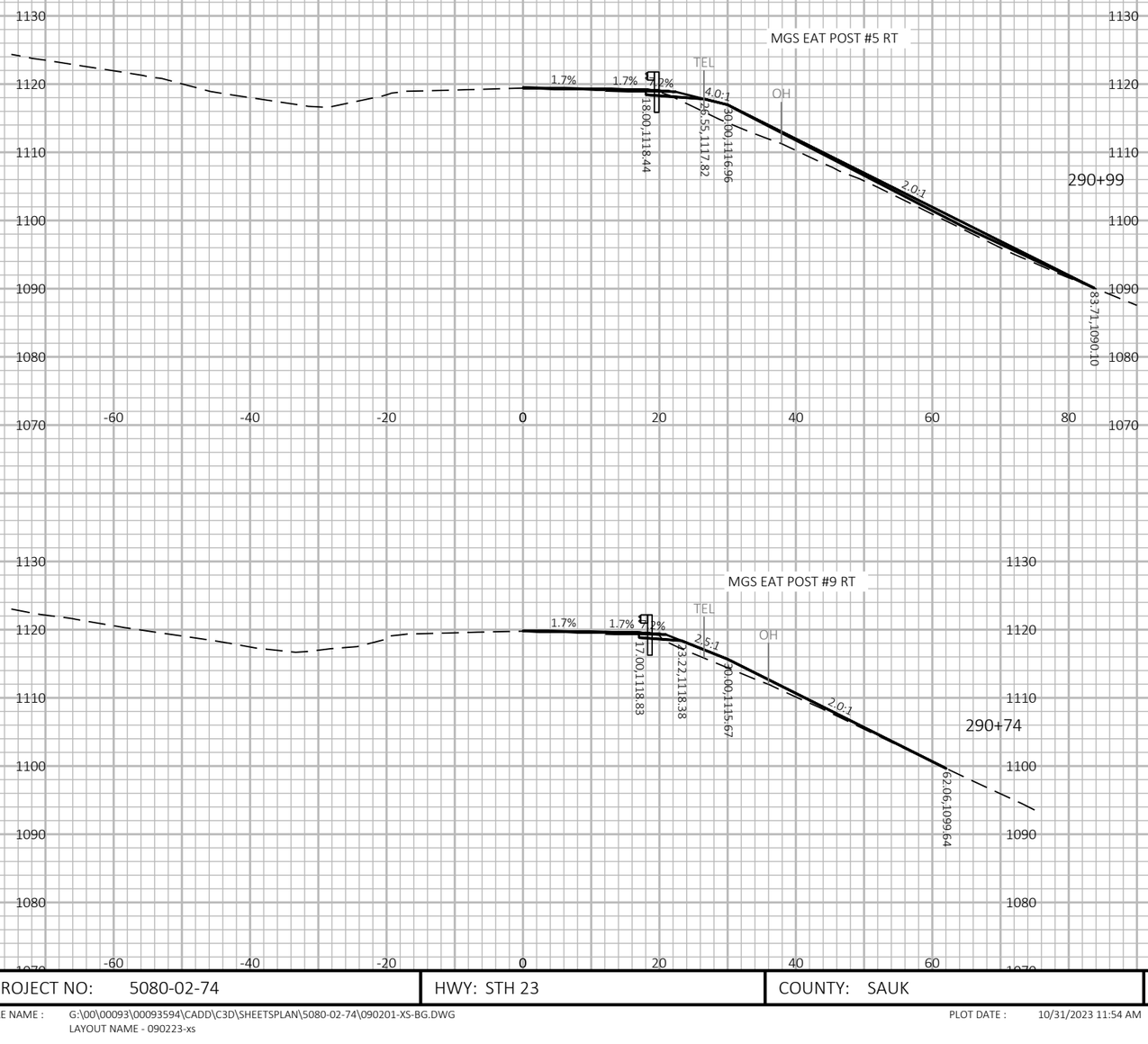
9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 366	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090222-xs

PLOT DATE : 10/31/2023 11:54 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



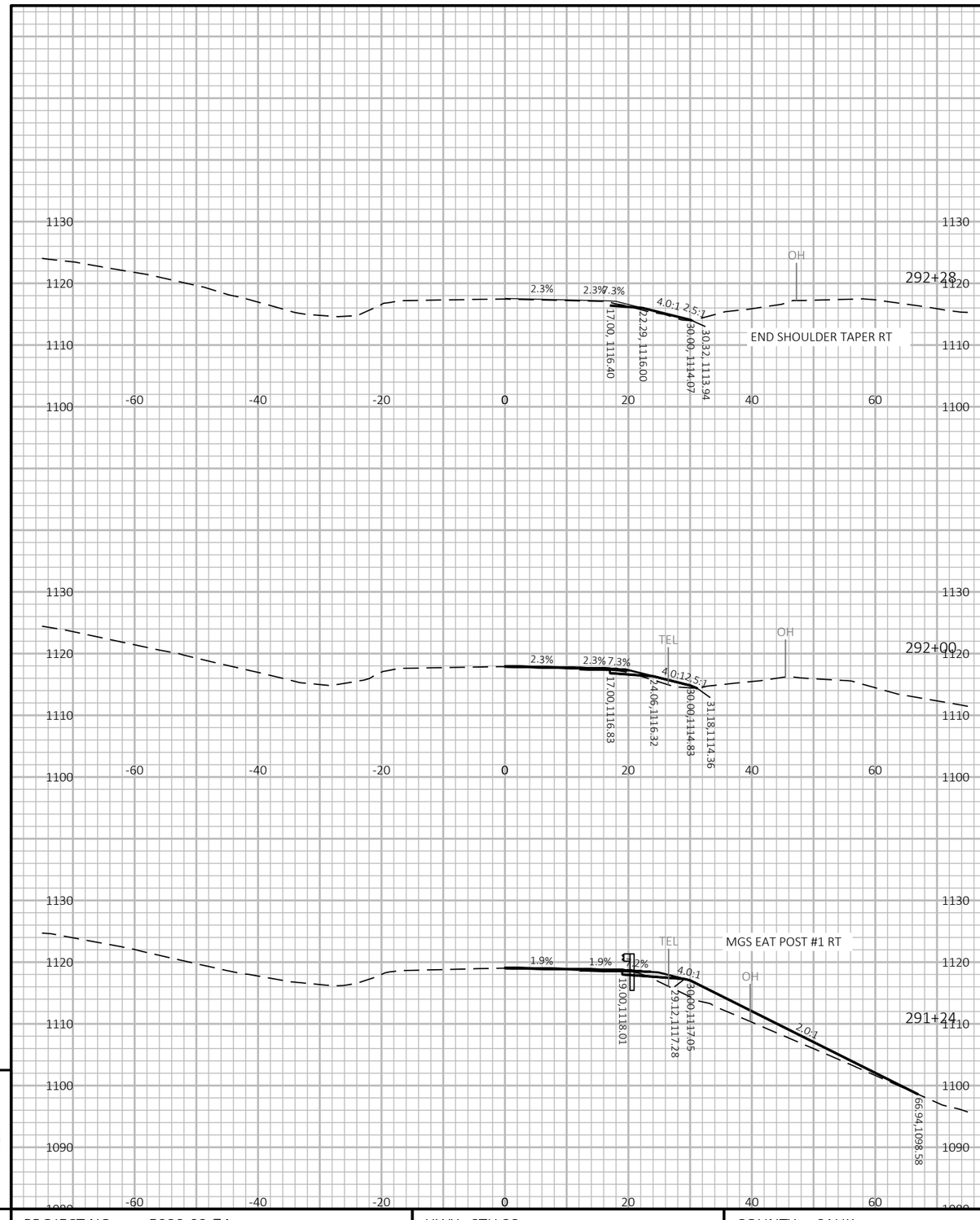
9

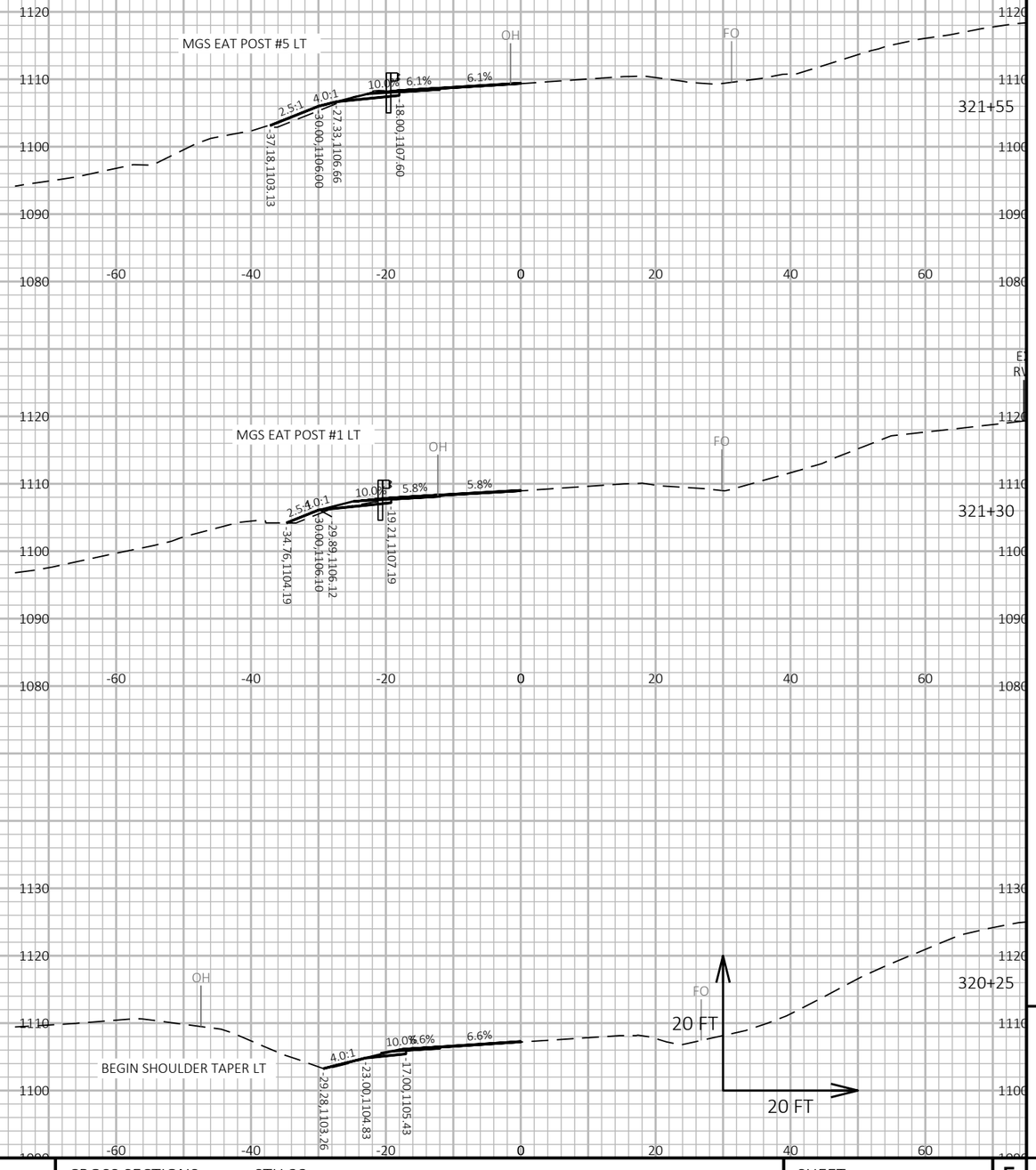
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 367	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090223-xs

PLOT DATE : 10/31/2023 11:54 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





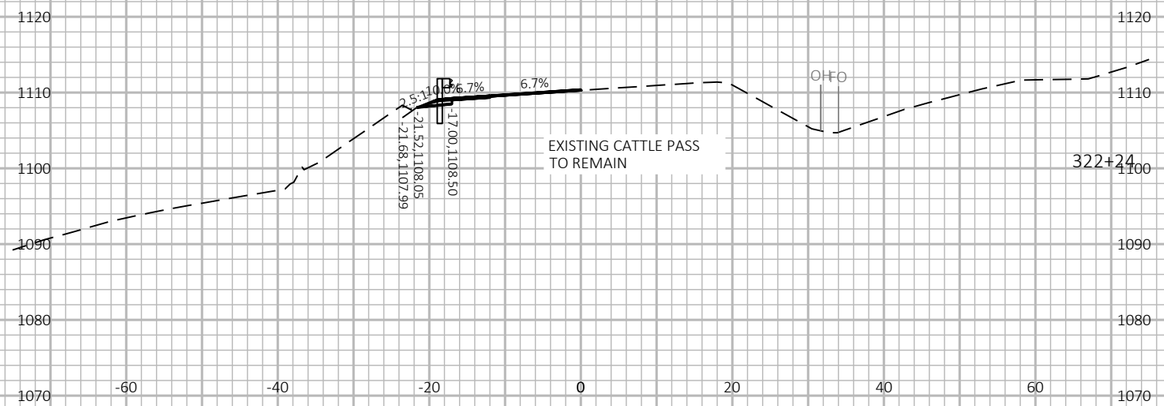
9

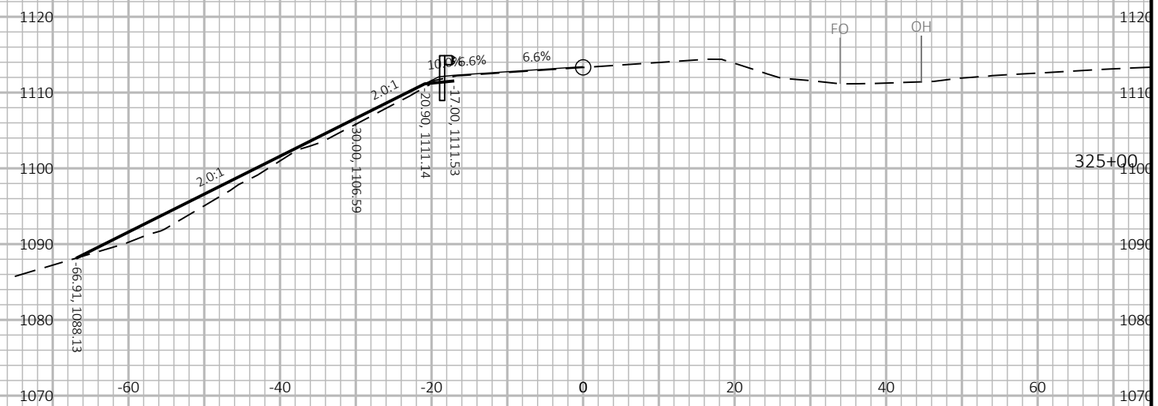
9

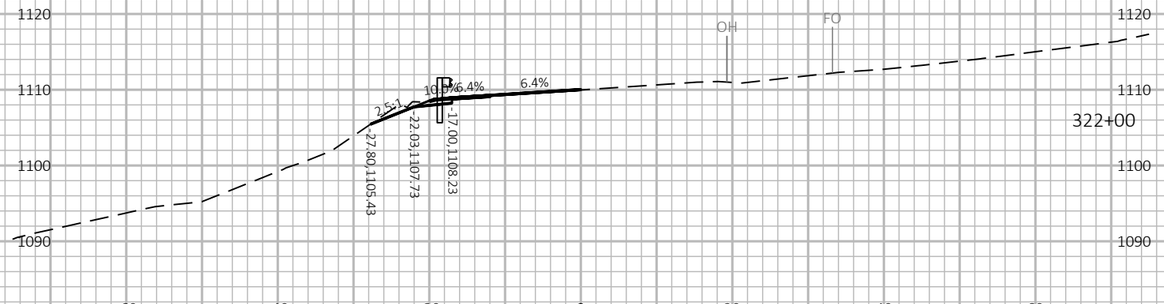
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 368	E

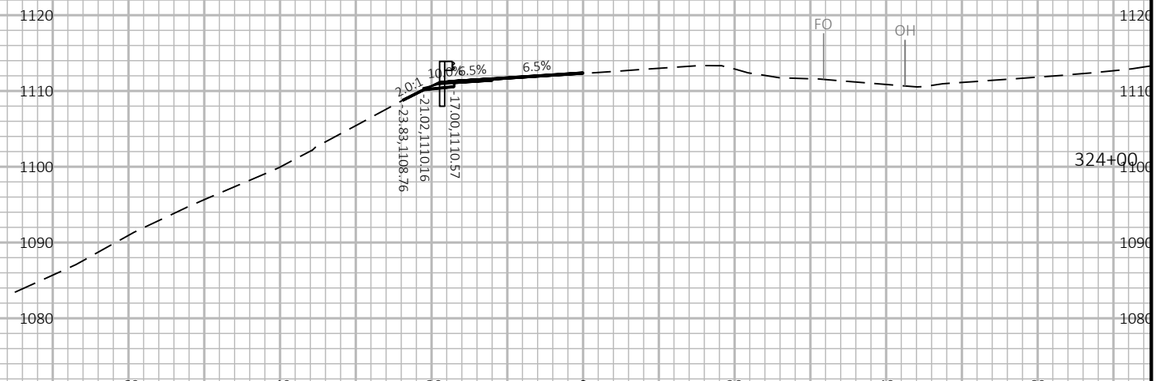
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090224-xs

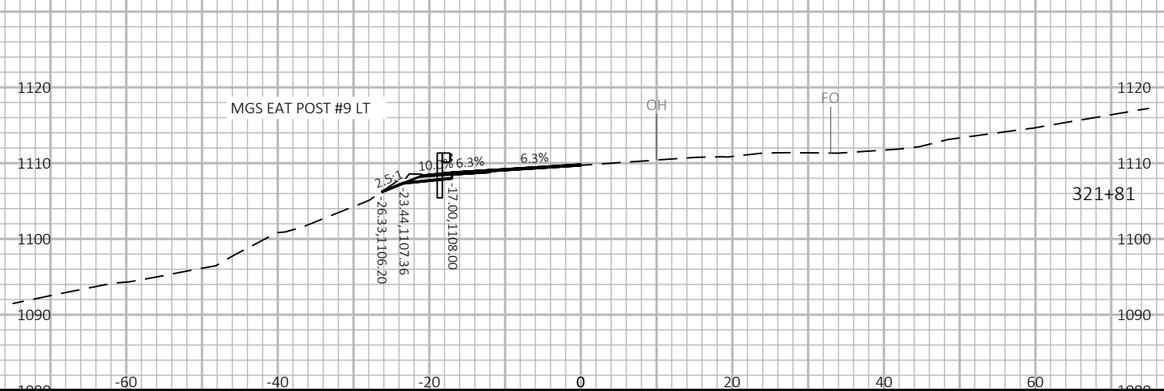
PLOT DATE : 10/31/2023 11:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

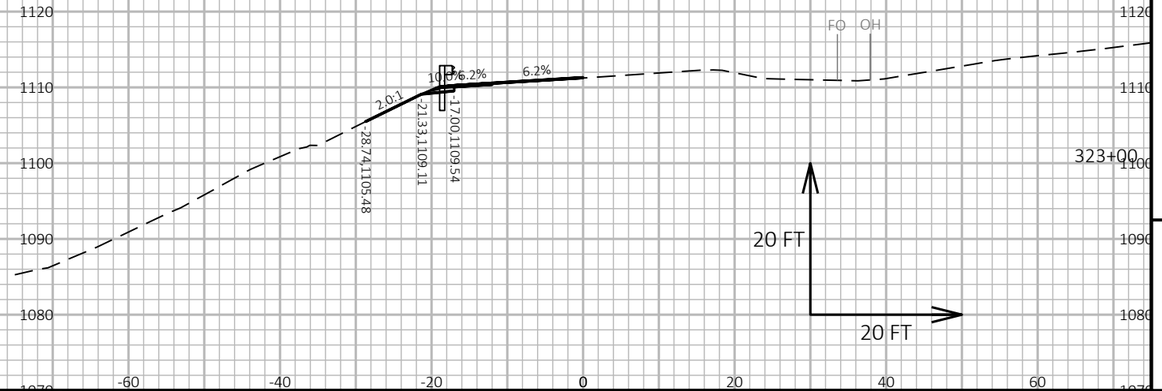












9

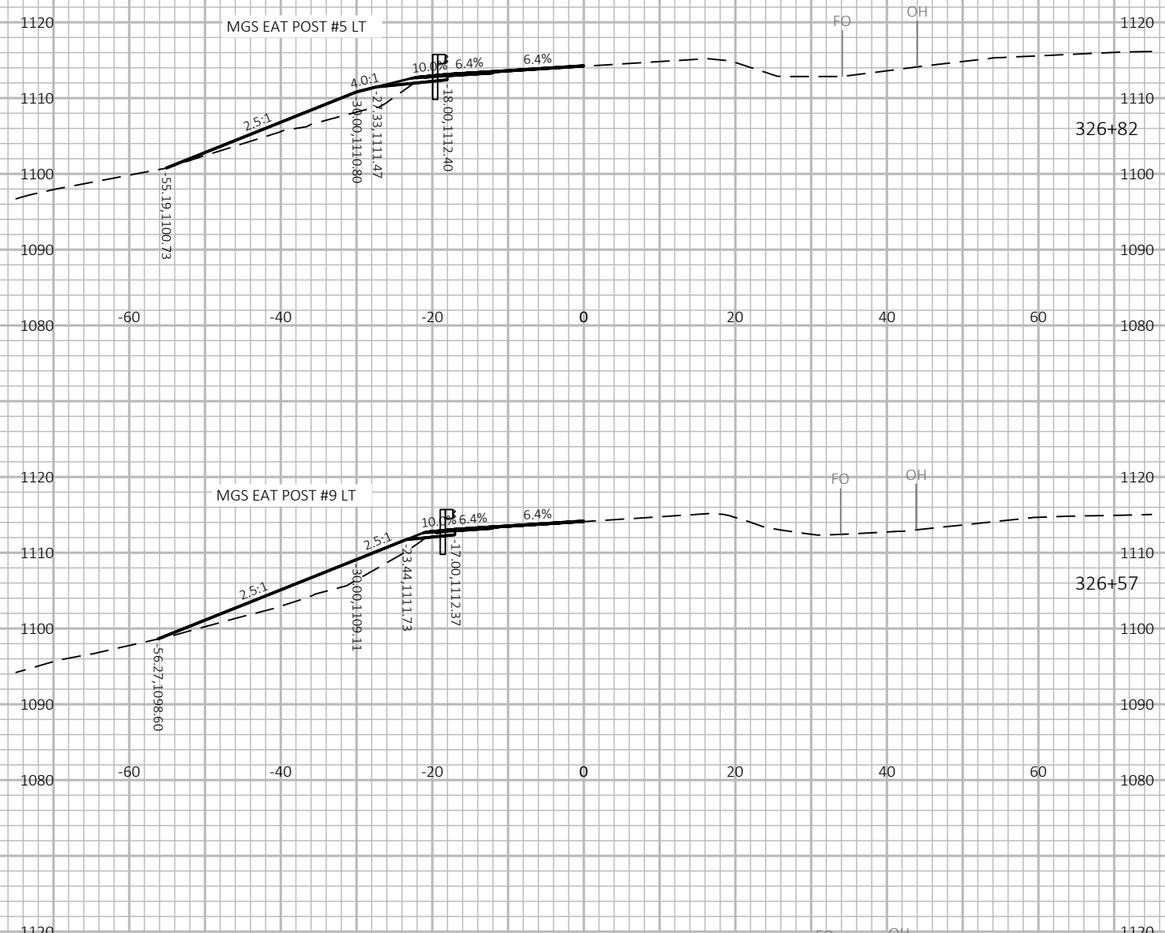
9

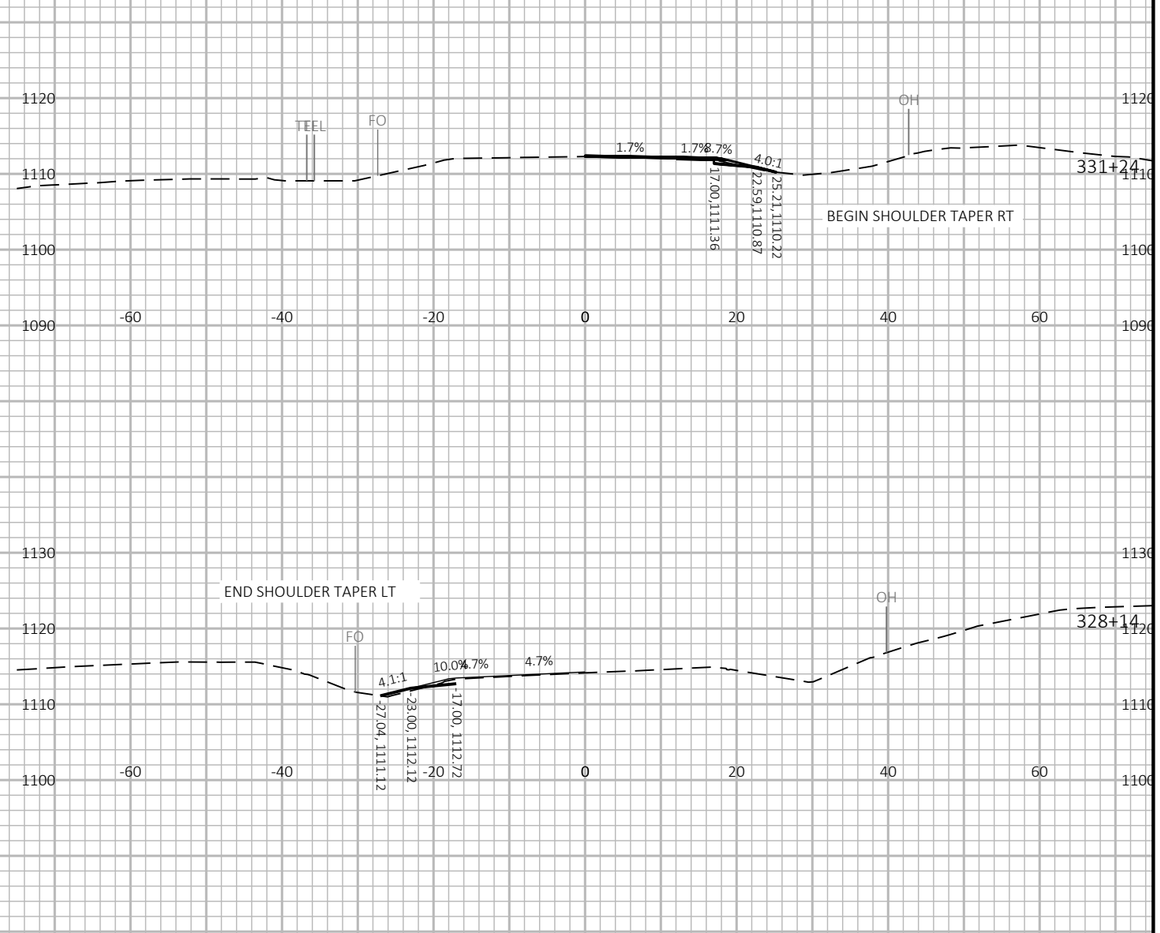
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 369	E

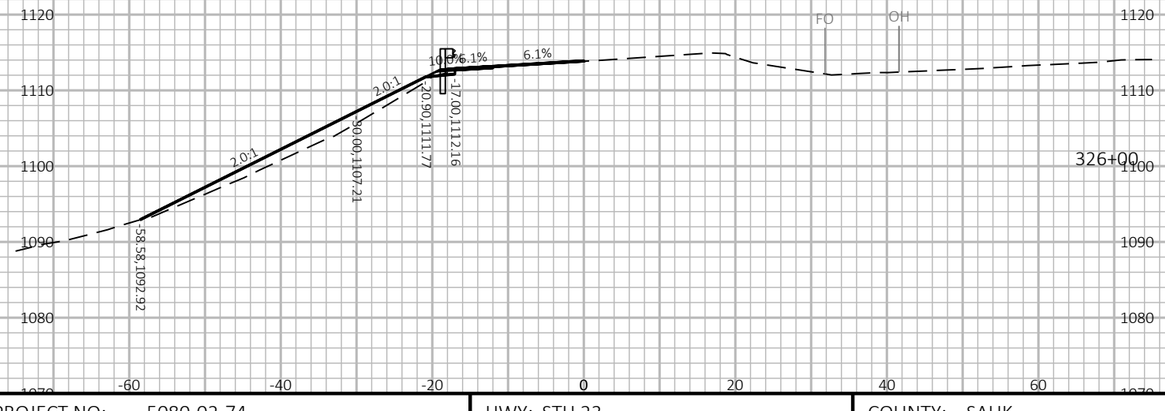
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090225-xs

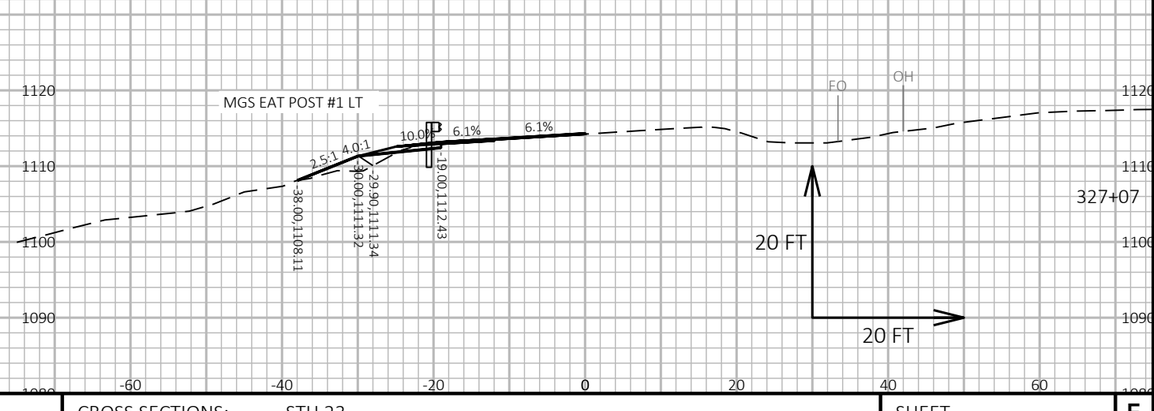
PLOT DATE : 10/31/2023 11:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49









9

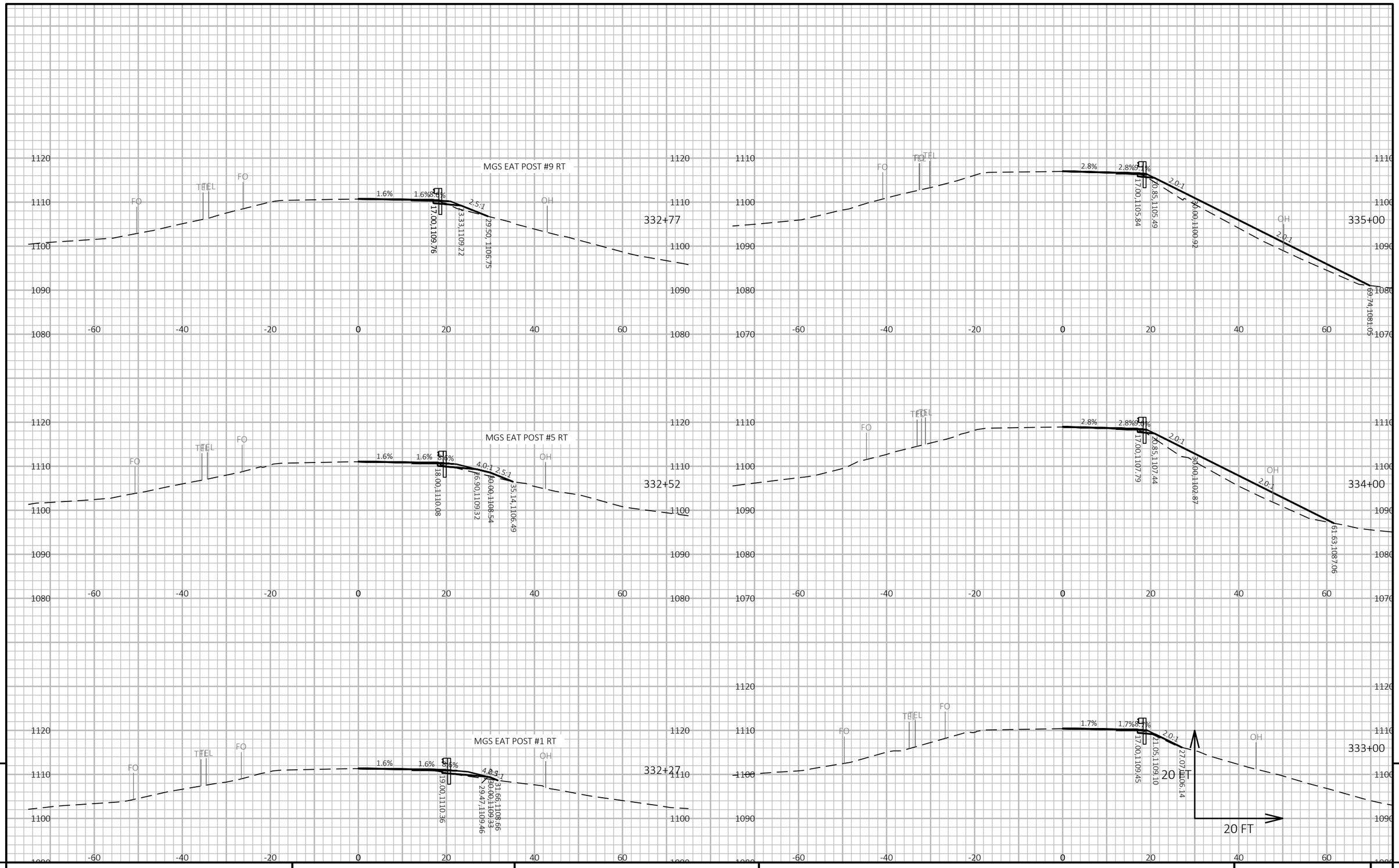
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 370	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090226-xs

PLOT DATE : 10/31/2023 11:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

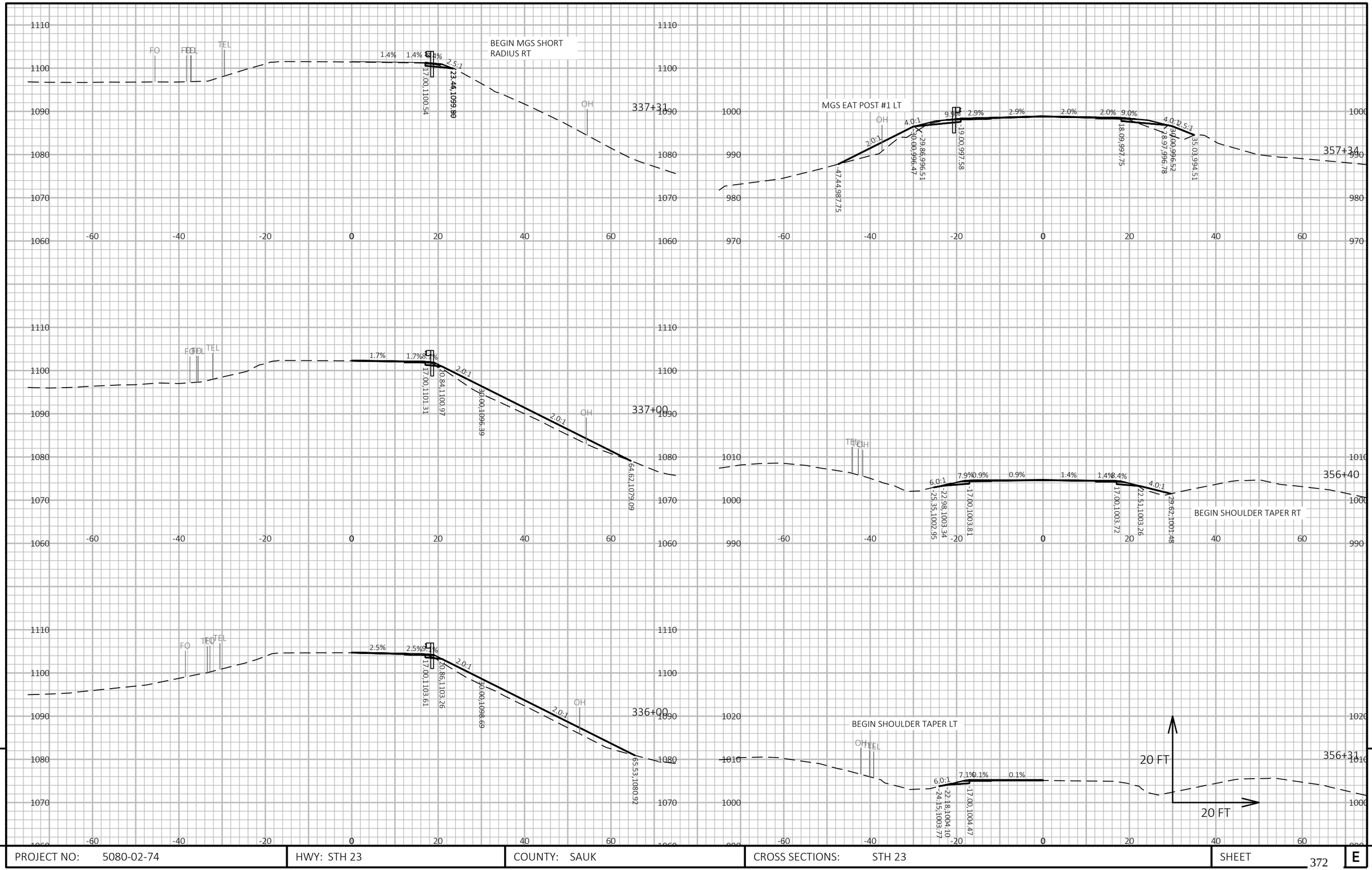
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 371	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090227-xs

PLOT DATE : 10/31/2023 11:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

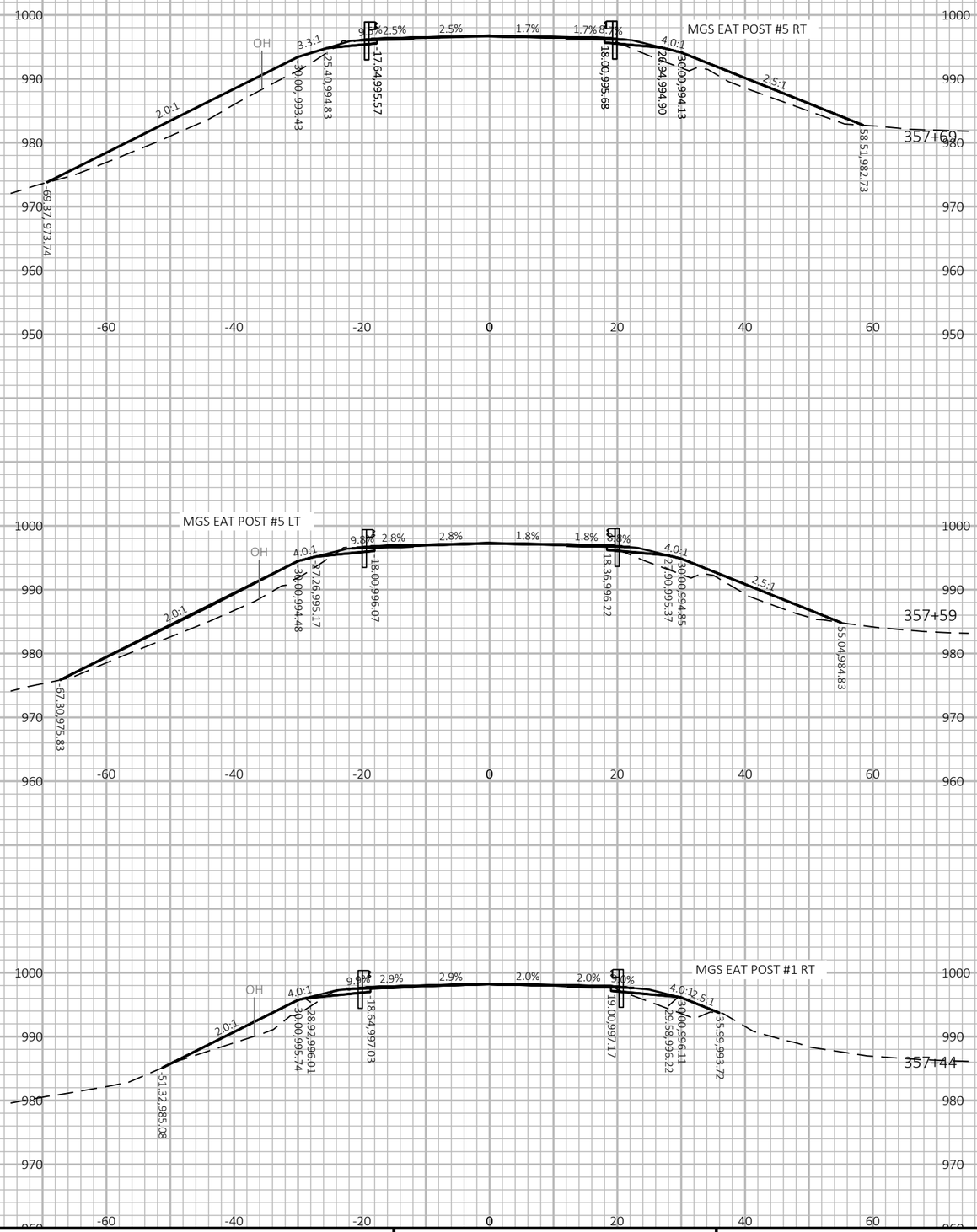
9

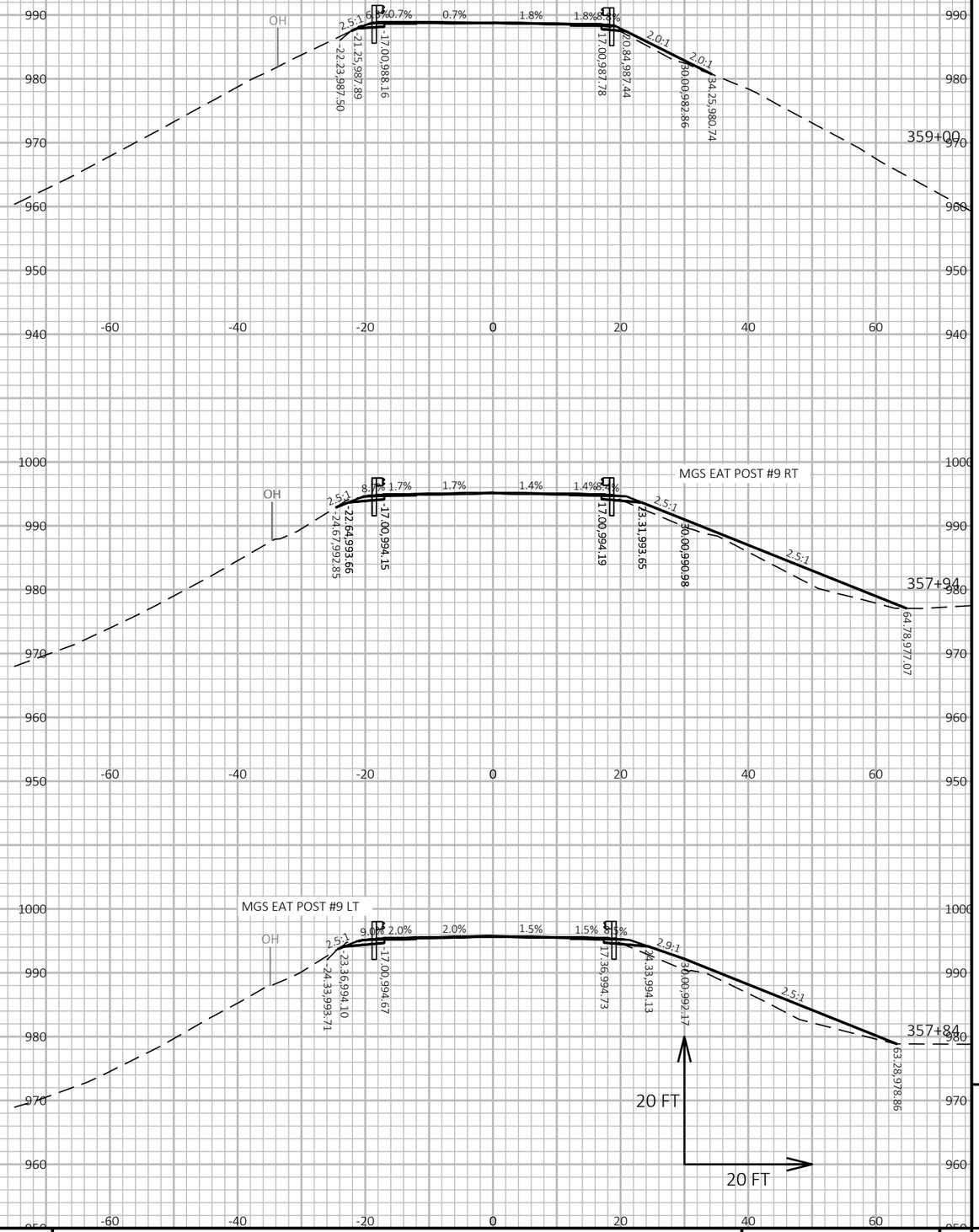
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 372	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090228-xs

PLOT DATE : 10/31/2023 11:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

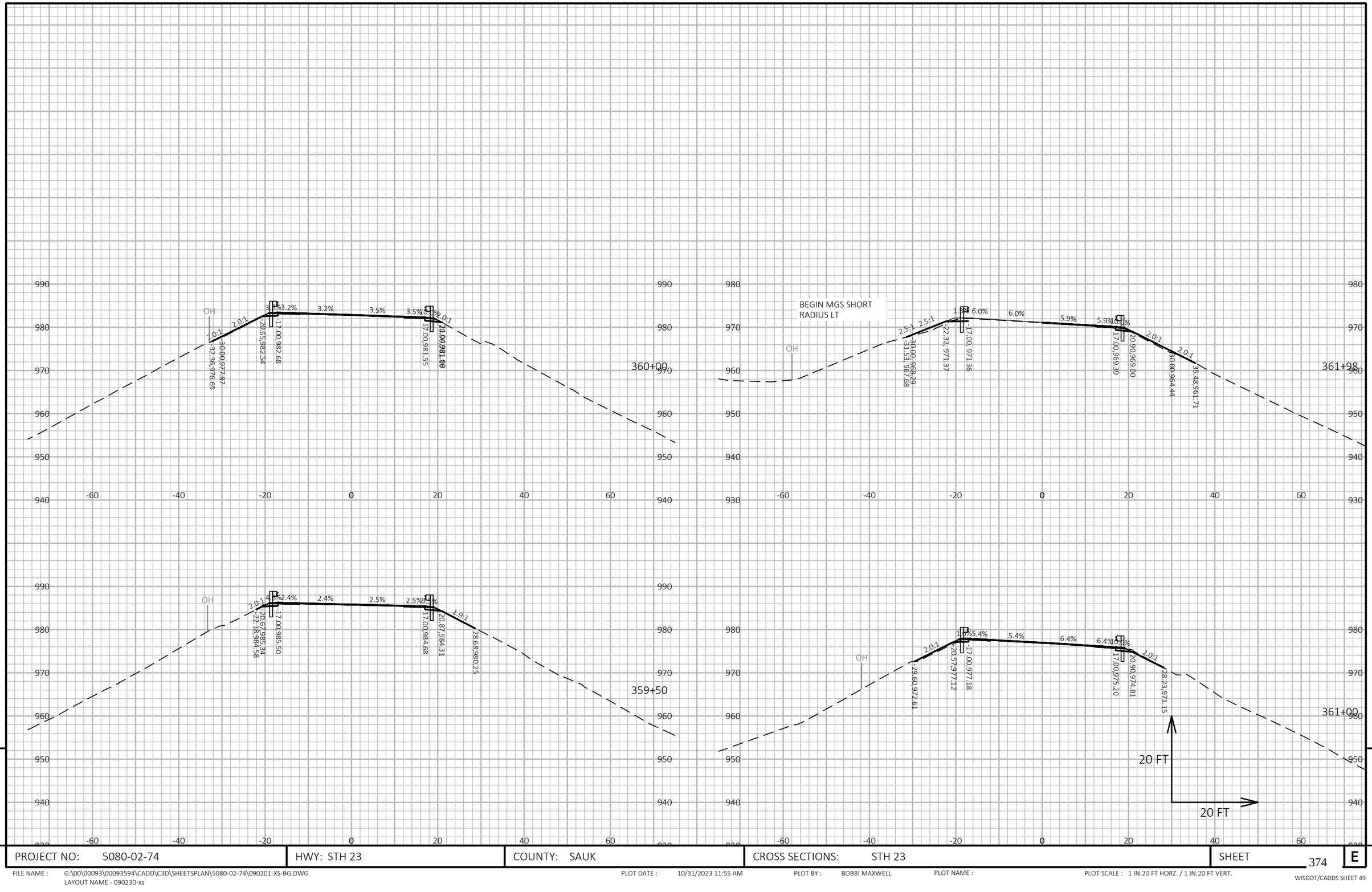
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 373	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090229-xs

PLOT DATE : 10/31/2023 11:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 374	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090230-xs

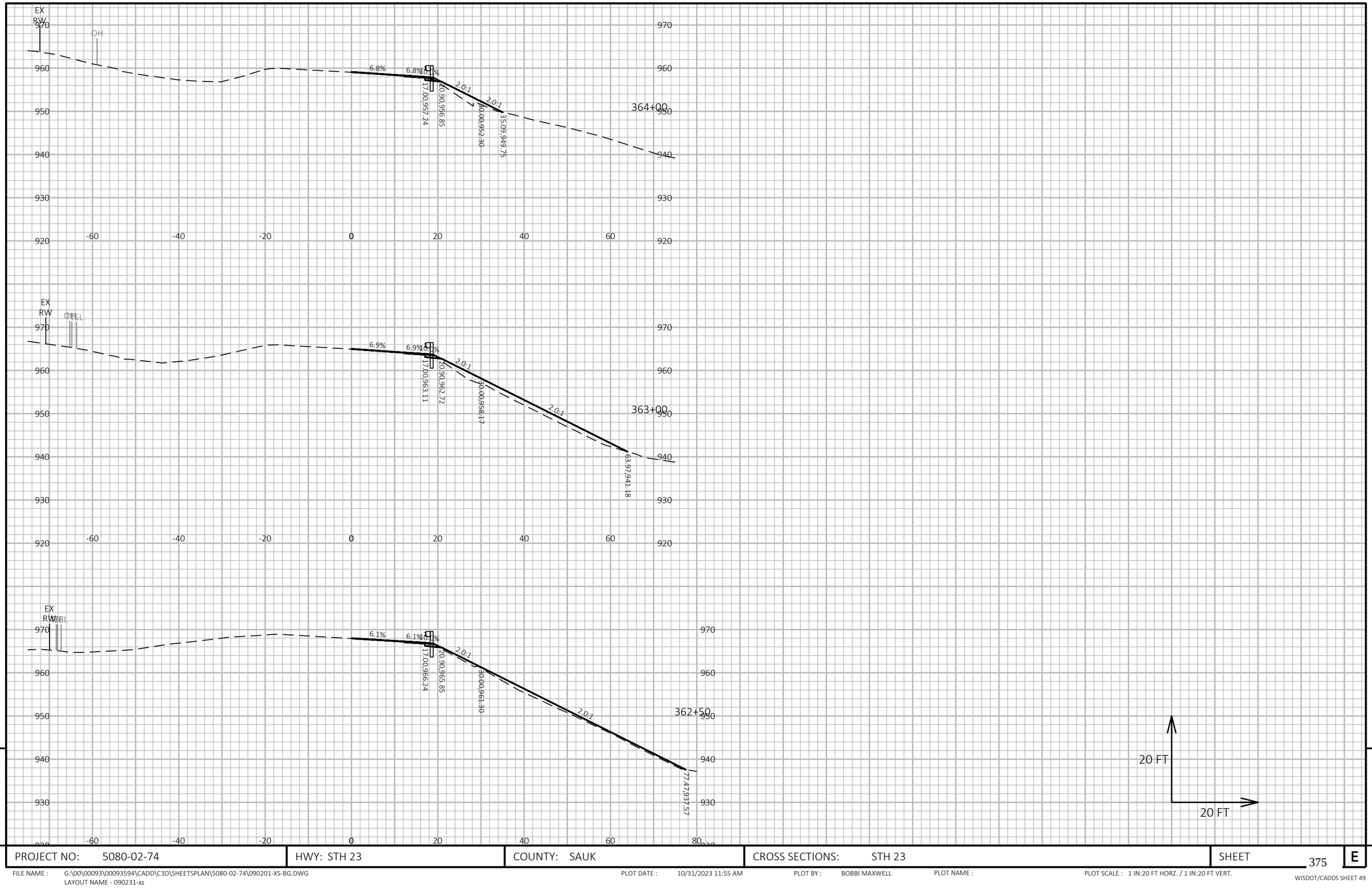
PLOT DATE : 10/31/2023 11:55 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

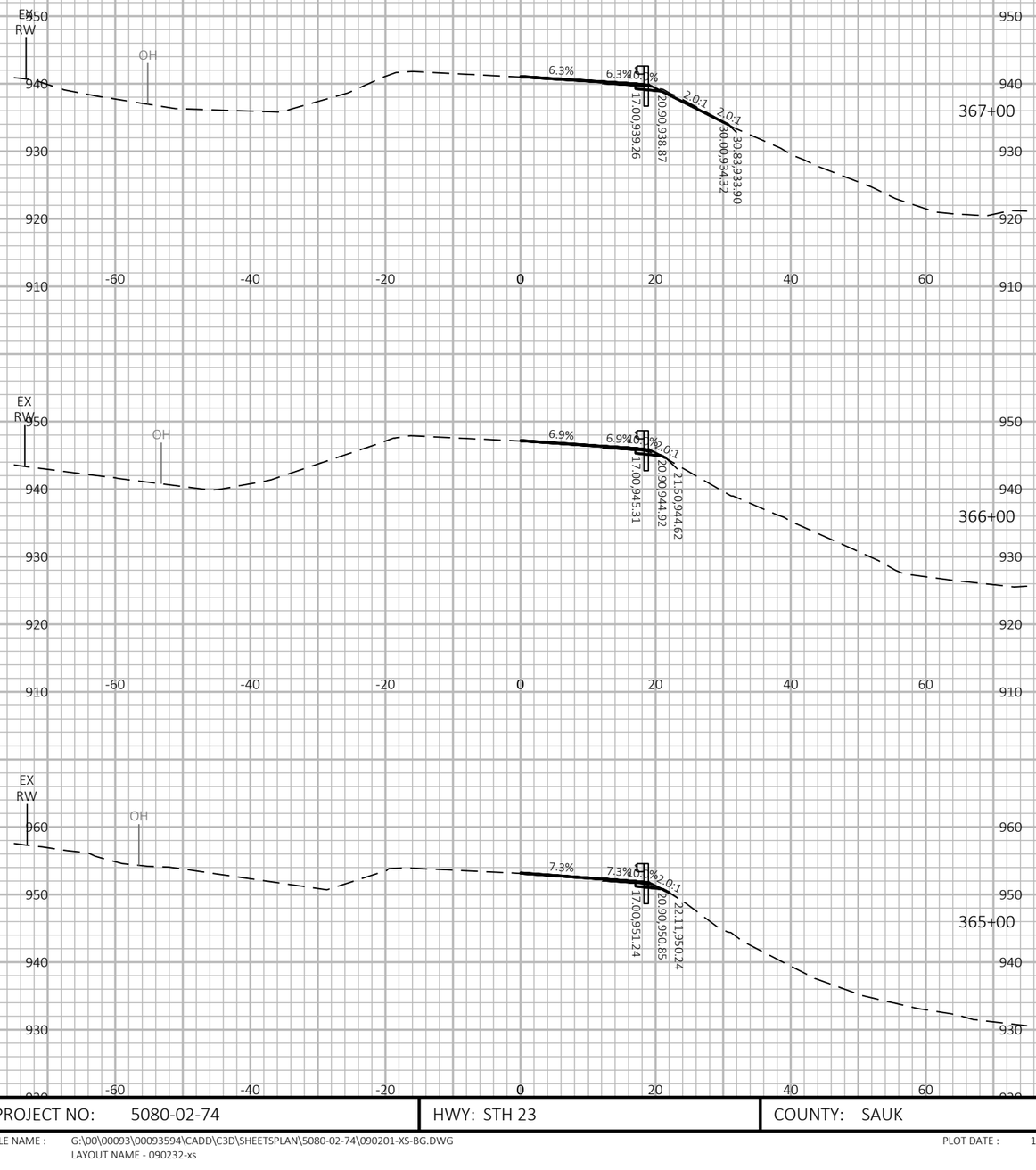
9

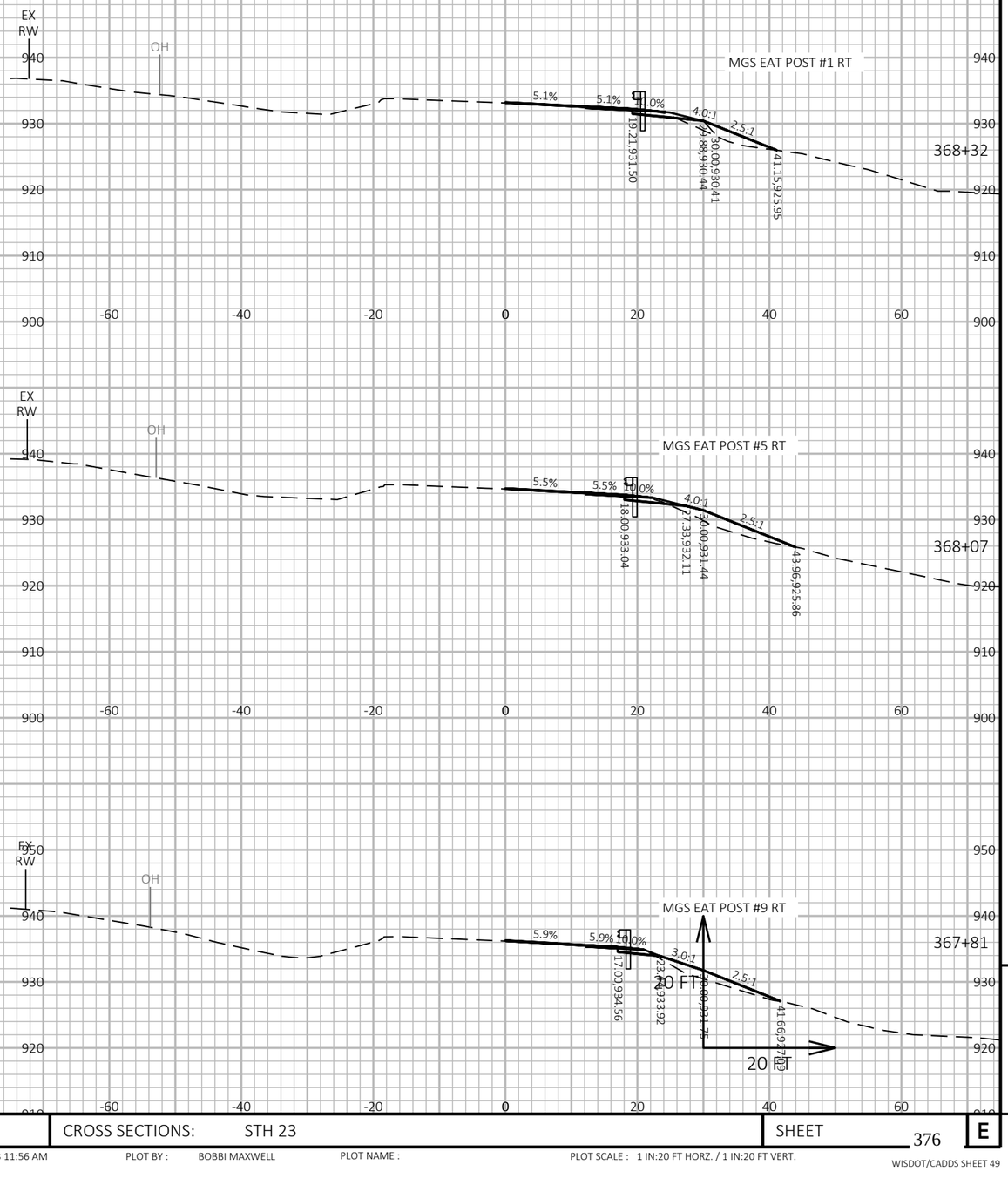
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 375	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090231-xs

PLOT DATE : 10/31/2023 11:55 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

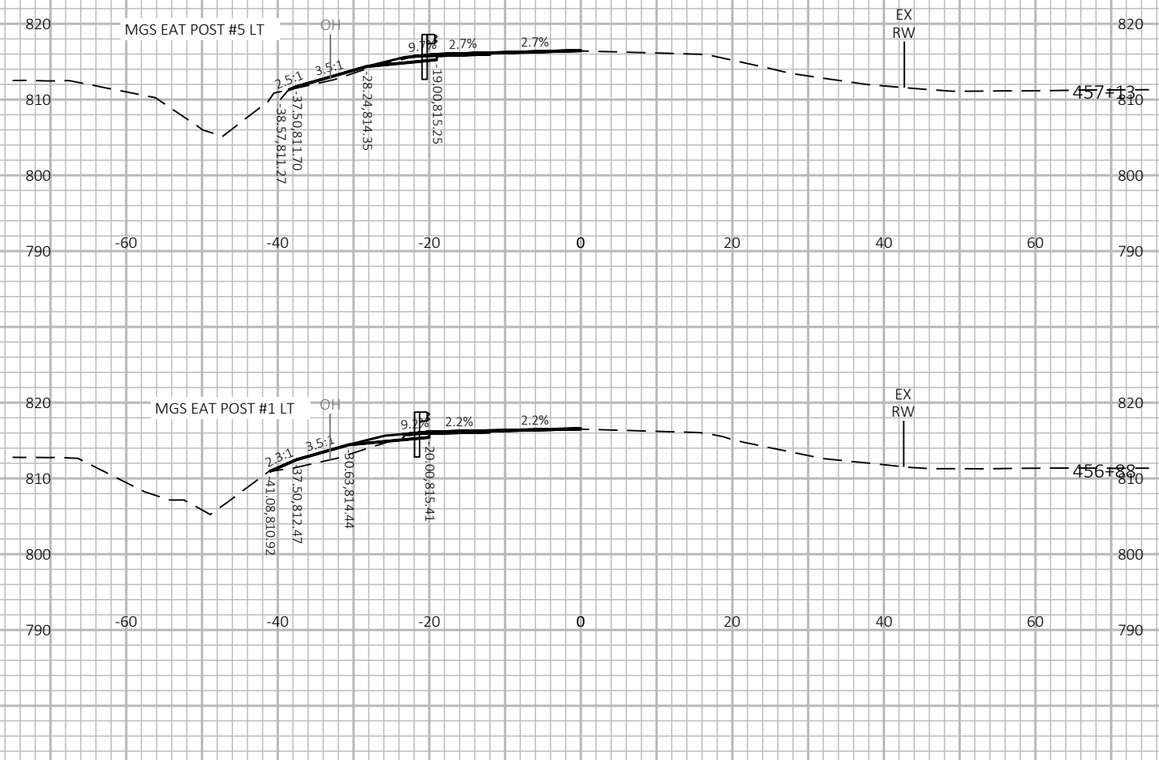
9

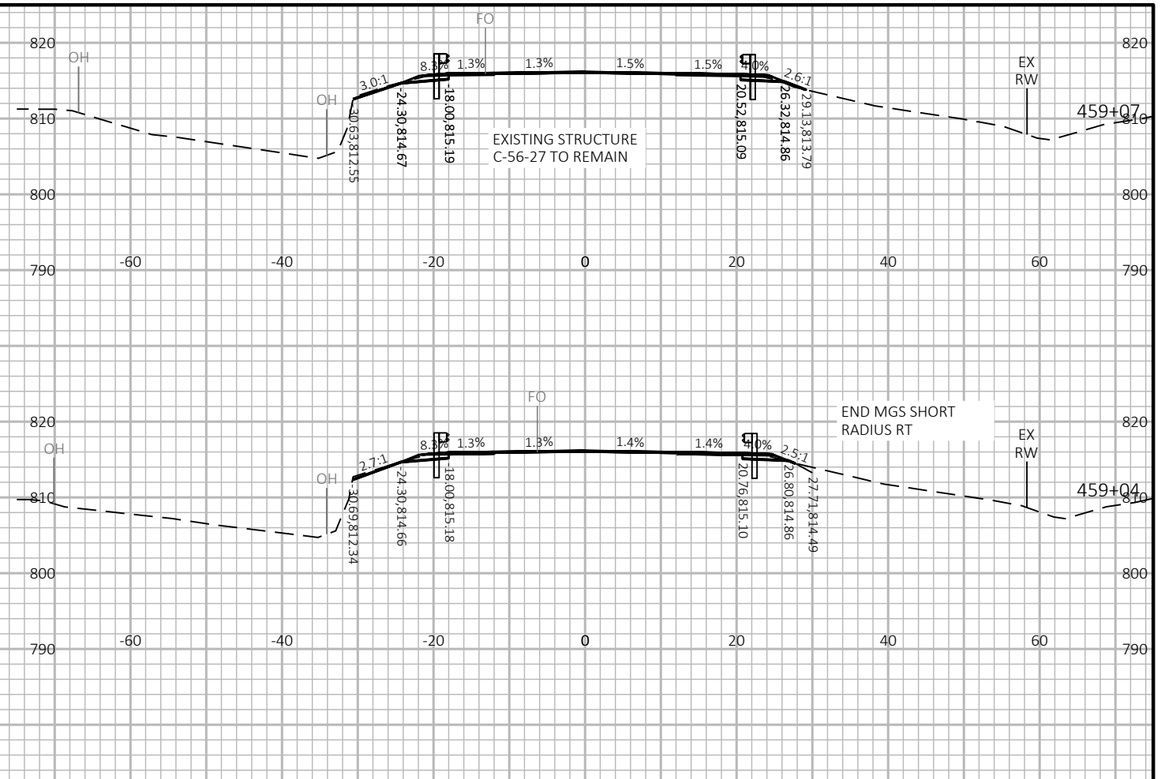
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 376	E

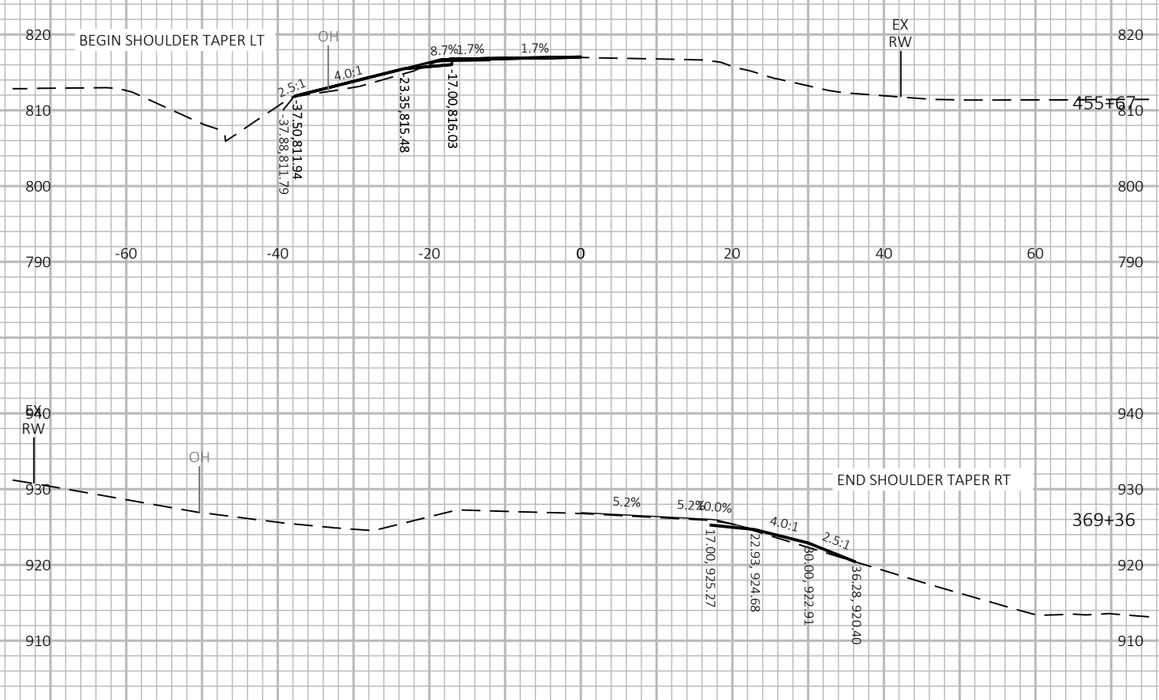
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090232-xs

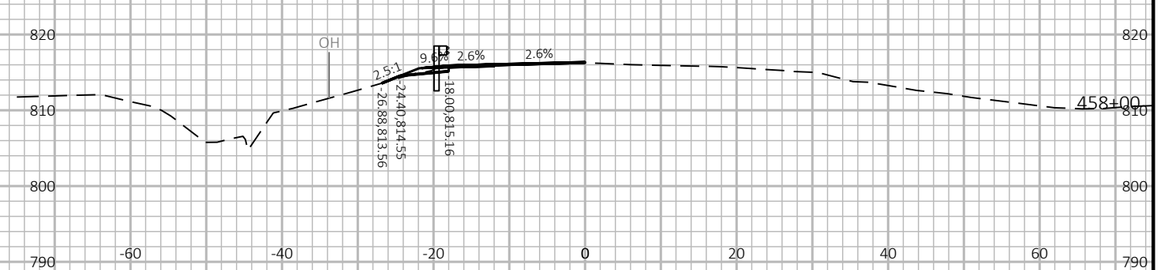
PLOT DATE : 10/31/2023 11:56 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

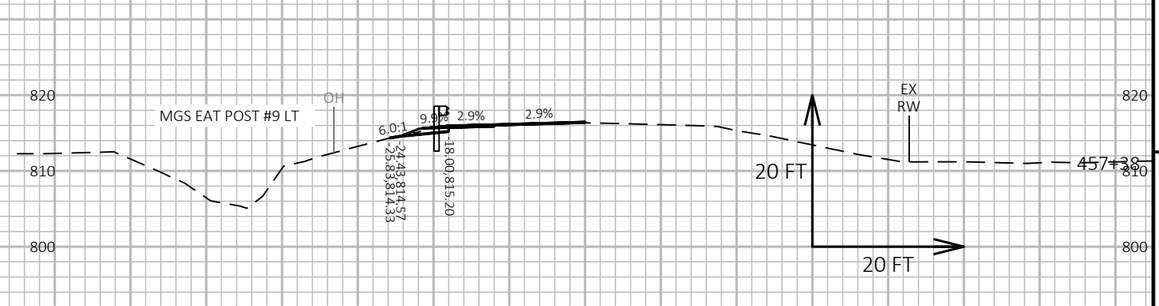
WISDOT/CADDS SHEET 49











9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 377	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090233-xs

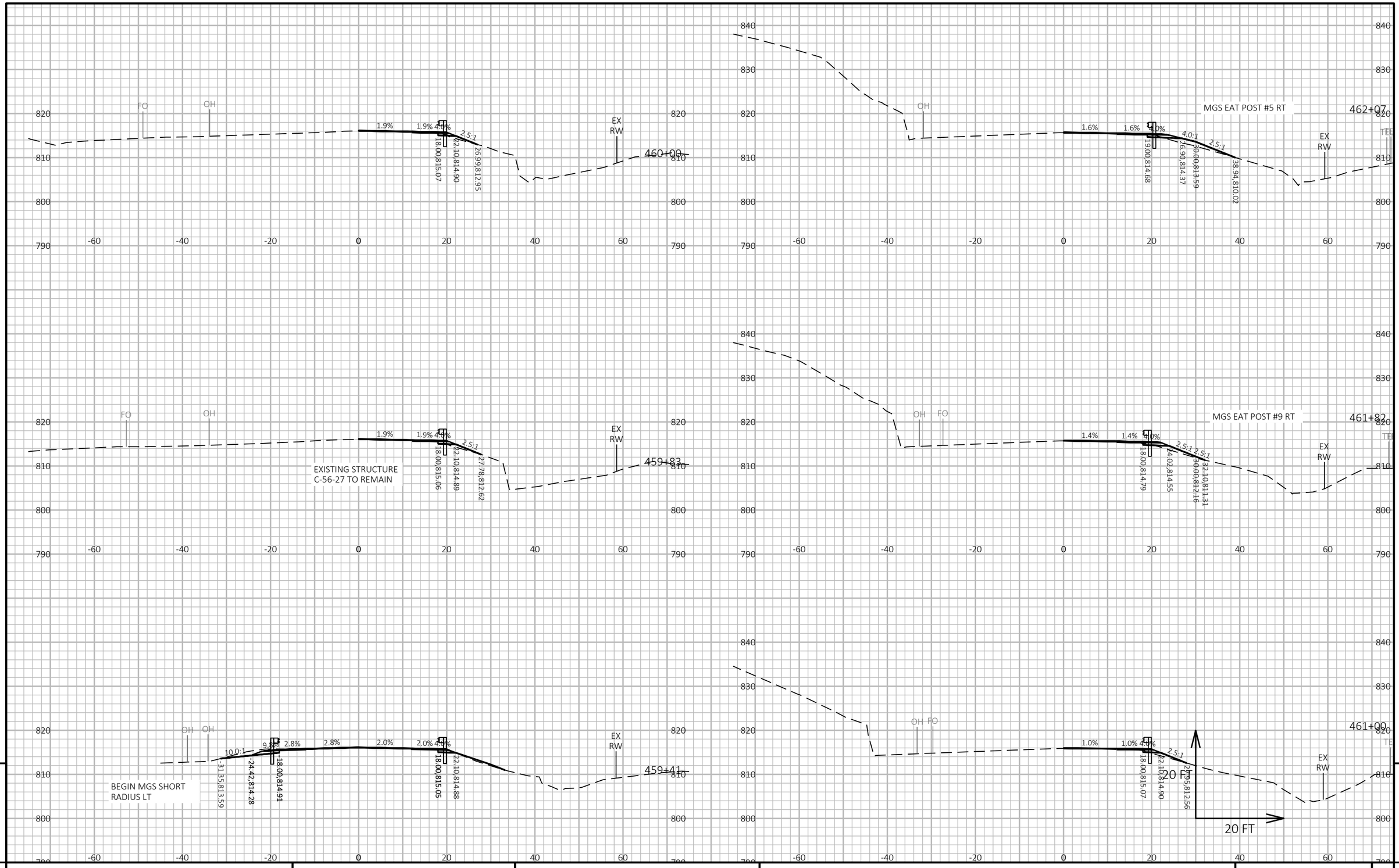
PLOT DATE : 10/31/2023 11:56 AM

PLOT BY : BOBBI MAXWELL

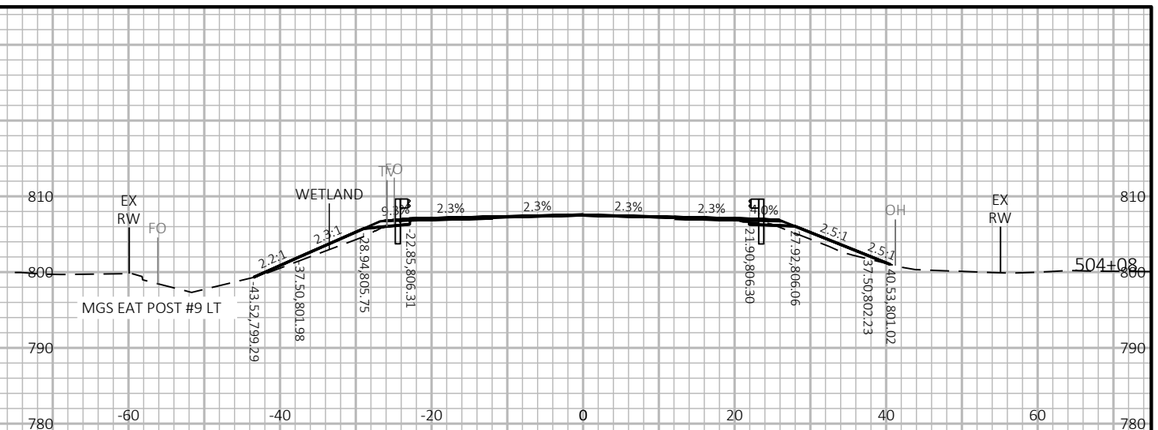
PLOT NAME :

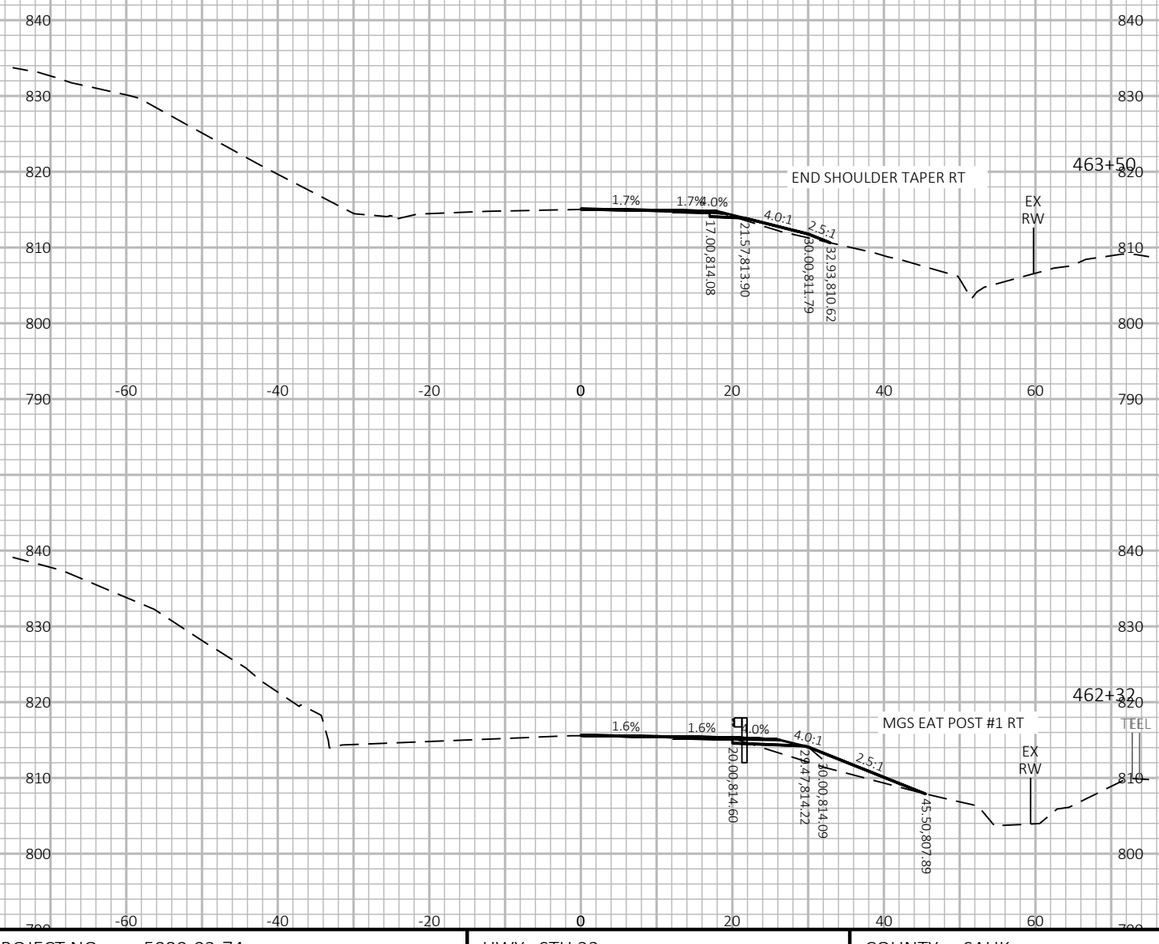
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

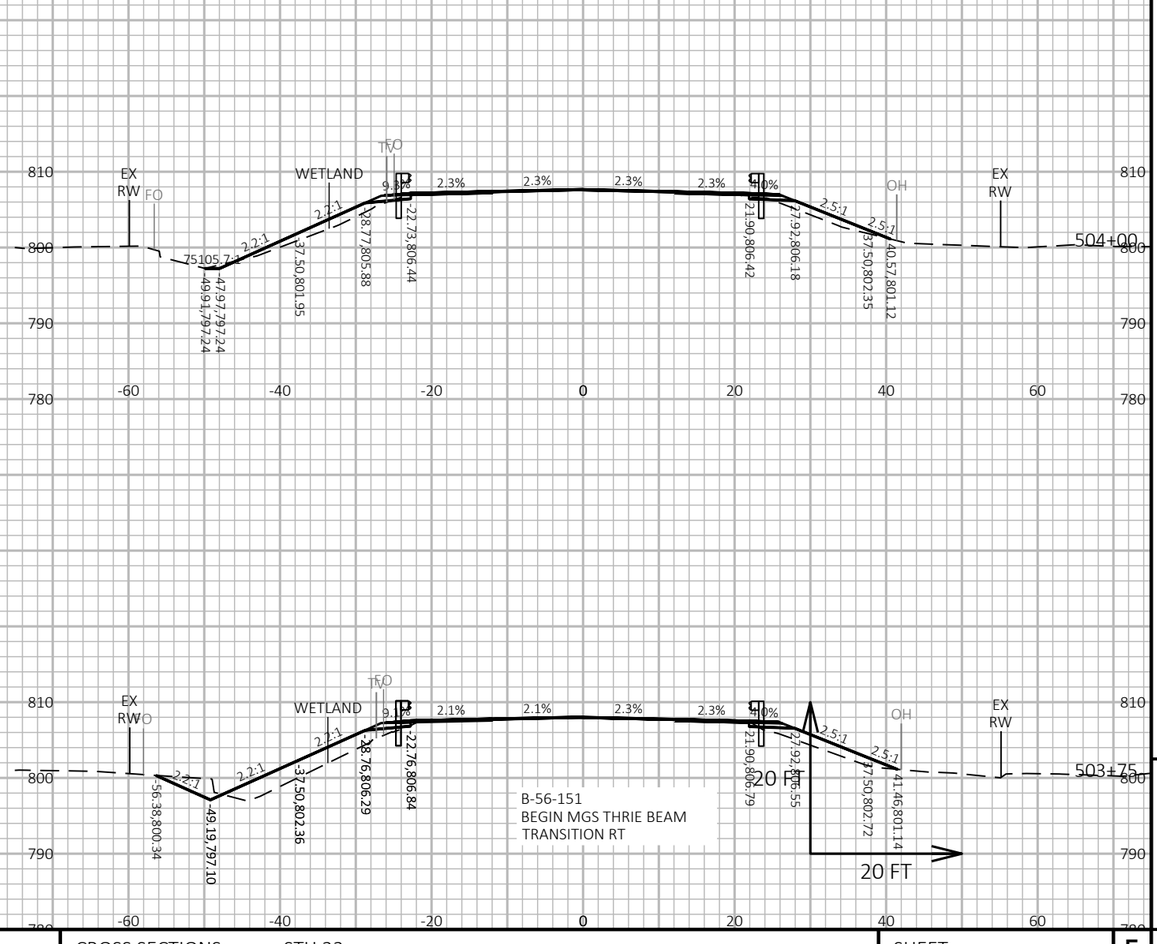
WISDOT/CADDS SHEET 49



9	PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 378 E







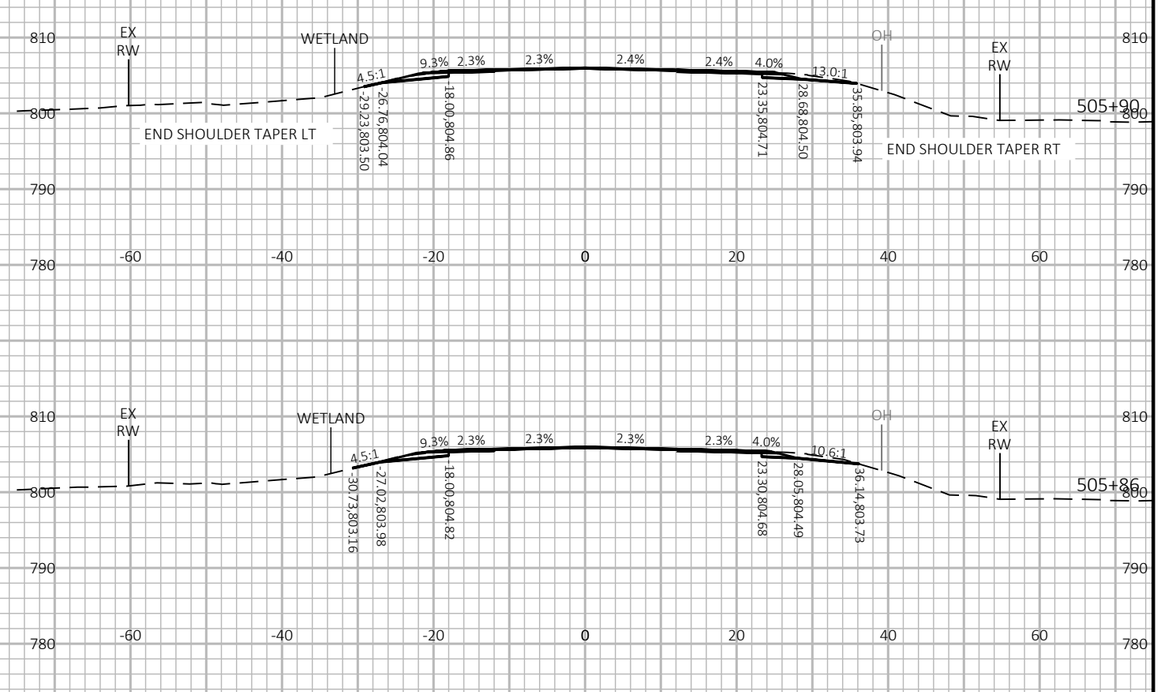
9

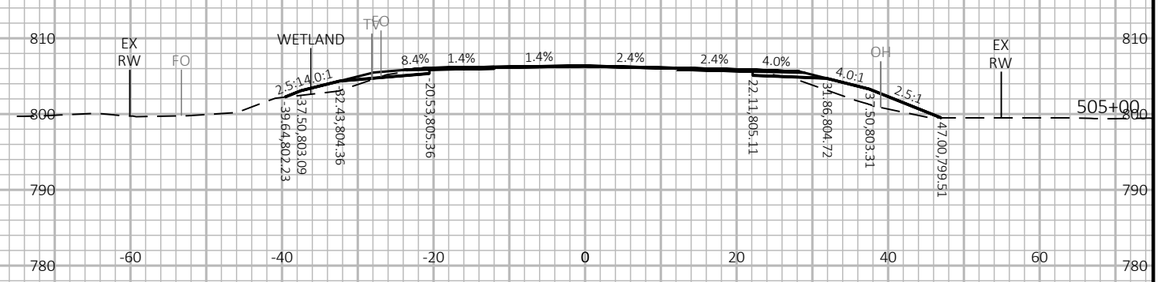
9

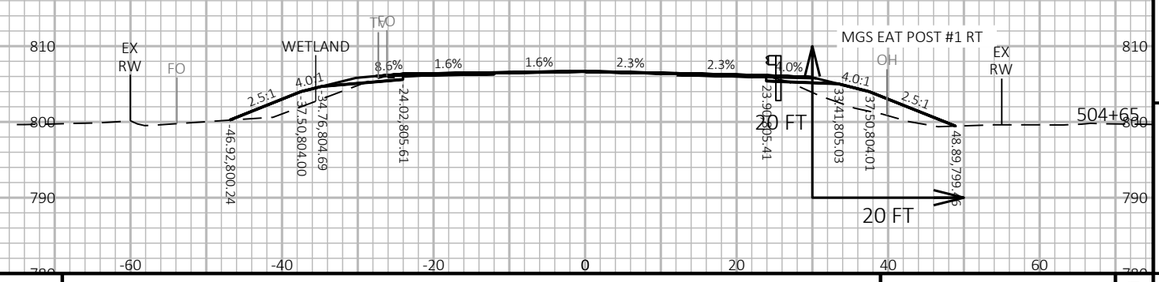
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 379	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090235-xs

PLOT DATE : 10/31/2023 11:56 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.







PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 380 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090236-xs

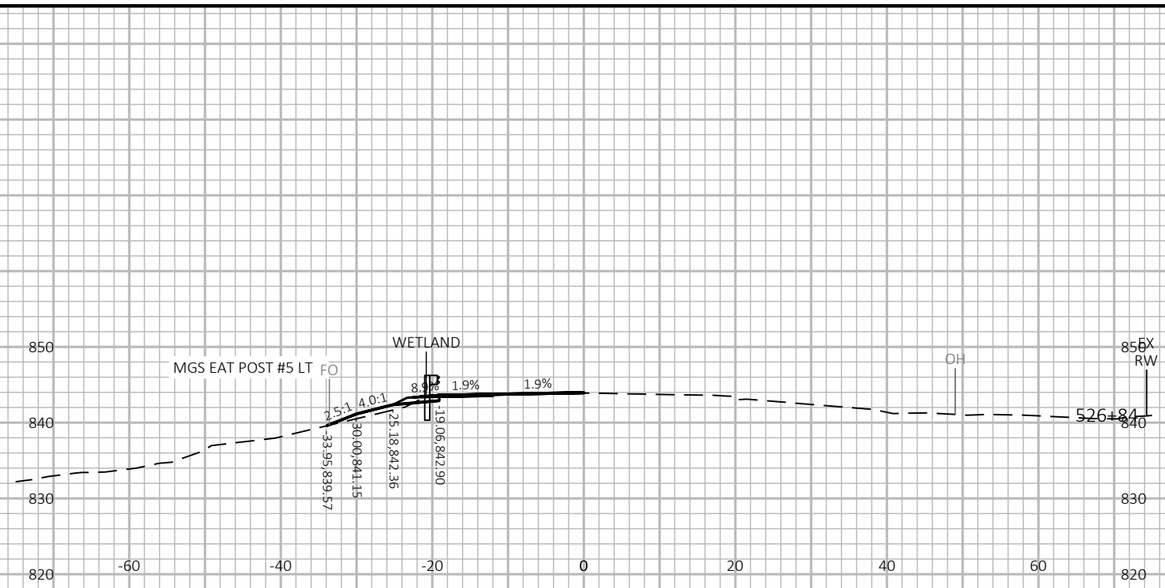
PLOT DATE : 10/31/2023 11:56 AM

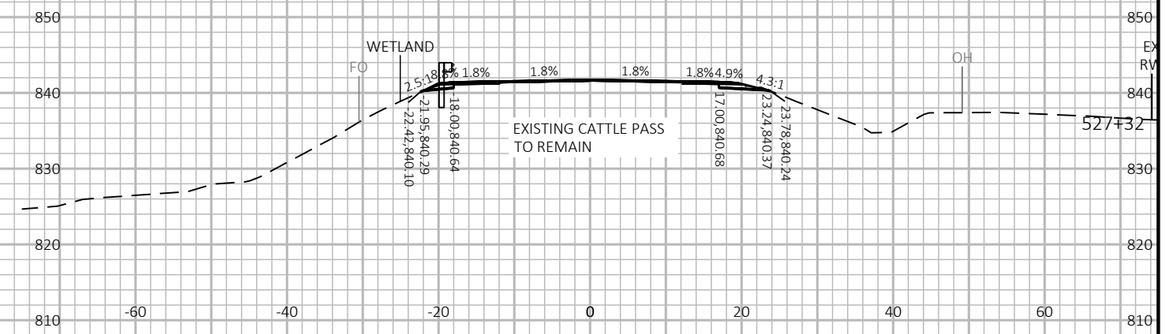
PLOT BY : BOBBI MAXWELL

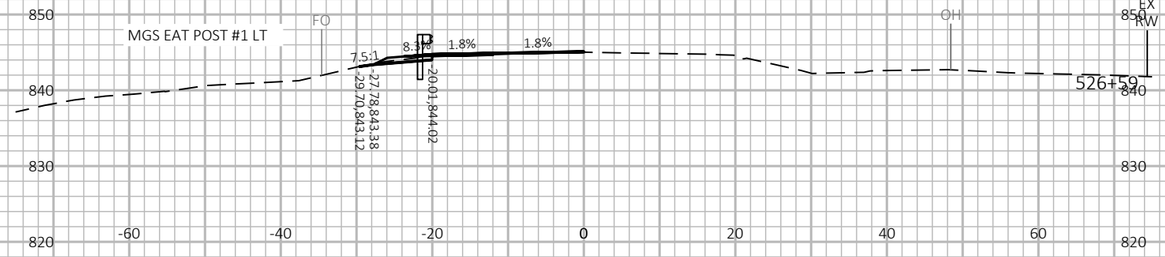
PLOT NAME :

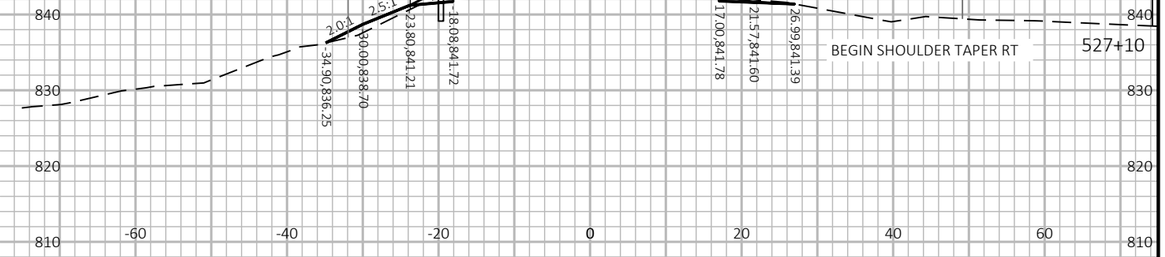
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

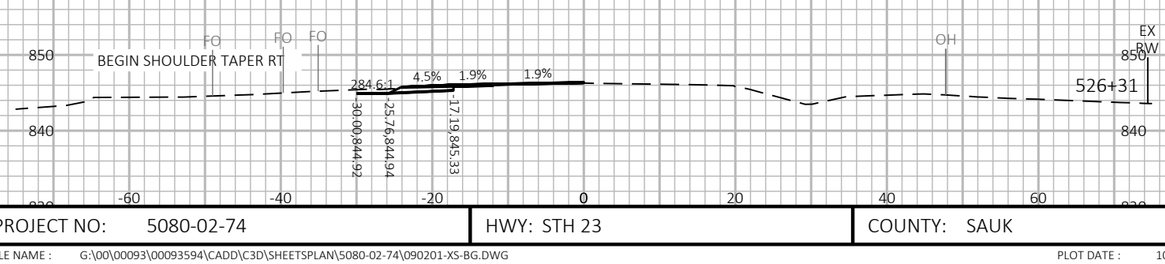
WISDOT/CADDS SHEET 49

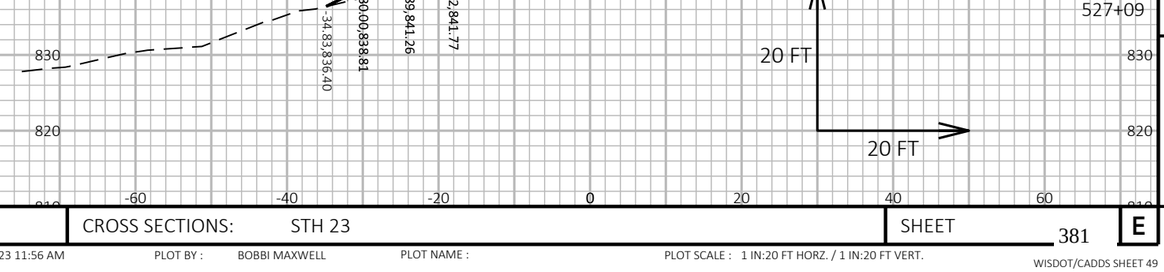












9

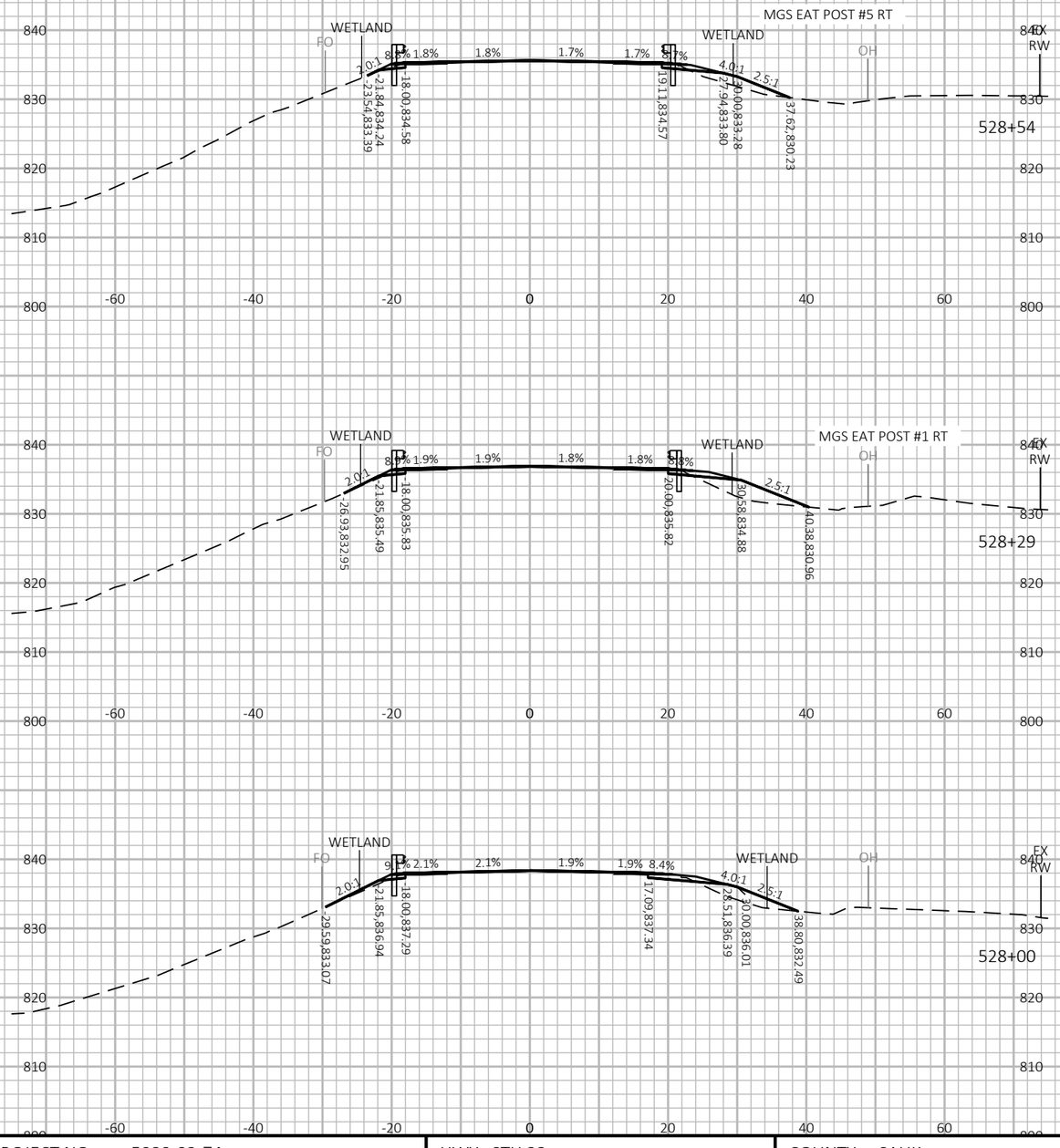
9

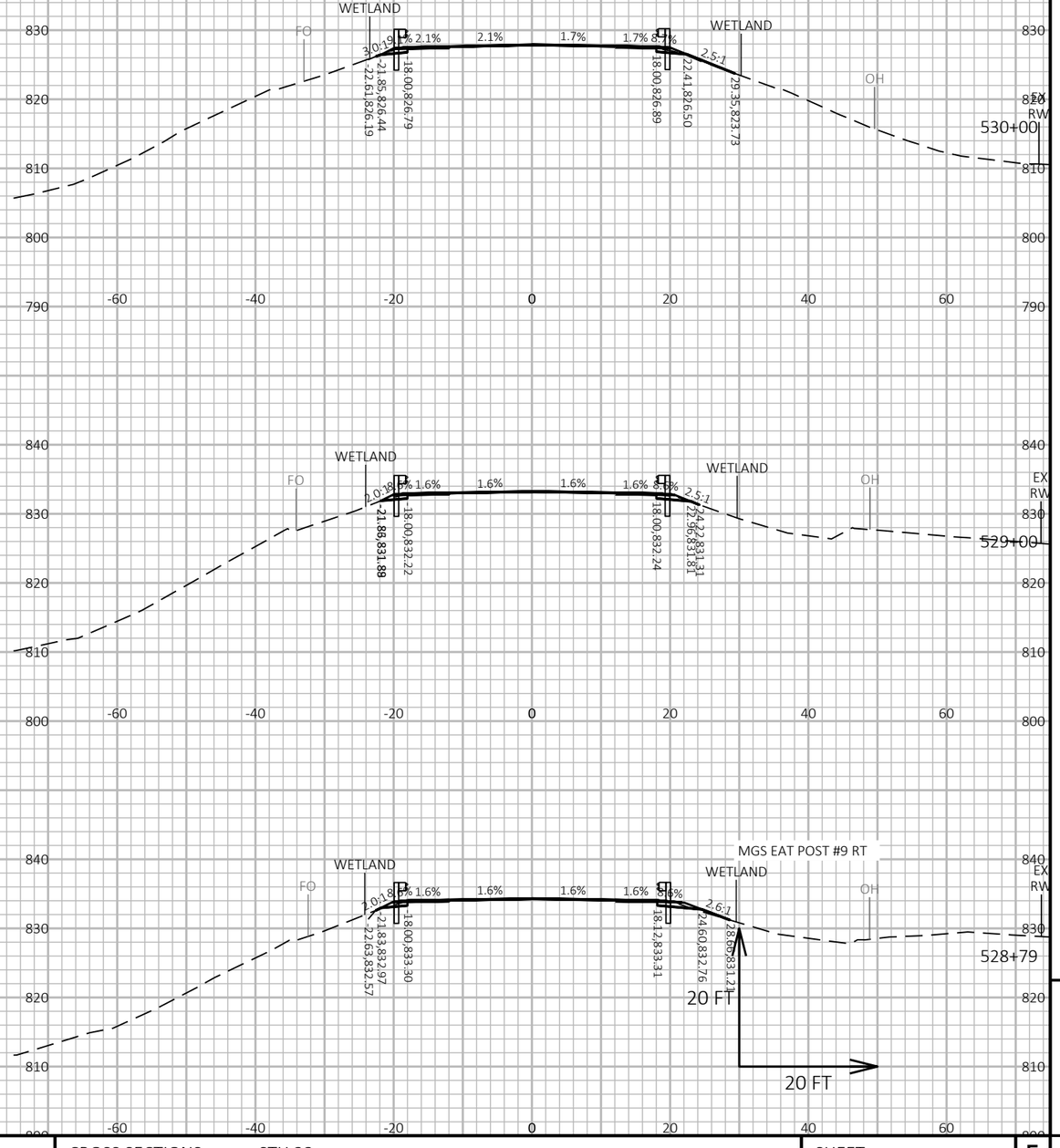
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 381	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090237-xs

PLOT DATE : 10/31/2023 11:56 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





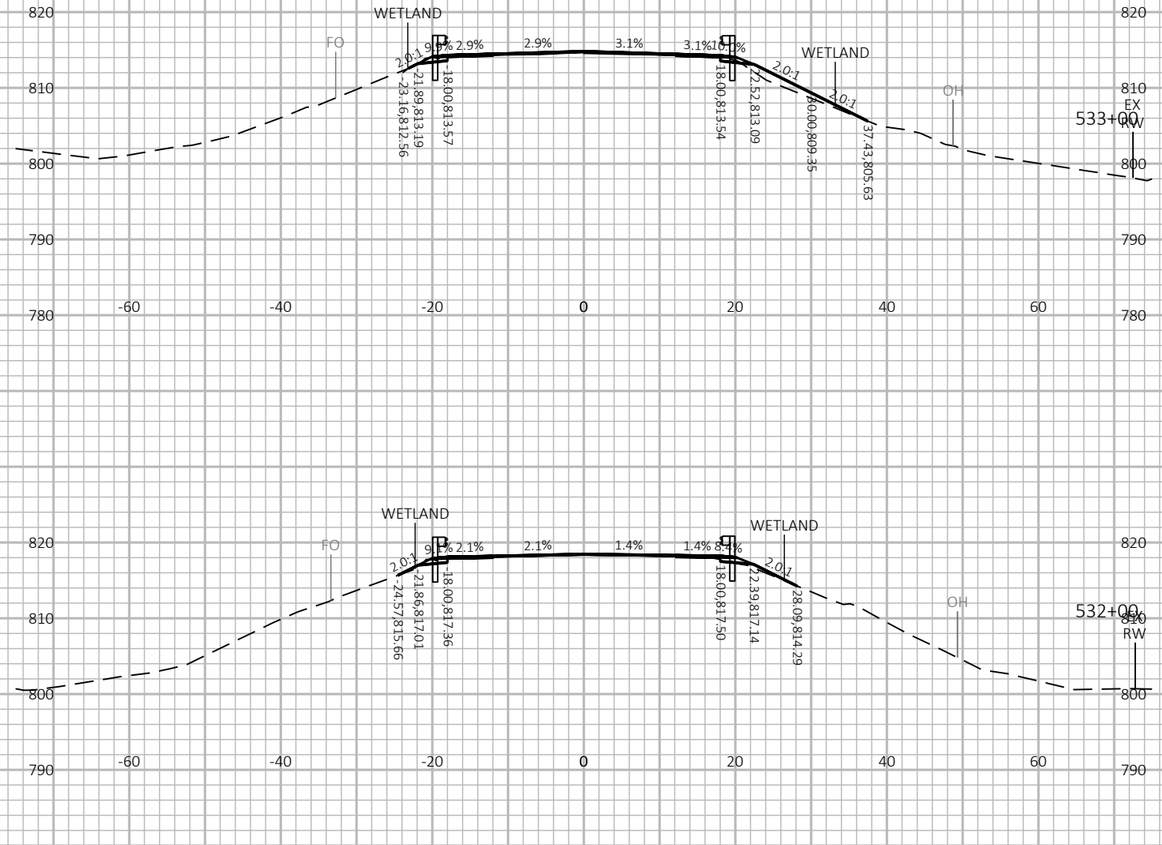
9

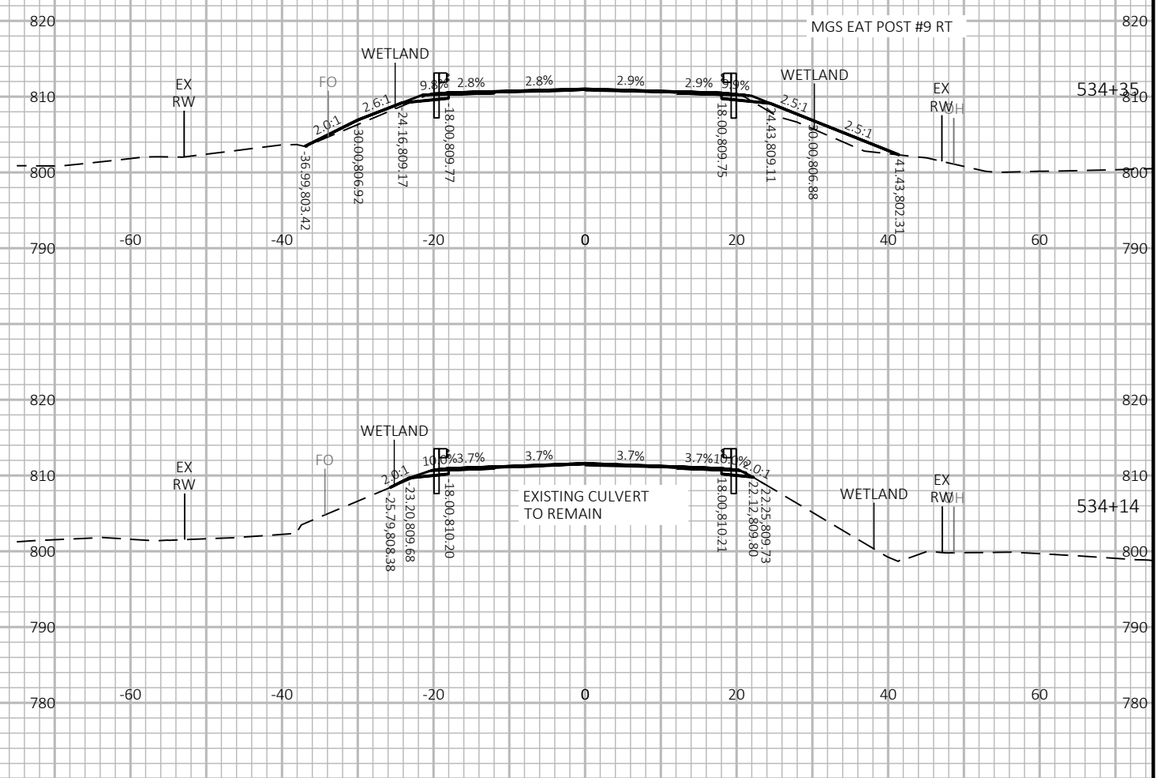
9

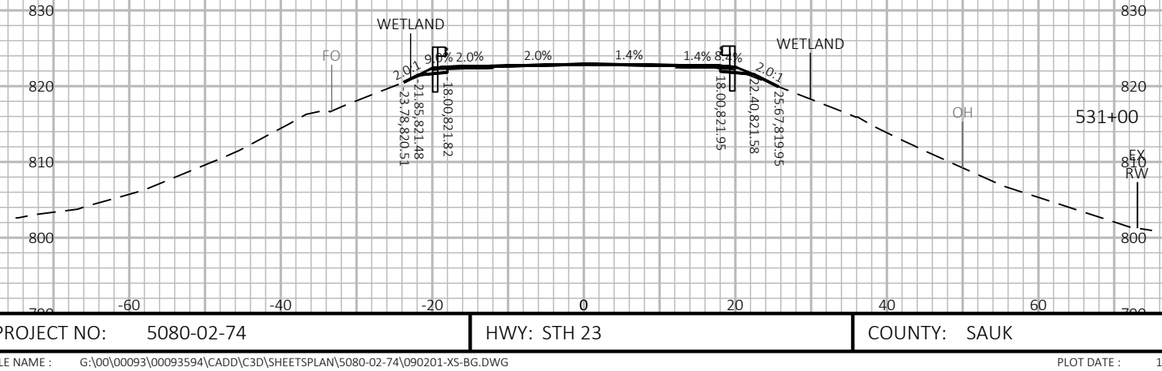
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 382	E

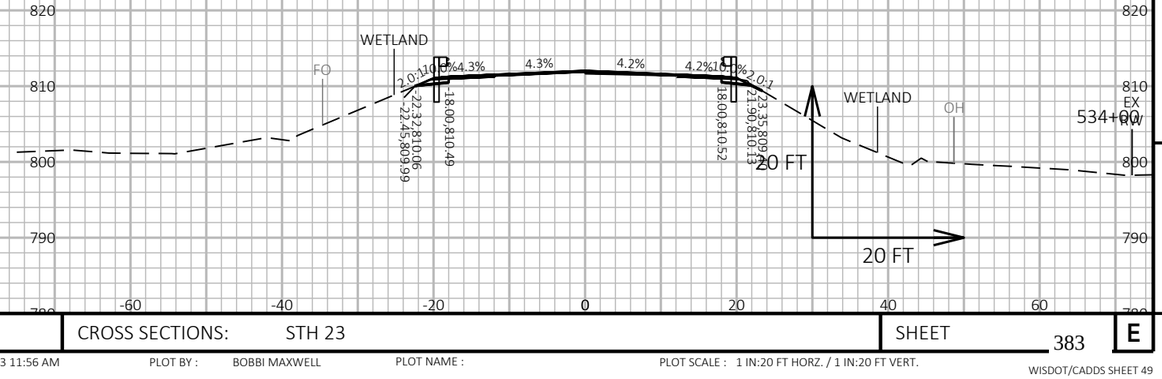
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090238-xs

PLOT DATE : 10/31/2023 11:56 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.









9

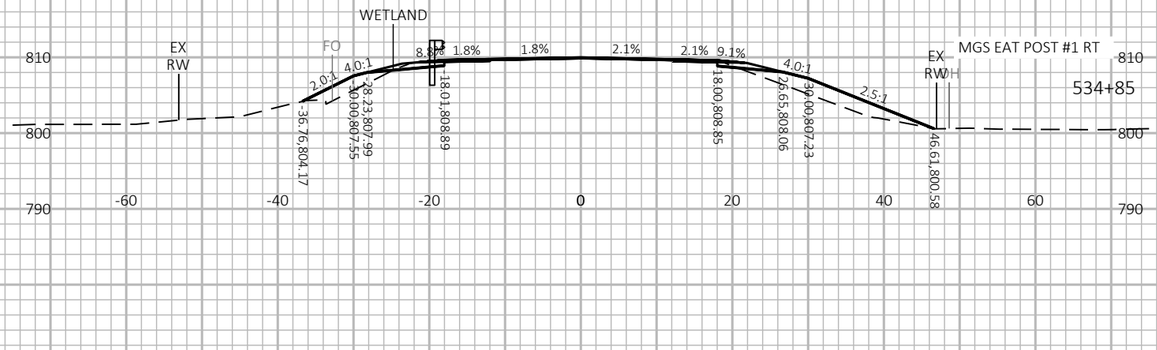
9

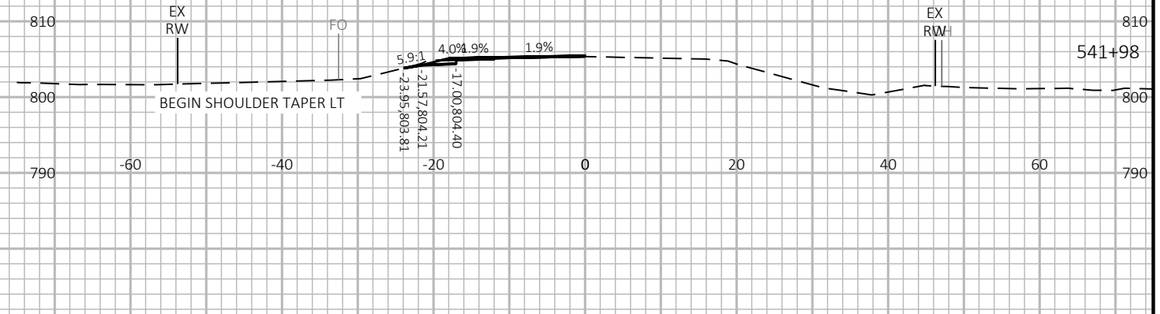
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 383	E

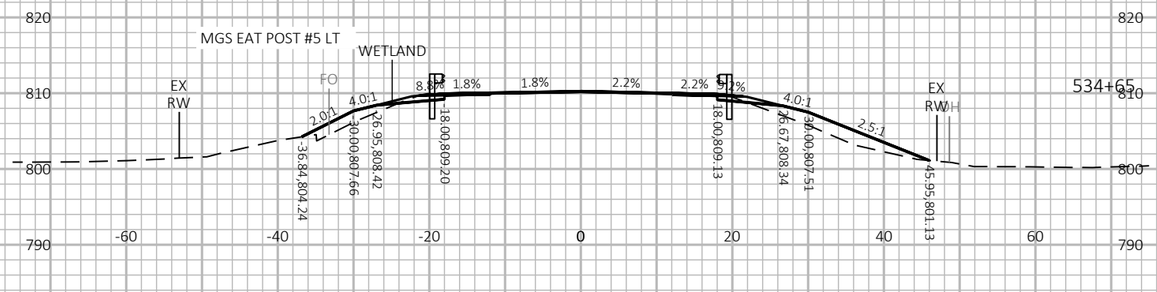
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090239-xs

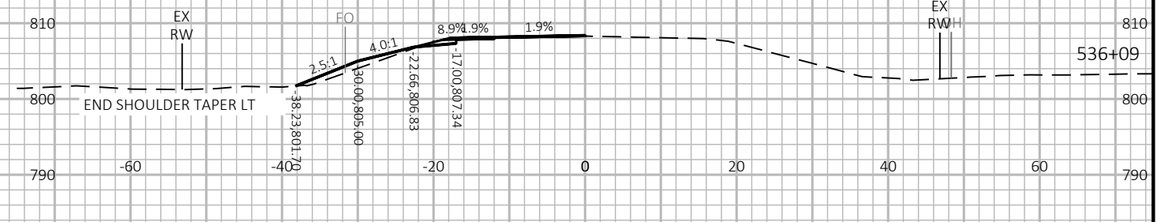
PLOT DATE : 10/31/2023 11:56 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

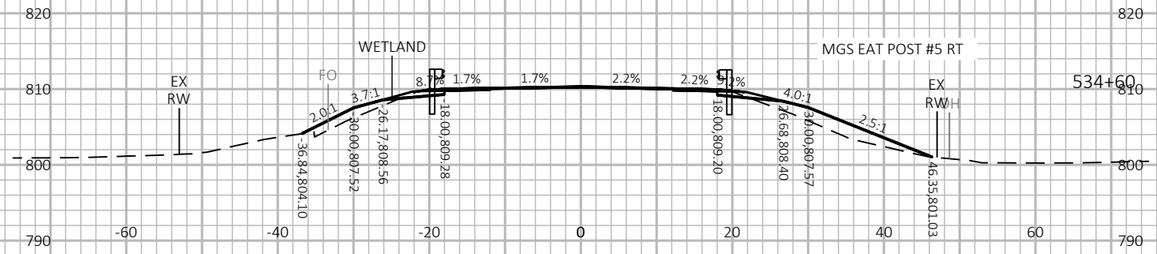
WISDOT/CADDS SHEET 49

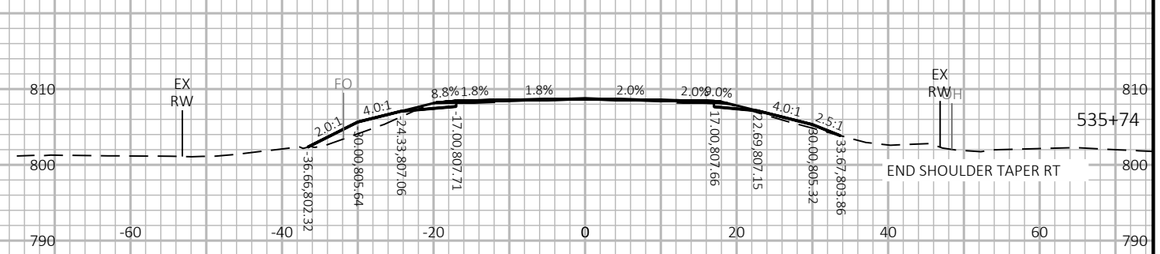


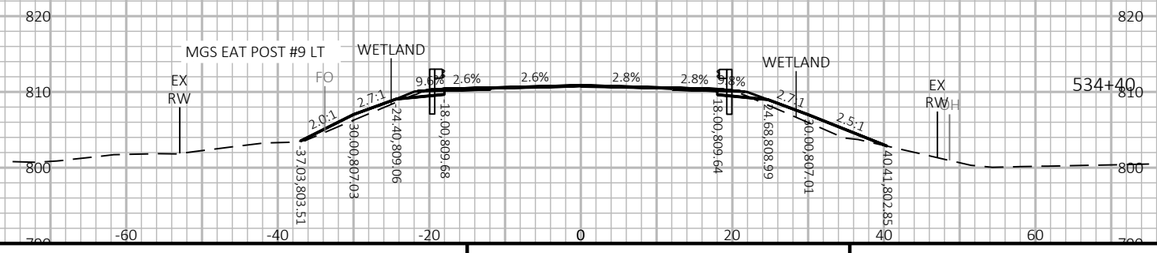


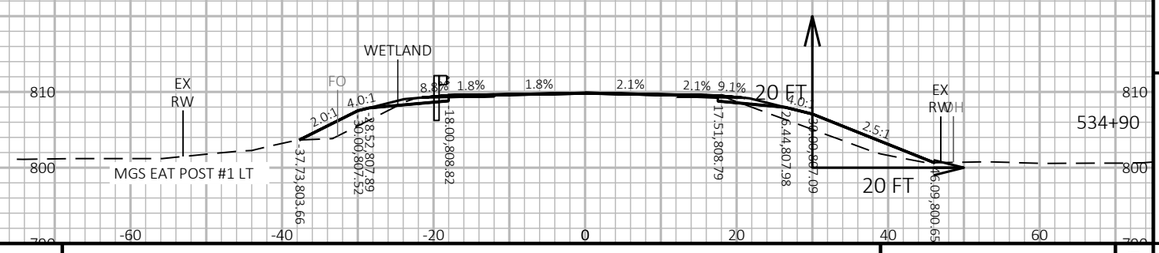












9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 384	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090240-xs

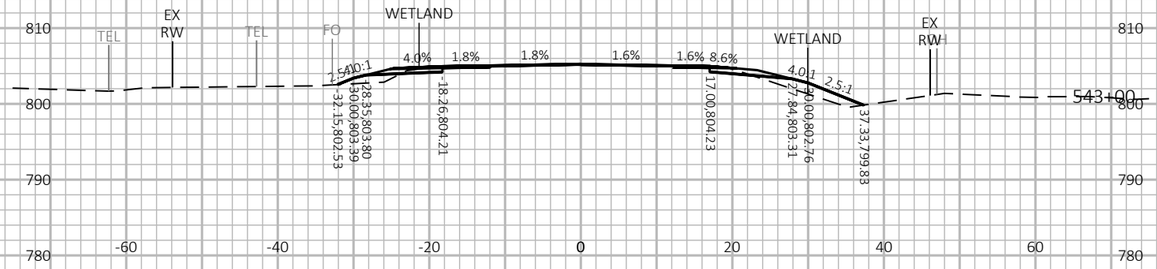
PLOT DATE : 10/31/2023 11:57 AM

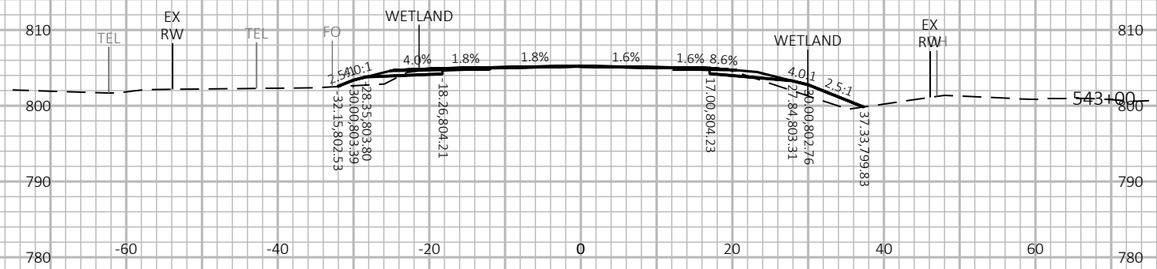
PLOT BY : BOBBI MAXWELL

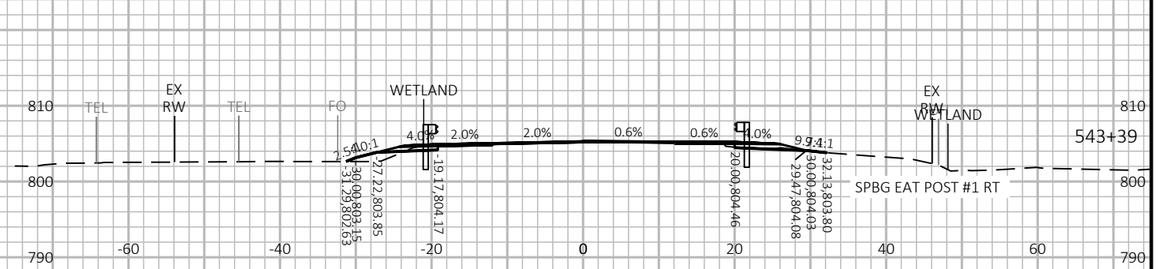
PLOT NAME :

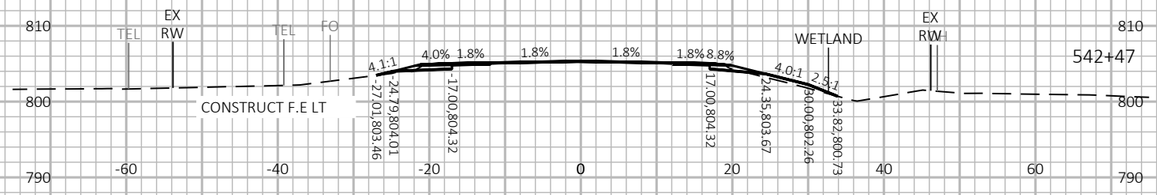
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

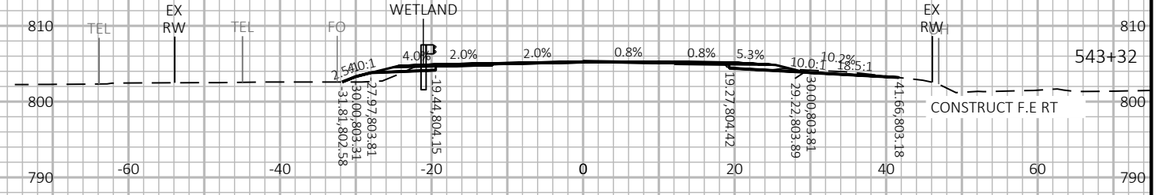
WISDOT/CADDS SHEET 49

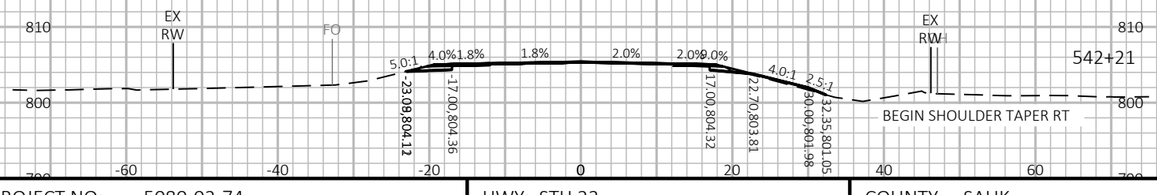


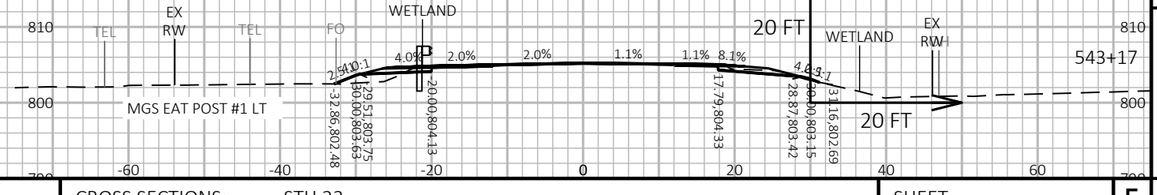












9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 385	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090241-xs

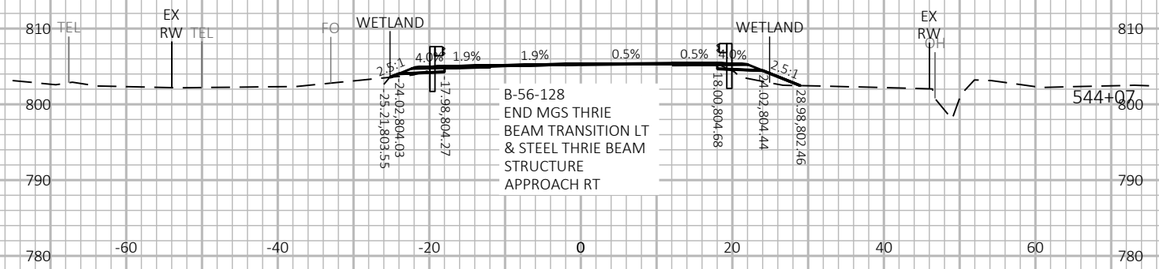
PLOT DATE : 10/31/2023 11:57 AM

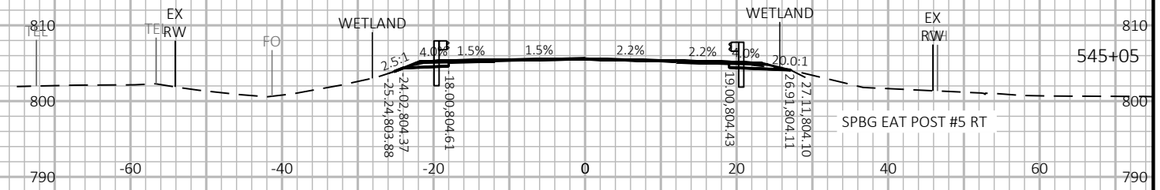
PLOT BY : BOBBI MAXWELL

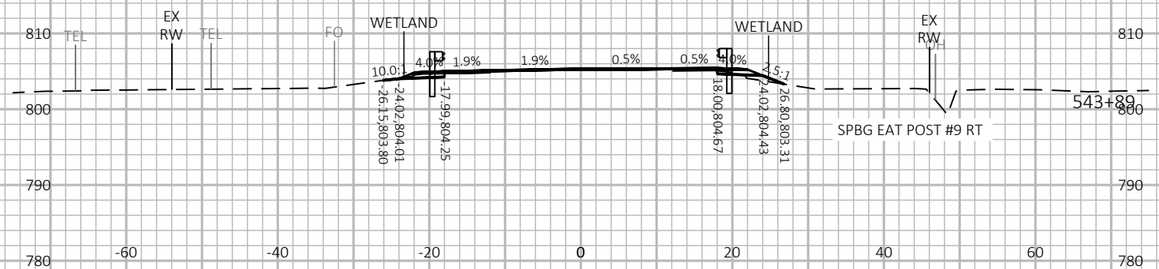
PLOT NAME :

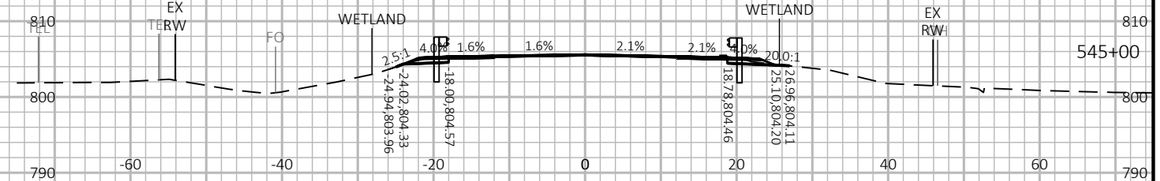
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

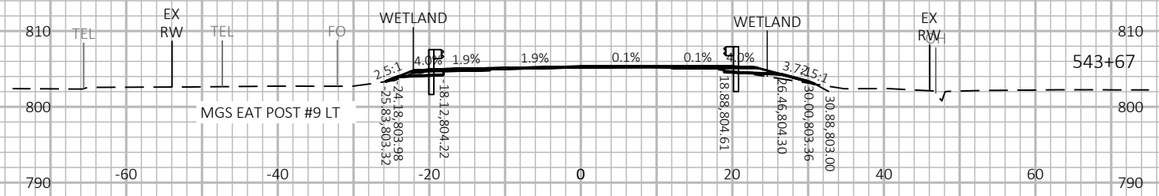
WISDOT/CADDS SHEET 49

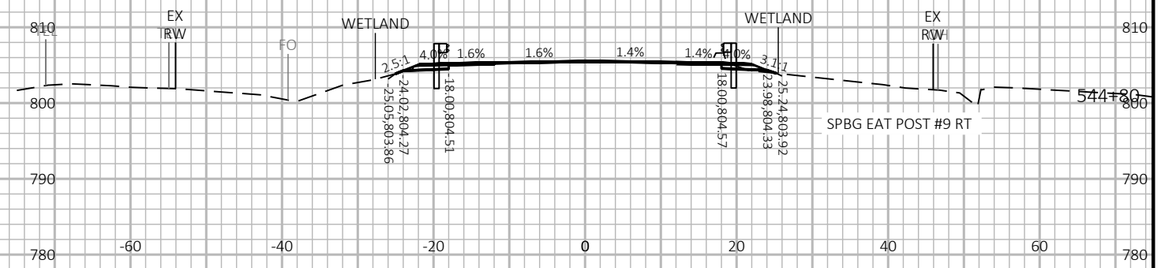


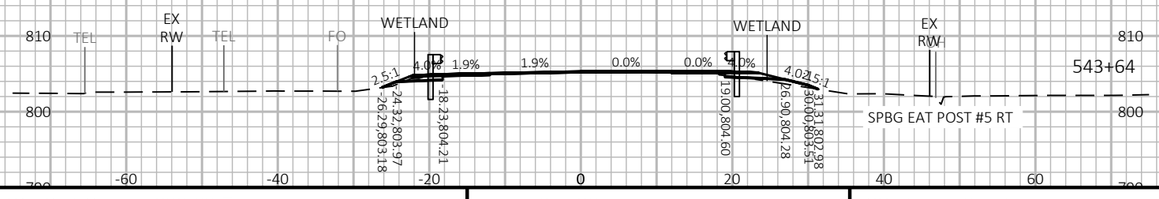


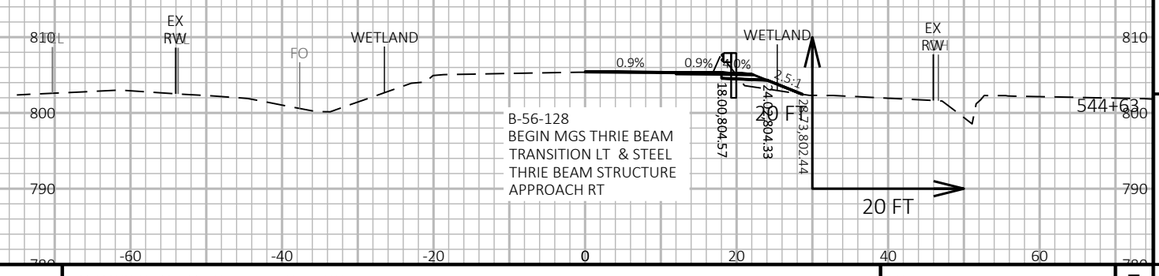












9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 386	E

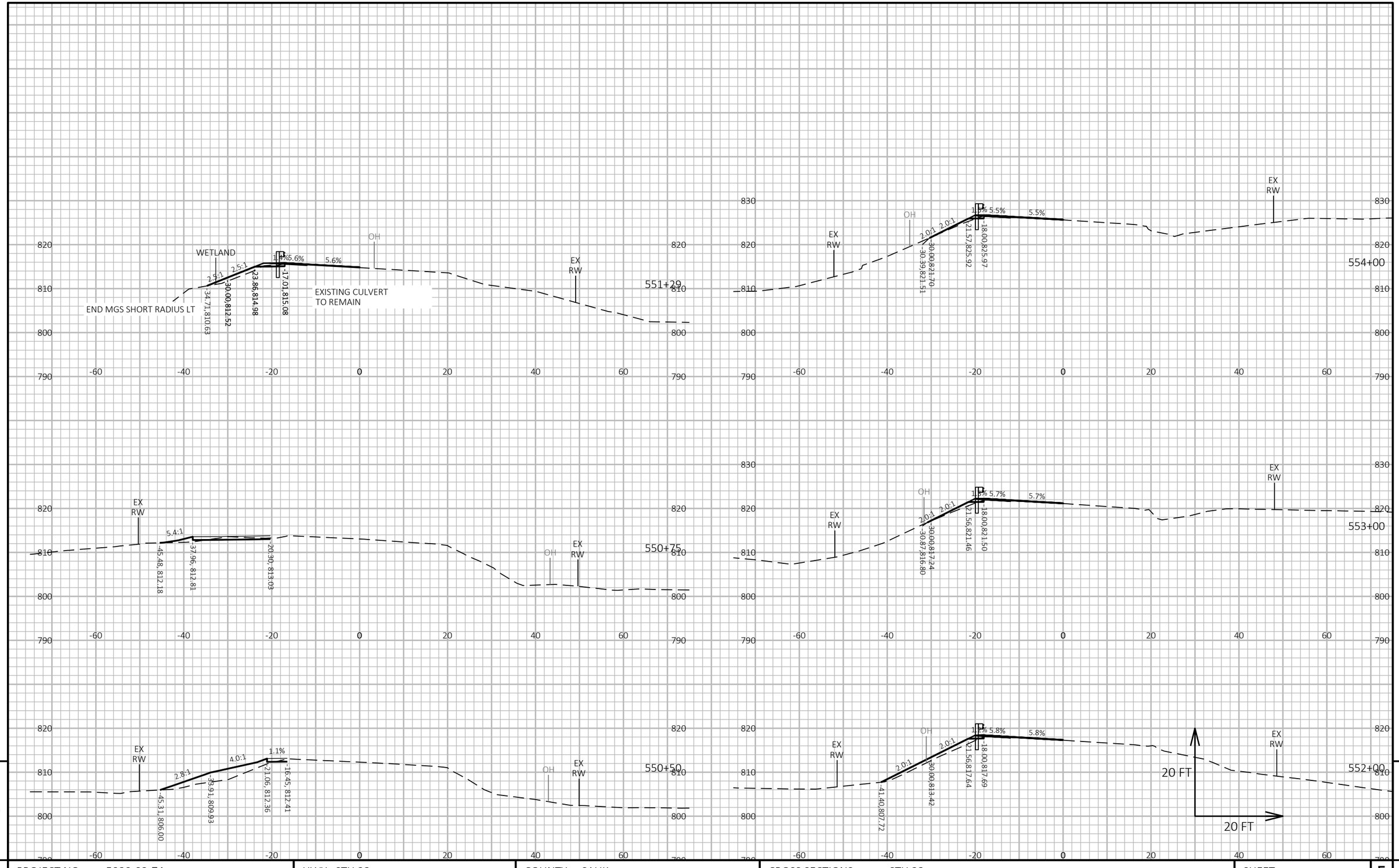
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090242-xs
PLOT DATE : 10/31/2023 11:57 AM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 387	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090243-xs

PLOT DATE : 10/31/2023 11:57 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 388	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090244-xs

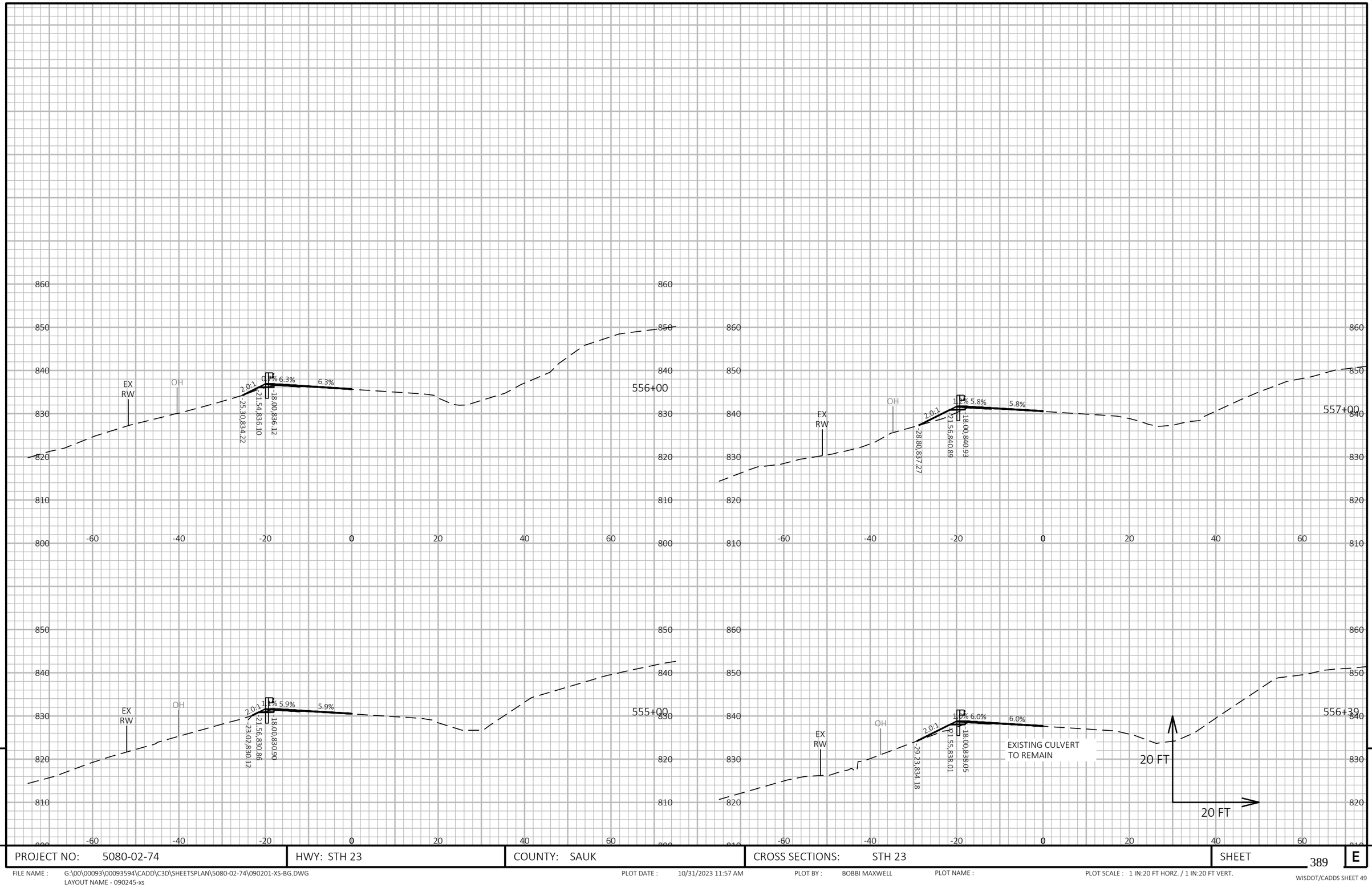
PLOT DATE : 10/31/2023 11:57 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 389	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090245-xs

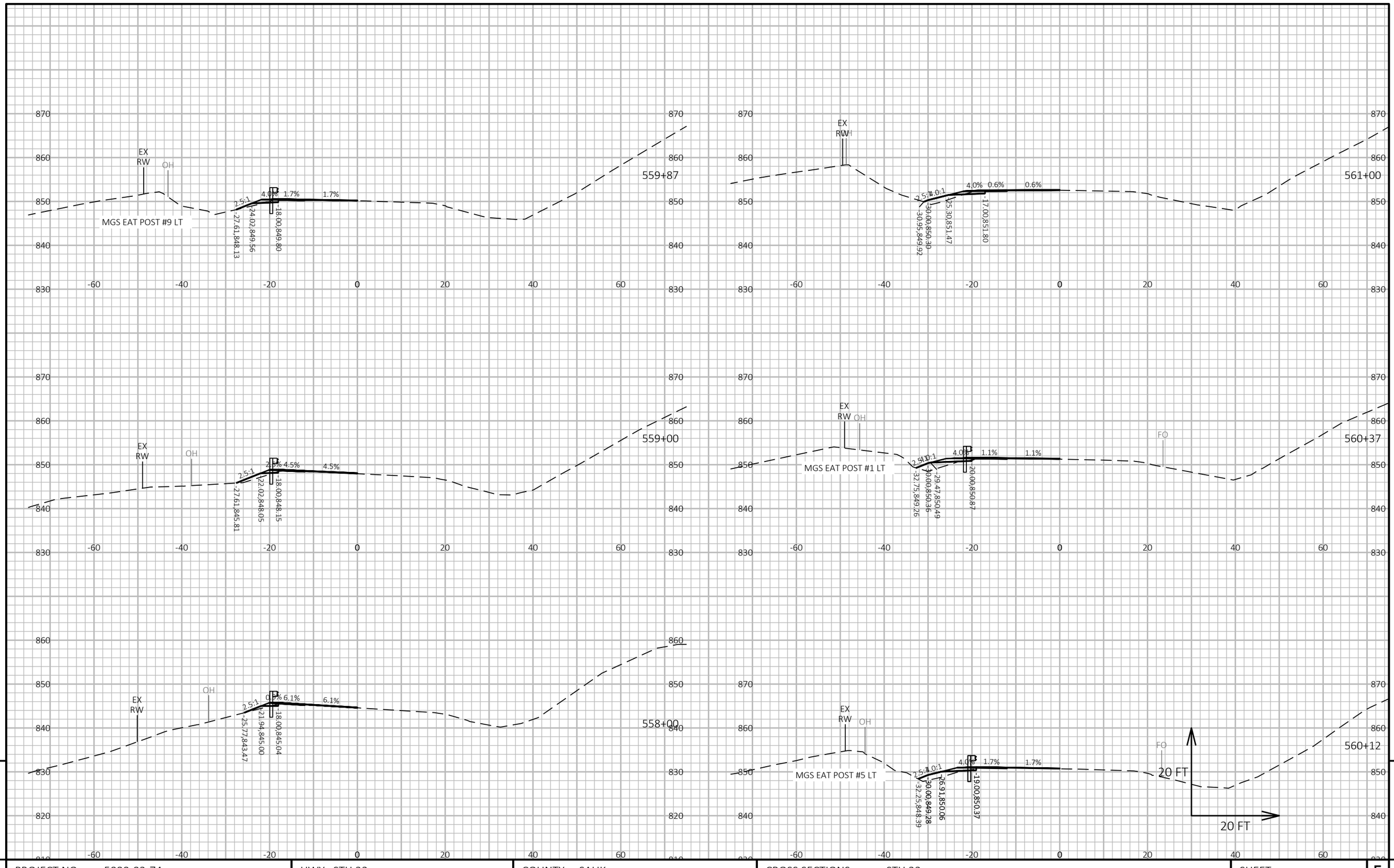
PLOT DATE : 10/31/2023 11:57 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



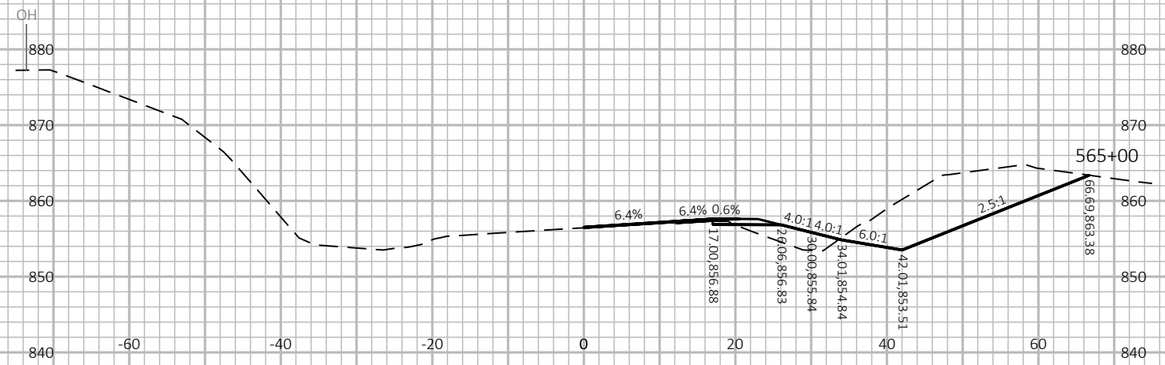
9

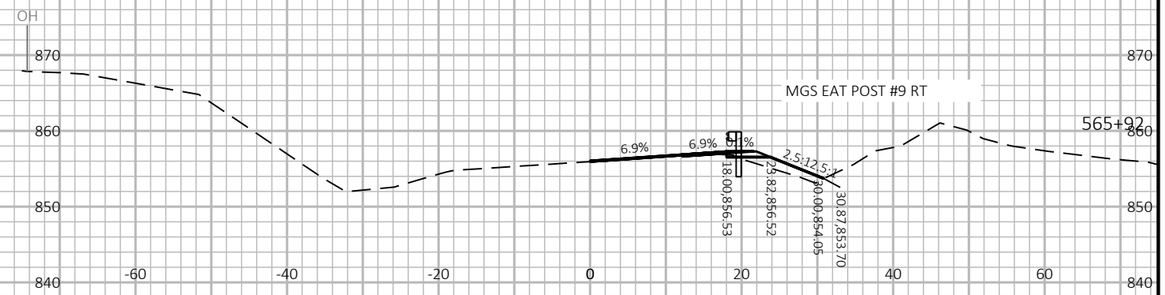
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 390	E

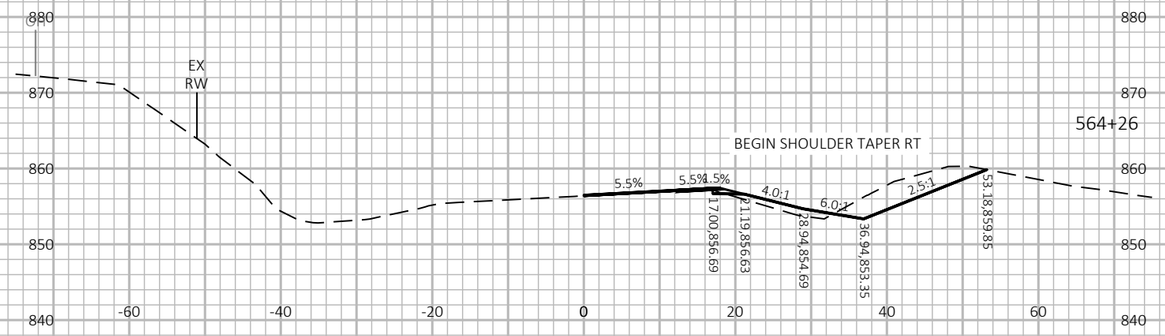
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090246-xs

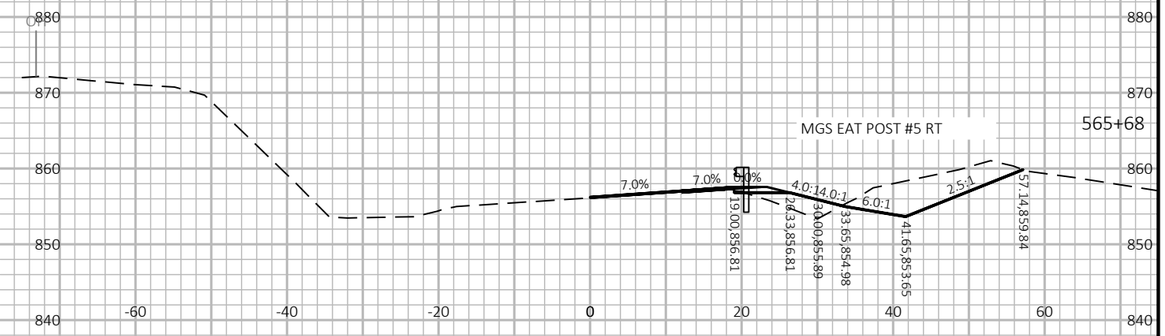
PLOT DATE : 10/31/2023 11:57 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

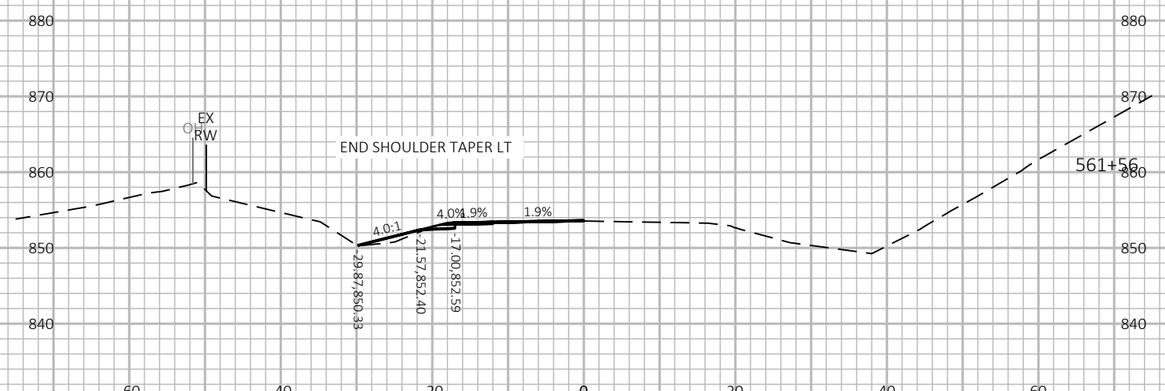
WISDOT/CADDS SHEET 49

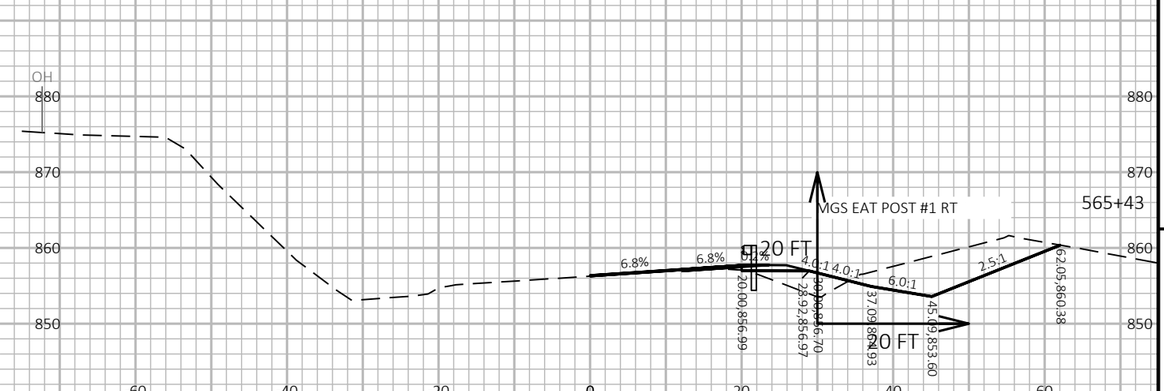








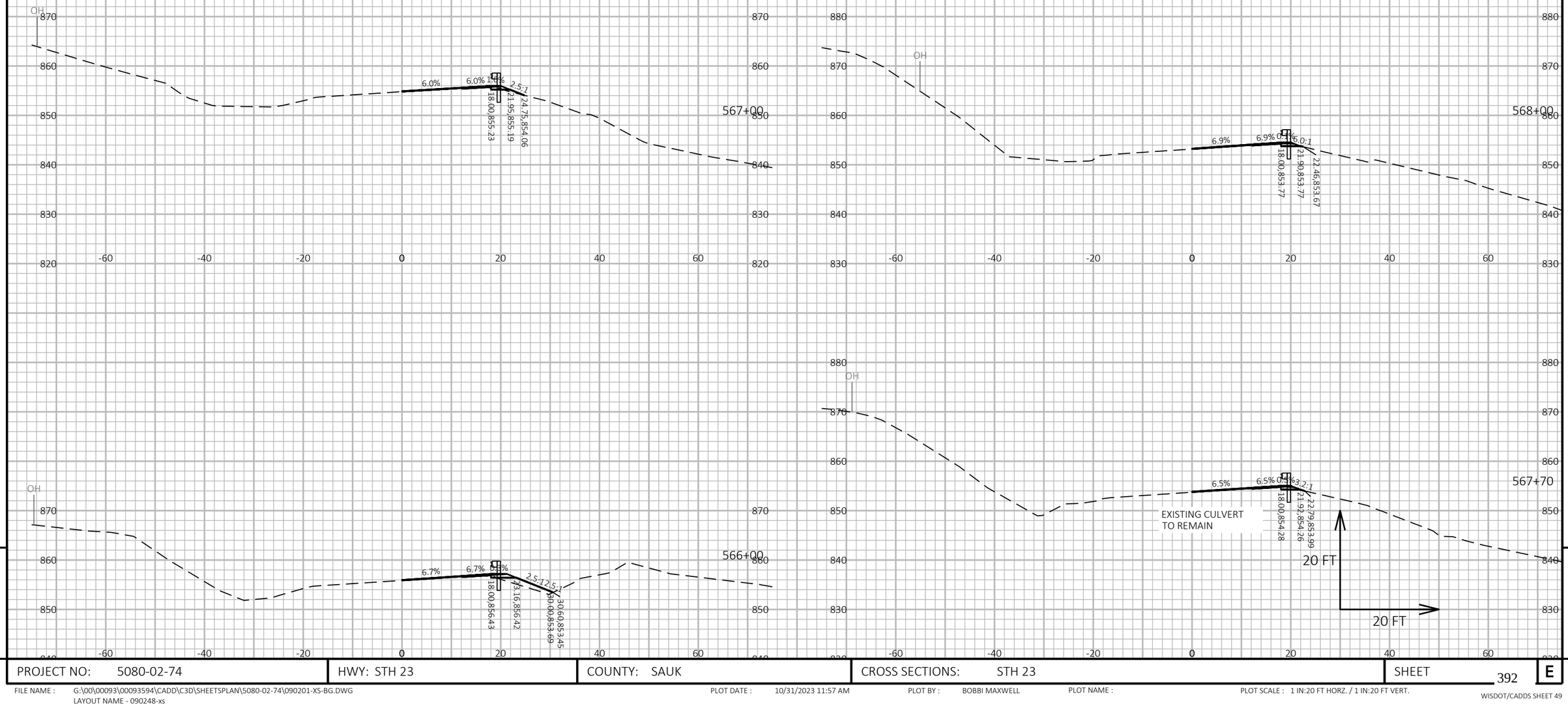




9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 391 E



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 392	E

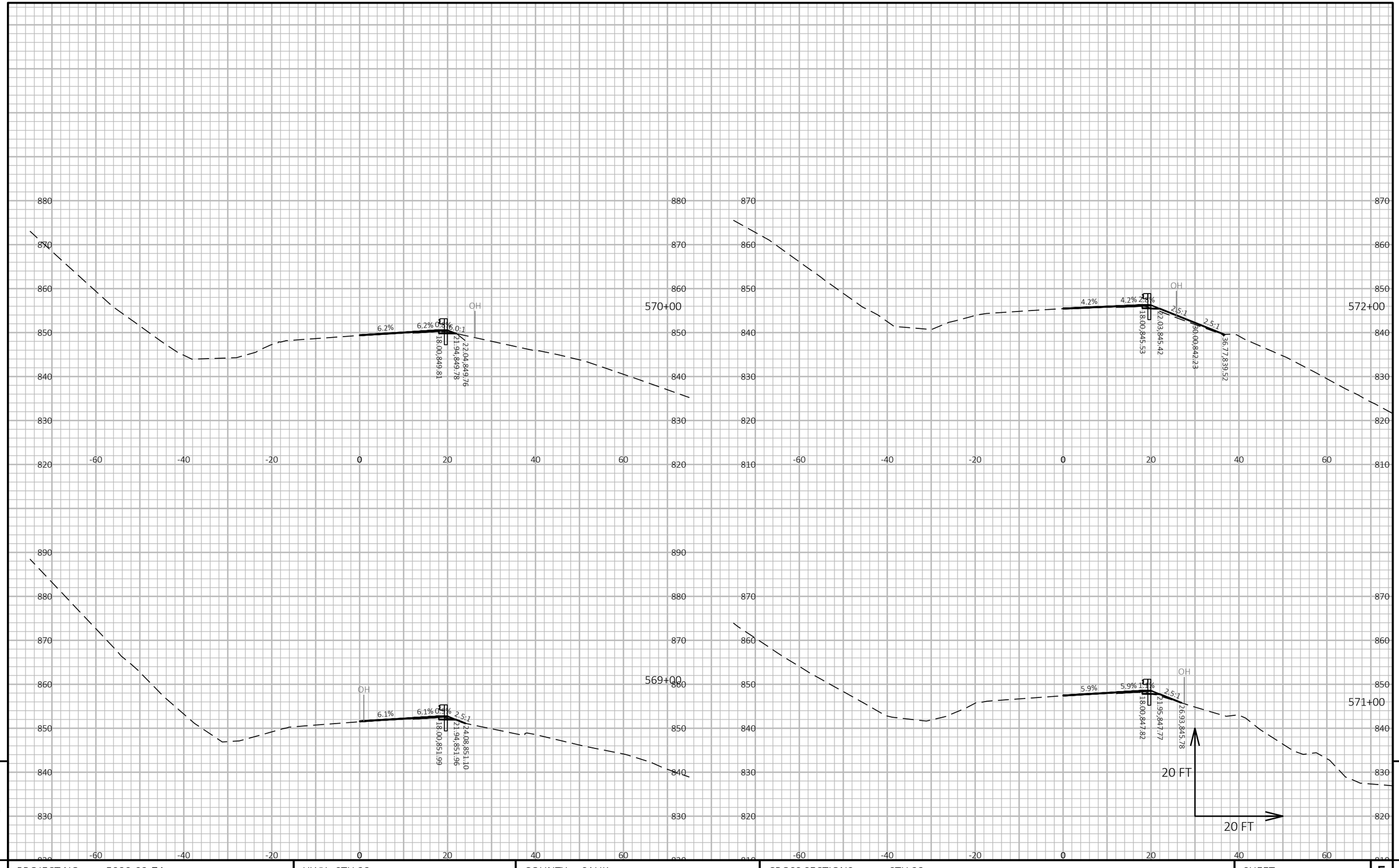
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090248-xs

PLOT DATE : 10/31/2023 11:57 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

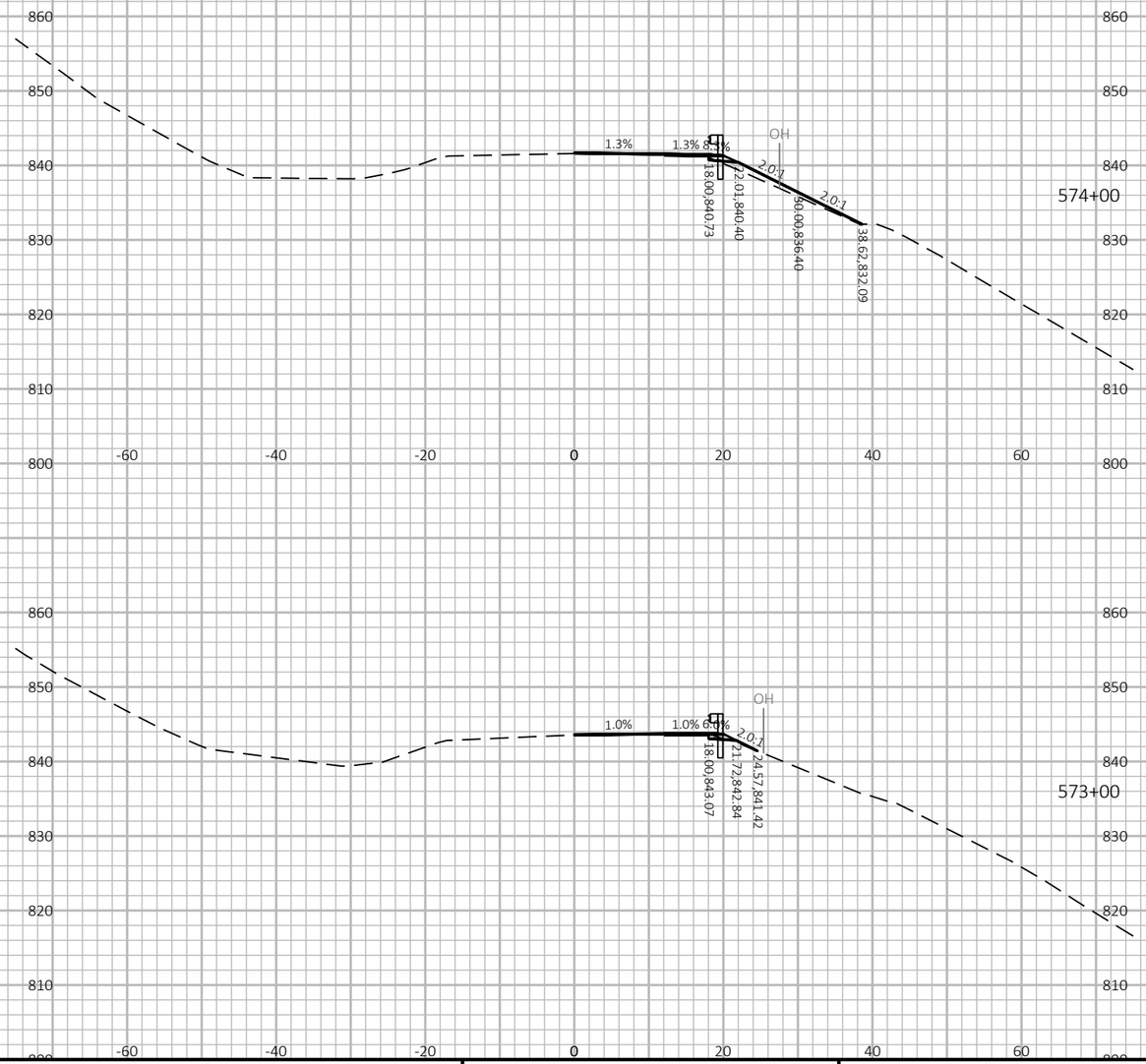
9

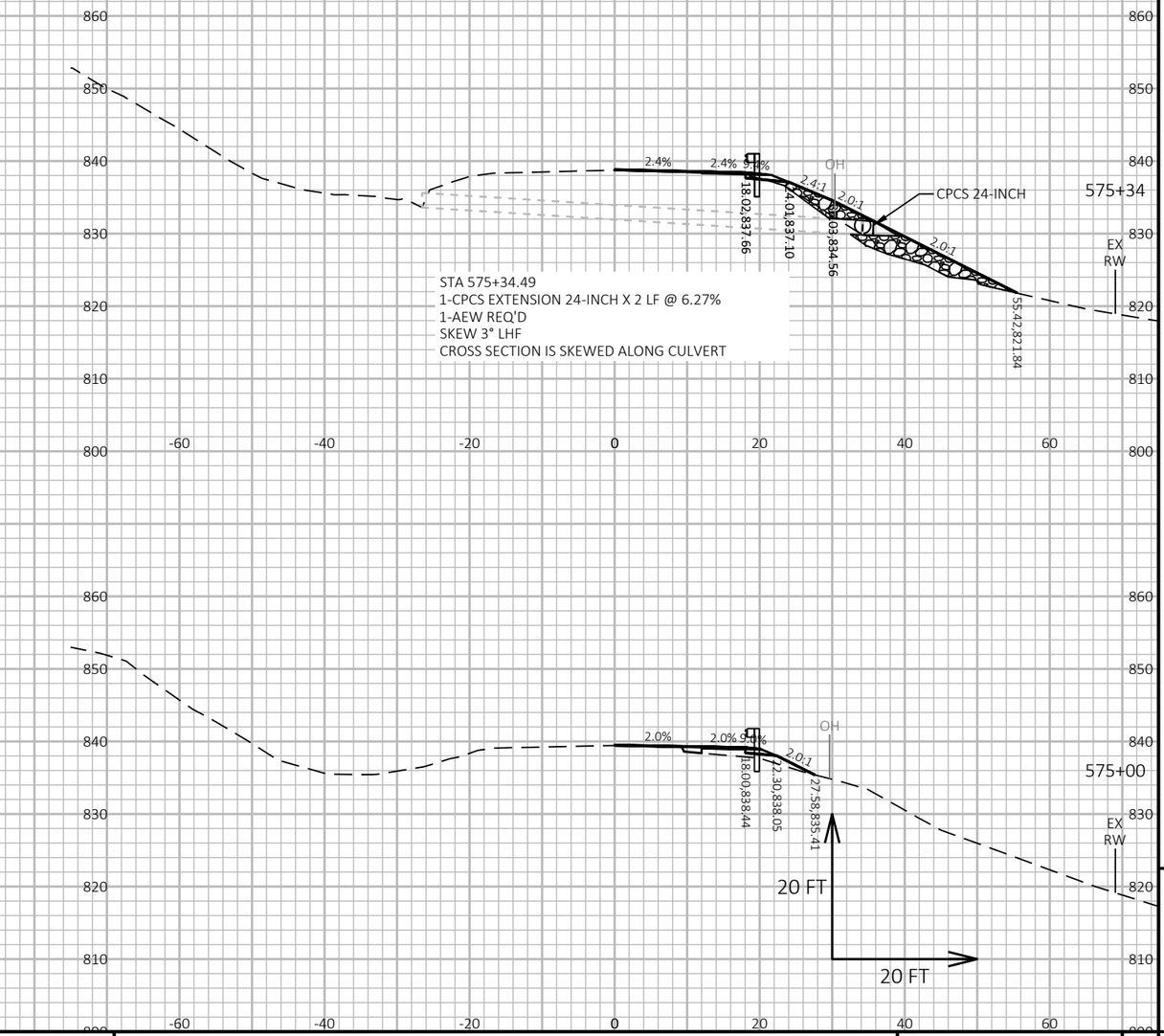
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 393	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090249-xs

PLOT DATE : 10/31/2023 11:58 AM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 394	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090250-xs

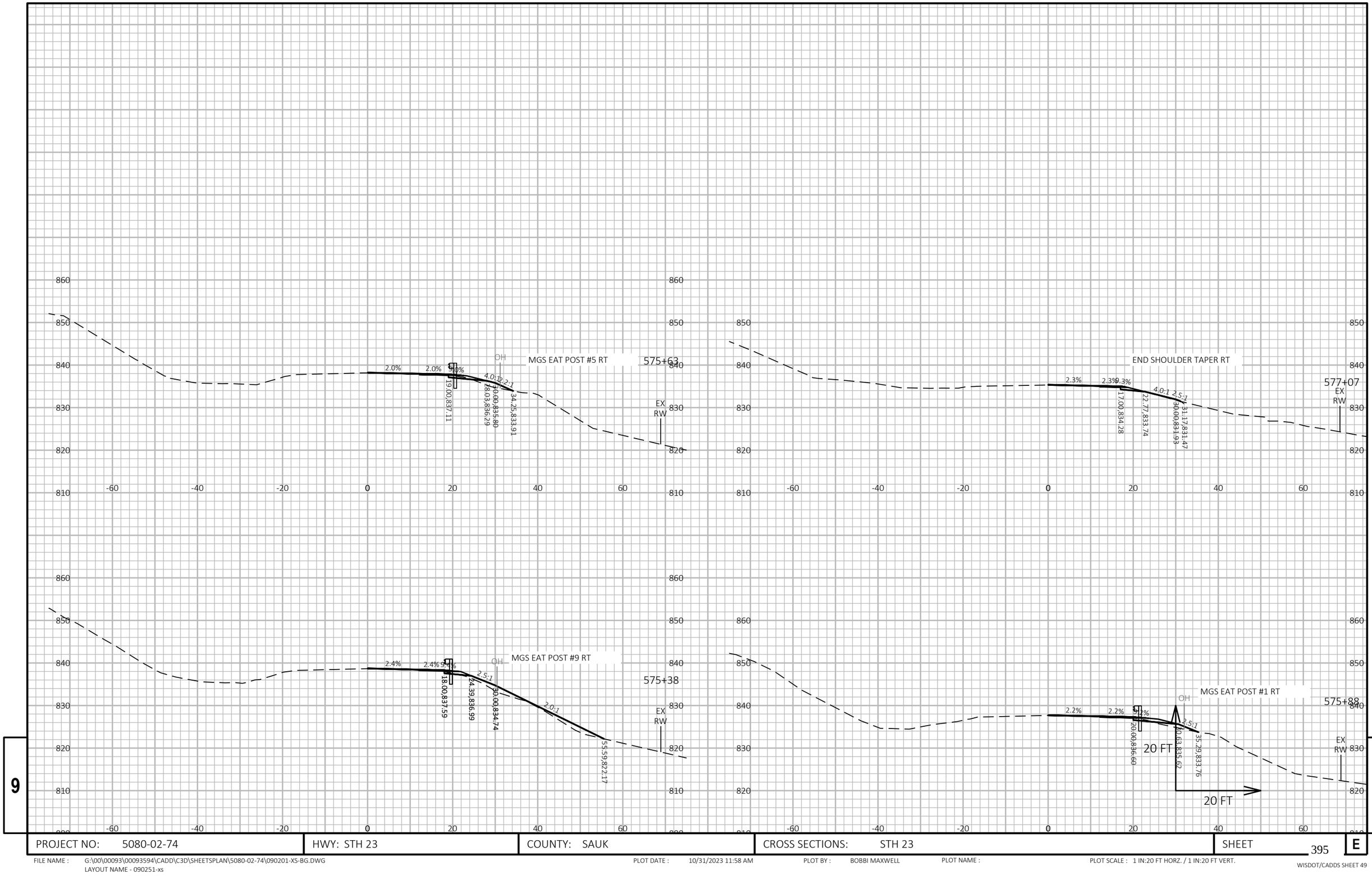
PLOT DATE : 10/31/2023 11:58 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 395	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090251-xs

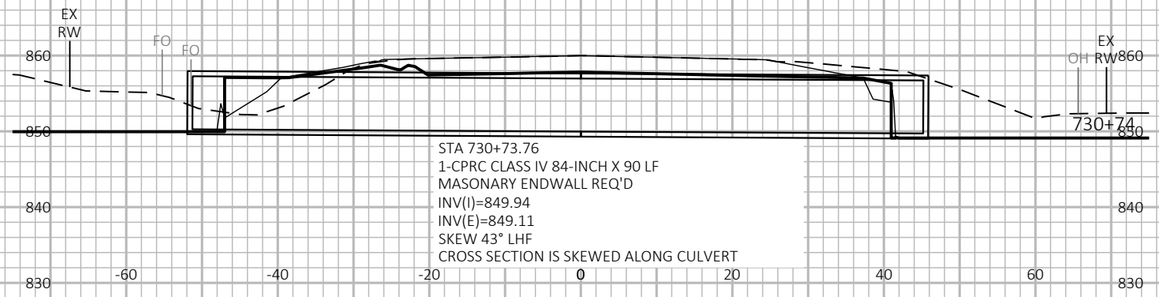
PLOT DATE : 10/31/2023 11:58 AM

PLOT BY : BOBBI MAXWELL

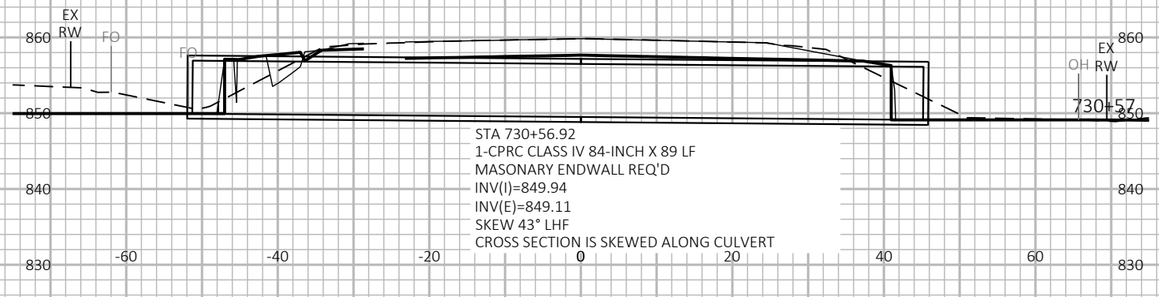
PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

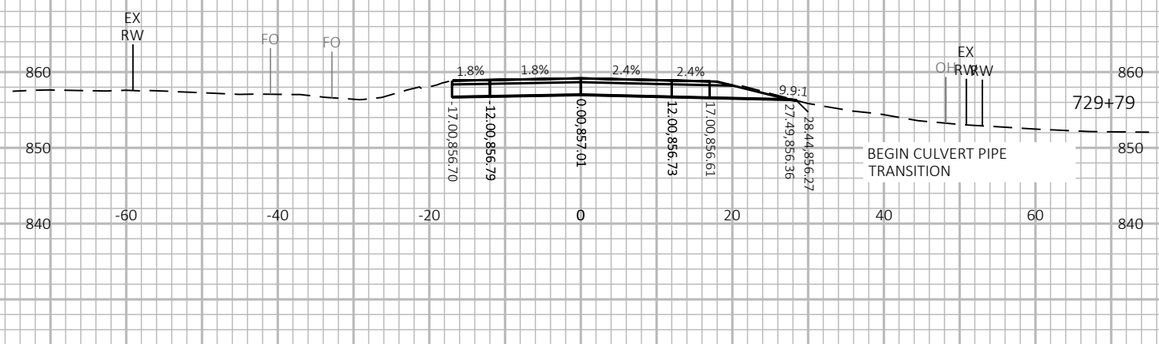
WISDOT/CADDS SHEET 49

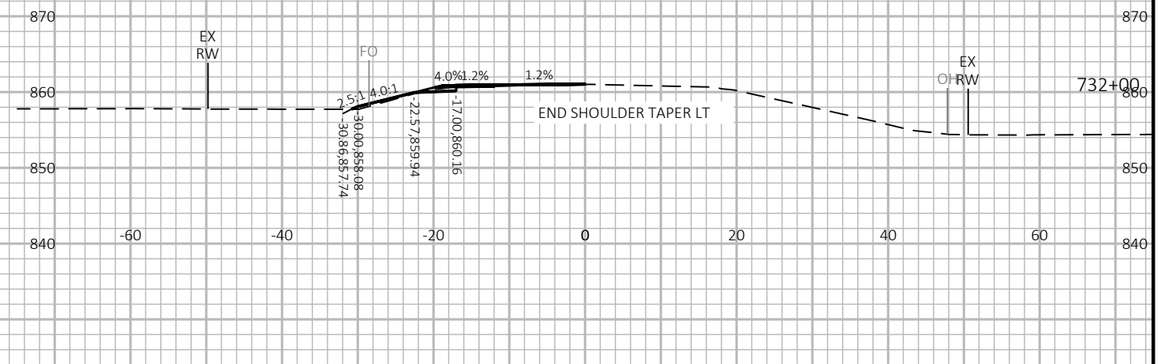


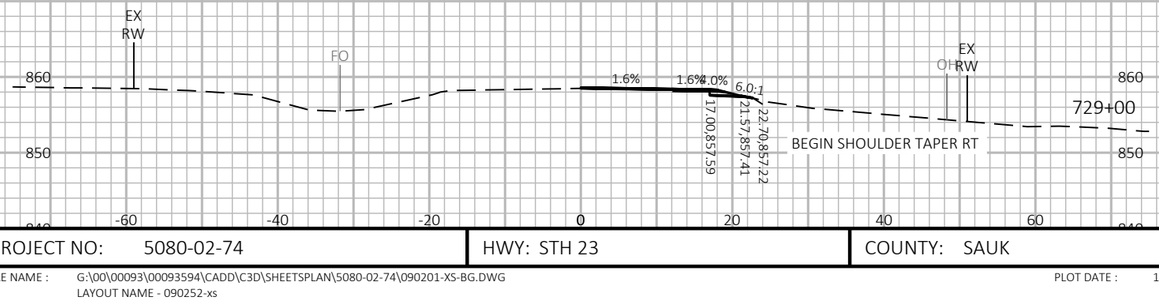
STA 730+73.76
1-CPRC CLASS IV 84-INCH X 90 LF
MASONARY ENDWALL REQ'D
INV(I)=849.94
INV(E)=849.11
SKEW 43° LHF
CROSS SECTION IS SKEWED ALONG CULVERT

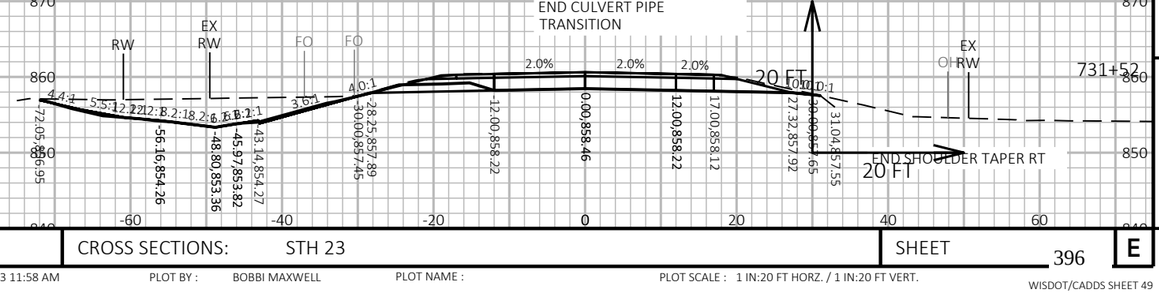


STA 730+56.92
1-CPRC CLASS IV 84-INCH X 89 LF
MASONARY ENDWALL REQ'D
INV(I)=849.94
INV(E)=849.11
SKEW 43° LHF
CROSS SECTION IS SKEWED ALONG CULVERT









9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 396	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090201-XS-BG.DWG
LAYOUT NAME - 090252-xs

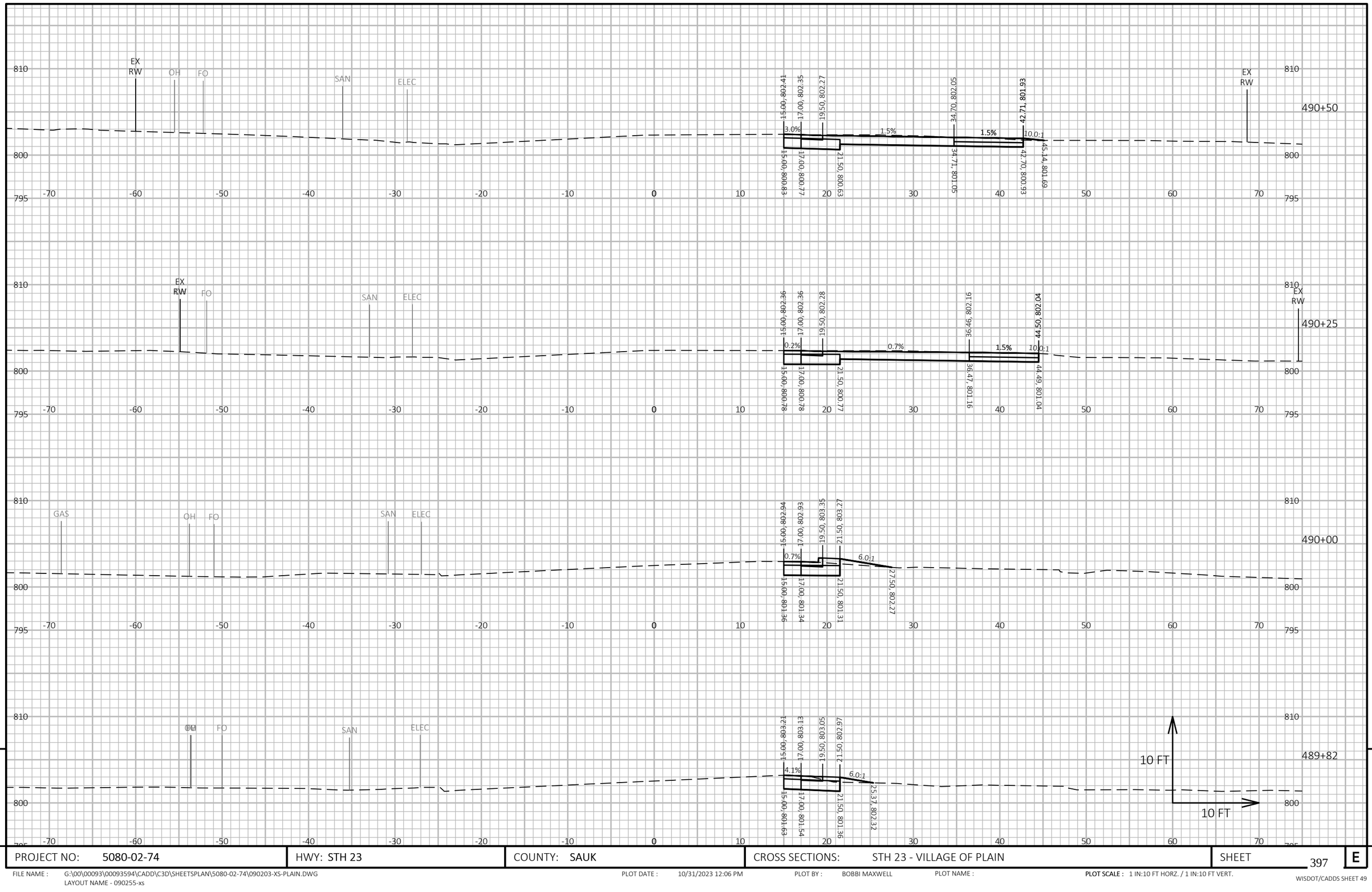
PLOT DATE : 10/31/2023 11:58 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 397	E

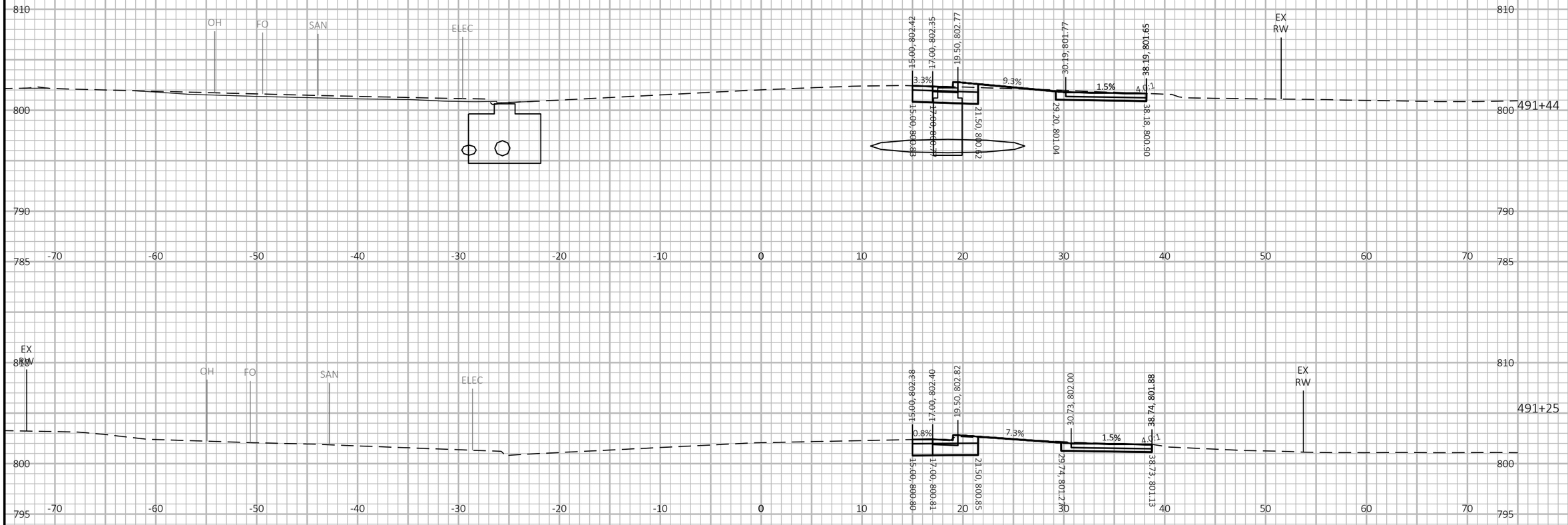
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090255-xs

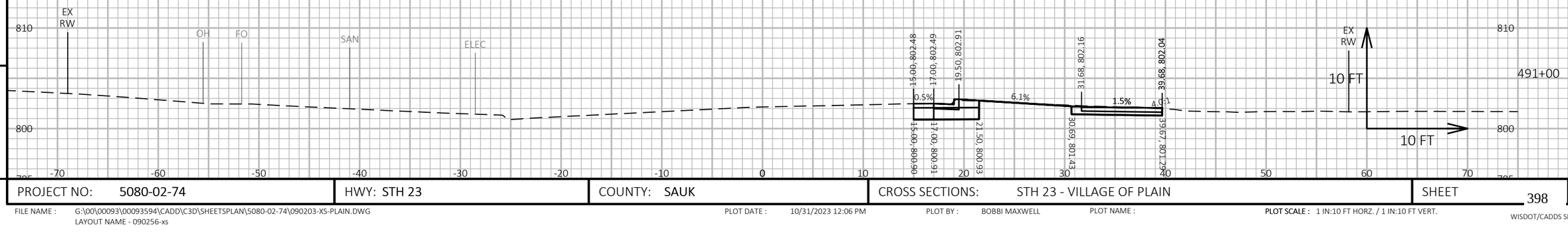
PLOT DATE : 10/31/2023 12:06 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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





9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 398	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090256-xs

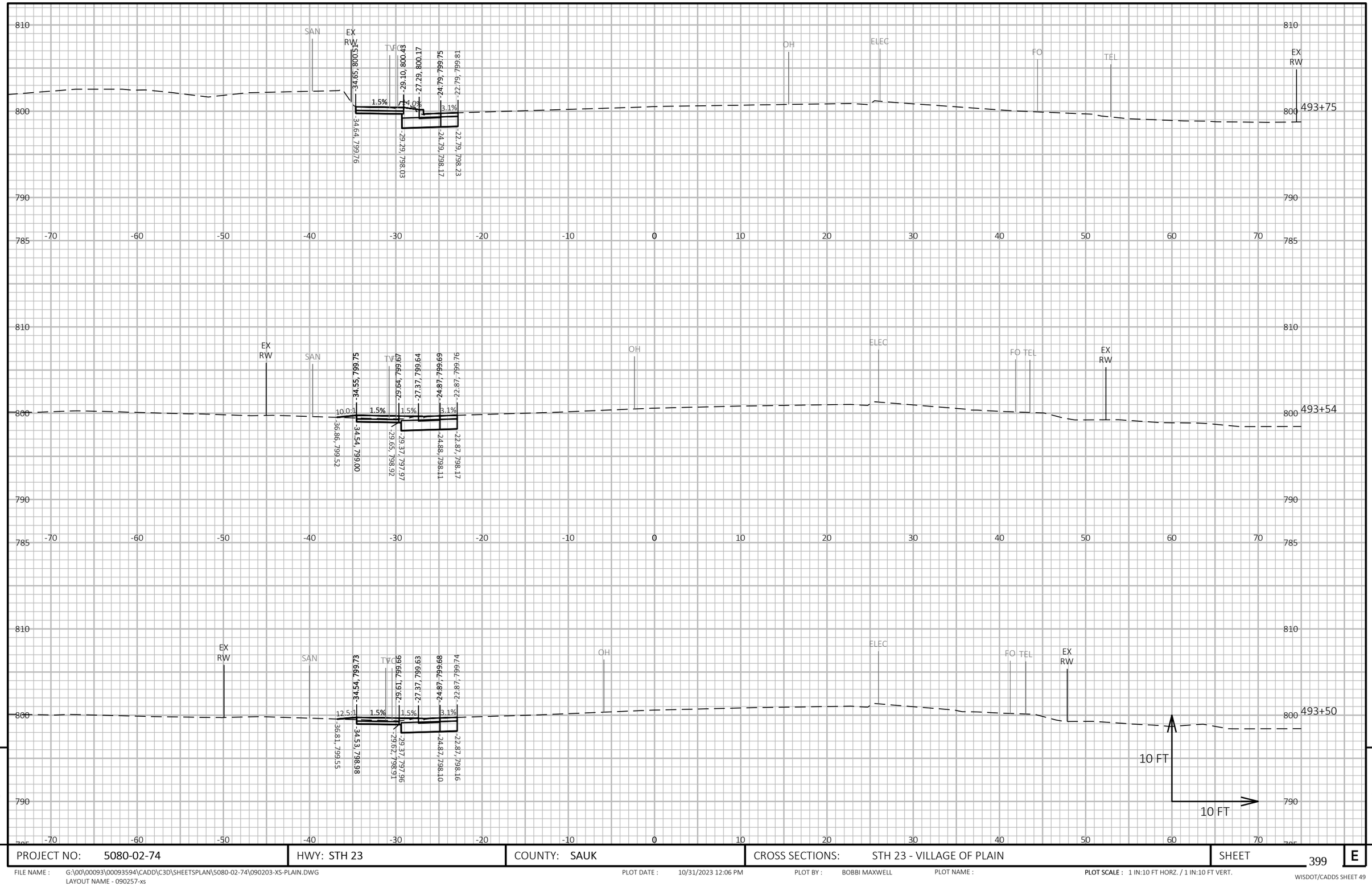
PLOT DATE : 10/31/2023 12:06 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 399	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090257-xs

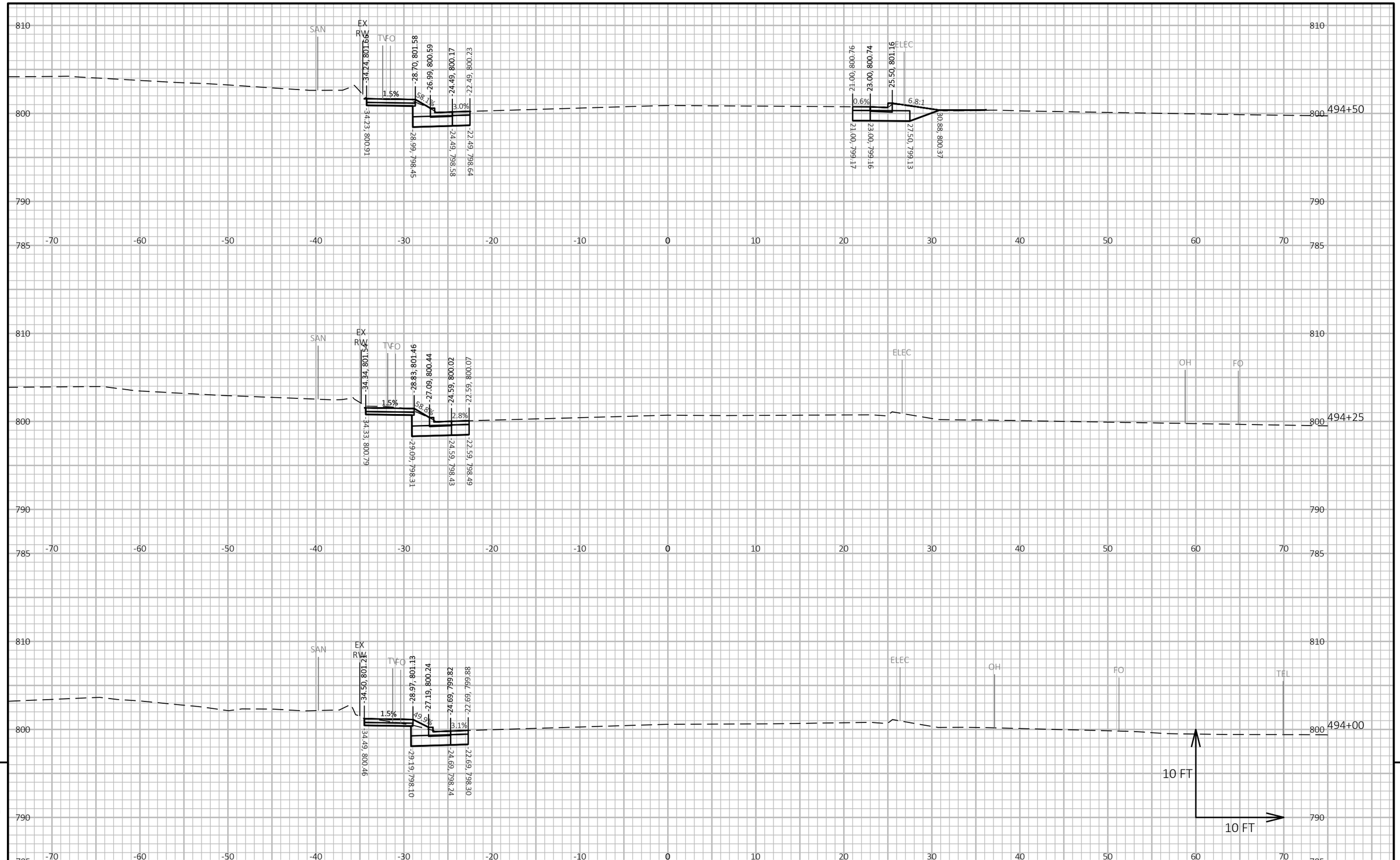
PLOT DATE : 10/31/2023 12:06 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

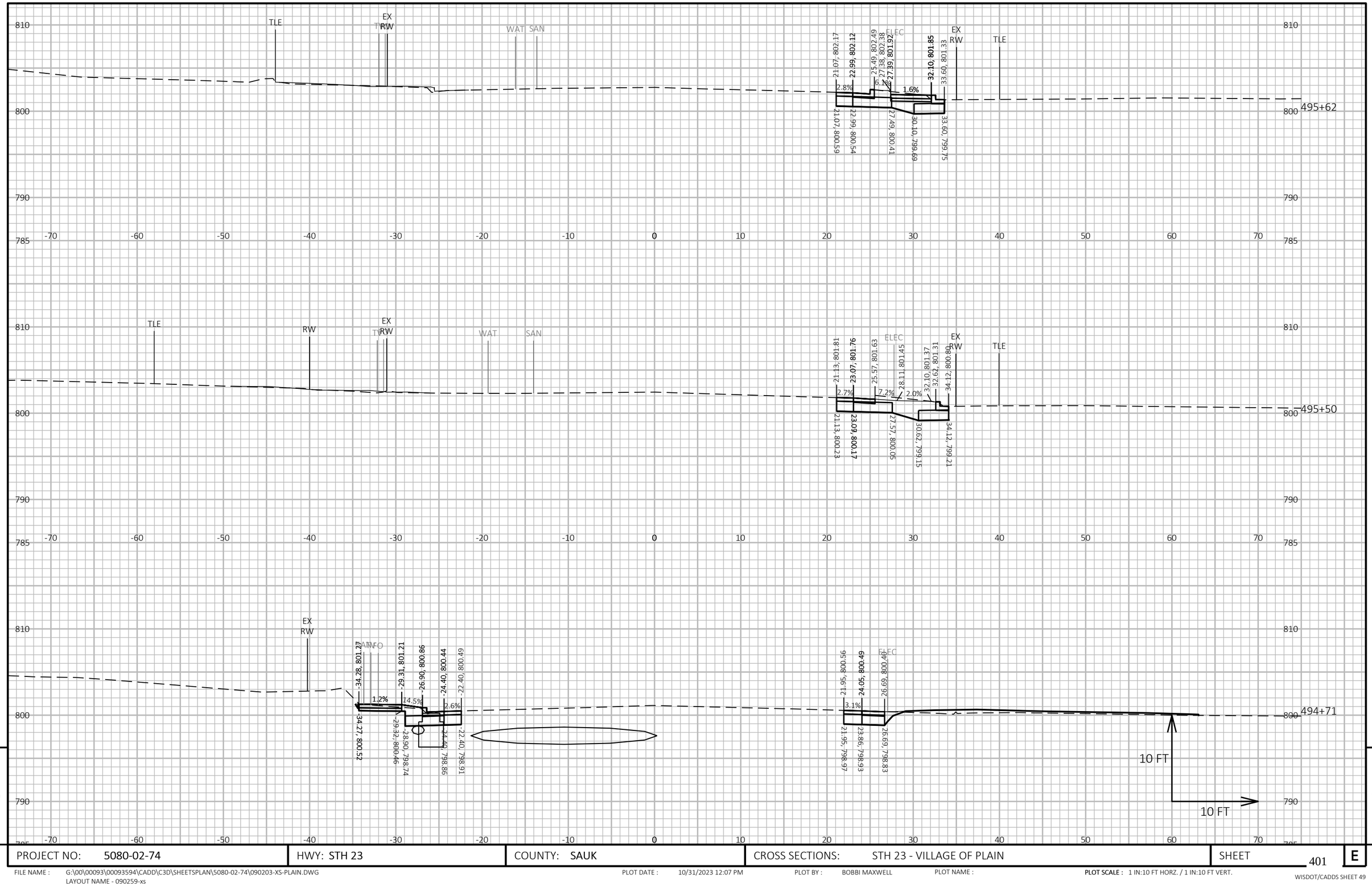
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 400	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090258-xs

PLOT DATE : 10/31/2023 12:06 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 401	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090259-xs

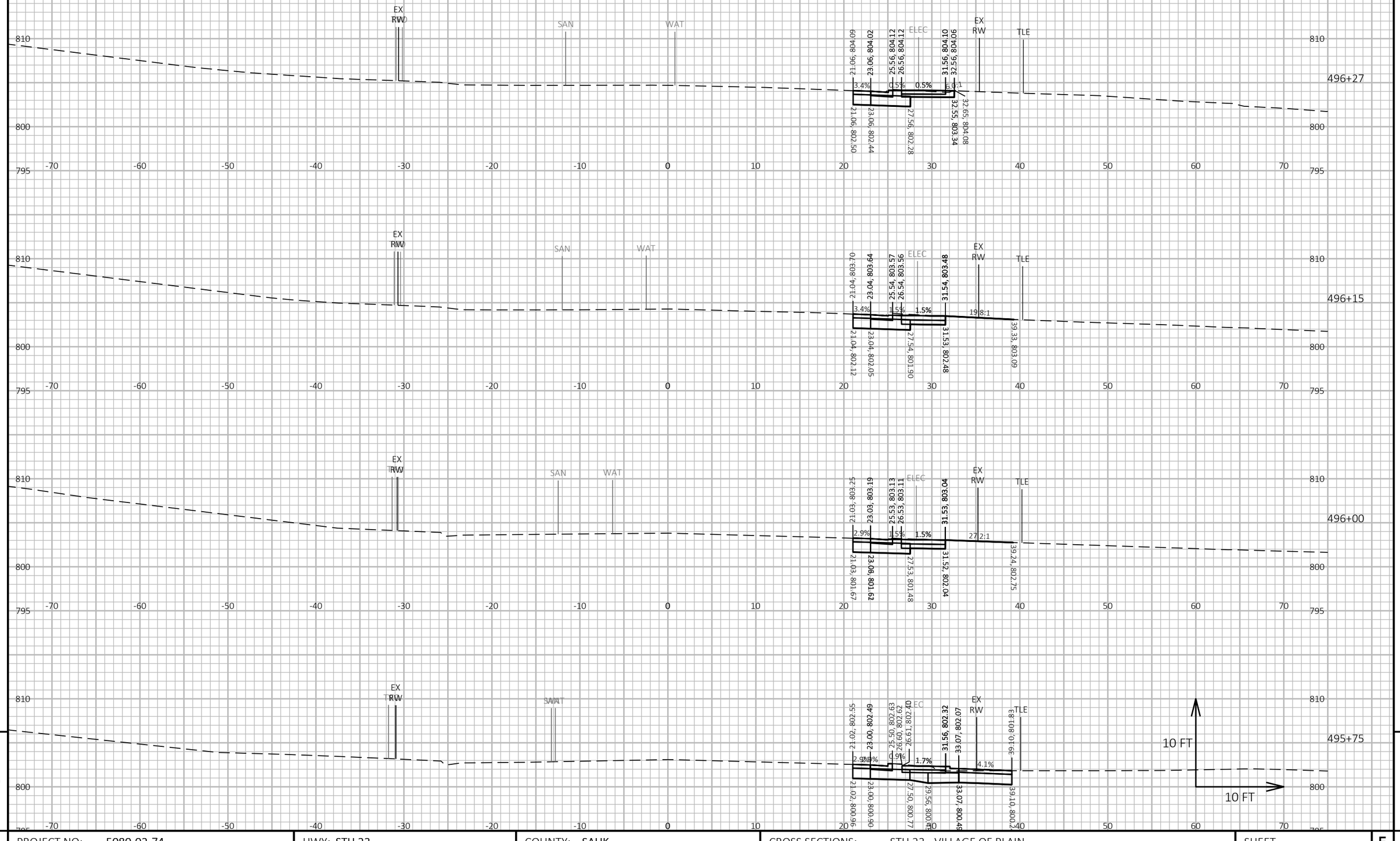
PLOT DATE : 10/31/2023 12:07 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 402	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090260-xs

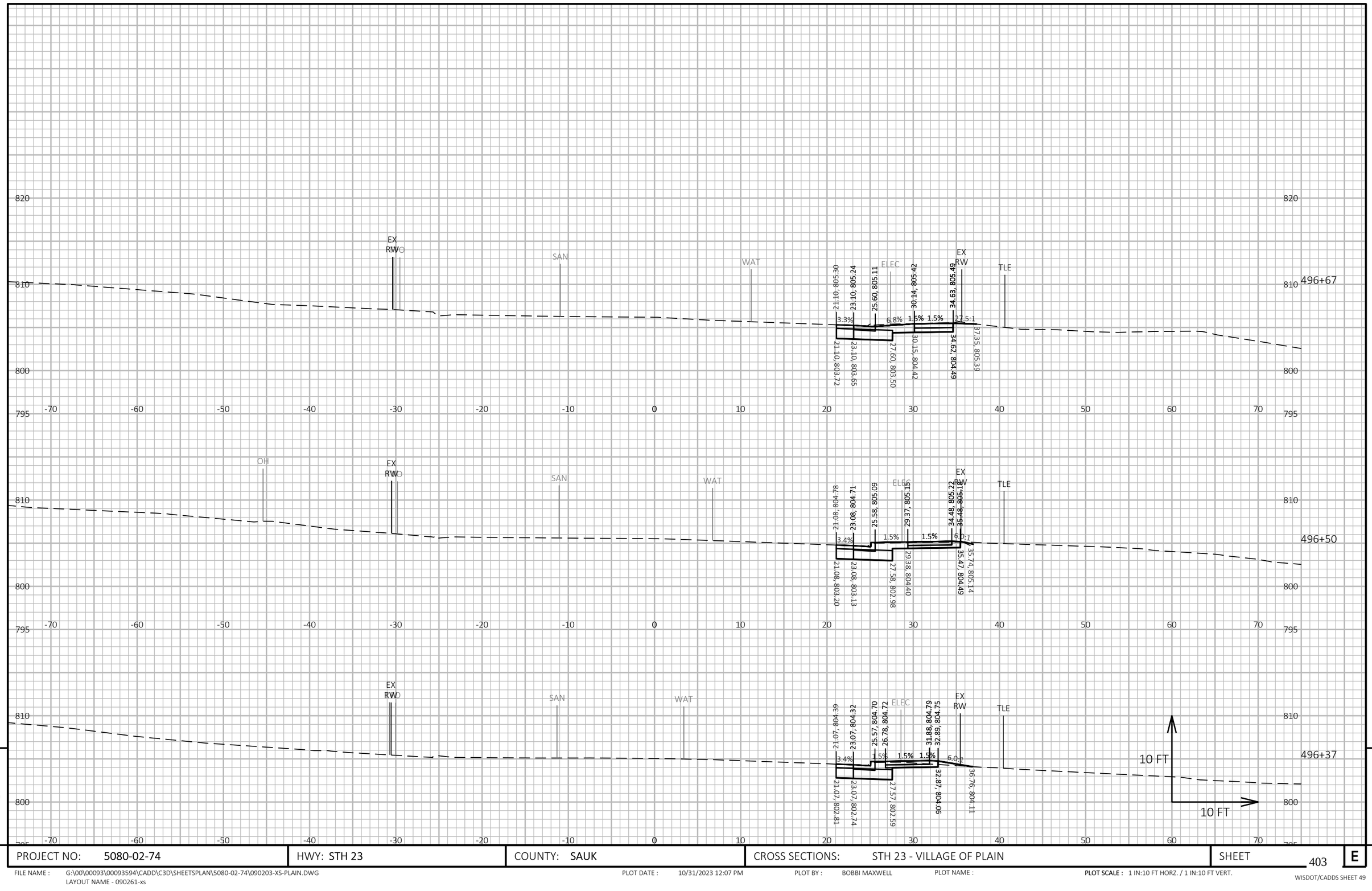
PLOT DATE : 10/31/2023 12:07 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49

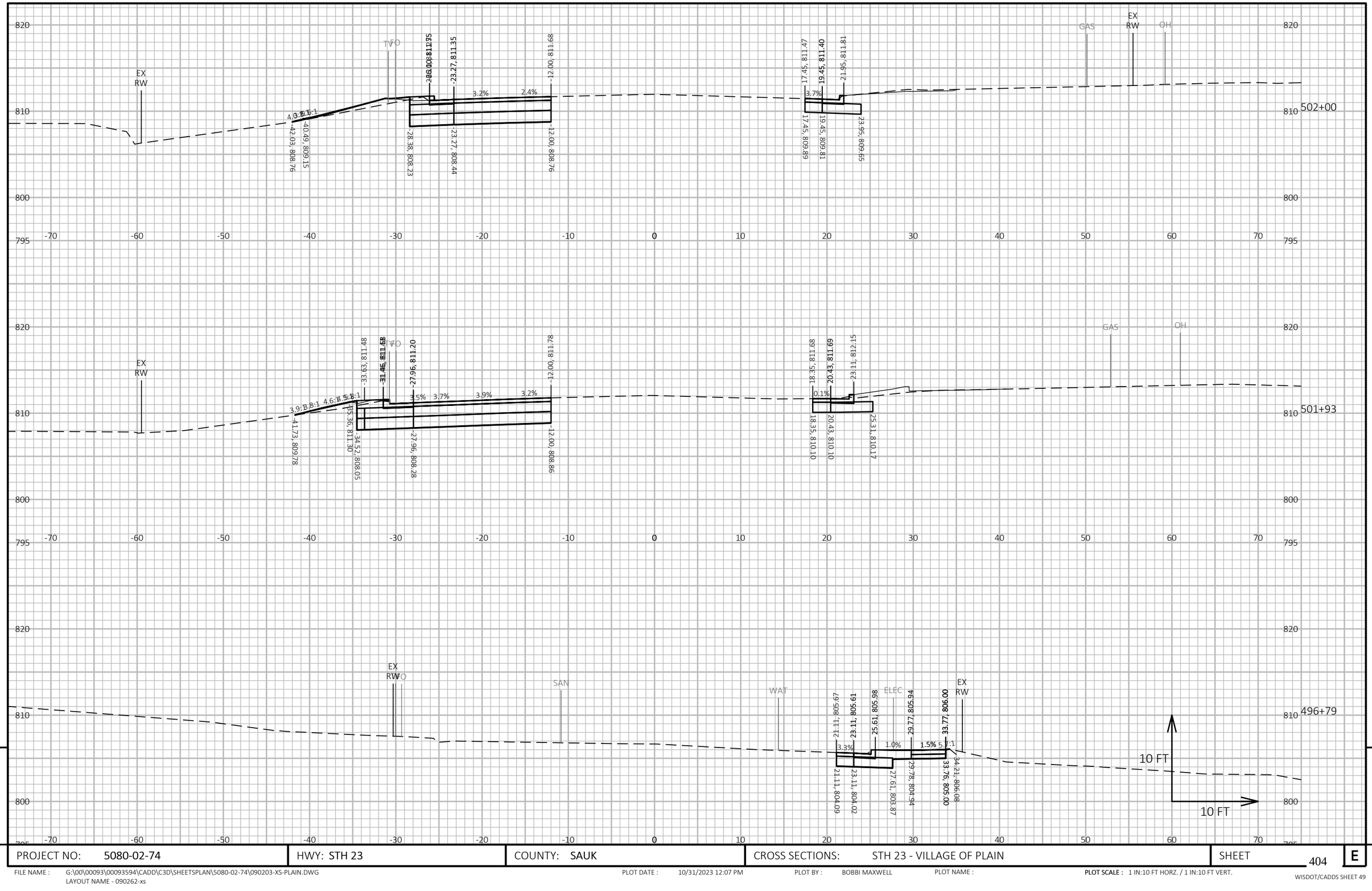


PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 403	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090261-xs

PLOT DATE : 10/31/2023 12:07 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

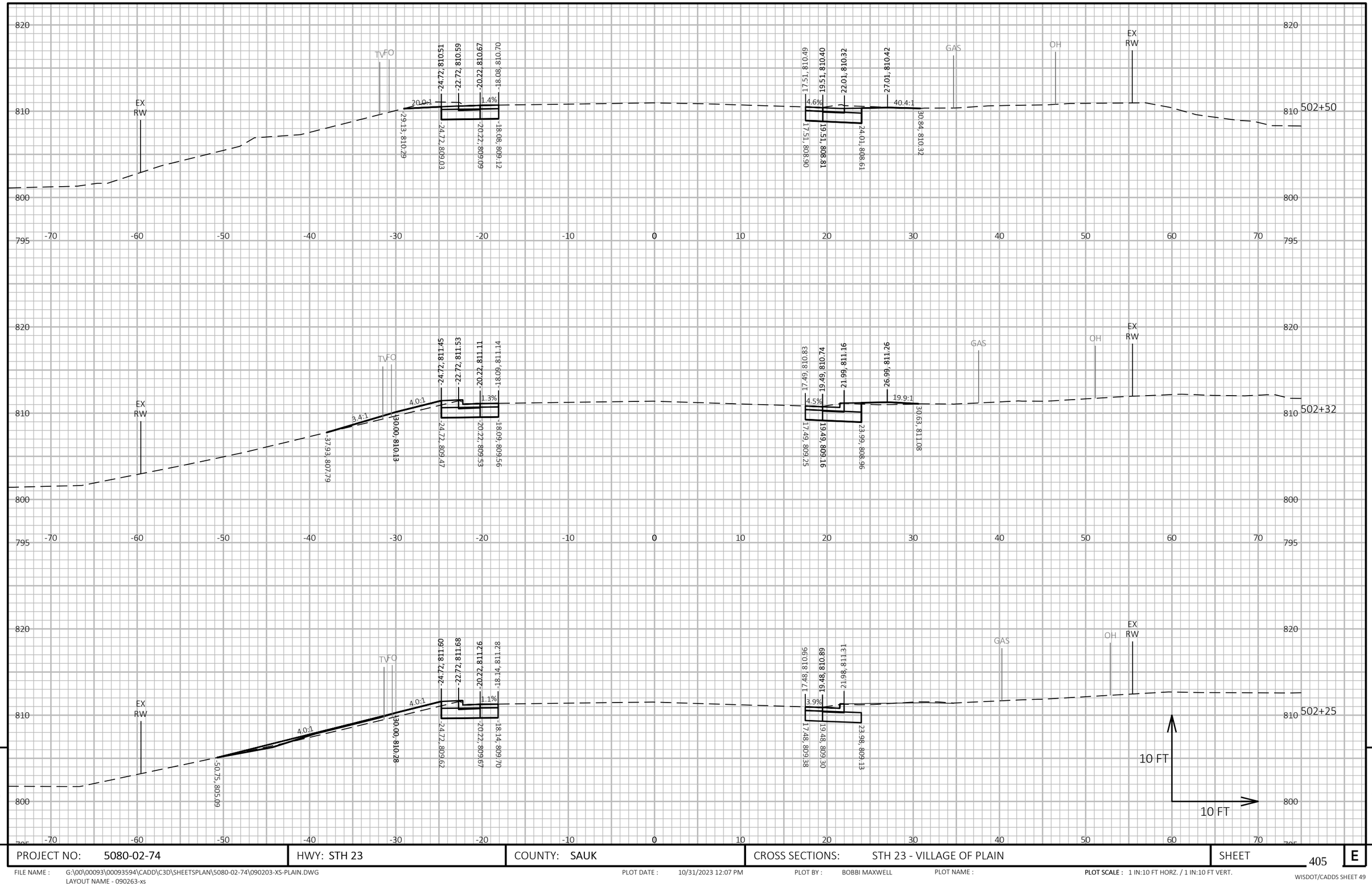
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 404	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090262-xs

PLOT DATE : 10/31/2023 12:07 PM PLOT BY : BOBBI MAXWELL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 405	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090263-xs

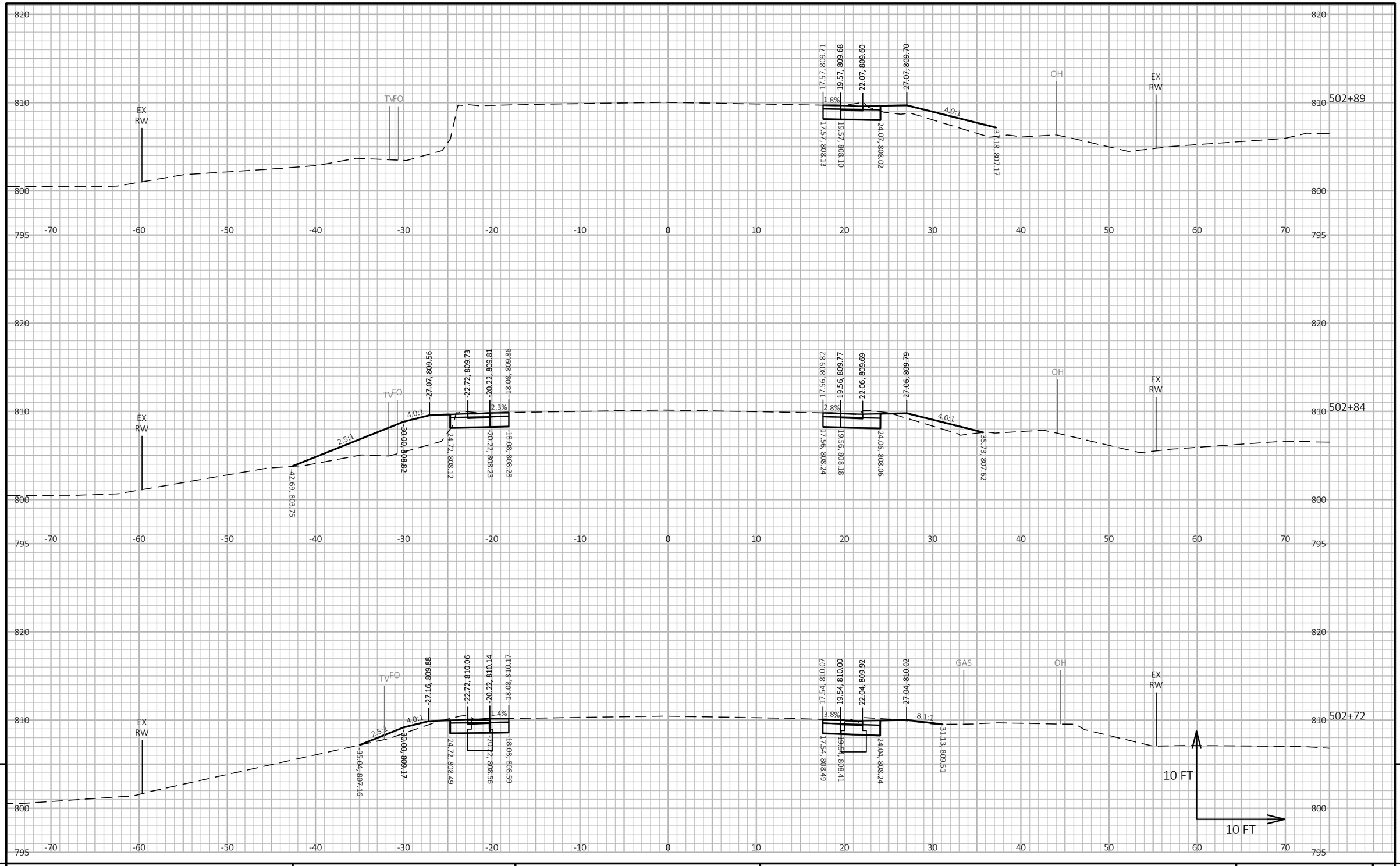
PLOT DATE : 10/31/2023 12:07 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49

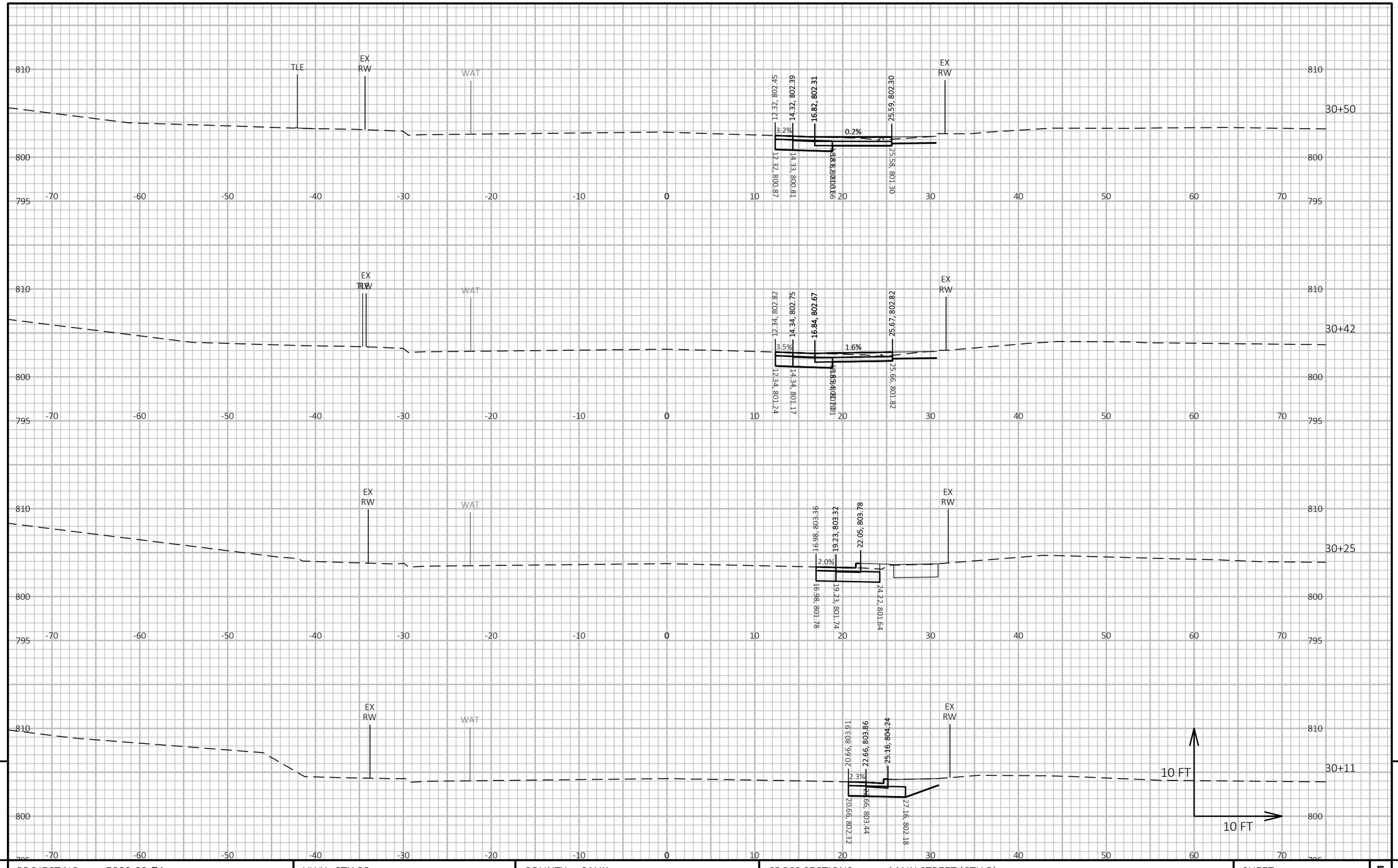


PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23 - VILLAGE OF PLAIN	SHEET 406	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090263A-xs

PLOT DATE : 10/31/2023 12:07 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

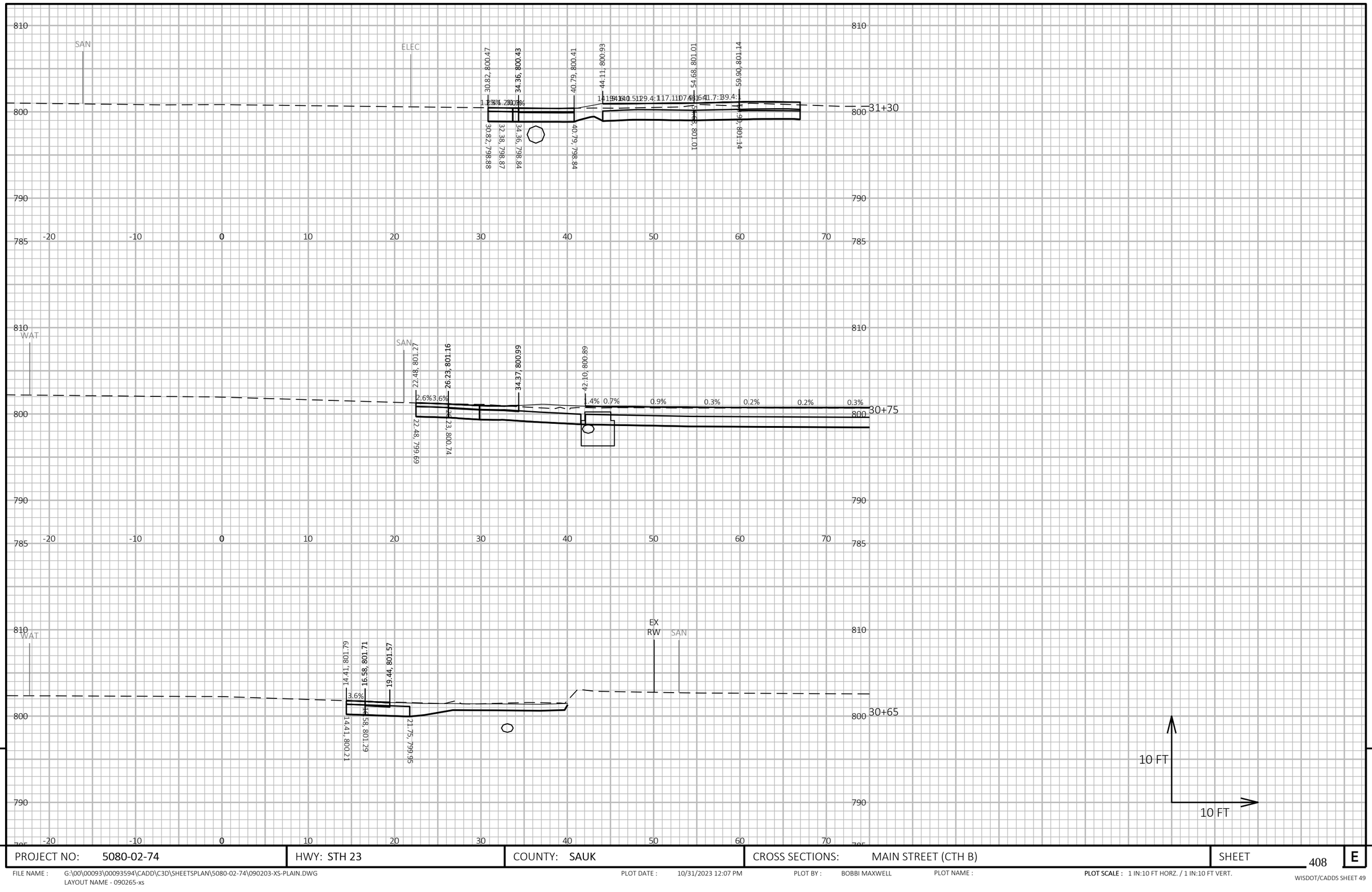
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: MAIN STREET (CTH B)	SHEET 407	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090264-xs

PLOT DATE : 10/31/2023 12:07 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

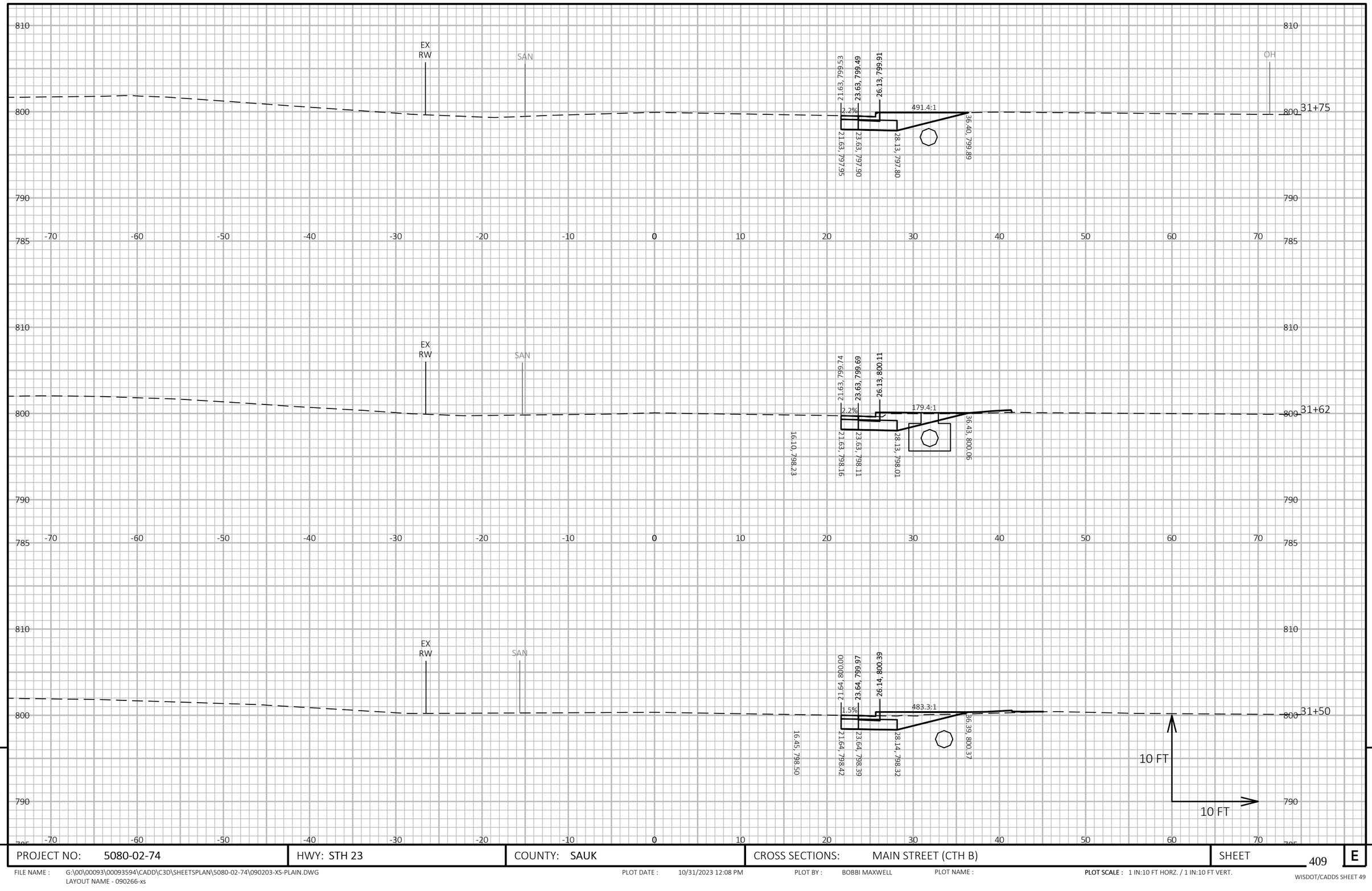
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: MAIN STREET (CTH B)	SHEET 408	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090265-xs

PLOT DATE : 10/31/2023 12:07 PM PLOT BY : BOBBI MAXWELL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

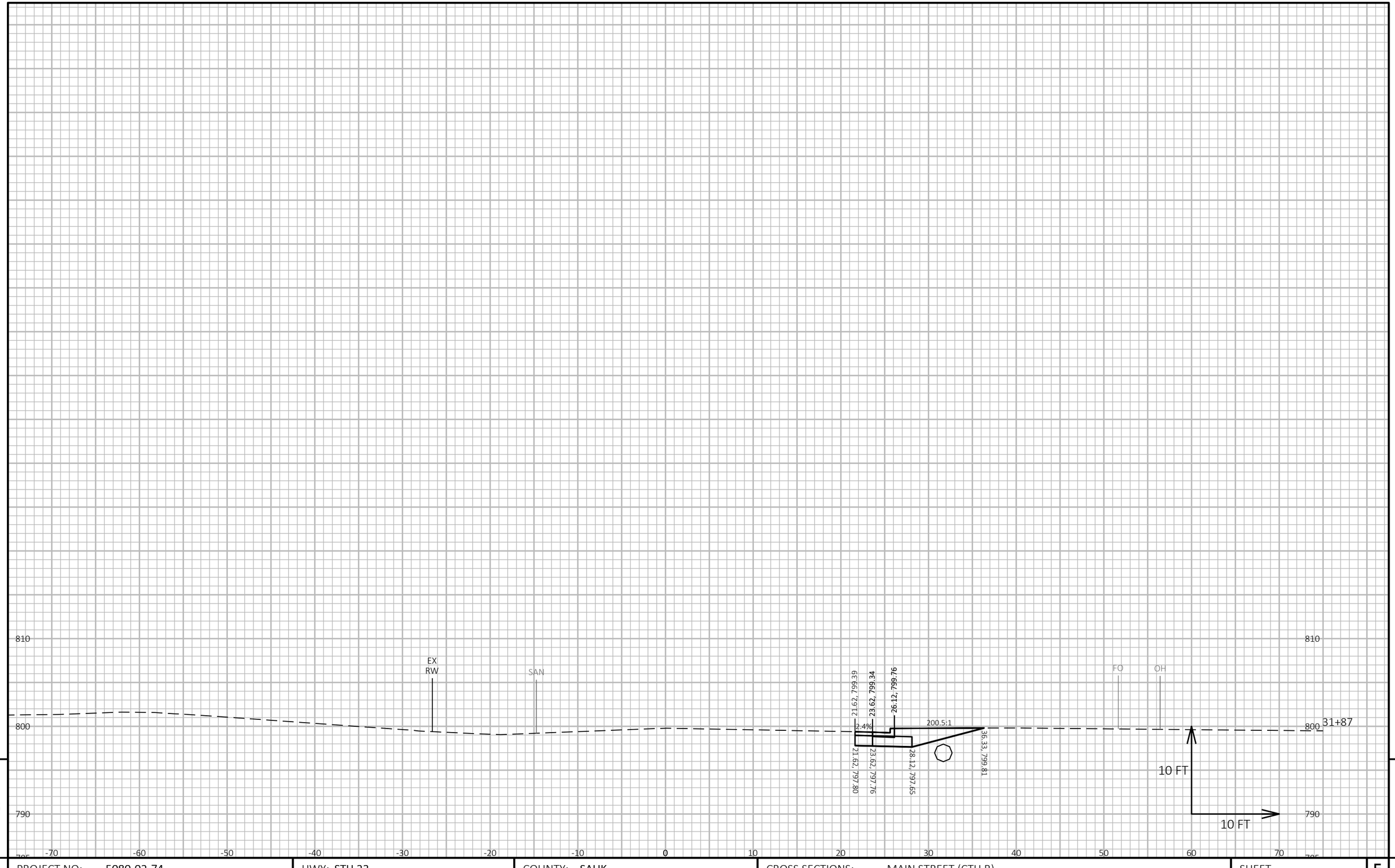
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: MAIN STREET (CTH B)	SHEET 409	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090266-xs

PLOT DATE : 10/31/2023 12:08 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

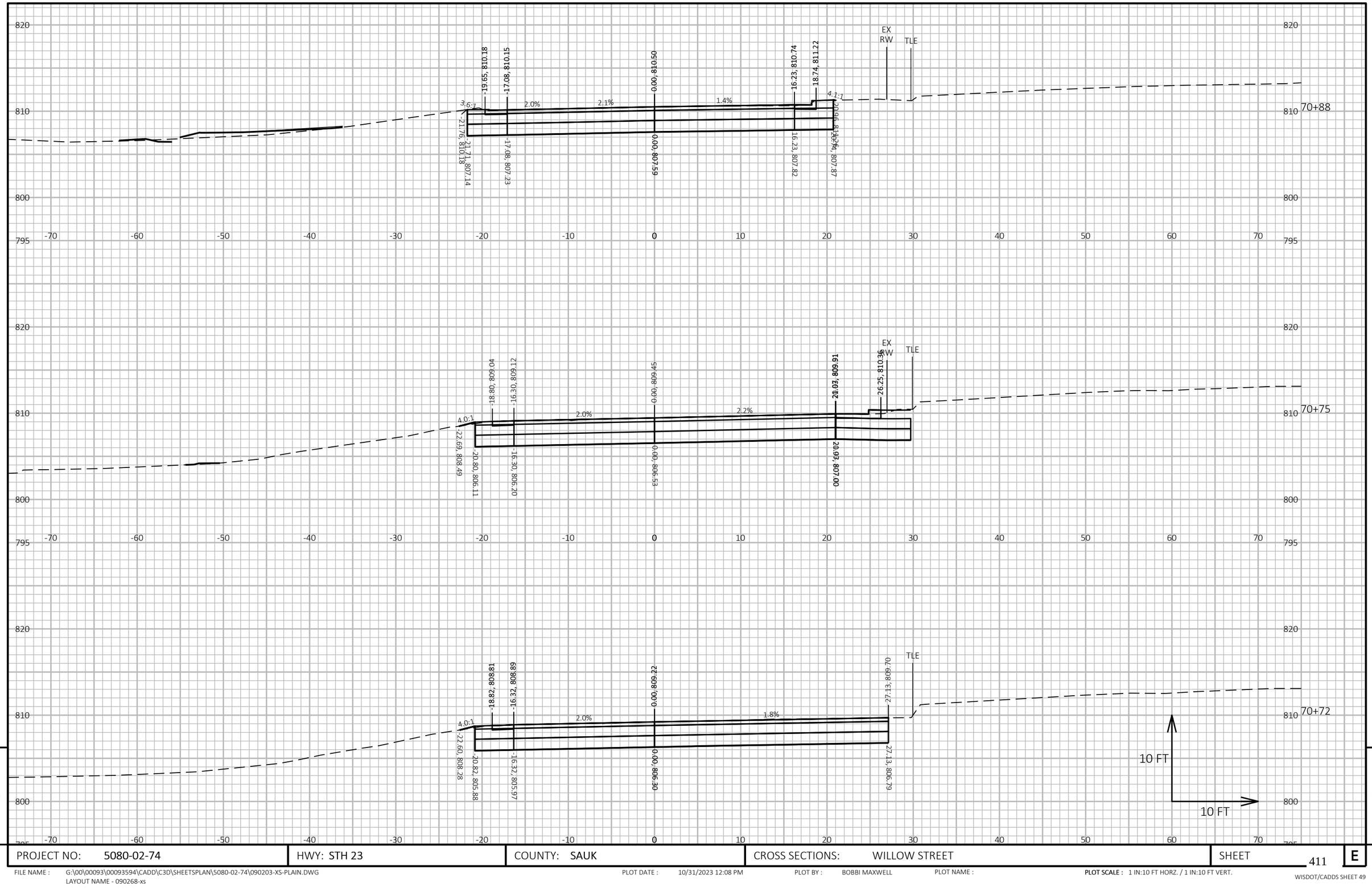
PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: MAIN STREET (CTH B)	SHEET 410	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090267-xs

PLOT DATE : 10/31/2023 12:08 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

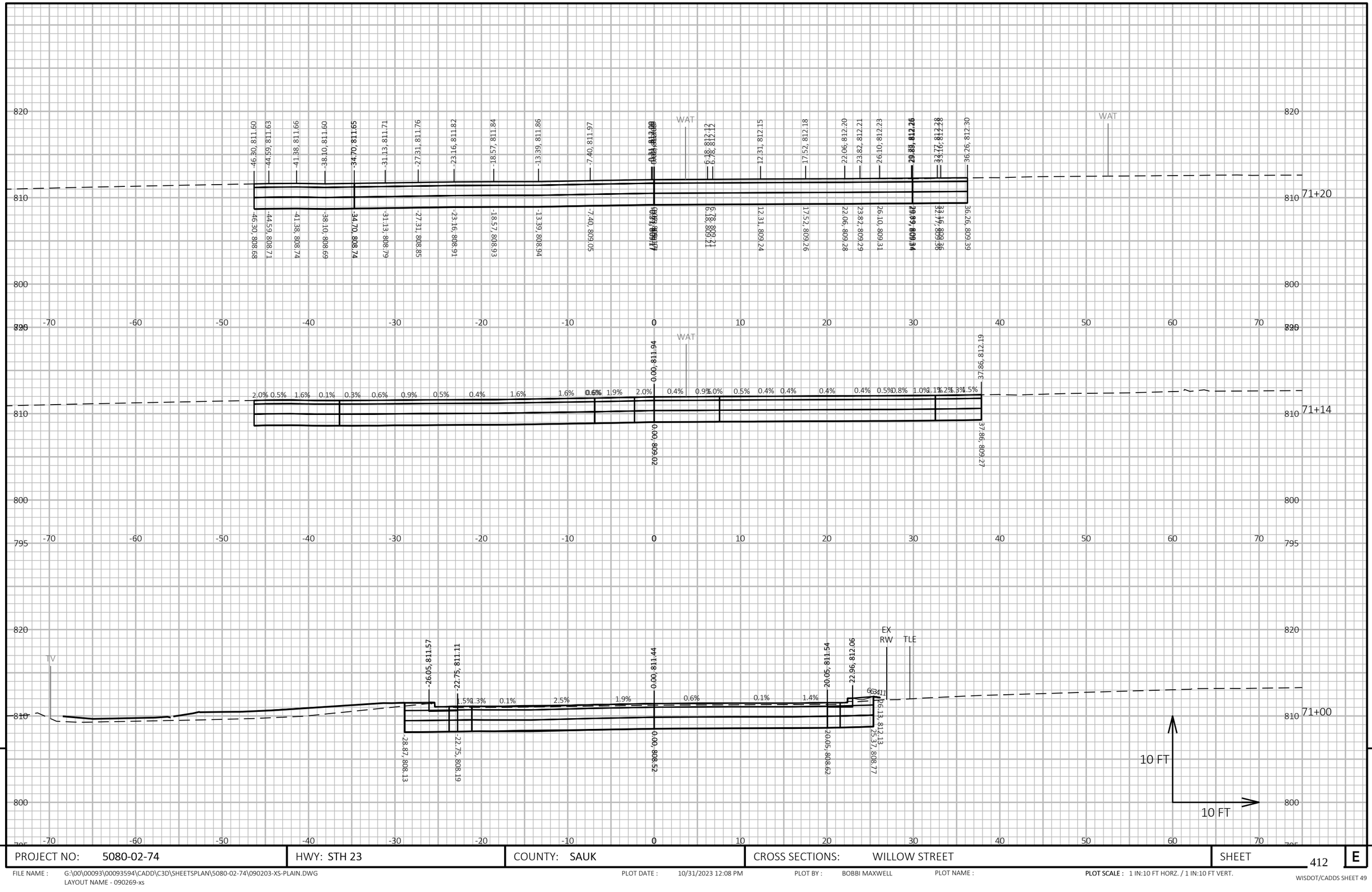
9

PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: WILLOW STREET	SHEET 411	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090268-xs

PLOT DATE : 10/31/2023 12:08 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5080-02-74	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: WILLOW STREET	SHEET 412	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-74\090203-XS-PLAIN.DWG
LAYOUT NAME - 090269-xs

PLOT DATE : 10/31/2023 12:08 PM PLOT BY : BOBBI MAXWELL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

MAD

FEBRUARY 2024

PROJECT ID: WITH: 5080-02-74

5080-02-82

COUNTY: SAUK

03

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 = 138

PROJECT LOCATION

N

DESIGN DESIGNATION

A.A.D.T.	(2021)	=	2,200
A.A.D.T.	(2041)	=	2,400
D.H.V.		=	25.7
D.D.		=	60/40
T.		=	30.5%
DESIGN SPEED		=	60 MPH
ESALS		=	1,400,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SPRING GREEN - REEDSBURG

STRUCTURES B-56-235 & B-56-236

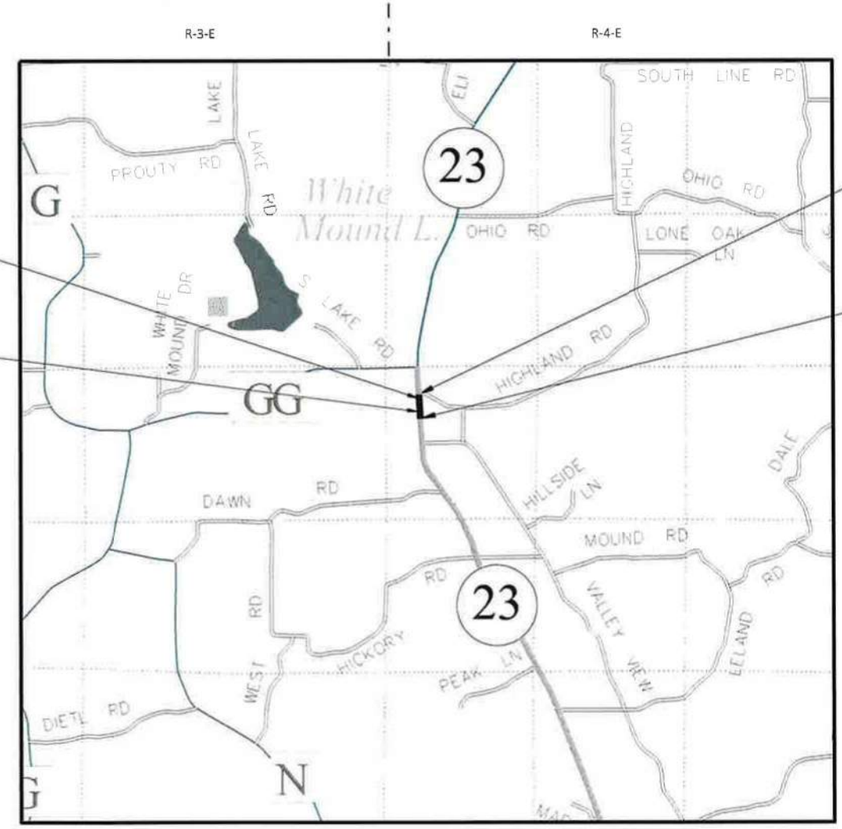
STH 23

SAUK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5080-02-82		

STATE PROJECT NUMBER

5080-02-82



STRUCTURE B-56-236
STA 763+22 - STA 764+20

STRUCTURE B-56-235
STA 759+38 - STA 759+90

END PROJECT
STA 771+00.00
X = 564,022.69
Y = 193,347.35

BEGIN PROJECT
STA 754+90.00
X = 564,106.74
Y = 191,739.54

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.305 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SAUK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. THE VERTICAL DATUM IS REFERENCED TO NAVD88 (2012).

ORIGINAL PLANS PREPARED BY

MSA
1230 SOUTH BOULEVARD, BARABOO, WI 53913
(608) 356-2771 www.msa-ps.com

WISCONSIN
BOBBI L. MAXWELL
39012-006
BARABOO
WI
PROFESSIONAL ENGINEER

Bobbi L. Maxwell
10-31-23

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA PROFESSIONAL SERVICES, INC.
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	MAHESH SHRESTHA P.E.
Regional Examiner	SW REGION - MADISON
Regional Supervisor	MARC SCHWEIGER, P.E.

APPROVED FOR THE DEPARTMENT

Mahesh Shrestha

DATE: _____ (Signature)

E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\010101-TI.DWG

PLOT DATE : 10/31/2023 10:35 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

GENERAL NOTES

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A TRAVEL OR TURN LANE.

THE LOCATION OF EXISTING UTILITY LOCATIONS AS SHOWN ON THE PLANS IN THE AREAS OF GRADING ONLY, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

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

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

CURVE DATA BASED ON ARC DEFINITION.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

DO NOT STORE BORROW OR WASTE DISPOSAL OR STAGE CONSTRUCTION EQUIPMENT AT THE ENVIRONMENTALLY SENSITIVE AREAS THAT ARE SHADED IN THE PLAN SHEETS.

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

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

ADJUST CULVERT PIPE ELEVATIONS, LENGTHS AND LOCATIONS TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

EXISTING RIGHT OF WAY SHOWN IS APPROXIMATE.

STANDARD ABBREVIATIONS

AC	ACRES
AEW	APRON ENDWALL
AGG	AGGREGATE
AH	AHEAD
ALUM.	ALUMINUM
A.P.	ACCESS POINT
ASPH	ASPHALT
AVE	AVENUE
BAD	BASE AGGREGATE DENSE
BK	BACK
BLK	BLOCK
BOC	BACK OF CURB
BOW	BACK OF SIDEWALK
BM	BENCHMARK
CABC	CRUSHED AGGREGATE BASE COURSE
CL or ℄	CENTERLINE
Δ	CENTRAL ANGLE or DELTA
CMCP	CORRUGATED METAL CULVERT PIPE
CONC	CONCRETE
CP	CONTROL POINT
CPCS	CULVERT PIPE CORRUGATED STEEL
CSM	CERTIFIED SURVEY MAP
CTH	COUNTY TRUNK HIGHWAY
D	DEGREE OF CURVATURE
DES	DESIRABLE
E	EAST
EB	EASTBOUND
EBS	EXCAVATION BELOW SUBGRADE
EOP	EDGE OF PAVEMENT
ET AL	AND OTHERS
EW	ENDWALL
EXIST	EXISTING
FT	FOOT
FT2	SQUARE FEET
GN	GRID NORTH
GV	GAS VALVE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HYD	HYDRANT
IN	INCH
INL	INLET
INV	INVERT
IP	IRON PIPE
L	LENGTH
L	LENGTH OF CURVE
LC	LONG CHORD
LCP	LONG CHORD BEARING
LF	LINEAR FEET
LT	LEFT
MH	MANHOLE
MON	MONUMENT
N	NORTH
NB	NORTHBOUND
N.C.	NORMAL CROWN
NO	NUMBER
PB	PULLBOX
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
POB	POINT OF BEGINNING
PT	POINT OF TANGENCY
R	RADIUS
R	RANGE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REQ'D	REQUIRED
RL or R/L	REFERENCE LINE
RP	RADIUS POINT
RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH
SAN	SANITARY SEWER
SB	SOUTHBOUND
S.E.	SUPERELEVATION
SEC	SECTION
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SQ	SQUARE
ST	STREET
STA	STATION
STD	STANDARD
STH	STATE TRUNK HIGHWAY
STM	STORM SEWER
STR	STRUCTURE
T	TANGENT
TAN	TANGENT
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T or TN	TOWN
TYP.	TYPICAL
WM	WATERMIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
X	EAST GRID COORDINATE
Y	NORTH GRID COORDINATE

UTILITIES

PATRICK MCINTYRE
ALLIANT ENERGY - GAS/PETROLEUM//ELECTRICITY
900 PRAIRIE DR
SPRING GREEN, WI 53588
OFFICE: (608) 588-9708
MOBILE: (608) 844-9605
PATRICKMCINTYRE@ALLIANTENERGY.COM

TYLER COFFMAN
FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
330 BLACKBURN ST
RIPON, WI 54971
OFFICE: (217) 583-3275
TYLER.COFFMAN@JSITEL.COM

KEN LAS
REEDSBURG UTILITY COMMISSION - COMMUNICATION LINE
501 UTILITY COURT
REEDSBURG, WI 53959
OFFICE: (608) 768-6450
KLAS@RUCLS.NET

ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

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

SECTION 2 ORDER OF SHEETS

1. GENERAL NOTES
2. PROJECT OVERVIEW
3. TYPICAL SECTIONS
4. CONSTRUCTION DETAILS
5. TRAFFIC CONTROL

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 3.7 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.5 ACRES

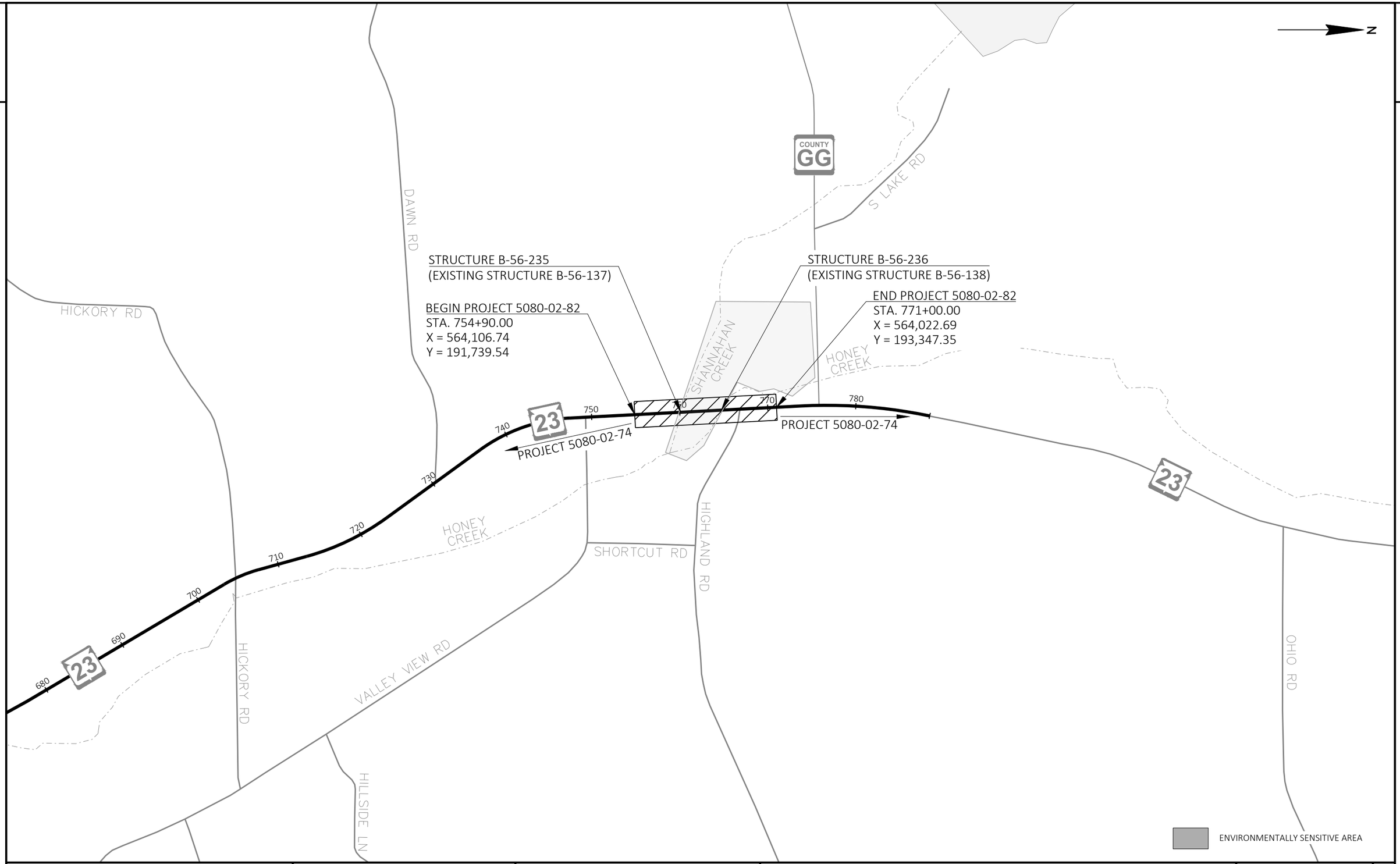
DESIGN CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION
ATTN: MAHESH SHRESTHA, PE
2101 WRIGHT ST
MADISON, WI 53704
PHONE: (608) 245-2674
EMAIL: MAHESH.SHRESTHA@DOT.WI.GOV

MSA PROFESSIONAL SERVICES, INC.
ATTN: BOBBI MAXWELL, PE
1230 SOUTH BOULEVARD
BARABOO, WI 53913
PHONE: (608) 355-8861
EMAIL: BMAXWELL@MSA-PS.COM

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: ANDY BARTA
SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: (608) 275-3308
CELL PHONE: (608) 235-2955
EMAIL: ANDREW.BARTA@WISCONSIN.GOV

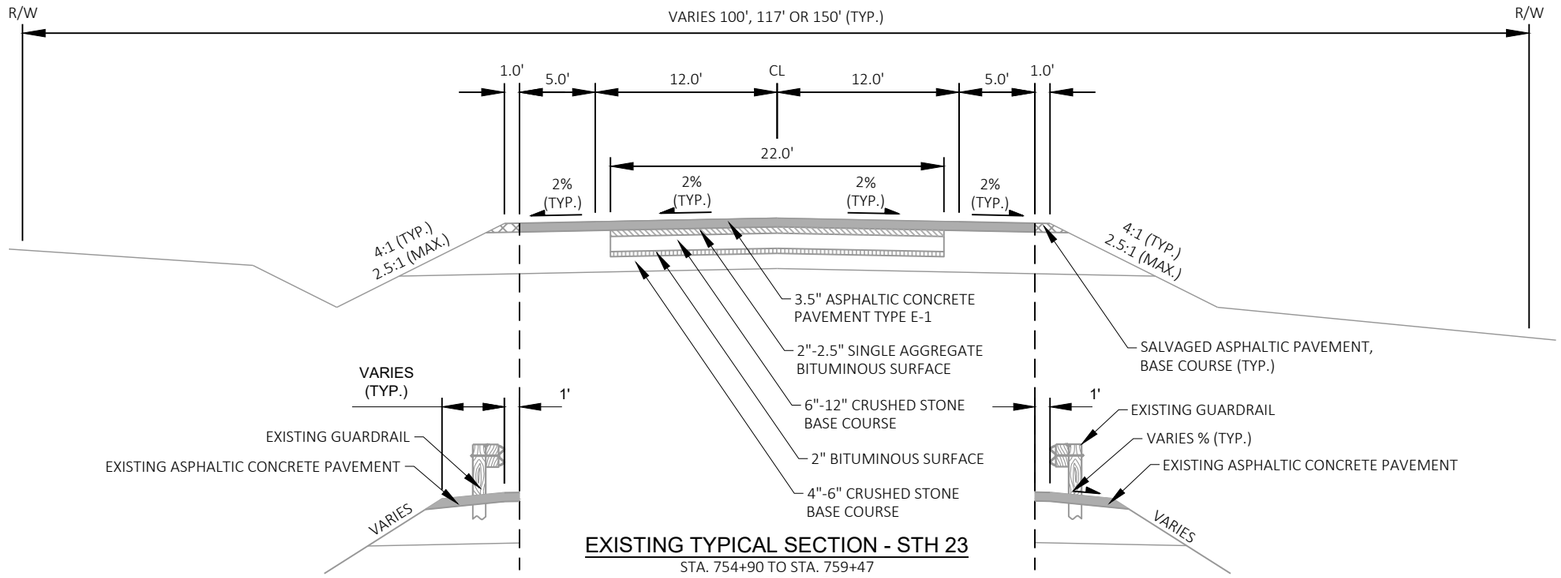


PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 10/31/2023 1:23 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN: 1,000 FT

2



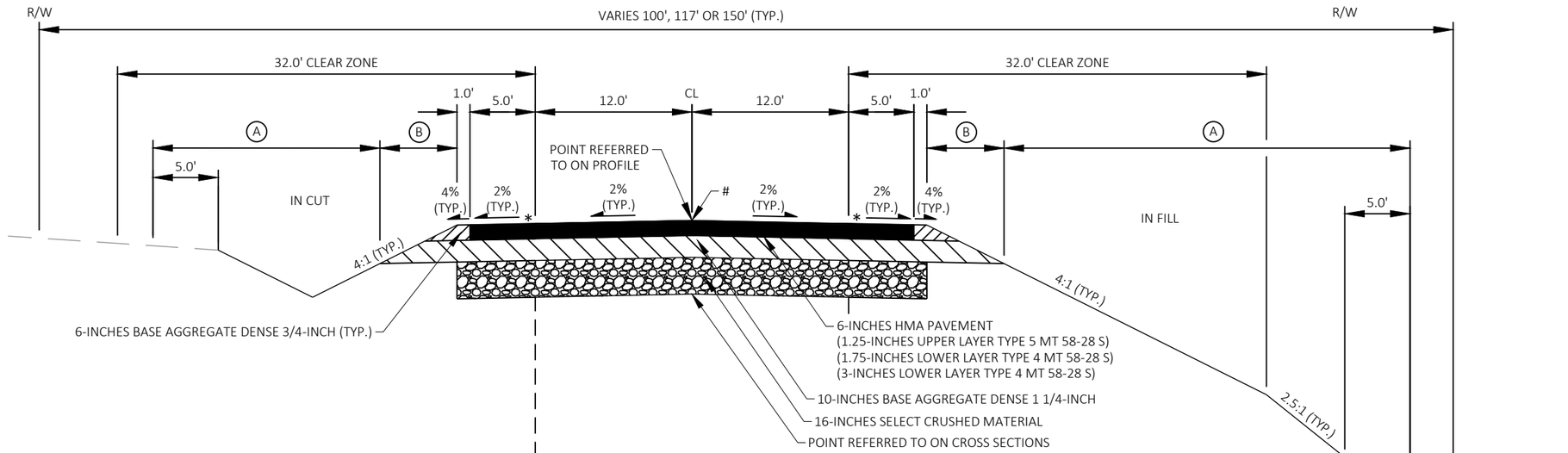
STA. 758+64 TO STA. 759+47
STA. 759+88 TO STA. 760+71
STA. 762+50 TO STA. 763+33
STA. 764+38 TO STA. 765+21

EXISTING TYPICAL SECTION - STH 23

STA. 754+90 TO STA. 759+47
STA. 759+88TO STA. 763+18
STA. 764+22 TO STA. 771+00

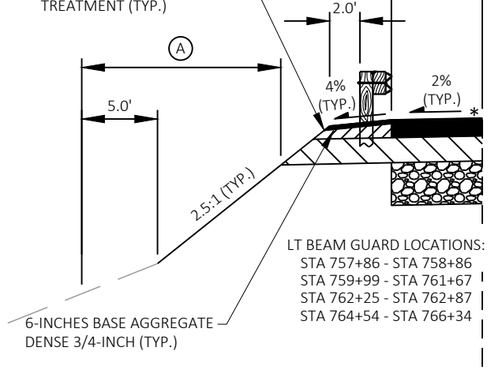
STA. 758+64 TO STA. 759+47
STA. 759+88 TO STA. 760+71
STA. 762+18 TO STA. 763+01
STA. 764+06 TO STA. 764+91

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 4	E

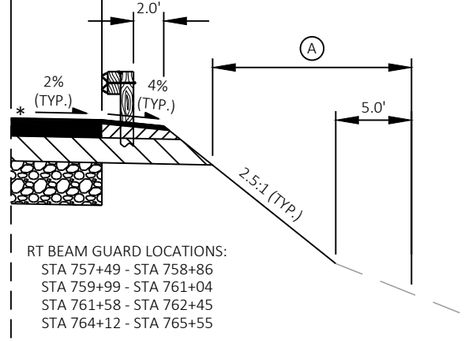


FINISHED TYPICAL SECTION - STH 23

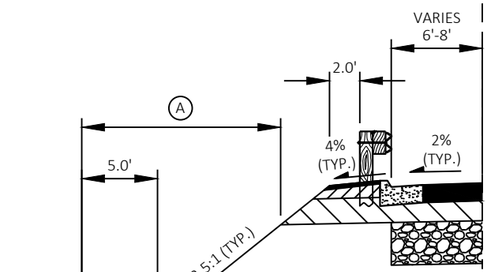
STA. 754+90 TO STA. 759+39
STA. 759+90 TO STA. 763+22
STA. 764+20 TO STA. 771+00



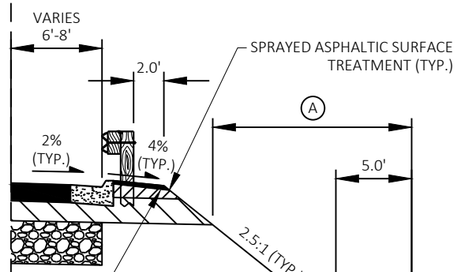
LT BEAM GUARD LOCATIONS:
STA 757+86 - STA 758+86
STA 759+99 - STA 761+67
STA 762+25 - STA 762+87
STA 764+54 - STA 766+34



RT BEAM GUARD LOCATIONS:
STA 757+49 - STA 758+86
STA 759+99 - STA 761+04
STA 761+58 - STA 762+45
STA 764+12 - STA 765+55



LT CURB & GUTTER LOCATIONS:
STA 758+86 - STA 759+26
STA 762+87 - STA 763+27



RT CURB & GUTTER LOCATIONS:
STA 758+86 - STA 759+26
STA 762+45 - STA 762+85

NOTES:

\# ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

* ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL

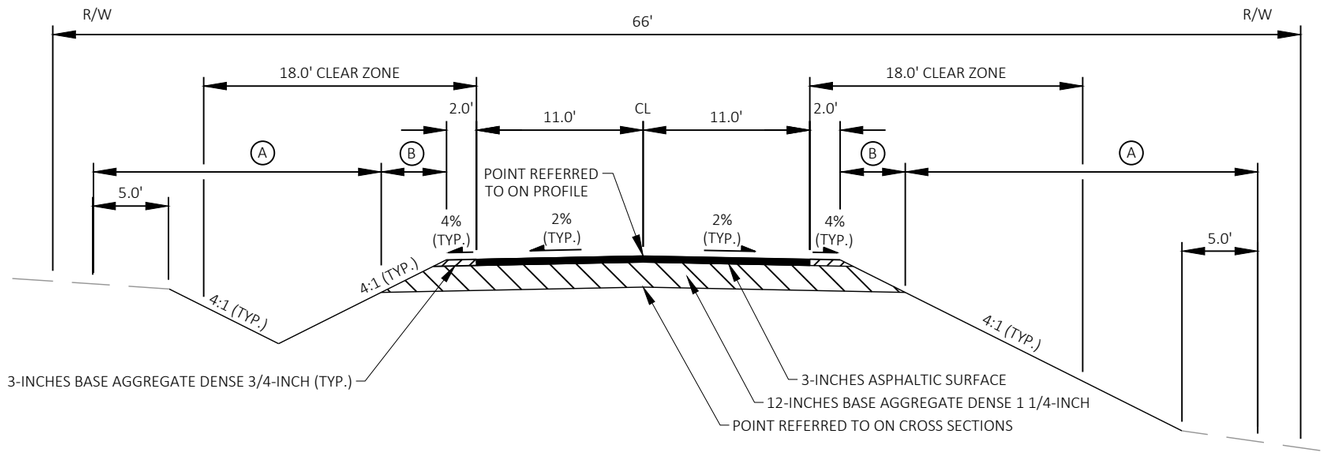
(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

(B) SEEDING & FERTILIZER TYPE B

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\020301-TS.DWG
LAYOUT NAME - 020302-ts
PLOT DATE : 10/31/2023 1:23 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



FINISHED TYPICAL SECTION - HIGHLAND ROAD

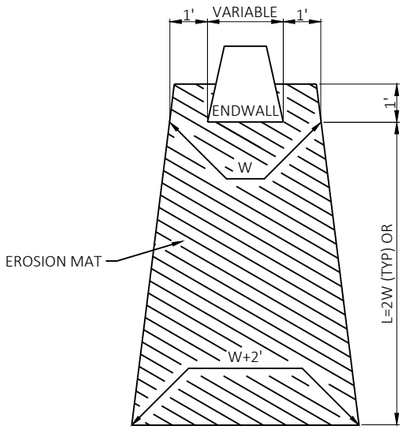
STA. 5+17 TO STA. 7+11.89

NOTES:

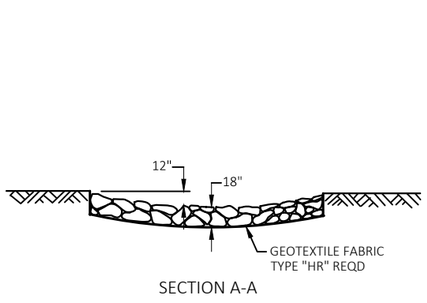
(A) SALVAGED TOPSOIL, SEEDING, FERTILIZER TYPE B & EROSION MAT

(B) SEEDING & FERTILIZER TYPE B

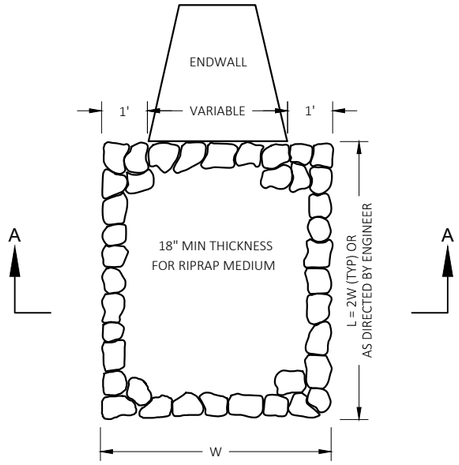
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 6	E



EROSION MAT TREATMENT AT CULVERTS

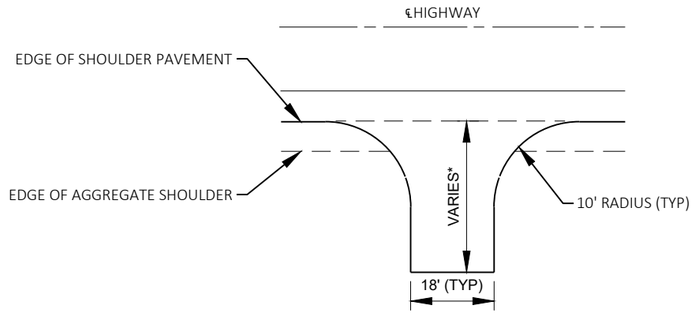


SECTION A-A

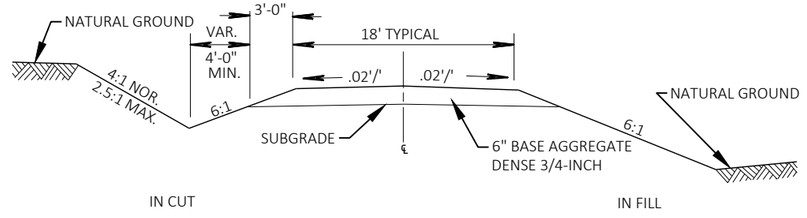


RIPRAP MEDIUM TREATMENT AT CULVERTS

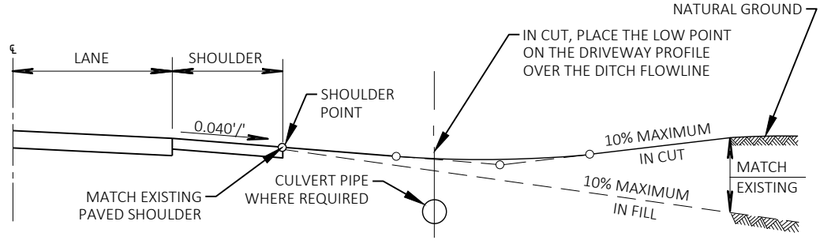
LOCATION	LENGTH* (FT)
STA 761+19 RT	53
STA 762+09 LT	44
STA 766+65 LT	59
STA 6+18'H' LT	36



PLAN VIEW



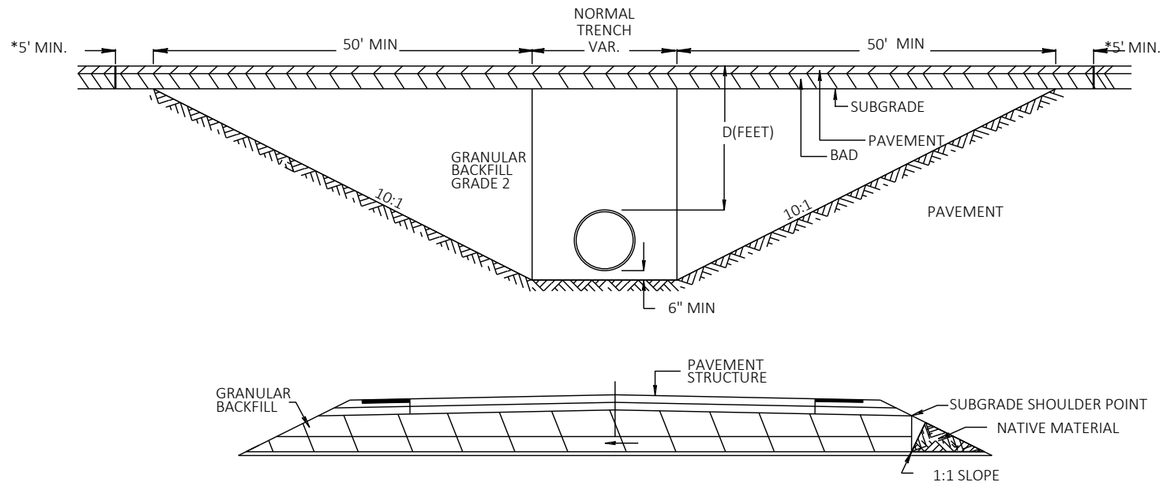
TYPICAL CROSS SECTION



TYPICAL PROFILES

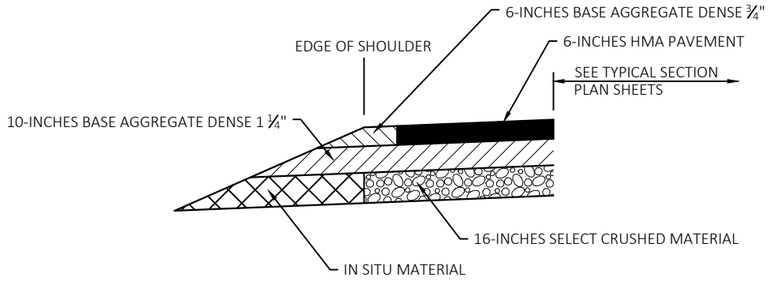
FIELD ENTRANCE DETAIL

STA 761+35 RT
STA 761+93 LT
STA 766+65 LT
STA 6+18'H' LT

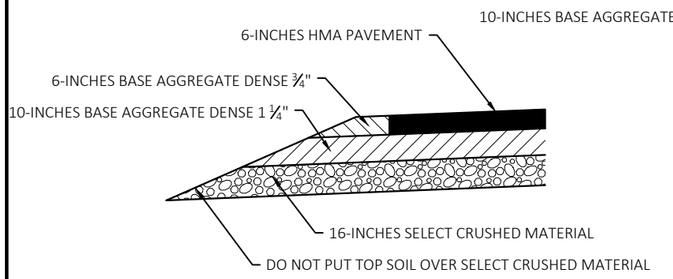


CROSS DRAIN INSTALLATION DETAIL
FOR D ≤ 5'
STA 5+85'H'

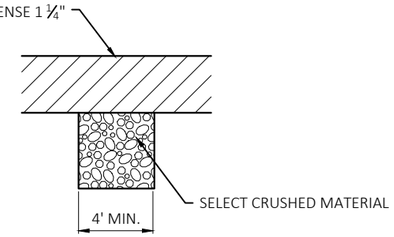
* PAVEMENT REMOVAL LIMITS (TYPICAL)



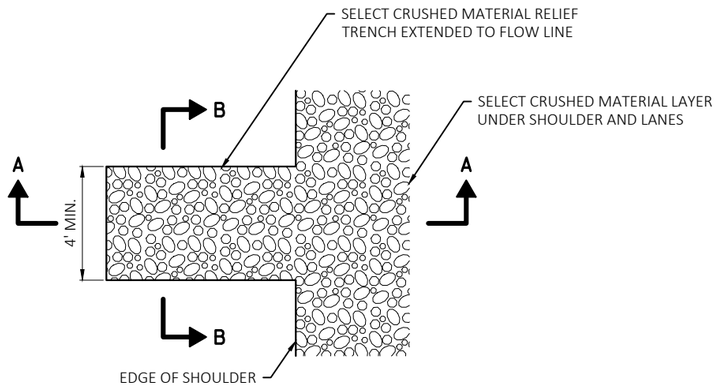
TYPICAL HALF SECTION WITH SELECT MATERIALS



SECTION A-A



SECTION B-B



FRENCH DRAINS DETAIL

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

LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

2

2

N

SHANNAHAN VALLEY CREEK

WETLANDS

REEDSBURG UTILITY COMMISSION

FRONTIER COMMUNICATIONS

EXISTING R/W

POST 1
STA 757+85.76
20' LT

MGS GUARDRAIL TERMINAL EAT

POST 5
STA 758+10.75
19' LT

POST 9
STA 758+35.73
18.1' LT

MGS GUARDRAIL 3

REMOVE EXISTING GUARDRAIL

MGS THRIE BEAM TRANSITION

15:1 TAPER

10:1 TAPER

757+00

758+00

759+00

760+00

761+00

762

STH 23

MATCH LINE STA 762+00

MGS THRIE BEAM TRANSITION

REMOVE EXISTING GUARDRAIL

MGS GUARDRAIL 3

POST 9
STA 760+54.77
18.1' RT

POST 5
STA 760+79.75
19' RT

MGS GUARDRAIL TERMINAL EAT

POST 1
STA 761+04.73
20' RT

MGS GUARDRAIL 3

POST 1
STA 761+67.23
20' LT

POST 5
STA 761+42.25
19' LT

MGS GUARDRAIL TERMINAL EAT

POST 9
STA 761+17.27
18.1' LT

STA. 761+93 LT
18' BAD
DRIVEWAY
REQ'D

ALLIANT ENERGY

EXISTING R/W

FRONTIER COMMUNICATIONS

POST 1
STA 757+48.27
20' RT

POST 5
STA 757+73.25
19' RT

MGS GUARDRAIL TERMINAL EAT

POST 9
STA 757+98.23
18.1' RT

MGS GUARDRAIL 3

REMOVE EXISTING GUARDRAIL

MGS THRIE BEAM TRANSITION

HONEY CREEK FISHERY EASEMENT

TLE

POST 1
STA 761+57.84
20' RT

STA. 761+35 RT
18' BAD
DRIVEWAY REQ'D

POST 5
STA 761+82.83
19' RT

MGS GUARDRAIL TERMINAL EAT

HONEY CREEK FISHERY EASEMENT

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	GUARDRAIL DETAILS	SHEET 9	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\021002-CD.DWG
LAYOUT NAME - 021002-cd
PLOT DATE : 10/31/2023 1:24 PM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

N

HONEY CREEK

STA. 761+93 LT
18' BAD
DRIVEWAY
REQ'D

TLE

POST 1
STA 762+24.84
20' RT

POST 5
STA 762+49.81
19' RT

MGS GUARDRAIL
TERMINAL EAT

REMOVE EXISTING GUARDRAIL

POST 9
STA 762+74.81
18.1' RT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

EXISTING R/W

FRONTIER
COMMUNICATIONS

REMOVE EXISTING GUARDRAIL

REEDSBURG UTILITY COMMISSION

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

WETLANDS

POST 9
STA 765+84.19
18.1' RT

MGS GUARDRAIL
TERMINAL EAT

POST 5
STA 766+09.18
19' RT

POST 1
STA 766+34.16
20' RT

TLE

REEDSBURG UTILITY COMMISSION

R/W

MATCH LINE STA 762+00

+00

763+00

764+00

765+00

766+00

767+00

STH 23

WETLANDS

HO

FO

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

REMOVE EXISTING GUARDRAIL

POST 9
STA 762+07.80
18.1' RT

EXISTING R/W

REMOVE EXISTING GUARDRAIL

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

FRONTIER
COMMUNICATIONS

ALLIANT ENERGY

POST 9
STA 765+04.69
18.1' RT

POST 5
STA 765+29.69
19' RT

POST 1
STA 765+54.66
20' RT

MGS GUARDRAIL
TERMINAL EAT

R/W

HIGHLAND RD

7+00 H

PROPOSED TILE

R/W

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	GUARDRAIL DETAILS	SHEET 10	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\021002-CD.DWG
LAYOUT NAME - 021003-cd
PLOT DATE : 10/31/2023 1:24 PM
PLOT BY : BOBBI MAXWELL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

N

EXISTING R/W

STA 754+90.00
END PROJECT 5080-02-74
BEGIN PROJECT 5080-02-82

754+00 755+00 756+00 757+00 758+00 759+00 760

STA 758+83 LT
CONC SURFACE DRAIN

RIPRAP MEDIUM

SHANNAHAN VALLEY CREEK

MATCH LINE STA 760+00

EXISTING R/W

STA 758+83 RT
CONC SURFACE DRAIN

RIPRAP MEDIUM

STRUCTURE B-56-235
STA 759+64

HONEY CREEK FISHING EASEMENT

SHANNAHAN VALLEY CREEK

EROSION CONTROL LEGEND

- SILT FENCE
- TURBIDITY BARRIER
- SLOPE INTERCEPTS
- DRAINAGE FLOW ARROW
- TEMPORARY DITCH CHECKS
- RIPRAP (SEE QUANTITIES FOR TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- CULVERT PIPE CHECK

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 11	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 11/21/2023 1:43 PM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

MATCH LINE STA 760+00

MATCH LINE STA 766+00

761+00

762+00

763+00

764+00

765+00

STA 762+84 LT
CONC SURFACE DRAIN

RIPRAP MEDIUM

TLE

EXISTING R/W

HONEY CREEK

R/W

EXISTING R/W

STRUCTURE B-56-236
STA 763+71

R/W

TLE

STA 762+42 RT
CONC SURFACE DRAIN

RIPRAP MEDIUM

HONEY CREEK FISHING EASEMENT

HONEY CREEK FISHING EASEMENT

EROSION CONTROL LEGEND

SILT FENCE	RIPRAP (SEE QUANTITIES FOR TYPE)
TURBIDITY BARRIER	EROSION MAT CLASS I TYPE B
SLOPE INTERCEPTS	EROSION MAT CLASS II TYPE C
DRAINAGE FLOW ARROW	CULVERT PIPE CHECK
TEMPORARY DITCH CHECKS	

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 12	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\022001-EC.DWG
LAYOUT NAME - 022002-ec

PLOT DATE : 11/21/2023 1:43 PM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

TLE

R/W

EXISTING R/W

STA 771+00.00
BEGIN PROJECT 5080-02-74
END PROJECT 5080-02-82

MATCH LINE STA 766+00

+00 767+00 768+00 769+00 770+00 771+00 772+00

MATCHLINE 5'H'+50

EXISTING R/W

EROSION CONTROL LEGEND

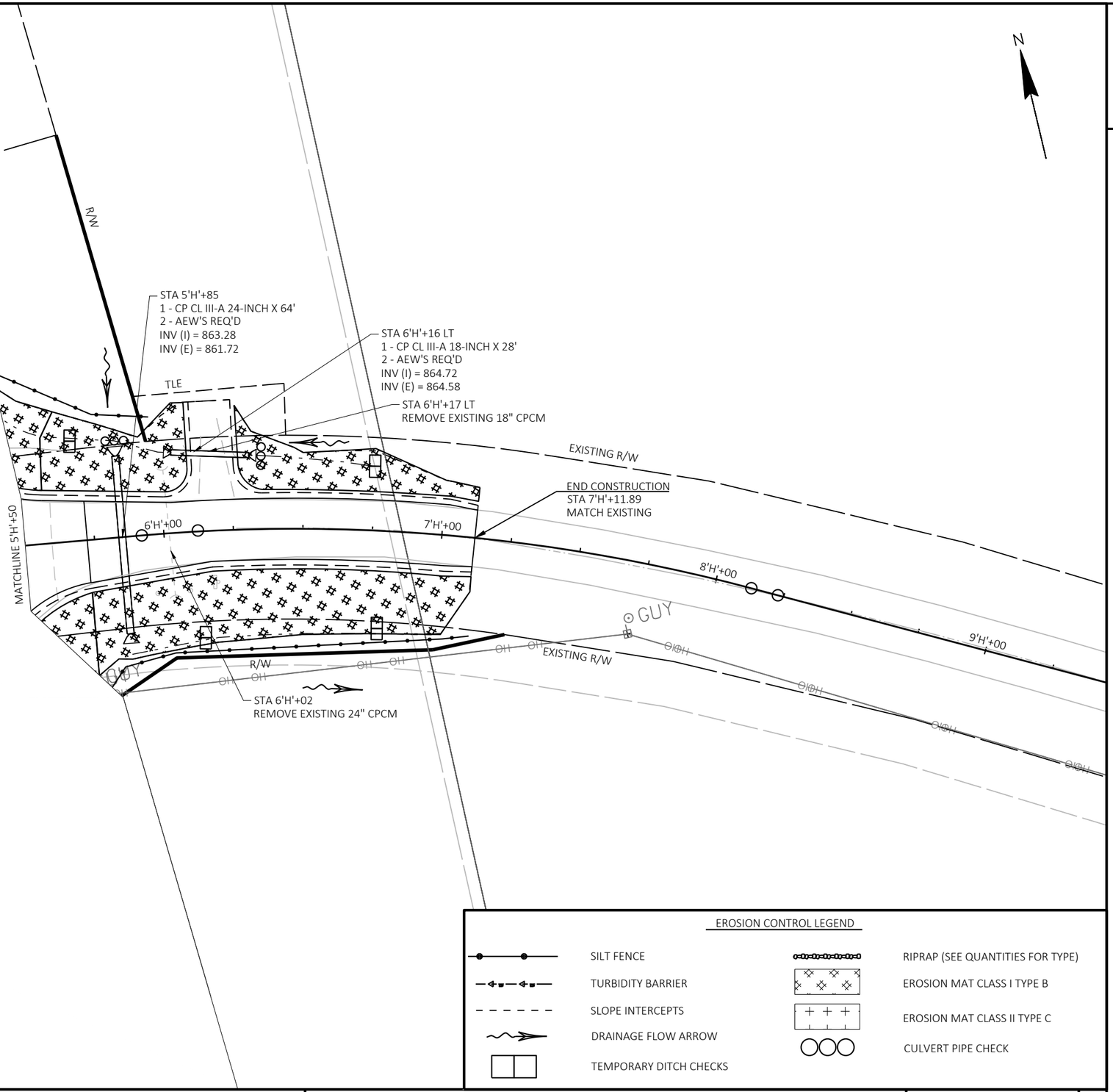
- SILT FENCE
- TURBIDITY BARRIER
- SLOPE INTERCEPTS
- DRAINAGE FLOW ARROW
- TEMPORARY DITCH CHECKS
- RIPRAP (SEE QUANTITIES FOR TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- CULVERT PIPE CHECK

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 13	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\022001-EC.DWG
LAYOUT NAME - 022003-ec

PLOT DATE : 11/21/2023 1:43 PM PLOT BY : CONNOR GIRTEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	EROSION CONTROL	SHEET 14	E

LEGEND

WORK ZONE

NEW TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE WITH ATTACHED TRAFFIC CONTROL SIGN

TYPE III BARRICADE

DAWN RD

HICKORY RD

S LAKE RD

COUNTY GG

STRUCTURE B-56-235

STRUCTURE B-56-236

END PROJECT 5080-02-82
STA. 771+00.00

BEGIN PROJECT 5080-02-82
STA. 754+90.00

SHANNAHAN CREEK

HONEY CREEK

HIGHLAND RD

SHORTCUT RD

VALLEY VIEW RD

OHIO RD

690 700 710 720 730 740 750 760 770 780

23

1 2 3 4 5 6

TRAFFIC CONTROL SIGNING GENERAL NOTES

1. DRAWINGS SHOW TRAFFIC CONTROL DETOUR FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL CHANGES TO THE TRAFFIC CONTROL DETOUR PLAN SHALL BE REVIEWED WITH THE PROJECT ENGINEER.

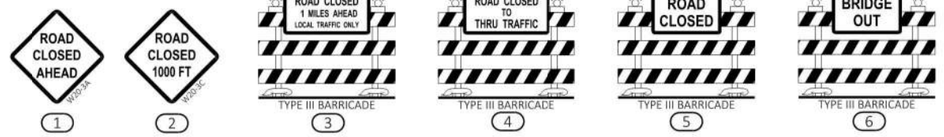
2. TRAFFIC CONTROL PLANS ARE NOT TO SCALE.

3. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE. ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

4. COVER, REMOVE, OR ALTER ANY EXISTING OR PROPOSED SIGNS THAT DISPLAY A CONFLICTING MESSAGE WITH THE PROPOSED DETOUR ROUTE FOR THE PHASE THAT IS ACTIVE.

5. MAINTAIN ACCESS TO DRIVEWAYS AND DEAD END SIDE ROADS AT ALL TIMES.

NOTES:
1. SEE PROJECT ID 5080-02-74 FOR OTHER TRAFFIC CONTROL DEVICES.
2. SEE SDD BARRICADES AND SIGNS FOR VARIOUS CLOSURES



PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	TRAFFIC CONTROL	SHEET 15	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\025001-TC.DWG
LAYOUT NAME - 025001-tc

PLOT DATE : 10/31/2023 1:25 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN: 1,000 FT

WISDOT/CADDS SHEET 42

5080-02-82

Line	Item	Item Description	Unit	Total	Qty
0004	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0010	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-56-137	EACH	1.000	1.000
0012	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 02. B-56-138	EACH	1.000	1.000
0028	204.0165	Removing Guardrail	LF	613.000	613.000
0046	204.9060.S	Removing (item description) 02. Post	EACH	2.000	2.000
0050	205.0100	Excavation Common	CY	2,153.000	2,153.000
0052	206.1001	Excavation for Structures Bridges (structure) 01. B-56-235	EACH	1.000	1.000
0054	206.1001	Excavation for Structures Bridges (structure) 02. B-56-236	EACH	1.000	1.000
0056	208.0100	Borrow	CY	4,888.000	4,888.000
0058	210.1500	Backfill Structure Type A	TON	678.000	678.000
0068	213.0100	Finishing Roadway (project) 02. 5080-02-82	EACH	1.000	1.000
0070	305.0110	Base Aggregate Dense 3/4-Inch	TON	526.000	526.000
0072	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,257.000	5,257.000
0078	312.0110	Select Crushed Material	TON	4,251.000	4,251.000
0082	415.0080	Concrete Pavement 8-Inch	SY	90.000	90.000
0084	415.0410	Concrete Pavement Approach Slab	SY	224.000	224.000
0088	450.4000	HMA Cold Weather Paving	TON	486.000	486.000
0090	455.0605	Tack Coat	GAL	544.000	544.000
0098	460.2000	Incentive Density HMA Pavement	DOL	1,170.000	1,170.000
0106	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,437.000	1,437.000
0108	460.6225	HMA Pavement 5 MT 58-28 S	TON	378.000	378.000
0110	465.0105	Asphaltic Surface	TON	113.000	113.000
0116	465.0520	Asphaltic Rumble Strips, Shoulder	LF	2,178.000	2,178.000
0118	465.0560	Asphaltic Rumble Strips, Centerline	LF	864.000	864.000
0120	502.0100	Concrete Masonry Bridges	CY	573.000	573.000
0122	502.3200	Protective Surface Treatment	SY	626.000	626.000
0124	502.3210	Pigmented Surface Sealer	SY	208.000	208.000
0126	503.0137	Prestressed Girder Type I 36W-Inch	LF	665.000	665.000
0130	505.0400	Bar Steel Reinforcement HS Structures	LB	11,650.000	11,650.000
0132	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	68,320.000	68,320.000
0134	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	14.000	14.000
0136	506.4000	Steel Diaphragms (structure) 01. B-56.235	EACH	12.000	12.000
0140	516.0500	Rubberized Membrane Waterproofing	SY	52.000	52.000
0142	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	2.000	2.000
0144	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0146	520.3318	Culvert Pipe Class III-A 18-Inch	LF	28.000	28.000
0148	520.3324	Culvert Pipe Class III-A 24-Inch	LF	64.000	64.000
0166	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	955.000	955.000
0174	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	210.000	210.000
0176	601.0590	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	LF	26.000	26.000
0190	602.3010	Concrete Surface Drains	CY	4.000	4.000
0194	606.0200	Riprap Medium	CY	18.000	18.000
0196	606.0300	Riprap Heavy	CY	705.000	705.000
0226	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	484.000	484.000
0228	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	8.000	8.000
0236	614.2300	MGS Guardrail 3	LF	412.500	412.500
0242	614.2500	MGS Thrie Beam Transition	LF	315.200	315.200
0244	614.2610	MGS Guardrail Terminal EAT	EACH	8.000	8.000
0250	618.0100	Maintenance and Repair of Haul Roads (project) 02. 5080-02-82	EACH	1.000	1.000
0254	619.1000	Mobilization 02. 5080-02-82	EACH	1.000	1.000

5080-02-82

Line	Item	Item Description	Unit	Total	Qty
0256	624.0100	Water	MGAL	160.000	160.000
0258	625.0500	Salvaged Topsoil	SY	8,387.000	8,387.000
0262	628.1504	Silt Fence	LF	3,627.000	3,627.000
0264	628.1520	Silt Fence Maintenance	LF	3,627.000	3,627.000
0266	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0268	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0270	628.2004	Erosion Mat Class I Type B	SY	6,425.000	6,425.000
0274	628.2027	Erosion Mat Class II Type C	SY	1,962.000	1,962.000
0276	628.6005	Turbidity Barriers	SY	704.000	704.000
0280	628.7504	Temporary Ditch Checks	LF	25.000	25.000
0282	628.7555	Culvert Pipe Checks	EACH	9.000	9.000
0284	629.0210	Fertilizer Type B	CWT	6.700	6.700
0286	630.0120	Seeding Mixture No. 20	LB	227.800	227.800
0290	630.0200	Seeding Temporary	LB	113.900	113.900
0292	630.0500	Seed Water	MGAL	188.700	188.700
0294	633.5100	Markers ROW	EACH	12.000	12.000
0296	633.5200	Markers Culvert End	EACH	4.000	4.000
0298	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	7.000	7.000
0308	638.2102	Moving Signs Type II	EACH	13.000	13.000
0312	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0314	638.4000	Moving Small Sign Supports	EACH	7.000	7.000
0320	643.0420	Traffic Control Barricades Type III	DAY	2,240.000	2,240.000
0322	643.0705	Traffic Control Warning Lights Type A	DAY	1,920.000	1,920.000
0324	643.0900	Traffic Control Signs	DAY	1,280.000	1,280.000
0342	643.5000	Traffic Control 02. 5080-02-82	EACH	1.000	1.000
0356	645.0111	Geotextile Type DF Schedule A	SY	150.000	150.000
0358	645.0120	Geotextile Type HR	SY	1,243.000	1,243.000
0362	646.2020	Marking Line Epoxy 6-Inch	LF	527.000	527.000
0364	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	3,309.000	3,309.000
0370	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	3,836.000	3,836.000
0382	650.4500	Construction Staking Subgrade	LF	1,772.000	1,772.000
0384	650.5000	Construction Staking Base	LF	1,772.000	1,772.000
0386	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	236.000	236.000
0388	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0392	650.6501	Construction Staking Structure Layout (structure) 02. B-56-235	EACH	1.000	1.000
0394	650.6501	Construction Staking Structure Layout (structure) 03. B-56-236	EACH	1.000	1.000
0406	650.9911	Construction Staking Supplemental Control (project) 02. 5080-02-82	EACH	1.000	1.000
0408	650.9920	Construction Staking Slope Stakes	LF	1,640.000	1,640.000
0424	690.0150	Sawing Asphalt	LF	89.000	89.000
0428	715.0502	Incentive Strength Concrete Structures	DOL	3,438.000	3,438.000
0432	999.2005.S	Maintaining Bird Deterrent System (station) 01. 759+68	EACH	1.000	1.000
0434	999.2005.S	Maintaining Bird Deterrent System (station) 02. 763+71	EACH	1.000	1.000
0460	SPV.0070	Special 01. Sprayed Asphaltic Surface Treatment	GAL	269.000	269.000

3

REMOVING CULVERTS

CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	REMARKS
0010	6'H'+02	LT & RT	1	24" CPCM
0010	6'H'+17	LT	1	18" CPCM
		TOTAL 0010	2	

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010	758+64	-	759+47	LT	83
0010	758+64	-	759+48	RT	84
0010	759+88	-	760+71	LT	83
0010	759+88	-	760+71	RT	83
0010	762+18	-	763+01	RT	83
0010	762+50	-	763+33	LT	83
0010	764+06	-	764+36	RT	30
0010	764+37	-	765+21	LT	84
				TOTAL 0010	613

REMOVING POST

CATEGORY	STATION	LOCATION	204.9060.S.02 REMOVING (02. POST) EACH
0010	762+87	RT	1
0010	764+02	RT	1
		TOTAL 0010	2

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	REMARKS
0010	5'H'+50	-	7'H'+12	ROADWAY	16	411	---	7	162	162	HIGHLAND RD
0010	754+90	-	771+00	ROADWAY	344	4,368	3,829	129	1,610	1,610	STH 23
0010	761+35	-	---	RT	35	---	---	1	---	---	FIELD ENTRANCE
0010	761+93	-	---	LT	28	---	---	1	---	---	FIELD ENTRANCE
0010	766+65	-	---	LT	33	---	---	1	---	---	FIELD ENTRANCE
0010	6'H'+18	-	---	LT	22	---	---	1	---	---	FIELD ENTRANCE
0010	754+90	-	771+00	LT & RT	---	---	39	1	---	---	FRENCH DRAINS
0010	UNDISTRIBUTED			PROJECT	48	478	383	19	---	---	
				TOTAL 0010	526	5,257	4,251	160	1,772	1,772	

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.30	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
DIVISION 1												
STH23	754+90.01/771+00.00	LT/RT	1,926	0	0	1,926	5,084	6,607	-4,681	0	4,681	
HIGHLAND	5+50.00/7+11.87	LT/RT	124	0	0	124	255	332	-208	0	208	
DIVISION 1 SUBTOTAL			2,050	103	0	2,050	5,339	6,938	-4,888	0	4,888	
5080-02-82 GRAND TOTAL			2,050	103	0	2,050	5,339	6,938	-4,888	0	4,888	
TOTAL COMMON EXC			2,153									

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.30
EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

APPROACH SLAB

CATEGORY	STATION	TO	STATION	LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY
0010	759+23	-	759+38	ROADWAY	---	40
0010	759+23	-	759+38	RT	9	---
0010	759+23	-	759+38	LT	9	---
0010	759+90	-	760+05	ROADWAY	---	40
0010	759+90	-	760+05	RT	10	---
0010	759+90	-	760+05	LT	10	---
0010	762+95	-	763+10	RT	8	---
0010	762+95	-	763+34	ROADWAY	---	72
0010	763+07	-	763+38	LT	15	---
0010	764+02	-	764+35	RT	20	---
0010	764+08	-	764+47	ROADWAY	---	72
0010	764+32	-	764+47	LT	8	---
				TOTAL 0010	90	224

RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0520 ASPHALTIC RUMBLE STRIPS, SHOULDER LF	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	754+90	-	758+98	STH 23	816	408
0010	760+30	-	762+70	STH 23	480	240
0010	768+84	-	771+00	STH 23	---	216
0010	768+46	-	771+00	RT	254	---
0010	764+72	-	771+00	LT	628	---
				TOTAL 0010	2,178	864

CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	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	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010	758+67	-	759+23	RT	56	---	56
0010	759+23		759+26	RT	---	3	3
0010	758+67	-	759+23	LT	56	---	56
0010	759+23		759+26	LT	---	3	3
0010	762+27	-	762+85	RT	59	---	59
0010	762+68	-	763+07	LT	39	---	39
0010	763+07	-	763+27	LT	---	20	20
				TOTAL 0010	210	26	236

HMA PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	LAYER	THICKNESS	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.6225 HMA PAVEMENT 5 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON
0010	754+90	-	759+23	ROADWAY	UPPER LAYER	1.25	30	84	---	117	---
0010	754+90	-	759+23	ROADWAY	LOWER LAYER 1	1.75	41	84	164	---	---
0010	754+90	-	759+23	ROADWAY	LOWER LAYER 2	3.00	71	---	281	---	---
0010	760+04	-	763+07	ROADWAY	UPPER LAYER	1.25	21	60	---	83	---
0010	760+04	-	763+07	ROADWAY	LOWER LAYER 1	1.75	29	60	116	---	---
0010	760+04	-	763+07	ROADWAY	LOWER LAYER 2	3.00	50	---	199	---	---
0010	764+35	-	771+00	ROADWAY	UPPER LAYER	1.25	45	128	---	178	---
0010	764+35	-	771+00	ROADWAY	LOWER LAYER 1	1.75	63	128	250	---	---
0010	764+35	-	771+00	ROADWAY	LOWER LAYER 2	3.00	107	---	427	---	---
0010	5'H'+18	-	7'H'+12	HIGHLAND RD	ONE LAYER	3.00	29	---	---	---	113
						TOTAL 0010	486	544	1,437	378	113

CULVERT PIPES

CATEGORY	STATION	LOCATION	INVERT	MIN. THICKNESS STEEL	MIN. THICKNESS ALUMINUM	520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	* 520.3318 CULVERT PIPE CLASS III-A 18-INCH LF	* 520.3324 CULVERT PIPE CLASS III-A 24-INCH LF	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
0010	5'H'+85	29.24' LT	863.28	0.064	0.075	---	1	---	64	1	1
0010	5'H'+85	34.82' RT	861.72	0.064	0.075	---	1	---	---	1	---
0010	6'H'+04	28.95' LT	864.58	0.064	0.060	1	---	28	---	1	---
0010	6'H'+31	26.66' LT	864.72	0.064	0.060	1	---	---	---	1	---
		TOTAL 0010				2	2	28	64	4	1

* LENGTH BASED ON METAL OR PLASTIC PIPE. ADJUST ACCORDINGLY IF CONCRETE PIPE IS USED.

SURFACE DRAINS

CATEGORY	STATION	LOCATION	602.3010 CONCRETE SURFACE DRAINS CY	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0010	758+83	RT	1	5	15
0010	758+83	LT	1	4	14
0010	762+42	RT	1	5	15
0010	762+84	LT	1	4	14
		TOTAL 0010	4	18	58

3

3

MGS GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	757+48	-	759+28	RT	87.5	39.4	1
0010	757+86	-	759+28	LT	50	39.4	1
0010	760+00	-	761+05	RT	12.5	39.4	1
0010	760+00	-	761+67	LT	75	39.4	1
0010	761+58	-	762+88	RT	37.5	39.4	1
0010	762+25	-	763+30	LT	12.5	39.4	1
0010	764+12	-	765+55	RT	50	39.4	1
0010	764+54	-	766+34	LT	87.5	39.4	1
				TOTAL 0010	412.5	315.2	8

MOBILIZATIONS EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	754+90	-	771+00	PROJECT	6	5
				TOTAL 0010	6	5

SILT FENCE

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
0010	754+92	-	759+24	LT	435	435
0010	754+92	-	759+29	RT	440	440
0010	760+12	-	761+79	LT	170	170
0010	759+98	-	761+19	RT	129	129
0010	762+03	-	763+55	LT	150	150
0010	761+47	-	762+59	RT	133	133
0010	763+94	-	766+14	RT	228	228
0010	764+56	-	766+56	LT	214	214
0010	766+75	-	770+99	LT	441	441
0010	5'H'+98	-	771+00	RT	425	425
0010	5'H'+74	-	7'H'+13	RT	136	136
0010	UNDISTRIBUTED				726	726
				TOTAL 0010	3,627	3,627

RESTORATION

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2004 EROSION MAT 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	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	754+90	-	758+25	LT	586	586	---	---	---	---	0.4	15.9	8.0	13.1
0010	754+90	-	757+98	RT	727	727	---	---	---	---	0.5	19.7	9.9	16.3
0010	758+25	-	759+24	LT	194	---	194	---	---	---	0.2	5.3	2.7	4.4
0010	757+98	-	759+24	RT	245	---	245	---	---	---	0.2	6.6	3.3	5.5
0010	759+23	-	759+58	LT & RT	---	---	---	207	---	---	---	---	---	---
0010	759+71	-	760+12	LT & RT	---	---	---	207	---	---	---	---	---	---
0010	760+05	-	761+50	LT	240	---	240	---	---	---	0.2	6.5	3.3	5.4
0010	760+04	-	760+50	RT	97	---	97	---	---	---	0.1	2.7	1.4	2.2
0010	760+50	-	761+25	RT	235	235	---	---	---	---	0.2	6.4	3.2	5.3
0010	761+50	-	761+81	LT	69	69	---	---	---	---	0.1	1.9	1.0	1.6
0010	761+45	-	761+74	RT	73	73	---	---	---	---	0.1	2.0	1.0	1.7
0010	761+74	-	761+72	RT	205	---	205	---	---	---	0.2	5.6	2.8	4.6
0010	762+03	-	762+74	LT	179	179	---	---	---	---	0.2	4.9	2.5	4.0
0010	762+74	-	763+21	LT	87	---	87	---	---	---	0.1	2.4	1.2	2.0
0010	762+59	-	763+57	LT & RT	---	---	---	156	---	---	---	---	---	---
0010	763+83	-	764+57	LT & RT	---	---	---	134	---	---	---	---	---	---
0010	764+21	-	765+06	RT	198	---	198	---	---	---	0.2	5.4	2.7	4.5
0010	764+58	-	765+98	LT	303	---	303	---	---	---	0.2	8.2	4.1	6.8
0010	765+06	-	766+53	RT	547	547	---	---	---	---	0.4	14.8	7.4	12.3
0010	765+98	-	766+57	LT	198	198	---	---	---	---	0.2	5.4	2.7	4.5
0010	766+72	-	771+00	LT	1,160	1,160	---	---	---	---	0.8	31.4	15.7	26.0
0010	766+90	-	771+00	RT	742	742	---	---	---	---	0.5	20.1	10.1	16.6
0010	5'H'+72	-	7'H'+12	RT	353	353	---	---	10	---	0.3	9.6	4.8	7.9
0010	5'H'+57	-	6'H'+11	LT	145	145	---	---	5	4	0.1	4.0	2.0	3.3
0010	6'H'+26	-	7'H'+12	LT	126	126	---	---	5	5	0.1	3.4	1.7	2.9
0010	UNDISTRIBUTED				1,678	1,285	393	---	5	---	1.4	45.6	22.8	37.8
				TOTAL 0010	8,387	6,425	1,962	704	25	9	6.7	227.8	113.9	188.7

MARKERS ROW

CATEGORY	STATION	POINT	LOCATION	633.5100 MARKERS ROW EACH
0010	765+47	102.00	49.09' LT	1
0010	765+70	103.00	62.00' LT	1
0010	767+25	104.00	62.00' LT	1
0010	767+47	105.00	48.97' LT	1
0010	764+72	117.00	50.87' RT	1
0010	765+00	116.00	67.00' RT	1
0010	766+13	115.00	67.00' RT	1
0010	766+20	114.00	90.00' RT	1
0010	765+97	113.00	179.00' RT	1
0010	765+95	112.00	205.29' RT	1
0010	766+98	110.00	101.04' RT	1
0010	768+12	109.00	101.07' RT	1
			TOTAL 0010	12

3

MOVING SIGNS

CATEGORY	STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	755+62	RT	1	1	1	---	NO PASSING ZONE
0010	758+18	RT	----	1	---	1	PUBLIC FISHING EASEMENT
0010	759+36	RT	----	1	---	1	PUBLIC FISHING EASEMENT
0010	759+40	RT	----	1	---	1	PUBLIC FISHING EASEMENT
0010	759+95	RT	----	1	---	1	PUBLIC FISHING EASEMENT
0010	760+08	RT	----	1	---	1	PUBLIC FISHING EASEMENT
0010	761+94	RT	----	1	---	1	PUBLIC FISHING EASEMENT
0010	764+14	RT	----	1	---	1	PUBLIC FISHING EASEMENT
0010	764+31	RT	1	1	1	---	JCT CTH GG
0010	768+26	LT	1	1	1	---	NO PASSING ZONE
0010	777+00	RT	2	1	2	---	WHITE MOUND COUNTY PARK
0010	5'H'+43	LT	1	1	1	---	STOP
0010	6'H'+18	RT	1	1	1	---	ROAD SHARP CURVES
		TOTAL 0010	7	13	7	7	

PAVEMENT MARKINGS

CATEGORY	STATION	TO	STATION	LOCATION	646.2020 MARKING LINE EPOXY 6-INCH LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	REMARKS
0010	754+90	-	759+23	RT	---	433	433	EDGELINES, WHITE
0010	759+23	-	760+05	RT	82	---	82	EDGELINES, WHITE
0010	760+05	-	762+95	RT	---	290	290	EDGELINES, WHITE
0010	762+95	-	764+47	RT	152	---	152	EDGELINES, WHITE
0010	764+47	-	766+10	RT	---	163	163	EDGELINES, WHITE
0010	754+90	-	755+62	CL	---	90	90	YELLOW, SOLID (LT), SKIPS (RT)
0010	754+90	-	759+23	LT	---	433	433	EDGELINES, WHITE
0010	759+23	-	760+05	LT	82	---	82	EDGELINES, WHITE
0010	760+05	-	762+95	LT	---	290	290	EDGELINES, WHITE
0010	762+95	-	764+47	LT	152	---	152	EDGELINES, WHITE
0010	764+47	-	771+00	LT	---	653	653	EDGELINES, WHITE
0010	767+45	-	771+00	RT	---	355	355	EDGELINES, WHITE
0010	755+62	-	759+23	CL	---	91	91	YELLOW SKIPS
0010	759+23	-	760+05	CL	21	---	21	YELLOW SKIPS
0010	760+05	-	762+95	CL	---	73	73	YELLOW SKIPS
0010	762+95	-	764+47	CL	38	---	38	YELLOW SKIPS
0010	764+47	-	768+26	CL	---	95	95	YELLOW SKIPS
0010	768+26	-	771+00	CL	---	343	343	YELLOW, SOLID (RT), SKIPS (LT)
				TOTAL 0010	527	3,309	3,836	

TRAFFIC CONTROL

CATEGORY	DESCRIPTION	DAYS	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	REMARKS
0010	ADVANCE WARNING SIGNS (HICKORY RD)	160	2	320	4	640	3	480	W20-3A, R11-3
0010	ROAD CLOUSURE (SOUTH STRUCTURE B-56-235)	160	5	800	2	320	1	160	R11-2B
0010	ROAD WORK AHEAD (HIGHLAND RD)	160	5	800	4	640	3	480	W20-3A, R11-4, R11-2
0010	UNDISTRIBUTED	160	2	320	2	320	1	160	
	TOTAL 0010			2,240		1,920		1,280	

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	754+90	-	759+26	LT & RT	436
0010	760+02	-	763+27	LT & RT	325
0010	764+15	-	771+00	LT & RT	685
0010	5'H'+18	-	7'H'+12	LT & RT	194
				TOTAL 0010	1,640

SAWING ASPHALT

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	754+90	STH 23	34
0010	771+00	STH 23	34
0010	7'H'+12	HIGLAND RD	21
		TOTAL 0010	89

SPRAYED ASPHALTIC SURFACE TREATMENT

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0070.01 SPECIAL (01. SPRAYED ASPHALTIC SURFACE TREATMENT) GAL
0010	757+48	-	759+26	RT	42
0010	757+86	-	759+26	LT	33
0010	760+02	-	761+05	RT	25
0010	760+02	-	761+67	LT	39
0010	761+57	-	762+85	RT	30
0010	762+24	-	763+27	LT	25
0010	764+15	-	765+55	RT	33
0010	764+57	-	766+34	LT	42
				TOTAL 0010	269

TRANSPORTATION PROJECT PLAT NO: 5080-02-22 - 4.01

PARTS OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4, THE NORTHWEST 1/4 OF THE NORTHWEST 1/4, AND THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 ALL LOCATED IN SECTION 18 OF TOWN 10 NORTH, RANGE 4 EAST, TOWN OF FRANKLIN, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER: STH 23 SPRING GREEN - REEDSBURG, (B-56-137 & B-56-138), SAUK COUNTY, WISCONSIN

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

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

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE 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 SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
STH 23 - PREVIOUS PROJECT DIVISION JOB NO. 1572
HIGHLAND ROAD - CENTER OF EXISTING PAVEMENT.

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

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

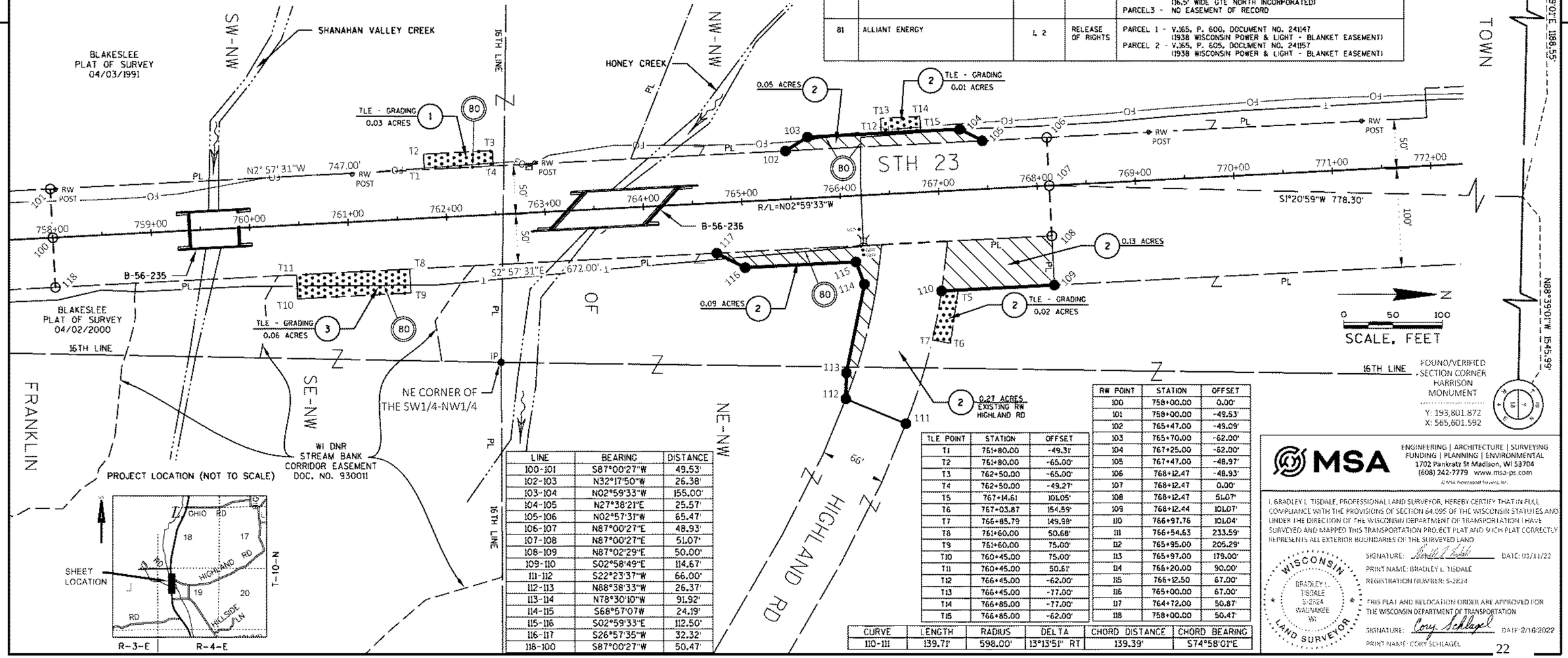
PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
1	DENNIS A. ALT AND TAMMYANN H. ALT, 3/4 INTEREST AND LAVONNE A. ALT, TRUSTEE, OR HEIR SUCCESSORS IN TRUST, UNDER THE LAVONNE A. ALT LIVING TRUST, DATED JULY 26, 2010, 1/4 INTEREST	TLE	--	--	--	0.03
2	JOHN L. NIEMANN, III AND RACHEL Y. NIEMANN	FEE/TLE	0.27	0.27	0.54	0.03
3	ED LIEGEL FARMS, LLC, VENDOR AND E. LEGAL CATTLE, LLC, PURCHASER UNDER A LAND CONTRACT RECORDED MAY 31, 2016 AS DOCUMENT NO. 1131107	TLE	--	--	--	0.06

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	PARCEL AFFECTED	INTEREST REQUIRED	EASEMENT AFFECTING
80	FRONTIER COMMUNICATIONS	1, 2, 3	RELEASE OF RIGHTS	PARCEL 1 - V.352, P.510, DOC. NO. 367220 (10' WIDE GENERAL TELEPHONE COMPANY) PARCEL 2 - V.352, P.509, DOC. NO. 367219 (10' WIDE GENERAL TELEPHONE COMPANY) V.103, P.903, DOC. NO. 407868 (16.5' WIDE GENERAL TELEPHONE COMPANY) V.522, P.588, DOC. NO. 544635 (16.5' WIDE GTE NORTH INCORPORATED) PARCEL3 - NO EASEMENT OF RECORD
81	ALLIANT ENERGY	1, 2	RELEASE OF RIGHTS	PARCEL 1 - V.165, P. 600, DOCUMENT NO. 241147 (1938 WISCONSIN POWER & LIGHT - BLANKET EASEMENT) PARCEL 2 - V.165, P. 605, DOCUMENT NO. 241157 (1938 WISCONSIN POWER & LIGHT - BLANKET EASEMENT)

DOCUMENT #: 1231536
Recorded: 02-18-2022 at 8:44 AM
BRENT DAILEY
SAUK COUNTY REGISTER OF DEEDS
REGISTRAR'S OFFICE
Sauk Co, WI
RECEIVED FOR RECORD
Fee Amount: $25.00
This document has been filed electronically

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5080-02-22 - 4.01
SHEET 1 OF 2



LINE	BEARING	DISTANCE
100-101	S87°00'27"W	49.53'
102-103	N32°17'50"W	26.38'
103-104	N02°59'33"W	155.00'
104-105	N27°38'21"E	25.57'
105-106	N02°57'31"W	65.47'
106-107	N87°00'27"E	48.93'
107-108	N87°00'27"E	51.07'
108-109	N87°02'29"E	50.00'
109-110	S02°58'49"E	114.67'
111-112	S22°23'37"W	66.00'
112-113	N88°38'33"W	26.37'
113-114	N78°30'10"W	91.92'
114-115	S68°57'07W	24.19'
115-116	S02°59'33"E	112.50'
116-117	S26°57'35"W	32.32'
118-100	S87°00'27"W	50.47'

TLE POINT	STATION	OFFSET
T1	761+80.00	-49.31'
T2	761+80.00	-65.00'
T3	762+50.00	-65.00'
T4	762+50.00	-49.27'
T5	767+14.61	101.05'
T6	767+03.87	154.59'
T7	766+85.79	149.98'
T8	761+60.00	50.68'
T9	761+60.00	75.00'
T10	760+45.00	75.00'
T11	760+45.00	50.61'
T12	766+45.00	-62.00'
T13	766+45.00	-77.00'
T14	766+85.00	-77.00'
T15	766+85.00	-62.00'

RW POINT	STATION	OFFSET
100	758+00.00	0.00'
101	758+00.00	-49.53'
102	765+47.00	-49.09'
103	765+70.00	-62.00'
104	767+25.00	-62.00'
105	767+47.00	-48.97'
106	768+12.47	-48.93'
107	768+12.47	0.00'
108	768+12.47	51.07'
109	768+12.44	101.07'
110	766+97.76	101.04'
111	766+54.63	233.59'
112	765+95.00	205.29'
113	765+97.00	179.00'
114	766+20.00	90.00'
115	766+12.50	67.00'
116	765+00.00	67.00'
117	764+72.00	50.87'
118	758+00.00	50.47'

CURVE	LENGTH	RADIUS	DELTA	CHORD DISTANCE	CHORD BEARING
110-111	139.71'	598.00'	13°13'51" RT	139.39'	S74°58'01"E

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

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

WISCONSIN BRADLEY L. TISDALE S-2824 WAUNAKEE WI LAND SURVEYOR

SIGNATURE: Bradley L Tisdale DATE: 03/11/22
PRINT NAME: BRADLEY L. TISDALE
REGISTRATION NUMBER: S-2824

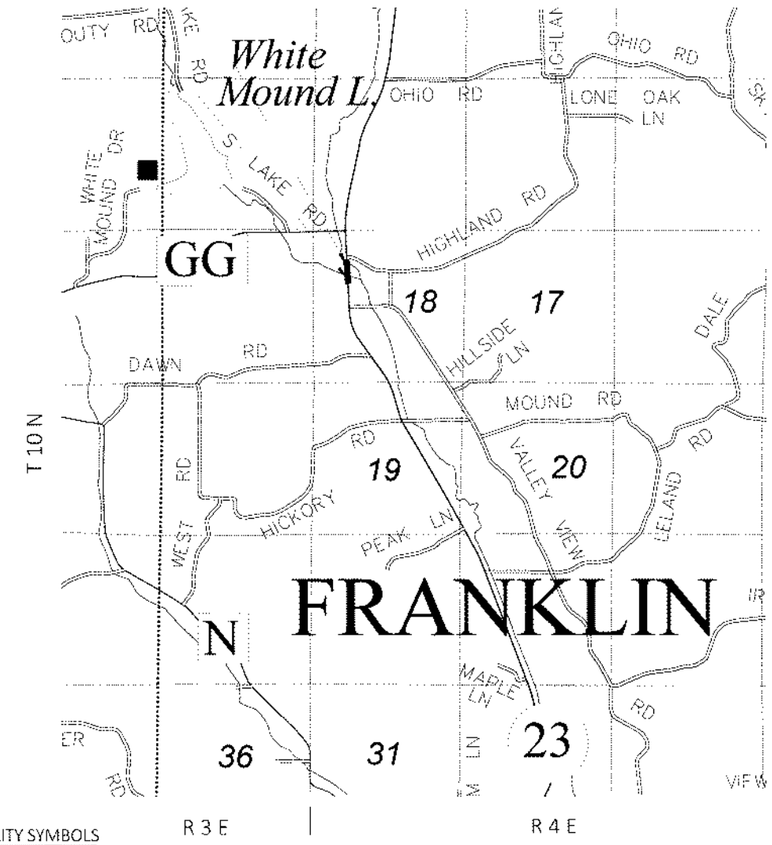
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE: Cory Schlagel DATE: 2/16/2022
PRINT NAME: CORY SCHLAGEL

FILE NAME : G:\00\00093\00093594\CADD\C3D\RW\5080-02-22_STH 23_BRIDGES_TPP.DWG
APPRAISAL PLAT DATE : 01/11/2022
PLOT DATE : 2/4/2022 2:35 PM PLOT BY : BRAD TISDALE PLOT NAME : PLOT SCALE : 1 IN:100 FT
5080-02-22 - 4.02

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
5080-02-22
SPRING GREEN - REEDSBURG
STRUCTURES B-56-137 & B-56-138
STH 23
SAUK COUNTY

STRUCTURE B-56-236

STRUCTURE B-56-235



GN

LAYOUT
SCALE 0 5 MI

CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER SYMBOL	R/W MONUMENT (TO BE SET)
QUARTER LINE			NON-MONUMENTED R/W POINT
SIXTEENTH LINE		SECTION CORNER MONUMENT	FOUND IRON PIN (¾-INCH UNLESS NOTED)
NEW REFERENCE LINE		GEODETIC SURVEY MONUMENT	
NEW R/W LINE		SIXTEENTH CORNER MONUMENT	
EXISTING R/W OR RE LINE		SIGN	OFF-PREMISE SIGN
PROPERTY LINE			
LOT, TIC & OTHER MINOR LINES			
SLOPE INTERCEPT			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)			
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		PARCEL NUMBER (25)	UTILITY NUMBER (40)
BRIDGE CULVERT		PARALLEL OFFSETS	

	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)	

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL UTILITY SYMBOLS

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

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5080-02-22.

NOTES:

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

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

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

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

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (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 ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY

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

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	5080 02 22 - 4 01
SHEET	2 OF 2
AMENDMENT NO:	

23

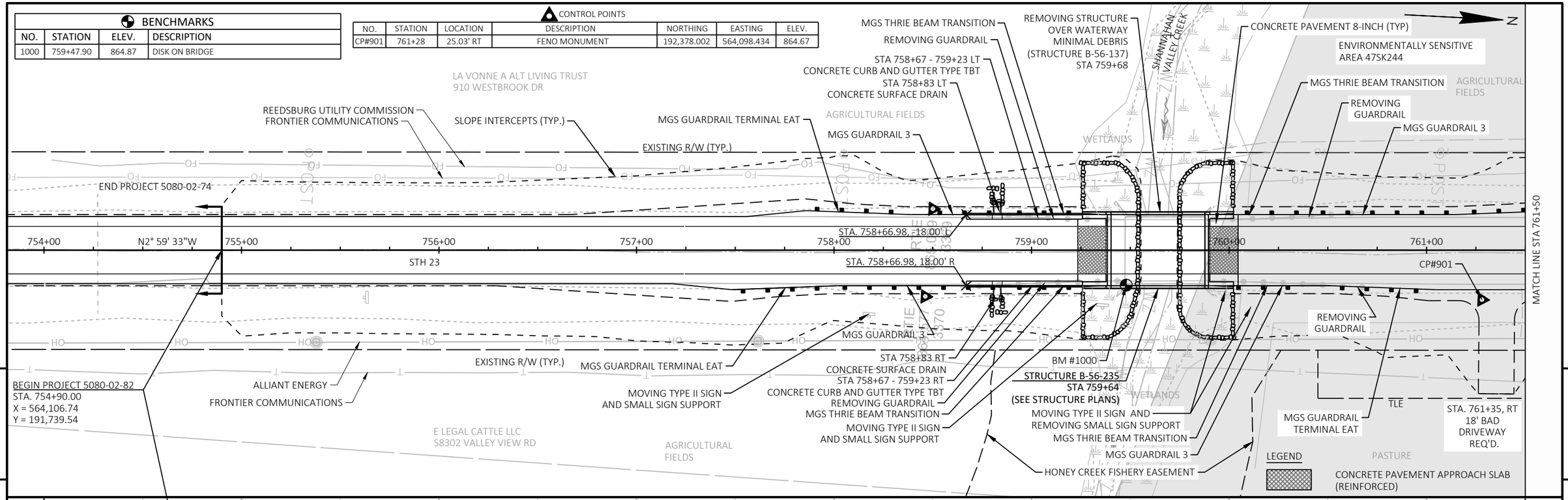
FILE NAME : G:\00\00093\00093594\CADD\C3D\RW\5080-02-22_STH 23_BRIDGES_TPP.DWG
LAYOUT NAME: 5080-02-22 Title

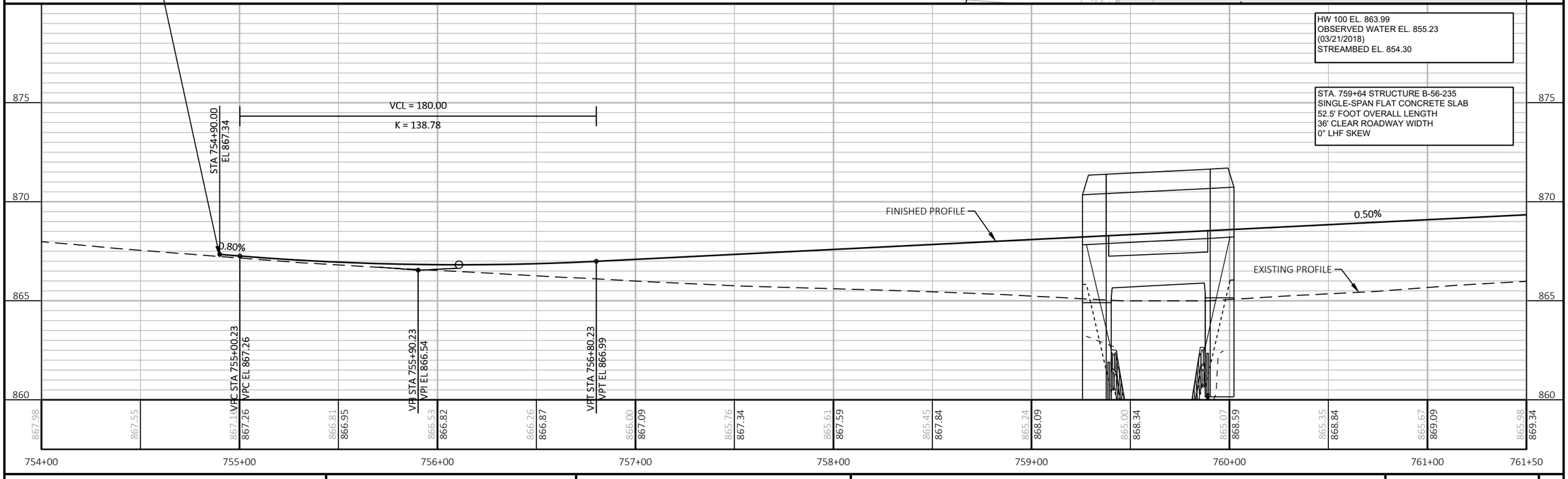
PLOT DATE : 9/16/2015 3:04 PM PLOT BY : BRAD TISDALE PLOT NAME : _____

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1000	759+47.90	864.87	DISK ON BRIDGE

CONTROL POINTS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#901	761+28	25.03' RT	FENO MONUMENT	192,378.002	564,098.434	864.67





PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET 24	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1001	762+99.93	866.25	DISK ON BRIDGE

MATCH LINE STA 761+50

MATCH LINE STA 769+00

LA VONNE A ALT LIVING TRUST
910 WESTBROOK DR

AGRICULTURAL FIELDS

JOHN NIEMANN
S8282 HIGHLAND RD

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL EAT

STA. 761+93 LT
18' BAD
FE REQ'D.

TLE

ENVIRONMENTALLY SENSITIVE AREA 47SK244

EXISTING PROPERTY LINE (TYP.)

STA 762+84 LT
CONCRETE SURFACE DRAIN

MGS THRIE BEAM TRANSITION

STA 763+07 - STA 763+27 LT
CONCRETE C&G TYPE TBTT
STA 762+68 - 763+07 TYPE TBT

CONCRETE PAVEMENT 8-INCH

STA 763+71
REMOVING STRUCTURE OVER WATERWAY
MINIMAL DEBRIS
(STRUCTURE B-56-138)

CONCRETE PAVEMENT 8-INCH

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

WETLANDS

WETLANDS

STA. 762+68.56, -18.00' L

STA. 762+26.56, 18.00' R

762+00 763+00 764+00 765+00 N2° 59' 33"W 766+00 767+00 768+00 769

STH 23

MOVING TYPE II SIGN AND SMALL SIGN SUPPORT

MOVING TYPE II SIGN

PROPERTY OWNER TO REMOVE POSTS & FENCE

STA 762+42 RT
CONCRETE SURFACE DRAIN

STA 762+27 - 762+85 RT
CONCRETE CURB AND GUTTER TYPE TBT

MGS GUARDRAIL 3

BM#1001

STA 762+87 RT
REMOVING POST

EXISTING R/W (TYP.)

STRUCTURE B-56-236
STA 763+71
(SEE STRUCTURE PLANS)

STA 764+02 RT
REMOVING POST

MOVING TYPE II SIGN AND SMALL SIGN SUPPORT

MGS THRIE BEAM TRANSITION

ALLIANT ENERGY

E LEGAL CATTLE LLC

CONCRETE PAVEMENT 8-INCH

FRONTIER COMMUNCATIONS

HONEY CREEK

PASTURE

HONEY CREEK FISHERY EASEMENT

JOHN NIEMANN
S8282 HIGHLAND RD

JOHN NIEMANN
S8282 HIGHLAND RD

AGRICULTURAL FIELDS

JOHN NIEMANN
S8282 HIGHLAND RD

STA. 766+65 LT
18' BAD
FE REQ'D.

AGRICULTURAL FIELDS

REEDSBURG UTILITY COMMISSION

MGS GUARDRAIL TERMINAL EAT
TLE

REEDSBURG UTILITY COMMISSION

FRONTIER COMMUNICATIONS

R/W

EXISTING R/W (TYP.)

STA. 766+83.88 = STA. 5'H'+00.00
Y = 192,931.80
X = 564,044.41

MOVING TYPE II SIGN AND REMOVING SMALL SIGN SUPPORT

MOVING TYPE II SIGN AND REMOVING SMALL SIGN SUPPORT

PROPERTY OWNER TO REMOVE FENCE

R/W

MGS GUARDRAIL TERMINAL EAT

HIGHLAND ROAD

S81° 38' 56"E

PC: 5+52.03

5'H'+00

PROPERTY OWNER TO REMOVE POST

STA 5'H'+85
1 - CP CL III-A 24-INCH
2 - AEW'S REQ'D

R/W

TLE

JOHN NIEMANN
S8282 HIGHLAND RD

EXISTING R/W (TYP.)

N

LEGEND

CONCRETE PAVEMENT APPROACH SLAB (REINFORCED)

CONCRETE PAVEMENT APPROACH SLAB (NON-REINFORCED)

HW 100 EL. 863.99
OBSERVED WATER EL. 858.20
(03/21/2018)
STREAMBED EL. 855.59

STA. 763+71 STRUCTURE B-56-236
SINGLE-SPAN PRESTRESSED GIRDER BRIDGE
99.4' FOOT OVERALL LENGTH
36' CLEAR ROADWAY WIDTH
45° LHF SKEW

VPC STA 764+60.00
VPC EL 870.89

VPI STA 765+50.00
VPI EL 871.34

VPT STA 766+40.00
VPT EL 871.35

FINISHED PROFILE

0.01%

0.5%

EXISTING PROFILE

VCL = 180.00

K = 364.36

875 870 865 860

762+00	763+00	764+00	765+00	766+00	767+00	768+00
866.27 869.59	866.46 869.84	866.56 870.09	866.80 870.34	867.11 870.59	867.33 870.84	867.74 871.07
868.13 871.23	868.53 871.32	868.93 871.35	869.33 871.35	869.70 871.35	870.00 871.35	870.31 871.36

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET 25	E

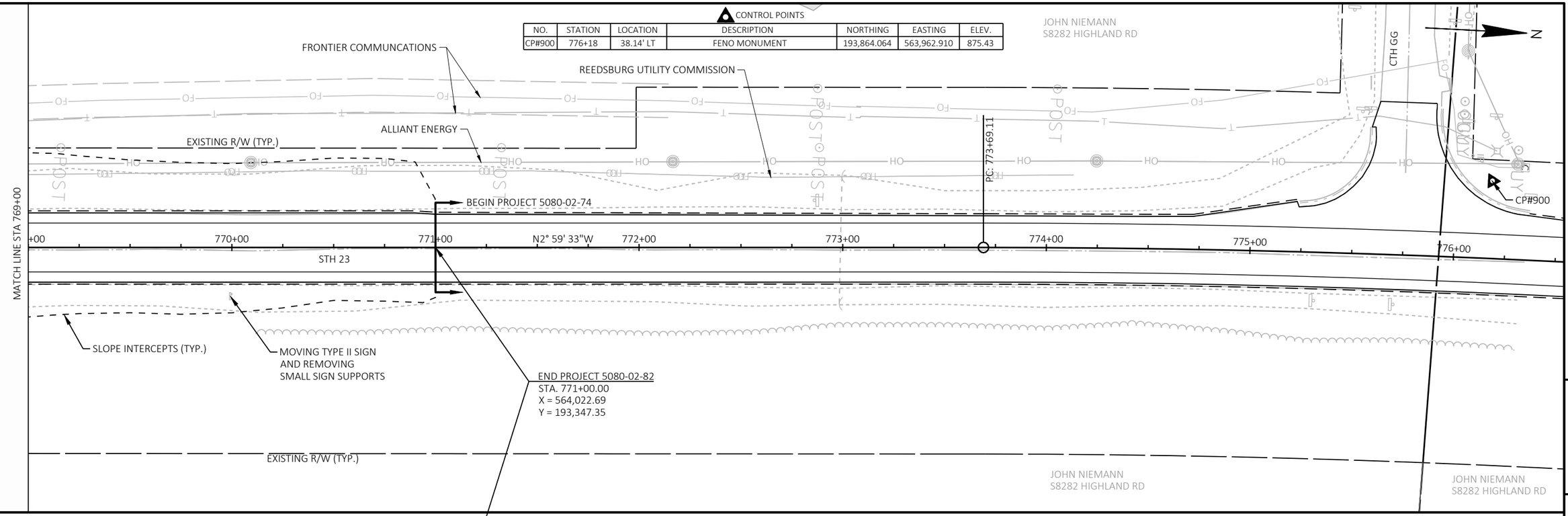
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\050101-PP.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2023 1:33 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

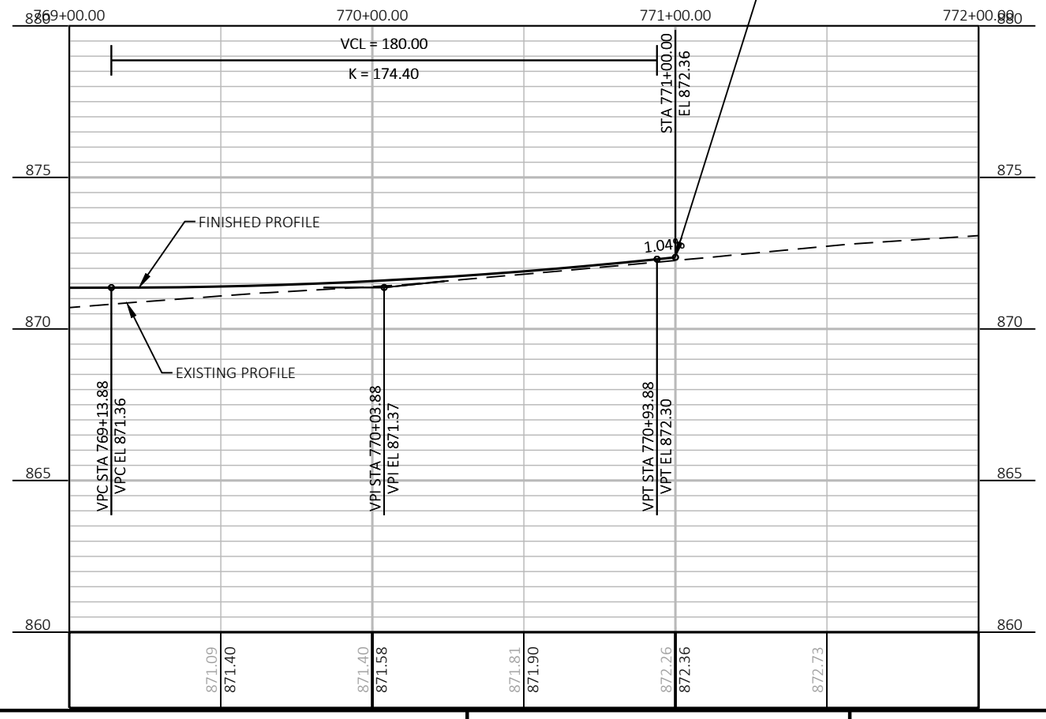
CONTROL POINTS

NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#900	776+18	38.14' LT	FENO MONUMENT	193,864.064	563,962.910	875.43

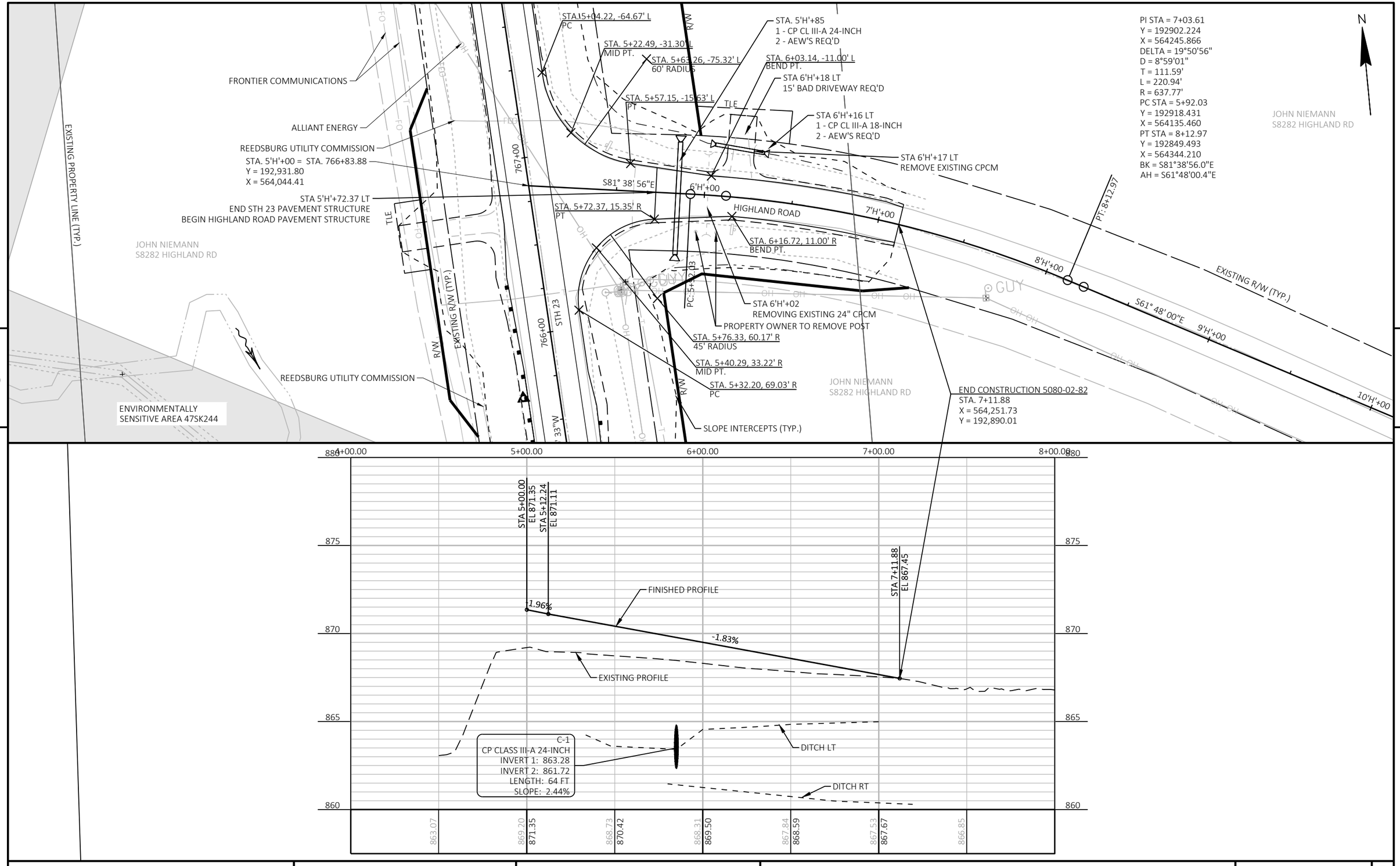


5

5



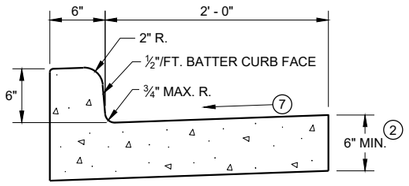
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET 26	E



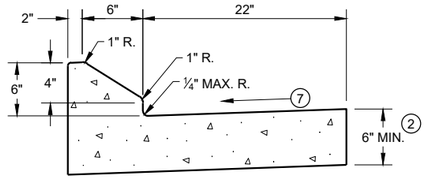
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: HIGHLAND ROAD	SHEET 27	E

Standard Detail Drawing List

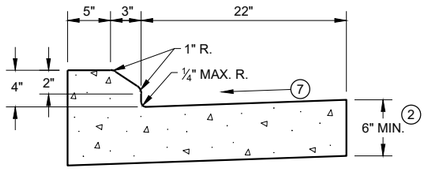
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
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
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
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)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A01-13B	FLEXIBLE MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



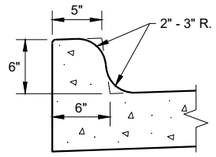
TYPES A (1) & D



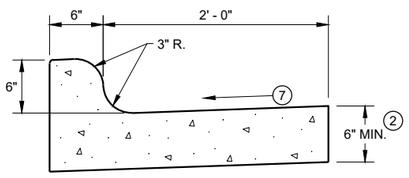
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

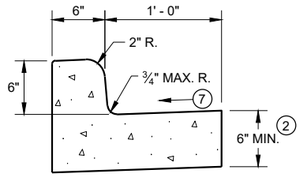


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



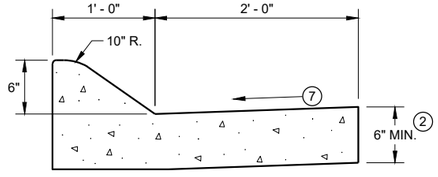
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

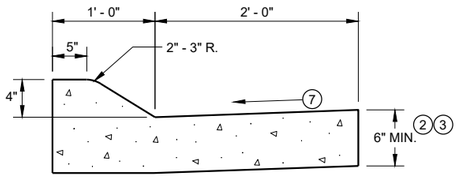


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

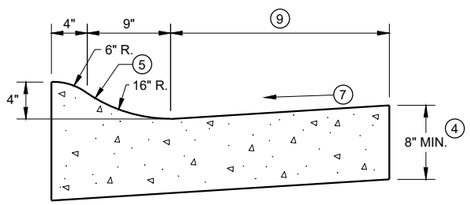


6" SLOPED CURB TYPES A (1) & D



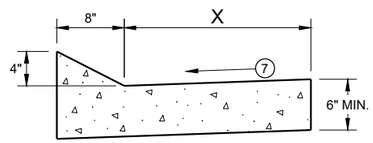
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

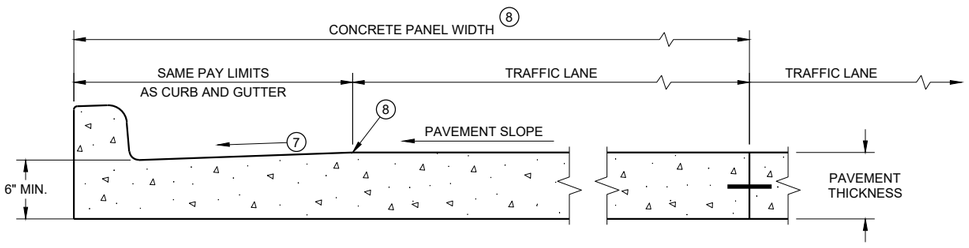


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

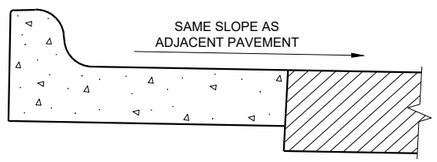
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

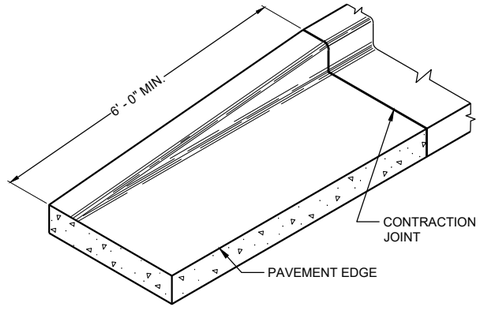
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

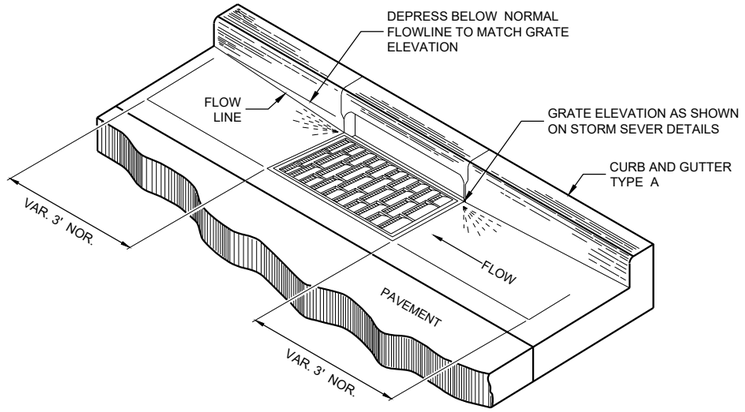
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 23a
SDD 08D01 - 23a



END SECTIONCURB 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.

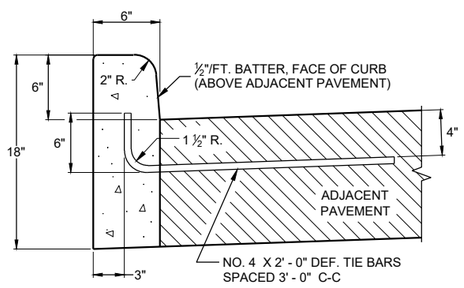
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

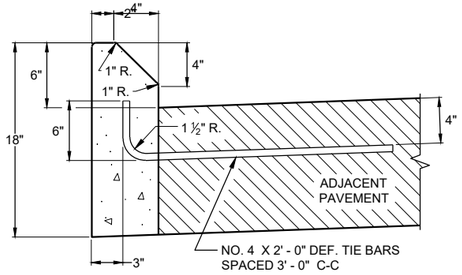
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

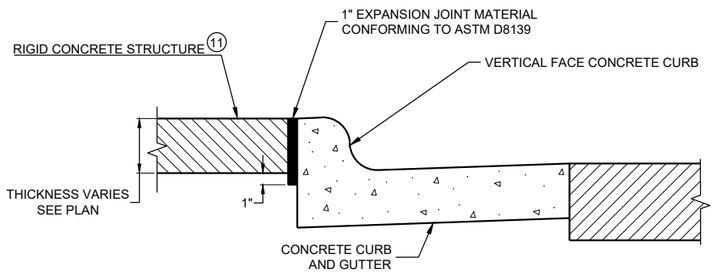


TYPES A (1) & D

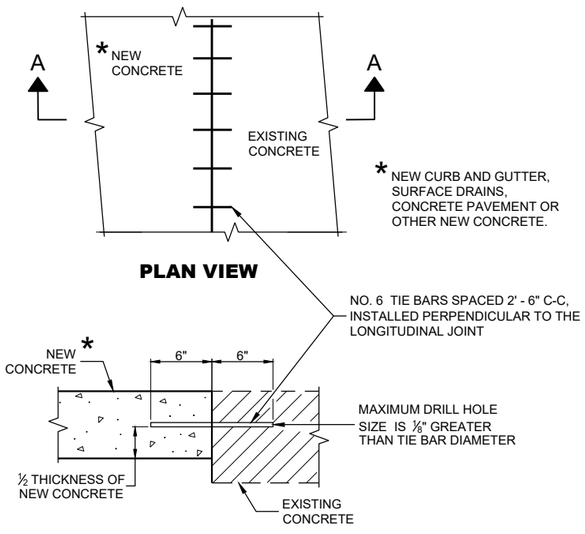


TYPES G (1) & J

CONCRETE CURB



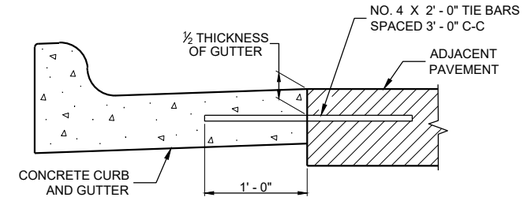
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



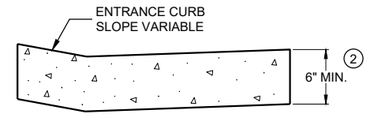
PLAN VIEW

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 DEVE ENGINEER

FHWA

6

SDD08D01 - 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)

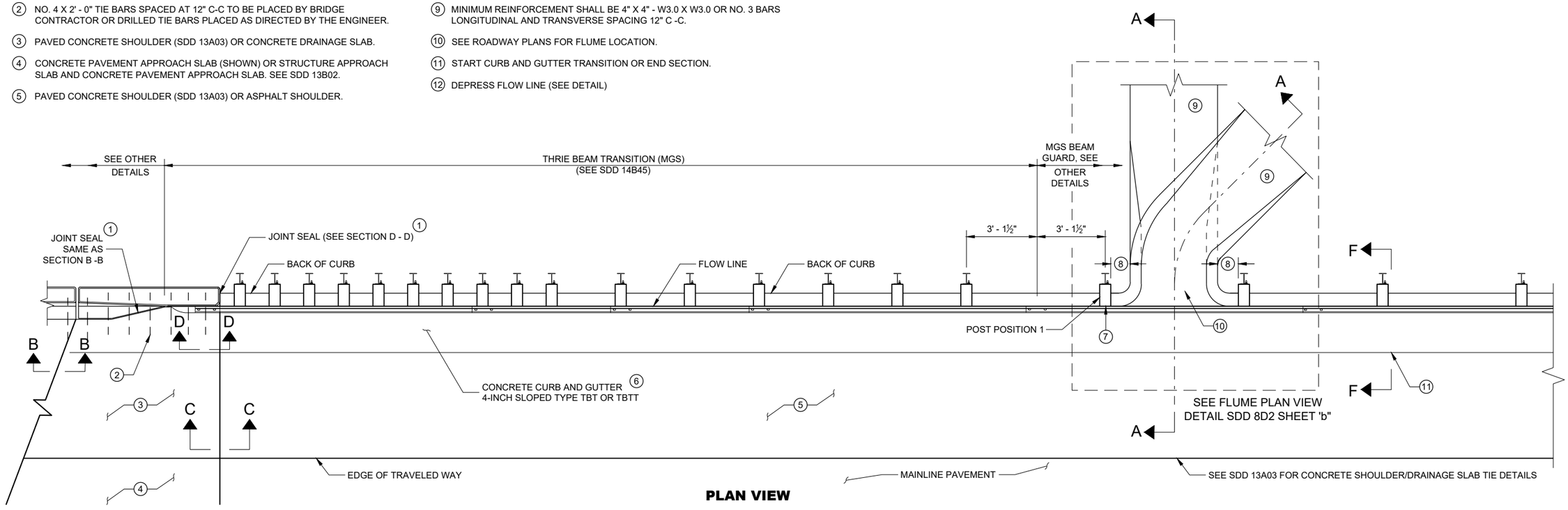
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

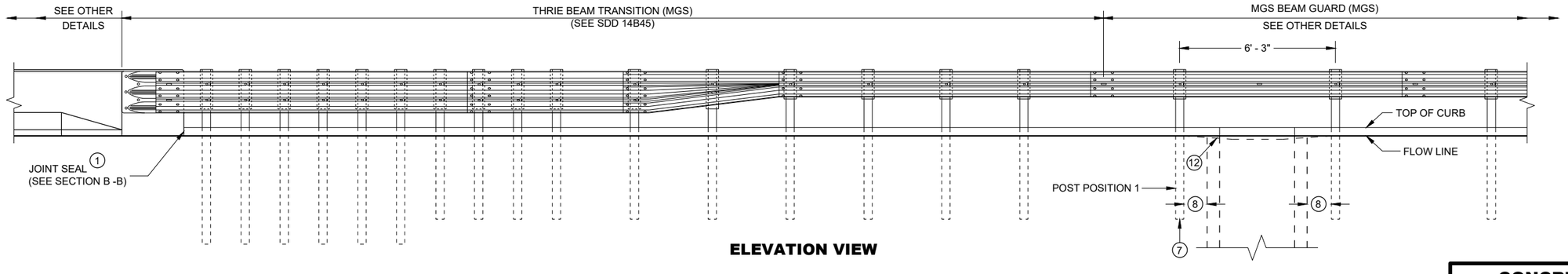
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

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

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



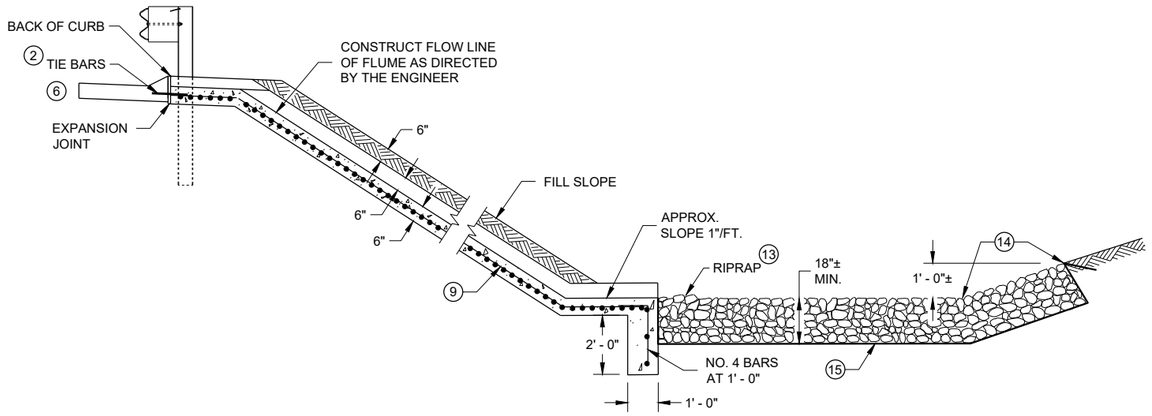
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

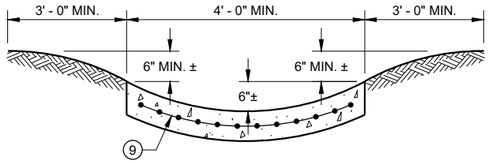
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

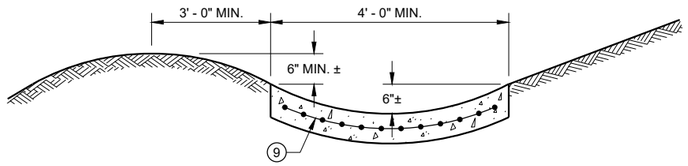
SDD 08D02 - 08a



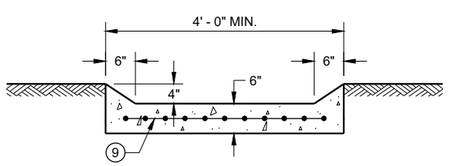
SECTION A - A



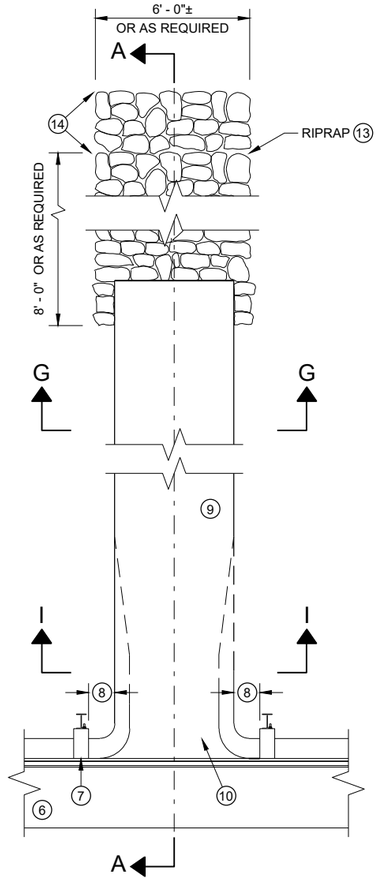
SECTION G - G



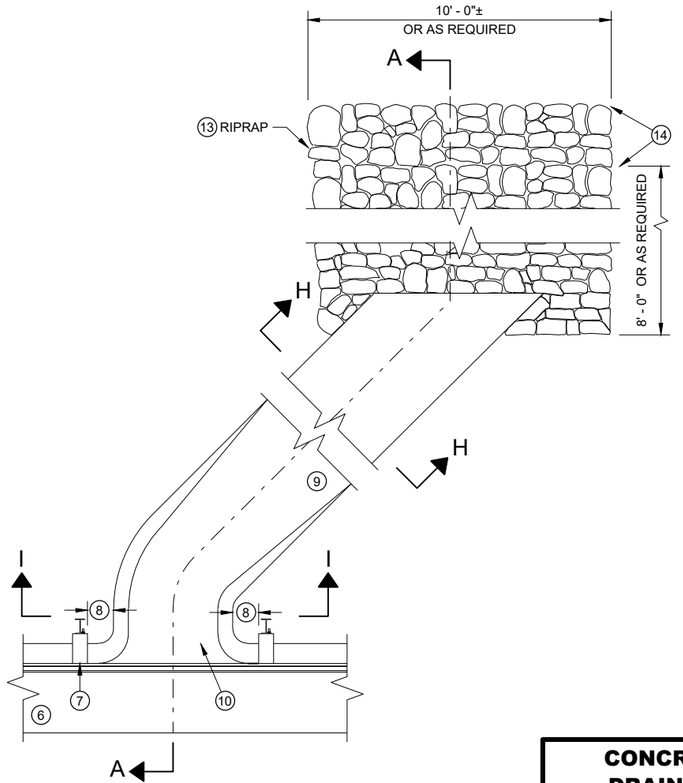
SECTION H - H



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

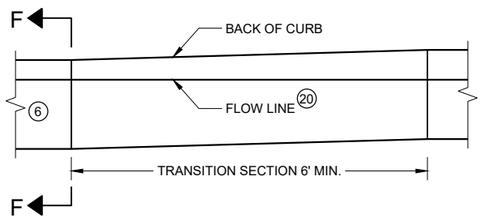
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

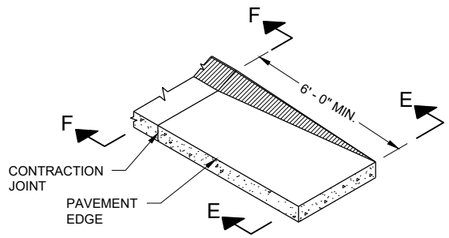
SDD 08D02 - 08b

6

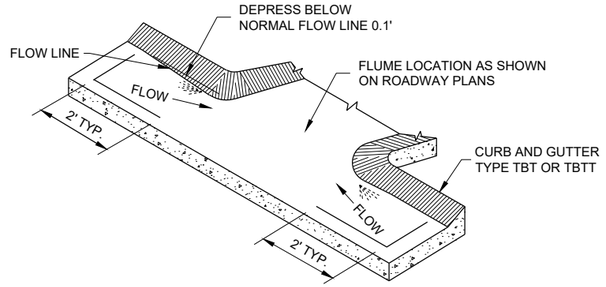
SDD 08D02 - 08b



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.

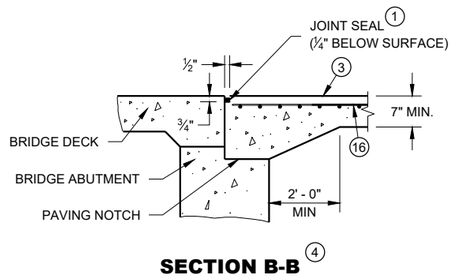
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

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

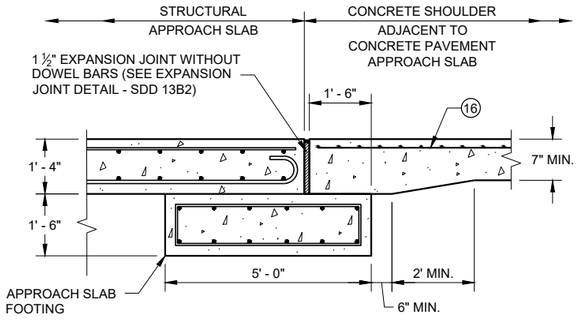
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

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

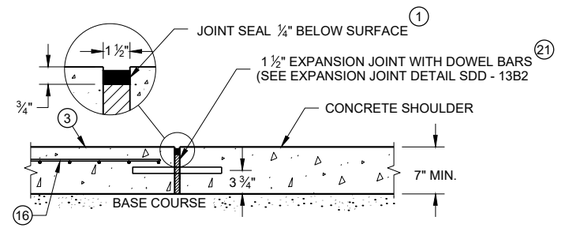
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



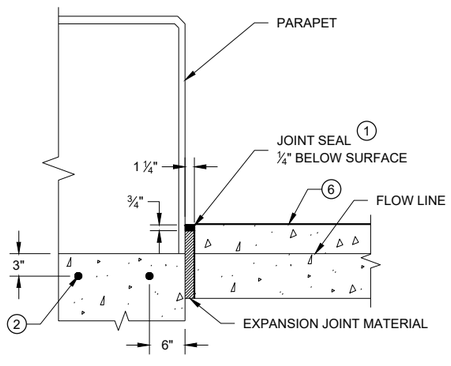
SECTION B-B (4)



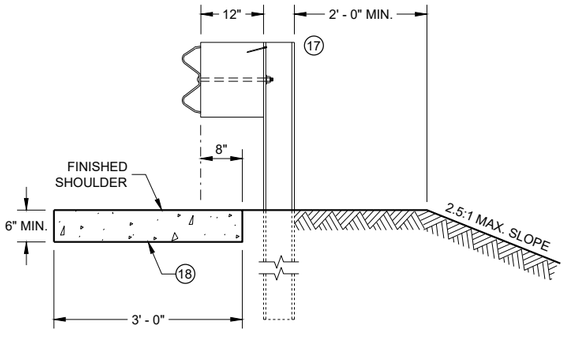
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



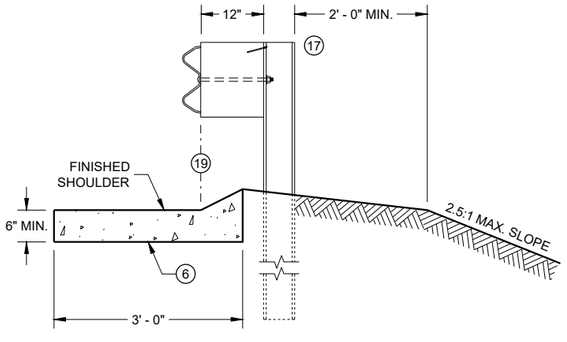
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

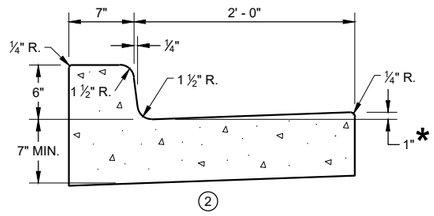
APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD 08D02 - 08c

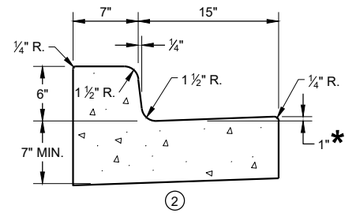
6

SDD 08D02 - 08c

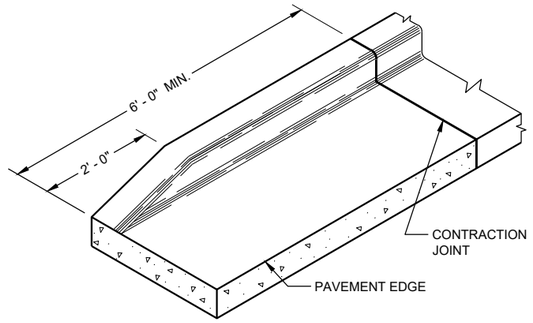


CONCRETE CURB AND GUTTER 31" ①

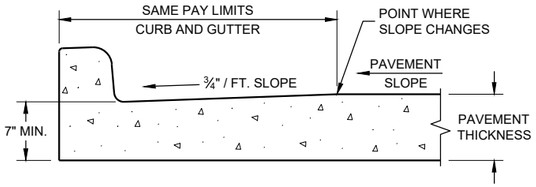
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



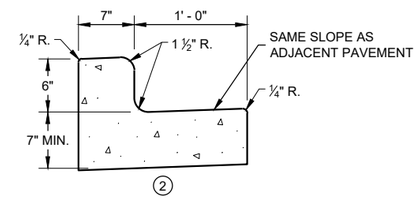
CONCRETE CURB AND GUTTER 22" ①



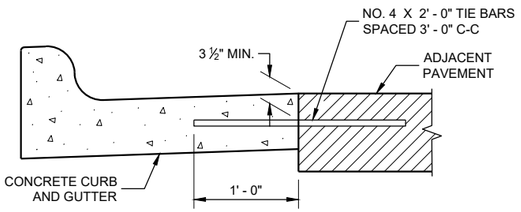
END SECTIONCURB AND GUTTER



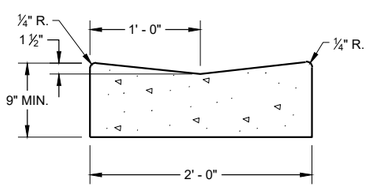
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



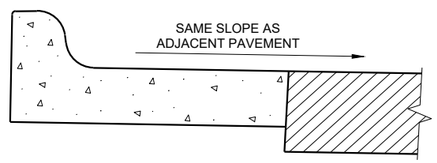
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(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.

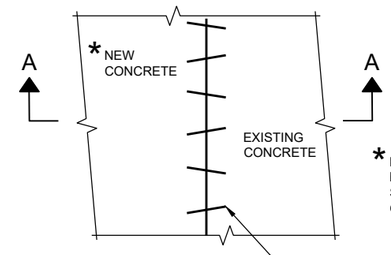
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

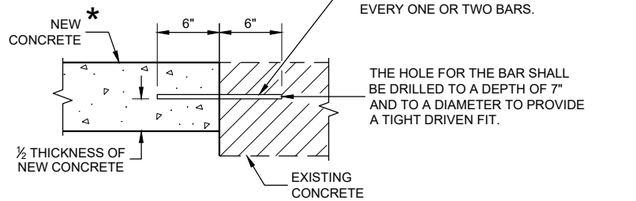
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

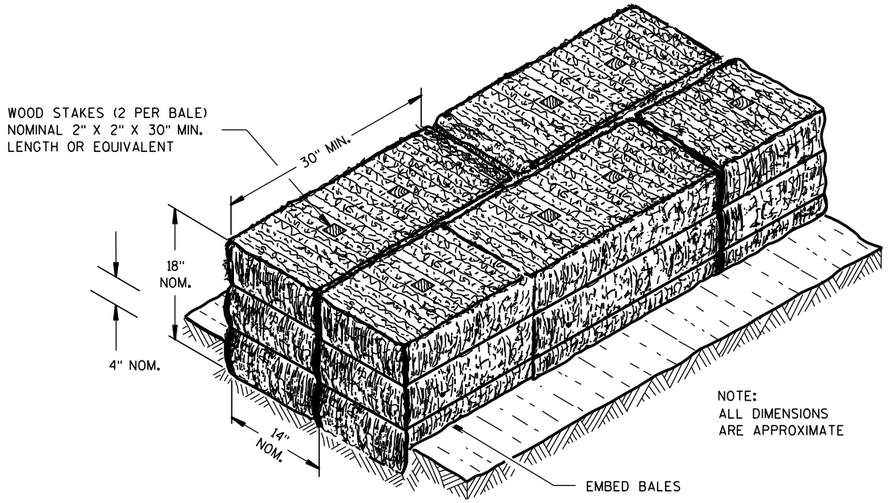
(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

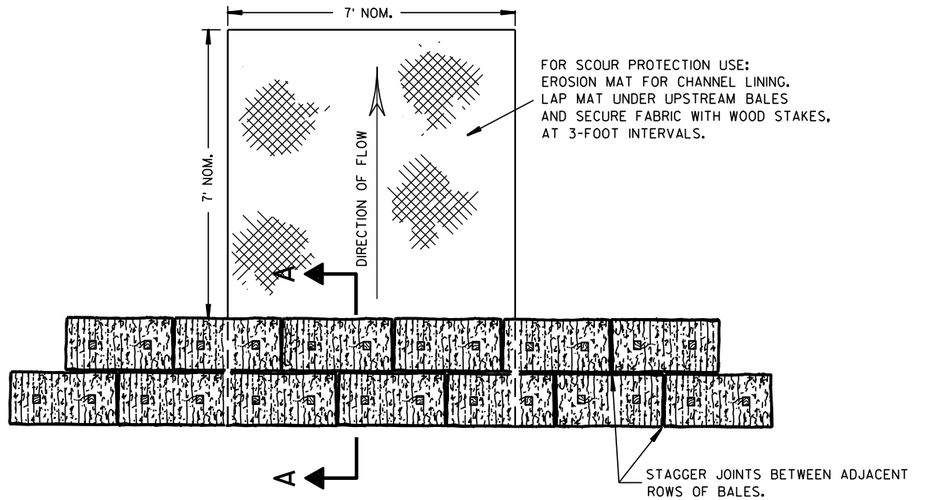
APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

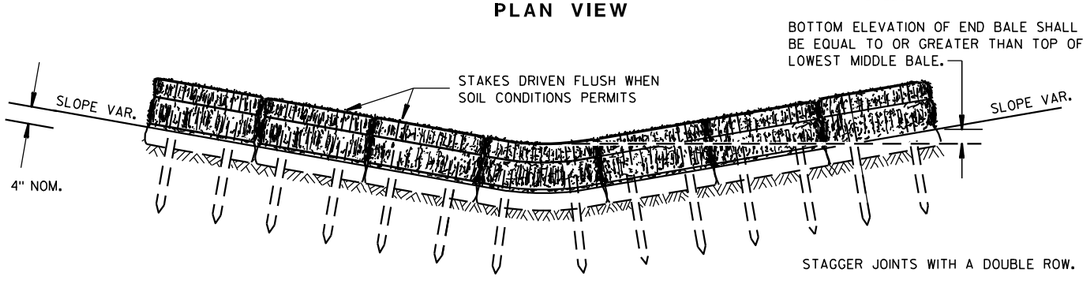
SDD 08D16 - 11
SDD 08D16 - 11



SECTION A-A



PLAN VIEW



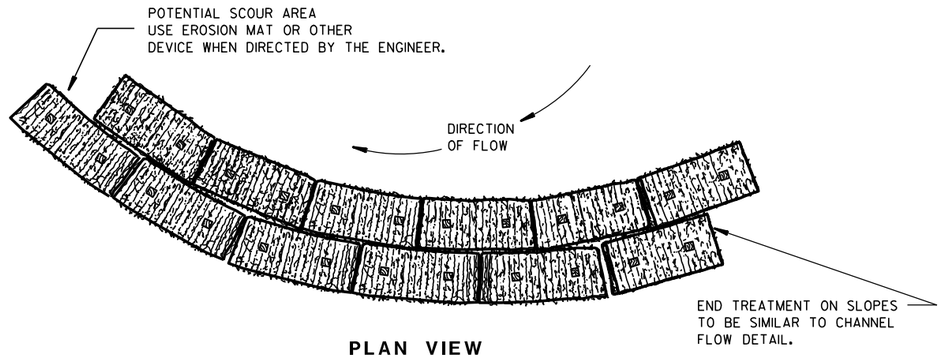
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

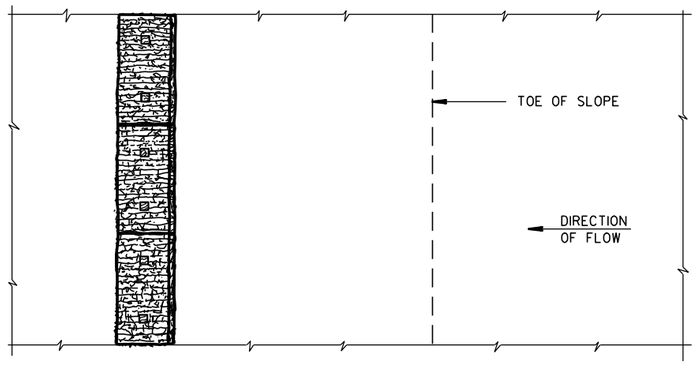
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

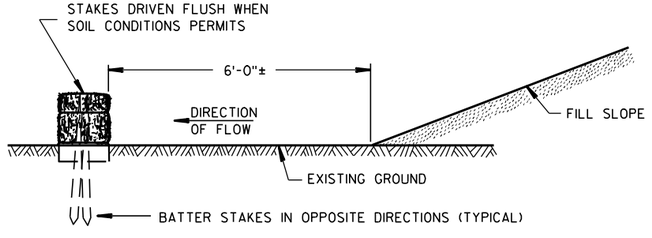


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

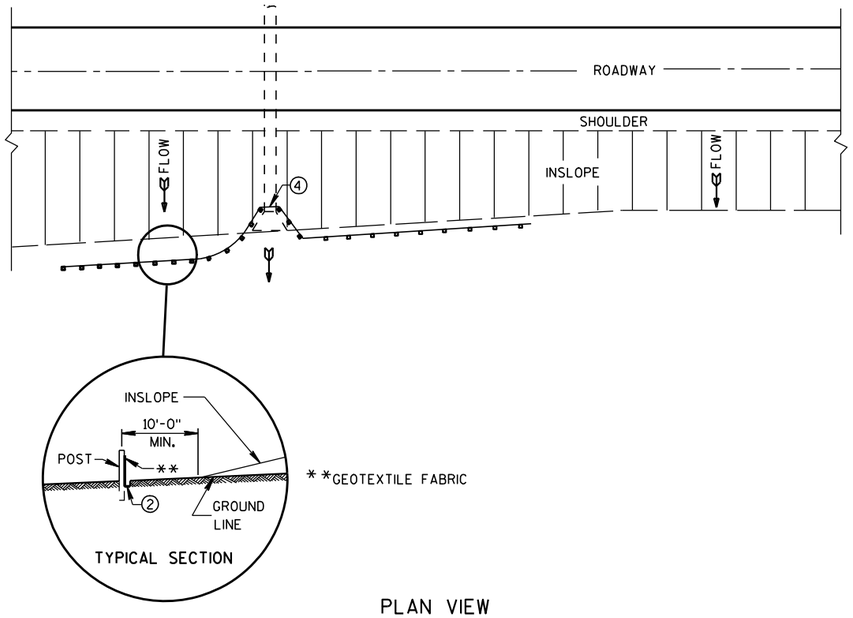
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

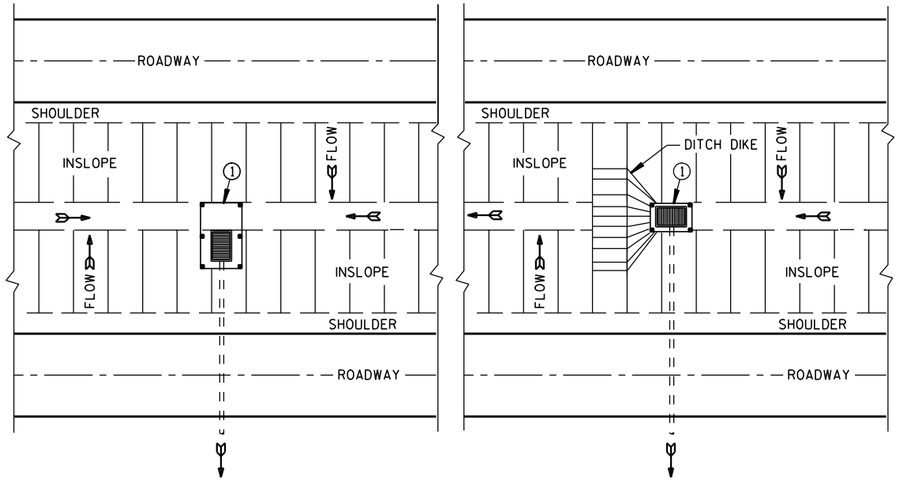
6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

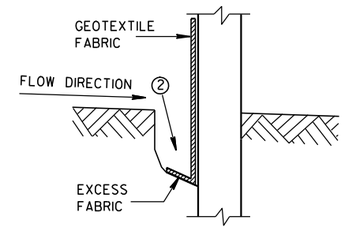
(1) HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

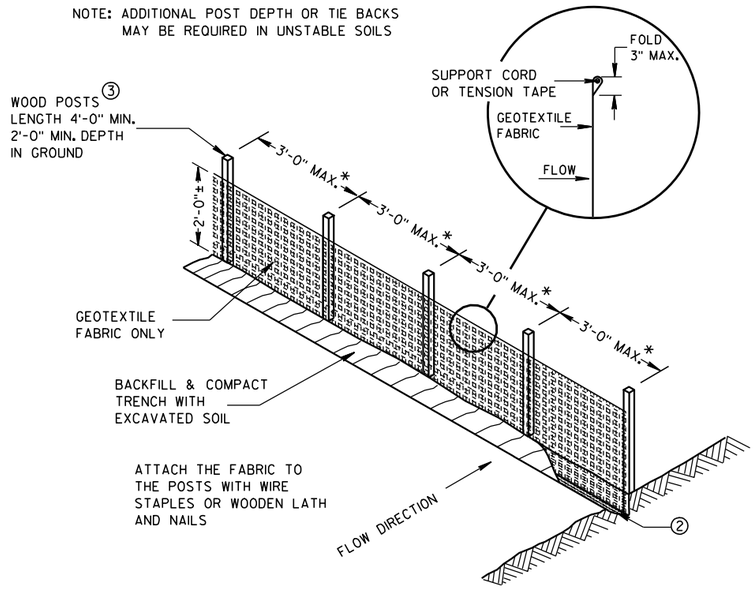
(3) WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

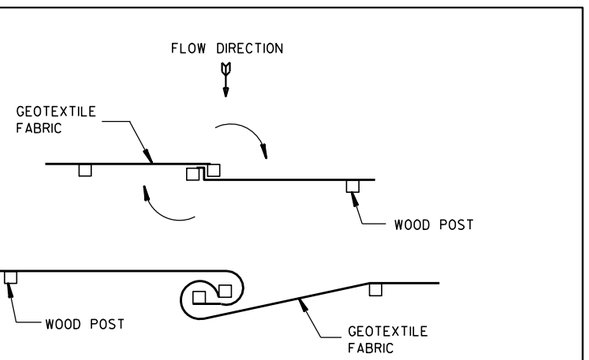
(5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



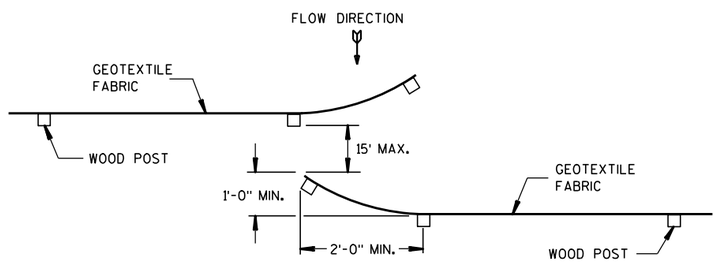
TRENCH DETAIL



SILT FENCE

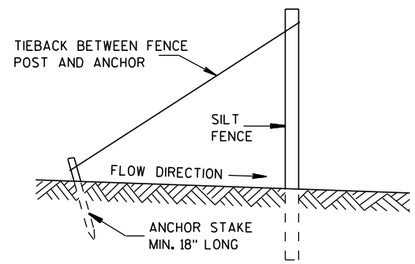


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE (5)



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

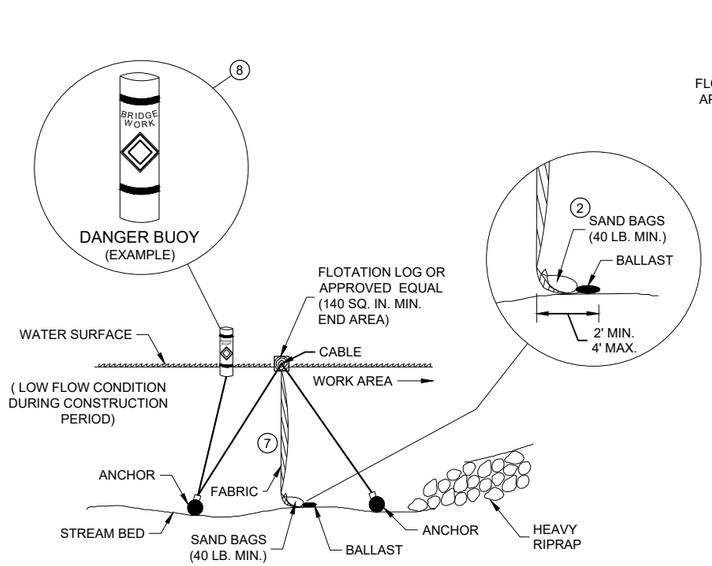
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

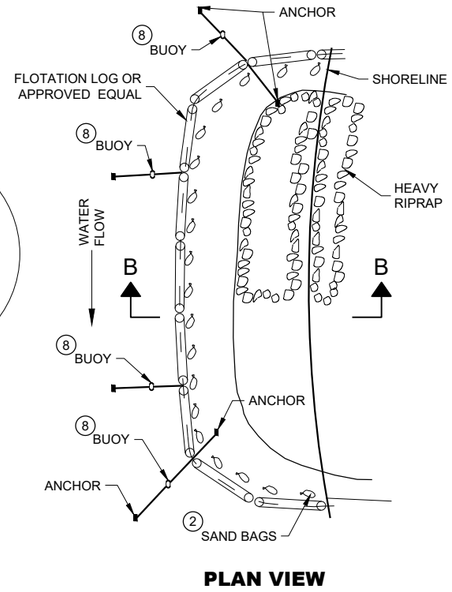
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

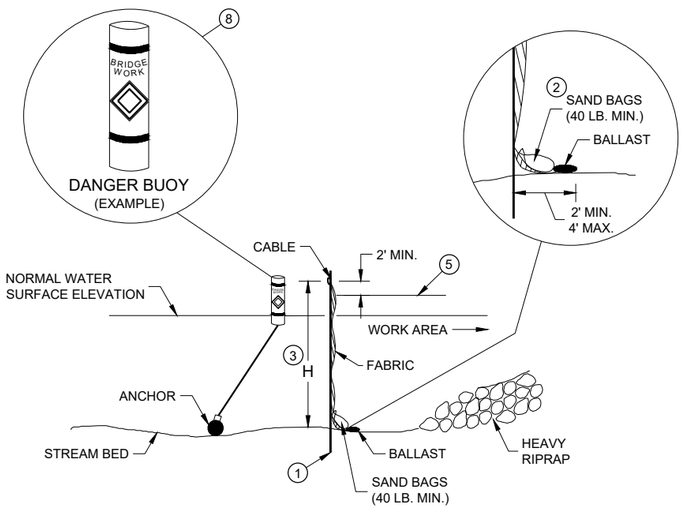


SECTION B - B

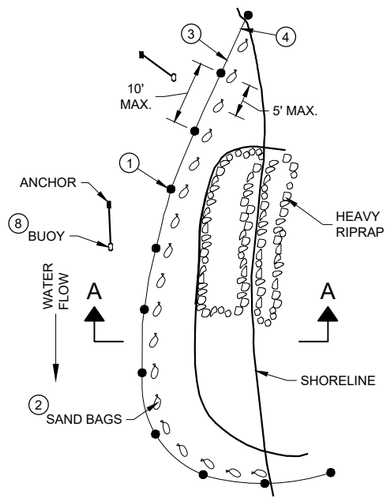


PLAN VIEW

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.

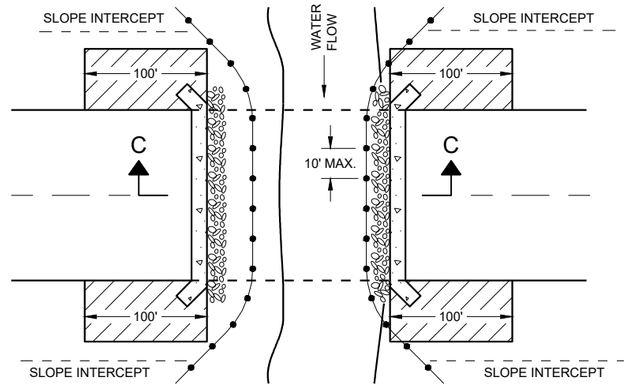
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(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.

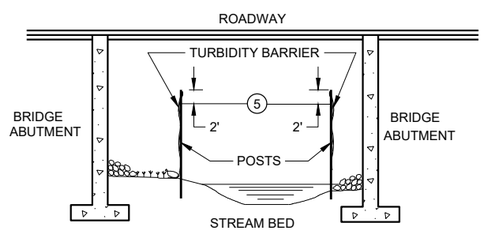
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(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

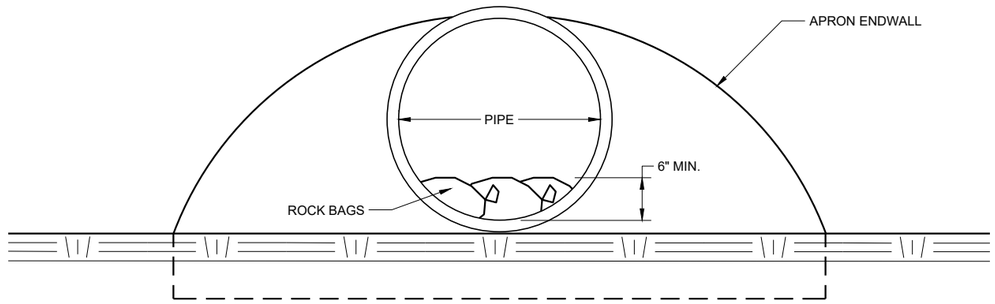
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

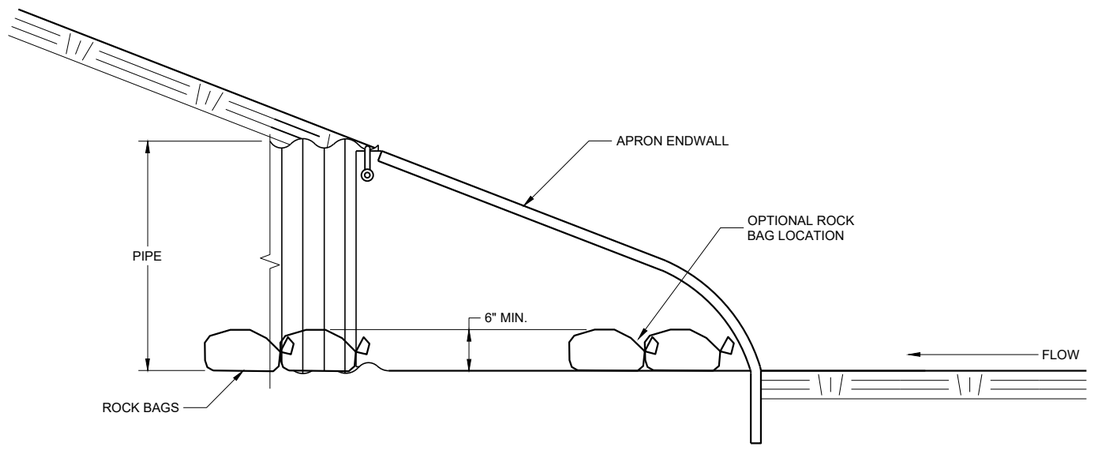
APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
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	

6
SDD 08E15 - 01

METAL APRON ENDWALLS

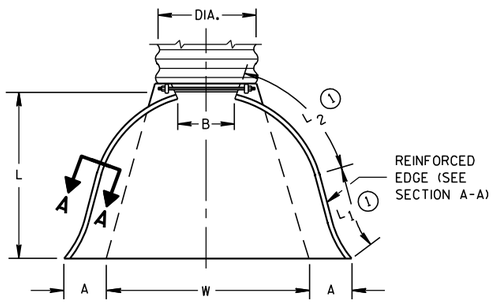
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

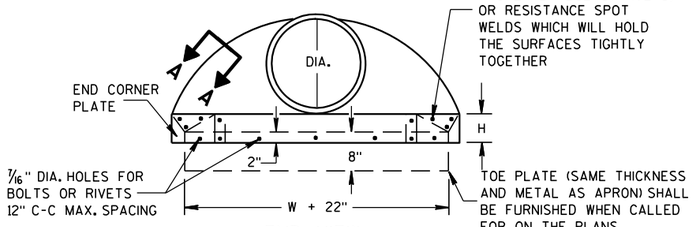
REINFORCED CONCRETE APRON ENDWALLS

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

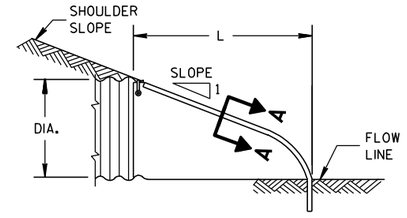
*MINIMUM
**MAXIMUM



PLAN VIEW

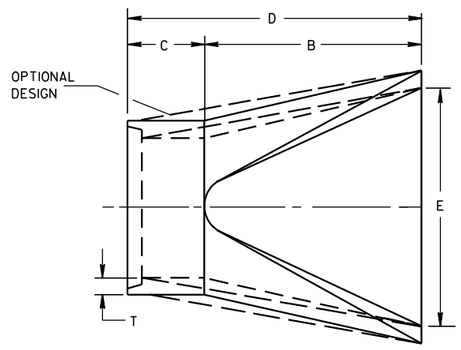


END VIEW

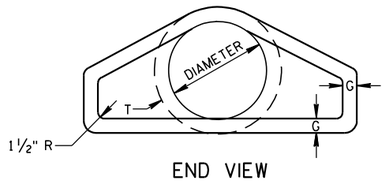


SIDE ELEVATION

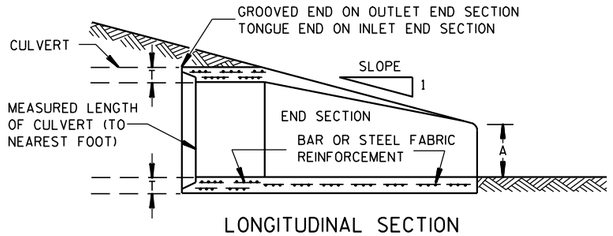
METAL ENDWALLS



PLAN

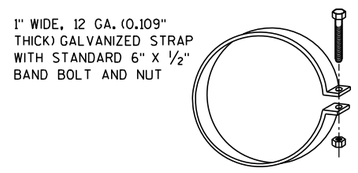


END VIEW



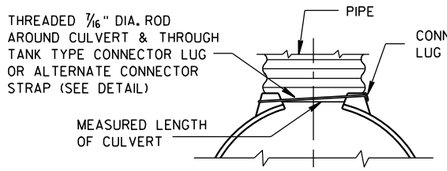
LONGITUDINAL SECTION

CONCRETE ENDWALLS

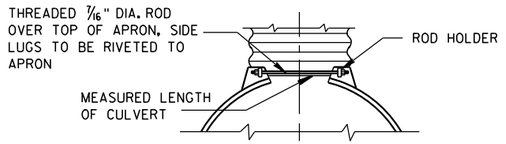


ALTERNATE FOR TYPE 1 CONNECTION

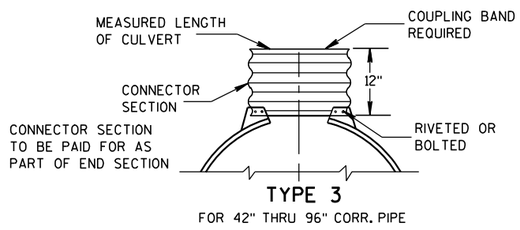
END SECTION CONNECTOR STRAP



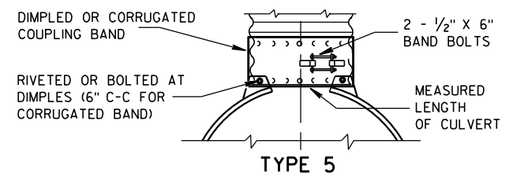
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

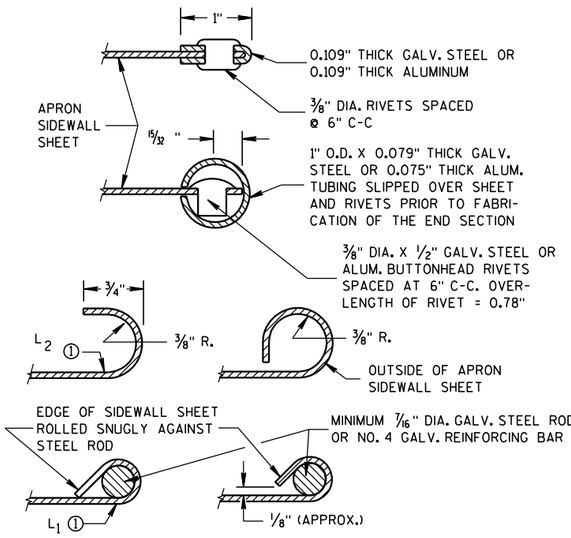
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

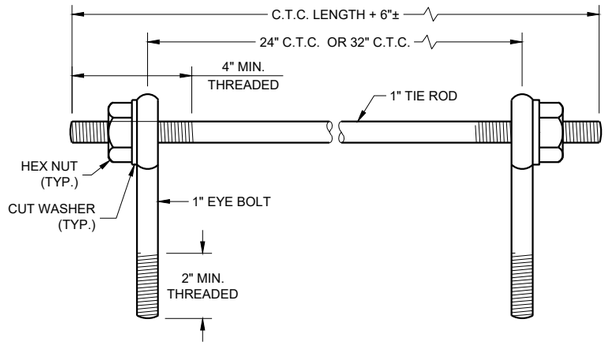
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

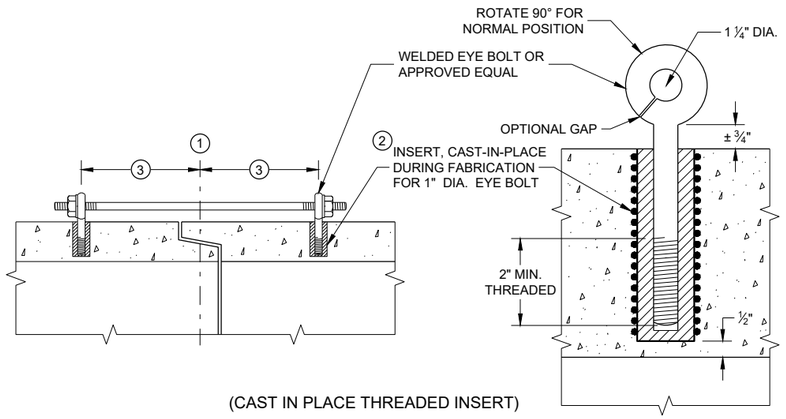
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

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

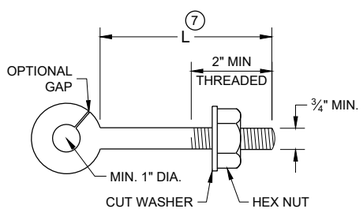
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

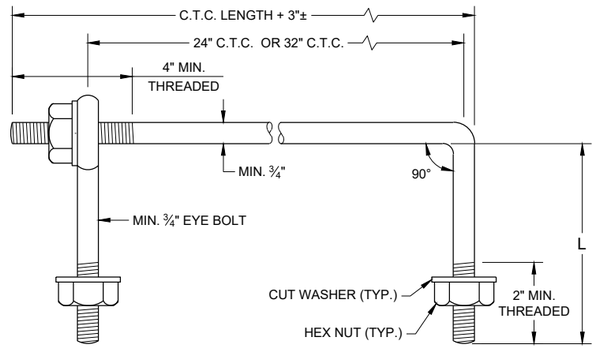
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

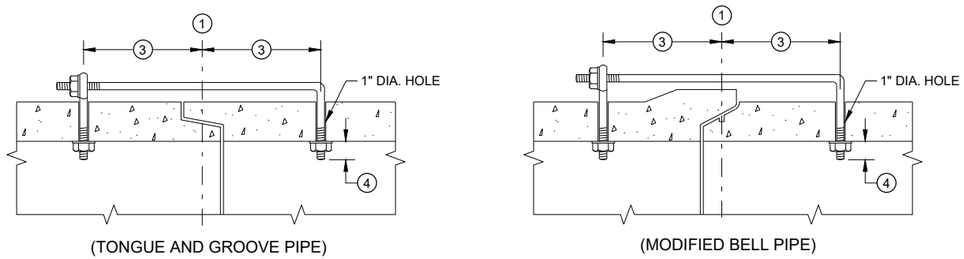


EYE BOLT (7)

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



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)

(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

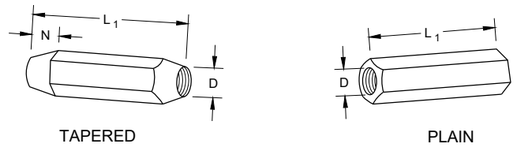
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

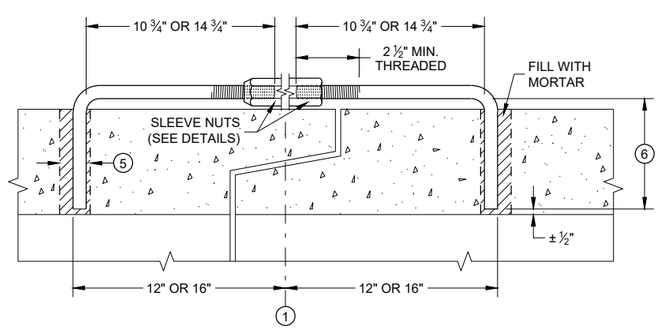
PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



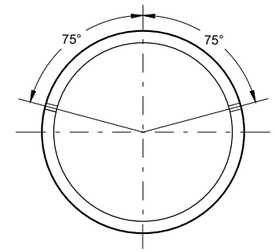
RIGHT AND LEFT THREADS

SLEEVE NUTS



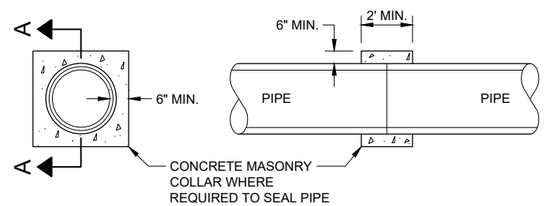
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

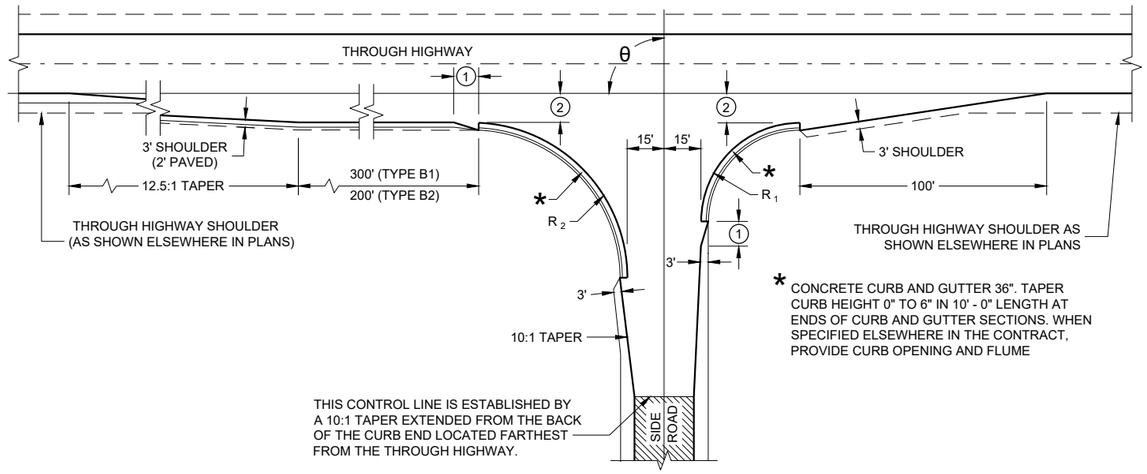
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 08F04 - 08

SDD 08F04 - 08



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

TYPE "B1" AND "B2"

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

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

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

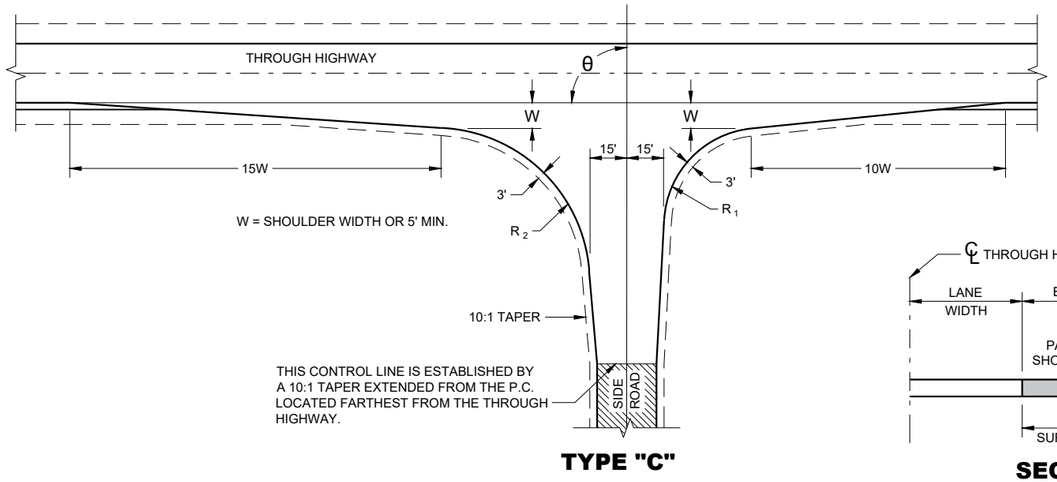
(1) 10-FT TYPICAL.

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

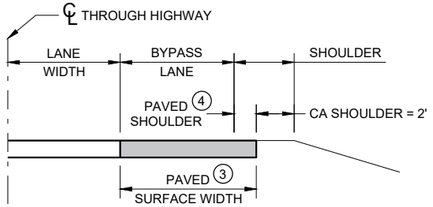
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

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

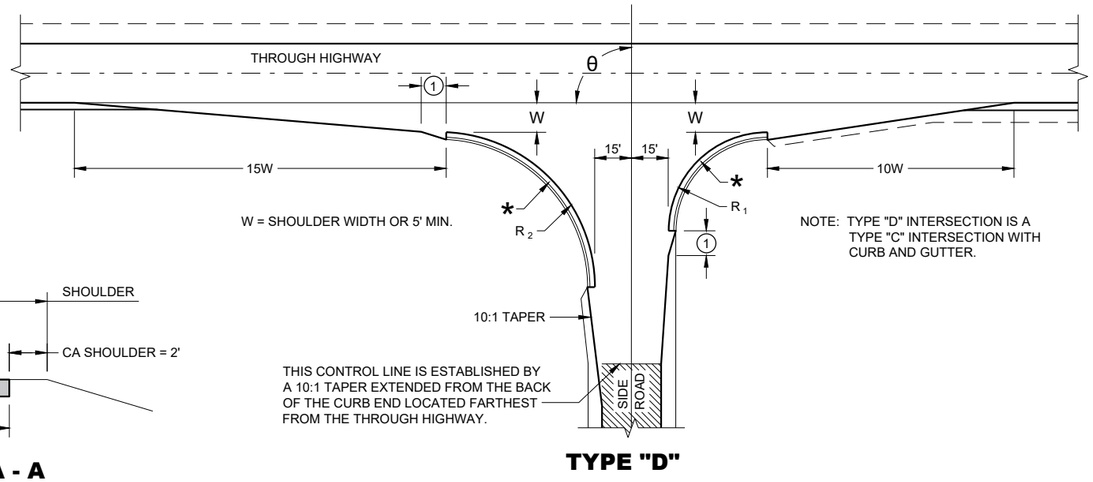
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

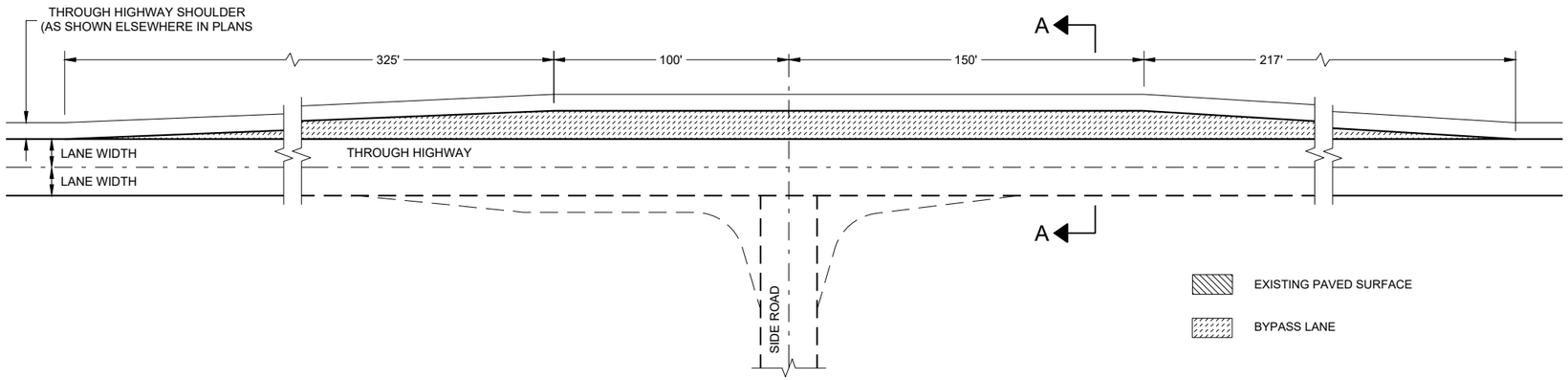


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



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

TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

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

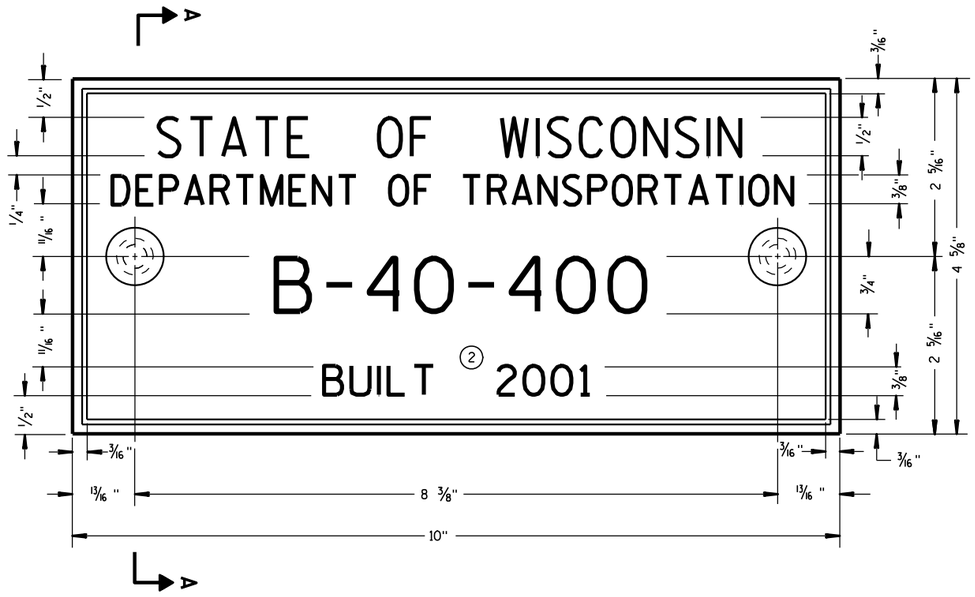
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 09A01 - 14a

6

SDD 09A01 - 14a



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

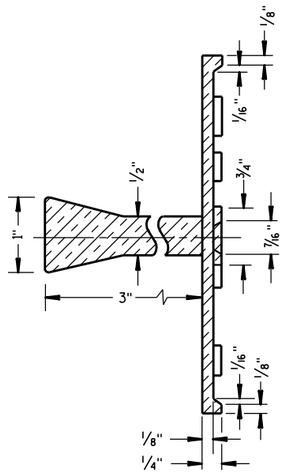
GENERAL NOTES

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.

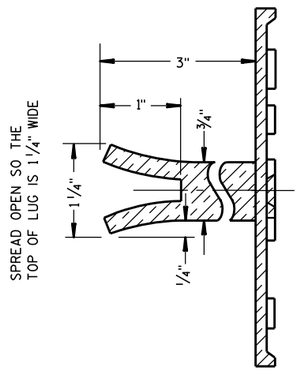
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(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.

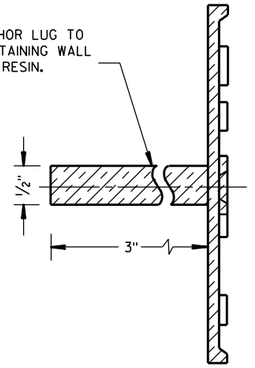


SECTION A-A



ALTERNATE LUG

(1) ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

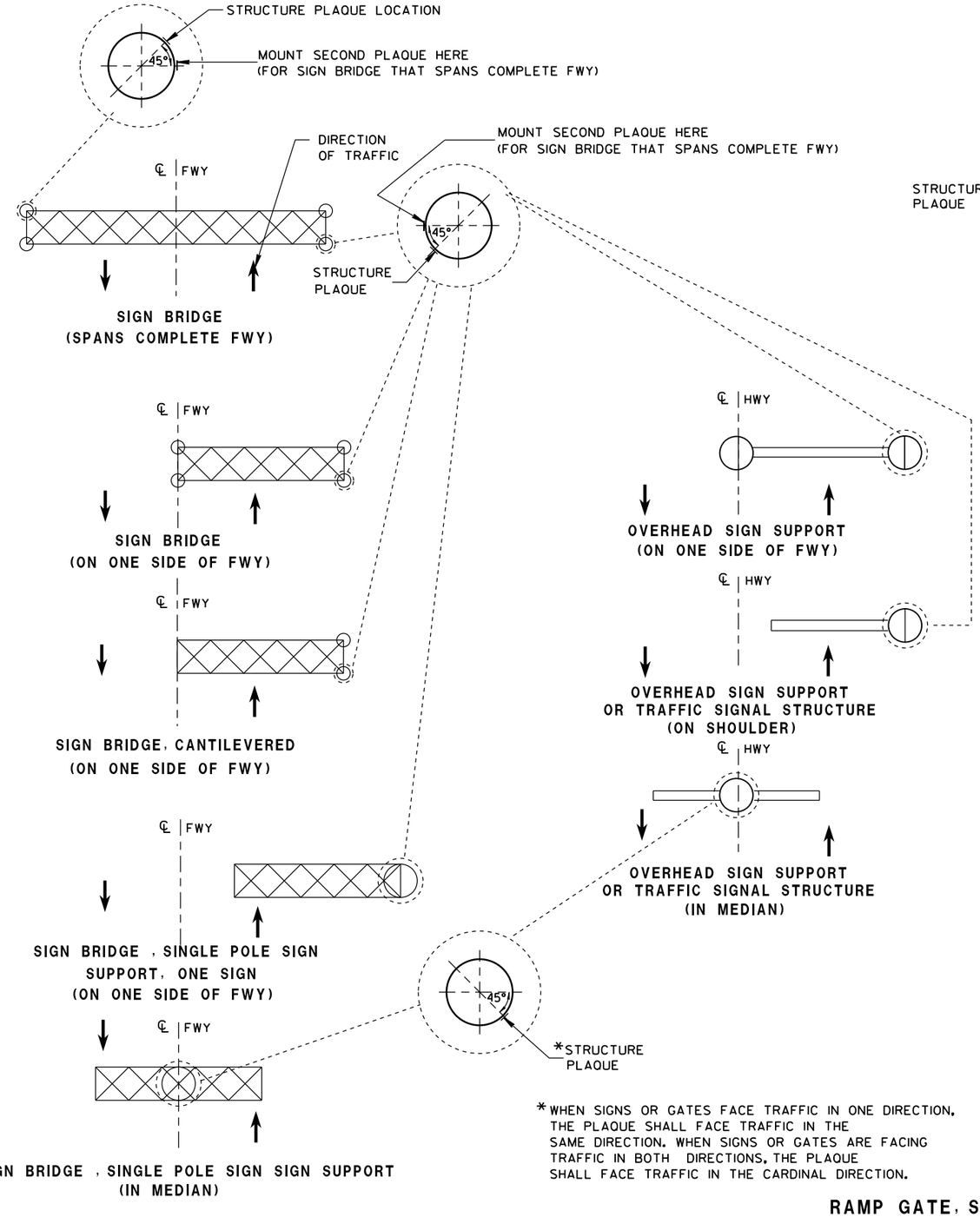
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

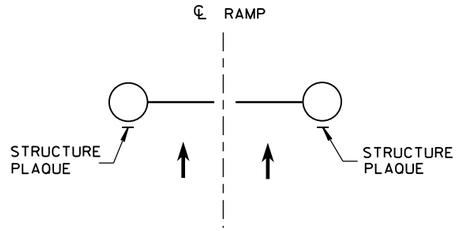
6

S.D.D. 12 A 3-10

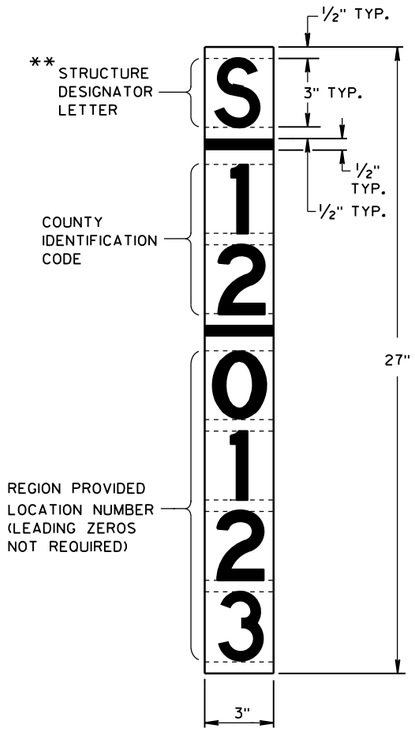


LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES

*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

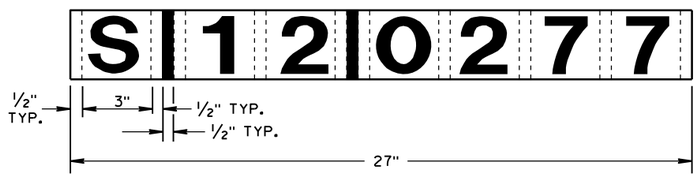
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

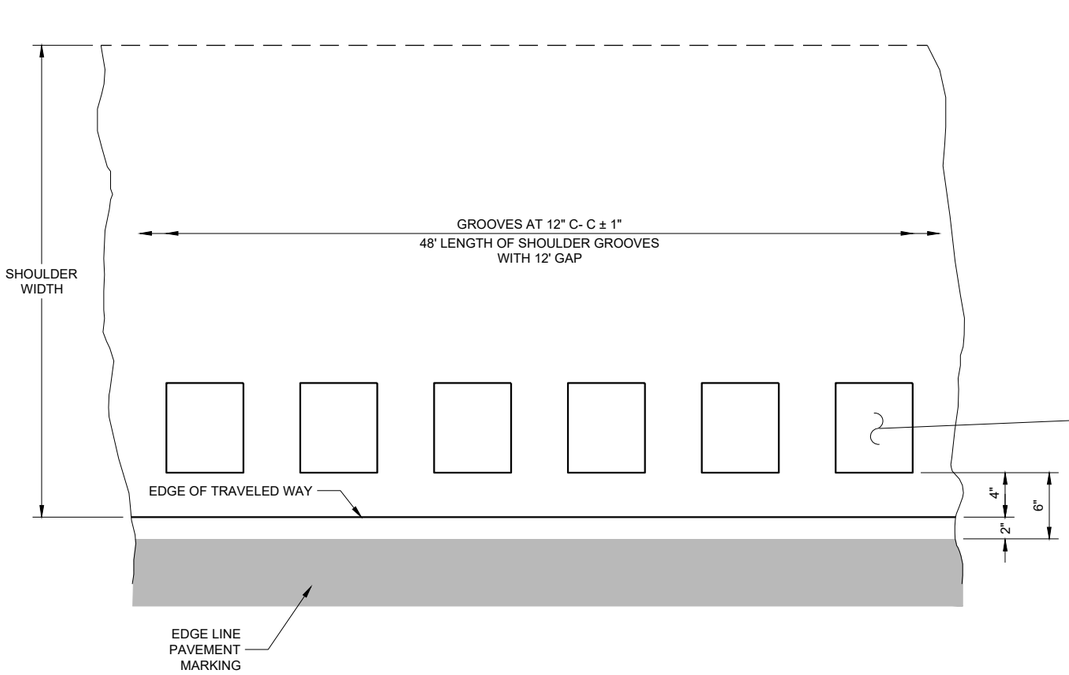
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

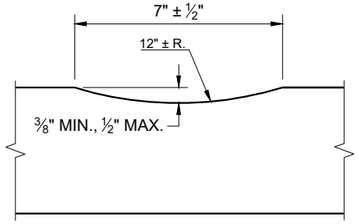
S.D.D. 12 A 4-3

6

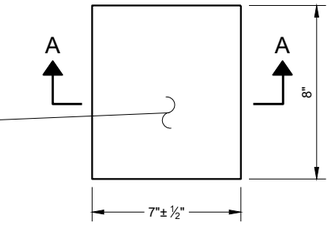
S.D.D. 12 A 4-3



PLAN DETAIL VIEW
SHOULDER WITH GROOVES



SECTION A - A

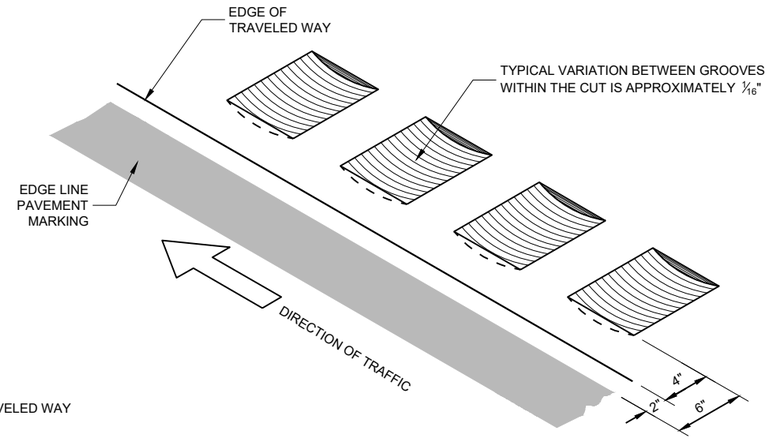


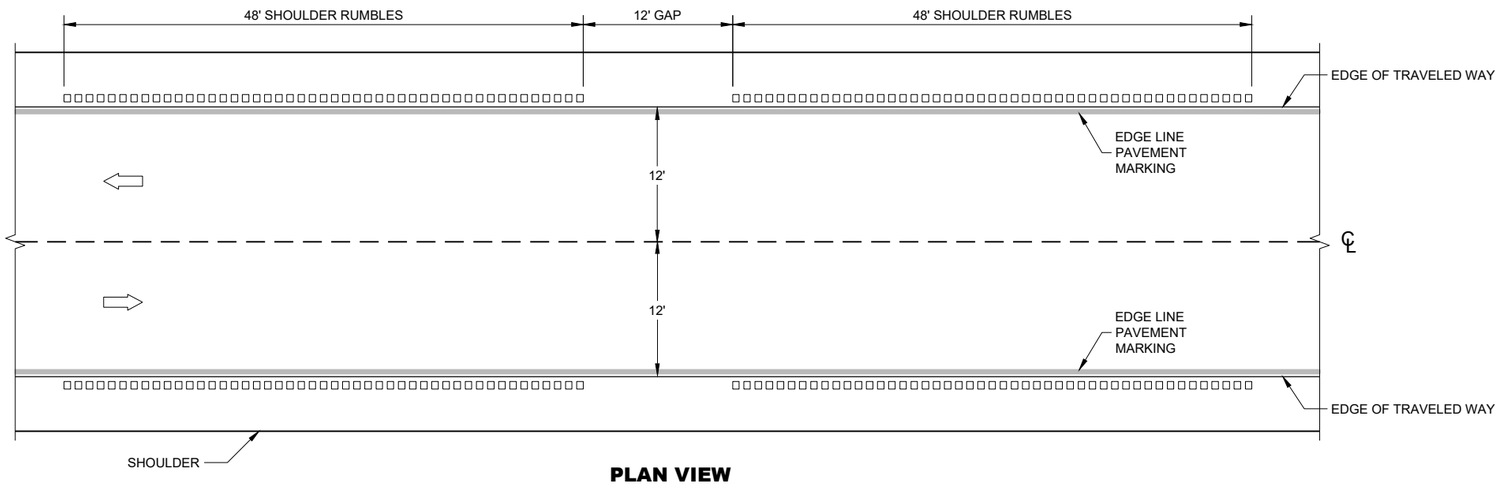
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.





PLAN VIEW

SHOULDER RUMBLE STRIPS - ASPHALT

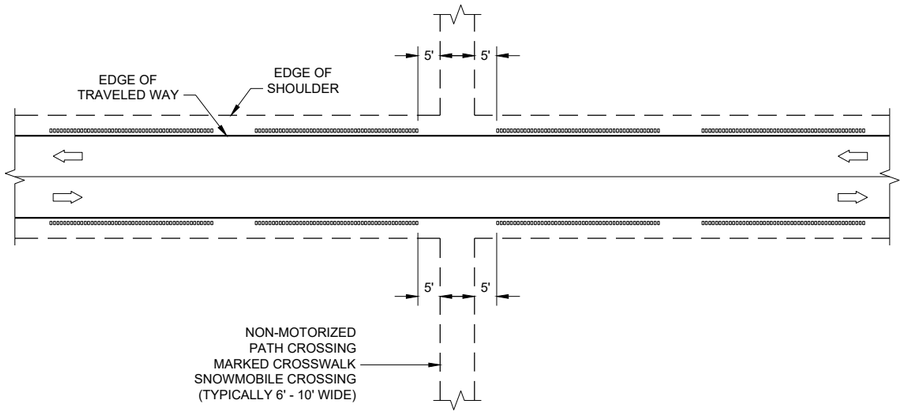
6

SDD 13A10 - 03a

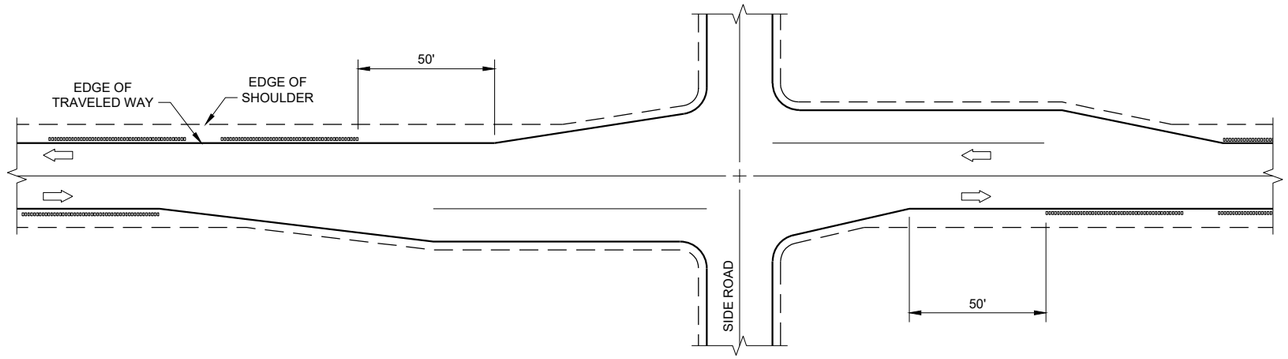
6

SDD 13A10 - 03a

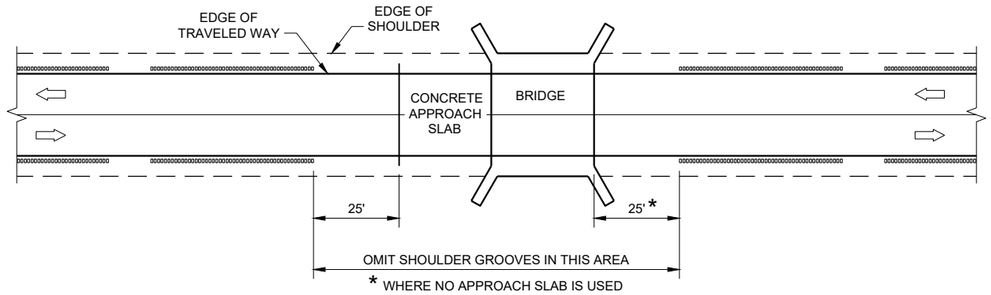
SHOULDER RUMBLE STRIPS ASPHALT



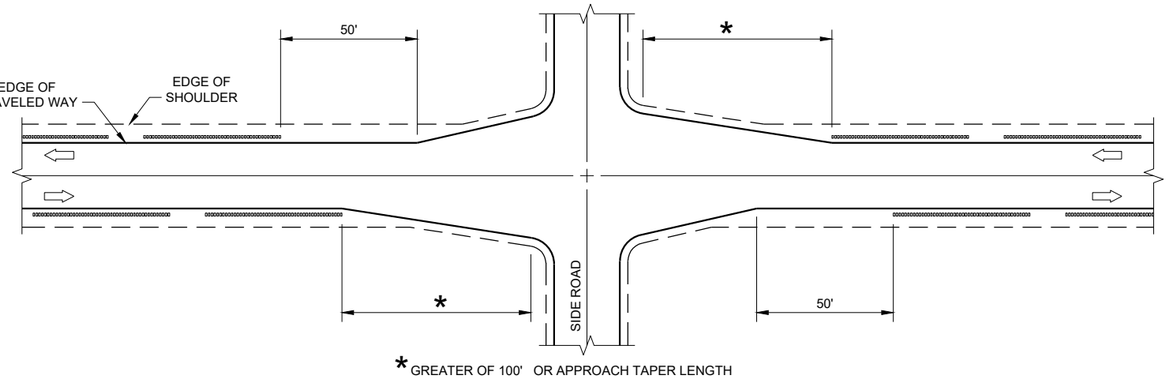
GROOVES AT MISCELLANEOUS CROSSINGS



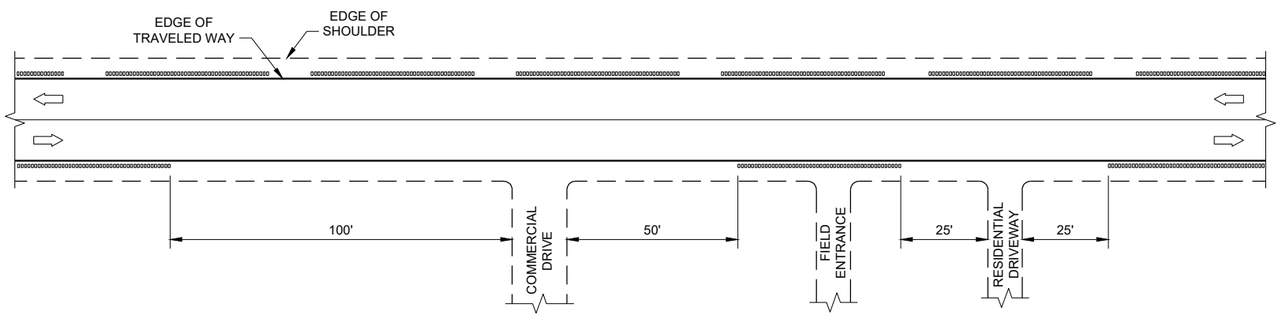
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



GROOVES AT DRIVEWAYS ①

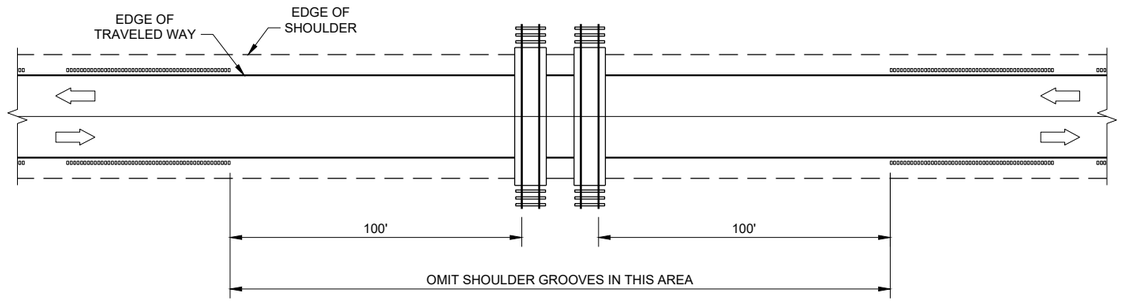
GENERAL NOTES

① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

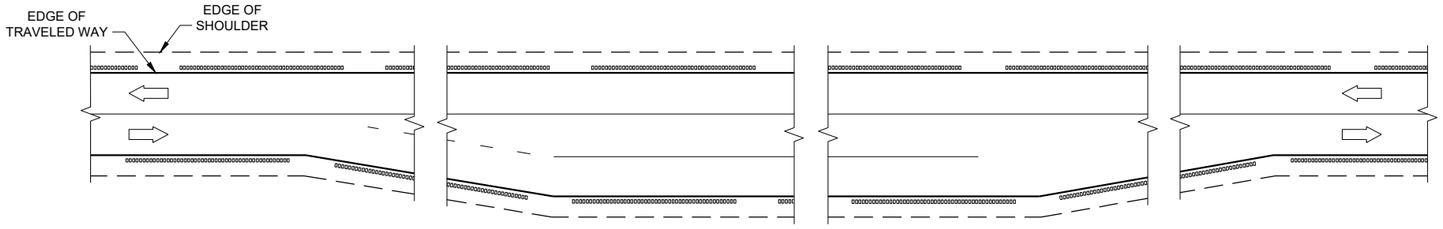
SHOULDER AND EDGE LINE RUMBLE STRIPS CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

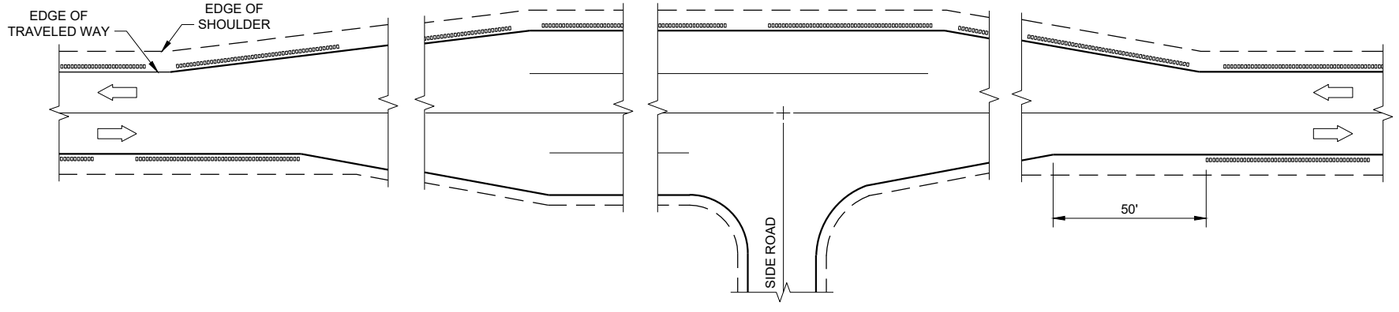
6
SDD 13A10 - 03g



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



GROOVES AT BYPASS LANES

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ John Jenkins
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 13A10 - 03h

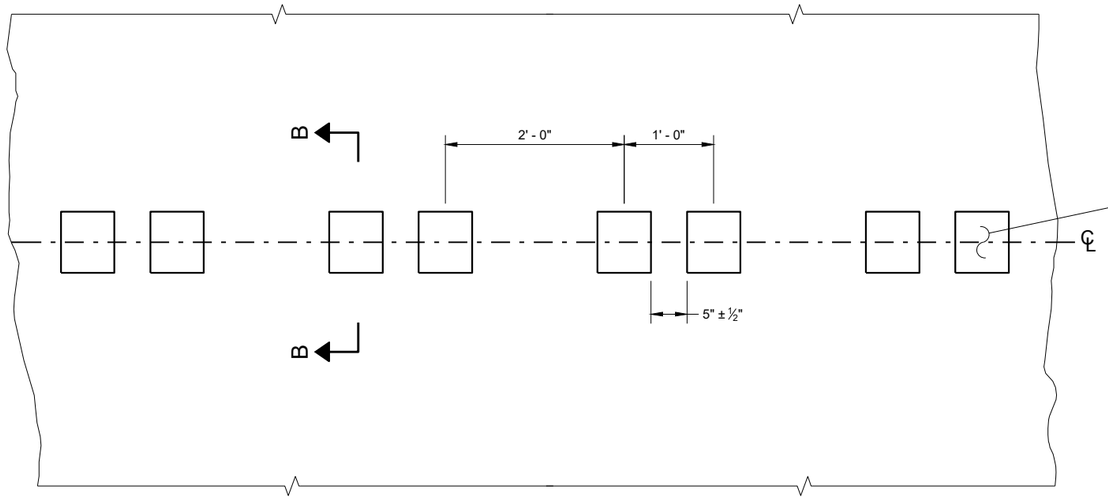
6

SDD13A10 - 03h

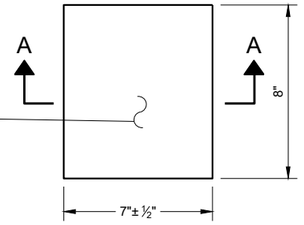
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

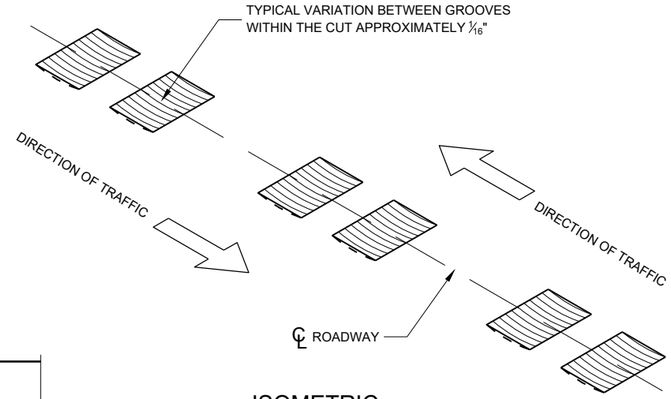
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



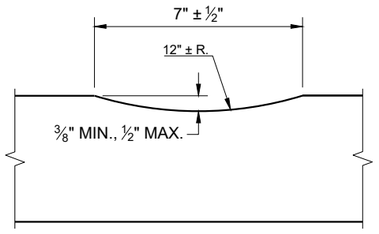
PLAN DETAIL VIEW



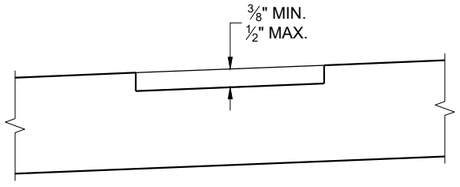
PLAN VIEW
(SINGLE GROOVE)



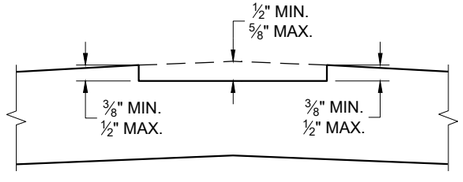
ISOMETRIC



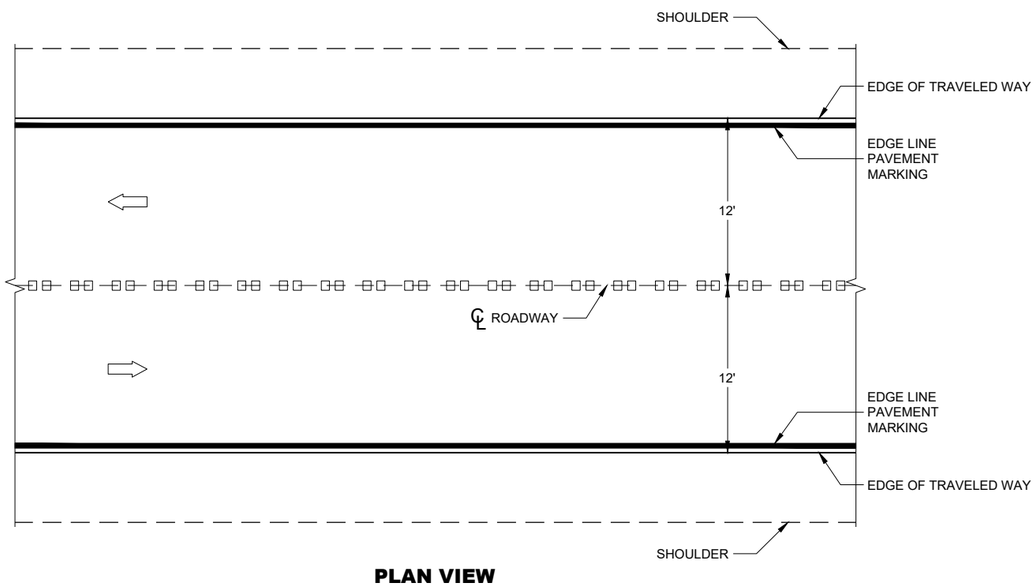
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

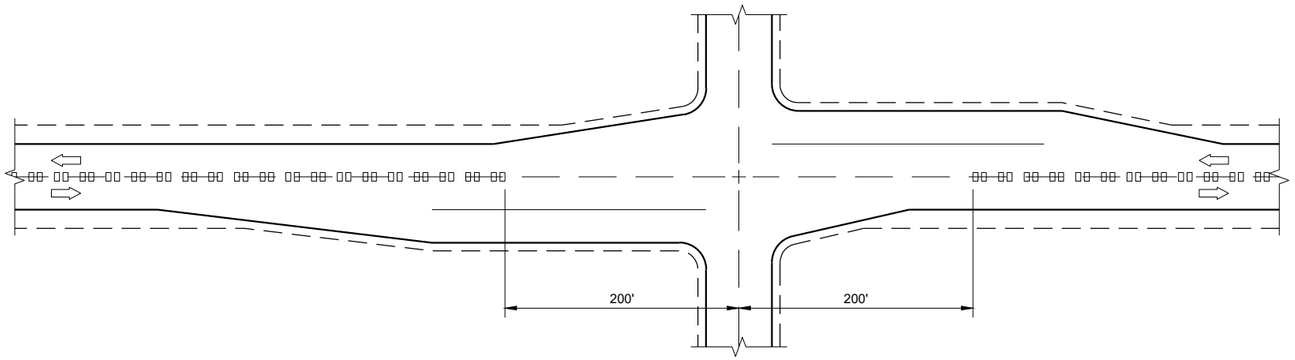
CENTERLINE RUMBLE STRIPS - ASPHALT

CENTERLINE RUMBLE STRIPS - ASPHALT

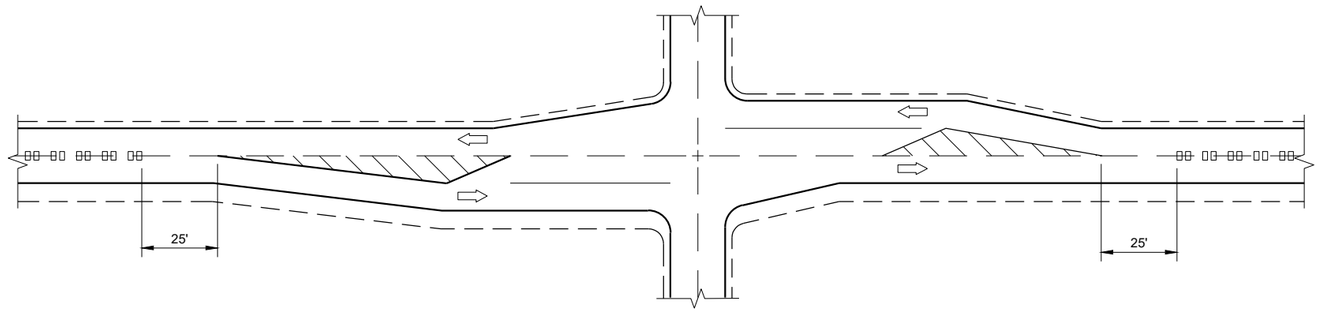
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

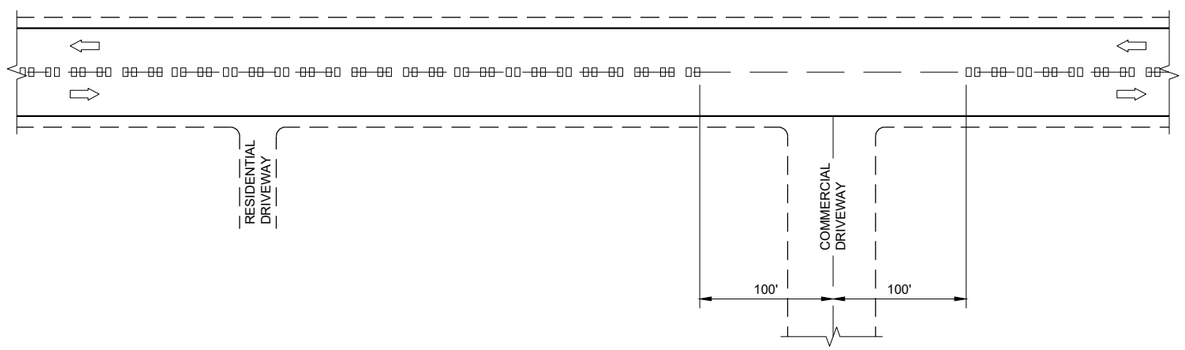
SDD 13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS



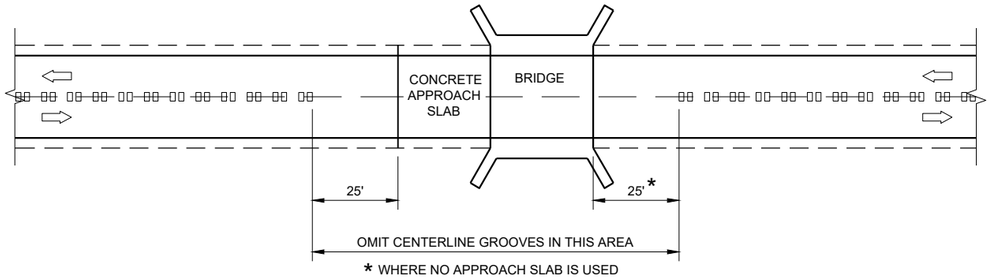
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



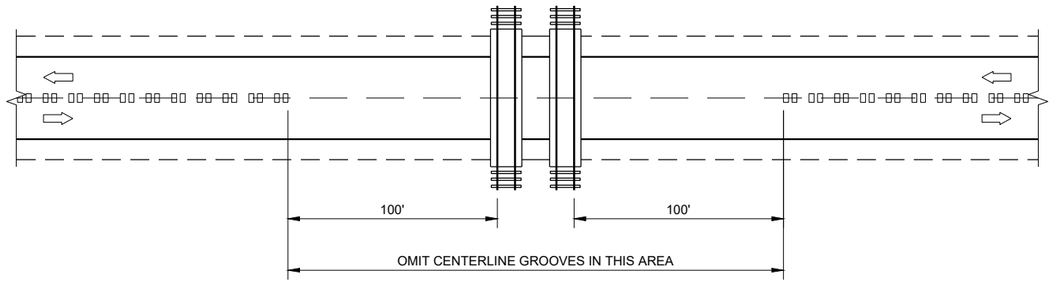
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

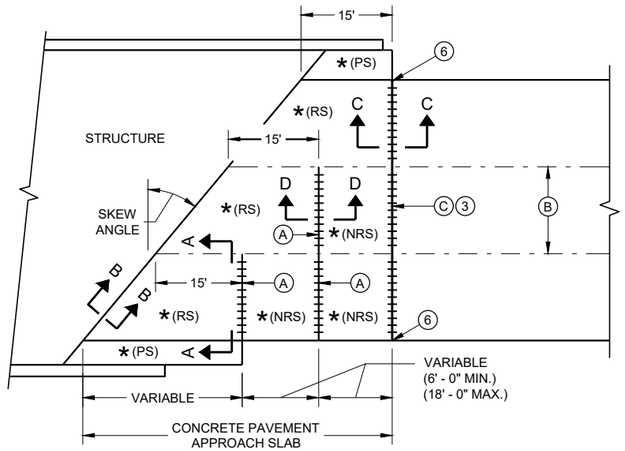
APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 13A11 - 04d

SDD 13A11 - 04d



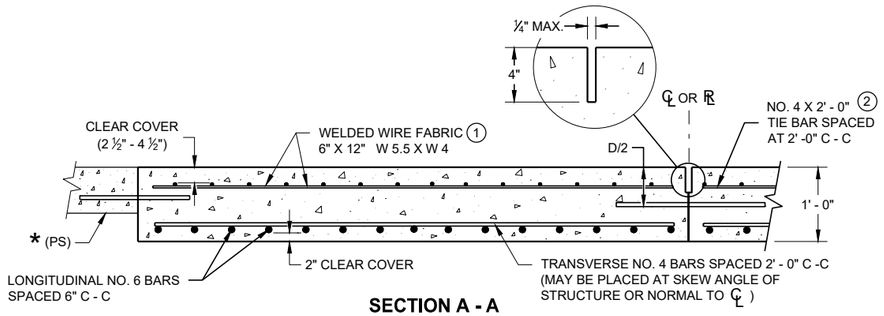
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

(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

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.

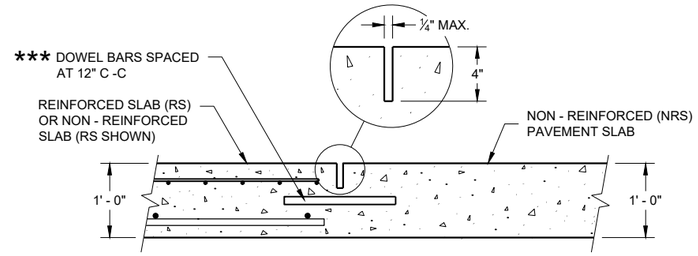
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

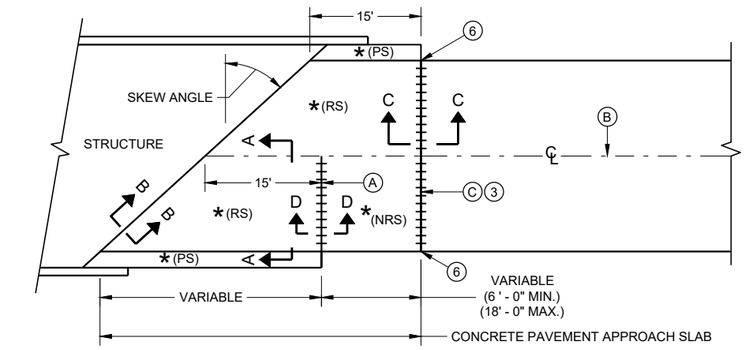
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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

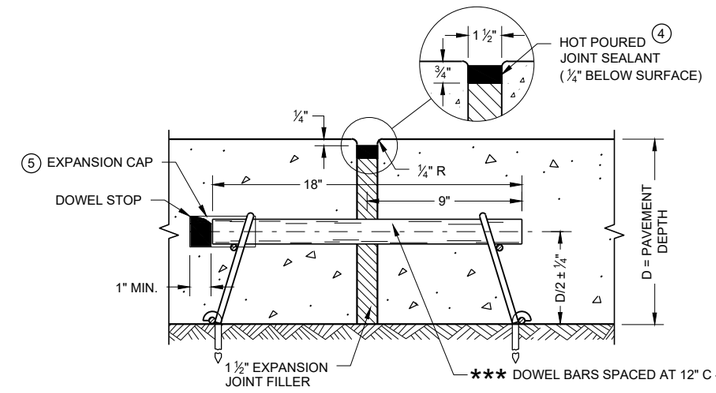


SECTION D - D
CONTRACTION JOINT



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

APPROACH SLAB AND ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

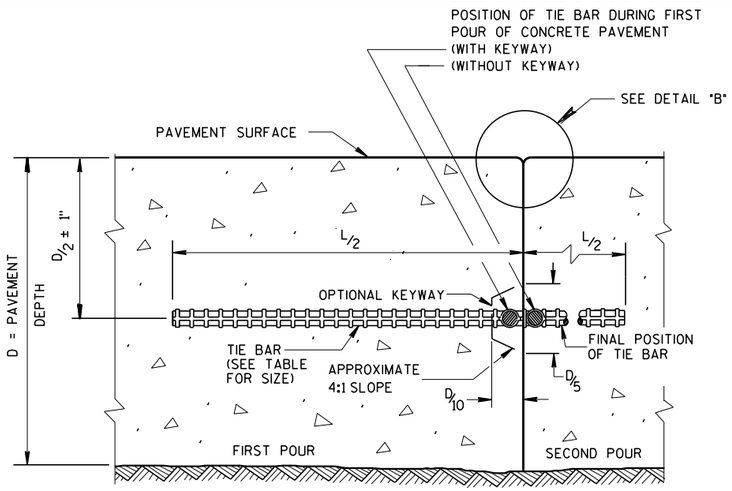
APPROVED
November 2018
DATE

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

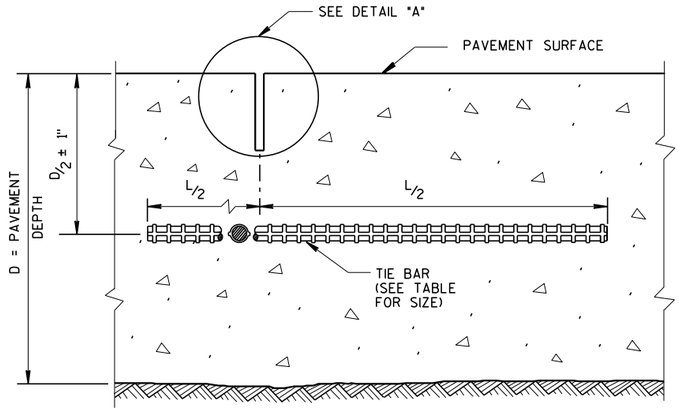
FHWA

6

SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

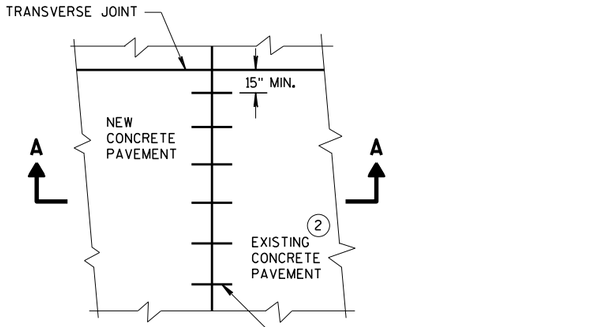
GENERAL NOTES

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

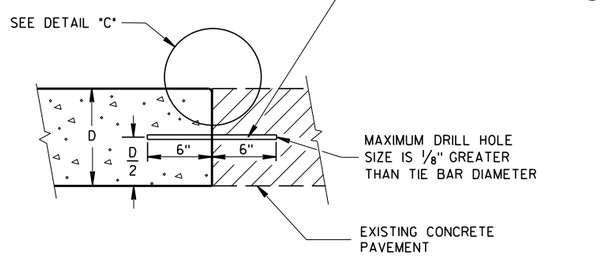
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

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

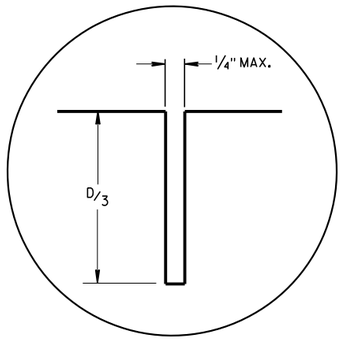


PLAN VIEW

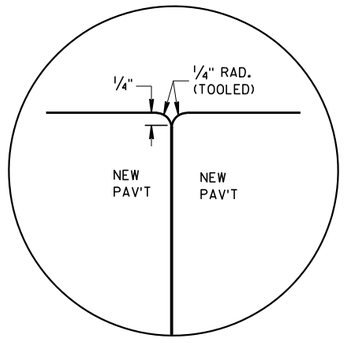


SECTION A-A

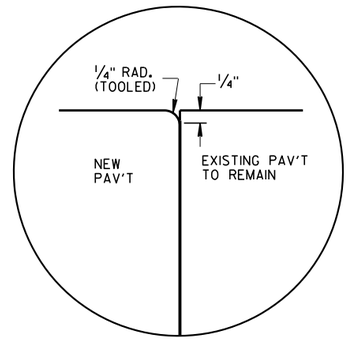
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



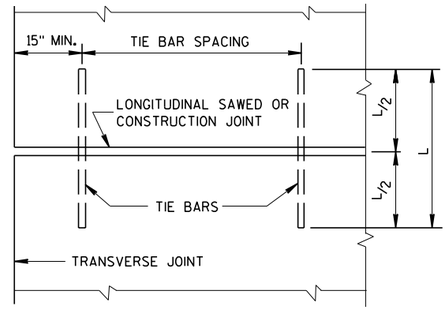
DETAIL "C"

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

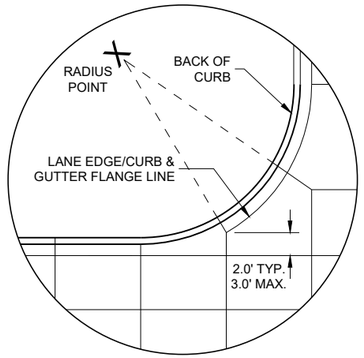
APPROVED
March 2018 — DATE
/S/ Peter Kerr, P.E. — PAVEMENT SUPE
FHWA

6

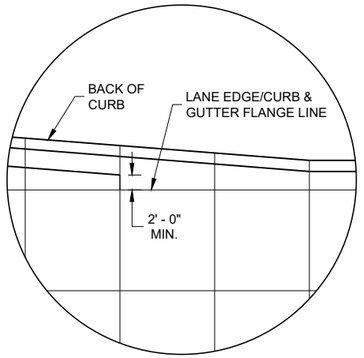
S.D.D. 13 C 1-19

6

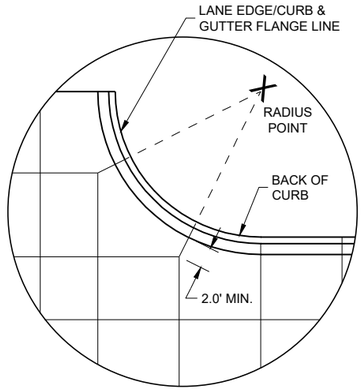
S.D.D. 13 C 1-19



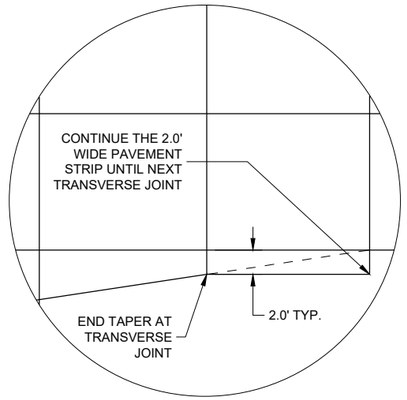
DETAIL "A"



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.

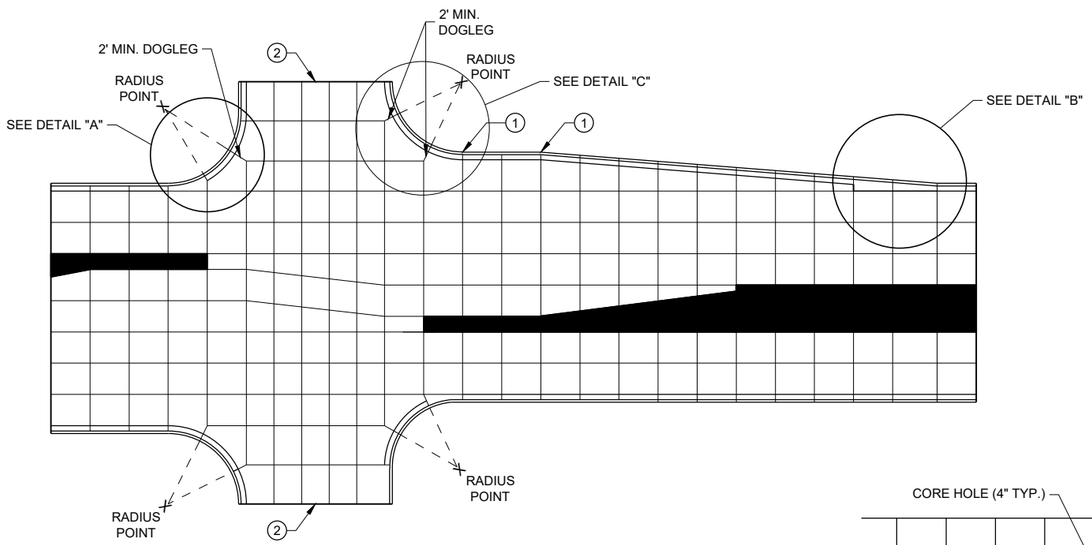
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

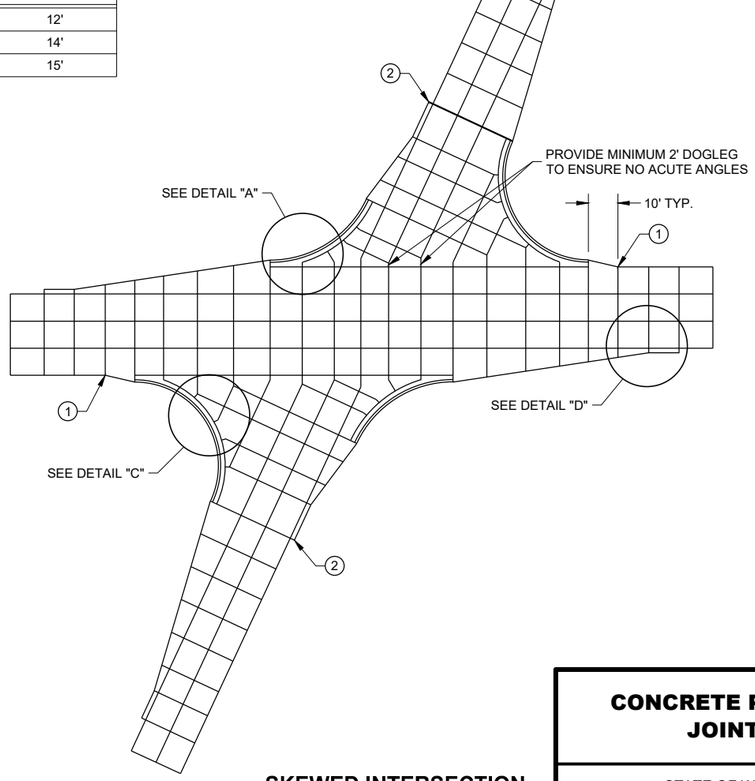
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM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



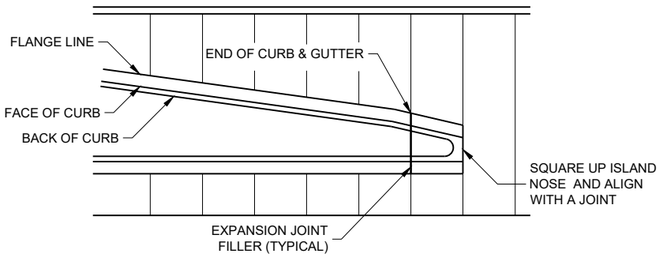
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

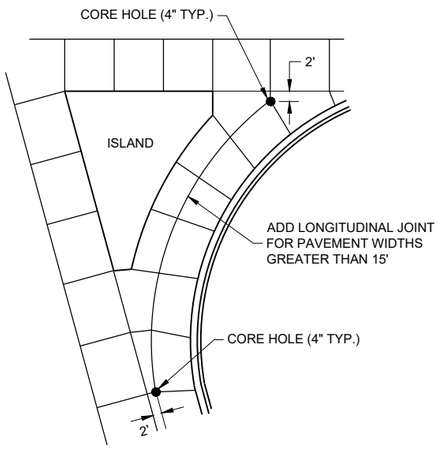
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08a

6

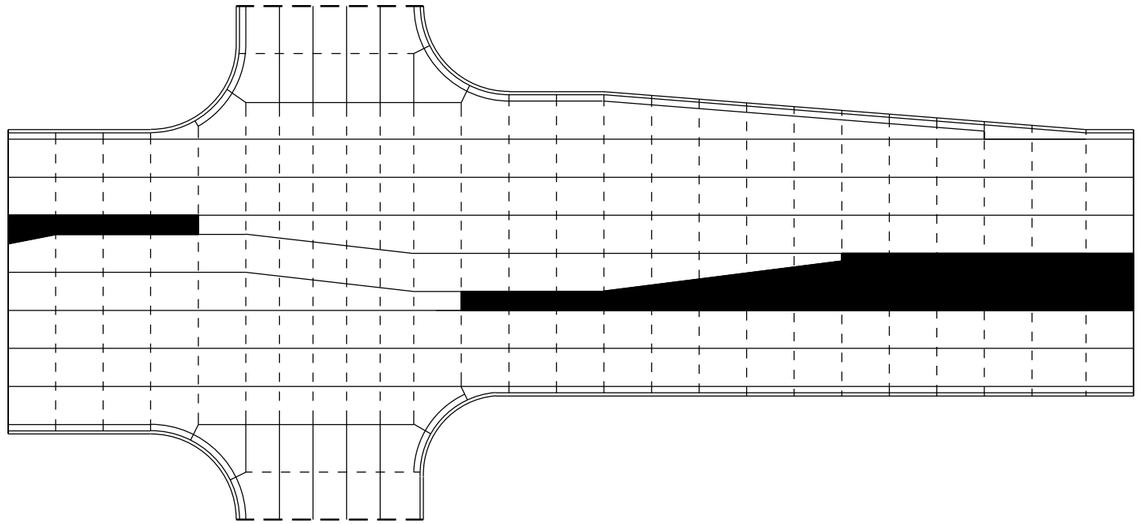
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

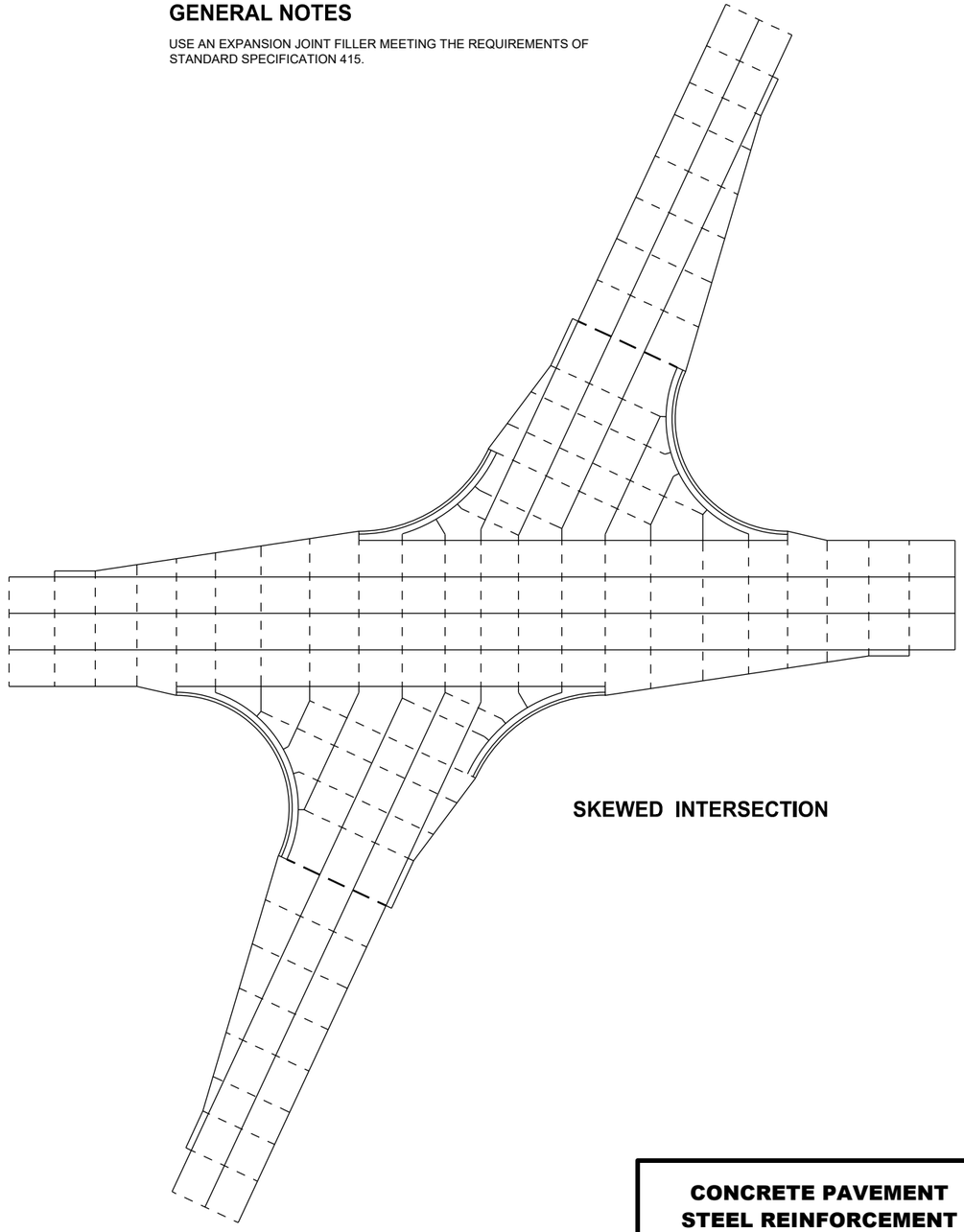
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

6

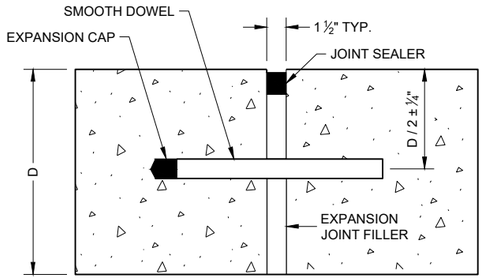
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

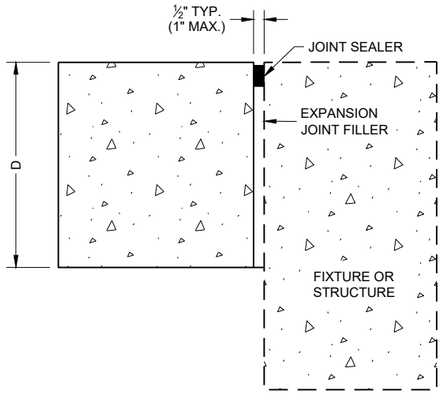
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

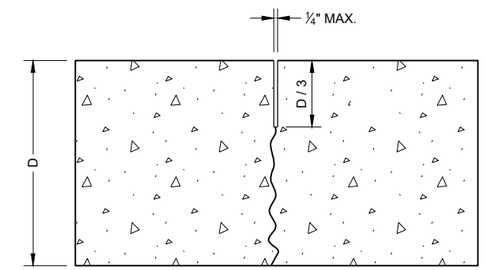
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

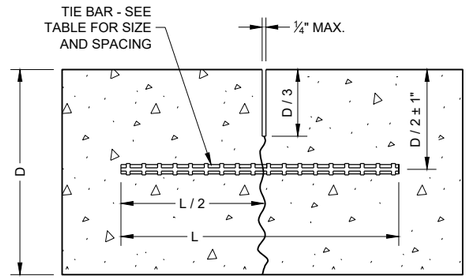
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

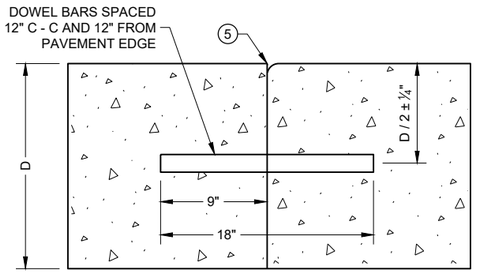
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM 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.



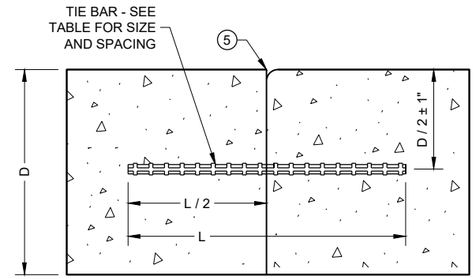
UNDOWELED TRANSVERSE



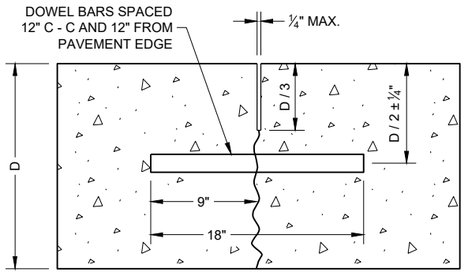
TIED LONGITUDINAL



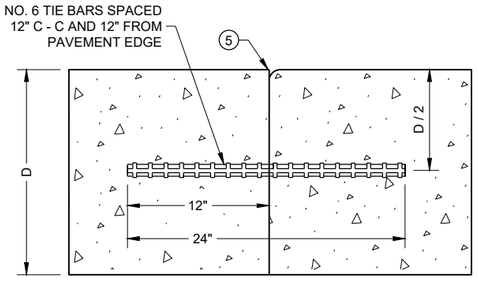
DOWELED TRANSVERSE (3)



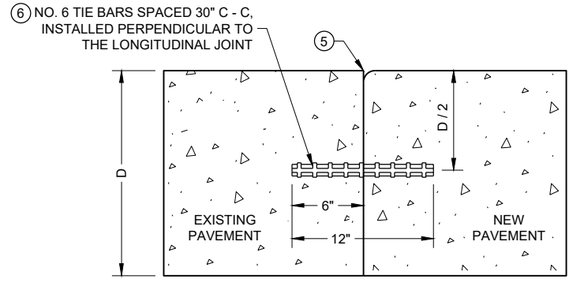
TIED LONGITUDINAL



DOWELED TRANSVERSE



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



TIED LONGITUDINAL TO EXISTING

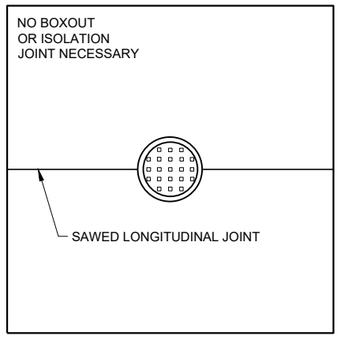
CONTRACTION JOINTS (2)

CONSTRUCTION JOINTS (4)

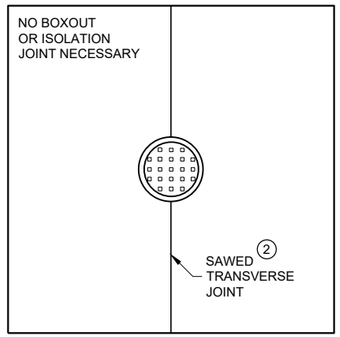
CONCRETE PAVEMENT JOINT TYPES

SDD 13C18 - 08c

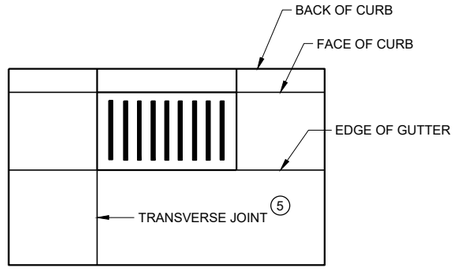
6



MANHOLE WITH LONGITUDINAL JOINT



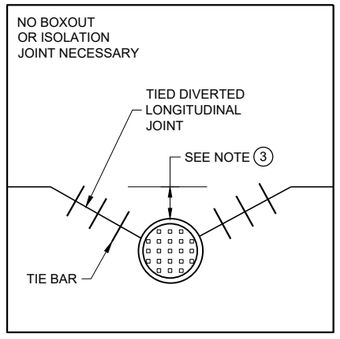
MANHOLE WITH TRANSVERSE JOINT



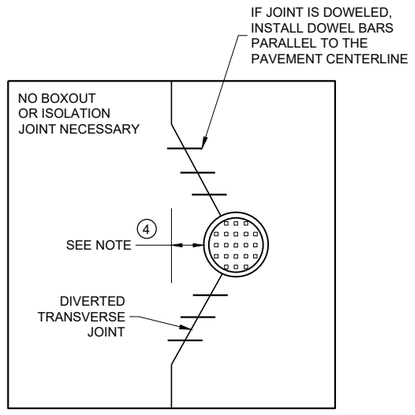
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

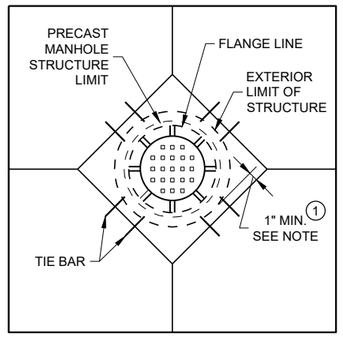
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

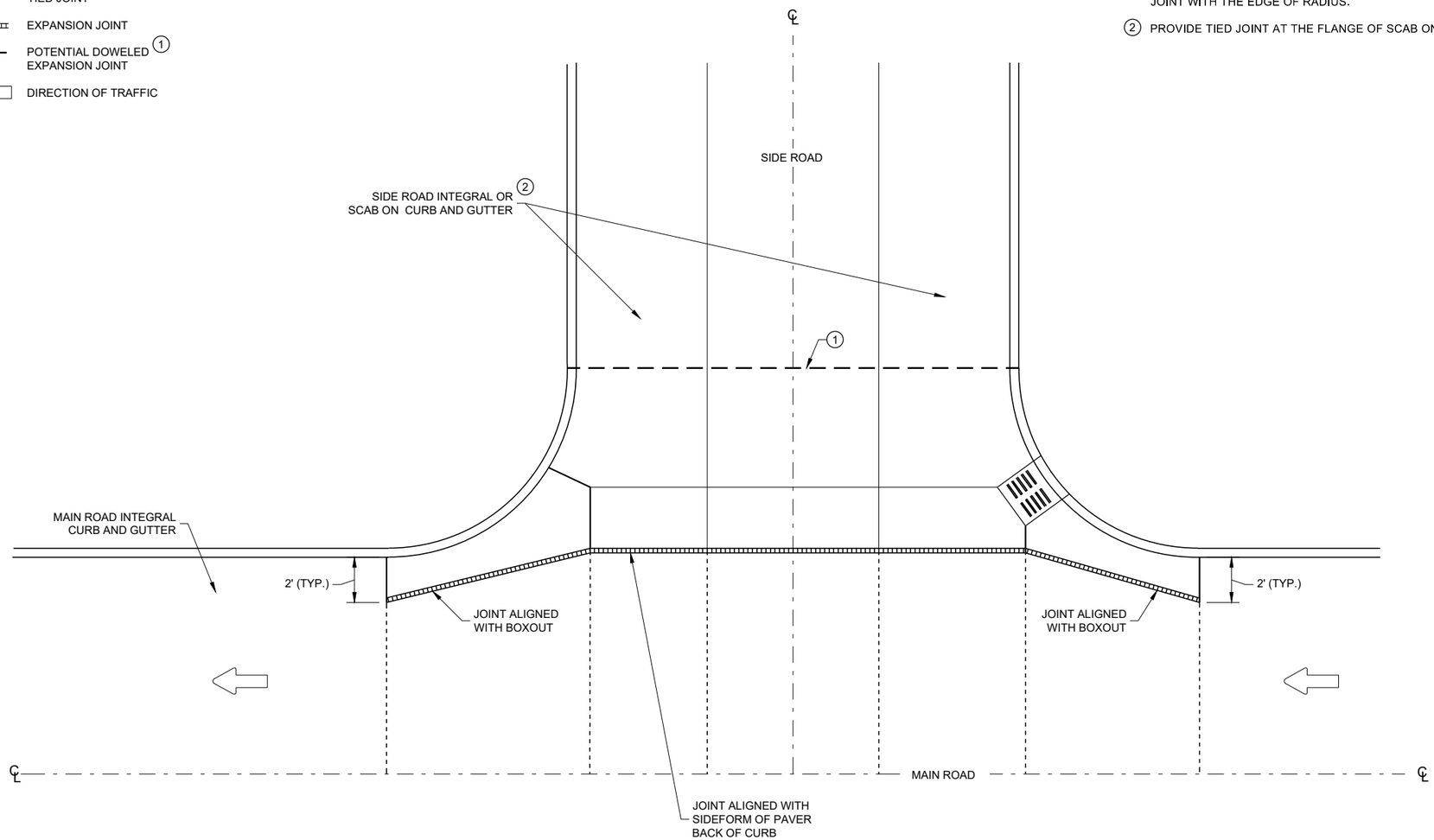
6

SDD13C18 - 08d

SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) 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 THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

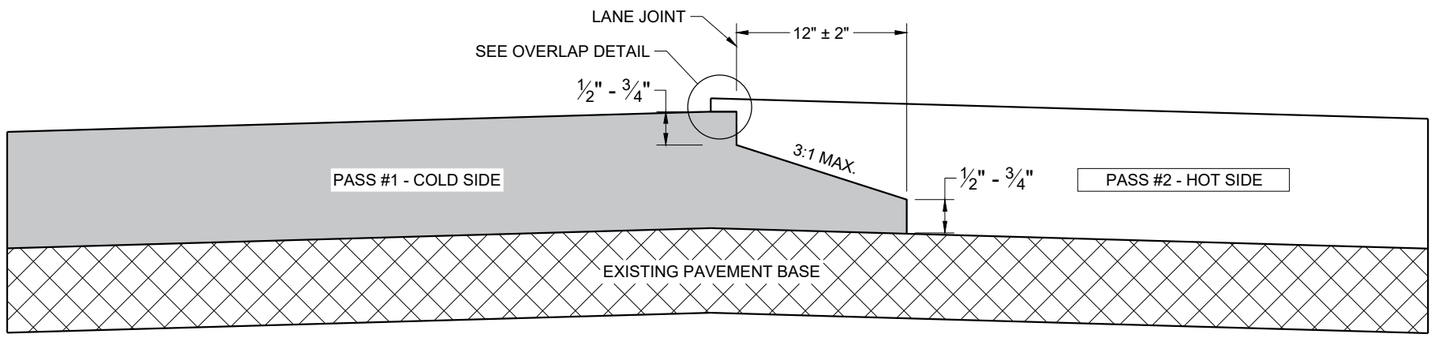
FHWA

6

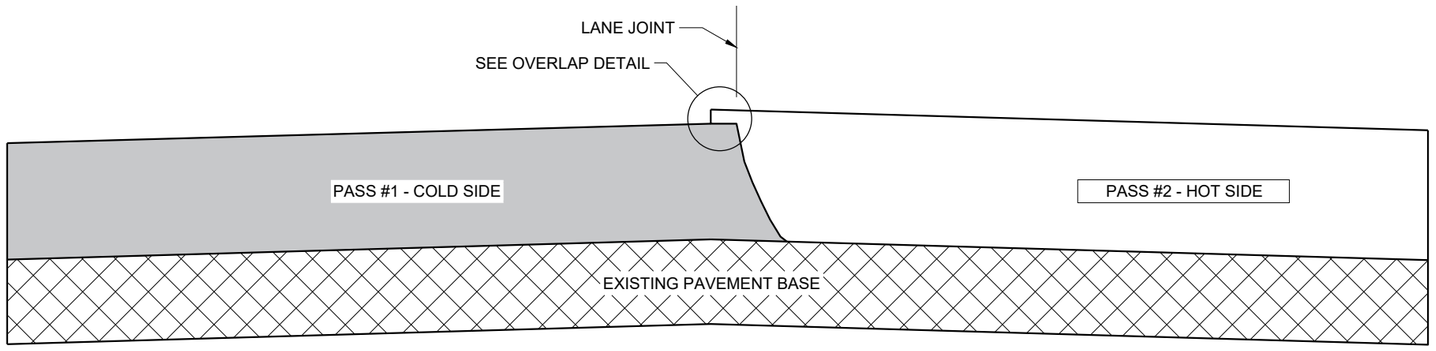
SDD 13C18 - 08f

6

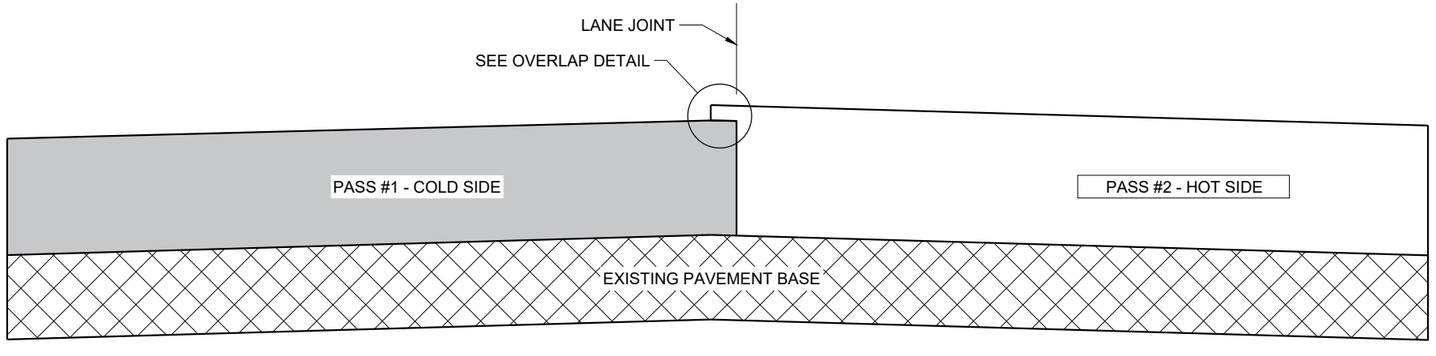
SDD 13C18 - 08f



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

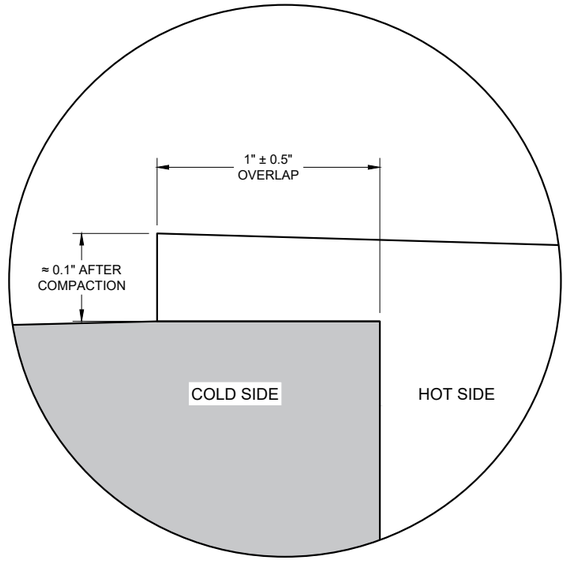
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

(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.

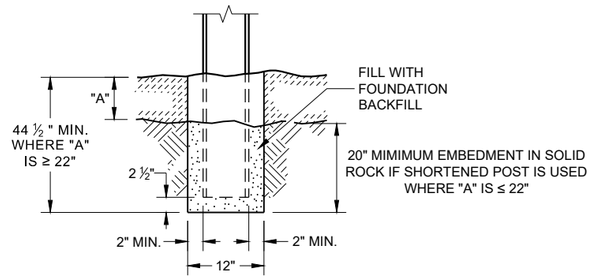
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

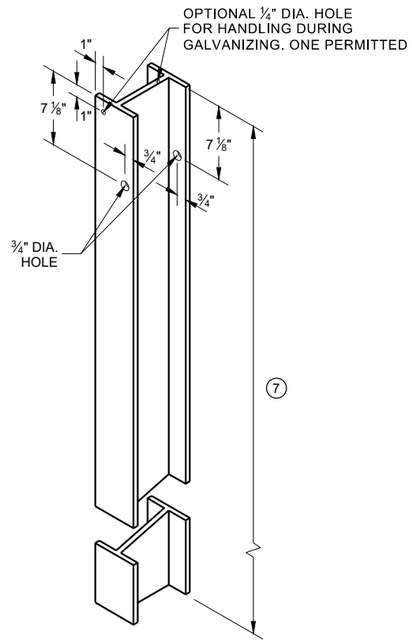
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

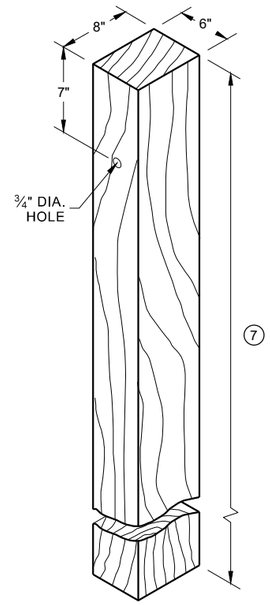
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



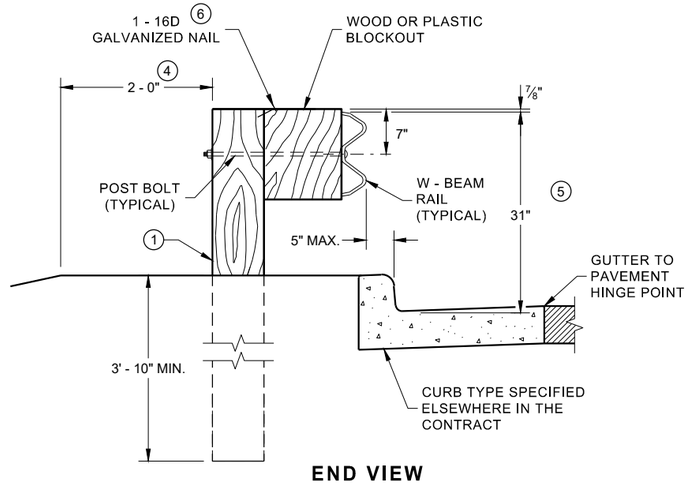
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



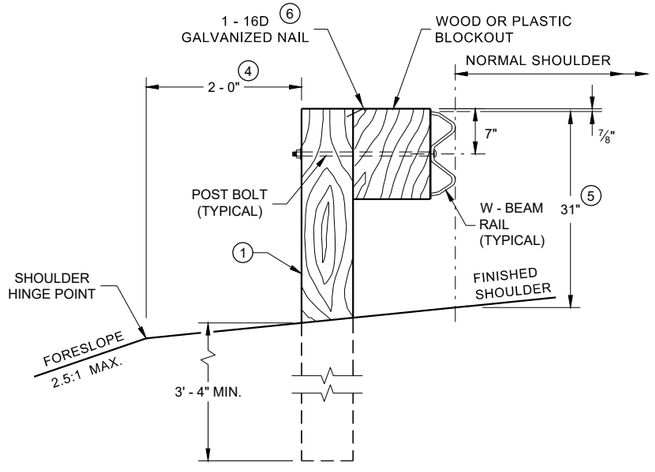
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



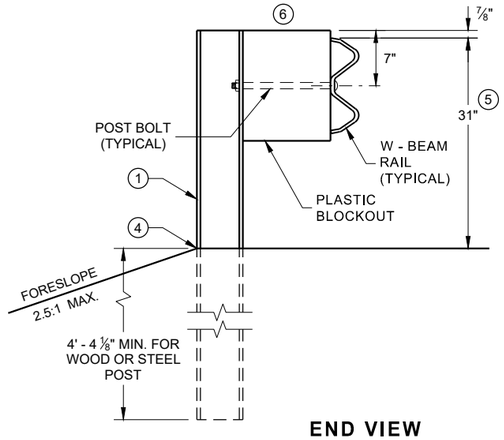
WOOD POST (6" X 8") NOMINAL (1)



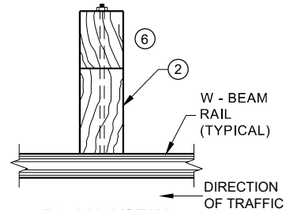
END VIEW
LOCATED ALONG A CURBED ROADWAY



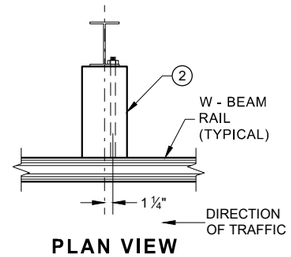
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



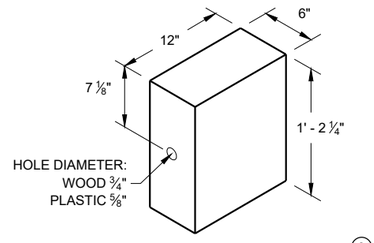
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

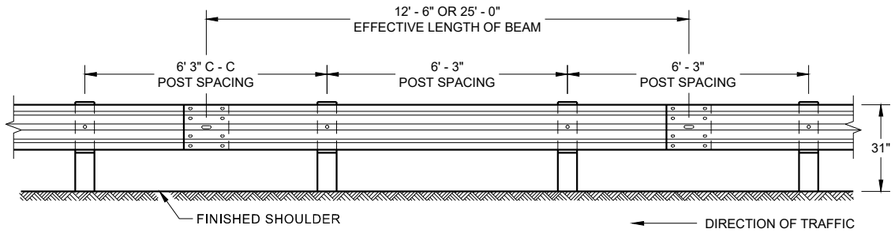
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

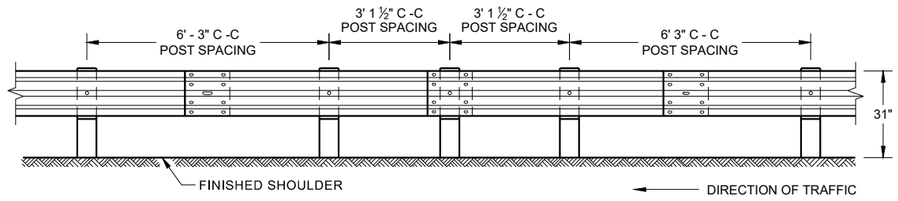
SDD 14B42 - 07a

6

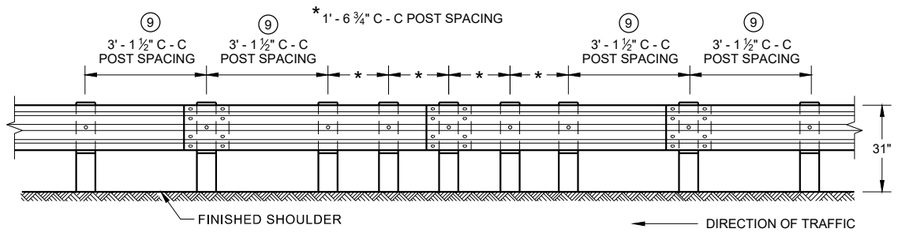
SDD 14B42 - 07a



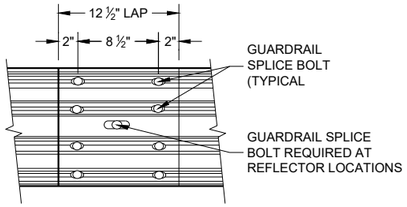
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

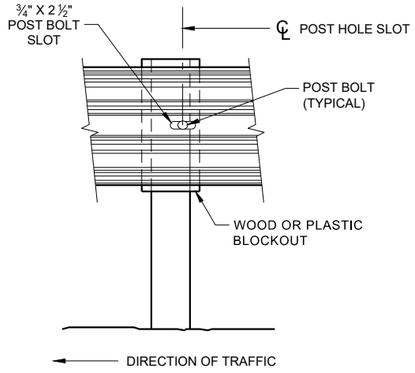
GENERAL NOTES

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

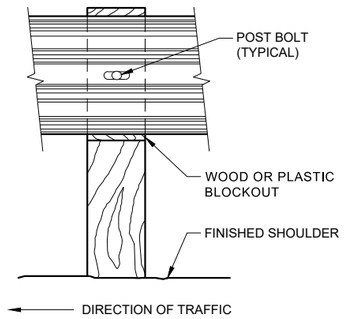
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

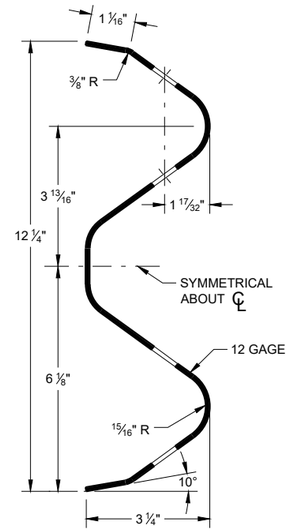
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



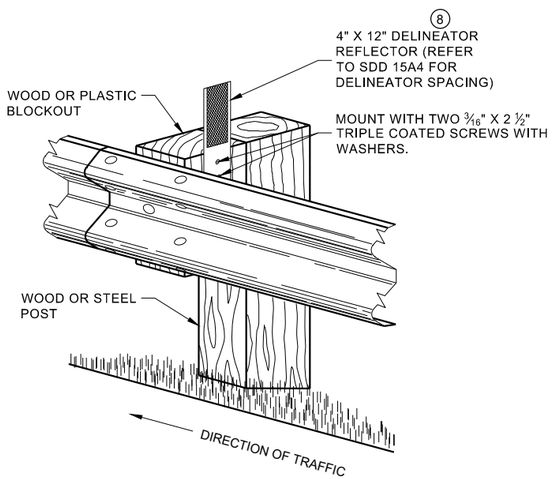
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



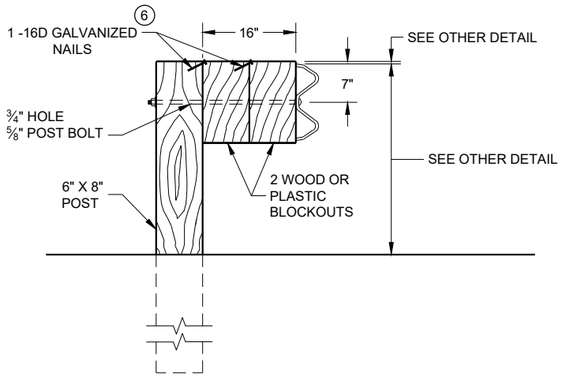
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

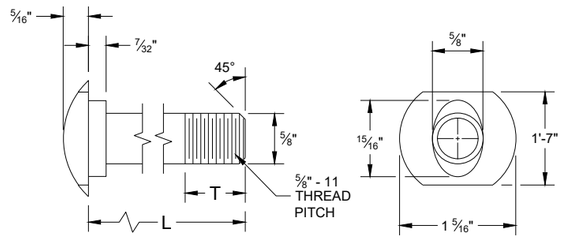


DETAIL FOR 16" BLOCKOUT DEPTH

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.

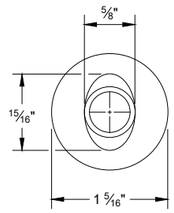
NOTE:

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.

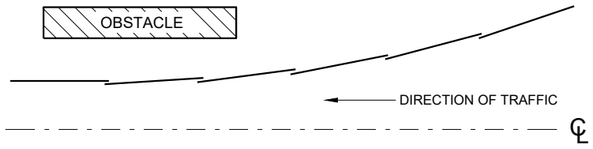


POST BOLT TABLE

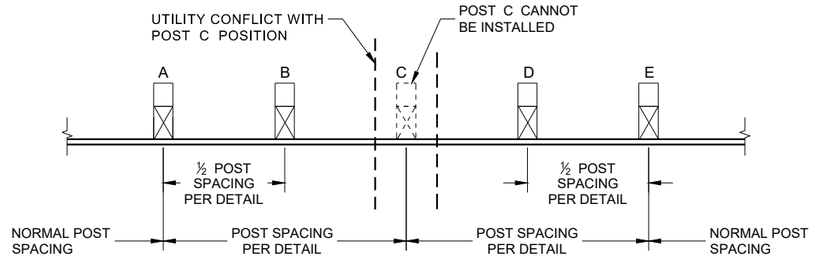
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



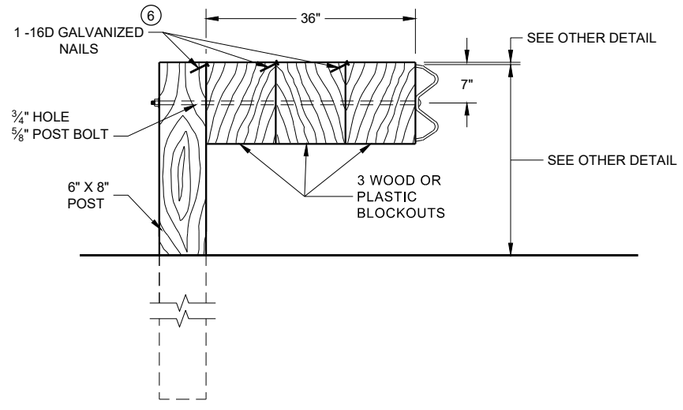
ALTERNATE BOLT HEAD



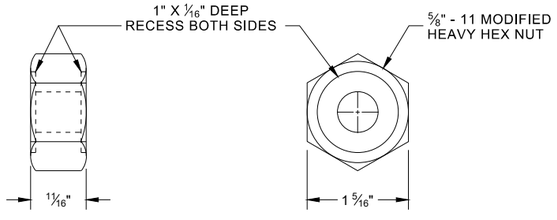
PLAN VIEW
BEAM LAPPING DETAIL



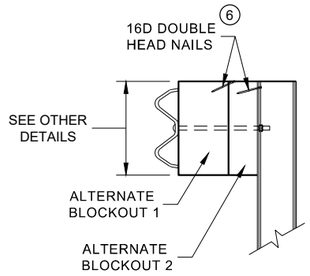
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



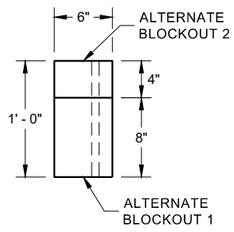
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

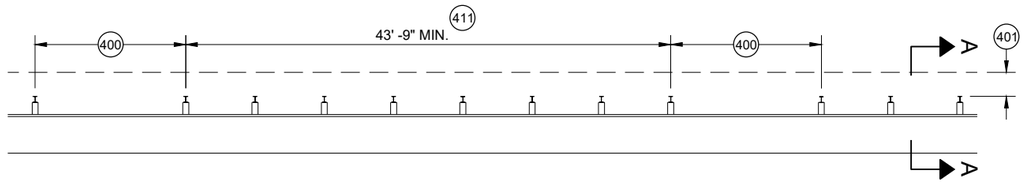
ALTERNATE WOOD BLOCKOUT DETAIL

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.

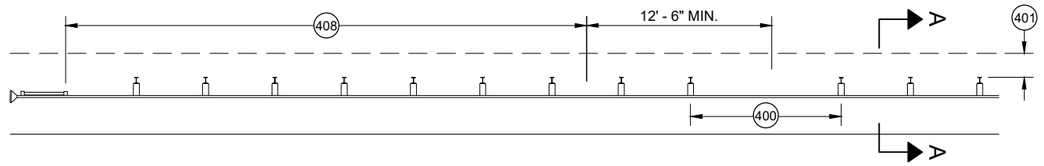
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

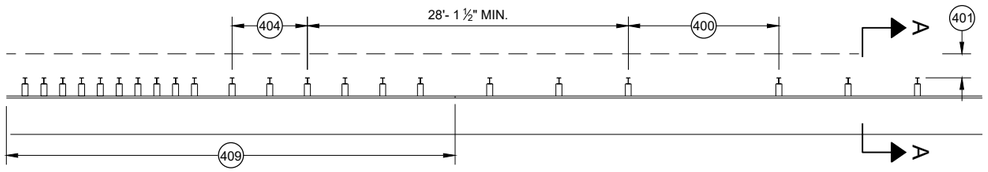
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



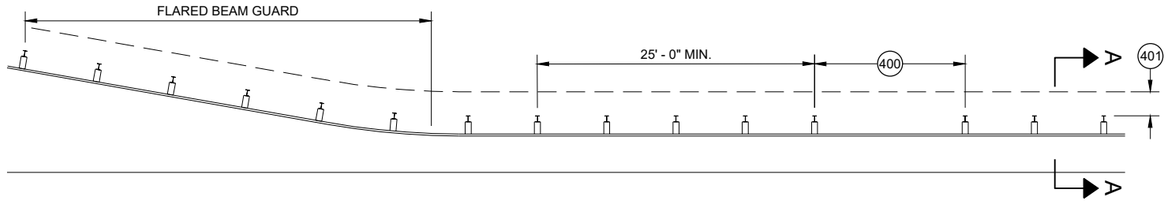
MISSING POST IN MGS GUARDRAIL



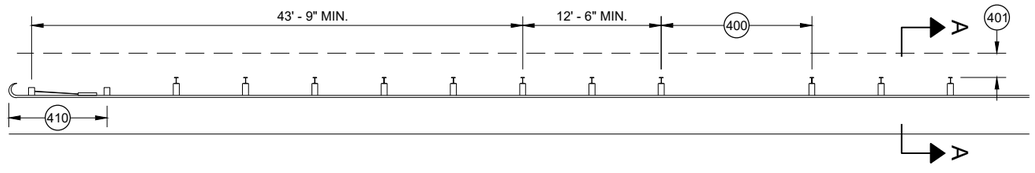
MISSING POST IN MGS GUARDRAIL NEAR EAT



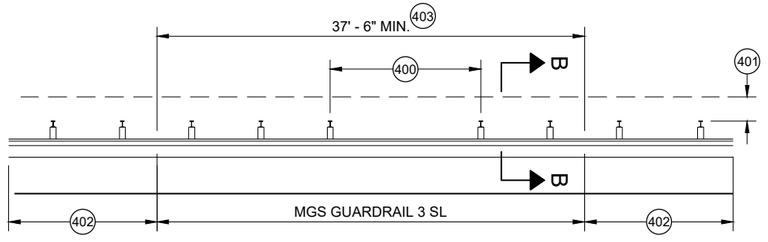
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

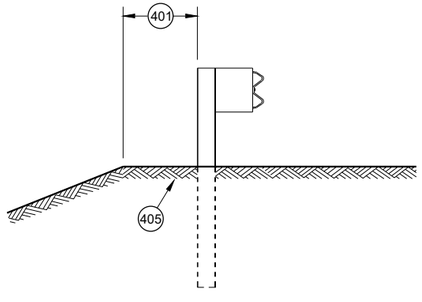


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

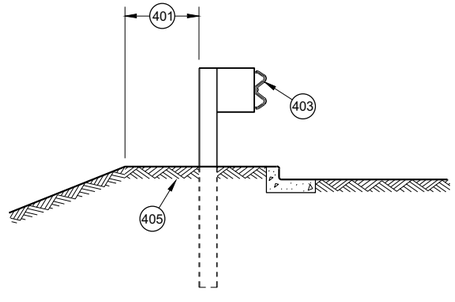


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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.

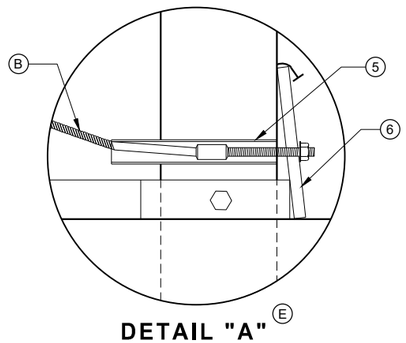
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

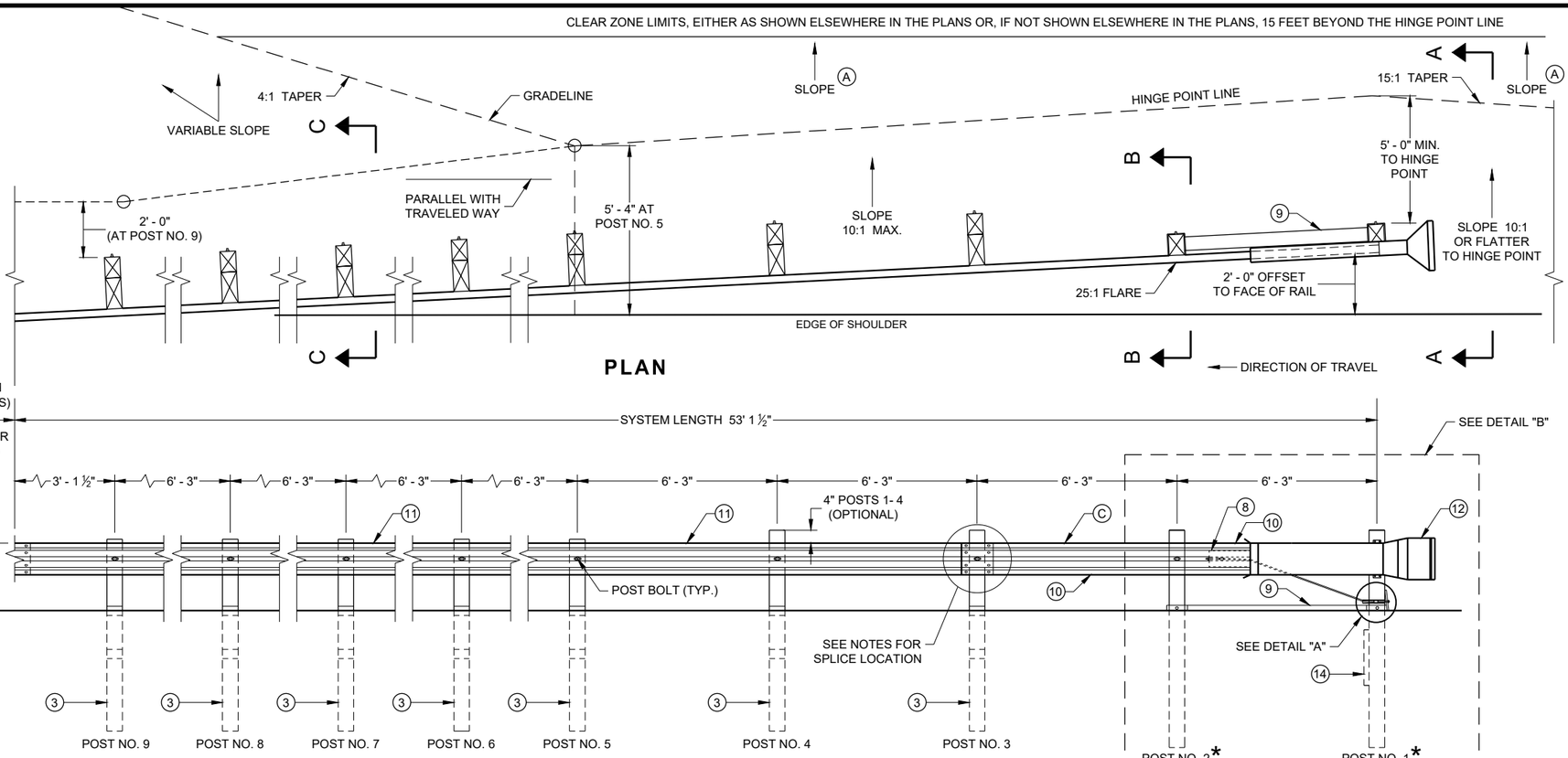
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

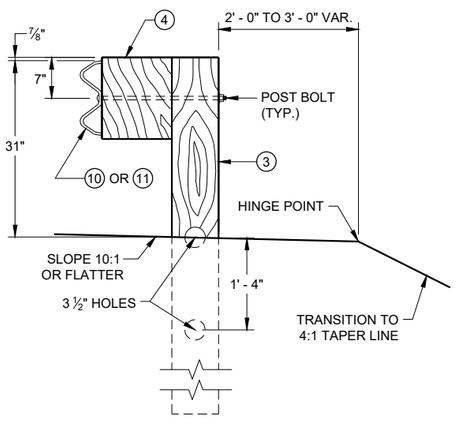
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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.

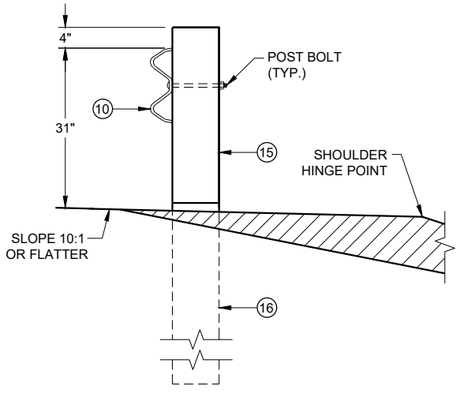


DETAIL "A" (E)

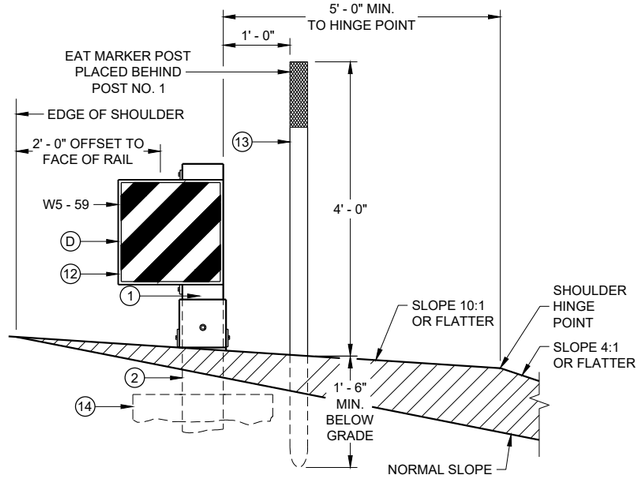




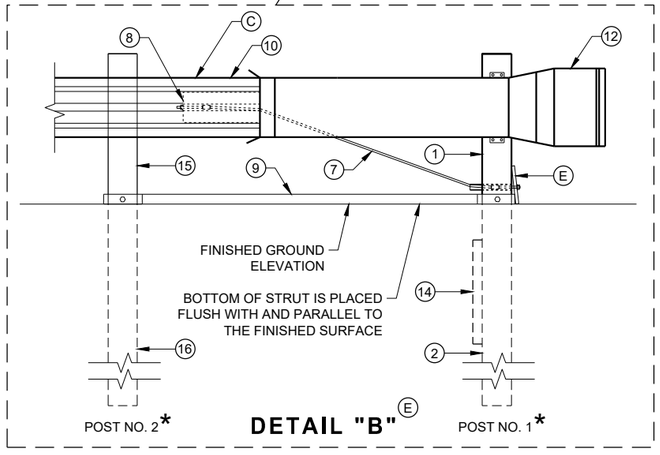
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



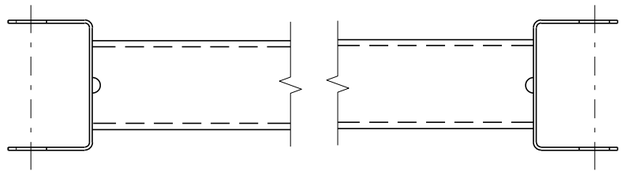
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

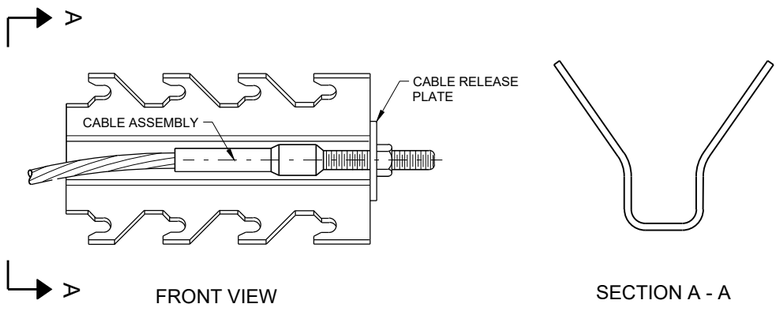
SDD 14B44 - 04a



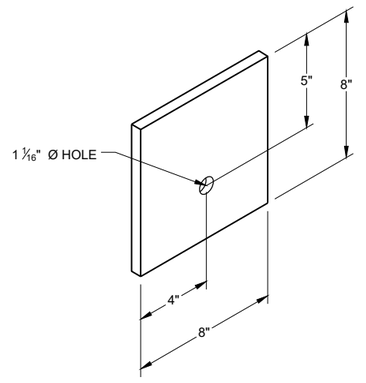
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

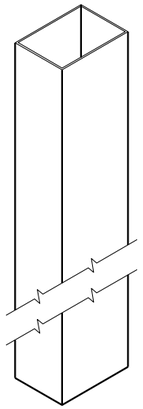
6

SDD 14B44 - 04b

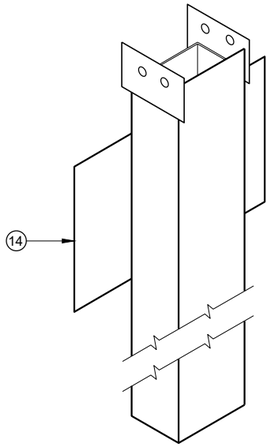
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

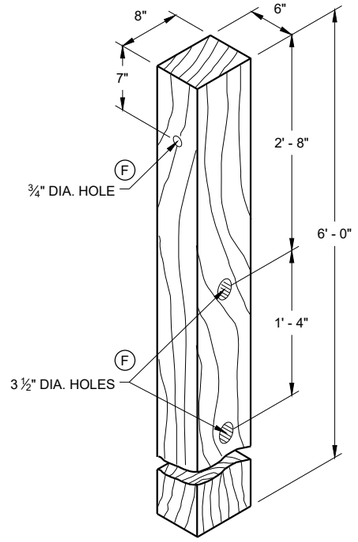
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



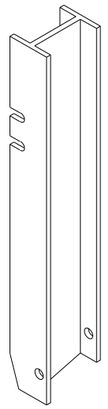
UPPER POST NO. 1 (1) (E)



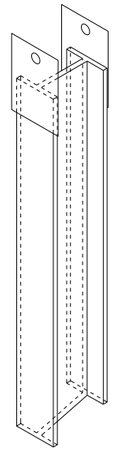
LOWER POST NO. 1 (2) (E)



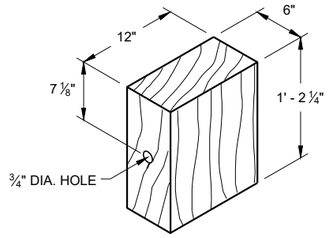
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



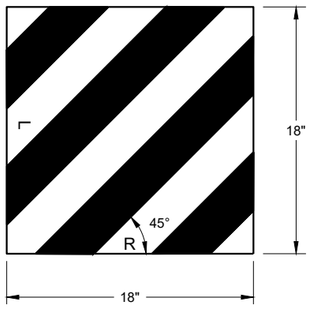
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

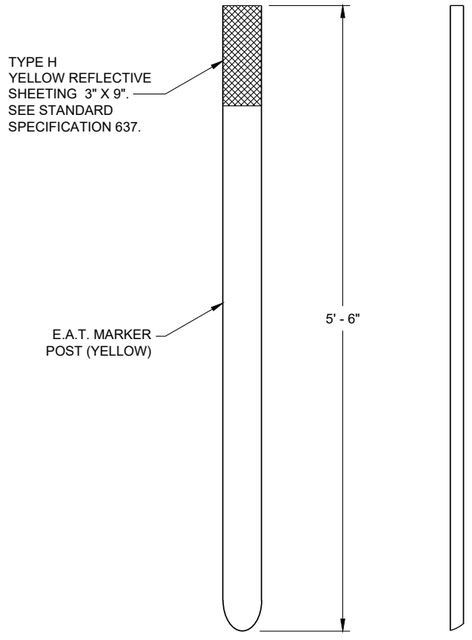


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



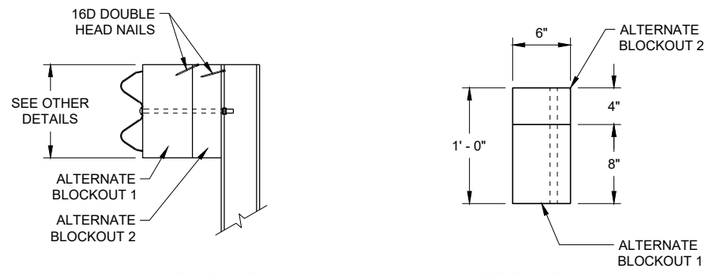
W5 - 59

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)

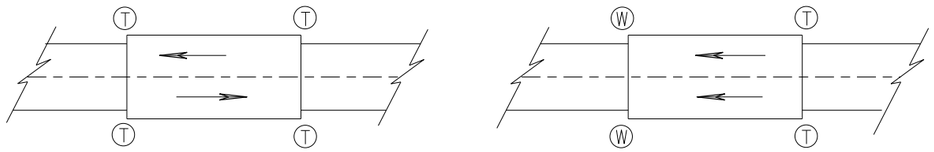
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

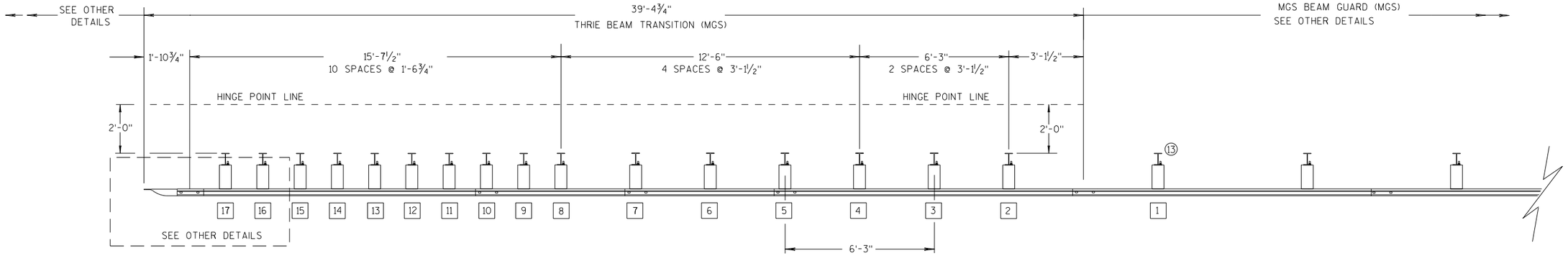
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

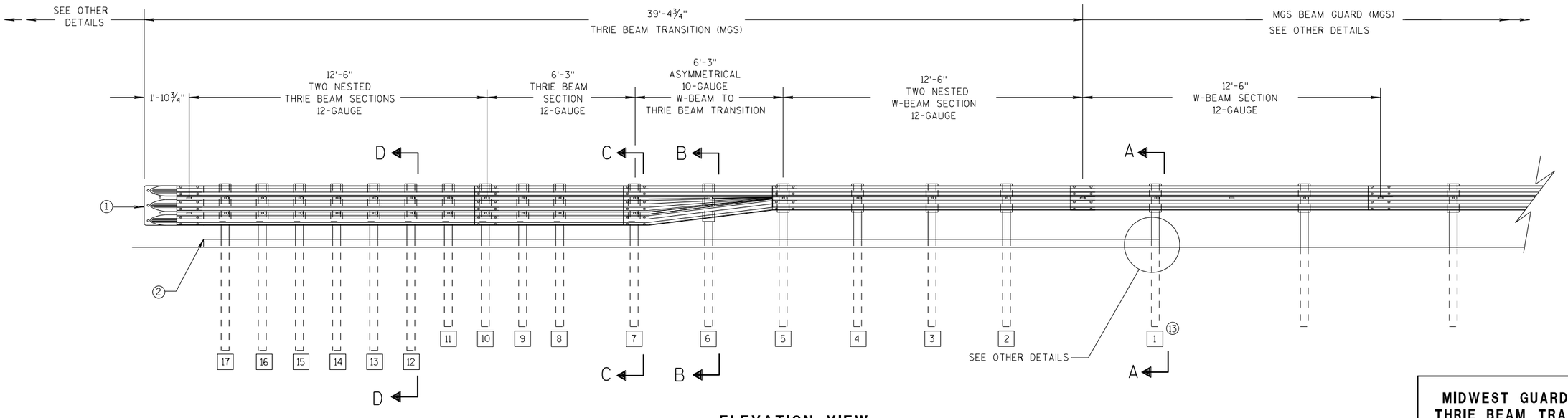
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

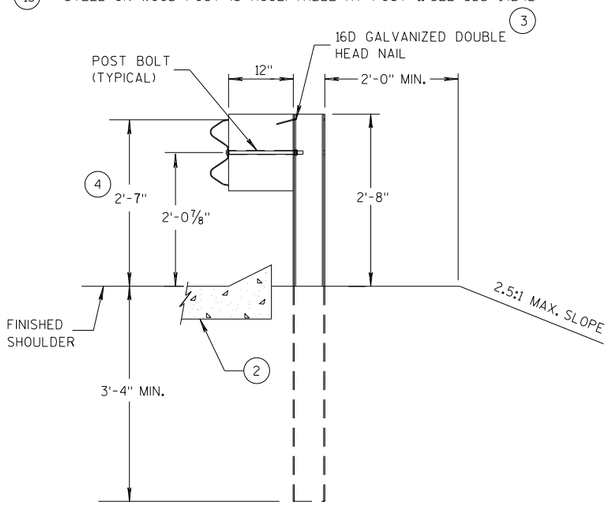
GENERAL NOTES

(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.

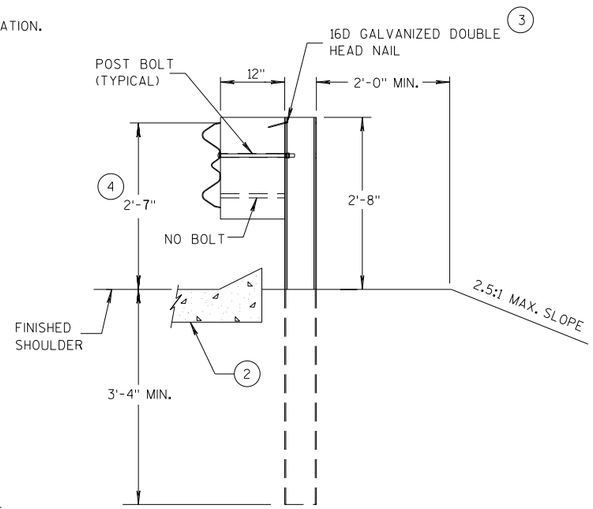
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



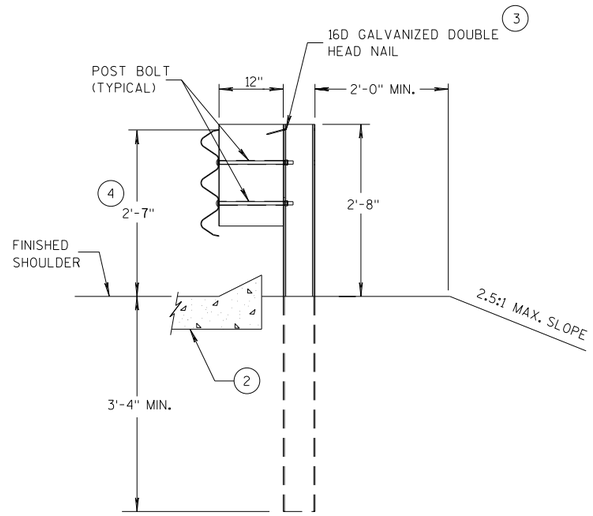
SECTION A-A (13)

POSTS 1-5



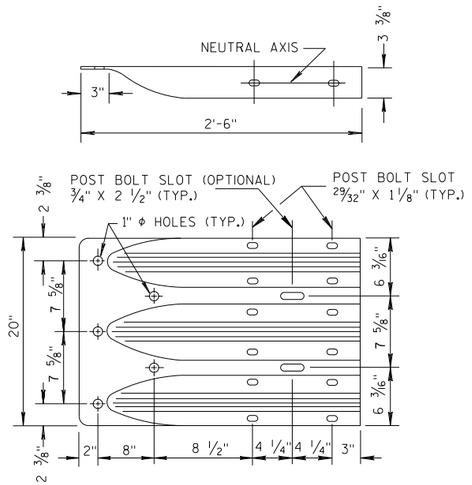
SECTION B-B

POST 6

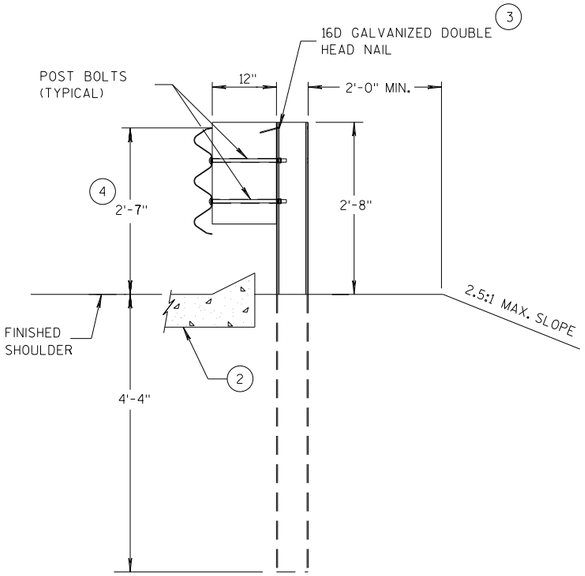


SECTION C-C

POSTS 7-11

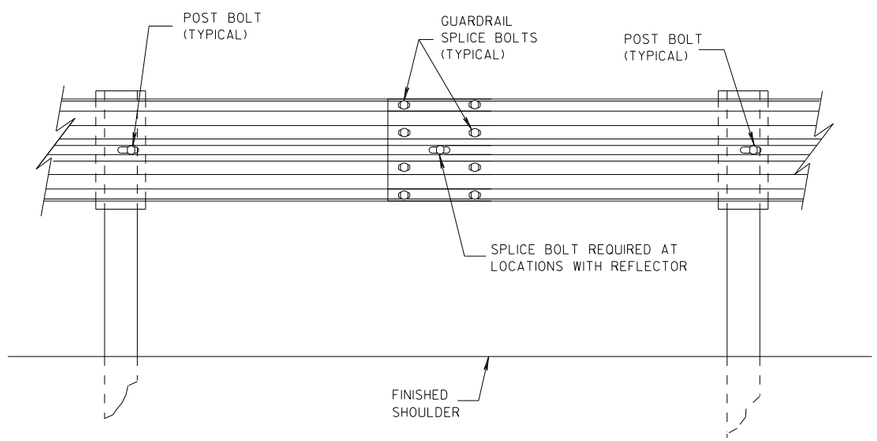


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

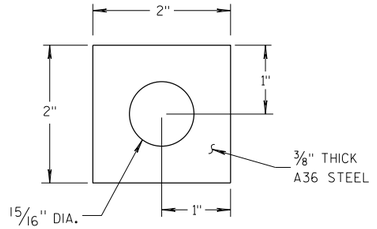
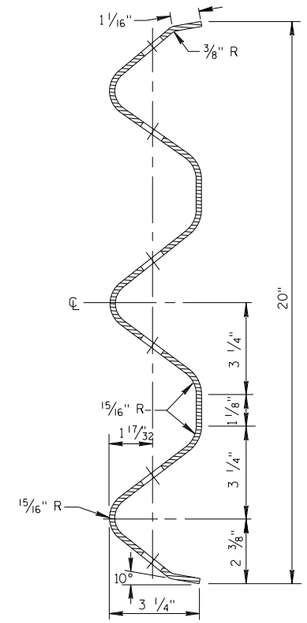


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

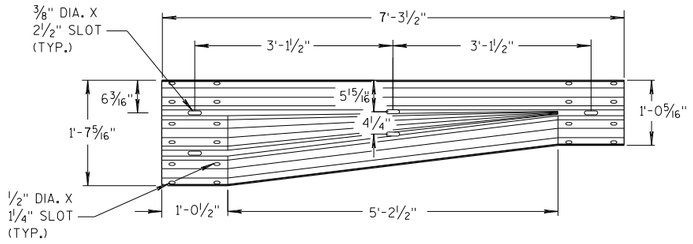
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 65

6

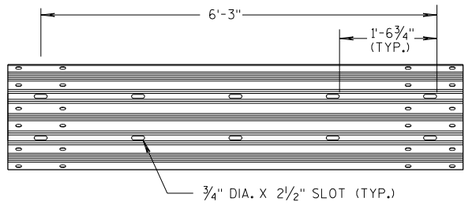
S.D.D. 14 B 45-5b

6

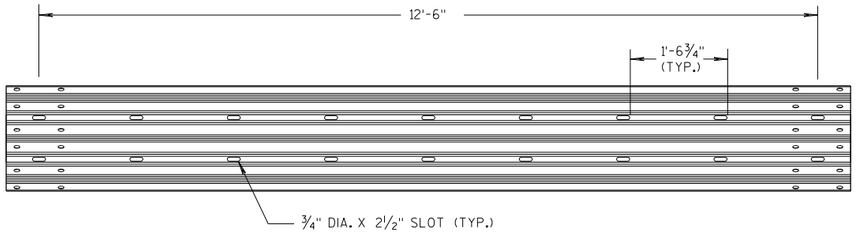
S.D.D. 14 B 45-5b



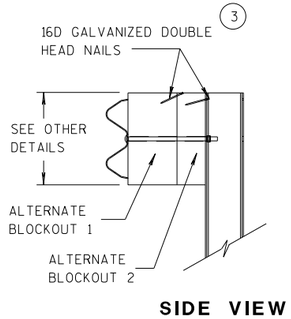
W-BEAM TO THRIE BEAM TRANSITION SECTION



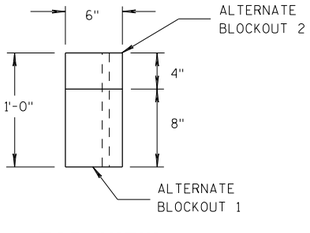
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

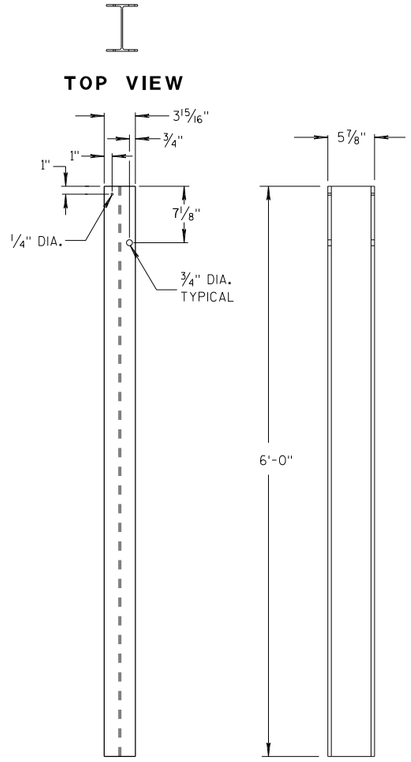


SIDE VIEW



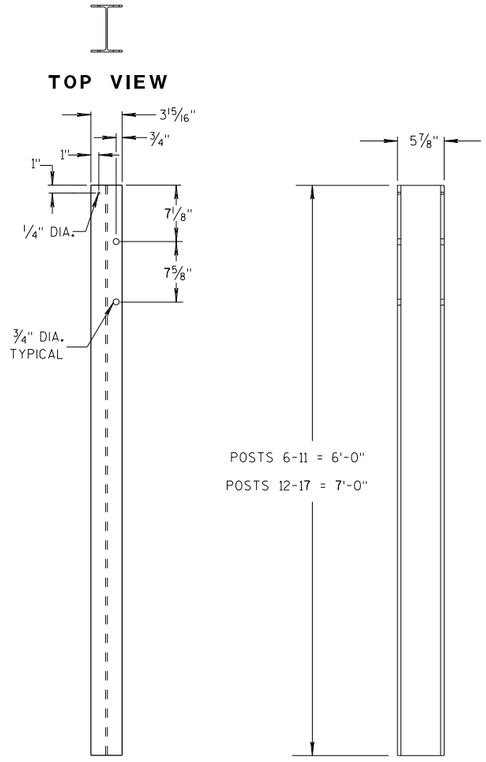
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



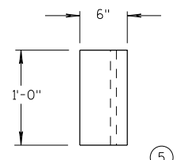
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

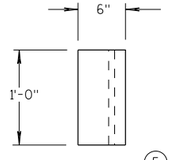


FRONT VIEW SIDE VIEW

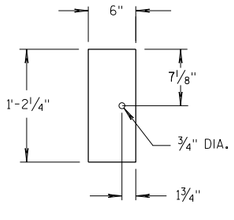
STEEL POSTS 6-17



TOP VIEW (5)

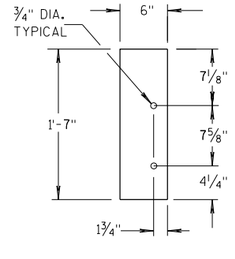


TOP VIEW (5)



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.

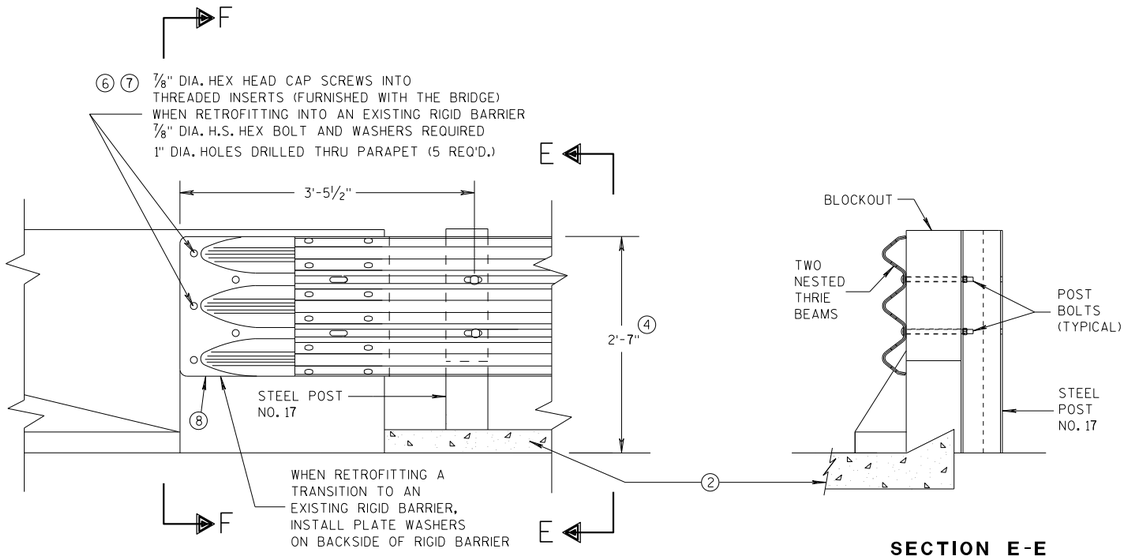
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

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.

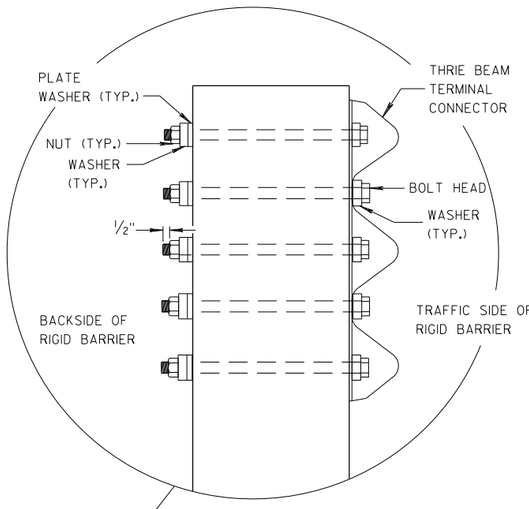
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

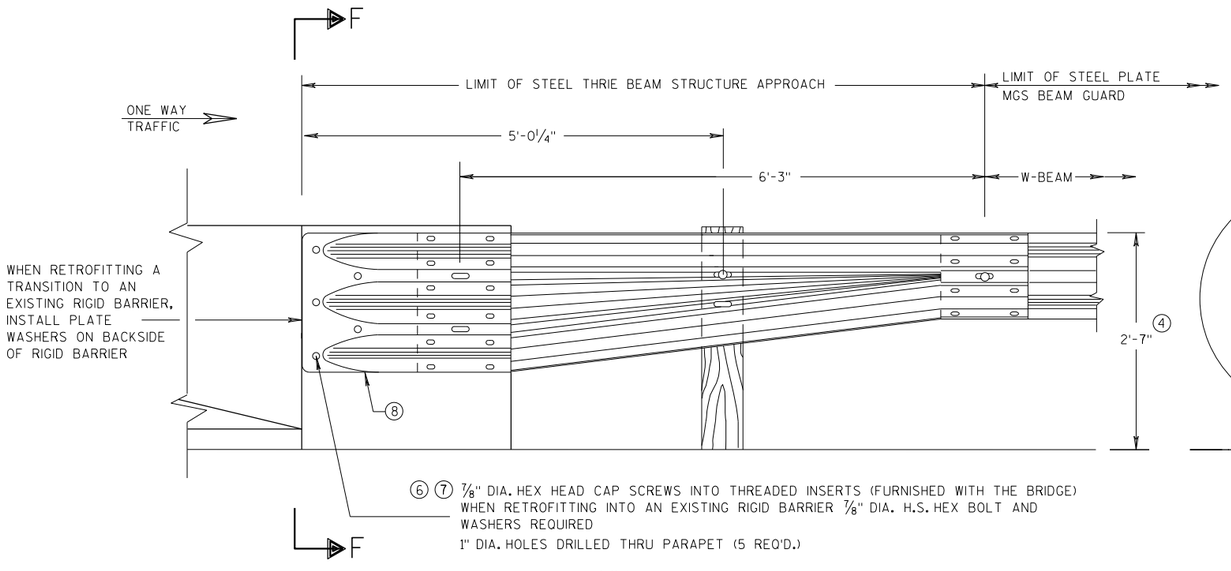
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

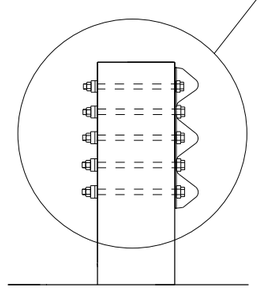
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

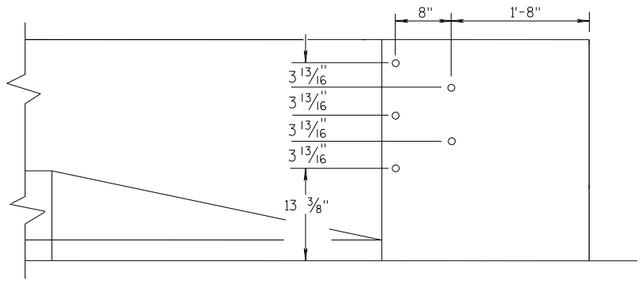




FRONT VIEW



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

6

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

6

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.

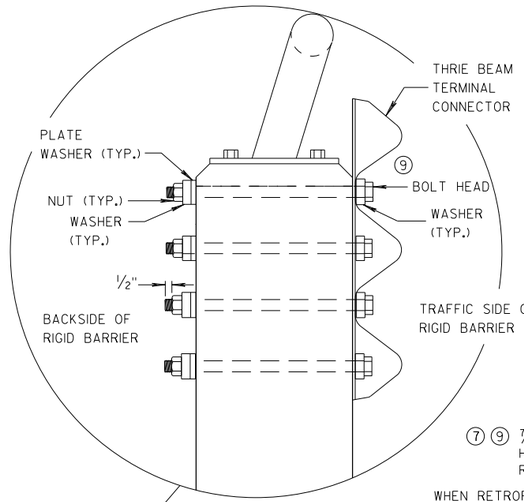
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

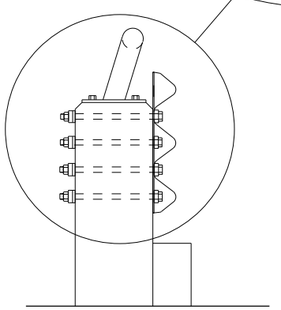
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

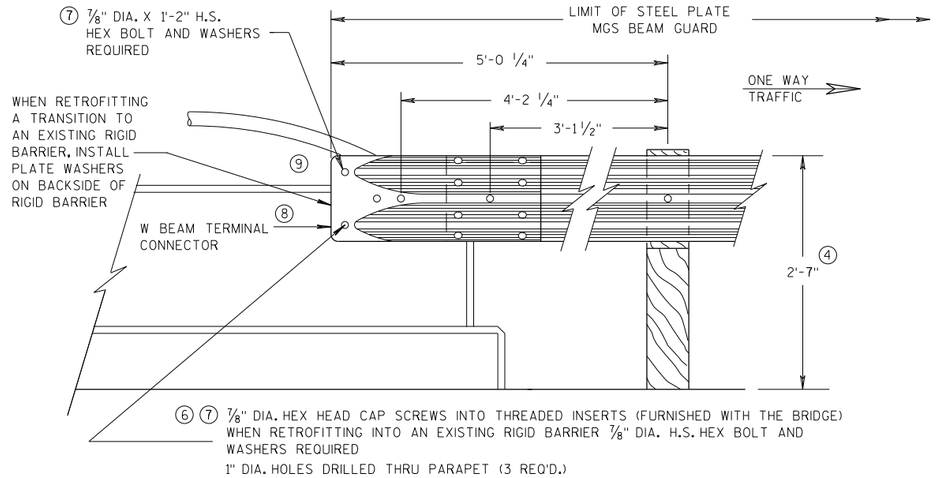
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





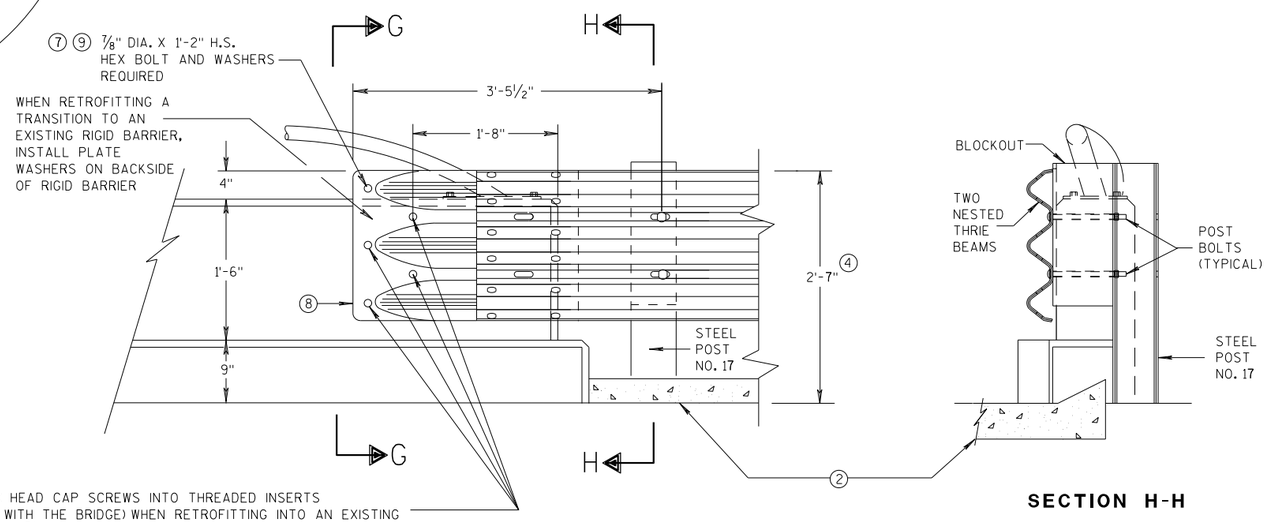
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

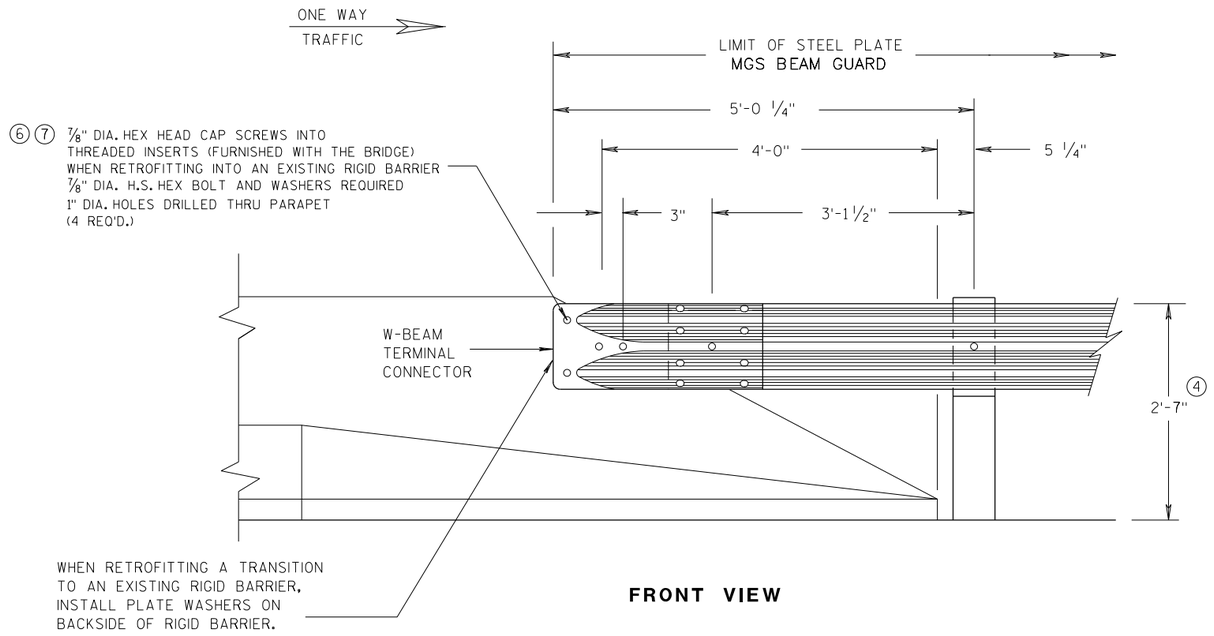
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
FHWA

6

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

6

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)

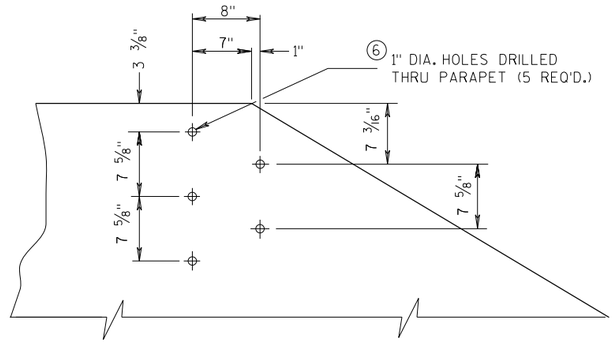
GENERAL NOTES

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

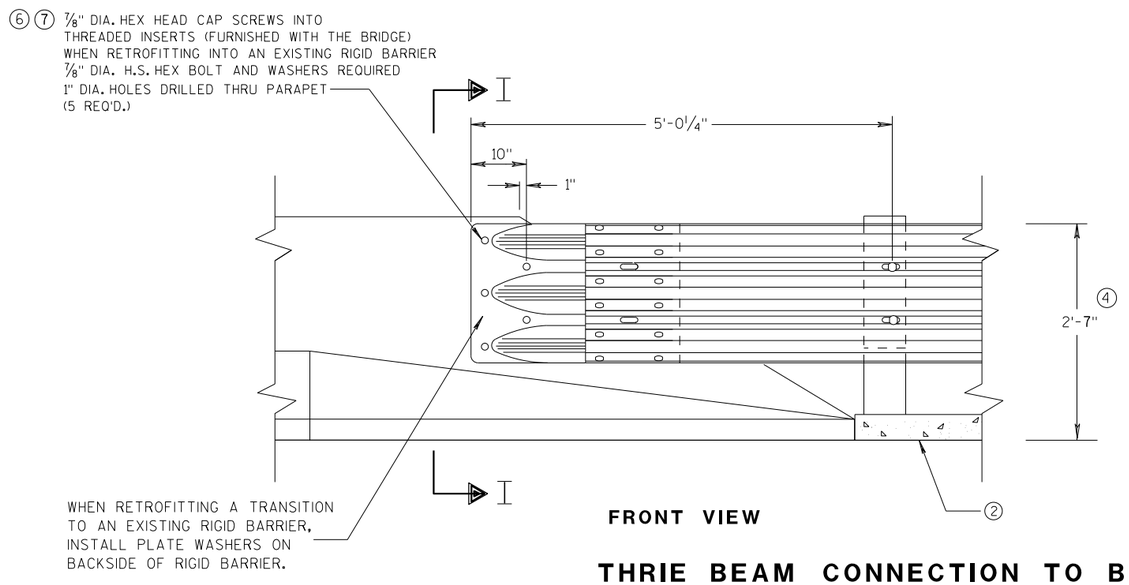
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

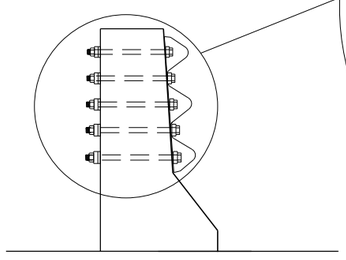
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



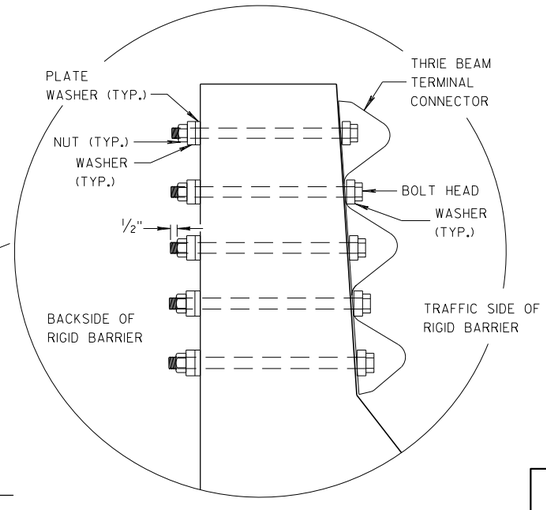
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



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

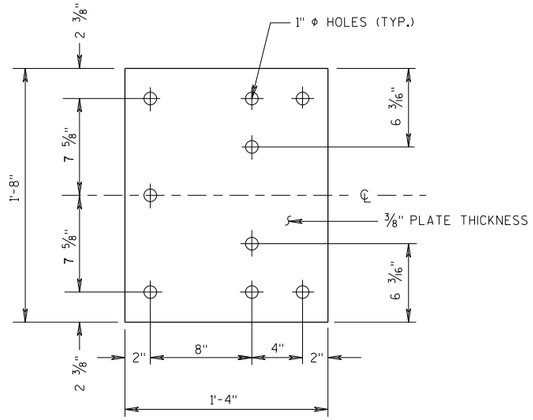
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

6

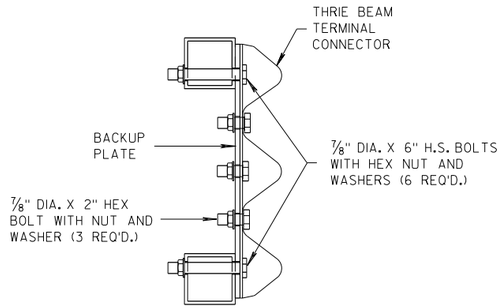
S.D.D. 14 B 45-5f

6

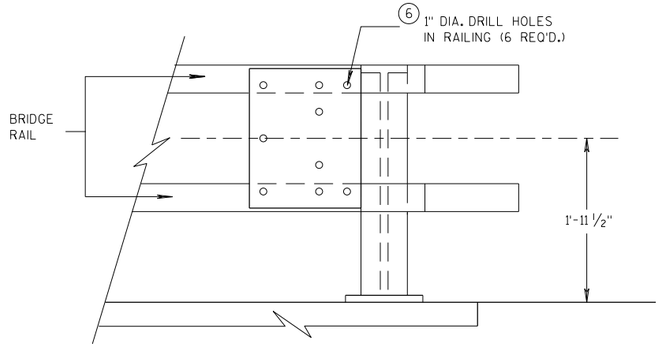
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

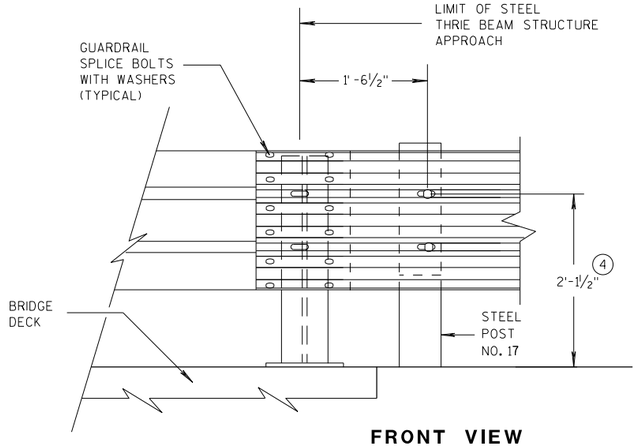


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

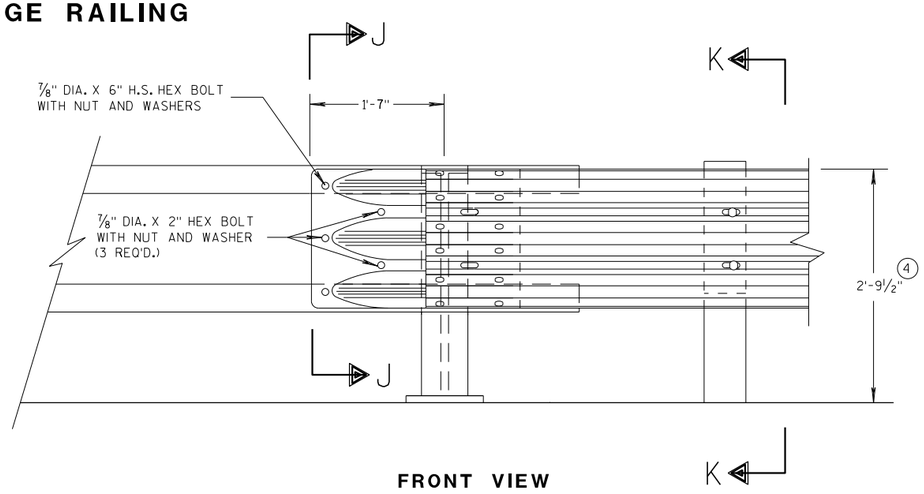
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

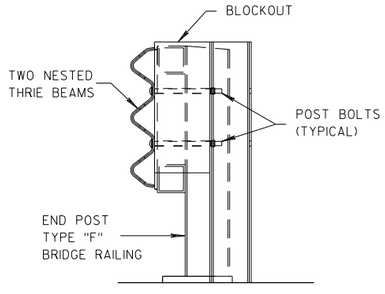


FRONT VIEW

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

6

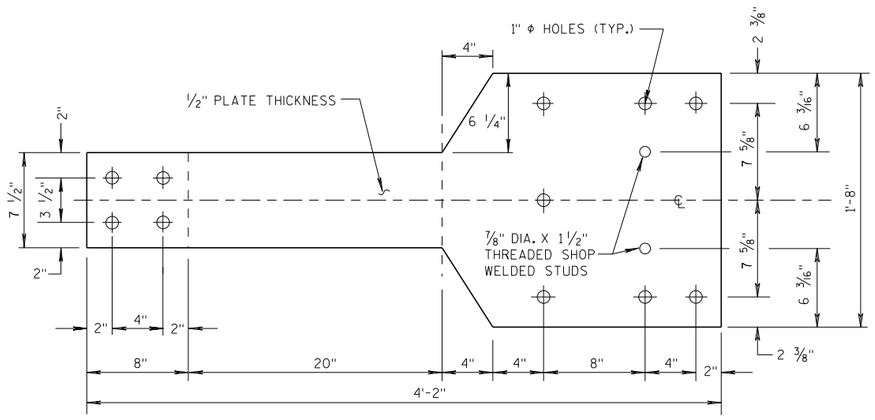
S.D.D. 14 B 45-5g

6

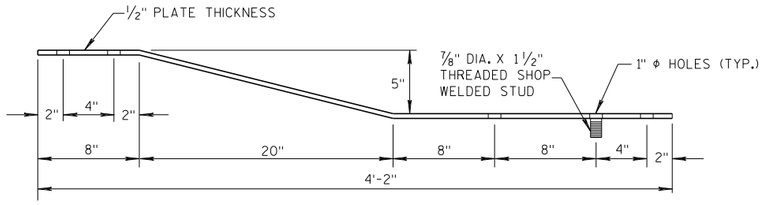
S.D.D. 14 B 45-5g

GENERAL NOTES

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

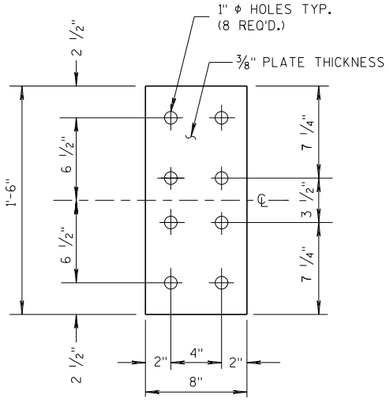


FRONT VIEW



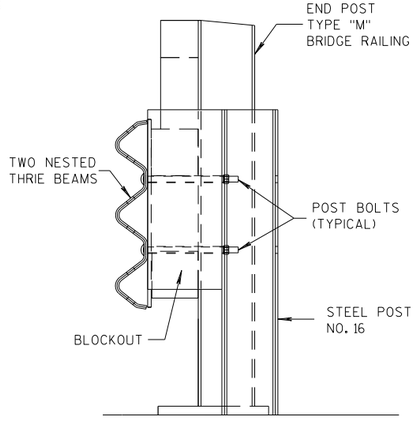
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

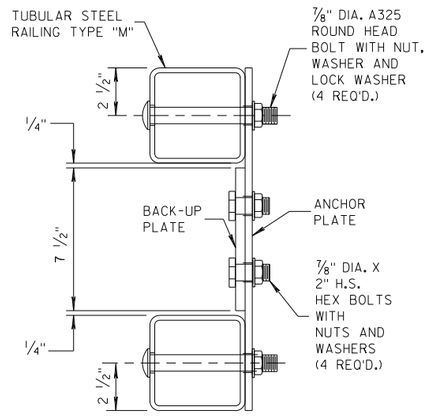


FRONT VIEW

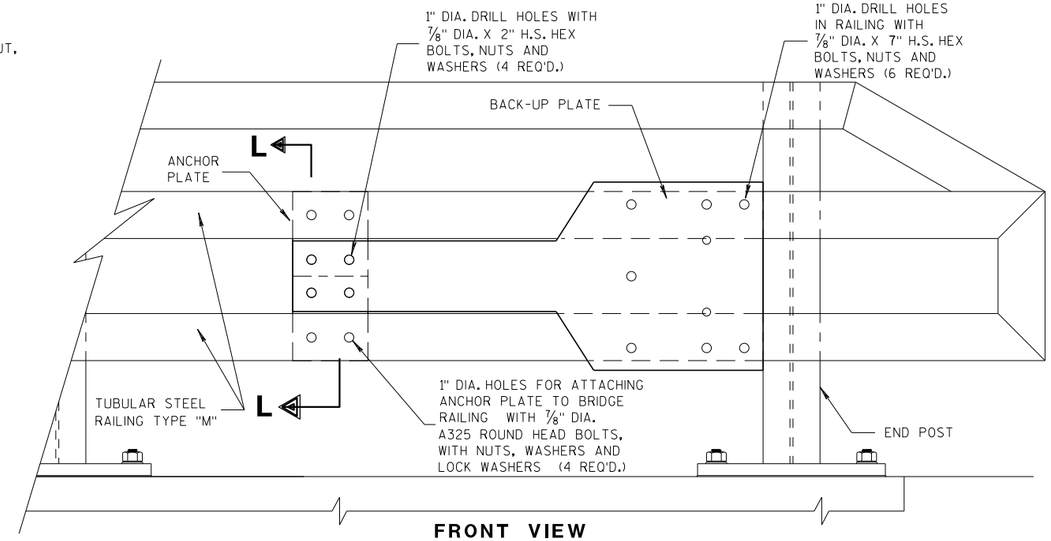
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

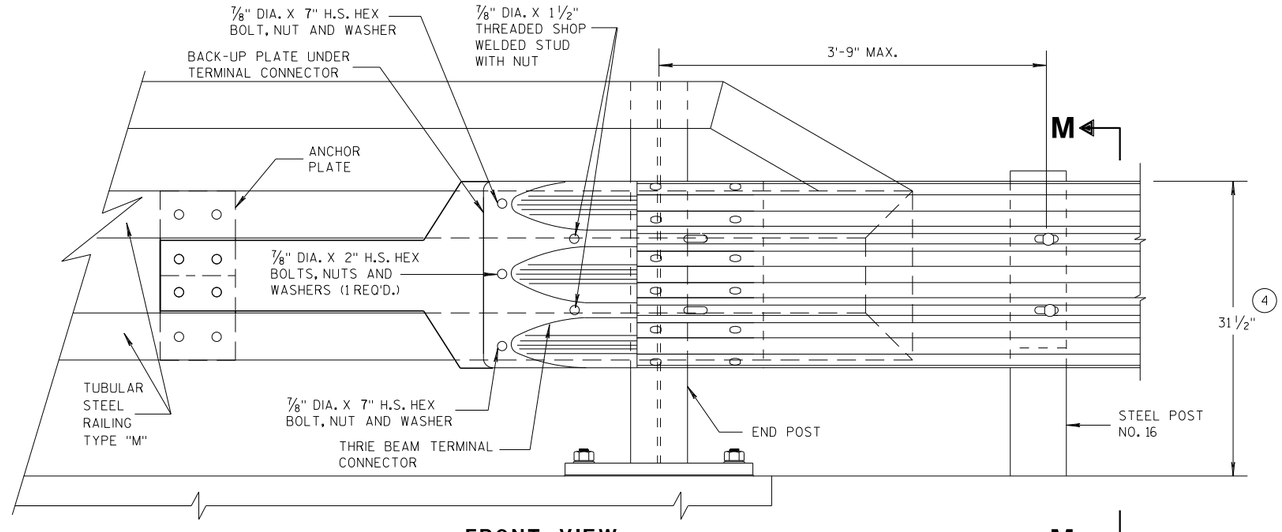


SECTION L-L

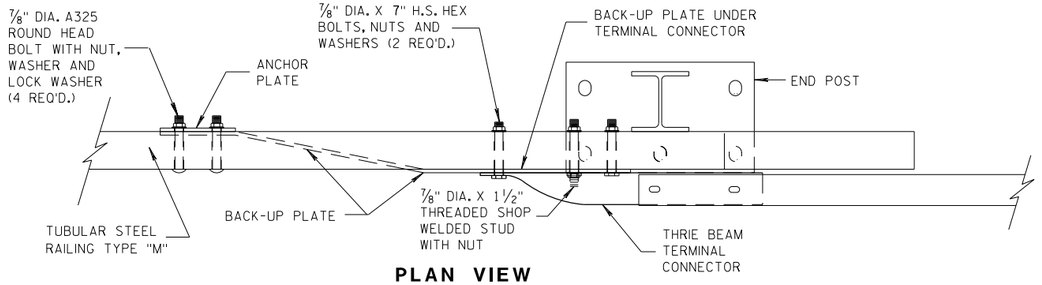


FRONT VIEW

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

6

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

6

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.

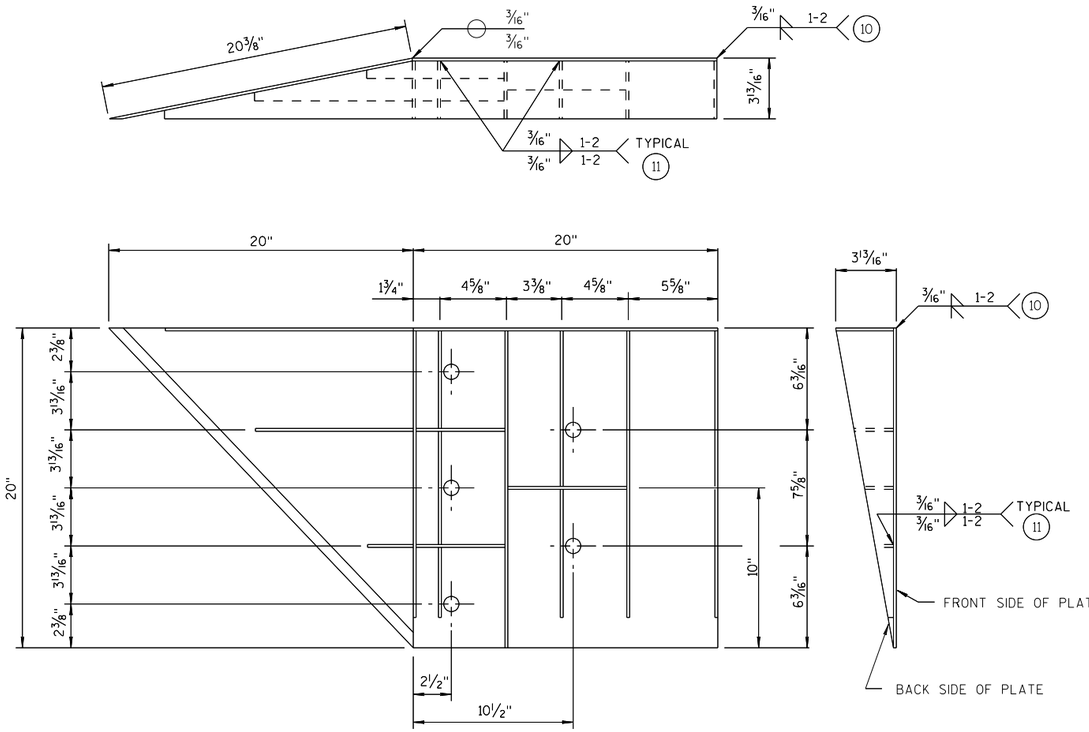
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

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)

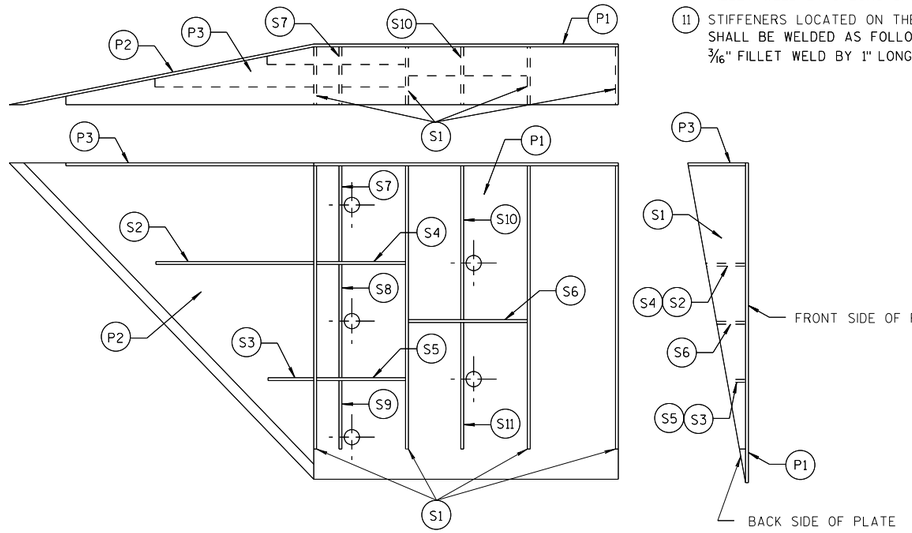


PLATE AND STIFFENER IDENTIFICATION

(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)

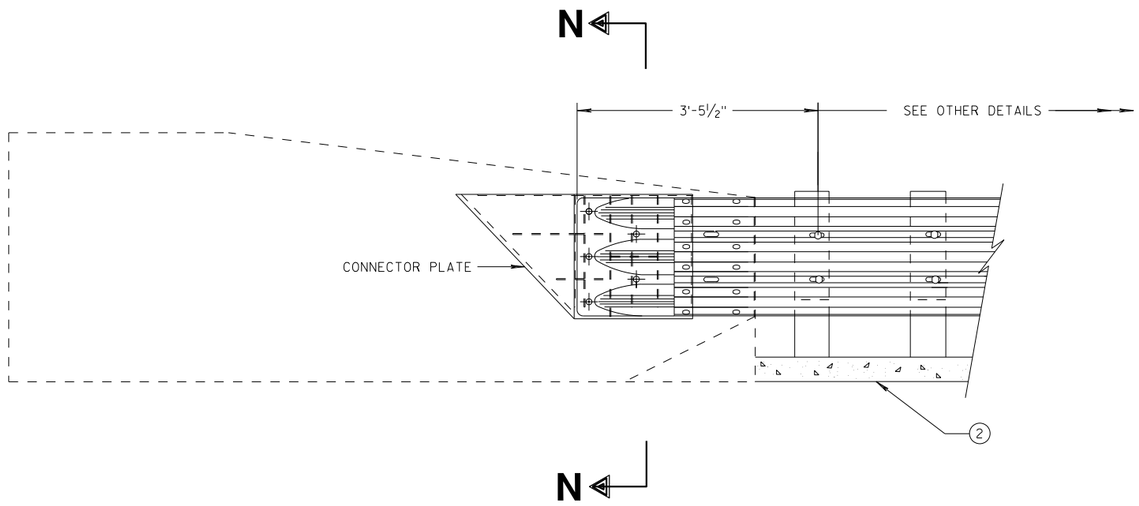
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

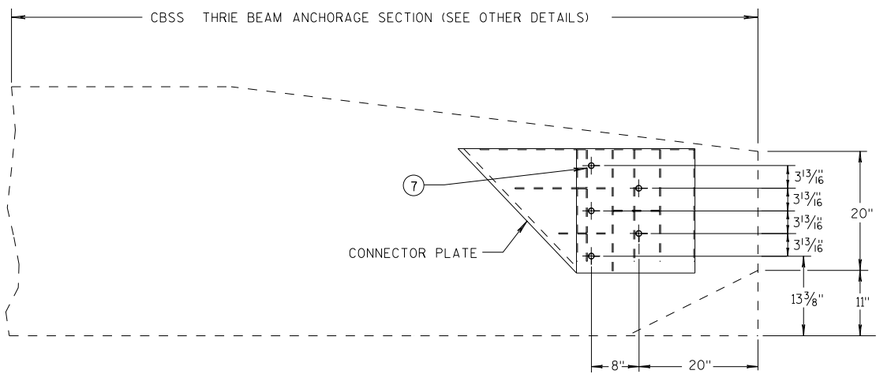
/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI

6

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



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



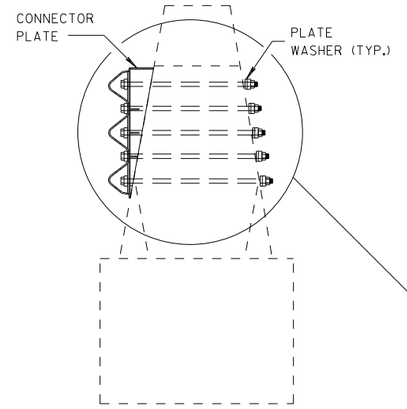
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

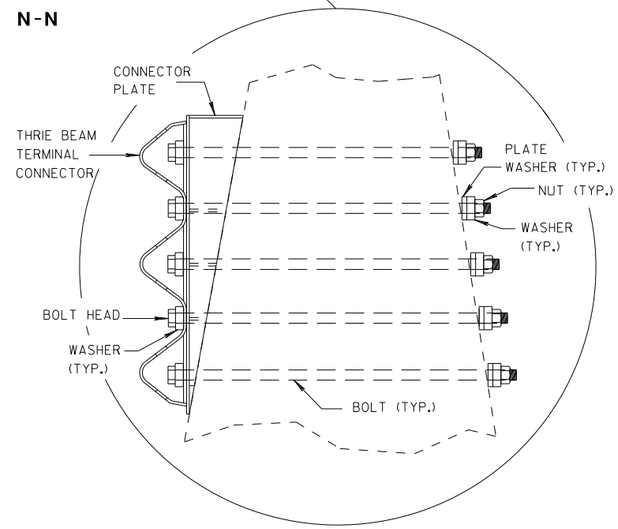
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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

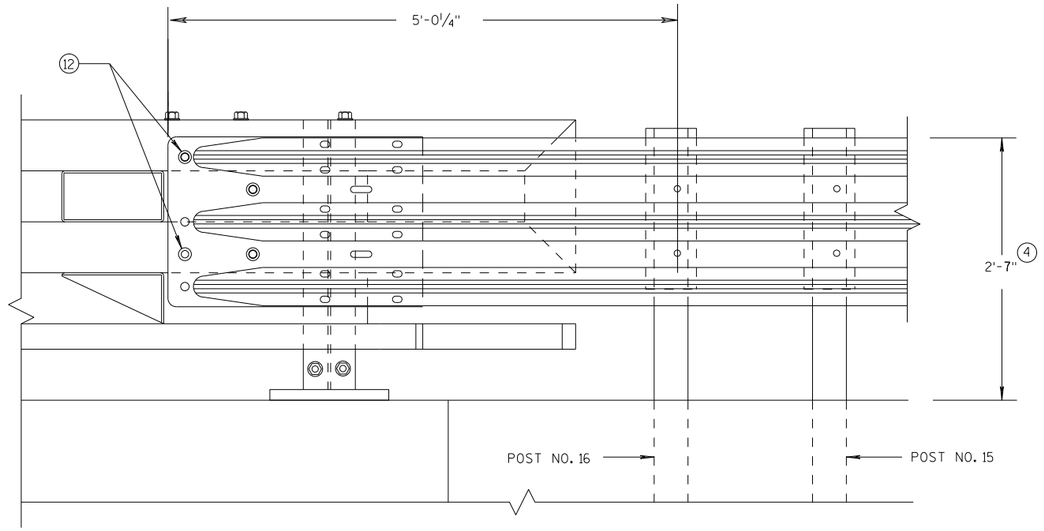
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DI UNIT SUPERVIS
NT
FHWA

6

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

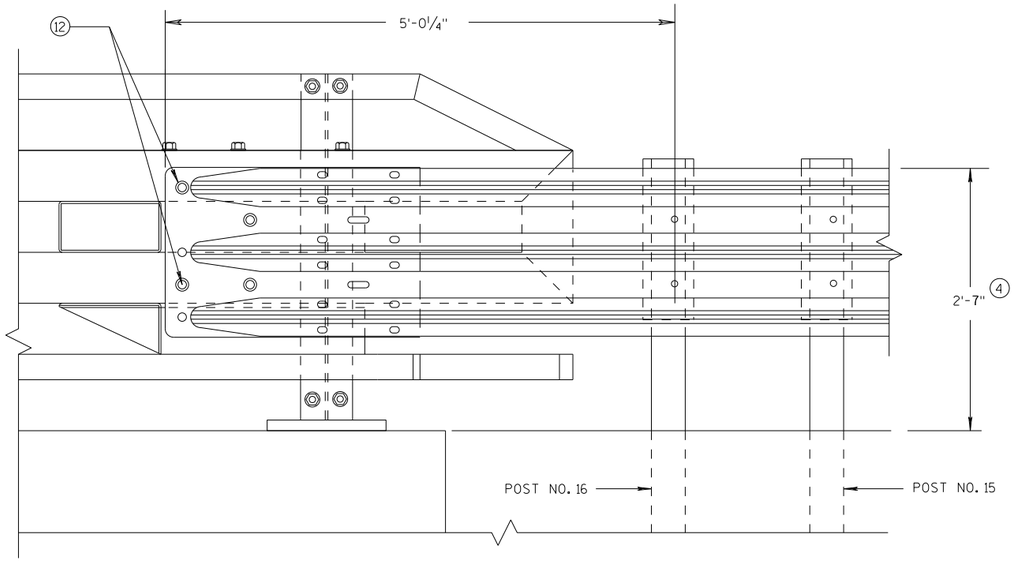
6

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



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

APPROVED
7/2018
DATE
FHWA

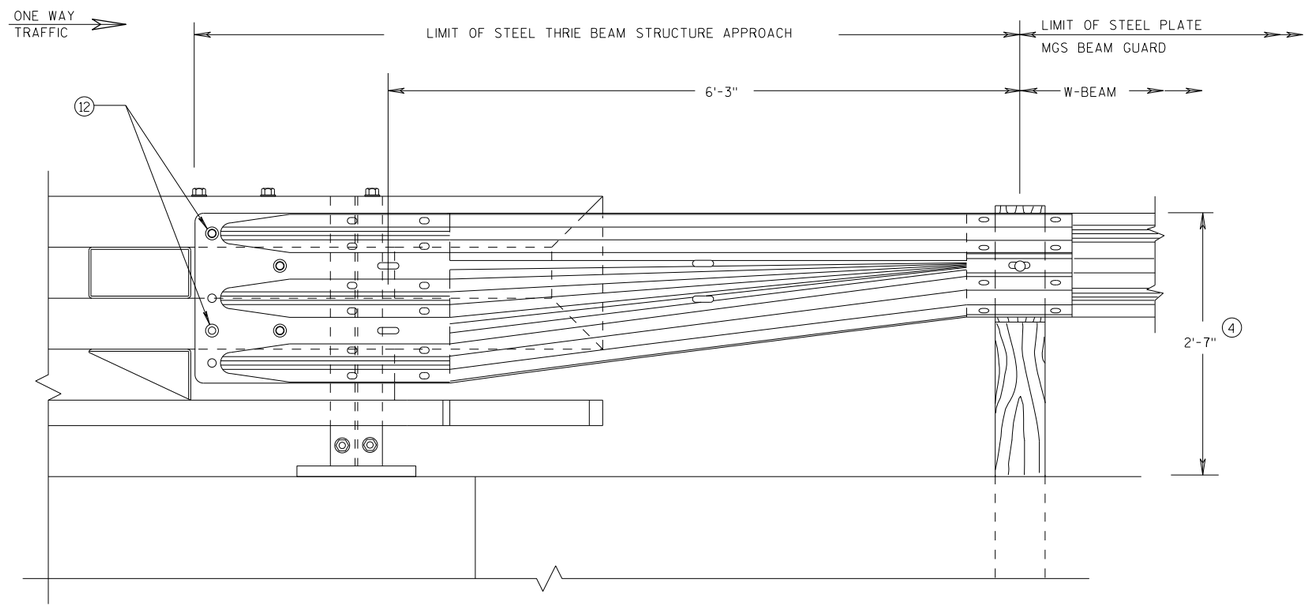
/S/ Rodney Taylor
ROADWAY STANDARDS D 74 NT
UNIT SUPERVIS

6

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

6

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



FRONT VIEW

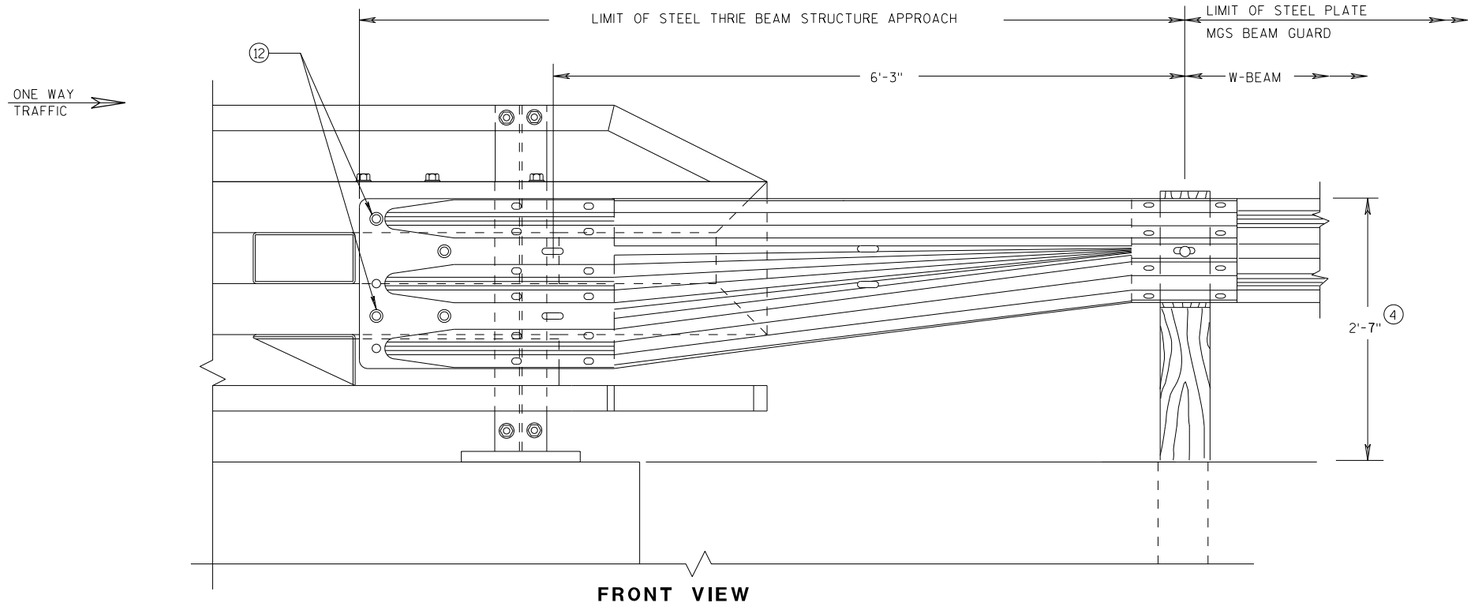
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(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
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS
FHWA

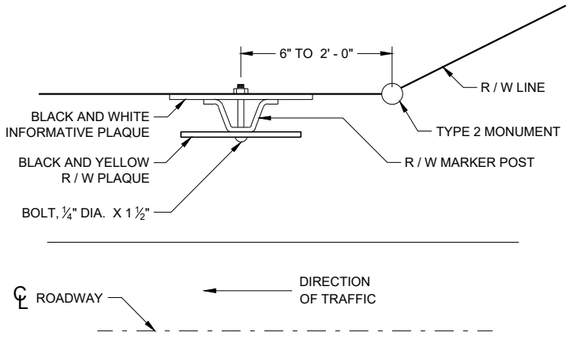
NT

6

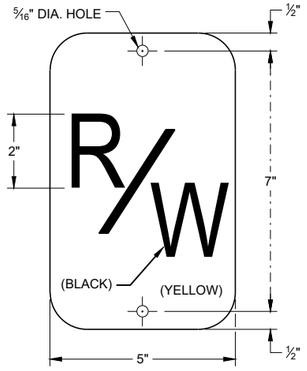
S.D.D. 14 B 45-5L

6

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

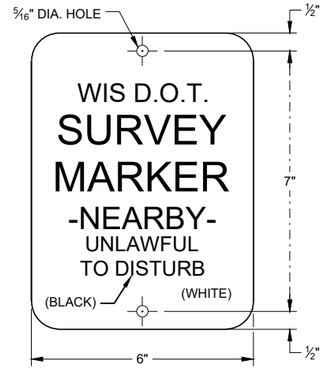


PLAN VIEW
STEEL MARKER POST



R / W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

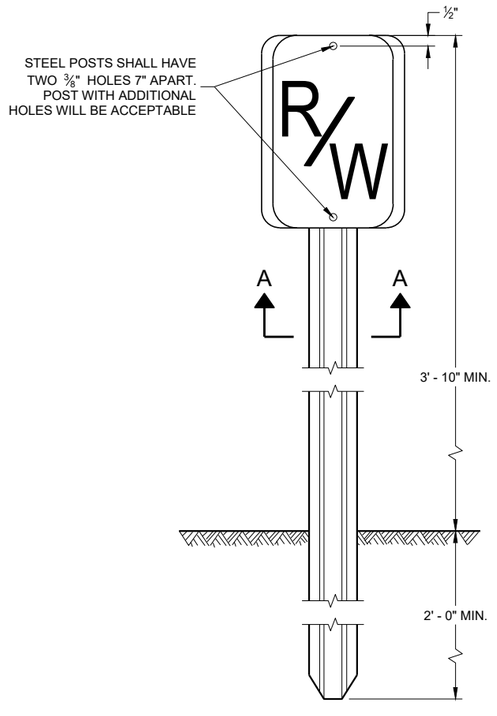
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

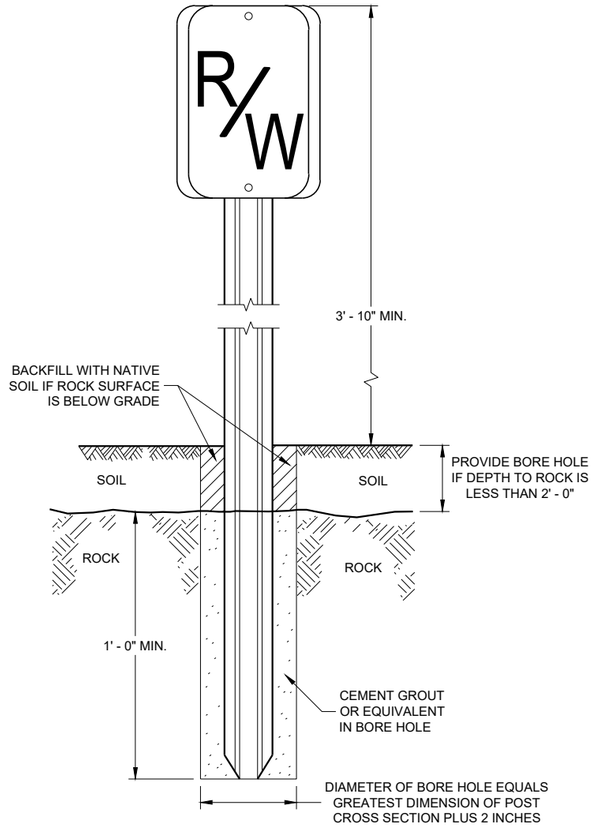
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFROMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

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

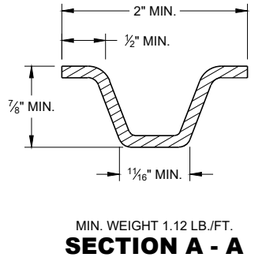
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL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



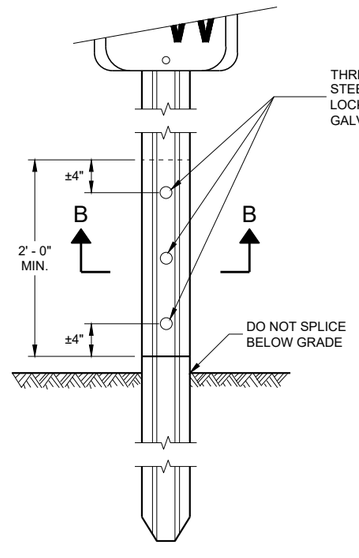
FRONT VIEW
STEEL MARKER POST



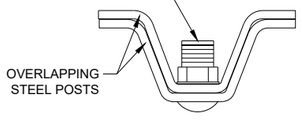
FRONT VIEW
ROCK INSTALLATION (1)



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



FRONT VIEW
SPLICE DETAIL



SECTION B - B

MARKER POST FOR RIGHT - OF - WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

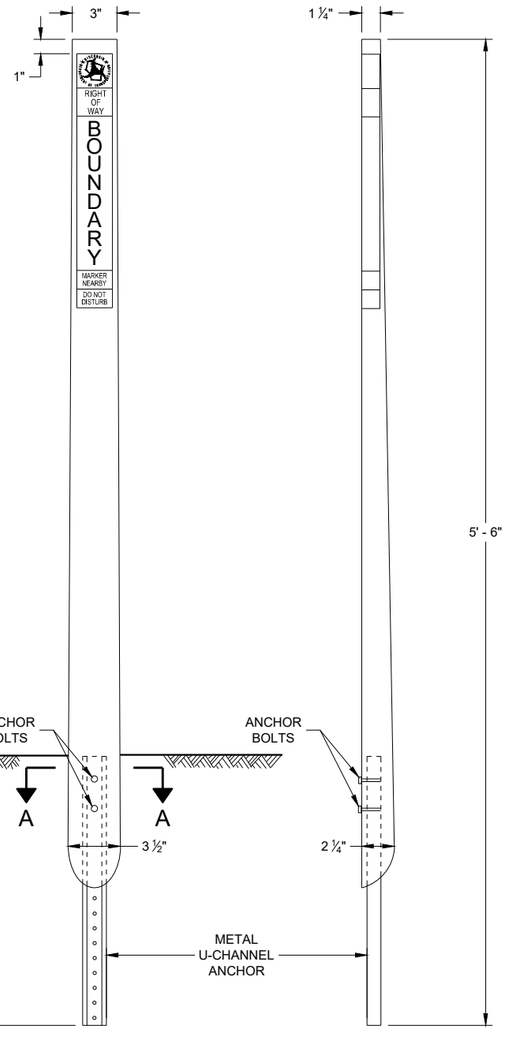
FHWA

6

SDD 15A01 - 13a

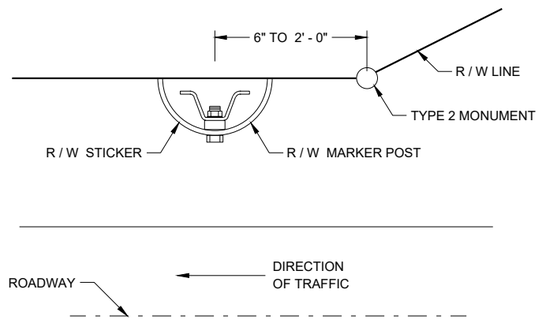
6

SDD15A01 - 13a

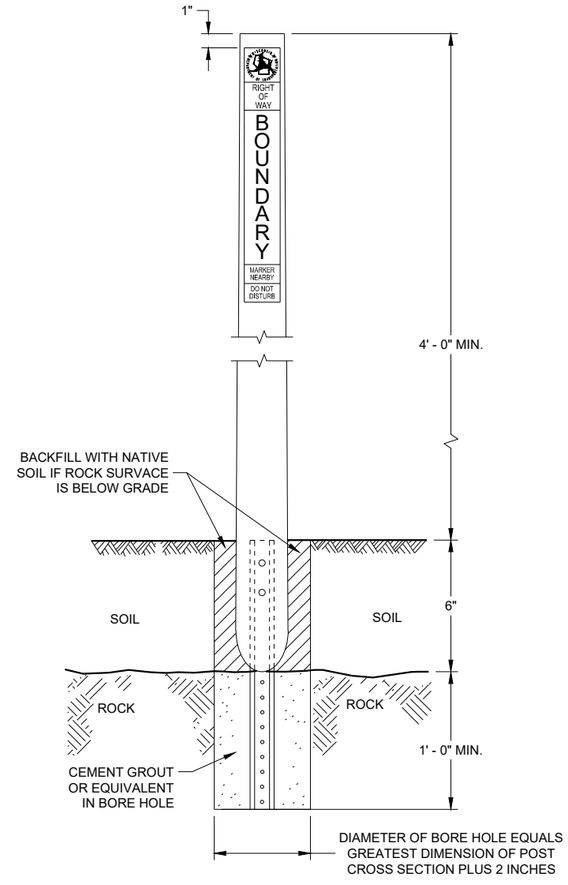


FRONT VIEW SIDE VIEW

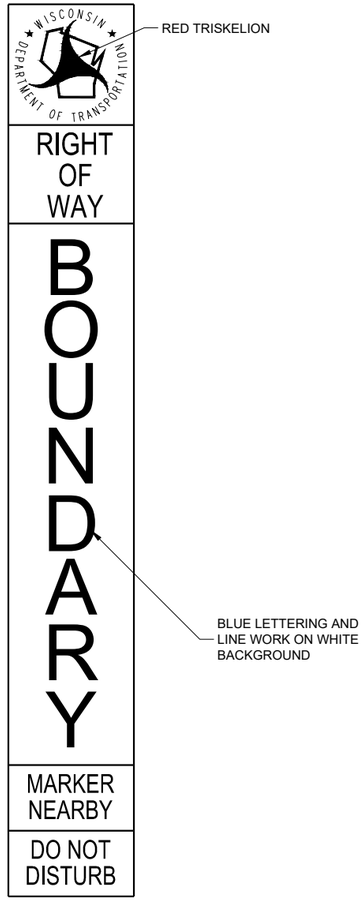
FLEXIBLE MARKER POST FOR ① RIGHT-OF-WAY



PLAN VIEW

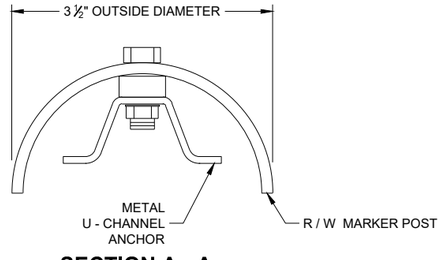


FRONT VIEW ① ② ROCK INSTALLATION



RIGHT-OF-WAY STICKER

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



SECTION A - A

GENERAL NOTES

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

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

THE RIGHT-OF-WAY STICKER DIMENSIONS SHALL BE 2 ¼" X 17" AND THE STICKER SHALL BE MADE OF A NON-RELECTIVE VINYL MATERIAL. THE RIGHT-OF-WAY STICKER SHALL FACE THE ROADWAY.

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

① FLEXIBLE MARKER POSTS SHALL BE INCLUDED IN THE APPROVED PRODUCTS LIST FOR MARKER POSTS AND SHALL BE FEDERAL YELLOW IN COLOR.

② IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 4' - 0" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

FLEXIBLE MARKER POST FOR RIGHT - OF - WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/16/2016 — DATE
/S/ Ray Kumapayii — CHIEF SURVEYING AND MAPPING ENGINEER

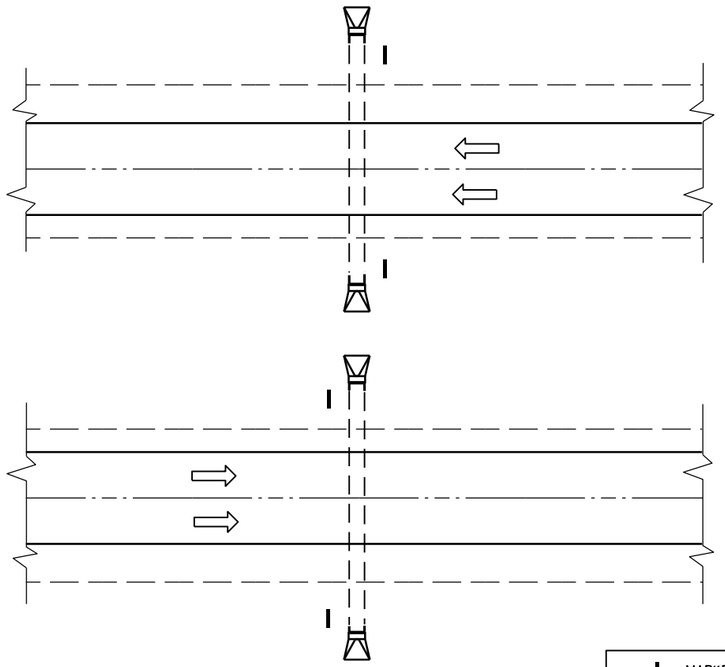
FHWA

6

SDD15A01 - 13b

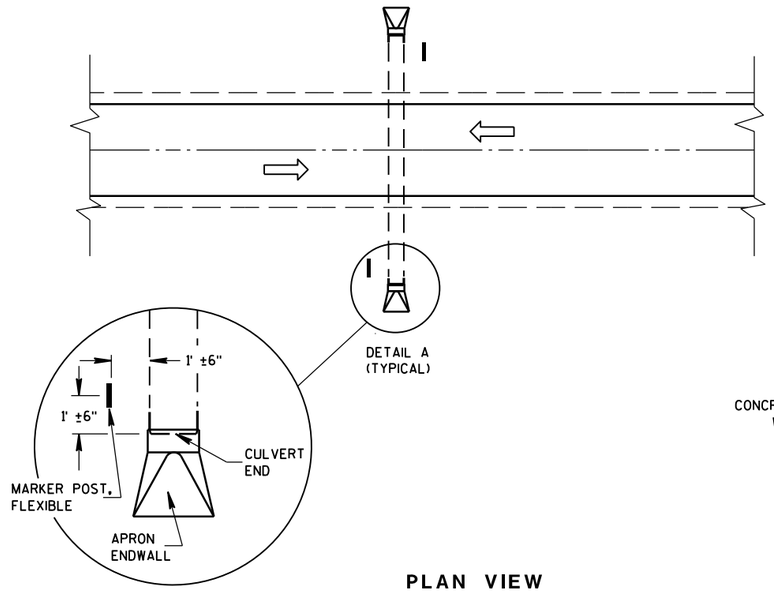
6

SDD15A01 - 13b



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

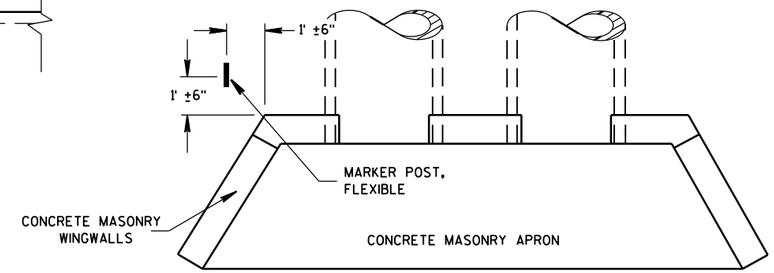
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

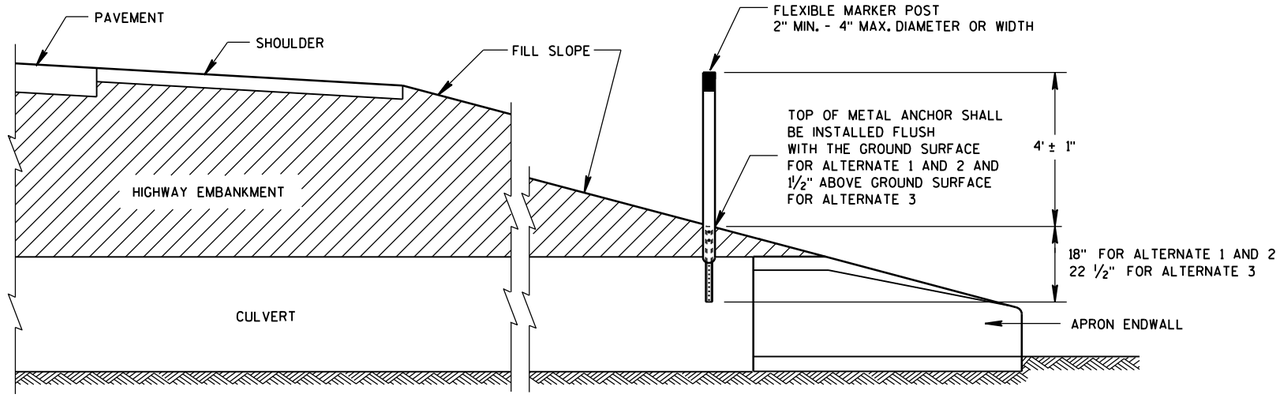
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

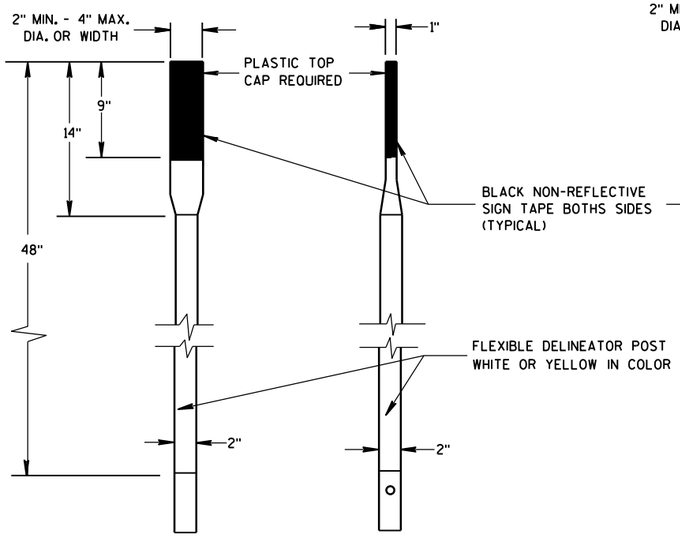
FLEXIBLE MARKER POST

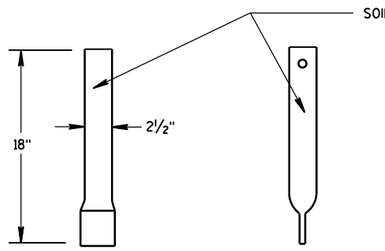
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

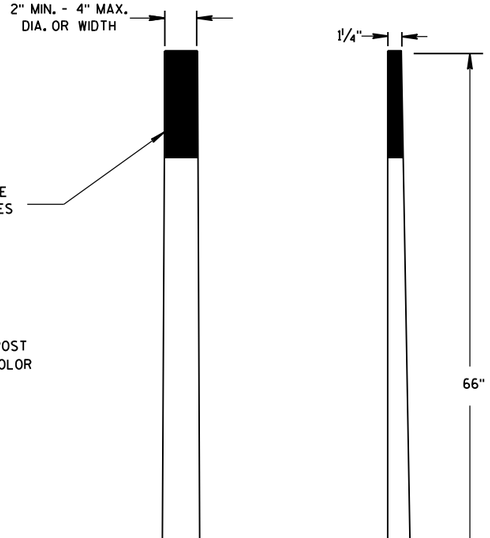
S.D.D. 15 A 3-2a





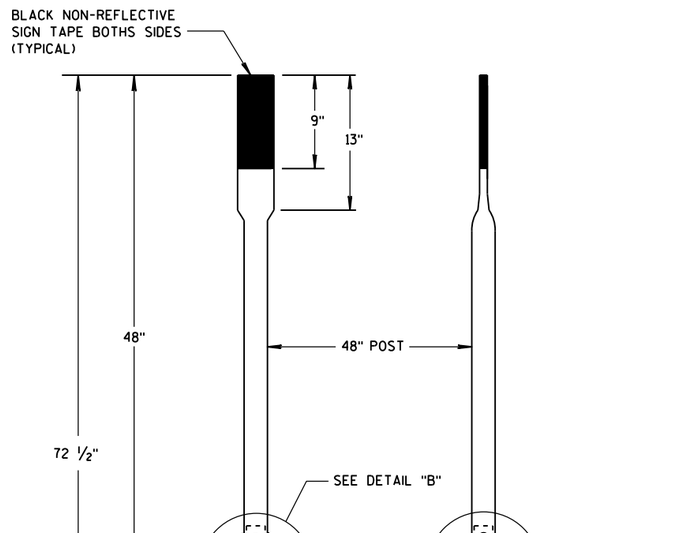
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

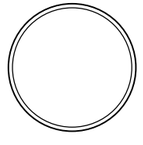
ALTERNATE 2



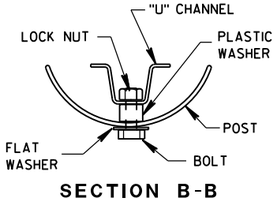
FRONT VIEW SIDE VIEW

ALTERNATE 3

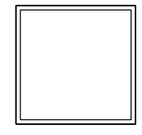
FLEXIBLE MARKER POSTS



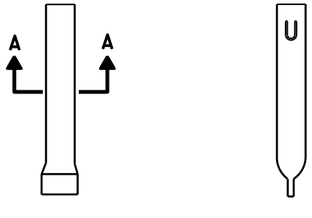
SECTION A-A



SECTION B-B

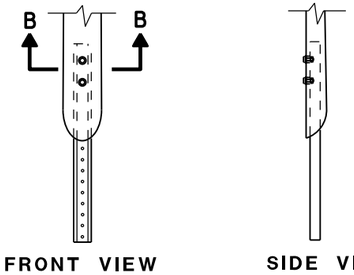


SECTION C-C



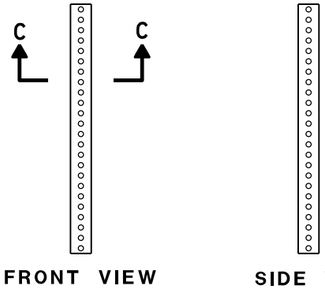
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

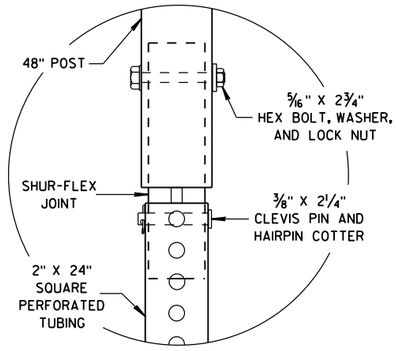
ALTERNATE 2



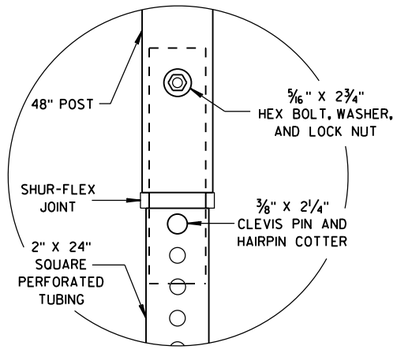
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

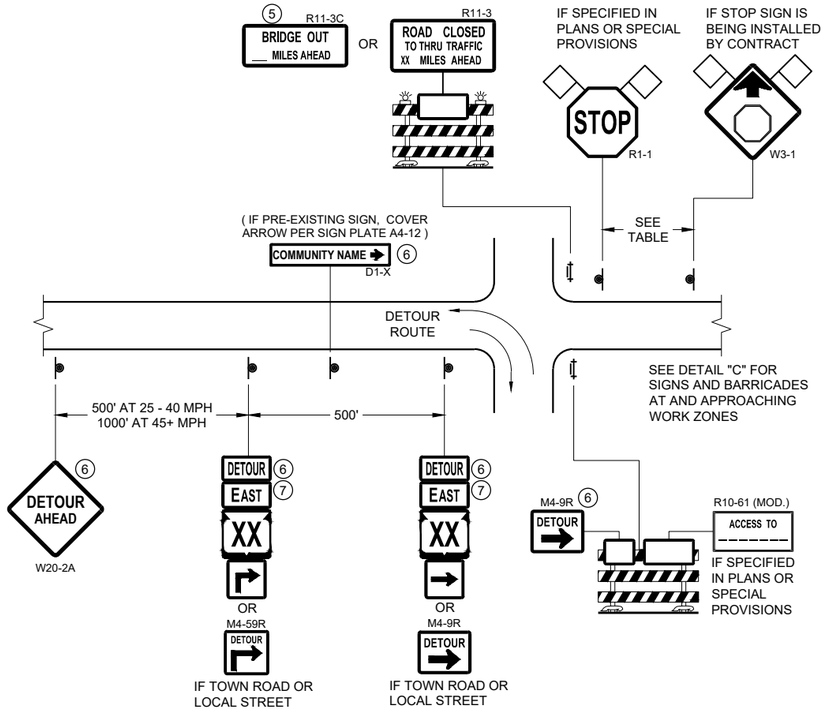
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

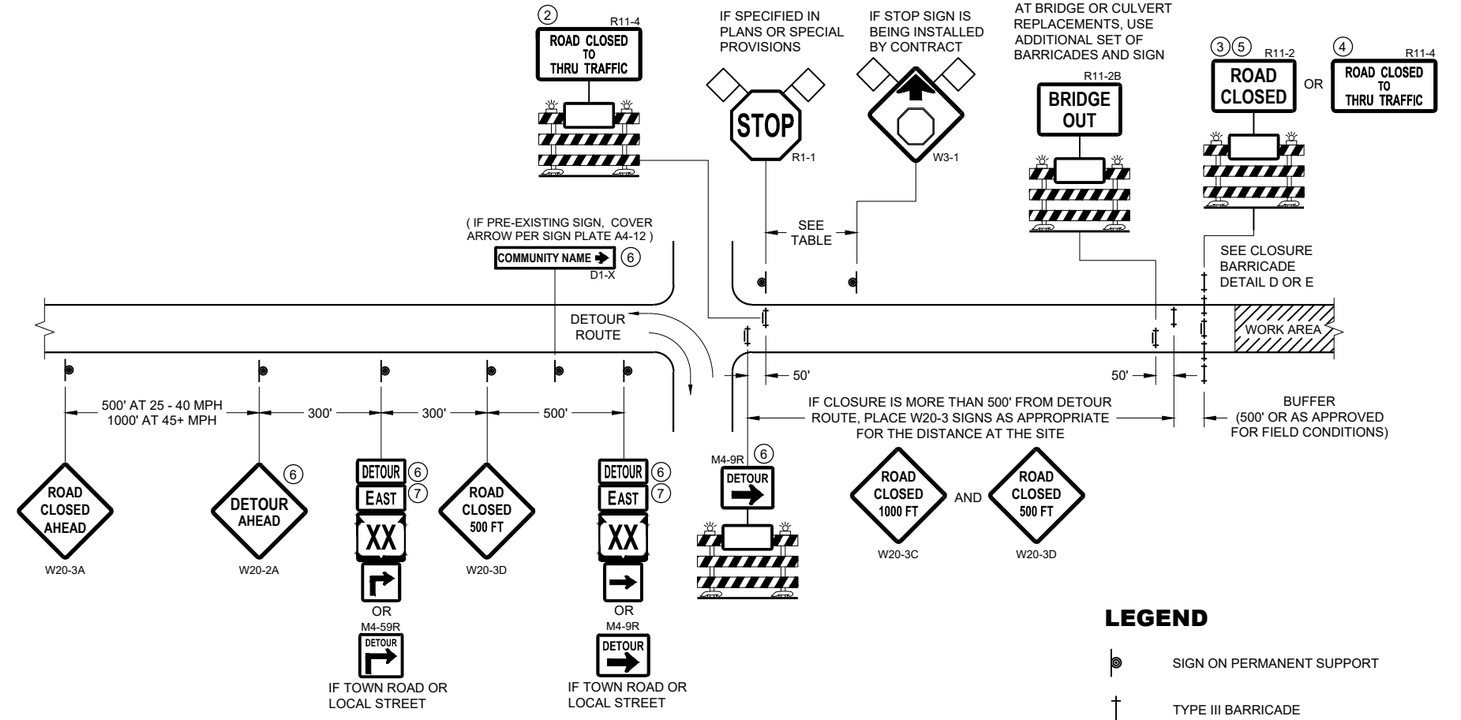
6

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



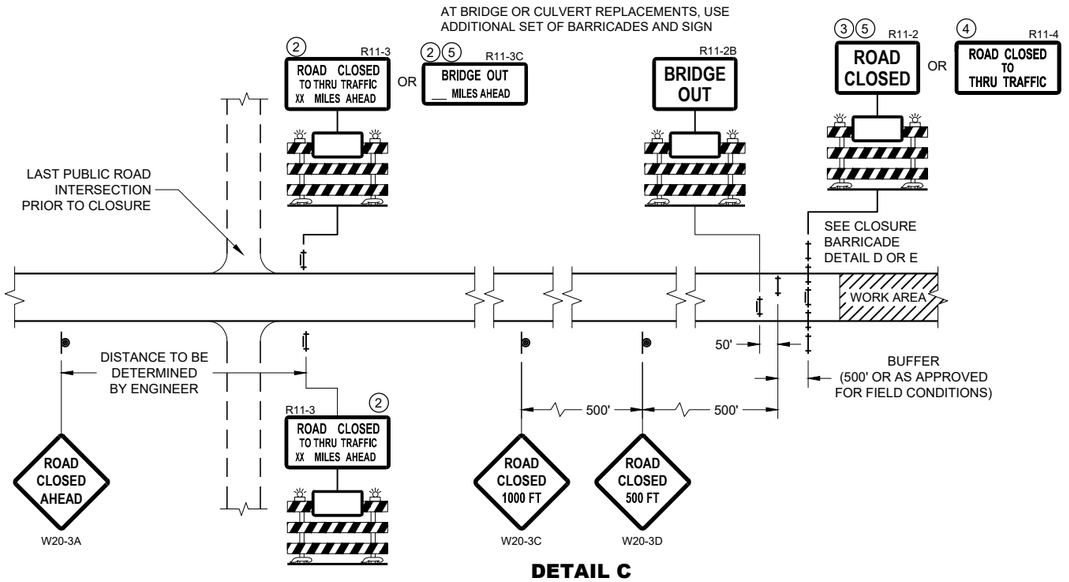
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



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

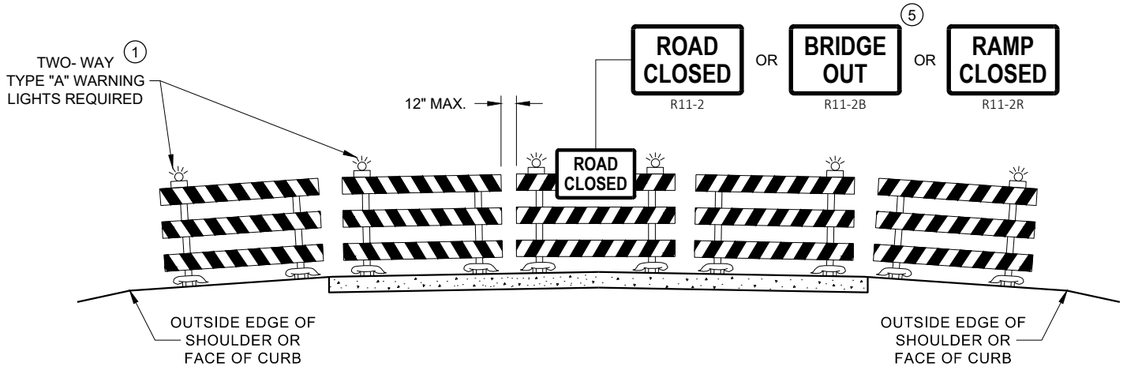
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

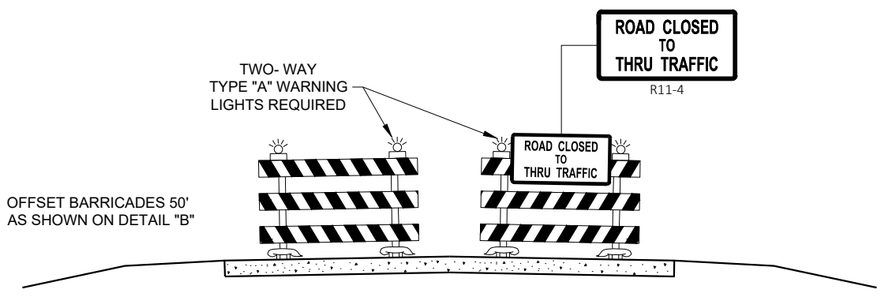
6

SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

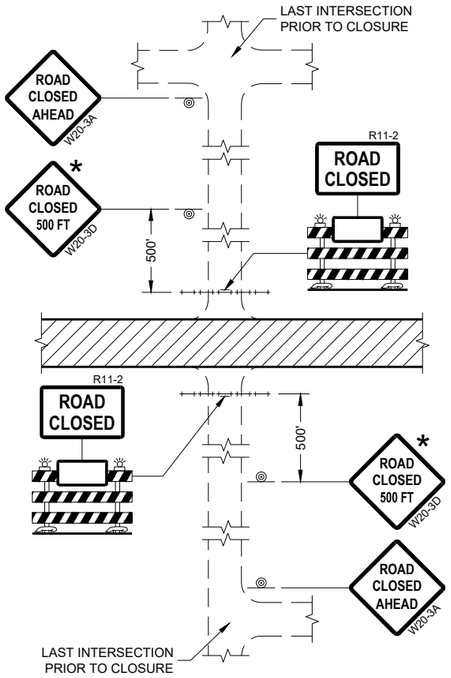
(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

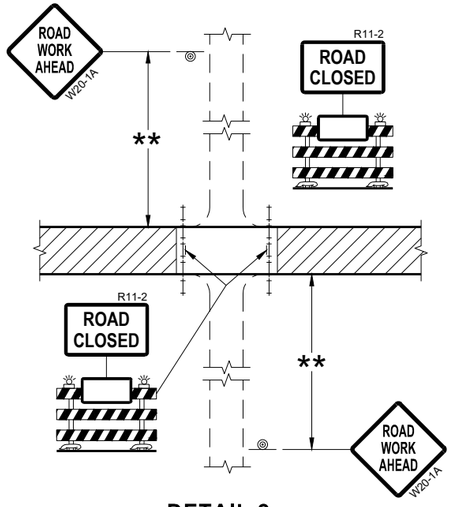
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
SDD 15C02 - 09b



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

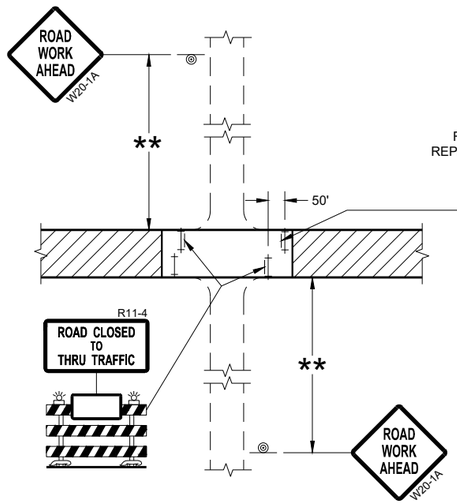
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

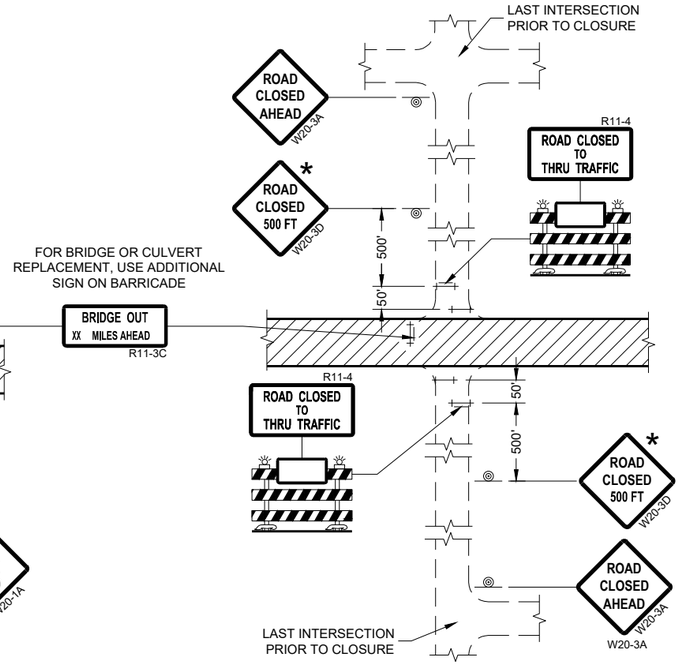
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

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

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





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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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

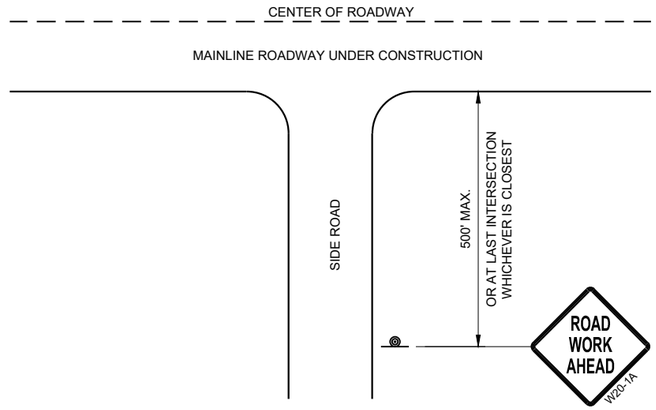
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



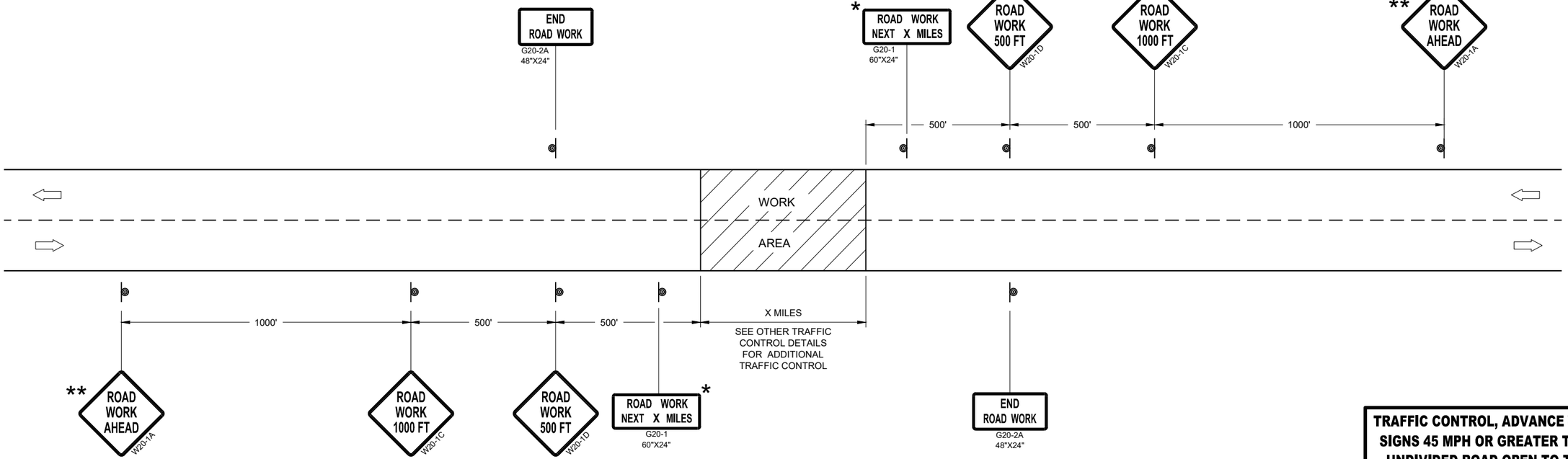
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

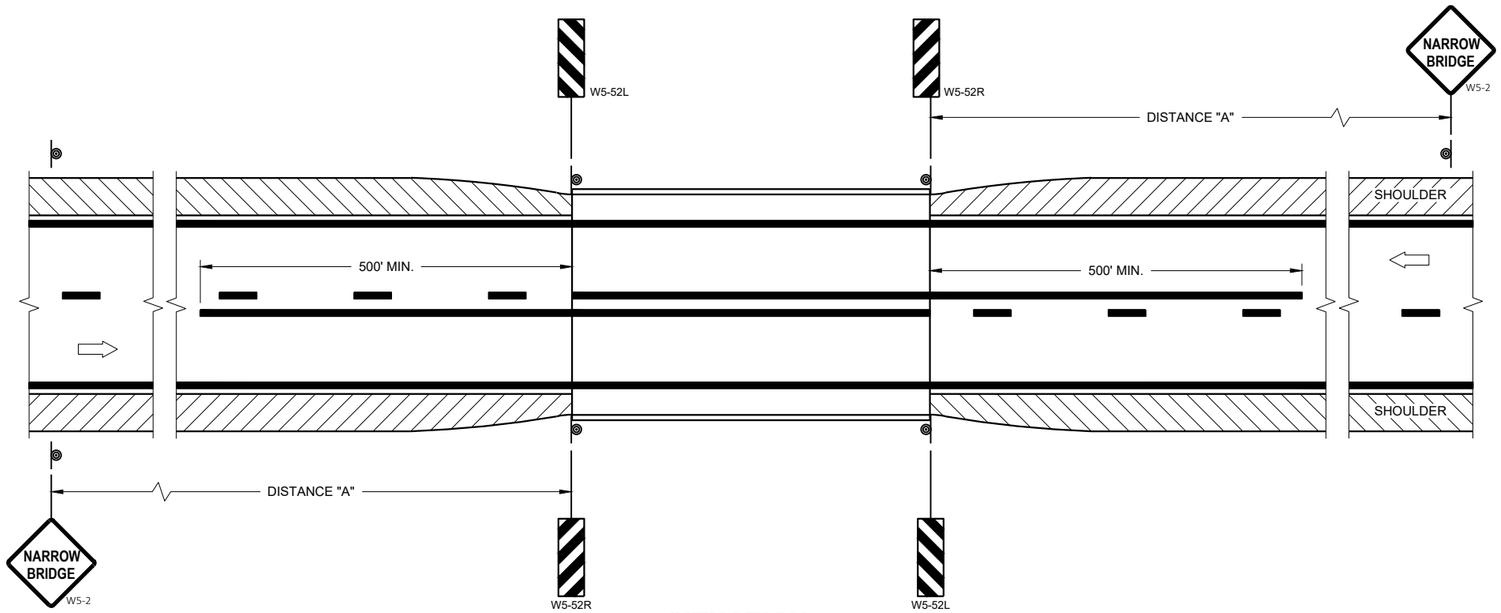
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

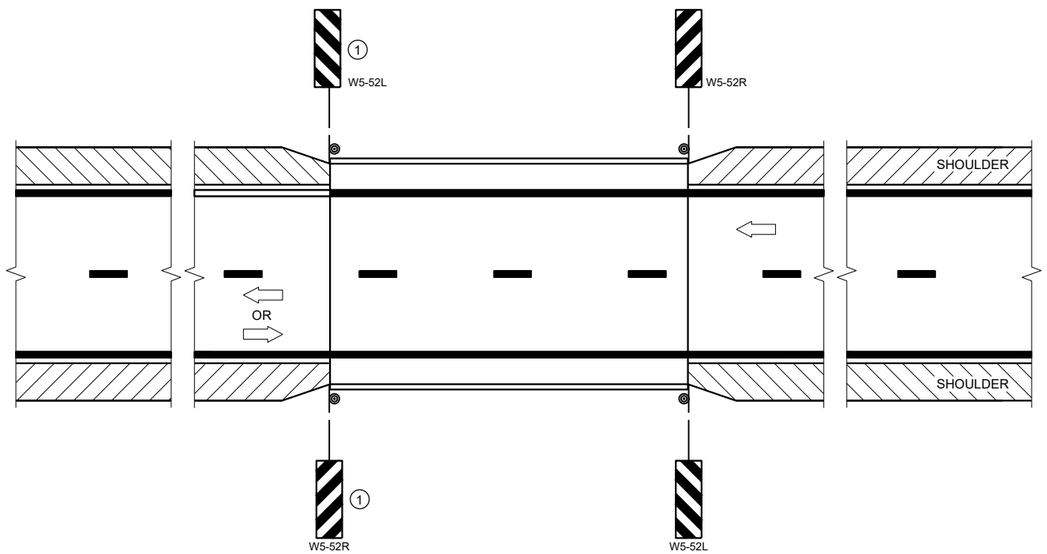
6

SDD 15C04 - 05



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
STATE SIGNING AND MAF ENGINEER

FHWA

6
SDD 15C06-12

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

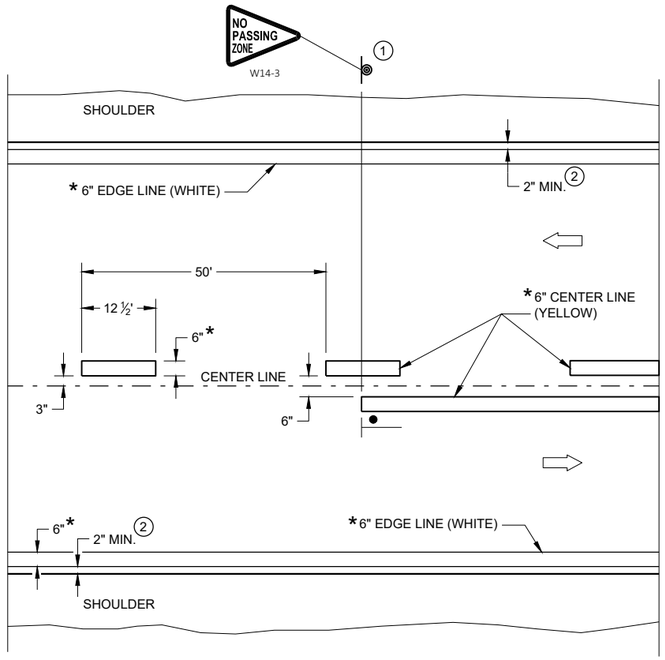
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

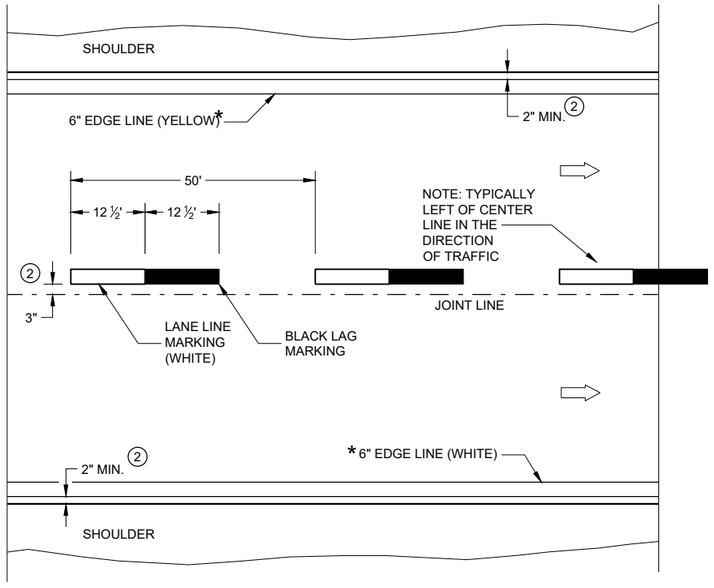
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

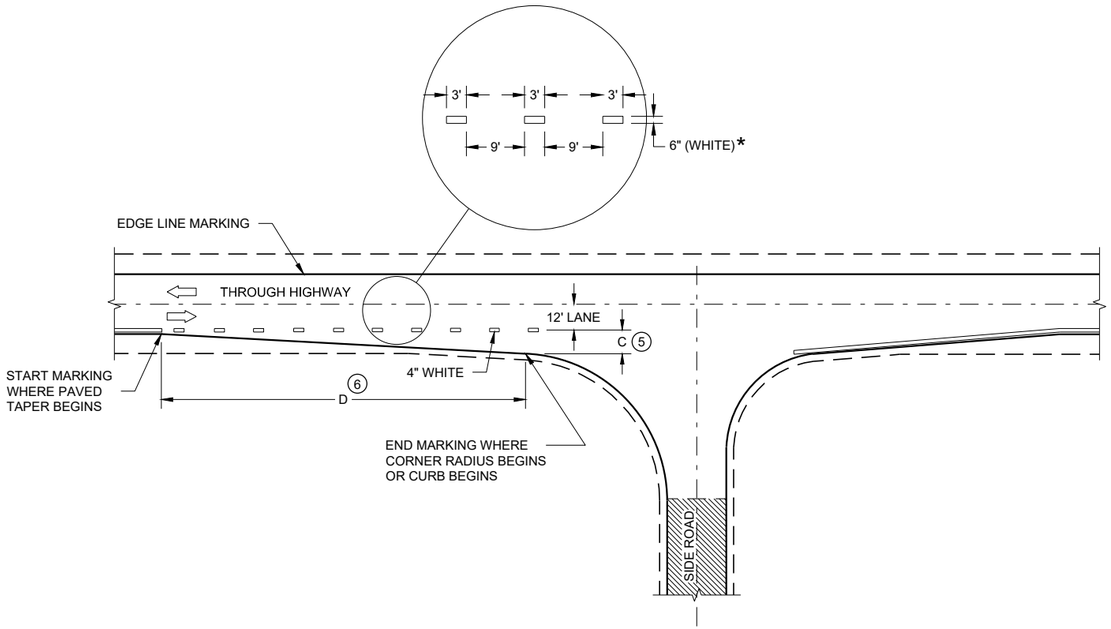
May 2023 — DATE

/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

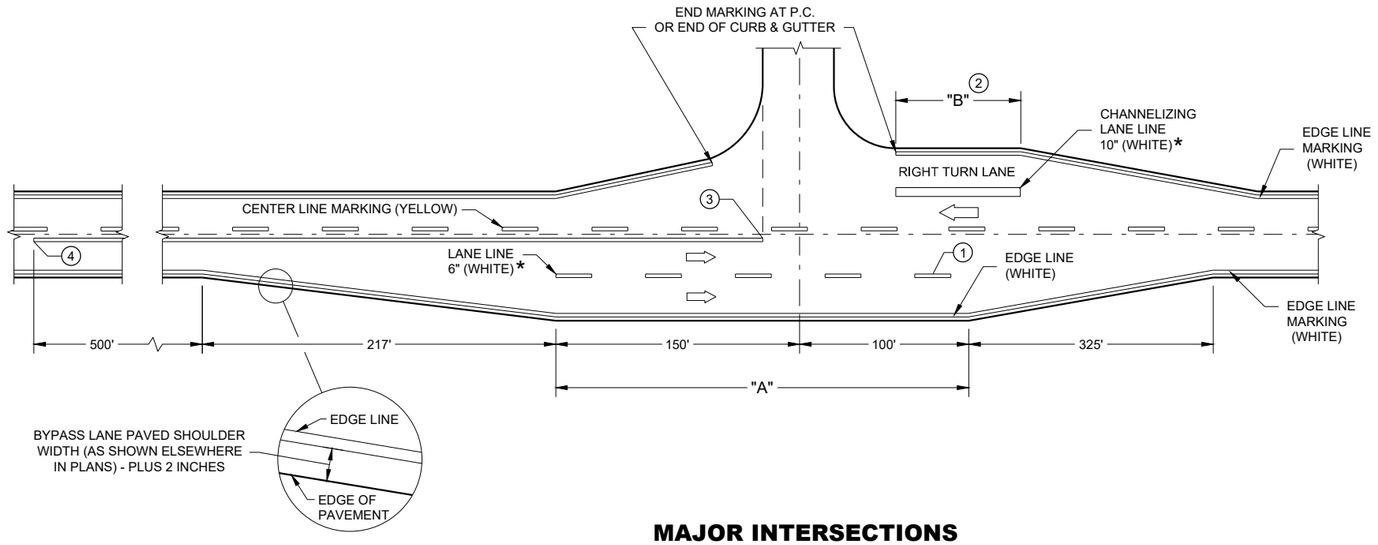
FHWA

6

SDD 15C08-23a



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

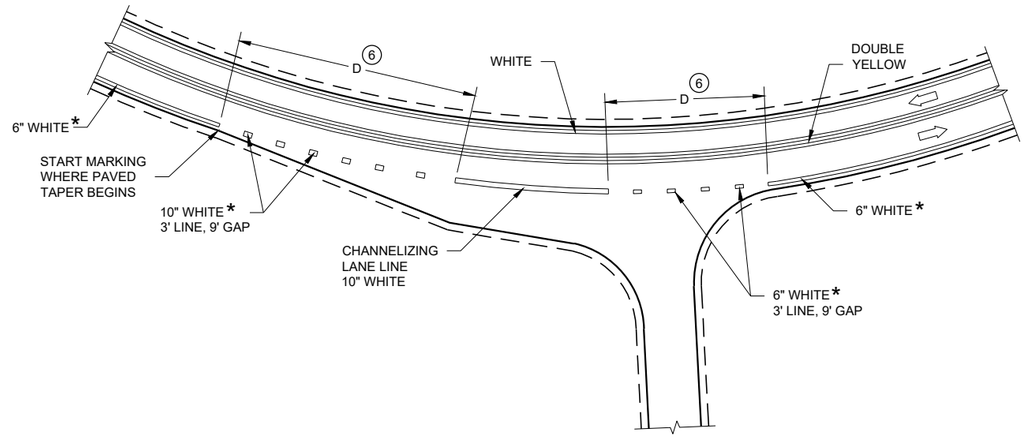
GENERAL NOTES

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

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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35-06a

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

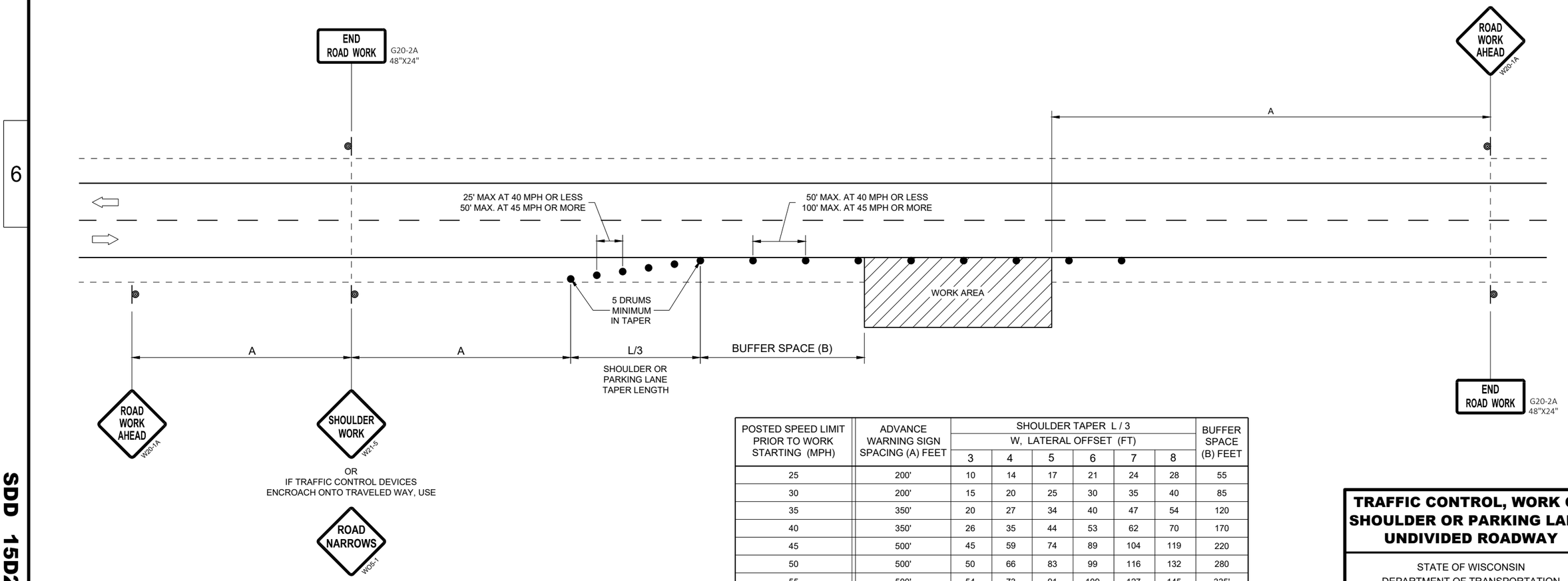
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

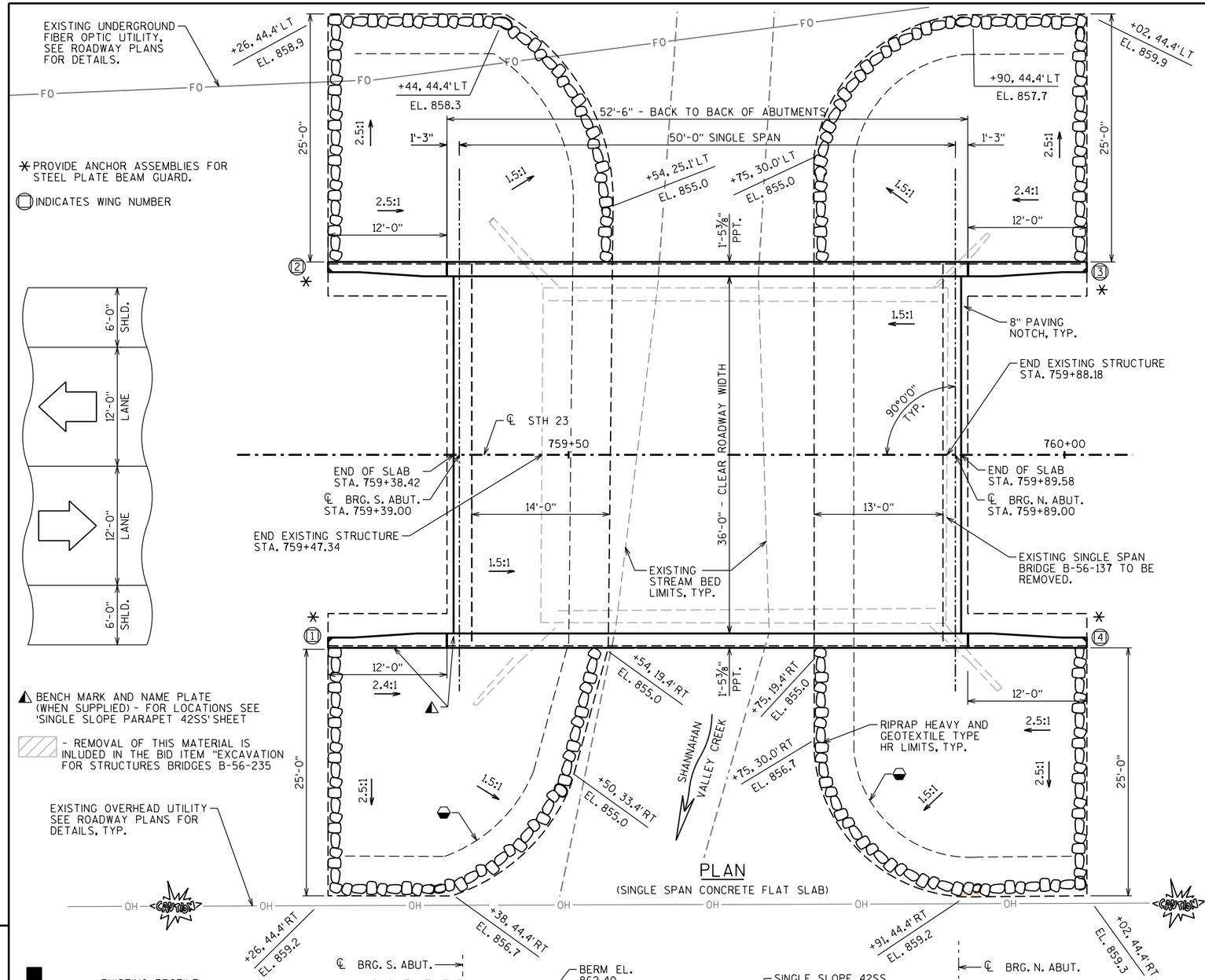
FHWA

SDD 15D28 - 04

SDD 15D28 - 04

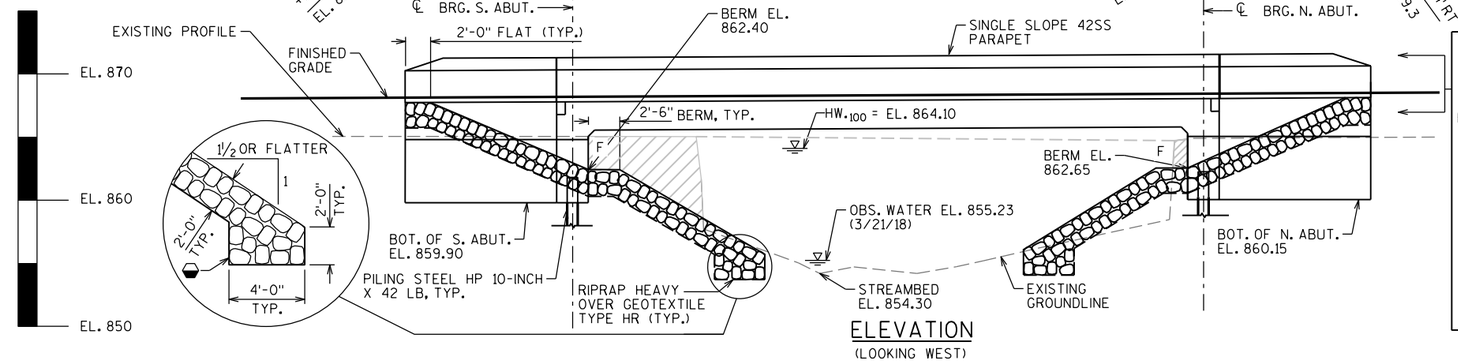
STATE PROJECT NUMBER

5080-02-82



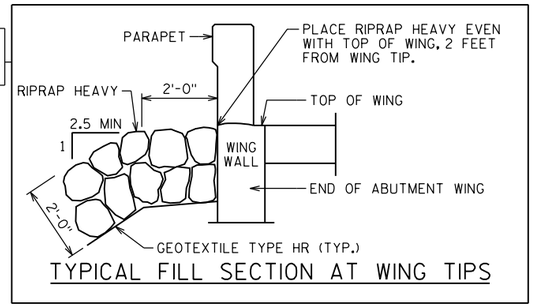
PLAN

(SINGLE SPAN CONCRETE FLAT SLAB)



ELEVATION

(LOOKING WEST)



TYPICAL FILL SECTION AT WING TIPS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.13
OPERATING RATING FACTOR: RF = 1.47
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 P.S.I.
ALL OTHER ——— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 ——— fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON STEEL HP 10 X 42 LB PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

SOUTH ABUTMENT ESTIMATED 20'-0" LONG.
NORTH ABUTMENT ESTIMATED 25'-0" LONG.

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

HYDRAULIC DATA

100 YEAR FREQUENCY

$Q_{100\ TOTAL}$ = 2924 C.F.S.
$Q_{100\ B\text{-}56\text{-}235}$ = 1611 C.F.S.
$VEL._{100}$ = 10.22 F.P.S.
$HW._{100}$ = EL. 864.10
WATERWAY AREA = 158 SQ. FT.
$DRAINAGE\ AREA_{TOTAL}$ = 12.6 SQ. MI.
($DRAINAGE\ AREA_{TOTAL}$ INCLUDES BOTH SHANNAHAN VALLEY CREEK AND HONEY CREEK)
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

Q_2 = 610 C.F.S.
$VEL._2$ = 5.9 F.P.S.
$HW._2$ = EL. 861.37

TRAFFIC DATA

A.A.D.T. (2021) = 2200
A.A.D.T. (2041) = 2400
R.D.S. = 60 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE DETAILS
10. SINGLE SLOPE PARAPET 42SS

WISCONSIN PROFESSIONAL ENGINEER
JULIA I. ZEHNER
E-50015
PRAIRIE DU SAC
WI
8/31/2023

CONSULTANT DESIGN CONTACT:
JULIA ZEHNER
(608) 355-8878

BRIDGE OFFICE CONTACT:
AARON BONK
(608) 261-0261

NO.	DATE	REVISION	BY

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1230 South Boulevard, Baraboo WI 53913
(608) 356-2771 www.msa-ps.com

© MSA Professional Services, Inc.

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-56-235

STH 23 OVER SHANNAHAN VALLEY CREEK

COUNTY	TOWN
SAUK	FRANKLIN

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JDH	JZ	EKK	JZ

SHEET 1 OF 10

GENERAL PLAN 88

I.D. DATE:

00093706_B-56-0235_01_GeneralPlan.dgn 8/23/2023 3:37:54 PM ekazadi

STATE PROJECT NUMBER
5080-02-82

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE BAR MARK AND THE FIRST TWO DIGITS OF A FOUR BAR MARK SIGNIFY THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-56-235" SHALL BE THE EXISTING GROUNDLINE.

THIS STRUCTURE WILL REPLACE EXISTING STRUCTURE B-56-137, A 41.9 FT. LONG STEEL DECK GIRDER BRIDGE WITH A CLEAR WIDTH OF 34.0 FT. SUPPORTED ON CONCRETE ABUTMENTS WITH SPREAD FOOTINGS. ORIGINAL 1937 PLANS ARE AVAILABLE THROUGH THE WISCONSIN DEPARTMENT OF TRANSPORTATION HSI DATABASE.

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

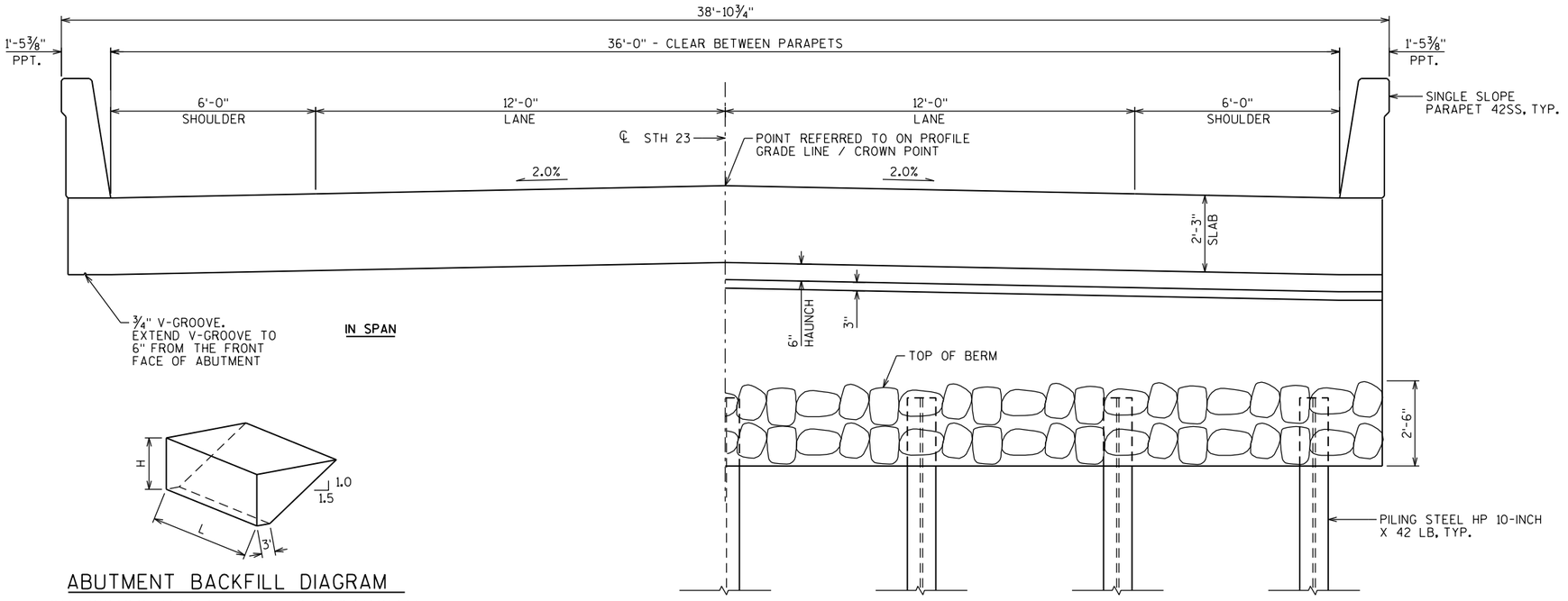
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF SLAB AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE INSIDE FACES, THE TOP, AND THE ENDS OF THE PARAPETS, INCLUDING PARAPETS ON WINGS.

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 OR AS DIRECTED BY THE ENGINEER.

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



AT ABUTMENT

CROSS SECTION THROUGH BRIDGE

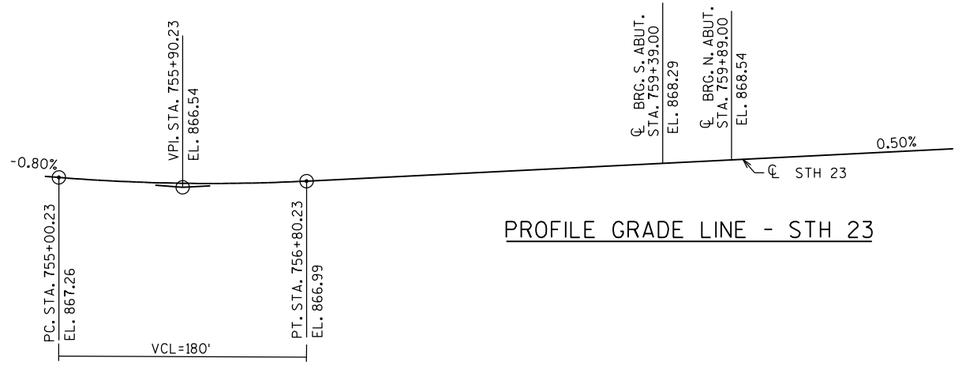
(LOOKING NORTH)

ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

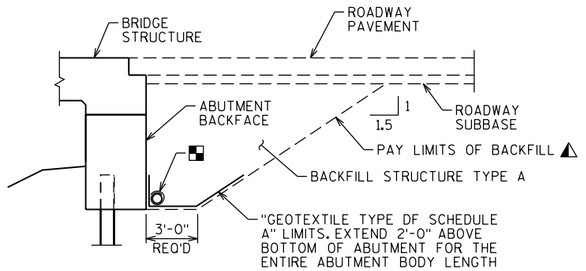
L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER	TOTAL
203.0260.01	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-56-137	EACH	-	-	-	1
206.1001.01	EXCAVATION FOR STRUCTURES BRIDGES B-56-235	EACH	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	114	114	-	228
502.0100	CONCRETE MASONRY BRIDGES	CY	36.4	36.4	193.7	267
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	220	220
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	78	78
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,190	2,190	-	4,380
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,930	1,930	32,670	36,530
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11	11	-	22
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	140	175	-	315
606.0300	RIPRAP HEAVY	CY	180	170	-	350
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	122	122	-	244
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	31	31	-	62
645.0120	GEOTEXTILE TYPE HR	SY	310	290	-	600
	NON-BID ITEMS					
	PREFORMED FILLER	SIZE				½" & ¾"



PROFILE GRADE LINE - STH 23



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY	EKK	PLANS CK'D.	JZ

CROSS SECTION & QUANTITIES

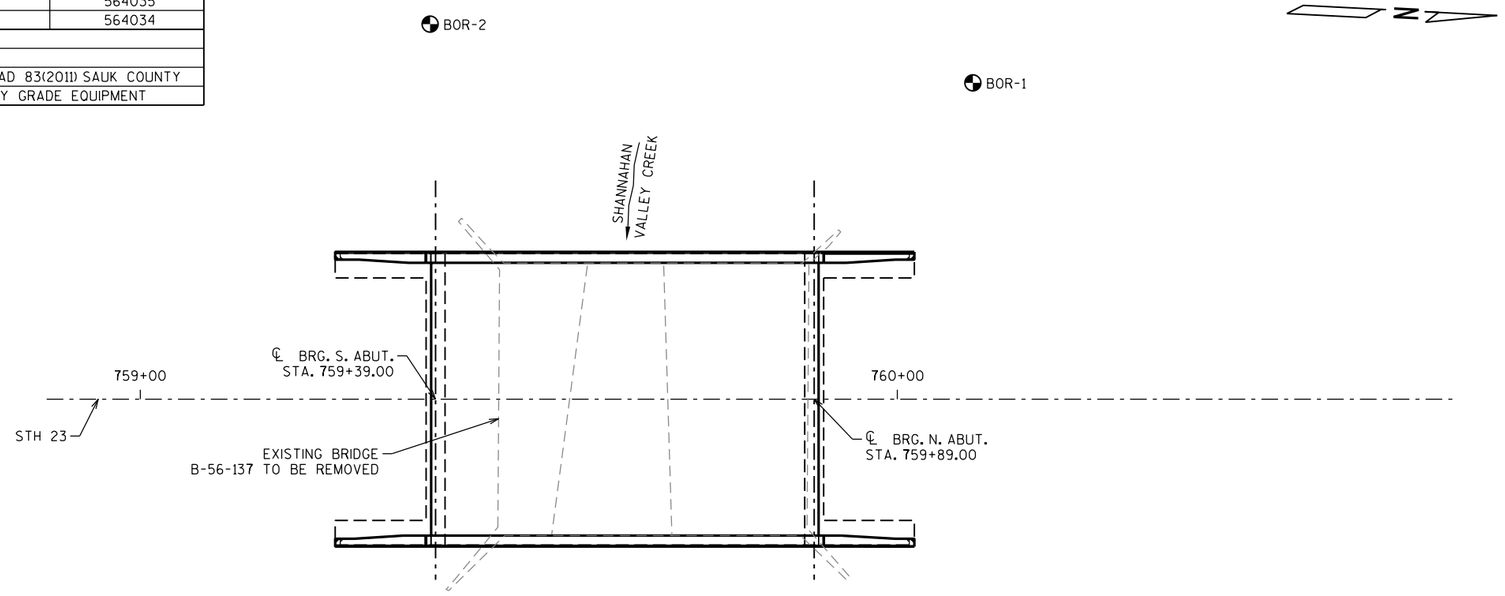
SHEET 2 OF 10

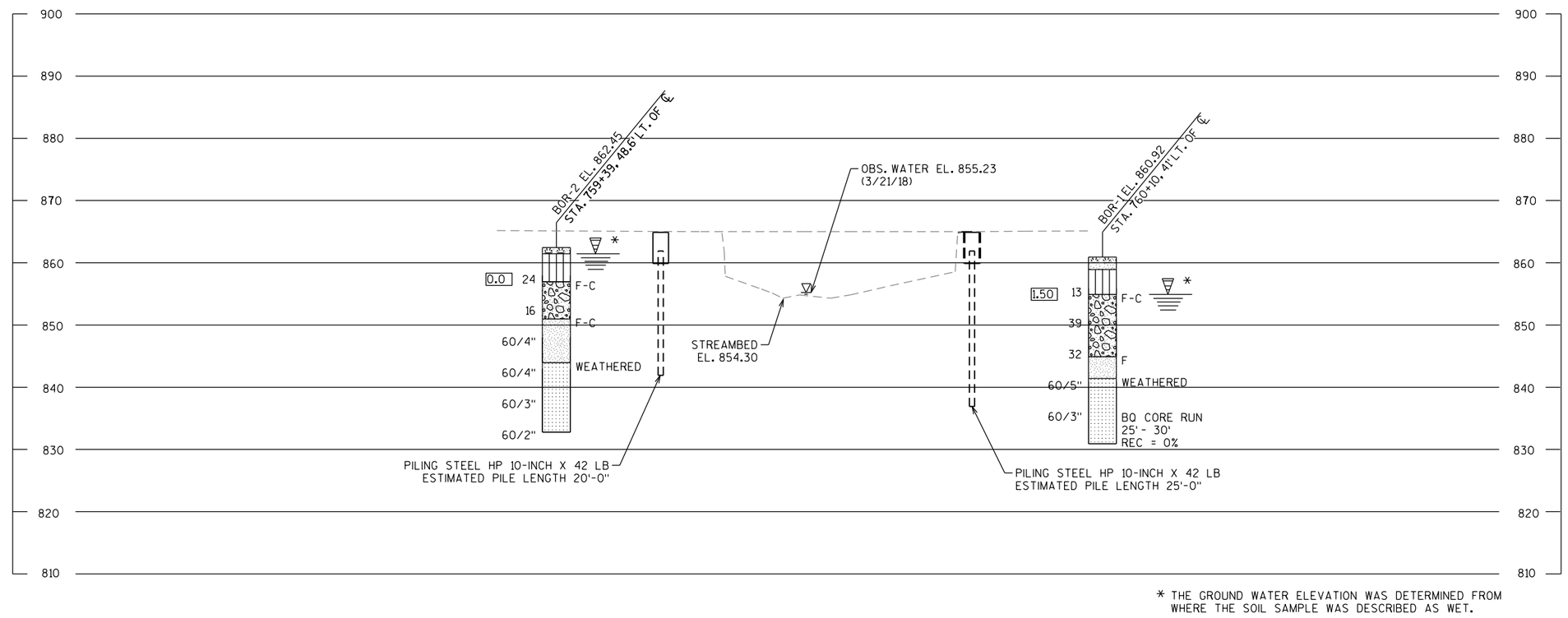
89

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	3/13/2019	192257	564035
2	3/14/2019	192185	564034
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) SAUK COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

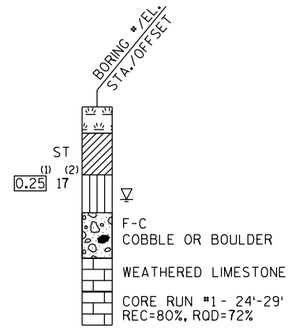
STATE PROJECT NUMBER

5080-02-82

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

SUBSURFACE EXPLORATION

SHEET 3 OF 10

90

8

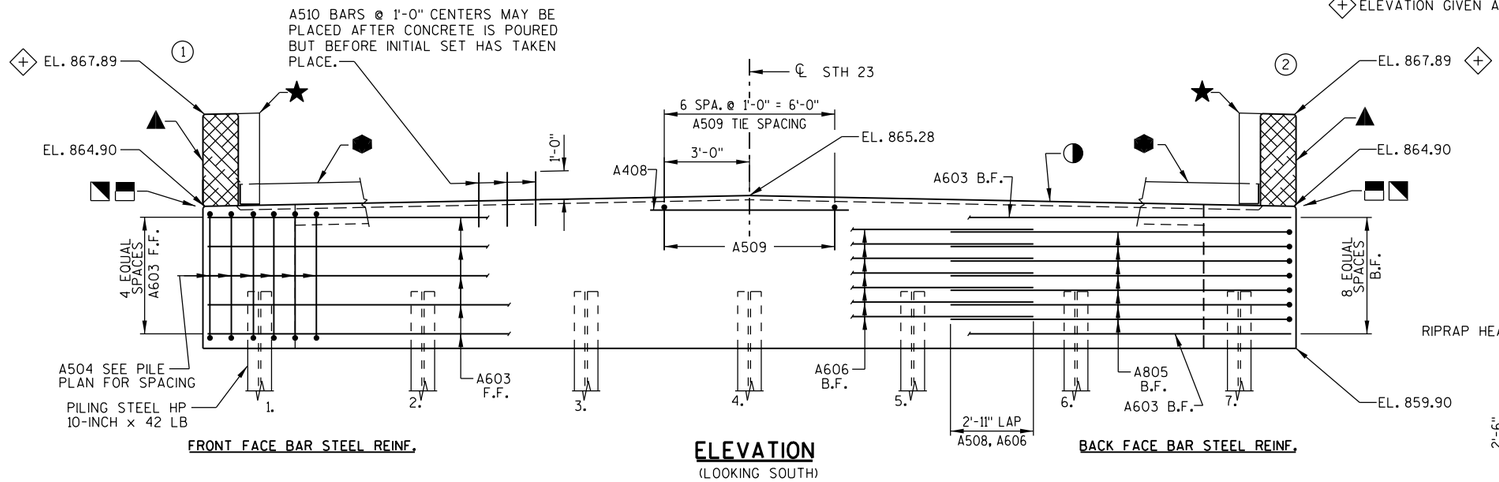
8

00093706_B-56-0235_03_geotechsheet.dgn 8/11/2023 3:44:16 AM ekazadi

STATE PROJECT NUMBER

5080-02-82

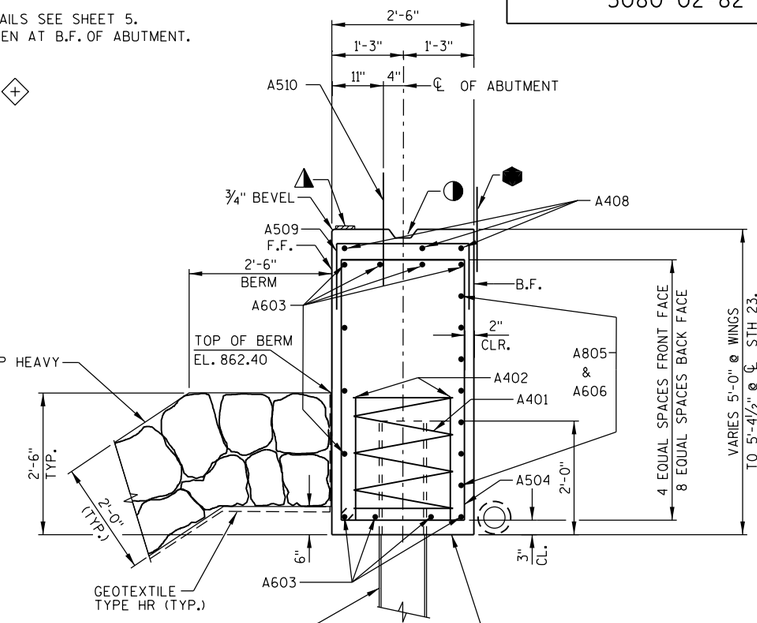
NOTE:
FOR WING DETAILS SEE SHEET 5.
⊕ ELEVATION GIVEN AT B.F. OF ABUTMENT.



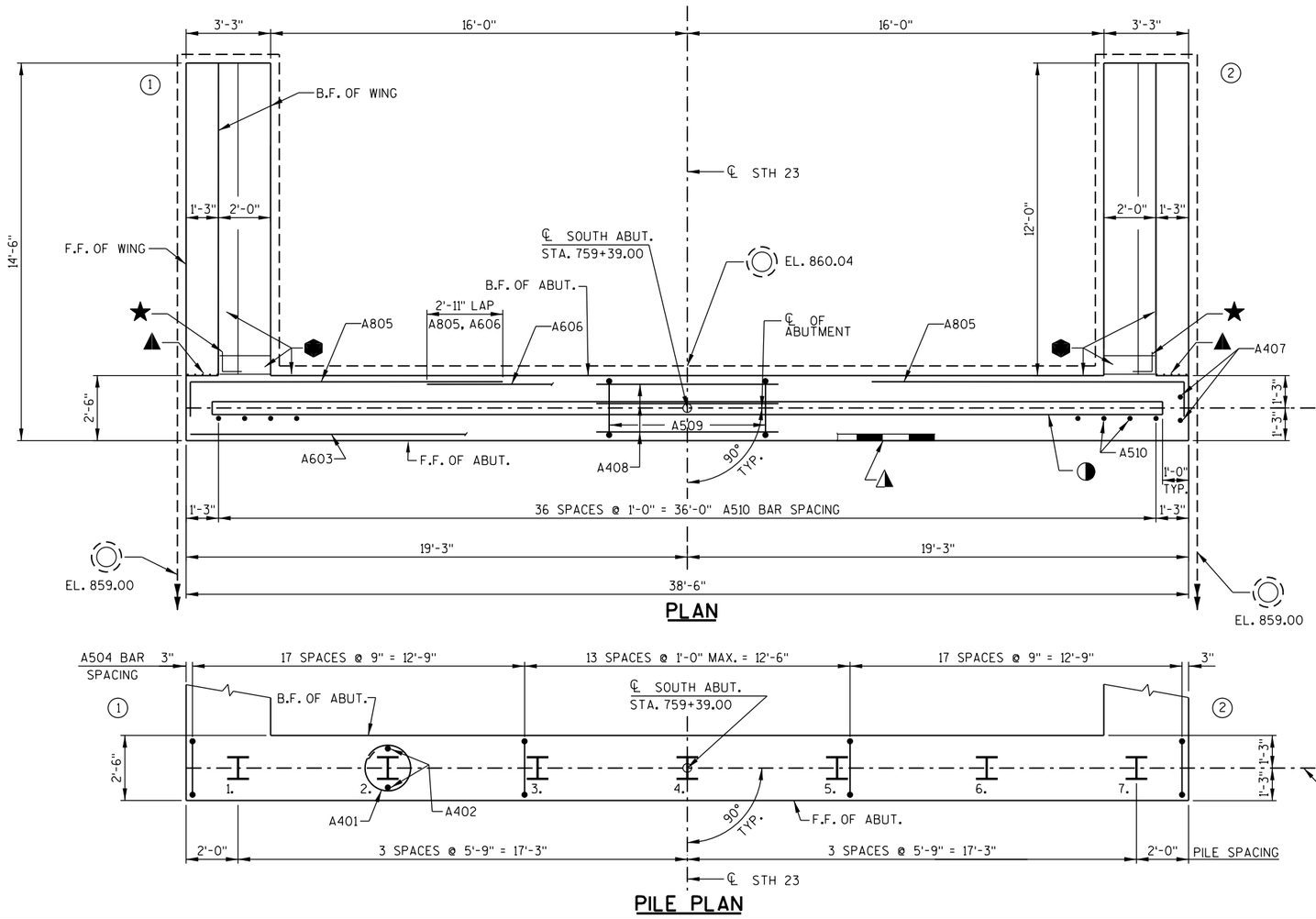
FRONT FACE BAR STEEL REINF.

ELEVATION
(LOOKING SOUTH)

BACK FACE BAR STEEL REINF.



TYPICAL SECTION THRU ABUTMENT



PLAN

PILE PLAN

LEGEND

- ▬ – OPTIONAL KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2"x6". IF JOINT IS USED PLACE ⬢ ON B.F. OF WING.
- ◥ – ¾" "V" GROOVE ON FRONT FACE OF WING WALL, REQ'D. ONLY WHERE CONST. JOINT IS USED.
- ◑ – KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- ▲ – ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).
- ◭ – 4"× ¾" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ★ – VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOP OF WINGS.
- ⬢ – HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS. PLACE BOTTOM HALF HORIZONTAL AT HAUNCHED AREA OF WINGS AT CONSTRUCTION JOINT.
- ◎ – PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE TYPE HR AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. FOR RODENT SHIELD DETAILS SEE SHEET 7.
- ◯ – INDICATES WING NUMBER

F.F. - FRONT FACE

B.F. - BACK FACE

CL. - CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

SOUTH ABUTMENT

SHEET 4 OF 10
91

FILE= 93706_04.DGN

8

8

00093706_B-56-0235_04_abutment.dgn 6/20/2023 3:58:07 PM ekazadi

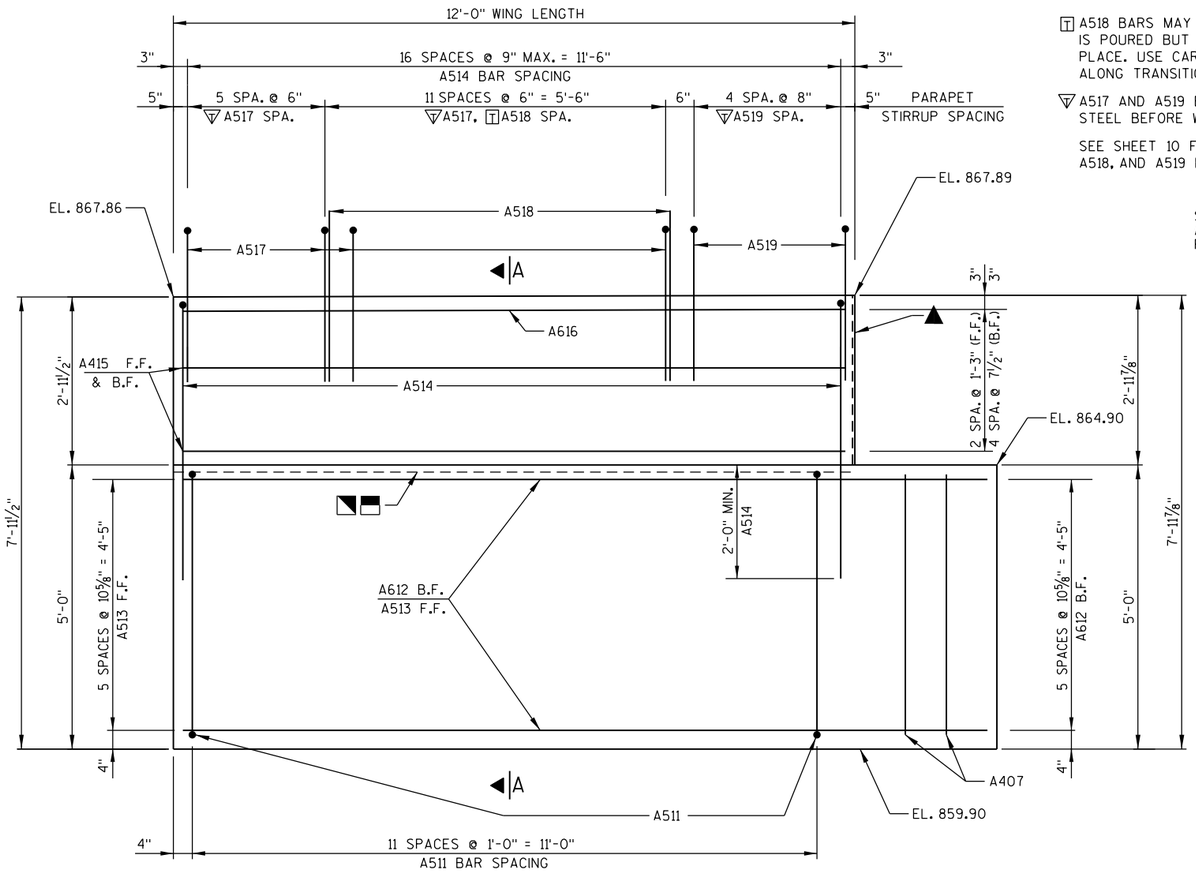
STATE PROJECT NUMBER

5080-02-82

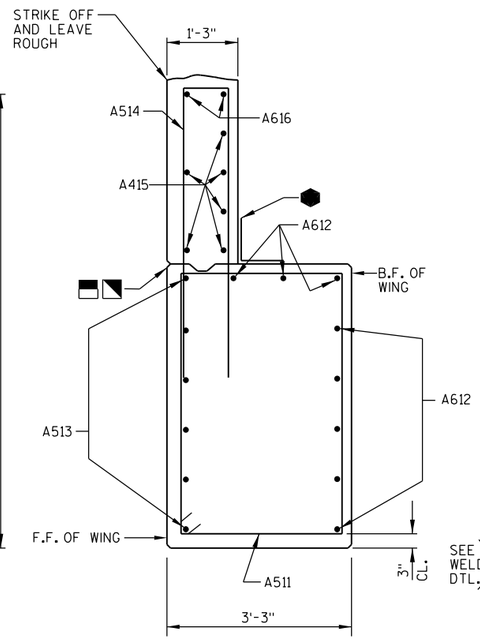
T A518 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A518 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ A517 AND A519 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

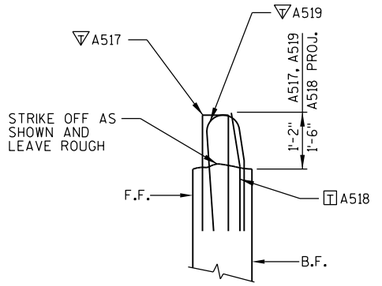
SEE SHEET 10 FOR PLACEMENT OF A517, A518, AND A519 BARS.



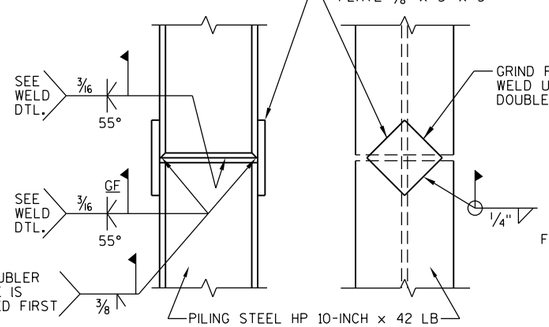
ELEVATION - WING



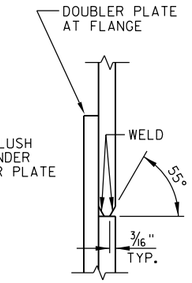
SECTION A-A THRU WING



PARAPET STIRRUP PROJECTION DETAIL

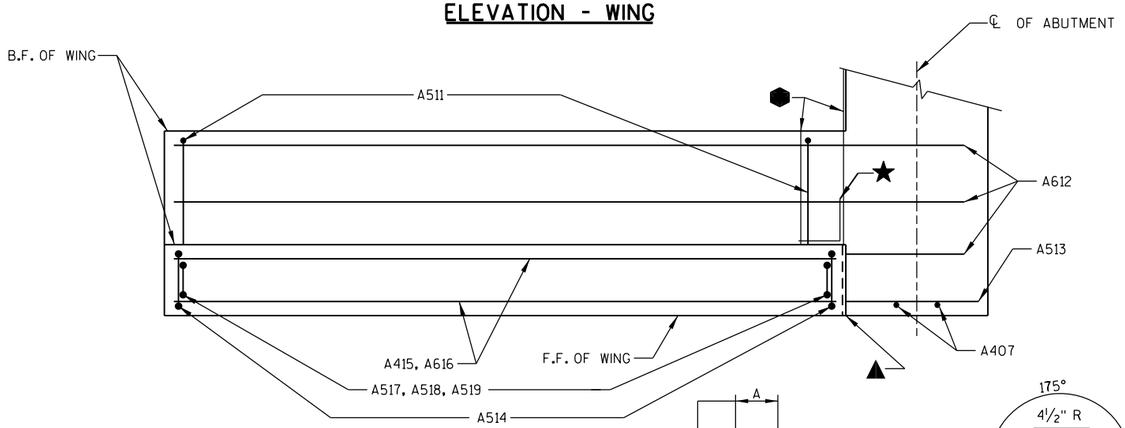


PILE SPLICE DETAILS



WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



PLAN - WING

WING 1 SHOWN
WING 2 SIMILAR

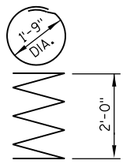
BILL OF BARS (SOUTH ABUT.)

(COATED) 1930 LBS.
(UNCOATED) 2190 LBS.

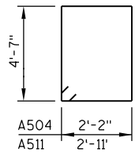
MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	LOCATION
A401	-	7	28'-0"	X	ABUTMENT BODY - 1 SPIRAL WRAP @ EACH PILE
A402	-	14	2'-3"		ABUTMENT BODY - 2 @ EACH PILE - VERT.
A603	-	11	38'-2"		ABUTMENT BODY - F.F., TOP & BOTTOM - HORIZ.
A504	-	48	14'-2"	X	ABUTMENT BODY - STIRRUP - VERT.
A805	-	14	13'-2"	X	ABUTMENT BODY - B.F. @ WINGS - HORIZ.
A606	-	7	20'-0"		ABUTMENT BODY - B.F. - CENTER - HORIZ.
A407	4	-	4'-7"		ABUTMENT BODY - ENDS - VERT.
A408	3	-	7'-0"		ABUTMENT BODY - TOP - HORIZ.
A509	7	-	4'-9"	X	ABUTMENT BODY - TOP - VERT.
A510	37	-	2'-0"		ABUTMENT BODY - TOP - DOWELS - VERT.
A511	24	-	15'-8"	X	WINGS 1 & 2 - BASE - STIRRUP - VERT.
A612	16	-	13'-11"		WINGS 1 & 2 - BASE - B.F. & TOP - HORIZ.
A513	12	-	14'-2"		WINGS 1 & 2 - BASE - F.F. - HORIZ.
A514	34	-	11'-0"	X	WINGS 1 & 2 - TOP - STIRRUP - VERT.
A415	12	-	11'-7"		WINGS 1 & 2 - TOP - F.F. & B.F. - HORIZ.
A616	4		11'-7"		WINGS 1 & 2 - TOP - F.F. & B.F. - HORIZ.
A517	34		5'-7"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.
A518	24		3'-0"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.
A519	10		5'-10"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

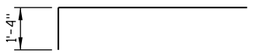
SEE SHEET 4 LEGEND FOR DESCRIPTION OF ● ▬ ◥ ★ ▲



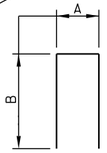
A401
5 WRAPS



A504, A511

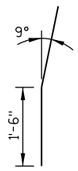


A805
STD. 90° HOOK

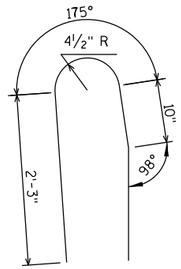


A509, A514, A517

MARK	A	B
A509	2'-2"	1'-5"
A514	11"	5'-2"
A517	6"	2'-8"



A518



A519

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

SOUTH ABUTMENT DETAILS

SHEET 5 OF 10
92

FILE= 93706-05.DGN

8

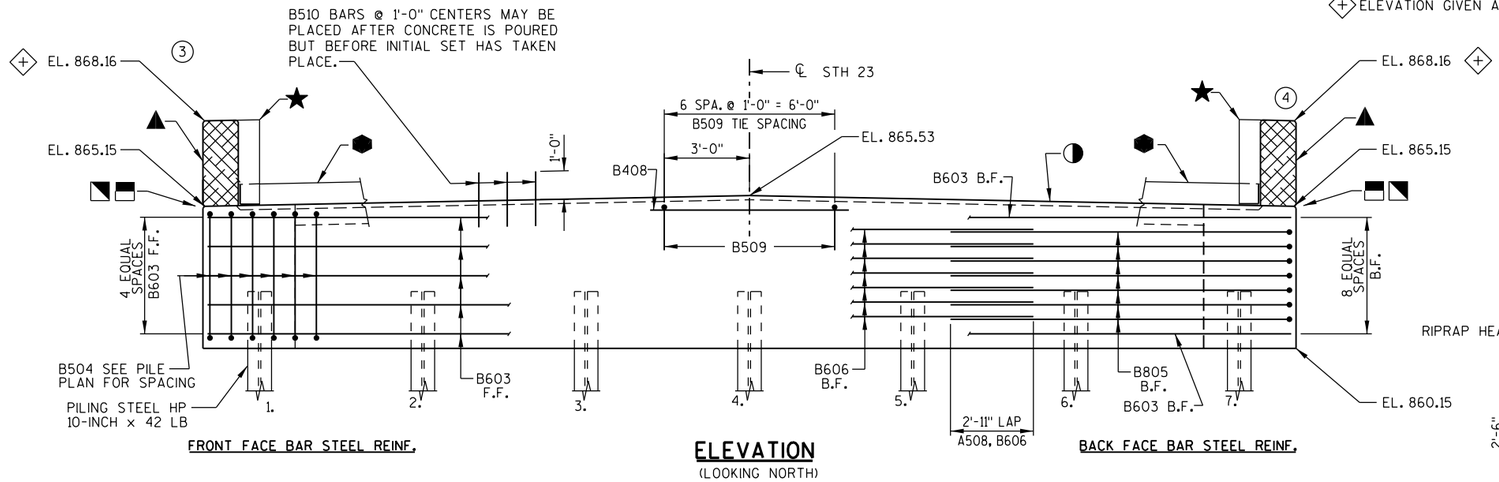
8

00093706_B-56-0235_05_South Abutment Details.dgn 8/12/2023 1:34:27 PM ekazadi

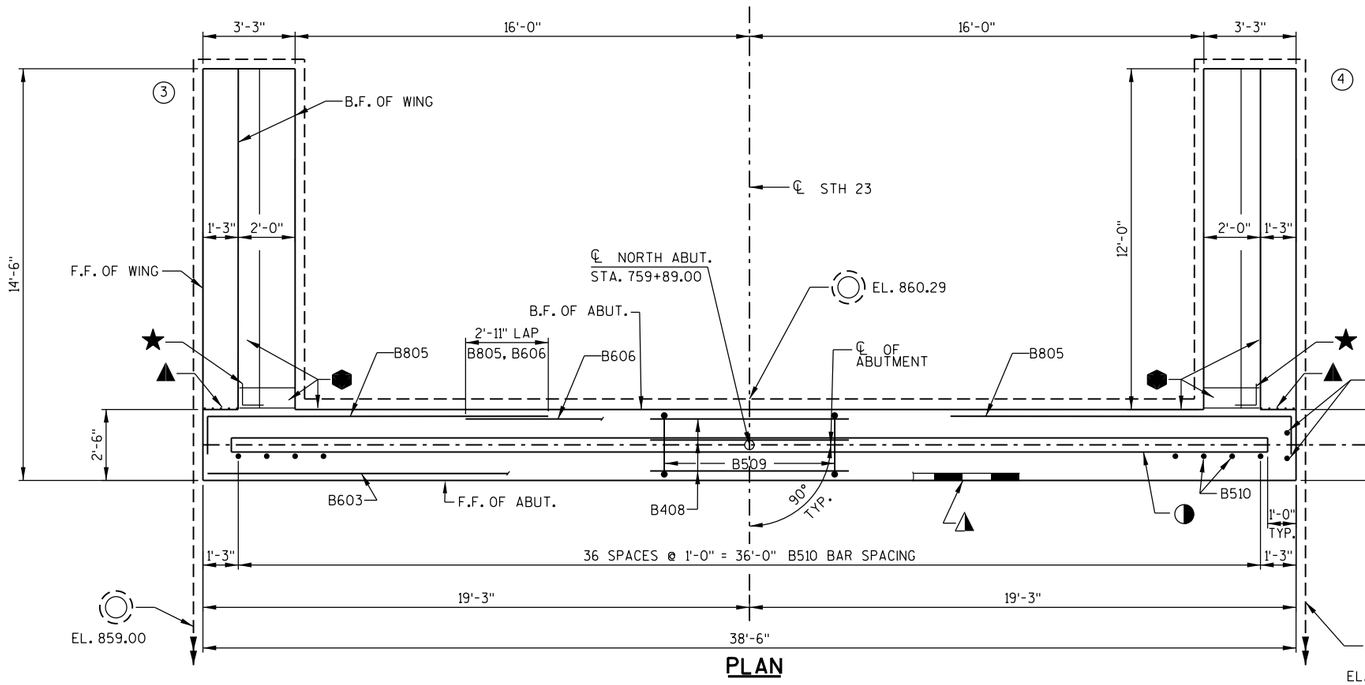
STATE PROJECT NUMBER

5080-02-82

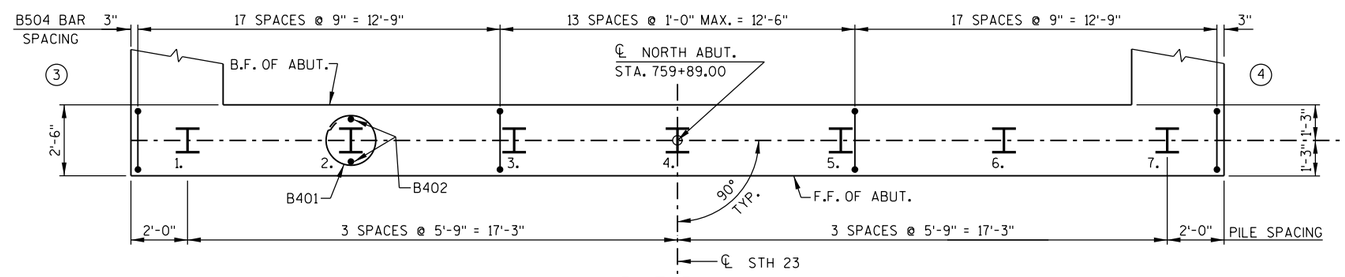
NOTE:
FOR WING DETAILS SEE SHEET 7.
◇+ ELEVATION GIVEN AT B.F. OF ABUTMENT.



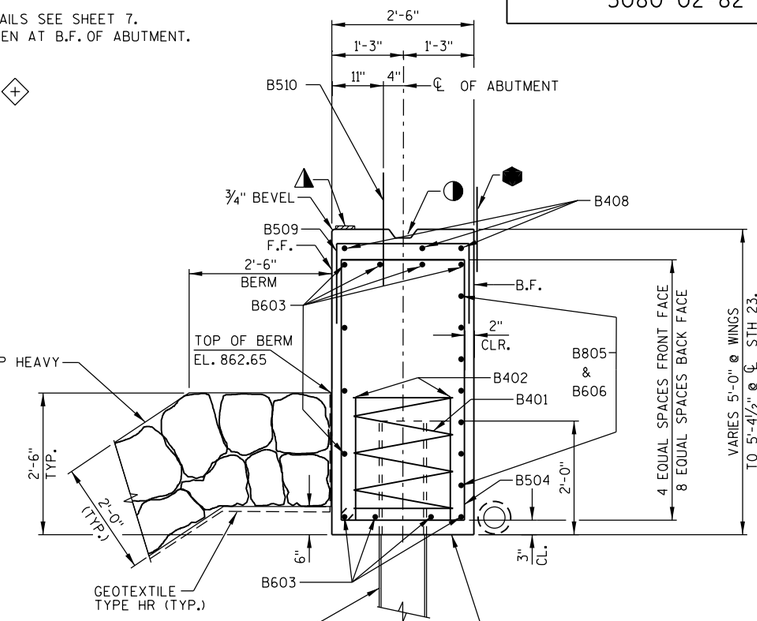
ELEVATION
(LOOKING NORTH)



PLAN



PILE PLAN



TYPICAL SECTION THRU ABUTMENT

LEGEND

- – OPTIONAL KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2"x6". IF JOINT IS USED PLACE ⬢ ON B.F. OF WING.
- – ¾" "V" GROOVE ON FRONT FACE OF WING WALL, REQ'D. ONLY WHERE CONST. JOINT IS USED.
- – KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- – ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).
- – 4"× ¾" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ★ – VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOP OF WINGS.
- ⬢ – HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS. PLACE BOTTOM HALF HORIZONTAL AT HAUNCHED AREA OF WINGS AT CONSTRUCTION JOINT.
- ◯ – PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE TYPE HR AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. FOR RODENT SHIELD DETAILS SEE SHEET 7.
- ◯ – INDICATES WING NUMBER

F.F. - FRONT FACE

B.F. - BACK FACE

CL. - CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

NORTH ABUTMENT

SHEET 6 OF 10
93

FILE= 93706_06.DGN

8

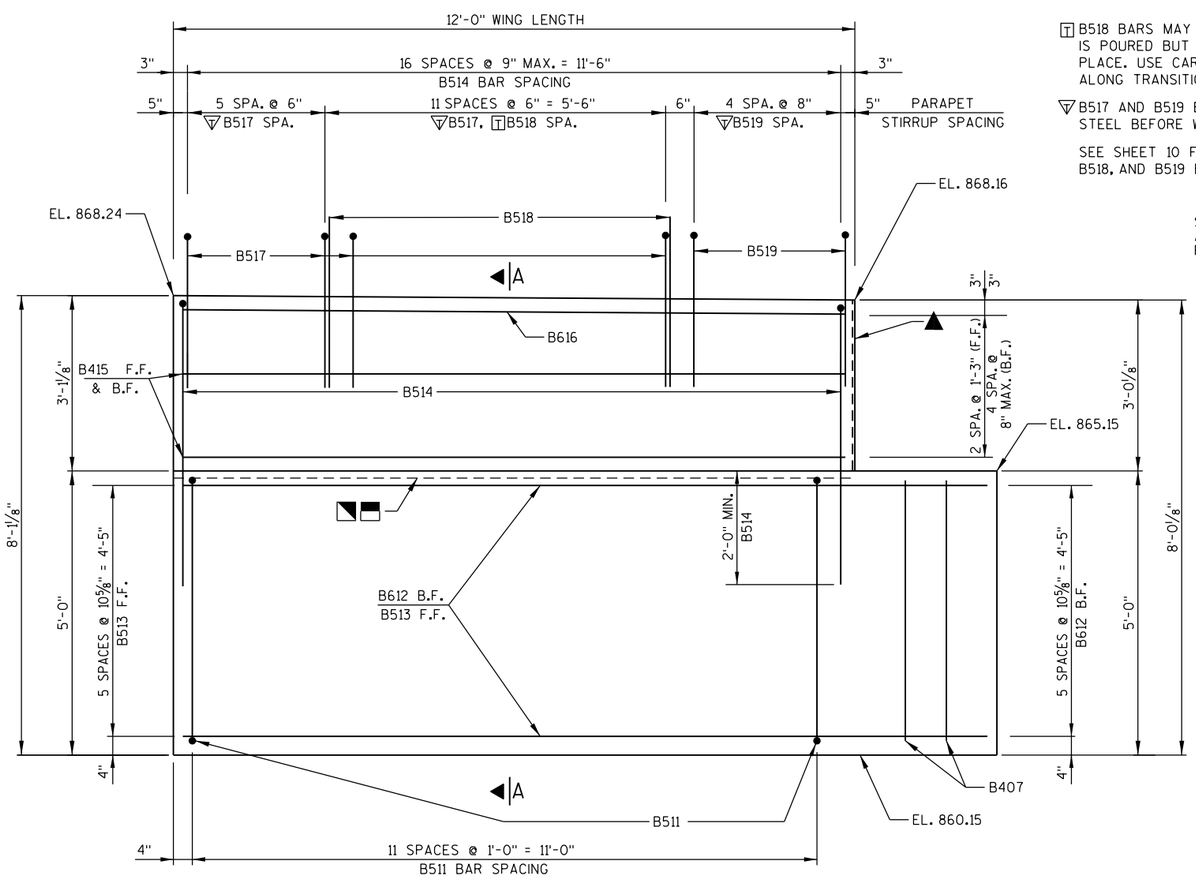
8

00093706_B-56-0235_06_abutment.dgn 6/20/2023 4:08:47 PM ekazadi

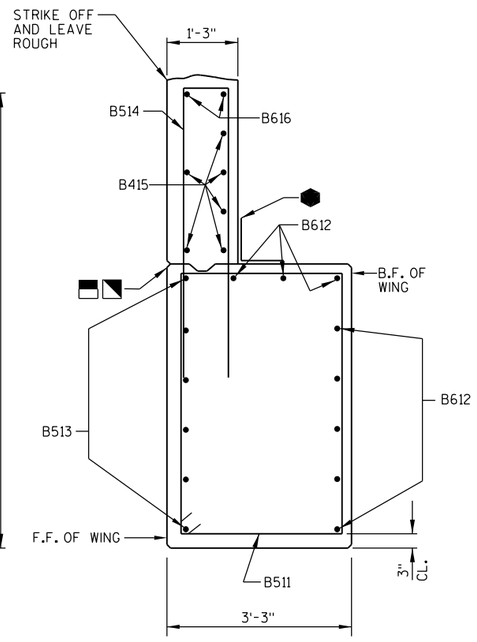
T B518 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE B518 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ B517 AND B519 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

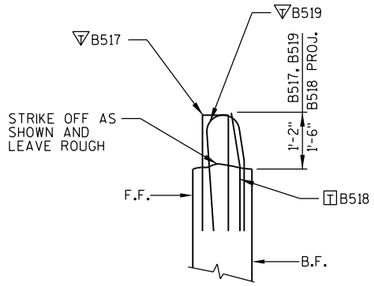
SEE SHEET 10 FOR PLACEMENT OF B517, B518, AND B519 BARS.



ELEVATION - WING



SECTION A-A THRU WING

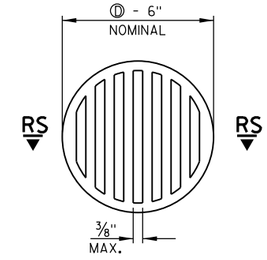


PARAPET STIRRUP PROJECTION DETAIL

RODENT SHIELD NOTES:

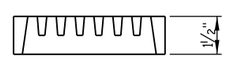
ORIENT SHIELD SO SLOTS ARE VERTICAL.

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 ATTACHEMENT 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. THE RODENT SHIELD, PIPE COUPLING AND SCREWS, SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

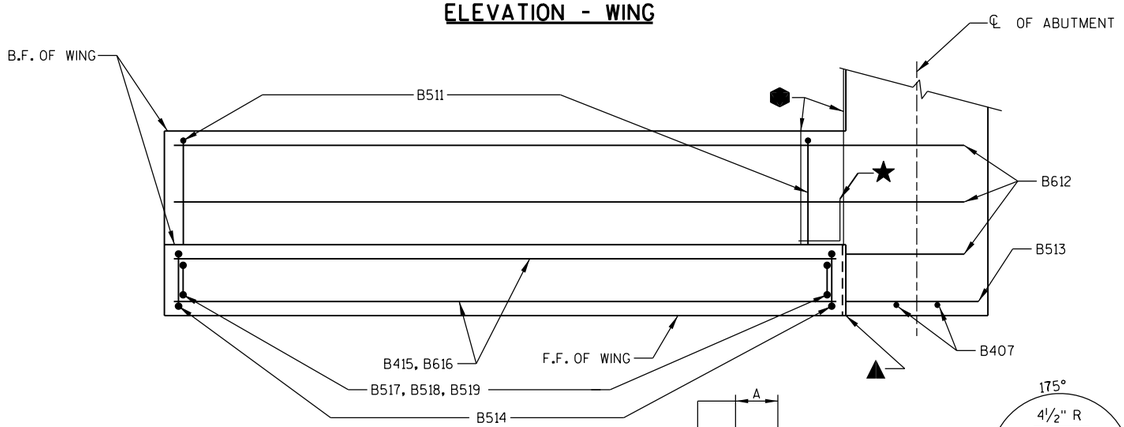


RODENT SHIELD

Ⓓ - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION RS-RS



PLAN - WING

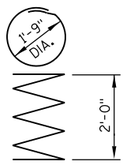
WING 3 SHOWN
WING 4 SIMILAR

BILL OF BARS (NORTH ABUT.)

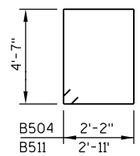
(COATED) 1930 LBS.
(UNCOATED) 2190 LBS.

MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	LOCATION
B401	-	7	28'-0"	X	ABUTMENT BODY - 1 SPIRAL WRAP @ EACH PILE
B402	-	14	2'-3"		ABUTMENT BODY - 2 @ EACH PILE - VERT.
B603	-	11	38'-2"		ABUTMENT BODY - F.F., TOP & BOTTOM - HORIZ.
B504	-	48	14'-2"	X	ABUTMENT BODY - STIRRUP - VERT.
B805	-	14	13'-2"	X	ABUTMENT BODY - B.F. @ WINGS - HORIZ.
B606	-	7	20'-0"		ABUTMENT BODY - B.F. - CENTER - HORIZ.
B407	4	-	4'-7"		ABUTMENT BODY - ENDS - VERT.
B408	3	-	7'-0"		ABUTMENT BODY - TOP - HORIZ.
B509	7	-	4'-9"	X	ABUTMENT BODY - TOP - VERT.
B510	37	-	2'-0"		ABUTMENT BODY - TOP - DOWELS - VERT.
B511	24	-	15'-8"	X	WINGS 3 & 4 - BASE - STIRRUP - VERT.
B612	16	-	13'-11"		WINGS 3 & 4 - BASE - B.F. & TOP - HORIZ.
B513	12	-	14'-2"		WINGS 3 & 4 - BASE - F.F. - HORIZ.
B514	34	-	11'-0"	X	WINGS 3 & 4 - TOP - STIRRUP - VERT.
B415	12	-	11'-7"		WINGS 3 & 4 - TOP - F.F. & B.F. - HORIZ.
B616	4	-	11'-7"		WINGS 3 & 4 - TOP - F.F. & B.F. - HORIZ.
B517	34		5'-7"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.
B518	24		3'-0"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.
B519	10		5'-10"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.

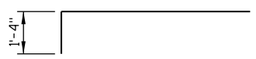
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



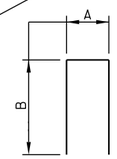
B401
5 WRAPS



B504, B511

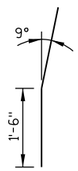


B805
STD. 90° HOOK

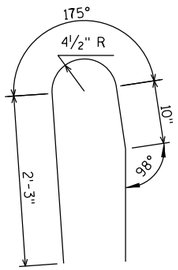


B509, B514, B517

MARK	A	B
B509	2'-2"	1'-5"
B514	11"	5'-2"
B517	6"	2'-8"



B518



B519

SEE SHEET 6 LEGEND FOR DESCRIPTION OF ⬢ ▬ ◥ ★ ▲

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

NORTH ABUTMENT DETAILS

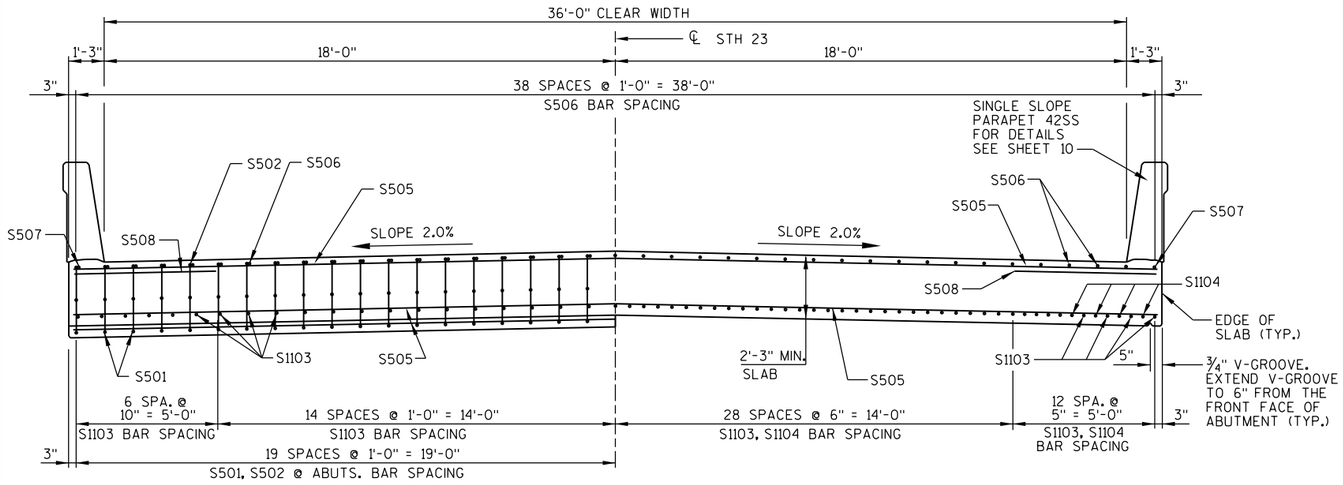
SHEET 7 OF 10
94

FILE= 93706_07.DGN

8

8

STATE PROJECT NUMBER
5080-02-82



AT ABUTMENTS **IN SPAN**

CROSS SECTION THRU BRIDGE

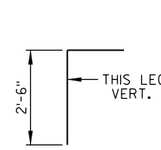
(LOOKING NORTH)

N

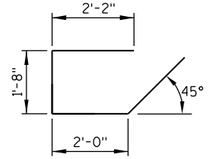
BILL OF BARS (COATED) 28,960 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
S501	78	7'-9"	X	DIAPHRAGM @ ABUTS. - LONGIT.
S502	78	3'-11"	X	DIAPHRAGM @ ABUTS. - VERT.
S1103	41	52'-2"		SLAB BOTTOM - LONGIT.
S1104	40	39'-8"		SLAB BOTTOM - LONGIT.
S505	141	38'-2"		SLAB TOP & BOTTOM - TRANS.
S506	37	50'-10"		SLAB TOP - LONGIT.
S507	2	52'-2"		SLAB TOP @ EDGE - LONGIT.
S508	102	5'-0"		SLAB TOP EDGE - TRANS.

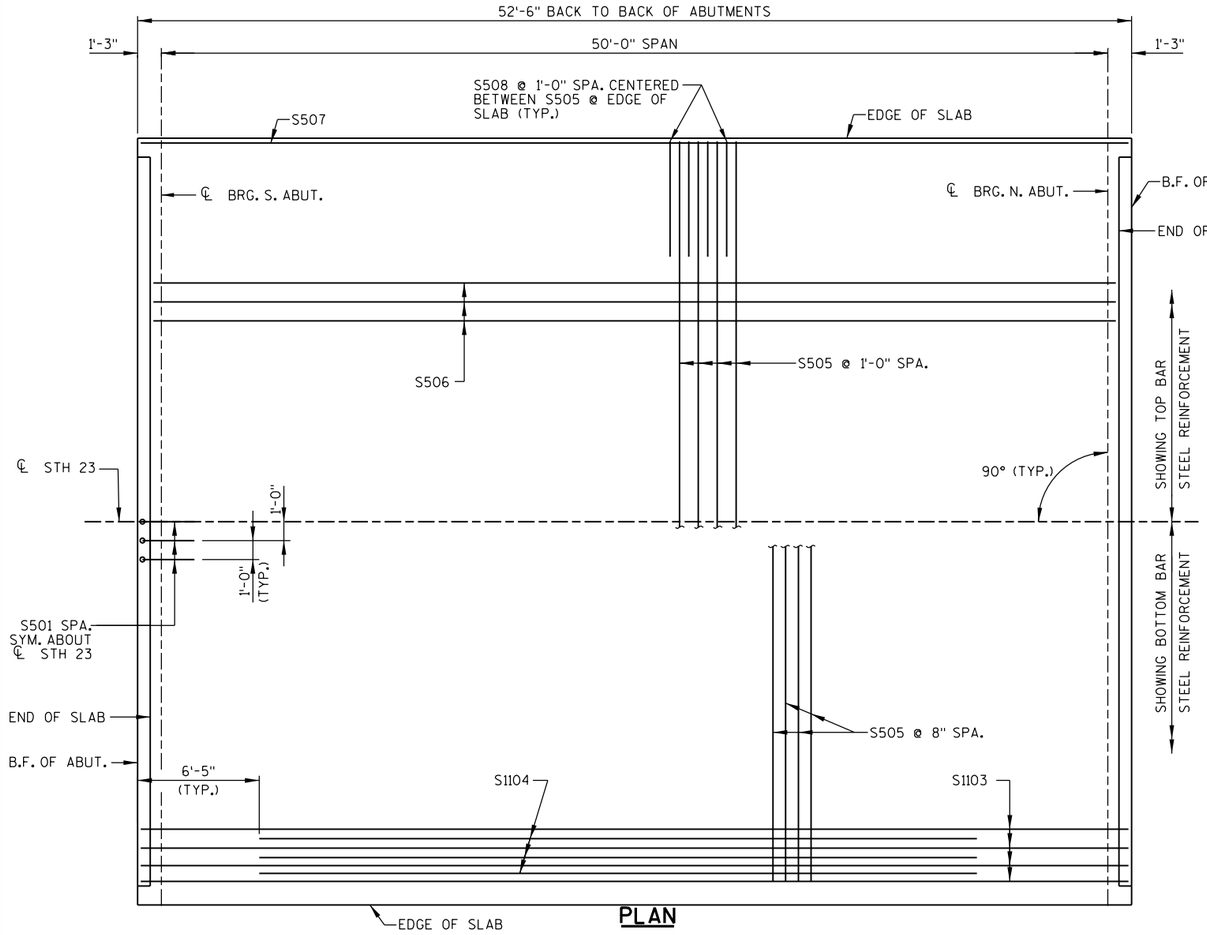
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL SUPERSTRUCTURE BAR STEEL REINFORCEMENT.



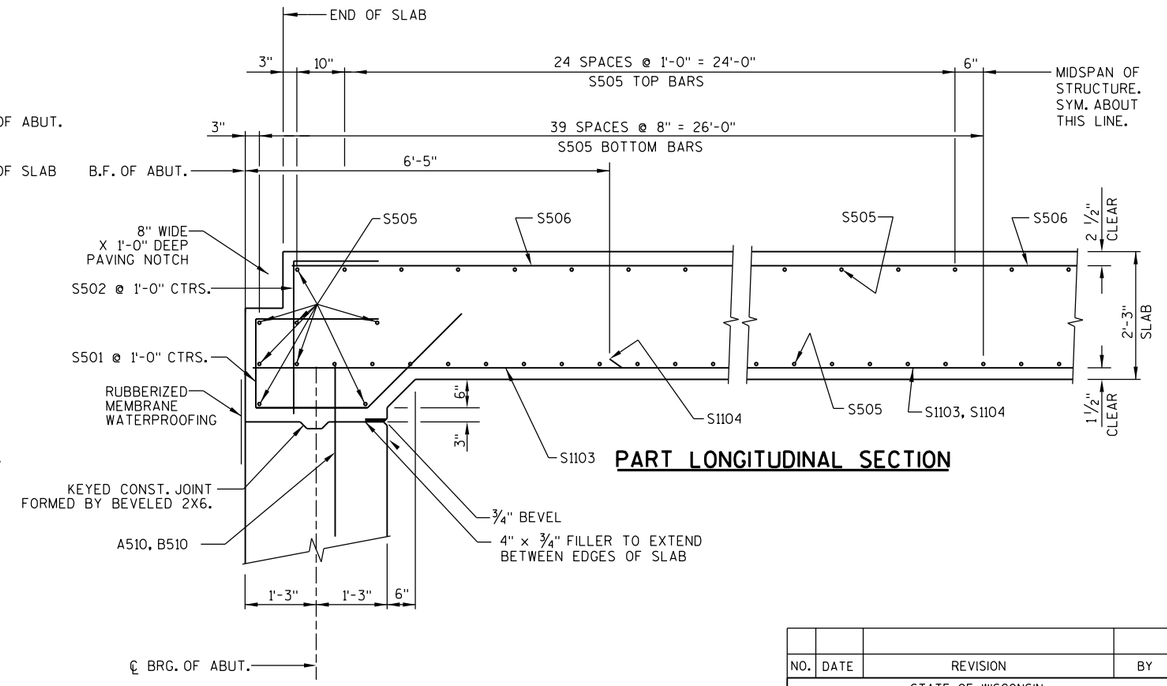
S502



S501



PLAN



PART LONGITUDINAL SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

SUPERSTRUCTURE

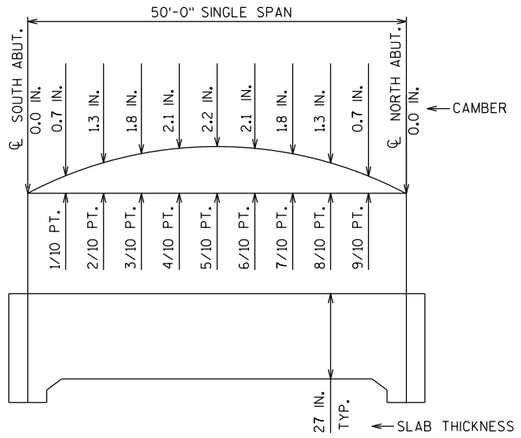
SHEET 8 OF 10
95

8

8

FILE= 93706_08.DGN

STATE PROJECT NUMBER
5080-02-82



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS.

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

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

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

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

SURVEY TOP OF SLAB ELEVATIONS

	℄ SOUTH ABUTMENT	5/10 PT.	℄ NORTH ABUTMENT
WEST GUTTER			
℄ STH 23			
EAST GUTTER			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE SLAB EDGES AND CROWN OR ℄. 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 (+).

FILL IN THE TABLE OF "SURVEY TOP OF SLAB ELEVATIONS" FOR EACH SPAN ON AS BUILT PLANS.

TOP OF SLAB ELEVATIONS

	C/L BRG SOUTH ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	C/L BRG NORTH ABUT.
EAST EDGE OF SLAB	867.90	867.93	867.95	867.98	868.00	868.03	868.05	868.08	868.10	868.13	868.15
C/L STH 23	868.29	868.31	868.34	868.36	868.39	868.41	868.44	868.46	868.49	868.51	868.54
WEST EDGE OF SLAB	867.90	867.93	867.95	867.98	868.00	868.03	868.05	868.08	868.10	868.13	868.15

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

SUPERSTRUCTURE DETAILS

SHEET 9 OF 10
96

8

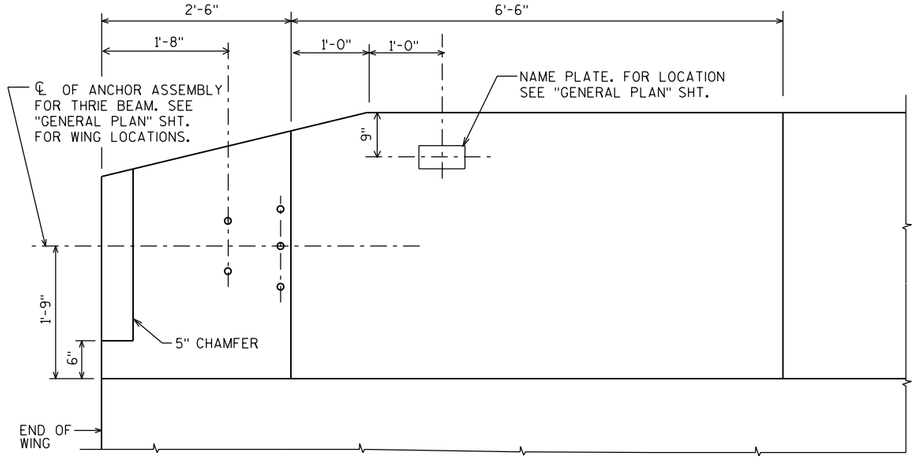
8

FILE= 93706_09.DGN

00093706_B-56-0235_09.dgn 8/23/2023 3:53:38 PM ekazadi

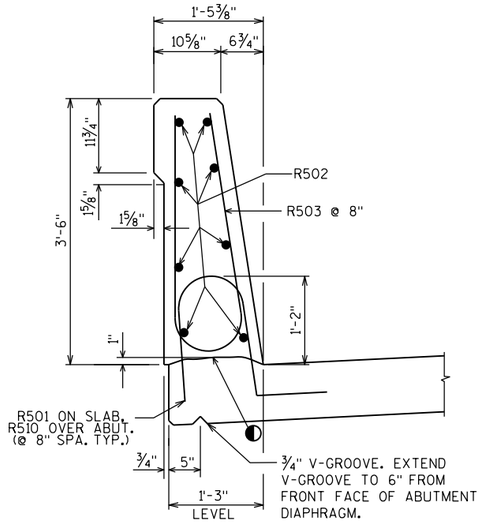
STATE PROJECT NUMBER

5080-02-82

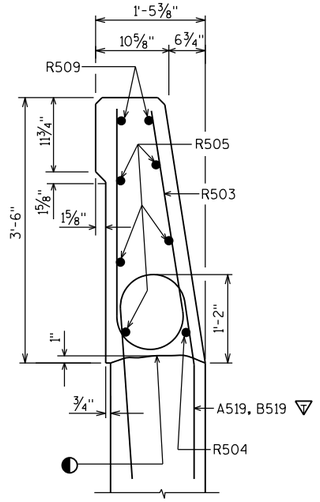


PARAPET END TREATMENT DETAIL

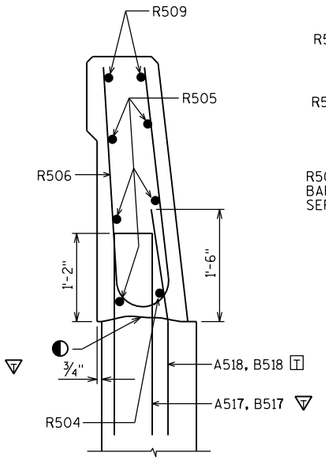
(LOOKING AT INSIDE FACE OF PARAPET)



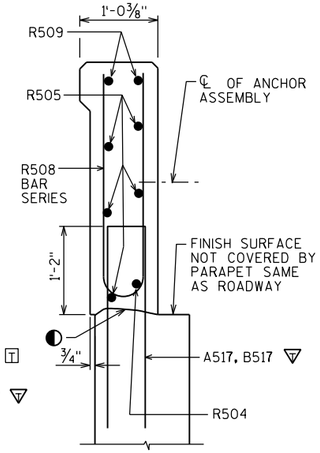
SECTION THRU PARAPET ON BRIDGE



SECTION C-C
ON WING



SECTION B-B
ON WING



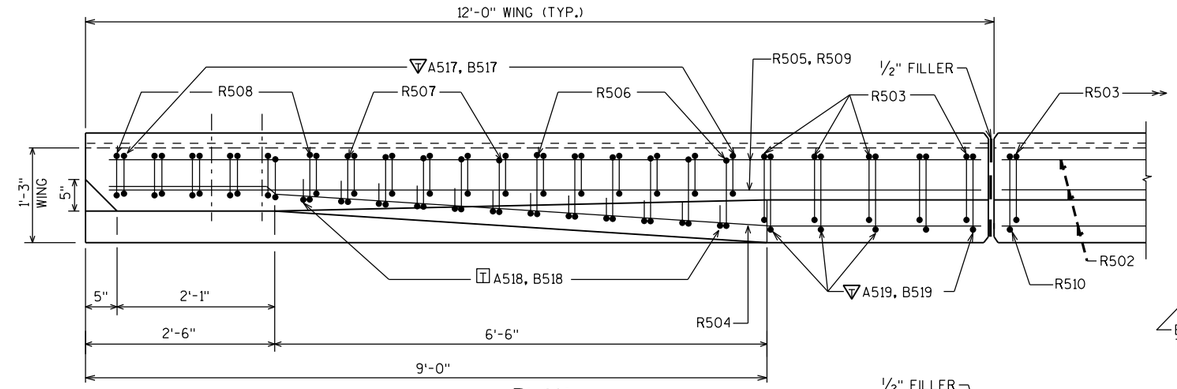
SECTION A-A
AT END OF WING

LEGEND

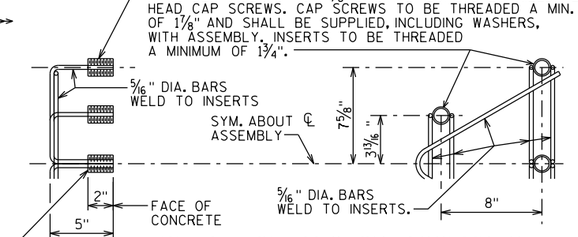
◐ CONSTRUCTION JOINT STRIKE OFF AS SHOWN.

▽ A517, B517 AND A519, B519 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

T A518, B518 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A518, B518 BARS CORRECTLY ALONG TRANSITION OF PARAPET.



PLAN



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

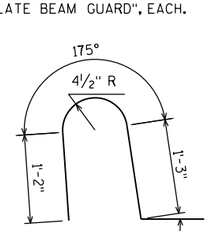
BILL OF BARS (COATED) 3,710 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R501	142	4'-5"	X		PARAPET ON SLAB - STIRRUP - VERT.
R502	32	26'-11"			PARAPET ON SLAB - LONGIT.
R503	178	6'-8"	X		PARAPET - STIRRUP - VERT.
R504	4	11'-7"	X		PARAPET ON WING - BOTTOM - LONGIT.
R505	20	11'-7"			PARAPET ON WING - LONGIT.
R506	24	6'-6"	X		PARAPET ON WING - STIRRUP - VERT.
R507	20	6'-5"	X		PARAPET ON WING - STIRRUP - VERT.
R508	24	5'-5"	X	⟨S⟩	PARAPET ON WING - END - STIRRUP - VERT.
R509	8	11'-8"	X		PARAPET ON WING - TOP - LONGIT.
R510	16	5'-10"	X		PARAPET OVER ABUT. - STIRRUP - VERT.

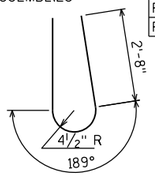
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

EPOXY COAT ALL SUPERSTRUCTURE BAR STEEL REINFORCEMENT.

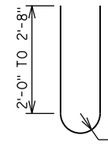
⟨S⟩ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BEND BAR AFTER CUTTING.



R501



R503

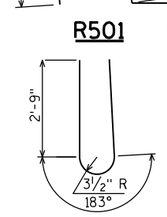


R508

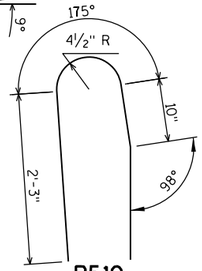
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
R508	4 SERIES OF 6	4'-9" TO 6'-1"

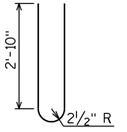
BUNDLE AND TAG EACH SERIES SEPARATELY.



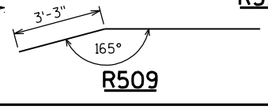
R506



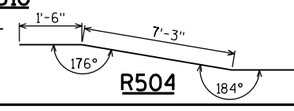
R510



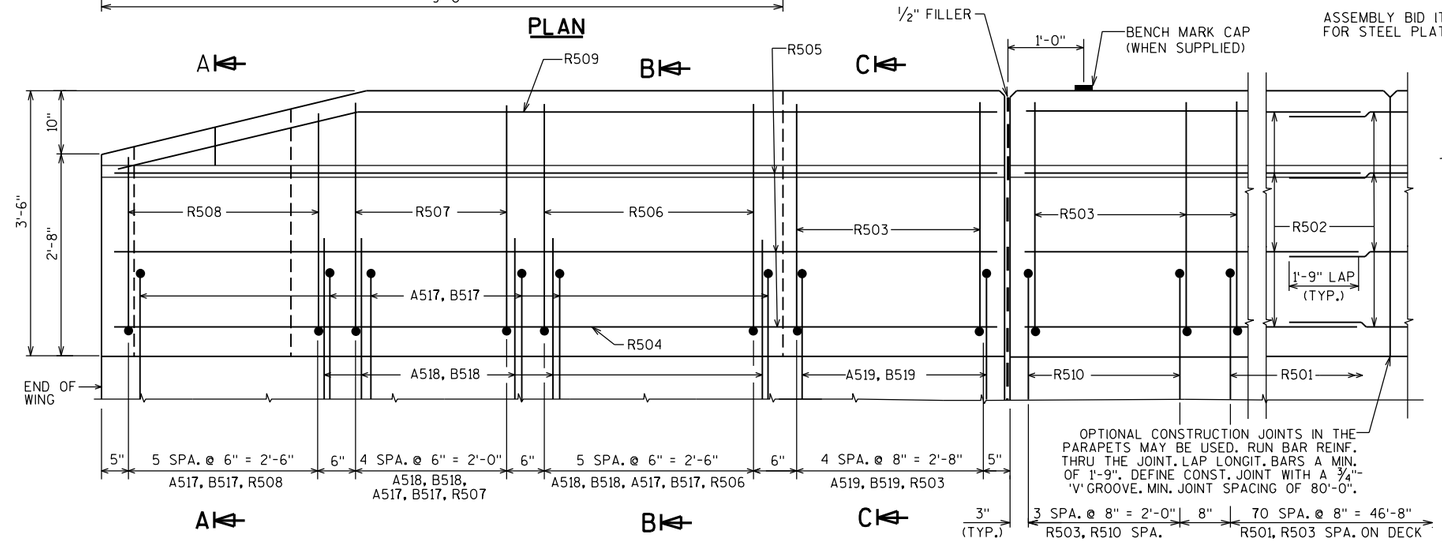
R507



R509



R504



OUTSIDE ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-235

DRAWN BY EKK | PLANS CK'D. JZ

SINGLE SLOPE PARAPET 42SS

SHEET 10 OF 10
97

FILE= 93706_B56235_PARAPET.DGN

8

8

00093706_B-56-0235_10_parapet.dgn 8/24/2023 10:22:45 AM ekazadi

STATE PROJECT NUMBER

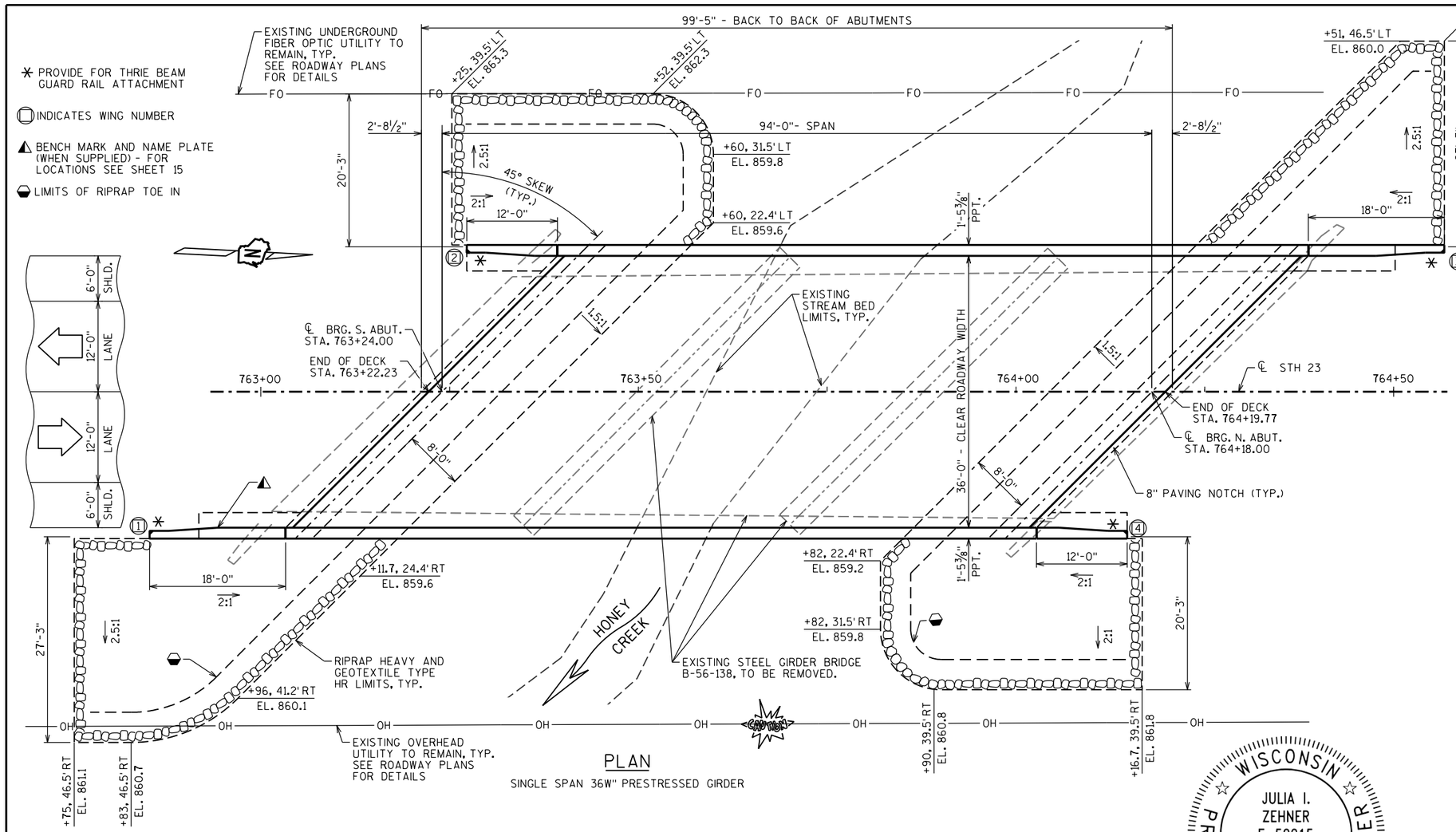
5080-02-82

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

(2) INDICATES WING NUMBER

BENCH MARK AND NAME PLATE (WHEN SUPPLIED) - FOR LOCATIONS SEE SHEET 15

LIMITS OF RIPRAP TOE IN



PLAN

SINGLE SPAN 36W" PRESTRESSED GIRDER

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.12
OPERATING RATING FACTOR: RF = 1.89
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 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.
36W" PRESTRESSED GIRDERS:
CONCRETE MASONRY — f'c = 8,000 P.S.I.
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.
PILING STEEL HP — fy = 50,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10-INCH X 42 LB PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTHS ARE 30'-0" AT THE SOUTH ABUTMENT AND 25'AT SOUTH ABUTMENT WING PILES AND 30'-0" AT THE NORTH ABUTMENT AND 25'AT NORTH ABUTMENT WING PILES.

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

HYDRAULIC DATA

100 YEAR FREQUENCY

$Q_{100\ TOTAL}$ = 2924 C.F.S.
$Q_{100\ B\text{-}56\text{-}236}$ = 1312 C.F.S.
$VEL._{100}$ = 9.3 F.P.S.
$HW._{100}$ = EL. 864.10
WATERWAY AREA = 141 SQ. FT.
$DRAINAGE\ AREA_{TOTAL}$ = 12.6 SQ. MI. (DRAINAGE $AREA_{TOTAL}$ INCLUDES BOTH SHANNAHAN VALLEY CREEK AND HONEY CREEK)
SCOUR CRITICAL CODE = 5
ROADWAY OVERTOPPING = N/A

2 YEAR FREQUENCY

Q_2 = 610 C.F.S.
$VEL._2$ = 3.0 F.P.S.
$HW._2$ = EL. 861.37

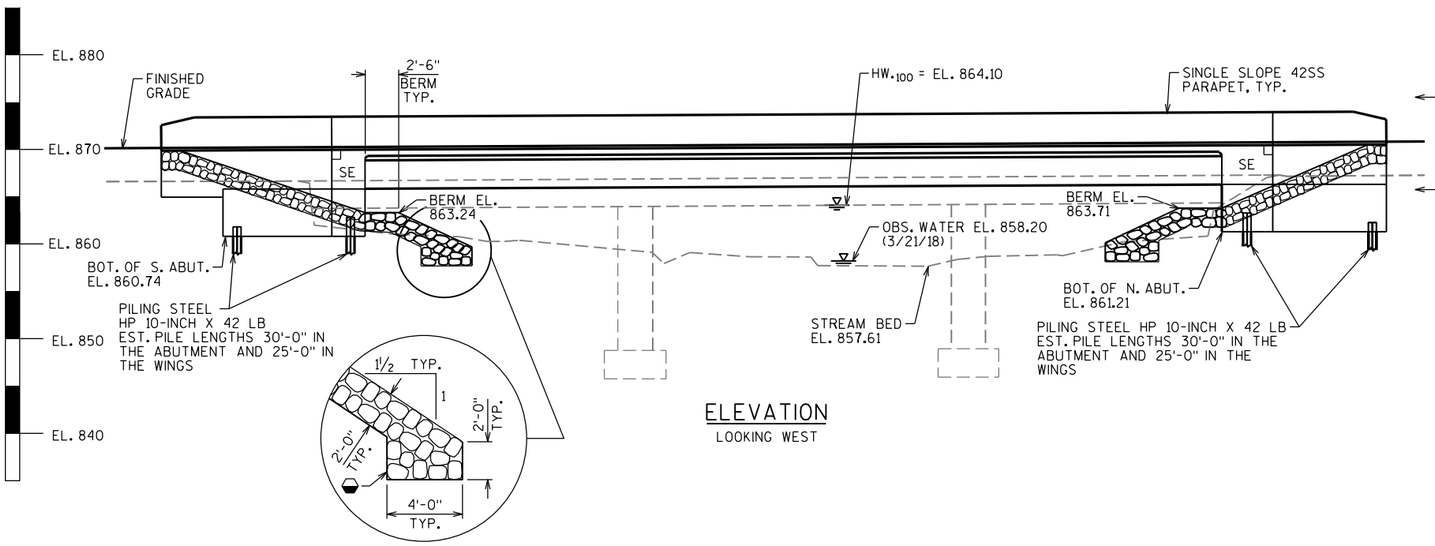
TRAFFIC DATA:

STH 23

A.A.D.T. (2021) = 2200
A.A.D.T. (2041) = 2400
R.D.S. = 60 MPH

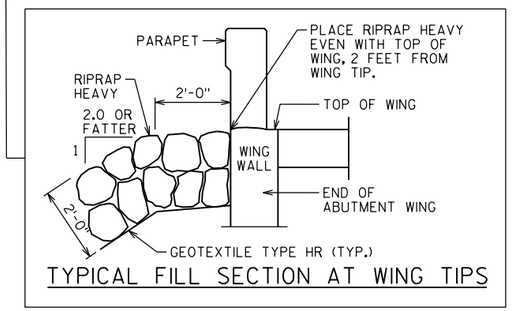
LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. WING 1 & SOUTH ABUTMENT DETAILS
6. WING 2 & SOUTH ABUTMENT DETAILS
7. NORTH ABUTMENT
8. WING 3 & NORTH ABUTMENT DETAILS
9. WING 4 & NORTH ABUTMENT DETAILS
10. PILE PLAN & ABUTMENT DETAILS
11. 36W" PRESTRESSED GIRDER DETAILS
12. DECK FORMING DETAILS
13. SUPERSTRUCTURE
14. SUPERSTRUCTURE SECTIONS & DETAILS
15. SINGLE SLOPE PARAPET 42SS
16. STEEL DIAPHRAGM



ELEVATION

LOOKING WEST



TYPICAL FILL SECTION AT WING TIPS

WISCONSIN
JULIA I. ZEHNER
E-50015
PRAIRIE DU SAC
WI
PROFESSIONAL ENGINEER

10.13.2023

CONSULTANT DESIGN CONTACT:
JULIA ZEHNER
(608) 355-8878

BRIDGE OFFICE CONTACT:
AARON BONK
(608) 261-0261

NO.	DATE	REVISION	BY

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1230 SOUTH BLVD., BARABOO WI 53913
(608) 356-2771 www.msa-ps.com

© MSA Professional Services, Inc.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-56-236

STH 23 OVER HONEY CREEK

COUNTY: SAUK — TOWN/~~CITY/VILLAGE~~: FRANKLIN

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDH	JZ	RLR	JZ

GENERAL PLAN

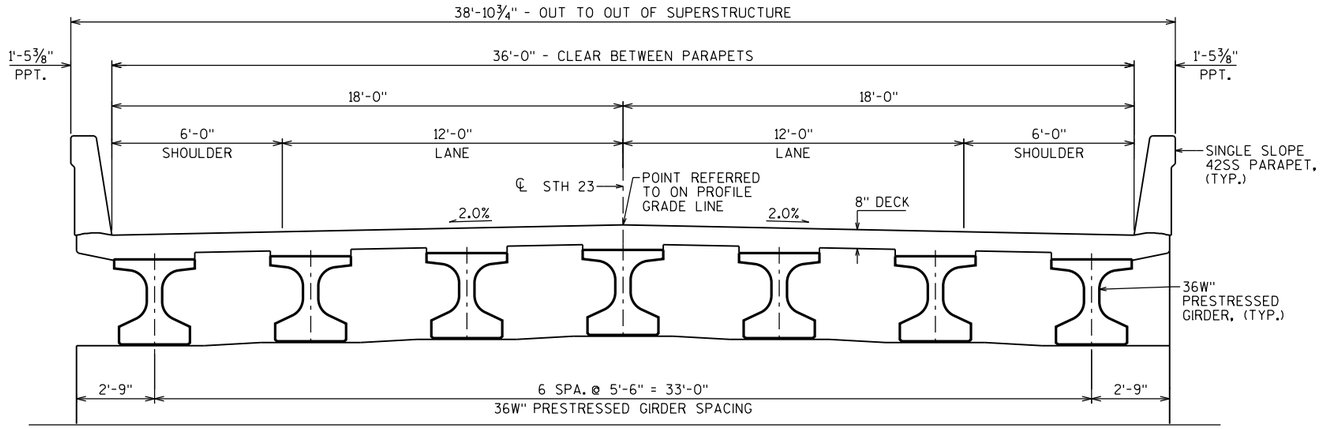
SHEET 1 OF 16
98

00093706_B-56-0236_01.DGN

8

8

00093706_B-56-0236_01_GeneralPlan.dgn 10/11/2023 9:37:02 AM ekazadi



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER	TOTAL
203.0260.01	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-56-138	EACH	-	-	-	1
206.1001.01	EXCAVATION FOR STRUCTURES BRIDGES B-56-236	EACH	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	225	225	-	450
502.0100	CONCRETE MASONRY BRIDGES	CY	57.1	57.2	191.3	306
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	406	406
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	130	130
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-	-	665	665
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3,635	3,635	-	7,270
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,400	2,405	26,985	31,790
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	7	7	-	14
506.4000.01	STEEL DIAPHRAGMS B-56-236	EACH	-	-	12	12
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	15	15	-	30
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	320	320	-	640
606.0300	RIPRAP HEAVY	CY	190	165	-	355
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	120	120	-	240
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	44	44	-	88
645.0120	GEOTEXTILE TYPE HR	SY	310	275	-	585
	NON-BID ITEMS					
	CORK FILLER	SIZE				¾"
	PREFORMED FILLER	SIZE				½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE LIMITS SHOWN ON SHEET 1 AND ON THE ABUTMENT SHEETS, OR AS DIRECTED BY THE ENGINEER.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" FOR THE ABUTMENTS.

THIS STRUCTURE WILL REPLACE THE EXISTING STRUCTURE B-56-138, A THREE-SPAN STEEL DECK GIRDER BRIDGE WITH 33.8 FT. END SPANS AND A 35.5 FT. MIDDLE SPAN. THE EXISTING BRIDGE HAS AN OVERALL DECK WIDTH OF 34 FT. AND IS SUPPORTED ON CONCRETE ABUTMENTS AND CONCRETE PIERS WITH SPREAD FOOTINGS. ORIGINAL 1937 PLANS ARE AVAILABLE THROUGH THE WISCONSIN DEPARTMENT OF TRANSPORTATION HSI DATABASE.

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

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

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

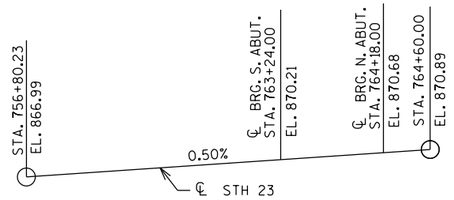
PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE EXPOSED TOP OF DECK AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE INSIDE FACES, THE TOP FACES, AND THE ENDS OF THE PARAPETS.

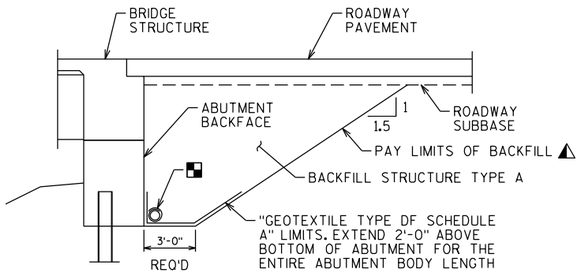
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (2012 ADJUSTED). BENCHMARK REFERENCES AT THE PROJECT SITE WERE SET USING GPS TECHNOLOGY.

THE HAUNCH CONCRETE QUANTITIY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE SUPERSTRUCTURE SHEET.



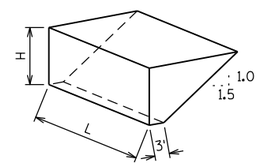
PROFILE GRADE LINE - STH 23



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.



ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

L = OUT TO OUT OF ABUTMENT, 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)

STATE PROJECT NUMBER

5080-02-82

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY EEK | PLANS CK'D. JZ

CROSS SECTION, QUANTITIES & NOTES

SHEET 2 OF 16
99

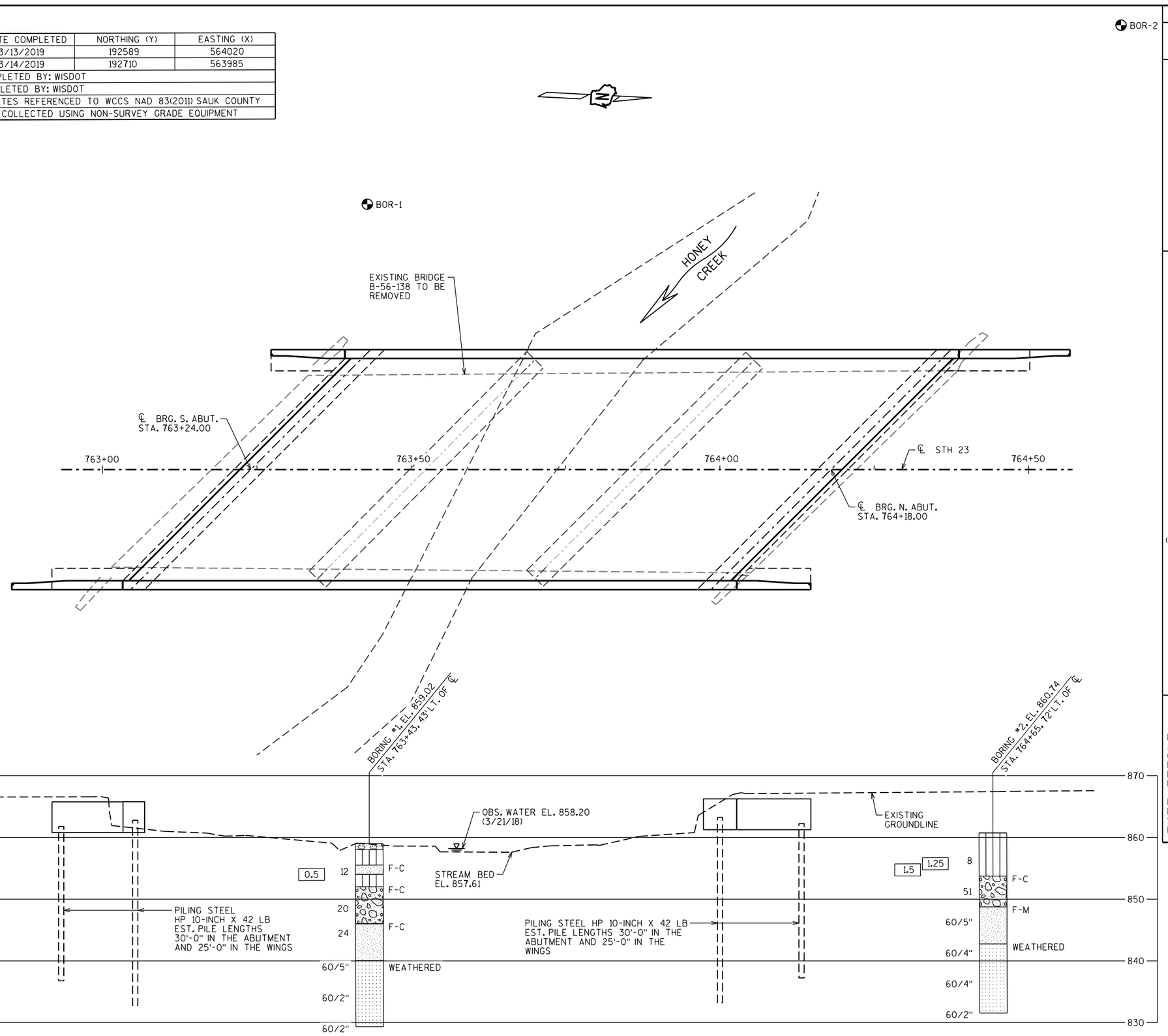
8

8

00093706_B-56-0236_02_CrossSection_Quantities.dgn 10/4/2023 3:32:11 PM rrabska

00093706_B-56-0236.DGN

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	3/13/2019	192589	564020
2	3/14/2019	192710	563985
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) SAUK COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



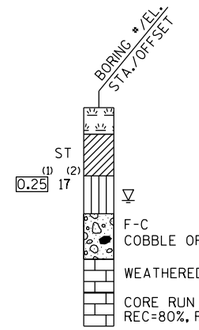
STATE PROJECT NUMBER

5080-02-82

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY	EEK	PLANS CK'D.	JZ

SUBSURFACE EXPLORATION

SHEET 3 OF 16
100

8

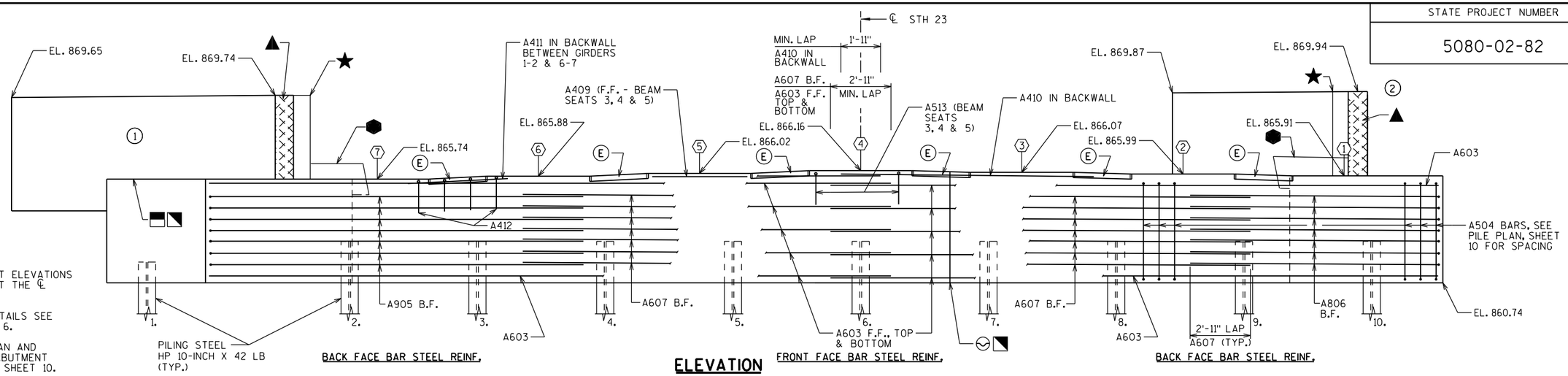
8

00093706_B-56-0236_03.DGN

00093706_B-56-0236_03_Geotechsheet.dgn 8/29/2023 5:03:09 PM rrabska

STATE PROJECT NUMBER

5080-02-82



NOTES

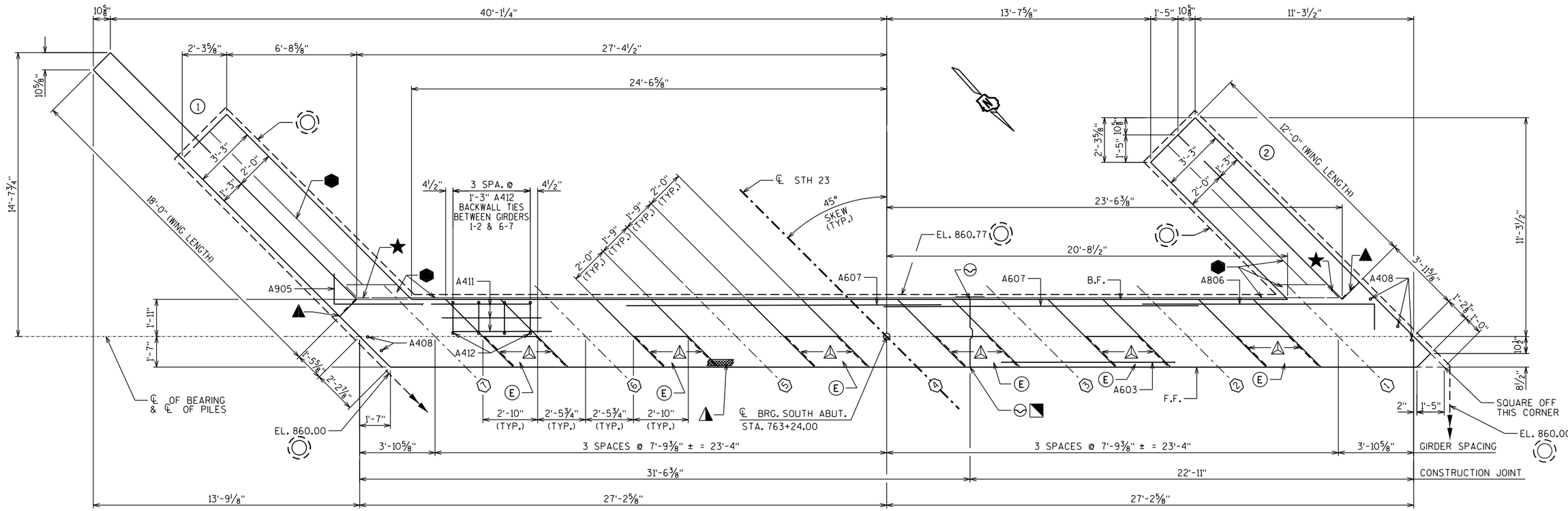
BEARING SEAT ELEVATIONS ARE GIVEN AT THE ℄ OF BEARING.

FOR WING DETAILS SEE SHEETS 5 & 6.

FOR PILE PLAN AND ADDITIONAL ABUTMENT DETAILS, SEE SHEET 10.

ELEVATION

(LOOKING SOUTH)



PLAN

LEGEND

◑ — STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03 INCHES. BEARING SEATS TO BE LEVEL.

▲ — ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).

◯ — INDICATES WING NUMBER

◥ — ¾" "V" GROOVE ON FRONT FACE OF KEYED CONSTRUCTION JOINT.

▬ — KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE AND PLACE ⬢ ON B.F. OF WING.

◭ — 4"x ½" FILLER, EXTEND FULL LENGTH ALONG F.F. OF ABUTMENT BETWEEN OUTSIDE EDGES OF DECK.

F.F. — FRONT FACE B.F. — BACK FACE CL. — CLEAR

⬡ — INDICATES GIRDER NUMBER

⌯ — KEYED CONSTRUCTION JOINT ON ABUTMENT BODY FORMED BY BEVELED 2x8. CLEAR PILES BY 9" MIN. PLACE 1'-6" WIDE RUBBERIZED MEMBRANE WATERPROOFING ON B.F. AT JOINT.

Ⓔ — SEMI-EXPANSION POCKET, CONSTRUCT 3" DEEPER THAN BEAM SEATS AND ABUTMENT BACKWALL. SLOPE BETWEEN LEVEL BEAM SEATS ALONG ℄ OF BEARING.

△ — ¾" CORK FILLER (SIDE VERTICAL FACES ONLY IN SEMI-EXPANSION POCKETS).

★ — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO PAVING NOTCH.

⬢ — 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS AND ALONG B.F. OF WINGS.

◎ — PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AND DISCHARGE ON RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE (SEE DETAIL SHEET 10).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

SOUTH ABUTMENT

SHEET 4 OF 16
101

8

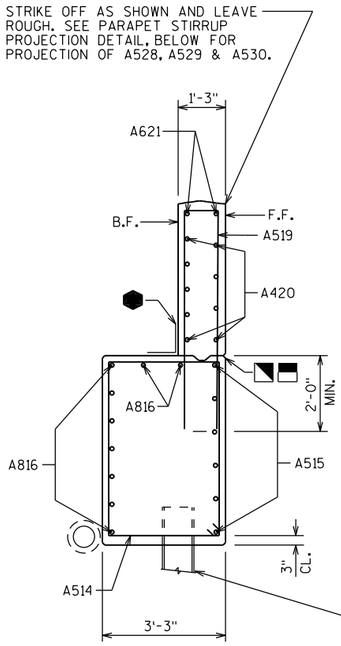
8

00093706_B-56-0236_04.dgn 10/4/2023 11:09:40 AM frabska

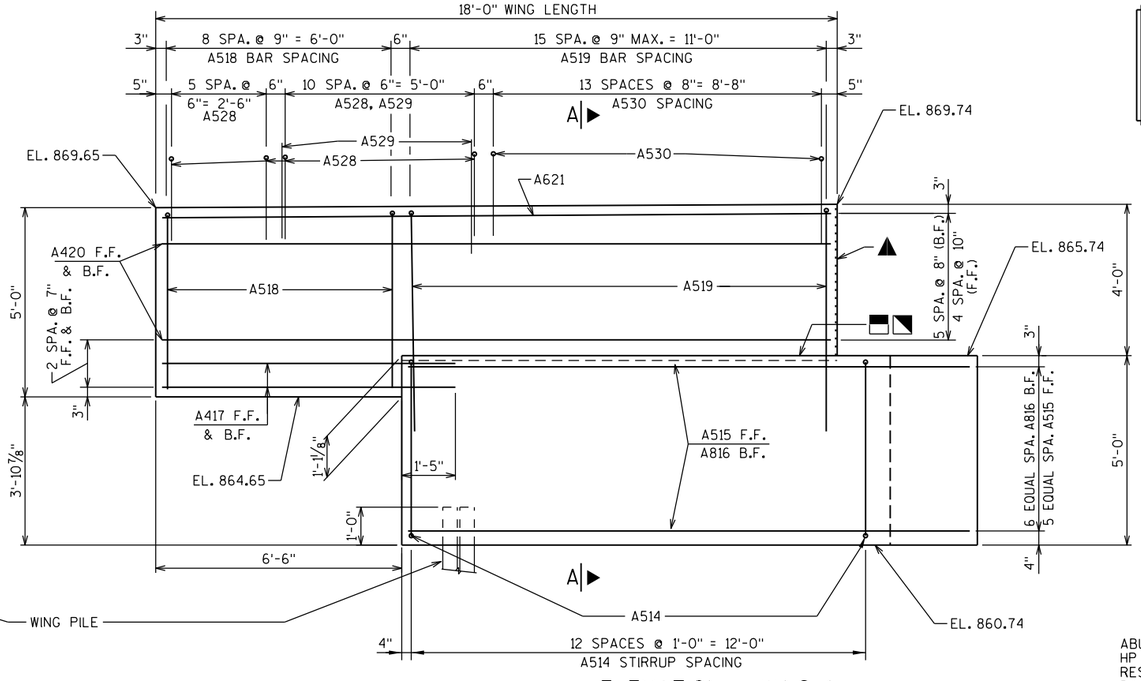
00093706_B-56-0236_04.DGN

STATE PROJECT NUMBER

5080-02-82

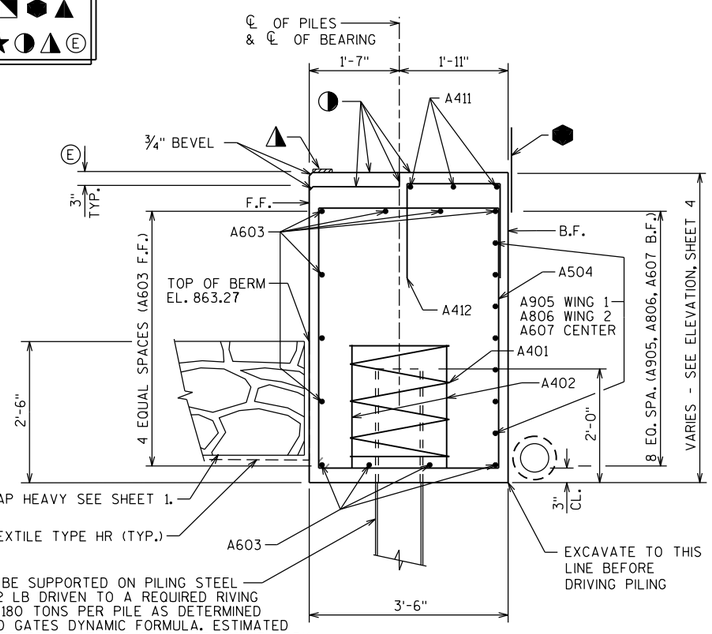


SECTION A-A THRU WING 1



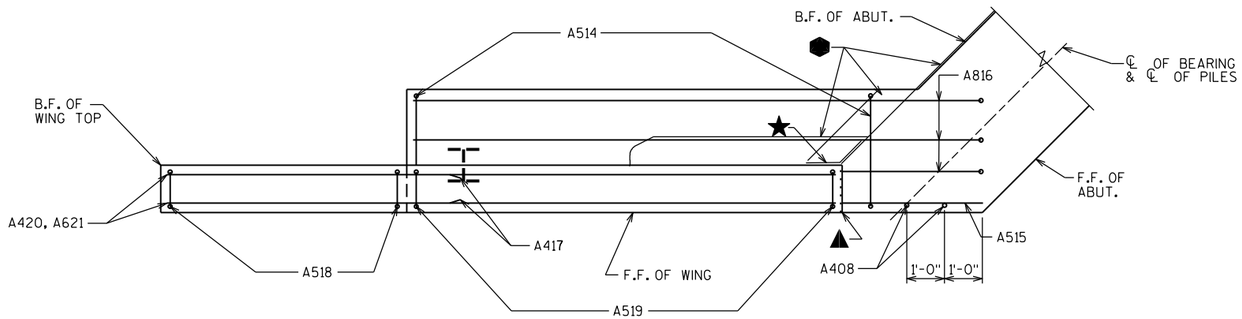
ELEVATION - WING 1

SEE SHEET 4 LEGEND FOR DESCRIPTION OF



ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED RIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTHS ARE 30'-0" AT THE SOUTH ABUTMENT BODY AND 25'-0" AT THE SOUTH ABUTMENT WINGS. FOR PILE PLAN AND PILE SPLICE DETAILS SEE SHEET 10.

TYPICAL SECTION THRU ABUTMENT

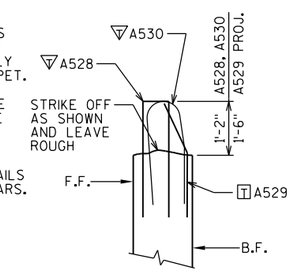


PLAN - WING 1

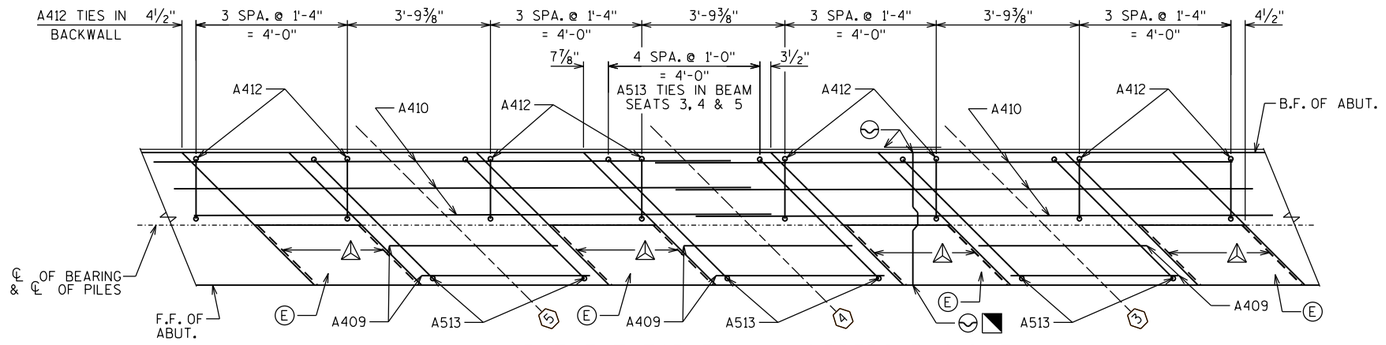
Ⓣ A529 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A529 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ A528 AND A530 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

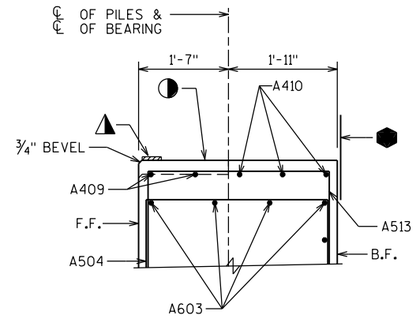
SEE SHEETS 6 AND 16 FOR ADDITIONAL PLACEMENT DETAILS OF A528, A529, AND A530 BARS.



PARAPET STIRRUP PROJECTION DETAIL



ABUTMENT TOP PLAN @ GIRDERS 3, 4 & 5



TYPICAL SECTION THRU ABUTMENT AT GIRDER SEATS 3, 4 & 5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

WING 1 & SOUTH ABUTMENT DETAILS

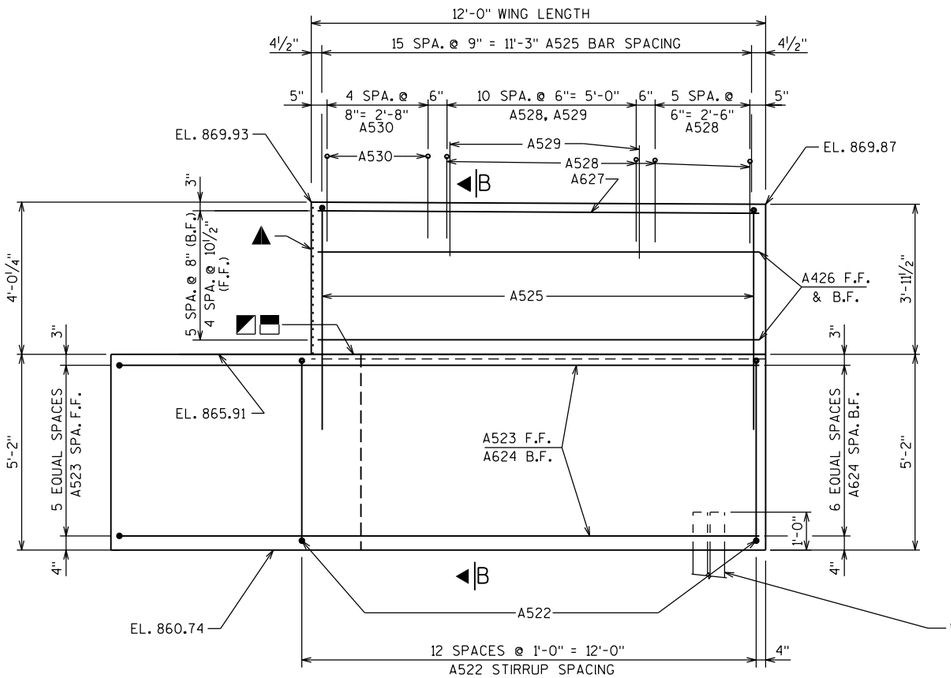
SHEET 5 OF 16
102

8

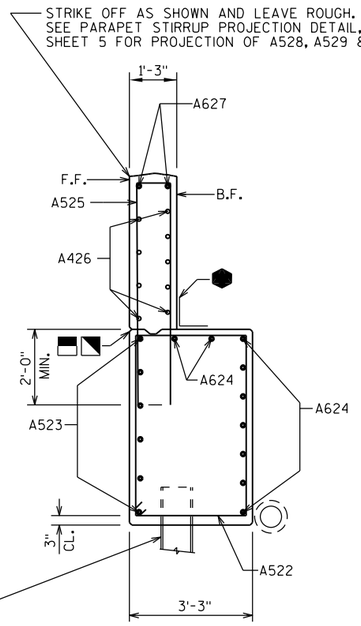
8

00093706_B-56-0236_05_WING 1.dgn 10/4/2023 12:54:49 PM lrabska

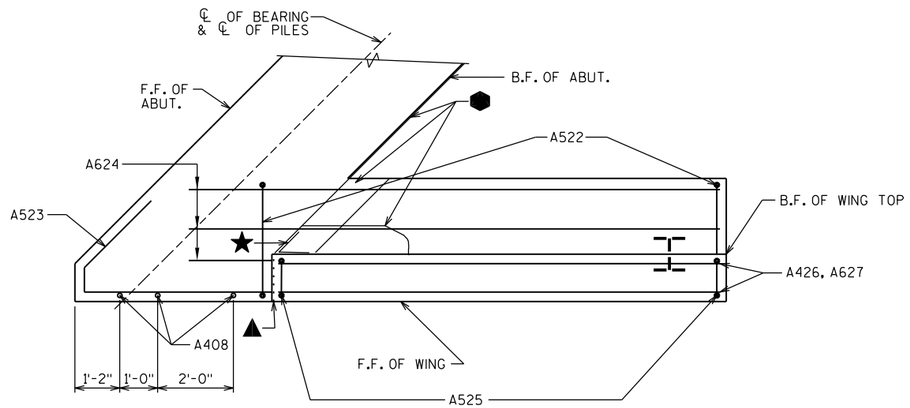
00093706_B-56-0236_05.DGN



ELEVATION - WING 2

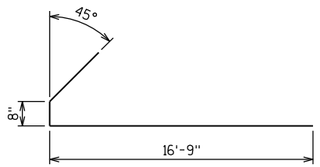


SECTION B-B THRU WING 2

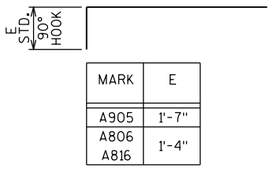


PLAN - WING 2

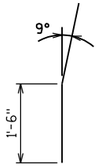
SEE SHEET 4 LEGEND FOR DESCRIPTION OF



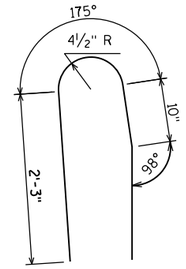
A523



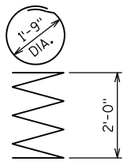
MARK	E
A905	1'-7"
A806 A816	1'-4"



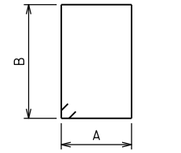
A529



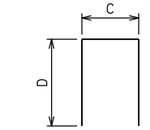
A530



A401



MARK	A	B
A504	3'-2"	4'-4"
A514	2'-11"	4'-7"
A522	2'-11"	4'-9"



MARK	C	D
A412	1'-7"	1'-6"
A513	4'-5"	1'-7"
A518	11"	4'-8"
A519	11"	5'-10"
A525	11"	5'-11"
A528	6"	2'-8"

BILL OF BARS (SOUTH ABUTMENT)

UNCOATED 3635 LBS.
COATED 2400 LBS.

MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	LOCATION
A401	-	9	28'-0"	X	ABUT. BODY - 1 SPIRAL WRAP PER PILE
A402	-	18	2'-3"		ABUT. BODY - 2 PER PILE - VERT.
A603	-	22	28'-6"		ABUT. BODY - F.F., TOP & BOTTOM - HORIZ.
A504	-	70	15'-8"	X	ABUT. BODY - STIRRUPS - VERT.
A905	-	7	19'-4"	X	ABUT. BODY - B.F. @ WING 1 - HORIZ.
A806	-	7	13'-2"	X	ABUT. BODY - B.F. @ WING 2 - HORIZ.
A607	-	14	16'-5"		ABUT. BODY - B.F. - CENTER - HORIZ.
A408	-	5	4'-7"		ABUT. BODY - ENDS - VERT.
A409	-	6	4'-5"		ABUT. TOP - F.F. - GIRDER SEATS 3, 4 & 5 - HORIZ.
A410	-	6	15'-3"		ABUT. TOP - BACKWALL - GIRDER SEATS 3, 4 & 5 - HORIZ.
A411	-	6	5'-3"		ABUT. END - TOP - SEMI-EXP. POCKET BACKWALL - HORIZ.
A412	-	24	4'-5"	X	ABUT. TOP - TIES - SEMI-EXP. POCKET BACKWALL - VERT.
A513	-	15	7'-4"	X	ABUT. TOP - TIES - GIRDER SEATS 3, 4 & 5 - VERT.
A514	13	-	15'-8"	X	WING 1 - BASE - STIRRUP - VERT.
A515	6	-	15'-0"		WING 1 - BASE - F.F. - HORIZ.
A816	9	-	16'-2"	X	WING 1 - BASE - B.F. & TOP - HORIZ.
A417	4	-	7'-9"		WING 1 - TOP @ TIP - HORIZ.
A518	9	-	10'-0"	X	WING 1 - TOP @ TIP - TIES - VERT.
A519	16	-	12'-4"	X	WING 1 - TOP - TIES - VERT.
A420	9	-	17'-7"		WING 1 - TOP - F.F. & B.F. - HORIZ.
A621	2	-	17'-7"		WING 1 - TOP - F.F. & B.F. - HORIZ.
A522	13	-	16'-0"	X	WING 2 - BASE - STIRRUP - VERT.
A523	6	-	19'-9"	X	WING 2 - BASE - F.F. - HORIZ.
A624	9	-	14'-1"		WING 2 - BASE - B.F. & TOP - HORIZ.
A525	16	-	12'-6"	X	WING 2 - TOP - TIES - VERT.
A426	9	-	11'-7"		WING 2 - TOP - F.F. & B.F. - HORIZ.
A627	2	-	11'-7"		WING 2 - TOP - F.F. & B.F. - HORIZ.
A528	34	-	5'-7"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.
A529	22	-	3'-0"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.
A530	19	-	5'-10"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

STATE PROJECT NUMBER

5080-02-82

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

WING 2 & SOUTH ABUTMENT DETAILS

SHEET 6 OF 16
103

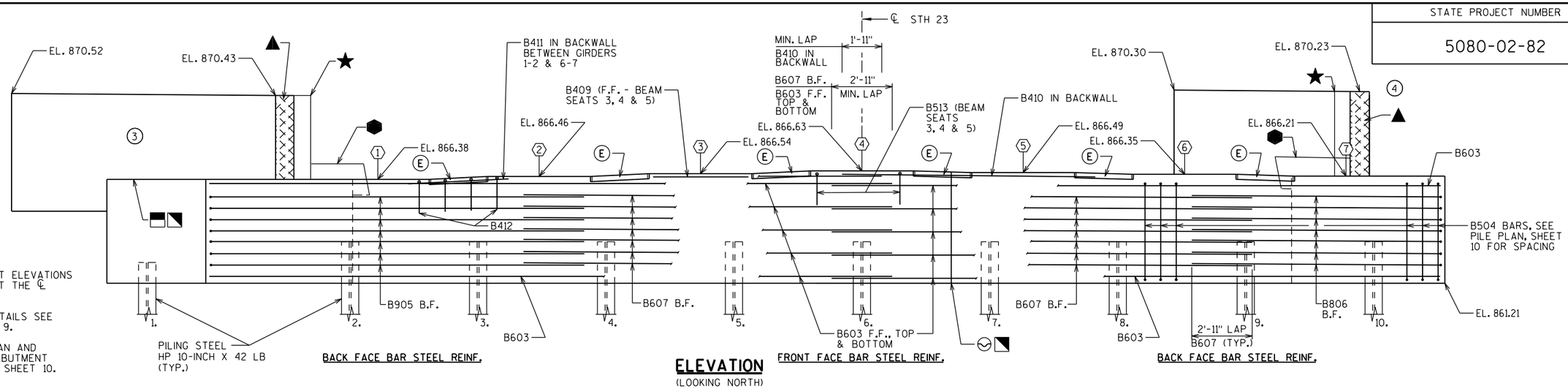
8

8

00093706_B-56-0236_06.DGN

STATE PROJECT NUMBER

5080-02-82



NOTES

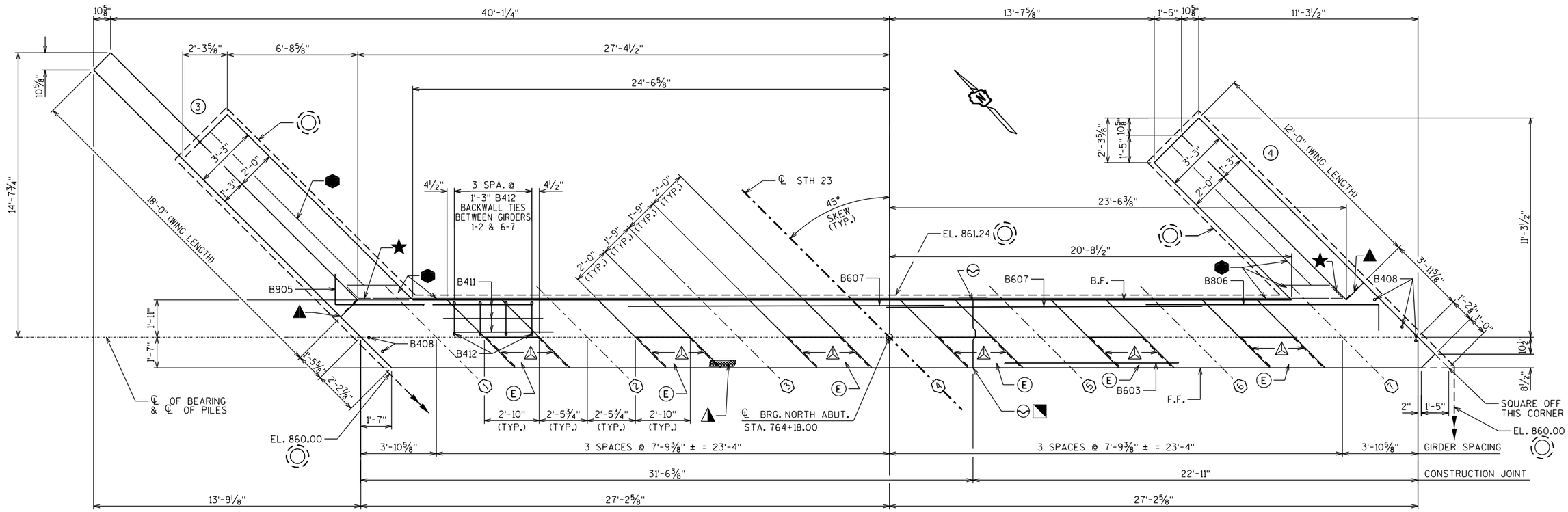
BEARING SEAT ELEVATIONS ARE GIVEN AT THE ℄ OF BEARING.

FOR WING DETAILS SEE SHEETS 8 & 9.

FOR PILE PLAN AND ADDITIONAL ABUTMENT DETAILS, SEE SHEET 10.

ELEVATION

(LOOKING NORTH)



PLAN

LEGEND

◑ — STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03 INCHES. BEARING SEATS TO BE LEVEL.

▲ — ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).

◯ — INDICATES WING NUMBER

◥ — ¾" "V" GROOVE ON FRONT FACE OF KEYED CONSTRUCTION JOINT.

▬ — KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE AND PLACE ⬢ ON B.F. OF WING.

◭ — 4"x ½" FILLER, EXTEND FULL LENGTH ALONG F.F. OF ABUTMENT BETWEEN OUTSIDE EDGES OF DECK.

F.F. — FRONT FACE B.F. — BACK FACE CL. — CLEAR

⬡ — INDICATES GIRDER NUMBER

⊖ — KEYED CONSTRUCTION JOINT ON ABUTMENT BODY FORMED BY BEVELED 2x8. CLEAR PILES BY 9" MIN. PLACE 1'-6" WIDE RUBBERIZED MEMBRANE WATERPROOFING ON B.F. AT JOINT.

Ⓔ — SEMI-EXPANSION POCKET, CONSTRUCT 3" DEEPER THAN BEAM SEATS AND ABUTMENT BACKWALL. SLOPE BETWEEN LEVEL BEAM SEATS ALONG ℄ OF BEARING.

◬ — ¾" CORK FILLER (SIDE VERTICAL FACES ONLY IN SEMI-EXPANSION POCKETS).

★ — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO PAVING NOTCH.

⬢ — 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS AND ALONG B.F. OF WINGS.

◎ — PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AND DISCHARGE ON RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE (SEE DETAIL SHEET 10).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

NORTH ABUTMENT

SHEET 7 OF 16
104

8

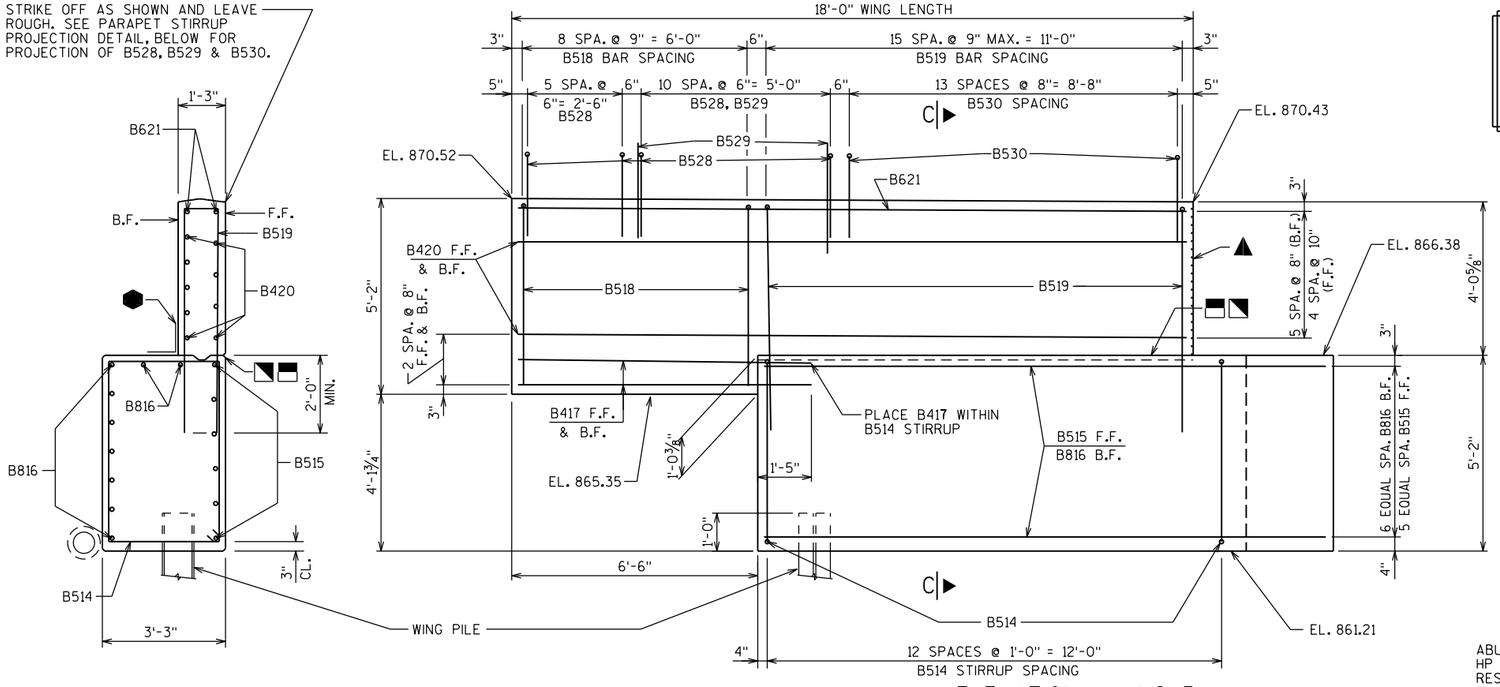
8

00093706_B-56-0236_07.DGN

00093706_B-56-0236_07.dgn 10/4/2023 1:12:36 PM rrabska

STATE PROJECT NUMBER

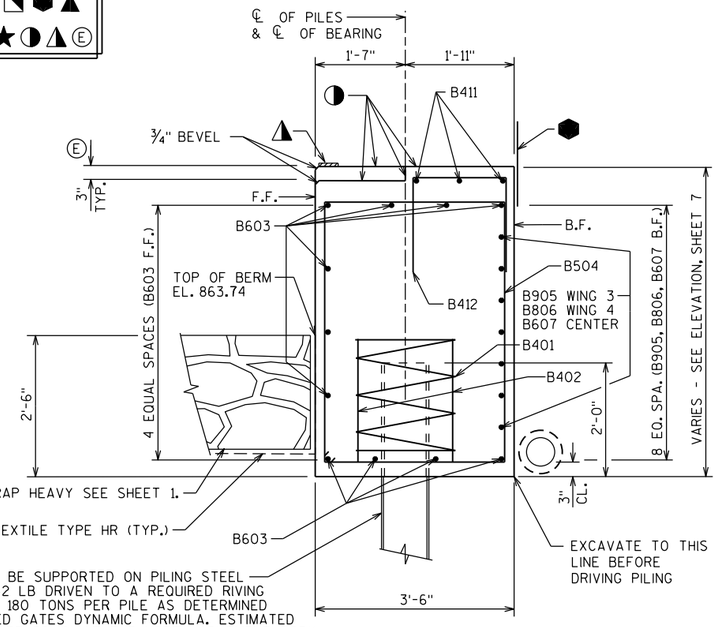
5080-02-82



SECTION C-C THRU WING 3

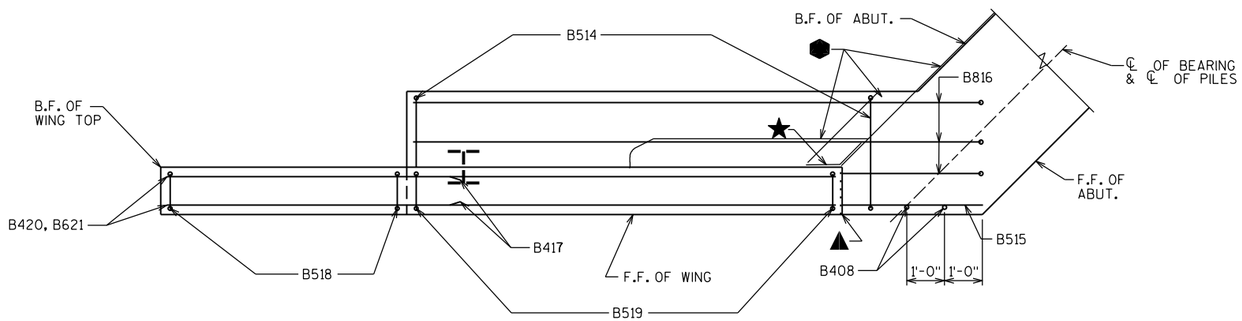
ELEVATION - WING 3

SEE SHEET 7 LEGEND FOR DESCRIPTION OF



ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED RIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTHS ARE 30'-0" AT THE NORTH ABUTMENT BODY AND 25'-0" AT THE NORTH ABUTMENT WINGS. FOR PILE PLAN AND PILE SPLICE DETAILS SEE SHEET 10.

TYPICAL SECTION THRU ABUTMENT

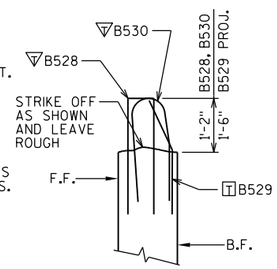


PLAN - WING 3

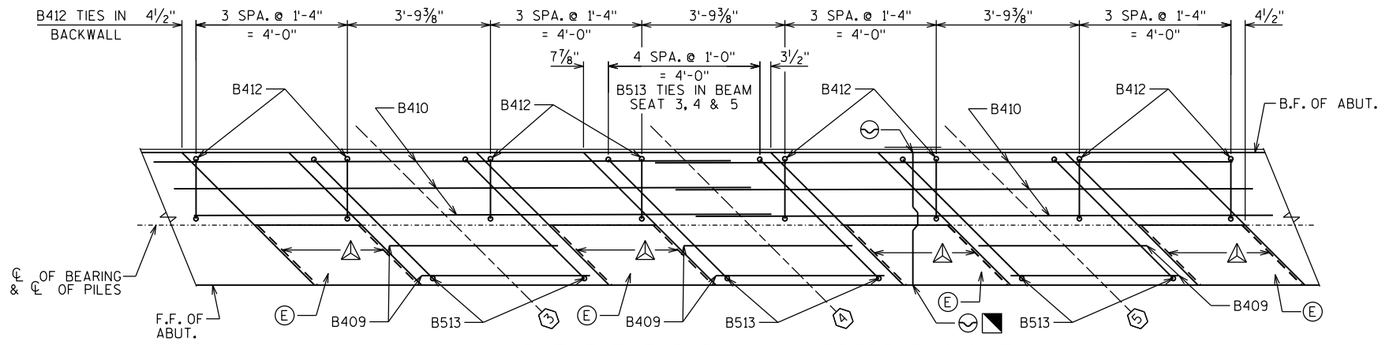
T B529 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE B529 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ B528 AND B530 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

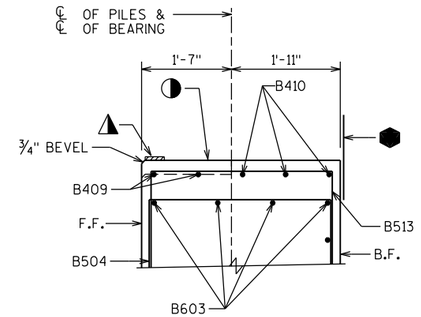
SEE SHEETS 9 AND 16 FOR ADDITIONAL PLACEMENT DETAILS OF B528, B529, AND B530 BARS.



PARAPET STIRRUP PROJECTION DETAIL



ABUTMENT TOP PLAN @ GIRDERS 3, 4 & 5



TYPICAL SECTION THRU ABUTMENT AT GIRDER SEATS 3, 4 & 5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

WING 3 & NORTH ABUTMENT DETAILS

SHEET 8 OF 16
105

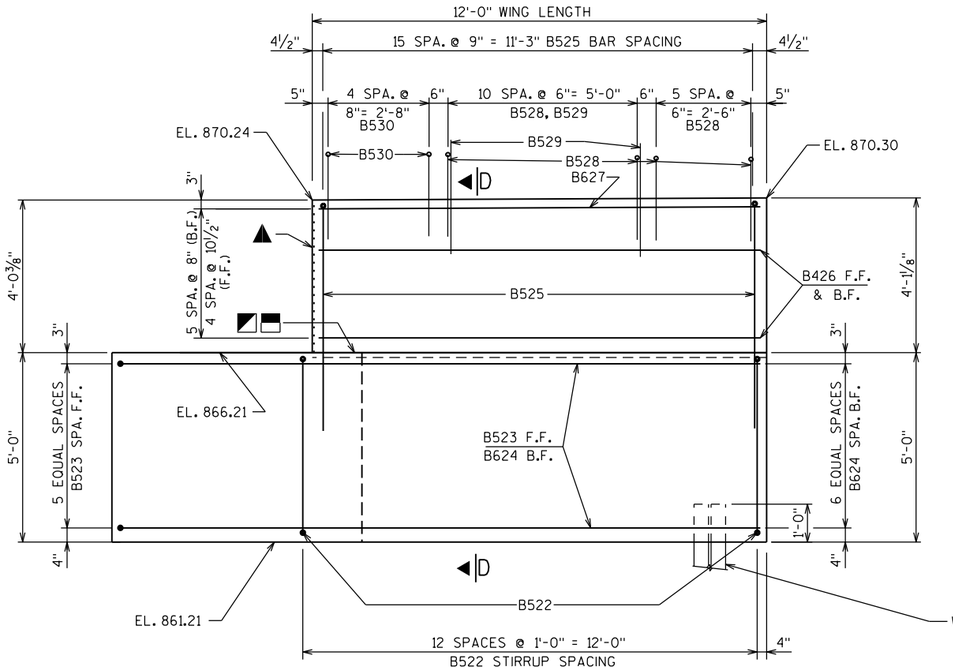
8

8

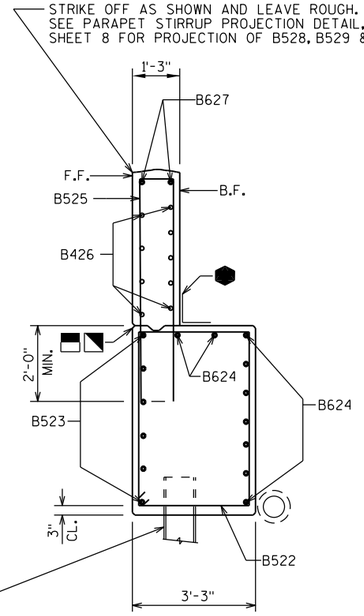
00093706_B-56-0236_08_WING 3.dgn 10/4/2023 1:27:40 PM rrabska

00093706_B-56-0236_08.DGN

STATE PROJECT NUMBER
5080-02-82



ELEVATION - WING 4



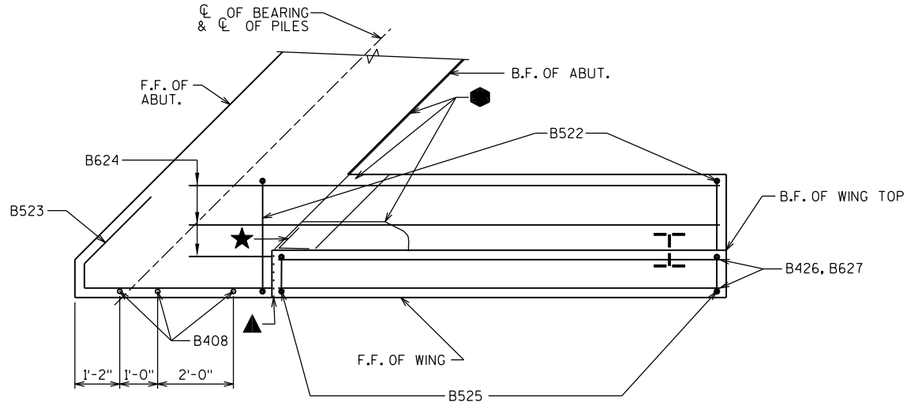
SECTION D-D THRU WING 4

BILL OF BARS (NORTH ABUTMENT)

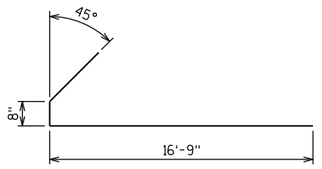
UNCOATED 3635 LBS.
COATED 2405 LBS.

MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	LOCATION
B401	-	9	28'-0"	X	ABUT. BODY - 1 SPIRAL WRAP PER PILE
B402	-	18	2'-3"		ABUT. BODY - 2 PER PILE - VERT.
B603	-	22	28'-6"		ABUT. BODY - F.F., TOP & BOTTOM - HORIZ.
B504	-	70	15'-8"	X	ABUT. BODY - STIRRUPS - VERT.
B905	-	7	19'-4"	X	ABUT. BODY - B.F. @ WING 3 - HORIZ.
B806	-	7	13'-2"	X	ABUT. BODY - B.F. @ WING 4 - HORIZ.
B607	-	14	16'-5"		ABUT. BODY - B.F. - CENTER - HORIZ.
B408	-	5	4'-7"		ABUT. BODY - ENDS - VERT.
B409	-	6	4'-5"		ABUT. TOP - F.F. - GIRDER SEATS 3, 4 & 5 - HORIZ.
B410	-	6	15'-3"		ABUT. TOP - BACKWALL - GIRDER SEATS 3, 4 & 5 - HORIZ.
B411	-	6	5'-3"		ABUT. END - TOP - SEMI-EXP. POCKET BACKWALL - HORIZ.
B412	-	24	4'-5"	X	ABUT. TOP - TIES - SEMI-EXP. POCKET BACKWALL - VERT.
B513	-	15	7'-4"	X	ABUT. TOP - TIES - GIRDER SEATS 3, 4 & 5 - VERT.
B514	13	-	16'-0"	X	WING 3 - BASE - STIRRUP - VERT.
B515	6	-	15'-0"		WING 3 - BASE - F.F. - HORIZ.
B816	9	-	16'-2"	X	WING 3 - BASE - B.F. & TOP - HORIZ.
B417	4	-	7'-9"		WING 3 - TOP @ TIP - HORIZ.
B518	9	-	10'-2"	X	WING 3 - TOP @ TIP - TIES - VERT.
B519	16	-	12'-8"	X	WING 3 - TOP - TIES - VERT.
B420	9	-	17'-7"		WING 3 - TOP - F.F. & B.F. - HORIZ.
B621	2	-	17'-7"		WING 3 - TOP - F.F. & B.F. - HORIZ.
B522	13	-	15'-8"	X	WING 4 - BASE - STIRRUP - VERT.
B523	6	-	19'-9"	X	WING 4 - BASE - F.F. - HORIZ.
B624	9	-	14'-1"		WING 4 - BASE - B.F. & TOP - HORIZ.
B525	16	-	12'-6"	X	WING 4 - TOP - TIES - VERT.
B426	9	-	11'-7"		WING 4 - TOP - F.F. & B.F. - HORIZ.
B627	2	-	11'-7"		WING 4 - TOP - F.F. & B.F. - HORIZ.
B528	34	-	5'-7"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.
B529	22	-	3'-0"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.
B530	19	-	5'-10"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.

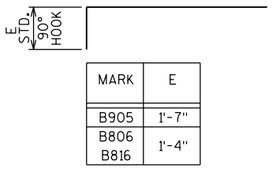
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



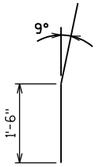
PLAN - WING 4



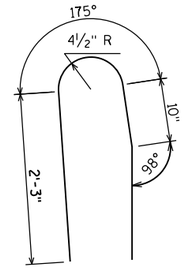
B523



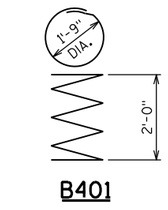
MARK	E
B905	1'-7"
B806 B816	1'-4"



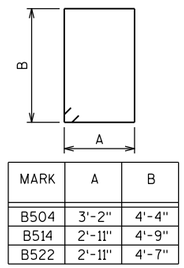
B529



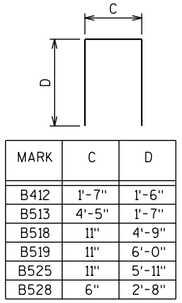
B530



B401



MARK	A	B
B504	3'-2"	4'-4"
B514	2'-11"	4'-9"
B522	2'-11"	4'-7"



MARK	C	D
B412	1'-7"	1'-6"
B513	4'-5"	1'-7"
B518	11"	4'-9"
B519	11"	6'-0"
B525	11"	5'-11"
B528	6"	2'-8"

SEE SHEET 7 LEGEND FOR DESCRIPTION OF

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

WING 4 & NORTH ABUTMENT DETAILS

SHEET 9 OF 16
106

8

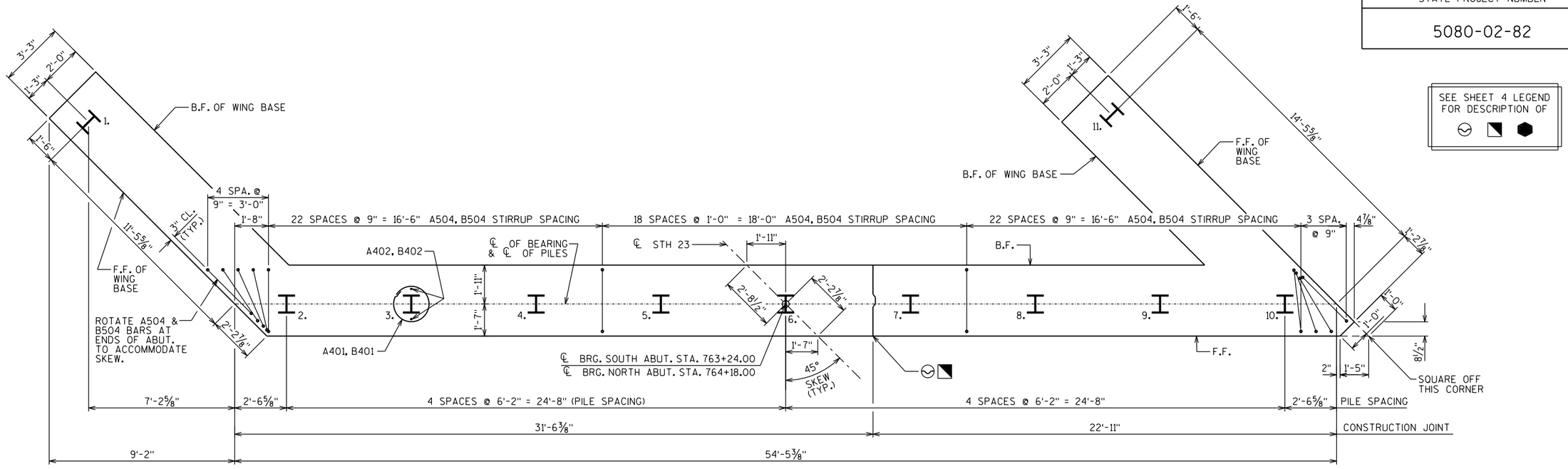
8

00093706_B-56-0236_09.DGN

00093706_B-56-0236_09_WING 4.dgn 10/4/2023 1:36:31 PM rrabska

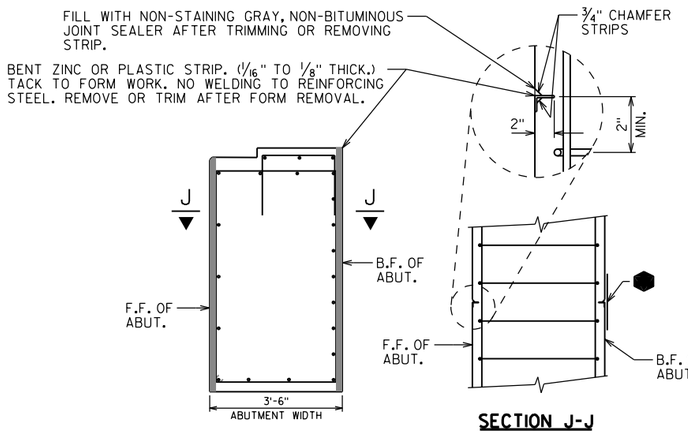
STATE PROJECT NUMBER

5080-02-82



SEE SHEET 4 LEGEND FOR DESCRIPTION OF

PILE PLAN



SECTION J-J

SECTION THRU ABUTMENT BODY

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

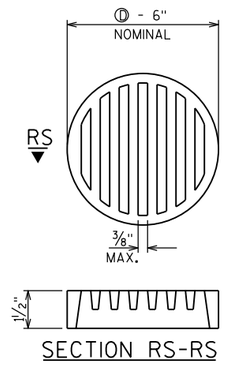
NOTES:

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTORS 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.



SECTION RS-RS

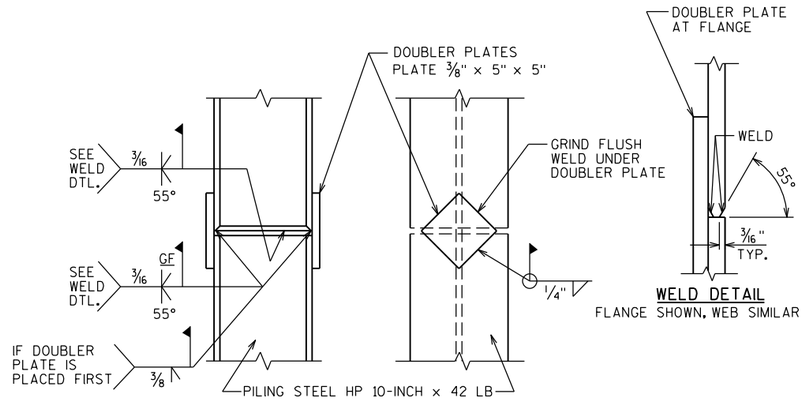
RODENT SHIELD NOTES:

ORIENT SHIELD SO SLOTS ARE VERTICAL.

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 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. THE RODENT SHIELD SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

RODENT SHIELD

Ⓓ - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

PILE PLAN & ABUTMENT DETAILS

SHEET 10 OF 16
107

00093706_B-56-0236_10.DGN

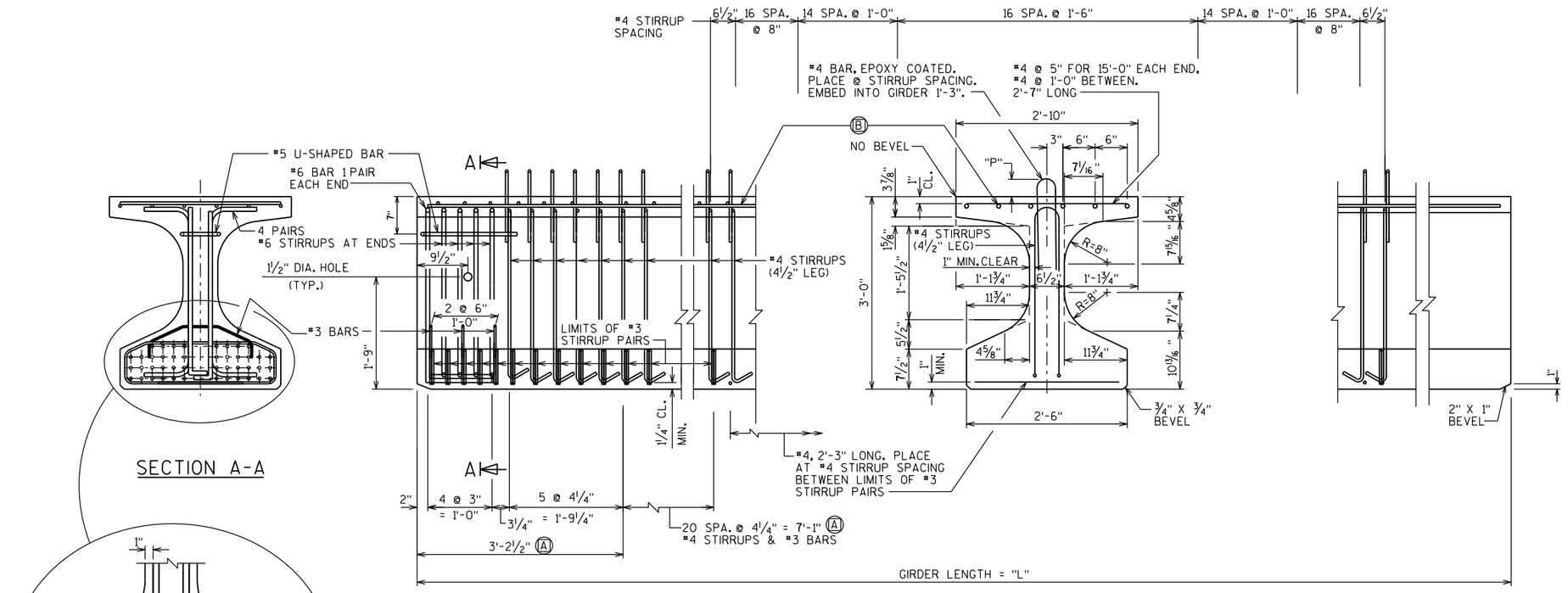
8

8

00093706_B-56-0236_10_PILE PLAN.dgn 8/31/2023 11:35:43 AM rrabska

STATE PROJECT NUMBER

5080-02-82

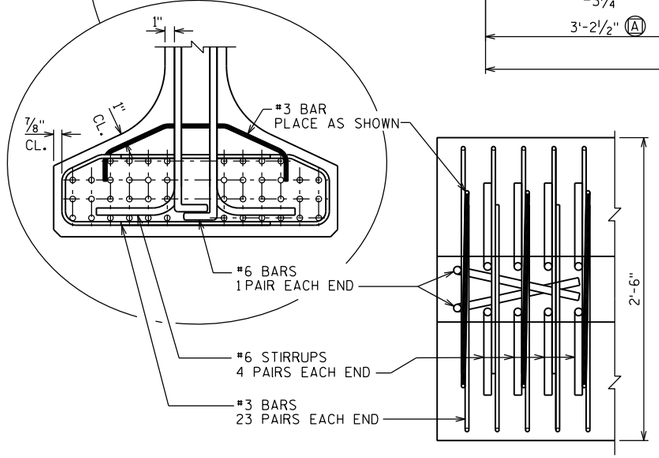


SECTION A-A

SIDE VIEW & TYPICAL SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"

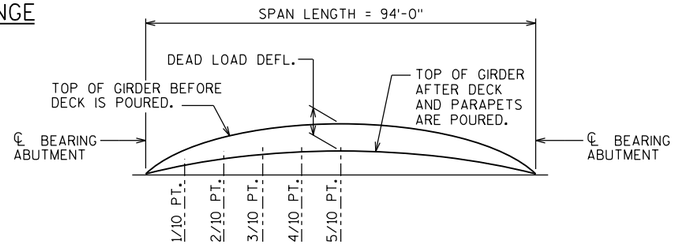


BOTTOM FLANGE

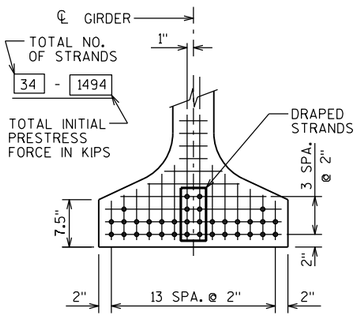
THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN. VALUES INCLUDE A MAGNIFICATION FACTOR OF 1.4 TO ACCOUNT FOR CREEP BETWEEN RELEASE AND INSTALLATION.

SPAN	CAMBER (IN.)
1	4"

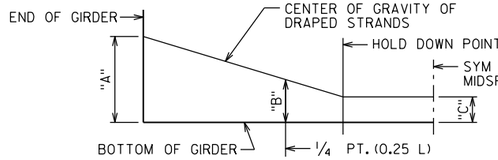
THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS. THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DEAD LOAD DEFLECTION DIAGRAM

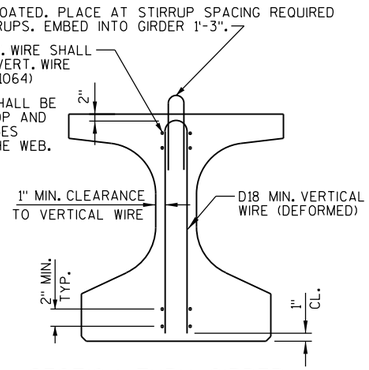


TYP. STRAND PATTERN



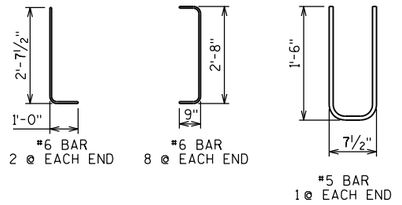
DRAPED STRAND PROFILE

NO. 4 BAR, EPOXY COATED. PLACE AT STIRRUP SPACING REQUIRED FOR NON WWF STIRRUPS. EMBED INTO GIRDER 1'-3".



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A1064 (Fy = 70 Ksi)



✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (P.S.I.)	"P" (IN.) 1ST 1/3 OF GIRDER	MID 1/3 OF GIRDER	END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1	1&7	95'-0"	0.67	1.31	1.80	2.12	2.23	2.12	1.80	1.31	0.67	8000	8.5"	6.5"	8"	0.6	34	6800	31	11.5	14.5	5	-	-
1	2-6	95'-0"	0.66	1.28	1.76	2.07	2.18	2.07	1.76	1.28	0.66	8000	8.5"	6.5"	8"	0.6	34	6800	31	11.5	14.5	5	-	-

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.4 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DESIGN SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

36W" PRESTRESSED GIRDER DETAILS

SHEET 11 OF 16
108

00093706_B-56-0236_11.DGN

00093706_B-56-0236_11 36W GIRD.dgn 10/5/2023 3:06:54 PM frabska

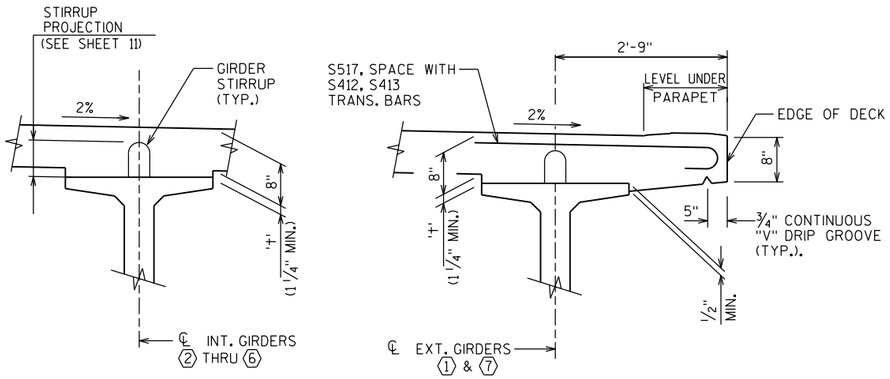
STATE PROJECT NUMBER

5080-02-82

TOP OF DECK ELEVATIONS

** EDGE OF DECK ELEVATION IS THE SAME AS THE INSIDE FACE OF THE PARAPET

LOCATION	SPAN POINT	** EAST DECK EDGE	C/L GIRDER 7	C/L GIRDER 6	C/L GIRDER 5	C/L STH 23 GIRDER 4	C/L GIRDER 3	C/L GIRDER 2	C/L GIRDER 1	** WEST DECK EDGE
S. ABUT.	1	869.75	869.80	869.94	870.07	870.21	870.13	870.05	869.96	869.95
	1.1	869.80	869.84	869.98	870.12	870.26	870.17	870.09	870.01	869.99
	1.2	869.85	869.89	870.03	870.17	870.30	870.22	870.14	870.06	870.04
	1.3	869.89	869.94	870.08	870.21	870.35	870.27	870.19	870.10	870.09
	1.4	869.94	869.99	870.12	870.26	870.40	870.32	870.23	870.15	870.13
	1.5	869.99	870.03	870.17	870.31	870.45	870.36	870.28	870.20	870.18
	1.6	870.04	870.08	870.22	870.35	870.49	870.41	870.33	870.24	870.23
	1.7	870.08	870.13	870.26	870.40	870.54	870.46	870.37	870.29	870.28
	1.8	870.13	870.17	870.31	870.45	870.59	870.50	870.42	870.34	870.32
	1.9	870.18	870.22	870.36	870.50	870.63	870.55	870.47	870.39	870.37
N. ABUT.	2	870.22	870.27	870.41	870.54	870.68	870.60	870.52	870.43	870.42



DECK HAUNCH DETAIL

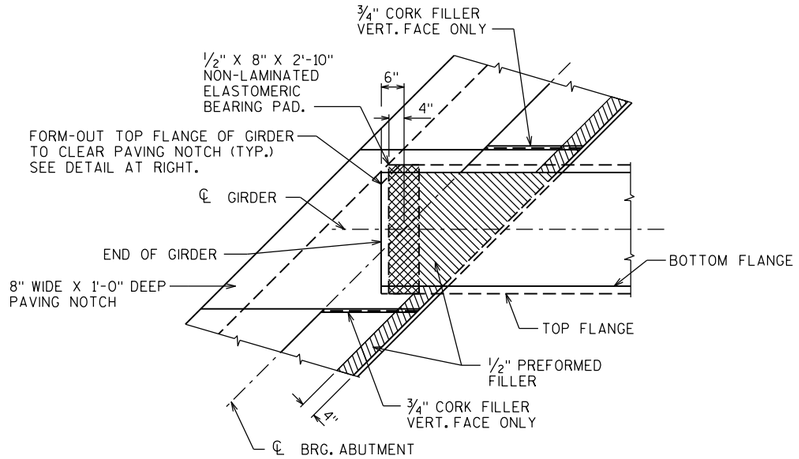
TO DETERMINE 't', ELEV. OF TOP OF GIRDERS AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF THE SPAN SHALL BE TAKEN. TO DETERMINE THE TOP OF DECK ELEVATION FOR POINT REFERRED USE TABLE ON THIS SHEET AND ADJUST FOR CROSS SLOPE OVER GIRDER. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION (SEE SHEET 11)
- DECK THICKNESS

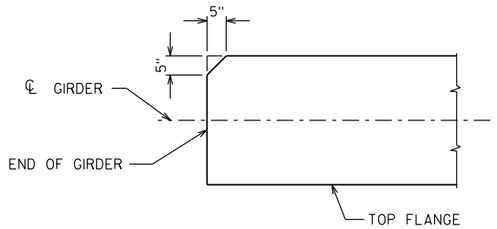
= HAUNCH HEIGHT 't'

IF 1 1/4" MINIMUM HAUNCH HEIGHT 't' CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN AND PROFILE BY MORE THAN ½" OR IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

NOTE: AN AVERAGE HAUNCH ("t") OF 3½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES."



BEARING PAD DETAIL



GIRDER FORM-OUT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

DECK FORMING DETAILS

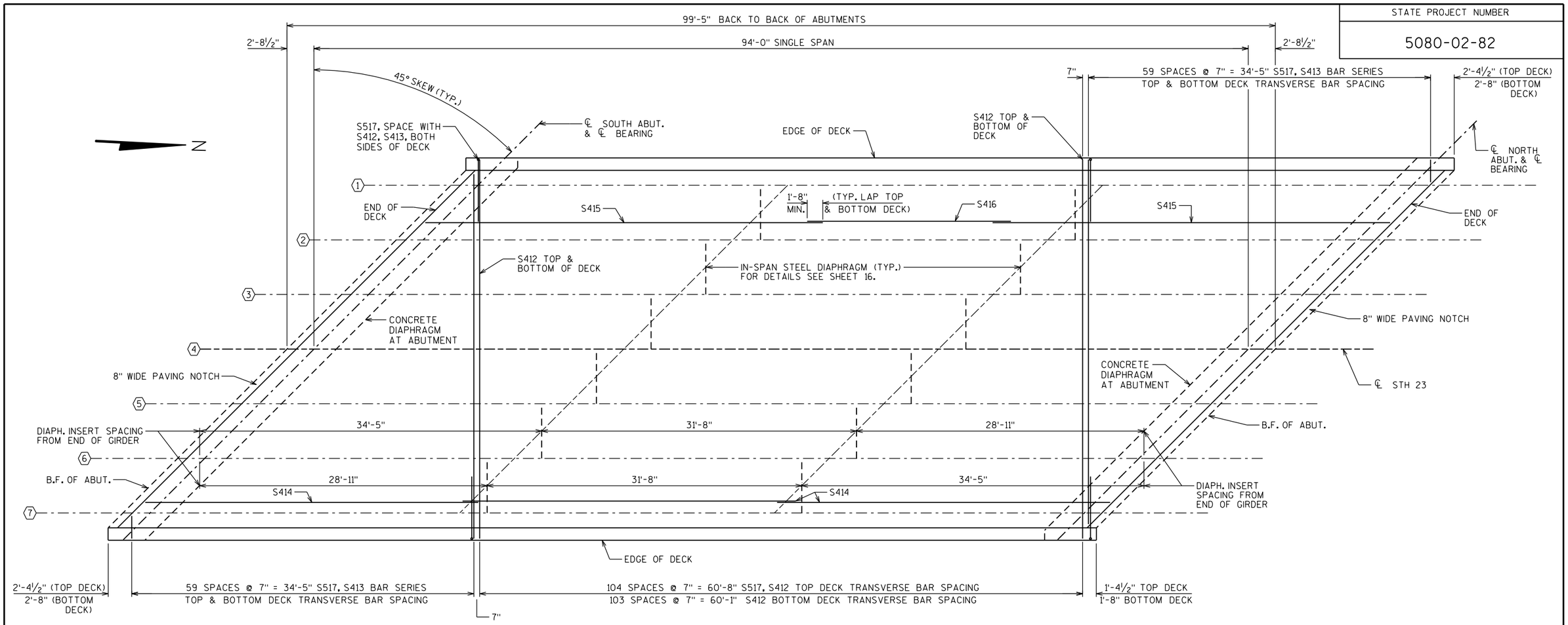
SHEET 12 OF 16
109

00093706_B-56-0236_12.DGN

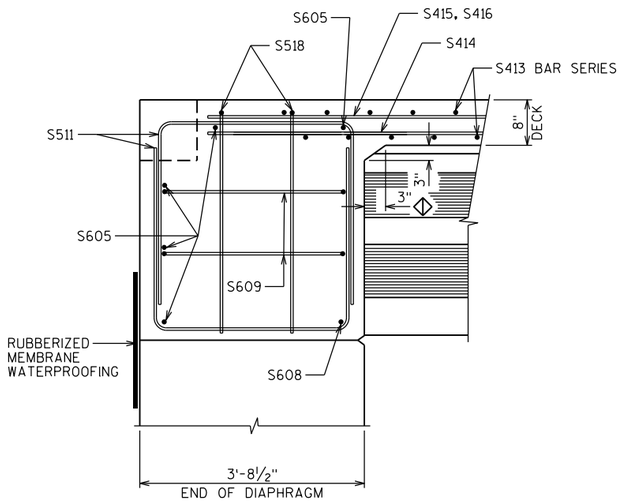
00093706_B-56-0236_12 DECK FORMING.dgn 8/30/2023 9:23:04 AM rrabska

STATE PROJECT NUMBER

5080-02-82

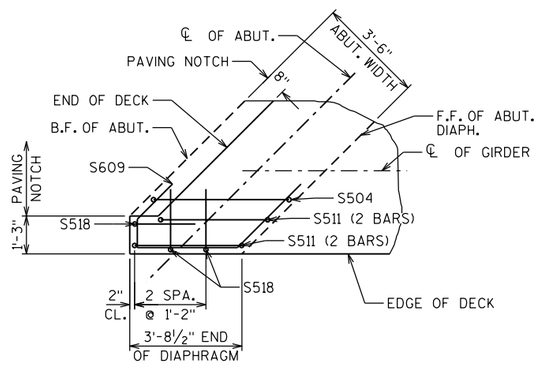


PLAN

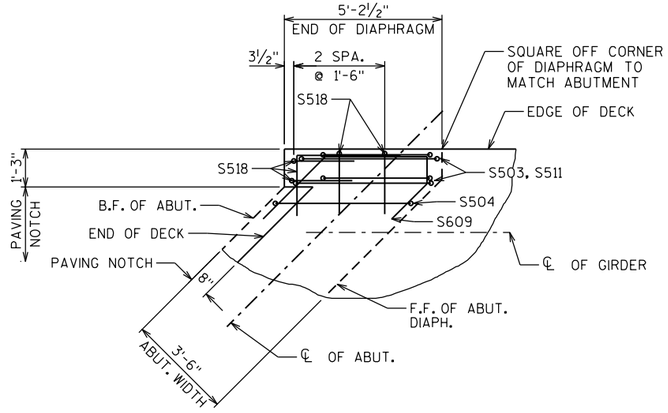


ELEVATION AT ABUTMENT ENDS

(WINGS 1 & 3 SHOWN)



CORNER DETAIL @ WINGS 1 & 3



CORNER DETAIL @ WINGS 2 & 4

GENERAL NOTES

⬡ - INDICATES GIRDER NUMBER

SEE SHEET 14 FOR LONGITUDINAL BAR SPACING.

SEE SHEET 16 FOR DETAILS OF DIAPHRAGM INSERTS ON GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

SUPERSTRUCTURE

SHEET 13 OF 16

110

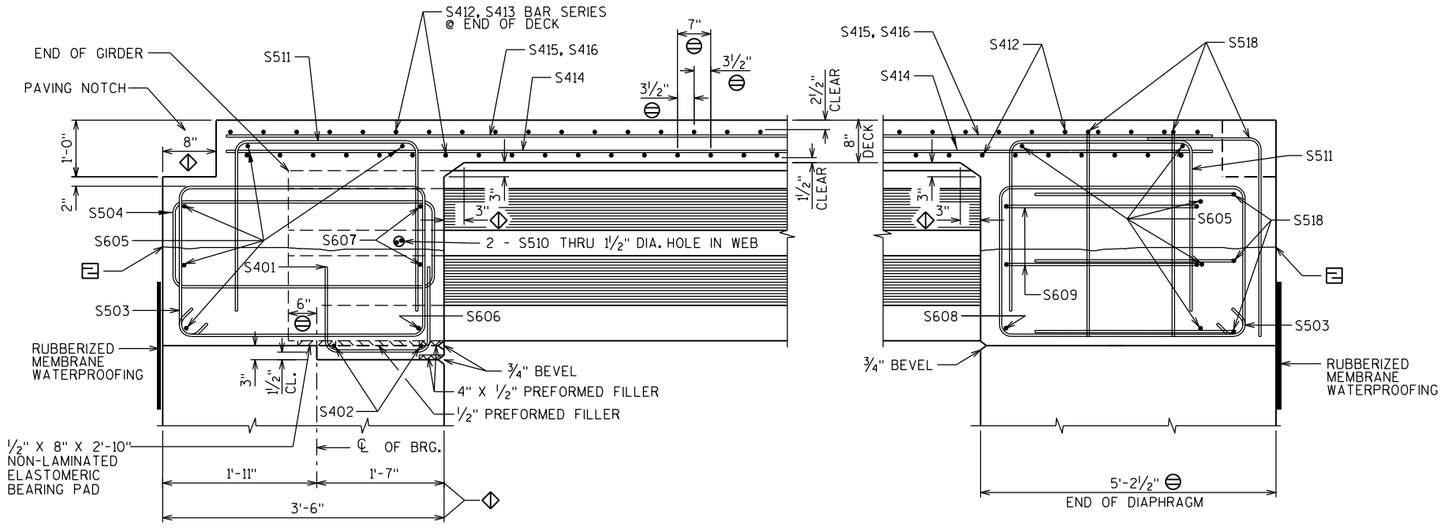
8

8

00093706_B-56-0236_13.DGN

00093706_B-56-0236_13 SUPER.dgn 10/4/2023 2:18:37 PM rrabska

STATE PROJECT NUMBER
5080-02-82



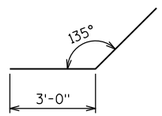
AT ABUTMENT INTERIOR BAYS

END OF DIAPHRAGM
(WINGS 2 & 4 SHOWN)

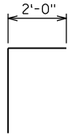
PART LONGITUDINAL SECTION

BILL OF BARS (COATED) 20,595 LBS.

MARK	NUMBER REQ'D.	LENGTH	BENT	BAR SERIES	DESCRIPTION
S401	36	4'-7"	X		DIAPH. @ ABUT. - SEMI-EXP. NOTCH - STIRRUP - VERT.
S402	24	2'-4"			DIAPH. @ ABUT. - SEMI-EXP. NOTCH - HORIZ.
S503	52	14'-8"	X		DIAPH. @ ABUT. - STIRRUP - VERT.
S504	28	12'-2"	X		DIAPH. @ ABUT. - STIRRUP - VERT.
S605	20	28'-6"			DIAPH. @ ABUT. - B.F. & TOP - HORIZ.
S606	12	3'-9"			DIAPH. @ ABUT. - F.F. - INTERIOR BAYS - HORIZ.
S607	48	4'-2"			DIAPH. @ ABUT. - F.F. - INTERIOR BAYS - HORIZ.
S608	4	1'-7"			DIAPH. @ ABUT. - F.F. @ ENDS - HORIZ.
S609	8	8'-4"	X		DIAPH. @ ABUT. - F.F. @ ENDS - HORIZ.
S510	28	6'-0"	X		DIAPH. @ ABUT. - 2 THRU GIRDER WEB - HORIZ.
S511	60	9'-1"	X		DIAPH. @ ABUT. - TOP STIRRUP - VERT.
S412	209	38'-2"			DECK - TOP & BOTTOM - TRANS.
S413	240	19'-6"		Ⓢ	DECK - TOP & BOTTOM @ DECK ENDS - TRANS.
S414	156	33'-6"			DECK - BOTTOM - LONGIT.
S415	106	40'-0"			DECK - TOP - LONGIT.
S416	53	20'-5"			DECK - TOP - LONGIT.
S517	330	4'-8"	X		DECK - TOP - EDGE - TRANS.
S518	20	5'-4"	X		DECK - TOP - @ CORNERS - VERT.

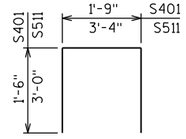


S510

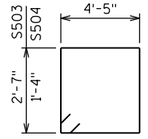


S518

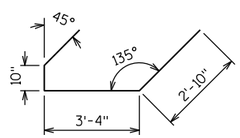
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL SUPERSTRUCTURE BAR REINFORCEMENT.
Ⓢ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.



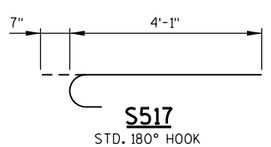
S401, S511



S503, S504



S609



S517
STD. 180° HOOK

BAR SERIES TABLE

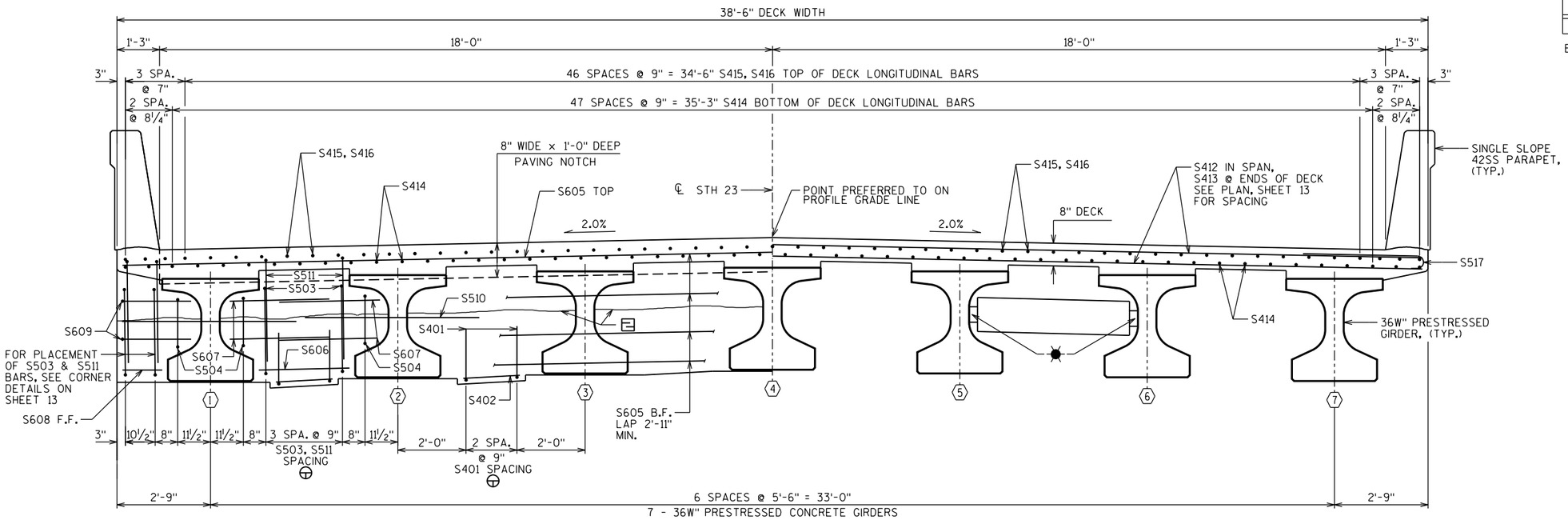
MARK	NO. REQUIRED	LENGTH
S513	4 SERIES OF 60	2'-3" TO 36'-8"

BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

- ⬡ - INDICATES GIRDER NUMBER
- ⊟ - OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDERS. IF USED DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- ✷ - FOR DETAILS OF STEEL DIAPHRAGMS AND DIAPHRAGM INSERTS, SEE SHEET 16. FOR LAYOUT AND SPACING OF STEEL DIAPHRAGMS, SEE PLAN, SHEET 13.
- ⧫ - DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.
- ⊖ - DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER.
- ⊕ - DIMENSION IS TAKEN PERPENDICULAR TO ℄ GIRDER.

F.F. - FRONT FACE B.F. - BACK FACE



AT ABUTMENTS **IN SPAN**

CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

SUPERSTRUCTURE SECTIONS & DETAILS

SHEET 14 OF 16
111

8

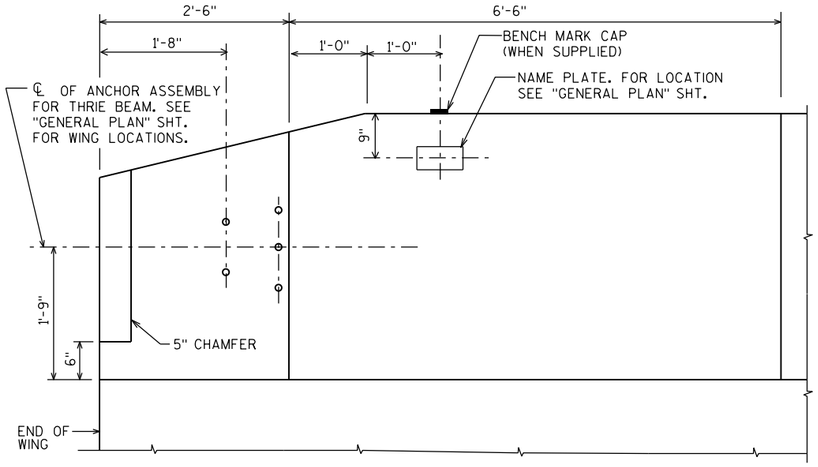
8

00093706_B-56-0236_14.DGN

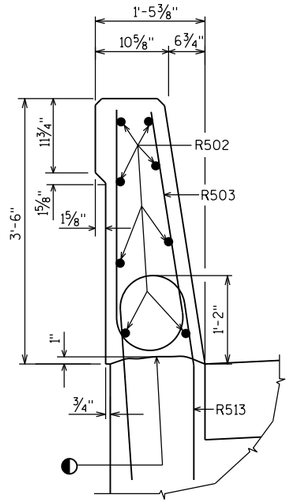
00093706_B-56-0236_14 SUPER DET.dgn 10/4/2023 3:20:39 PM rrabska

STATE PROJECT NUMBER

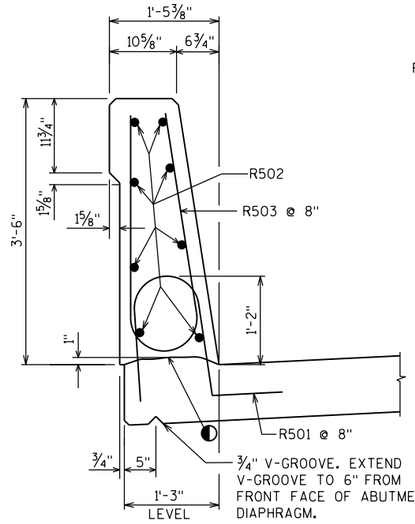
5080-02-82



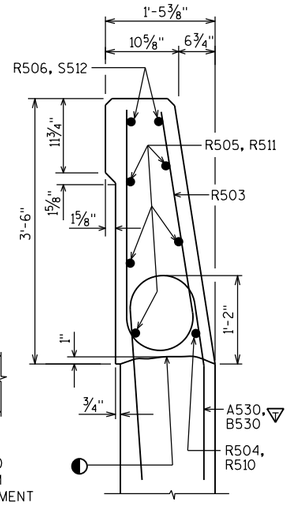
INSIDE ELEVATION



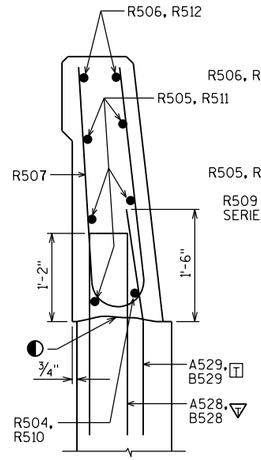
SECTION E-E
OVER ABUTMENT



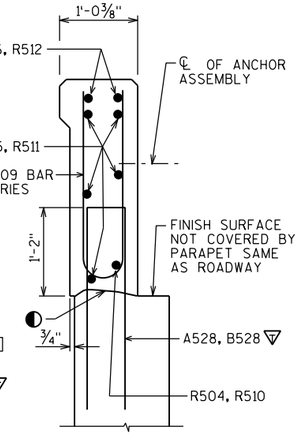
SECTION D-D
ON DECK



SECTION C-C
ON WING



SECTION B-B
ON WING



SECTION A-A
AT END OF WING

LEGEND

◐ CONSTRUCTION JOINT STRIKE OFF AS SHOWN.

▽ A528, B528 AND A530, B530 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

Ⓣ A529, B529 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A529, B529 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

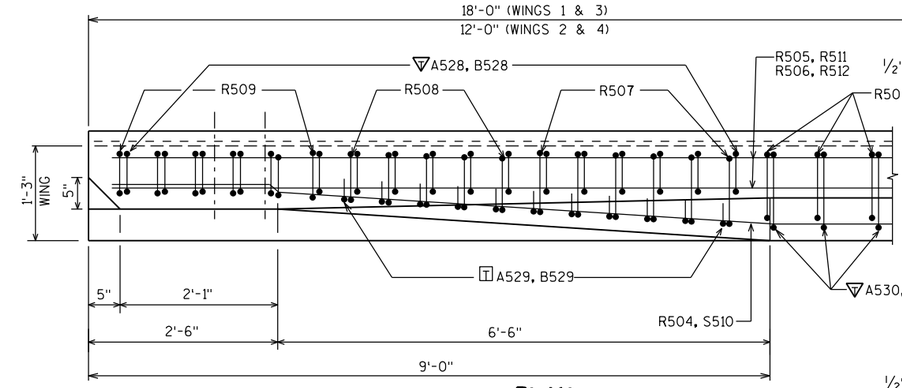
BILL OF BARS (COATED) 6390 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R501	284	4'-5"	X		PARAPET ON DECK - STIRRUP - VERT.
R502	48	34'-3"			PARAPET ON DECK - LONGIT.
R503	338	6'-8"	X		PARAPET - STIRRUP - VERT.
R504	2	11'-7"	X		PARAPET ON WINGS 2 & 4 - BOTTOM - LONGIT.
R505	10	11'-7"			PARAPET ON WINGS 2 & 4 - LONGIT.
R506	4	11'-8"	X		PARAPET ON WINGS 2 & 4 - TOP - LONGIT.
R507	24	6'-6"	X		PARAPET ON WING - STIRRUP - VERT.
R508	20	6'-5"	X		PARAPET ON WING - STIRRUP - VERT.
R509	24	5'-5"	X	Ⓢ	PARAPET ON WING - END - STIRRUP - VERT.
R510	2	17'-7"	X		PARAPET ON WINGS 1 & 3 - BOTTOM - LONGIT.
R511	10	17'-7"			PARAPET ON WINGS 1 & 3 - LONGIT.
R512	4	17'-8"	X		PARAPET ON WINGS 1 & 3 - TOP - LONGIT.
R513	16	5'-10"	X		PARAPET OVER ABUTMENT - STIRRUP - VERT.

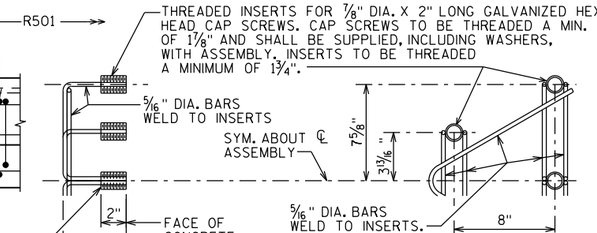
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

EPOXY COAT ALL SUPERSTRUCTURE BAR STEEL REINFORCEMENT.

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



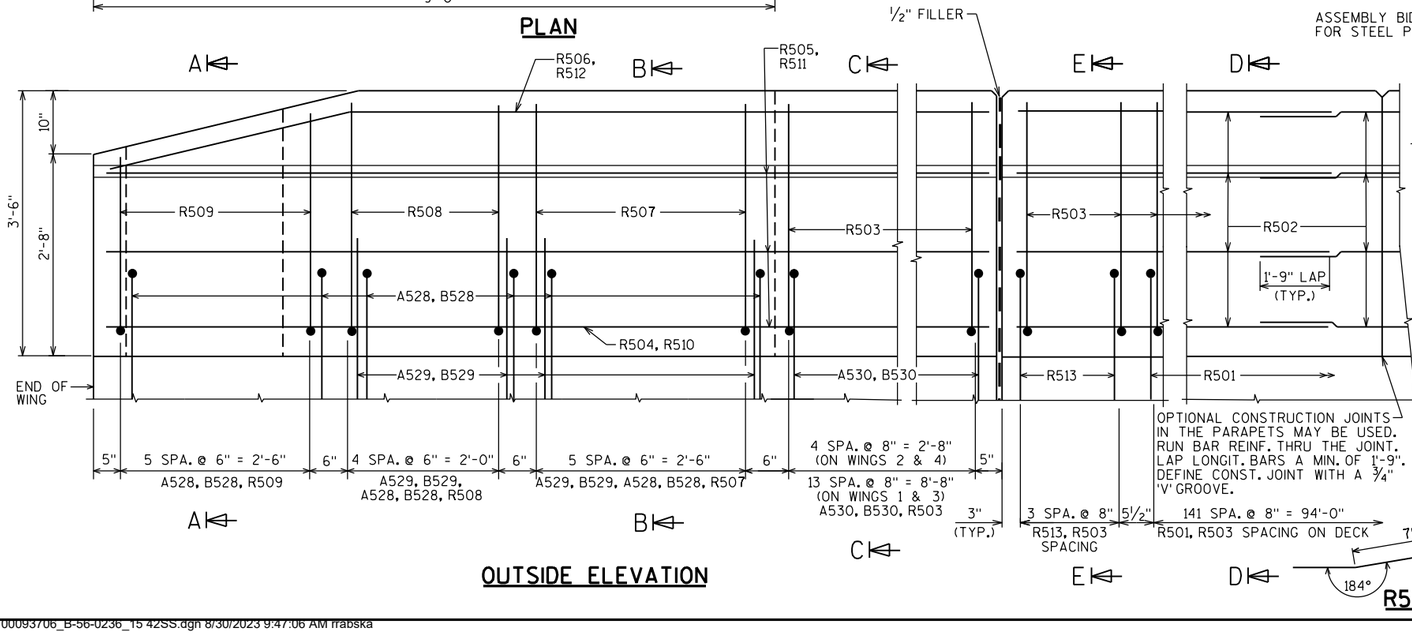
PLAN



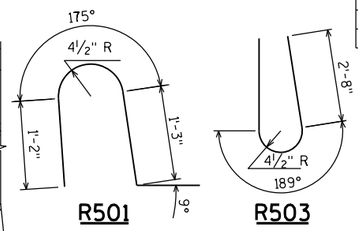
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

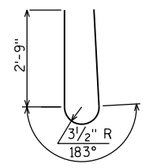


OUTSIDE ELEVATION

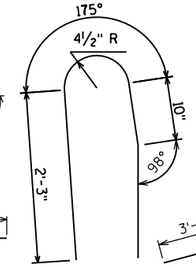


R501

R503



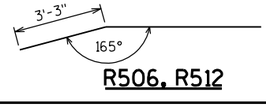
R507



R513

R509

R508



R506, R512

R504, R510

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

SINGLE SLOPE PARAPET 42SS

SHEET 15 OF 16
112

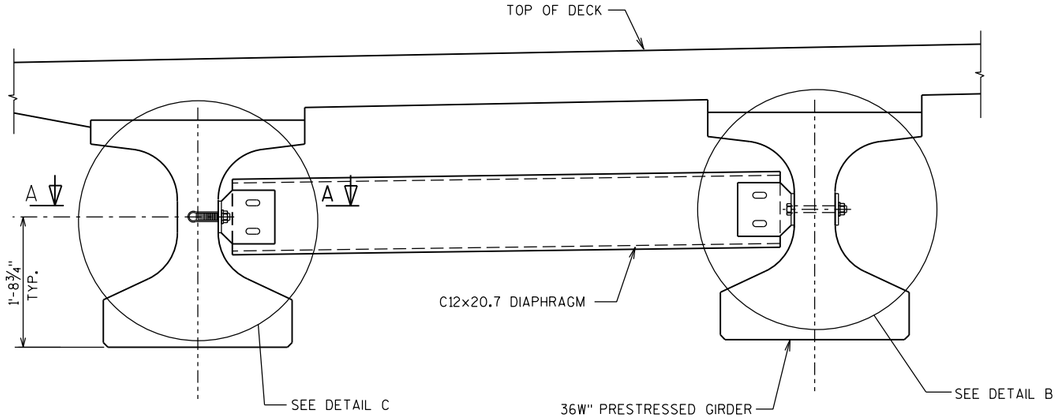
00093706_B-56-0236_15.DGN

00093706_B-56-0236_15 42SS.dgn 8/30/2023 9:47:06 AM frabska

8

STATE PROJECT NUMBER

5080-02-82



EXTERIOR GIRDER

INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

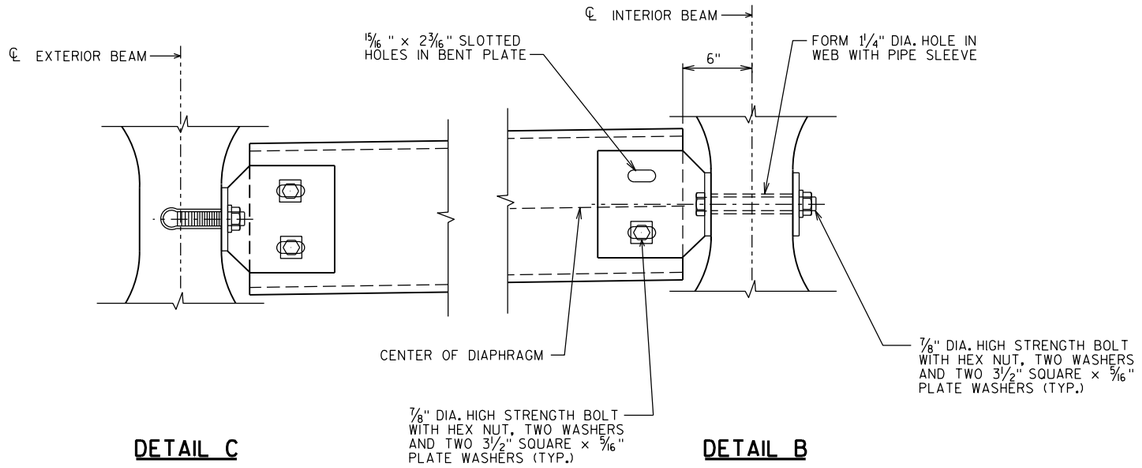
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-56-236", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

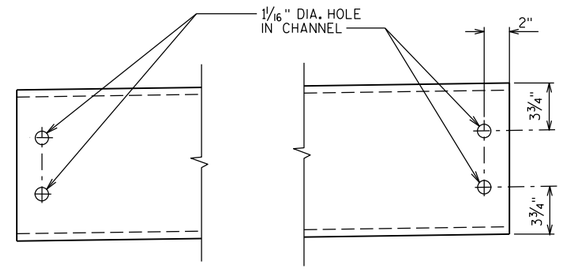
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATOIN.

STEEL DIAPHRAGM TO CONCRETE CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

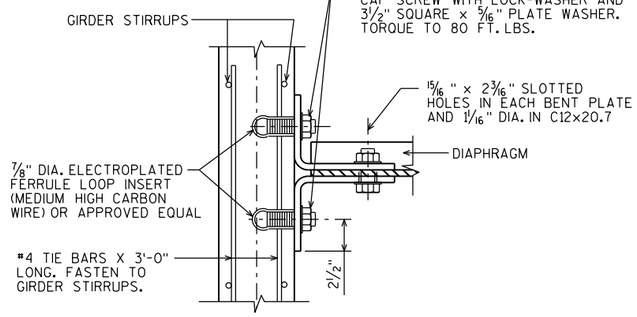


DETAIL C

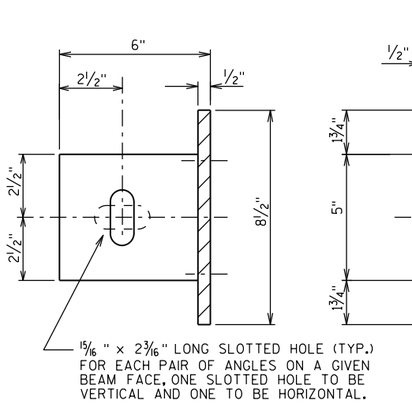
DETAIL B



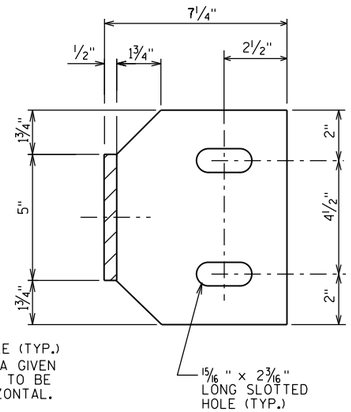
C12x20.7 CHANNEL



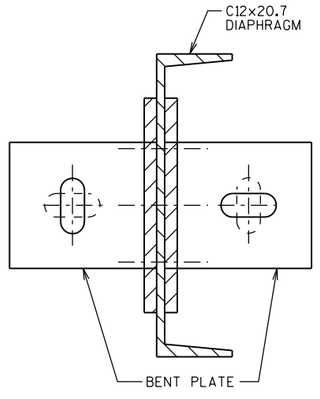
SECTION A-A
(FOR EXTERIOR ATTACHMENT)



BEAM FACE



DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-236

DRAWN BY RLR | PLANS CK'D. JZ

STEEL DIAPHRAGM

SHEET 16 OF 16

113

8

8

00093706_B-56-0236_16.DGN

00093706_B-56-0236_16 DIAPH.dgn 8/21/2023 7:58:24 AM rrabska

DIVISION 1 - STH 23

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	1.30	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
754+90.01	75490.01	0.00	90.05	0.00	1.88	0	0	0	0	0	0
755+00.00	75500.00	9.99	90.51	0.00	26.93	33	0	5	33	7	27
755+50.00	75550.00	50.00	89.89	0.00	21.40	167	0	45	200	65	135
756+00.00	75600.00	50.00	83.86	0.00	23.96	161	0	42	361	120	241
756+28.25	75628.25	28.25	77.58	0.00	23.66	84	0	25	445	152	293
756+50.00	75650.00	21.75	71.26	0.00	30.52	60	0	22	505	181	324
756+66.68	75666.68	16.68	65.81	0.00	35.78	42	0	20	547	207	340
757+00.00	75700.00	33.32	53.68	0.00	53.71	74	0	55	621	278	343
757+48.27	75748.27	48.27	39.44	0.00	88.02	83	0	127	704	443	261
757+50.00	75750.00	1.73	38.77	0.00	88.25	3	0	6	707	451	256
757+73.25	75773.25	23.25	33.04	0.00	93.75	31	0	78	738	553	186
757+85.77	75785.77	12.52	29.66	0.00	81.94	15	0	41	753	606	147
757+98.23	75798.23	12.46	25.61	0.00	71.75	13	0	35	766	651	115
758+00.00	75800.00	1.77	25.06	0.00	71.89	2	0	5	768	658	110
758+10.75	75810.75	10.75	21.88	0.00	68.96	9	0	28	777	694	83
758+35.73	75835.73	24.98	16.23	0.00	44.73	18	0	53	795	763	32
758+50.00	75850.00	14.27	15.83	0.00	46.90	8	0	24	803	794	9
759+00.00	75900.00	50.00	0.00	0.00	102.33	15	0	138	818	974	-156
759+25.75	75925.75	25.75	0.00	0.00	157.01	0	0	124	818	1,135	-317
759+37.71	75937.71	11.96	0.00	0.00	183.36	0	0	75	818	1,232	-414
759+38.42	75938.42	0.71	0.00	0.00	0.00	0	0	2	818	1,235	-417
759+89.58	75989.58	51.16	0.00	0.00	0.00	0	0	0	818	1,235	-417
759+90.25	75990.25	0.67	0.00	0.00	249.22	0	0	5	818	1,239	-421
760+00.00	76000.00	9.75	0.00	0.00	149.23	0	0	72	818	1,333	-515
760+50.00	76050.00	50.00	0.00	0.00	105.65	0	0	236	818	1,639	-821
760+54.77	76054.77	4.77	0.00	0.00	105.03	0	0	19	818	1,664	-846
760+79.75	76079.75	24.98	0.00	0.00	147.77	0	0	117	818	1,816	-998
761+00.00	76100.00	20.25	0.00	0.00	152.30	0	0	113	818	1,963	-1,145
761+04.73	76104.73	4.73	0.00	0.00	144.82	0	0	26	818	1,997	-1,179
761+17.27	76117.27	12.54	0.00	0.00	151.78	0	0	69	818	2,087	-1,269
761+35.00	76135.00	17.73	0.00	0.00	204.14	0	0	117	818	2,239	-1,421
761+42.27	76142.27	7.27	0.00	0.00	226.33	0	0	58	818	2,314	-1,496
761+50.00	76150.00	7.73	0.00	0.00	189.99	0	0	60	818	2,392	-1,574
761+57.84	76157.84	7.84	0.00	0.00	162.06	0	0	51	818	2,458	-1,640
761+67.23	76167.23	9.39	0.00	0.00	154.74	0	0	55	818	2,530	-1,712
761+82.81	76182.81	15.58	0.00	0.00	168.60	0	0	93	818	2,651	-1,833
761+92.70	76192.70	9.89	0.00	0.00	158.44	0	0	60	818	2,729	-1,911
762+00.00	76200.00	7.30	0.00	0.00	158.91	0	0	43	818	2,785	-1,967
762+07.80	76207.80	7.80	0.00	0.00	124.28	0	0	41	818	2,838	-2,020
762+24.84	76224.84	17.04	0.00	0.00	121.07	0	0	77	818	2,938	-2,120
762+49.81	76249.81	24.97	0.00	0.00	125.47	0	0	114	818	3,086	-2,268
762+74.81	76274.81	25.00	0.00	0.00	127.61	0	0	117	818	3,238	-2,420
762+85.28	76285.28	10.47	0.00	0.00	132.09	0	0	50	818	3,303	-2,485
763+00.00	76300.00	14.72	0.00	0.00	167.88	0	0	82	818	3,410	-2,592
763+03.28	76303.28	3.28	0.00	0.00	187.72	0	0	22	818	3,439	-2,621
763+22.23	76322.23	18.95	0.00	0.00	55.78	0	0	85	818	3,549	-2,731
763+27.28	76327.28	5.05	0.00	0.00	53.99	0	0	10	818	3,562	-2,744
763+38.23	76338.23	10.95	0.00	0.00	73.01	0	0	26	818	3,596	-2,778
763+38.24	76338.24	0.01	0.00	0.00	0.00	0	0	0	818	3,596	-2,778
764+02.75	76402.75	64.51	0.00	0.00	0.00	0	0	0	818	3,596	-2,778

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

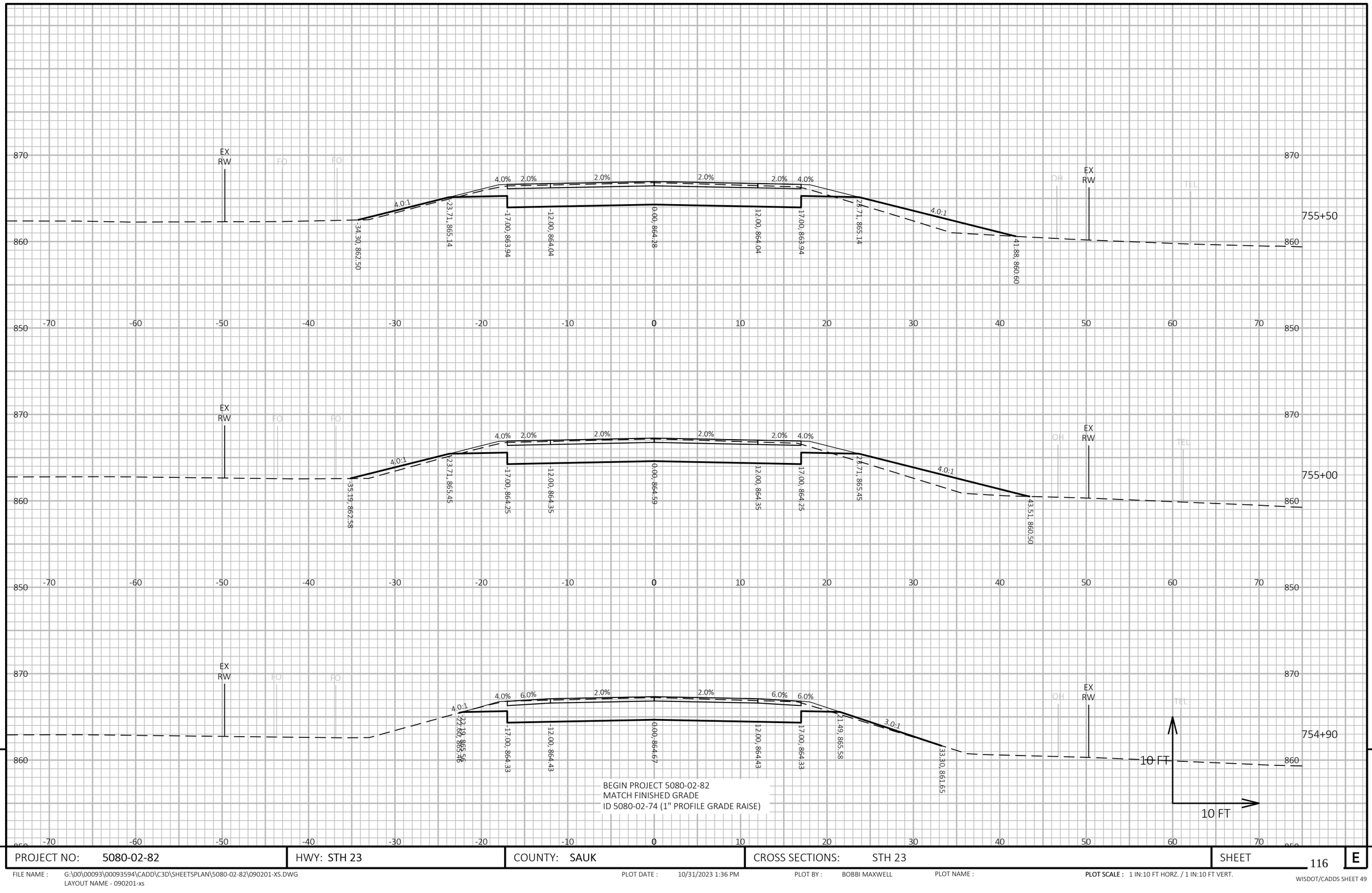
DIVISION 1 - STH 23

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
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.30	NOTE 8
764+02.76	76402.76	0.01	0.00	0.00	53.99	0	0	0	818	3,596	-2,778
764+14.72	76414.72	11.96	0.00	0.00	58.41	0	0	25	818	3,628	-2,810
764+19.77	76419.77	5.05	0.00	0.00	59.50	0	0	11	818	3,643	-2,825
764+37.77	76437.77	18.00	0.00	0.00	195.42	0	0	85	818	3,753	-2,935
764+50.00	76450.00	12.23	0.00	0.00	182.55	0	0	86	818	3,865	-3,047
764+75.00	76475.00	25.00	0.00	0.00	145.13	0	0	152	818	4,063	-3,245
765+00.00	76500.00	25.00	0.00	0.00	134.28	0	0	129	818	4,230	-3,412
765+04.69	76504.69	4.69	0.00	0.00	131.62	0	0	23	818	4,260	-3,442
765+29.69	76529.69	25.00	0.00	0.00	197.75	0	0	152	818	4,458	-3,640
765+50.00	76550.00	20.31	0.00	0.00	214.02	0	0	155	818	4,659	-3,841
765+54.66	76554.66	4.66	0.00	0.00	213.99	0	0	37	818	4,707	-3,889
765+84.19	76584.19	29.53	0.00	0.00	177.82	0	0	214	818	4,986	-4,168
766+00.00	76600.00	15.81	0.00	0.00	183.73	0	0	106	818	5,123	-4,305
766+09.19	76609.19	9.19	0.00	0.00	187.06	0	0	63	818	5,205	-4,387
766+34.16	76634.16	24.97	22.43	0.00	128.76	10	0	146	828	5,395	-4,567
766+50.00	76650.00	15.84	28.75	0.00	105.11	15	0	69	843	5,485	-4,642
766+65.00	76665.00	15.00	34.80	0.00	138.81	18	0	68	861	5,573	-4,712
767+00.00	76700.00	35.00	42.64	0.00	78.59	50	0	141	911	5,756	-4,845
767+14.81	76714.81	14.81	38.49	0.00	85.02	22	0	45	933	5,815	-4,882
767+50.00	76750.00	35.19	36.15	0.00	77.68	49	0	106	982	5,953	-4,971
768+00.00	76800.00	50.00	45.61	0.00	70.58	76	0	137	1,058	6,131	-5,073
768+50.00	76850.00	50.00	56.34	0.00	60.68	94	0	122	1,152	6,289	-5,137
769+00.00	76900.00	50.00	70.91	0.00	41.66	118	0	95	1,270	6,413	-5,143
769+50.00	76950.00	50.00	84.88	0.00	27.00	144	0	64	1,414	6,496	-5,082
770+00.00	77000.00	50.00	90.24	0.00	17.49	162	0	41	1,576	6,549	-4,973
770+50.00	77050.00	50.00	95.70	0.00	15.04	172	0	30	1,748	6,588	-4,840
771+00.00	77100.00	50.00	96.06	0.00	0.10	178	0	14	1,926	6,607	-4,681

DIVISION 1 - HIGHLAND

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
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.30	NOTE 8
5+50.00	550.00	0.00	48.31	0.00	73.07	0	0	0	0	0	0
5+75.00	575.00	25.00	7.07	0.00	40.67	26	0	53	26	69	-43
5+85.00	585.00	10.00	6.84	0.00	36.93	3	0	14	29	87	-58
6+18.00	618.00	33.00	28.22	0.00	51.53	21	0	54	50	157	-107
6+50.00	650.00	32.00	12.44	0.00	44.82	24	0	57	74	231	-157
7+00.00	700.00	50.00	26.30	0.00	30.95	36	0	70	110	322	-212
7+11.87	711.87	11.87	36.20	0.00	0.00	14	0	7	124	332	-208

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



9

9

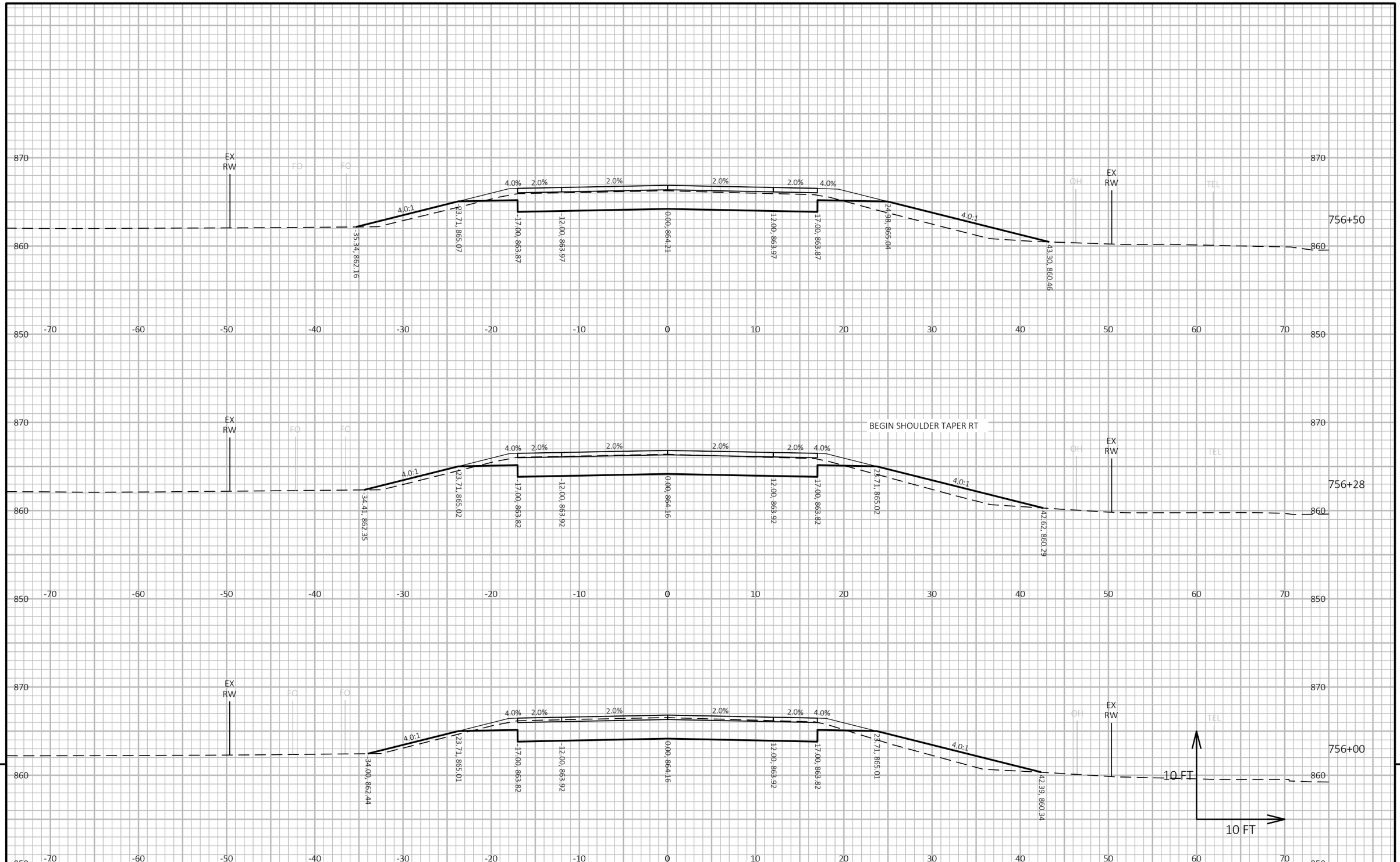
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 116	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090201-xs

PLOT DATE : 10/31/2023 1:36 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

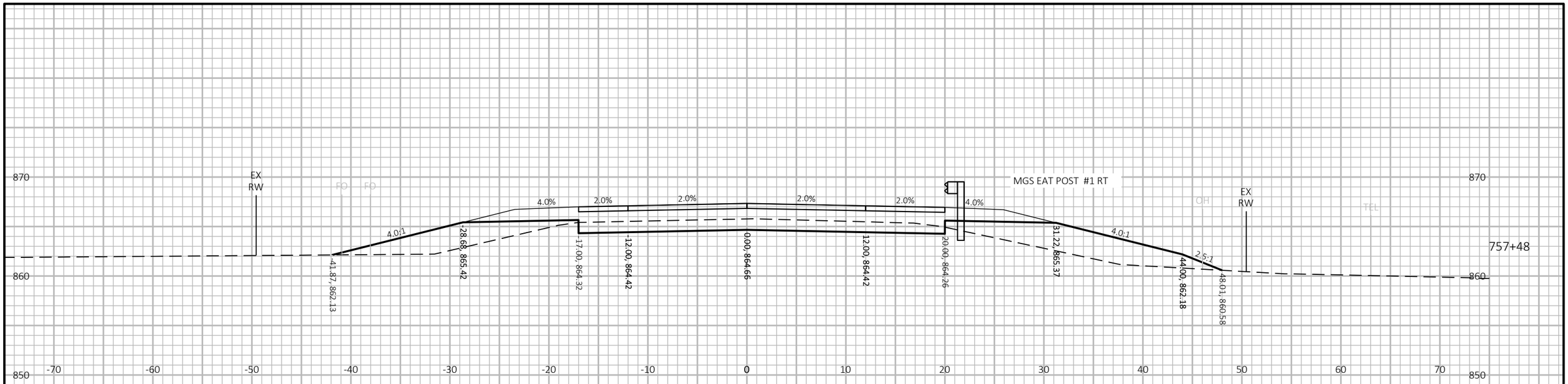
9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 117	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090202-xs

PLOT DATE : 10/31/2023 1:36 PM PLOT BY : BOBBI MAXWELL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

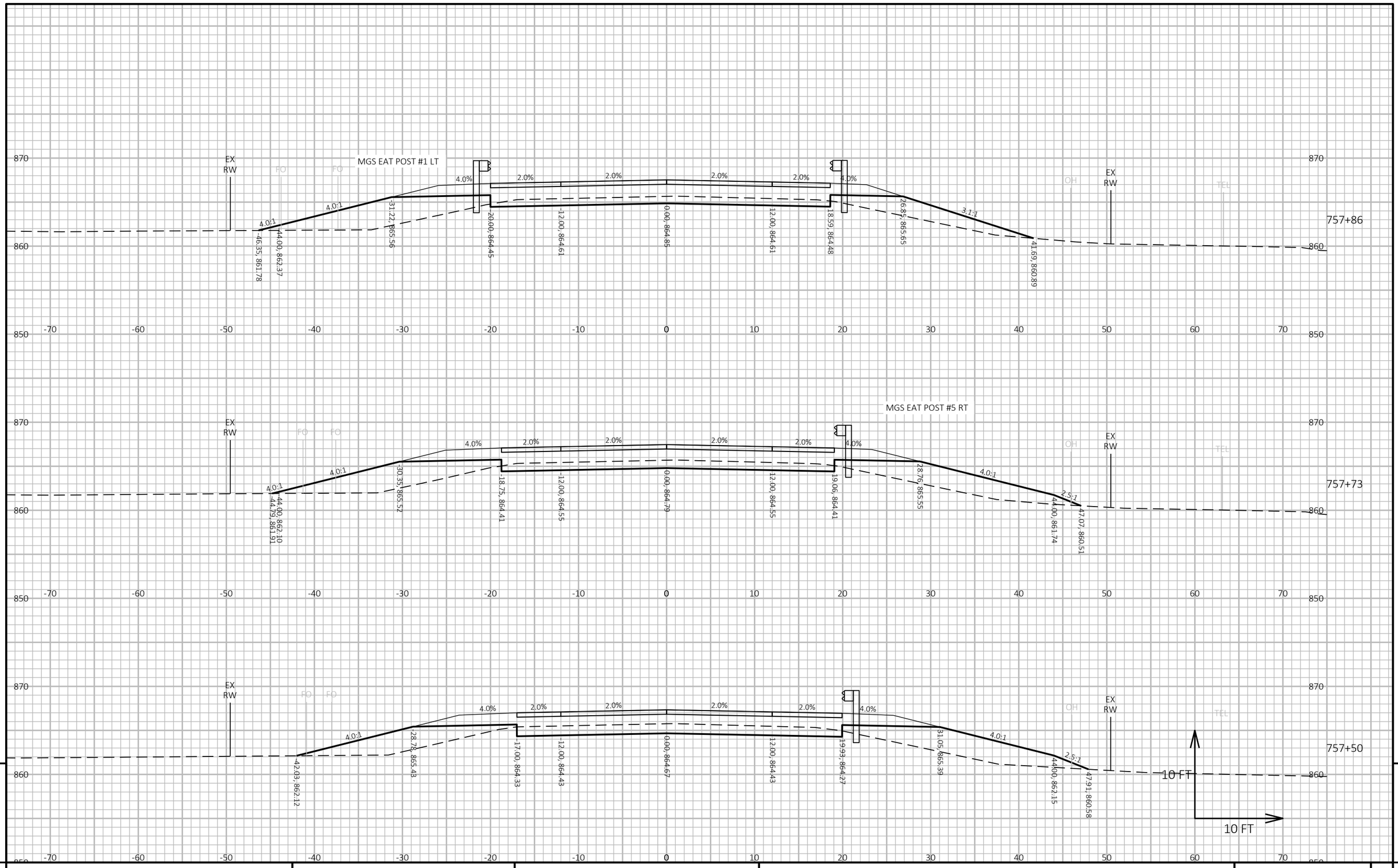
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 118	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090203-xs

PLOT DATE : 10/31/2023 1:36 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 119	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090204-xs

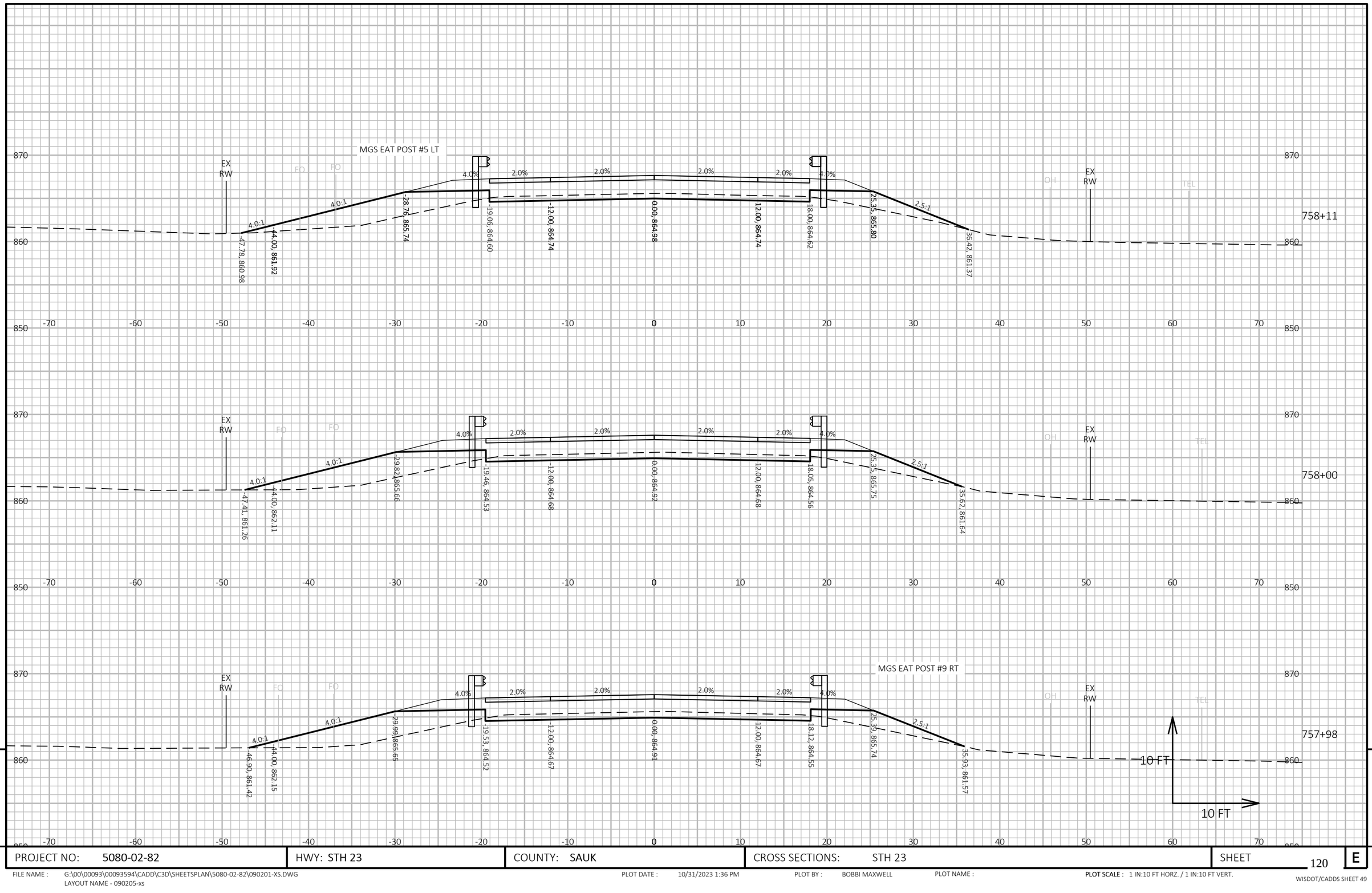
PLOT DATE : 10/31/2023 1:36 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

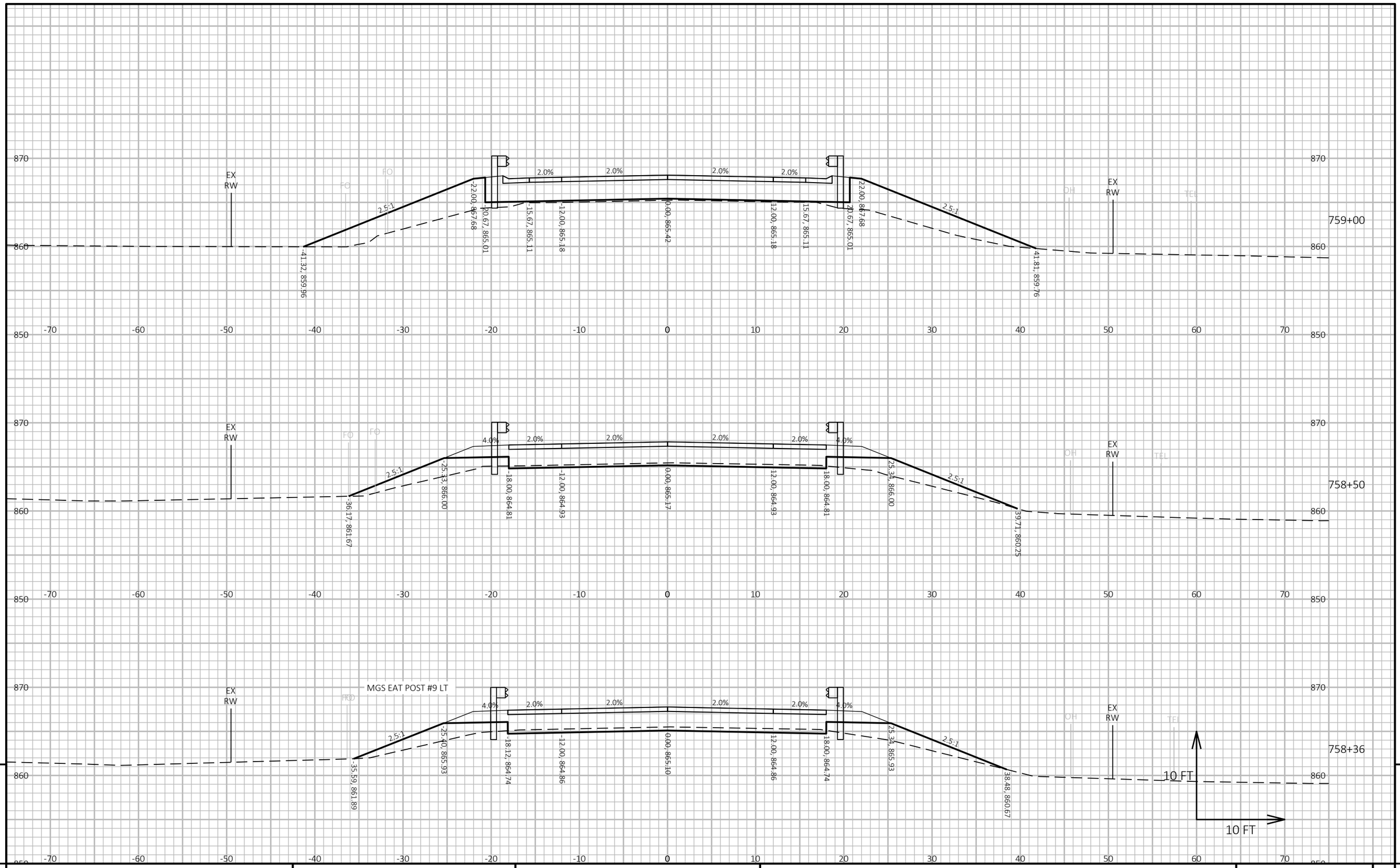
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 120	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090205-xs

PLOT DATE : 10/31/2023 1:36 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 121	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090206-xs

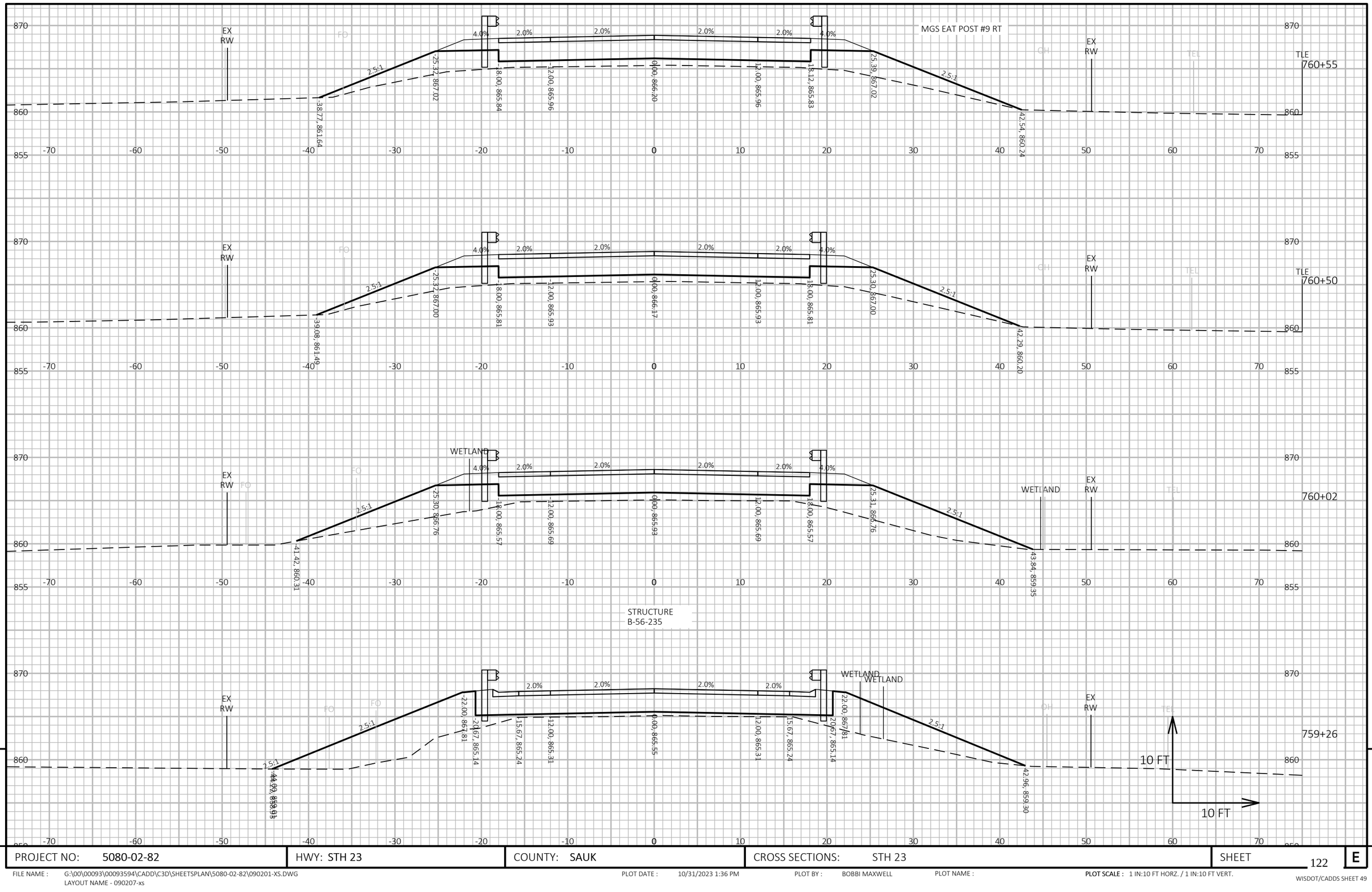
PLOT DATE : 10/31/2023 1:36 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 122	E

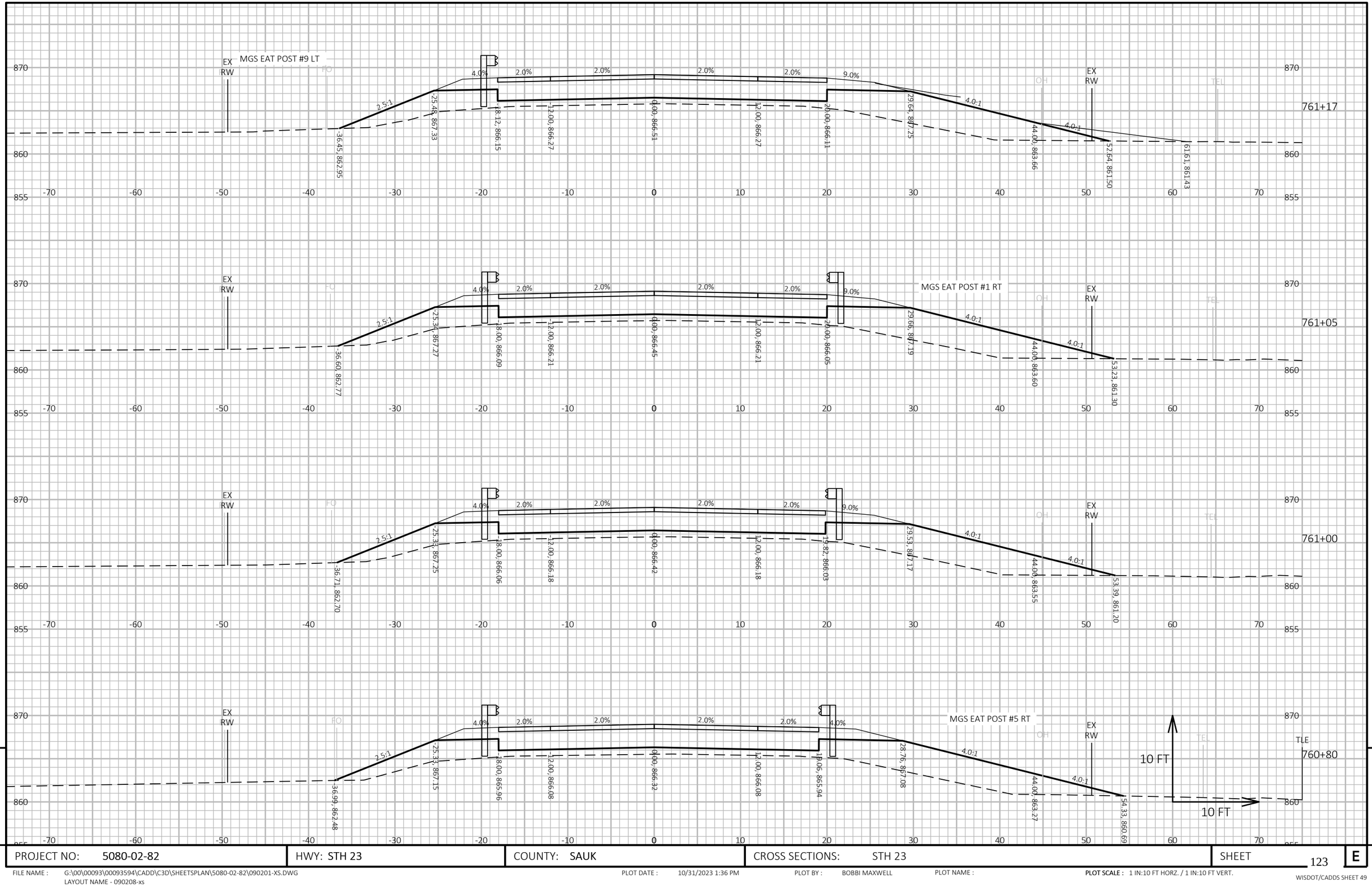
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090207-xs

PLOT DATE : 10/31/2023 1:36 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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



9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 123	E

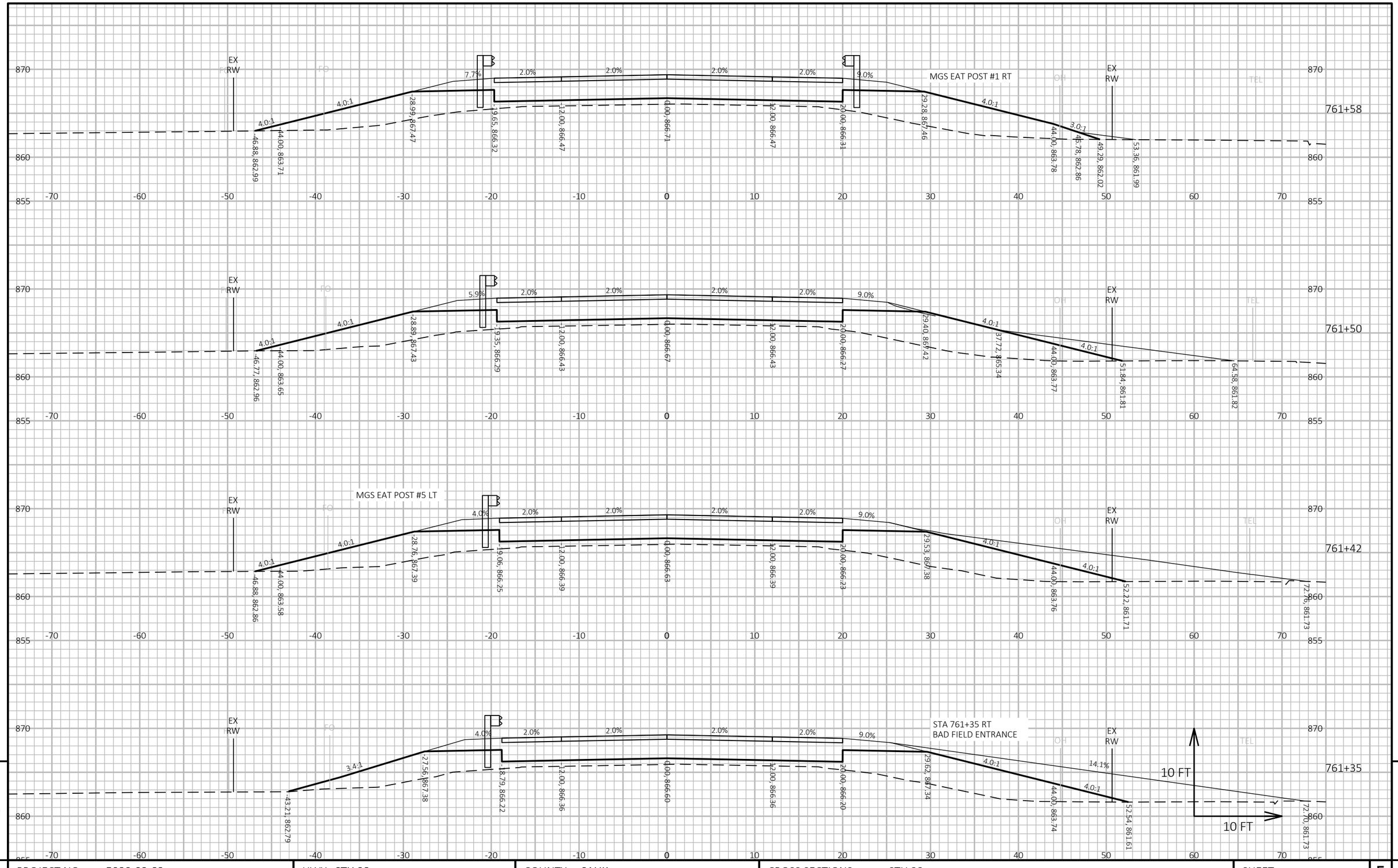
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090208-xs

PLOT DATE : 10/31/2023 1:36 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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



9

9

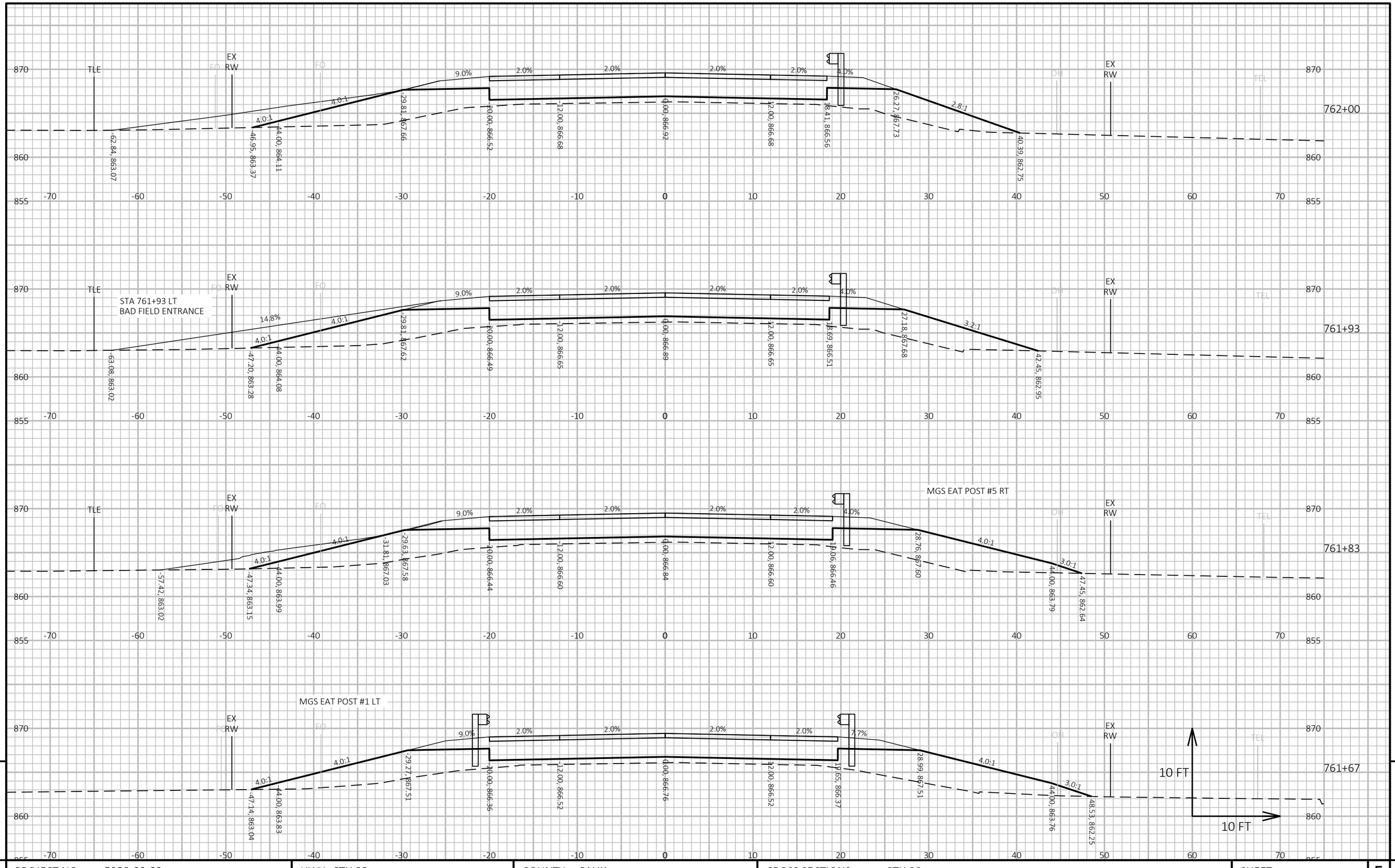
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 124	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090209-xs

PLOT DATE : 10/31/2023 1:36 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

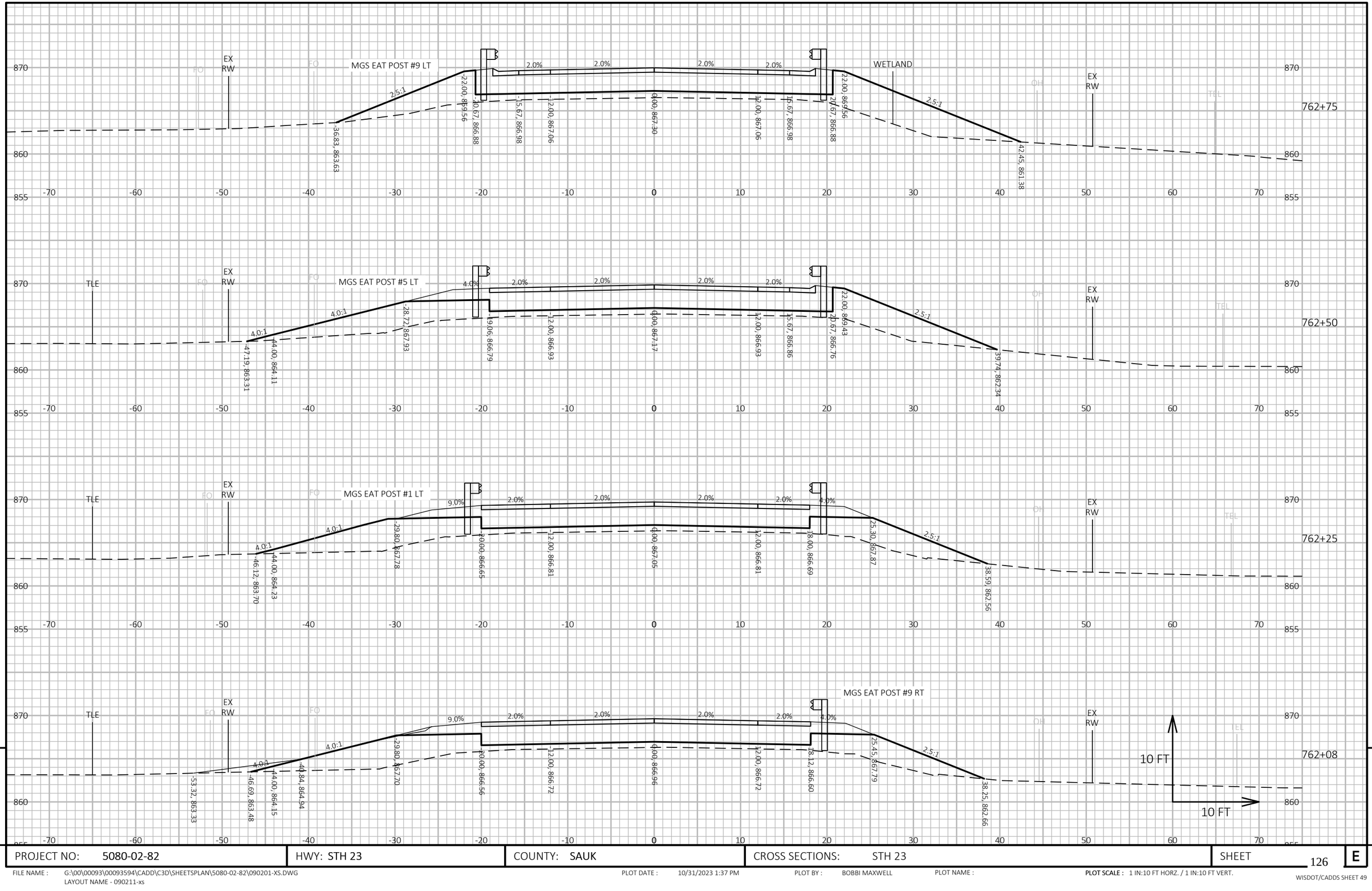
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 125	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090210-xs

PLOT DATE : 10/31/2023 1:36 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 126	E

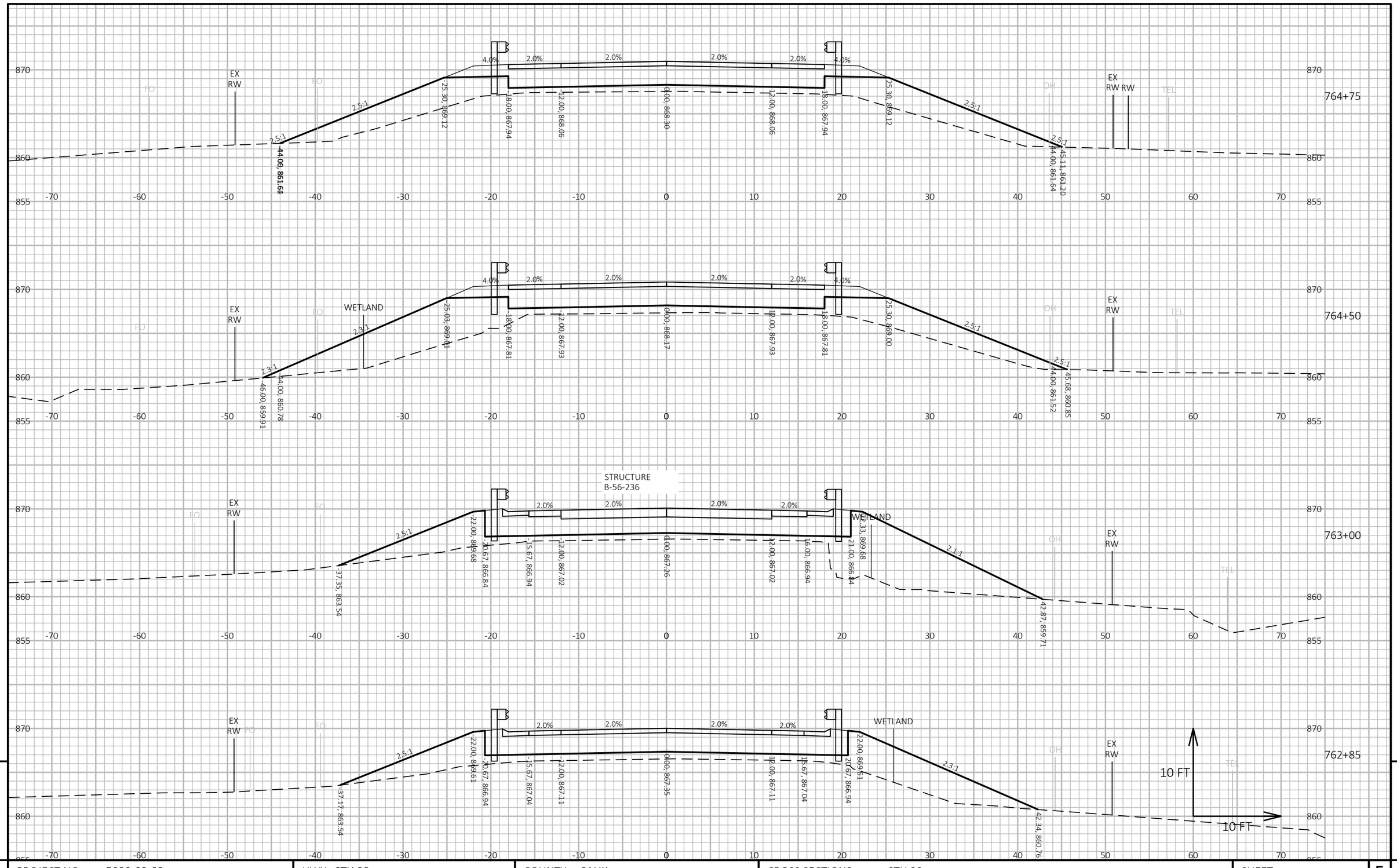
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090211-xs

PLOT DATE : 10/31/2023 1:37 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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



PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 127 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090212-xs

PLOT DATE : 10/31/2023 1:37 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 128	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090213-xs

PLOT DATE : 10/31/2023 1:37 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 129	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090214-xs

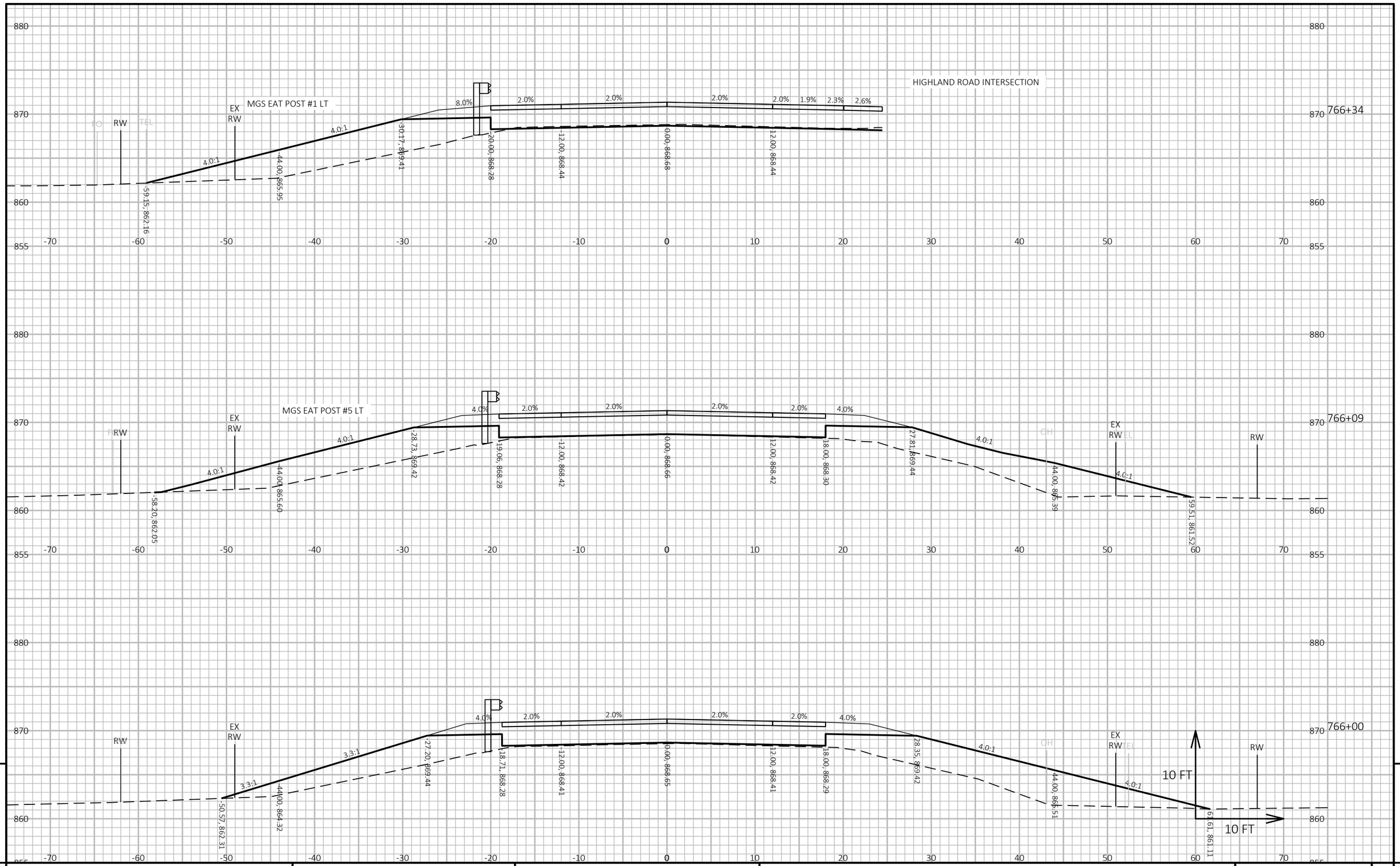
PLOT DATE : 10/31/2023 1:37 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

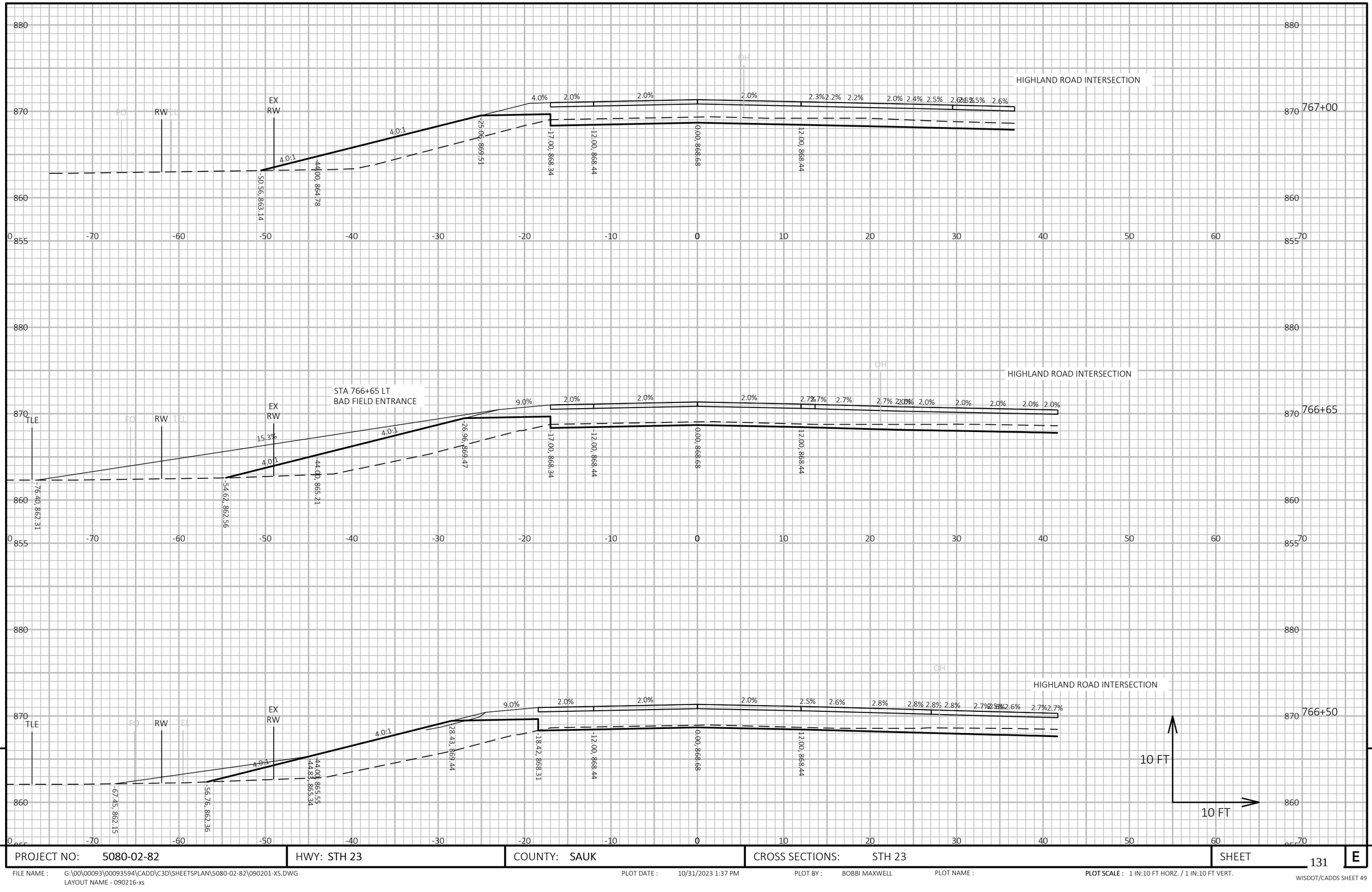
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 130	E



PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 131	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090216-xs

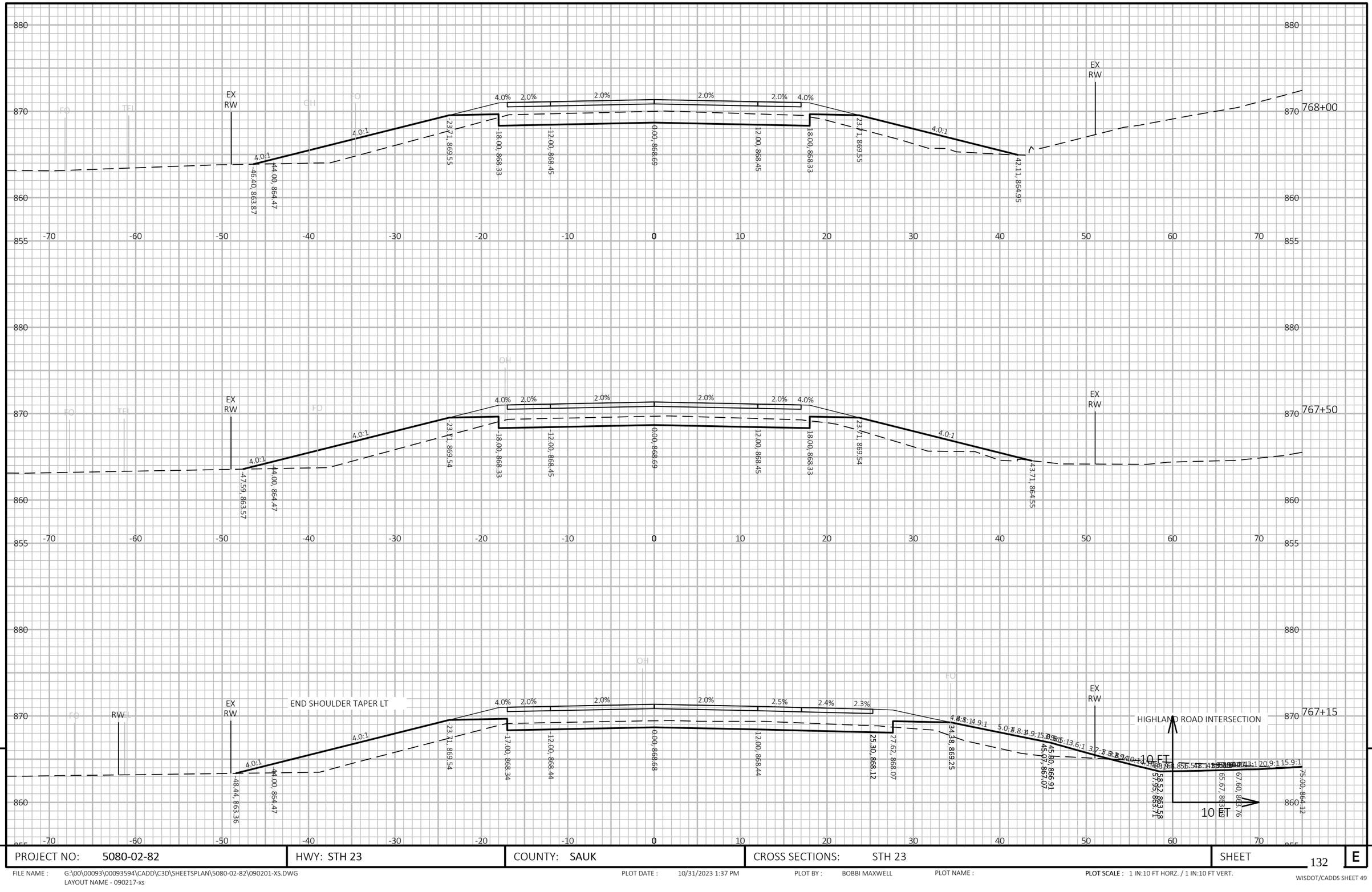
PLOT DATE : 10/31/2023 1:37 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 132 E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090217-xs

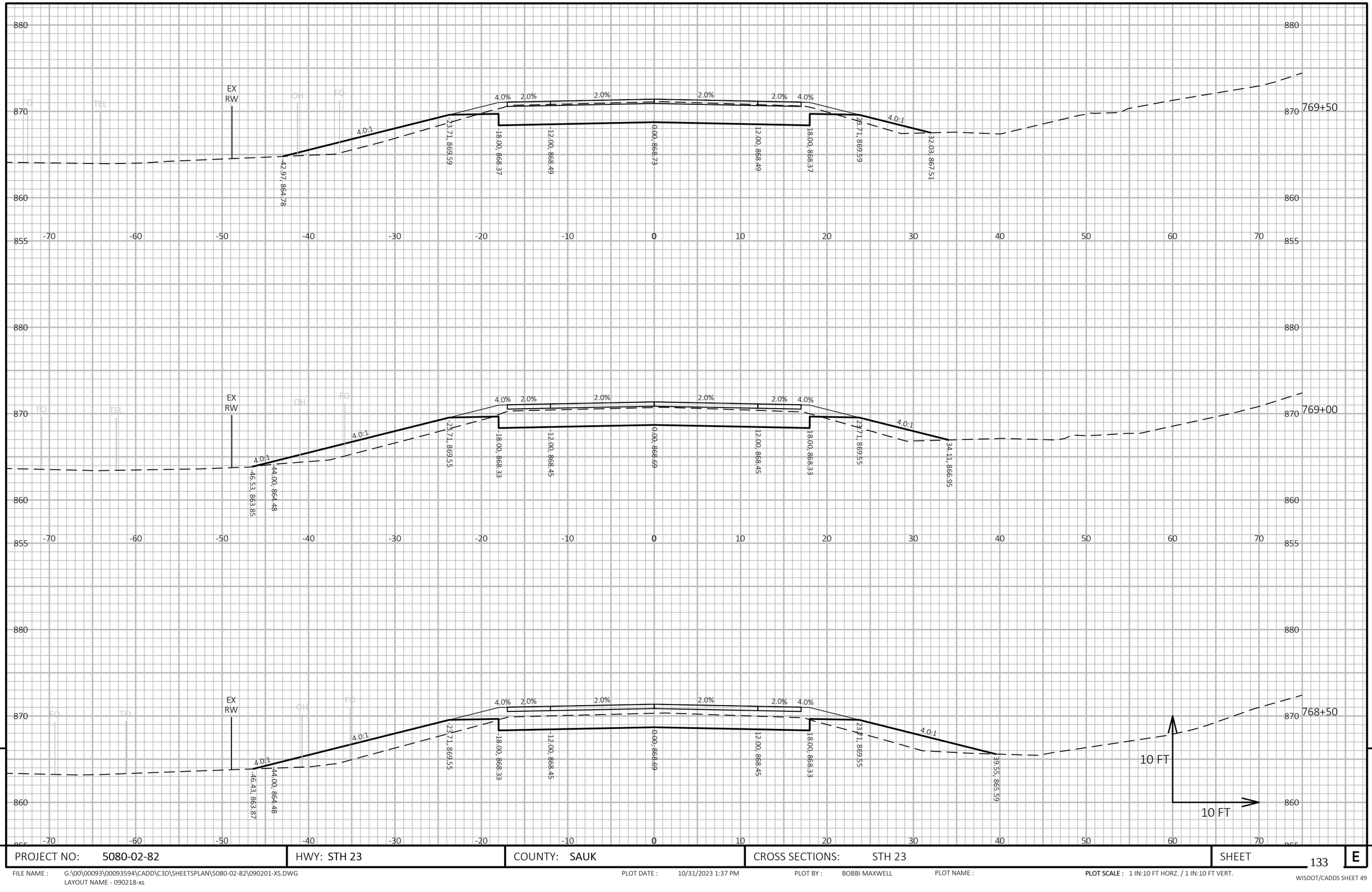
PLOT DATE : 10/31/2023 1:37 PM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

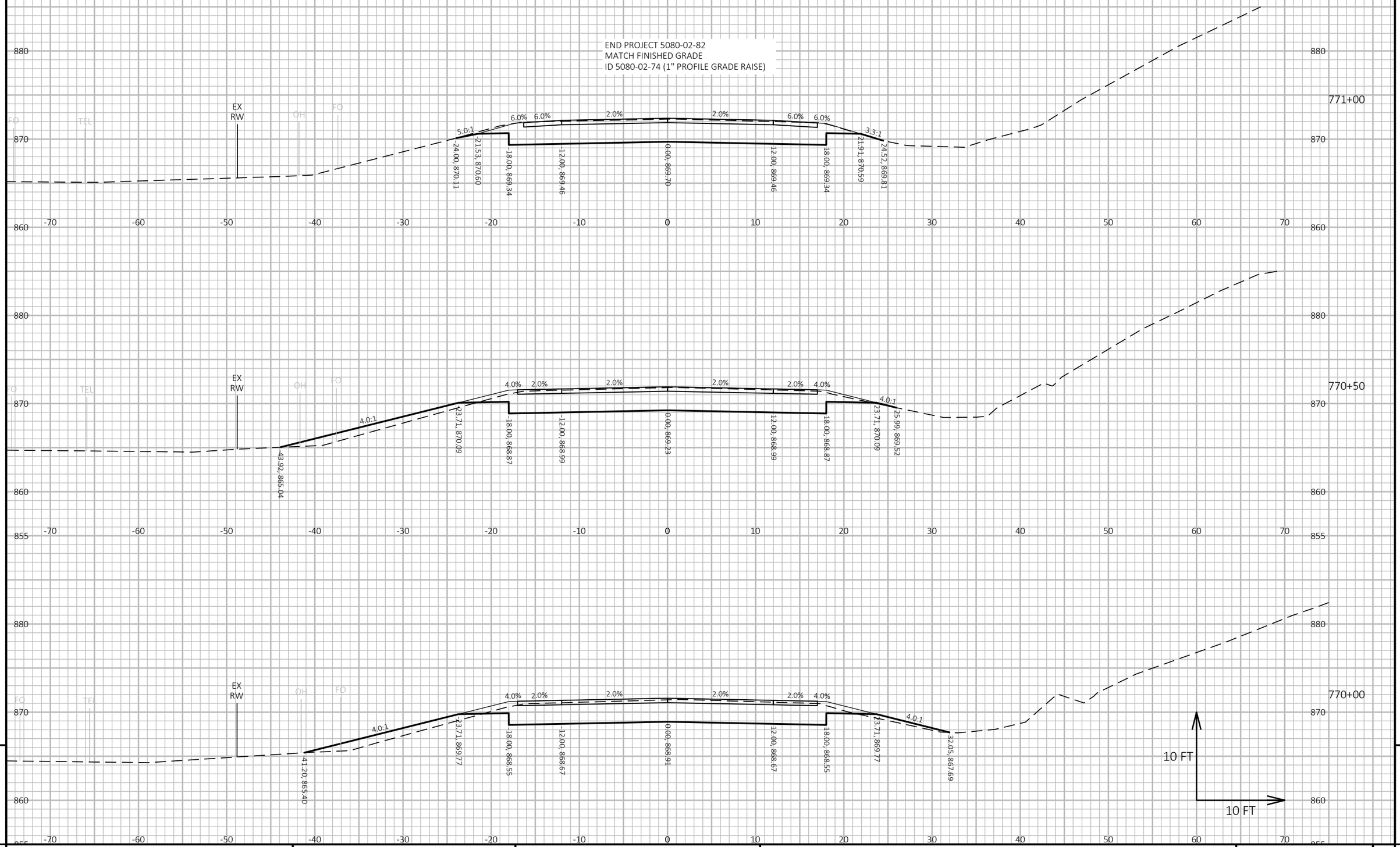
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 133	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090218-xs

PLOT DATE : 10/31/2023 1:37 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

END PROJECT 5080-02-82
MATCH FINISHED GRADE
ID 5080-02-74 (1" PROFILE GRADE RAISE)



PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET 134	E

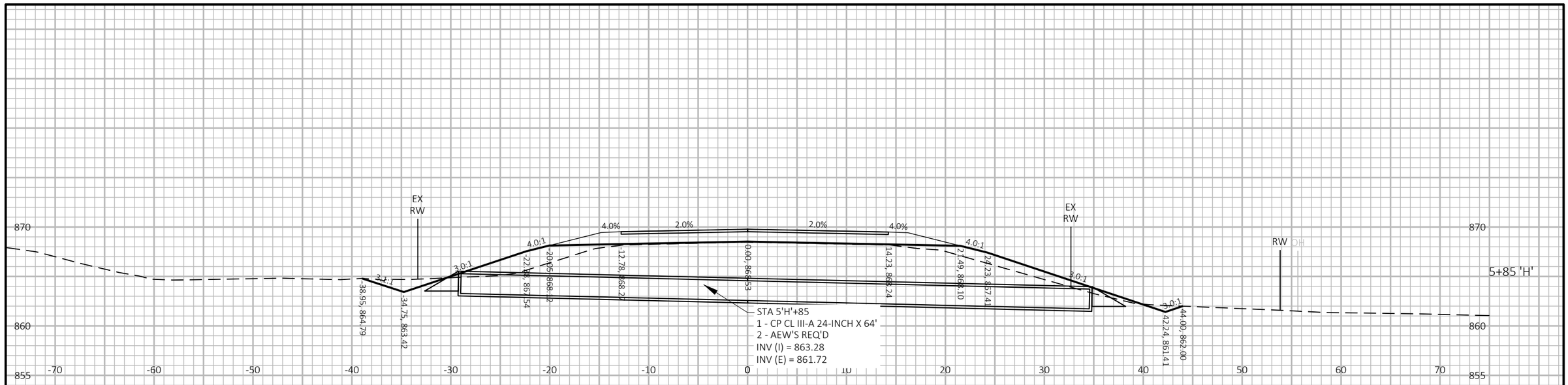
FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090219-xs

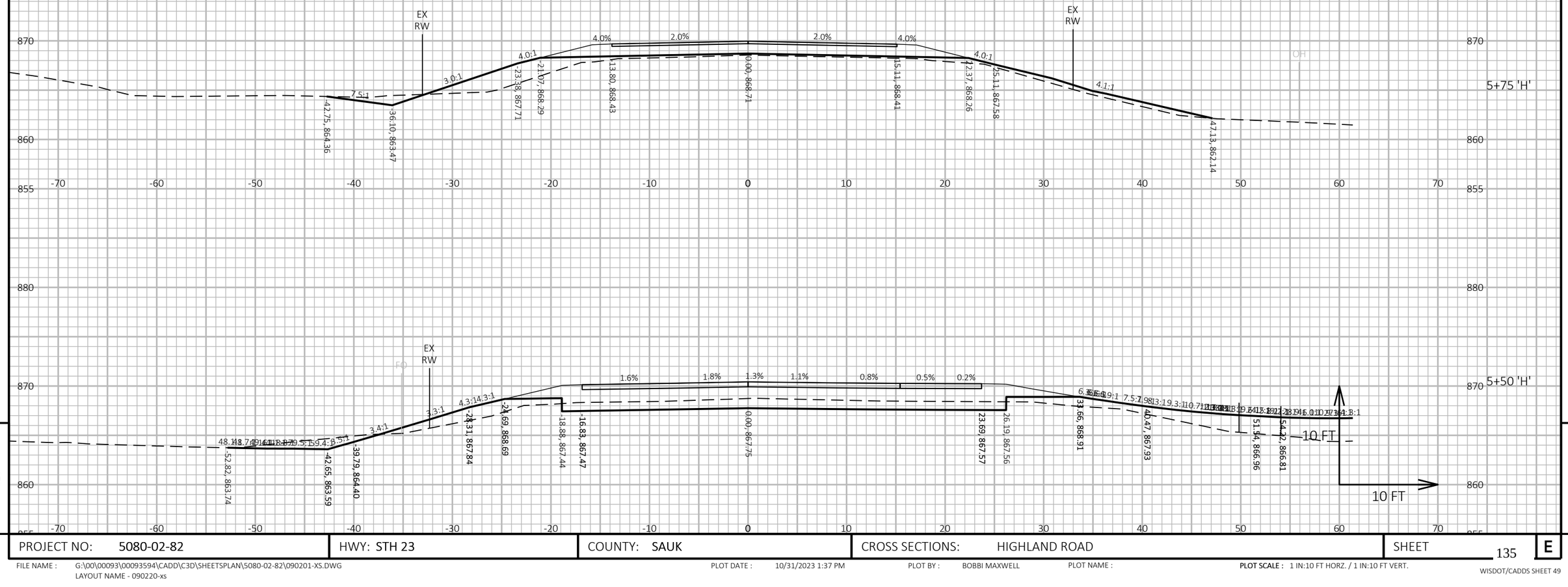
PLOT DATE : 10/31/2023 1:37 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49

9 9





9

9

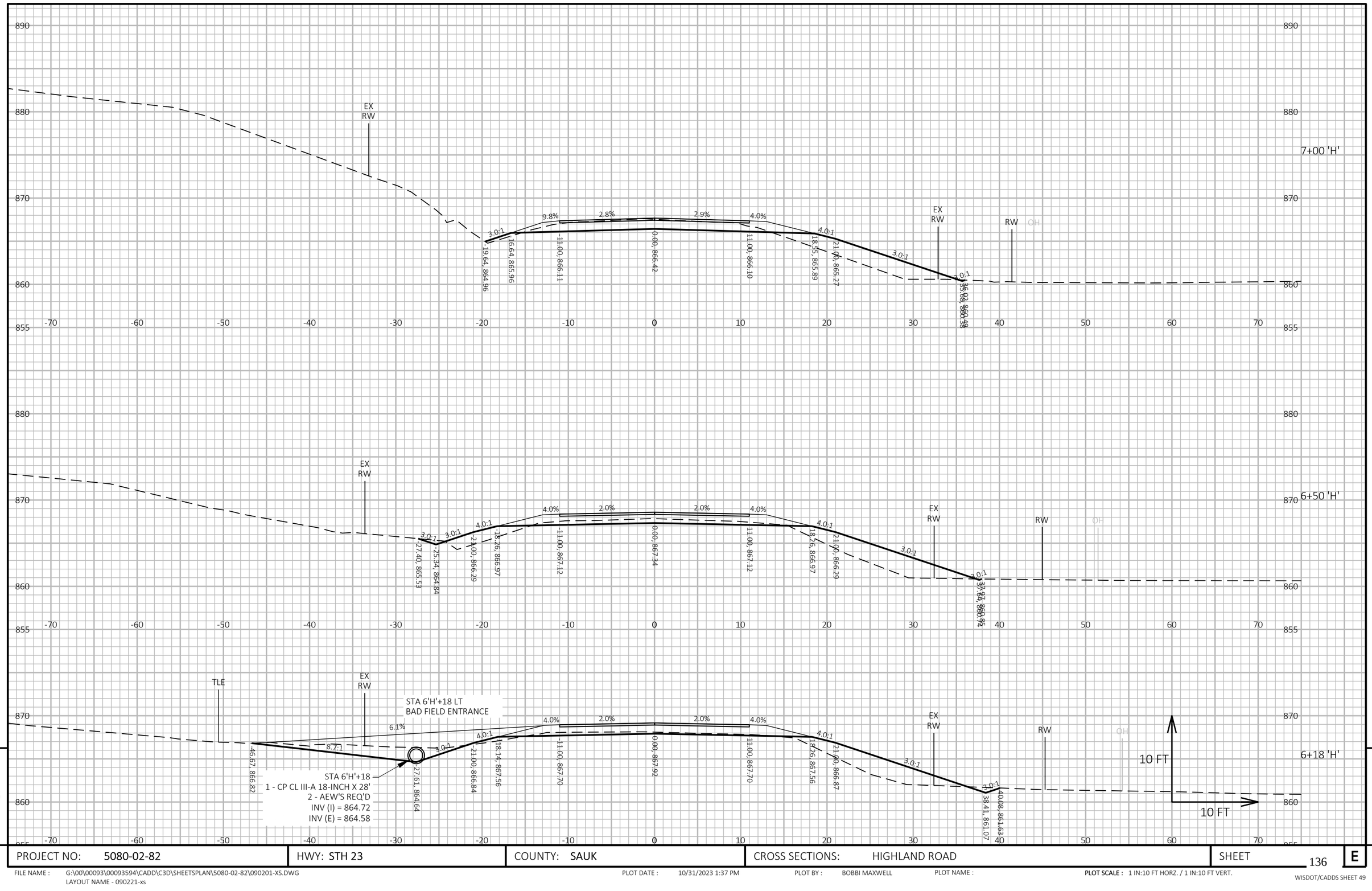
PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: HIGHLAND ROAD	SHEET 135	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090220-xs

PLOT DATE : 10/31/2023 1:37 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49

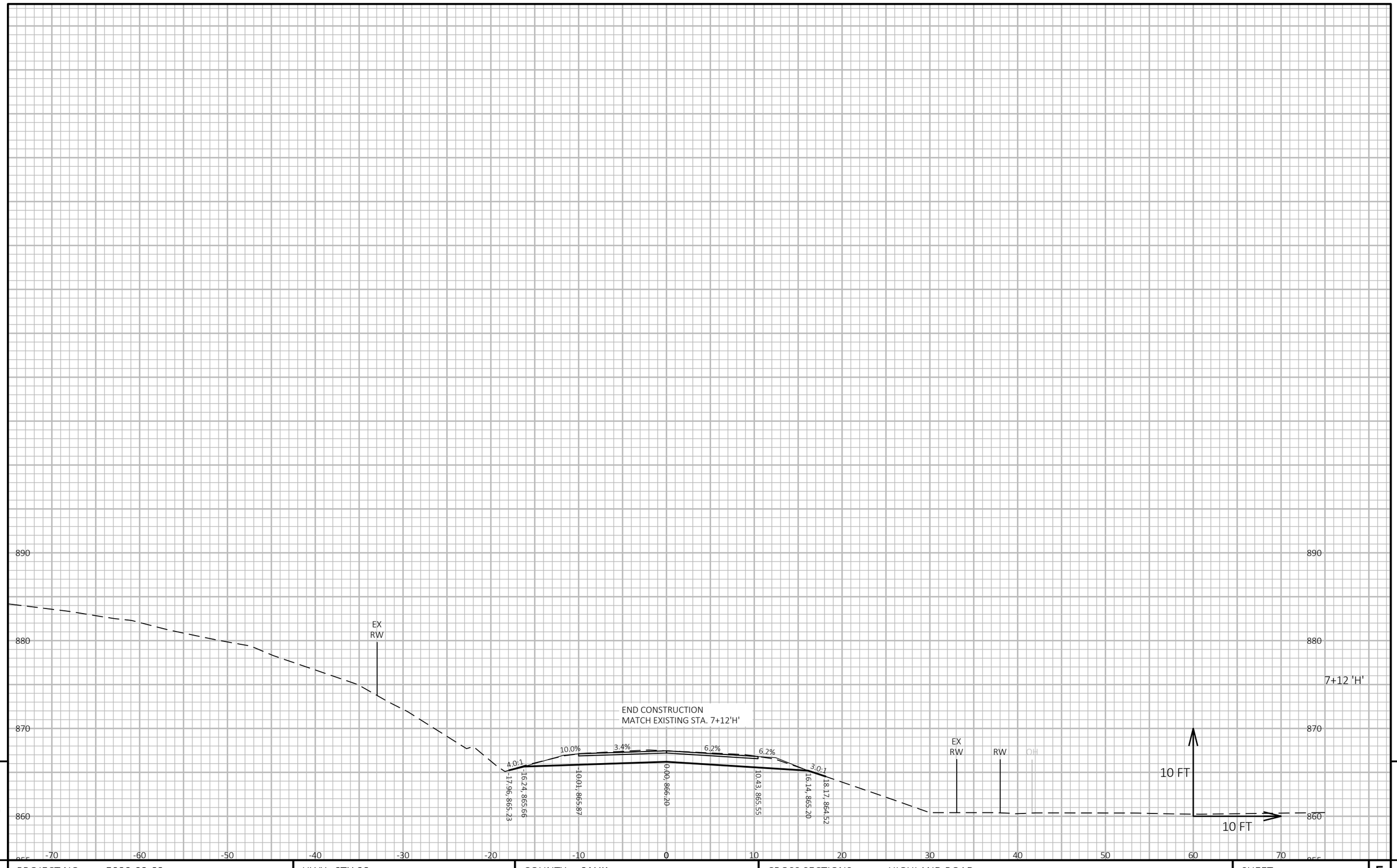


PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: HIGHLAND ROAD	SHEET 136	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090221-xs

PLOT DATE : 10/31/2023 1:37 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5080-02-82	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: HIGHLAND ROAD	SHEET 137	E

FILE NAME : G:\00\00093\00093594\CADD\C3D\SHEETSPLAN\5080-02-82\090201-XS.DWG
LAYOUT NAME - 090222-xs

PLOT DATE : 10/31/2023 1:37 PM PLOT BY : BOBBI MAXWELL PLOT NAME :

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

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov