

MAD

WITH:

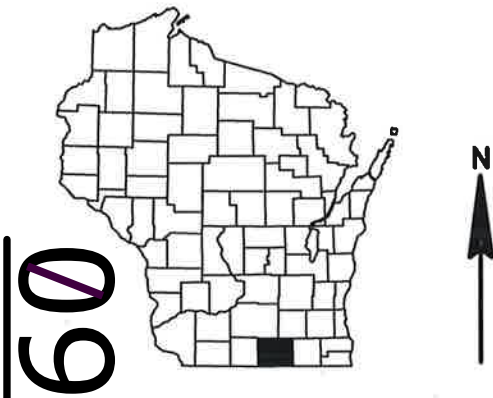
PROJECT ID: 5989-05-26

COUNTY: ROCK

MARCH 2018
ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details (Includes Erosion Control)
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 = 96



DESIGN DESIGNATION

A.A.D.T.	2017	=	N/A
A.A.D.T.	2037	=	N/A
D.H.V.		=	N/A
D.D.		=	N/A
T.		=	N/A
DESIGN SPEED		=	12 MPH
ESALS		=	N/A

CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF BELOIT, POWERHOUSE RIVERWALK

PLEASANT STREET TO SOUTH OF PORTLAND AVENUE

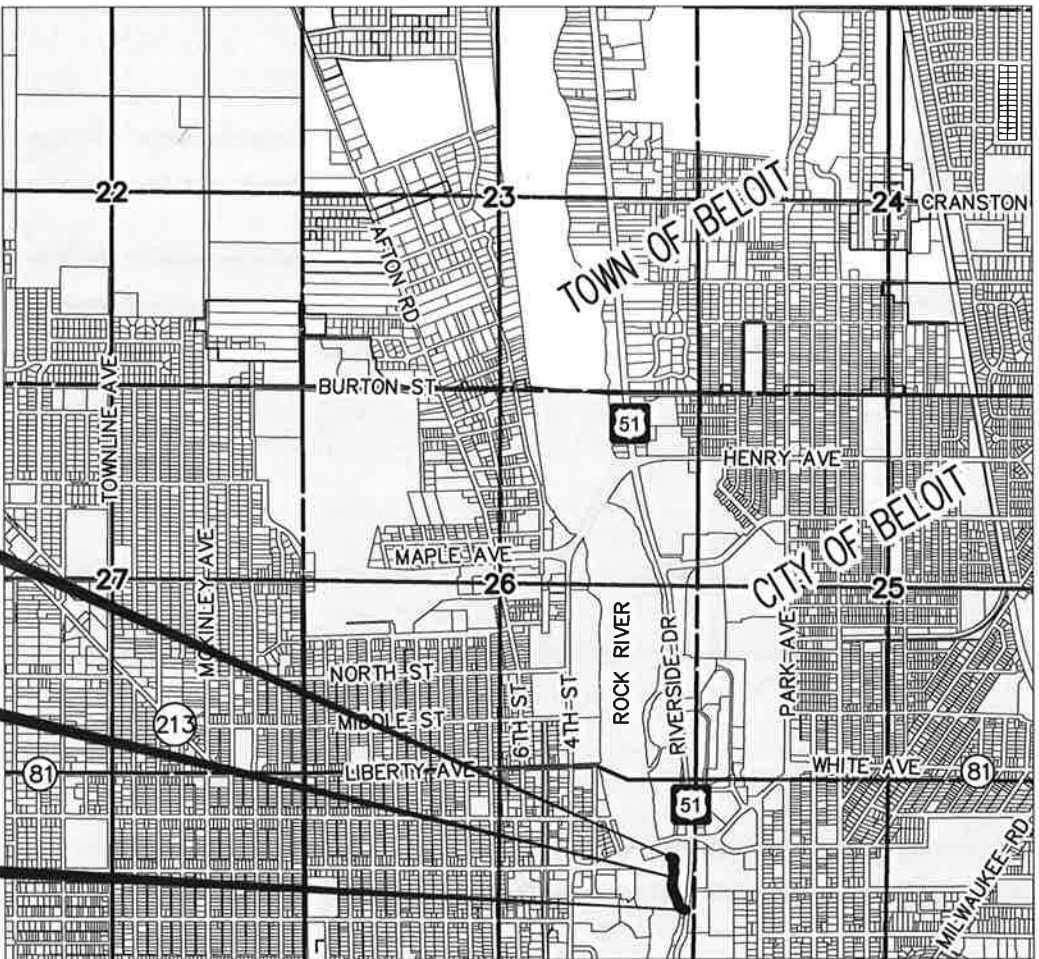
NON-HIGHWAY
ROCK COUNTY

STATE PROJECT NUMBER
5989-05-26

END PROJECT
STA. 108+36.03
Y=205,259.42
X=490,623.85

STRUCTURE
B-53-0379

BEGIN PROJECT
STA. 100+00
Y=204,528.20
X=490,835.61



LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.158

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

STATE PROJECT

5989-05-26

FEDERAL PROJECT

PROJECT

WISC 2018139

CONTRACT

1

ACCEPTED FOR
CITY OF BELOIT

10/20/2017 M. J. Risch
(Date) (CITY ENGINEER)

ORIGINAL PLANS PREPARED BY

JEWELL
associates engineers, inc.
Engineers - Architects - Surveyors



DATE: 10/24/17 Frederick A. Gruber
(PROFESSIONAL ENGINEER)

ORIGINAL PLANS PREPARED BY

Batterman
engineers surveyors planners



DATE: 10-19-2017 Ryan Rudzinski
(PROFESSIONAL ENGINEER)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: BATTERMAN
Designer: BATTERMAN / JEWELL
Management Consultant: KL ENGINEERING

APPROVED FOR THE DEPARTMENT

DATE: 11/1/17 J. M. Melville
(Management Consultant Signature)

E

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NGVD 29.

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

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS, BUT IS MEASURED AND PAID FOR AS EXCAVATION COMMON. THE LOCATION OF EBS SHALL BE DETERMINED BY THE ENGINEER.

BREAKER RUN SHALL BE USED IN ALL EBS AREAS.

THE EROSION CONTROL FEATURES ARE SHOWN ON THE PLAN AND ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DISTURBED AREAS SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

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

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

DETAILS OF CONSTRUCTION NOT SHOWN ON THE PLAN SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

RESTORATION OF EXPOSED SLOPE AND DITCHES SHALL TAKE PLACE NOT MORE THAN 7 DAYS AFTER FINISHED GRADING IS COMPLETE.

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/INCH.

OFFSETS FOR INLETS AND MANHOLES ARE TO CENTER OF STRUCTURE. OFFSETS FOR APRON ENDWALLS ARE TO END OF PIPE.

THE CONTRACTOR SHALL COORDINATE ALL UTILITY ADJUSTMENTS WITH THE APPROPRIATE UTILITY.

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTY OWNERS ALONG THE PROJECT AT ALL TIMES.

ABBREVIATIONS

AC	ACRES	IP	IRON PIPE
AEW	APRON ENDWALL	JCT	JUNCTION
ASPH	ASPHALT	LHF	LEFT HAND FORWARD
AVG	AVERAGE	L	LENGTH
ADT	AVERAGE DAILY TRAFFIC	LS	LUMP SUM
BAD	BASE AGGREGATE DENSE	LT	LEFT
BM	BENCHMARK	MH	MANHOLE
CL	CENTERLINE OR CLASS	NC	NORMAL CROWN
CC	CENTER TO CENTER	N	NORTH
CE	COMMERCIAL ENTRANCE	PT	POINT
CONC	CONCRETE	PC	POINT OF CURVATURE
CMP	CORRUGATED METAL PIPE	PI	POINT OF INTERSECTION
CPRC	CULVERT PIPE CORRUGATED STEEL	PT	POINT OF TANGENCY
CSCP	CORRUGATED STEEL CULVERT PIPE	PL	PROPERTY LINE
CSM	CERTIFIED SURVEY MAP	PE	PRIVATE ENTRANCE
CTH	COUNTY TRUNK HIGHWAYS	R/RAD	RADIUS
CULV	CULVERT	RCP	REINFORCED CONCRETE PIPE
CP	CULVERT PIPE	REQ'D	REQUIRED
C&G	CURB & GUTTER	RT	RIGHT
D	DEGREE OF CURVATURE	R/W	RIGHT-OF-WAY
DHV	DESIGN HOURLY VOLUME	RHF	RIGHT HAND FORWARD
DIA	DIAMETER	SALV	SALVAGED
DWY	DRIVEWAY	SAN	SANITARY SEWER
E	EAST	SHLDR	SHOULDER
ELEV	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
EW	ENDWALL	STA	STATION
ENT	ENTRANCE	STM	STORM SEWER
ESALS	EQUIVALENT SINGLE AXLE LOADS	SE	SUPERELEVATION
EX	EXISTING	SS	STORM SEWER
EXC	EXCAVATION	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EBS	EXCAVATION BELOW SUBGRADE	TAN	TANGENT
EXIST	EXISTING	TLE	TEMPORARY LIMITED EASEMENT
FF	FACE TO FACE	T	TRUCKS
FERT	FERTILIZER	TYP	TYPICAL
FE	FEILD ENTRANCE	VERT	VERTICAL
FG	FINISHED GRADE	VC	VERTICAL CURVE
FT	FOOT	VOL	VOLUME
GV	GAS VALVE	WV	WATER VALVE
IE	INVERT ELEVATION	W	WELL
INL	INLET	X	EAST GRID COORDINATE
INV	INVERT	Y	NORTH GRID COORDINATE

ORDER OF DETAIL SHEETS

GENERAL NOTES
PROPOSED TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PLAN DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING/PAVEMENT MARKINGS
LIGHTING PLAN
FENCING PLAN
TRAFFIC CONTROL
CONTROL POINT TIES

UTILITIES

ALLIANT ENERGY (ELECTRIC)
ATTN: DEAN COPP
935 WBR TOWNLINE ROAD
BELOIT, WI 53511
TELEPHONE: (608)364-6431
EMAIL: DEANCOPP@ALLIANTENERGY.COM

AT&T WISCONSIN
ATTN: ALPER KOLCU
2005 PEWAUKEE ROAD
WAUKESHA WI 53188
TELEPHONE: (262) 970-8494
EMAIL: AK308X@ATT.COM

CITY OF BELOIT WATER
ATTN: MIKE TINDER
2400 SPRINGBROOK COURT
BELOIT, WI 553511
TELEPHONE: (608) 364-5725
EMAIL: TINDERM@BELOITWI.GOV

CITY OF BELOIT LIGHTING
ATTN: JASON DUPUIS, P.E.
2400 SPRINGBROOK COURT
BELOIT, WI 553511
TELEPHONE: (608) 364-6735
EMAIL: DUPUISJ@BELOITWI.GOV

NOTE: UTILITIES NOT A MEMBER OF DIGGER’S HOTLINE.



Dial  or (800) 242-8511

www.DiggersHotline.com

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: LAURA BUB
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
TELEPHONE: (608) 275-3485
EMAIL: LAURA.BUB@WISCONSIN.GOV

DESIGN CONTACT

R.H. BATTERMAN
ATTN: RYAN RUDZINSKI, P.E.
2857 BARTELLS DRIVE
BELOIT, WI 53511
TELEPHONE: (608) 365-4464
EMAIL: RRUDZINSKI@RHBATTERMAN.COM

CITY OF BELOIT ENGINEERING

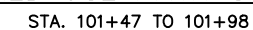
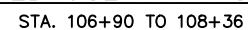
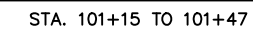
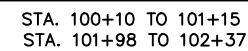
CITY ENGINEER
MIKE FLESCH, P.E.
2400 SPRINGBROOK COURT
BELOIT, WI 53511
TELEPHONE: (608) 364-6690
EMAIL: FLESCHM@BELOIT.WI.GOV

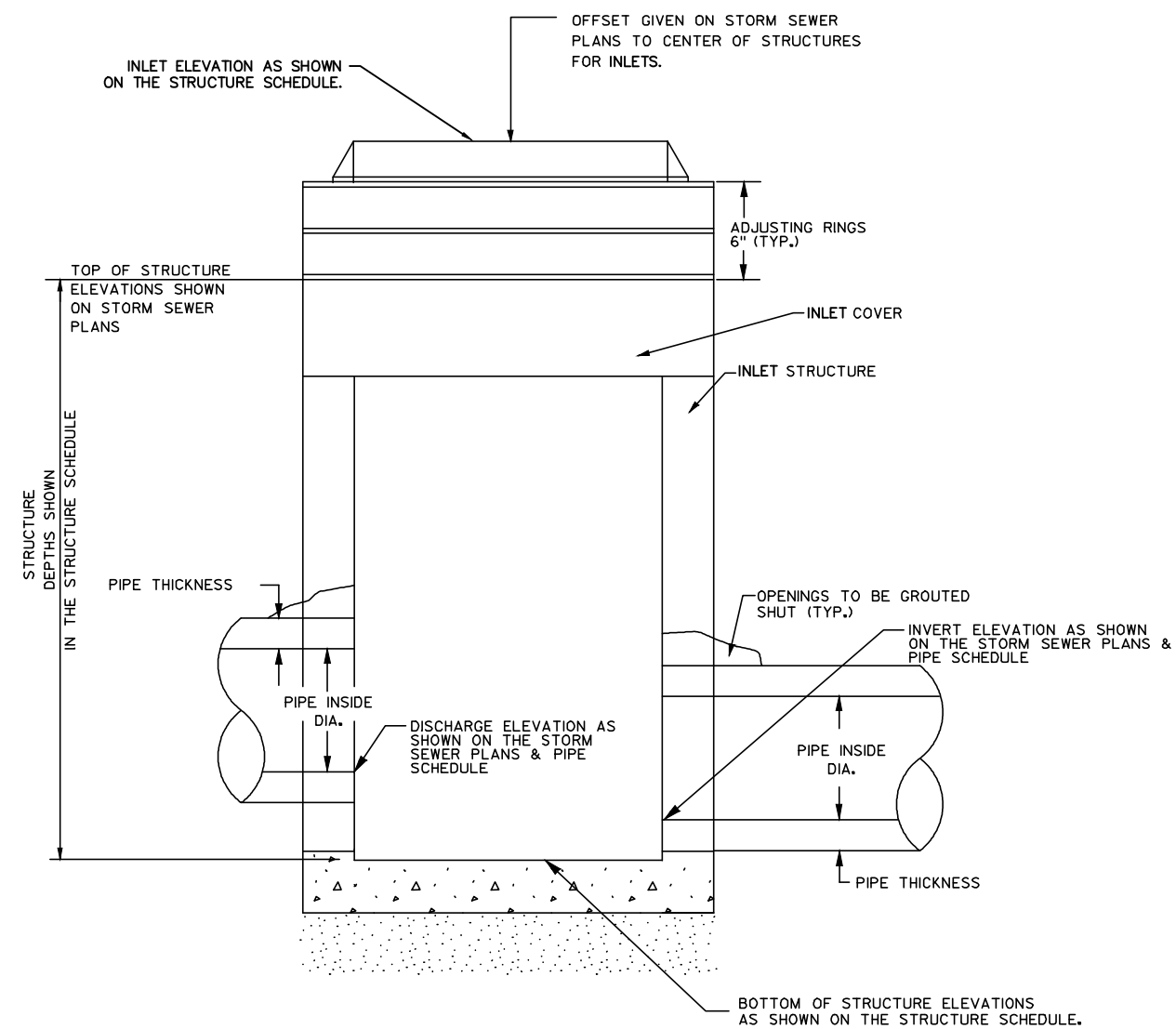
DESIGN CONTACT

JEWELL ASSOCIATES ENGINEERS, INC.
ATTN: FRED GRUBER, P.E., P.L.S.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
TELEPHONE: (608) 588-7484
EMAIL: FRED.GRUBER@JEWELLASSOC.COM

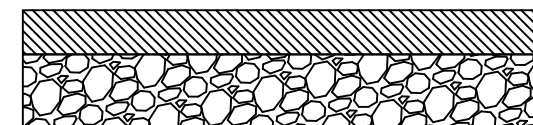
DESIGN CONTACT

LIGHTING/FENCING
ANGUS-YOUNG ASSOCIATES, INC.
ATTN: JOE STADELMAN
555 S RIVER STREET
JANESVILLE, WI 53548
TELEPHONE: (608) 756-2326
EMAIL: JOES@ANGUSYOUNG.COM

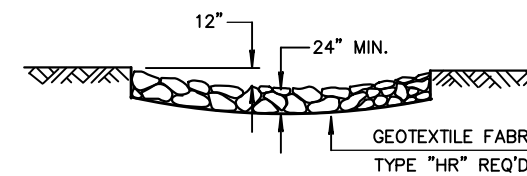




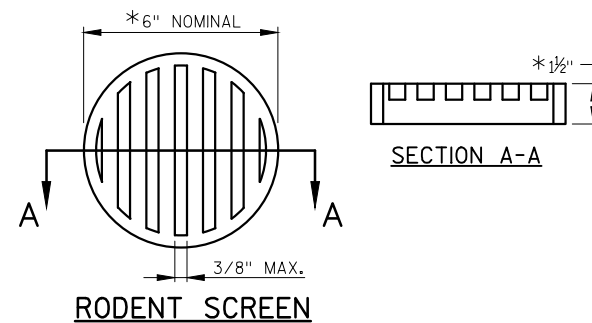
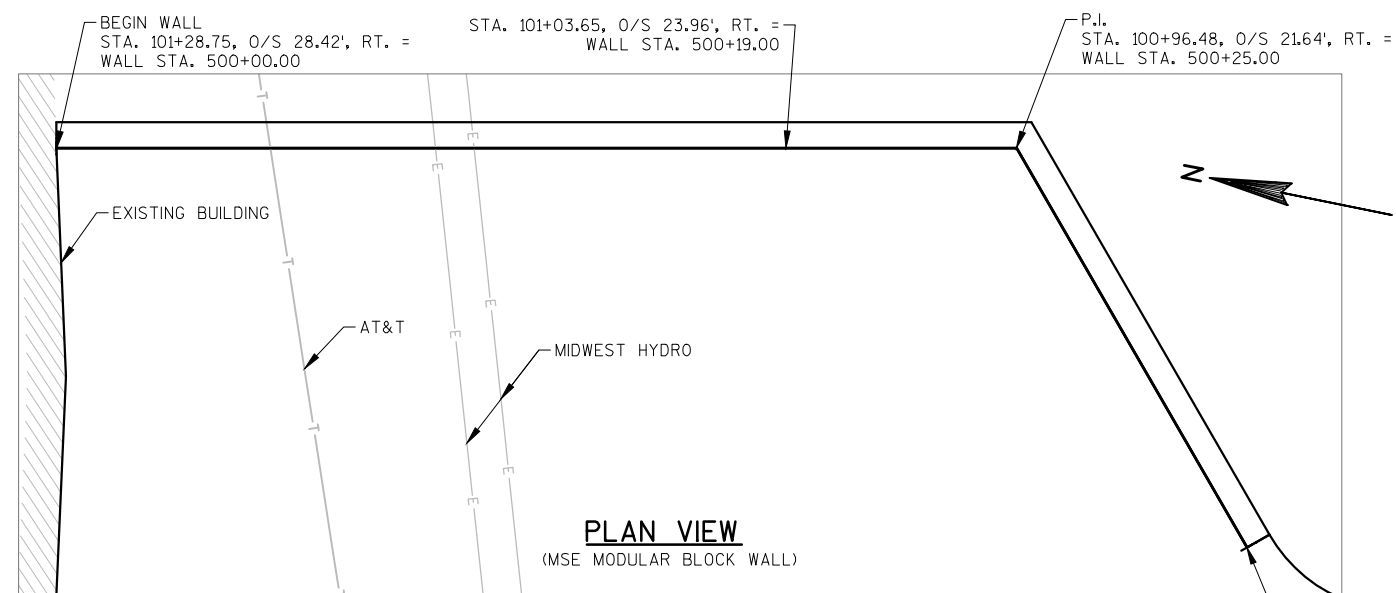
DETAIL OF INLET W/CASTING



ASPHALTIC SURFACE DRIVEWAY



RIPRAP HEAVY TREATMENT



NOTES:

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

ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD."

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

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD".

PLANS, ELEVATIONS AND DETAILS SHOWN IN THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

DESIGN WALL FOR MAXIMUM NOMINAL ALLOWABLE BEARING CAPACITY OF 1,500 PSF.

ALLOWABLE WALL SYSTEMS

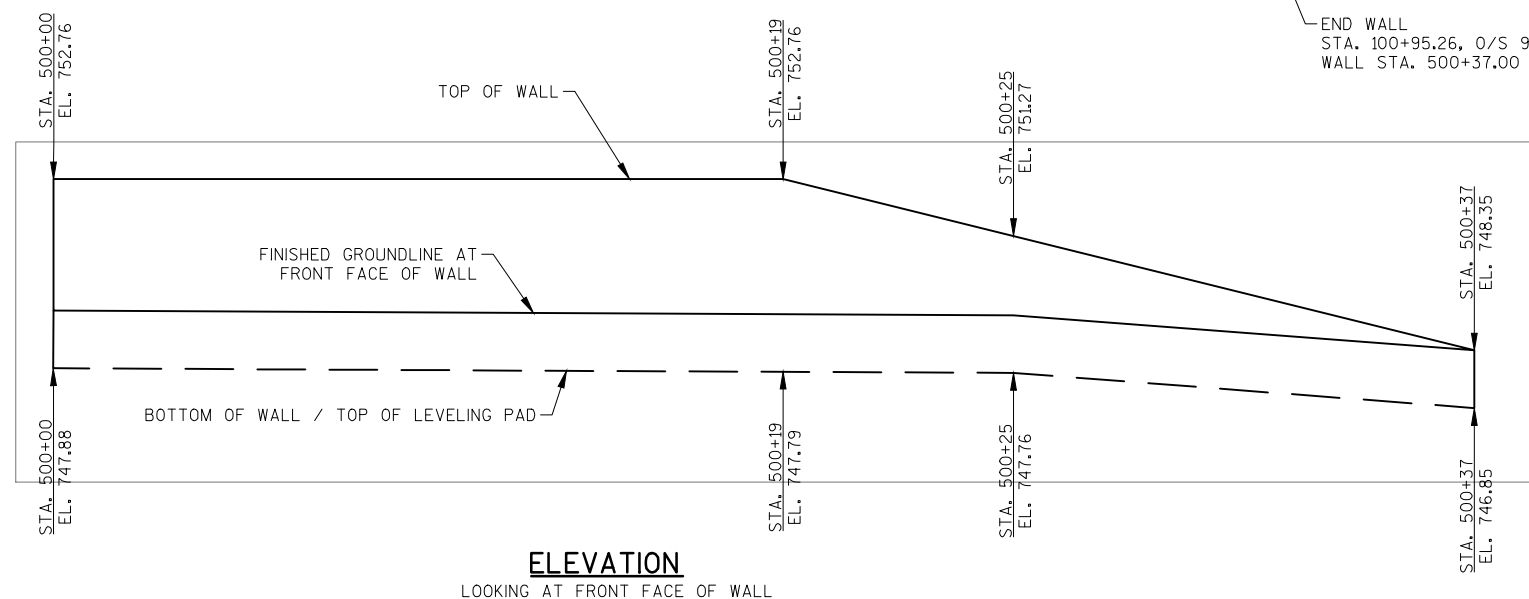
M.S.E. MODULAR BLOCK WALL.

GENERAL NOTES

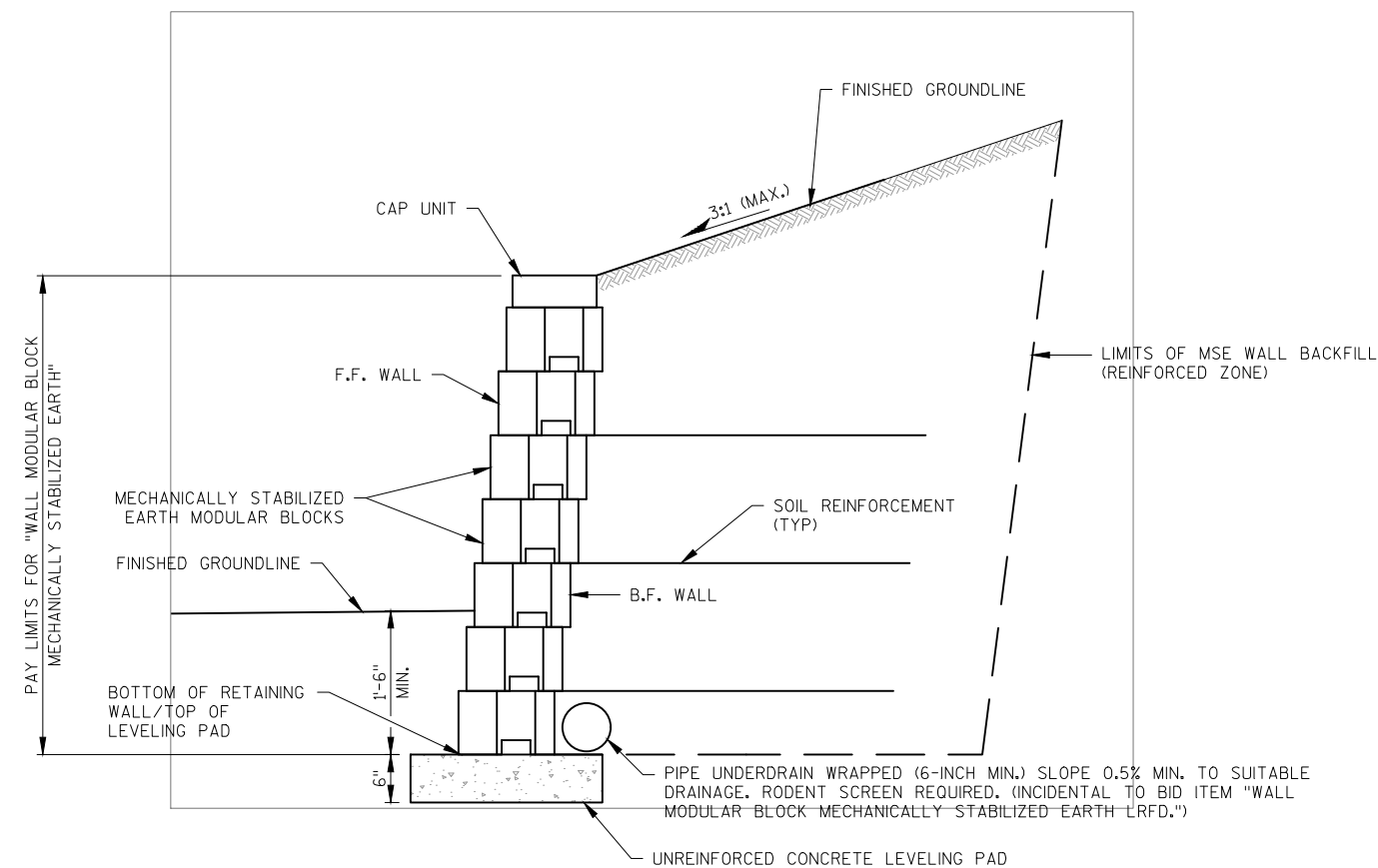
DRAWINGS SHALL NOT BE SCALED.

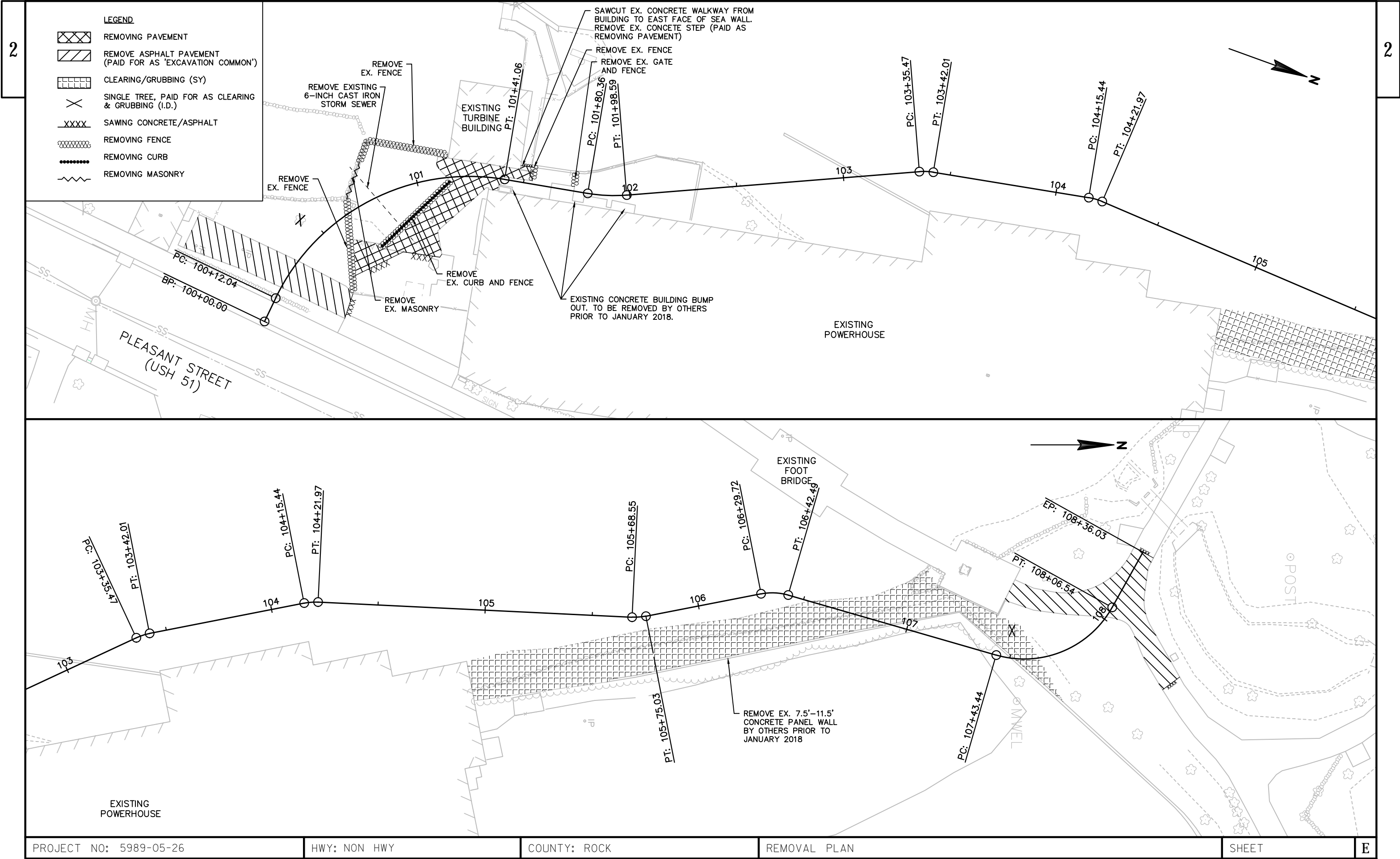
BLOCK SHALL HAVE A STRAIGHT SPLIT FACE.

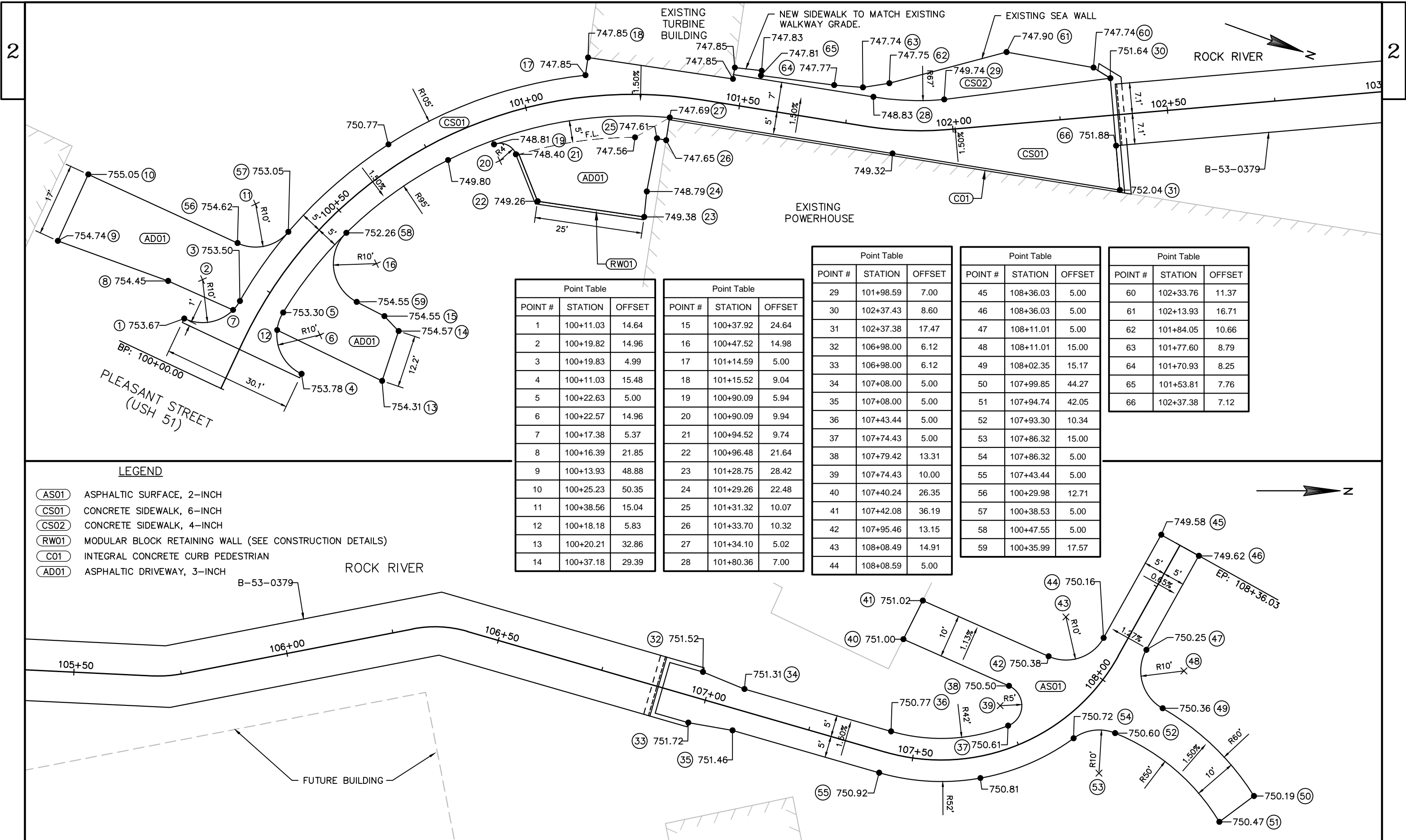
COLOR SELECTION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

**TABLE OF ELEVATIONS**

STATION	TOP OF WALL ELEV.	GROUND ELEV.
500+00	752.76	749.38
500+19	752.76	749.29
500+25	751.27	749.26
500+37	748.35	748.35

**TYPICAL SECTION THRU RETAINING WALL**





- LEGEND**
- AS01 ASPHALTIC SURFACE, 2-INCH
 - CS01 CONCRETE SIDEWALK, 6-INCH
 - CS02 CONCRETE SIDEWALK, 4-INCH
 - RW01 MODULAR BLOCK RETAINING WALL (SEE CONSTRUCTION DETAILS)
 - C01 INTEGRAL CONCRETE CURB PEDESTRIAN
 - AD01 ASPHALTIC DRIVEWAY, 3-INCH

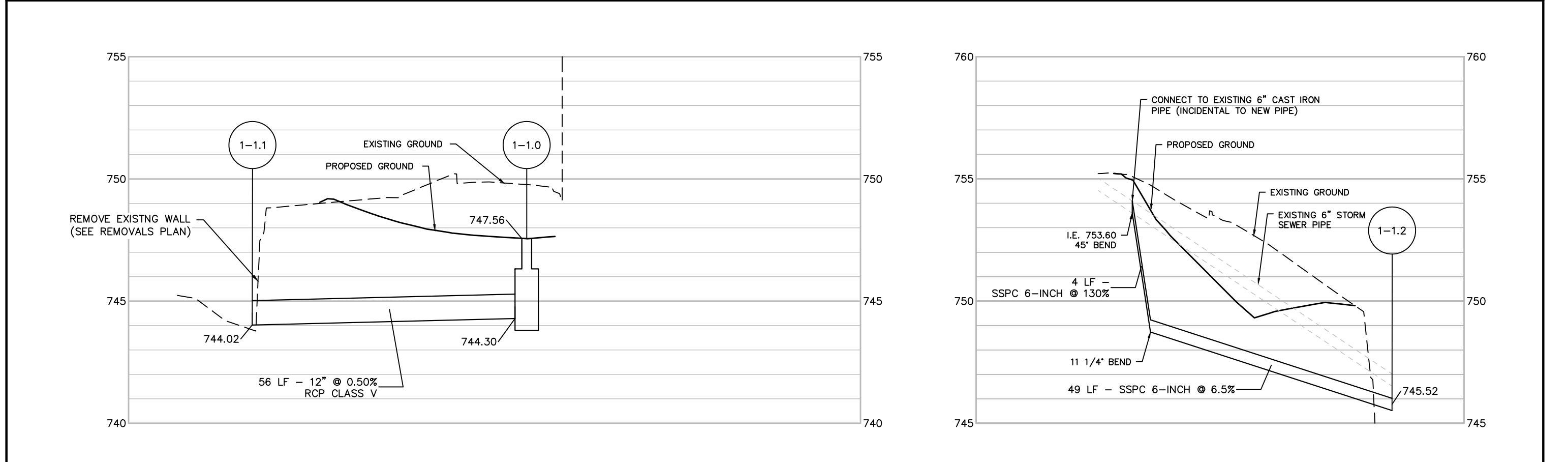
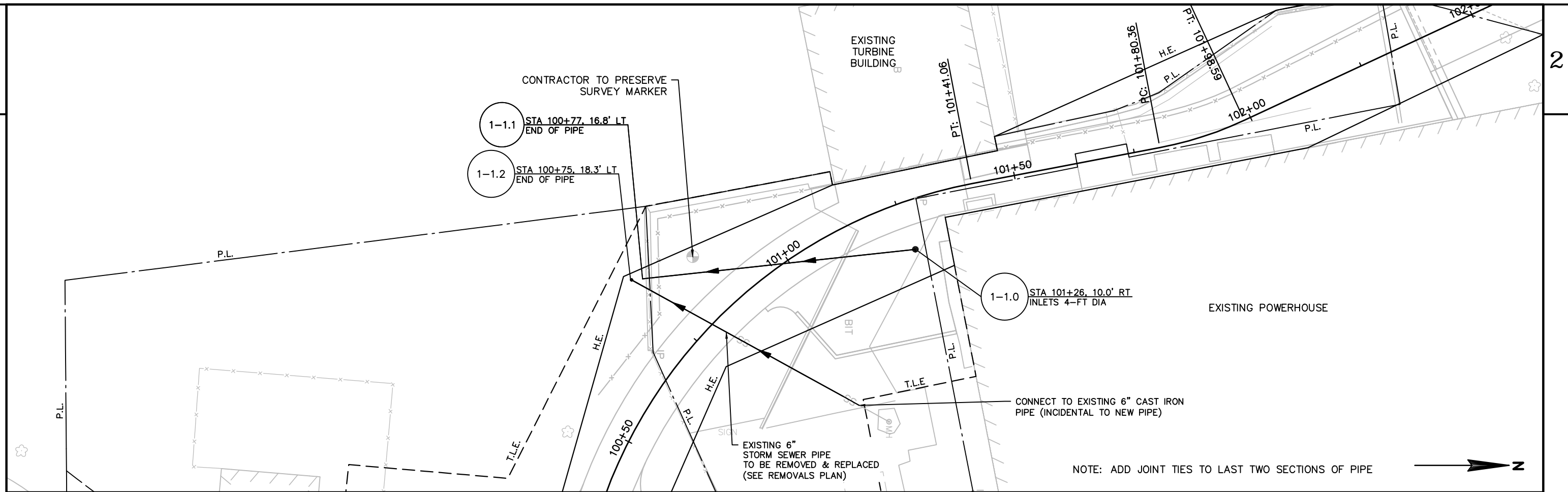
Point Table		
POINT #	STATION	OFFSET
1	100+11.03	14.64
2	100+19.82	14.96
3	100+19.83	4.99
4	100+11.03	15.48
5	100+22.63	5.00
6	100+22.57	14.96
7	100+17.38	5.37
8	100+16.39	21.85
9	100+13.93	48.88
10	100+25.23	50.35
11	100+38.56	15.04
12	100+18.18	5.83
13	100+20.21	32.86
14	100+37.18	29.39

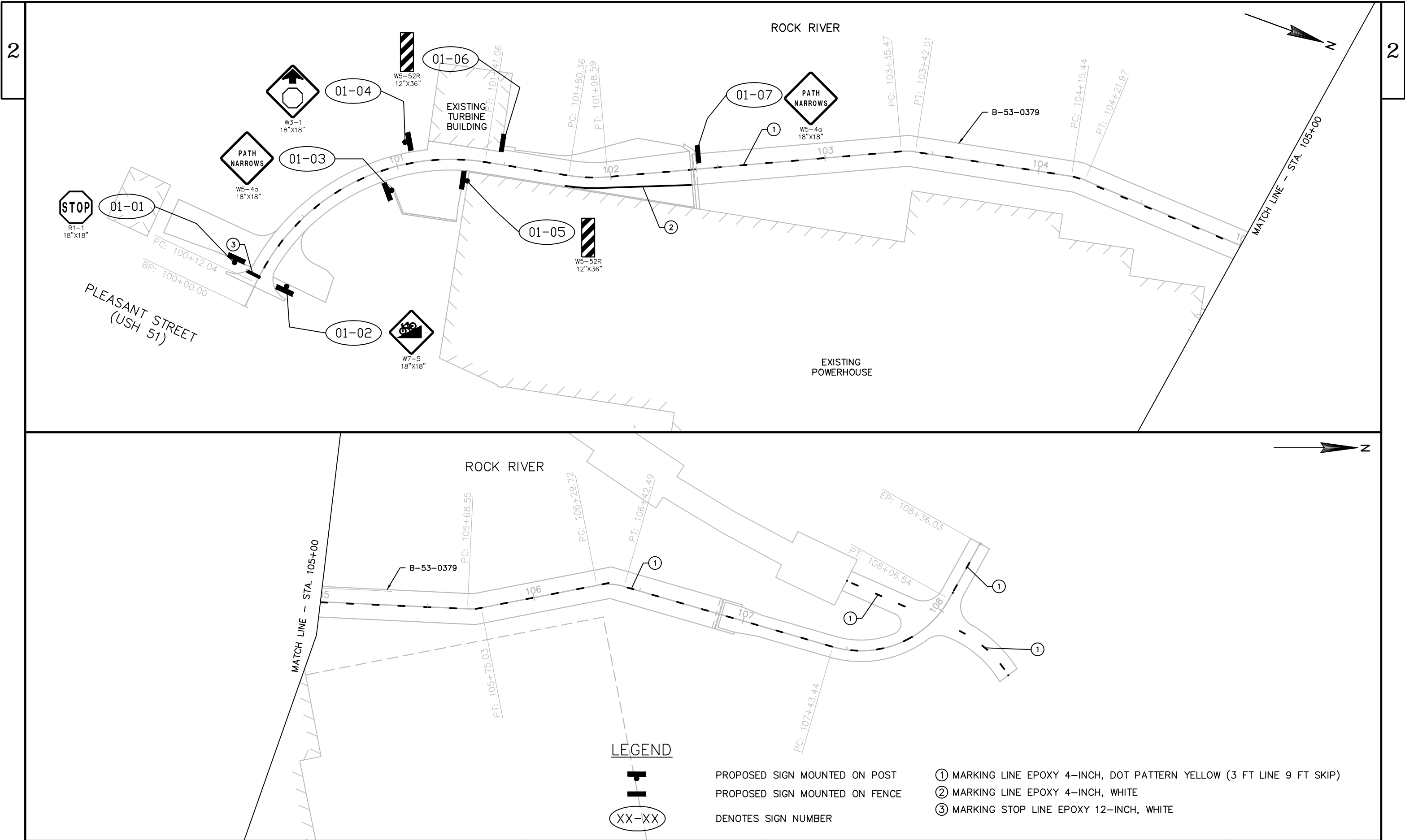
Point Table		
POINT #	STATION	OFFSET
15	100+37.92	24.64
16	100+47.52	14.98
17	101+14.59	5.00
18	101+15.52	9.04
19	100+90.09	5.94
20	100+90.09	9.94
21	100+94.52	9.74
22	100+96.48	21.64
23	101+28.75	28.42
24	101+29.26	22.48
25	101+31.32	10.07
26	101+33.70	10.32
27	101+34.10	5.02
28	101+80.36	7.00

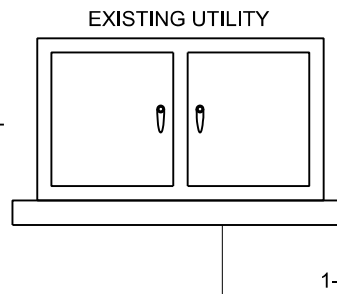
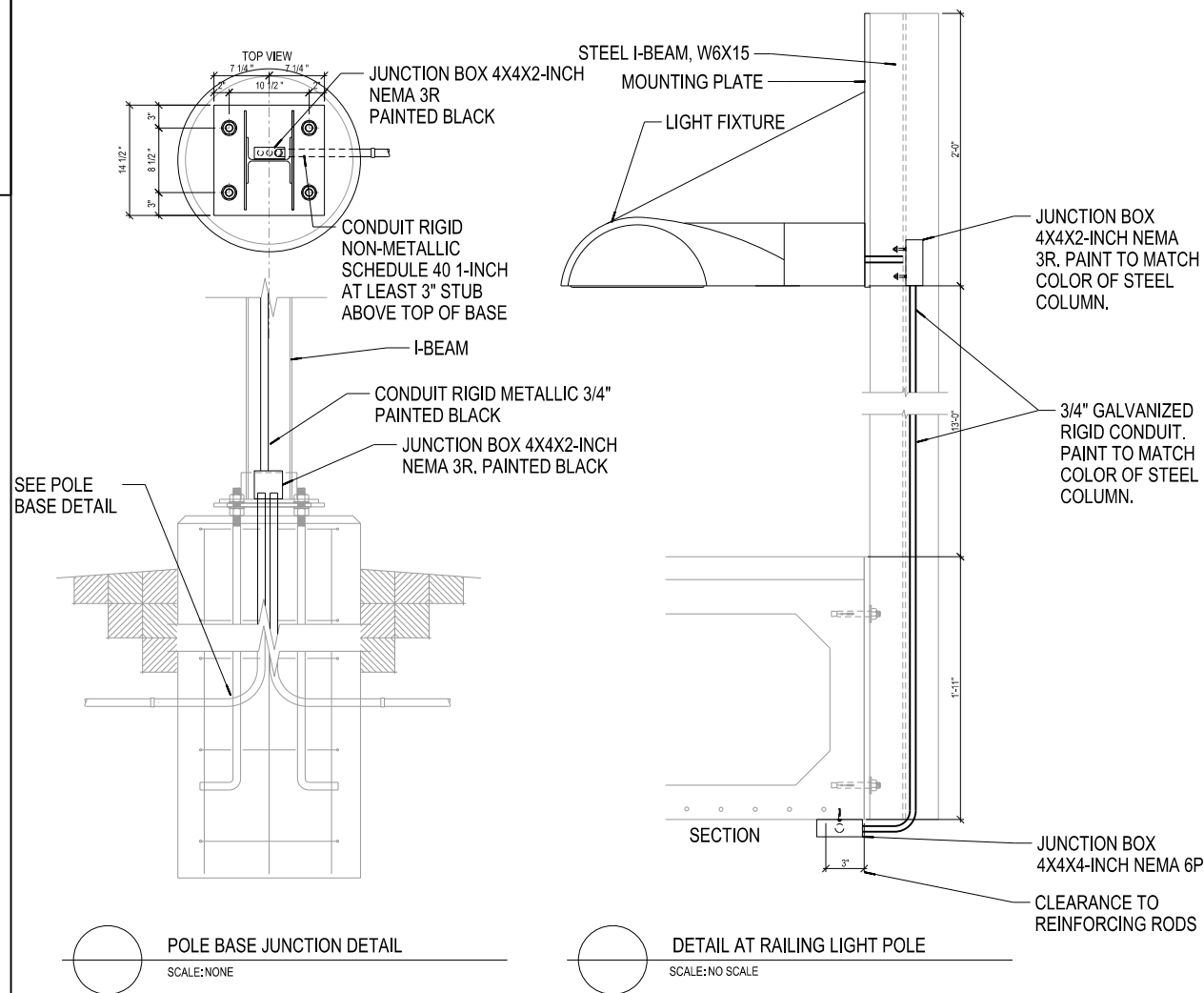
Point Table		
POINT #	STATION	OFFSET
29	101+98.59	7.00
30	102+37.43	8.60
31	102+37.38	17.47
32	106+98.00	6.12
33	106+98.00	6.12
34	107+08.00	5.00
35	107+08.00	5.00
36	107+43.44	5.00
37	107+74.43	5.00
38	107+79.42	13.31
39	107+74.43	10.00
40	107+40.24	26.35
41	107+42.08	36.19
42	107+95.46	13.15
43	108+08.49	14.91
44	108+08.59	5.00

Point Table		
POINT #	STATION	OFFSET
45	108+36.03	5.00
46	108+36.03	5.00
47	108+11.01	5.00
48	108+11.01	15.00
49	108+02.35	15.17
50	107+99.85	44.27
51	107+94.74	42.05
52	107+93.30	10.34
53	107+86.32	15.00
54	107+86.32	5.00
55	107+43.44	5.00
56	100+29.98	12.71
57	100+38.53	5.00
58	100+47.55	5.00
59	100+35.99	17.57

Point Table		
POINT #	STATION	OFFSET
60	102+33.76	11.37
61	102+13.93	16.71
62	101+84.05	10.66
63	101+77.60	8.79
64	101+70.93	8.25
65	101+53.81	7.76
66	102+37.38	7.12







PEDESTAL METER
240/120V 2P 3W
100A RATED

LVP-1
240/120V 2P 3W
100A RATED

INSTALL PER LOCAL UTILITY SERVICE RULES
ELECTRICAL METER BREAKER PEDESTAL ONE LINE DIAGRAM

NEW LUMINAIRE SCHEDULE

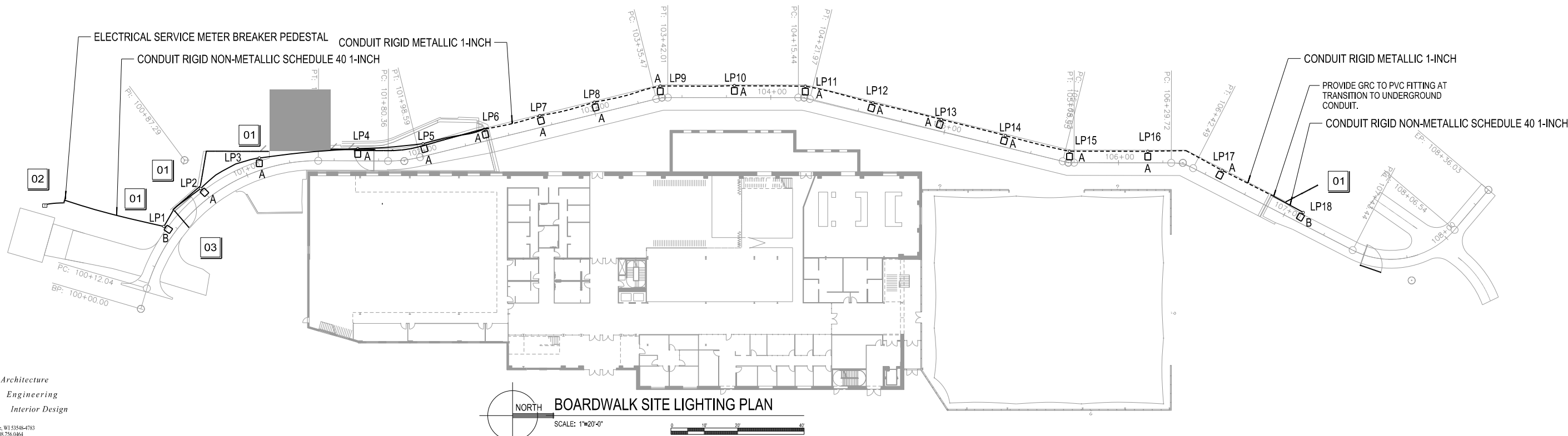
CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST / DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE 1	NOTE 2
A		(1) LED, 4000K	LED PATH LIGHT	LED DRIVER	WALL	LITHONIA AST1LED-42C-350-40K-SR3-MVOLT-WBA-VG-DBLXD OR PRE-APPROVED EQUAL	49	120V 1P 2W	MOUNT AT 13'-0" AFG	
B		(1) LED, 4000K	LED PATH LIGHT	LED DRIVER	POLE	LITHONIA AST1LED-42C-350-40K-SR5-MVOLT-WBA-VG-DBLXD OR PRE-APPROVED EQUAL	49	120V 1P 2W	MOUNT AT 13'-0" AFG	

GENERAL NOTES

1. LIGHT FIXTURES TO BE MOUNTED TO I-BEAM AT 13'-0" TO BOTTOM A.F.G. UNLESS NOTED OTHERWISE. FEED VIA NEW CIRCUIT BREAKER INSTALLED IN LVP-1.
2. UNDERGROUND CONDUIT TO BE IN CONDUIT RIGID NON-METALLIC SCHEDULE 40 1-INCH. EXPOSED CONDUIT TO BE CONDUIT RIGID METALLIC 1-INCH UNLESS NOTED OTHERWISE. JUNCTION BOXES LOCATED AT OR BELOW GRADE TO BE JUNCTION BOX 4X4X4-INCH NEMA 6P RATED. ALL OTHER JUNCTION BOXES TO BE JUNCTION BOX 4X4X2-INCH NEMA 3R RATED.
3. RIVERWALK PORTION OF CIRCUIT TO BE MOUNTED TO UNDERSIDE OF BOARDWALK. JUNCTION BOXES TO BE MOUNTED TO STRUCTURE WITHIN 3" OF OUTER EDGE TO AVOID STEEL REINFORCING RODS. USE CONDUIT RIGID METALLIC 3/4-INCH AND ELECTRICAL WIRE LIGHTING 12AWG TO RUN CIRCUIT FROM JUNCTION BOX 4X4X4-INCH NEMA 6P RATED TO LIGHT FIXTURE JUNCTION BOX 4X4X2-INCH NEMA 3R RATED ALONG RIVER SIDE OF I-BEAM. WALL MOUNT FIXTURE TO PLATE ATTACHED TO I-BEAM. SEE DETAIL AT RAILING LIGHT POLE.
4. CONTRACTOR TO PAINT VISBILE JUNCTION BOXES AND CONDUIT BLACK TO MATCH FENCE.
5. FASTENERS, SUPPORTS, AND FITTINGS USED BELOW BOARDWALK ARE TO BE NEMA 6P RATED.

KEYNOTES

- 01 POLE LIGHT FIXTURE TO BE INSTALLED ON NEW 6" CONCRETE BASE AND 15'-0" STEEL I-BEAM. MOUNT FIXTURE AT 13'-0" TO BOTTOM A.F.G. SEE POLE DETAL ES01/15.
- 02 PROVIDE AND INSTALL NEW METER AND 100A, 120/240V, 8 CIRCUIT LOAD CENTER COMBINATION WEATHERPROOF PANEL ON PEDESTAL MOUNT IN THIS AREA. PROVIDE GROUNDING COMPLIANT WITH NATIONAL ELECTRIC, LOCAL UTILITY, AND WISCONSIN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. PROVIDE 20A/1P CIRCUIT BREAKER AND CIRCUIT WIRING FOR BOARDWALK LIGHTING. FEED FROM EXISTING TRANSFORMER.
- 03 BOARDWALK LIGHTING TO BE CONTROLLED VIA 120V, SWIVEL TYPE, EXTERIOR PHOTOCCELL. PHOTOCCELL TO BE INTERMATIC EK4736S; TORK 2001 SERIES; OR PRE-APPROVED EQUAL. MOUNT TO JUNCTION BOX AT TOP OF POLE.



Angus Young Architecture
Engineering
Interior Design
Balance in Creativity
555 South River Street, Janesville, WI 53548-4783
Ph: 608.756.2236 Fax: 608.756.0464
www.angusyoung.com

PROJECT NO: 5989-05-26

HWY: NON HWY

COUNTY: ROCK

LIGHTING PLAN

SHEET

E

FILE NAME : J:\32200-32299\32205 POWERHOUSE RIVERWALK - CITY OF BELOIT\FILES TO AYA\9-14-17\LIGHTING PLAN WSDOT BORDER.DWG
LAYOUT NAME - GENERAL NOTES

PLOT DATE : 9/7/2017 9:37 AM

PLOT BY :

PLOT NAME :

PLOT SCALE : 1:60

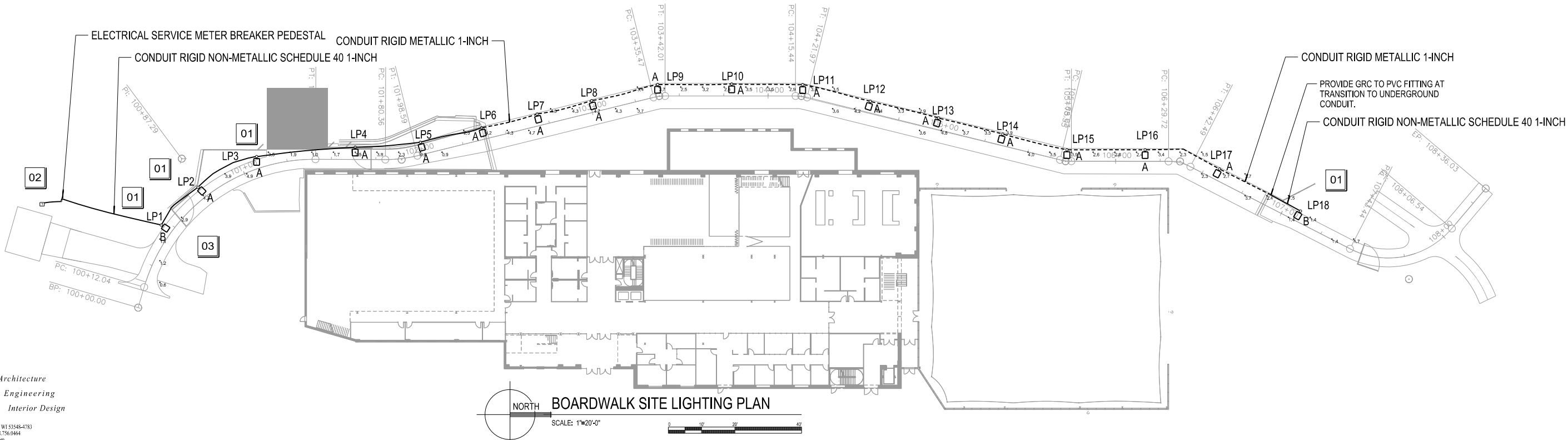
WSDOT/CADDs SHEET 42

Schedule						
Label	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	Wattage
A	AST1 LED 42C 350 40K SR3 MVOLT	AST1 AREA LIGHT 42 LEDs 350 mA DRIVE CURRENT 40K COLOR TEMP TYPE 3 DISTRIBUTION	HLM LIGHT ENGINE	1	5059	49
B	AST1 LED 42C 350 40K SR5 MVOLT	AST1 AREA LIGHT 42 LEDs 350 mA DRIVE CURRENT 40K COLOR TEMP TYPE 5 DISTRIBUTION	HLM LIGHT ENGINE	1	5350	49

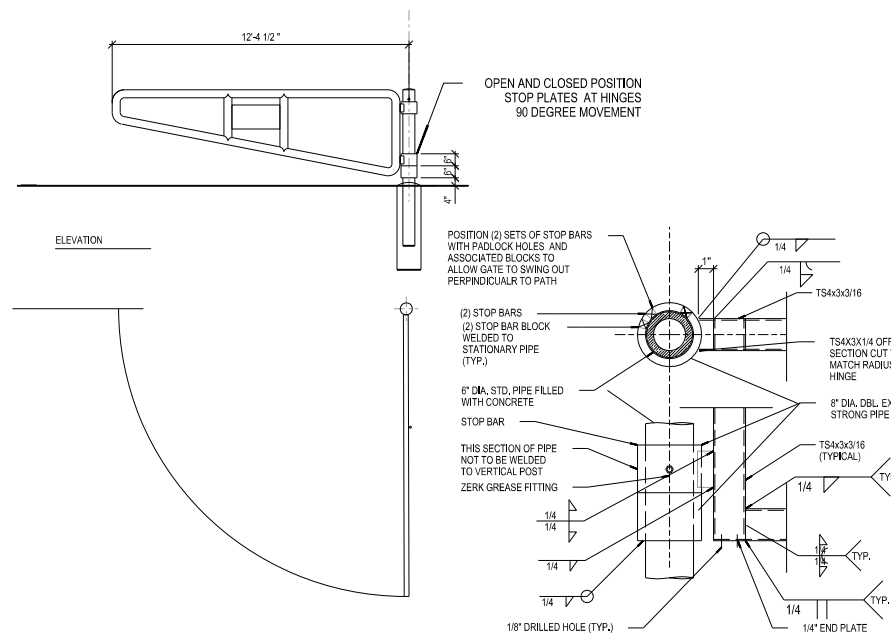
Statistics					
Description	Avg	Max	Min	Max/Min	Avg/Min
PATH	3.0 fc	4.9 fc	0.6 fc	8.2:1	5.0:1

KEYNOTES

- 01
- POLE LIGHT FIXTURE TO BE INSTALLED ON NEW 18" CONCRETE BASE AND 15'-0" STEEL I-BEAM. MOUNT FIXTURE AT 13'-0" TO BOTTOM A.F.G. SEE POLE DETAL ES01/15.



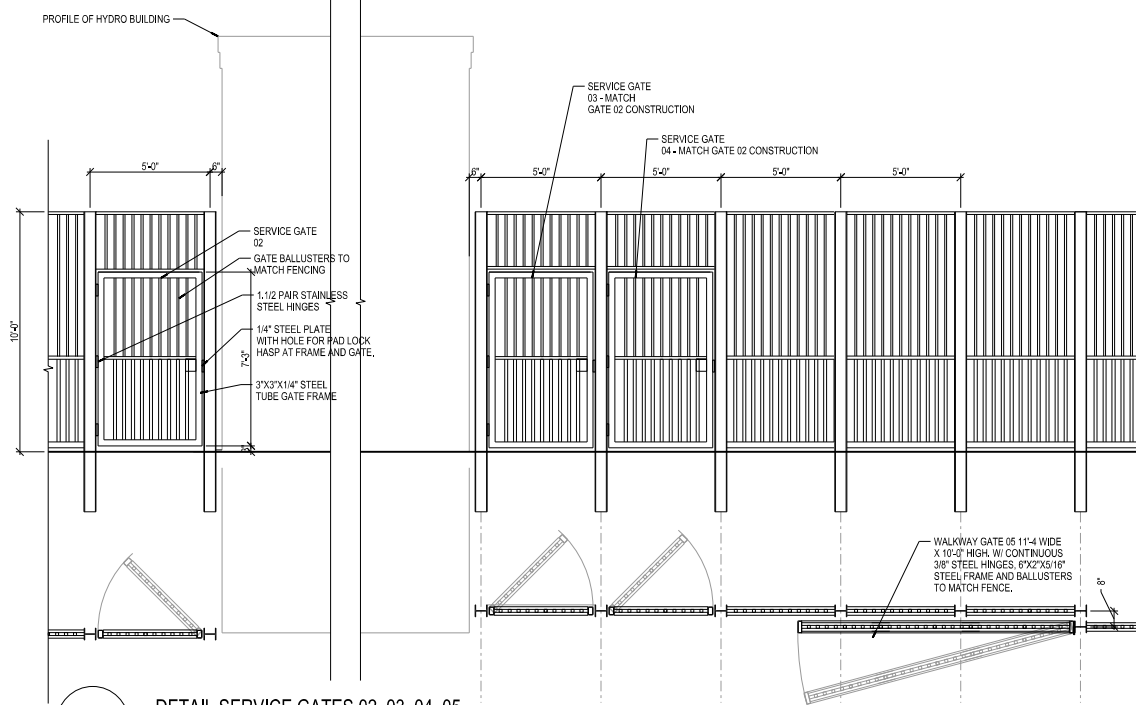
Angus
Young
Architecture
Engineering
Interior Design
Balance in Creativity
555 South River Street, Janesville, WI 53548-4783
Ph: 608.756.2336 Fx: 608.756.0464
www.angusyoung.com



DETAIL - GATES 01, 06

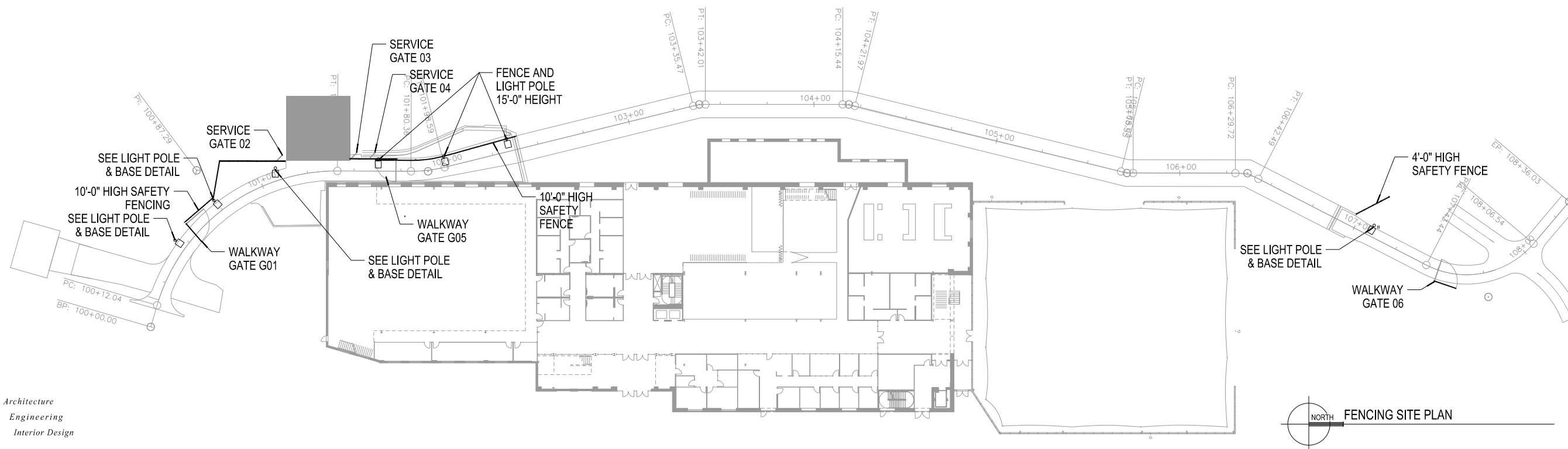
SCALE: 1/4"=1'-0"

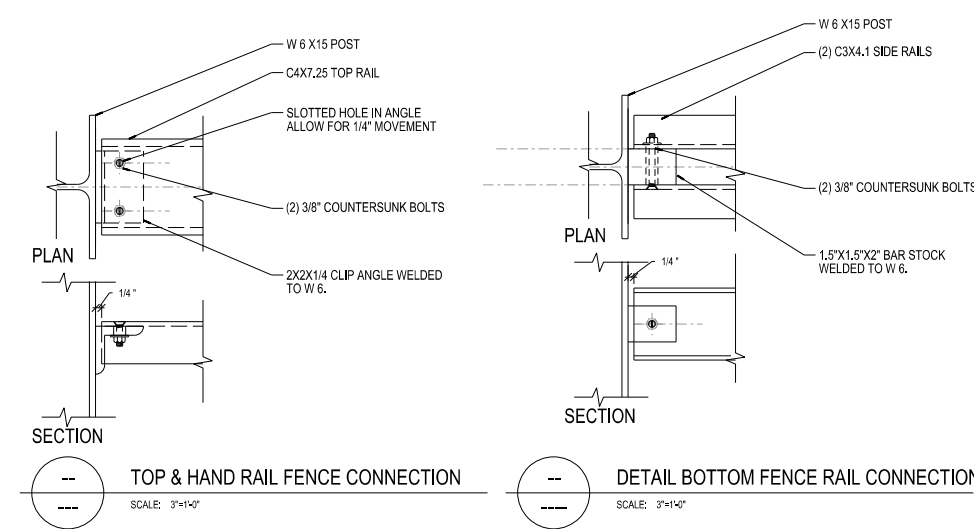
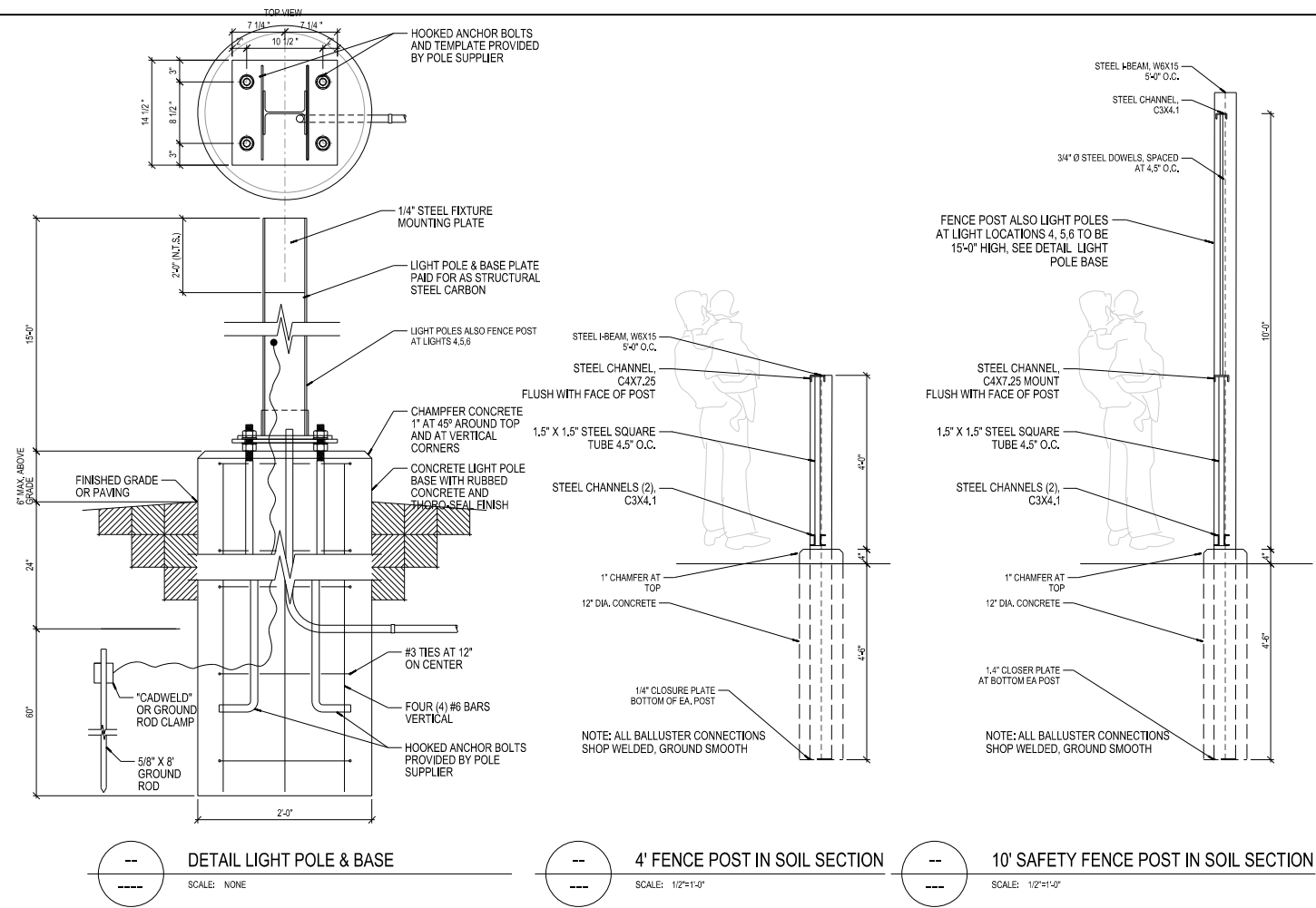
DETAIL 'C' - NOT TO SCALE

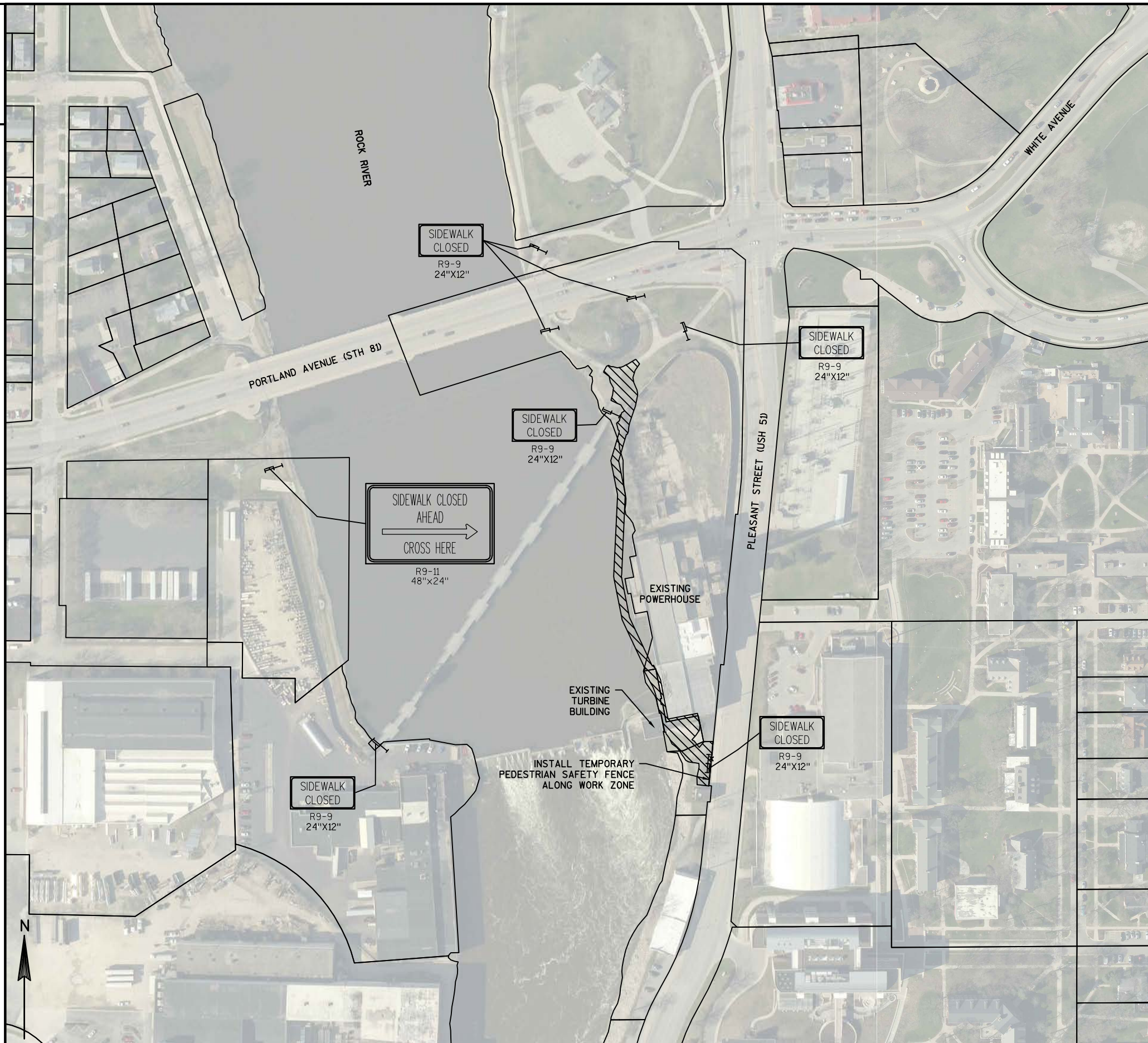


DETAIL SERVICE GATES 02, 03, 04, 05

SCALE: 1/4"=1'-0"







GENERAL NOTES:

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. REMOVING/REPLACING OR COVERING/UNCOVERING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN PLANS.

IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS. MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.




ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE WISCONSIN SUPPLEMENT TO THE MUTCD, AND OTHER CONTRACT DOCUMENTS.

THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

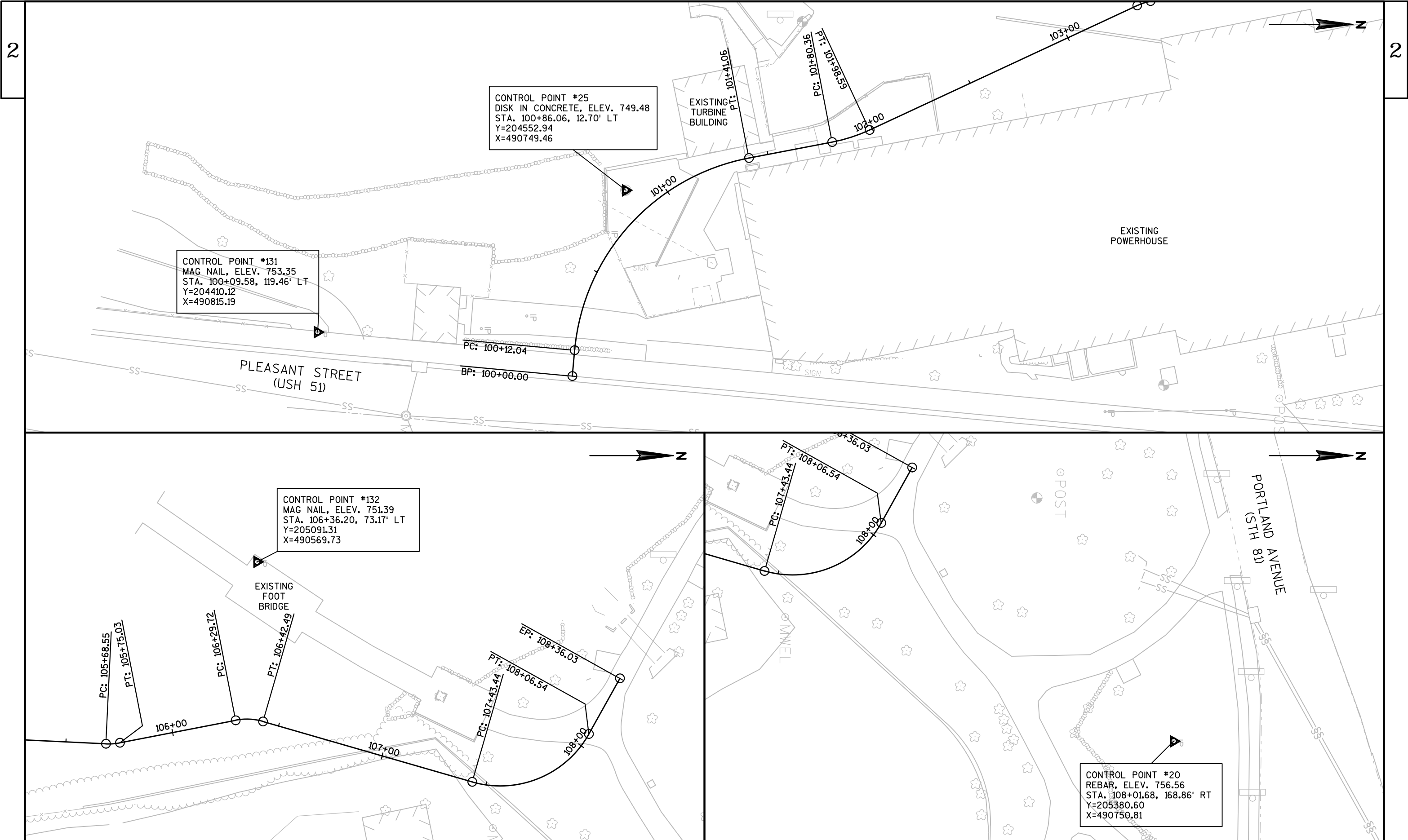
REFER TO THE FOLLOWING STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES, AS WELL AS OTHER STANDARD DETAIL DRAWINGS AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

- TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
- TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
- TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS

LEGEND

-  WORK AREA
-  TYPE II BARRICADE WITH ATTACHED SIGN
-  TYPE II BARRICADE

SIDEWALK CLOSED SIGNS ARE NOT NEEDED FOR THE ENTIRE DURATION OF THE PROJECT. PLACE SIDEWALK CLOSED SIGNS WHEN CONSTRUCTION ACTIVITIES ARE OCCURING ON THE EXISTING PATHWAY.



PROJECT NO:5989-05-26	HWY:NON HWY	COUNTY:ROCK	CONTROL POINTS	SHEET	E
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Estimate Of Quantities

5989-05-26

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	518.000	518.000
0004	201.0120	Clearing	ID	14.000	14.000
0006	201.0210	Grubbing	SY	518.000	518.000
0008	201.0220	Grubbing	ID	14.000	14.000
0010	204.0100	Removing Pavement	SY	139.000	139.000
0012	204.0130	Removing Curb	LF	45.000	45.000
0014	204.0170	Removing Fence	LF	170.000	170.000
0016	204.0185	Removing Masonry	CY	2.000	2.000
0018	204.0245	Removing Storm Sewer (size) 01. 6-Inch	LF	53.000	53.000
0020	205.0100	Excavation Common	CY	637.000	637.000
0022	206.1000	Excavation for Structures Bridges (structure) 01. B-53-379	LS	1.000	1.000
0024	208.0100	Borrow	CY	50.000	50.000
0026	210.1100	Backfill Structure Type A	CY	140.000	140.000
0028	213.0100	Finishing Roadway (project) 01. 5989-05-26	EACH	1.000	1.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	300.000	300.000
0032	311.0110	Breaker Run	TON	250.000	250.000
0034	465.0105	Asphaltic Surface	TON	35.000	35.000
0036	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	40.000	40.000
0038	502.0100	Concrete Masonry Bridges	CY	93.000	93.000
0040	502.2000	Compression Joint Sealer Preformed Elastomeric (width) 01. 1-Inch	LF	72.000	72.000
0042	502.3200	Protective Surface Treatment	SY	1,010.000	1,010.000
0044	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	18,460.000	18,460.000
0046	506.0105	Structural Steel Carbon	LB	1,200.000	1,200.000
0048	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	80.000	80.000
0050	509.2500	Concrete Masonry Overlay Decks	CY	43.000	43.000
0052	516.0500	Rubberized Membrane Waterproofing	SY	11.000	11.000
0054	550.0500	Pile Points	EACH	34.000	34.000
0056	550.2126	Piling CIP Concrete 12 3/4 X 0.375-Inch	LF	2,120.000	2,120.000
0058	601.0600	Concrete Curb Pedestrian	LF	105.000	105.000
0060	602.0405	Concrete Sidewalk 4-Inch	SF	400.000	400.000
0062	602.0415	Concrete Sidewalk 6-Inch	SF	2,900.000	2,900.000
0064	606.0300	Riprap Heavy	CY	45.000	45.000
0066	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	56.000	56.000
0068	608.6006	Storm Sewer Pipe Composite 6-Inch	LF	53.000	53.000
0070	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0072	611.3004	Inlets 4-FT Diameter	EACH	1.000	1.000
0074	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	80.000	80.000
0076	616.0204	Fence Chain Link 4-FT	LF	257.000	257.000

Estimate Of Quantities

5989-05-26

Line	Item	Item Description	Unit	Total	Qty
0078	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5989-05-26	EACH	1.000	1.000
0080	619.1000	Mobilization	EACH	1.000	1.000
0082	624.0100	Water	MGAL	20.000	20.000
0084	625.0500	Salvaged Topsoil	SY	800.000	800.000
0086	628.1504	Silt Fence	LF	300.000	300.000
0088	628.1520	Silt Fence Maintenance	LF	600.000	600.000
0090	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0092	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0094	628.2006	Erosion Mat Urban Class I Type A	SY	800.000	800.000
0096	628.6005	Turbidity Barriers	SY	100.000	100.000
0098	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0100	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0102	628.7020	Inlet Protection Type D	EACH	3.000	3.000
0104	628.7560	Tracking Pads	EACH	2.000	2.000
0106	629.0210	Fertilizer Type B	CWT	2.000	2.000
0108	630.0140	Seeding Mixture No. 40	LB	30.000	30.000
0110	630.0200	Seeding Temporary	LB	40.000	40.000
0112	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	5.000	5.000
0114	637.2210	Signs Type II Reflective H	SF	1.750	1.750
0116	637.2230	Signs Type II Reflective F	SF	15.000	15.000
0118	642.5201	Field Office Type C	EACH	1.000	1.000
0120	643.0300	Traffic Control Drums	DAY	3,000.000	3,000.000
0122	643.0410	Traffic Control Barricades Type II	DAY	3,000.000	3,000.000
0124	643.0705	Traffic Control Warning Lights Type A	DAY	1,600.000	1,600.000
0126	643.0900	Traffic Control Signs	DAY	1,600.000	1,600.000
0128	643.5000	Traffic Control	EACH	1.000	1.000
0130	644.1616.S	Temporary Pedestrian Safety Fence	LF	150.000	150.000
0132	645.0111	Geotextile Type DF Schedule A	SY	45.000	45.000
0134	645.0120	Geotextile Type HR	SY	75.000	75.000
0136	646.1020	Marking Line Epoxy 4-Inch	LF	300.000	300.000
0138	646.6020	Marking Stop Line Epoxy 12-Inch	LF	6.000	6.000
0140	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0142	650.4500	Construction Staking Subgrade	LF	383.000	383.000
0144	650.5000	Construction Staking Base	LF	383.000	383.000
0146	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	105.000	105.000
0148	650.6500	Construction Staking Structure Layout (structure) 01. B-53-379	LS	1.000	1.000
0150	650.8500	Construction Staking Electrical Installations (project) 01. 5989-05-26	LS	1.000	1.000

Estimate Of Quantities

5989-05-26

Line	Item	Item Description	Unit	Total	Qty
0152	650.9910	Construction Staking Supplemental Control (project) 01. 5989-05-26	LS	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes	LF	383.000	383.000
0156	652.0105	Conduit Rigid Metallic 3/4-Inch	LF	350.000	350.000
0158	652.0110	Conduit Rigid Metallic 1-Inch	LF	500.000	500.000
0160	652.0210	Conduit Rigid Nonmetallic Schedule 40 1-Inch	LF	300.000	300.000
0162	652.0215	Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	LF	20.000	20.000
0164	654.0105	Concrete Bases Type 5	EACH	4.000	4.000
0166	655.0610	Electrical Wire Lighting 12 AWG	LF	900.000	900.000
0168	655.0615	Electrical Wire Lighting 10 AWG	LF	2,500.000	2,500.000
0170	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. 100+33	LS	1.000	1.000
0172	690.0150	Sawing Asphalt	LF	50.000	50.000
0174	690.0250	Sawing Concrete	LF	60.000	60.000
0176	715.0502	Incentive Strength Concrete Structures	DOL	558.000	558.000
0178	999.1500.S	Crack and Damage Survey	LS	1.000	1.000
0180	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	325.000	325.000
0182	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	425.000	425.000
0184	SPV.0060	Special 01. Walkway Gate	EACH	2.000	2.000
0186	SPV.0060	Special 02. Luminaire Utility LED A 350mA 49W	EACH	16.000	16.000
0188	SPV.0060	Special 03. Luminaire Utility LED B 350 mA 49W	EACH	2.000	2.000
0190	SPV.0060	Special 04. Junction Boxes 4x4x4-Inch NEMA 6P	EACH	14.000	14.000
0192	SPV.0060	Special 05. Junction Boxes 4x4x2-Inch NEMA 3R	EACH	22.000	22.000
0194	SPV.0060	Special 06. Locate And Reference Property Corners	EACH	5.000	5.000
0196	SPV.0060	Special 07. Reset Property Corners	EACH	5.000	5.000
0198	SPV.0090	Special 01. Railing Steel Pedestrian Special B-53-379	LF	672.000	672.000
0200	SPV.0090	Special 02. Prestressed Girders Box Type 21-Inch	LF	1,782.000	1,782.000
0202	SPV.0090	Special 03. Safety Fence 4-Foot	LF	20.000	20.000
0204	SPV.0090	Special 04. Safety Fence 10-Foot	LF	167.000	167.000
0206	SPV.0105	Special 01. Construction Access	LS	1.000	1.000
0208	SPV.0165	Special 01. Wall Modular Block Mechanically Stabilized Earth LRFD	SF	149.000	149.000

3

CLEARING AND GRUBBING					
		201.0110	201.0120	201.0210	201.0220
		CLEARING	CLEARING	GRUBBING	GRUBBING
STATION	LOCATION	SY	ID	SY	ID
CATEGORY 0010					
100+47	LT		5		5
104+93-107+71	LT/RT	518		518	
107+55	RT		9		9
TOTAL CATEGORY 0010		518	14	518	14

REMOVING PAVEMENT		
204.0100		
REMOVING PAVEMENT		
STATION	LOCATION	SY
CATEGORY 0010		
100+69-101+54	LT/RT	139
TOTAL CATEGORY 0010		139

REMOVING CURB		
204.0130		
REMOVING CURB		
STATION	LOCATION	LF
CATEGORY 0010		
100+69-101+16	RT	45
TOTAL CATEGORY 0010		45

REMOVING FENCING		
204.0170		
REMOVING FENCE		
STATION	LOCATION	LF
CATEGORY 0010		
100+69-101+16	RT	45
100+38-101+15	LT	110
101+54-101+75	LT	15
TOTAL CATEGORY 0010		170

REMOVING MASONRY		
204.1850		
REMOVING MASONRY		
STATION	LOCATION	CY
CATEGORY 0010		
100+67-100+80	LT	2
TOTAL CATEGORY 0010		2

SAWING PAVEMENT			
690.0150			
SAWING ASPHALT			
690.0250			
SAWING CONCRETE			
STATION	LOCATION	LF	LF
CATEGORY 0010			
100+20-100+37	RT	12	-
100+45-101+05	RT	-	45
107+95-108+00	RT	10	-
108+36	LT/RT	11	-
SUBTOTAL		33	45
UNDISTRIBUTED		17	15
TOTAL CATEGORY 0010		50	60

CONCRETE SIDEWALK			
602.0405			
CONCRETE SIDEWALK 4-INCH			
602.0415			
CONCRETE SIDEWALK 6-INCH			
STATION	LOCATION	SF	SF
CATEGORY 0010			
100+10-102+37	LT/RT	384	2807
SUBTOTAL		384	2807
UNDISTRIBUTED		16	93
TOTAL CATEGORY 0010		400	2900

REMOVING STORM SEWER		
204.0245		
REMOVING STORM SEWER (SIZE) 01. 6-INCH		
STATION	LOCATION	LF
CATEGORY 0010		
100+75-100+89	LT/RT	53
TOTAL CATEGORY 0010		53

BASE AGGREGATE ITEMS		
305.0120		
BASE AGGREGATE DENSE 1 1/4-INCH		
311.0110		
BREAKER RUN		
STATION	TON	TON
CATEGORY 0010		
100+10-108+36	-	38
100+10-102+37	104	-
100+18-100+48	15	-
100+17-100+39	26	-
100+90-101+34	23	-
106+90-108+36	58	78
SUBTOTAL		226
UNDISTRIBUTED		74
TOTAL CATEGORY 0010		300

ASPHALT PAVEMENT ITEMS		
465.0105		
ASPHALTIC SURFACE		
465.0120		
ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES		
STATION	TON	TON
CATEGORY 0010		
100+18-100+48	-	7
100+17-100+39	-	13
100+90-101+34	-	12
106+90-108+36	29	-
SUBTOTAL		29
UNDISTRIBUTED		6
TOTAL CATEGORY 0010		35

3

CONCRETE CURB PEDESTRIAN					STORM SEWER PIPE SUMMARY																																		
601.0600										608.0512		608.6006																											
CURB PEDESTRIAN										STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH		STORM SEWER PIPE COMPOSITE 6- INCH																											
STATION		LOCATION		LF	FROM STRUCTURE NO.		TO STRUCTURE NO.		INLET ELEV.	OUTLET ELEV.	SLOPE %	LF	LF																										
CATEGORY 0010					CATEGORY 0010																																		
101+34		-	102+37	RT	105	1-1.0	-	1-1.1	744.30	744.02	0.50%	56																											
						EX-PIPE	-	1-1.2	753.60	745.52			53																										
TOTAL CATEGORY 0010					TOTAL CATEGORY 0010																																		
FENCING ITEMS					TOTAL CATEGORY 0010																																		
SPV.0060.01					SPV.0090.03					SPV.0090.04																													
WALKWAY GATE					SAFETY FENCE 4-FOOT					SAFETY FENCE 10-FOOT																													
STATION		LOCATION		EACH	LF	LF		STORM SEWER STRUCTURE SUMMARY																															
CATEGORY 0010		100+55		LT	1	-		-		611.3004				611.0612																									
100+55		-	101+15	LT	-	-		77		STRUCT.				RIM																									
101+47		-	102+37	LT	-	-		90		INLETS 4-FT DIAMETER				INLET COVERS TYPE C																									
106+98		-	107+09	LT	-	20		-		NO.				STATION																									
107+50			RT	1	-	-		-		OFFSET				ELEV																									
TOTAL CATEGORY 0010					2	20		167		CATEGORY 0010				EACH																									
										1-1.0				101+26																									
										10' RT				747.56																									
										1				1																									
										TOTAL CATEGORY 0010				1																									
														1																									
RETAINING WALLS																																							
SPV. 0165.01					643.0300					643.0410					643.0705					643.0900					643.5000					644.1616.S									
WALL MODULAR BLOCK					TRAFFIC CONTROL					TRAFFIC CONTROL					TRAFFIC CONTROL					TRAFFIC CONTROL					TEMPORARY														
MECHANICALLY					DRUMS					BARRICADES TYPE II					WARNING LIGHTS					SIGNS					TRAFFIC CONTROL					PEDESTRIAN SAFETY									
STABILIZED EARTH					DAYS					DAYS					TYPE A					DAYS					EACH					FENCE									
					CATEGORY 0010					CATEGORY 0010					CATEGORY 0010					CATEGORY 0010					CATEGORY 0010					CATEGORY 0010									
					100+00-108+36					-					2400					1200					1200					1					100				
					SUBTOTAL					-					2400					1200					1200					1					100				
					UNDISTRIBUTED					3000					600					400					400					-					50				
					TOTAL CATEGORY 0010					3000					3000					1600					1600					1					150				

3

3

CONSTRUCTION STAKING									
		650.4000	650.4500	650.5000	650.5500	650.6500	650.8500	650.9910	650.9920
		CONSTRUCTION STAKING STORM SEWER	CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	CONSTRUCTION STAKING CURB & GUTTER	CONSTRUCTION STAKING STRUCTURE LAYOUT	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL	CONSTRUCTION STAKING SLOPE STAKES
STATION	LOCATION	EACH	LF	LF	LF	EACH	LS	LS	LF
CATEGORY 0010									
100+00-108+36	LT/RT	-	-	-	-	-	1	1	-
100+00-102+37	LT/RT	2	237	237	105	-	-	-	237
106+90-108+36	LT/RT	-	146	146	-	-	-	-	146
SUBTOTAL		2	383	383	105	-	1	1	383
CATEGORY 0020									
102+37-106+90	LT/RT	-	-	-	-	1	-	-	-
PROJECT TOTAL		2	383	383	105	1	1	1	383

LANDSCAPING ITEMS						PAVEMENT MARKING		
						646.1020	646.6020	
		625.0500	629.0210	630.0140	630.0200			
		SALVAGED TOPSOIL	FERTILIZER TYPE B	SEEDING MIXTURE NO. 40	SEEDING TEMPORARY	MARKING LINE EPOXY 4-INCH, WHITE	MARKING LINE EPOXY 4-INCH, YELLOW	MARKING STOP LINE EPOXY 12-INCH, WHITE
STATION	LOCATION	SY	CWT	LB	LB	LF	LF	LF
CATEGORY 0010								
100+00-108+36	LT/RT	734	1	15	20	59	214	6
SUBTOTAL		734	1	15	20	59	214	6
UNDISTRIBUTED		66	1	15	20	11	16	-
TOTAL CATEGORY 0010		800	2	30	40	70	230	-

CATEGORY 0010				
100+00-108+36	LT/RT	59	214	6
SUBTOTAL		59	214	6
UNDISTRIBUTED		11	16	-
SUBTOTAL		70	230	-
TOTAL CATEGORY 0010		300	6	

PERMANENT SIGNING								
			634.0808	637.2210	637.2230			
			SIGN SIZE INxIN	POSTS TUBULAR STEEL 2x2-INCH x 8-FT	SIGNS TYPE II REFLECTIVE H	SIGNS TYPE II REFLECTIVE F		
SIGN NO.	STATION	SIGN CODE	EACH	SF	SF	MESSAGE		
CATEGORY 0010								
1-01	100+16	R1-1	18x18	1	1.75	STOP		
1-02	100+17	W7-5	18x18	1	-	STEEP GRADE		
1-03	100+94	W5-4A	18x18	1	-	PATH NARROWS		
1-04	101+06	W3-1	18x18	1	-	STOP AHEAD		
1-05	101+34	W5-52R	12x36	1	-	BRIDGE HASH MARKS		
1-06	101+48	W5-52R	12x36	-	-	BRIDGE HASH MARKS		
1-07	102+41	W5-4A	18x18	-	-	PATH NARROWS		
TOTAL CATEGORY 0010			5	1.75	15			

Division	From/To Station	205.0100 Common Excavation (1)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Reduced EBS in Fill (6)	Expanded EBS Backfill (7)	Unexpanded Fill	Expanded Fill (8)	Mass Ordinate +/- (9)	Waste	208.0100 Borrow	Comment:
		Cut (2)	EBS Excavation (3)			Factor 0.80	Factor 1.00		Factor 1.25				
Riverwalk	100+10 - 108+36	615	21	39	576	17	21	158	198	400	400	50	
Total Common Exc		637											

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

(6) Reduced EBS in Fill - Excavated EBS material is usable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8

(7) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1. Item number 208.1100

(8) Expanded Fill Factor = 1.25

Depending on selections: **Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor**

Expanded Fill = (Unexpanded Fill - Rock * Rock Factor - Reduced EBS) * Fill Factor

Expanded Fill = (Unexpanded Fill - Rock * Rock Factor - Reduced Marsh) * Fill Factor

Expanded Fill = (Unexpanded Fill - Rock * Rock Factor) * Fill Factor

(9) 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.

3

WIRING ITEMS							PROPERTY CORNER ITEMS			
	652.0105	652.0110	652.0210	652.0215	655.0610	655.0615			SPV.0060.06	SPV.0060.07
	CONDUIT RIGID	CONDUIT RIGID	CONDUIT RIGID	CONDUIT RIGID	ELECTRICAL WIRE	ELECTRICAL WIRE			LOCATE AND	RESET PROPERTY
	METALLIC 3/4-INCH	METALLIC 1-INCH	NONMETALLIC	NONMETALLIC SCHEDULE	LIGHTING 12 AWG	LIGHTING 10 AWG			REFERENCE	CORNERS
			SCHEDULE 40 1-INCH	40 1 1/4-INCH					PROPERTY	CORNERS
									CORNERS	
LOCATION	LF	LF	LF	LF	LF	LF		STATION	LOCATION	EACH
CATEGORY 0010								CATEGORY 0010		EACH
EX. UTILITY-METER	-	-	-	20	-	60				
METER-LP1	-	-	58	-	-	174		100+39	28.6' RT	1
LP1	17	-	-	-	40	-		100+68	5.5' LT	1
LP1-LP2	-	-	30	-	-	90		100+29	0.2' RT	1
LP2	17	-	-	-	40	-		106+81	5.1' RT	1
LP2-LP3	-	-	38	-	-	114		107+22	16.5' LT	1
LP3	17	-	-	-	40	-				
LP3-LP4	-	-	56	-	-	168				
LP4	17	-	-	-	40	-				
LP4-LP5	-	-	36	-	-	108				
LP5	17	-	-	-	40	-				
LP5-LP6	-	-	36	-	-	108				
LP6	17	-	-	-	40	-				
LP6-LP7	-	32	-	-	-	96				
LP7	17	-	-	-	40	-				
LP7-LP8	-	32	-	-	-	96				
LP8	17	-	-	-	40	-				
LP8-LP9	-	38	-	-	-	114				
LP9	17	-	-	-	40	-				
LP9-LP10	-	42	-	-	-	126				
LP10	17	-	-	-	40	-				
LP10-LP11	-	40	-	-	-	120				
LP11	17	-	-	-	40	-				
LP11-LP12	-	38	-	-	-	114				
LP12	17	-	-	-	40	-				
LP12-LP13	-	38	-	-	-	114				
LP13	17	-	-	-	40	-				
LP13-LP14	-	36	-	-	-	108				
LP14	17	-	-	-	40	-				
LP14-LP15	-	36	-	-	-	108				
LP15	17	-	-	-	40	-				
LP15-LP16	-	44	-	-	-	132				
LP16	17	-	-	-	40	-				
LP16-LP17	-	44	-	-	-	132				
LP17	17	-	-	-	40	-				
LP17-LP18	-	32	20	-	-	156				
LP18	17	-	-	-	40	-				
SUBTOTAL	306	452	274	20	720	2238				
UNDISTRIBUTED	44	48	26	-	180	262				
TOTAL CATEGORY 0010	350	500	300	20	900	2500				

		WATER		
				624.0100
				WATER
				MGAL
CATEGORY 0010				
		100+10-108+36		20
TOTAL CATEGORY 0010				20

3

3

LIGHTING ITEMS										
			506.0105	654.0105	656.0200	SPV.0060.02	SPV.0060.03	SPV.0060.04	SPV.0060.05	
			STRUCTURAL STEEL CARBON	CONCRETE BASES TYPE 5	ELECTRICAL SERVICE METER BREAKER PEDESTAL STA. 100+33 LS	LUMINAIRE UTILITY LED A 350mA 49W	LUMINAIRE UTILITY LED B 350mA 49W	JUNCTION BOXES 4X4X4-INCH NEMA 6P	JUNCTION BOXES 4X4X2-INCH NEMA 3R	
	STATION	LOCATION	DESCRIPTION	LB	EACH	LS	EACH	EACH	EACH	EACH
CATEGORY 0010										
	100+33	60' LT	METER	-	-	1	-	-	-	-
	100+46	9' LT	LP1	300	1	-	-	1	-	2
	100+75	9' LT	LP2	300	1	-	1	-	-	2
	101+10	9' LT	LP3	300	1	-	1	-	-	2
	101+64	7'LT	LP4	-	-	-	1	-	1	1
	102+02	7'LT	LP5	-	-	-	1	-	1	1
	102+37	7'LT	LP6	-	-	-	1	-	1	1
	102+70	7'LT	LP7	-	-	-	1	-	1	1
	103+01	7'LT	LP8	-	-	-	1	-	1	1
	103+39	7'LT	LP9	-	-	-	1	-	1	1
	103+80	7'LT	LP10	-	-	-	1	-	1	1
	104+19	7'LT	LP11	-	-	-	1	-	1	1
	104+57	7'LT	LP12	-	-	-	1	-	1	1
	104+97	7'LT	LP13	-	-	-	1	-	1	1
	105+34	7'LT	LP14	-	-	-	1	-	1	1
	105+72	7'LT	LP15	-	-	-	1	-	1	1
	106+17	7'LT	LP16	-	-	-	1	-	1	1
	106+58	7'LT	LP17	-	-	-	1	-	1	1
	107+09	7'LT	LP18	300	1	-	-	1	-	2
TOTAL CATEGORY 0010				1200	4	1	16	2	14	22

3

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

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	---

CONVENTIONAL UTILITY SYMBOLS

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

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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".

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 LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

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

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS AND INTERESTS REQUIRED.

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

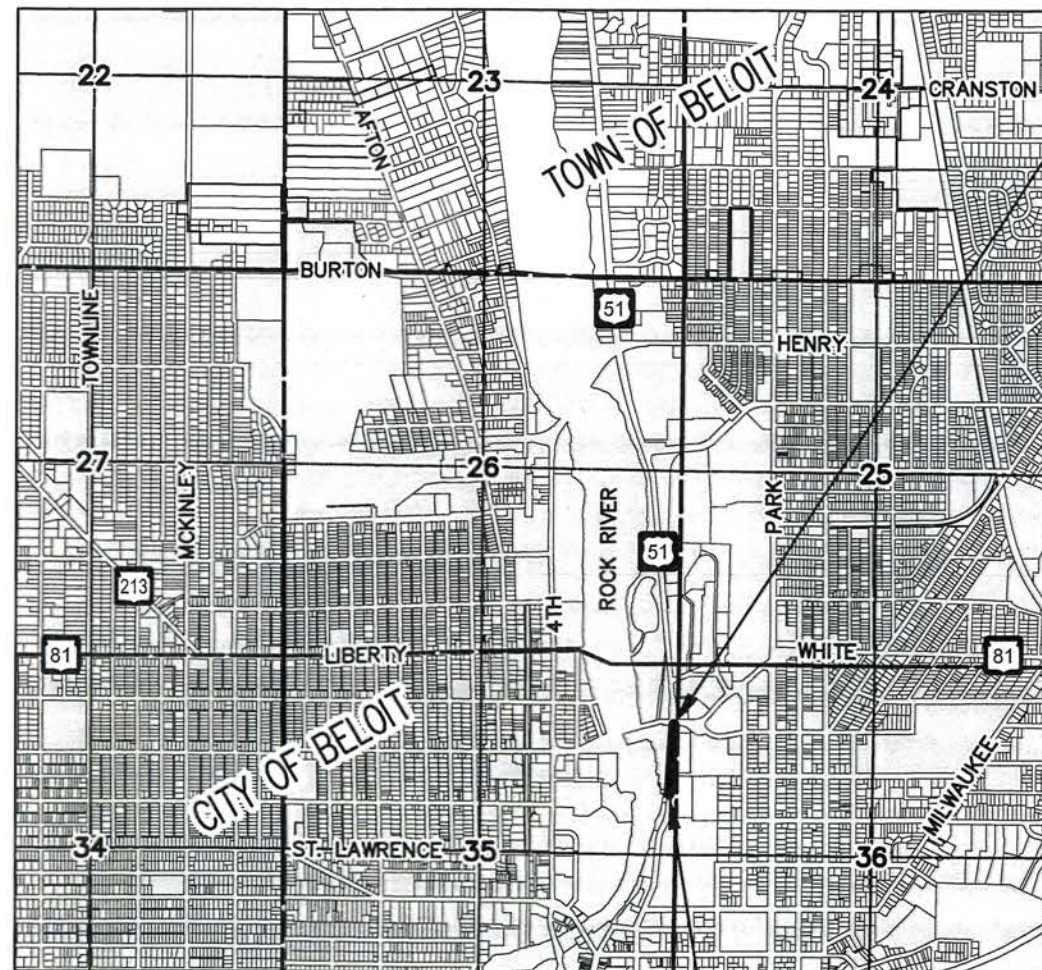
EXISTING PLEASANT STREET (USH 51) RIGHT OF WAY AND EXISTING PROPERTY LINES SHOWN HEREON ARE BASED ON THE FOLLOWING POINTS OF REFERENCE:

CERTIFIED SURVEY MAP DOCUMENT NUMBER 2050539, VOLUME 37, PAGES 243-247;
CERTIFIED SURVEY MAP DOCUMENT NUMBER 1640706, VOLUME 26, PAGES 344-349;
CERTIFIED SURVEY MAP DOCUMENT NUMBER 1364197, VOLUME 21, PAGES 119-124.

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION 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 VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

CAUTION
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY.
DEEDS MUST BE CHECKED TO DETERMINE
PROPERTY BOUNDARIES.



LAYOUT
SCALE 0 0.5

TOTAL NET LENGTH OF CENTERLINE = 0.16 MILES

BEGIN RELOCATION ORDER
STATION 100+00.00
73.43' W OF AND 820.95' N
OF THE E 1/4 COR. OF SEC. 35, T-1-N, R-12-E

END RELOCATION ORDER
STATION 108+36.03
306.37' W OF AND 1079.48' S
OF THE NE 1/4 COR. OF SEC. 35, T-1-N, R-12-E

ACCEPTED FOR
CITY OF BELOIT
8/30/2017 (Date) M. J. Flinch (CITY ENGINEER)

ORIGINAL PLAT PREPARED BY

Batterman
engineers surveyors planners

R.H. BATTERMAN & CO., INC. P 608.365.4464
2857 BARTELLS DRIVE TF 877.457.2235
BELOIT, WI 53511 F 608.365.1850



THIS SURVEY IS PREPARED AT THE REQUEST OF THE CITY OF BELOIT. THE FIELD SURVEY WAS PERFORMED IN NOVEMBER 2014. THIS SURVEY IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

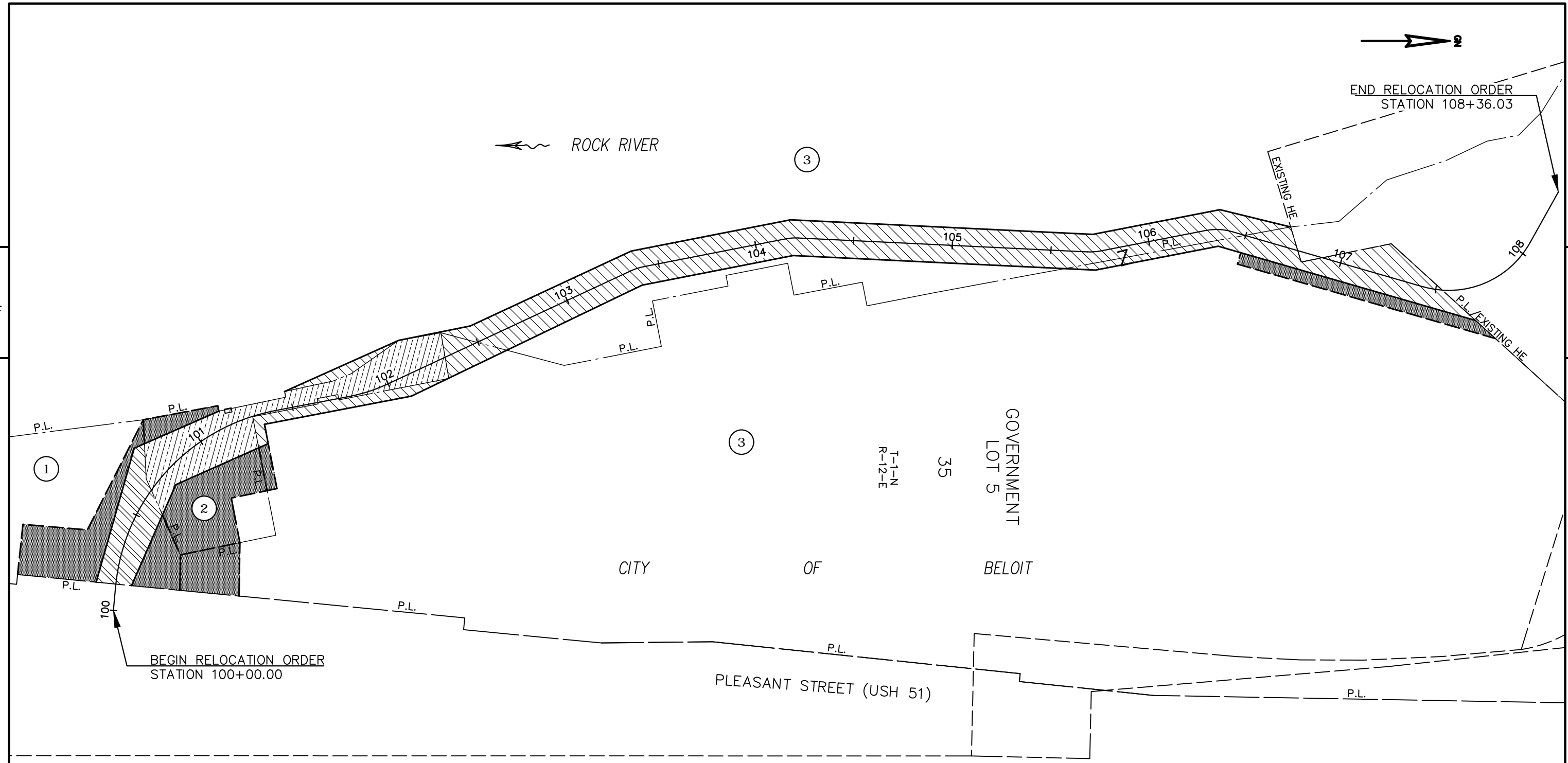
(SIGNATURE) Jeffrey R. Garde


DATE 8/22/2017

(PRINTED NAME) Jeffrey R. Garde

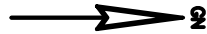
(REGISTRATION NUMBER) S-2766

REVISION DATE



										SECTION LINE		
REVISION DATE _____		DATE 8/22/2017		SCALE, FEET 0 25 50		HWY: NON HWY		STATE R/W PROJECT NUMBER 5989-05-25		PLAT SHEET 4. 03		
_____		GRID FACTOR _____				COUNTY: ROCK		CONSTRUCTION PROJECT NUMBER 5989-05-26		PS&E SHEET _____		E

SCHEDULE OF LANDS & INTERESTS REQUIRED			AREAS SHOWN IN THE TOTAL AREA COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.			OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE CITY.		
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR SQUARE FEET REQUIRED			HE (SF)	TLE (SF)
				NEW	EXISTING	TOTAL		
1	4.04	CITY OF BELOIT	HE & TLE	---	---	---	1180	1989
2	4.04	MIDWEST HYDRO INC	HE & TLE	---	---	---	2960	1877
3	4.04 - 4.06	WISCONSIN POWER & LIGHT CO	HE & TLE	---	---	---	10158	1568
6	4.04	AT&T WISCONSIN (WISCONSIN BELL, INC)	RELEASE OF RIGHTS	---	---	---	---	---



PI STA = 103+38.76
Y = 204793.03
X = 490662.37
DELTA = 13°51'47"
D = 212°12'24"
T = 3.28
L = 6.53
R = 27.00

3
WISCONSIN POWER
AND LIGHT CO
DEED DOC NO. 328323
VOL 250, PAGE 468

PI STA = 104+18.72
Y = 204871.53
X = 490646.96
DELTA = 13°51'47"
D = 212°12'24"
T = 3.28
L = 6.53
R = 27.00

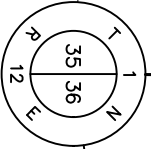
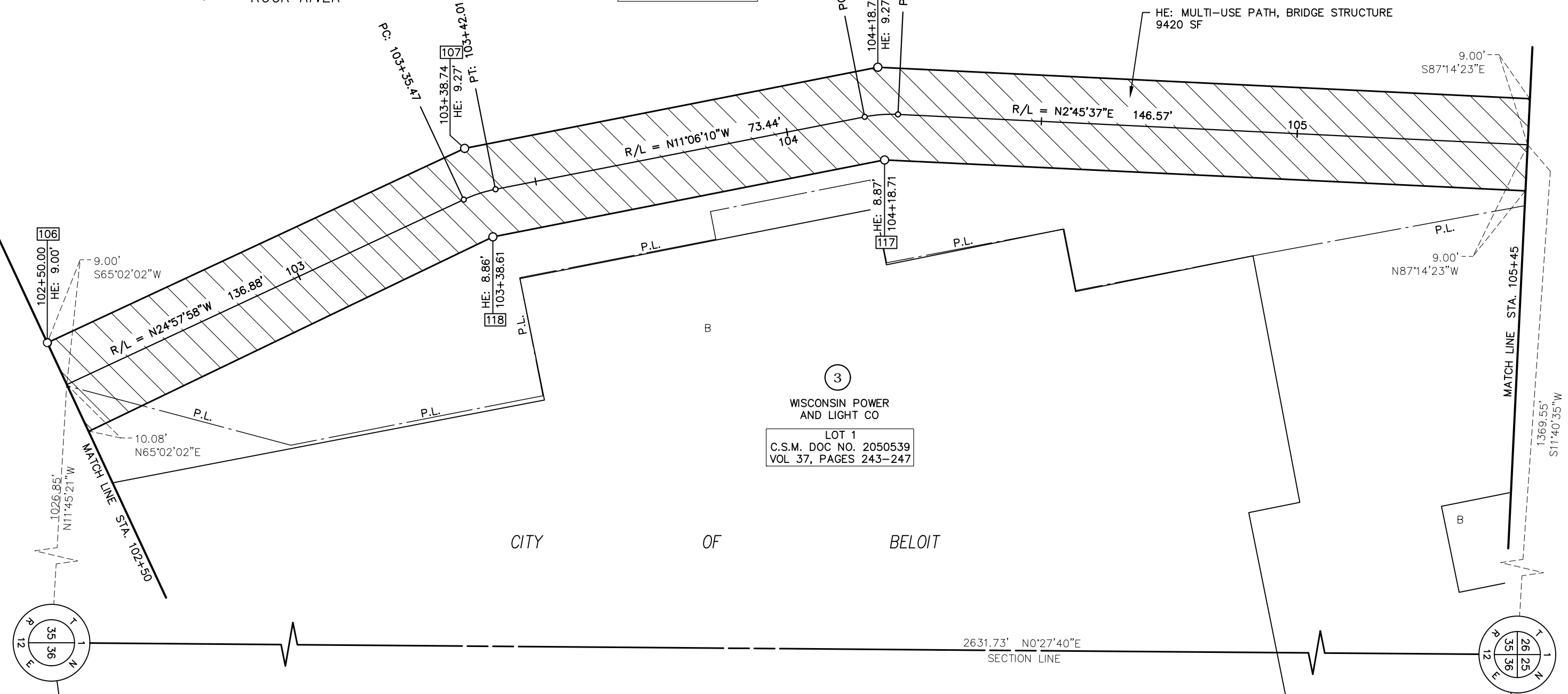
HE Point Table		
Point #	Y	X
106	204708.765	490691.673
107	204790.220	490653.748
108	204870.870	490637.921
117	204872.189	490656.006
118	204795.748	490671.007

HE COURSE TABLE		
COURSE	BEARING	DISTANCE
106 - 107	N24° 57' 58"W	89.85'
107 - 108	N11° 06' 10"W	82.19'
108 - 109	N2° 45' 37"E	153.12'
116 - 117	S2° 45' 37"W	153.11'
117 - 118	S11° 06' 10"E	77.90'
118 - 119	S25° 41' 12"E	129.54'

ROCK RIVER

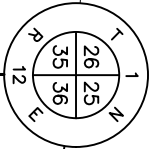
4

4



FOUND ALUMINUM MON
Y=203707.252
X=490909.042

BASIS OF EXISTING PROPERTY LINES
-CSM DOC. NO. 2050539, VOL. 37, PGS
243-247



COMPUTED POINT FROM TIES
Y=206338.899
X=490930.222

REVISION DATE	DATE 8/22/2017
	GRID FACTOR

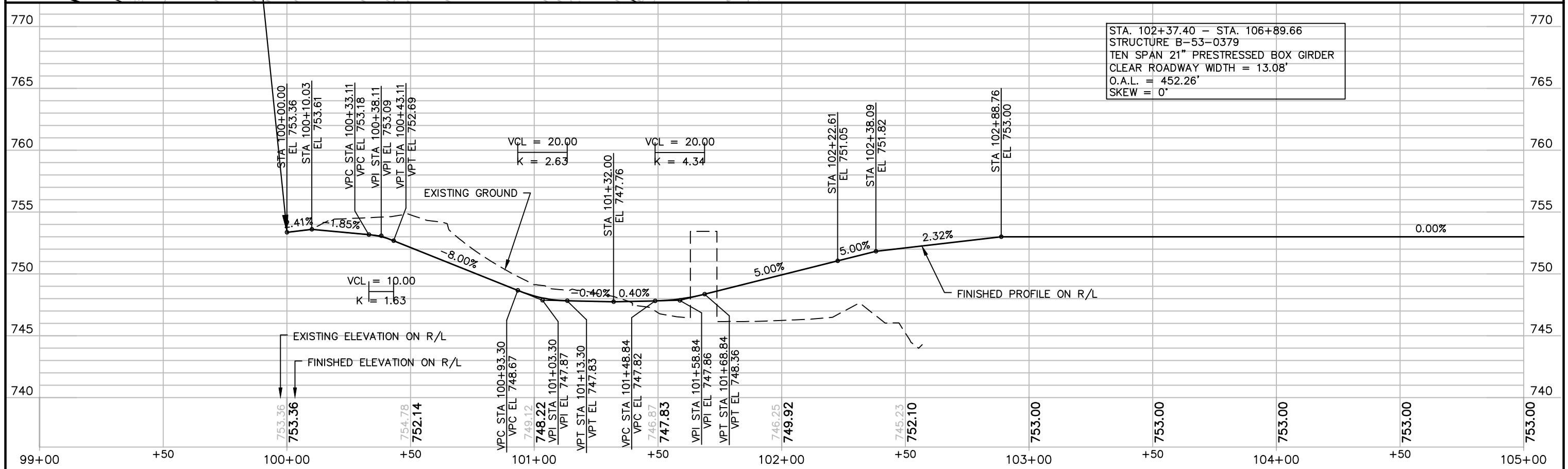
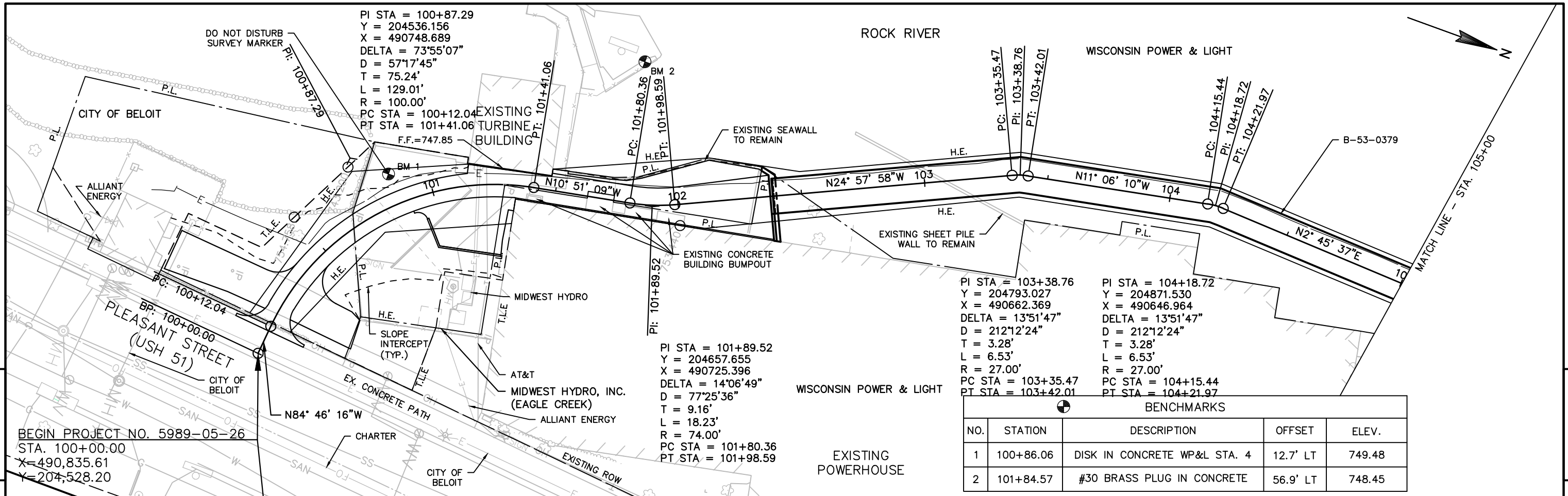
SCALE, FEET	HWY: NON HWY
0 10 20	COUNTY: ROCK

STATE R/W PROJECT NUMBER 5989-05-25	PLAT SHEET 4. 05
CONSTRUCTION PROJECT NUMBER 5989-05-26	PS&E SHEET

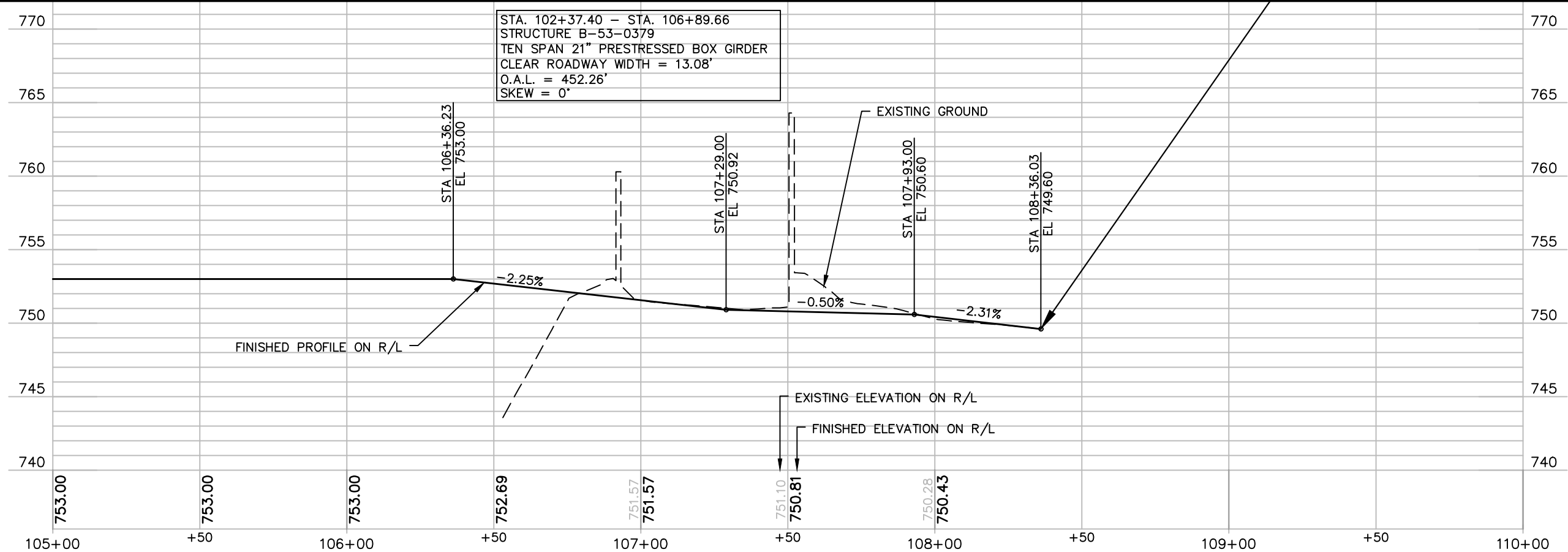
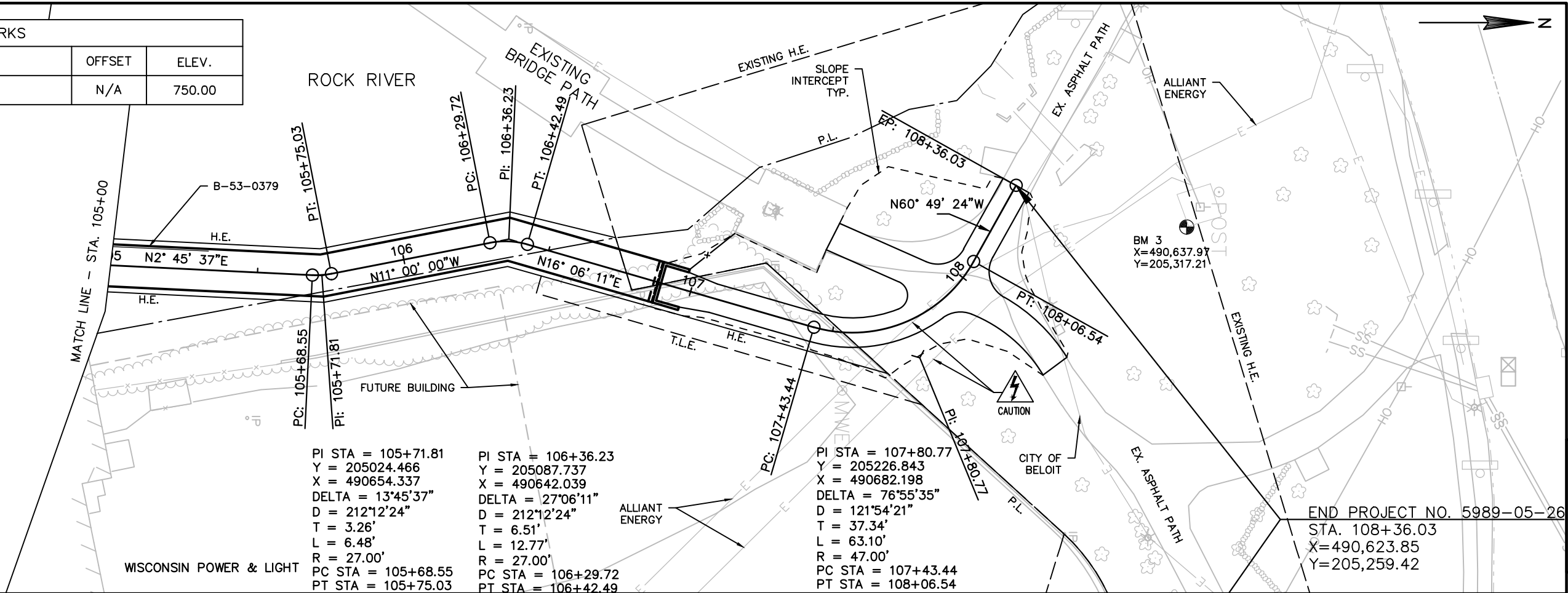
FILE NAME : 32205-RW PLAT.DWG	PLAT SHEET 4. 05
LAYOUT NAME - ####	PS&E SHEET

DATE 8/22/2017	PLAT SHEET 4. 05
GRID FACTOR	PS&E SHEET

SCALE, FEET	HWY: NON HWY
0 10 20	COUNTY: ROCK

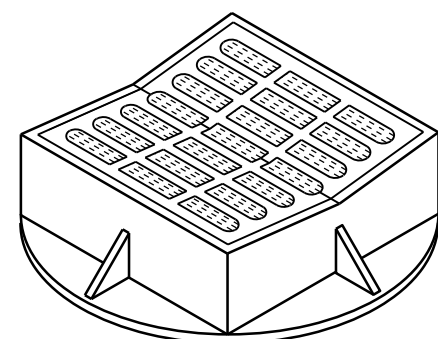
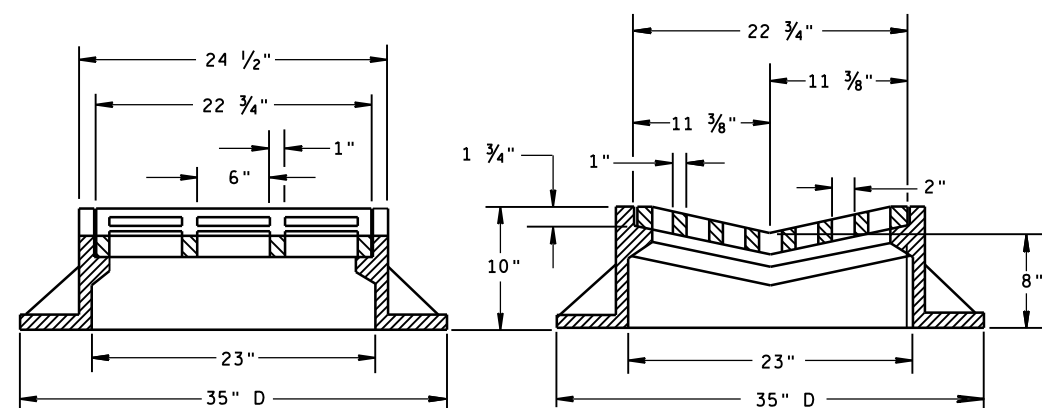


BENCHMARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
3	N/A	BOLT CUT	N/A	750.00

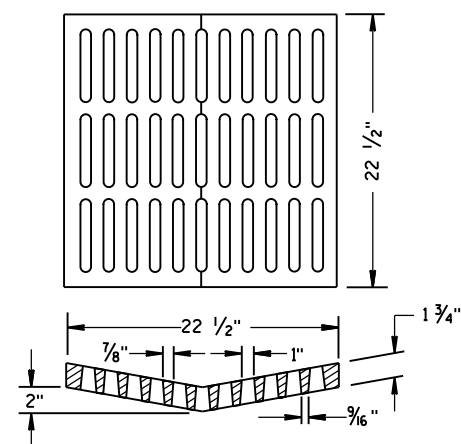


Standard Detail Drawing List

08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
12A03-10	NAME PLATE (STRUCTURES)
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D29-05	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

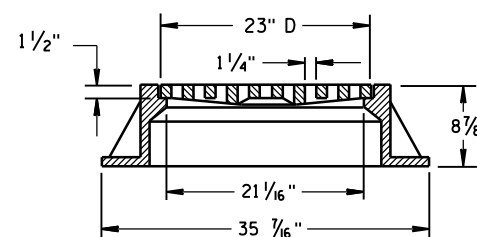
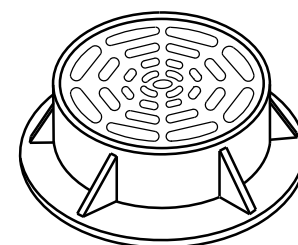
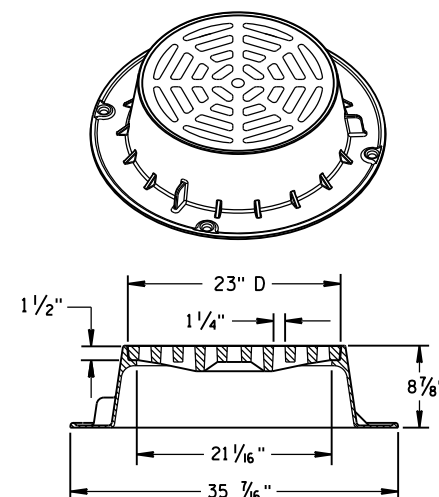


TYPE "B"



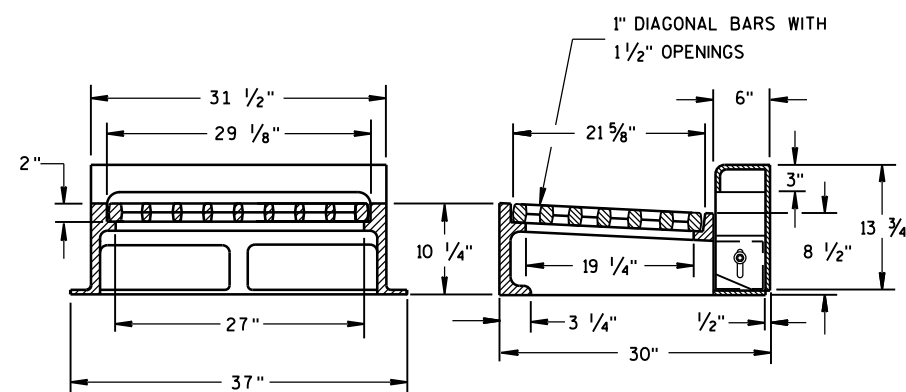
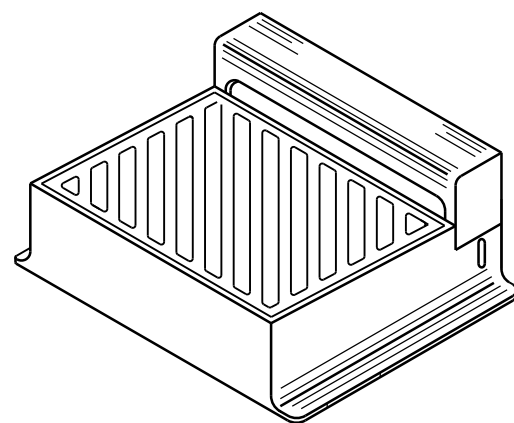
ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

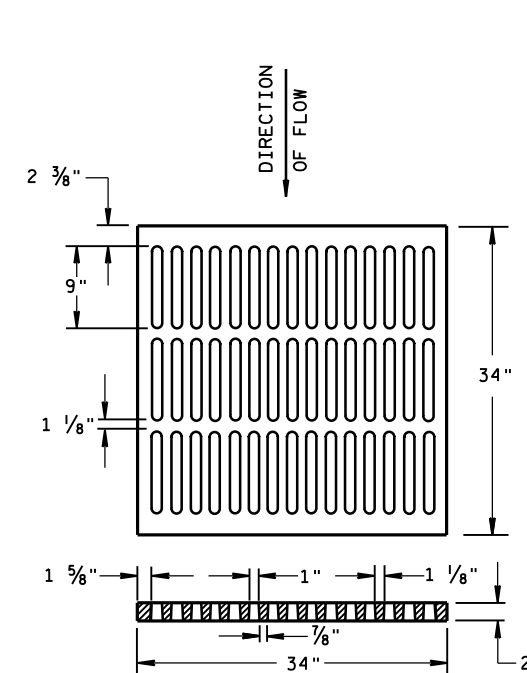
TYPE "WM"

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.

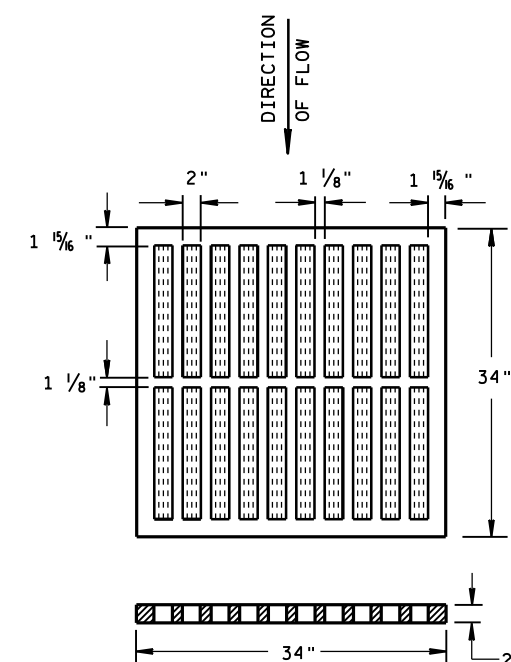
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

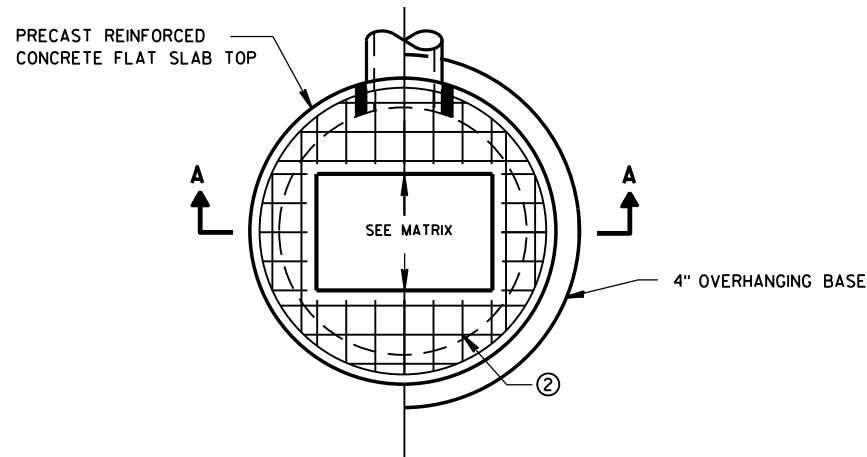
USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE

**INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM**

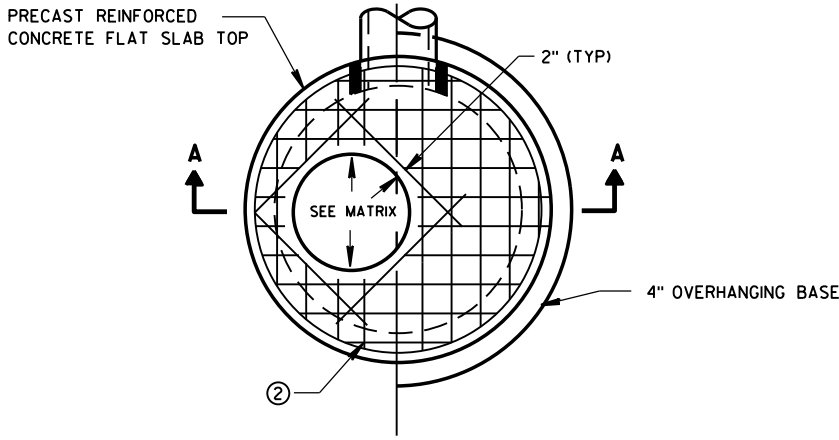
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

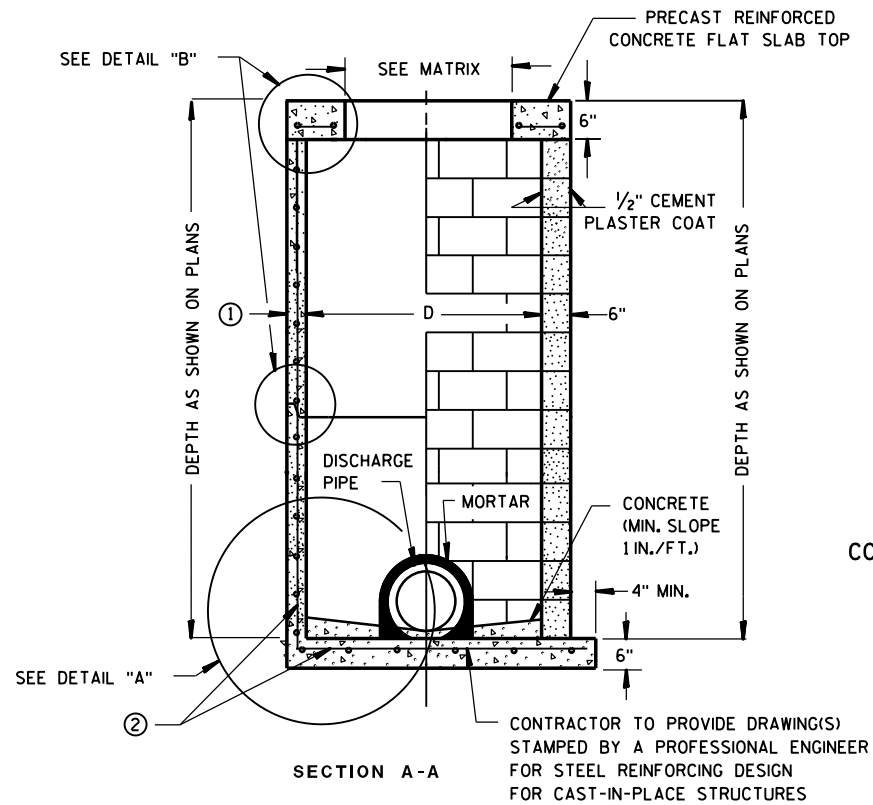
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW RECTANGULAR OPENING

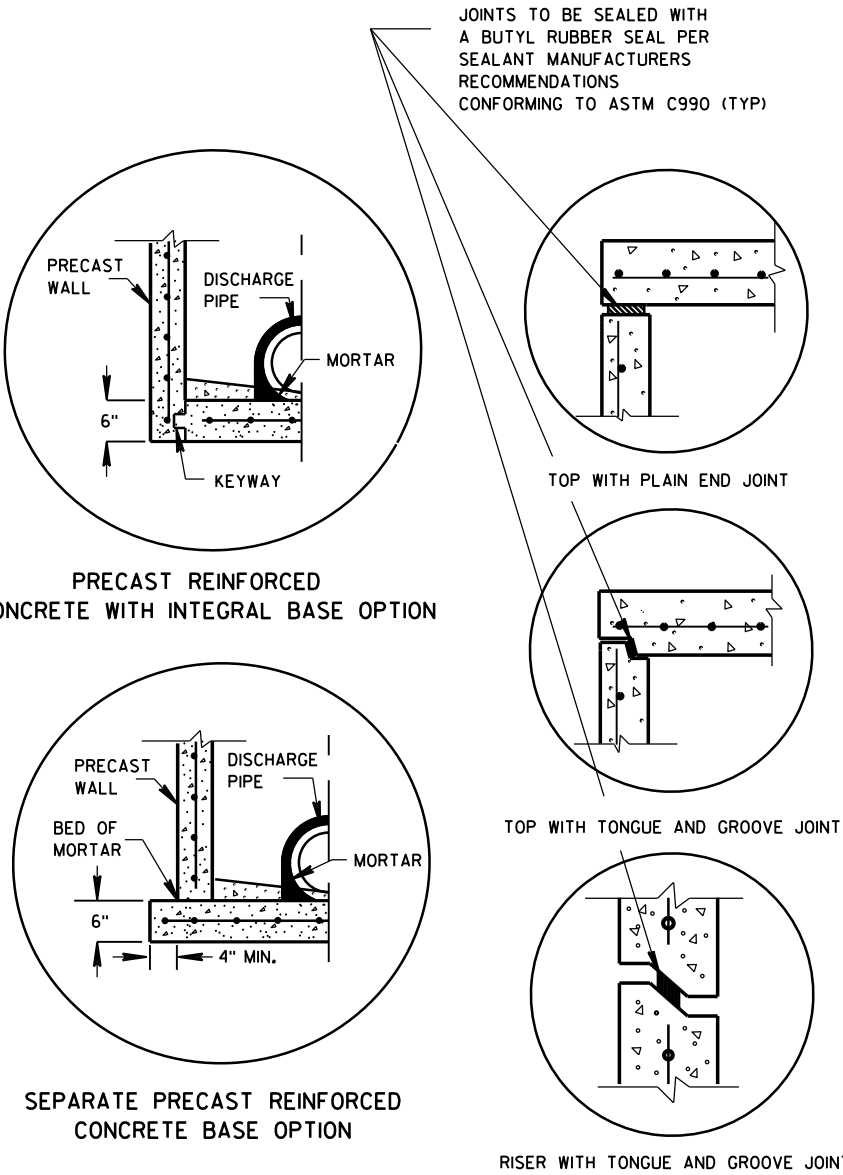


PLAN VIEW CIRCULAR OPENING



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP



DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER

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 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.

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

ALL PRECAST INLET 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.

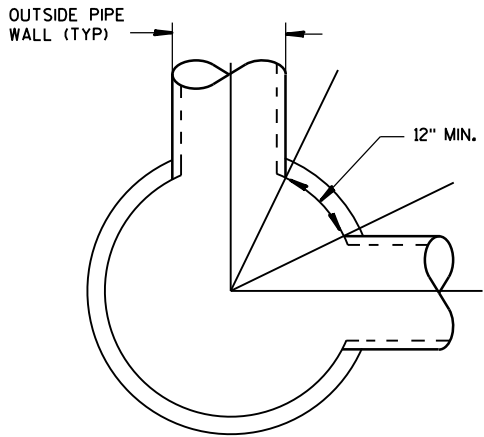
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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 "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

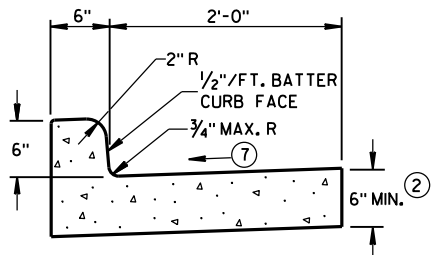
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

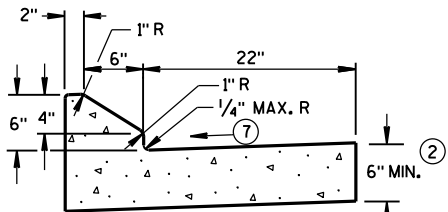
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

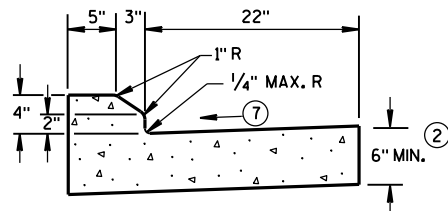
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



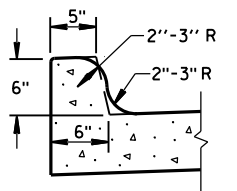
TYPES A^① & D



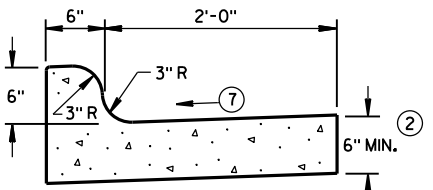
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

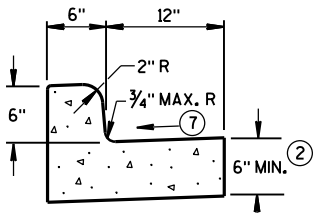


TYPES K^① & L
(OPTIONAL CURB SHAPE)



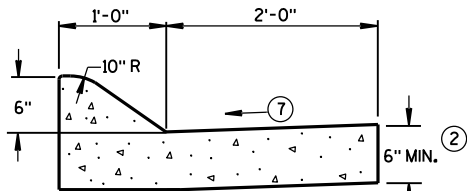
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

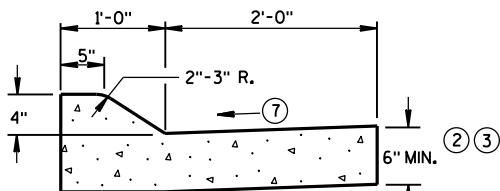


TYPES A^① & D

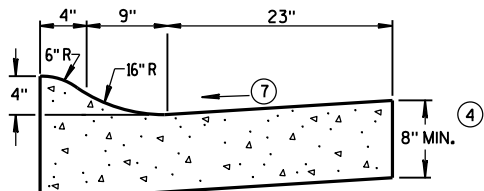
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

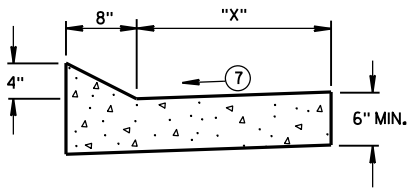


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

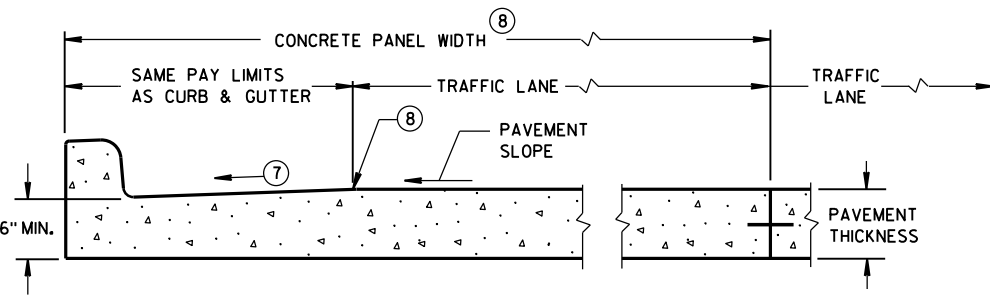
CONCRETE CURB & GUTTER 36"



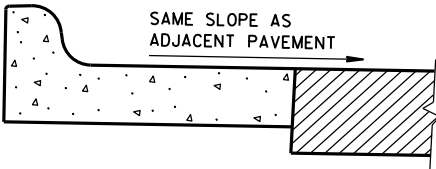
TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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 GUTTER 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 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.

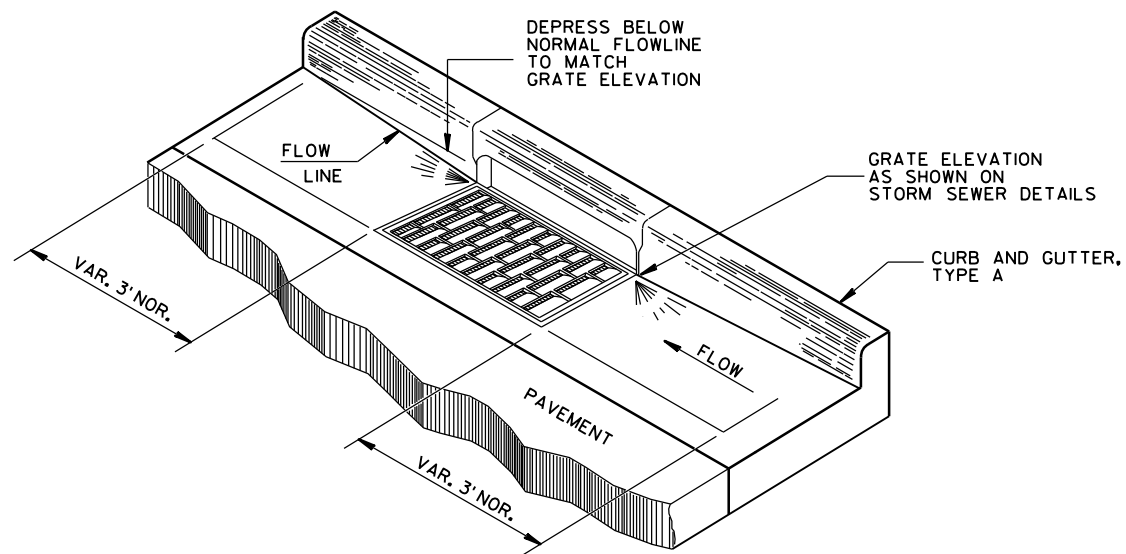
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

* BIKE LANE IS NOT SHOWN.

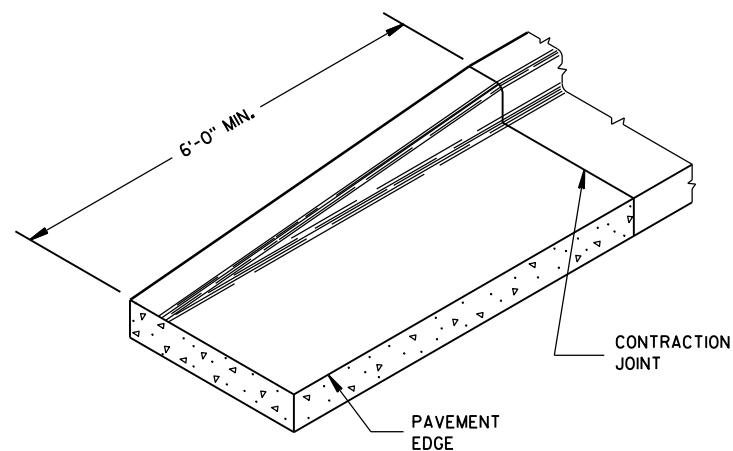
CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

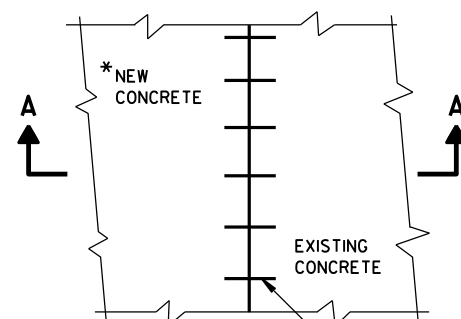


DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

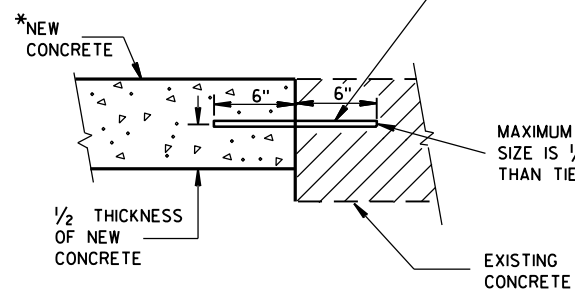


END SECTION CURB & GUTTER



PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.



SECTION A-A TIE BARS DRILLED INTO EXISTING PAVEMENT

NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.

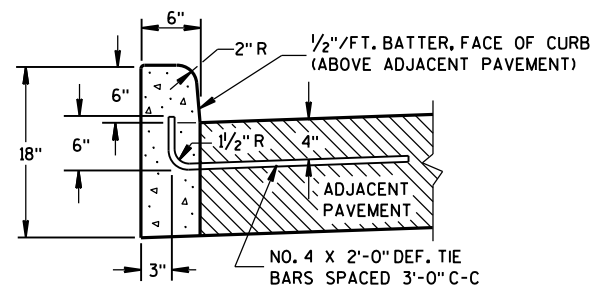
GENERAL NOTES

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

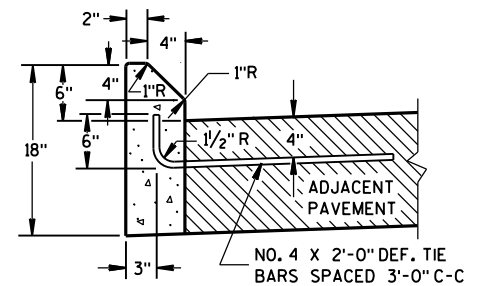
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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 GUTTER 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.
- ⑨ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

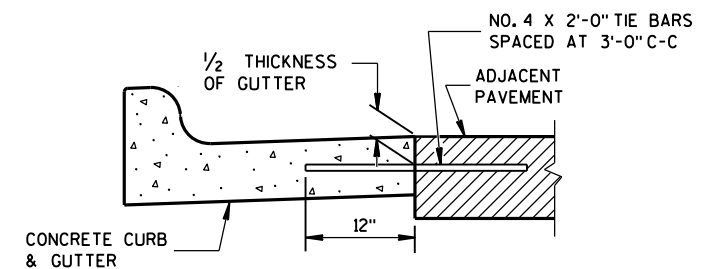


TYPES A^① & D

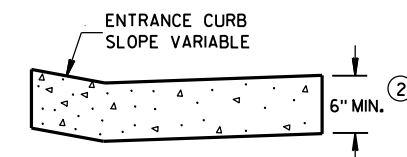


TYPES G^① & J

CONCRETE CURB



TYPICAL TIE BAR LOCATION^①



DRIVEWAY ENTRANCE CURB^⑨

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2017

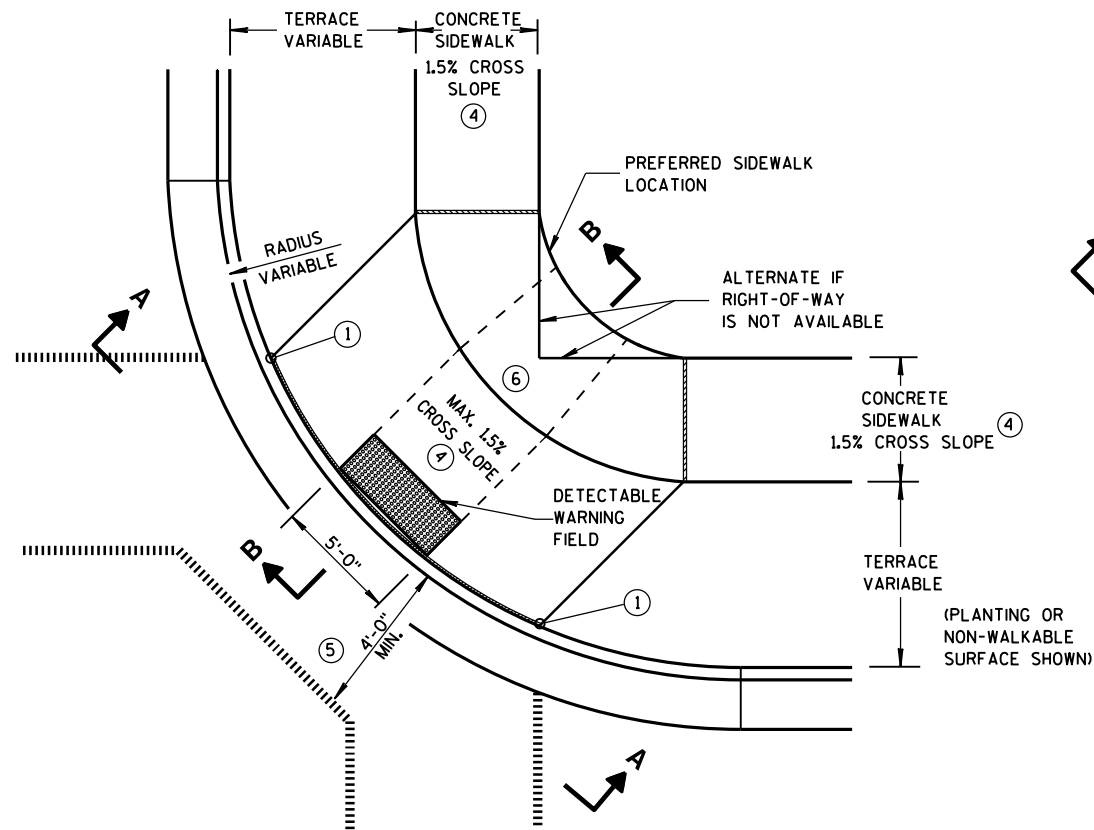
DATE

FHWA

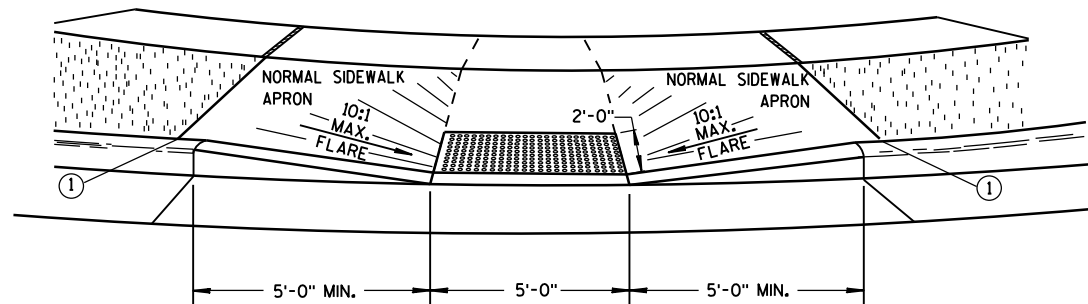
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

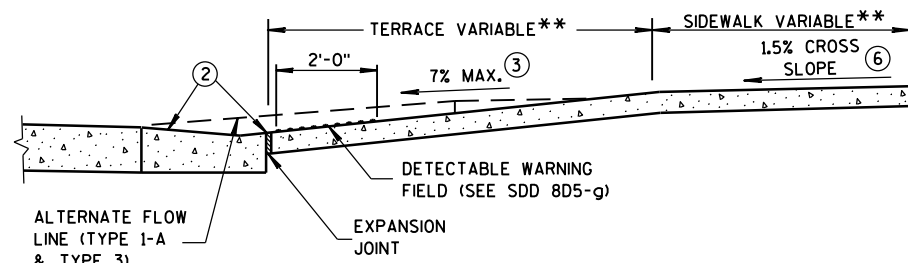


**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

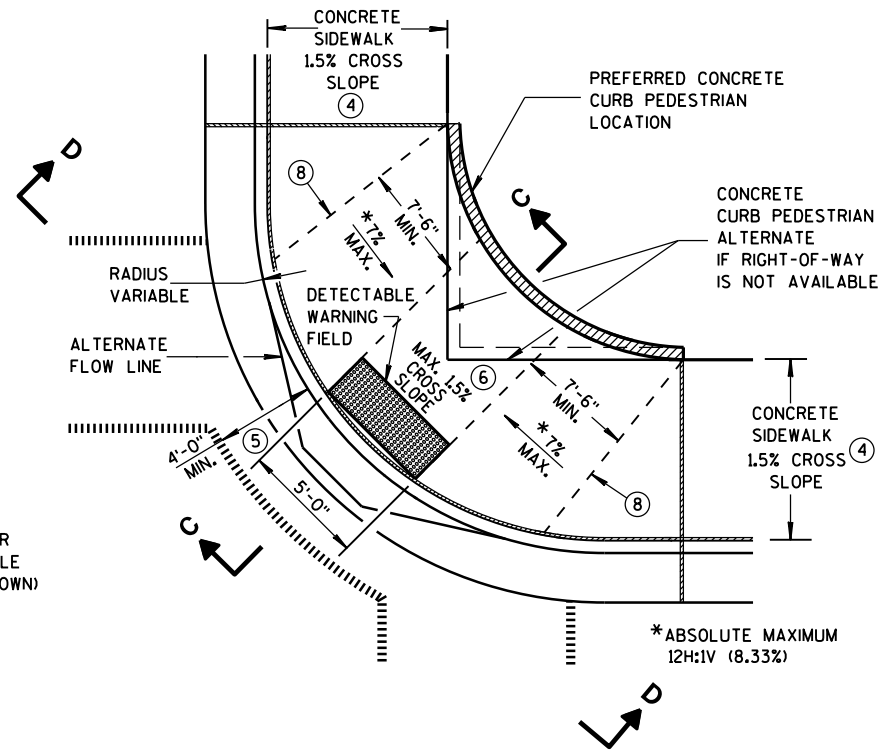


VIEW A-A

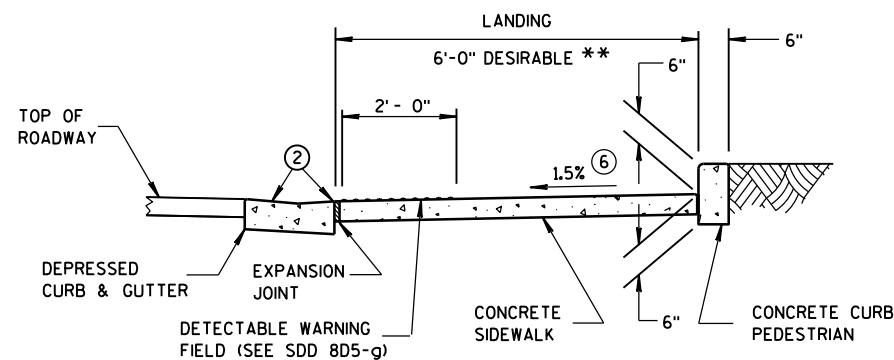
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



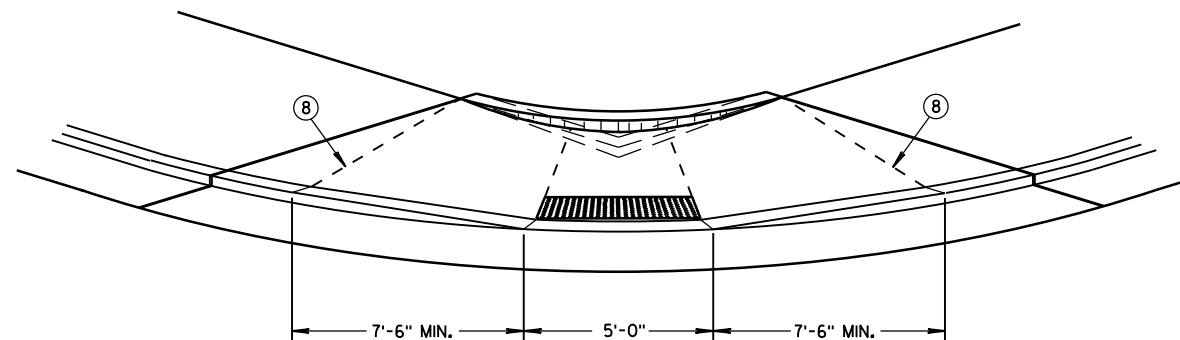
SECTION B-B



**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



SECTION C-C



VIEW D-D

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 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD 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 LINEAL 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.

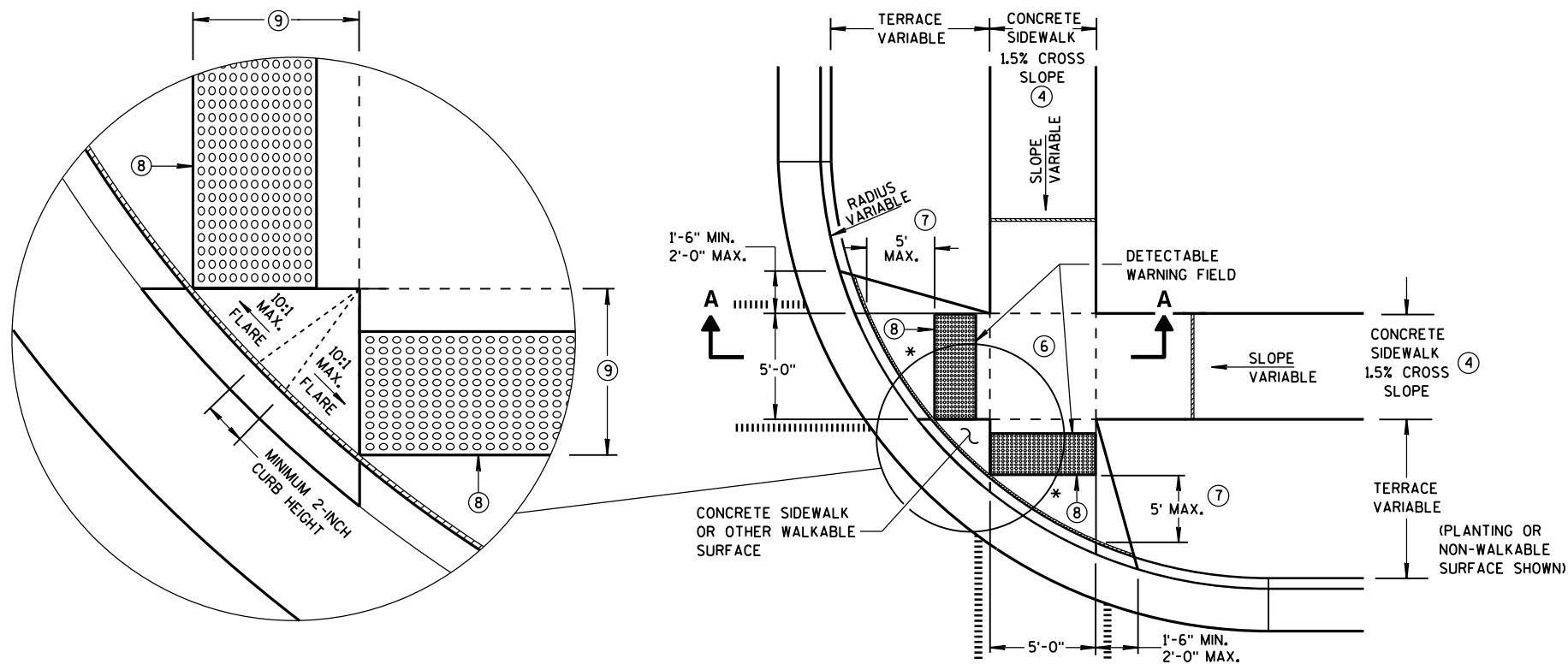
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-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 ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ $\pm 0.5\%$ 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.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

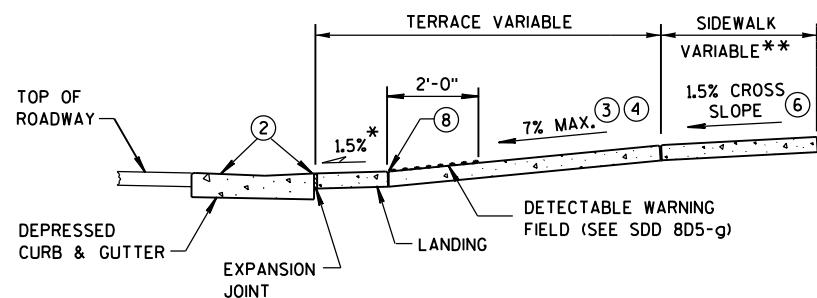
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



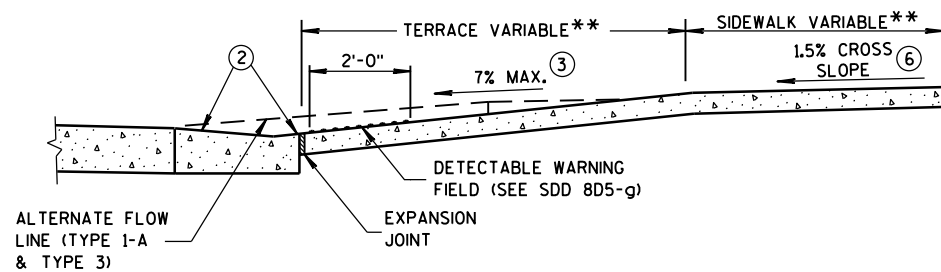
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

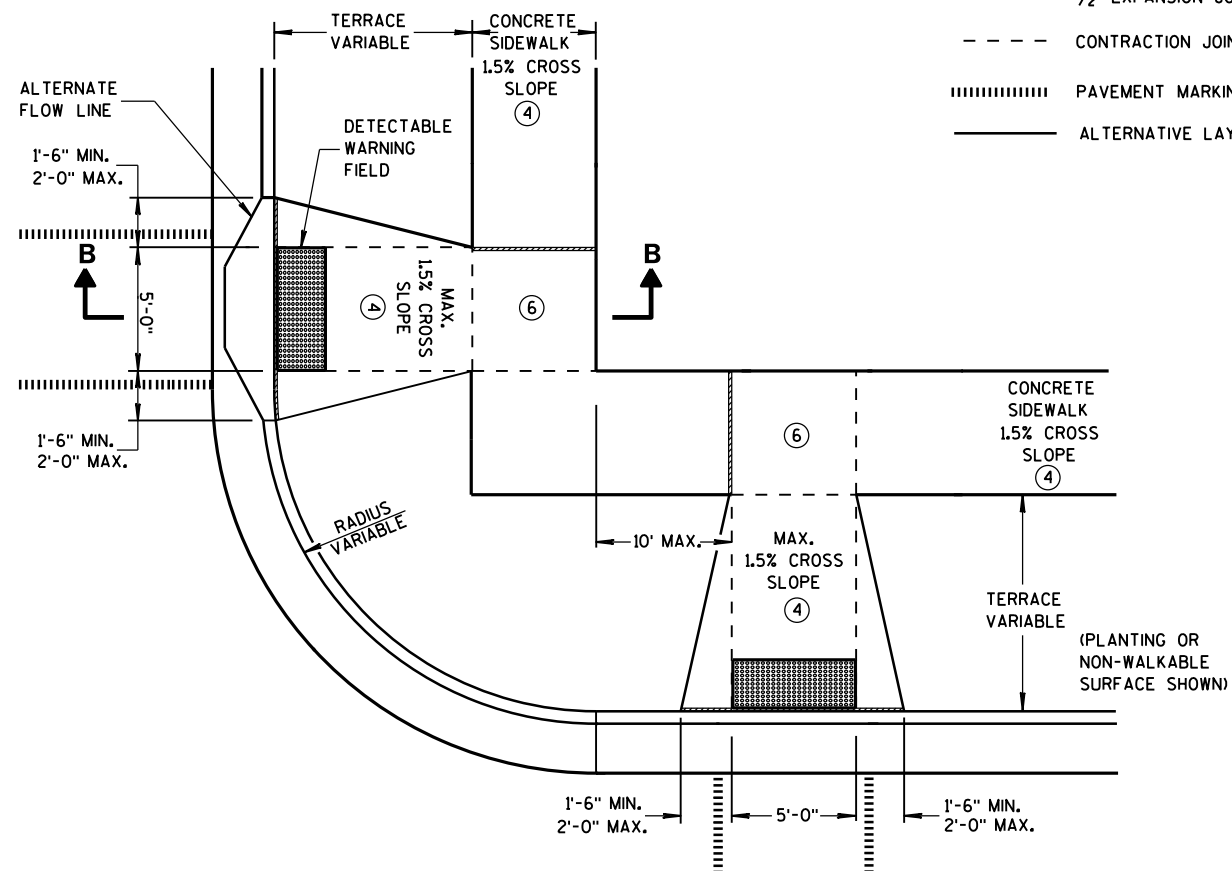
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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 1/4-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 ABSOLUTE MAXIMUM 12H:1V (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 X 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.
- ⑨ WHEN THIS 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.

LEGEND

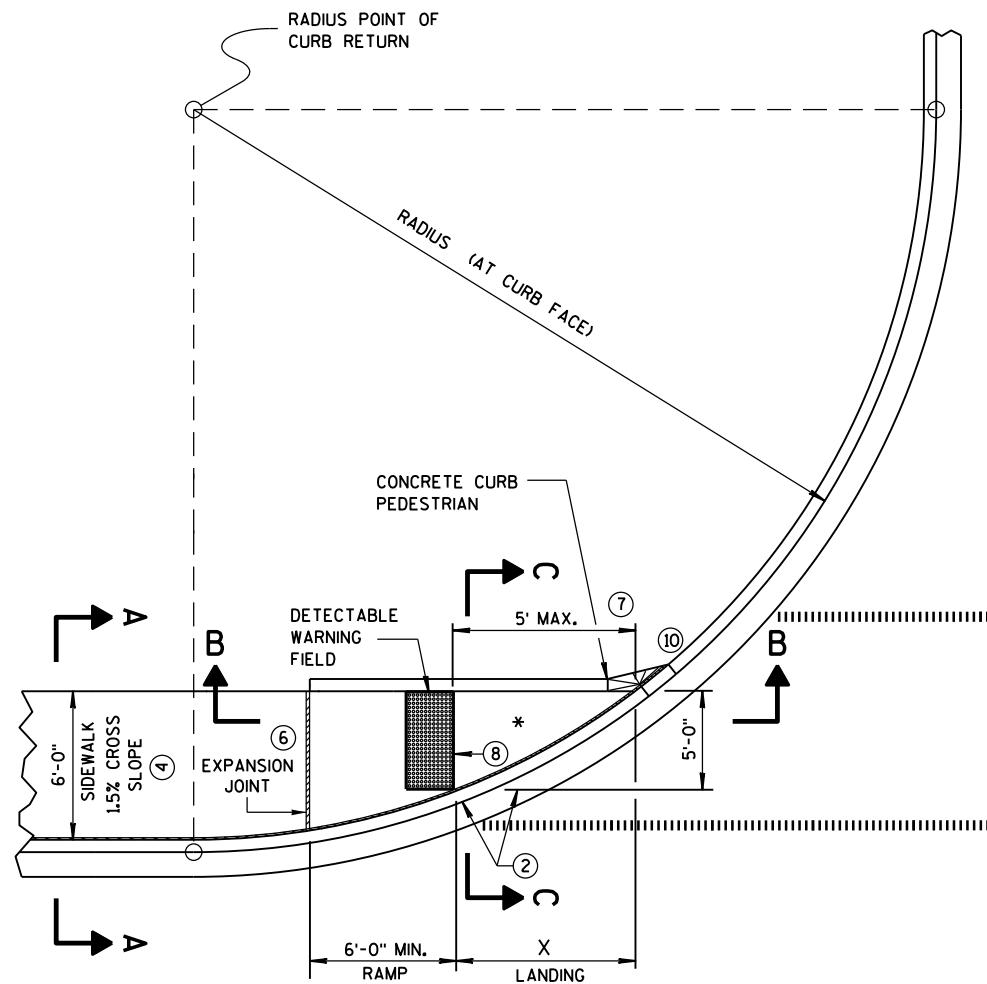
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



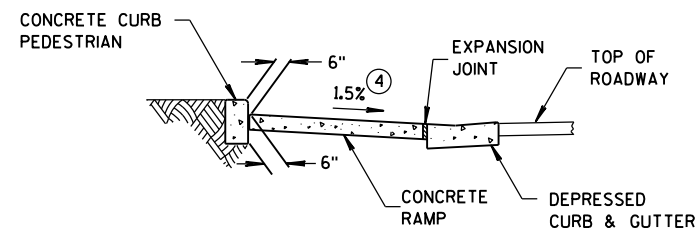
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

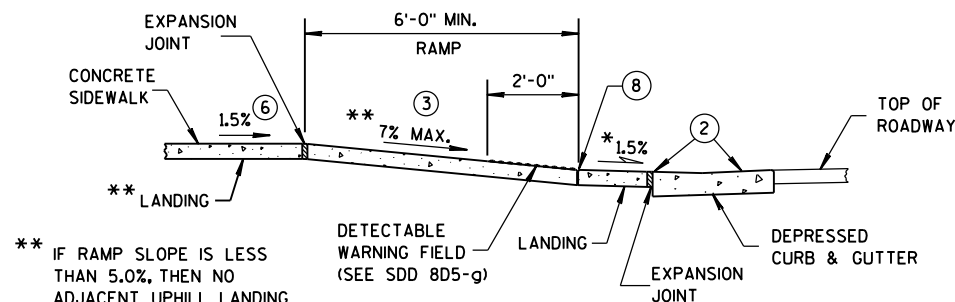


CURB RAMP TYPE 4A
PLAN VIEW



SECTION C-C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK

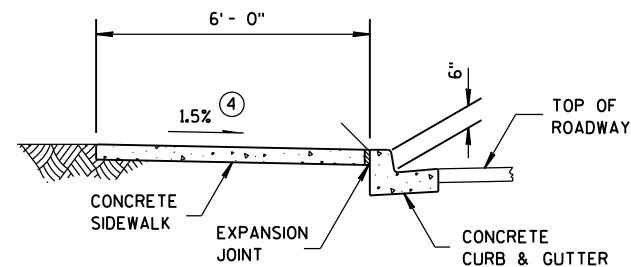


SECTION B-B FOR TYPE 4A

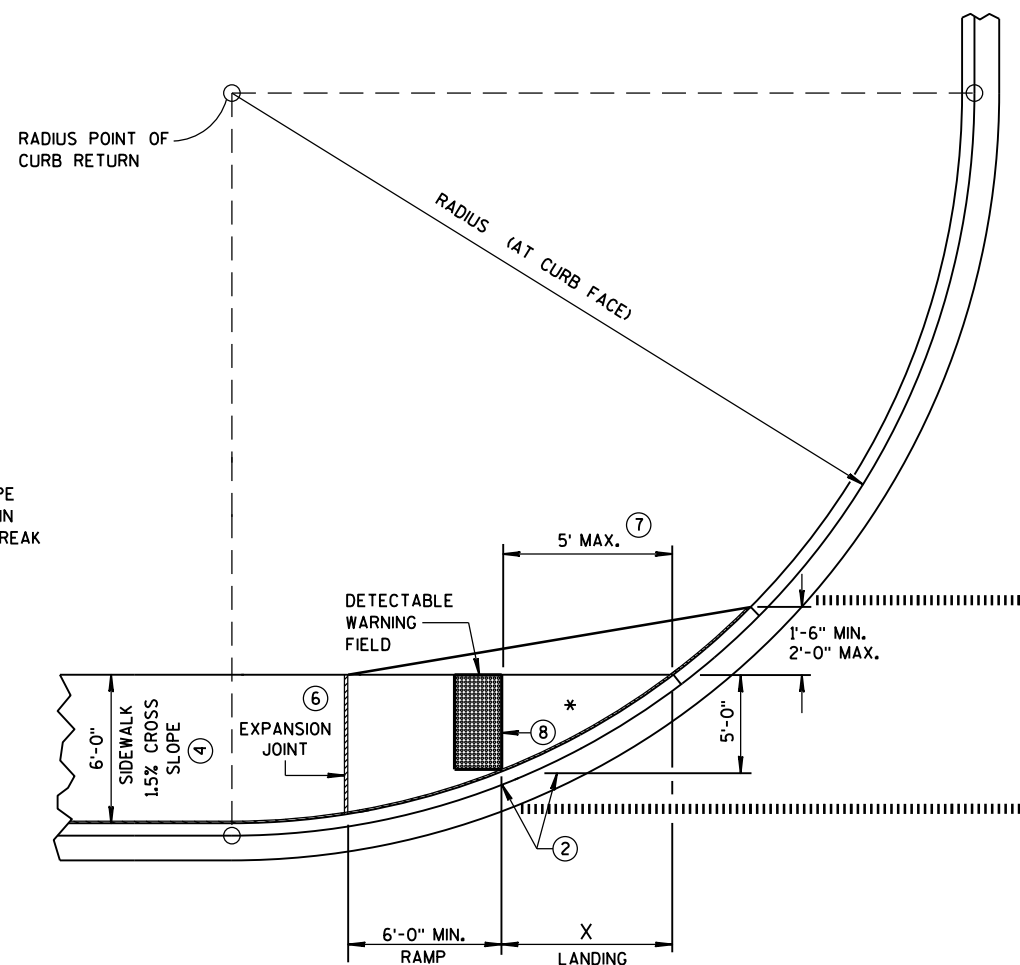
** IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL LANDING
IS REQUIRED

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



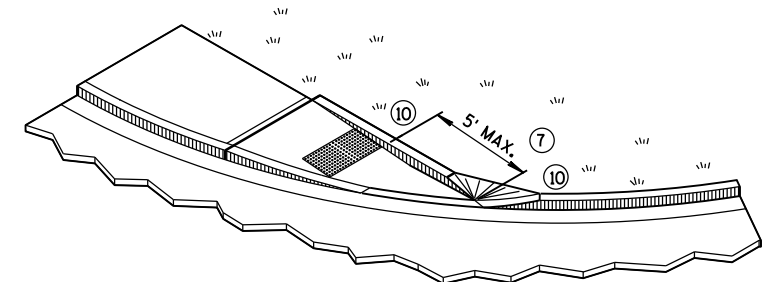
CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

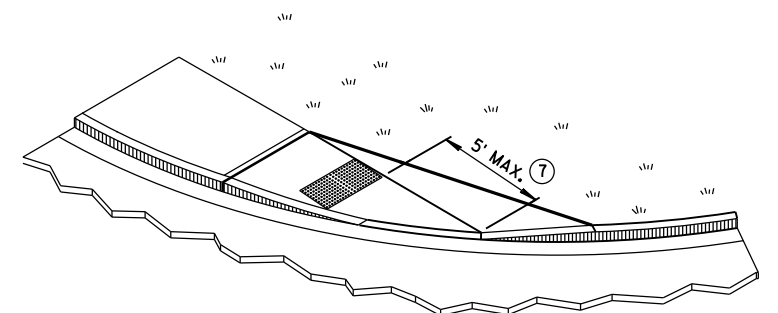
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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 ABSOLUTE MAXIMUM 12H:1V (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 X 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.



ISOMETRIC VIEW FOR TYPE 4A



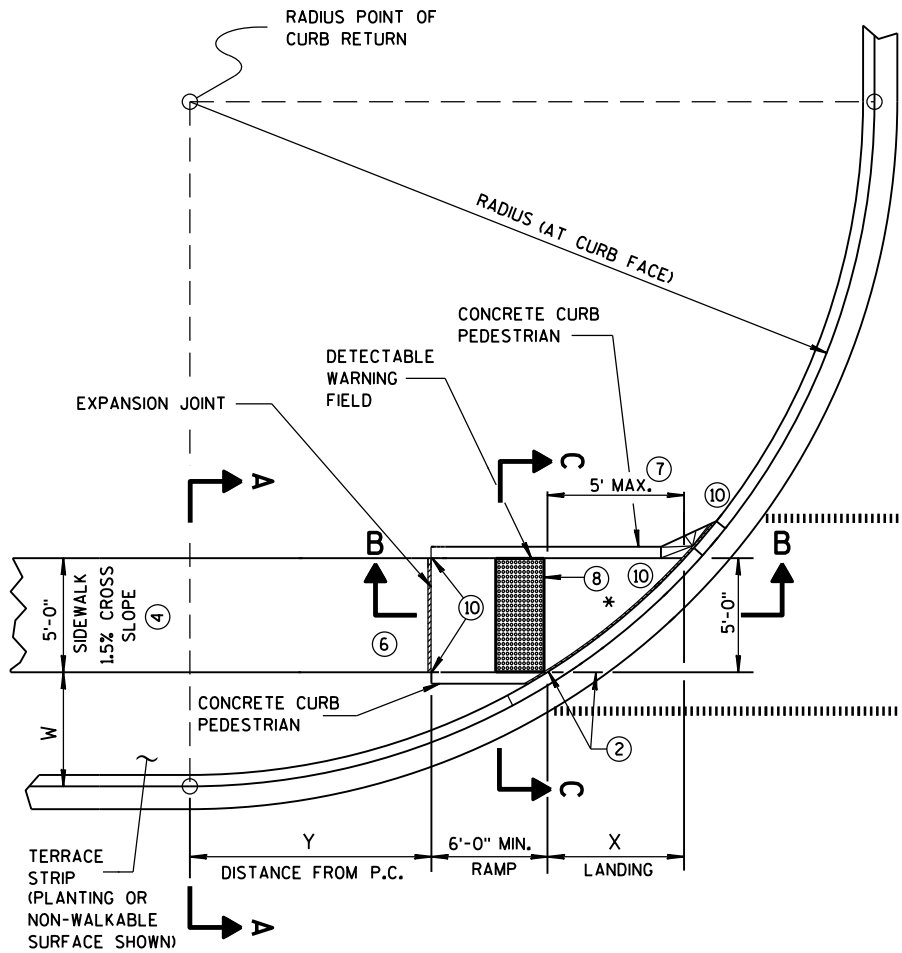
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

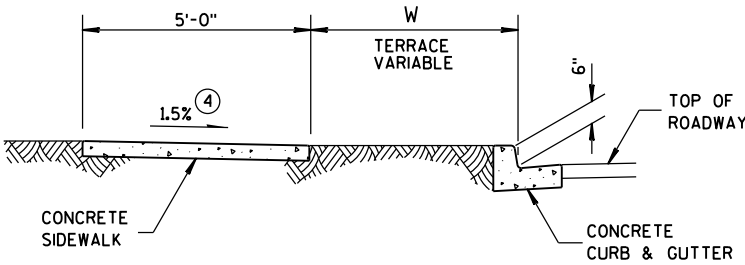
- ½" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

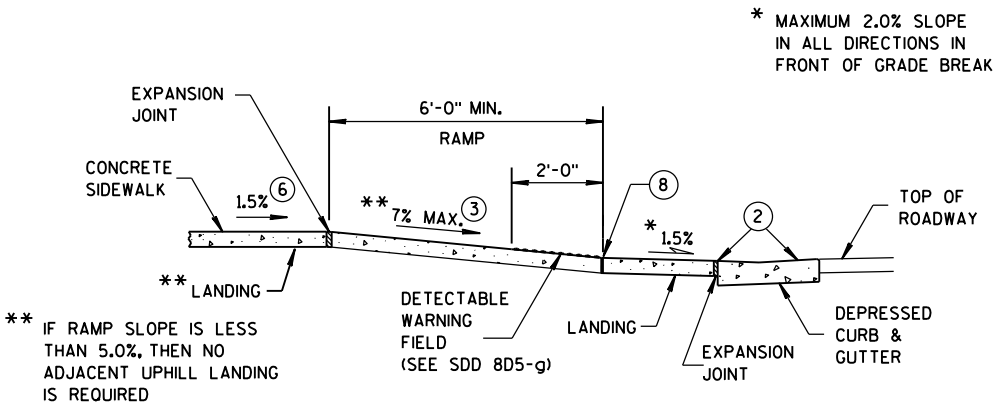
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B



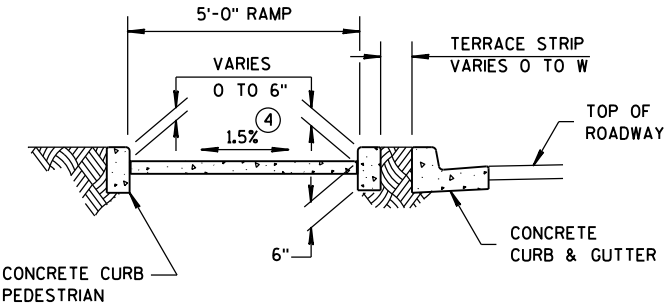
SECTION B-B FOR TYPE 4B

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 1/4"	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	5'-9 3/4"	3'-6 1/2"	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			6'-9 1/4"	7'-11 1/4"	6'-0 1/4"	9'-8"	5'-5"	11'-1 3/4"	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									6'-1 3/4"	15'-8 1/2"	5'-8"	17'-2"	5'-3"	18'-5 3/4"	4'-10 3/4"	19'-8 1/4"
50 FEET															5'-10 1/4"	23'-2"

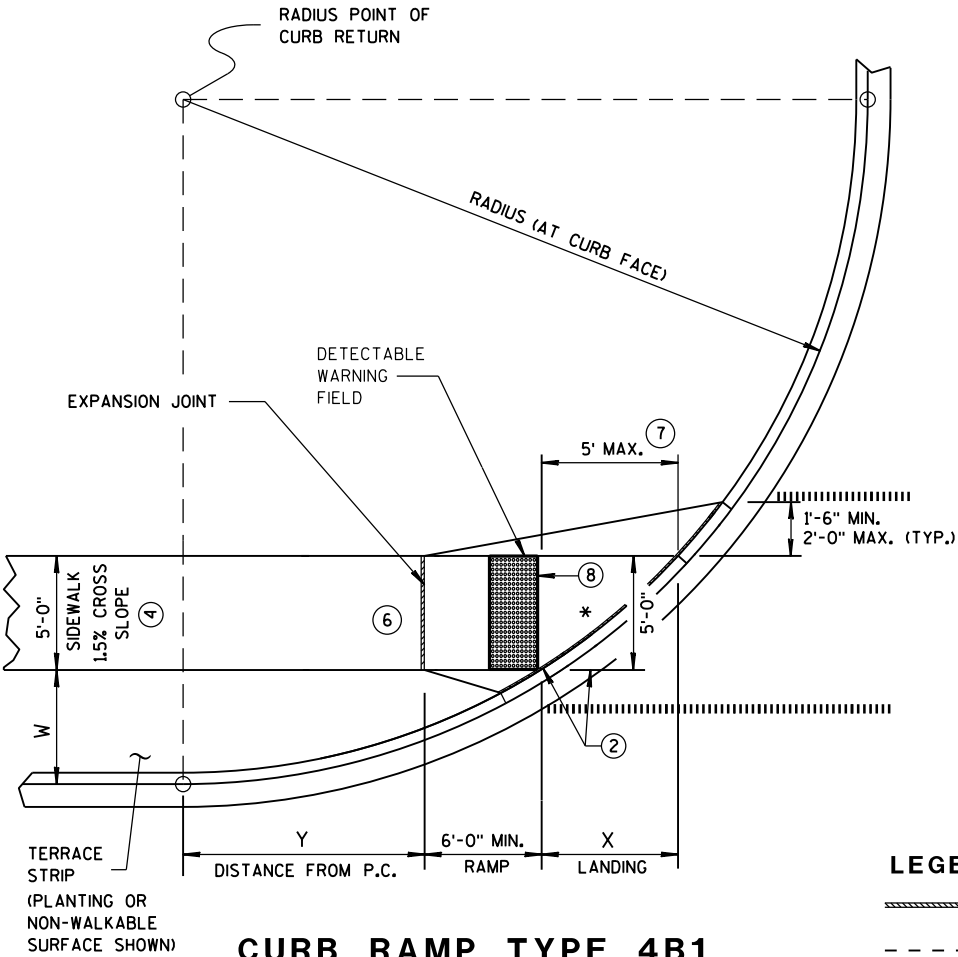
INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

GENERAL NOTES

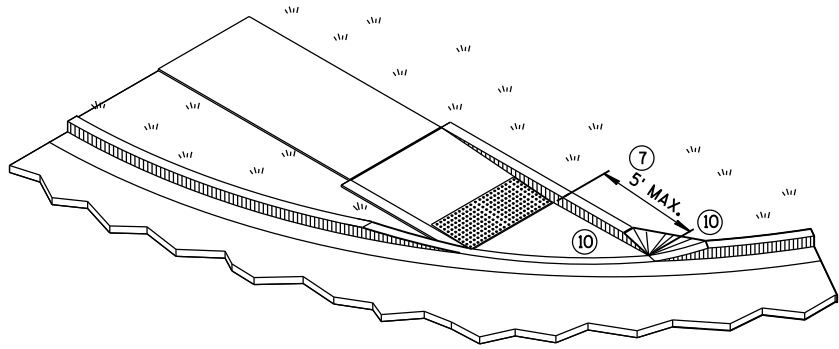
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-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.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



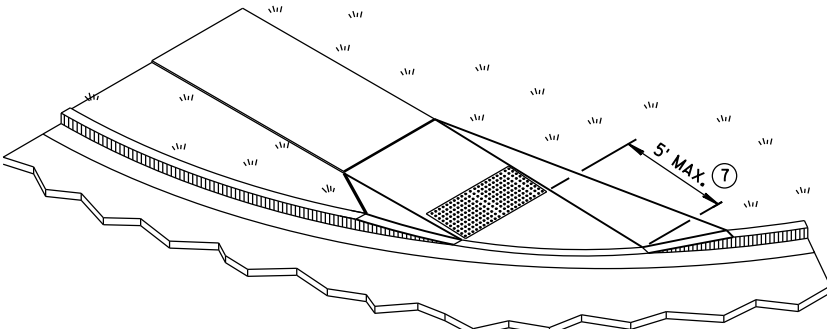
SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**



ISOMETRIC VIEW FOR TYPE 4B



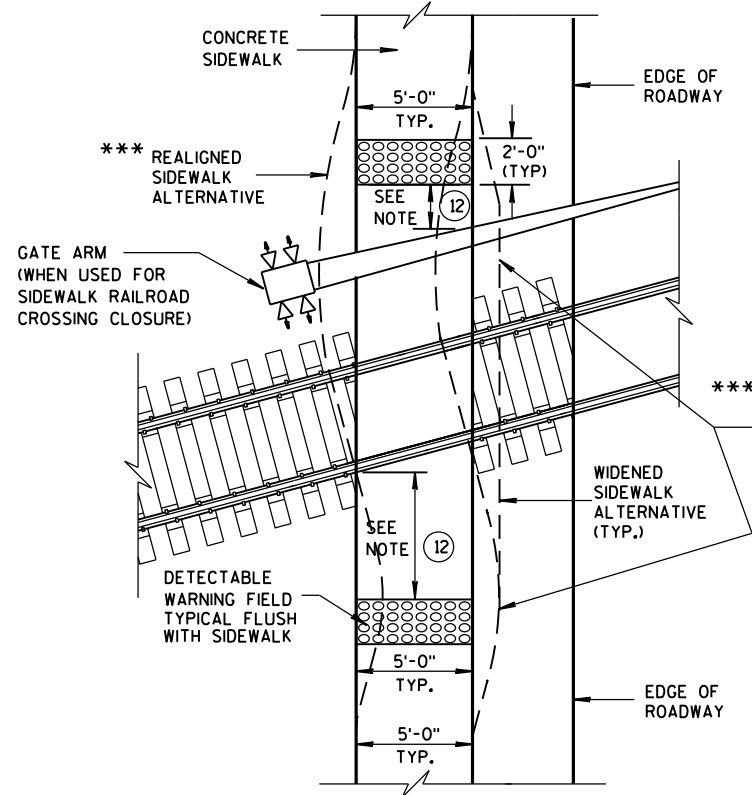
ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

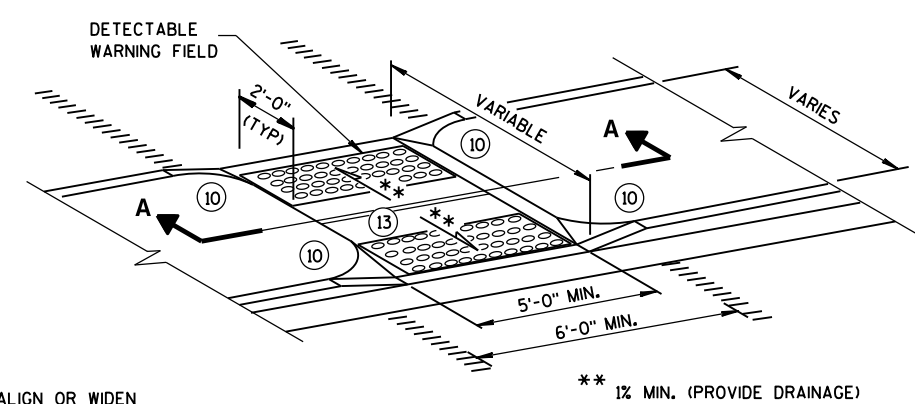
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING

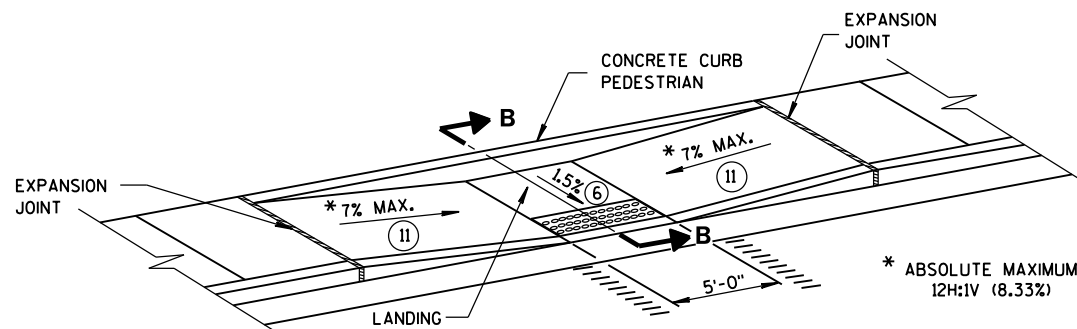


MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

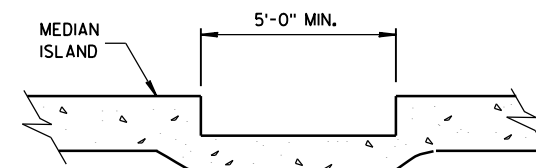
*** DETAILS TO BE DETERMINED BY DESIGNER

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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 1/4-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 ABSOLUTE MAXIMUM 12H:1V (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 X 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 15 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

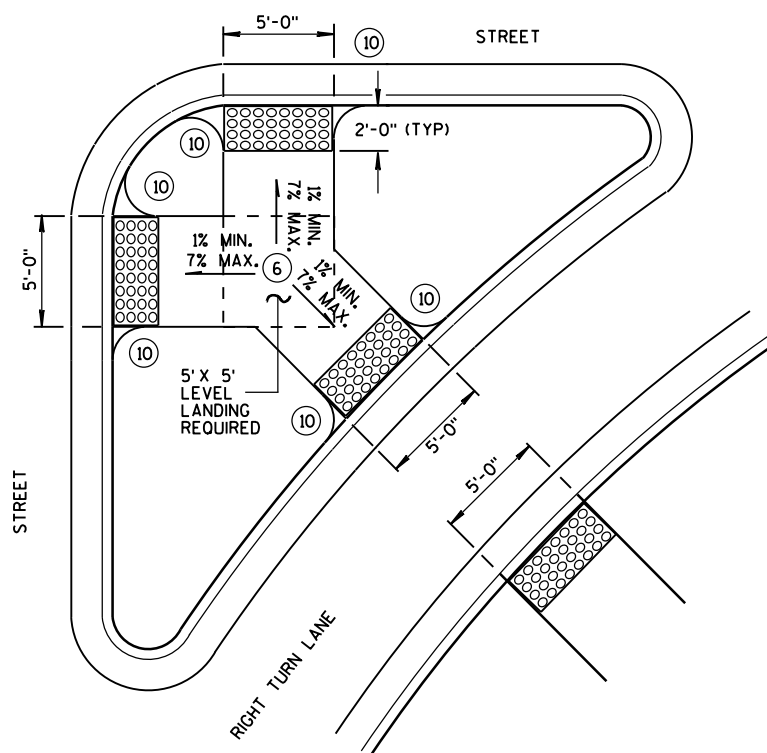


MID-BLOCK CROSSING
TYPE 7A

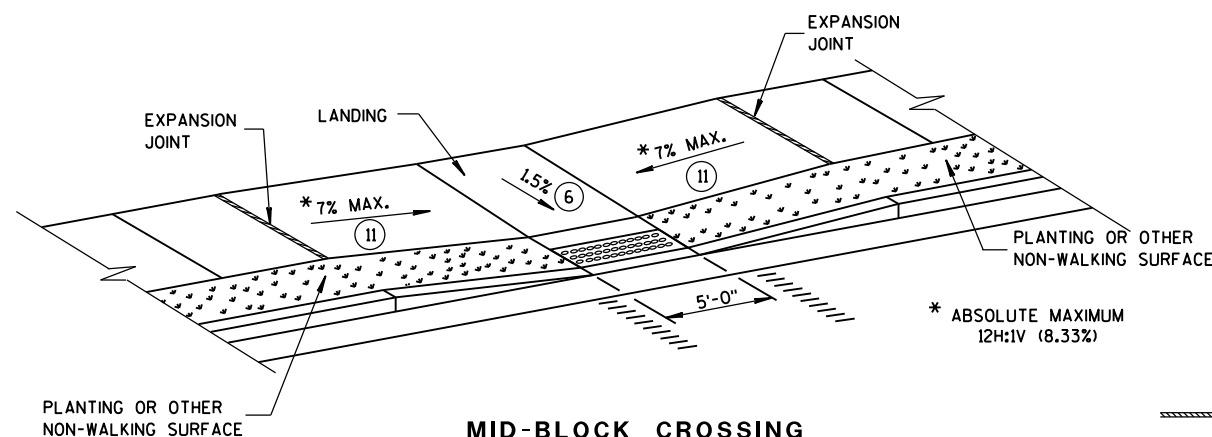


SECTION A-A

REFER TO GENERAL NOTES ② AND ③ FOR ALL ISLAND CURB RAMPS

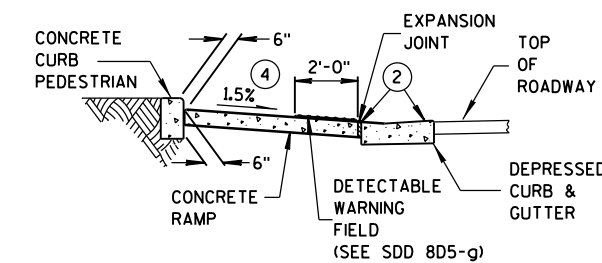


TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



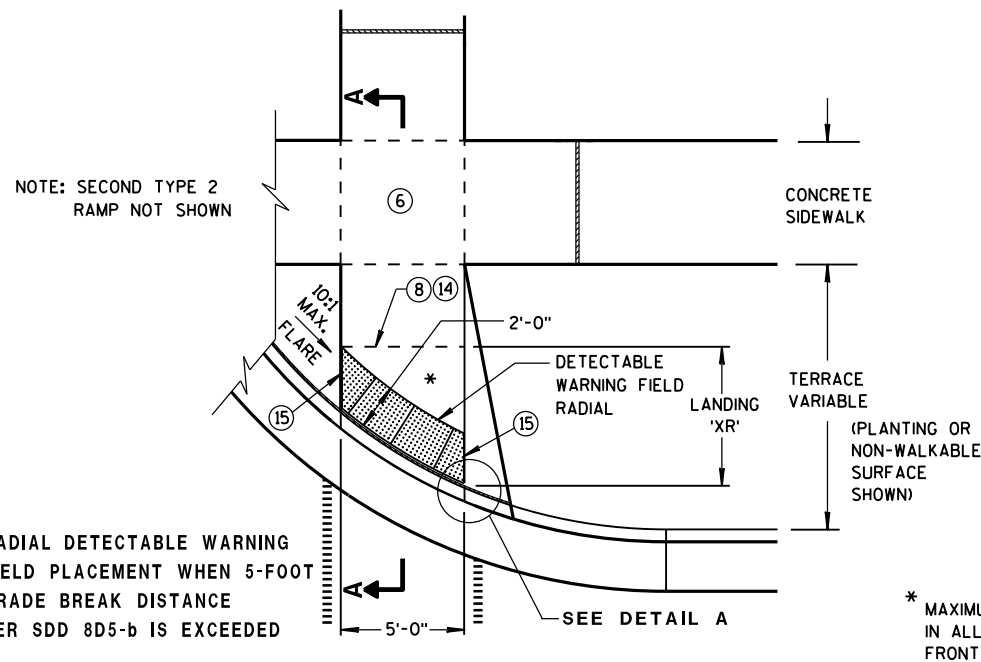
SECTION B-B

LEGEND

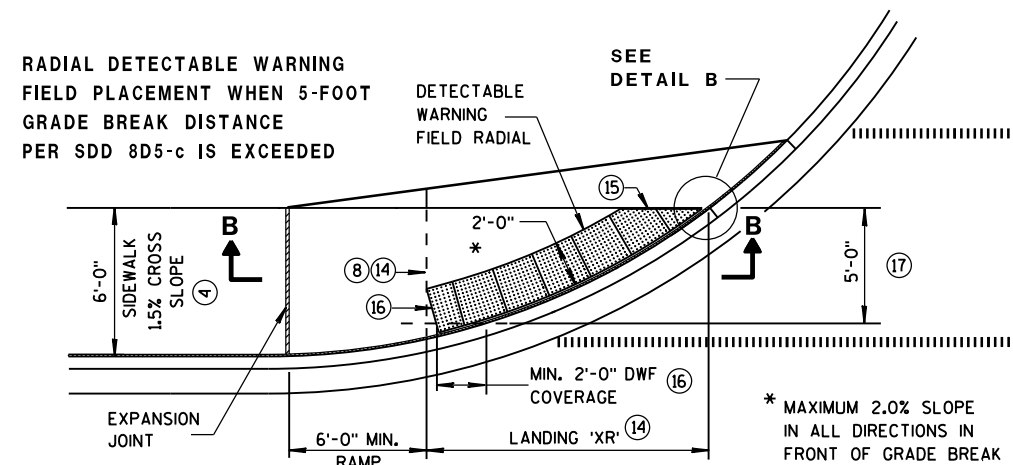
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

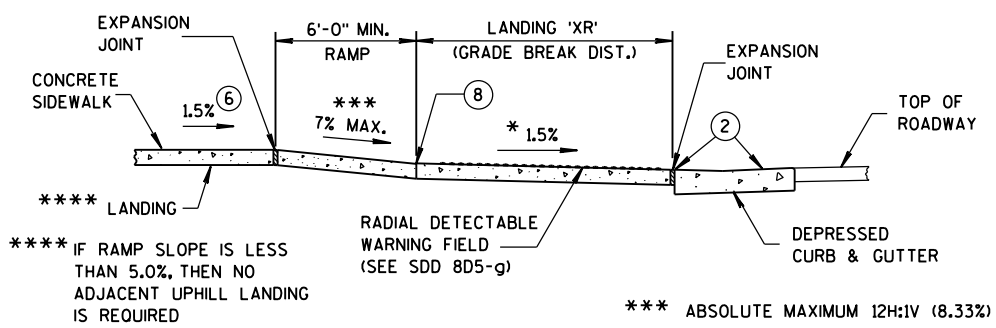
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



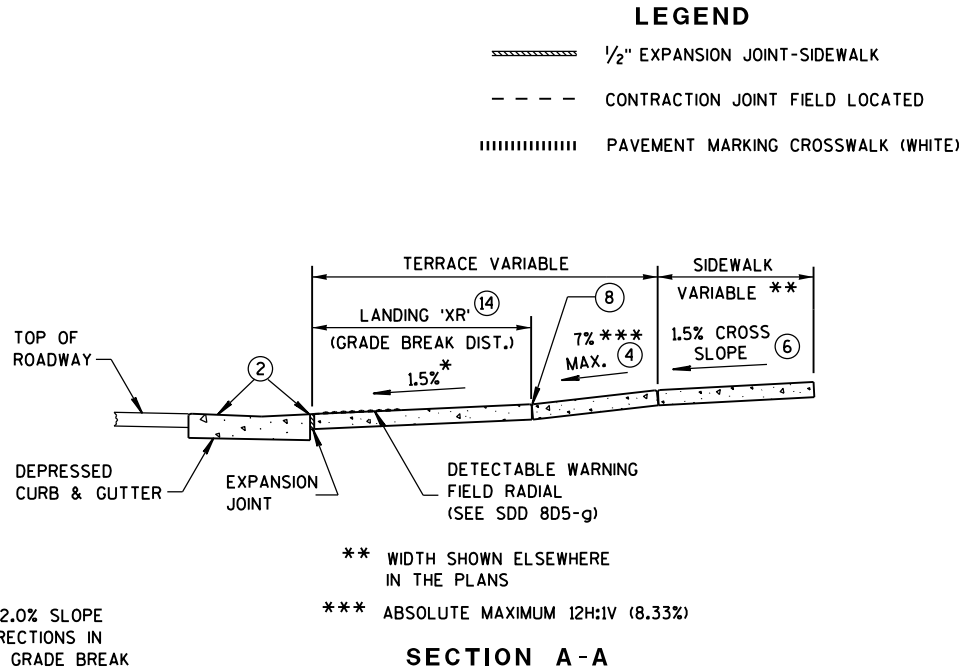
TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)



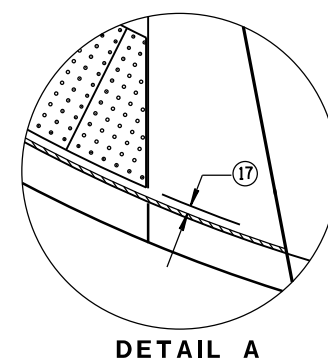
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



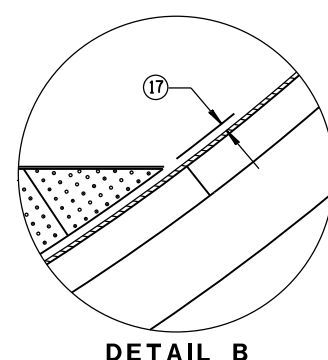
SECTION B-B FOR TYPE 4A1



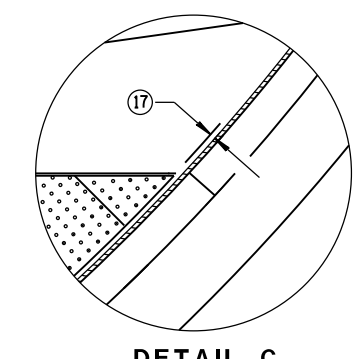
SECTION A-A



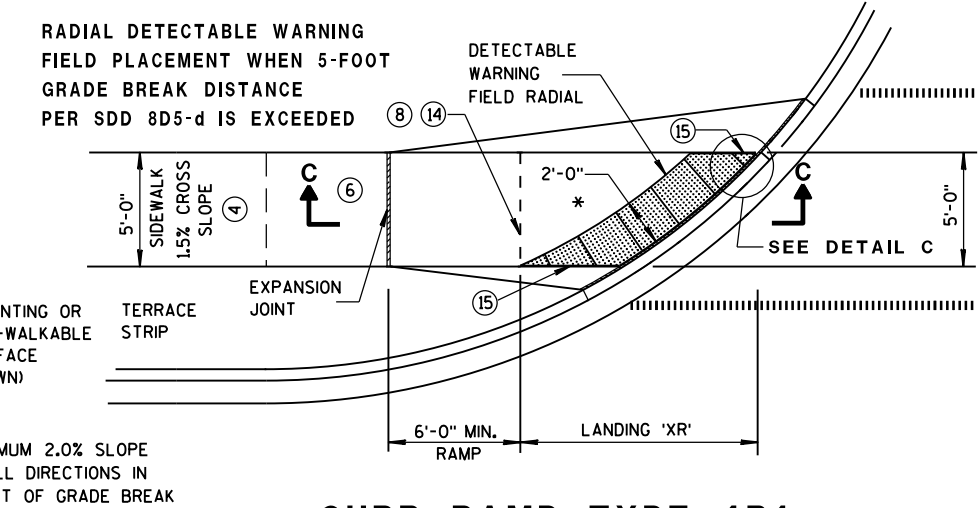
DETAIL A



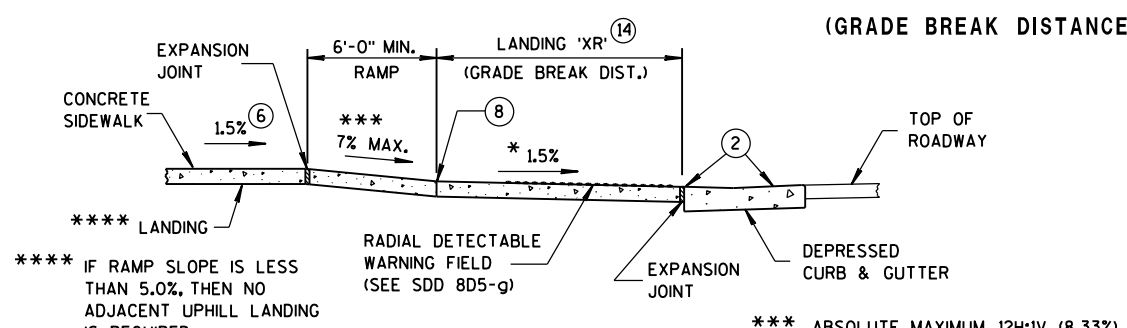
DETAIL B



DETAIL C



CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION C-C FOR TYPE 4B1

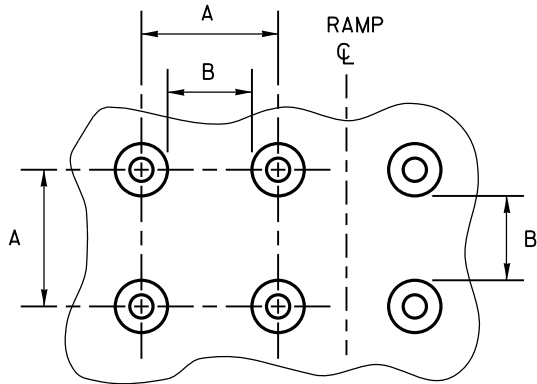
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

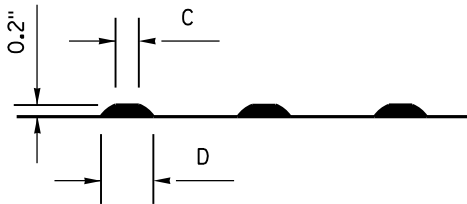
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS (DWFs) THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB 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 FIELD 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.
- 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 1/4-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.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 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 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 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.
- 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.

	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.

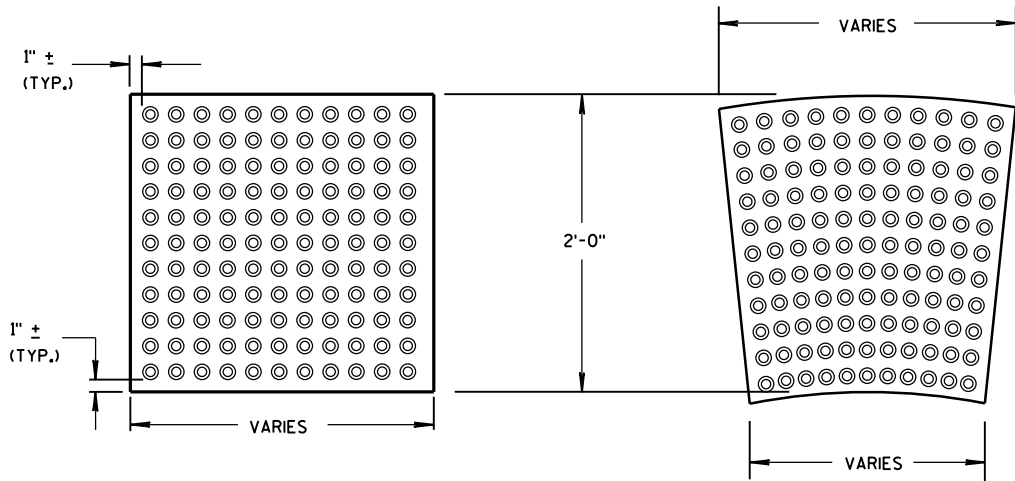


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES
RADIAL PLATES
DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, 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 FIELD ARE PROHIBITED.

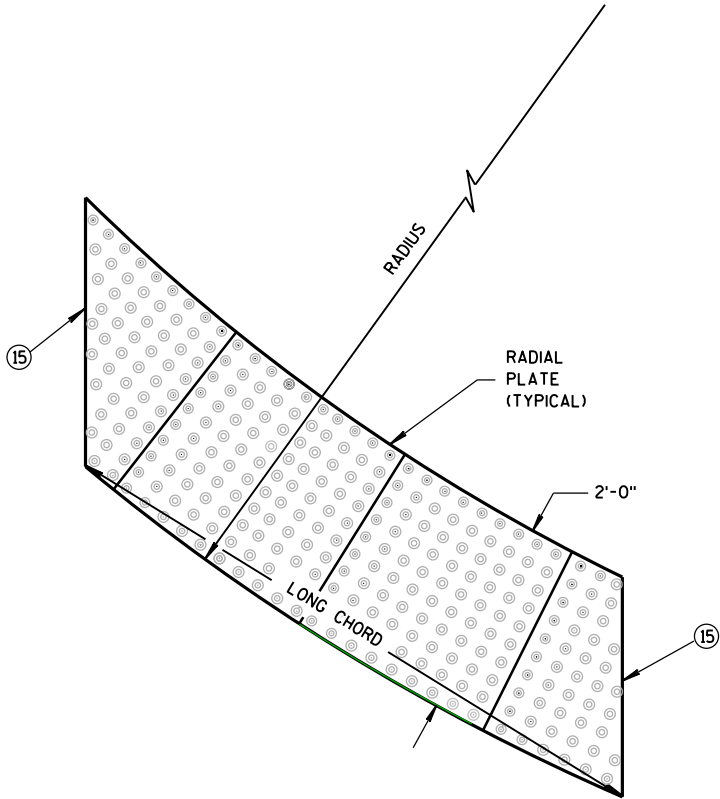
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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 WEDGES IN COMBINATION WITH SQUARE PANELS 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 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

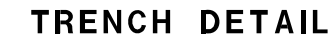
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



- 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 1½" X 1½" 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.



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



INLET PROTECTION, TYPE A

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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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.



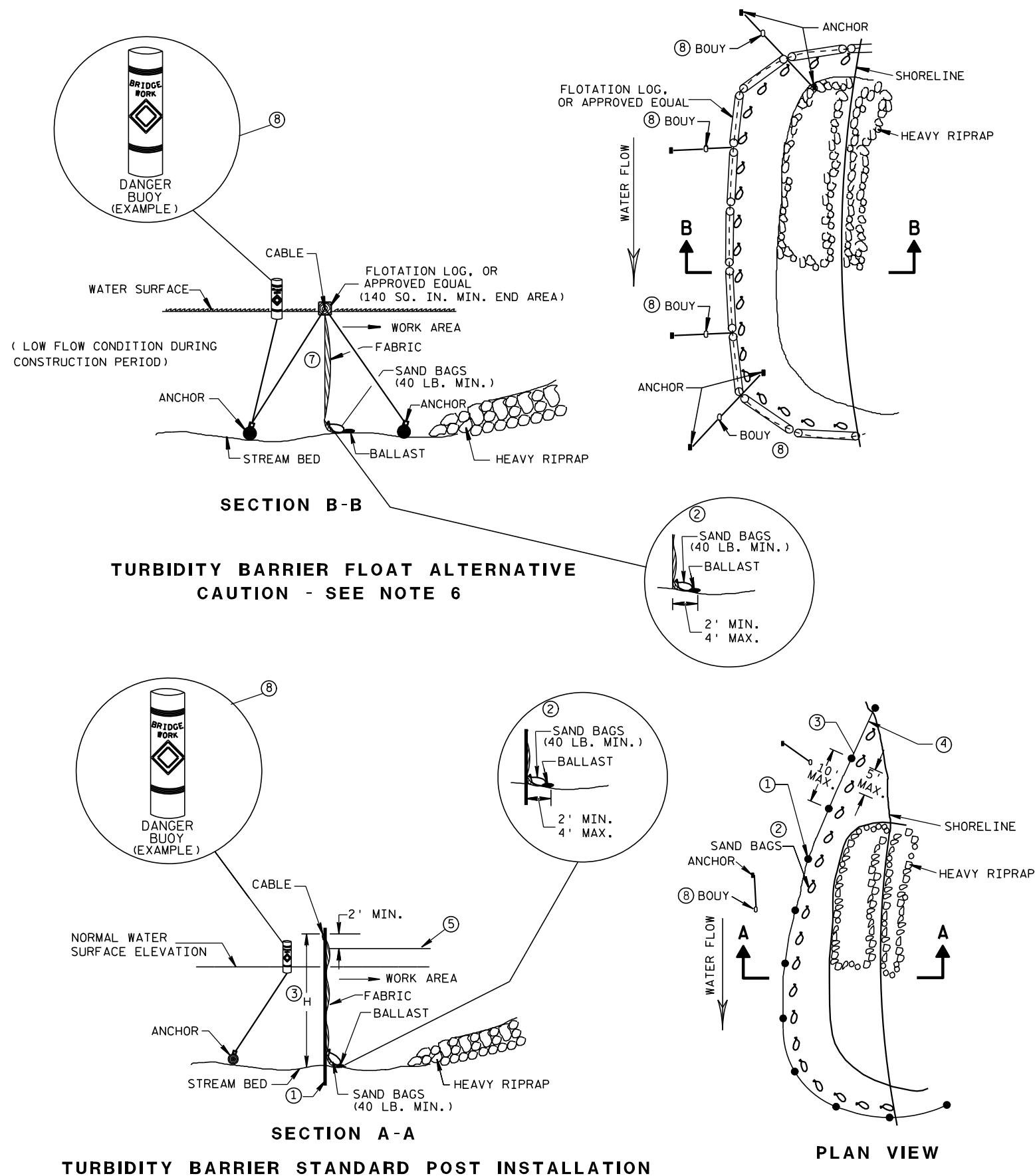
INLET PROTECTION, TYPE D

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

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

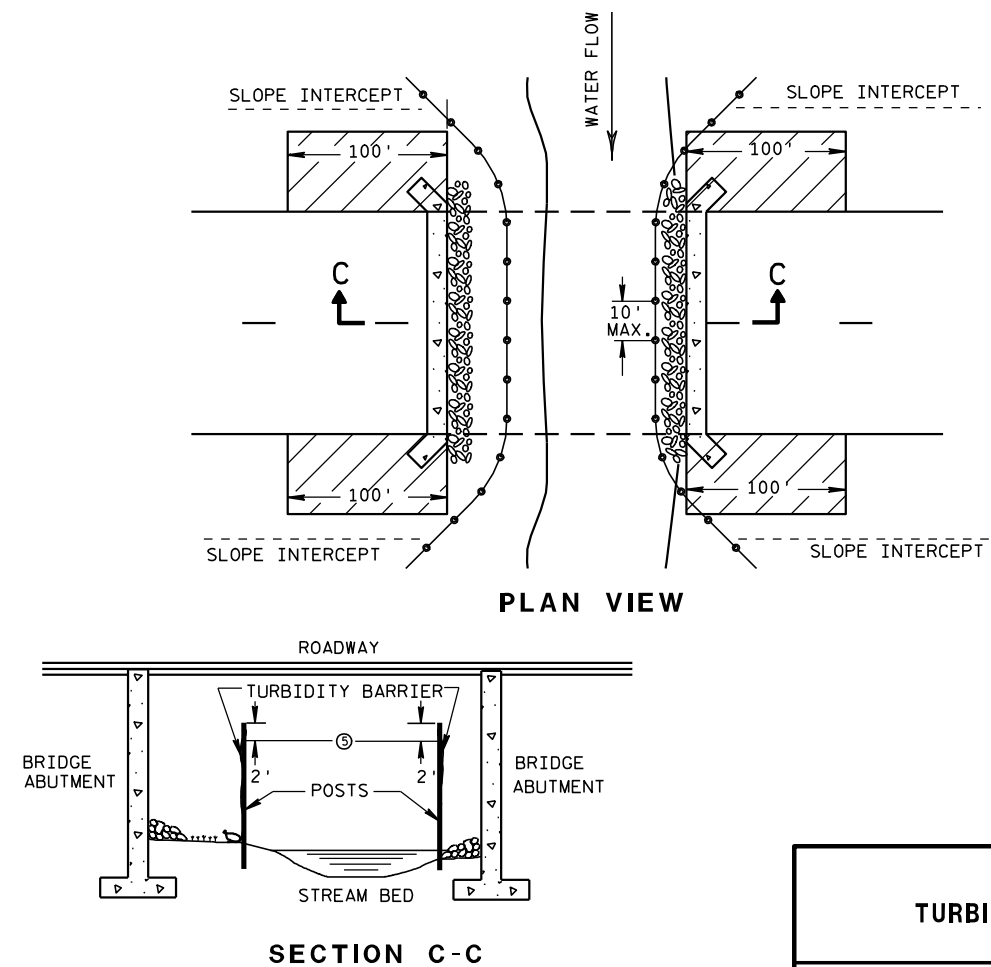


GENERAL NOTES

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 SANDBAGS 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 FT., 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 02 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 BED ROCK 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.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

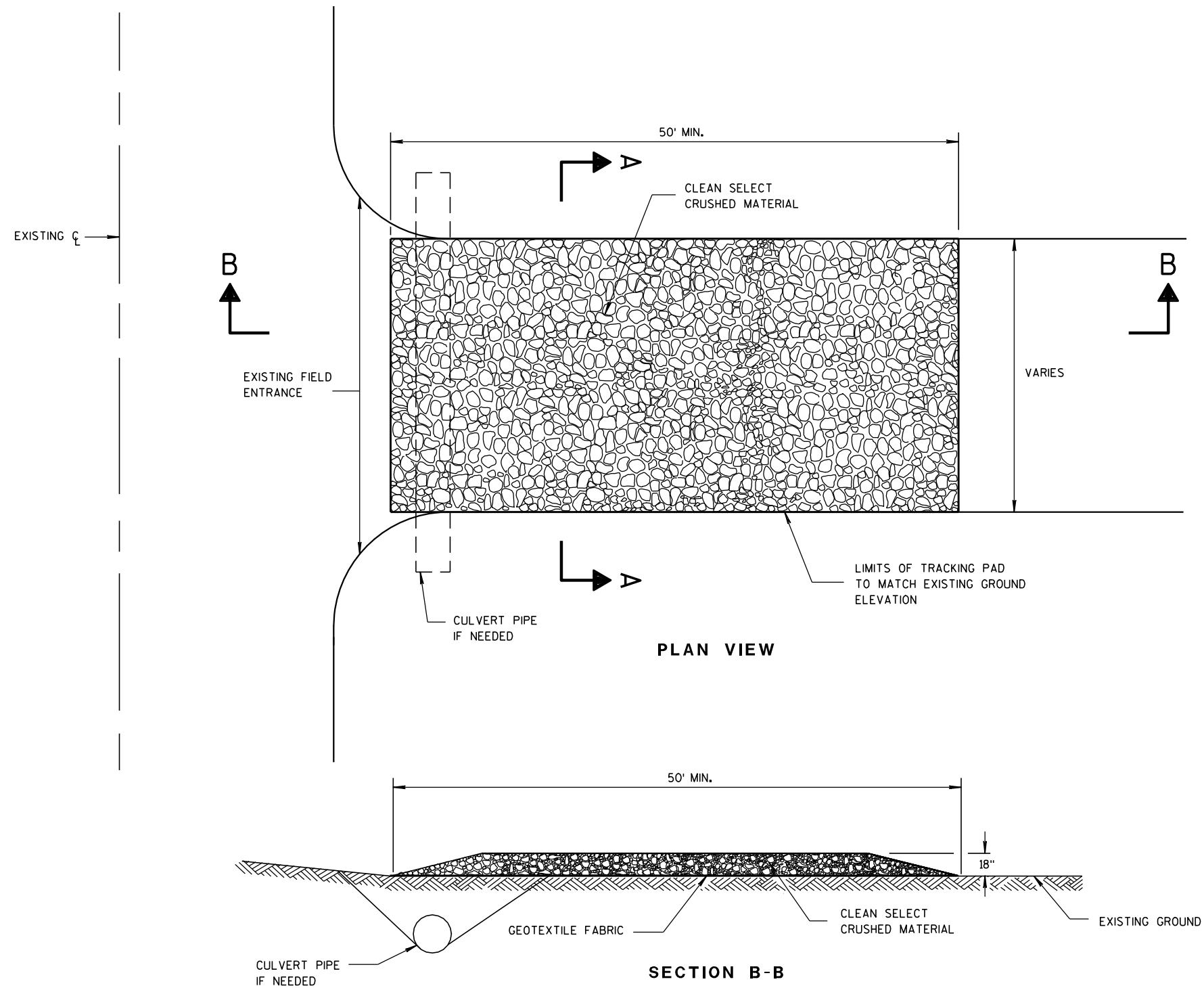
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FWHA

/S/ Beth Connestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



TRACKING PAD

GENERAL NOTES

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

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

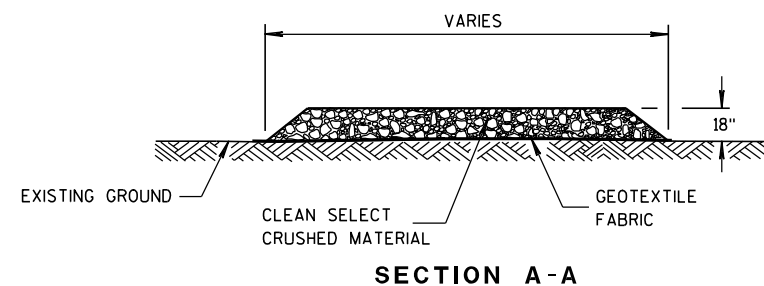
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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

**TRACKING PAD**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

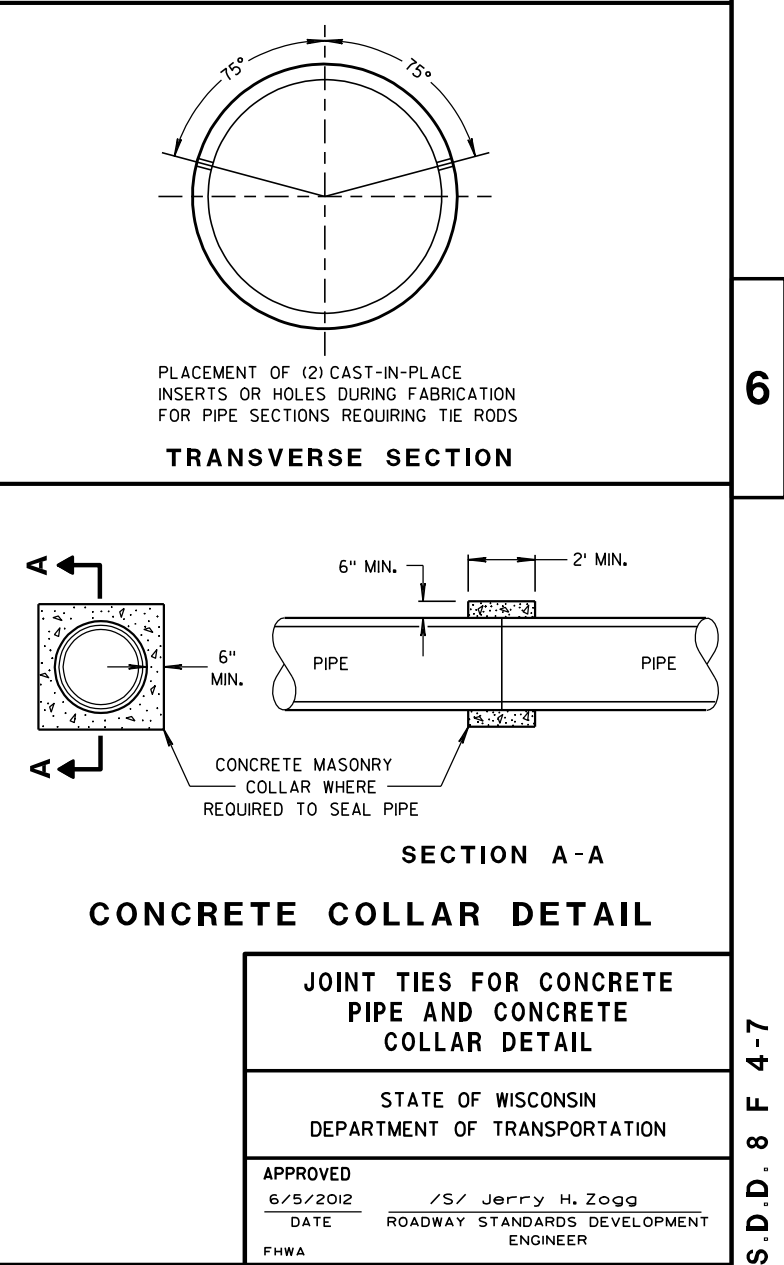
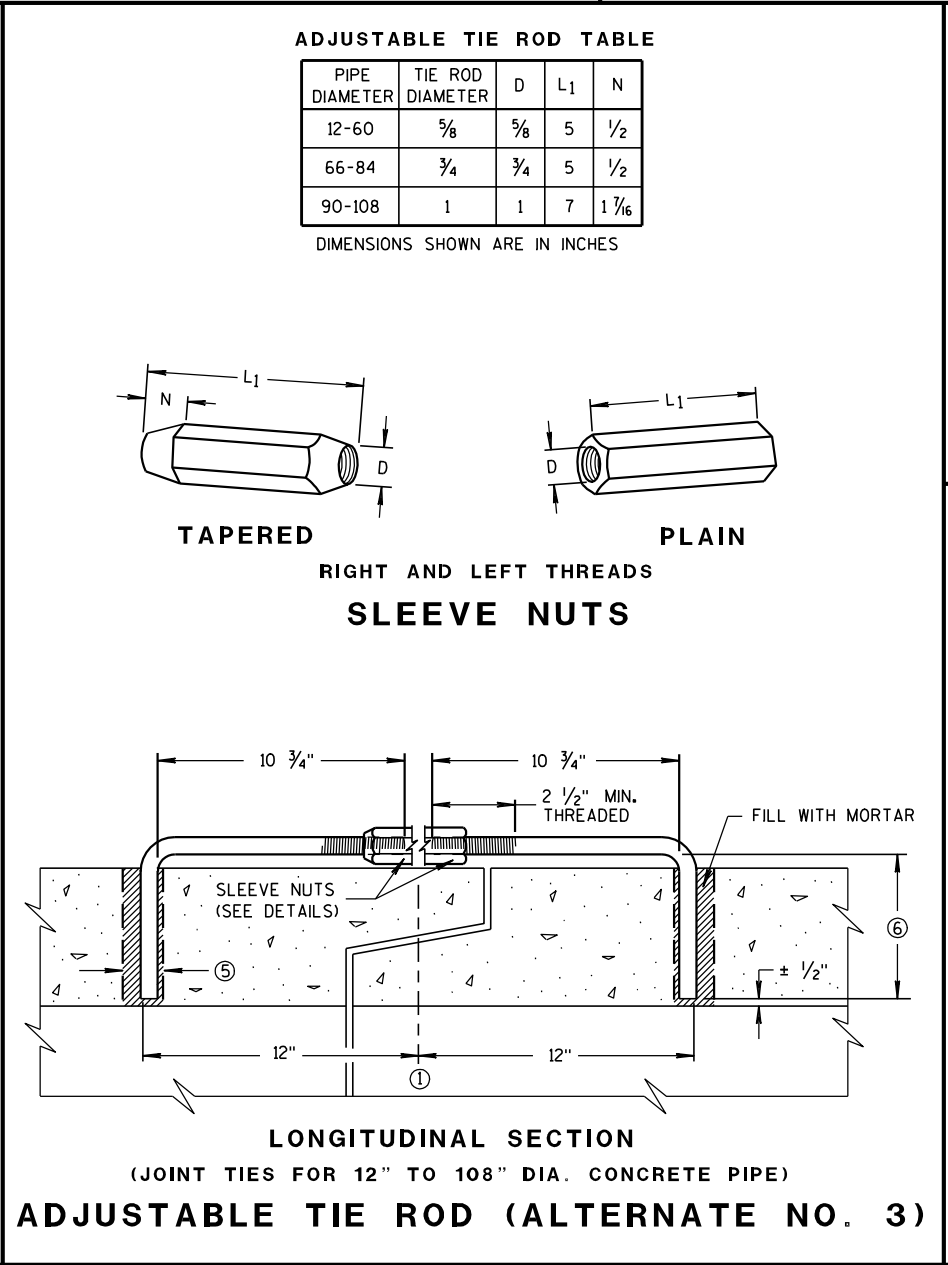
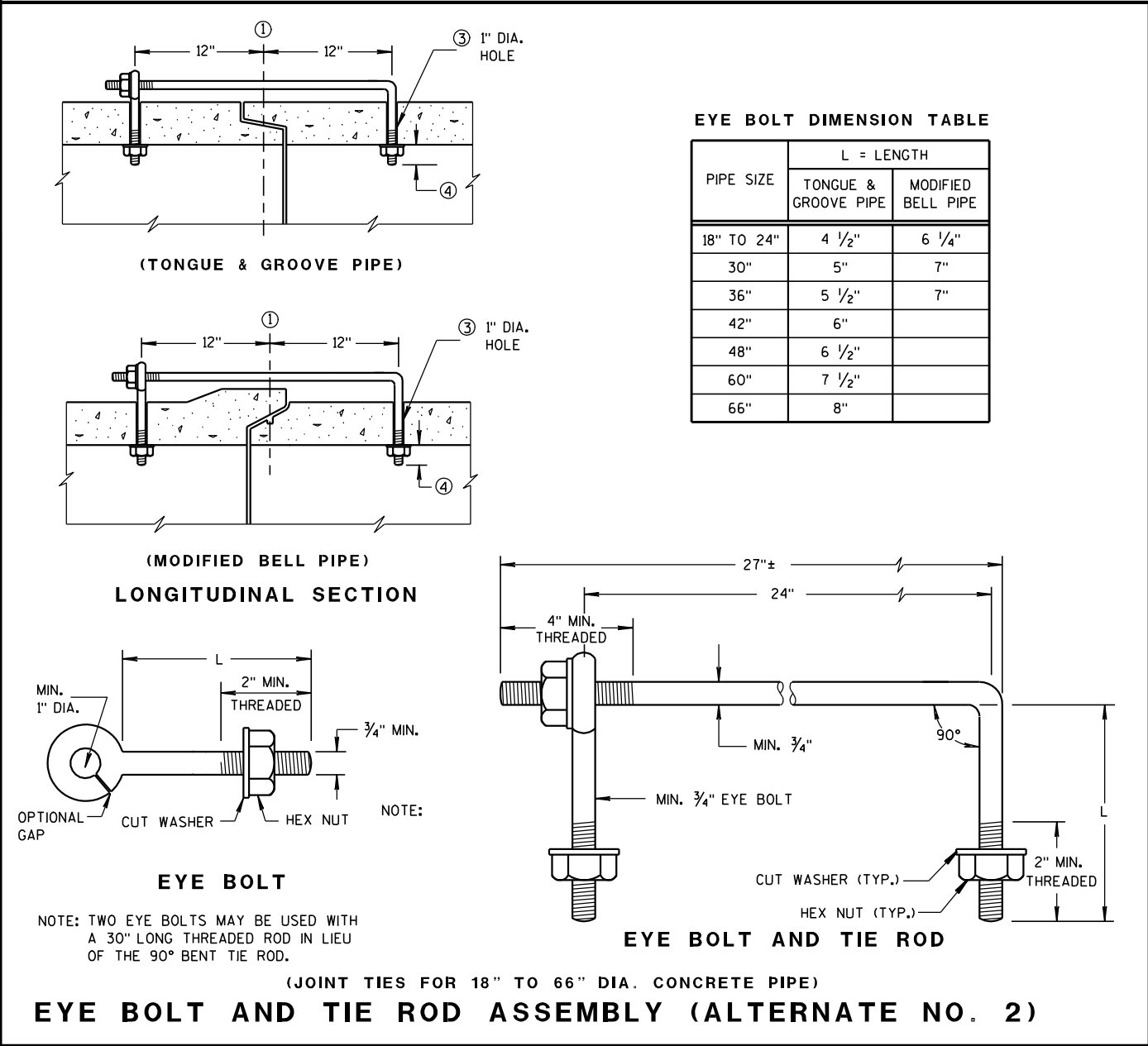
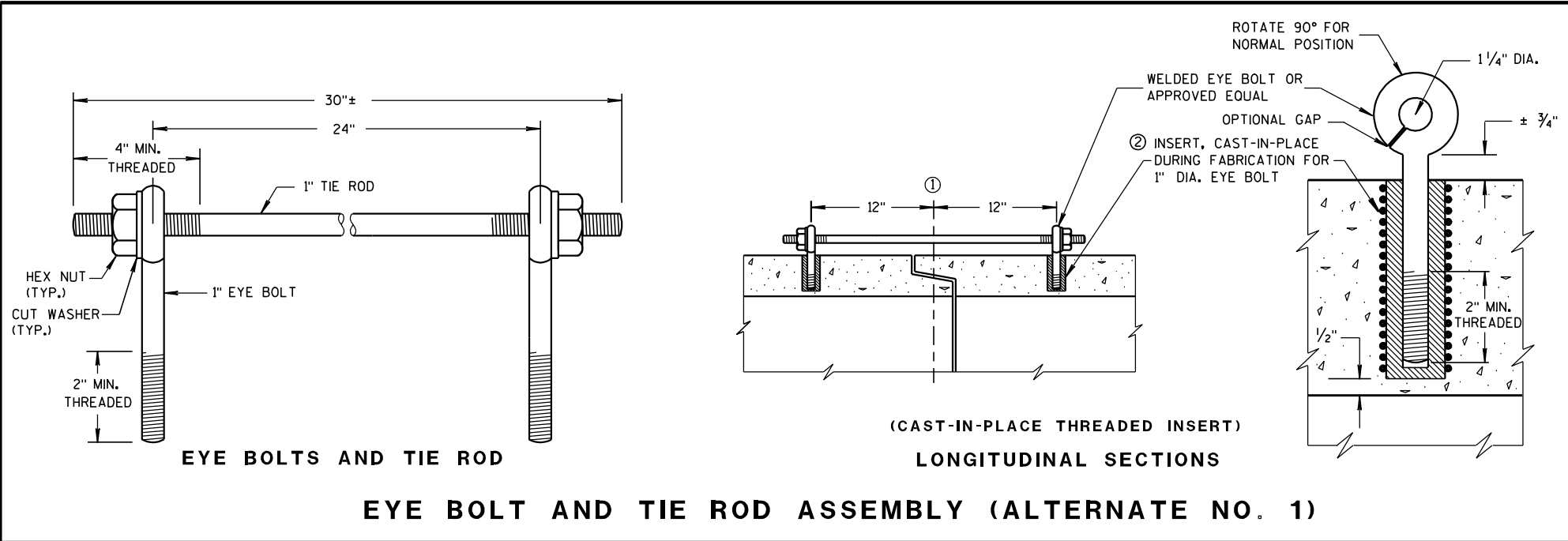
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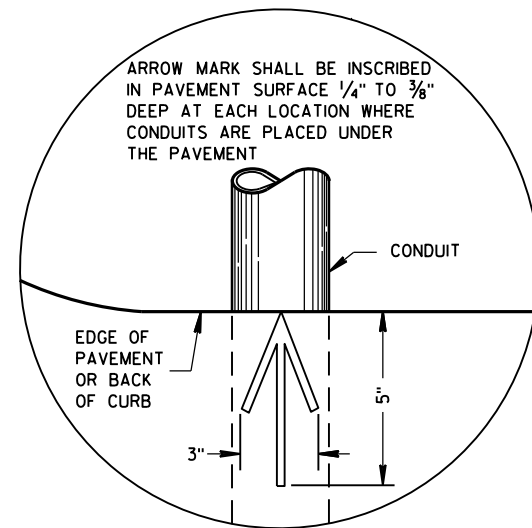
FHWA

/S/ Jerry H. Zogg

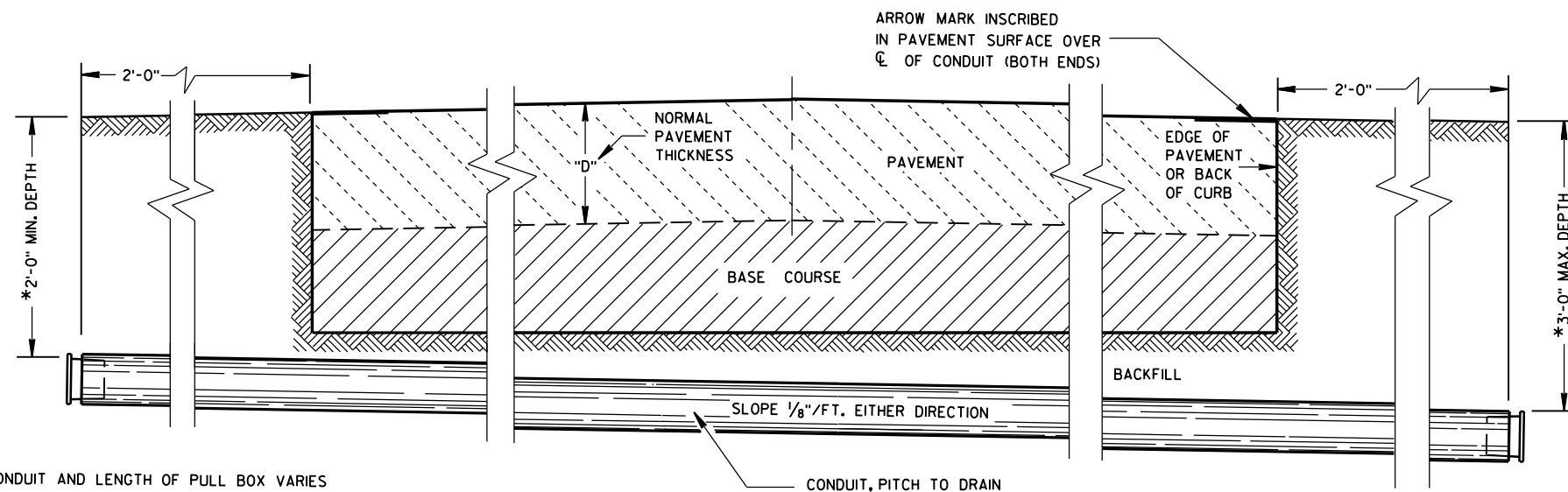
ROADWAY STANDARDS DEVELOPMENT

ENGINEER





PLAN VIEW
ARROW MARK



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES
WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

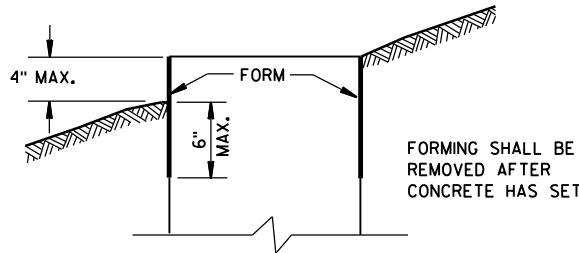
ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA

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 DRAWING SHALL 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 AS 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 AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X 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 NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC 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 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

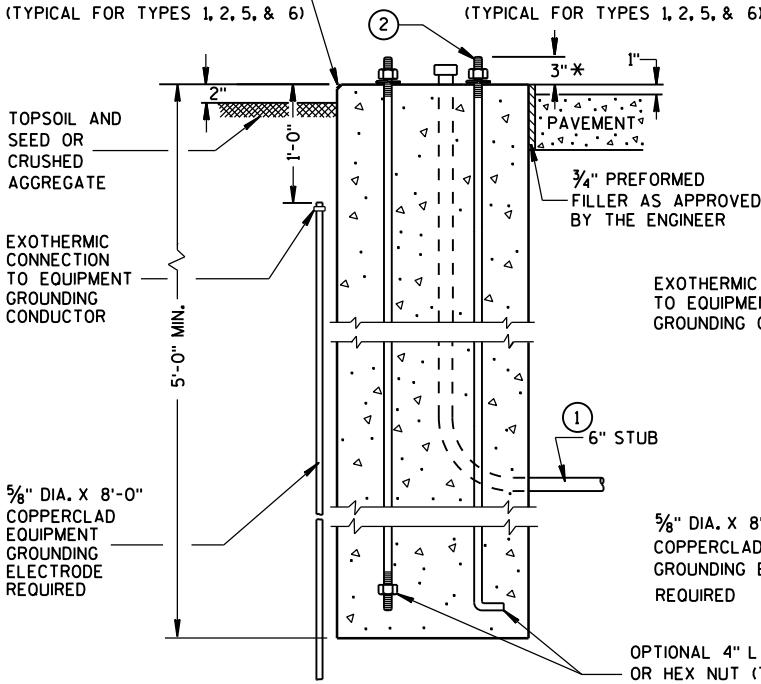
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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 BY THE ENGINEER.

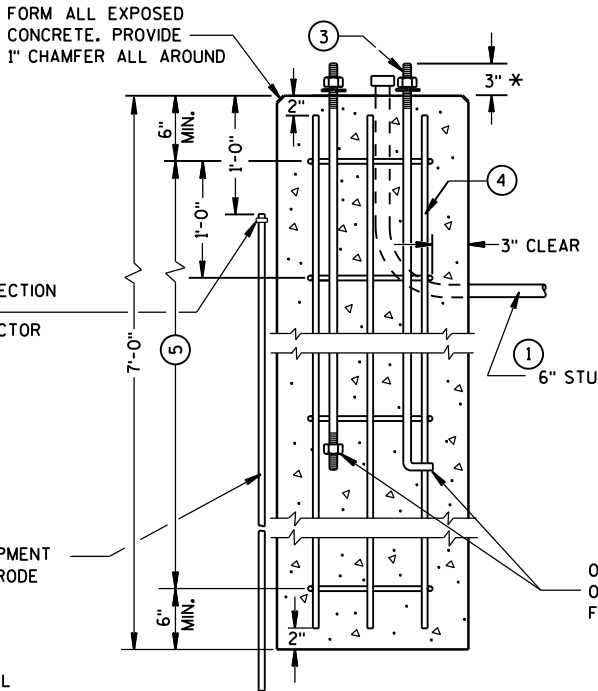
- 2 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5'-0" ANCHOR RODS.
- 4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.
- 6 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)



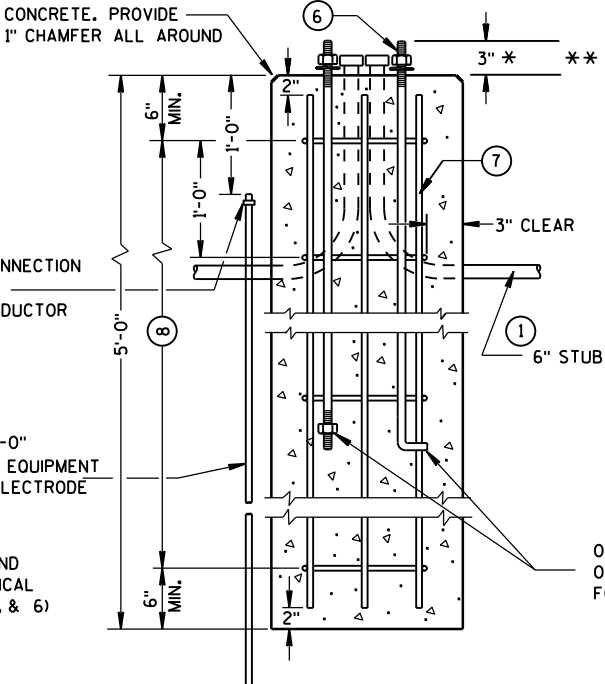
TYPE 1

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5 & 6

CONCRETE BASES

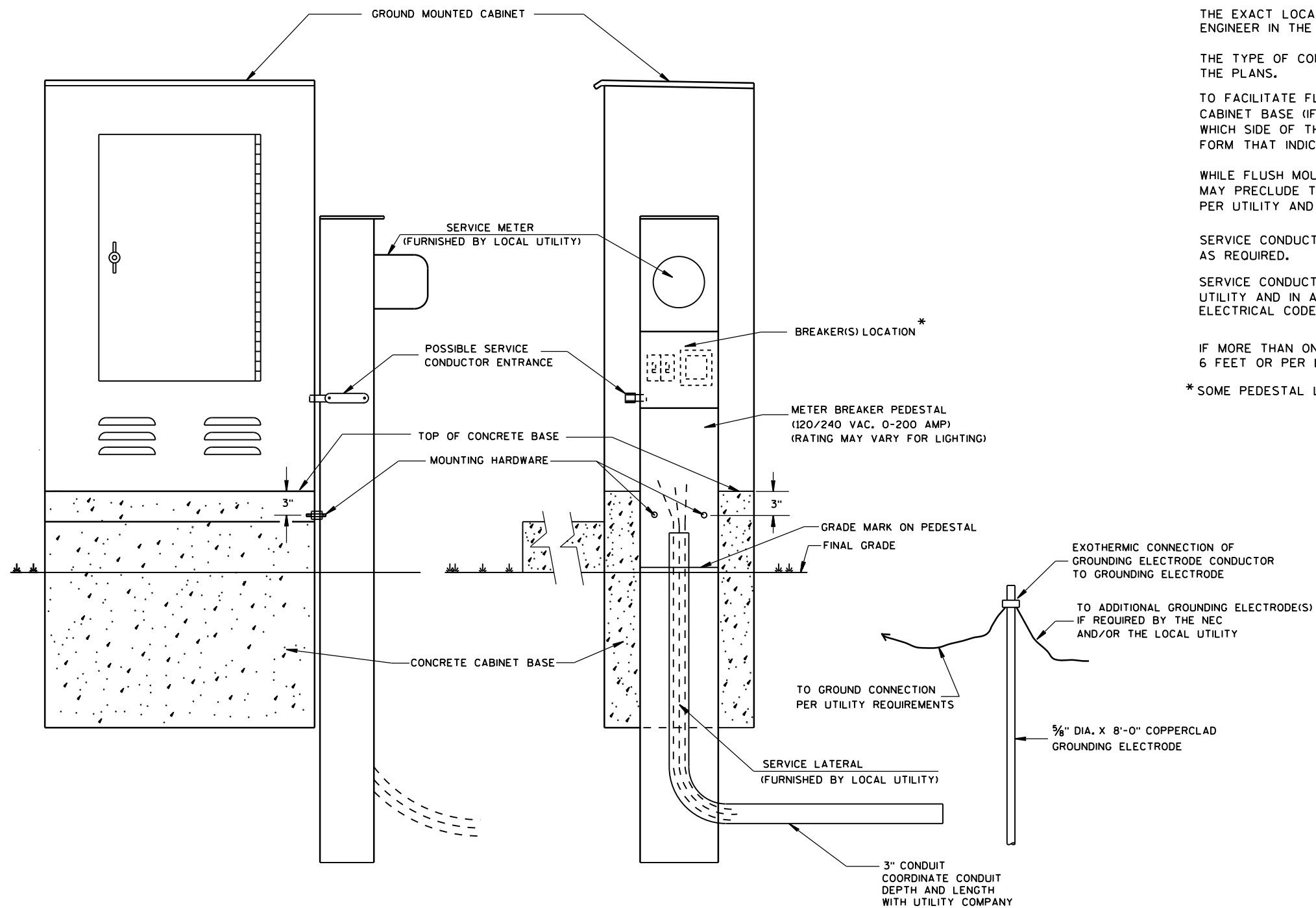
* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES,
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

FRONT INTERIOR
ELEVATION

SIDE VIEW

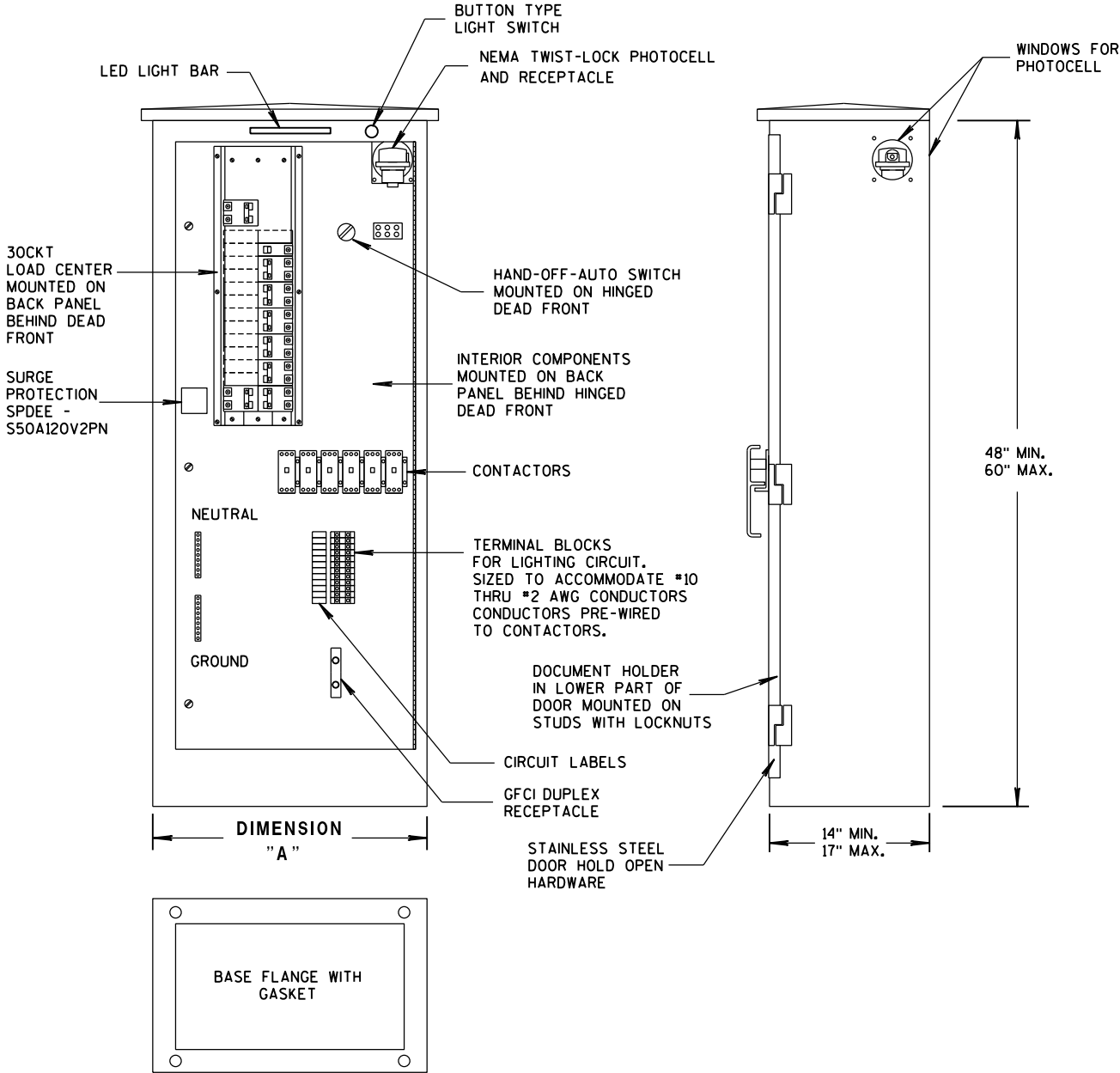


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET

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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

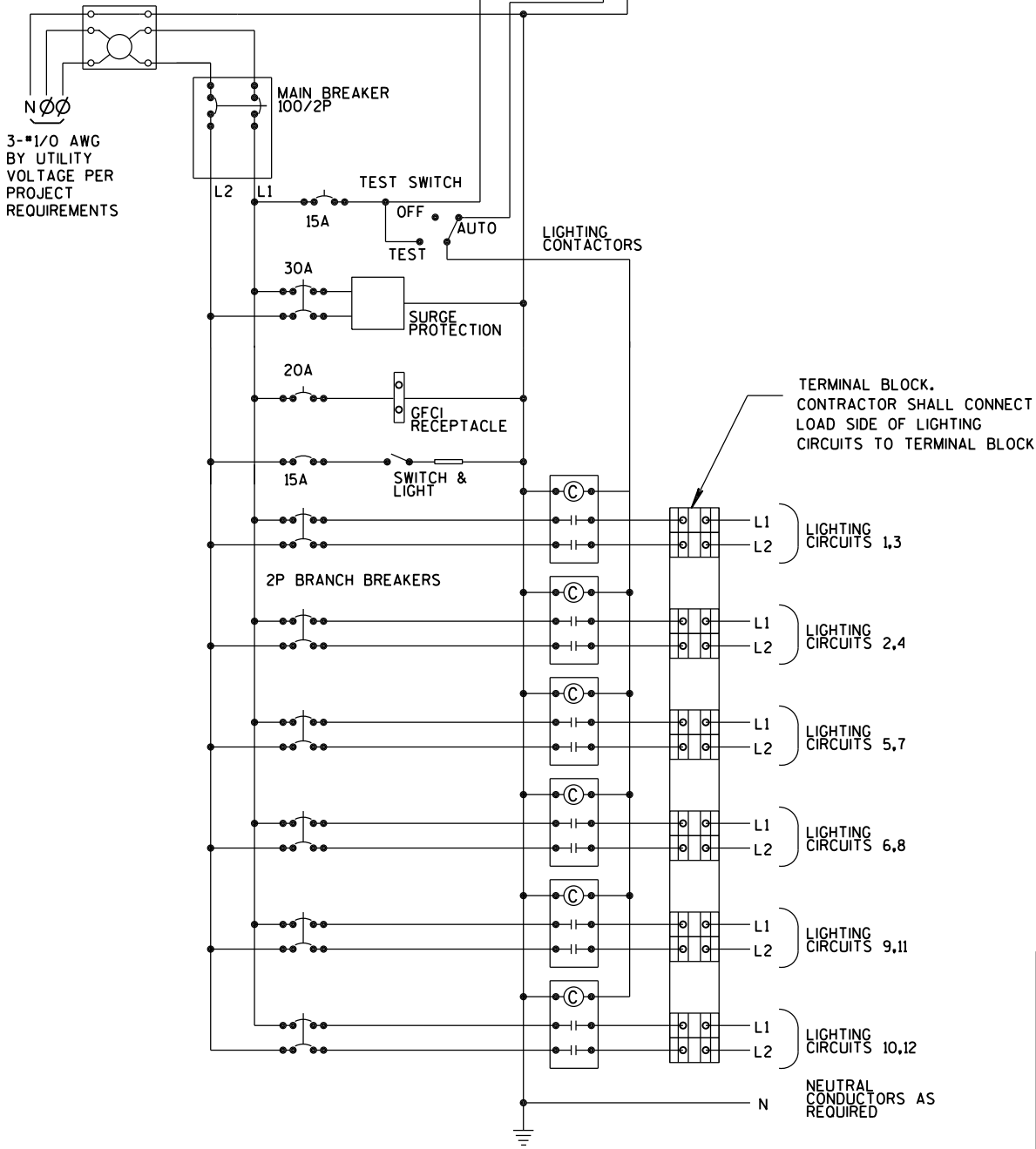
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

UTILITY METER PEDESTAL PROVIDED BY CONTRACTOR UNDER SEPARATE BID ITEM. MAY, OR MAY NOT BE ATTACHED TO OUTSIDE OF CONTROL CABINET PER PROJECT REQUIREMENTS



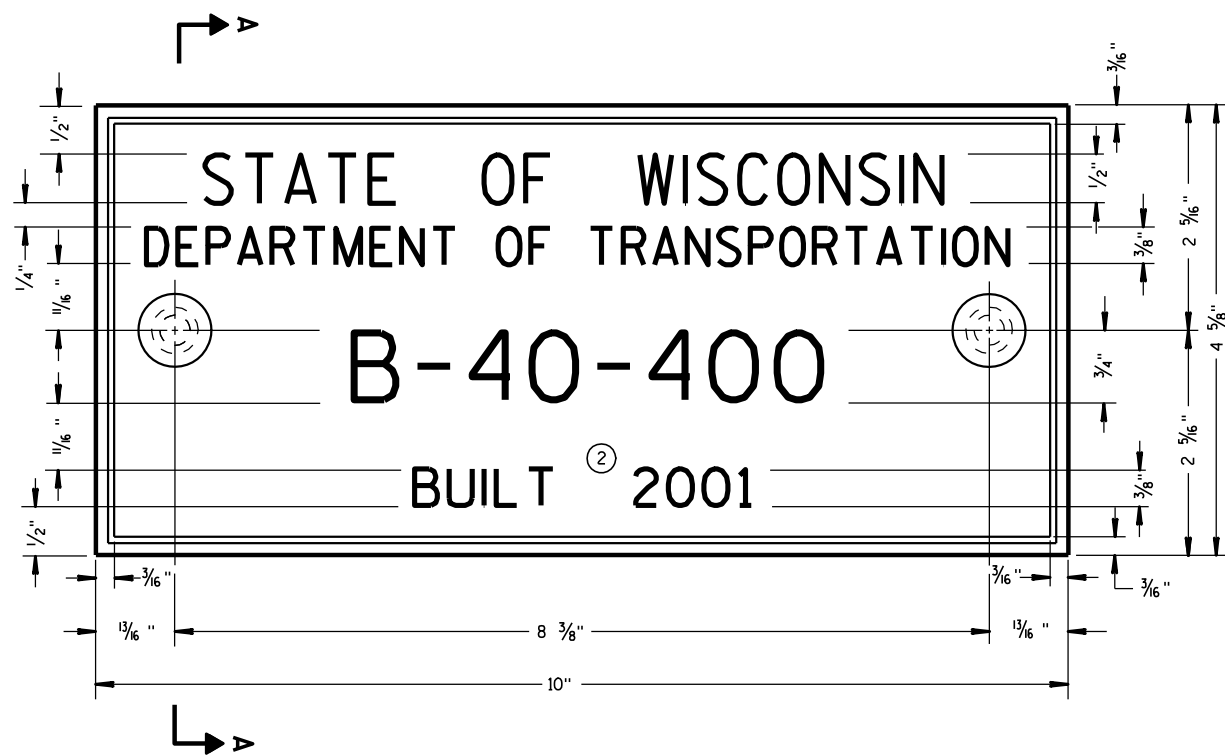
CONTROL CABINET SCHEMATIC

LIGHTING CONTROL CABINET
120/240 VOLT

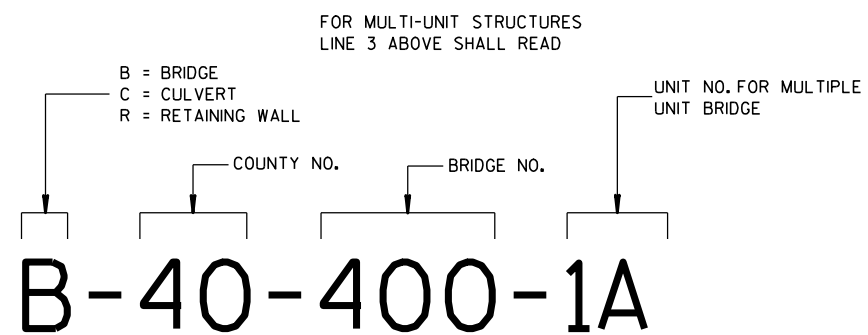
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE
FWHA

/S/ Thomas Goring
STATE LIGHTING ENGINEER FOR HWYS.



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



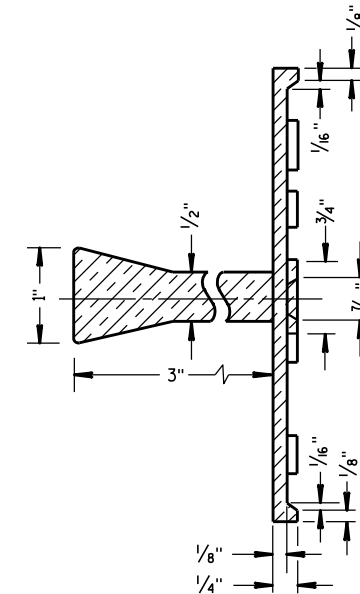
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

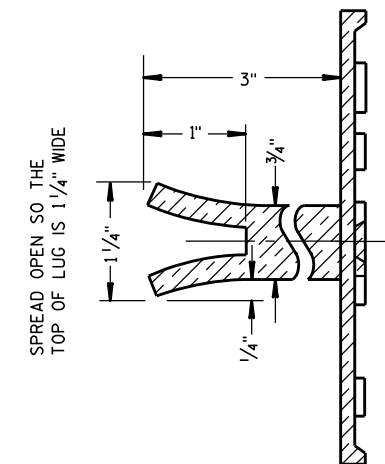
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

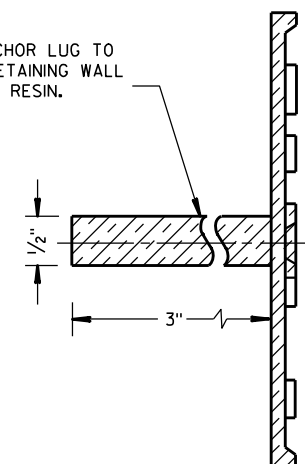


SECTION A-A



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

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

LEGEND

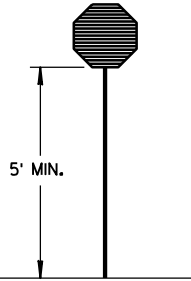
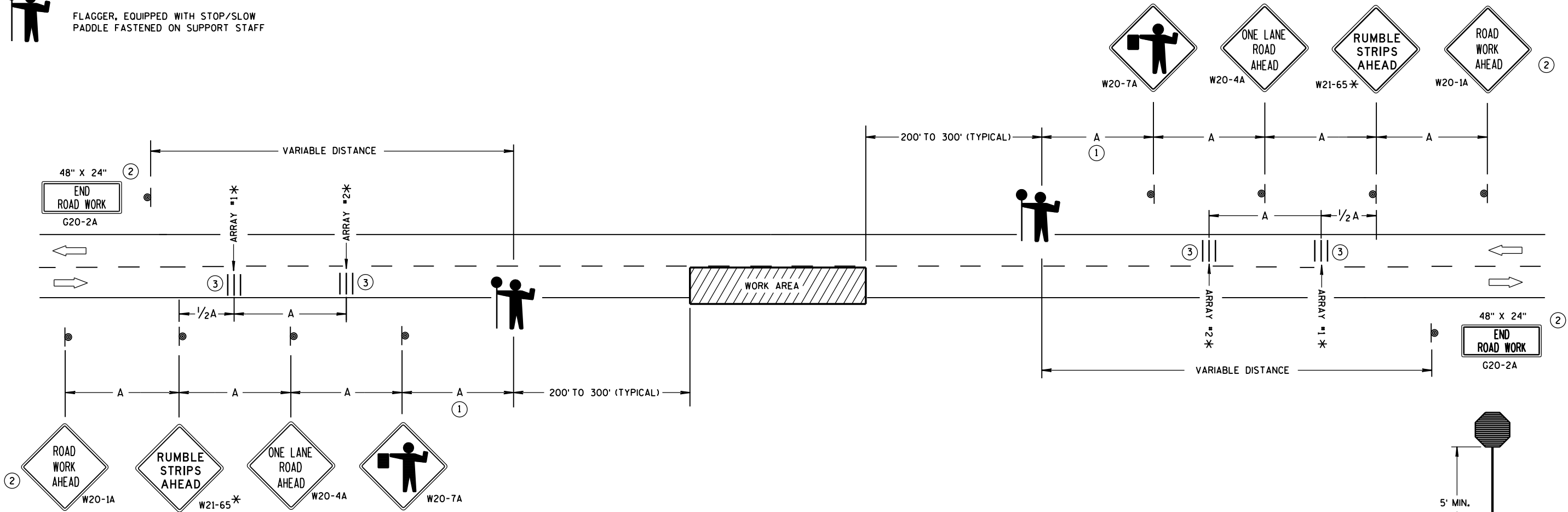
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

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.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE 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.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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 RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

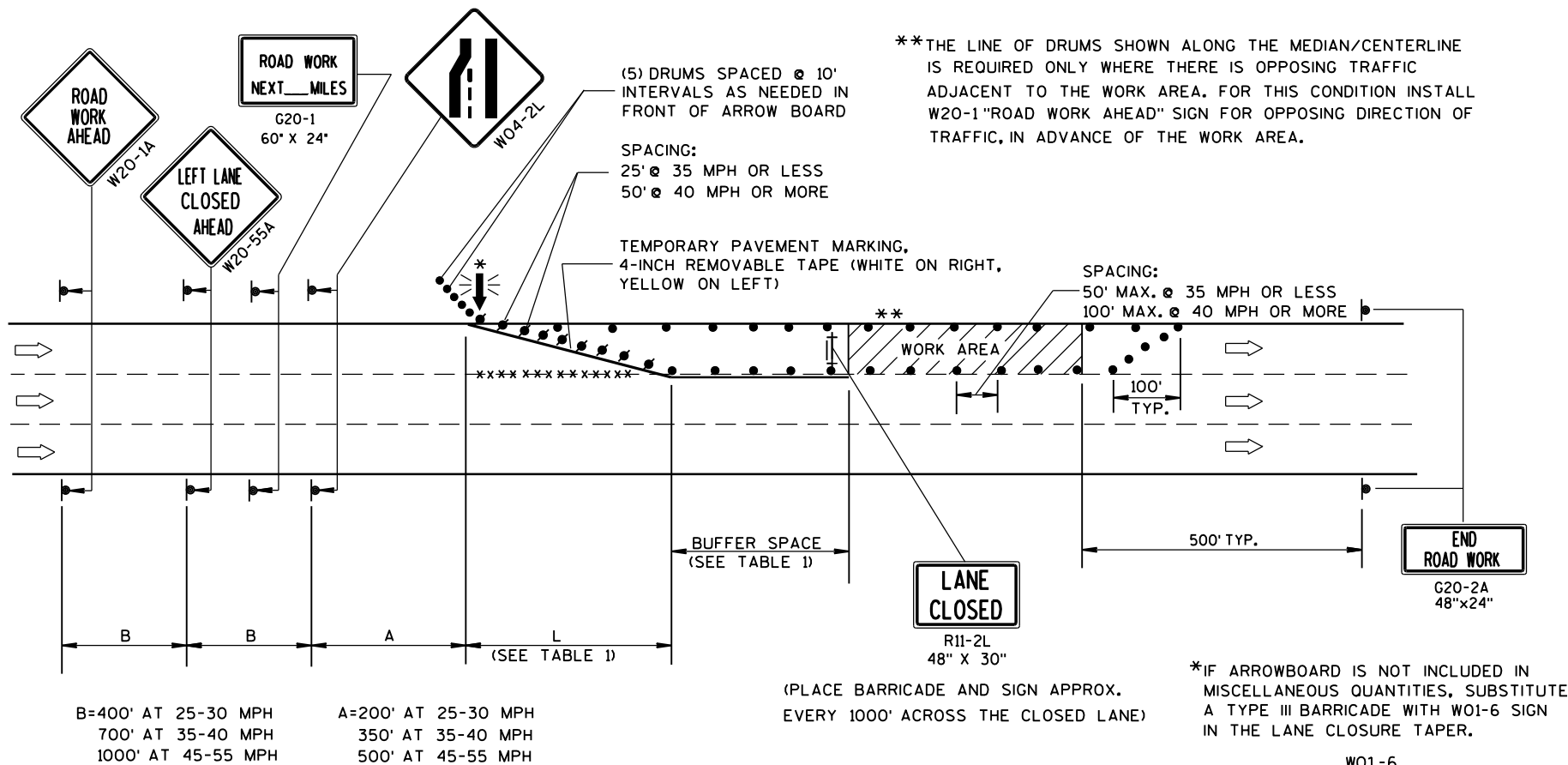
* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- ① FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT 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.
- ③ EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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 DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE 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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

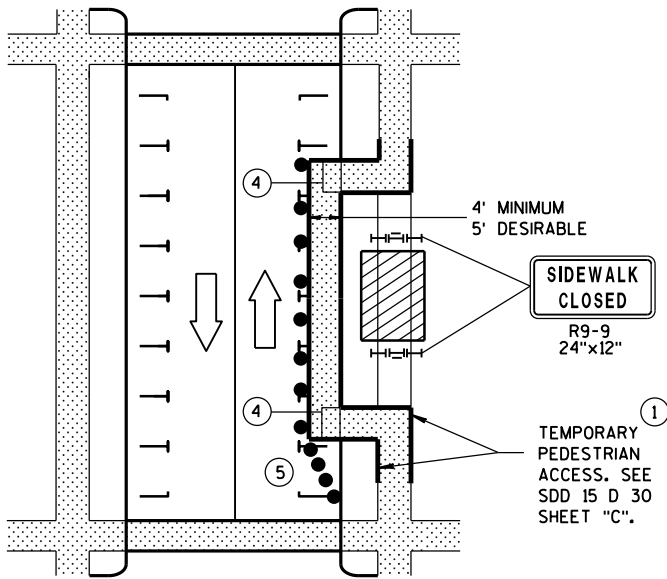
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

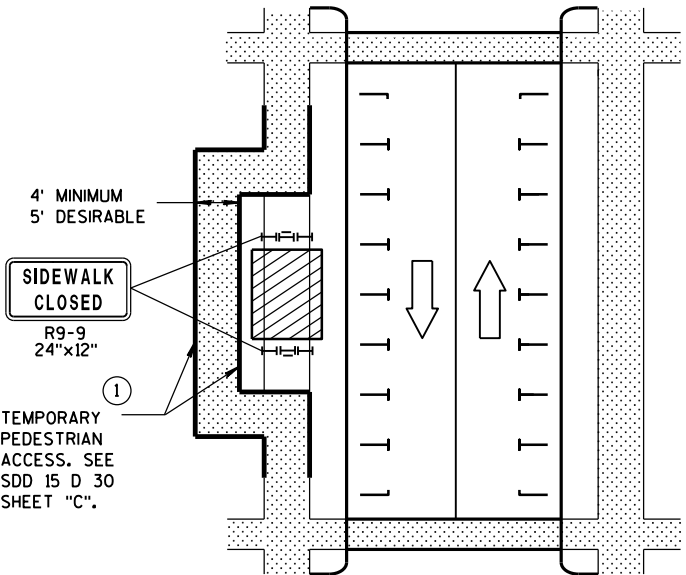
APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

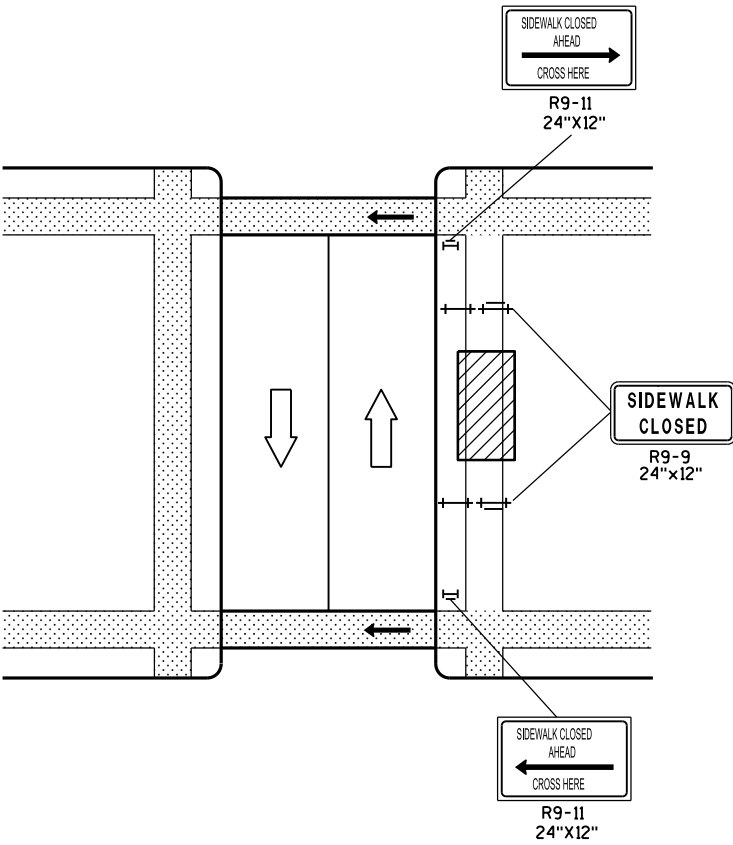


MID-BLOCK SIDEWALK CLOSURE
IN PARKING LANE

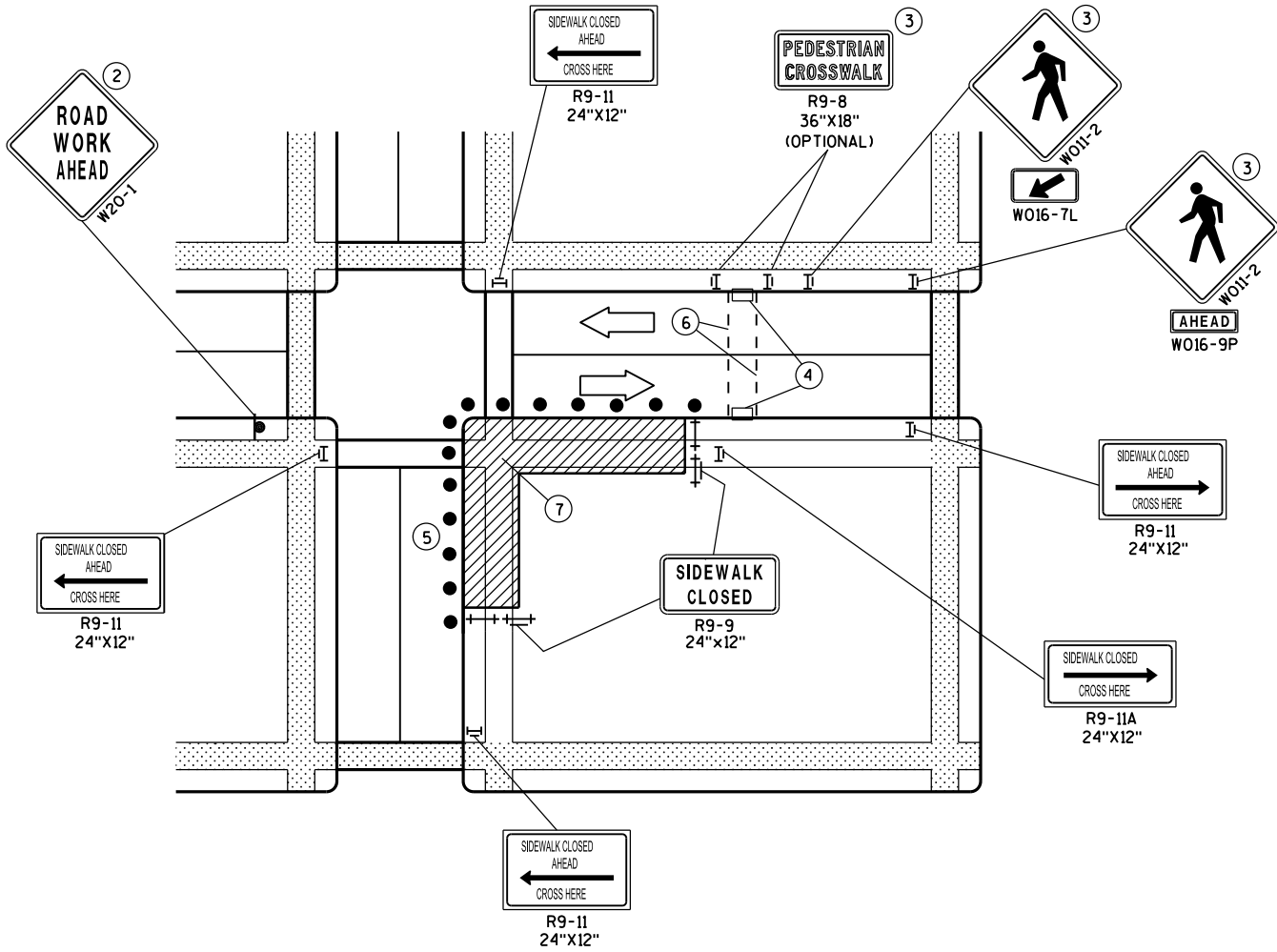
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"W0" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

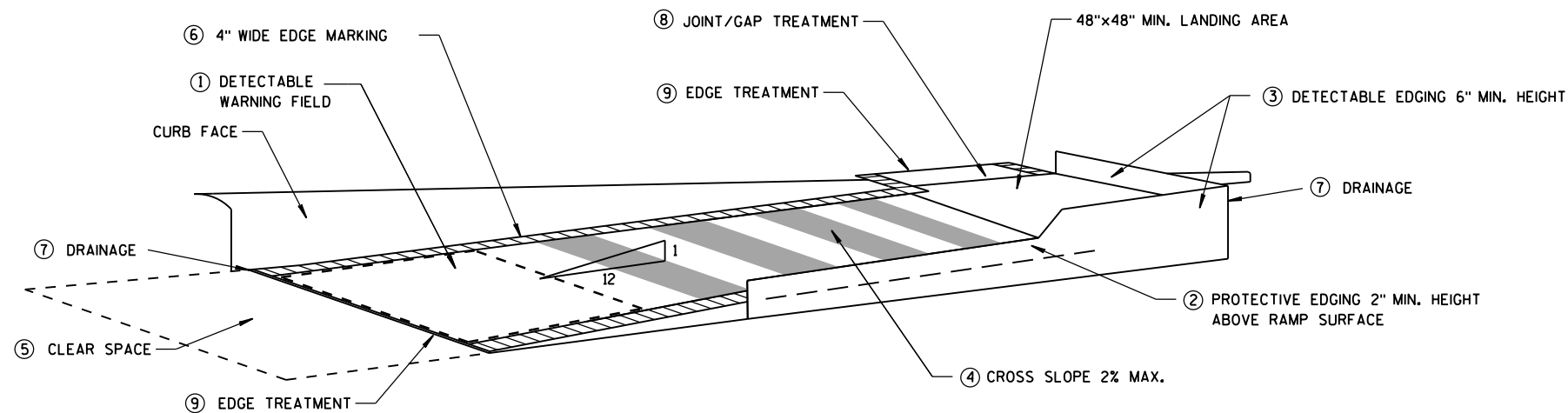
- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DRUM

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

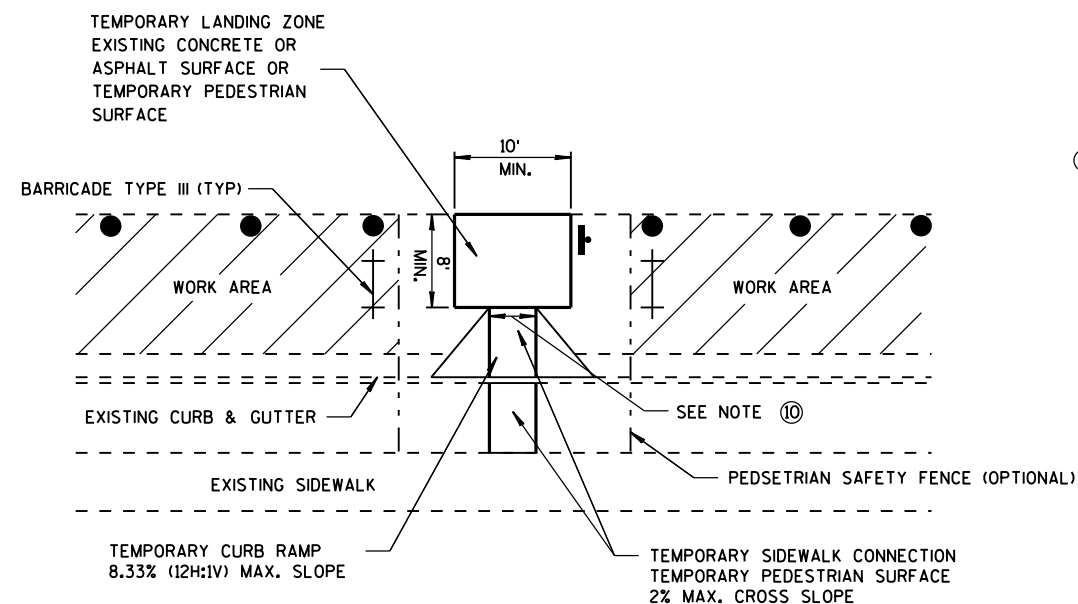
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



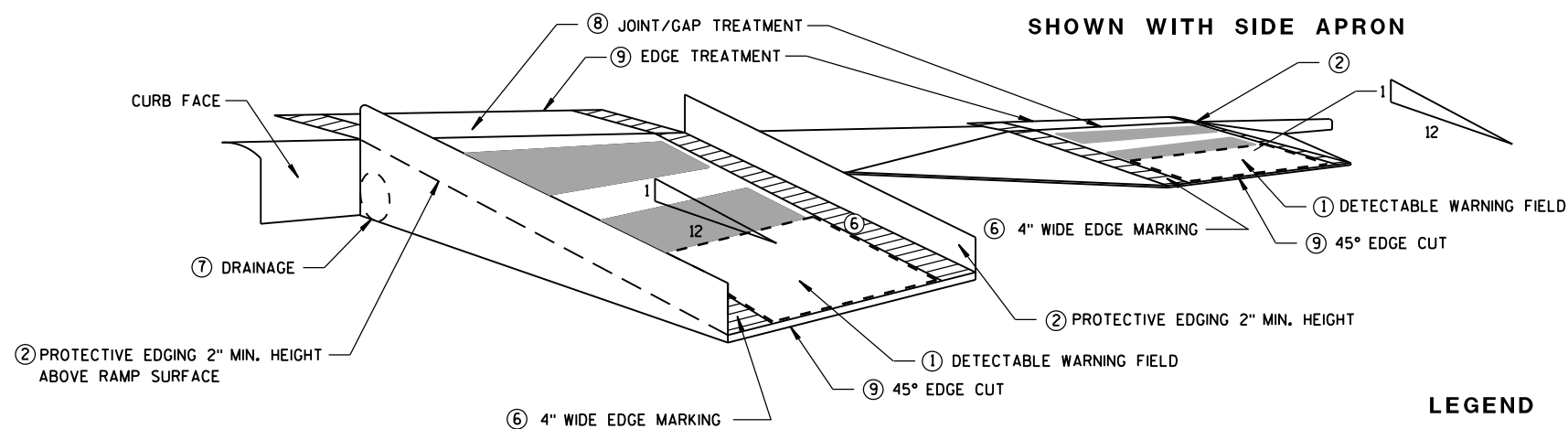
TEMPORARY CURB RAMP
PARALLEL TO CURB

GENERAL NOTES

- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.
- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".
 - 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 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
 - 5 CLEAR SPACE OF 48"x48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
 - 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
 - 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
 - 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
 - 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
 - 10 5' WIDE MIN. WITH PEDESTRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP
PERPENDICULAR TO CURB

LEGEND

- WORK AREA
- TYPE III BARRICADE
- TRAFFIC CONTROL DRUM

TRAFFIC CONTROL,
TEMPORARY ADA COMPLIANT
PEDESTRIAN ACCOMMODATION

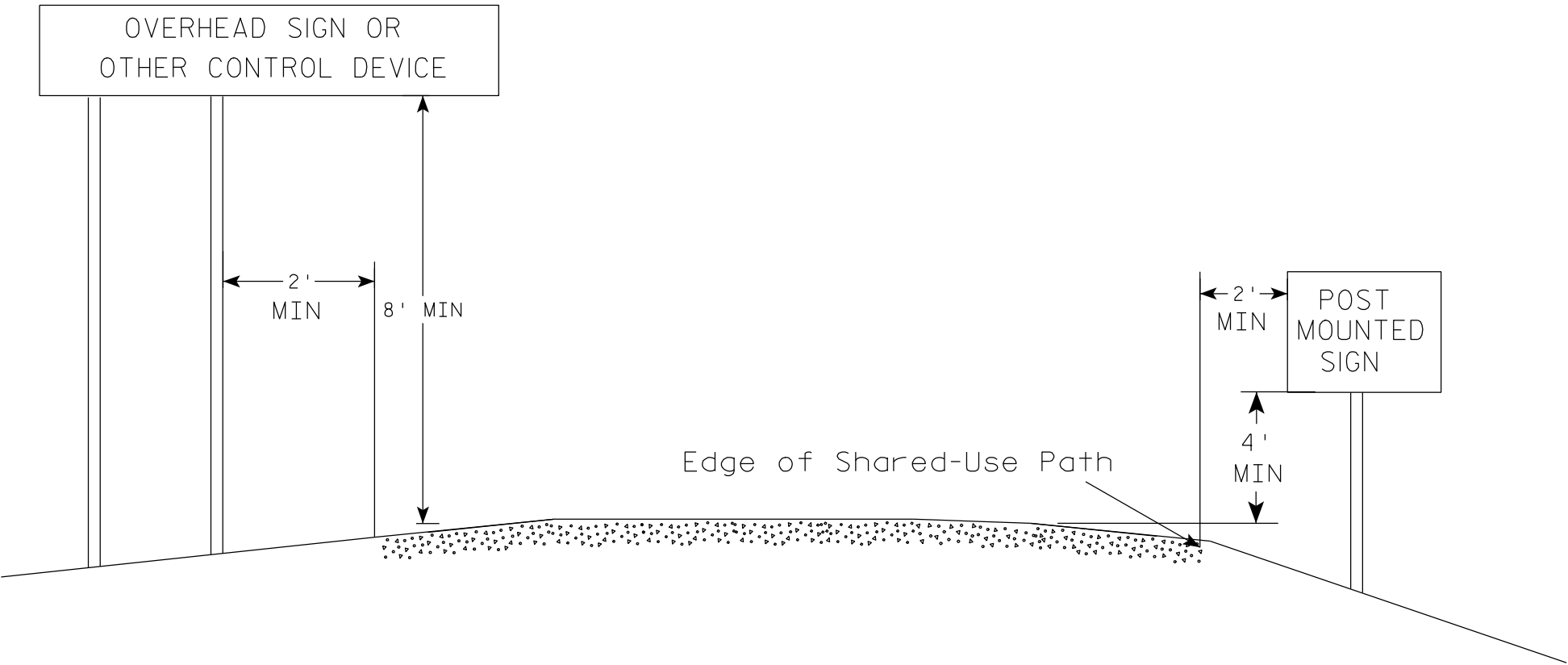
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



GENERAL NOTES

- 1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
- 2. Offset distance shall be consistent with existing signs or consistent throughout length of project.



POST EMBEDMENT DEPTH

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

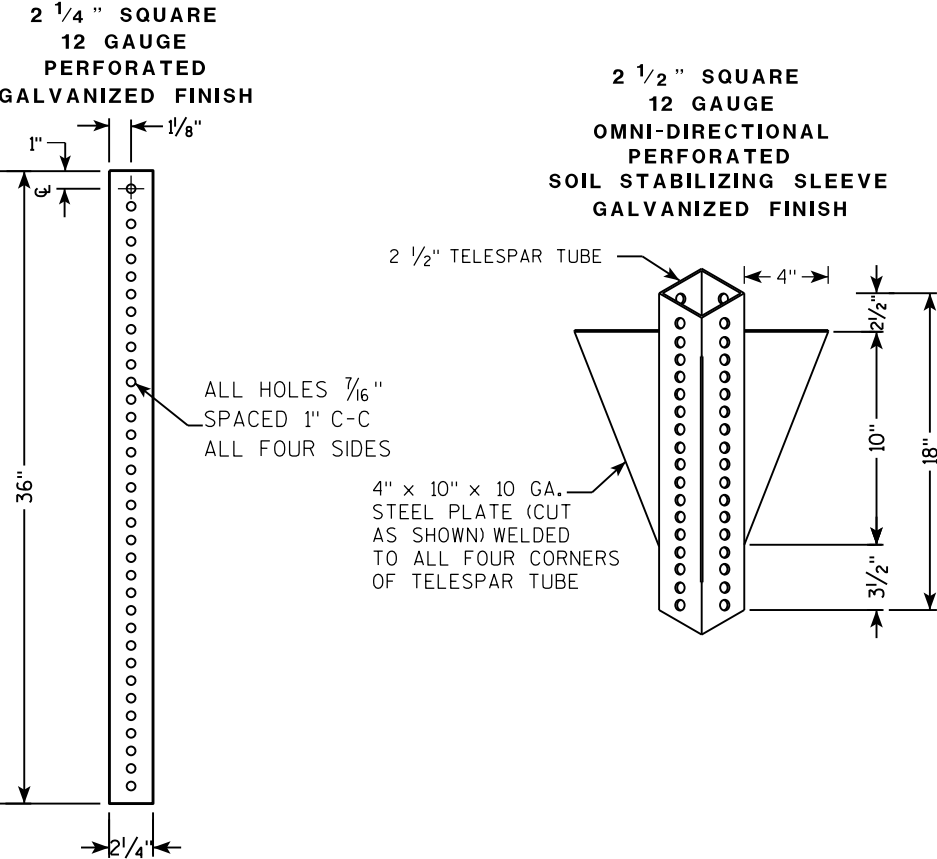
TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON MULTI USE PATHS

WISCONSIN DEPT OF TRANSPORTATION

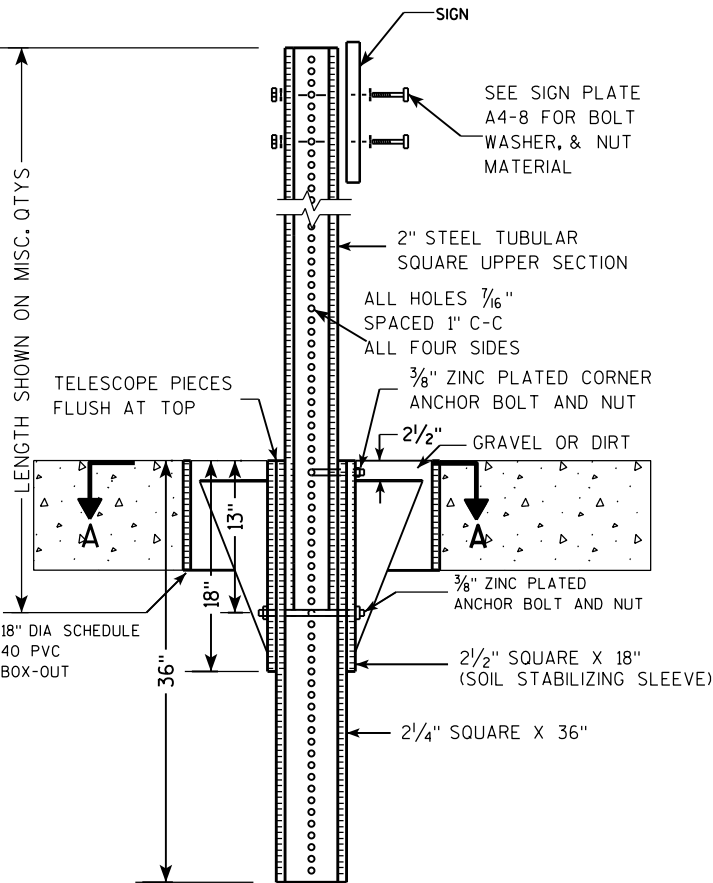
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/5/2012 PLATE NO. A4-3S.1

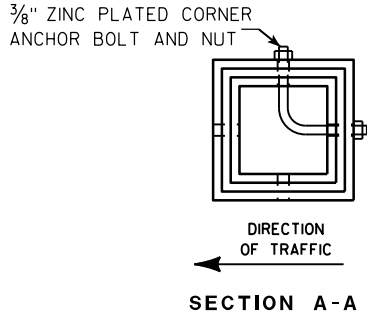
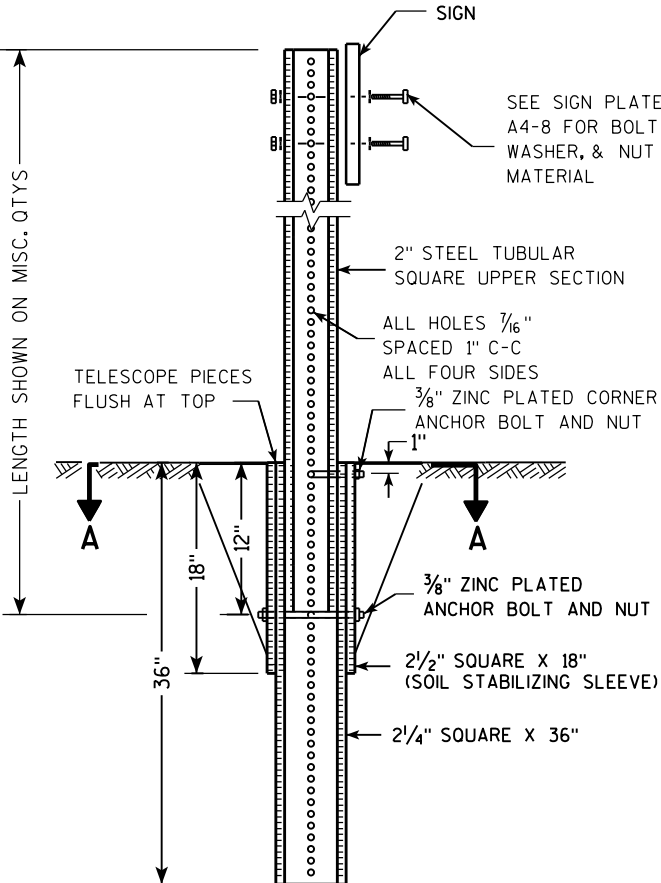
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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)



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).

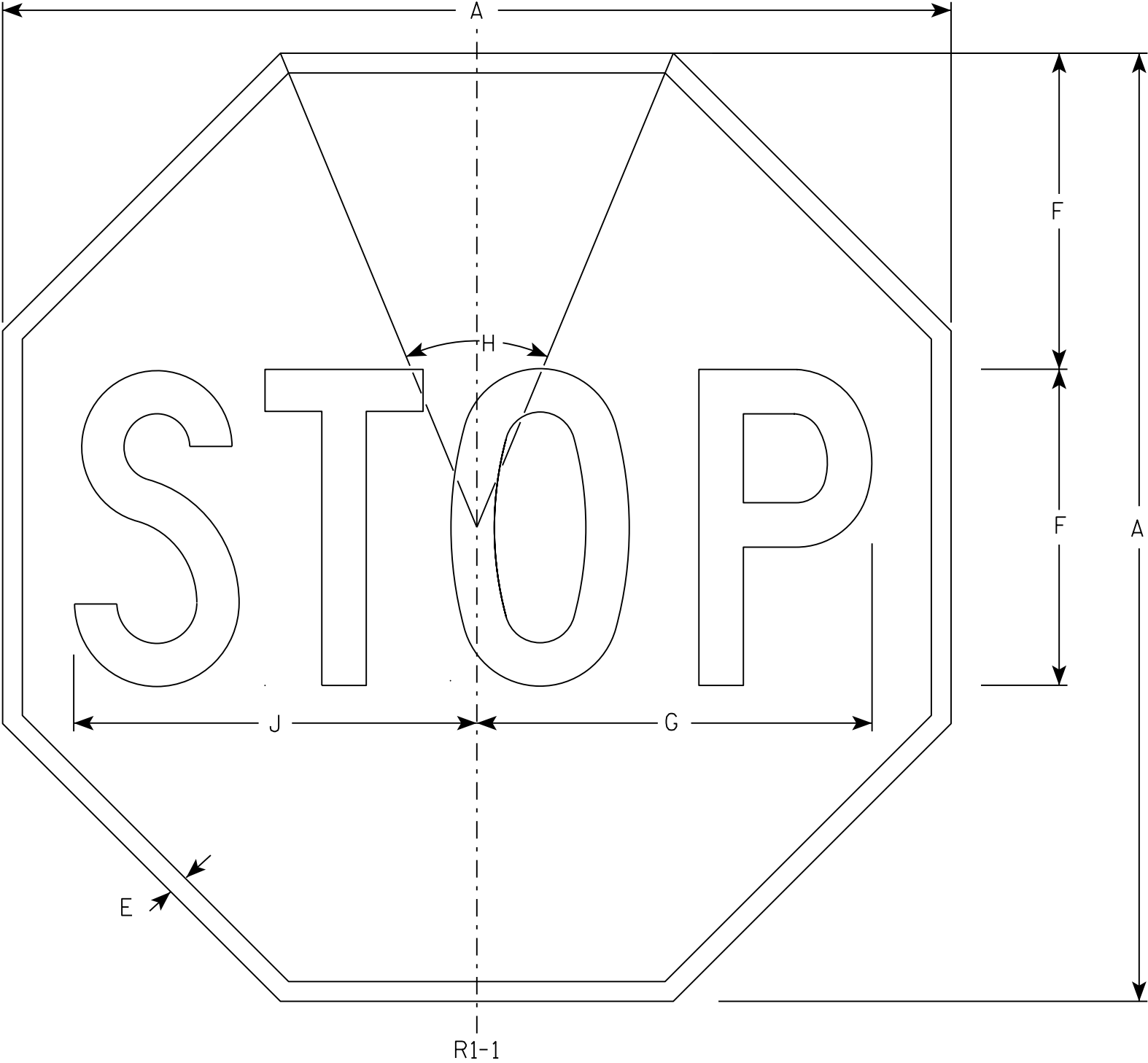
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

7



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

7

R1-1

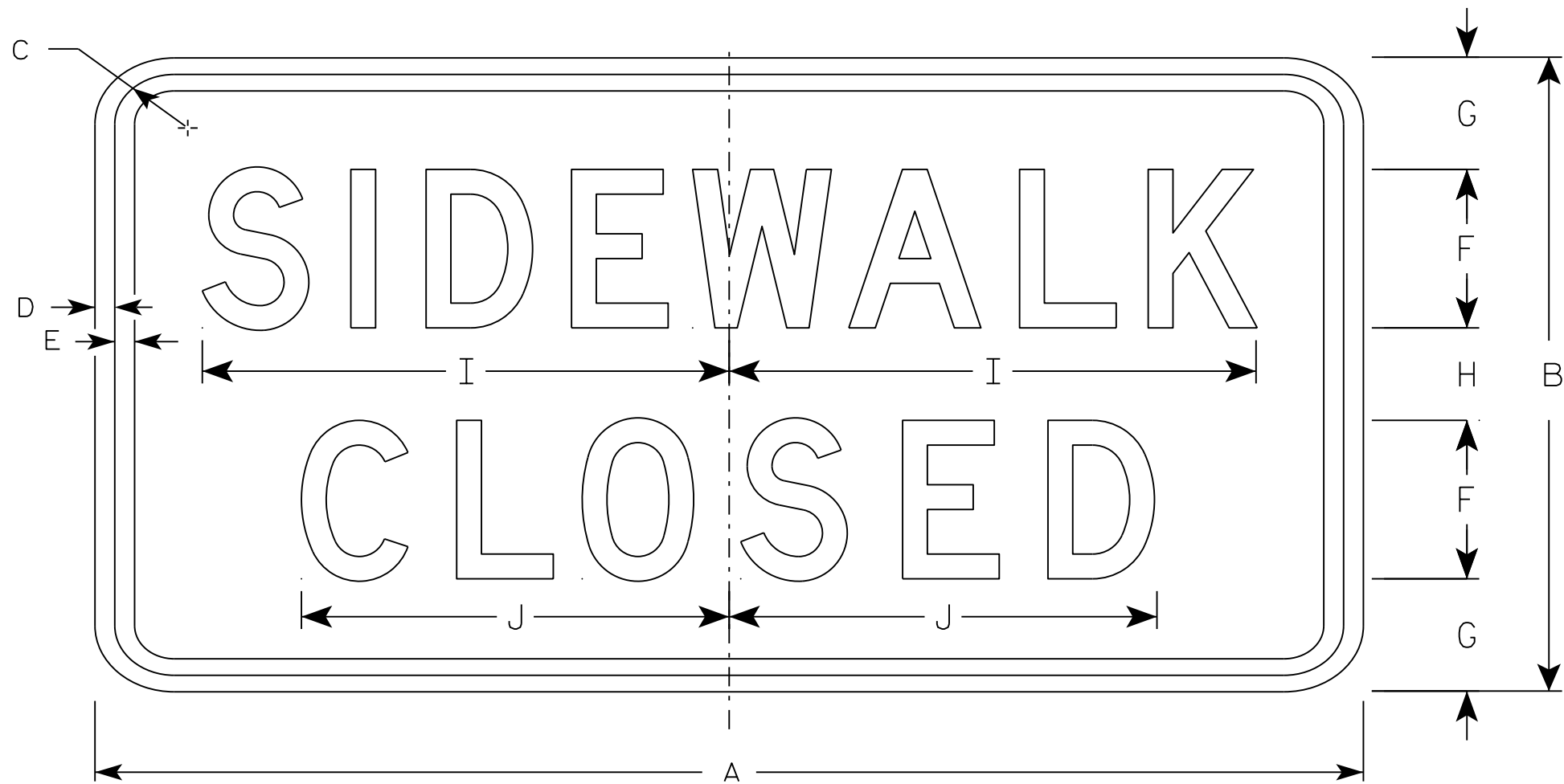
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°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



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.

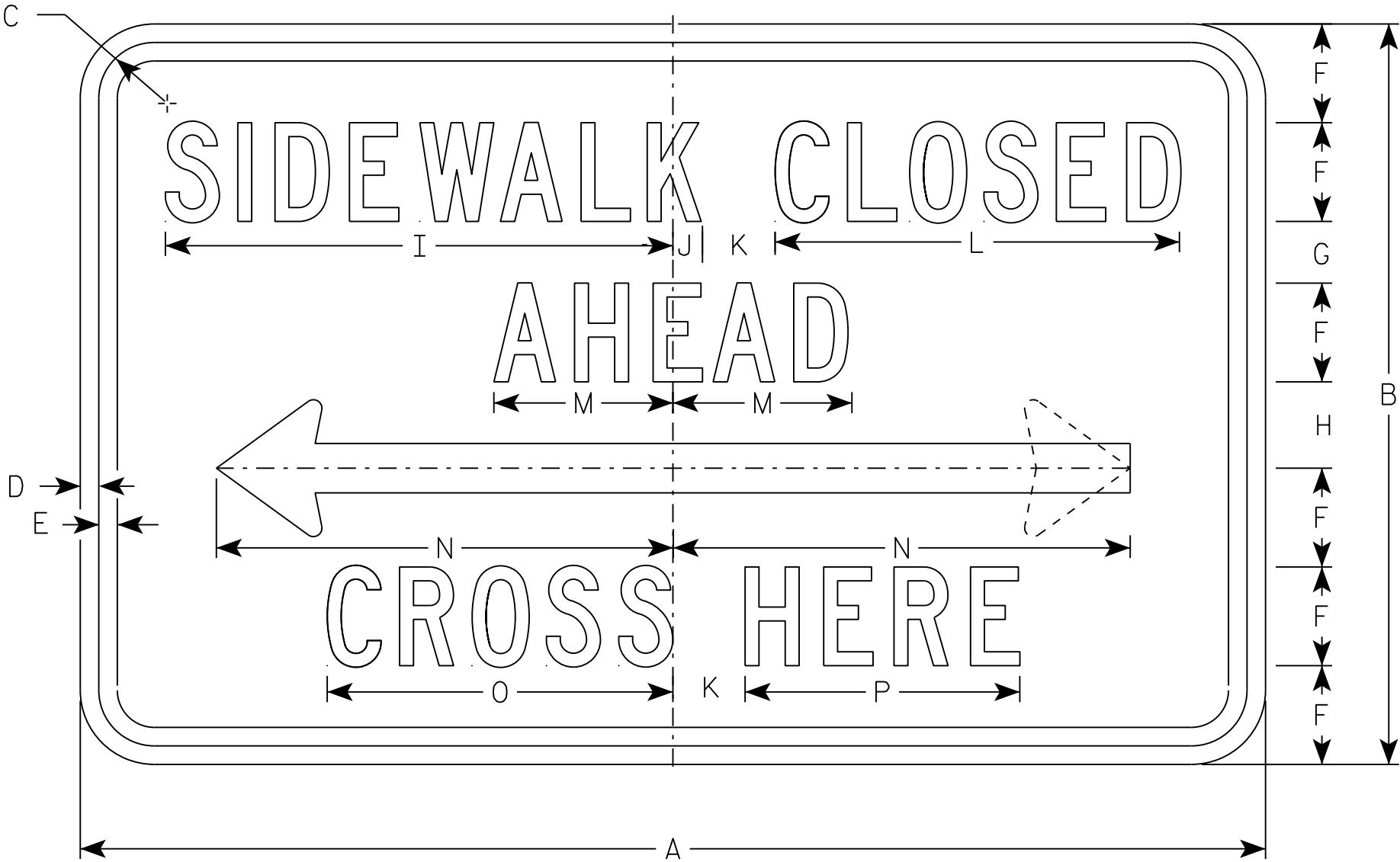
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

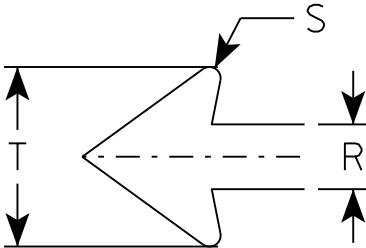
DATE 8/11/16 PLATE NO. R9-9.6



R9-11

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - C except Size 1 is 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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



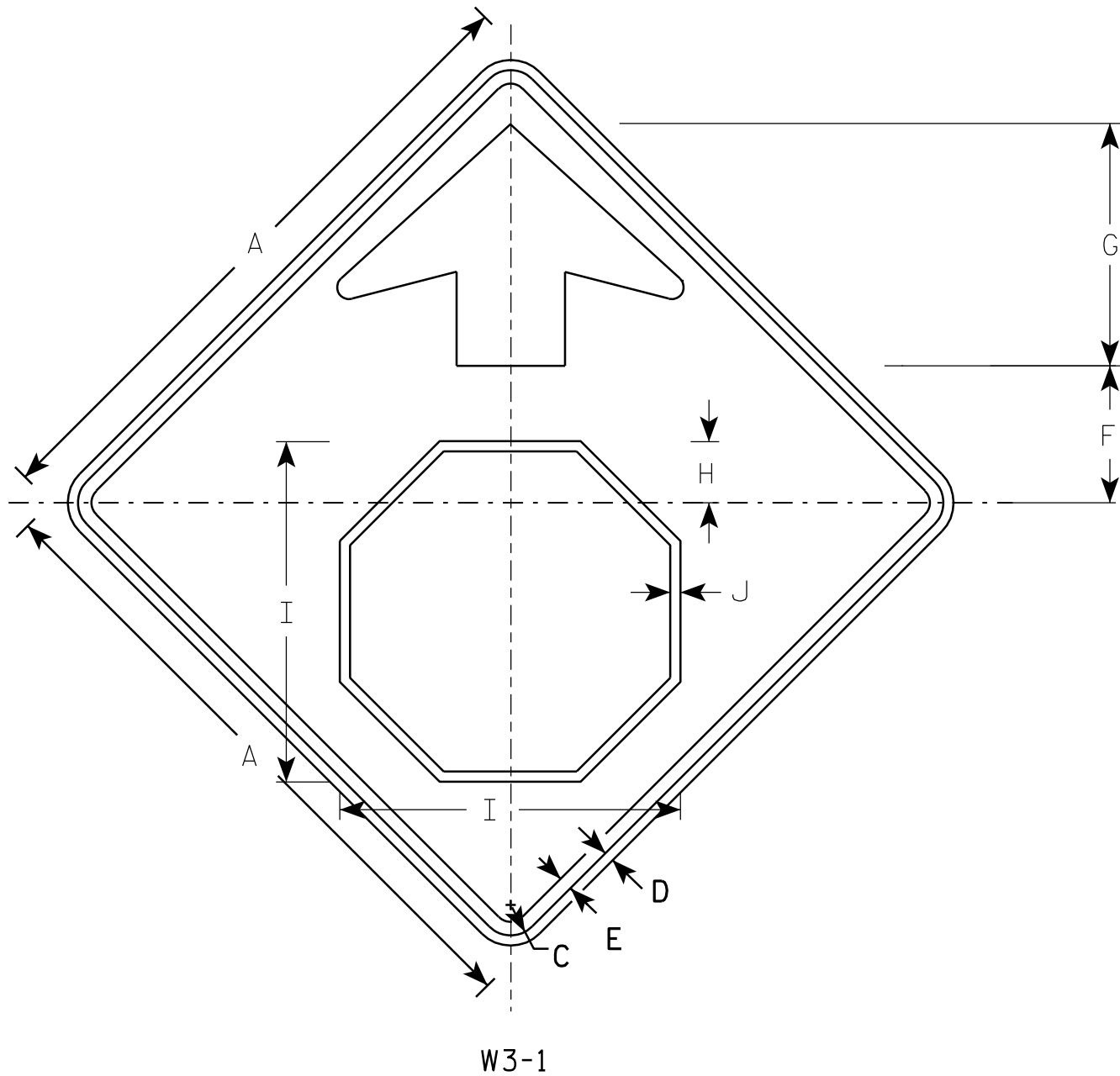
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

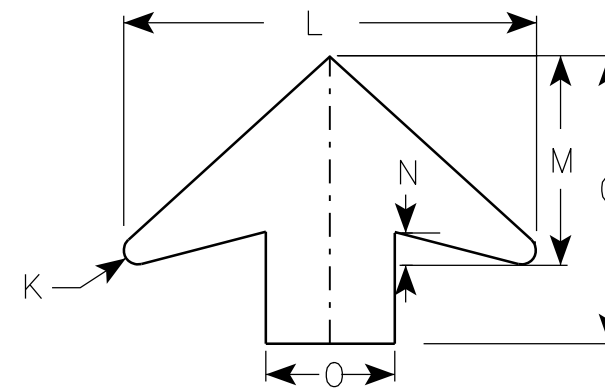
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN	
W3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/7/10	PLATE NO. W3-1.12

PROJECT NO: 5989-05-26

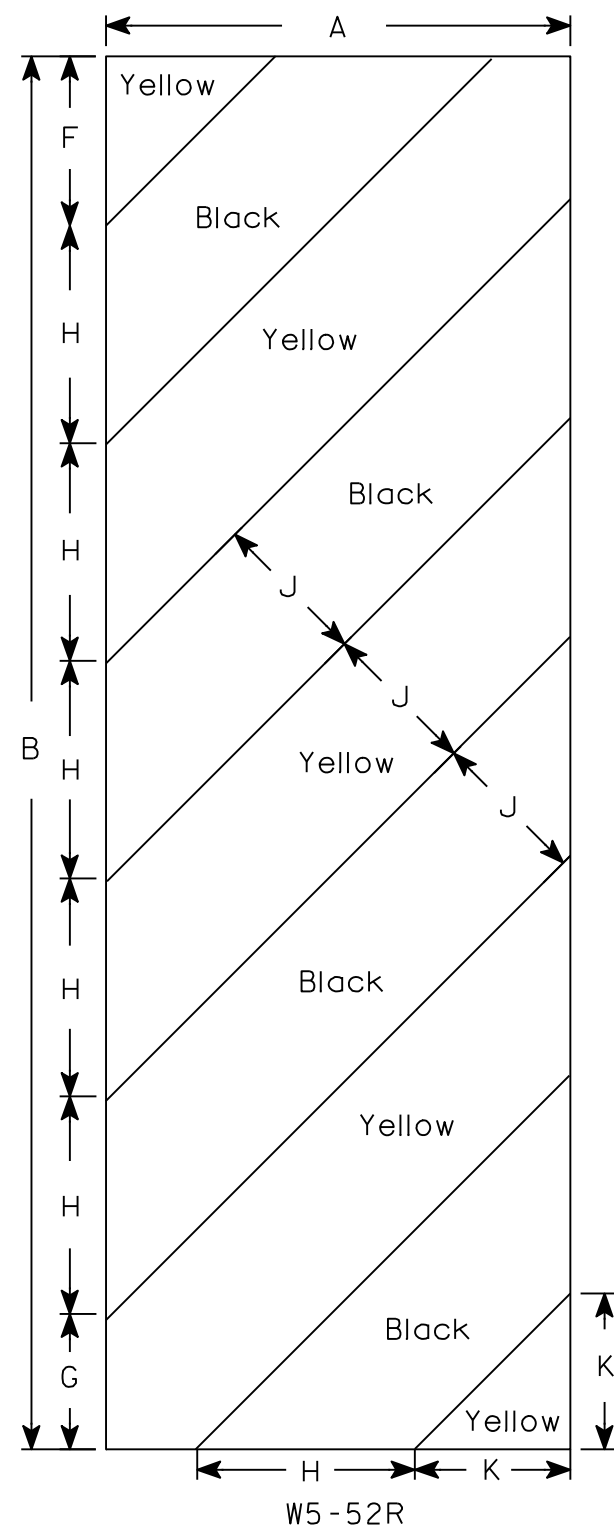
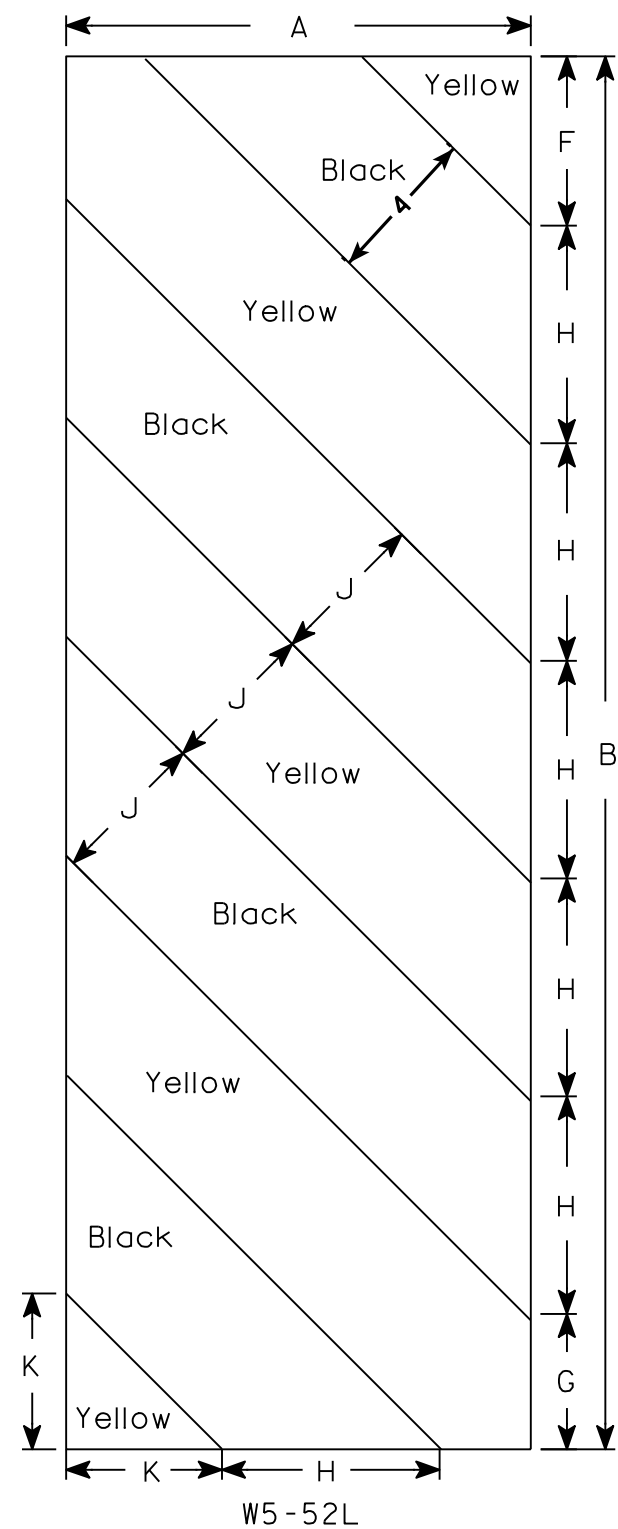
HWY: NON HWY

COUNTY: ROCK

SIGN PLATES

SHEET NO:

E



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. 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. Alternate colors of stripes as shown.

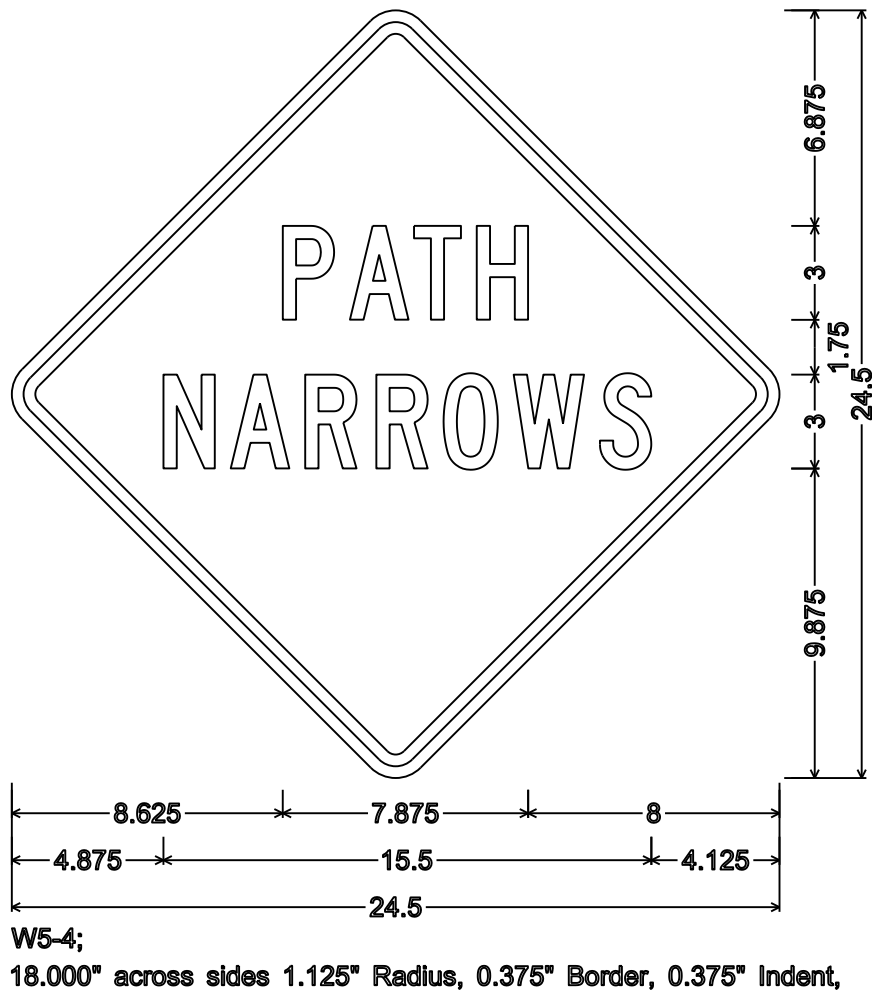
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

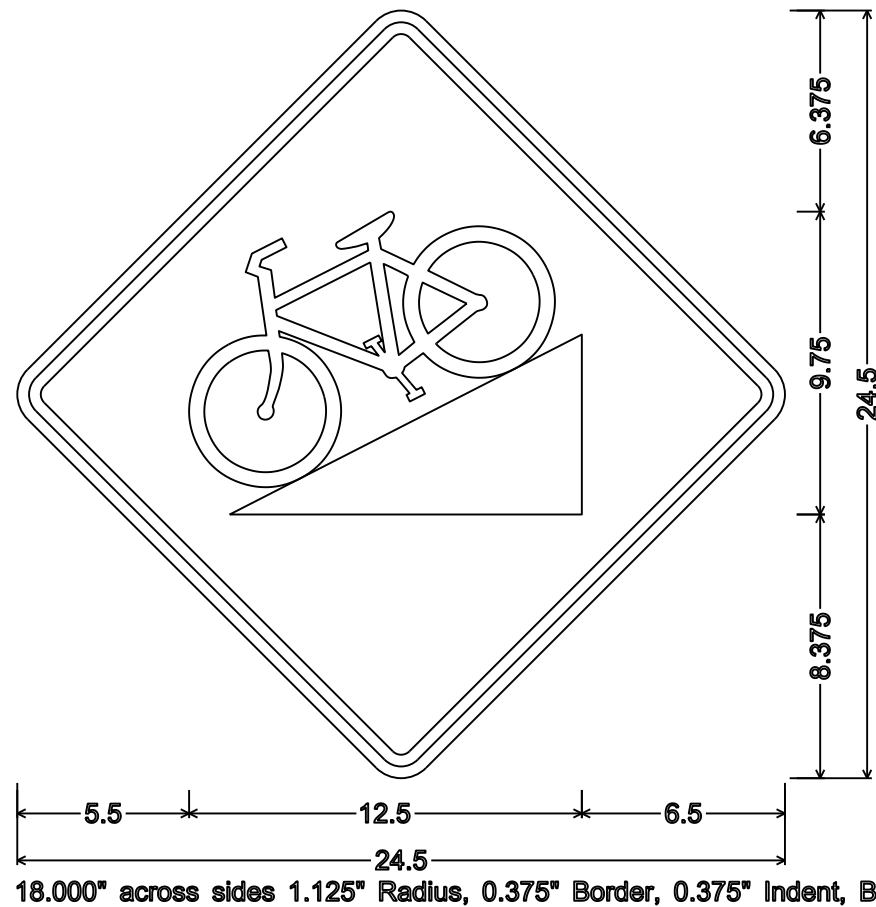
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9



NOTES

1. All Signs Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Message Series - C



DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ H-10 VEHICLE OR
90 PSF PEDESTRIAN

MATERIAL PROPERTIES

CONCRETE MASONRY, SLAB _____ f'_c = 4,000 P.S.I.
ALL OTHER _____ f'_c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL _____
REINFORCEMENT, GRADE 60 _____ f_y = 60,000 P.S.I.
PRESTRESSED BOX GIRDERS-CONCRETE MASONRY _____ f'_c = 5,000 P.S.I.
STRANDS-0.5" DIA. WITH AN ULTIMATE _____ f_y = 270,000 P.S.I.
TENSILE STRENGTH OF _____

FOUNDATION DATA

ABUTMENTS AND PIERS TO BE SUPPORTED ON PILING CIP 12 $\frac{3}{4}$ -INCH X 0.375-INCHES DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS** PER PILE FOR ABUTMENTS AND 210 TONS** PER PILE FOR PIERS AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH OF 50 FT FOR SOUTH ABUTMENT, 65 FEET FOR PIERS AND 55 FEET FOR NORTH ABUTMENT 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
DRAINAGE AREA _____ 3474 SQ. MI.
 Q_{100} TOTAL _____ 16,900 C.F.S.
AT STRUCTURE _____ 16,900 C.F.S.
OVERTOPPING ROADWAY _____ N/A
VELOCITY - AT STRUCTURE _____ 2.99 F.P.S.
WATERWAY AREA - AT STRUCTURE _____ 5,652 SQ. FT.
HIGH WATER $_{100}$ ELEVATION _____ 748.47
SCOUR CRITICAL CODE _____ 5
EROSION CONTROL
 Q_2 _____ 7,700 C.F.S.
HIGH WATER $_2$ ELEVATION _____ 743.44

LIST OF DRAWINGS

- GENERAL PLAN (1 OF 3) _____ 1.
GENERAL PLAN (2 OF 3) _____ 2.
GENERAL PLAN (3 OF 3) _____ 3.
CROSS SECTIONS AND QUANTITIES _____ 4.
SUBSURFACE EXPLORATION _____ 5.
SOUTH ABUTMENT _____ 6.
SOUTH ABUTMENT DETAILS _____ 7.
NORTH ABUTMENT _____ 8.
NORTH ABUTMENT DETAILS _____ 9.
PIERS 1, 3, 5, 7, AND 9 DETAILS _____ 10.
PIERS 2, 4, 6, AND 8 DETAILS _____ 11.
PRESTRESSED CONCRETE BOX GIRDER _____ 12.
PRESTRESSED CONCRETE BOX GIRDER TABLE _____ 13.
PRESTRESSED CONCRETE BOX GIRDER DETAILS _____ 14.
DECK PLAN & GIRDER LAYOUT (1 OF 2) _____ 15.
DECK PLAN & GIRDER LAYOUT (2 OF 2) _____ 16.
RAILING DETAILS _____ 17.
WINGWALL RAILING DETAILS _____ 18.
CHAIN LINK FENCE DETAILS (1 OF 2) _____ 19.
CHAIN LINK FENCE DETAILS (2 OF 2) _____ 20.



DESIGN CONSULTANT

TOM ROMENESKO, PE
(608) 588-7484

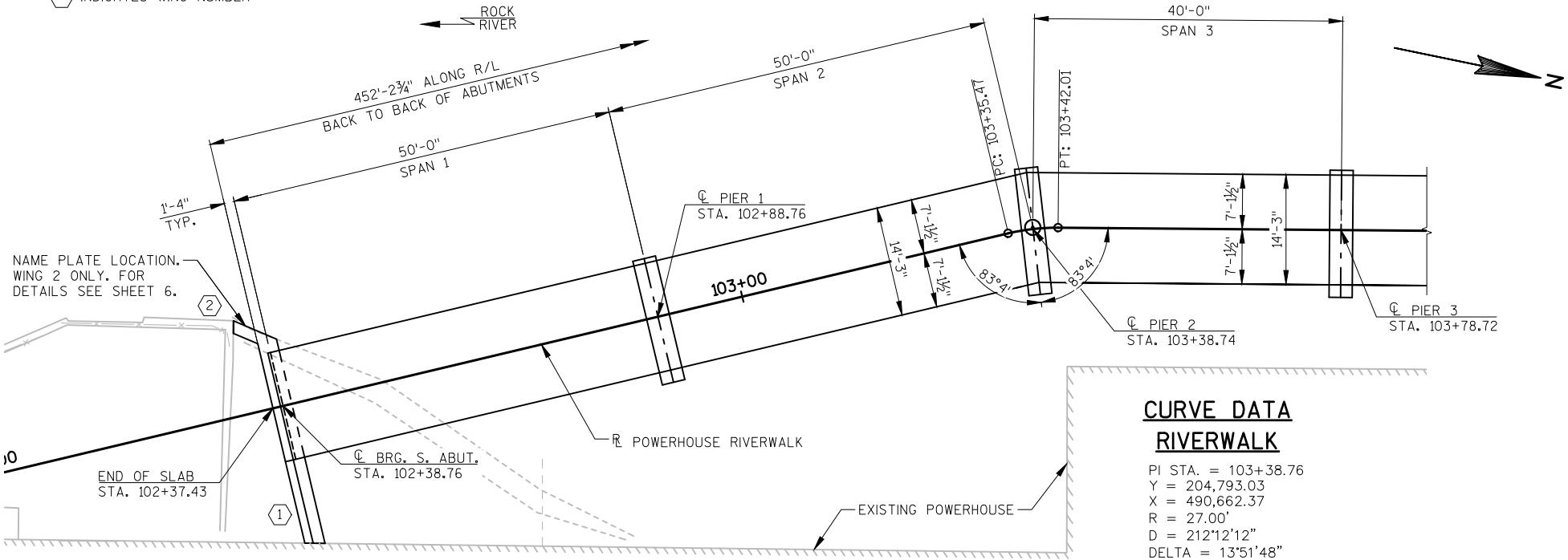
BRIDGE OFFICE CONTACT

WILLIAM DREHER, PE
(608) 266-8489

GENERAL PLAN
(1 OF 3)

SHEET 1 OF 20

INDICATES WING NUMBER

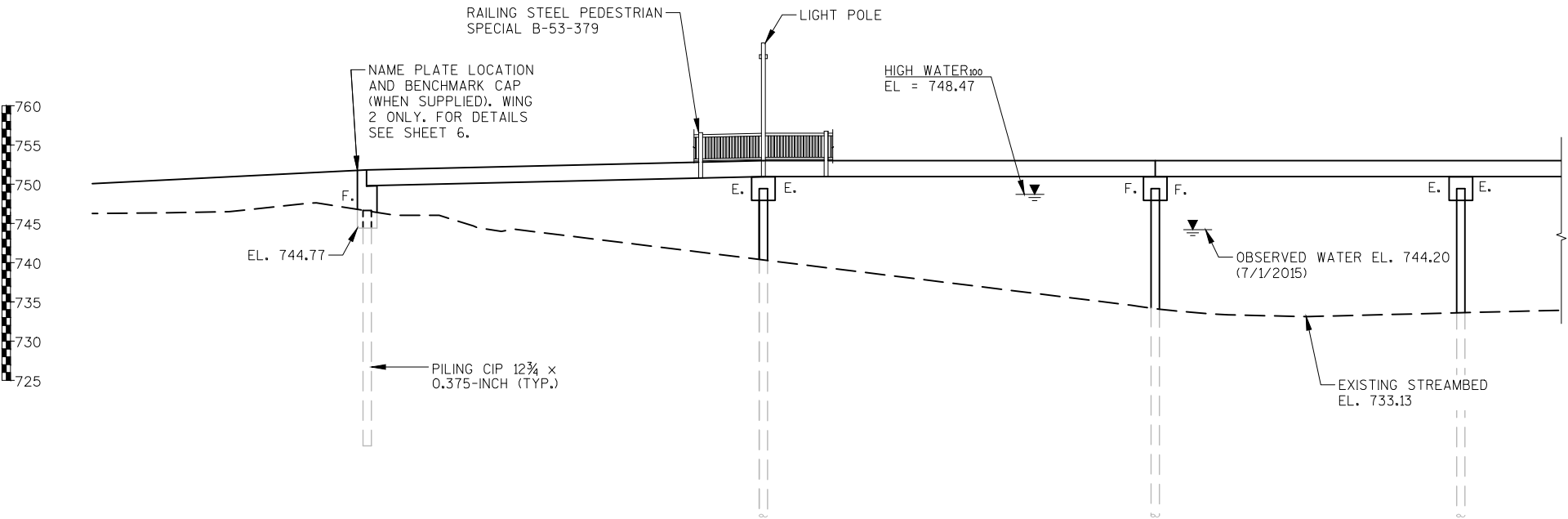


PLAN

(TEN SPAN - 21" PRESTRESSED CONCRETE BOX GIRDERS)

CURVE DATA
RIVERWALK

PI STA. = 103+38.76
Y = 204,793.03
X = 490,662.37
R = 27.00'
D = 212°12'12"
DELTA = 13°51'48"
L = 6.53'
T = 3.28'
C = 6.52'
PC STA. = 103+35.47
Y = 204,790.05
X = 490,663.75
PT STA. = 103+42.01
Y = 204,796.25
X = 490,661.74



ELEVATION

(PERPENDICULAR TO CENTERLINE)

BENCH MARKS

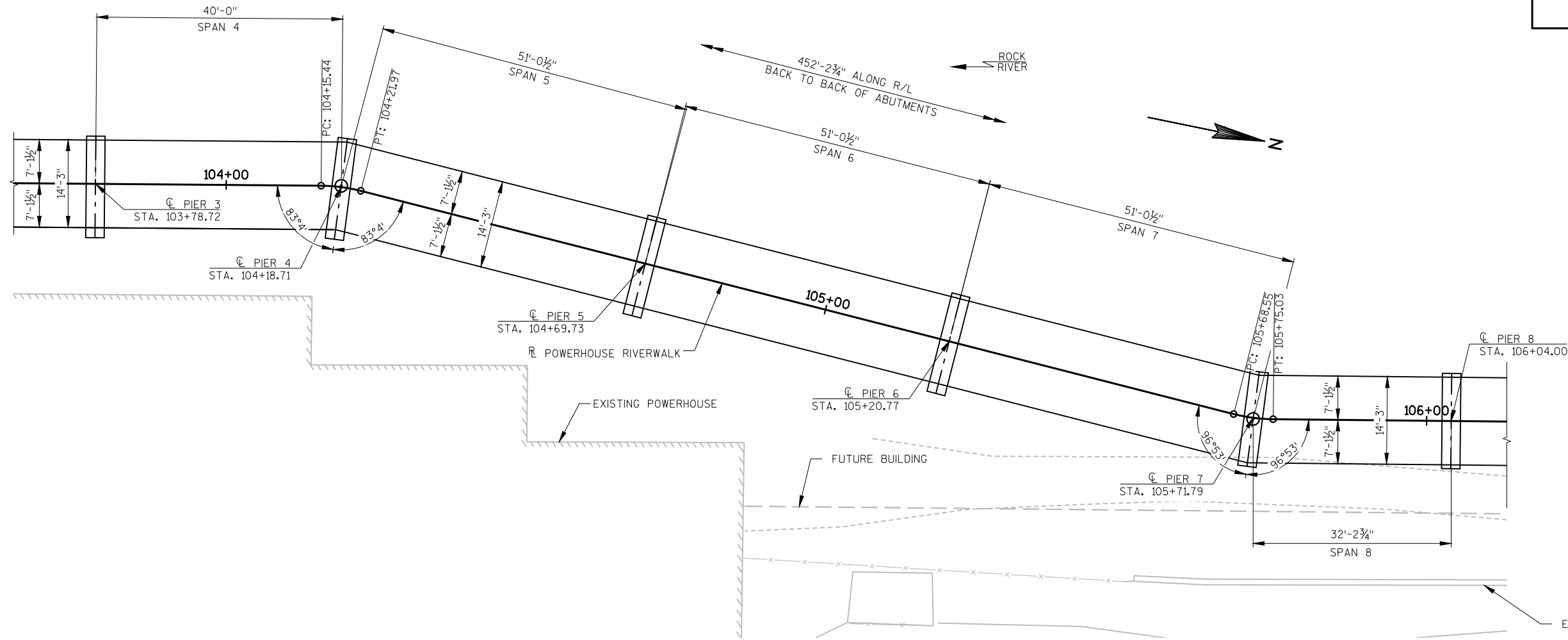
NO.	STA.	DESCRIPTION	ELEV.
1	100+86	DISK IN CONCRETE WP&L STA 4, 12.7' LT.	749.48
2	101+84	*30 BRASS PLUG IN CONCRETE, 56.9' LT.	748.45

CURVE DATA
RIVERWALK

PI STA. = 104+18.72
Y = 204,871.53
X = 490,646.96
R = 26.98'
D = 212'22'44"
DELTA = 13'51'47"
L = 6.53'
T = 3.28'
C = 6.51'
PC STA. = 104+15.44
Y = 204,868.31
X = 490,647.60
PT STA. = 104+21.97
Y = 204,874.81
X = 490,647.12

CURVE DATA
RIVERWALK

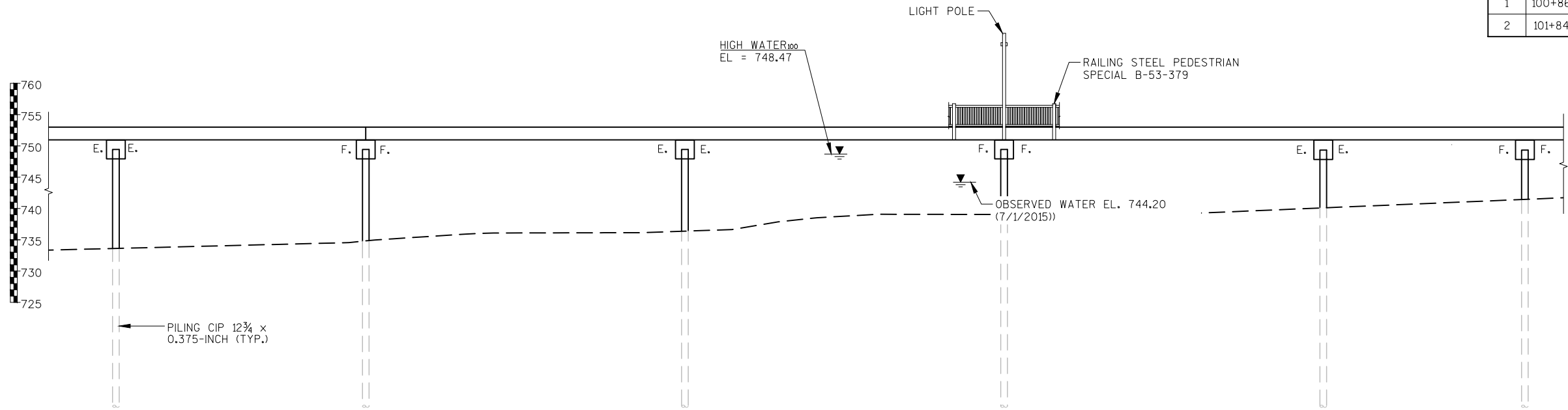
PI STA. = 105+71.81
Y = 205,024.47
X = 490,654.34
R = 27.00'
D = 212'12'24"
DELTA = 13'45'38"
L = 6.48'
T = 3.26'
C = 6.47'
PC STA. = 105+68.55
Y = 205,021.21
X = 490,654.18
PT STA. = 105+75.03
Y = 205,027.67
X = 490,653.72



PLAN
(TEN SPAN - 21" PRESTRESSED CONCRETE BOX GIRDERS)

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	100+86	DISK IN CONCRETE WP&L STA 4, 12.7' LT.	749.48
2	101+84	#30 BRASS PLUG IN CONCRETE, 56.9' LT.	748.45



ELEVATION
(PERPENDICULAR TO CENTERLINE)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		RBH	PLANS CKD. PTB
GENERAL PLAN (2 OF 3)			SHEET 2 OF 20

PI STA. = 106+36.23
 Y = 205,087.74
 X = 490,642.04
 R = 27.00'
 D = 212°12'24"
 DELTA = 27°06'12"
 L = 12.77'
 T = 6.51'
 C = 12.65'
 PC STA. = 106+29.72
 Y = 205,081.35
 X = 490,643.28
 PT STA. = 106+42.49
 Y = 205,093.99
 X = 490,643.84

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE SLOPE OF FILL IN FRONT OF THE NORTH ABUTMENT SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 3 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A. SEE SHEET 7 FOR DETAIL.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE BOX GIRDERS AND EXTERIOR 12" OF THE UNDERSIDE OF THE BOX GIRDERS.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

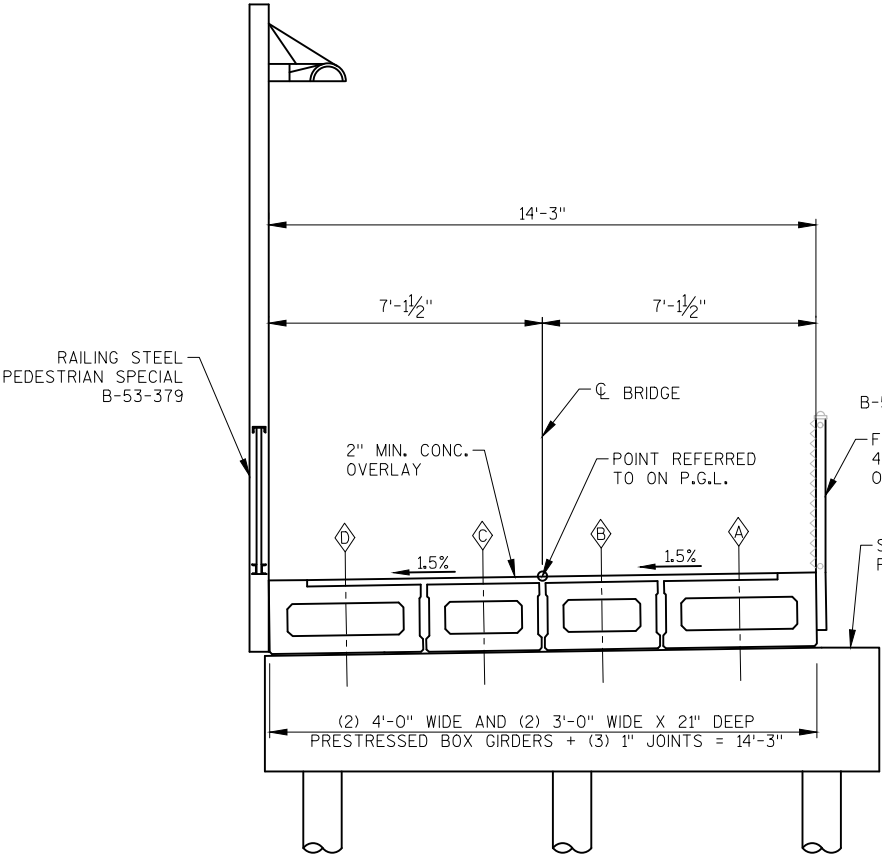
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.



NO.	STA.	DESCRIPTION	ELEV.
1	100+86	DISK IN CONCRETE WP&L STA 4, 12.7' LT.	749.48
2	101+84	#30 BRASS PLUG IN CONCRETE, 56.9' LT.	748.45

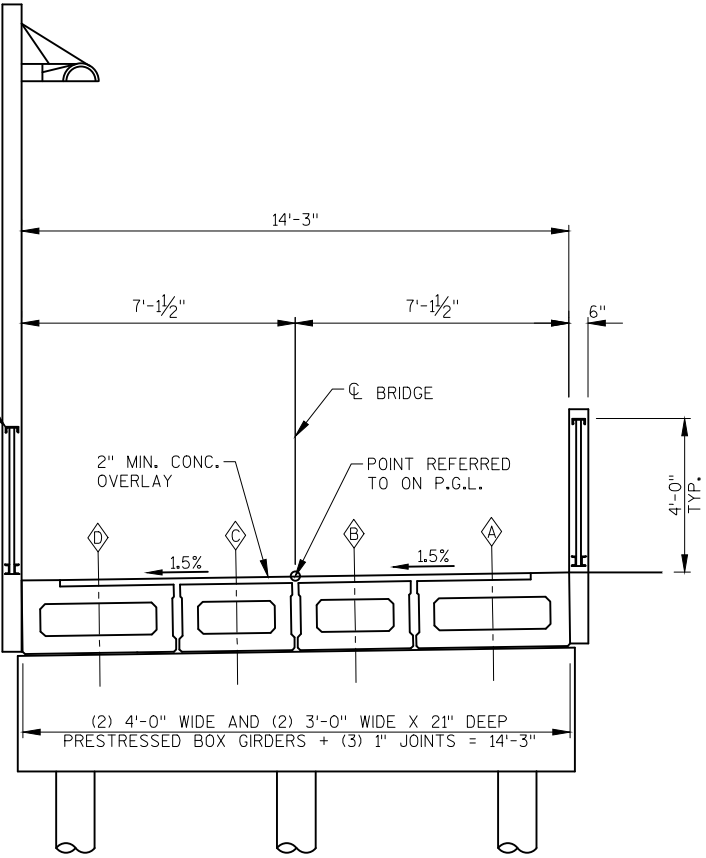
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		RBH	PLANS CKD. PTB
GENERAL PLAN (3 OF 3)		SHEET 3 OF 20	

◇ INDICATES GIRDER LINE



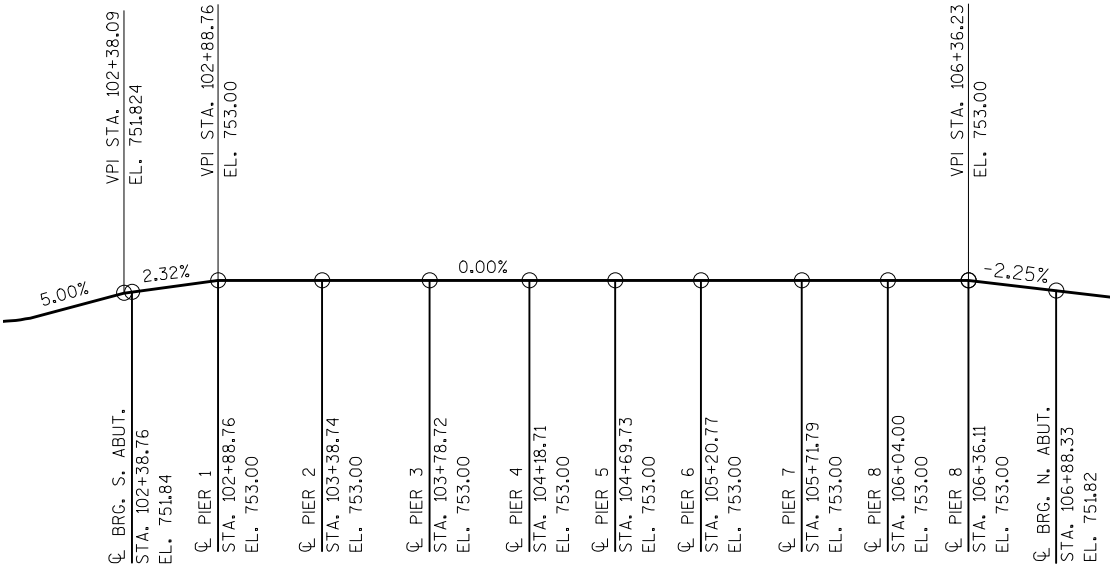
CROSS SECTION THROUGH STRUCTURE

(SOUTH END OF BRIDGE TO PIER 6)
LOOKING NORTH



CROSS SECTION THROUGH STRUCTURE

(PIER 6 TO NORTH END OF BRIDGE)
LOOKING NORTH



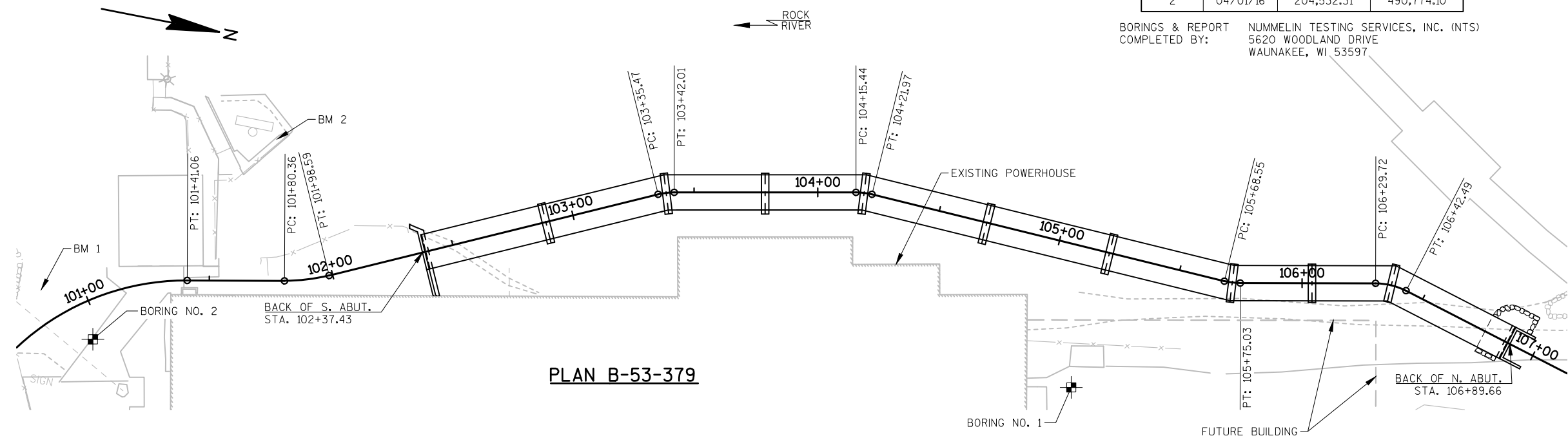
PROFILE GRADE LINE

BELOIT POWERHOUSE RIVERWALK

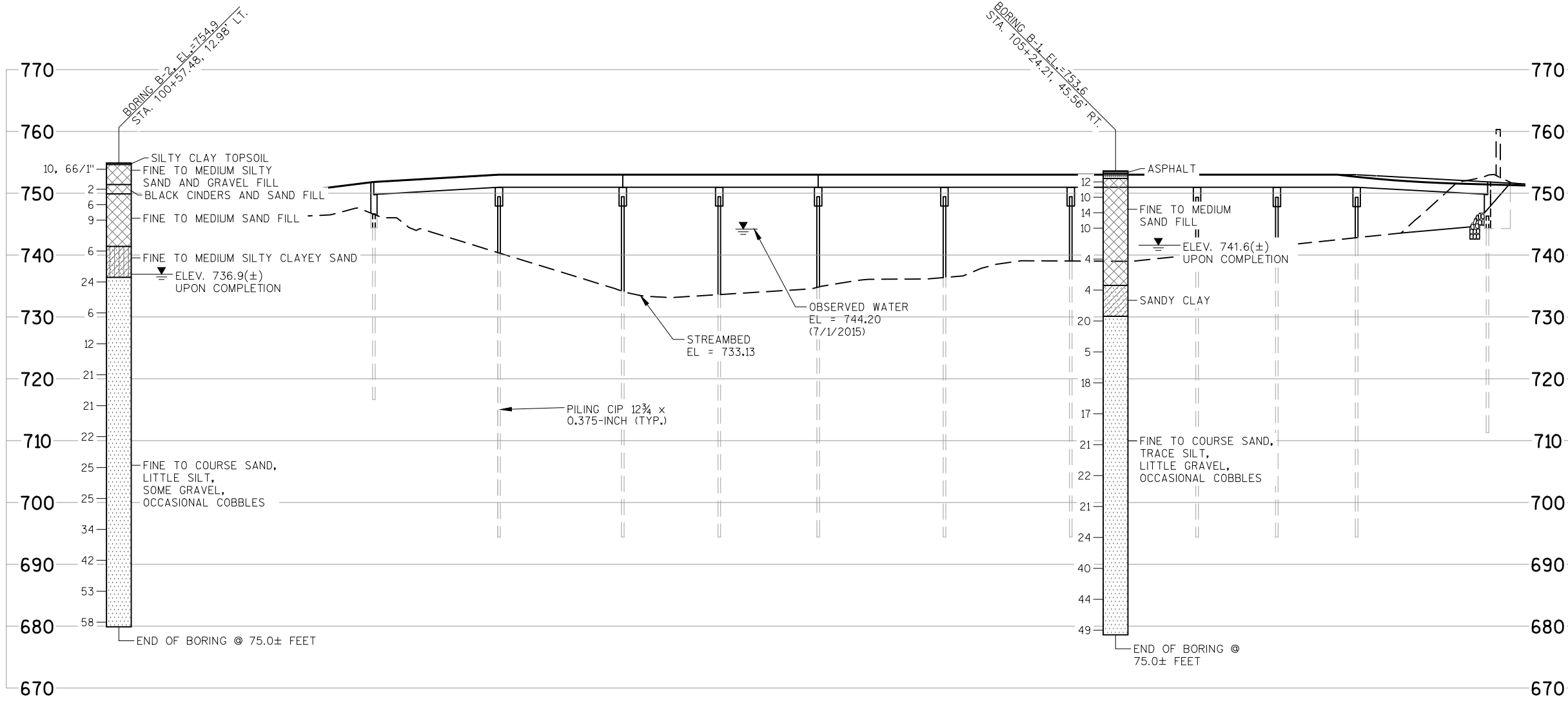
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 8	PIER 9	N. ABUT.	SUPER.	TOTALS
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-53-379	LS	--	--	--	--	--	--	--	--	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	85	--	--	--	--	--	--	--	--	--	55	--	140
502.0100	CONCRETE MASONRY BRIDGES	CY	15.5	6.6	6.6	6.6	6.6	6.6	6.6	6.2	6.2	6.2	19.3	--	93
502.2000	COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC (1-INCH)	LF	--	--	--	--	--	--	--	--	--	--	--	72	72
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	--	--	--	--	--	--	--	--	1,010	1,010
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,680	1,560	1,590	1,560	1,590	1,560	1,590	1,520	1,560	1,520	1,650	1,080	18,460
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EA	4	8	8	8	8	8	8	8	8	8	4	--	80
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	--	--	--	--	--	--	--	--	--	--	--	43	43
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5	--	--	--	--	--	--	--	--	--	6	--	11
550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	200	195	195	195	195	195	195	195	195	195	165	--	2,120
550.0500	PILE POINTS	EACH	4	3	3	3	3	3	3	3	3	3	3	--	34
606.0300	RIPRAP HEAVY	CY	--	--	--	--	--	--	--	--	--	--	25	--	25
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	30	--	--	--	--	--	--	--	--	--	50	--	80
616.0204	FENCE CHAIN LINK 4-FT	LF	--	--	--	--	--	--	--	--	--	--	--	257	257
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	25	--	--	--	--	--	--	--	--	--	20	--	45
645.0120	GEOTEXTILE TYPE HR	SY	--	--	--	--	--	--	--	--	--	--	50	--	50
SPV.0090.01	RAILING STEEL PEDESTRIAN SPECIAL B-53-379	LF	--	--	--	--	--	--	--	--	--	--	--	672	672
SPV.0090.02	PRESTRESSED GIRDERS BOX TYPE 21-INCH	LF	--	--	--	--	--	--	--	--	--	--	--	1,782	1,782
NON-BID ITEMS															
	FILLER	SIZE	--	--	--	--	--	--	--	--	--	--	--	--	½" & ¾"
	NAME PLATE														

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY RBH		PLANS CK'D.	PTB
CROSS SECTIONS AND QUANTITIES			SHEET 4 OF 20



PLAN B-53-379



SOIL BORINGS			
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	03/31/16	204,968.80	490,708.30
2	04/01/16	204,532.31	490,774.10

BORINGS & REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC. (NTS)
5620 WOODLAND DRIVE
WAUNAKEE, WI 53597

STATE PROJECT NUMBER

5989-05-26

MATERIAL SYMBOLS

Asphalt

Concrete

Sand

Boulders or Cobbles

Shale

Topsoil

Fill

Clay

Limestone

Sandstone

Peat

Gravel

Silt

Bedrock (unknown)

Igneous/meta

LEGEND OF BORING

BORING #/EL STA./OFFSE

ST

(1) 0.25

(2) 17

F-C COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC=80%, RQD=72%

(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 ELEVATIONS

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

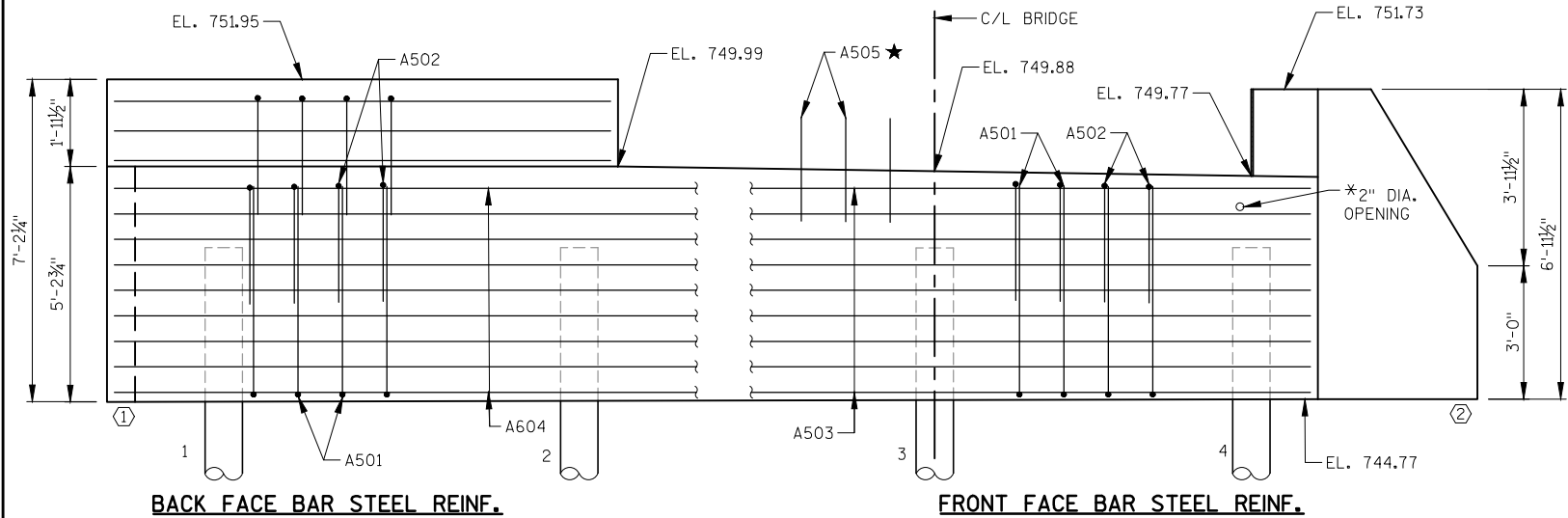
ABBREVIATIONS

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

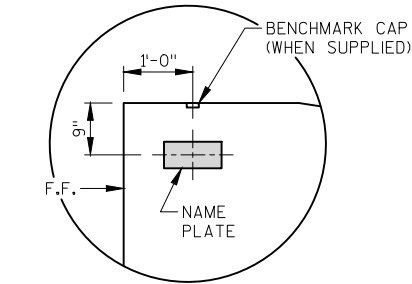
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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.

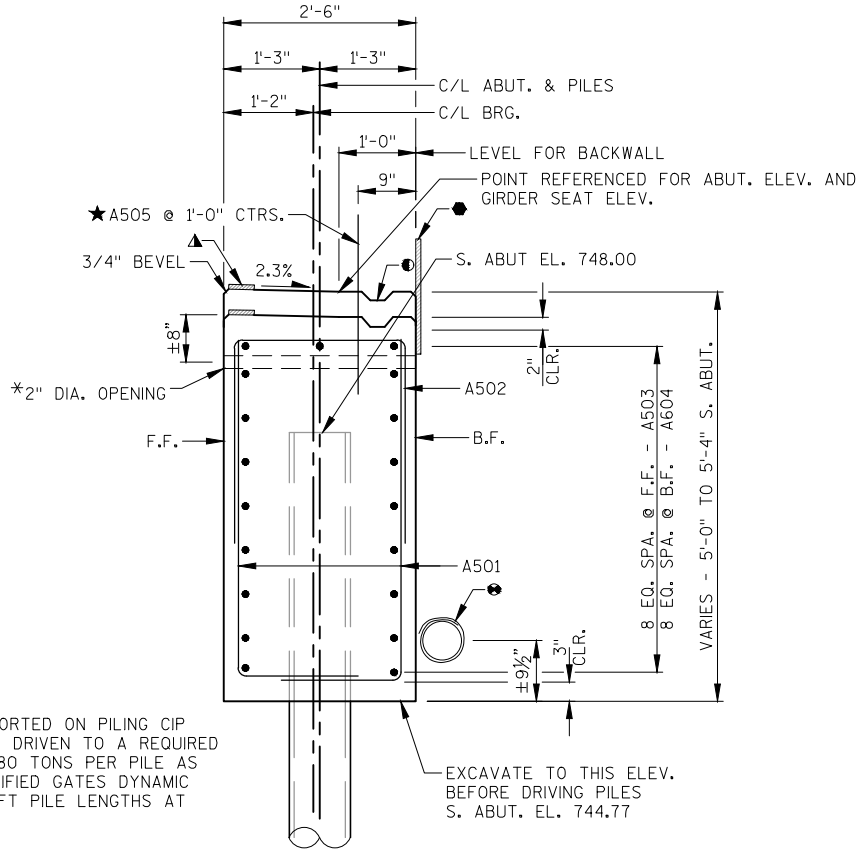
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		PLANS CKD.	PTB
SUBSURFACE EXPLORATION			SHEET 5 OF 20



ELEVATION
(SOUTH ABUTMENT LOOKING SOUTH)



NAME PLATE AND BENCHMARK CAP DETAIL
WING 2 ONLY



TYPICAL SECTION THROUGH ABUTMENT BODY

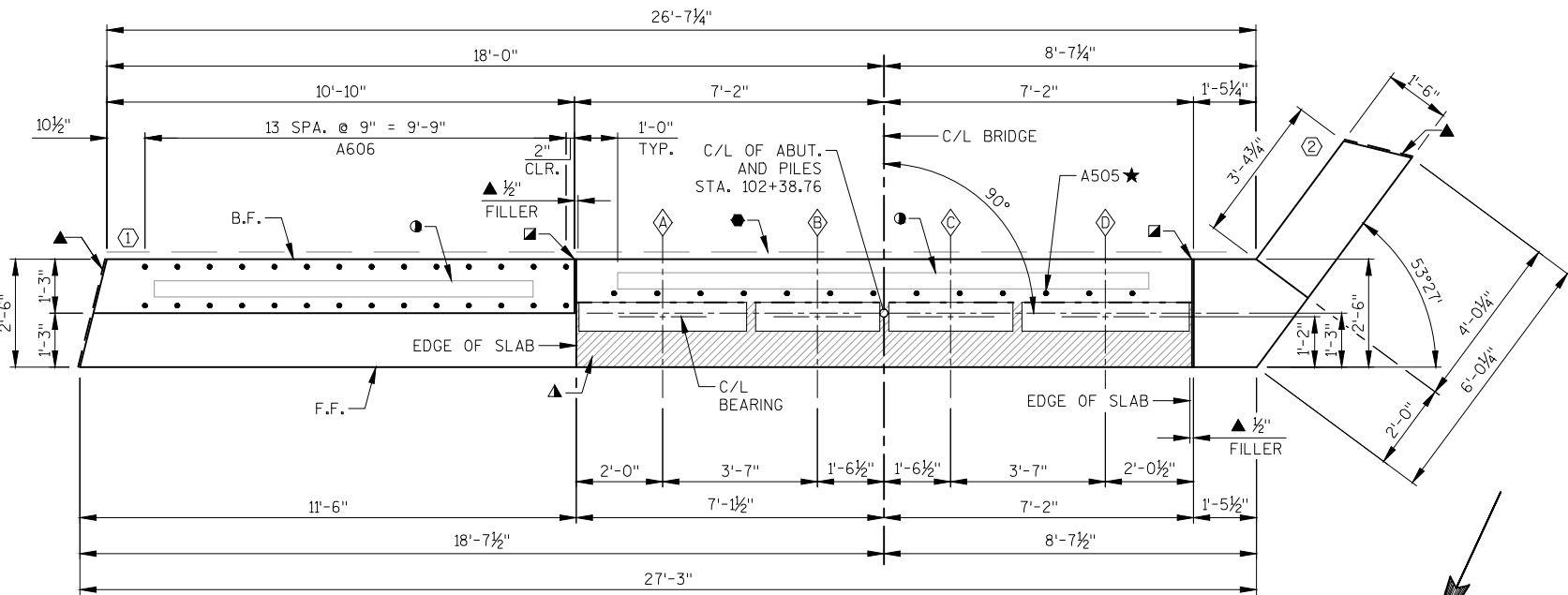
ABUTMENTS TO BE SUPPORTED ON PILING CIP 12 3/4-INCH X 0.375-INCHES DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 80 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 50 FT PILE LENGTHS AT SOUTH ABUTMENT.

NOTES

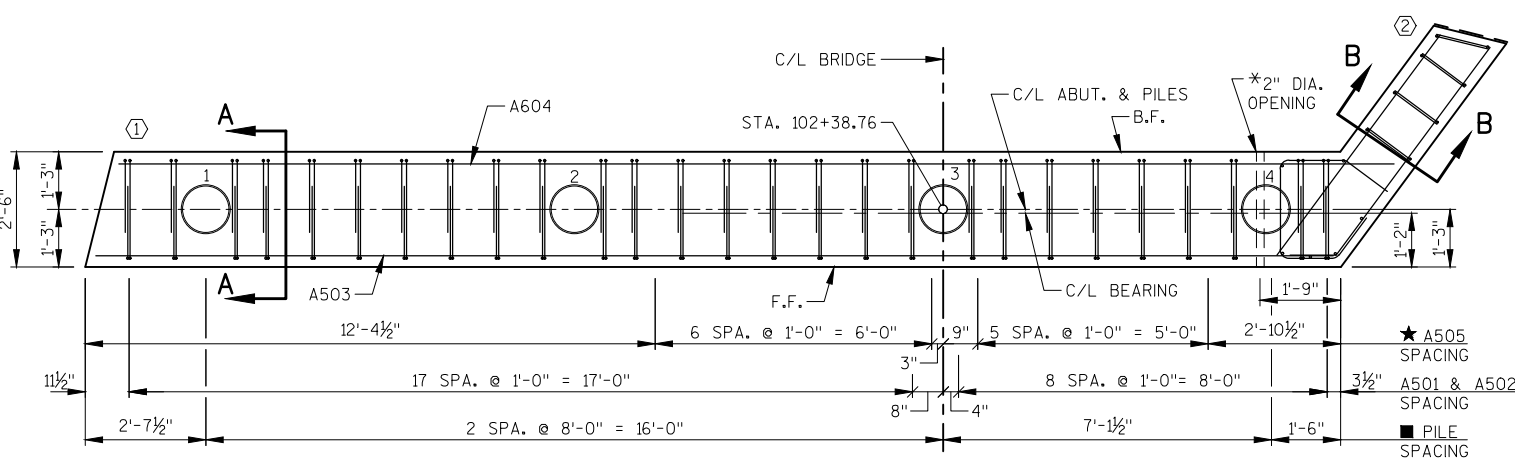
- SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 7 FOR BILL OF BARS.
- DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.
- SPACE REINFORCEMENT TO MISS PILING
- F.F. — FRONT FACE
- B.F. — BACK FACE
- SEE SHEET 7 FOR SECTION A-A AND SECTION B-B

LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/2" BELOW SURFACE OF CONCRETE)
- 3/4" PREFORMED FILLER, EXTEND BETWEEN EDGES OF DECK. EXTEND IN FRONT OF BEARING PAD AS SHOWN.
- A505 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF ABUTMENT.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- INDICATES GIRDER LINE
- * OPENING TO BE INCIDENTAL TO CONCRETE MASONRY BRIDGE BID ITEM



PLAN



LAYOUT

NO.	DATE	REVISION	BY
STRUCTURE B-53-379			
DRAWN BY		RBH	PLANS CKD. PTB
SOUTH ABUTMENT		SHEET 6 OF 20	

BILL OF BARS
SOUTH ABUTMENT

1.680 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	54	6-1	X	X		BODY - VERT. - STIRRUP
A502	27	7-7	X	X		BODY - VERT. - STIRRUP - TOP
A503	9	27-0		X		BODY - HORIZ. - F.F.
A604	9	27-8		X		BODY - HORIZ. - B.F.
A505	13	2-0		X		BODY - VERT. - DOWELS
A606	14	8-0	X	X		WING 1 - VERT. - STIRRUP
A407	4	11-1		X		WING 1 - HORIZ. - F.F.
A408	4	10-6		X		WING 1 - HORIZ. - B.F.
A409	8	6-9	X	X	*	WING 2 - VERT. - F.F. & B.F.
A810	5	5-11		X		WING 2 - HORIZ. - B.F.
A411	5	6-7	X	X		WING 2 - HORIZ. - F.F.
A412	1	6-0	X	X		WING 2 - HORIZ. - F.F.
A813	1	5-4		X		WING 2 - HORIZ. - B.F.
A414	1	5-4	X	X		WING 2 - HORIZ. - F.F.
A815	1	4-8		X		WING 2 - HORIZ. - B.F.
A416	1	4-8	X	X		WING 2 - HORIZ. - F.F.
A817	1	4-0		X		WING 2 - HORIZ. - B.F.
A418	2	2-6		X		WING 2 - HORIZ. - F.F. - B.F.
A419	2	1-10		X		WING 2 - HORIZ. - F.F. - B.F.
A420	3	6-10	X	X		WING 2 - HORIZ. - TOP
A421	6	6-6		X		WING 2 - VERT.
A422	2	6-6	X	X		WING 2 - HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

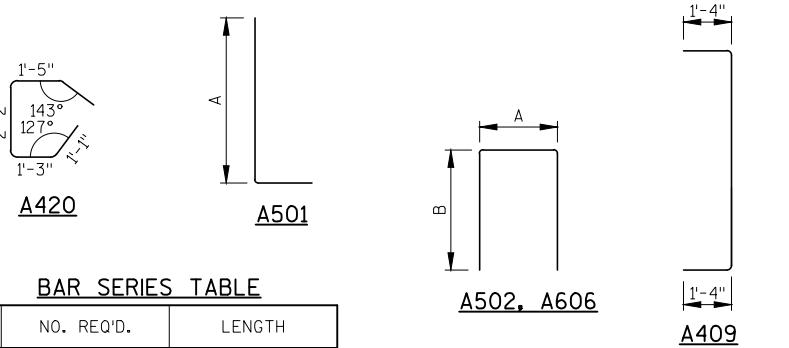
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

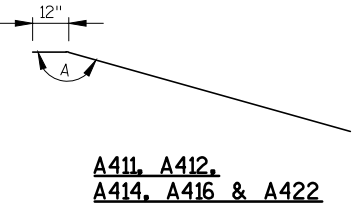
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A409	2 SERIES OF 4	8-3 TO 5-3

BUNDLE AND TAG EACH SERIES SEPARATELY.



MARK	'A'	'B'
A501	4'-7"	-
A502	2'-2"	2'-10"
A606	0'-10"	3'-9"
A411	126.5°	-
A412	126.5°	-
A414	126.5°	-
A416	126.5°	-
A422	135.4°	-

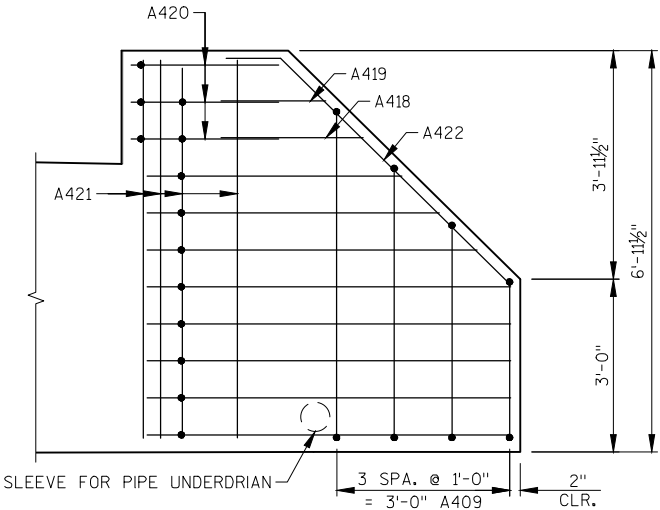


A411, A412,
A414, A416 & A422

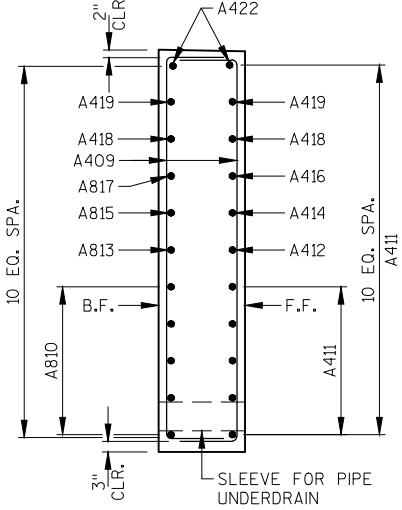
LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6 WITH HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE.

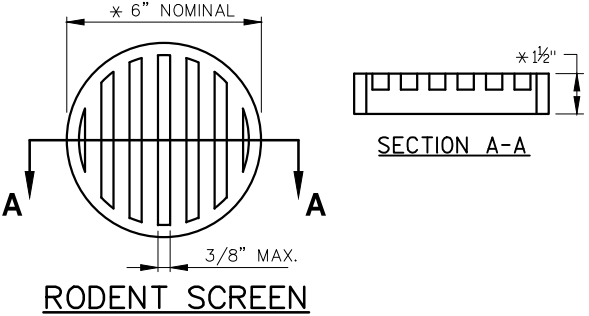
NO.	DATE	REVISION	BY
STRUCTURE B-53-379			
DRAWN BY		RBH	PLANS CK'D. PTB
SOUTH ABUTMENT DETAILS		SHEET 7 OF 20	



F.F. ELEVATION - WING 2
(LOOKING EAST)



SECTION B - B



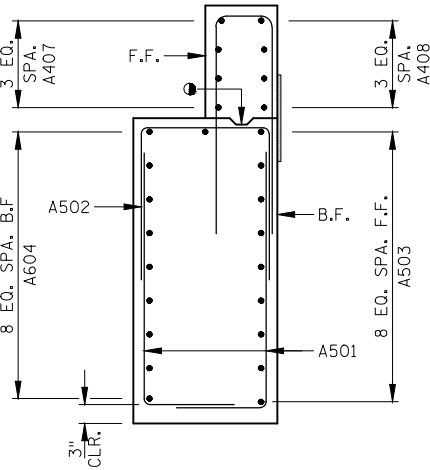
NOTES:

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

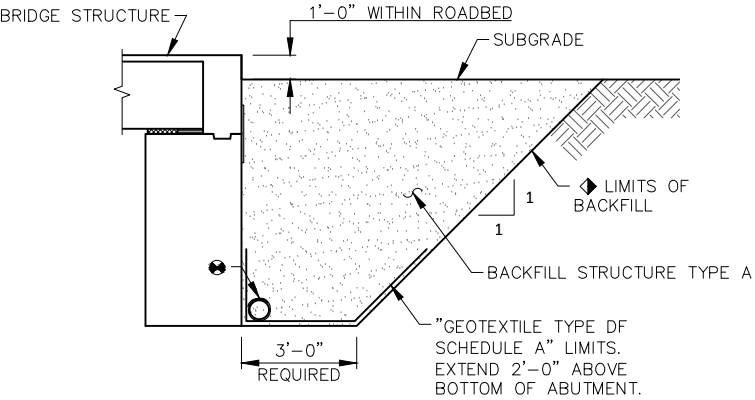
ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

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

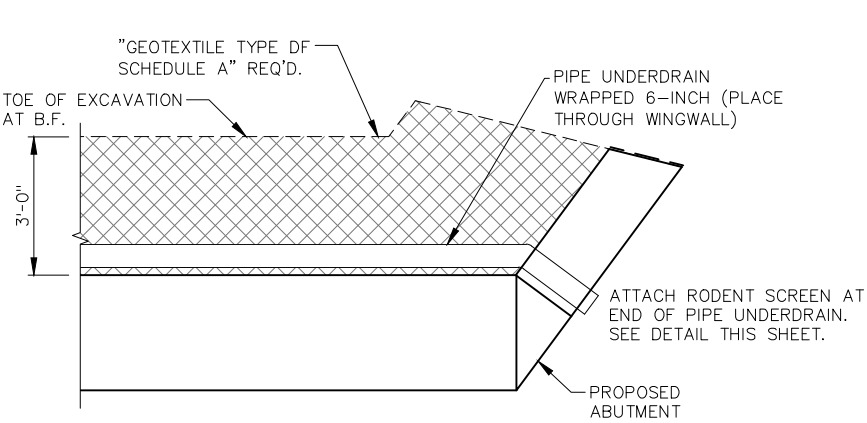


SECTION A - A

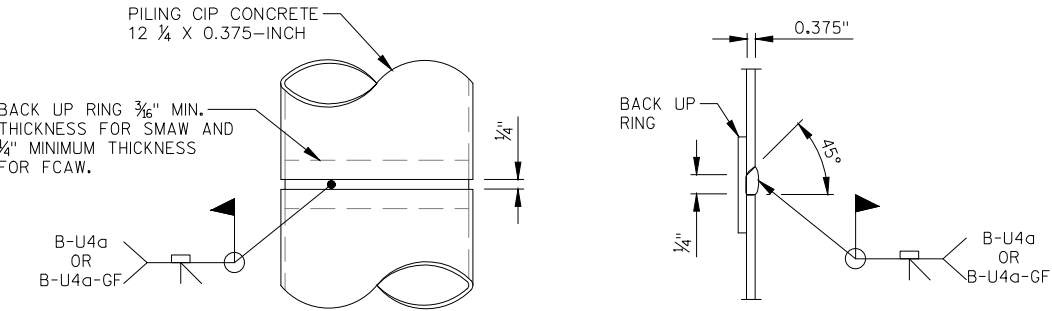


BACKFILL STRUCTURE DETAL
(TYPICAL AT BOTH ABUTMENTS)

- BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-53-379". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



PIPE UNDERDRAIN DETAIL - SOUTH ABUTMENT

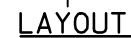


CAST-IN-PLACE
'PIPE PILE'

C.I.P. PILE
WELD DETAIL

NOTES:

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS



TO SUITABLE DRAINAGE.
ATTACH RODENT SCREEN AT
ENDS OF PIPE UNDERDRAIN.
SEE DETAIL ON SHEET 7.

PIPE UNDERDRAIN
WRAPPED 6-INCH

3'-0"

"GEOTEXTILE TYPE DF
SCHEDULE A" REQ'D.

TOE OF EXCAVATION
AT B.F.

PROPOSED
ABUTMENT

PIPE UNDERDRAIN DETAIL – NORTH ABUTMENT

- KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ½" BELOW SURFACE OF CONCRETE)
- ▲ ¾" PREFORMED FILLER, EXTEND BETWEEN EDGES OF DECK. EXTEND IN FRONT OF BEARING PAD AS SHOWN.
- ★ B504 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF ABUTMENT.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ◇ INDICATES GIRDER LINE
- * OPENING TO BE INCIDENTAL TO CONCRETE MASONRY BRIDGE BID ITEM

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 9 FOR BILL OF BARS.

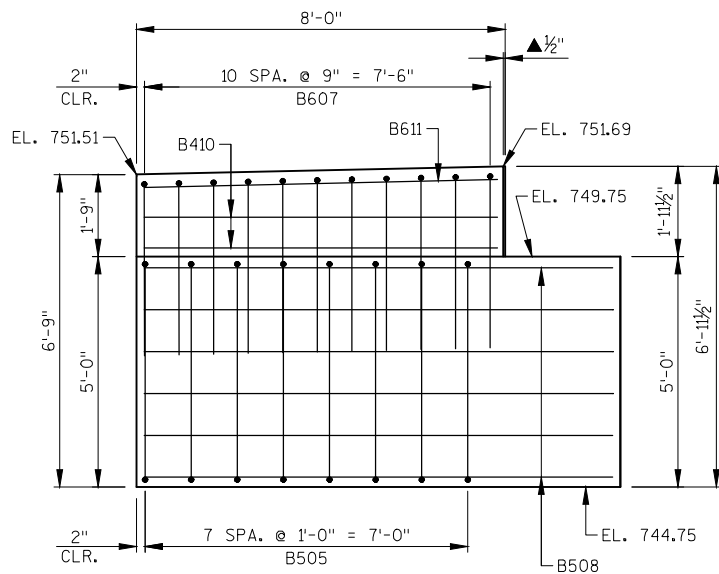
DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

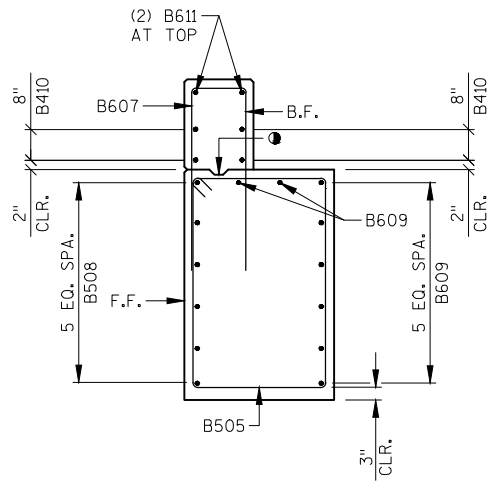
F.F. — FRONT FACE

B.F. — BACK FACE

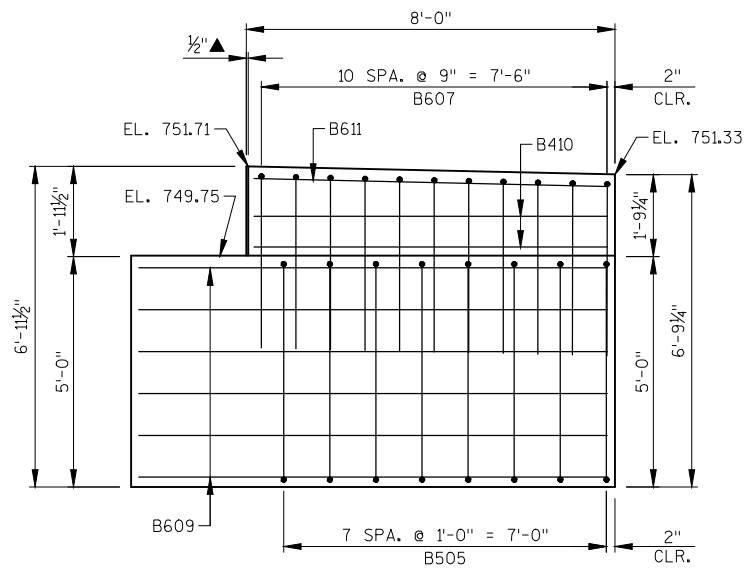
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		RBH	PLANS CK'D. PTB
NORTH ABUTMENT		SHEET 8 OF 20	



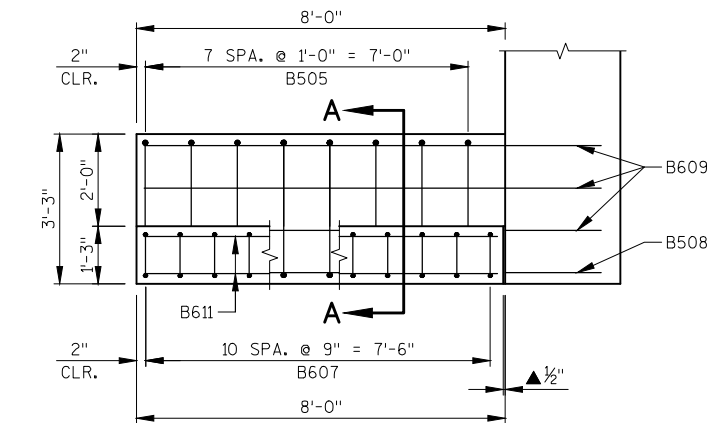
F.F. ELEVATION - WING 3
(LOOKING EAST)



SECTION A-A



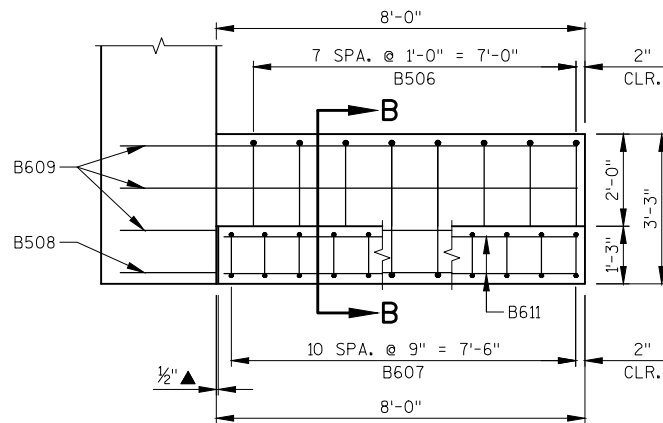
B.F. ELEVATION - WING 3
(LOOKING WEST)



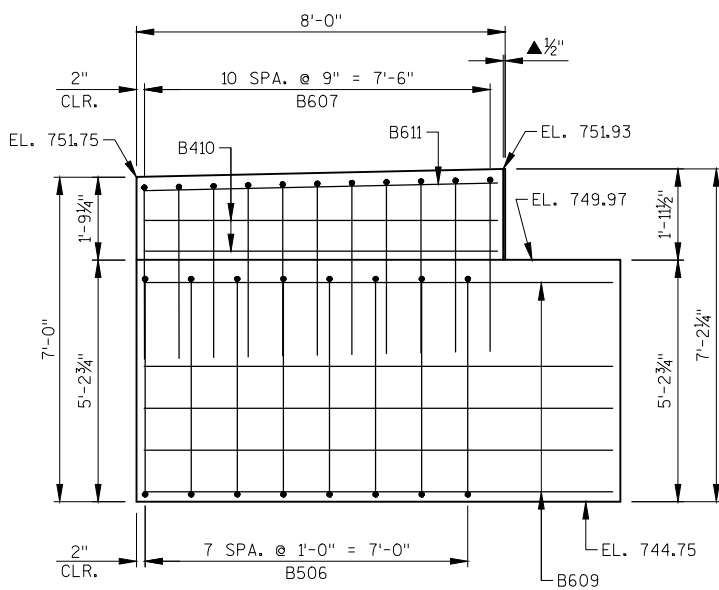
PLAN VIEW - WING 3

LEGEND

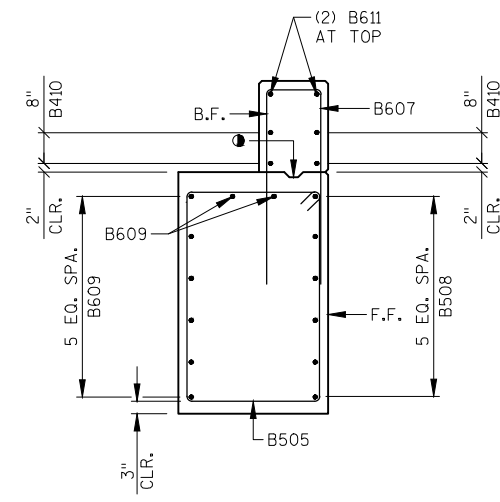
- OPTIONAL CONSTRUCTION JOINT. FORM KEYWAY WITH A BEVELED 2X6. PLACE 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE AND 3/4" "V" GROOVE AT FRONT FACE IF USED.
- 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINUOUS JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.



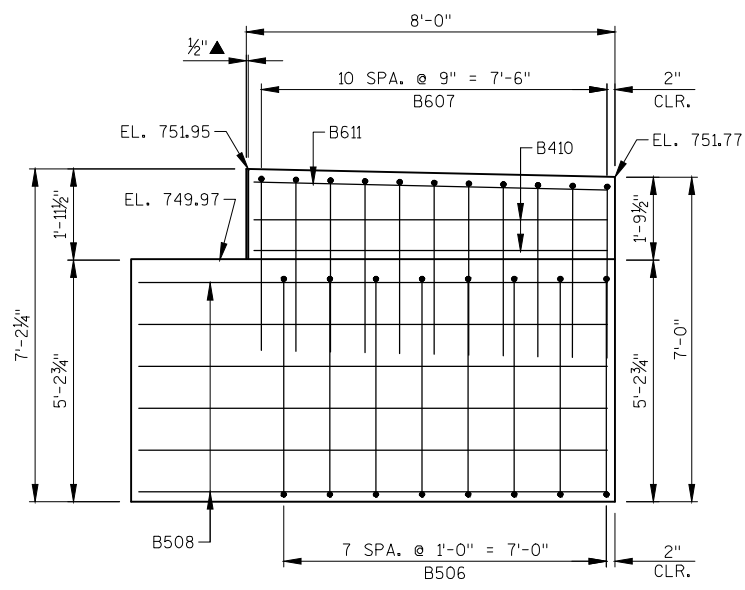
PLAN VIEW - WING 4



B.F. ELEVATION - WING 4
(LOOKING EAST)



SECTION B-B



F.F. ELEVATION - WING 4
(LOOKING WEST)

BILL OF BARS

NORTH ABUTMENT

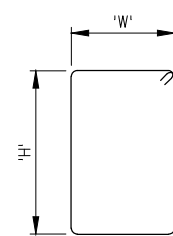
1.650 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
B501	17	14-2	X	X	BODY - VERT.
B502	9	16-5		X	BODY - HORIZ. - F.F.
B603	9	16-5		X	BODY - HORIZ. - B.F.
B504	16	2-0		X	BODY - VERT. - DOWELS
B505	8	15-8	X	X	WING 3 - VERT.
B506	8	16-2	X	X	WING 4 - VERT.
B607	22	8-1	X	X	WINGS - TOP - STIRRUP
B508	12	10-2		X	WINGS - HORIZ. - F.F.
B609	16	10-2		X	WINGS - HORIZ. - B.F. & TOP
B410	8	7-7		X	WINGS - HORIZ. - TOP
B611	4	7-7		X	WINGS - HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

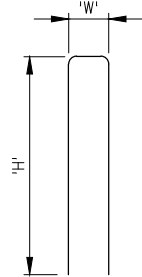
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.



MARK	'W'	'H'
B501	2-2	4-7
B505	2-11	4-7
B506	2-11	4-10

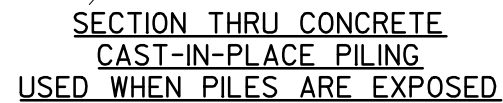
B501, B505, B506



MARK	'W'	'H'
B607	0-11	3-9

B607

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY RBH		PLANS CK'D. PTB	
NORTH ABUTMENT DETAILS		SHEET 9 OF 20	



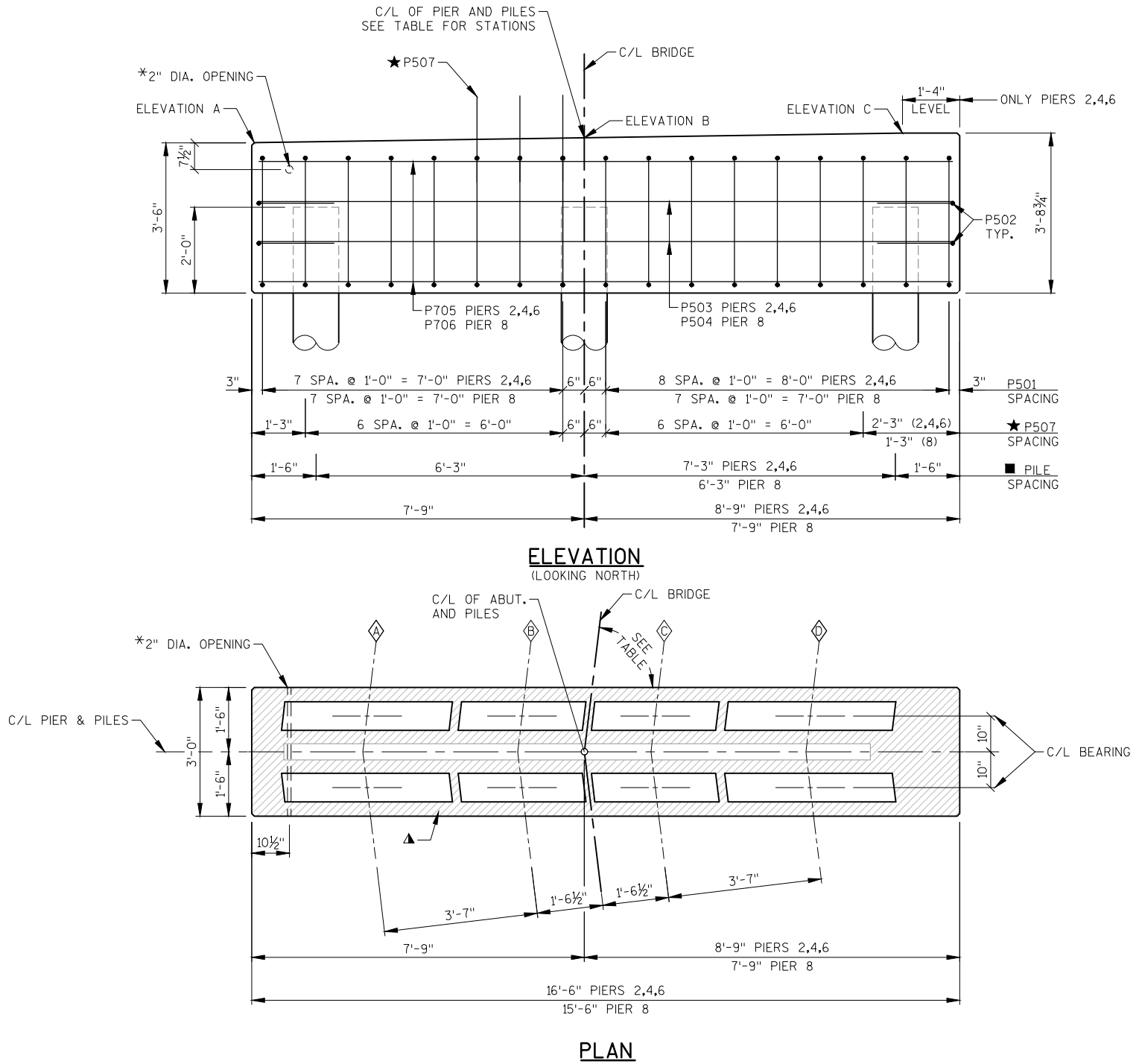
NOTES

SPACE REINFORCEMENT TO MISS PILING.

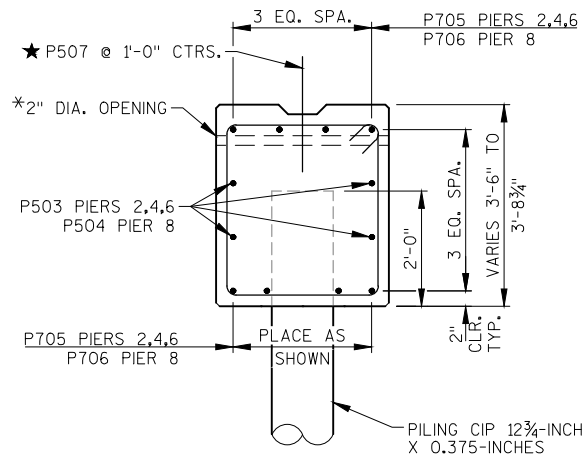
PIER	C/L STA.	ELEVATION A	ELEVATION B	ELEVATION C	SKEW ANGLE
1	102+88.76	750.92	751.04	751.15	90°
3	103+38.74	750.92	751.04	751.15	90°
5	104+69.73	750.92	751.04	751.15	90°
7	105+71.79	750.92	751.04	751.15	96°53'
9	106+36.11	750.92	751.04	751.15	76°27'

★ EXTEND 1'-2" INTO CONCRETE CAP. TERMINATE REINFORCEMENT 10'-0" BELOW STREAMBED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
		DRAWN BY	RBH PLANS CK'D. PTB
PIERS 1, 3, 5, 7, AND 9 DETAILS		SHEET 10 OF 20	



PIER	C/L STA.	ELEVATION A	ELEVATION B	ELEVATION C	SKEW ANGLE
2	103+38.74	750.92	751.04	751.15	83°4'
4	104+18.71	750.92	751.04	751.15	83°4'
6	105+20.77	750.92	751.04	751.15	90°
8	106+04.00	750.92	751.04	751.15	90°



TYPICAL SECTION THROUGH PIER BODY

PIERS TO BE SUPPORTED ON PILING CIP 12¾-INCH X 0.375-INCHES DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 65 FT PILE LENGTHS AT PIERS.

NOTES

- SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.
- SPACE REINFORCEMENT TO MISS PILING
- SEE SHEET 10 FOR PILING REINFORCEMENT

LEGEND

- ▲ ¾" PREFORMED FILLER, EXTEND FULL LENGTH OF PIER CAP BETWEEN EDGES OF DECK. EXTEND IN FRONT OF BEARING PAD AS SHOWN.
- ★ P507 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF PIER CAP.
- ◇ INDICATES GIRDER LINE
- * OPENING TO BE INCIDENTAL TO CONCRETE MASONRY BRIDGE BID ITEM

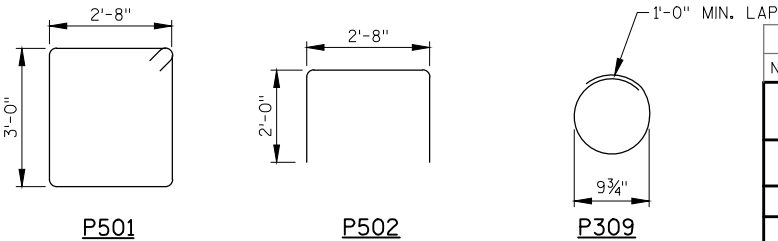
BILL OF BARS PIERS

8.130 LB (COATED)

BAR MARK	NUMBER REQ'D. PER PIER									TOTAL NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
	1	2	3	4	5	6	7	8	9					
P501	17	17	17	17	17	17	16	16	16	150	12-0	X	X	PIERS - STIRRUP
P502	4	4	4	4	4	4	4	4	4	36	6-5	X	X	PIERS - HORIZ. - ENDS
P503	4	4	4	4	4	4	--	--	--	24	16-2		X	PIERS 1-6 - HORIZ.
P504	--	--	--	--	--	--	4	4	4	12	15-2		X	PIERS 7-9 - HORIZ.
P705	8	8	8	8	8	8	--	--	--	48	16-2		X	PIERS 1-6 - HORIZ.
P706	--	--	--	--	--	--	8	8	8	24	15-2		X	PIERS 7-9 - HORIZ.
P507	--	14	--	14	--	14	--	14	--	56	2-0		X	PIERS 2,4,6,8 - DOWELS
P708	18	18	18	18	18	18	18	18	18	162	25-6		X	PILING - VERT.
P309	36	36	36	36	36	36	36	36	36	324	3-7	X	X	PILING - STIRRUP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		RBH	PLANS CK'D. PTB
PIERS 2, 4, 6, AND 8 DETAILS		SHEET 11 OF 20	

NOTES

SEE SHEET 13 FOR TABLE OF D, E, F, & G.

ULTIMATE DESIGN STRESS OF CONCRETE MASONRY GIRDER = 5,000 P.S.I.

MIN. CONCRETE STRENGTH AT TIME OF TRANSFER = 4,250 P.S.I.

* STRAND SPACING FOR GIRDERS IN SPANS 1, 2, 5, 6, 7, & 10.

** STRAND SPACING FOR GIRDERS IN SPANS 3, 4, 8, & 9.

*** PLACE AT 5" MAX. SPACING UNTIL PERPENDICULAR TO THE \perp OF THE GIRDER.

PRESTRESSING STRANDS SHALL BE 0.5" DIA. 7-WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE DESIGN STRENGTH OF 270,000 P.S.I. SEE GIRDER DATA TABLE ON SHEET 13 FOR NUMBER OF STRAIGHT STANDS REQUIRED PER GIRDER.

CONCRETE MIX FOR THE PRESTRESSED GIRDERS SHALL CONFORM TO SECTION 503.2.2 OF THE STANDARD SPECIFICATIONS.

TOTAL: INITIAL PRESTRESS FORCE SHOWN IN GIRDER DATA TABLE ON SHEET 13.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING THE GIRDERS. FOUR-WAY SLING MUST BE USED TO ENGAGE ALL FOUR LIFTING DEVICES ON BOTH ENDS OF UNITS.

VOIDS SHALL BE VENTED AND DRAINED BY CASTING (2)-1" ϕ TUBES AT EACH END AND CENTER OF VOID SEGMENT. LOCATE TUBES AT BOTTOM EDGES OF THE CORNER FILLETS, AVOID STRAND LOCATIONS.

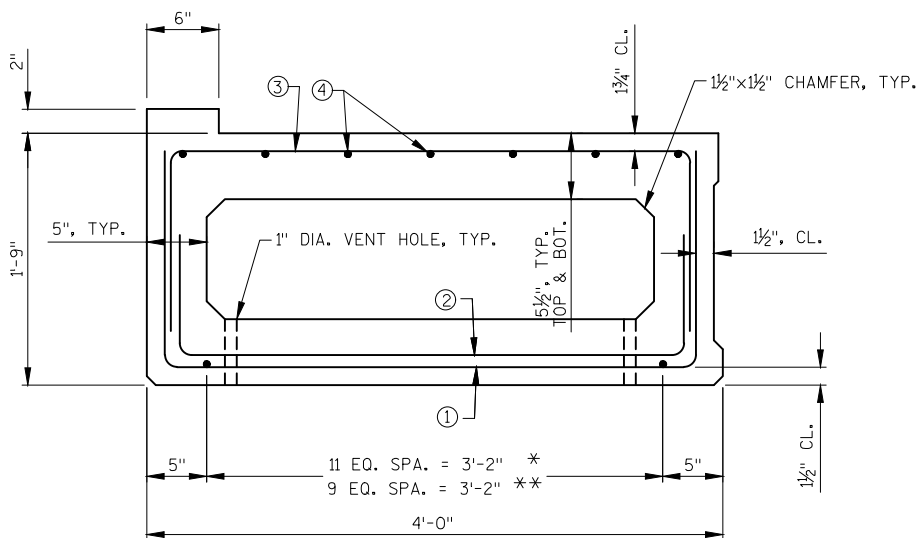
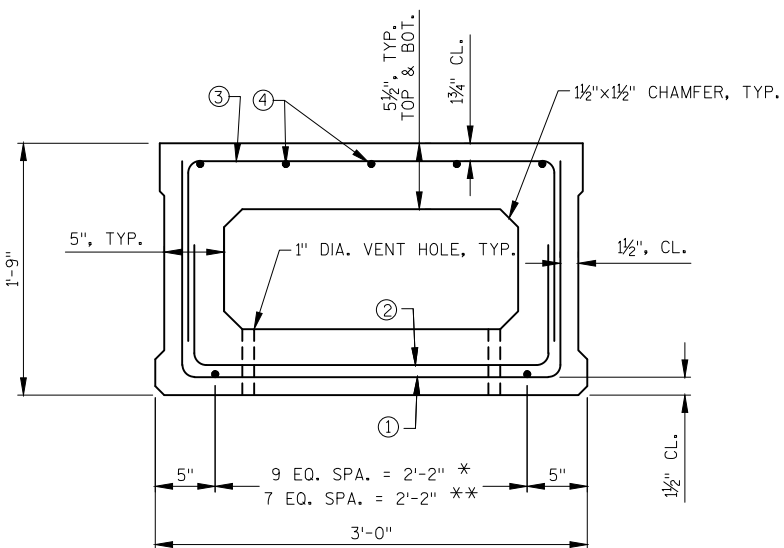
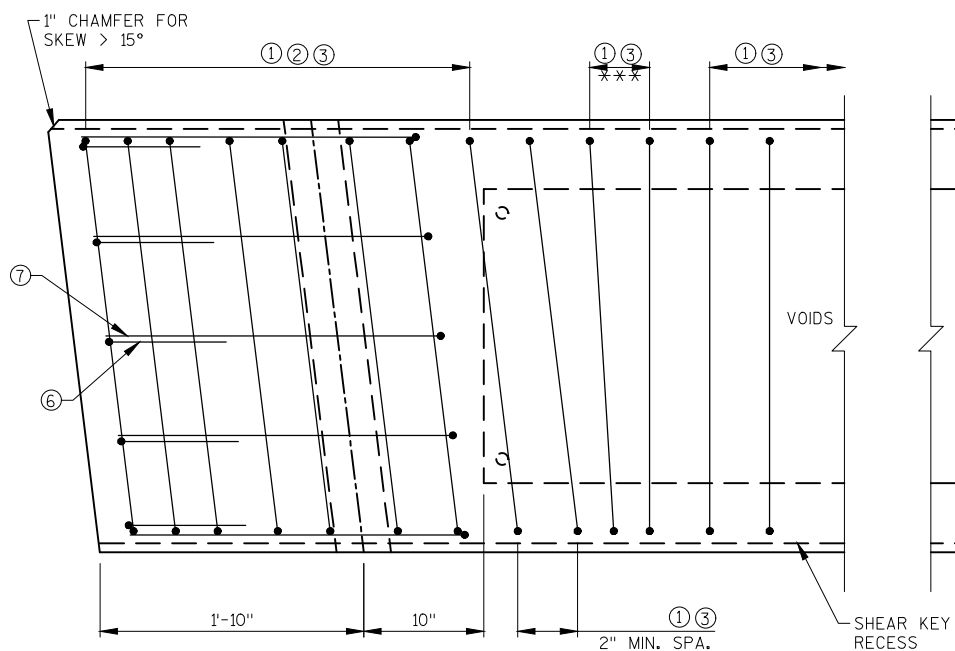
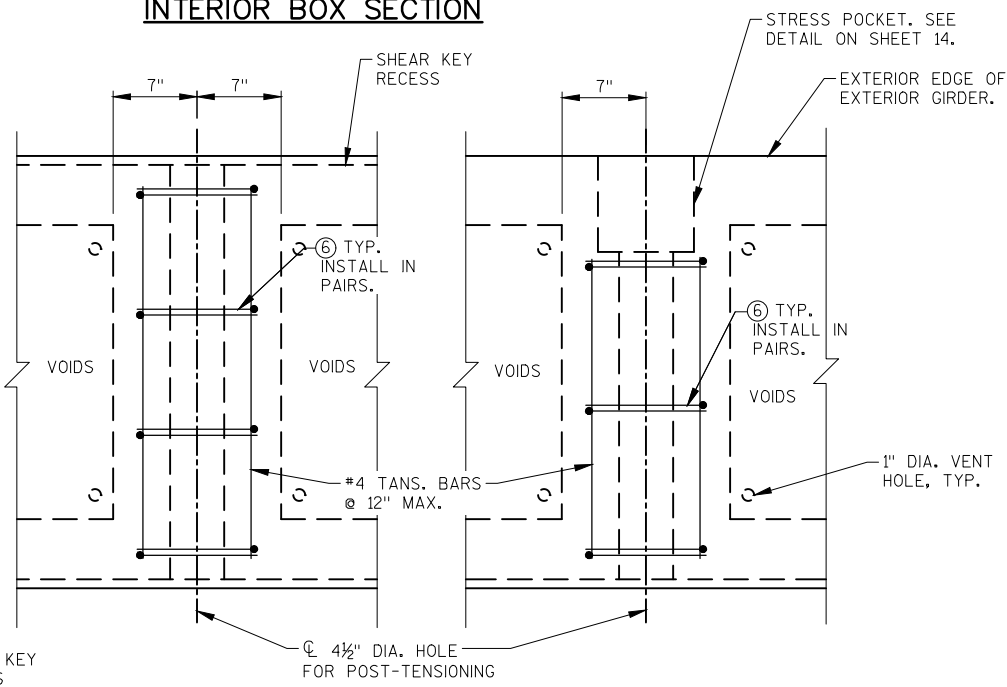
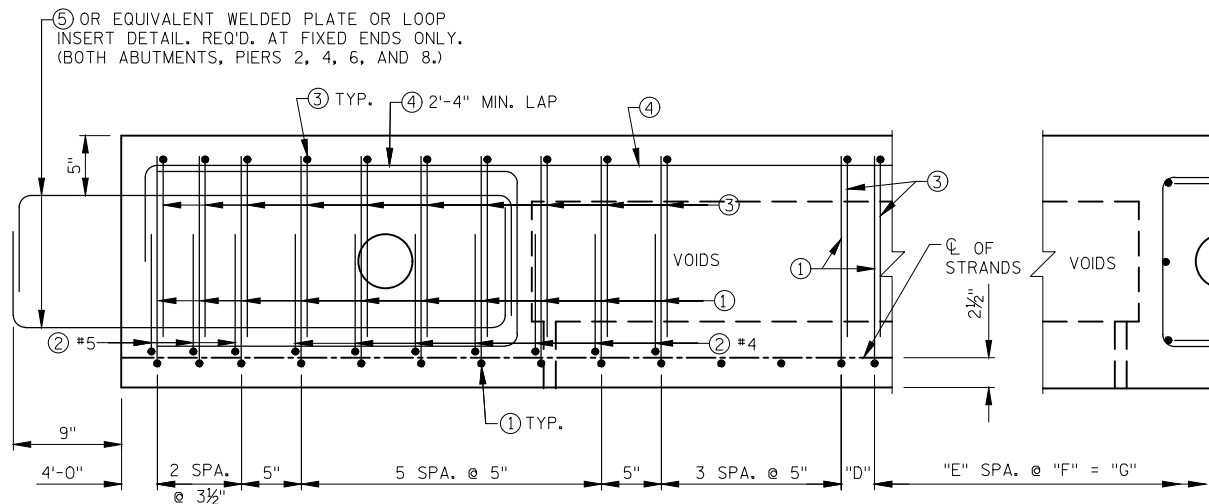
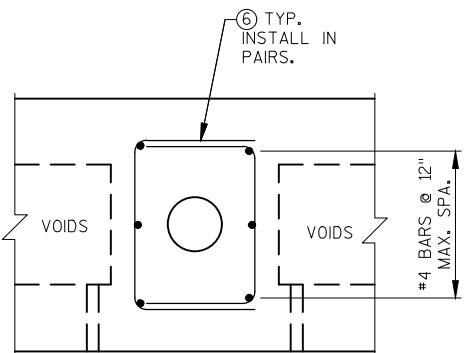
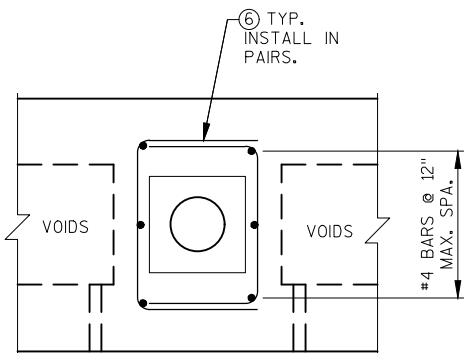
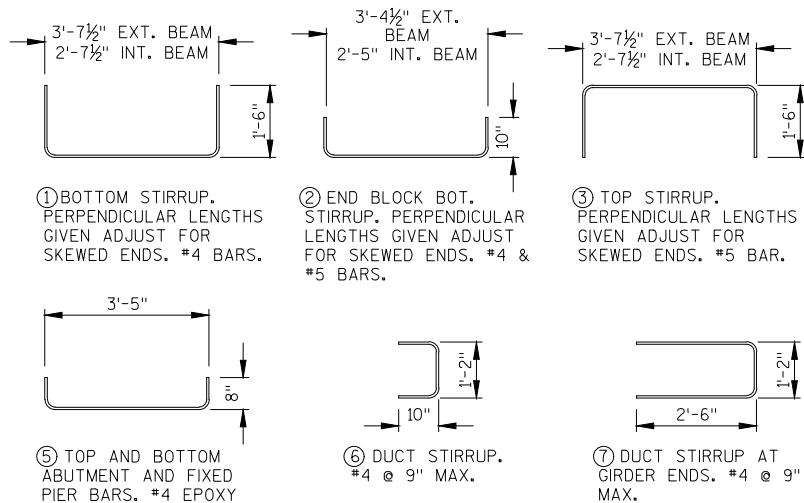
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. AT ABUTMENTS, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING SHOWN ON THE PLANS.

WELDED PLATE OR LOOP INSERT DETAIL, IF USED, SHALL PROVIDE AN EQUIVALENT PULLOUT CAPACITY TO THE YIELD STRENGTH OF #4 BARS. SEE SHEET 14 FOR DETAILS.

EACH BEAM SHALL BE MARKED SHOWING CASTING DATE AND INDIVIDUAL IDENTIFICATION NUMBERS. MARKINGS SHALL BE MADE ON THE TOP OF THE BEAM, NEAR THE END SO LOCATED THAT THEY WILL BE CLEARLY VISIBLE. ALL MARKINGS TO BE STENCILED AND BE CLEARLY LEGIBLE. FOR BEAM LAYOUT, SEE SHEETS 15 AND 16.

**EXTERIOR BOX SECTION****INTERIOR BOX SECTION****PART GIRDER PLAN WITH SKEW****INTERIOR DUCT PLAN****EXTERIOR DUCT PLAN****PART GIRDER ELEVATION WITH NO SKEW****INTERIOR DUCT ELEVATION****EXTERIOR DUCT ELEVATION**

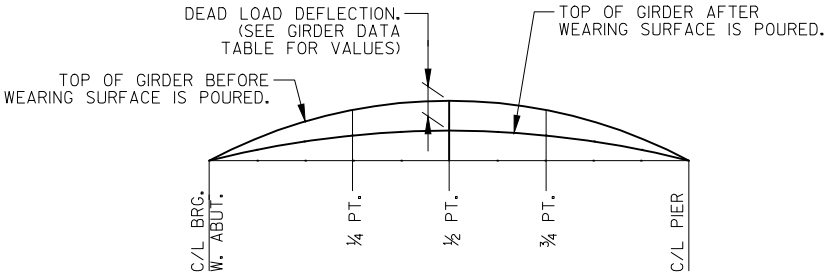
④ NO. 4 BARS FULL LENGTH OF GIRDERS WITH 8" BENDS AT GIRDER ENDS AND 2'-4" MIN. LAP.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		TR	PLANS CKD. PTB
PRESTRESSED CONCRETE BOX GIRDER		SHEET 12 OF 20	

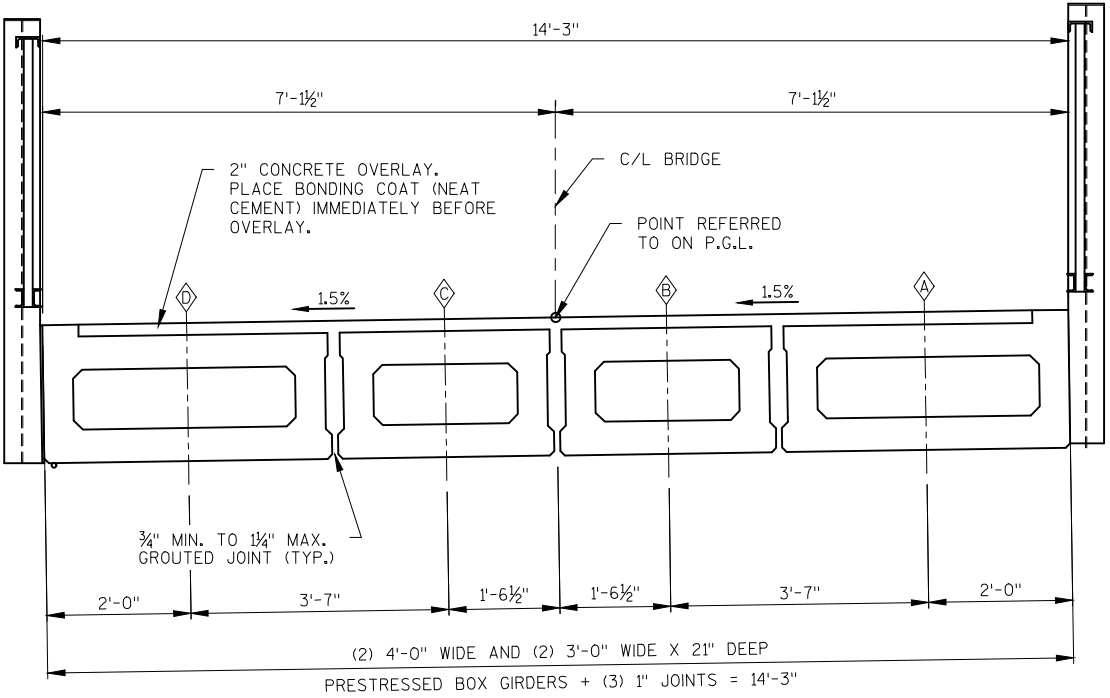
GIRDER DATA

SPAN	GIRDER LINE	GIRDER NO.	WIDTH (FEET)	LENGTH	TOTAL NO. OF STRANDS	TOTAL INITIAL PRESTRESS FORCE (KIPS)	DEAD LOAD DEFL. (INCHES)		RESIDUAL CAMBER (INCHES)	"D" (INCHES)	"E"	"F" (INCHES)	"G"
							¼ PT.	½ PT.					
1	D	1	4'-0"	50'-3½"	12	372.0	0	⅞	0	7¾	39	12	39'-0"
	C	2	3'-0"	50'-3½"	10	310.0	0	⅞	0	7¾	39	12	39'-0"
	B	3	3'-0"	50'-3½"	10	310.0	0	⅞	0	7¾	39	12	39'-0"
	A	4	4'-0"	50'-3½"	12	372.0	0	⅞	0	7¾	39	12	39'-0"
2	D	5	4'-0"	50'-0⅞"	12	372.0	0	⅞	0	7⅞	39	12	39'-0"
	C	6	3'-0"	49'-7¾"	10	310.0	0	⅞	0	11	38	12	38'-0"
	B	7	3'-0"	49'-3¼"	10	310.0	0	⅞	0	8¾	38	12	38'-0"
	A	8	4'-0"	48'-10"	12	372.0	0	⅞	0	6½	38	12	38'-0"
3	D	9	4'-0"	40'-0⅞"	10	310.0	0	0	⅞	7⅞	29	12	29'-0"
	C	10	3'-0"	39'-7¾"	8	248.0	0	0	⅞	11	28	12	28'-0"
	B	11	3'-0"	39'-3¼"	8	248.0	0	0	⅞	8¾	28	12	28'-0"
	A	12	4'-0"	38'-10"	10	310.0	0	0	⅞	6½	28	12	28'-0"
4	D	13	4'-0"	40'-0⅞"	10	310.0	0	0	⅞	7⅞	29	12	29'-0"
	C	14	3'-0"	39'-7¾"	8	248.0	0	0	⅞	11	28	12	28'-0"
	B	15	3'-0"	39'-3¼"	8	248.0	0	0	⅞	8¾	28	12	28'-0"
	A	16	4'-0"	38'-10"	10	310.0	0	0	⅞	6½	28	12	28'-0"
5	D	17	4'-0"	51'-1⅞"	12	372.0	0	⅞	0	8⅞	40	12	40'-0"
	C	18	3'-0"	50'-8¼"	10	310.0	0	⅞	0	11¼	39	12	39'-0"
	B	19	3'-0"	50'-3¾"	10	310.0	0	⅞	0	9	39	12	39'-0"
	A	20	4'-0"	49'-10½"	12	372.0	0	⅞	0	6¾	39	12	39'-0"
6	D	21	4'-0"	50'-6"	12	372.0	0	⅞	0	9	39	12	39'-0"
	C	22	3'-0"	50'-6"	10	310.0	0	⅞	0	9	39	12	39'-0"
	B	23	3'-0"	50'-6"	10	310.0	0	⅞	0	9	39	12	39'-0"
	A	24	4'-0"	50'-6"	12	372.0	0	⅞	0	9	39	12	39'-0"
7	D	25	4'-0"	49'-10⅞"	12	372.0	0	⅞	0	9⅞	38	12	38'-0"
	C	26	3'-0"	50'-3¾"	10	310.0	0	⅞	0	6¾	39	12	39'-0"
	B	27	3'-0"	50'-8¼"	10	310.0	0	⅞	0	9	39	12	39'-0"
	A	28	4'-0"	51'-1⅞"	12	372.0	0	⅞	0	11¼	39	12	39'-0"
8	D	29	4'-0"	31'-0⅞"	10	310.0	0	0	⅞	11	19	12	19'-0"
	C	30	3'-0"	31'-6"	8	248.0	0	0	⅞	7⅞	20	12	20'-0"
	B	31	3'-0"	31'-10½"	8	248.0	0	0	⅞	10⅞	20	12	20'-0"
	A	32	4'-0"	32'-3⅝"	10	310.0	0	0	⅞	6¾	21	12	21'-0"
9	D	33	4'-0"	32'-11"	10	310.0	0	0	⅞	8¾	22	12	22'-0"
	C	34	3'-0"	32'-0¾"	8	248.0	0	0	⅞	8½	21	12	21'-0"
	B	35	3'-0"	31'-3¾"	8	248.0	0	0	⅞	10	20	12	20'-0"
	A	36	4'-0"	30'-5⅝"	10	310.0	0	0	⅞	11⅝	19	12	19'-0"
10	D	37	4'-0"	53'-10½"	12	372.0	0	⅞	0	8⅞	43	12	43'-0"
	C	38	3'-0"	53'-0¼"	10	310.0	0	⅞	0	8¼	42	12	42'-0"
	B	39	3'-0"	52'-3¼"	10	310.0	0	⅞	0	9¾	41	12	41'-0"
	A	40	4'-0"	51'-4⅞"	12	372.0	0	⅞	0	11⅞	40	12	40'-0"

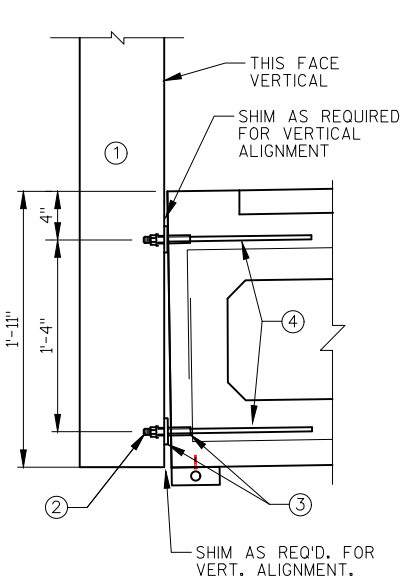
NOTES: THE FOLLOWING DATA APPLIES TO ALL GIRDERS. CONCRETE STRENGTH f'_c = 5,000 PSI
CONCRETE RELEASE STRENGTH f'_{ci} = 4,250 PSI
SEE SHEET 12 FOR STIRRUP SPACING DATA LOCATION FOR 'D', 'E', 'F', 'G'.



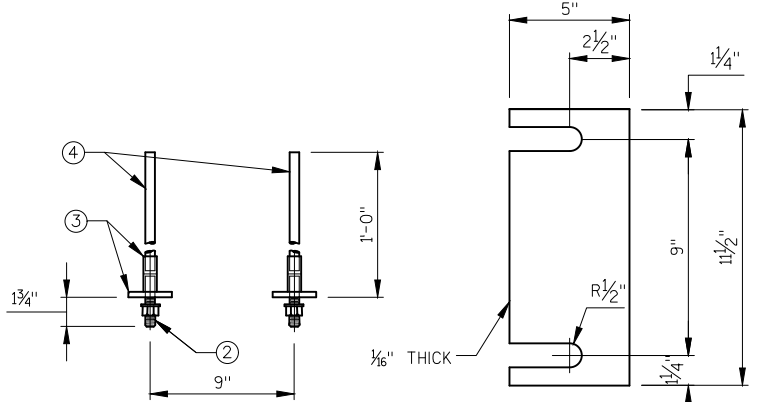
DEAD LOAD DEFLECTION DIAGRAM



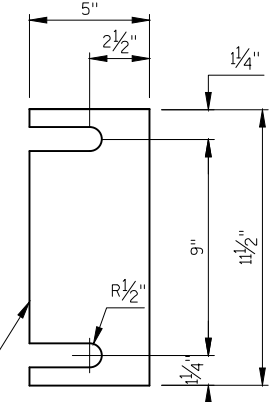
TYPICAL CROSS SECTION
LOOKING NORTH



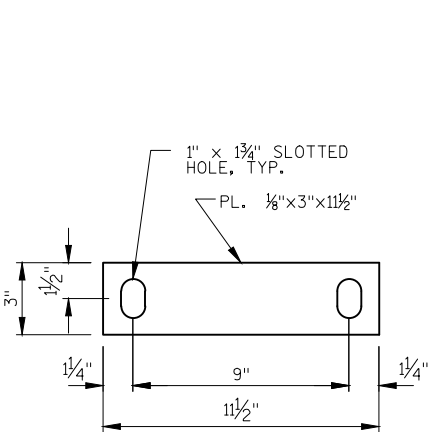
SECTION THRU RAILING



ANCHOR DETAIL - PLAN
ANCHORS MAY BE FABRICATED IN A CAGE IF OPTED BY THE MFG'R.



POST SHIM DETAIL
(14 PER POST)

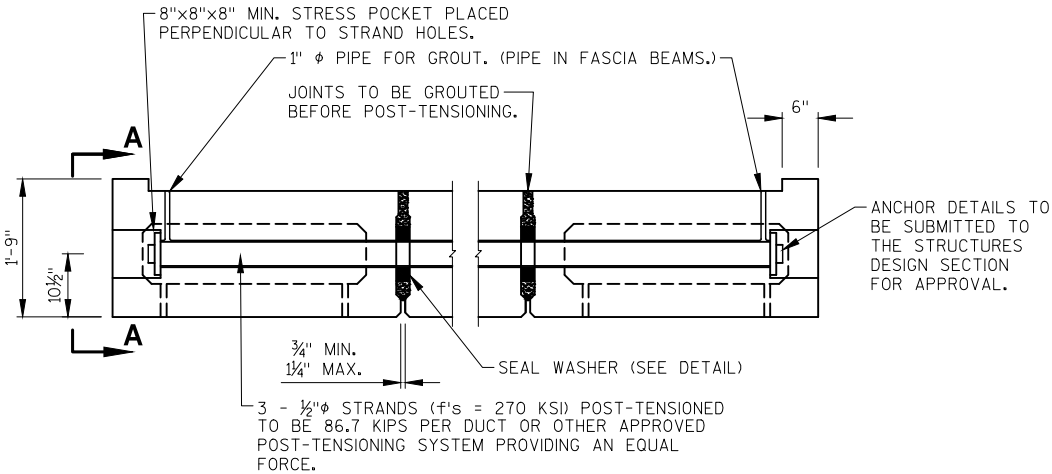


RAIL POST VERTICAL ADJUSTMENT PLATE
(1 PER POST)

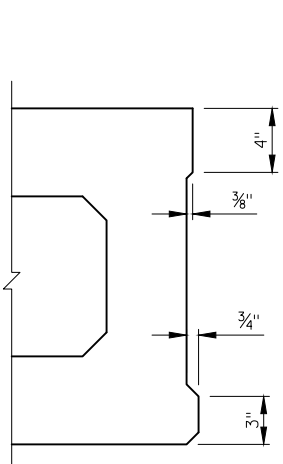
LEGEND

- ① W6x15 POST. SEE SHEET 19 FOR RAILING DETAILS. PLACE POSTS VERTICAL.
 - ② ½" DIA. STUD WITH NUT & WASHER. FOUR REQ'D. PER POST. A325 STEEL. *
 - ③ THREADED BAR COUPLER FOR ½"Ø STUD. ACCEPTABLE PRODUCTS ARE WILLIAMS REBAR FLANGE COUPLERS BY WILLIAMS FORM ENGINEERING CORP. OR DOWEL BAR REPLACEMENTS BY DAYTON SUPERIOR. FOUR REQ'D PER POST. EXPOSED FLANGE TO BE GALVANIZED.*
 - ④ ANCHOR BAR ½" DIA. THREADED REINFORCEMENT BAR GRADE 60. FOUR REQ'D PER POST.**
- * SHALL BE MECHANICALLY GALVANIZED OR ELECTRO-PLATED.
** NOT GALVANIZED OR ELECTRO-PLATED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		TR	PLANS CK'D. PTB
PRESTRESSED CONCRETE BOX GIRDER TABLE		SHEET 13 OF 20	

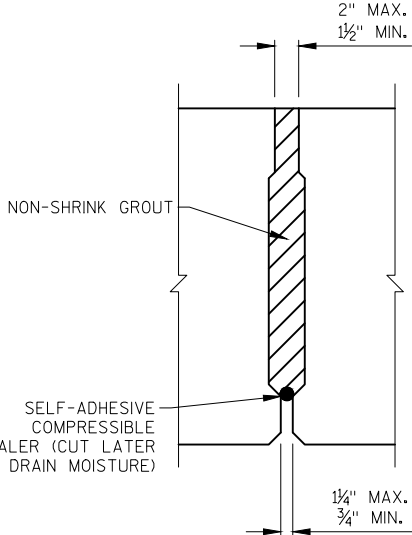


POST-TENSIONING DETAILS



SHEAR KEY RECESS DETAIL

OMIT SHEAR KEY ON EXTERIOR FACE OF EXTERIOR GIRDERS.



SHEAR KEY DETAIL

NOTES

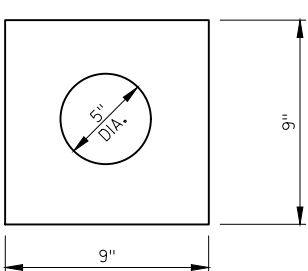
AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO THE BOTTOM OF THE GIRDERS AND THE EXTERIOR FACE OF EXTERIOR GIRDERS. DO NOT APPLY CONCRETE SEALER OR EPOXY TO THE SHEAR KEY OR THE TOP OF GIRDERS.

SLOPE BEAM SEATS TO MATCH ROADWAY CROWN.

POST-TENSIONING OF THE TRANSVERSE TENDONS SHALL NOT BEGIN UNTIL THE GROUT BETWEEN THE PRECAST BEAMS HAS BEEN ALLOWED TO CURE FOR 48 HOURS AND GROUT HAS REACHED A COMPRESSIVE STRENGTH OF 3,000 PSI.

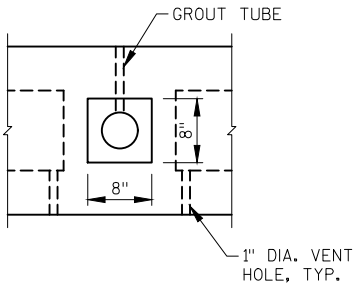
SEAL WASHER SHALL BE SPONGE NEOPRENE GASKET 3/4" MIN. THICK. STRESS POCKETS SHALL BE FILLED WITH CHLORIDE FREE NON-SHRINK GROUT AFTER POST-TENSIONING.

ABUTMENT BACKWALLS, PIER DIAPHRAGMS, AND CONCRETE OVERLAY SHALL NOT BE POURED UNTIL AFTER THE POST-TENSIONING HAS BEEN COMPLETED.

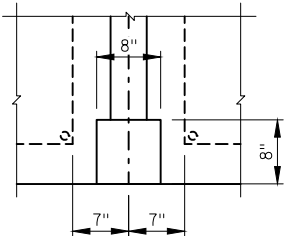


SEAL WASHER

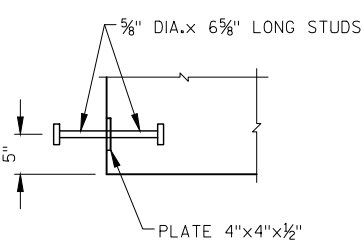
MAY ALSO BE ROUND.



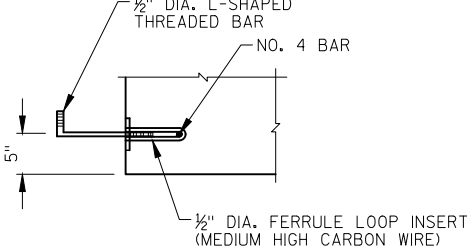
SECTION A-A



STRESS POCKET DETAIL



WELDED PLATE DETAIL



LOOP INSERT DETAIL

LEGEND

* WHEN WINGS ARE PARALLEL TO ABUTMENT C, CHOOSE THESE DIMENSIONS TO ALLOW FOR EASE OF POST-TENSIONING OPERATION.

■ MEASURED PERPENDICULAR TO C SUBSTRUCTURE.

▲ PLACE 1/2" FILLER BETWEEN BEARING PADS.

■ 2" DIA. DOWEL HOLES. (2 HOLES PER BEAM AT PIERS). AFTER BEAMS ARE ERECTED AND POST-TENSIONED. DRILL HOLES IN PIER FOR DOWELS. FILL WITH HOT POURED RUBBER-ASPHALT TYPE FILLER TO 3" ABOVE DOWELS. FILL REMAINDER OF HOLE WITH NON-SHRINK GROUT. DOWELS, AND ALL MATERIALS NEEDED TO INSTALL DOWELS SHALL BE INCIDENTAL TO BID ITEM PRESTRESSED GIRDERS BOX TYPE 21-INCH.

BILL OF BARS SUPERSTRUCTURE

1.080 LB (COATED)

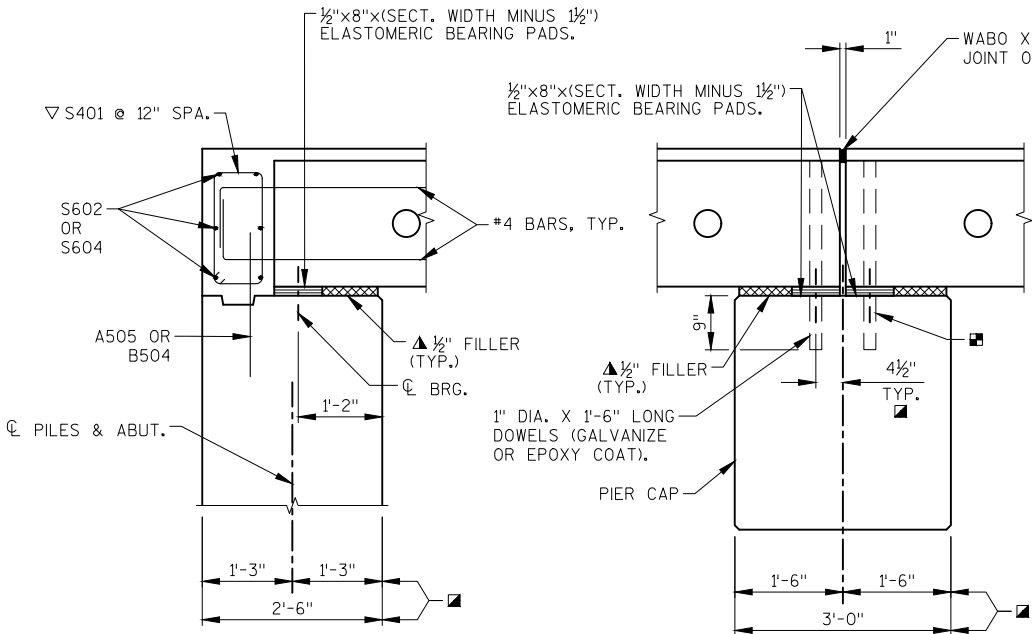
BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
▽ S401	92	4-10	X	X	ABUTS. & PIERS 2, 4, 7, & 9 - STIRRUP
S602	24	14-0		X	S. ABUT. & PIERS 6 & 8 - HORIZ.
S603	6	14-3		X	PIER 9 - HORIZ.
S604	6	16-5		X	S. ABUT. - HORIZ.

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

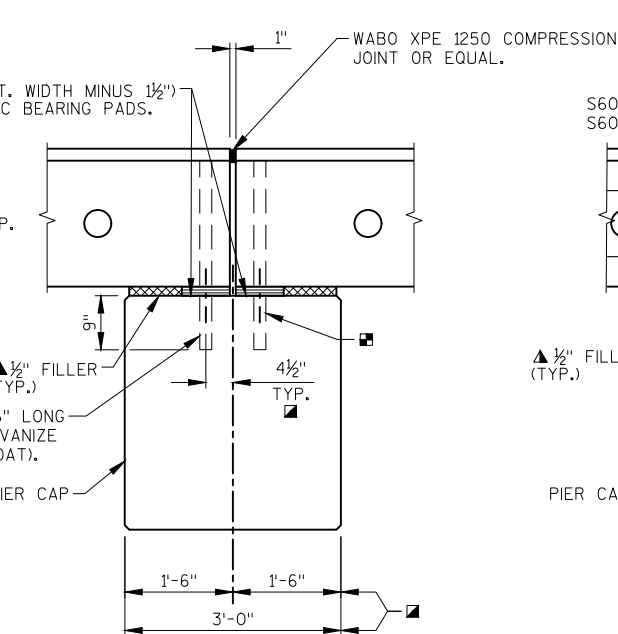
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

BARs SHOWN DO NOT INCLUDE REINFORCING STEEL REQUIRED FOR THE PRESTRESSED CONCRETE BOX GIRDERS.

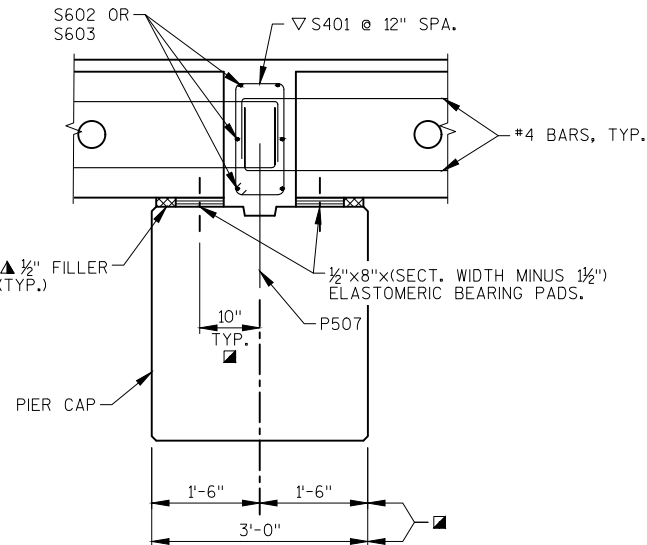
▽ 15 STIRRUPS REQ'D. AT S. ABUT., PIERS 2, 4, 7, AND 9.
17 STIRRUPS REQ'D. AT N. ABUT.



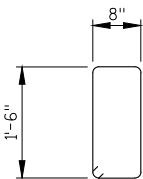
SECTION THRU ABUTMENT



SECTION THRU EXPANSION PIER

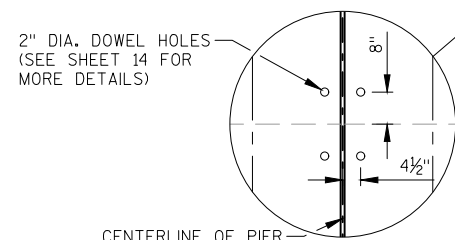


SECTION THRU FIXED PIER



S401

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		TR	PLANS CK'D. PTB
PRESTRESSED CONCRETE BOX GIRDER DETAILS			SHEET 14 OF 20



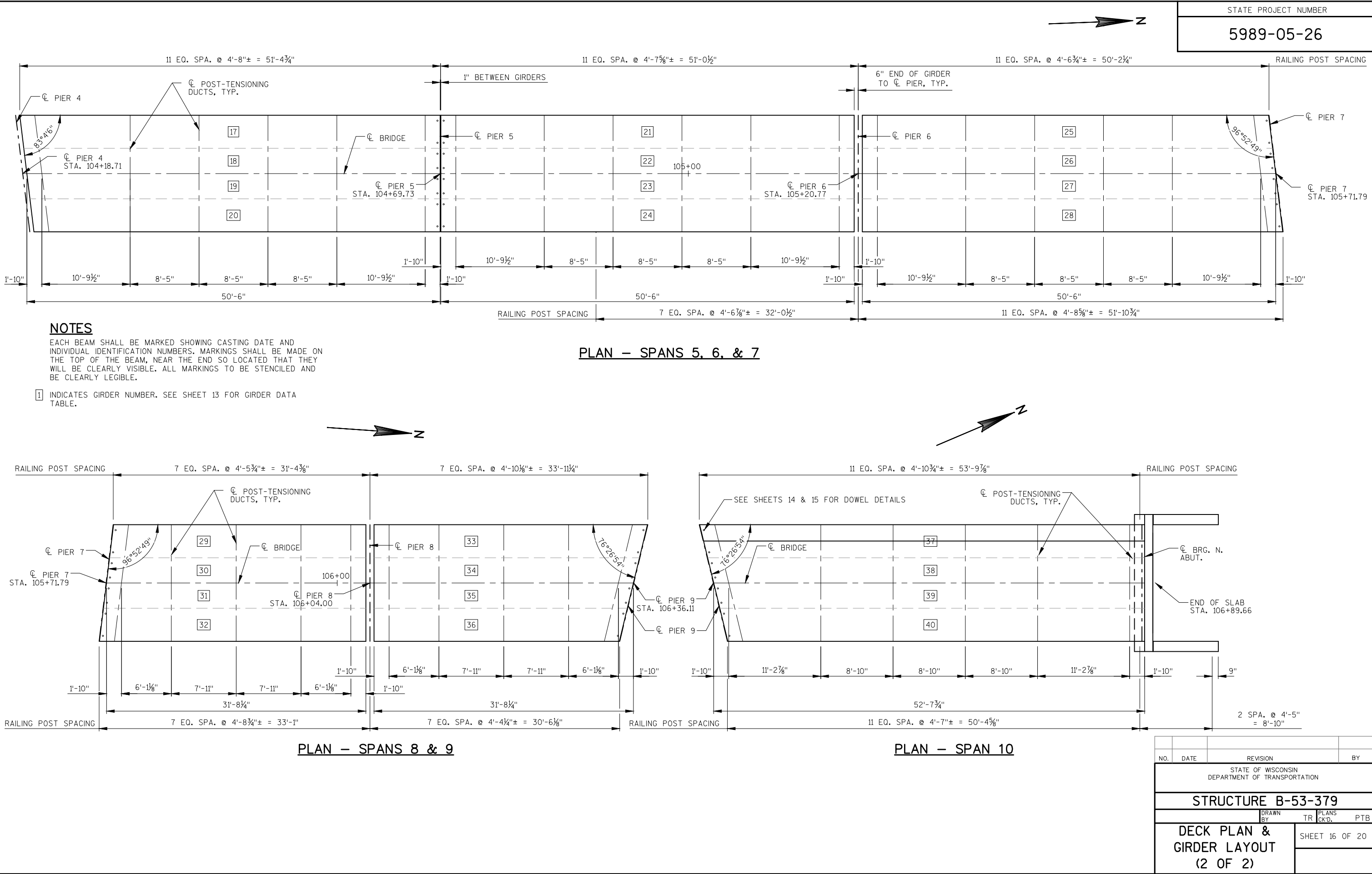
DOWEL DETAIL
(TYPICAL AT PIERS)

EACH BEAM SHALL BE MARKED SHOWING CASTING DATE AND INDIVIDUAL IDENTIFICATION NUMBERS. MARKINGS SHALL BE MADE ON THE TOP OF THE BEAM, NEAR THE END SO LOCATED THAT THEY WILL BE CLEARLY VISIBLE. ALL MARKINGS TO BE STENCILED AND BE CLEARLY LEGIBLE.

8



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		TR	PLANS CKD. PTD.
DECK PLAN & GIRDER LAYOUT (1 OF 2)		SHEET 15 OF 20	



NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN SPECIAL B-53-379. WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN INCLUDING POSTS FOR LIGHTING. LIGHT FIXTURES, WIRING, CONDUIT, JUNCTION BOXES, AND ANY INCIDENTALS REQUIRED TO INSTALL LIGHTING SYSTEM IS INCLUDED IN ROADWAY QUANTITIES.

POST CONNECTION 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 CUTS.

ENDS OF STRUCTURAL SECTIONS AND TUBES SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

ALL PLATES, AND SECTIONS SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET VERTICAL.

SEE DECK PLAN SHEETS FOR POST SPACING.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED AT CONNECTION PLATE, WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

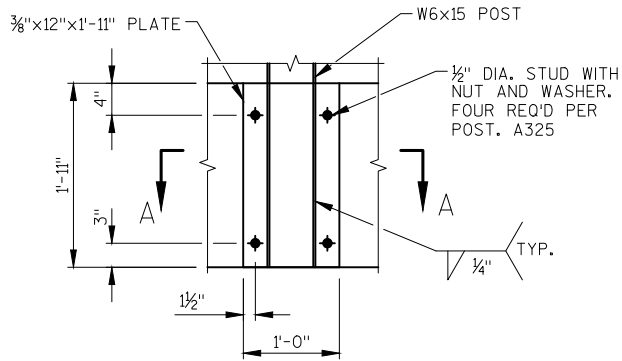
ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A No. 6 BLAST CLEANING PER SSPC SPECIFICATIONS.

PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. : 27038 (BLACK).

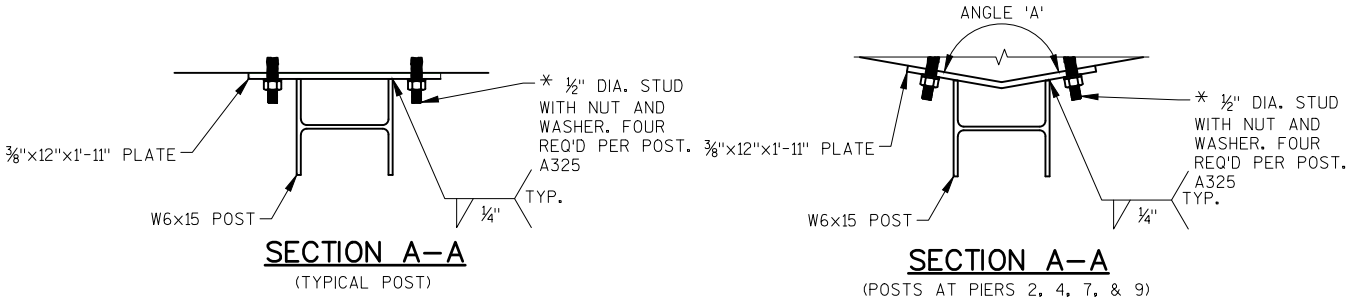
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

LEGEND

- * POSTS AND RAIL CONNECTIONS SHALL HAVE HOLES SLOTTED 1/4" TO ALLOW FOR LONGITUDINAL BRIDGE MOVEMENT. BOLTS SHALL BE SNUG TIGHTENED.
- ** LIGHT POLES ARE LOCATED ON LEFT SIDE OF BRIDGE ONLY AT STATIONS 102+70, 103+01, 103+39, 103+80, 104+19, 104+57, 104+97, 105+34, 105+72, 106+17, & 106+58.
- *** ANCHORAGES FOR CONDUIT AND JUNCTION BOXES MUST BE LOCATED IN THE OUTER 3" OF THE BOX GIRDER WIDTH. SEE LIGHTING PLANS FOR DETAILS.

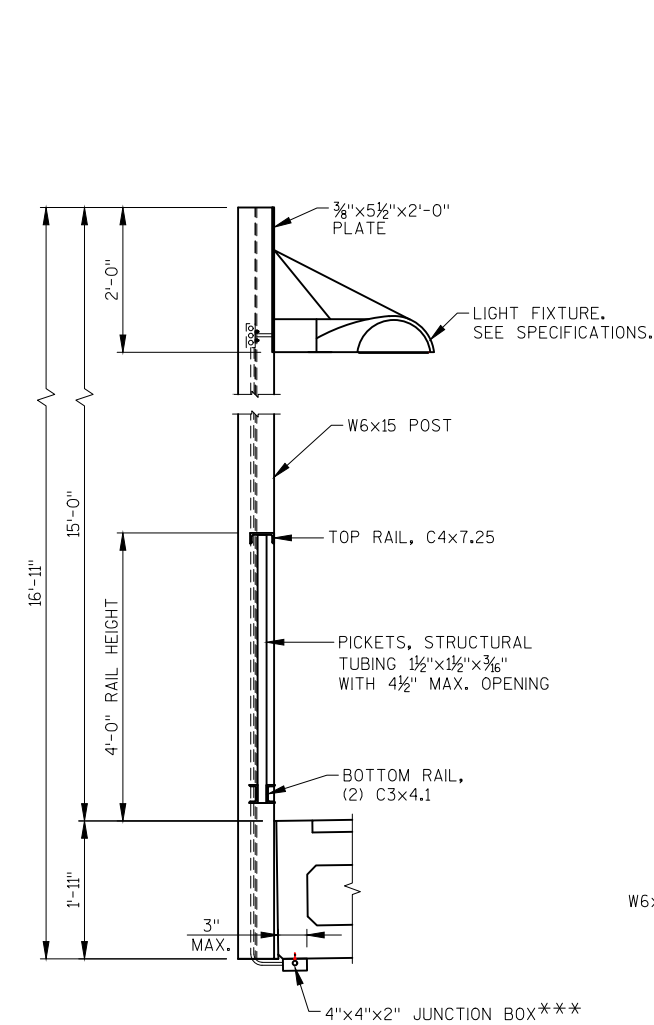


RAIL POST CONNECTION DETAIL



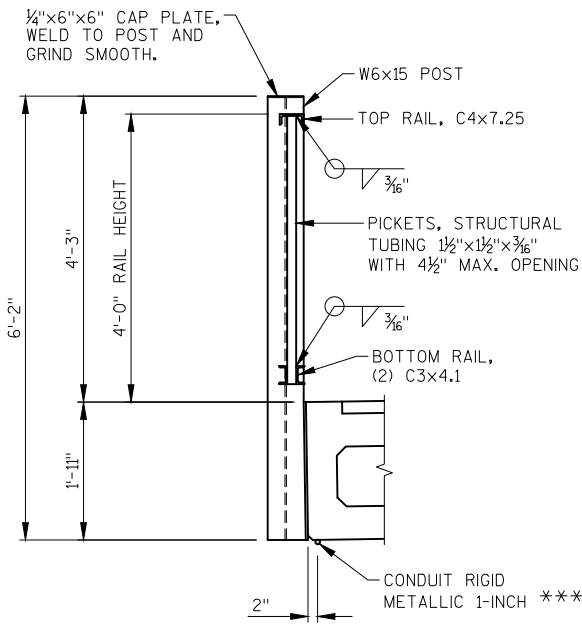
SECTION A-A

(POSTS AT PIERS 2, 4, 7, & 9)

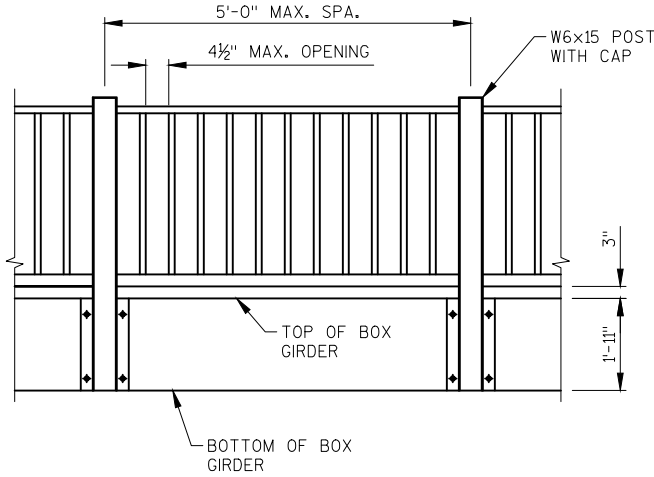


SECTION THROUGH RAILING

(AT LIGHT POLE**)

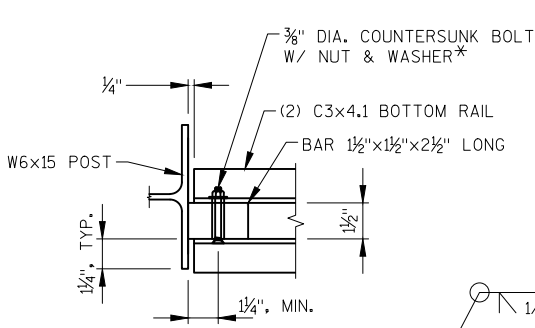


SECTION THROUGH RAILING

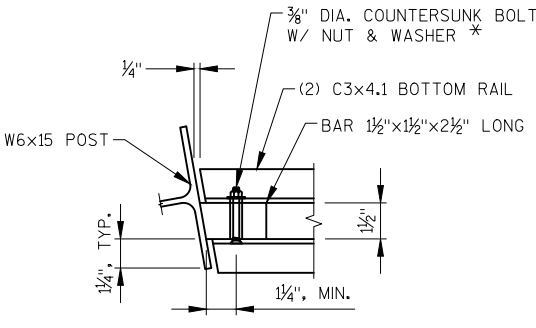


PARTIAL RAIL ELEVATION

(OUTSIDE VIEW)

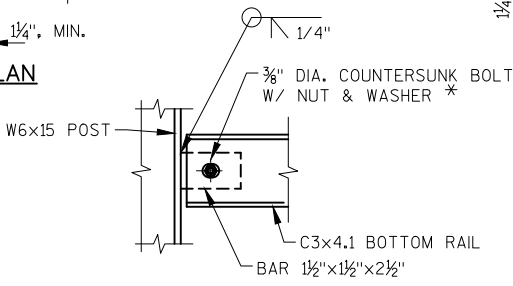


PLAN



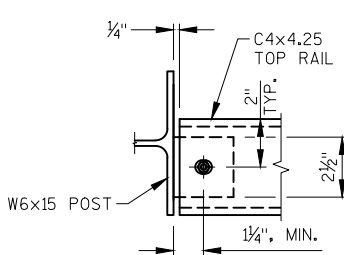
PLAN

(POSTS AT PIERS 2, 4, 7, & 9)

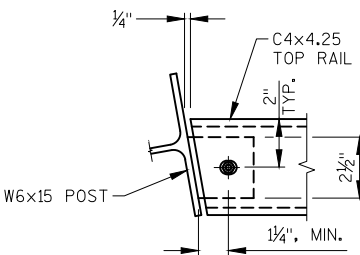


SECTION

BOTTOM RAIL TO POST CONNECTION

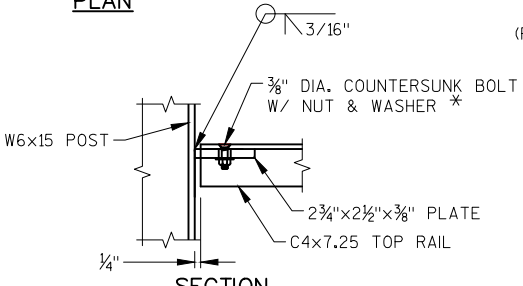


PLAN



PLAN

(POSTS AT PIERS 2, 4, 7, & 9)



SECTION

TOP RAIL TO POST CONNECTION

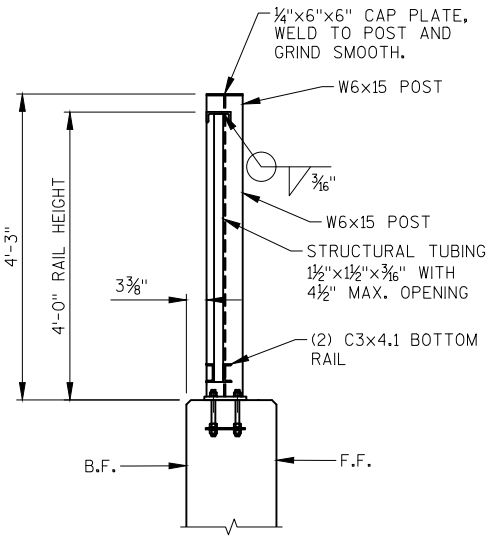
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		TR	PLANS CK'D. PTB
RAILING DETAILS			SHEET 17 OF 20

NOTES

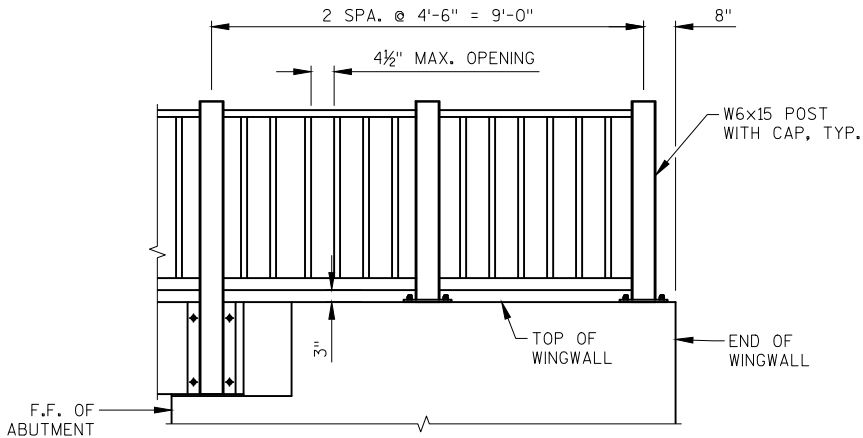
SEE NOTES ON PREVIOUS SHEET.

LEGEND

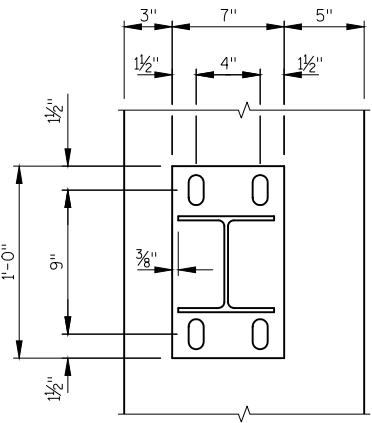
CAULK AROUND PERIMETER OF BASE PLATES AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.



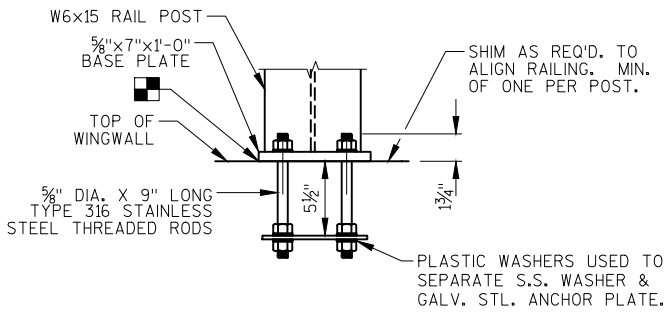
SECTION THROUGH RAILING



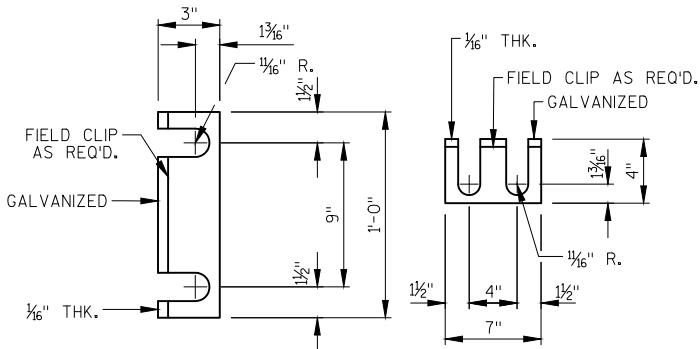
PARTIAL RAIL ELEVATION
(OUTSIDE VIEW)



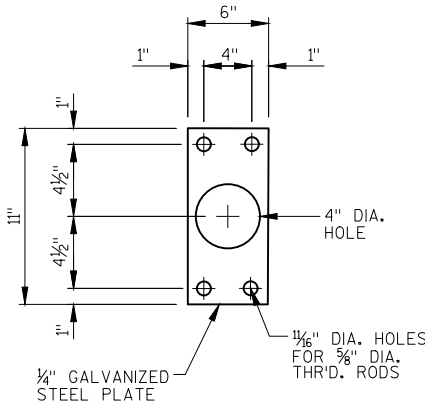
WINGWALL RAIL POST
BASE PLATE



WINGWALL RAIL POST
ANCHORAGE



WING RAIL POST SHIM DETAIL
(2 SETS PER POST)



ANCHOR PLATE

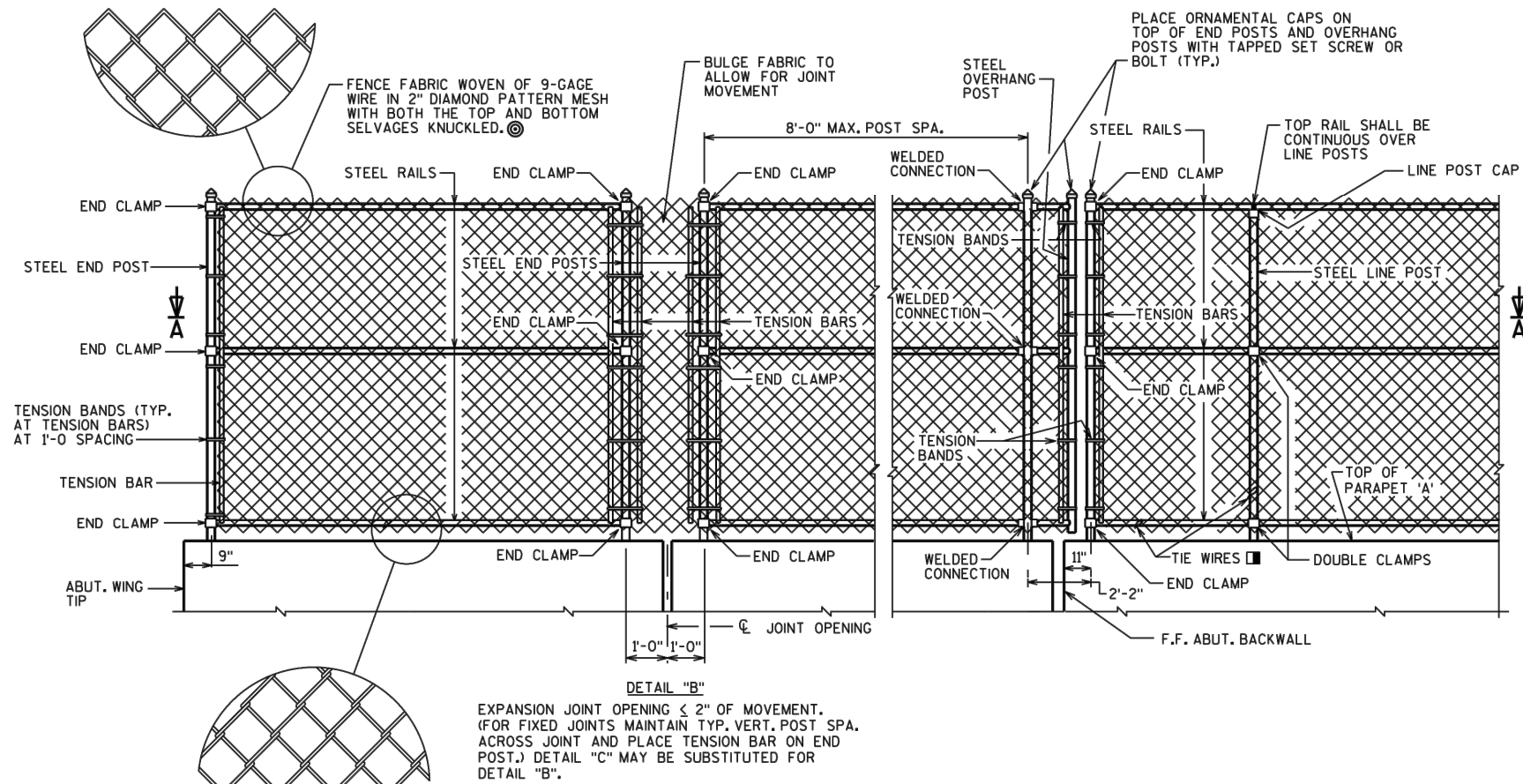
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		TR	PLANS CK'D. PTB
WINGWALL RAILING DETAILS		SHEET 18 OF 20	



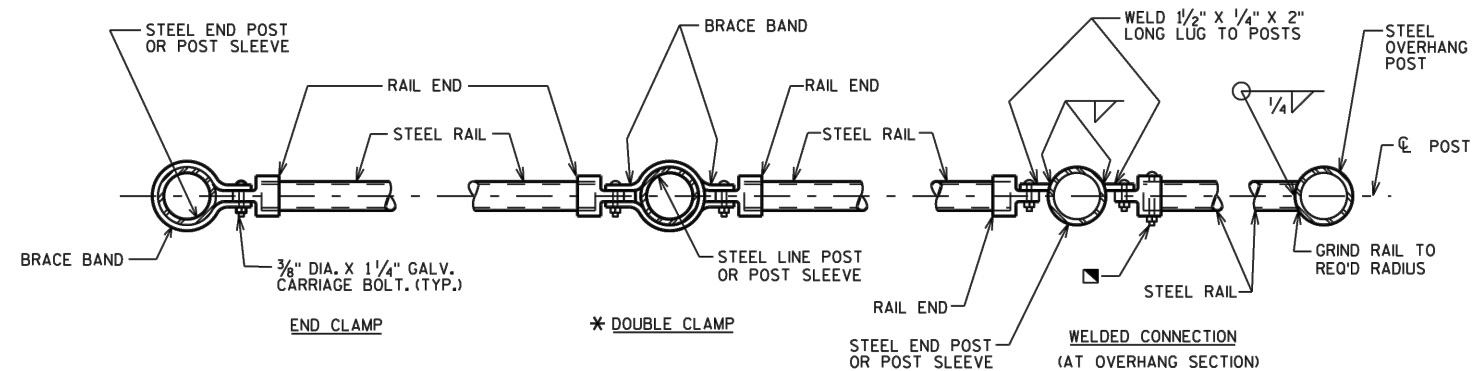
- ① ½" DIA. GRADE 5 BOLT - FOUR REQ'D. PER POST
- ② 4,800 LBS STRAIGHT LOOP FERRULE INSERT OR EQUIVALENT
- ③ ¼" X 3" X 10" PLATE WITH 2 - ⅝" DIA. HOLES



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY		RBH	PLANS Ckd. P.TB
CHAIN LINK FENCE DETAILS (1 OF 2)		SHEET 19 OF 20	



FENCE PART ELEVATION

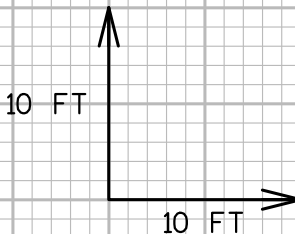
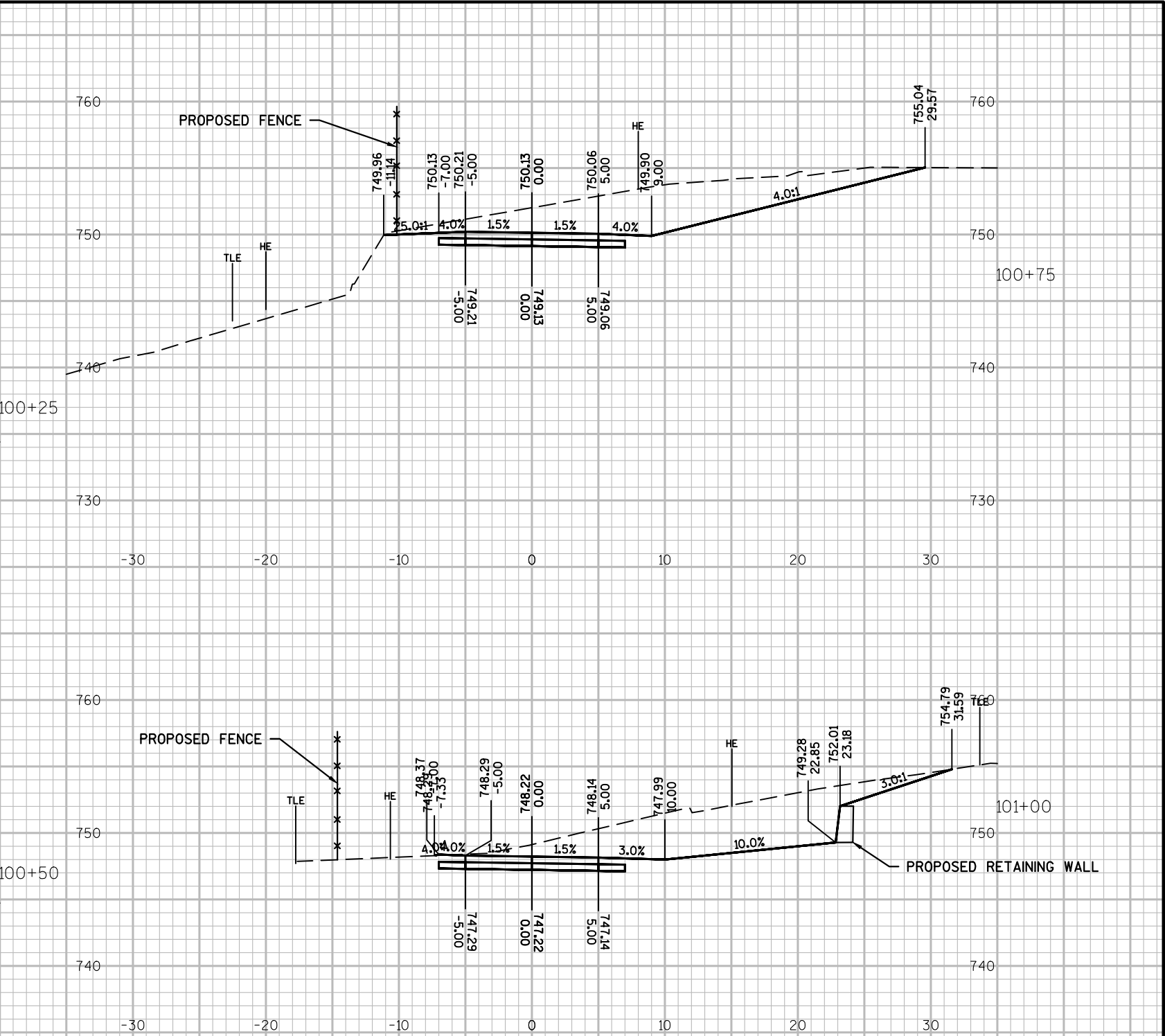
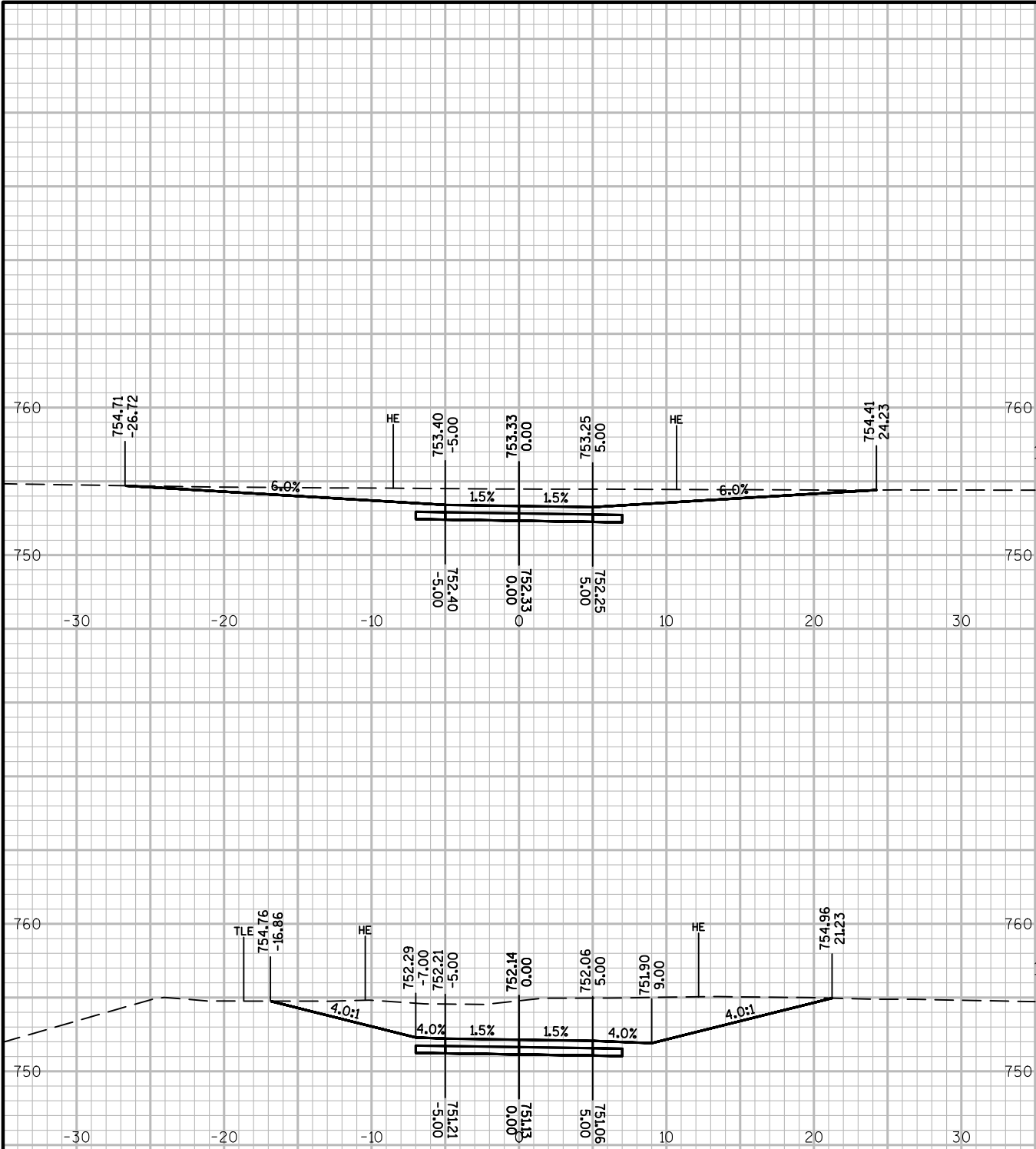


SECTION A-A

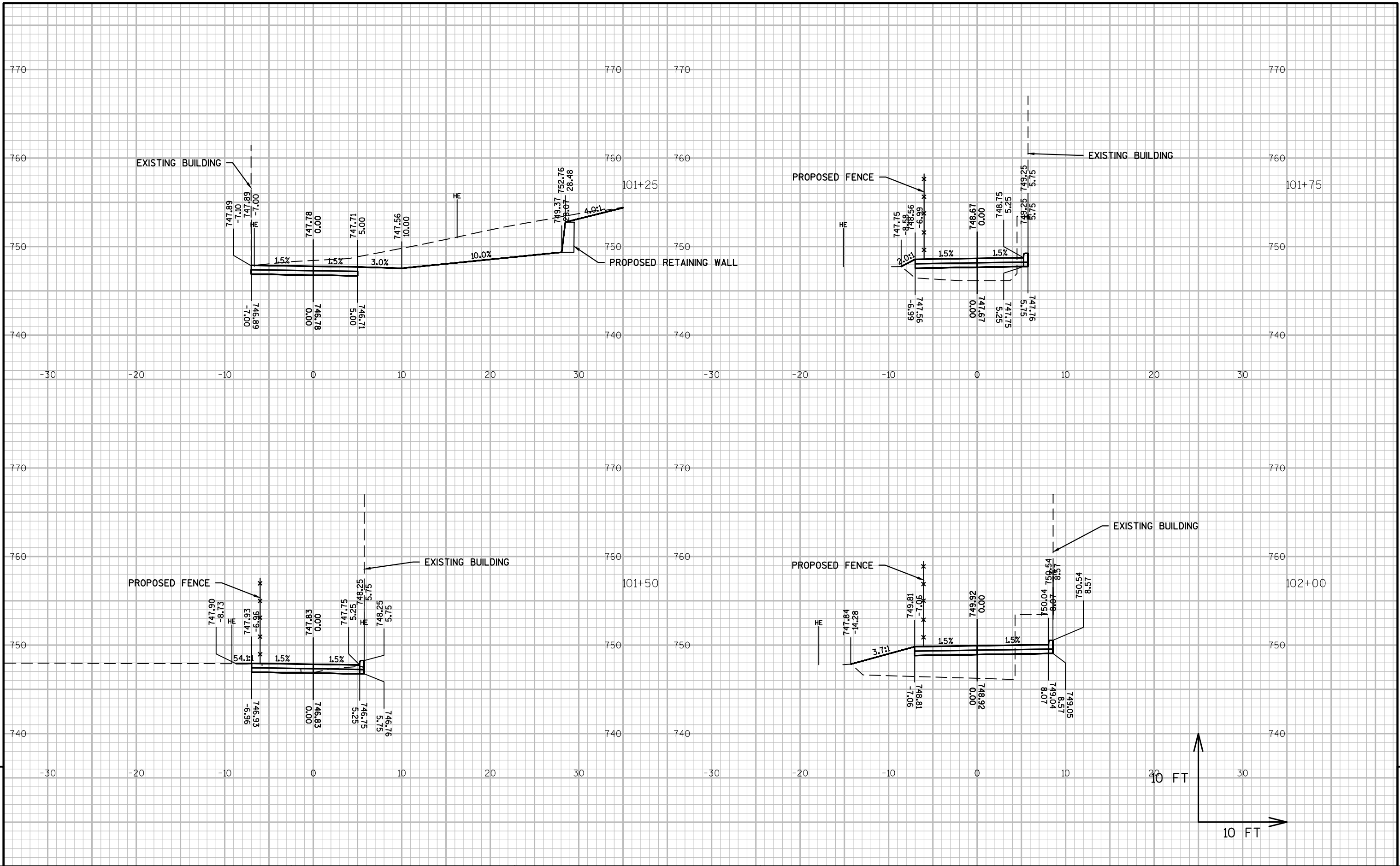
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-379			
DRAWN BY RBH		PLANS CK'D. PTB	
CHAIN LINK FENCE DETAILS (2 OF 2)		SHEET 20 OF 20	

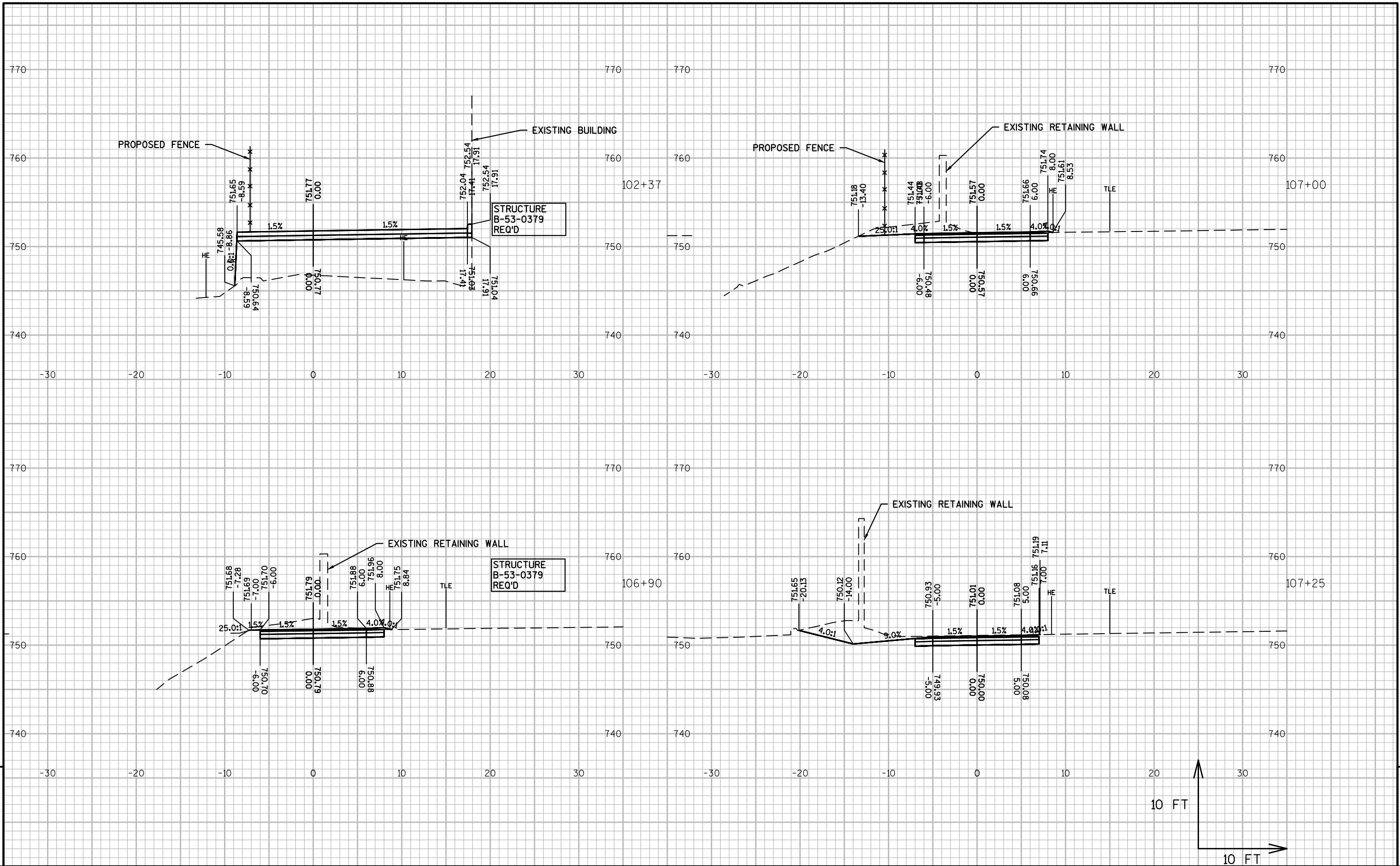
Riverwalk (100+10 - 108+36)															
STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
			Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS in Fill 0.80 Note 7	Mass Ordinate Note 8
100+10	10010.00	0.00	9.96	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
100+25	10025.00	15.00	47.46	11.11	0.05	2.50	16	3	0	1	16	0	1	1	12
100+50	10050.00	25.00	88.36	0.00	0.00	2.50	63	5	0	2	79	0	4	2	68
100+75	10075.00	25.00	81.23	5.35	2.82	2.50	79	2	1	2	157	2	7	4	141
101+00	10100.00	25.00	95.17	5.35	0.00	2.50	82	5	1	2	239	3	10	6	214
101+25	10125.00	25.00	90.97	5.35	0.00	0.00	86	5	0	1	325	3	11	7	294
101+50	10150.00	25.00	7.19	5.35	0.11	0.00	45	5	0	0	371	3	11	7	335
101+75	10175.00	25.00	6.69	0.00	21.31	0.00	6	2	10	0	377	16	11	7	326
102+00	10200.00	25.00	18.63	0.00	48.78	0.00	12	0	32	0	389	56	11	7	297
102+25	10225.00	25.00	0.00	0.00	92.93	0.00	9	0	66	0	397	138	11	7	224
102+37	10237.00	12.00	0.02	0.00	119.71	0.00	0	0	47	0	397	197	11	7	165
106+90	10690.00	0.00	25.69	0.00	0.00	0.00	0	0	0	0	397	197	11	7	165
107+00	10700.00	10.00	22.54	0.00	0.28	2.50	9	0	0	0	406	197	12	7	173
107+25	10725.00	25.00	42.28	0.00	0.00	2.50	30	0	0	2	436	198	15	9	201
107+50	10750.00	25.00	75.06	3.09	0.00	2.50	54	1	0	2	491	198	18	11	252
107+75	10775.00	25.00	39.94	3.09	0.00	2.50	53	3	0	2	544	198	21	13	301
108+00	10800.00	25.00	45.69	3.09	0.00	2.50	40	3	0	2	584	198	24	15	336
108+25	10825.00	25.00	13.01	3.09	0.01	2.50	27	3	0	2	611	198	27	17	358
108+36	10836.00	11.00	9.65	3.09	0.00	0.00	5	1	0	1	615	198	28	17	361
							615	39	158	21					

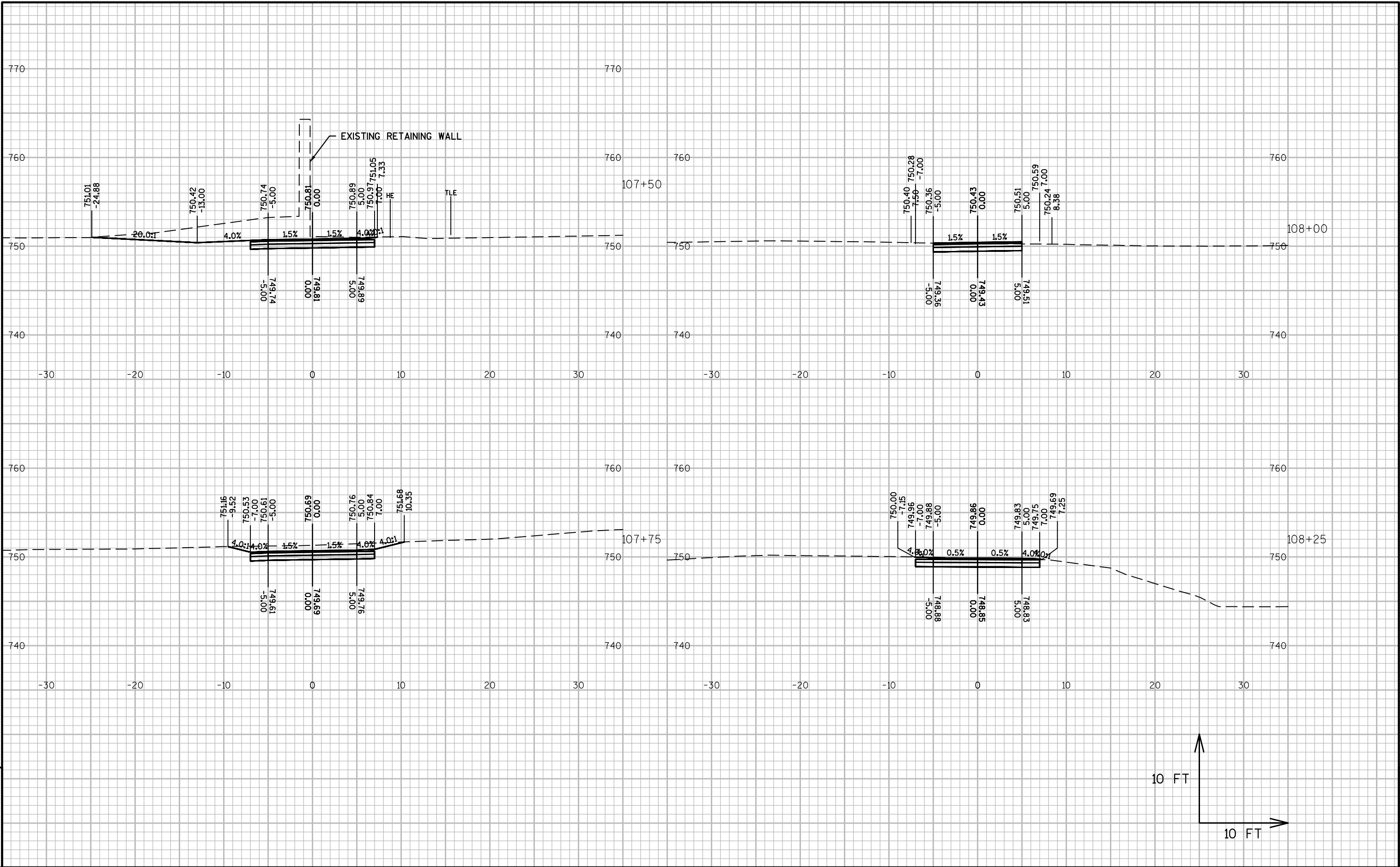
9

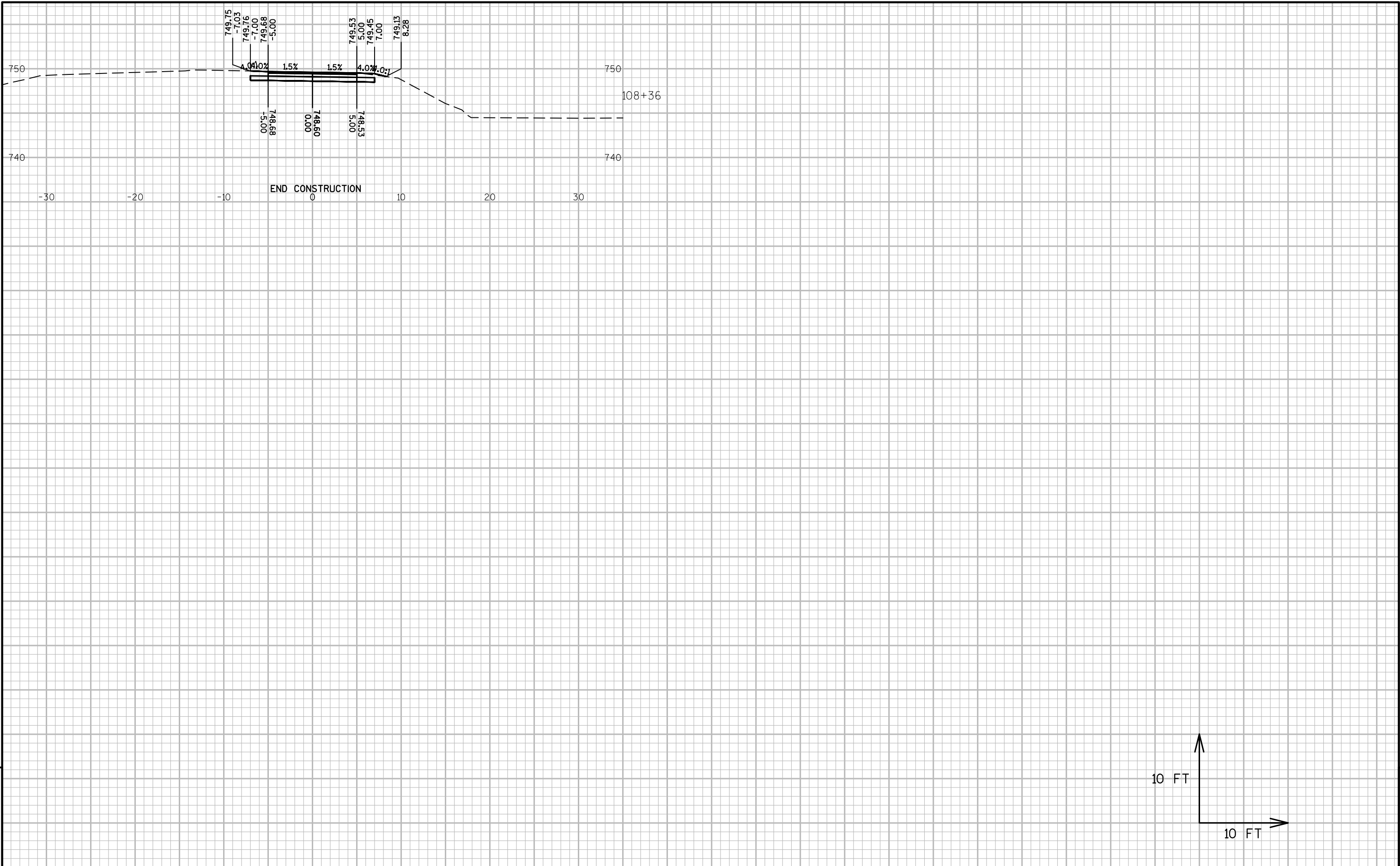


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PROJECT NO:5989-05-26	HWY:NON HWY	COUNTY:ROCK	CROSS SECTIONS: RIVERWALK	SHEET	E
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