SWL

DEC 2016

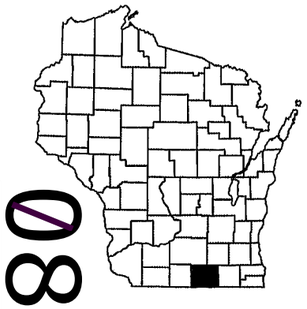
PROJECT ID: 5989-01-78

WITH: N/A

COUNTY: ROCK

ORDER OF SHEETS

TOTAL SHEETS = 66



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DESIGN DESIGNATION

A.A.D.T.	2017	= 4,700
A.A.D.T.	2037	= 5,200
D.H.V.		= 590
D.D.		= 59/42
T.		= 4.2%
DESIGN SPEED		= 30 MPH
ESALS		= 654,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE			
SLOPE INTERCEPT		CULVERT (Profile View)	
REFERENCE LINE		UTILITIES	
EXISTING CULVERT		ELECTRIC	E
PROPOSED CULVERT (Box or Pipe)		FIBER OPTIC	FO
COMBUSTIBLE FLUIDS	CAUTION	GAS	G
		SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF BELOIT, FOURTH STREET

LENIGAN CREEK BRIDGE B-53-0288

LOCAL STREET

ROCK COUNTY

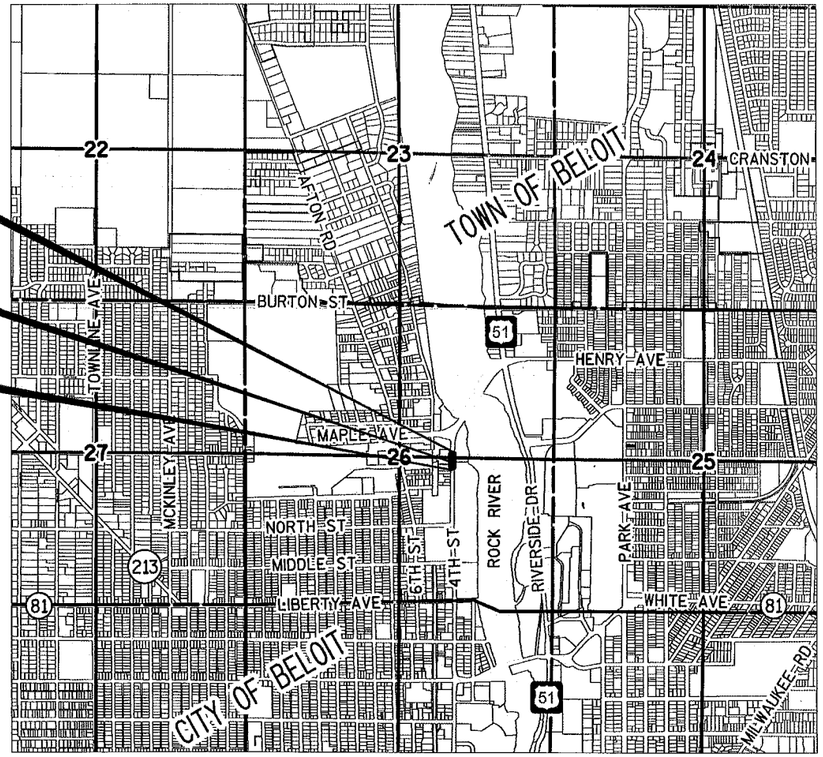
STATE PROJECT NUMBER
5989-01-78

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5989-01-78	WISC 2016470	1

END PROJECT
STA. 12+65
Y=209,049.72
X=489,232.88

STRUCTURE
B-53-288

BEGIN PROJECT
STA. 10+00
Y=208,784.72
X=489,231.30



LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.050

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.

ACCEPTED FOR CITY OF BELOIT

7/21/2016 (Date) (CITY ENGINEER)

ORIGINAL PLANS 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 608.365.1950

WISCONSIN PROFESSIONAL ENGINEER
TODD W. NEEDHAM
E-38332
JANESVILLE
WI

DATE: 7/20/16 (PROFESSIONAL ENGINEER)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	BATTERMAN
Designer	BATTERMAN
Management Consultant	KL ENGINEERING, INC.

APPROVED FOR THE DEPARTMENT

DATE: 7/29/16 (Management Consultant Signature)

E

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GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NAVD 88. (2007)

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.

SELECT CRUSHED MATERIAL SHALL BE USED IN ALL EBS AREAS.

THE EXACT LOCATIONS OF ALL DRIVEWAY ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

CURB & GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.

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 WITHIN THE RIGHT-OF-WAY 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.

THE CONTRACTORS PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINT FROM BEING LOCATED WITHIN A DRIVING OR TURNING LANE.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 110 LB/SY/INCH.

ALL INLET RIM GRADES ARE TO THE FLANGE OF CURB.

OFFSETS FOR 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.

ORDER OF DETAIL SHEETS

UTILITIES

WISCONSIN POWER & LIGHT (GAS & ELECTRIC)
ATTN: DEAN COPP
935 WBR TOWNLINE ROAD
BELOIT, WI 53511
TELEPHONE: (608)364-6431
EMAIL: DEANCOPP@ALLIANTENERGY.COM

CHARTER COMMUNICATIONS
ATTN: TOM PHILLIPS
2016 CRANSTON ROAD
BELOIT, WI 53511
TELEPHONE: (608)312-2222 EXT. 61862
EMAIL: THOMAS.PHILLIPS@CHARTER.COM

AT&T WISCONSIN
ATTN: CAROL ANASON
316 W WASHINGTON AVENUE
MADSION WI 53703
TELEPHONE: (608) 252-2385
EMAIL: CA2624@ATT.COM

CITY OF BELOIT SANITARY & STORM
ATTN: BILL FRISBEE
2400 SPRINGBROOK COURT
BELOIT, WI 553511
TELEPHONE: (608) 364-6699
EMAIL: FRISBEEW@BELOITWI.GOV

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

**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMEBERS.

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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

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

TYPE	THICKNESS	LAYERS	MAX. NO. SIZE GRADATION
ASPHALTIC SURFACE	3.0"	LOWER LAYER	19.0 MM
ASPHALTIC SURFACE	2.0"	UPPER LAYER	12.5 MM

DIGGERS HOTLINE
Dial 811 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: TODD NEEDHAM, P.E.
2857 BARTELLS DRIVE
BELOIT, WI 53511
TELEPHONE: (608) 365-4464
EMAIL: TNEEDHAM@RHBATTERMAN.COM

CITY OF BELOIT ENGINEERING

PROJECT ENGINEER
ANDREW HILL, P.E.
2400 SPRINGBROOK COURT
BELOIT, WI 53511
TELEPHONE: (608) 364-6692
EMAIL: HILLA@BELOITWI.GOV

SCHOOL DISTRICT OF BELOIT
ATTN: KENT WEBER
1633 KEELER AVENUE
BELOIT, WI 53511
TELEPHONE: (608) 361-4083
MOBILE: (608) 346-3122
EMAIL: RWEBER@SDB.K12.WI.US

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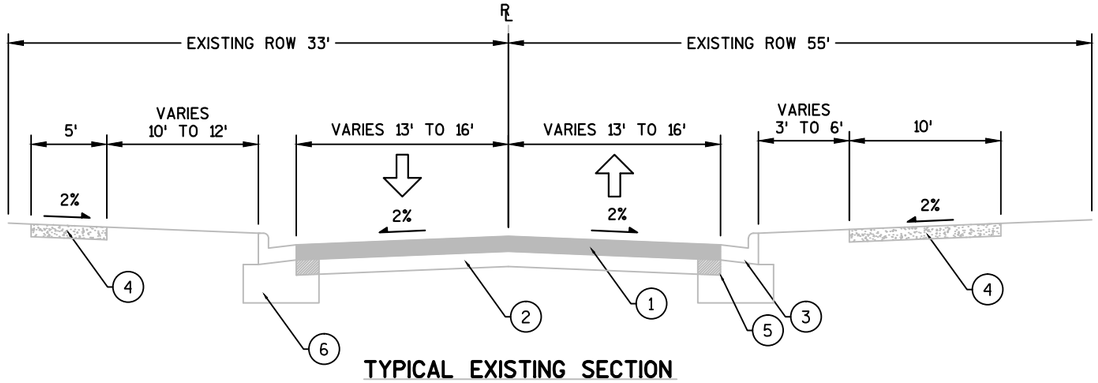
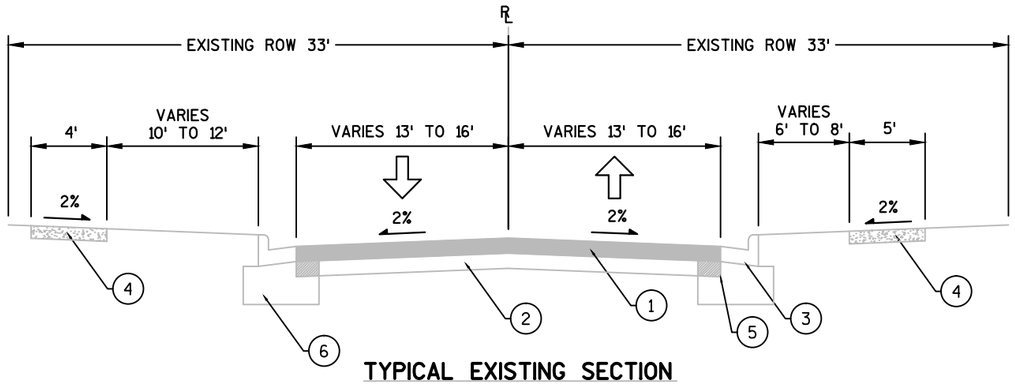


TYPICAL EXISTING SECTION

STA 11+75 - STA 12+65



TYPICAL EXISTING SECTION

STA 10+00 - STA 11+10

LEGEND

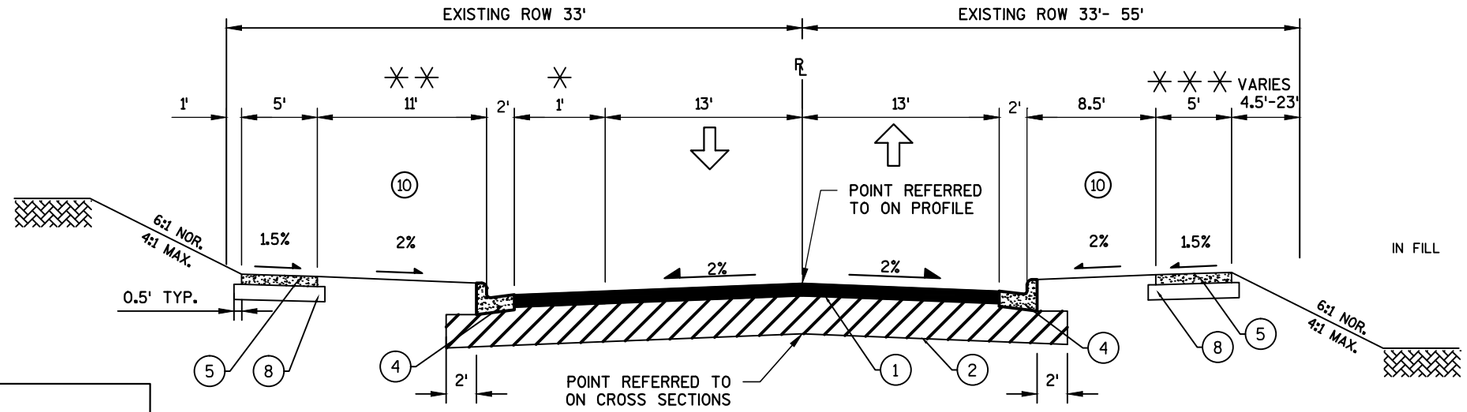
(1)	5.5-6 INCH ASPHALT PAVEMENT
(2)	CONCRETE PAVEMENT
(3)	CONCRETE CURB & GUTTER, 30-INCH
(4)	CONCRETE SIDEWALK
(5)	CONCRETE PATCHING
(6)	8.5-INCH BASE AGGREGATE

2

✳ STA. 10+48 - 10+73
VARIES 1 '- 6'
STA. 12+12 - 12+50
VARIES 0 '- 6'

✳✳ STA. 10+00 - 10+72
VARIES 12.5 '- 6'
STA. 12+12 - 12+42
VARIES 5.5 '- 11.5'

✳✳✳ STA. 12+11 - 12+65
EXISTING SIDEWALK TO REMAIN

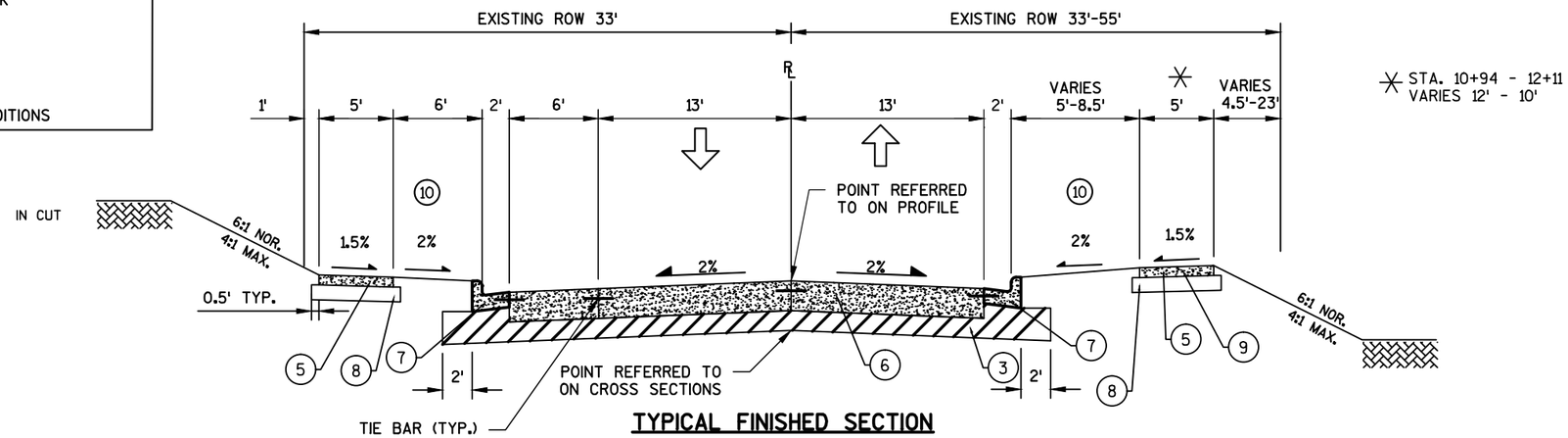


TYPICAL FINISHED SECTION

FOURTH STREET
STA 10+00 - 10+73
STA 12+11 - 12+65

LEGEND

(1)	5 INCH ASPHALTIC SURFACE
(2)	15-INCH BASE AGGREGATE DENSE 1¼-INCH
(3)	8-INCH BASE AGGREGATE DENSE 1¼-INCH
(4)	CONCRETE CURB & GUTTER 30-INCH TYPE L
(5)	CONCRETE SIDEWALK 5-INCH (6-INCH THROUGH DRIVEWAYS)
(6)	12-INCH CONCRETE PAVEMENT APPROACH SLAB
(7)	CONCRETE CURB & GUTTER 30-INCH TYPE K
(8)	6-INCH BASE AGGREGATE DENSE 1¼-INCH
(9)	CONCRETE SIDEWALK 6-INCH
(10)	TOPSOIL, SOD & FERTILIZER SLOPE MAY VARY TO MATCH EXISTING CONDITIONS

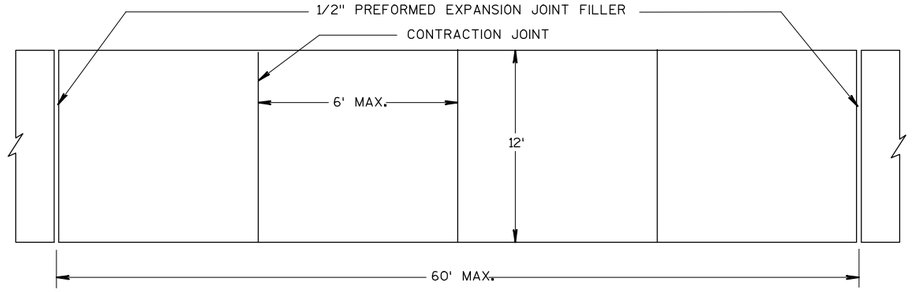


✳ STA. 10+94 - 12+11
VARIES 12' - 10'

TYPICAL FINISHED SECTION

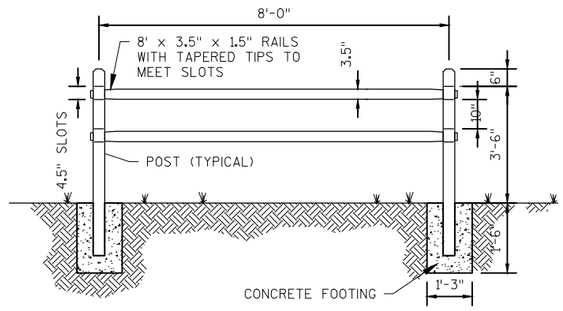
FOURTH STREET
STA 10+73 - 10+88
STA 11+96 - 12+11

PROJECT NO:5989-01-78	HWY:LOCAL STREET	COUNTY:ROCK	PROPOSED TYPICAL SECTIONS	SHEET 4 E

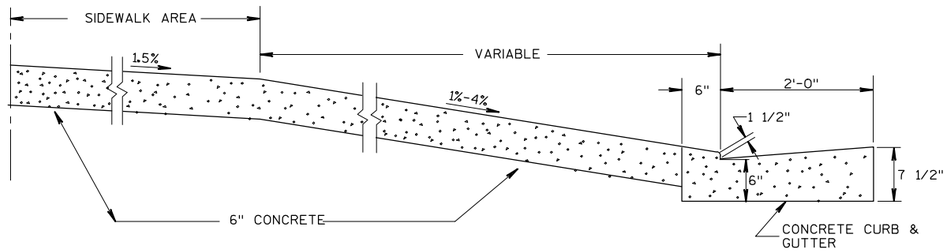


SIDEWALK DETAIL

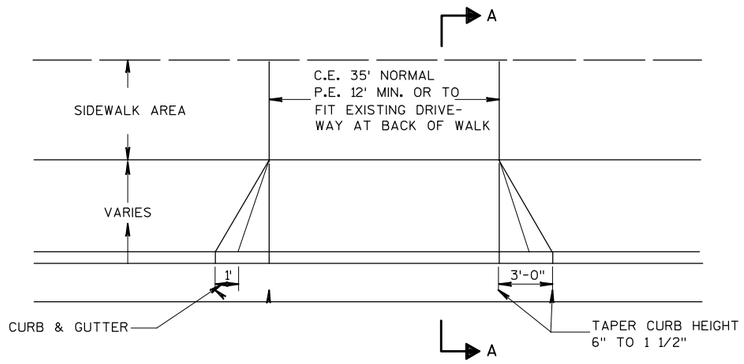
NOTES:
1) ALL WOOD FOR SPLIT RAIL FENCE TO BE PRESSURE TREATED.
2) END POST SHALL BE TERMINAL POST.



SPLIT-RAIL FENCE DETAIL



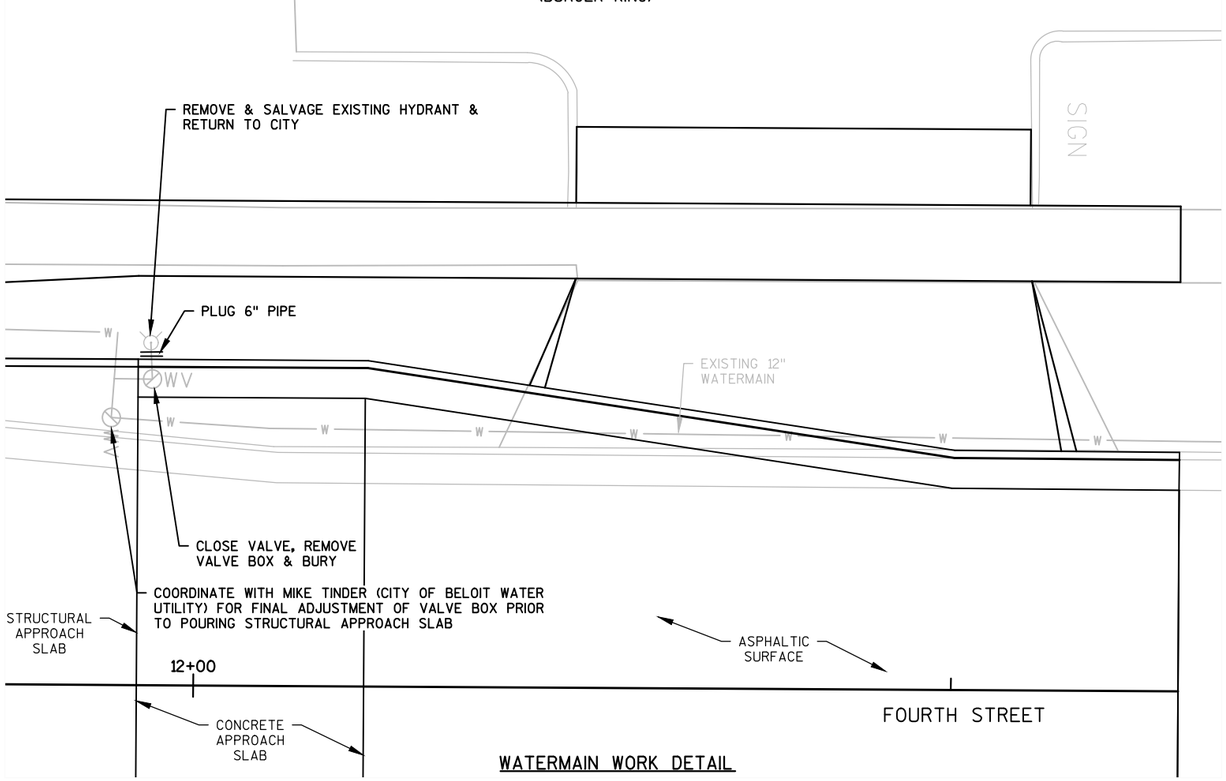
SECTION A-A



PRIVATE AND COMMERCIAL ENTRANCES

1450 4TH STREET LLC
(BURGER KING)

SCALE: 1" = 10'

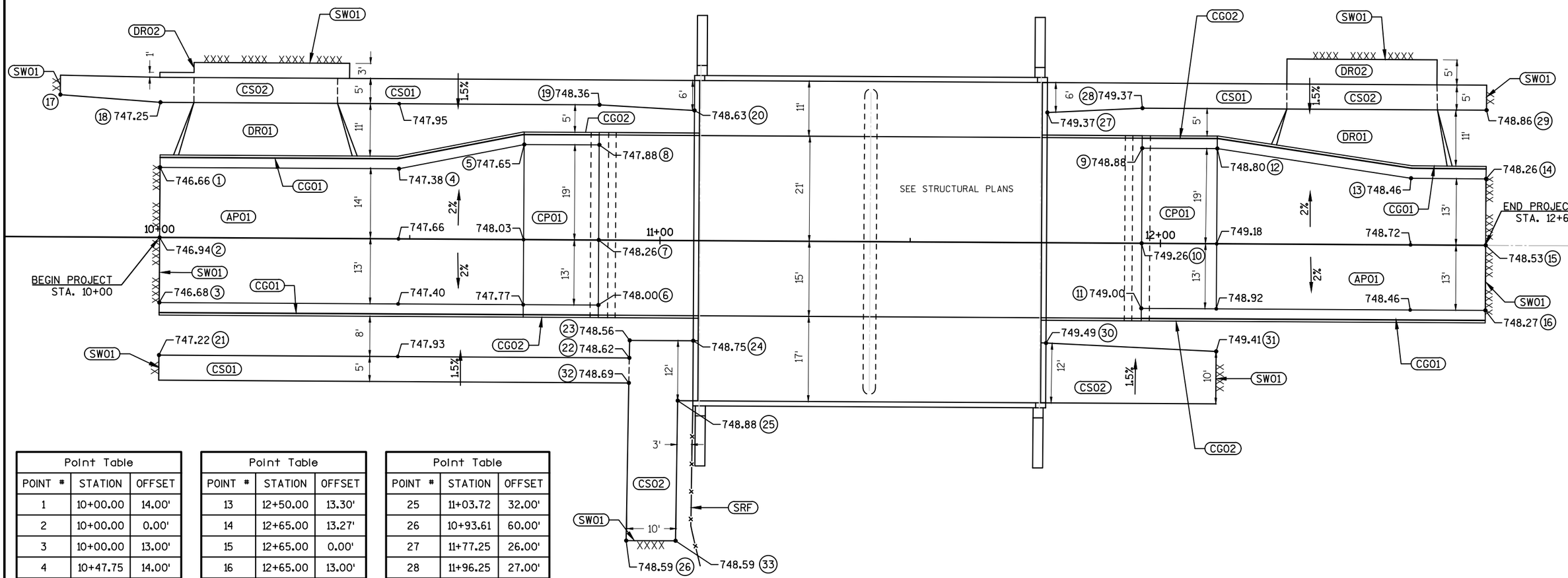


WATERMAIN WORK DETAIL

PROJECT NO:5989-01-78	HWY:LOCAL STREET	COUNTY:ROCK	CONSTRUCTION DETAILS	SHEET 5	E

LEGEND

AP01	ASPHALTIC SURFACE, 5-INCH
CP01	CONCRETE PAVEMENT APPROACH
CG01	CONCRETE CURB & GUTTER 30-INCH TYPE L
CG02	CONCRETE CURB & GUTTER 30-INCH TYPE K
CS01	CONCRETE SIDEWALK 5-INCH
CS02	CONCRETE SIDEWALK 6-INCH
DR01	CONCRETE DRIVEWAY 6-INCH
DR02	ASPHALTIC SURFACE DRIVEWAY & FIELD ENTRANCES, 3-INCH
SW01	SAWING ASPHALT/CONCRETE
SRF	SPLIT RAIL FENCE, 8-FT POST SPACING



Point Table		
POINT #	STATION	OFFSET
1	10+00.00	14.00'
2	10+00.00	0.00'
3	10+00.00	13.00'
4	10+47.75	14.00'
5	10+72.75	19.00'
6	10+87.75	13.00'
7	10+87.75	0.00'
8	10+87.75	19.00'
9	11+96.25	19.00'
10	11+96.25	0.00'
11	11+96.25	13.00'
12	12+11.25	19.00'

Point Table		
POINT #	STATION	OFFSET
13	12+50.00	13.30'
14	12+65.00	13.27'
15	12+65.00	0.00'
16	12+65.00	13.00'
17	9+80.00	28.42'
18	10+00.00	27.00'
19	10+87.75	27.00'
20	11+06.75	26.00'
21	10+00.00	23.50'
22	10+94.00	23.50'
23	10+94.04	20.00'
24	11+06.75	20.00'

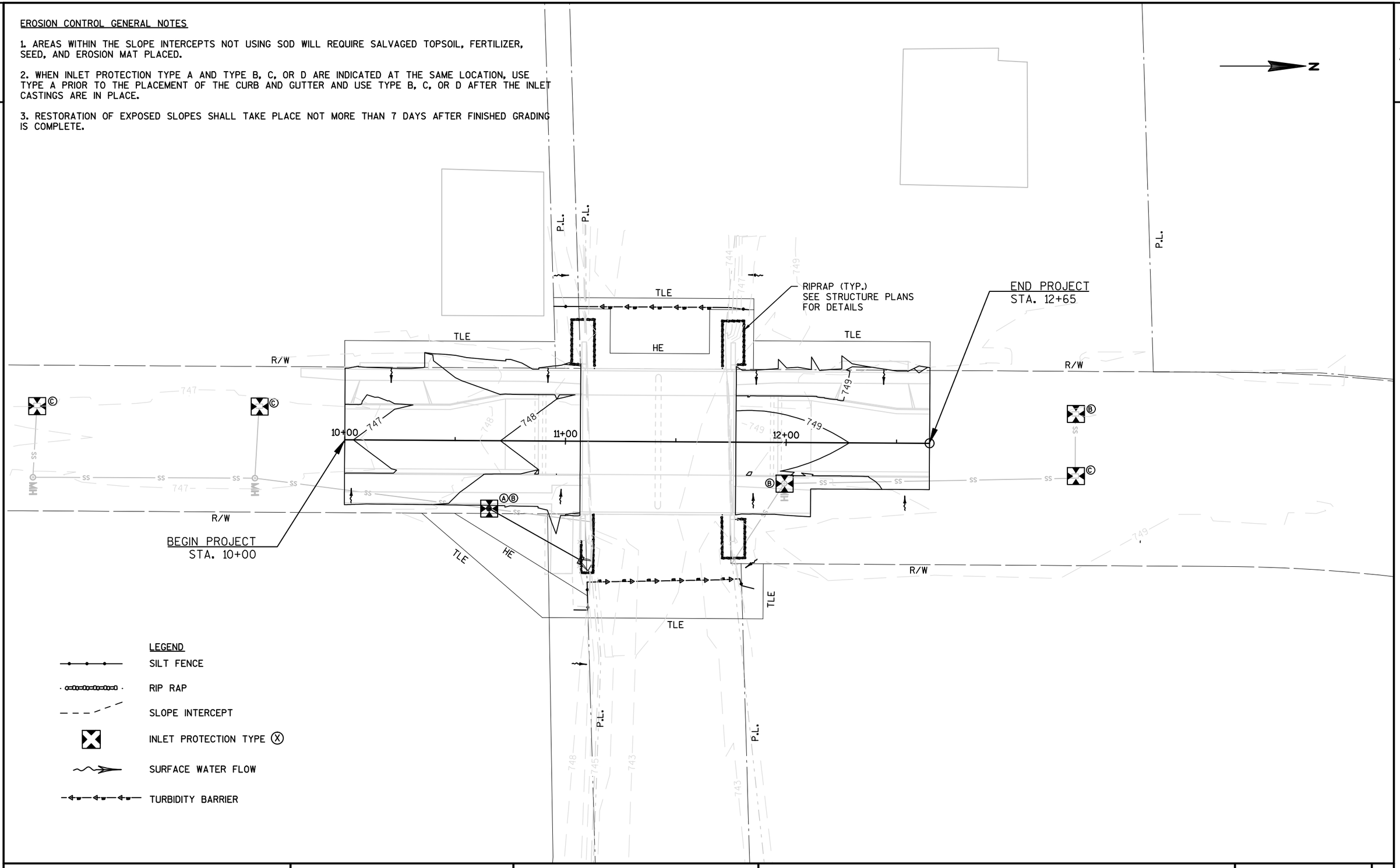
Point Table		
POINT #	STATION	OFFSET
25	11+03.72	32.00'
26	10+93.61	60.00'
27	11+77.25	26.00'
28	11+96.25	27.00'
29	12+65.00	27.00'
30	11+77.25	20.04'
31	12+11.25	21.51'
32	10+93.95	28.50'
33	11+03.46	60.00'

EROSION CONTROL GENERAL NOTES

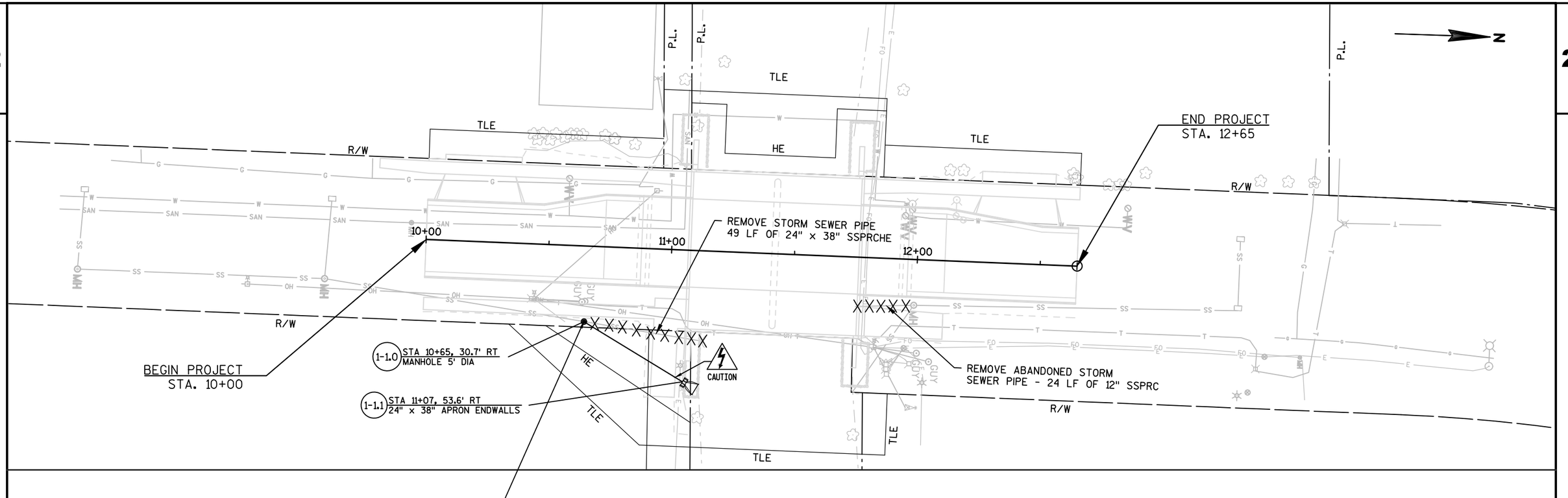
1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING SOD WILL REQUIRE SALVAGED TOPSOIL, FERTILIZER, SEED, AND EROSION MAT PLACED.

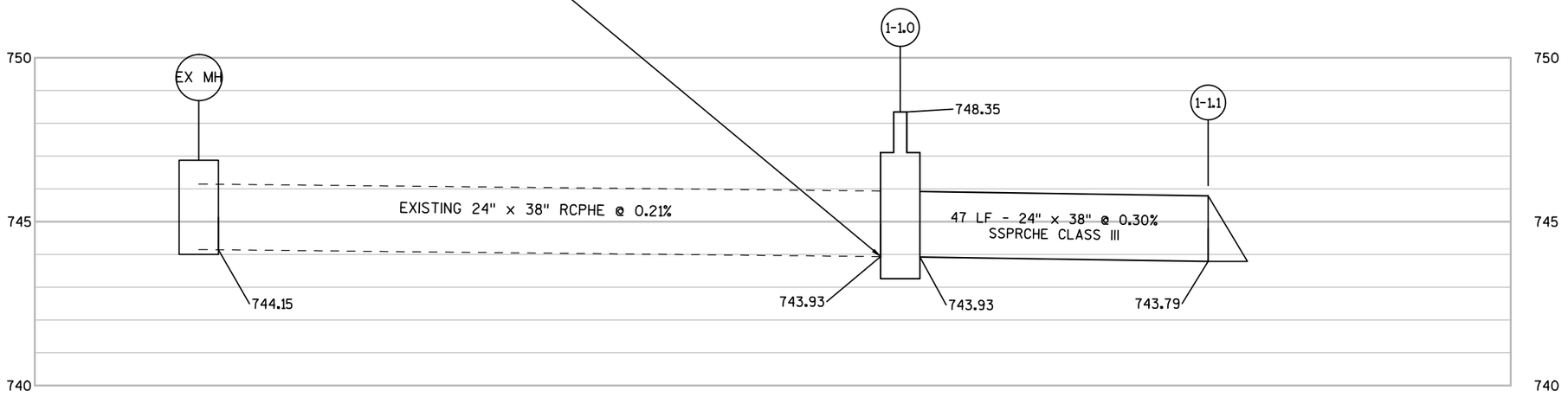
2. WHEN INLET PROTECTION TYPE A AND TYPE B, C, OR D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.

3. RESTORATION OF EXPOSED SLOPES SHALL TAKE PLACE NOT MORE THAN 7 DAYS AFTER FINISHED GRADING IS COMPLETE.



PROJECT NO:5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	EROSION CONTROL	SHEET 7 E





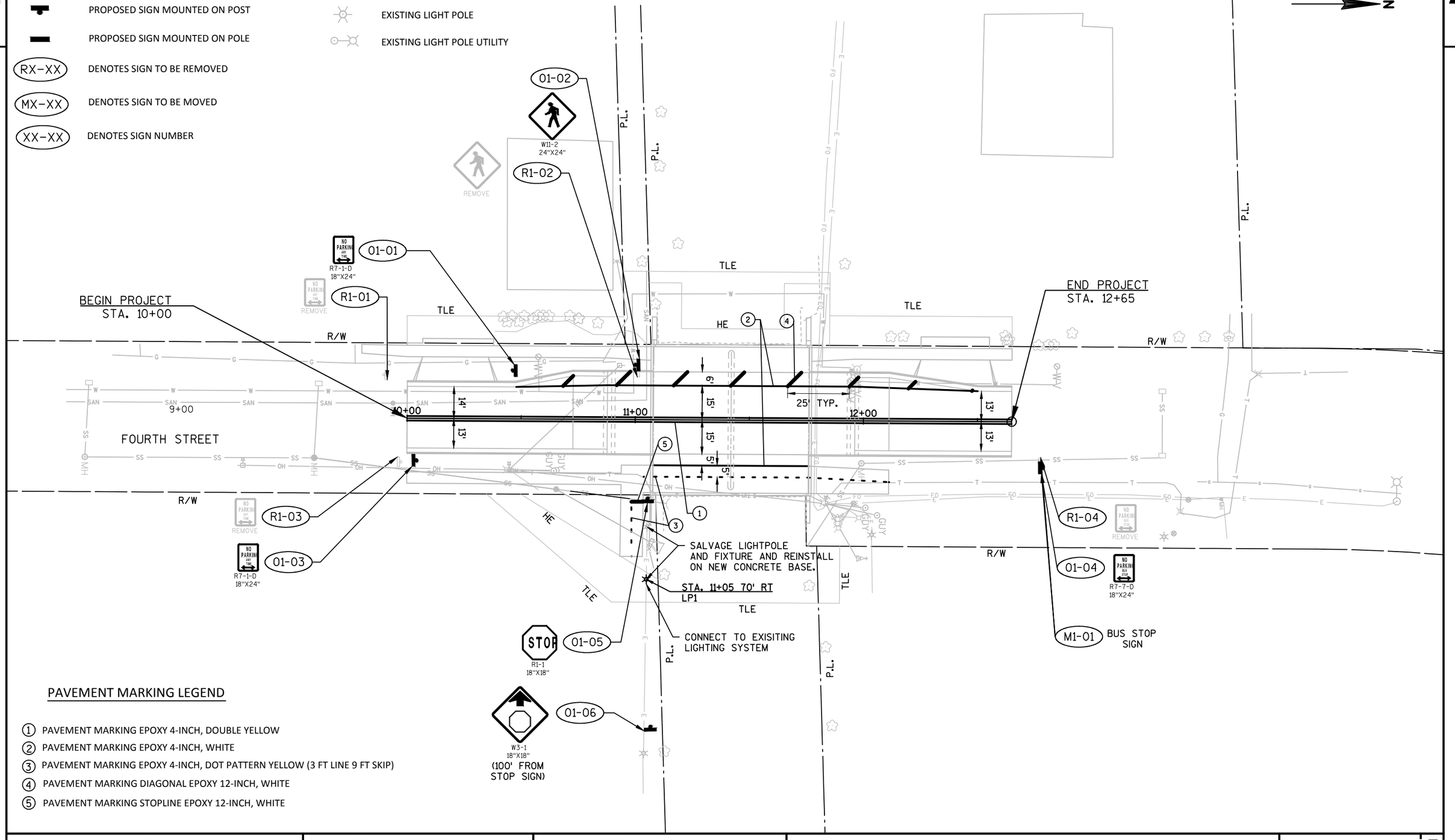
PROJECT NO: 5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	STORM SEWER	SHEET 8 E

SIGN LEGEND

- EXISTING SIGN MOUNTED ON POST
- PROPOSED SIGN MOUNTED ON POST
- PROPOSED SIGN MOUNTED ON POLE
- RX-XX — DENOTES SIGN TO BE REMOVED
- MX-XX — DENOTES SIGN TO BE MOVED
- XX-XX — DENOTES SIGN NUMBER

LIGHTING LEGEND

- PROPOSED LIGHT POLE
- EXISTING LIGHT POLE
- EXISTING LIGHT POLE UTILITY

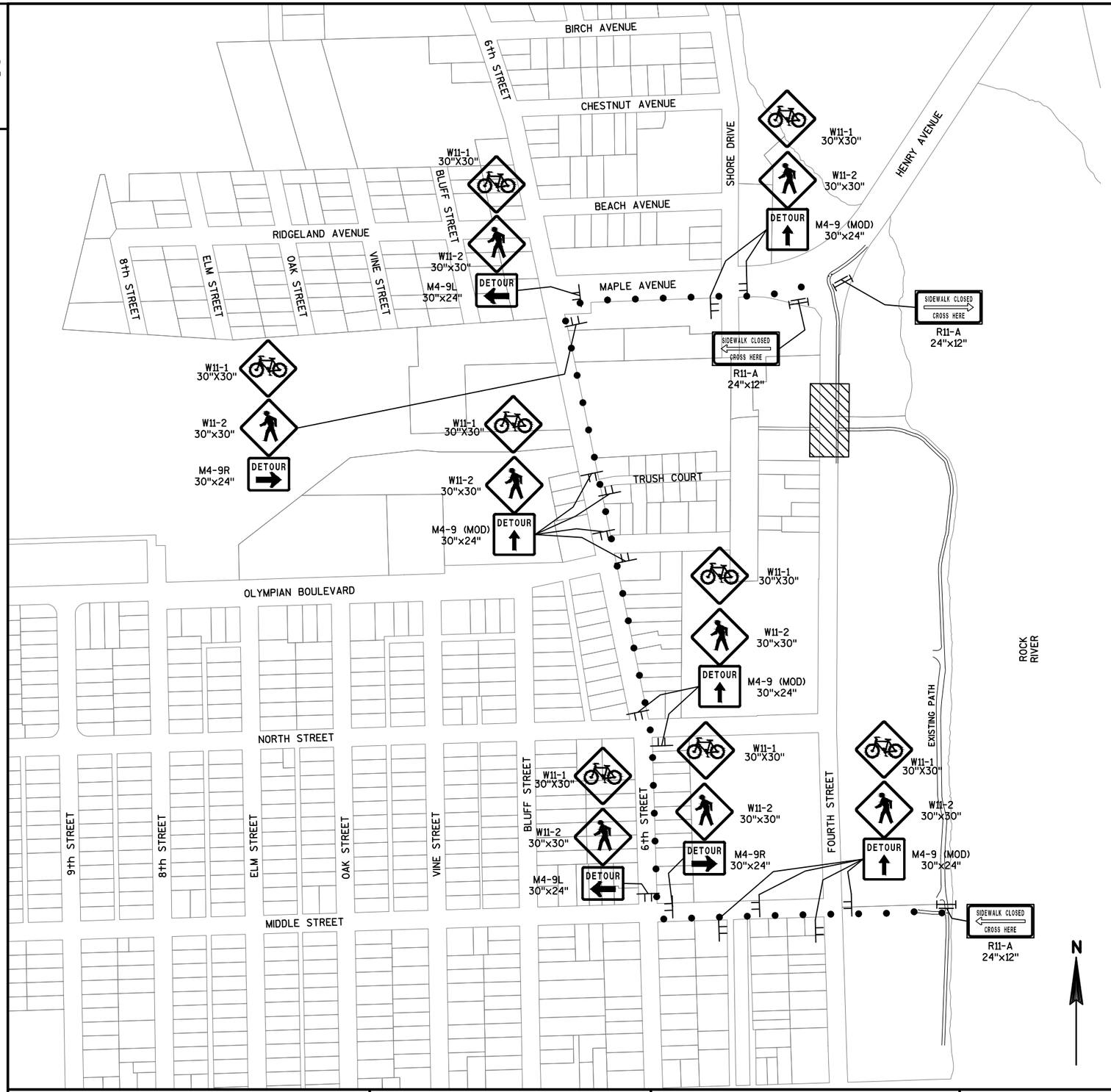


PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH, DOUBLE YELLOW
2. PAVEMENT MARKING EPOXY 4-INCH, WHITE
3. PAVEMENT MARKING EPOXY 4-INCH, DOT PATTERN YELLOW (3 FT LINE 9 FT SKIP)
4. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
5. PAVEMENT MARKING STOPLINE EPOXY 12-INCH, WHITE

PROJECT NO: 5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	PAVEMENT MARKING, SIGNING & LIGHTING	SHEET 9 E

2



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.

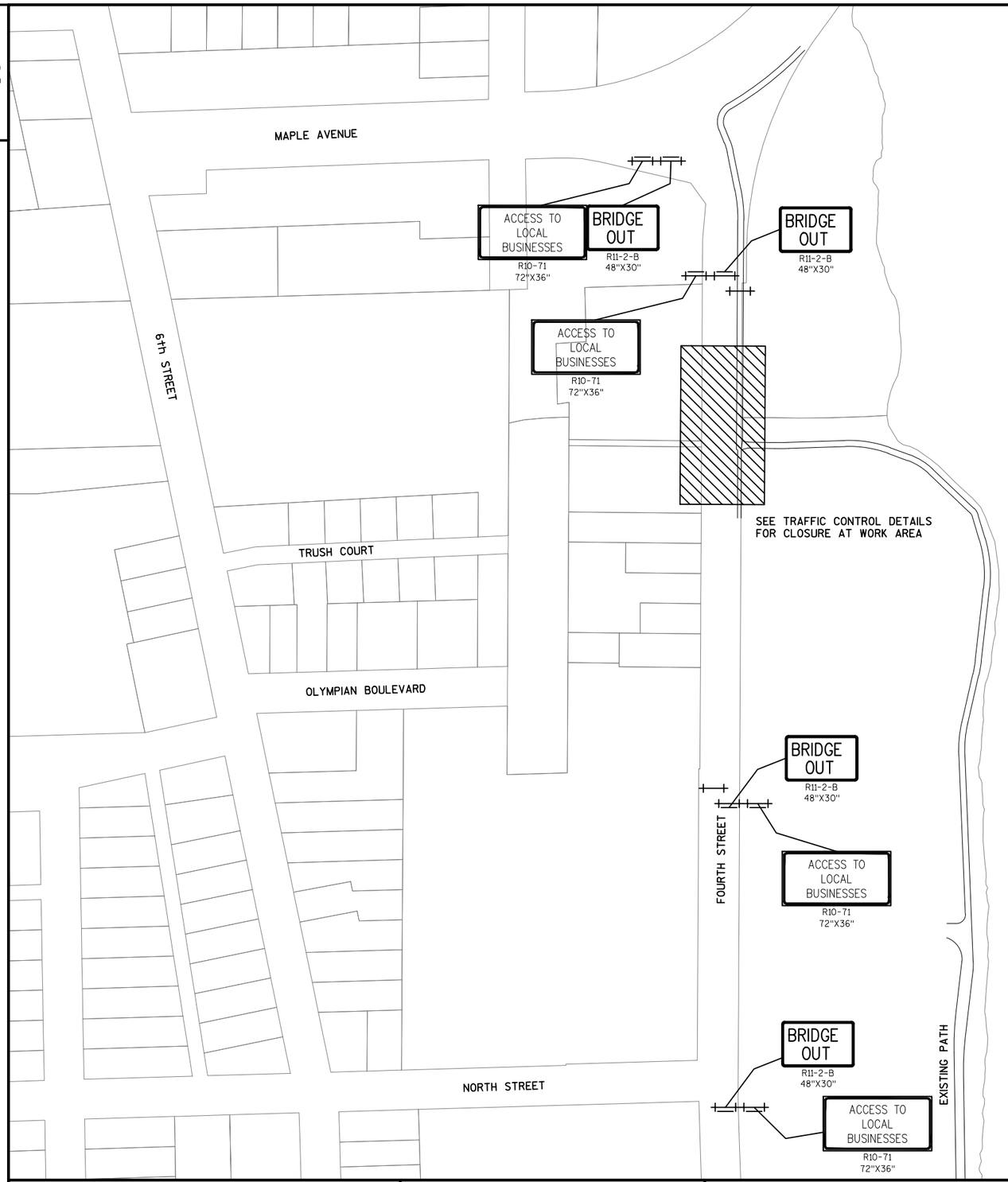
REFER TO THE FOLLOWING STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES, AS WELL AS OTHER STANDARD DETAIL DRAWINGS AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

- BARRICADES AND SIGNS FOR MAINLINE CLOSURES
- TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC
- TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

LEGEND

- WORK AREA
- SIGN ON TEMPORARY POST
- TYPE II BARRICADE WITH ATTACHED SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DETOUR ROUTE

PROJECT NO:5989-01-78	HWY:LOCAL STREET	COUNTY:ROCK	PEDESTRIAN DETOUR PLAN	SHEET 10	E



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:

- BARRICADES AND SIGNS FOR MAINLINE CLOSURES
- TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

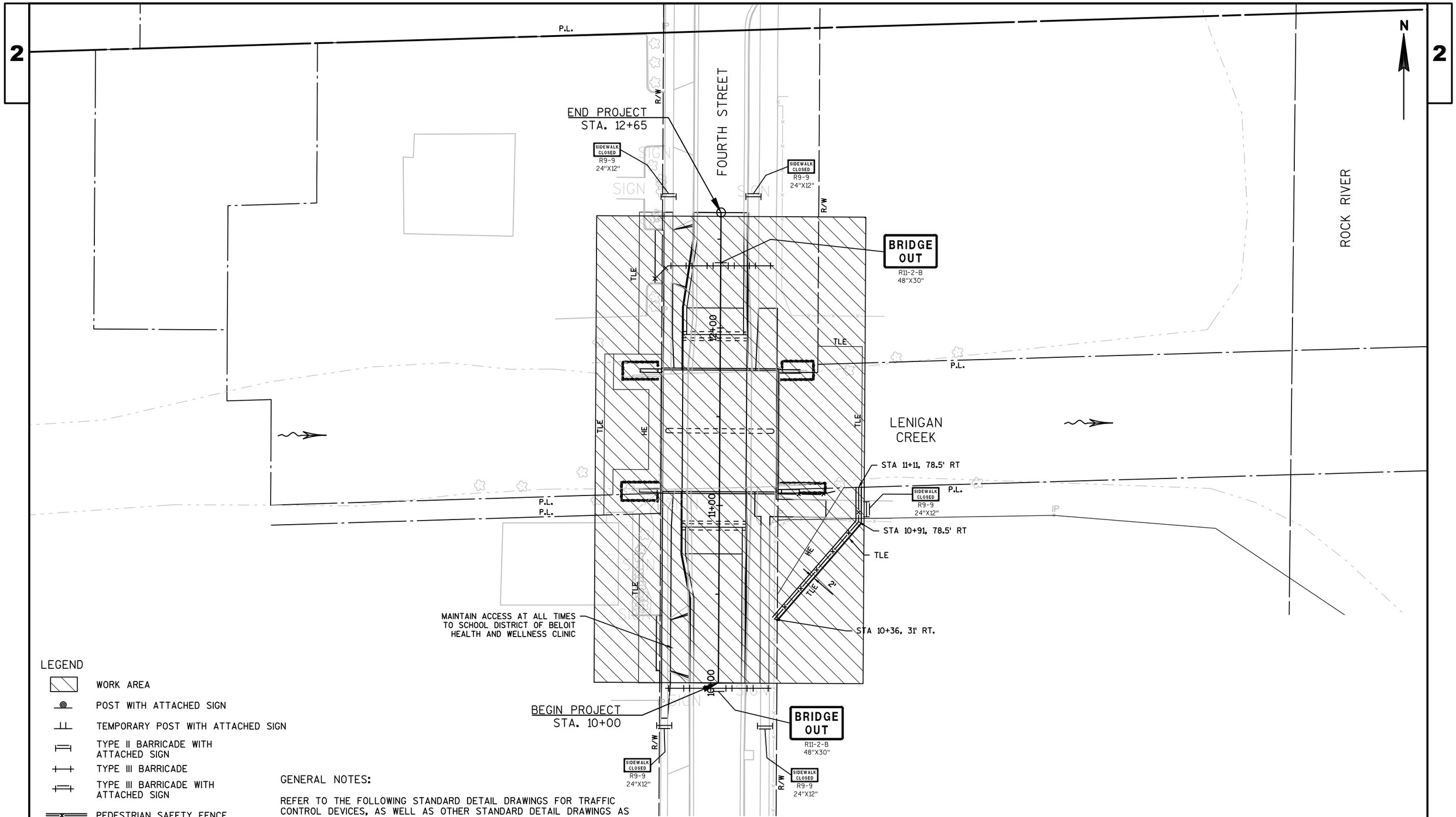
LEGEND

- WORK AREA
- SIGN ON PERMANENT POST
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN

2

PROJECT NO:5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	TRAFFIC CONTROL PLAN	SHEET 11 E

FILE NAME : J:\31850-31899\31873 LENIGAN CREEK\DESIGN\SHEETSPLAN\59890178_025002_TC_TRAFFIC.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:00 PM PLOT BY : ALEXANDER FEULING PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



LEGEND

- WORK AREA
- POST WITH ATTACHED SIGN
- TEMPORARY POST WITH ATTACHED SIGN
- TYPE II BARRICADE WITH ATTACHED SIGN
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- PEDESTRIAN SAFETY FENCE

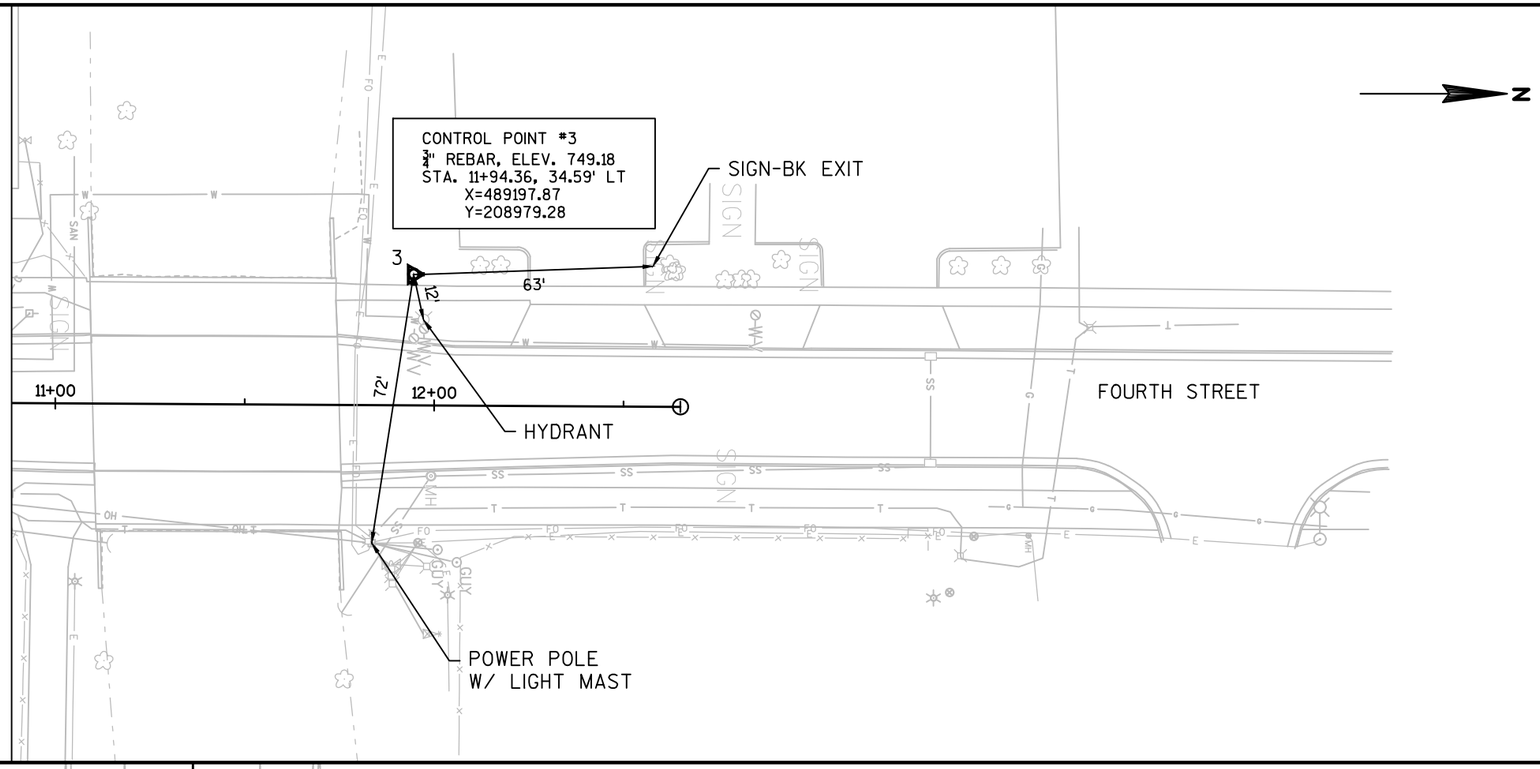
GENERAL NOTES:

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:

- BARRICADES AND SIGNS FOR MAINLINE CLOSURES
- TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

PROJECT NO: 5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	TRAFFIC CONTROL DETAILS	SHEET 12 E

2



PROJECT NO: 5989-01-78	HWY: LOCAL ROAD	COUNTY: ROCK	CONTROL POINT TIES	SHEET 13 E

Estimate Of Quantities

5989-01-78

Line	Item	Item Description	Unit	Total	Qty
0010	201.0105	Clearing	STA	1.000	1.000
0020	201.0205	Grubbing	STA	1.000	1.000
0030	203.0500.S	Removing Old Structure Over Waterway (station) 01. 11+42	LS	1.000	1.000
0040	204.0100	Removing Pavement	SY	791.000	791.000
0050	204.0150	Removing Curb & Gutter	LF	400.000	400.000
0060	204.0155	Removing Concrete Sidewalk	SY	215.000	215.000
0070	204.0195	Removing Concrete Bases	EACH	1.000	1.000
0080	204.0210	Removing Manholes	EACH	1.000	1.000
0090	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	24.000	24.000
0100	204.0245	Removing Storm Sewer (size) 02. 24x38-Inch	LF	49.000	49.000
0110	204.0280	Sealing Pipes	EACH	2.000	2.000
0120	205.0100	Excavation Common **P**	CY	270.000	270.000
0130	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	300.000	300.000
0140	206.1000	Excavation for Structures Bridges (structure) 01. B-53-0288	LS	1.000	1.000
0150	210.1500	Backfill Structure Type A	TON	520.000	520.000
0160	213.0100	Finishing Roadway (project) 01. 5989-01-78	EACH	1.000	1.000
0170	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	880.000	880.000
0180	312.0110	Select Crushed Material	TON	100.000	100.000
0190	415.0410	Concrete Pavement Approach Slab	SY	108.000	108.000
0200	416.0160	Concrete Driveway 6-Inch	SY	75.000	75.000
0210	455.0605	Tack Coat	GAL	25.000	25.000
0220	465.0105	Asphaltic Surface	TON	130.000	130.000
0230	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	10.000	10.000
0240	502.0100	Concrete Masonry Bridges	CY	554.000	554.000
0250	502.3200	Protective Surface Treatment	SY	680.000	680.000
0260	502.3210	Pigmented Surface Sealer	SY	65.000	65.000
0270	505.0400	Bar Steel Reinforcement HS Structures	LB	8,530.000	8,530.000
0280	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	77,080.000	77,080.000
0290	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	340.000	340.000
0300	513.7006	Railing Steel Type C1 (structure) 01. B-53-0288	LF	132.000	132.000
0310	516.0500	Rubberized Membrane Waterproofing	SY	26.000	26.000
0320	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0330	523.0524	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	1.000	1.000
0340	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	2,390.000	2,390.000
0350	601.0417	Concrete Curb & Gutter 30-Inch Type K	LF	60.000	60.000
0360	601.0419	Concrete Curb & Gutter 30-Inch Type L	LF	260.000	260.000
0370	602.0410	Concrete Sidewalk 5-Inch	SF	1,300.000	1,300.000

5989-01-78

Line	Item	Item Description	Unit	Total	Qty
0380	602.0415	Concrete Sidewalk 6-Inch	SF	1,128.000	1,128.000
0390	606.0300	Riprap Heavy	CY	100.000	100.000
0400	610.0124	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	LF	47.000	47.000
0410	611.0535	Manhole Covers Type J-Special	EACH	1.000	1.000
0420	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0430	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0440	611.8120.S	Cover Plates Temporary	EACH	1.000	1.000
0450	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	200.000	200.000
0460	619.1000	Mobilization	EACH	1.000	1.000
0470	624.0100	Water	MGAL	20.000	20.000
0480	625.0100	Topsoil	SY	500.000	500.000
0490	628.1504	Silt Fence	LF	100.000	100.000
0500	628.1520	Silt Fence Maintenance	LF	100.000	100.000
0510	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0520	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0530	628.2002	Erosion Mat Class I Type A	SY	50.000	50.000
0540	628.6005	Turbidity Barriers	SY	30.000	30.000
0550	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0560	628.7010	Inlet Protection Type B	EACH	3.000	3.000
0570	628.7015	Inlet Protection Type C	EACH	3.000	3.000
0580	628.7560	Tracking Pads	EACH	1.000	1.000
0590	629.0210	Fertilizer Type B	CWT	2.000	2.000
0600	630.0140	Seeding Mixture No. 40	LB	100.000	100.000
0610	630.0200	Seeding Temporary	LB	100.000	100.000
0620	631.0300	Sod Water	MGAL	30.000	30.000
0630	631.1000	Sod Lawn	SY	500.000	500.000
0640	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	5.000	5.000
0650	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	1.000	1.000
0660	637.2210	Signs Type II Reflective H	SF	10.860	10.860
0670	637.2230	Signs Type II Reflective F	SF	6.250	6.250
0680	638.2102	Moving Signs Type II	EACH	1.000	1.000
0690	638.2602	Removing Signs Type II	EACH	4.000	4.000
0700	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0710	642.5001	Field Office Type B	EACH	1.000	1.000
0720	643.0100	Traffic Control (project) 01. 5989-01-78	EACH	1.000	1.000
0730	643.0300	Traffic Control Drums	DAY	500.000	500.000
0740	643.0410	Traffic Control Barricades Type II	DAY	990.000	990.000
0750	643.0420	Traffic Control Barricades Type III	DAY	1,620.000	1,620.000
0760	643.0705	Traffic Control Warning Lights Type A	DAY	5,220.000	5,220.000

5989-01-78

Line	Item	Item Description	Unit	Total	Qty
0770	643.0900	Traffic Control Signs	DAY	2,700.000	2,700.000
0780	643.2000	Traffic Control Detour (project) 01. 5989-01-78	EACH	1.000	1.000
0790	643.3000	Traffic Control Detour Signs	DAY	1,800.000	1,800.000
0800	644.1616.S	Temporary Pedestrian Safety Fence	LF	100.000	100.000
0810	645.0120	Geotextile Type HR	SY	280.000	280.000
0820	646.0106	Pavement Marking Epoxy 4-Inch	LF	900.000	900.000
0830	647.0556	Pavement Marking Stop Line Epoxy 12-Inch	LF	5.000	5.000
0840	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	60.000	60.000
0850	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0860	650.4500	Construction Staking Subgrade	LF	157.000	157.000
0870	650.5000	Construction Staking Base	LF	157.000	157.000
0880	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	260.000	260.000
0890	650.6500	Construction Staking Structure Layout (structure) 01. B-53-0288	LS	1.000	1.000
0900	650.7000	Construction Staking Concrete Pavement	LF	30.000	30.000
0910	650.8500	Construction Staking Electrical Installations (project) 01. 5989-01-78	LS	1.000	1.000
0920	650.9910	Construction Staking Supplemental Control (project) 01. 5989-01-78	LS	1.000	1.000
0930	650.9920	Construction Staking Slope Stakes	LF	195.000	195.000
0940	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	150.000	150.000
0950	654.0101	Concrete Bases Type 1	EACH	1.000	1.000
0960	690.0150	Sawing Asphalt	LF	150.000	150.000
0970	690.0250	Sawing Concrete	LF	40.000	40.000
0980	715.0502	Incentive Strength Concrete Structures	DOL	3,324.000	3,324.000
0990	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	275.000	275.000
1000	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	150.000	150.000
1010	SPV.0060	Special 01. Utility Line Opening	EACH	2.000	2.000
1020	SPV.0060	Special 02. Adjusting Water Valves	EACH	1.000	1.000
1030	SPV.0090	Special 01. Split Rail Fence	LF	32.000	32.000
1040	SPV.0090	Special 02. Salvage And Reinstall Fence	LF	60.000	60.000
1050	SPV.0105	Special 01. Salvage And Reinstall Light Pole	LS	1.000	1.000
1060	SPV.0105	Special 02. Remove & Salvage Hydrant, Remove Valve Box, and Install 6" Plug	LS	1.000	1.000
1070	SPV.0105	Special 03. Salvage Geodetic Survey Marker	LS	1.000	1.000
1080	SPV.0120	Special 01. Management of Petroleum-Contaminated Groundwater	MGAL	10.000	10.000

3

CLEARING AND GRUBBING

STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
CATEGORY 0010			
11+00-11+25	LT	1	1
TOTAL CATEGORY 0010		1	1

REMOVING PAVEMENT

STATION	LOCATION	204.0100 REMOVING PAVEMENT SY
CATEGORY 0010		
10+00-11+10	LT/RT	359
10+01-10+44	LT	55
10+90-11+07	RT	36
11+75-12+65	LT/RT	280
12+20-12+61	LT	61
TOTAL CATEGORY 0010		791

REMOVING CURB AND GUTTER

STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF
CATEGORY 0010		
10+00-11+10	LT/RT	219
11+75-12+65	LT/RT	181
TOTAL CATEGORY 0010		400

REMOVING CONCRETE SIDEWALK

STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY
CATEGORY 0010		
9+80-11+10	LT/RT	132
11+75-12+65	LT/RT	83
TOTAL CATEGORY 0010		215

REMOVING STORM SEWER

STATION	LOCATION	204.0245 REMOVING STORM SEWER 12" LF	REMOVING STORM SEWER 24"x38" LF
CATEGORY 0010			
10+65-11+14	RT	-	49
11+76-11+99	RT	24	-
TOTAL CATEGORY 0010		24	49

REMOVING MANHOLES & SEALING PIPES

STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0280 SEALING PIPES EACH
CATEGORY 0030			
10+99	11.5' LT	1	2
TOTAL CATEGORY 0030		1	2

BASE AGGREGATE ITEMS

STATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL
CATEGORY 0010			
10+00 - 10+88	346	-	-
11+96 - 12+65	252	-	-
SUBTOTAL	598	0	0
UNDISTRIBUTED	52	100	20
TOTAL CATEGORY 0010	650	100	20

CONCRETE PAVEMENT ITEMS

STATION	LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0160 CONCRETE DRIVEWAY 6-INCH SY
CATEGORY 0010			
10+03 - 10+39	LT	-	40
10+73 - 10+88	LT/RT	54	-
11+96 - 12+11	LT/RT	54	-
12+22 - 12+58	LT	-	35
TOTAL CATEGORY 0010		108	75

ASPHALT PAVEMENT ITEMS

STATION	LOCATION	THICKNESS INCHES	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
CATEGORY 0010					
10+00 - 10+38	LT	3	-	-	2
10+00 - 10+73	LT/RT	5	11	62	-
12+11 - 12+65	LT/RT	5	8	47	-
12+25 - 12+55	LT	3	-	-	3
SUBTOTAL			19	109	5
UNDISTRIBUTED			6	21	5
TOTAL CATEGORY 0010			25	130	10

CURB AND GUTTER

STATION	LOCATION	601.0417 CONCRETE CURB & GUTTER 30-INCH TYPE K LF	601.0419 CONCRETE CURB & GUTTER 30-INCH TYPE L LF
CATEGORY 0010			
10+00-10+73	LT/RT	-	150
10+73+10+88	LT/RT	30	-
11+96-12+11	LT/RT	30	-
12+11-12+65	LT/RT	-	110
TOTAL CATEGORY 0010		60	260

CONCRETE SIDEWALK

STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF
CATEGORY 0010			
9+80 - 11+08	LT/RT	958	584
11+76 - 12+65	LT/RT	298	544
SUBTOTAL		1256	1128
UNDISTRIBUTED		44	
TOTAL CATEGORY 0010		1300	1128

STORM SEWER PIPE SUMMARY

FROM STRUCTURE NO.	TO STRUCTURE NO.	INLET ELEV.	OUTLET ELEV.	SLOPE %	610.0124 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24x38-INCH LF
CATEGORY 0010					
1-1.0 -	1-1.1	743.93	743.79	0.30%	47
TOTAL CATEGORY 0010					47

STORM SEWER ENDWALL SUMMARY

STATION	OFFSET	523.0524 APRON ENDWALLS FOR CULVERT PIPE REINF. CONCRETE HORIZONTAL ELLIPTICAL 24x38-INCH EACH
CATEGORY 0010		
11+07	53.6' RT	1
TOTAL CATEGORY 0010		1

ADJUSTING WATER MAIN

STATION	OFFSET	SPV.0060.02 ADJUSTING WATER VALVES EACH	SPV.0105.02 REMOVE & SALVAGE HYDRANT, REMOVE VALVE BOX, AND INSTALL 6" PLUG LS
CATEGORY 0030			
11+94	16.6' LT	1	
11+97	22.6' LT		1
TOTAL CATEGORY 0030		1	1

UTILITY LINE OPENING

LOCATION	SPV.0060.01 UTILITY LINE OPENING EACH	NOTES
CATEGORY 0030		
LT	2	EXISTING WATERMAIN
TOTAL CATEGORY 0030	2	

3

STORM SEWER STRUCTURE SUMMARY

	STRUCT. NO.	STATION	OFFSET	RIM ELEV	MANHOLES 611.2005 MANHOLES 5-FT DIAMETER EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH	520.8000 CONCRETE COLLARS FOR PIPES EACH
CATEGORY 0010									
	1-1.0	10+65	30.7' RT	748.35	1	1	-	-	1
	EXIST	11+98	18.5' RT	-	-	-	1	1	-
TOTAL CATEGORY 0010					1	1	1	1	1

LIGHTING ITEMS

	STATION	LOCATION	204.0195 REMOVING CONCRETE BASES EACH	654.0101 CONCRETE BASES TYPE 1 EACH	SPV.0105.01 SALVAGE AND REINSTALL LIGHT POLE LS
CATEGORY 0010					
	11+05	RT	1	1	1
TOTAL CATEGORY 0010			1	1	1

EROSION CONTROL ITEMS

	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2002 EROSION MAT CLASS I TYPE A SY	628.6005 TURBIDITY BARRIERS SY	628.7005 INLET PROTECTION TYPE A EA	628.7010 INLET PROTECTION TYPE B EA	628.7015 INLET PROTECTION TYPE C EA	628.7560 TRACKING PADS EA
CATEGORY 0010										
	10+00-12+65	LT/RT	100	100	-	30	1	3	3	1
		SUBTOTAL	100	100	0	30	1	3	3	1
	UNDISTRIBUTED		-	-	50	-	-	-	-	-
TOTAL CATEGORY 0010			100	100	50	30	1	3	3	1

CLOSED R9-9

FENCING

	STATION	LOCATION	SPV.0090.01 SPLIT RAIL FENCE LF	SPV.0090.02 SALVAGE AND REINSTALL FENCE LF
CATEGORY 0010				
	11+07-11+08	RT	32	60
TOTAL CATEGORY 0010			32	60

PAVEMENT MARKING

	STATION	LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	647.0726 DIAGONAL EPOXY 12-INCH LF	647.0556 STOP LINE EPOXY 12-INCH LF
CATEGORY 0010						
	10+00-12+65	LT/RT	271	563	51	5
		SUBTOTAL	834		51	5
	UNDISTRIBUTED		66		9	-
TOTAL CATEGORY 0010			900		60	5

LANDSCAPING ITEMS

	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
CATEGORY 0010							
	10+00-12+65	500	2	100	100	30	500
TOTAL CATEGORY 0010		500	2	100	100	30	500

CONSTRUCTION STAKING

	STATION	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EA	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB & GUTTER LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS LS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
CATEGORY 0010										
	10+00 - 12+65	LT/RT	2	157	157	260	30	1	1	195
TOTAL CATEGORY 0010			2	157	157	260	30	1	1	195

SAWING PAVEMENT

	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
CATEGORY 0010				
	9+80	LT	-	4
	10+00	LT/RT	32	5
	10+07-10+38	LT	31	-
	10+94-11+04	RT	10	-
	12+11	RT	-	11
	12+25-12+55	LT	30	-
	12+65	LT/RT	31	5
SUBTOTAL			134	25
UNDISTRIBUTED			16	15
TOTAL CATEGORY 0010			150	40

TRAFFIC CONTROL ITEMS

	STATION	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS
CATEGORY 0010								
	10+00-12+65	100	500	990	1620	5220	2700	1800
TOTAL CATEGORY 0010		100	500	990	1620	5220	2700	1800

REMOVING SIGNS

SIGN NO.	SIGN CODE	638.2102 MOVING SIGNS TYPE II EA	638.2602 REMOVING SIGNS TYPE II EA	638.3000 REMOVING SMALL SIGN SUPPORTS EA	SIGN MOUNTED ON SAME POST AS	MESSAGE
CATEGORY 0010						
M1-01	-	1	-	-	01-04	BUS STOP SIGN
R1-01	R7-1D	-	1	1	-	NO PARKING ANY TIME
R1-02	W11-2	-	1	1	-	PEDESTRIAN CROSSING
R1-03	R7-1D	-	1	1	-	NO PARKING ANY TIME
R1-04	R7-7D	-	1	1	-	NO PARKING BUS STOP
TOTAL CATEGORY 0010		1	4	4		

PERMANENT SIGNING

SIGN NO.	SIGN CODE	SIGN SIZE INxIN	634.0812 POSTS TUBULAR STEEL 2x2-INCH x 12-FT SF	634.0814 POSTS TUBULAR STEEL 2x2-INCH x 14-FT SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	MOUNTED ON SAME POST AS	MESSAGE
CATEGORY 0010								
01-01	R7-1D	18x24	1	-	3	-	-	NO PARKING ANY TIME
01-02	W11-2	24x24	1	-	-	4	-	PEDESTRIAN CROSSING
01-03	R7-1D	18x24	1	-	3	-	-	NO PARKING ANY TIME
01-04	R7-7D	18x24	-	1	3	-	-	NO PARKING BUS STOP
01-05	R1-1	18x18	1	-	1.86	-	-	STOP SIGN
01-06	W3-1	18x18	1	-	-	2.25	-	STOP AHEAD
TOTAL CATEGORY 0010			5	1	10.86	6.25		

EARTHWORK SUMMARY

Division	From/To Station	Location	**Common Excavation (1) Cut (2)	(item * 205.0100) EBS Excavation (3)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6) Factor 1.25	Mass Ordinate +/- (7)	Waste	Comment:
Division 1											
Fourth Street	10+00 - 12+65		256	14	176	80	6	8	73	249	
Grand Total			256	14	176	80	6	8	73	249	
Total Common Exc				270							

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is not included in Cut.
3) EBS Excavation to be backfilled with Select Crushed Material.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Expanded Fill. Factor = 1.25
Expanded Fill = Unexpanded Fill * Fill Factor
7) 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.

** Pay Plan Quantity

EXCAVATION SUMMARY

205.0501.S
EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

	STATION	LOCATION	TON
CATEGORY 0010			
	10+00-12+65	LT/RT	300
TOTAL CATEGORY 0010			300

SURVEY MARKER

SPV.0105.03
SALVAGE GEODETIC SURVEY MARKER

	STATION	LOCATION	LS
CATEGORY 0010			
	11+12	32.5' RT	1
TOTAL CATEGORY 0010			1

GROUNDWATER

SPV.0120.01
MANAGEMENT OF PETROLEUM-CONTAMINATED GROUNDWATER

	STATION	MGAL
CATEGORY 0010		
	10+00-12+65	10
TOTAL CATEGORY 0010		10

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	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

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

CONVENTIONAL SYMBOLS

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

- SECTION CORNER SYMBOL (18, 22, 24, 16, 15, 9)
- SECTION CORNER MONUMENT
- GEODETIC SURVEY MONUMENT
- SIXTEENTH CORNER MONUMENT
- SIGN
- OFF-PREMISE SIGN (I-25)
- R/W MONUMENT (TO BE SET)
- NON-MONUMENTED R/W POINT
- FOUND IRON PIN (1-INCH UNLESS NOTED) IP

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

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

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

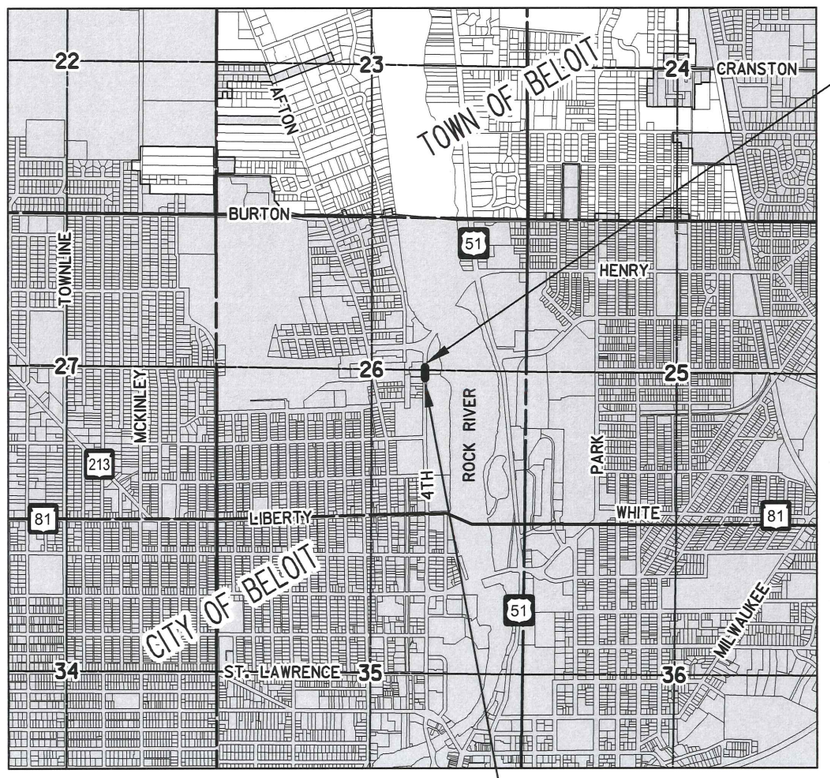
R/W PROJECT NUMBER 5989-01-08	SHEET NUMBER	TOTAL SHEETS
CONSTRUCTION PROJECT NUMBER 5989-01-78	4.01	3

PLAT OF RIGHT OF WAY REQUIRED FOR

CITY OF BELOIT, FOURTH STREET LENIGAN CREEK BRIDGE B-53-0288

LOCAL STREET — ROCK COUNTY

R-12-E



T-1-N

T-1-N

R-12-E

LAYOUT
SCALE 0 0.5

TOTAL NET LENGTH OF CENTERLINE = 0.05 MILES

END RELOCATION ORDER
STATION 12+65.00
1010.43' E OF AND 2662.80' S
OF THE N. 1/4 COR. OF SEC. 26, T-1-N, R-12-E

BEGIN RELOCATION ORDER
STATION 10+00.00
1068.56' E OF AND 2313.67' N
OF THE S. 1/4 COR. OF SEC. 26, T-1-N, R-12-E

REVISION DATE

ACCEPTED FOR CITY OF BELOIT
5/2/2016 (Date) (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

WISCONSIN
JEFFREY R. GARDE
S-2766
BRODHEAD
WIS.
LAND SURVEYOR

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

(SIGNATURE)
DATE 4/19/2016
(PRINTED NAME) Jeffrey R. Garde
(REGISTRATION NUMBER) S-2766

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-ACQUISTION 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 HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR 4TH STREET ESTABLISHED FROM PREVIOUS PROJECT RIGHT-OF-WAY PLAT TO-0 (2), BELOIT MEMORIAL HIGH SCHOOL PLAT OF SURVEY BY KAPUR & ASSOCIATES ON 8/8/2012, DOW'S ADDITION TO BELOIT, AND ALTA FOR 1450 4TH STREET BY GROTHMAN & ASSOCIATES, SC ON 5/20/2005.

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.

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 ACRES	PLE ACRES	TLE ACRES
				NEW	EXISTING	TOTAL			
1	4.03	1450 4TH STREET LLC	HE, TLE	---	---	---	0.03	---	0.05
2	4.03	CITY OF BELOIT	TLE	---	---	---	---	---	0.09
3	4.03	SCHOOL DISTRICT OF BELOIT	HE, TLE	---	---	---	0.03	---	0.06
4	4.03	CITY OF BELOIT (EASEMENT)	RELEASE OF RIGHTS	---	---	---	---	---	---
6	4.03	AT&T OF WISCONSIN (WISCONSIN BELL, INC)	RELEASE OF RIGHTS	---	---	---	---	---	---
7	4.03	WISCONSIN POWER & LIGHT (ELECTRIC)	RELEASE OF RIGHTS	---	---	---	---	---	---
8	4.03	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS	---	---	---	---	---	---

4

REVISION DATE

DATE 4/19/2016

GRID FACTOR _____

SCALE, FEET
0 -- --

HWY: FOURTH STREET

COUNTY: ROCK

STATE R/W PROJECT NUMBER 5989-01-08

CONSTRUCTION PROJECT NUMBER 5989-01-78

PLAT SHEET 4.02

PS&E SHEET 22

E

T 1 N
23
26
R 12 E

CITY

S20°46'47"E 2848.06'

83'

33'

55'

B

N89°39'34"W 33.00'

P.L.

COMPUTED FROM TIES
Y=211712.518
X=488222.454

1
1450 4TH STREET LLC

12+65.00
TLE: 33.00' & 46.00'

SLOPE INTERCEPT

TLE: SLOPES & DRIVEWAY
0.02 ACRES

CITY OF BELOIT
SAN. SEWER EASEMENT - PARCEL 1
DOC. NO. 1213168

4

WISCONSIN POWER & LIGHT
UNDERGROUND ELECTRIC

7

11+85.00
TLE: 46.00' & 60.00' & 65.00'
HE: 33.00' & 60.00'

10'

N0°39'10"E 5241.80'

1/4 LINE

CHARTER COMMUNICATIONS
UNDERGROUND FIBER OPTIC

8

11+65.00
TLE & HE: 40.00' & 60.00'

TLE: SLOPES & RIP RAP
0.03 ACRES

HE: BRIDGE STRUCTURE & RIP RAP
0.03 ACRES

11+20.00
TLE & HE: 40.00' & 60.00'

11+05.71
TLE & HE: 60.00'

LENIGAN CREEK

P.L.

CITY OF BELOIT 2

TLE: SLOPES & RIP RAP
0.01 ACRES

P.L.

10+94.22
TLE: 65.00'

10+94.95
TLE: 45.00'

B

SLOPE INTERCEPT

3
SCHOOL DISTRICT OF BELOIT

24'

WISCONSIN POWER & LIGHT
GASMAIN

TLE: SLOPES & DRIVEWAY
0.03 ACRES

P.L.

10+00.00
TLE: 33.00' & 45.00'

N89°39'34"W 33.00'

2"IP

N24°47'23"E 2548.51'

COMPUTED FROM TIES
Y=206471.056
X=488162.741

BLOCK 1
DOW'S ADDITION

T 1 N
26
35
R 12 E

4TH STREET

265.00'

R/L = N0°20'26"E

OF

BELOIT

11+06.69
TLE & HE: 33.00'

CROSS

1 1/2"IP

S19°47'14"E 95.90'

E-2

AT&T WISCONSIN
(WISCONSIN BELL, INC)
UNDERGROUND TELEPHONE

CHARTER COMMUNICATIONS
UNDERGROUND FIBER OPTIC

END RELOCATION ORDER
STATION 12+65.00
Y=209049.716
X=489232.880

CITY OF BELOIT
UNDERGROUND ELECTRIC

SLOPE INTERCEPT

CITY OF BELOIT
RETAINING WALL EASEMENT
DOC. NO. 421025

11+75.30 TLE: 55.00'
11+74.96 TLE: 33.00'

2
CITY OF BELOIT
WOOTTON PARK

GOVERNMENT LOT 3

GUY

11+90.00
TLE: 55.00' & 80.00'

P.L.

TLE: SLOPES & RIP RAP
0.08 ACRES

6
AT&T WISCONSIN (WISCONSIN BELL, INC)
UNDERGROUND TELEPHONE

CITY OF BELOIT
RETAINING WALL EASEMENT - PARCEL 3
DOC. NO. 421025

11+09.09
TLE &
HE: 33.00'

P.L.

11+10.39
TLE & HE: 70.00'

MAG

1 1/2"IP
MEANDER LINE

E-1

10+90.00
TLE: 80.00'

HE: STORM SEWER, BRIDGE STRUCTURE,
RIP RAP & FENCE
0.03 ACRES

GUY
GUY

10+50.00
TLE & HE: 33.00'

10+35.00
TLE: 33.00'

TLE: SLOPES & MULTI-USE PATH
0.03 ACRES

N43°39'22"E 48.10'

SLOPE INTERCEPT

3
SCHOOL DISTRICT OF BELOIT

BEGIN RELOCATION ORDER
STATION 10+00.00
Y=208784.723
X=489231.304

33'

BASIS OF EXISTING R/W
-RIGHT OF WAY PLAT TO-0(2)
-BELOIT MEMORIAL HIGH SCHOOL PLAT OF SURVEY BY KAPUR & ASSOCIATES ON 8/8/2012
-DOW'S ADDITION TO BELOIT
-ALTA FOR 1450 4TH STREET BY GROTHMAN & ASSOCIATES, SC ON 5/20/2005

GN

ENCROACHMENT TABLE			
ENCROACHMENT NUMBER	OWNER	TYPE	LOCATION
E-1	SCHOOL DISTRICT OF BELOIT	CHAIN LINK FENCE	STA. 10+00, 31' RT - STA. 10+89, 33' RT
E-2	CITY OF BELOIT	CHAIN LINK FENCE	STA. 12+07, 55' RT - STA. 12+65, 34' RT

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
103 - 100	S 00°20'26" W	95.38'
100 - 101	N 89°39'34" W	12.00'
101 - 102	N 00°20'26" E	94.95'
102 - 103	N 88°15'33" E	12.01'
106 - 103	S 00°20'26" W	11.31'
103 - 104	S 88°15'33" W	32.02'
104 - 105	N 00°20'26" E	11.31'
105 - 106	N 88°15'33" E	32.02'
112 - 111	S 00°20'26" W	20.00'
111 - 110	S 89°39'34" E	20.00'
110 - 109	S 00°20'26" W	45.00'
109 - 108	N 89°39'34" W	20.00'
108 - 107	S 00°20'26" W	14.29'
107 - 105	S 88°15'33" W	5.00'
105 - 113	N 00°20'26" E	79.47'
113 - 112	S 89°39'34" E	5.00'
116 - 117	S 00°20'26" W	80.00'
117 - 114	N 89°39'34" W	13.00'
114 - 115	N 00°20'26" E	80.00'
115 - 116	S 89°39'34" E	13.00'
121 - 120	N 88°19'48" E	10.01'
120 - 119	S 00°20'26" W	20.74'
119 - 118	S 40°51'22" W	72.35'
118 - 122	N 00°20'26" E	15.00'
122 - 121	N 31°50'14" E	70.82'
127 - 126	N 89°26'50" E	22.00'
126 - 125	N 00°20'26" E	14.70'
125 - 124	S 89°39'34" E	25.00'
124 - 120	S 00°20'26" W	79.26'
120 - 123	S 88°19'48" W	47.03'
123 - 127	N 00°20'26" E	65.87'

HE POINT TABLE		
POINT NO	Y COORDS	X COORDS
106	208891.606	489198.939
107	208890.785	489171.933
108	208905.078	489172.018
109	208904.959	489192.018
110	208949.958	489192.286
111	208950.077	489172.286
112	208970.077	489172.405
117	208969.916	489199.404
121	208894.692	489301.959
122	208834.526	489264.601
123	208893.613	489264.952

HE COURSE TABLE		
COURSE	BEARING	DISTANCE
117 - 106	S 00°20'26" W	78.31'
106 - 107	S 88°15'33" W	27.02'
107 - 108	N 00°20'26" E	14.29'
108 - 109	S 89°39'34" E	20.00'
109 - 110	N 00°20'26" E	45.00'
110 - 111	N 89°39'34" W	20.00'
111 - 112	N 00°20'26" E	20.00'
112 - 117	S 89°39'34" E	27.00'
123 - 121	N 88°19' 48" E	37.02'
121 - 122	S 31°50'14" W	70.82'
122 - 123	N 00°20'26" E	59.09'

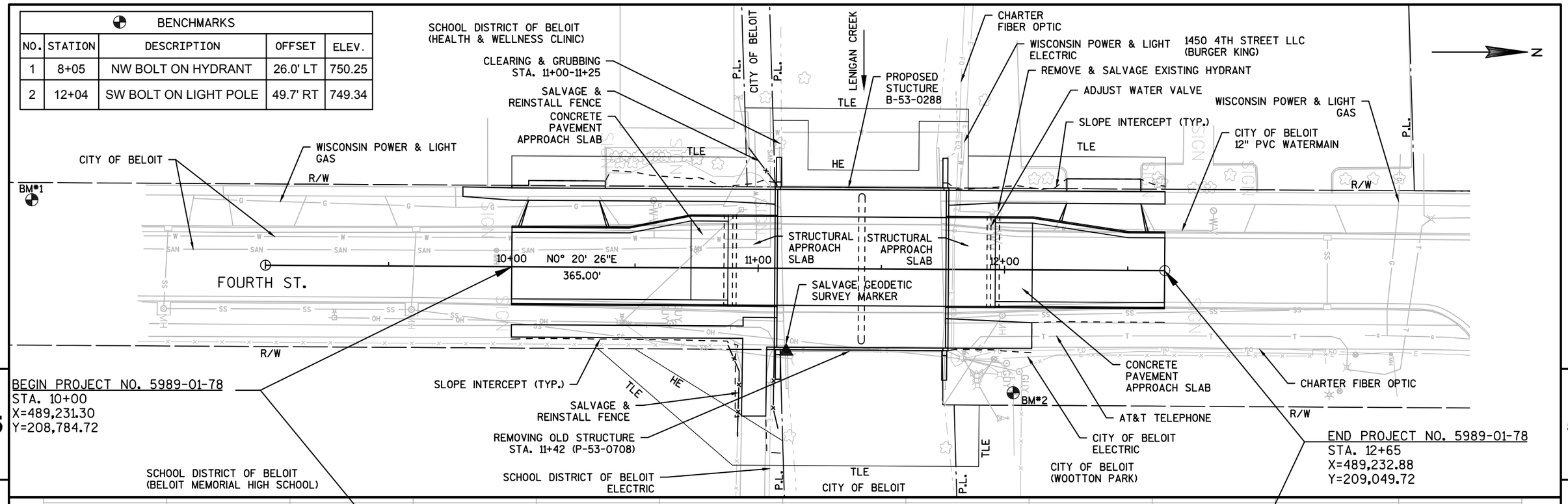
REVISION DATE	DATE 4/19/2016	SCALE, FEET 0 20 40	HWY: FOURTH STREET	STATE R/W PROJECT NUMBER 5989-01-08	PLAT SHEET 4.03
	GRID FACTOR N/A		COUNTY: ROCK	CONSTRUCTION PROJECT NUMBER 5989-01-78	PS&E SHEET 23 E

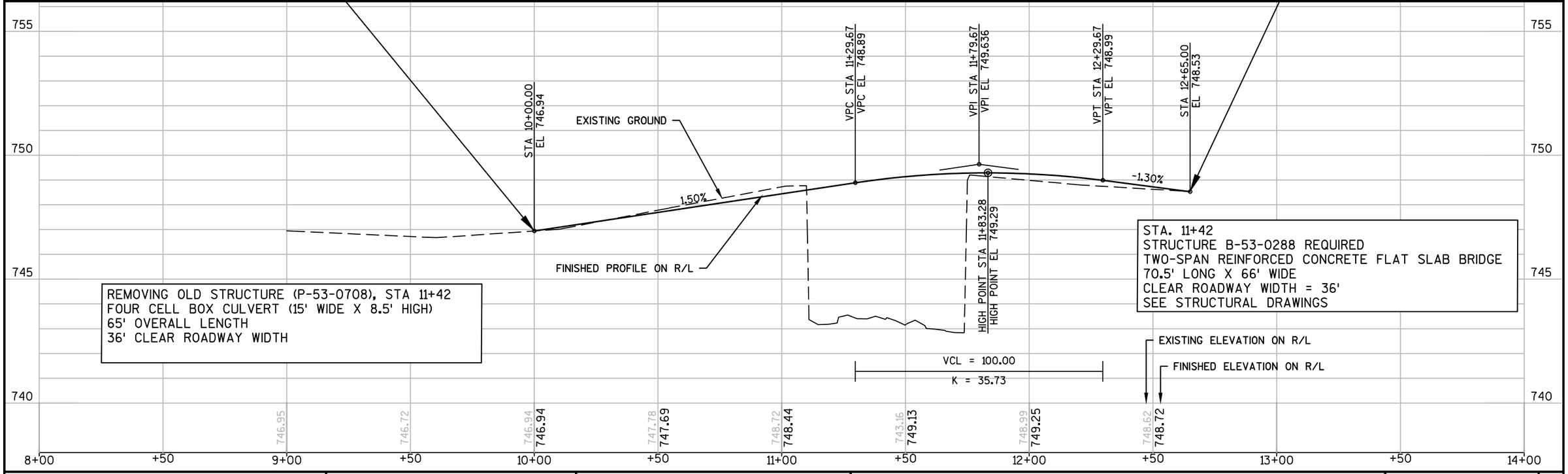
FILE NAME : 31873 - RW PLAT.DWG
LAYOUT NAME - ****

PLOT DATE : 4/19/2016 11:16 AM PLOT BY : CARYN MELLOM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 75

BENCHMARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
1	8+05	NW BOLT ON HYDRANT	26.0' LT	750.25
2	12+04	SW BOLT ON LIGHT POLE	49.7' RT	749.34



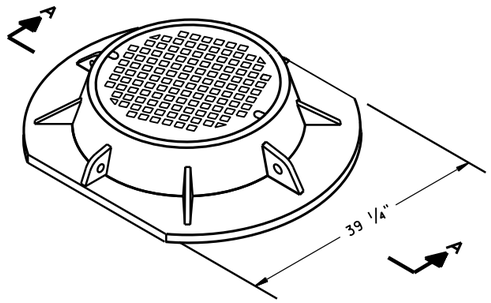


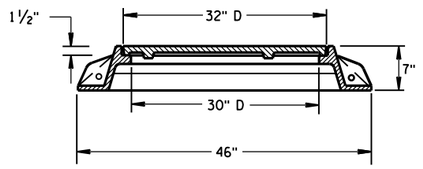
PROJECT NO: 5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	PLAN AND PROFILE: FOURTH STREET	SHEET 24	E

FILE NAME : J:\31850-31899\31873 LENIGAN CREEK\DESIGN\SHEETSPLAN\59890178_050101_PP.DWG
LAYOUT NAME - ****
PLOT DATE : 9/21/2016 3:09 PM
PLOT BY : RYAN RUDZINSKI
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

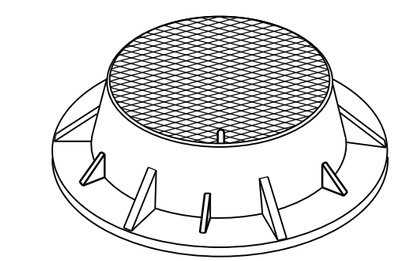
Standard Detail Drawing List

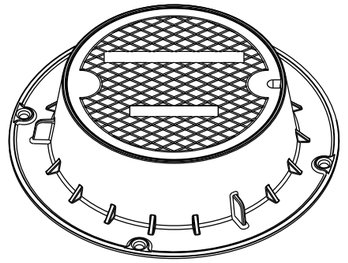
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
12A03-10	NAME PLATE (STRUCTURES)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

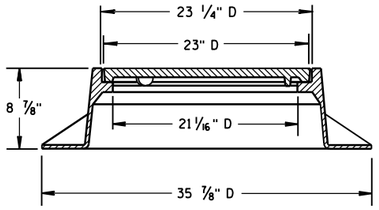


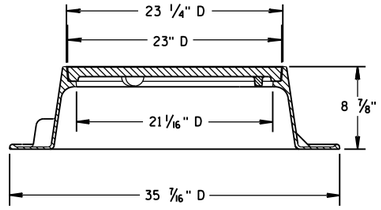


SECTION A-A
TYPE "K"









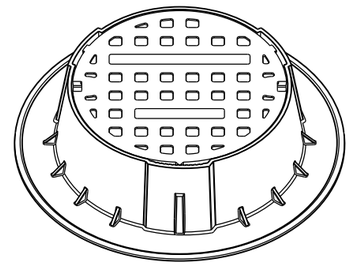
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

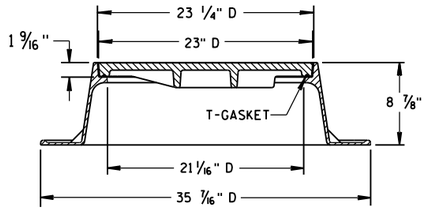
GENERAL NOTES

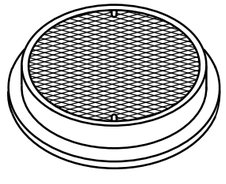
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

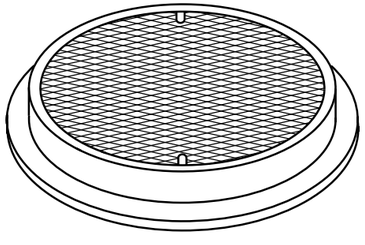
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

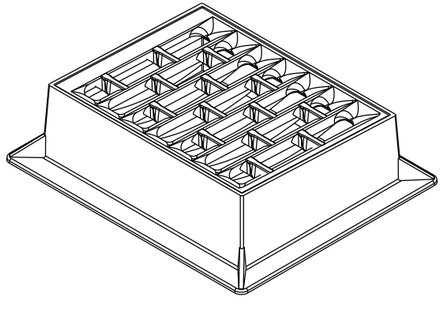
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

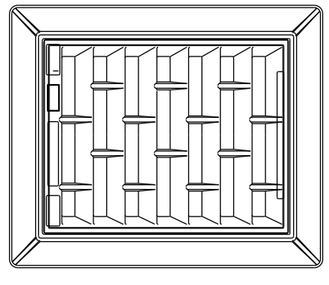


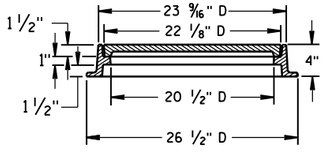




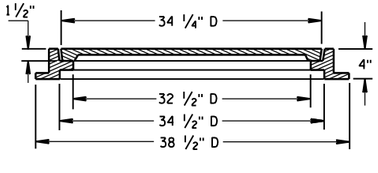




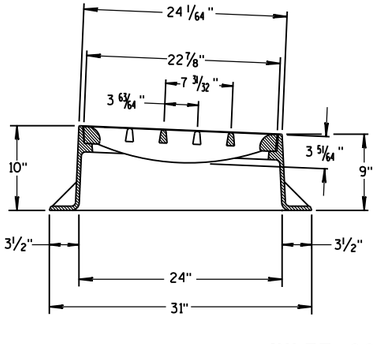


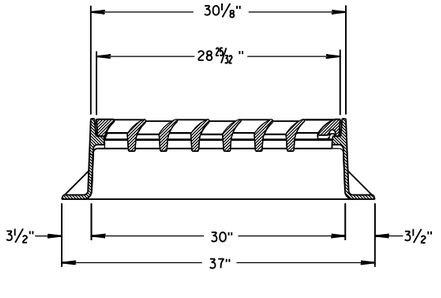


TYPE "L"

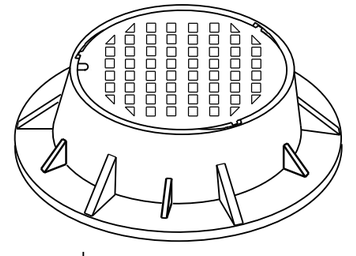


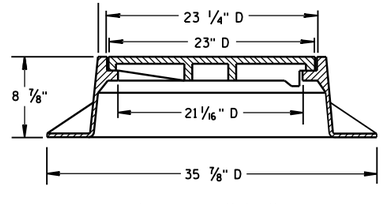
TYPE "M"





INLET COVER TYPE "BW"





TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

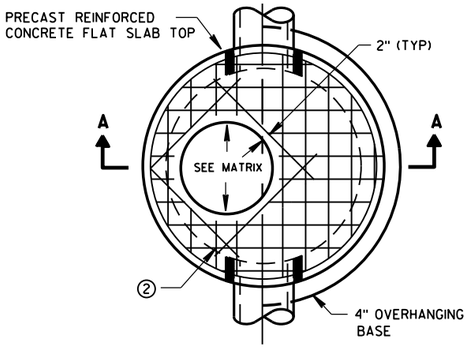
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

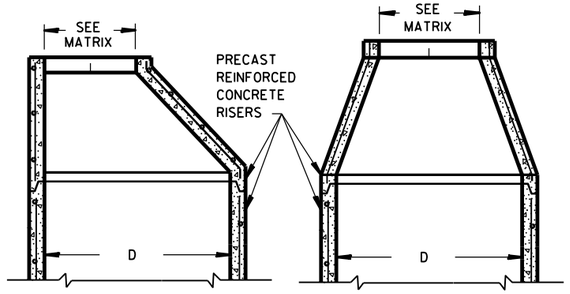
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 8 A 5-19d

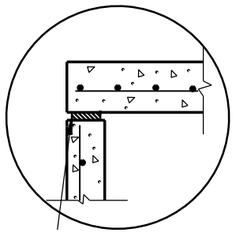


PLAN VIEW CIRCULAR OPENING

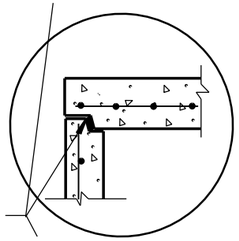


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

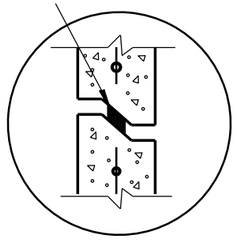


TOP WITH PLAIN END JOINT



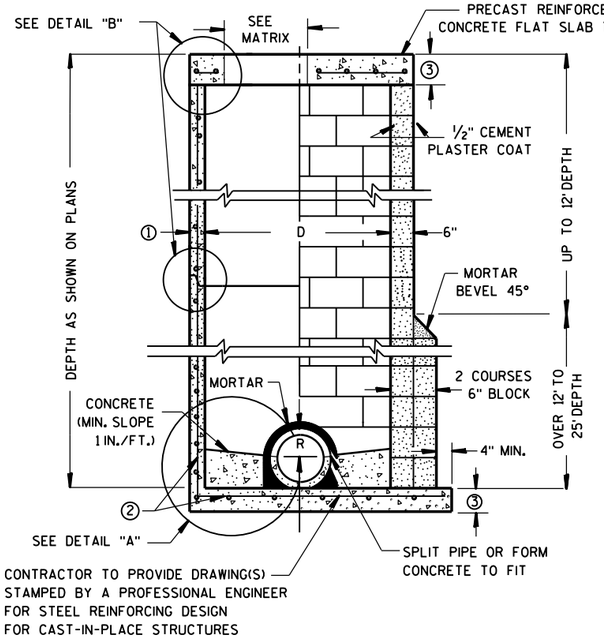
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



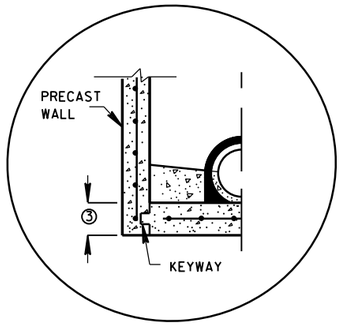
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

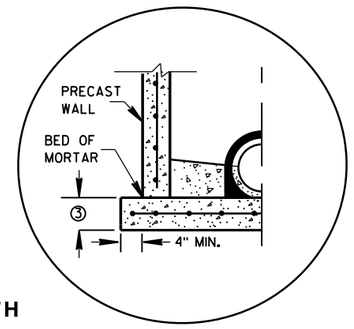


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

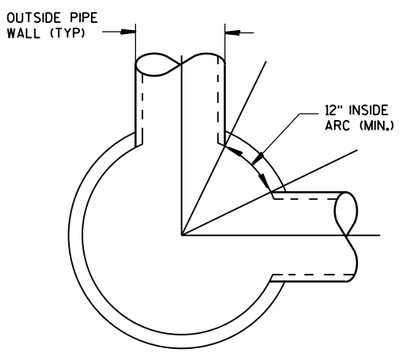


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

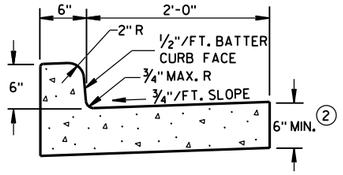
APPROVED

Sept., 2016
DATE

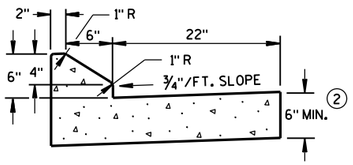
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

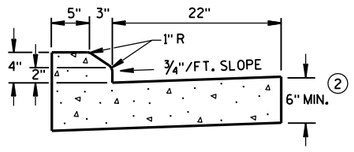
6
S.D.D. 8 B 9-2



TYPES A & D ①

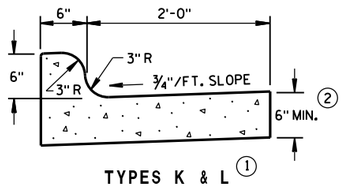


6" SLOPED CURB TYPES G & J ①

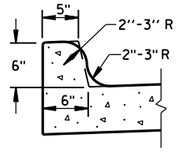


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

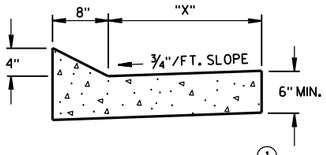


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

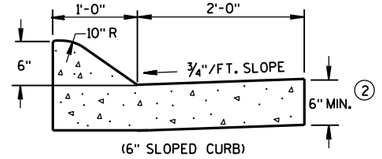
CONCRETE CURB & GUTTER 30"



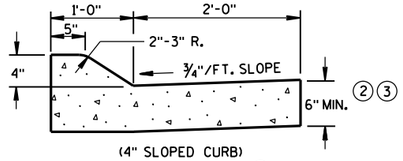
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

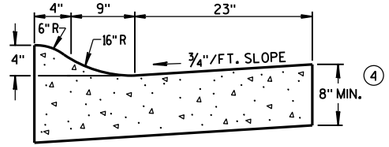


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

CONCRETE CURB & GUTTER 36"

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. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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.

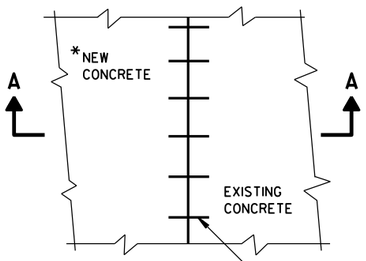
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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.

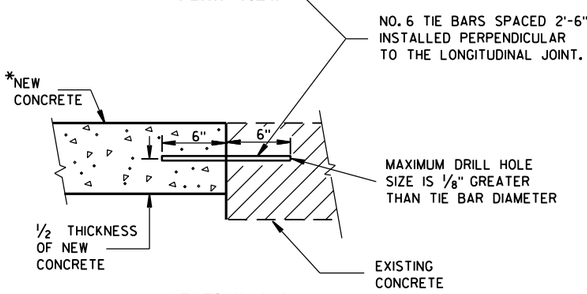
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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



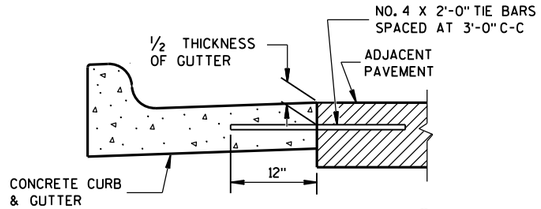
PLAN VIEW

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

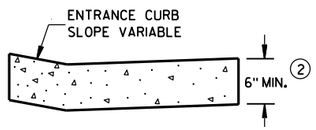


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

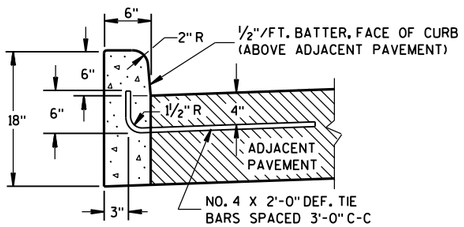


TYPICAL TIE BAR LOCATION ①

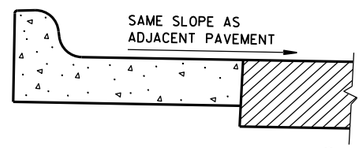


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

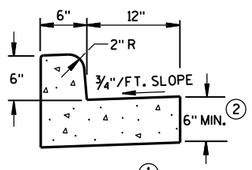


① TYPES A & D



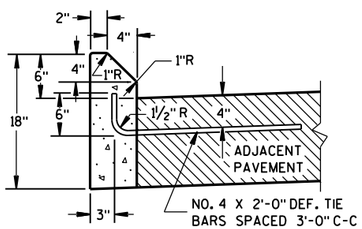
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



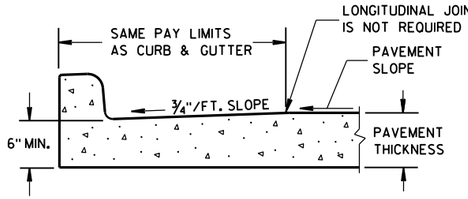
① TYPES A & D

CONCRETE CURB & GUTTER 18"

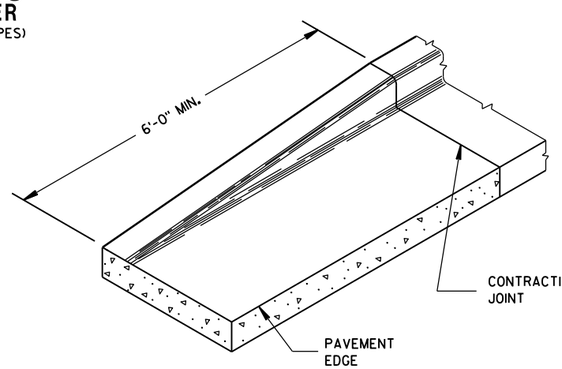


① TYPES G & J

CONCRETE CURB



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2016 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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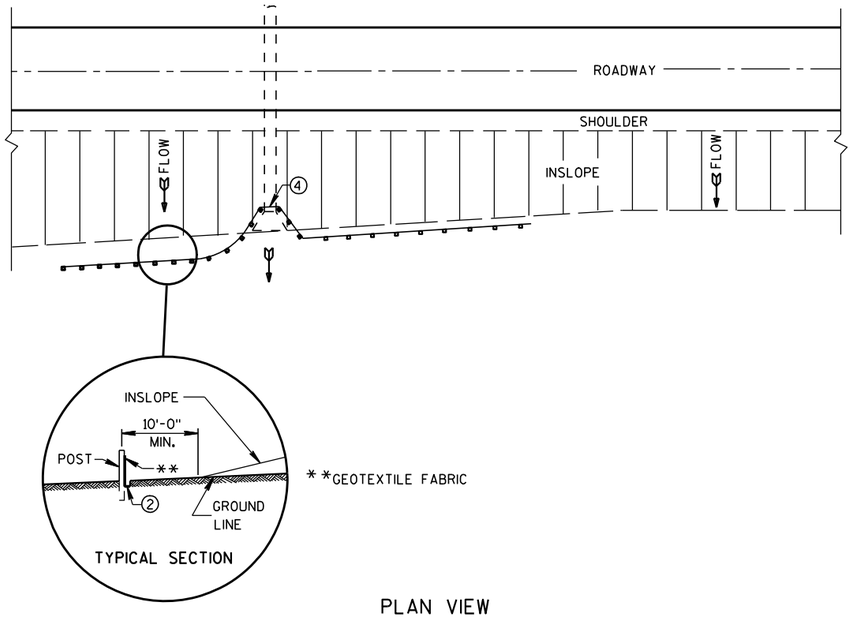
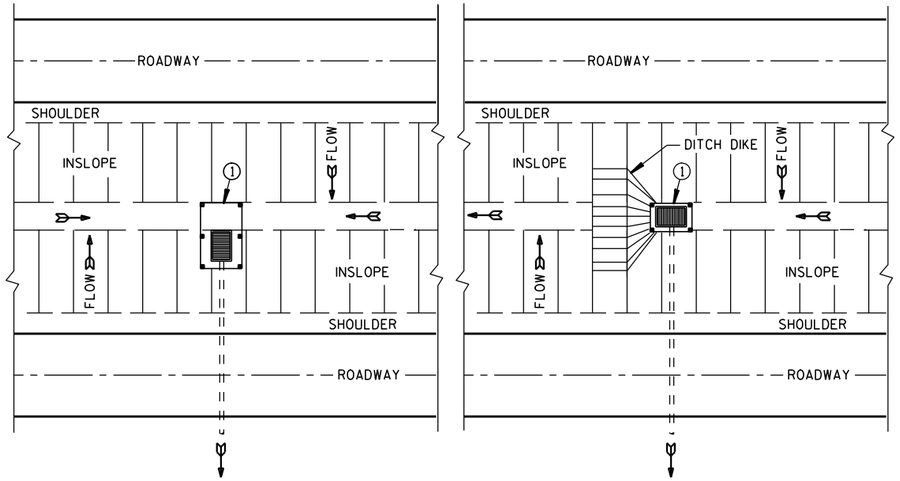


PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



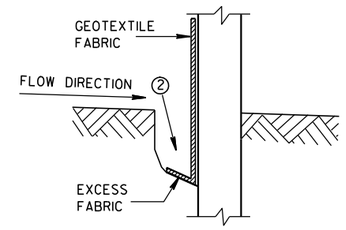
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

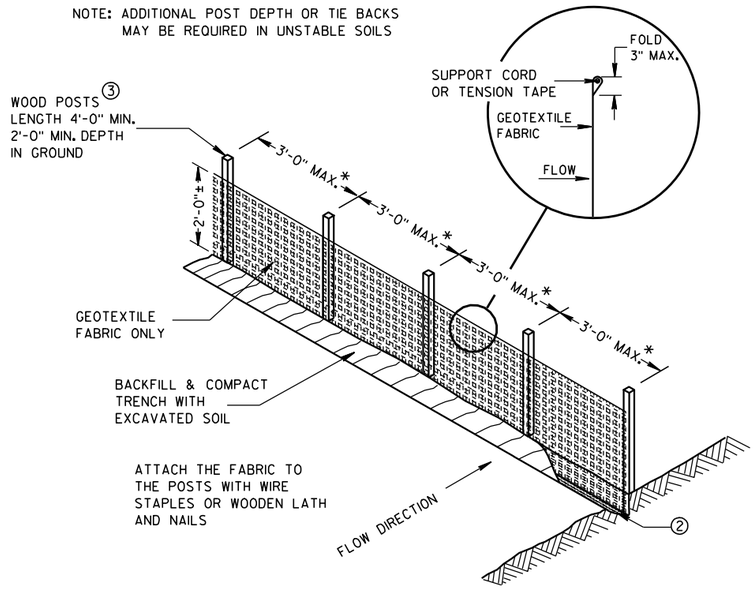
GENERAL NOTES

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

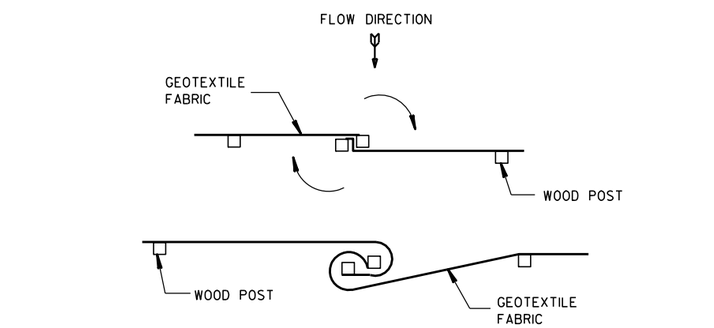
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



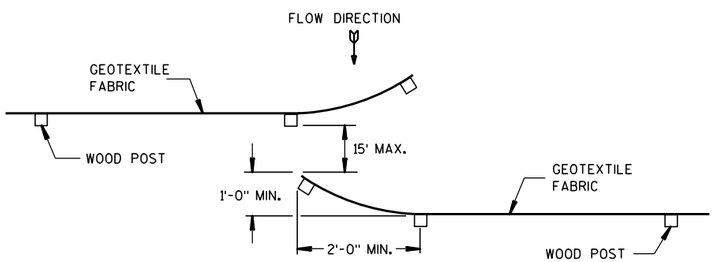
TRENCH DETAIL



SILT FENCE

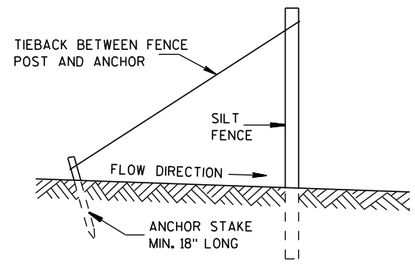


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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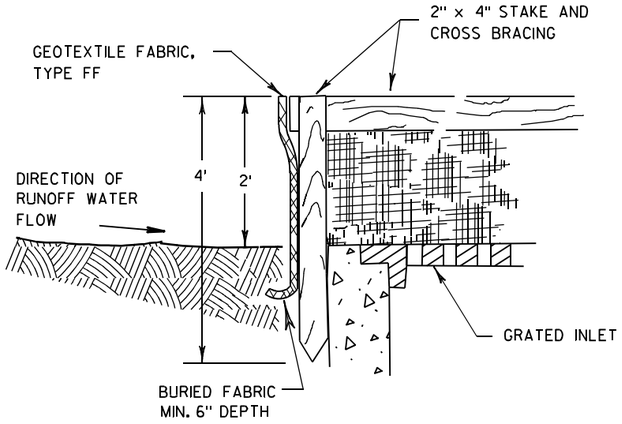
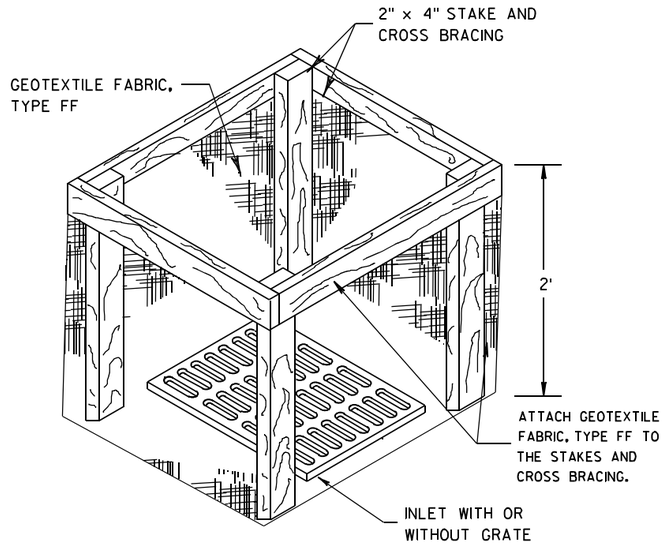
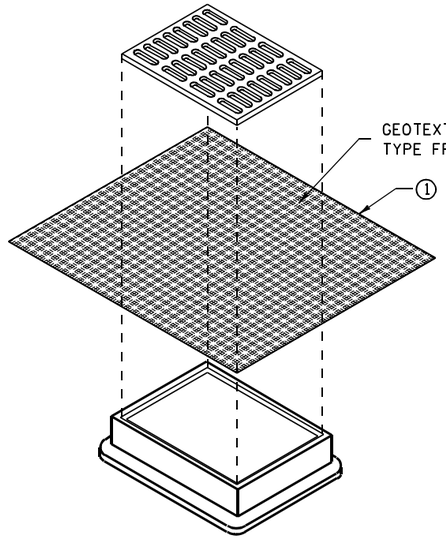


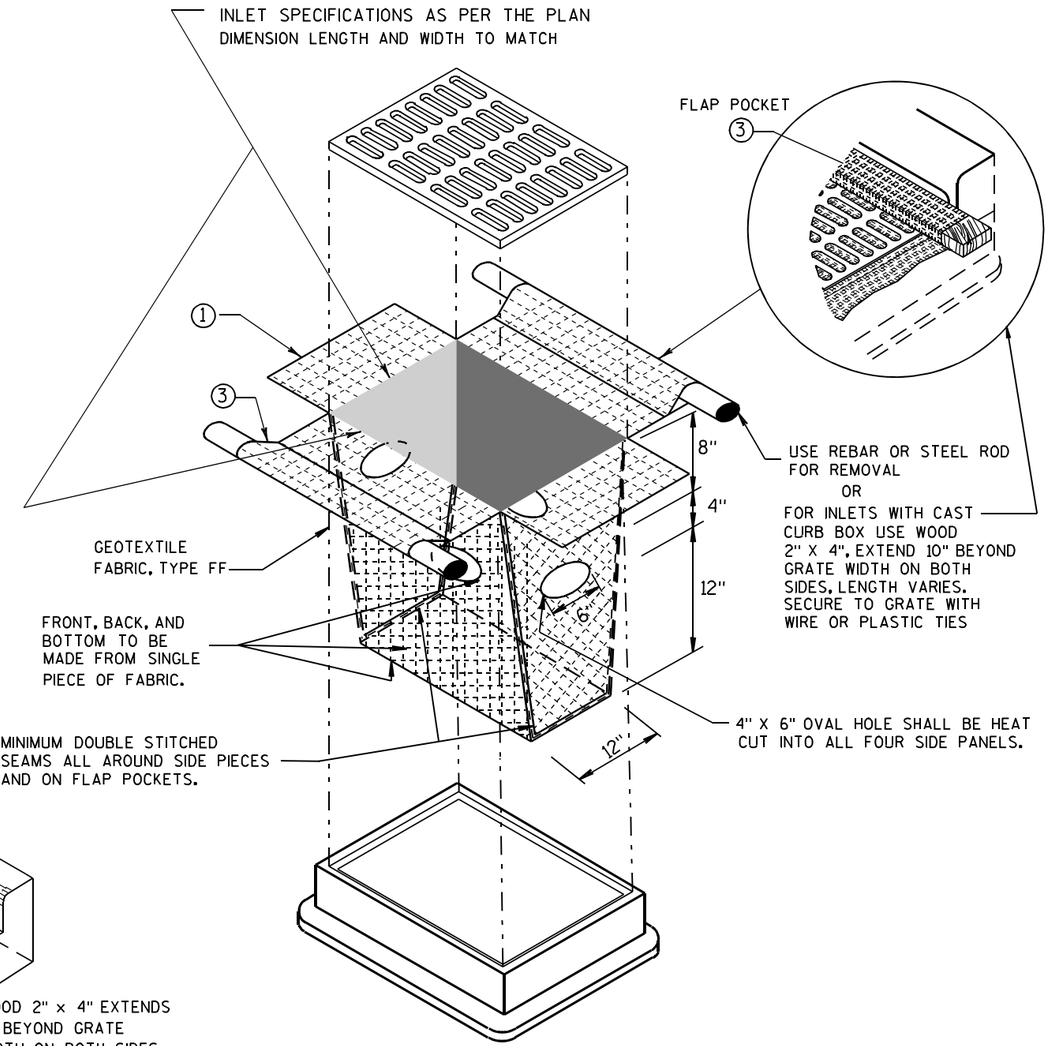


INLET PROTECTION, TYPE A



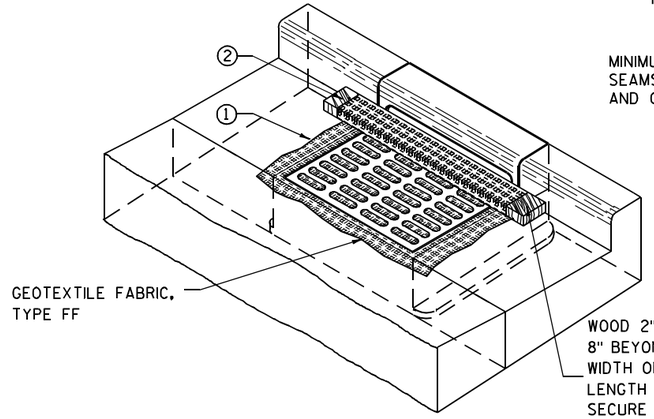
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 E 10-2

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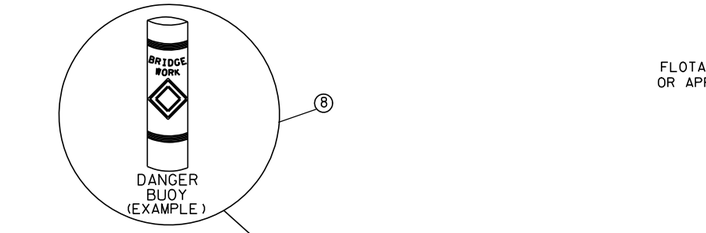
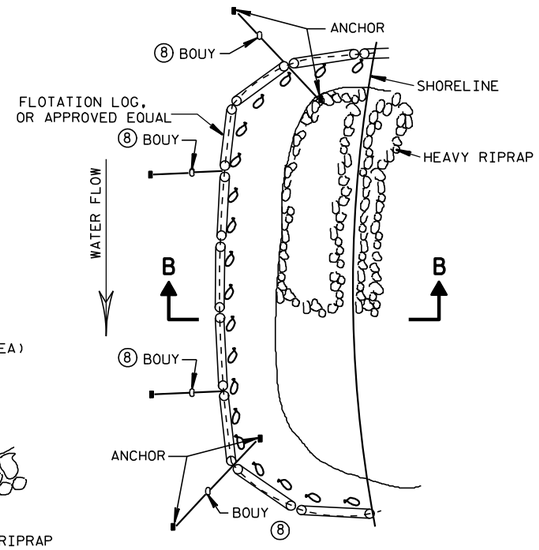
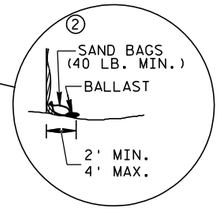
S.D.D. 8 E 10-2

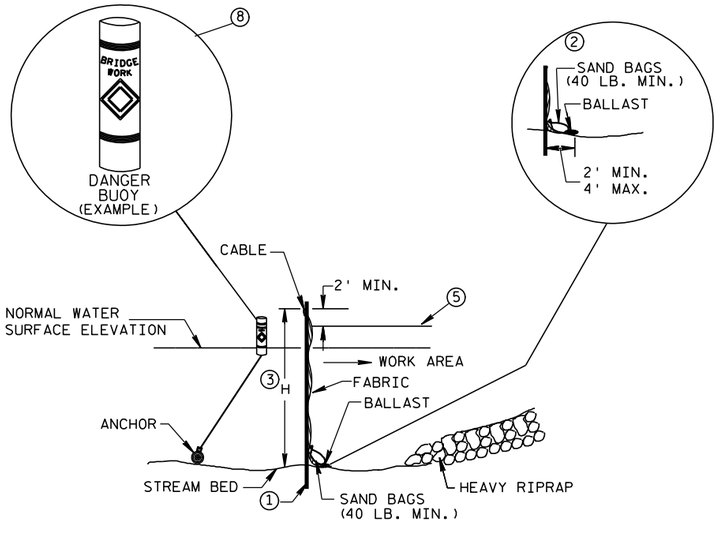


SECTION B-B

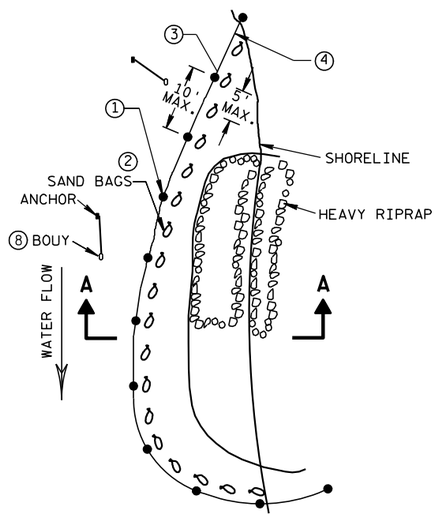




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

② 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.

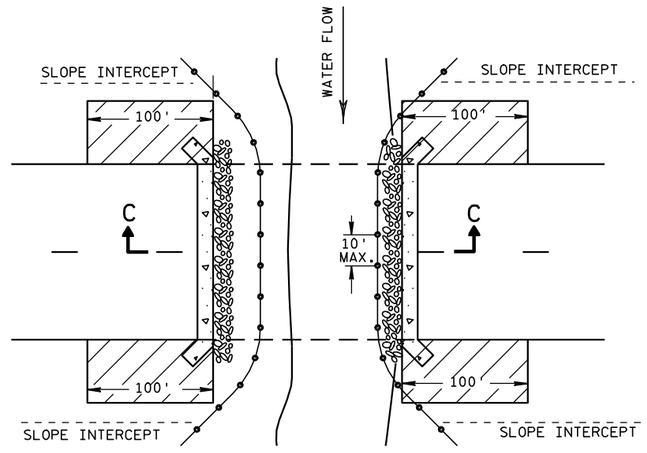
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

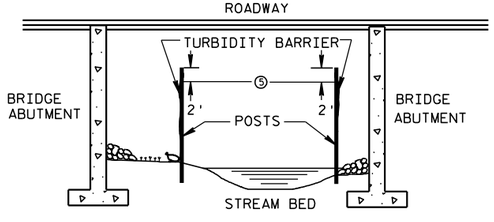
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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.



PLAN VIEW



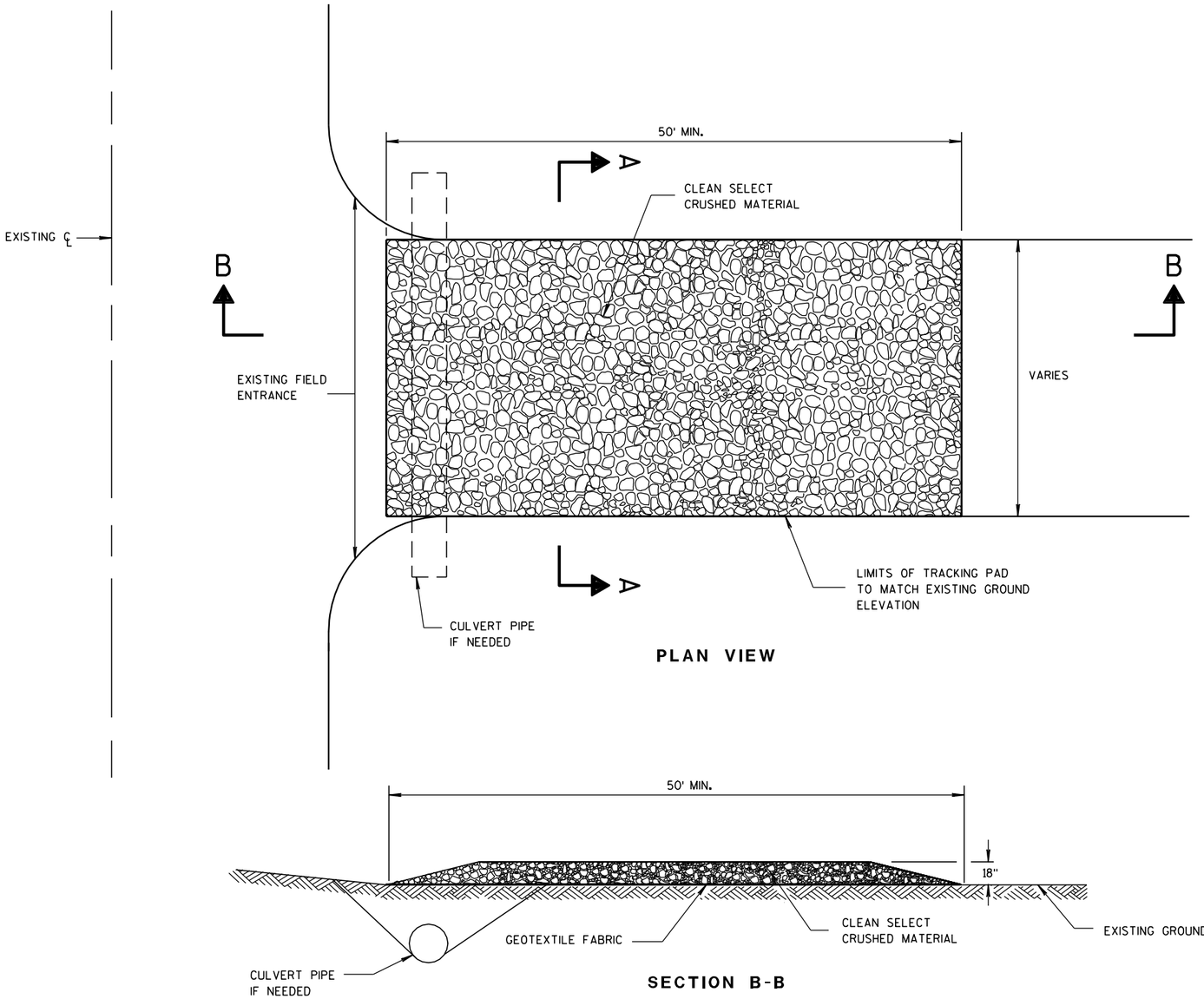
SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW

SECTION B-B

GENERAL NOTES

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

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

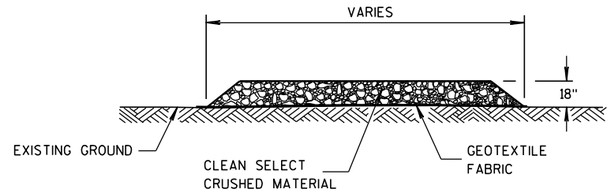
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 E 14-1

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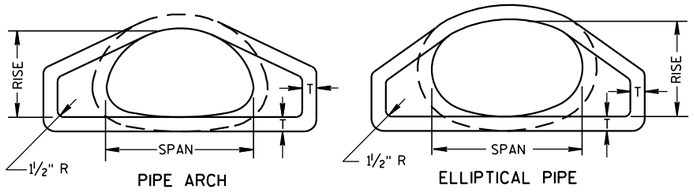
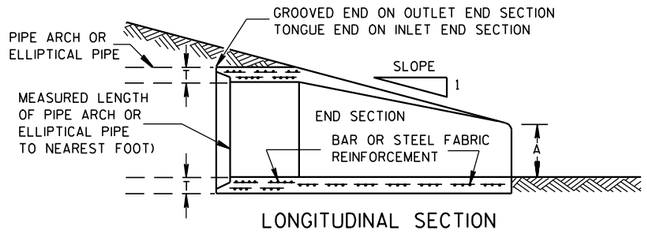
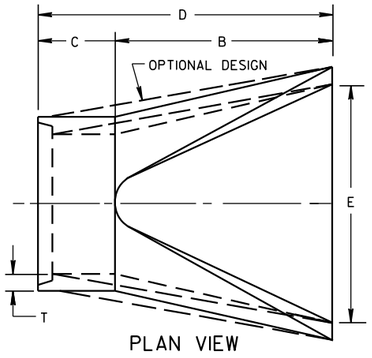
S.D.D. 8 E 14-1



END VIEW

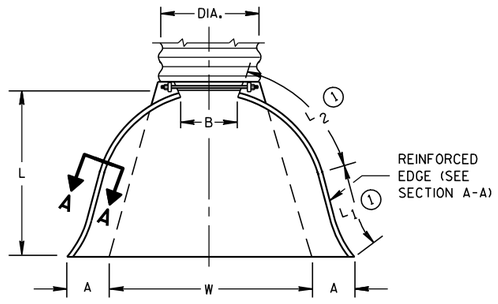


LONGITUDINAL SECTION



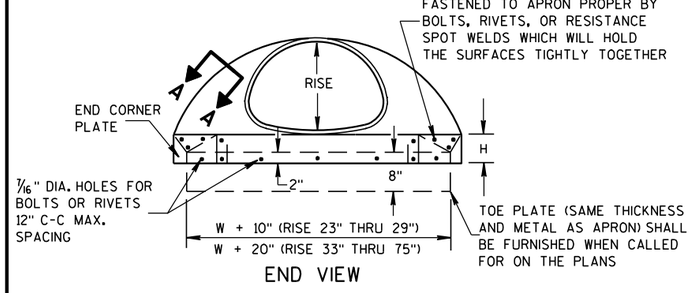
PLAN VIEW

CONCRETE ENDWALLS



REINFORCED EDGE (SEE SECTION A-A)

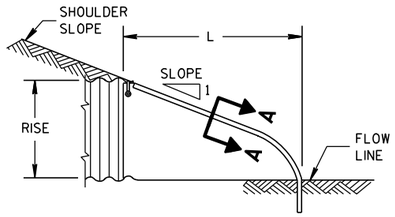
PLAN VIEW



END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

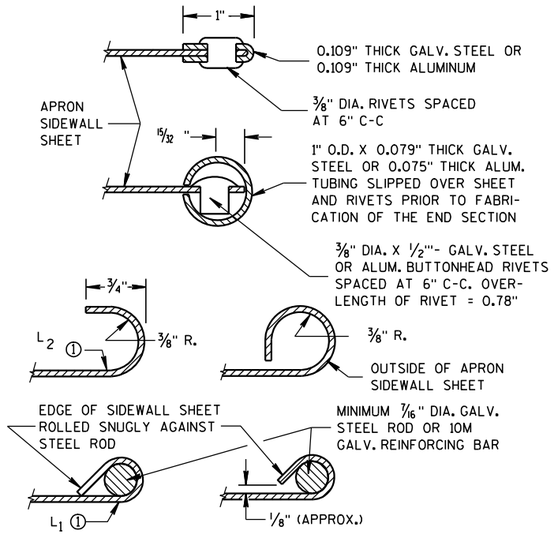
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

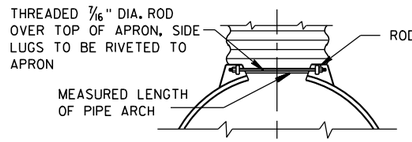
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

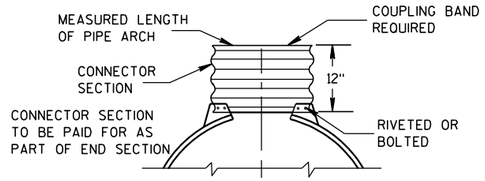
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



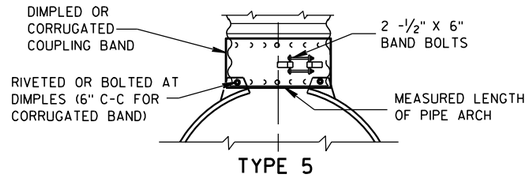
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

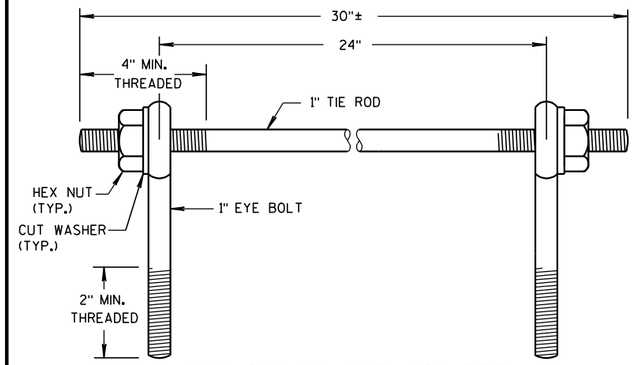
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

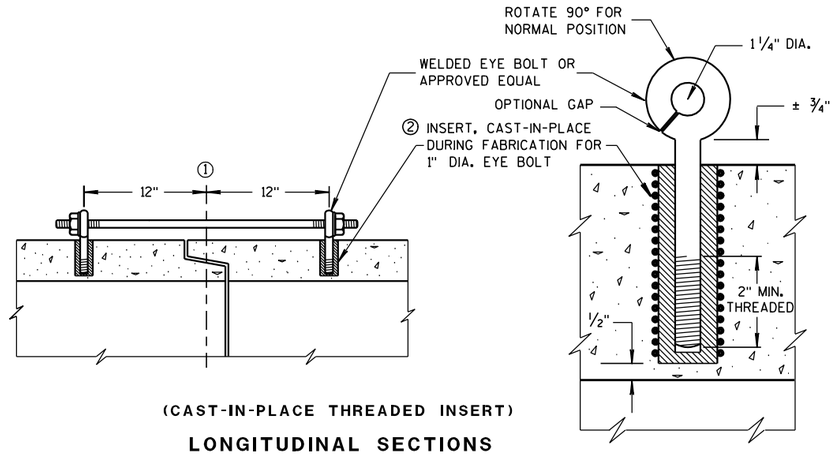
11/30/94 — DATE

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

FHWA



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

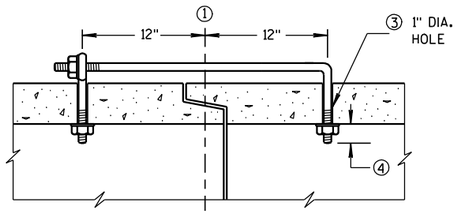
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

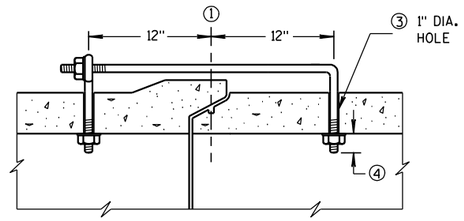
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

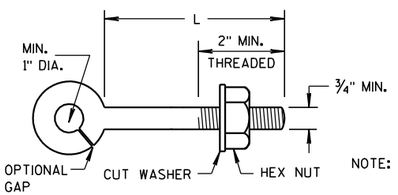


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

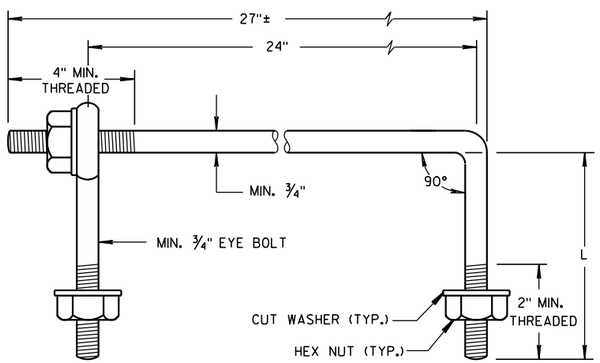
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

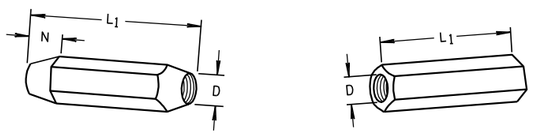
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

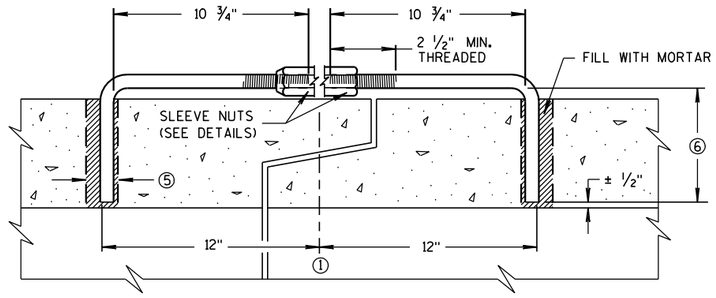
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

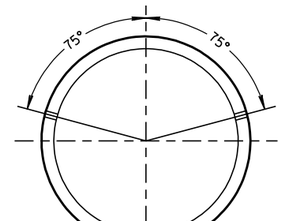
SLEEVE NUTS



LONGITUDINAL SECTION

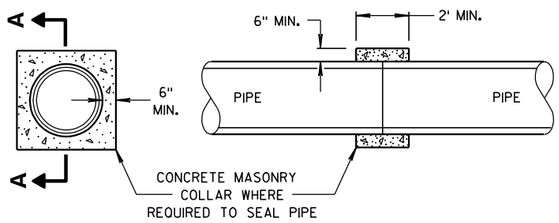
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 F 4-7

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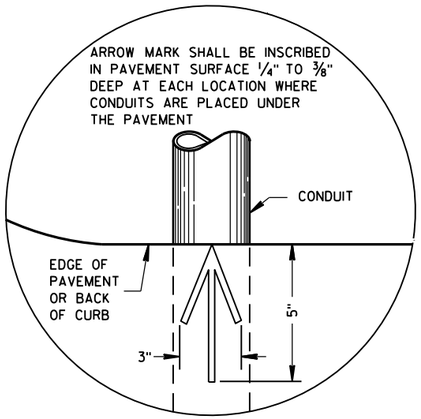
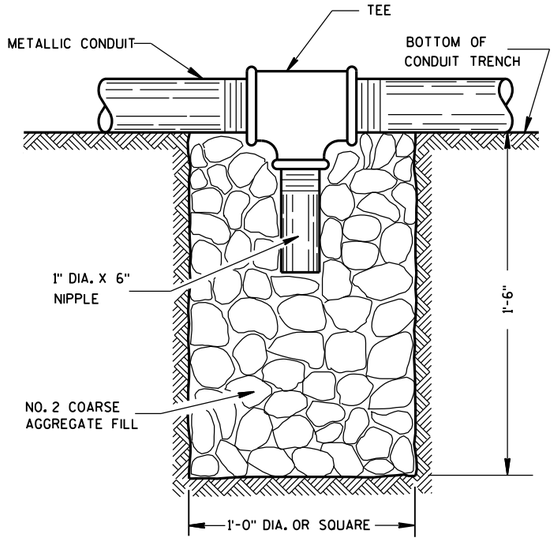


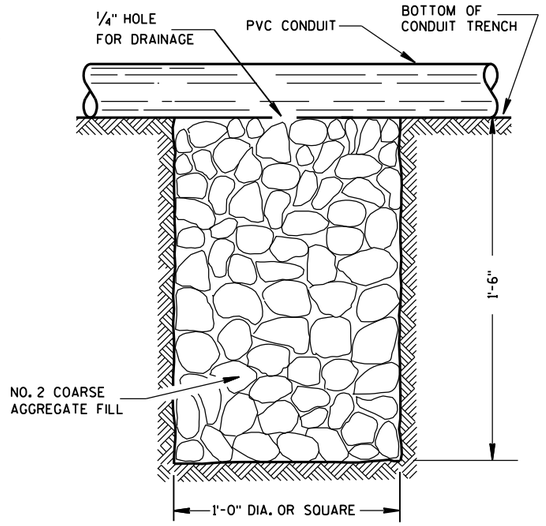
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

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.

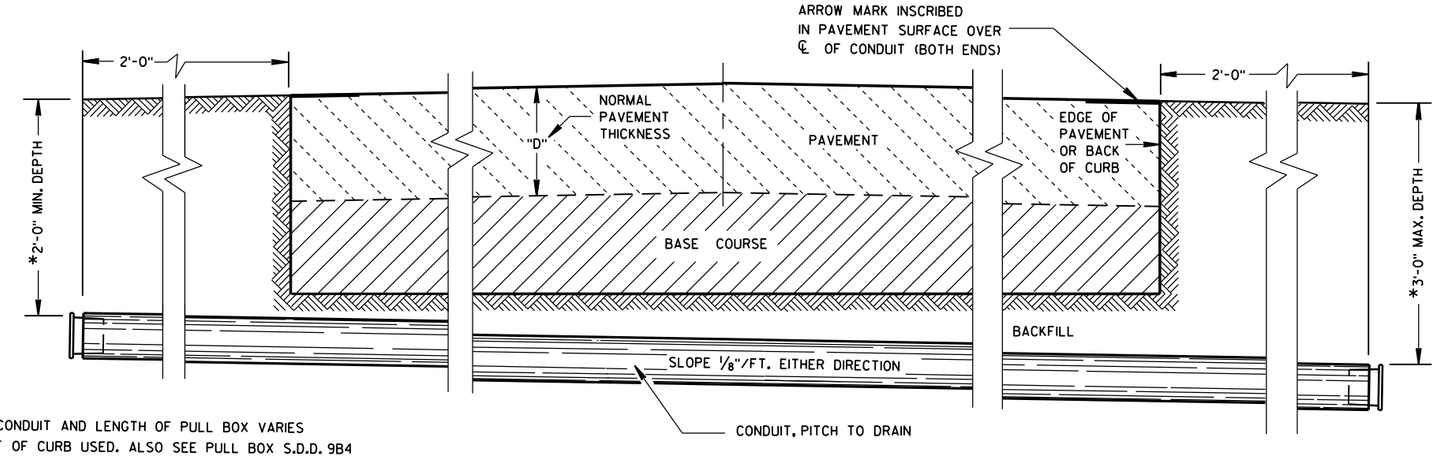
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
35
FHWA

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S.D.D. 9 B 2-9

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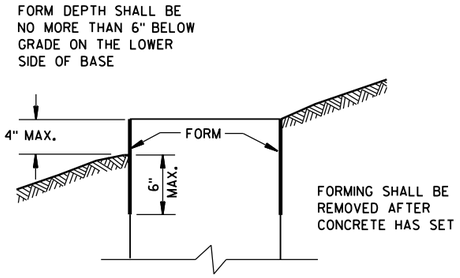
S.D.D. 9 B 2-9



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.

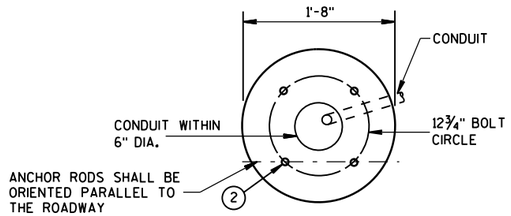
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

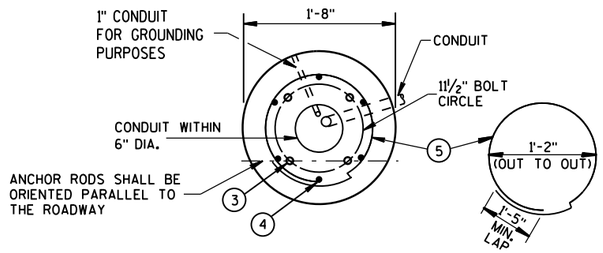
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

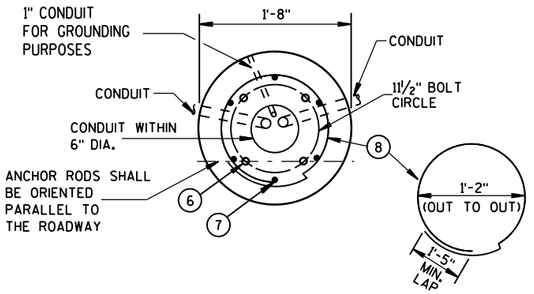
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

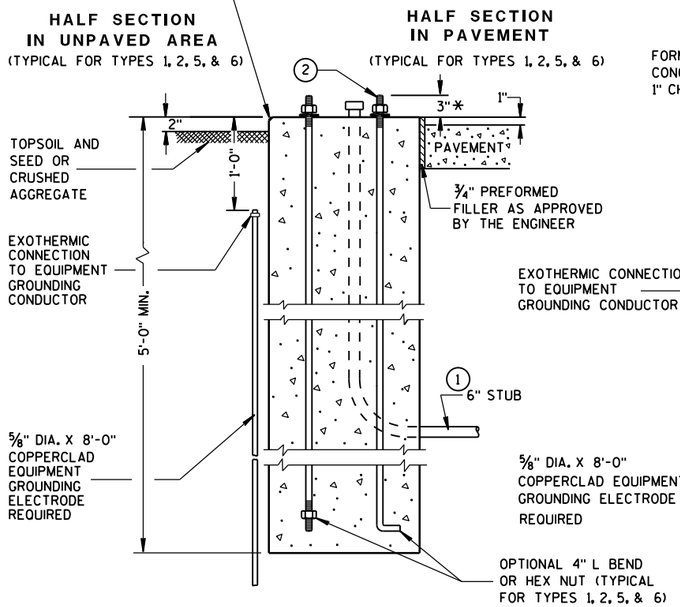
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.





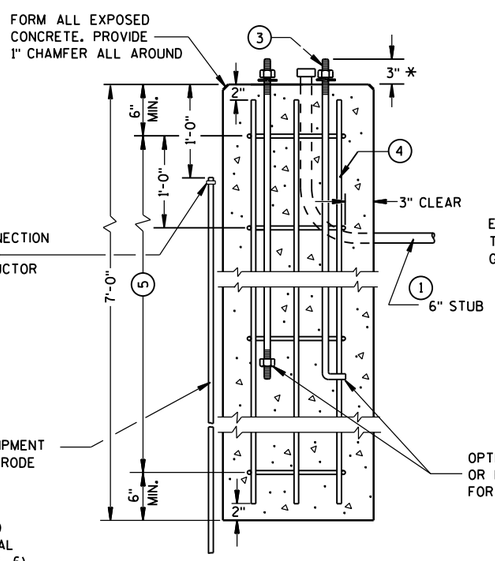


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

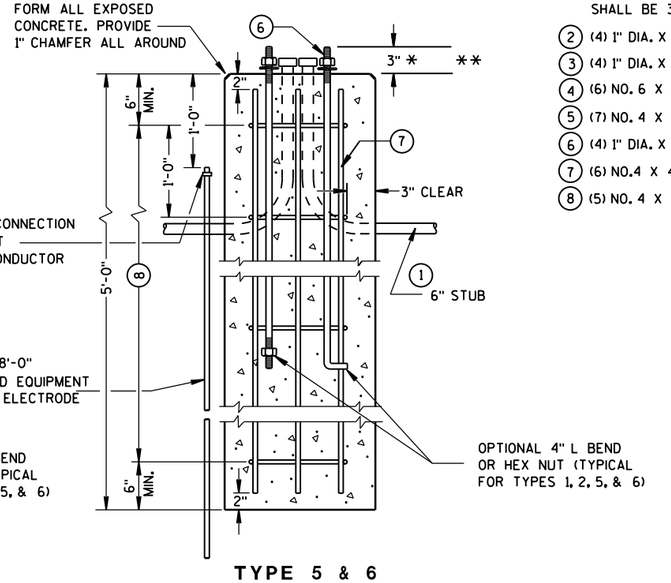


HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)

TYPE 2



TYPE 5 & 6



CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± 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 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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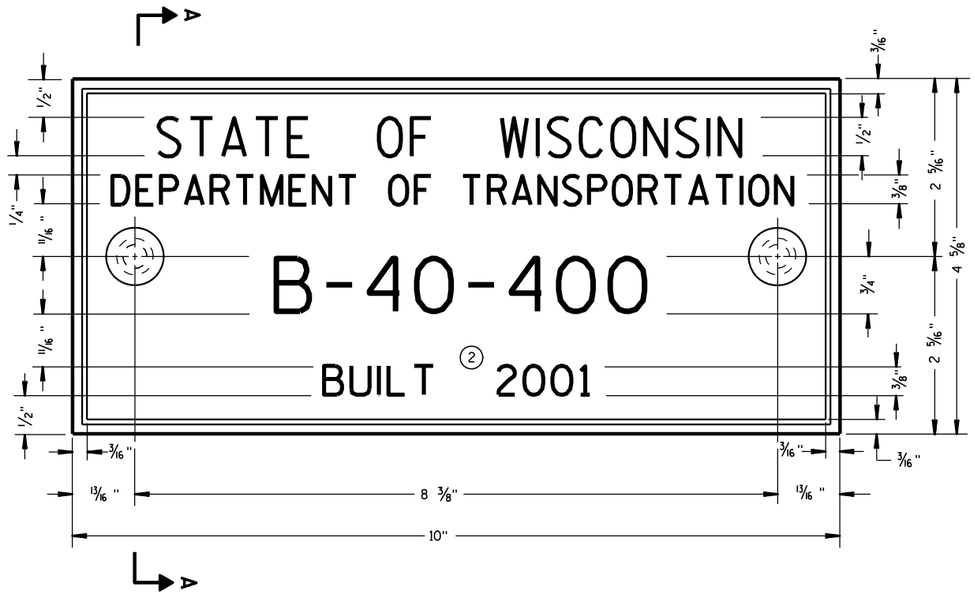
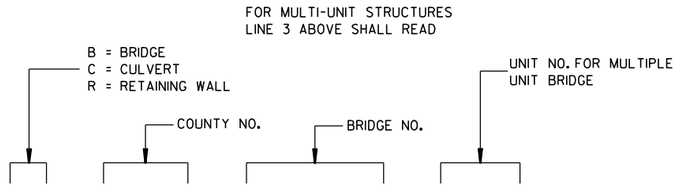
S.D.D. 9 C 2-7



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

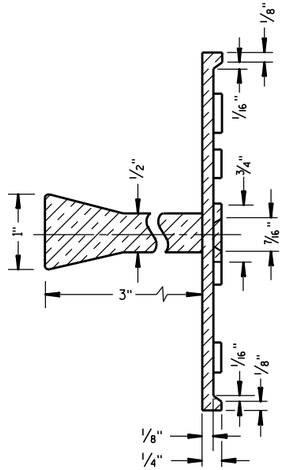
GENERAL NOTES

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.

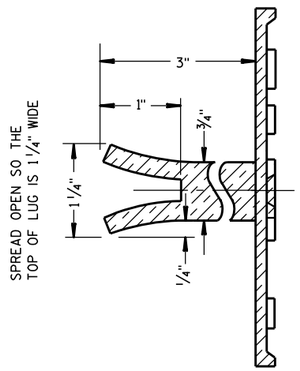
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

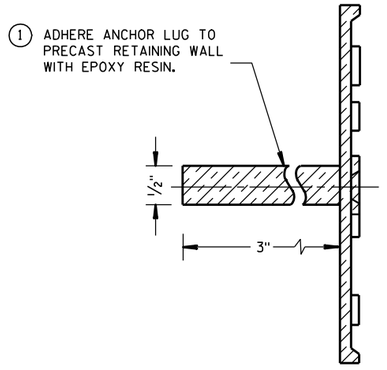
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	

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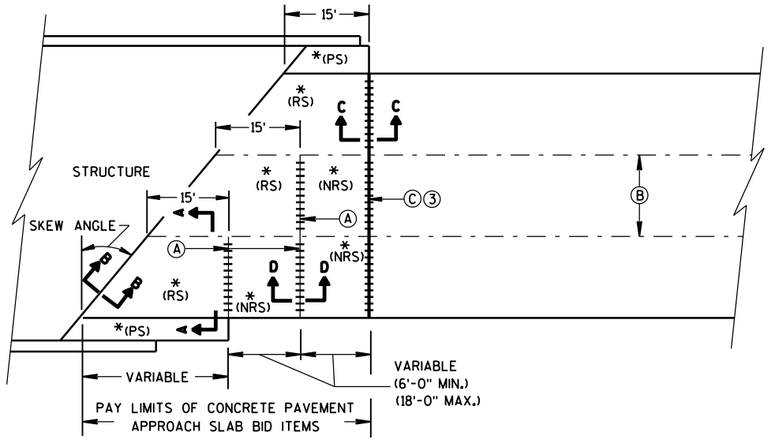
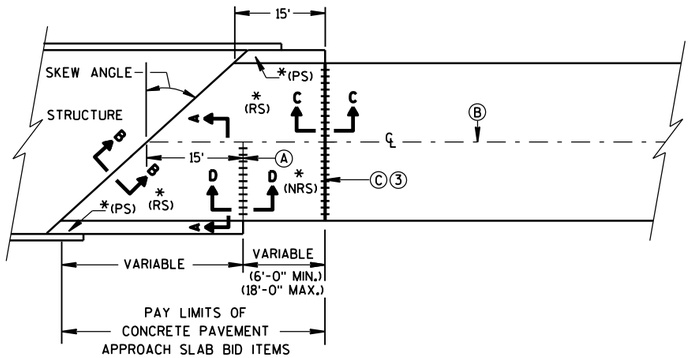
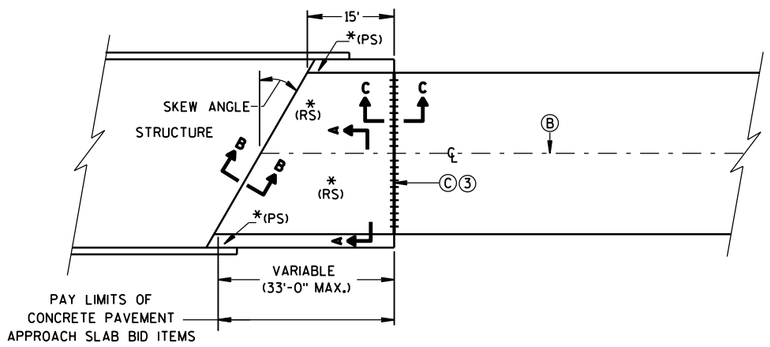
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

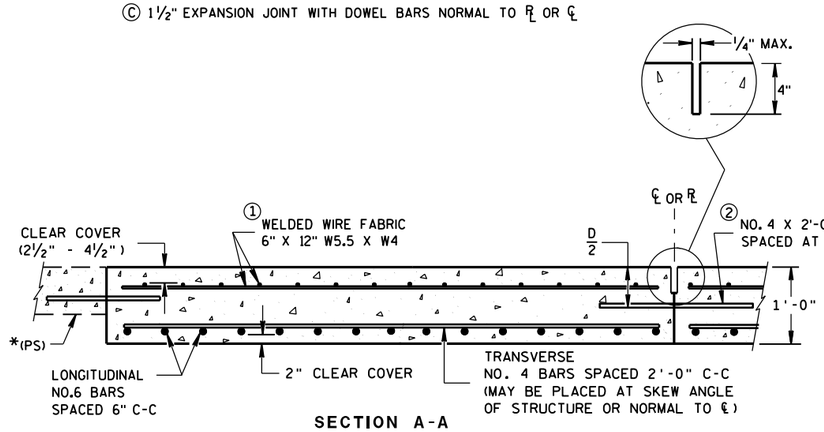
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

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

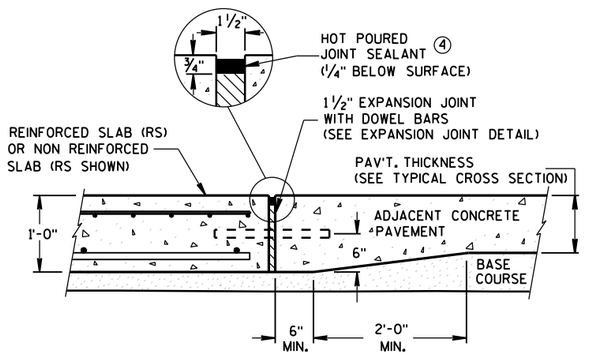
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

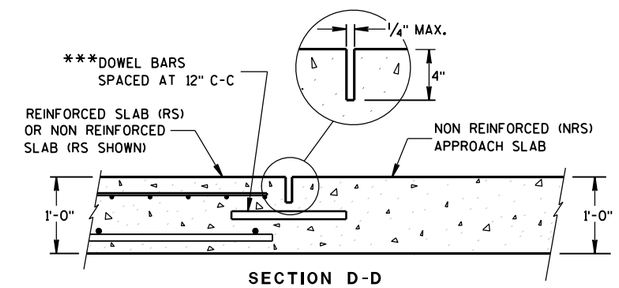
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

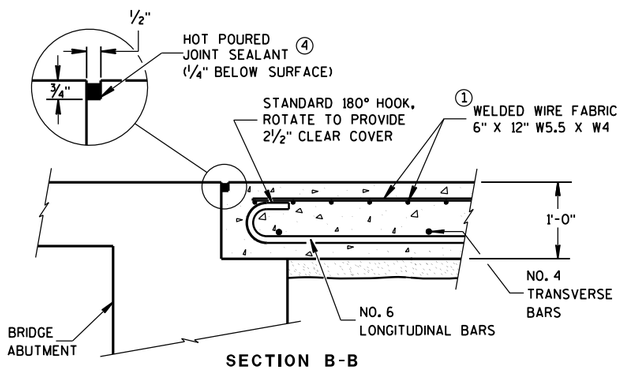
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

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

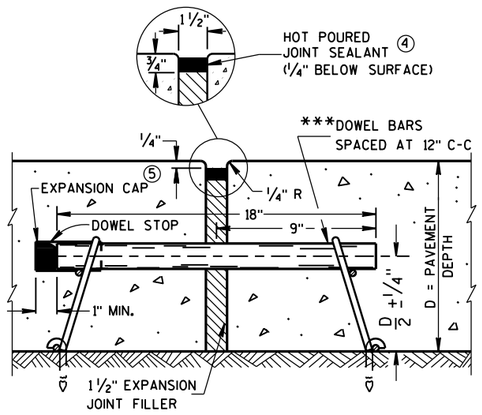
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

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



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

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S.D.D. 13 B 2-8a

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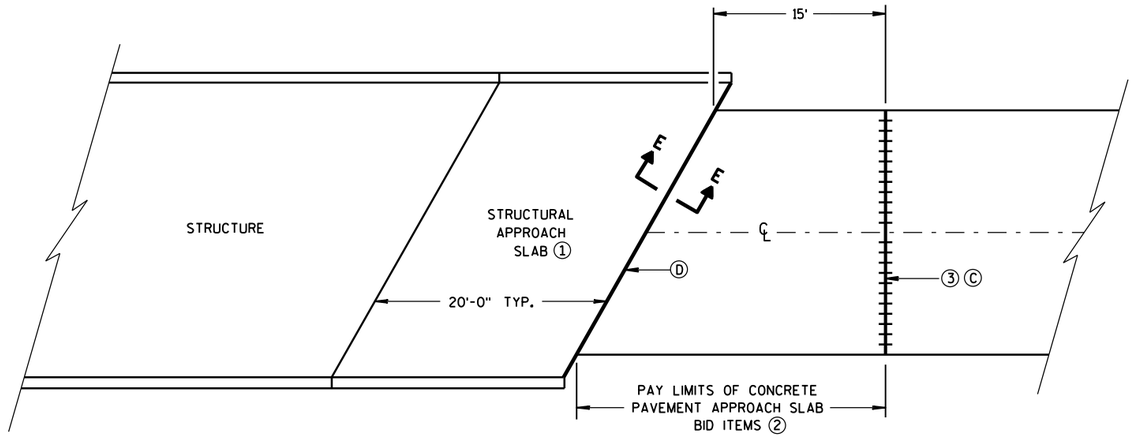
S.D.D. 13 B 2-8a



GENERAL NOTES

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

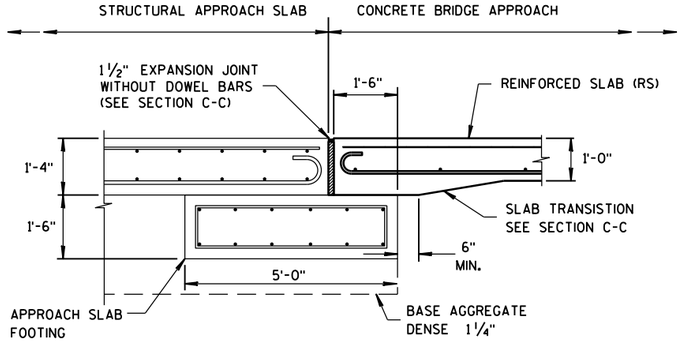
① SEE BRIDGE PLAN.

② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

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

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION E-E

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPERVISOR
FHWA

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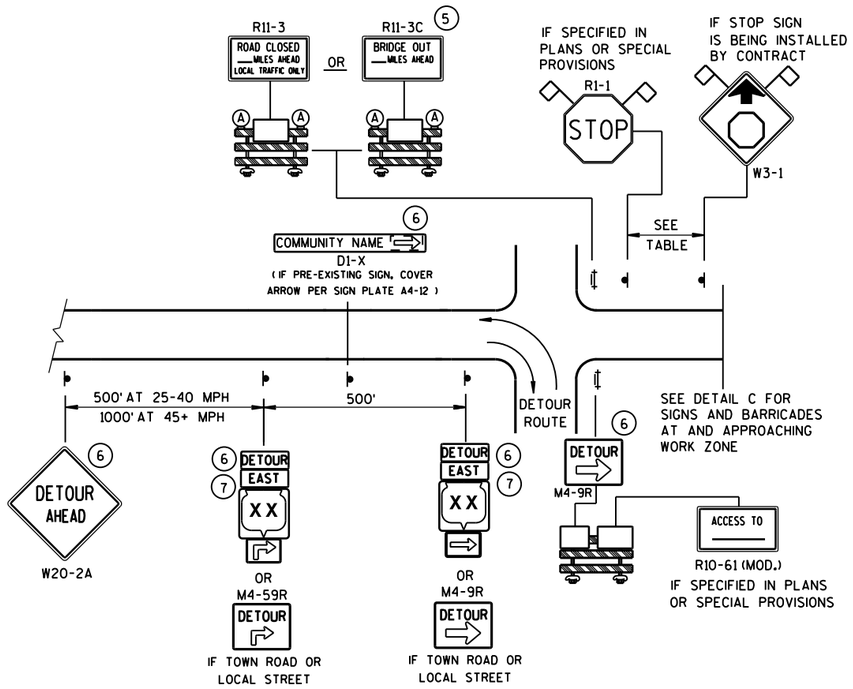
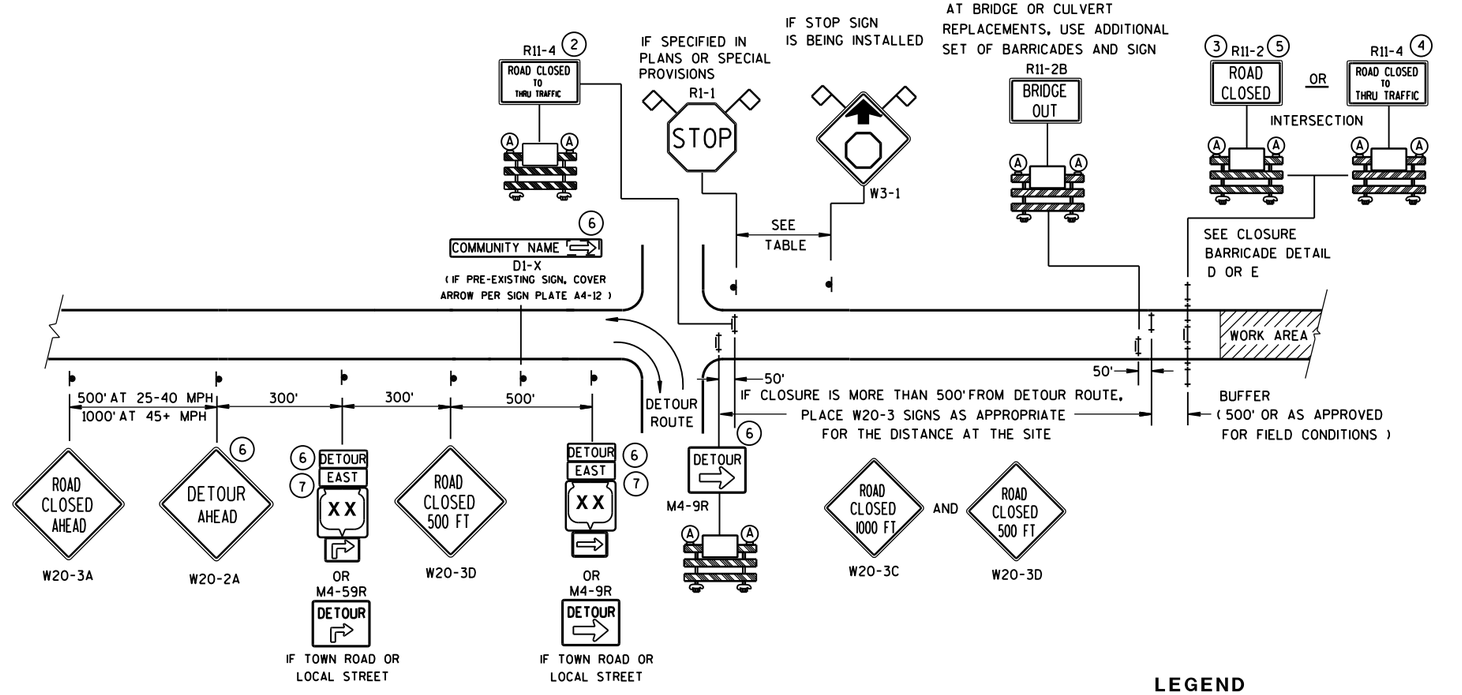
S.D.D. 13 B 2-8b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

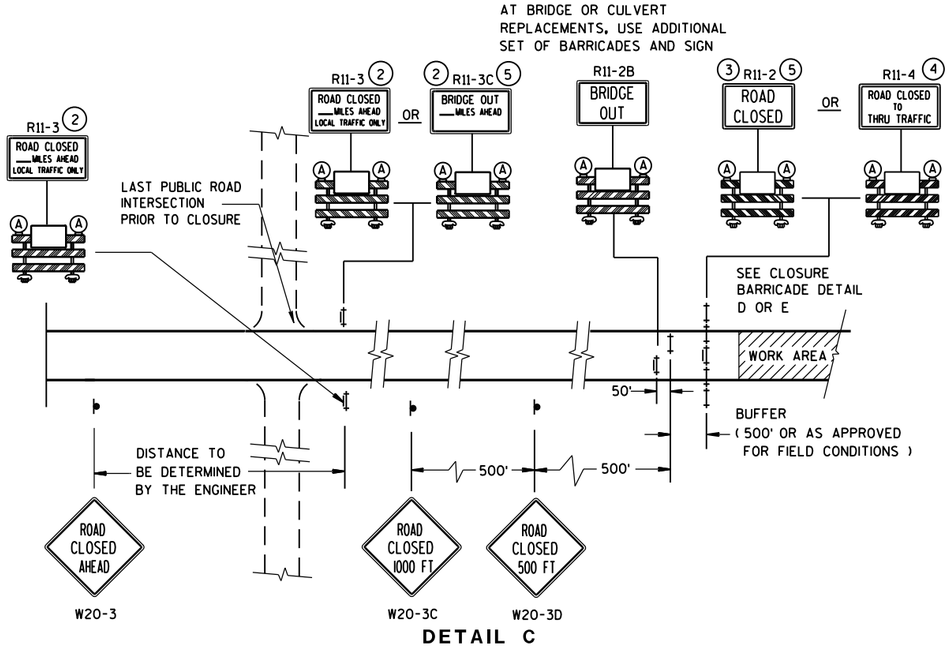
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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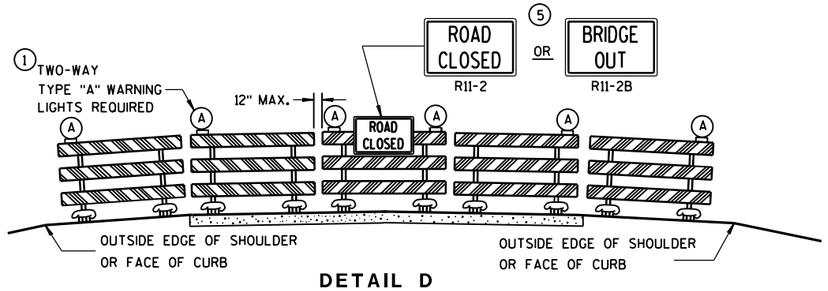
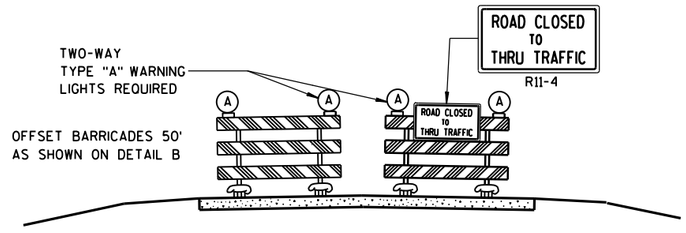
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA — FIC

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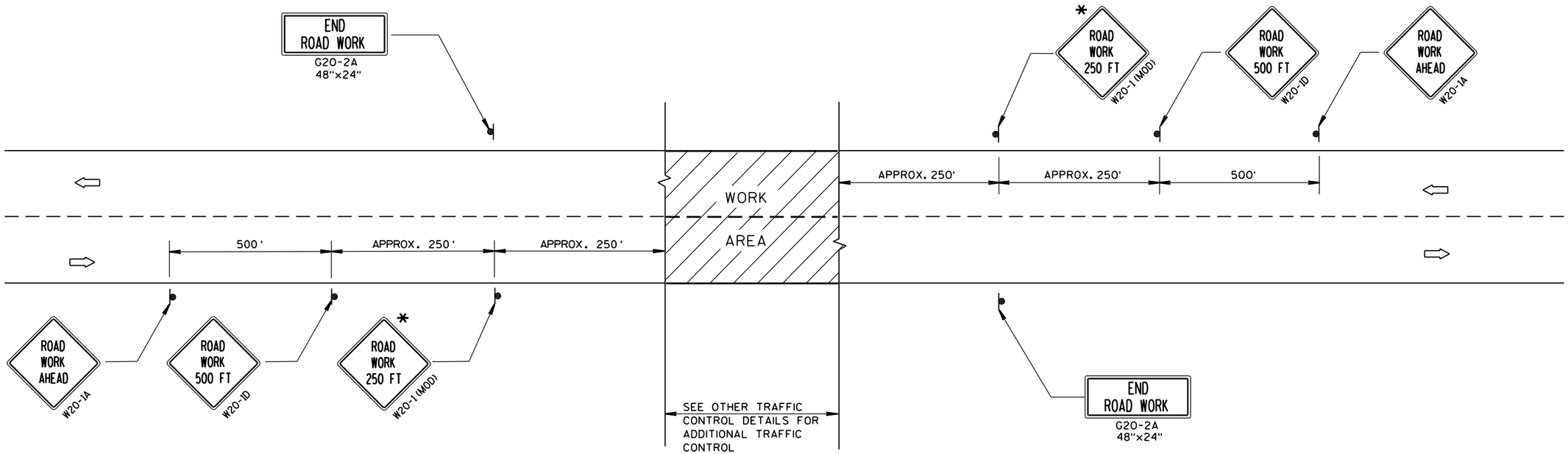
S.D.D. 15 C 2-6b

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

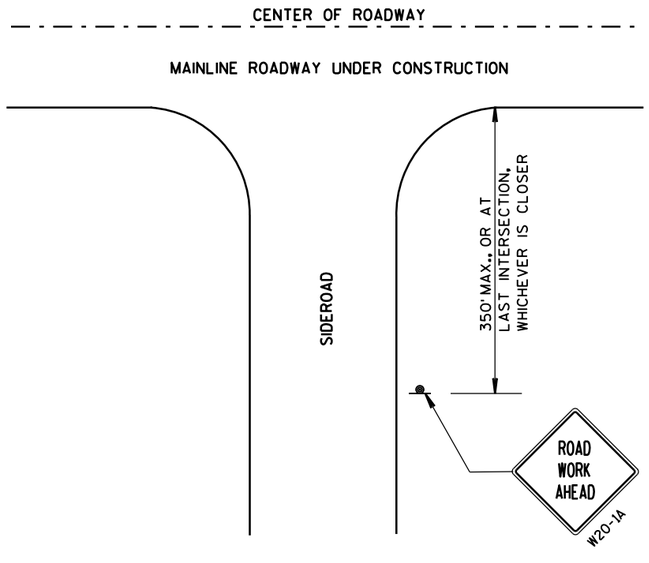
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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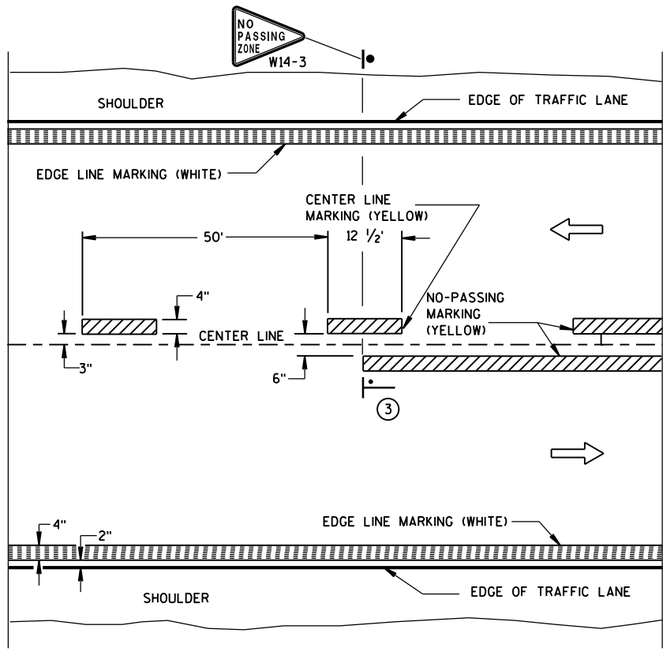
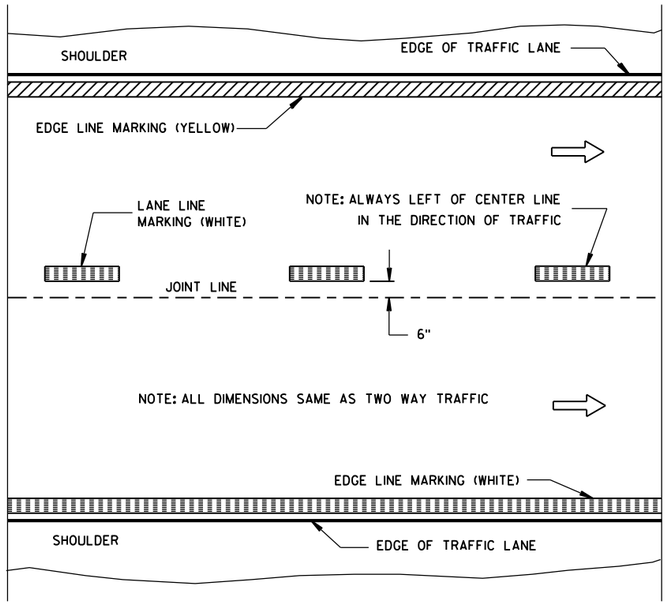
S.D.D. 15 C 5-3

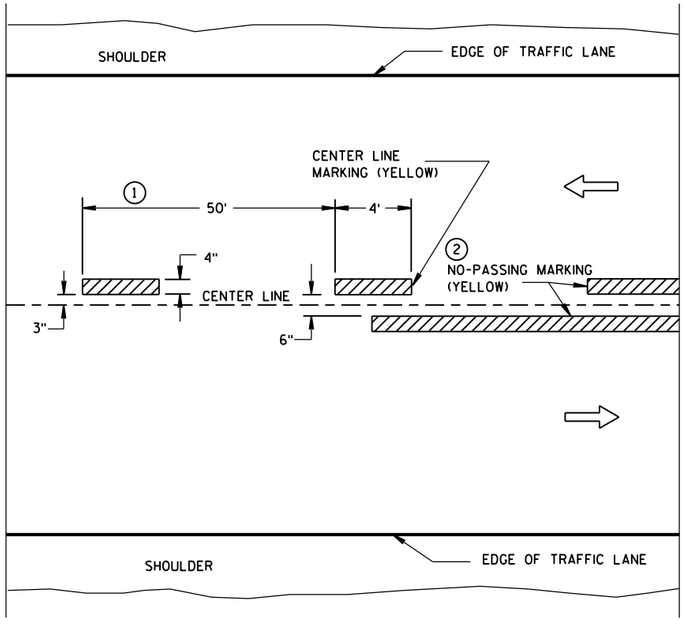


TWO WAY TRAFFIC

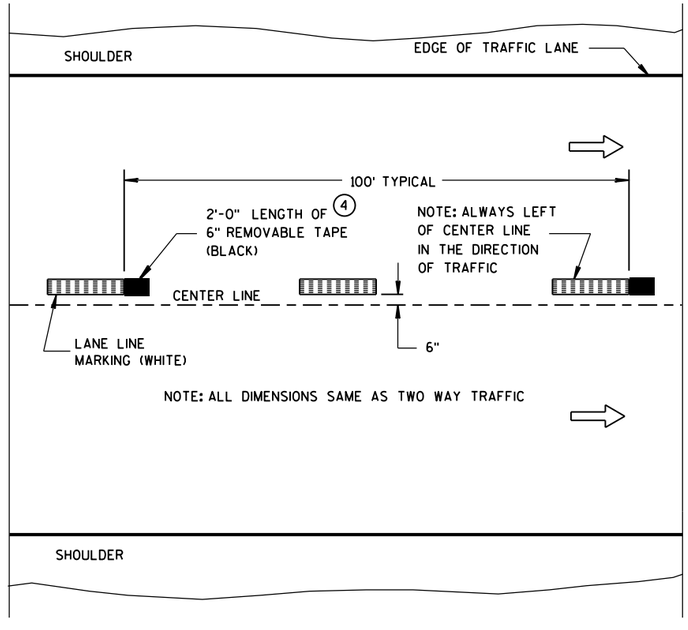


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

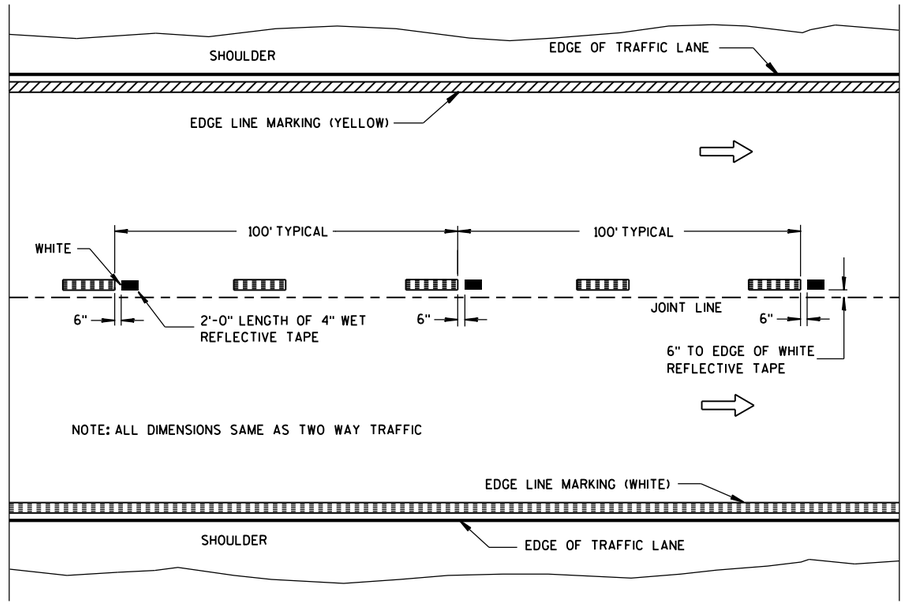
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

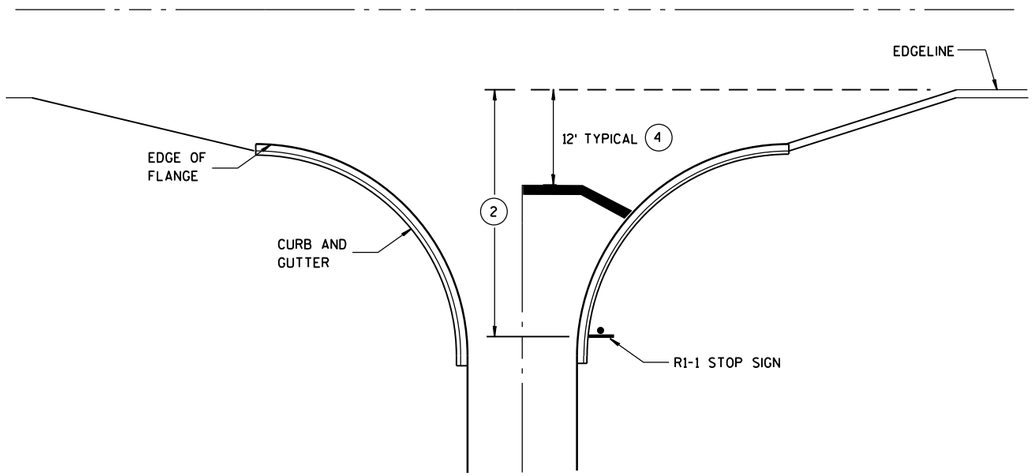
FHWA

6

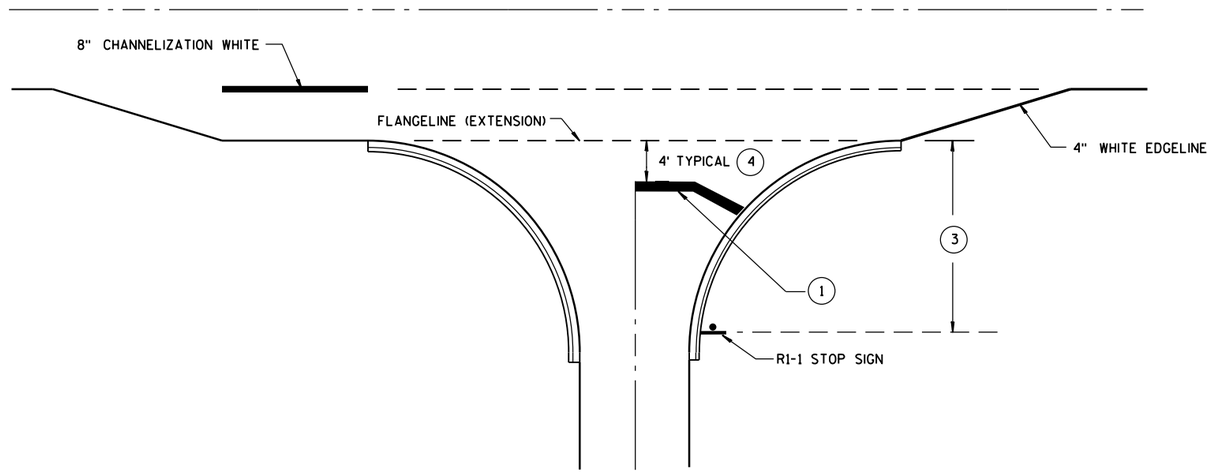
S.D.D. 15 C 8-16a

6

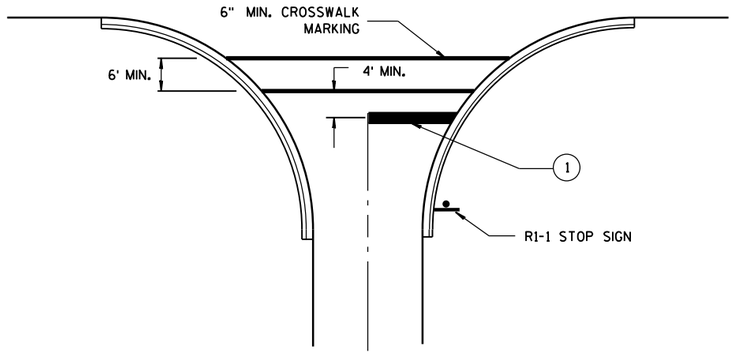
S.D.D. 15 C 8-16a



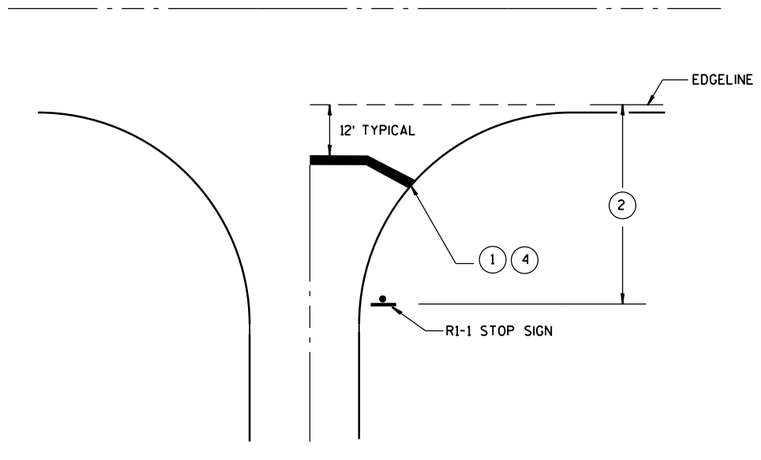
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR

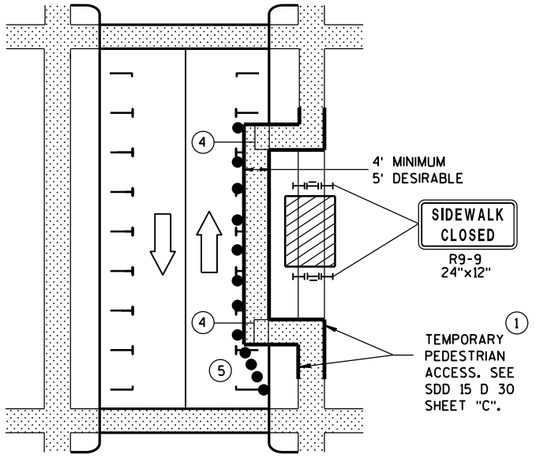
NEER

FHWA

6

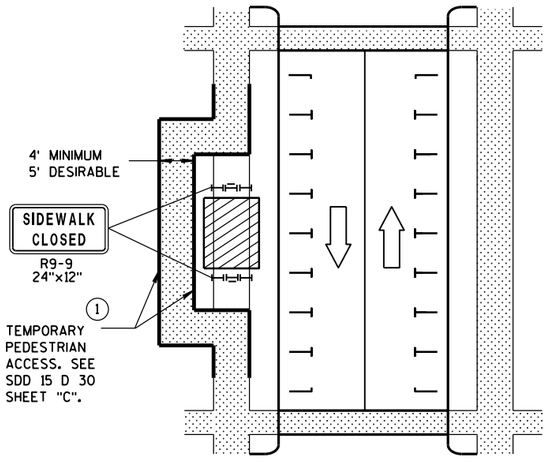
S.D.D. 15 C 33-2

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

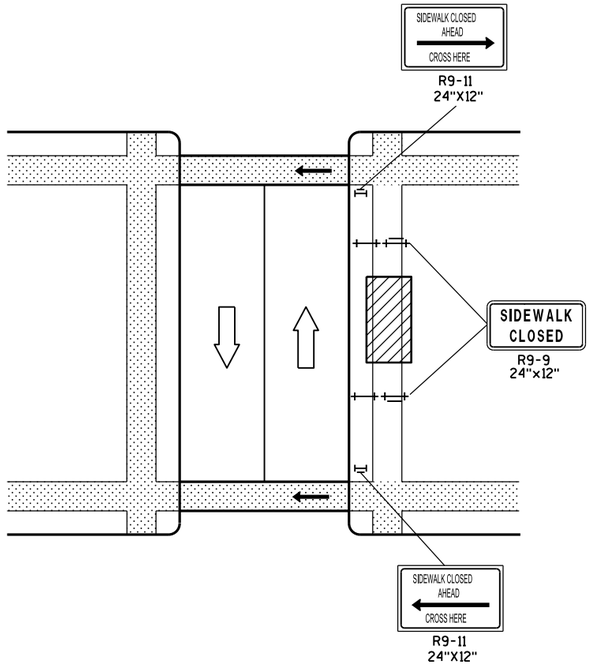


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

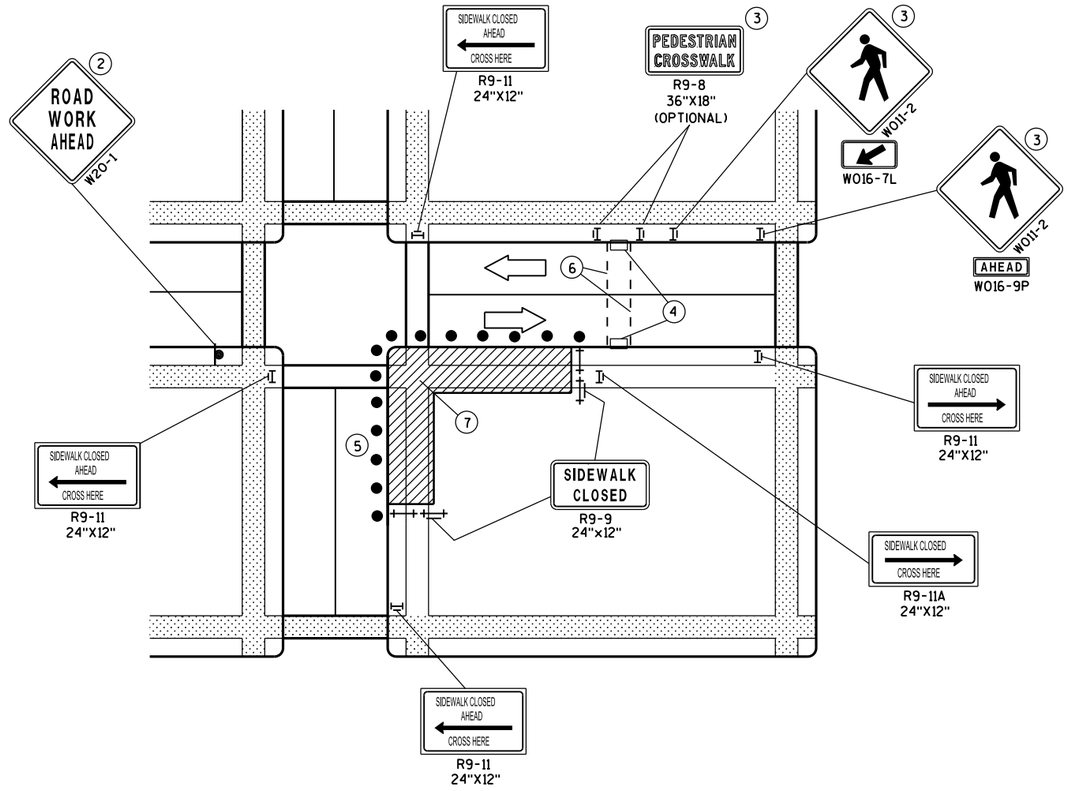
NOTE: LAYOUT SAME AS ABOVE.



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.

"WO" 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

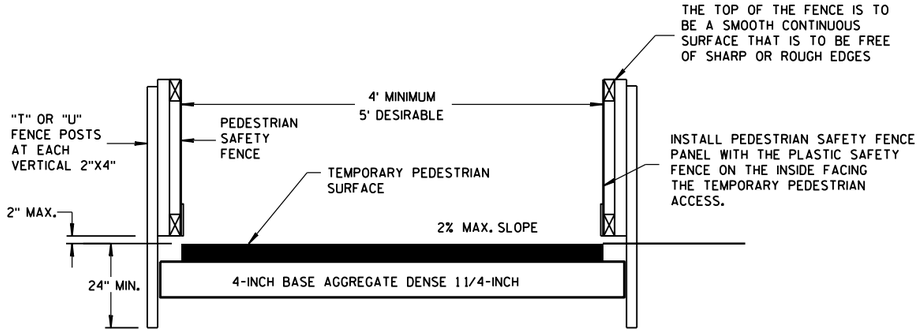
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)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

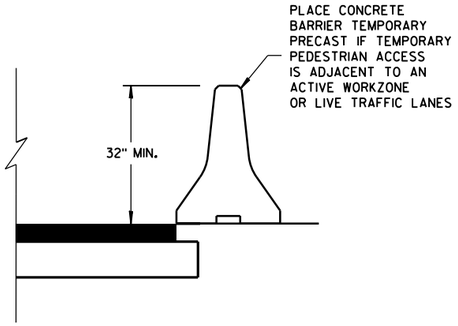
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 30-3a

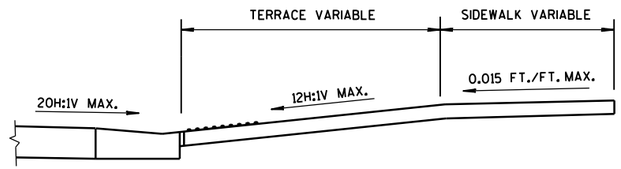




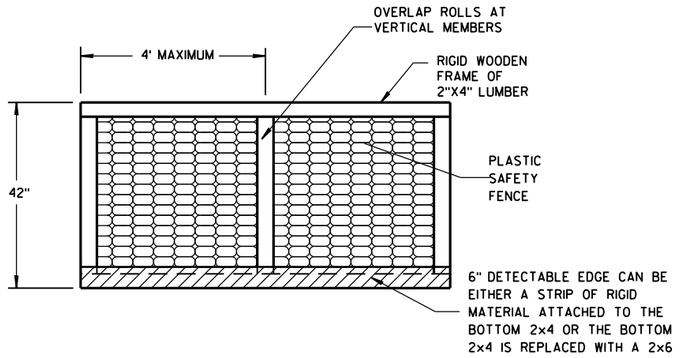
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

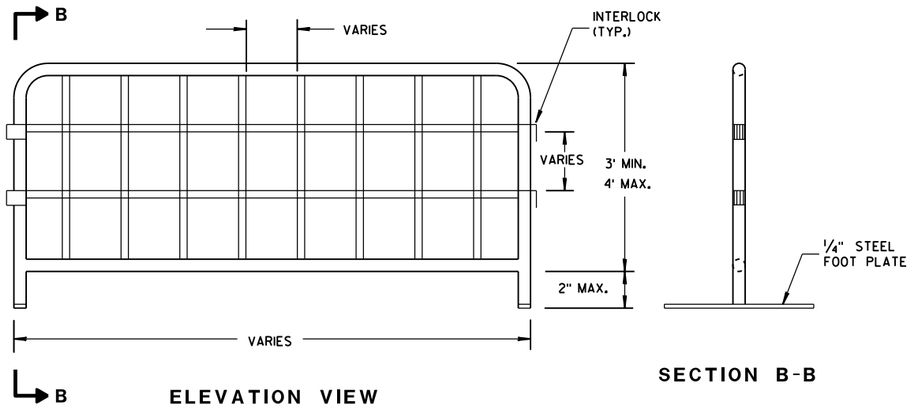
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



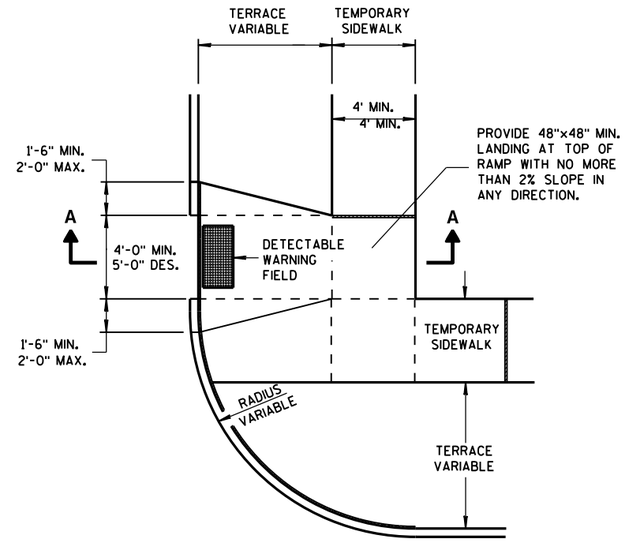
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

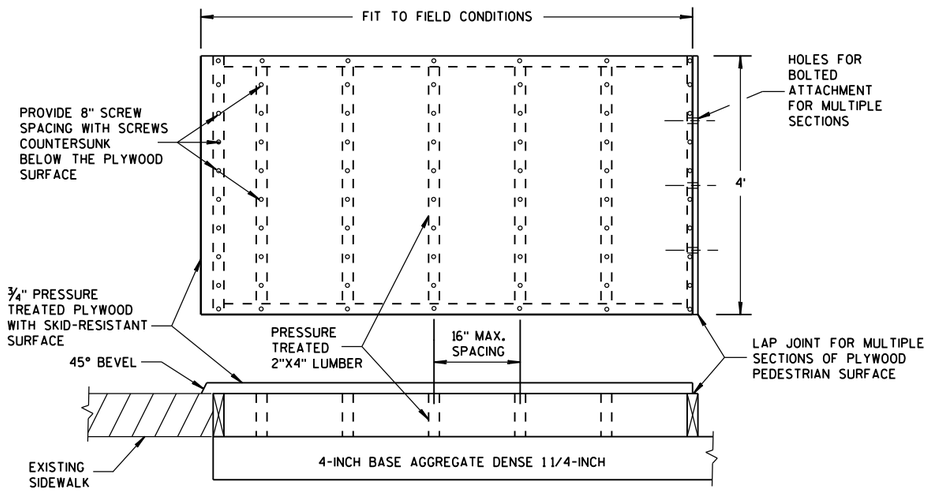
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



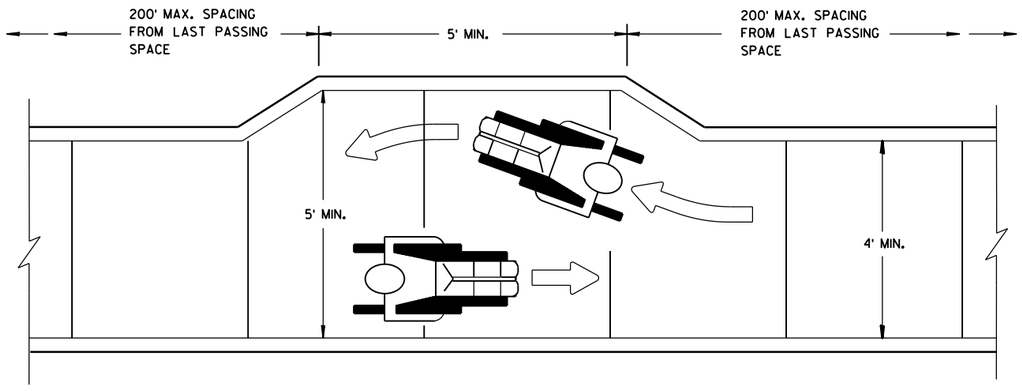
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

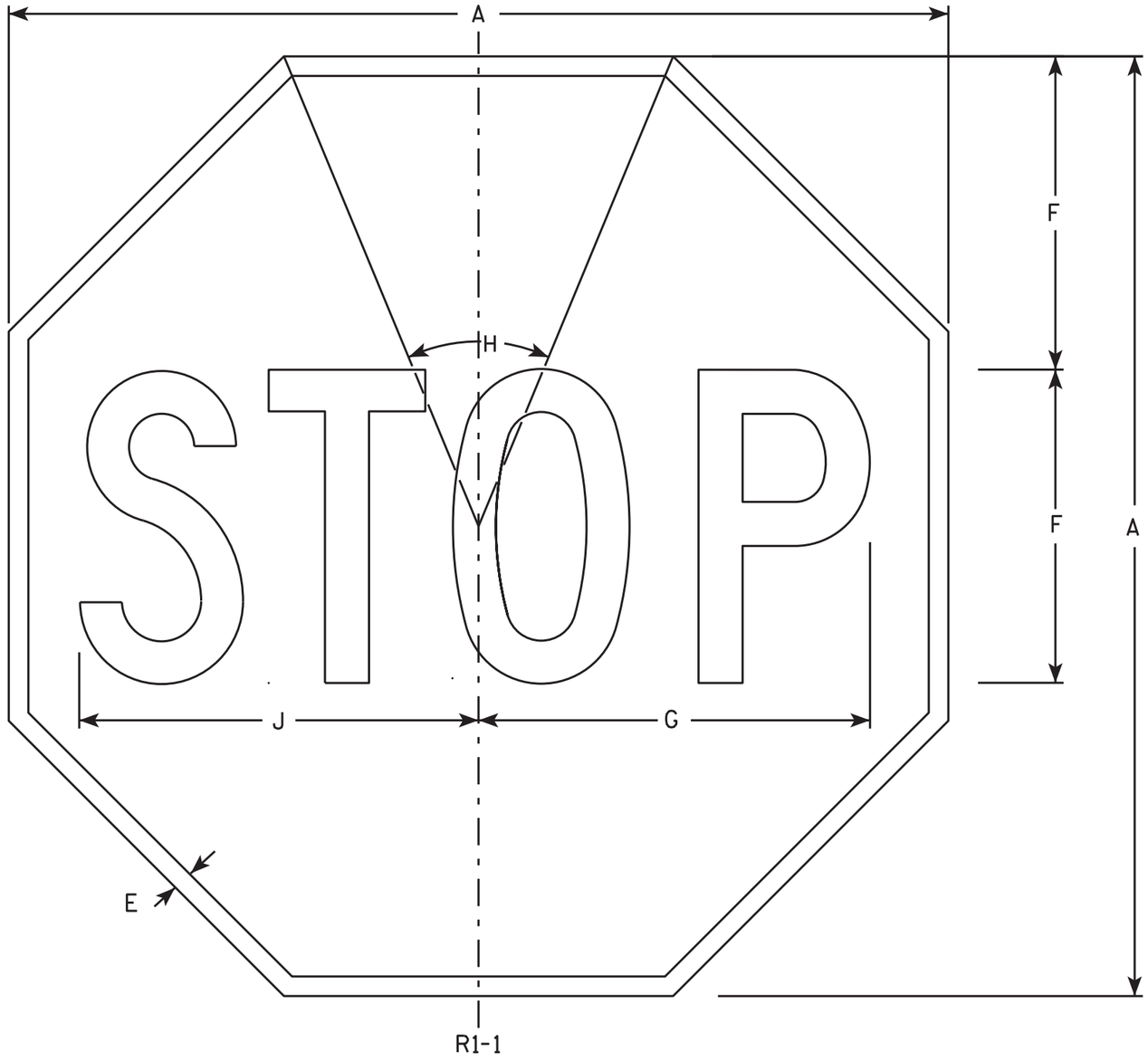
APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

6

S.D.D. 15 D 30-3c

6

S.D.D. 15 D 30-3c



NOTES

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

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

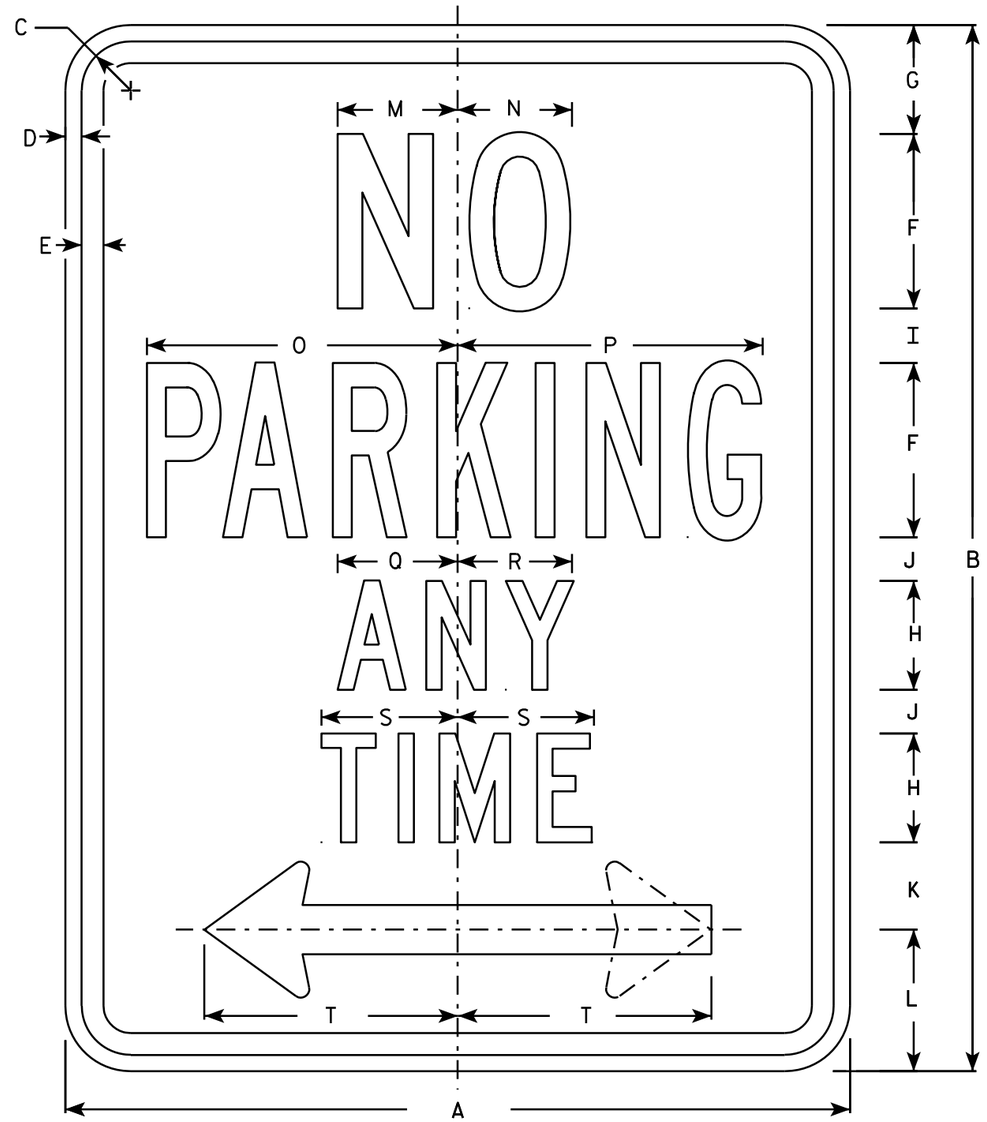
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.12

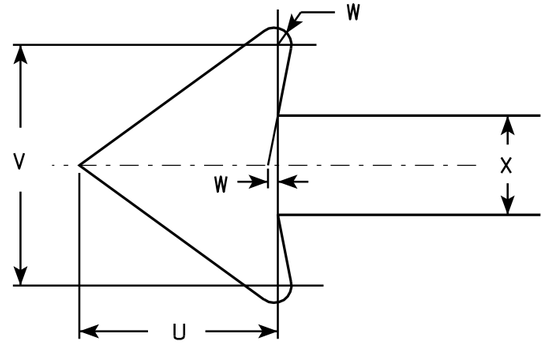
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R7-1

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 - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 48	E

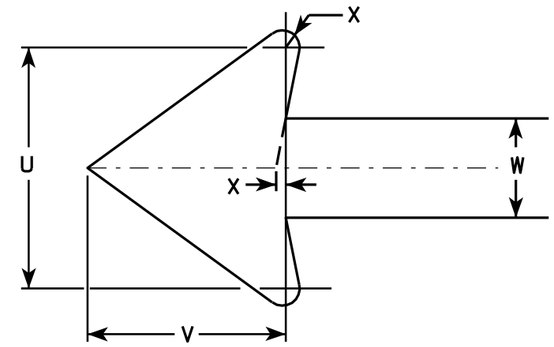
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

WISDOT/CADDS SHEET 42

R7-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
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. R7-7D (double arrow)
   R7-7R (right arrow)
   R7-7L (left arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.



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	12	18	1 1/8	3/8	3/8	3	2	1 7/8	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2	2 3/4	2 5/8	3 7/8	1 3/4	1 1/2	3/4	1/8			1.50
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 1/2	3 3/8	3 3/8	5 7/8	2 5/8	2 1/4	1 1/8	1/4			3.00
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
4																											
5																											

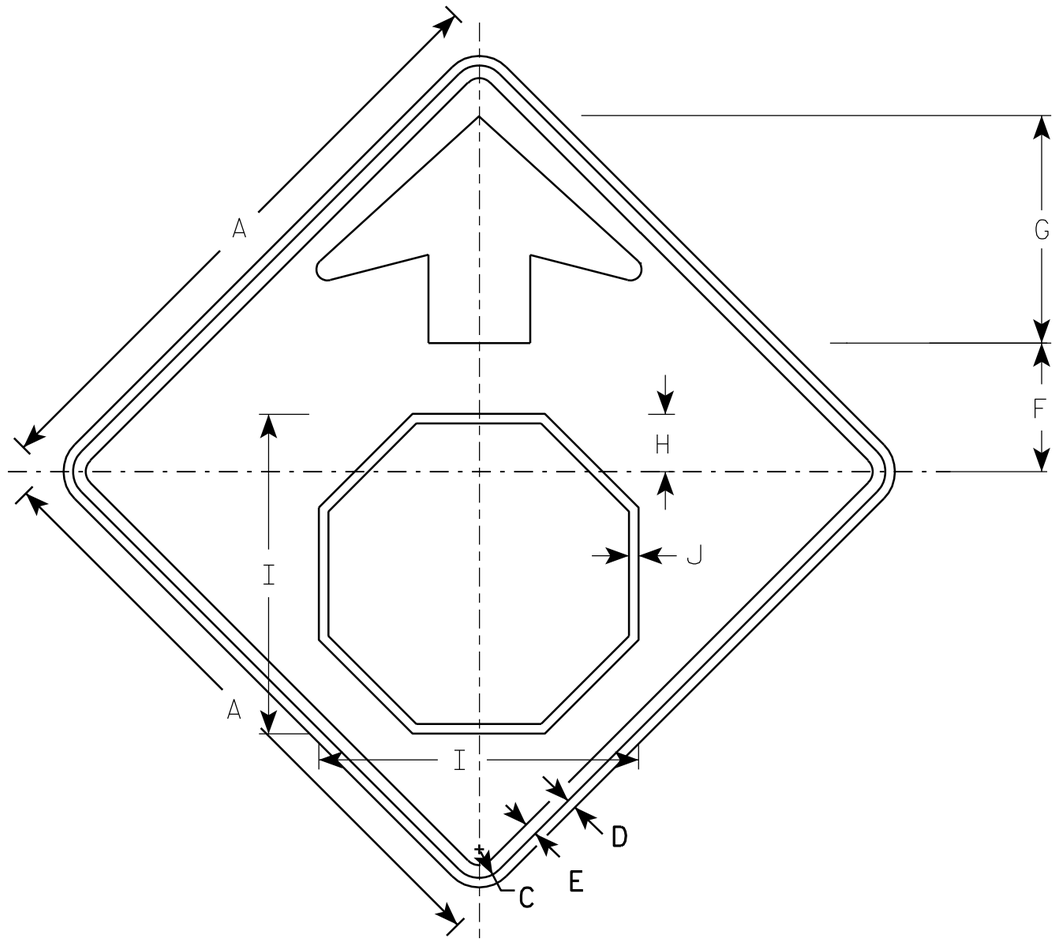
STANDARD SIGN
R7-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-7.8

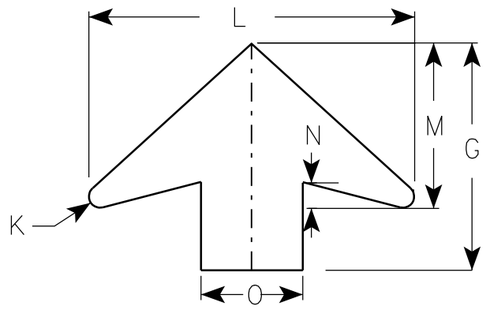
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 49 | E



W3-1

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 Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

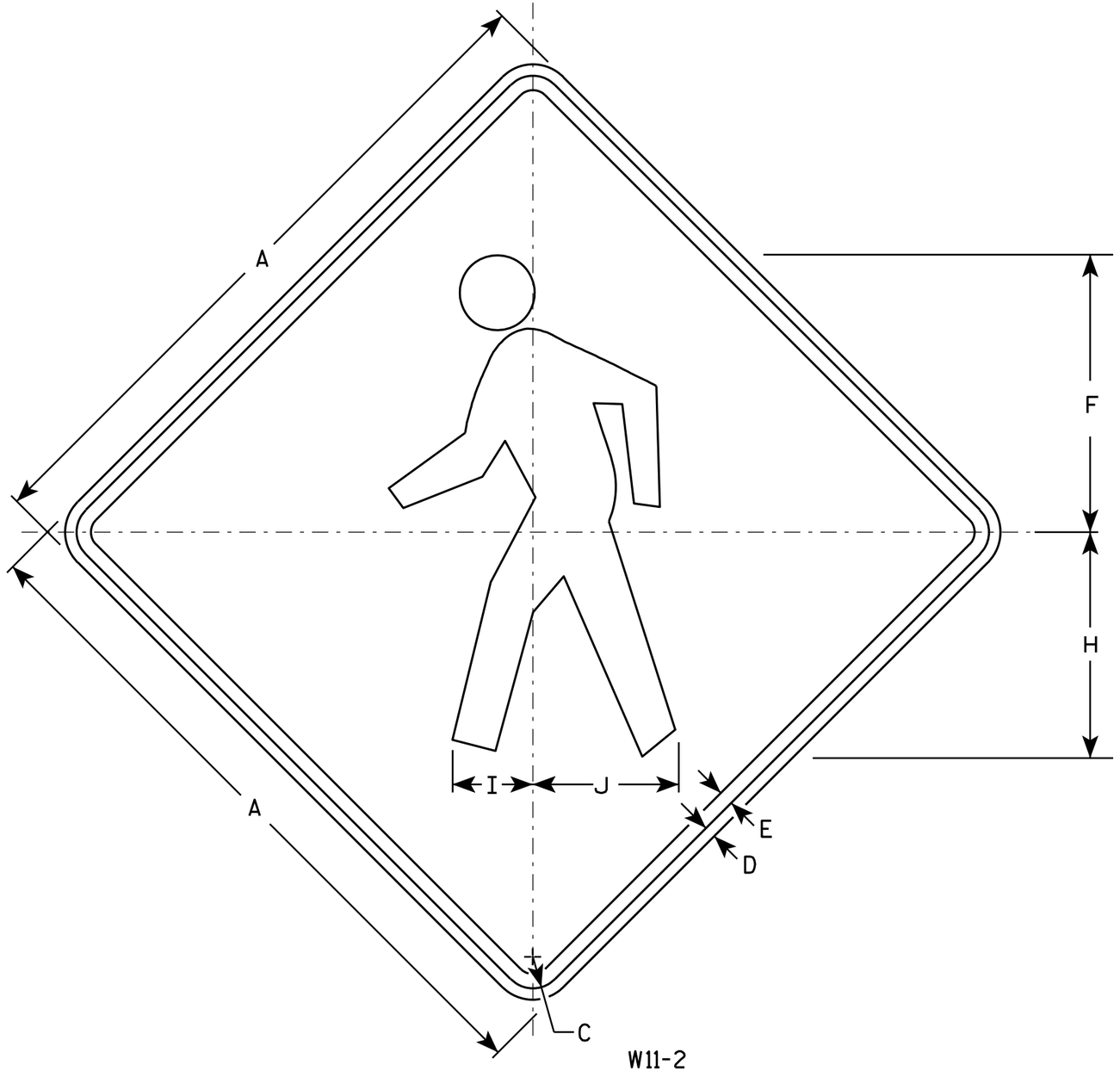
SHEET NO: 50 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W31.DGN PLOT DATE : 07-JUN-2010 12:59 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

7

7



W11-2

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

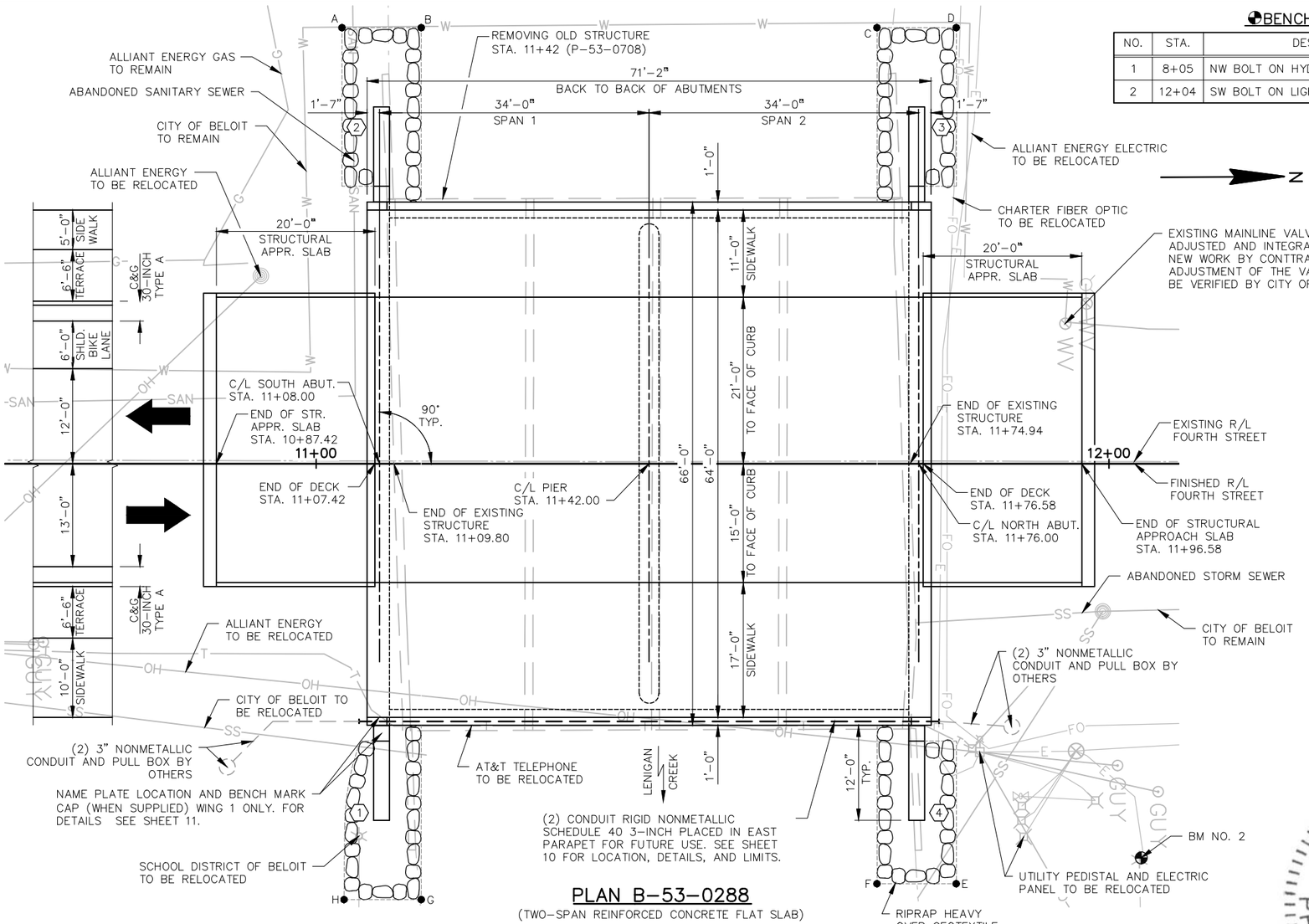
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

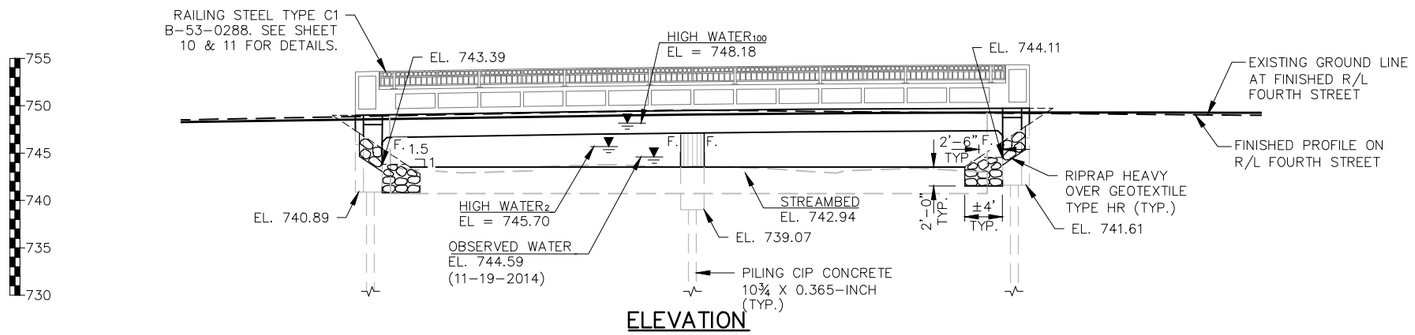
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 51	E



PLAN B-53-0288

(TWO-SPAN REINFORCED CONCRETE FLAT SLAB)



ELEVATION

(NORMAL TO LENIGAN CREEK)

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	8+05	NW BOLT ON HYDRANT, 26.0' LT.	750.25
2	12+04	SW BOLT ON LIGHT POLE, 49.7' RT.	749.34

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	11+03	55' LT.
B	11+13	55' LT.
C	11+71	55' LT.
D	11+81	55' LT.
E	11+81	53' RT.
F	11+71	53' RT.
G	11+13	55' RT.
H	11+03	55' RT.

⬡ INDICATES WING NUMBER

STATE PROJECT NUMBER

5989-01-78

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.28
OPERATING RATING FACTOR — RF=1.66
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

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 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.365-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. PIER TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.365-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 75 FT PILE LENGTH AT BOTH ABUTMENTS AND 80 FT PILE LENGTHS AT PIER.

**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.

TRAFFIC DATA

A.D.T. (2017) — 4,700
A.D.T. (2037) — 5,200
DESIGN SPEED — 30 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA — 5.8 SQ. MI.
Q_{100} TOTAL — 900 C.F.S.
THROUGH STRUCTURE — 900 C.F.S.
OVERTOPPING ROADWAY — 0 C.F.S.
VELOCITY - THROUGH STRUCTURE — 3.7 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE — 241.8 SQ. FT.
HIGH $WATER_{100}$ ELEVATION — 748.18
SCOUR CRITICAL CODE — 5

EROSION CONTROL
Q_2 — 270 C.F.S.
HIGH $WATER_2$ ELEVATION — 745.70

WISCONSIN
PATRICK
T. BOLAND
E-36303
SPRING GREEN
WIS.
9-22-16
PROFESSIONAL ENGINEER

LIST OF DRAWINGS

DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Surveyors - Architects

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR — 10/03/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-53-0288

FOURTH STREET OVER LENIGAN CREEK

COUNTY: ROCK — ~~TOWN~~/CITY/~~VILLAGE~~: BELOIT

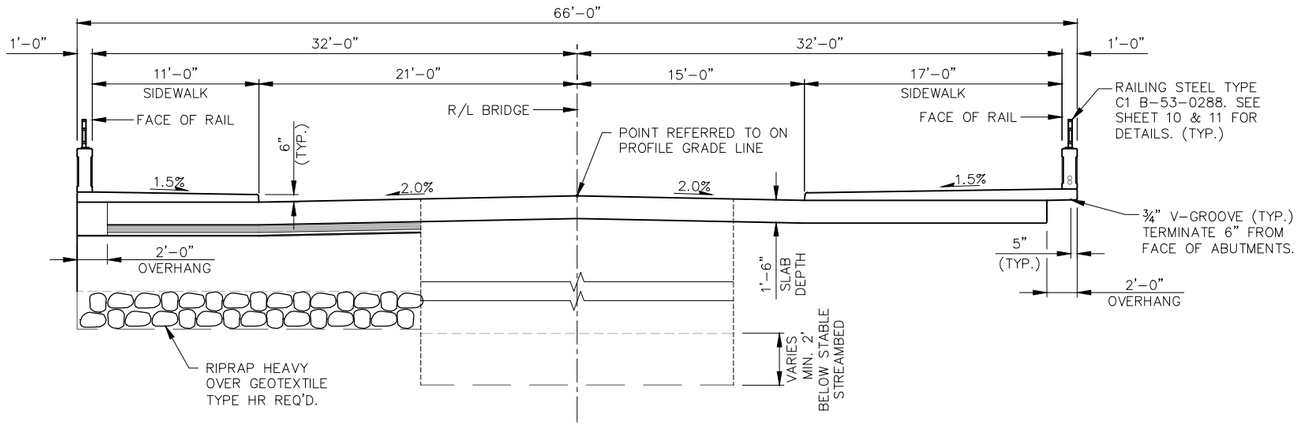
DESIGN SPEC: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	PTB	DESIGN CK'D.	DJT	DRAWN BY	PTB	PLANS CK'D.	DJT

GENERAL PLAN

SHEET 1 OF 11

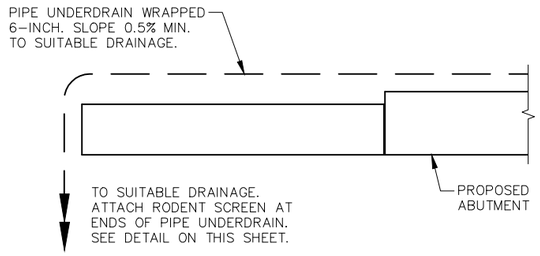
FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\01 GENERAL PLAN.DWG
LAYOUT : GENERAL PLAN
PLOT DATE : 7/9/2015
PLOT TIME : 2:46:36 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'



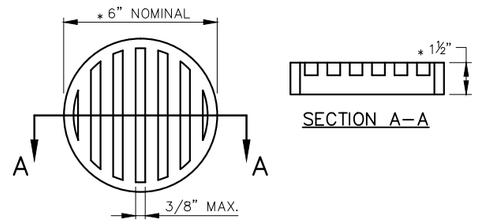
AT ABUTMENT AT PIER IN SPAN

PROPOSED CROSS-SECTION THROUGH ROADWAY

LOOKING NORTH



PIPE UNDERDRAIN DETAIL



SECTION A-A

RODENT SCREEN

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 COMMERCIALLY 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.

GENERAL NOTES

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.

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

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 ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 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.

THE QUANTITY OF BACKFILL STRUCTURE TYPE A, BID ITEM 210.1500, IS CALCULATED BASED ON THE APPLICABLE FIGURES 12.6-1 AND 12.6-2 IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL.

APPLY PROTECTIVE SURFACE TREATMENT TO THE ENTIRE TOP OF THE DECK AND THE STRUCTURAL APPROACH SLABS, TO THE TOP OF THE RAISED SIDEWALKS, TO THE CURB FACES AND TO THE PAVING NOTCHES.

APPLY PIGMENTED SURFACE SEALER TO THE INSIDE FACE AND TOP OF PARAPET.

THE EXISTING STRUCTURE (P-53-0708) IS A FOUR CELL CONCRETE BOX CULVERT. THE STRUCTURE IS 67.0' WIDE BY 63.1' LONG AND SHALL BE REMOVED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

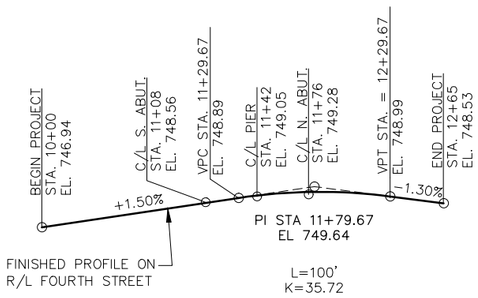
THE EXISTING GROUNDLINE OR STREAMBED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

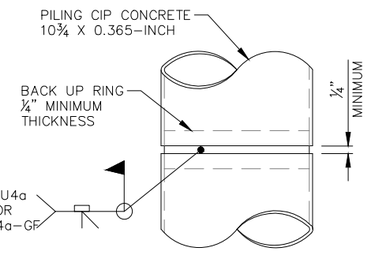
PLACE (2) 3-INCH NONMETALLIC CONDUIT IN EAST PARAPET FOR FUTURE USE. CONDUIT SHALL BE EXTENDED 1'-0" FROM BACKFACE OF ABUTMENT THEN TERMINATED WITH TEMPORARY END CAPS. PULL BOXES AND CONDUIT LOCATED BEYOND THE STRUCTURE PAY LIMITS IS BY OTHERS. SEE SHEET 10 FOR LOCATION, DETAILS, AND LIMITS.

TOTAL ESTIMATED QUANTITIES

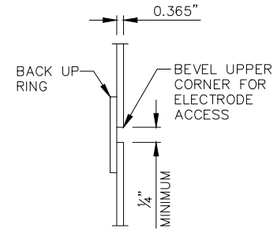
ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. APPR	S. ABUT	PIER	N. ABUT	N. APPR	SUPER.	TOTALS
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STA. 11+42	LS	--	--	--	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-53-0288	LS	--	--	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	--	260	--	260	--	--	520
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	115	--	--	--	115	--	230
502.0100	CONCRETE MASONRY BRIDGES	CY	47	49.5	45	49.5	47	316	554
502.3200	PROTECTIVE SURFACE TREATMENT	SY	85	--	--	--	85	510	680
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	--	--	65	65
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	--	3205	2120	3205	--	--	8530
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	7395	1020	--	1020	7395	60,250	77,080
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	170	--	--	--	170	--	340
513.7006	RAILING STEEL TYPE C1 B-53-0288	LF	--	--	--	--	--	132	132
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	13	--	13	--	--	26
550.2106	PILING CIP CONCRETE 10¾ X 0.365-INCH	LF	--	675	1040	675	--	--	2390
606.0300	RIPRAP HEAVY	CY	--	50	--	50	--	--	100
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	100	--	100	--	--	200
645.0120	GEOTEXTILE TYPE HR	SY	--	140	--	140	--	--	280
652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	--	--	--	--	--	150	150
	NON-BID ITEMS								
	FILLER	SIZE							½"&¾"



FOURTH STREET - PROFILE GRADE LINE



CAST-IN-PLACE CONCRETE PILE



C.I.P. PILE WELD DETAIL

NOTES:

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-0288

DRAWN BY PTB | PLANS CK'D. DJT

CROSS SECTIONS AND QUANITIES

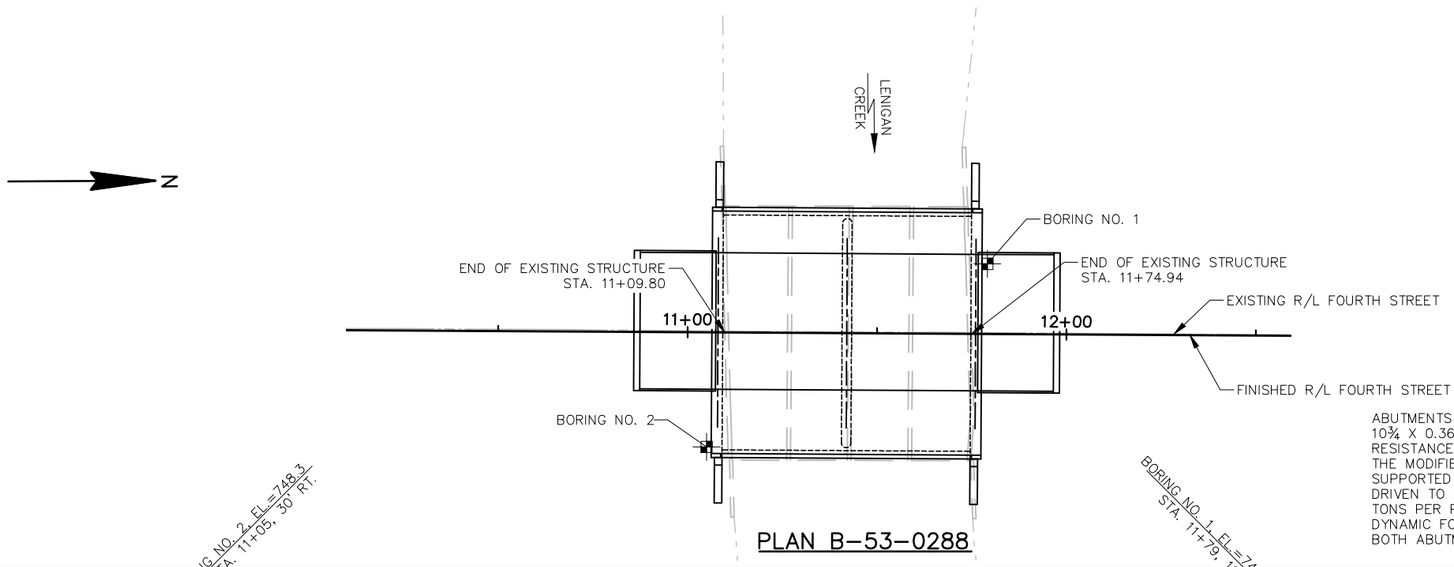
SHEET 2 OF 11

FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\02 CROSS SECTION AND QUANTITIES.DWG
LAYOUT : CROSS SECTIONS AND QUANITIES
PLOT DATE : 7/11/2016
PLOT TIME : 4:30:39 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

SOIL BORINGS

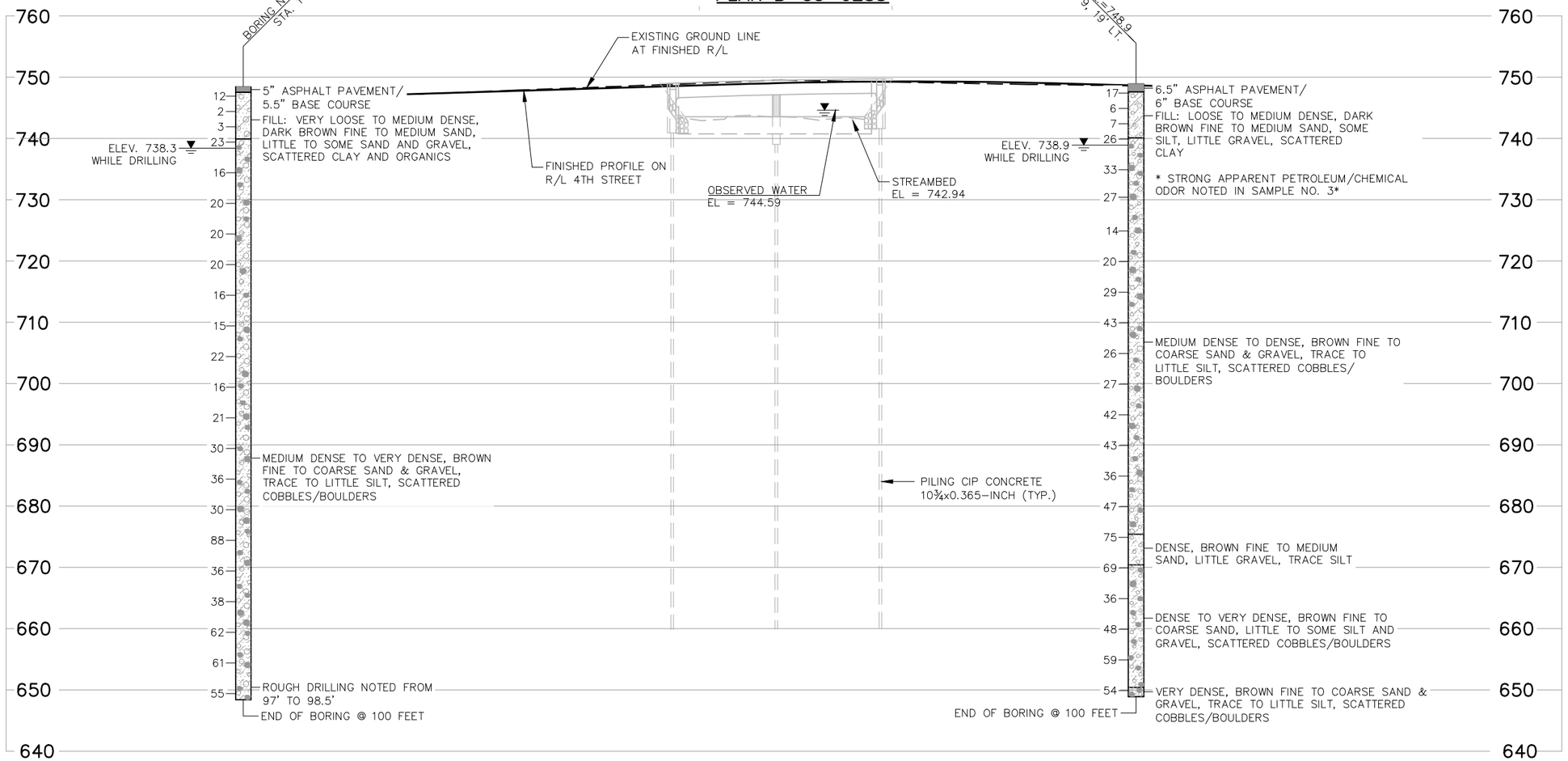
BY: CGC, INC.
2921 PERRY STREET
MADISON, WI 53713

ON: NOVEMBER 3 & 4, 2014



PLAN B-53-0288

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.365-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. PIER TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.365-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 75 FT PILE LENGTH AT BOTH ABUTMENTS AND 80 FT PILE LENGTHS AT PIER.



STATE PROJECT NUMBER

5989-01-78

ABBREVIATIONS

F - Fine M - Medium C - Course
Ws - Weathered So - Sound

MATERIAL SYMBOLS

Asphalt, Silt, Sandstone
Sand, Peat, Limestone
Gravel, Clay, Igneous Rock

LEGEND OF PROBING

PROBING No.; Elevation
Station

95/6 = 96 Blows for 6" Penetration. Probing Taken with a 350# Weight Falling 18" on a 2" O.D. Point.

7 Average Blows Per Foot

Refusal 95/6

LEGEND OF BORING

Boring No.; Elevation
Station

Unconfined Strength — 7.7 — 8*

Blows Per Ft. Using 140# Wt. Falling 30"

Wash Sample

Shelby Tube — S.T.

No Ground Water Observed Above This Elevation

Ground Water Elevation

Sandy Gravel
Boulders or Cobbles
F. Sand
Silty Clay
So. Limestone

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-0288

DRAWN BY PTB | PLANS CK'D. DJT

SUBSURFACE EXPLORATION

SHEET 3 OF 11

54

8

8

FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\03 SOIL BORING.DWG
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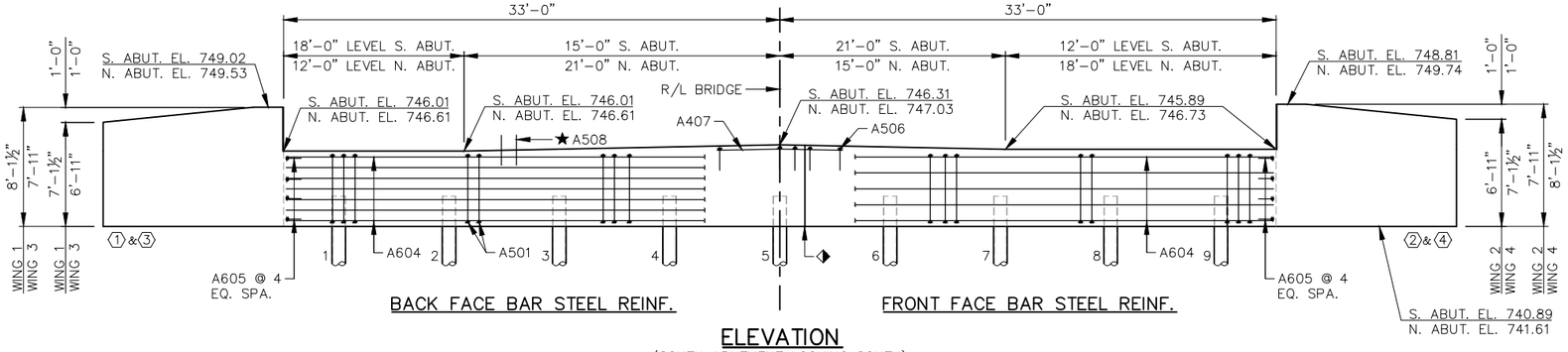
PLOT DATE : 7/11/2016
PLOT TIME : 4:30:54 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

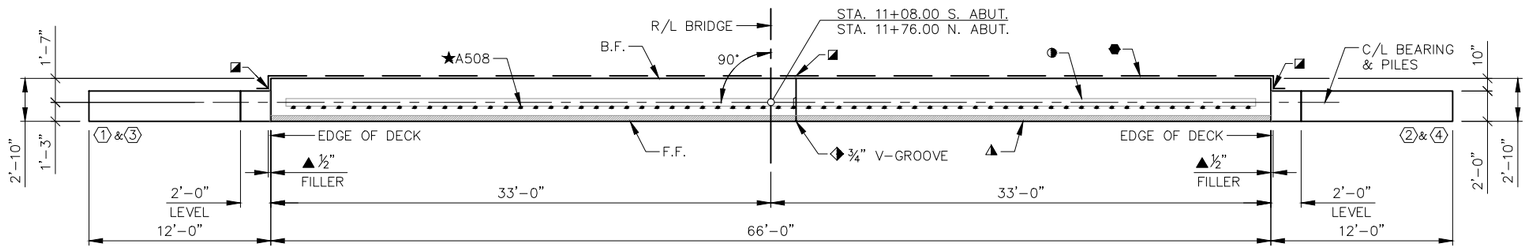
STATE PROJECT NUMBER

5989-01-78

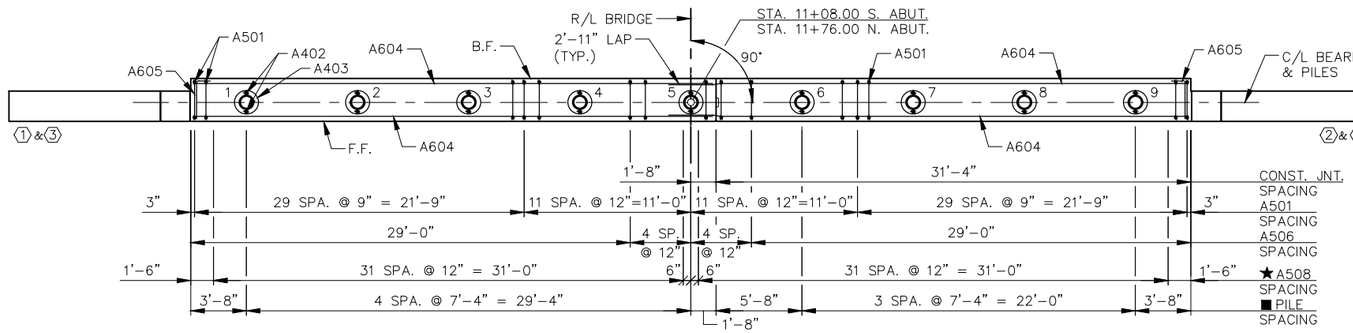


ELEVATION

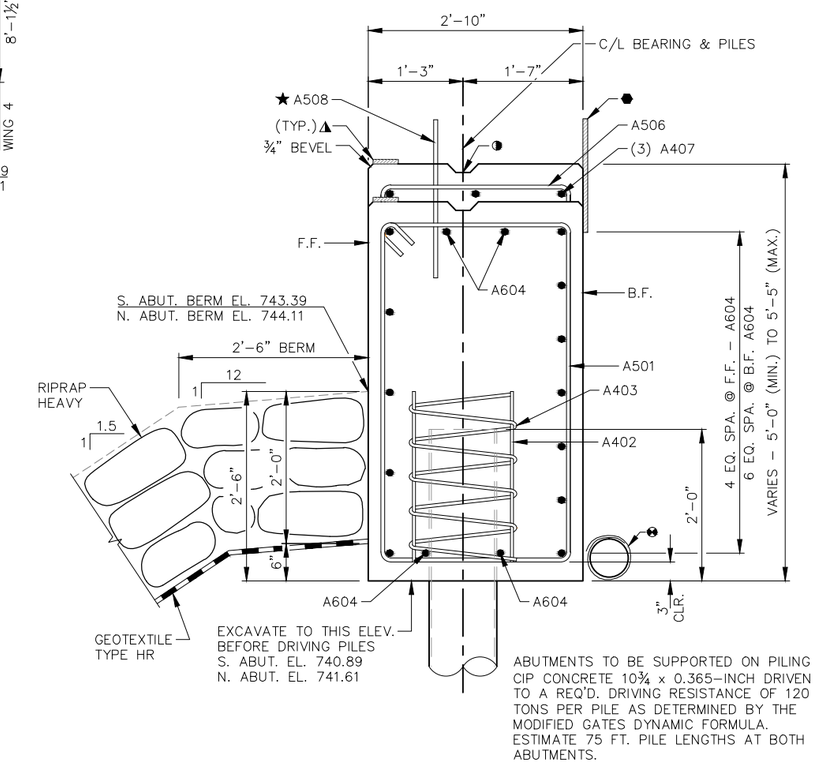
(SOUTH ABUTMENT LOOKING SOUTH)
(NORTH ABUTMENT LOOKING NORTH)



PLAN

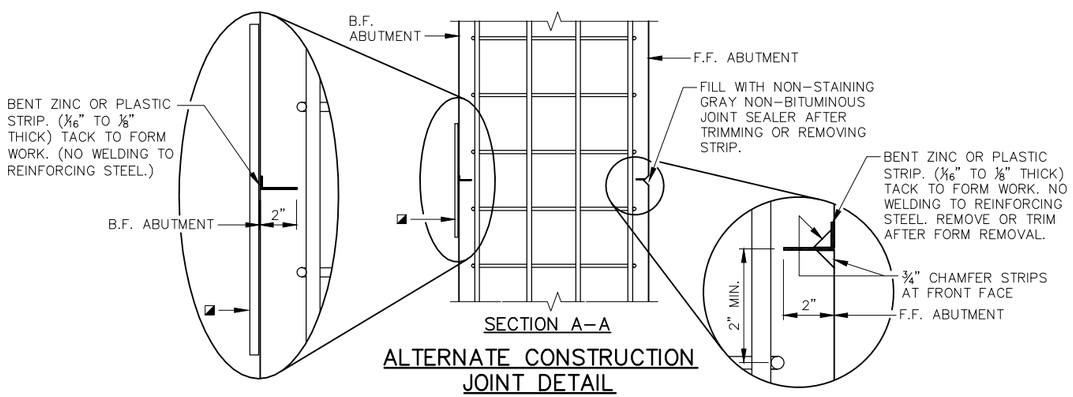


LAYOUT



ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ x 0.365-INCH DRIVEN TO A REQ'D. DRIVING RESISTANCE OF 120 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 75 FT. PILE LENGTHS AT BOTH ABUTMENTS.

TYPICAL SECTION THROUGH ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT DETAIL

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)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◭ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF DECK.
- ★ A508 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 BODY.
- ⬙ 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."
- ◈ VERTICAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x8. RUN BAR STEEL THROUGH JOINT AND SEAL WITH 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE. SEE THIS SHEET FOR ALTERNATE CONSTRUCTION JOINT DETAIL.

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 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-53-0288

DRAWN BY PTB | PLANS CK'D. RBH

ABUTMENTS

SHEET 4 OF 11

8

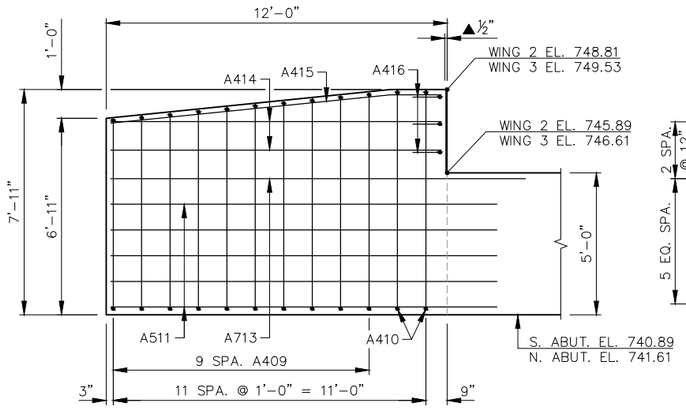
8

FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\04 ABUTMENTS.DWG
LAYOUT : COMBINED

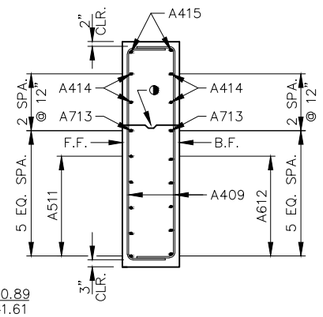
PLOT DATE : 7/11/2016
PLOT TIME : 4:31:07 PM

PLOT BY : BOLAND, PATRICK

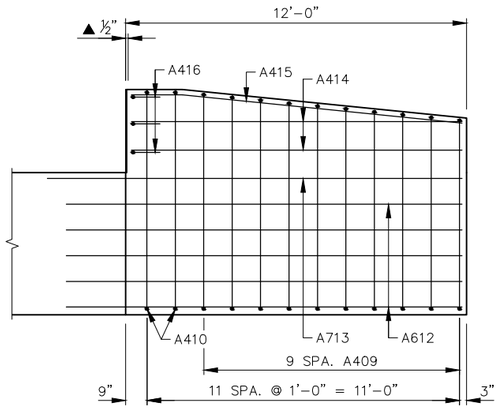
PLOT SCALE : 1" = 1'



F.F. ELEVATION – WING 2 & 3



SECTION A–A



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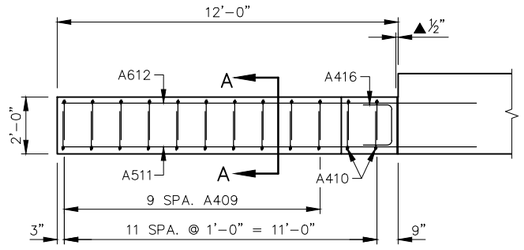
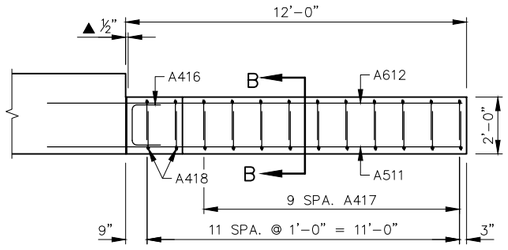
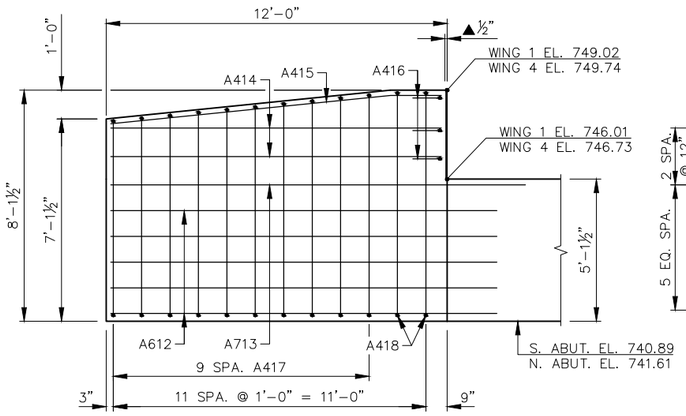


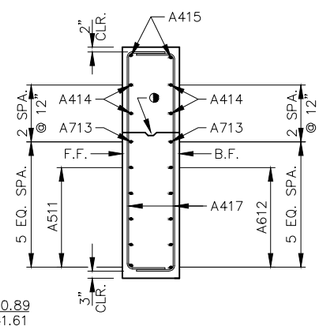
PLAN VIEW – WING 2 & 3



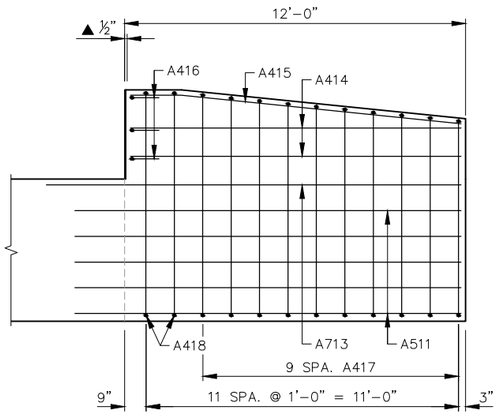
PLAN VIEW – WING 1 & 4



B.F. ELEVATION – WING 1 & 4



SECTION B–B



F.F. ELEVATION – WING 1 & 4

NOTES

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

STATE PROJECT NUMBER

5989–01–78

LEGEND

◑ OPTIONAL CONSTRUCTION JOINT. FORM KEYWAY WITH A BEVELED 2X6. PLACE 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE AND ¾" V–GROOVE AT FRONT FACE IF USED.

▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON–STAINING, GRAY, NON–BITUMINUOS JOINT SEALER (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

BILL OF BARS
TWO ABUTMENTS SHOWN

2,040 LB (COATED)
6,410 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	162	14–10	X			BODY – VERT. – STIRRUP
A402	36	2–3				BODY – VERT. – 2 PER PILE
A403	18	28–0	X			BODY – VERT. – SPIRAL – 1 PER PILE
A604	64	34–4				BODY – HORIZ.
A605	16	3–4	X			BODY – HORIZ. – ENDS
A506	18	5–3	X			BODY – VERT. – TOP
A407	6	8–6				BODY – HORIZ. – TOP
A508	128	2–0		X		BODY – DOWEL BARS
A409	40	9–5	X	X	✳	WINGS 2 & 3 – VERT. – F.F. & B.F.
A410	8	10–0	X	X		WINGS 2 & 3 – VERT. – F.F. & B.F.
A511	20	13–7		X		WINGS – HORIZ. – F.F.
A612	20	13–11		X		WINGS – HORIZ. – B.F.
A713	8	14–7		X		WINGS – HORIZ. – F.F. & B.F.
A414	16	11–7		X		WINGS – HORIZ. – F.F. & B.F.
A415	8	12–0	X	X		WINGS – HORIZ. – F.F. & B.F. – TOP
A416	12	3–6	X	X		WINGS – HORIZ. – F.F. & B.F.
A417	40	9–7	X	X	✳	WINGS 1 & 4 – VERT. – F.F. & B.F.
A418	8	10–2	X	X		WINGS 1 & 4 – VERT. – F.F. & B.F.

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

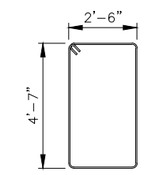
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

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

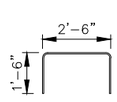
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A409	4 SERIES OF 10	9–10 TO 9–0
A417	4 SERIES OF 10	10–0 TO 9–2

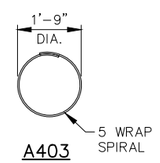
BUNDLE AND TAG EACH SERIES SEPARATELY.



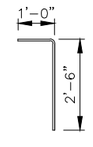
A501



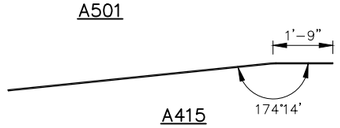
A506



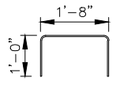
A403



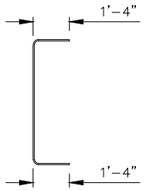
A605



A415



A416



A409, A410, A417 & A418

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–53–0288

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ABUTMENT DETAILS

SHEET 5 OF 11

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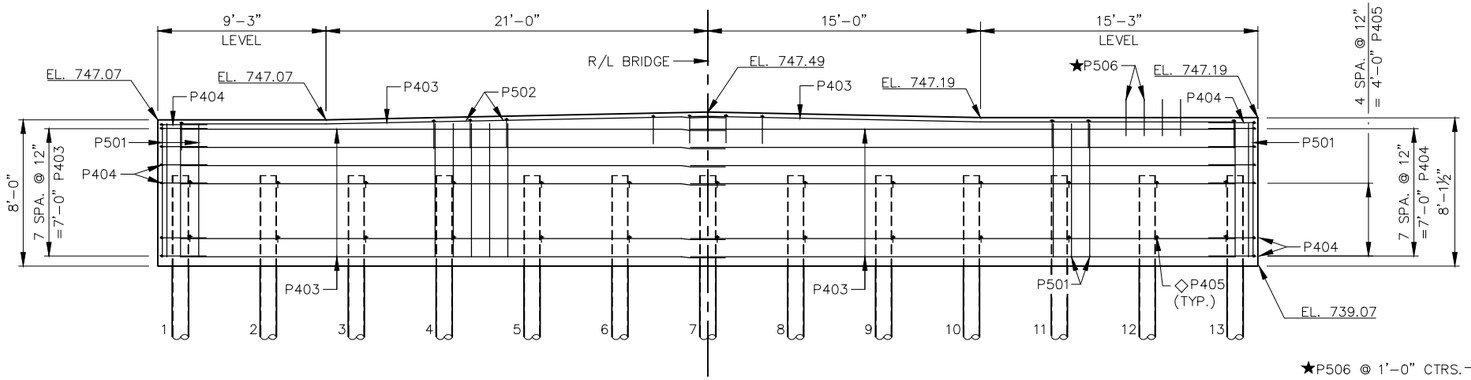
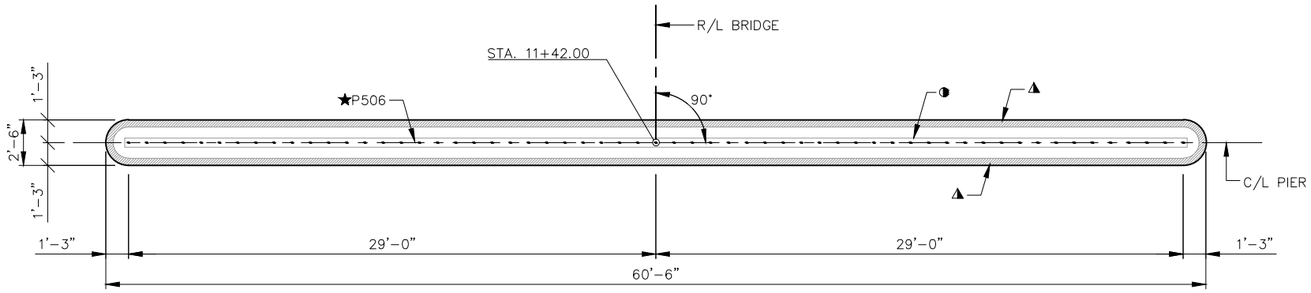
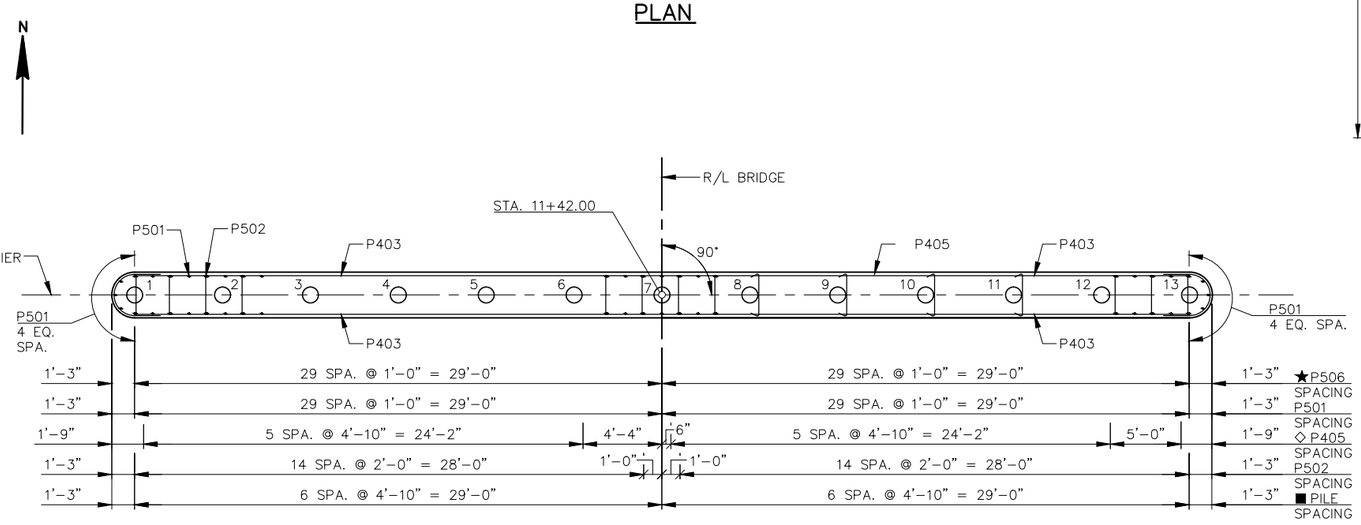
5989-01-78



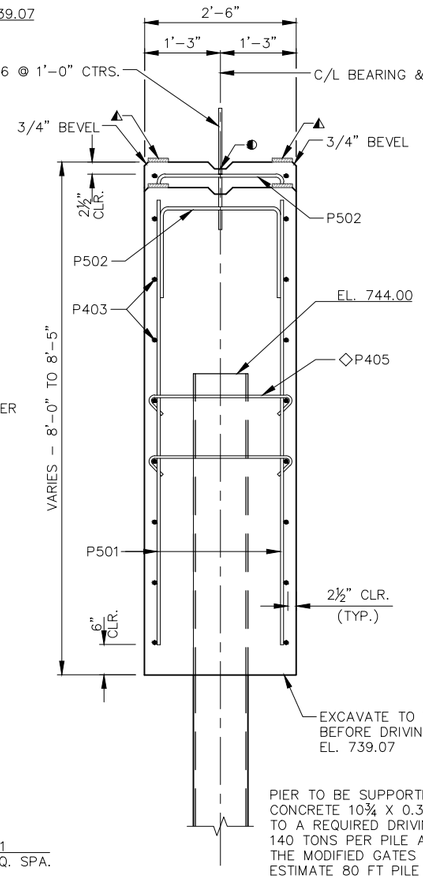
ELEVATION
(PIER LOOKING NORTH)



PLAN



LAYOUT



PIER TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.365-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 80 FT PILE LENGTHS AT PIER.

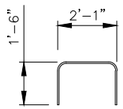
TYPICAL SECTION THROUGH PIER

BILL OF BARS
PIER — 2,120 LB (UNCOATED)

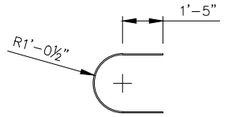
	BAR MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
	P501	124	7-3		BODY - VERT. - E.F.
	P502	30	4-10	X	BODY - TOP
	P403	36	30-0		BODY - HORIZ. - E.F.
	P404	18	6-1	X	BODY - HORIZ. - ENDS
◇	P405	65	2-8	X	BODY - TIES
★	P506	59	2-0		BODY - VERT. - DOWELS

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

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



P502



P404

P405

NOTES

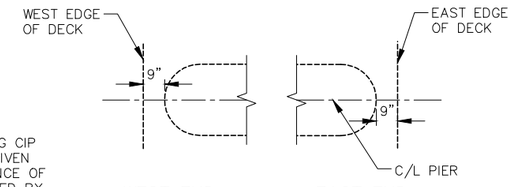
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

TOP OF PIER ELEVATIONS ARE ¾" BELOW BOTTOM OF DECK TO ALLOW FOR FILLER.

E.F. - EACH FACE

LEGEND

- ◗ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- ◭ ¾"x4" PREFORMED FILLER, EXTEND FULL LENGTH OF PIER AS SHOWN.
- ★ P506 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 SHAFT.
- ◇ PLACE P405 BARS ADJACENT TO PILING @ 12" VERTICAL SPACING FROM BASE OF SHAFT TO TOP OF PILING.



WEST END EAST END

PLAN AT END OF PIER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-0288

DRAWN BY DJT | PLANS CK'D. PTB

PIER

SHEET 6 OF 11

8

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FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\08 PIER.DWG
LAYOUT : PIER

PLOT DATE : 7/11/2016
PLOT TIME : 4:31:22 PM

PLOT BY : BOLAND, PATRICK

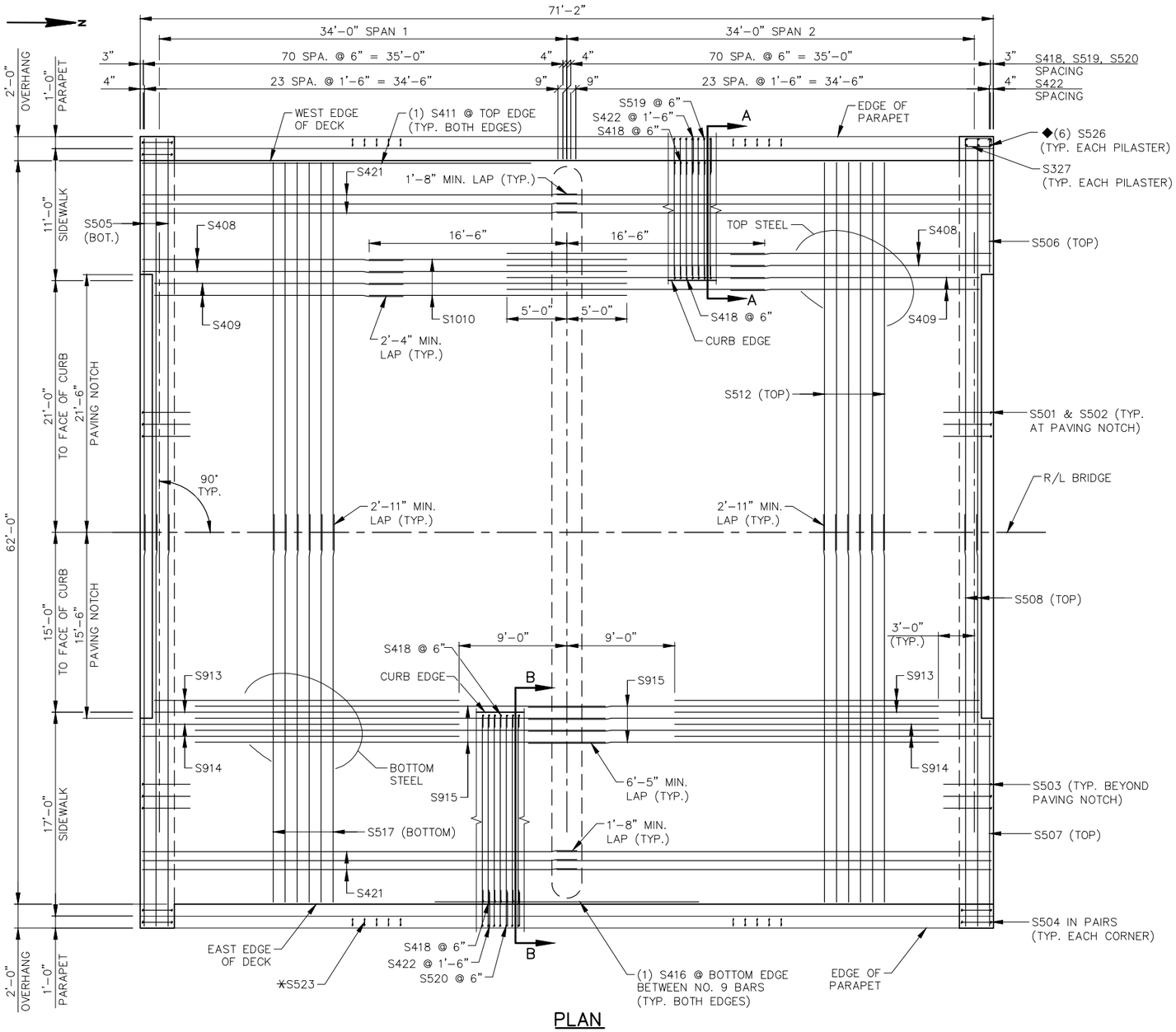
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

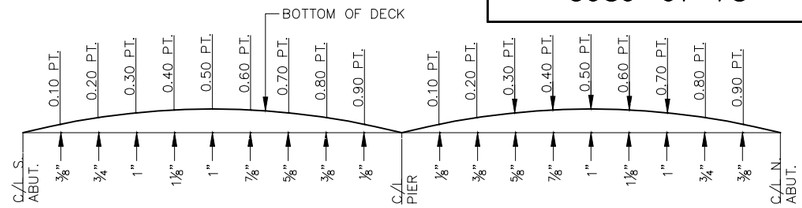
5989-01-78

TOP OF DECK ELEVATIONS

	C/L S. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L PIER	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L N. ABUT.
W. EDGE	748.14	748.19	748.25	748.30	748.35	748.40	748.45	748.50	748.55	748.59	748.63	748.67	748.71	748.74	748.77	748.79	748.81	748.83	748.84	748.86	748.86
W. FL	748.14	748.19	748.25	748.30	748.35	748.40	748.45	748.50	748.55	748.59	748.63	748.67	748.71	748.74	748.77	748.79	748.81	748.83	748.84	748.86	748.86
C/L	748.56	748.61	748.67	748.72	748.77	748.82	748.87	748.92	748.97	749.01	749.05	749.09	749.13	749.16	749.19	749.21	749.23	749.25	749.26	749.28	749.28
E. FL	748.26	748.31	748.37	748.42	748.47	748.52	748.57	748.62	748.67	748.71	748.75	748.79	748.83	748.86	748.89	748.91	748.93	748.95	748.96	748.98	748.98
E. EDGE	748.26	748.31	748.37	748.42	748.47	748.52	748.57	748.62	748.67	748.71	748.75	748.79	748.83	748.86	748.89	748.91	748.93	748.95	748.96	748.98	748.98

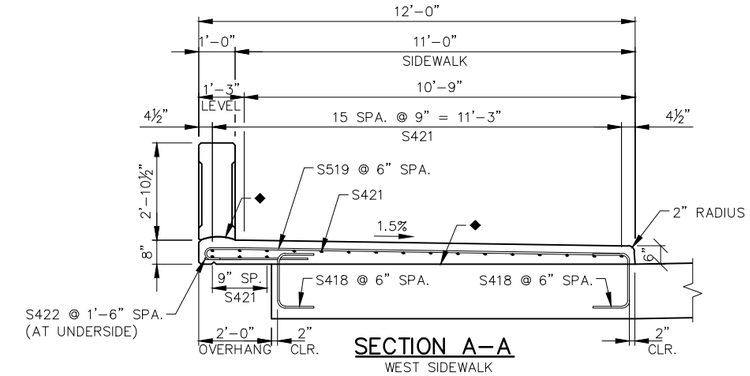


PLAN



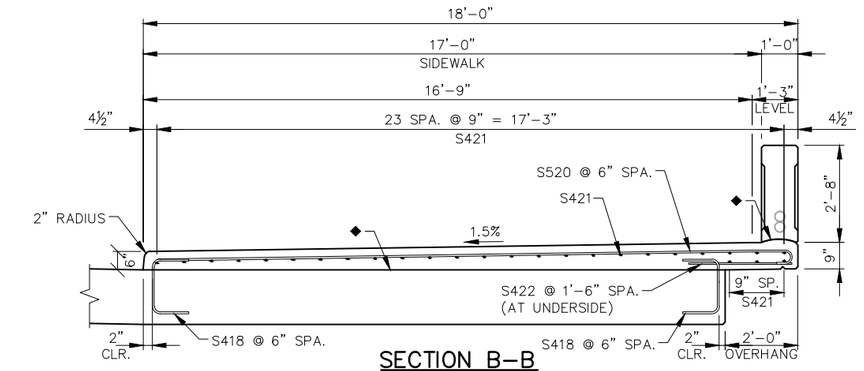
CAMBER DIAGRAM

CAMBER SPAN AS SHOWN TO PROVIDE FOR THEORETICAL DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.



SECTION A-A

WEST SIDEWALK



SECTION B-B

EAST SIDEWALK

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 8 FOR BILL OF BARS.

SEE SUPERSTRUCTURE DETAILS SHEET (SHEET 8) FOR BAR SPACINGS NOT SHOWN ON THIS SHEET.

LEGEND

◆ S526 BARS ARE REQ'D. AT PILASTERS. BARS MAY BE PLACED AFTER DECK CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE S526 BARS CORRECTLY. SEE SHEET 10.

✳ S523 BARS TO BE TIED TO SIDEWALK STEEL BEFORE SIDEWALK IS POURED. SEE SHEET 10 FOR BAR LAYOUT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

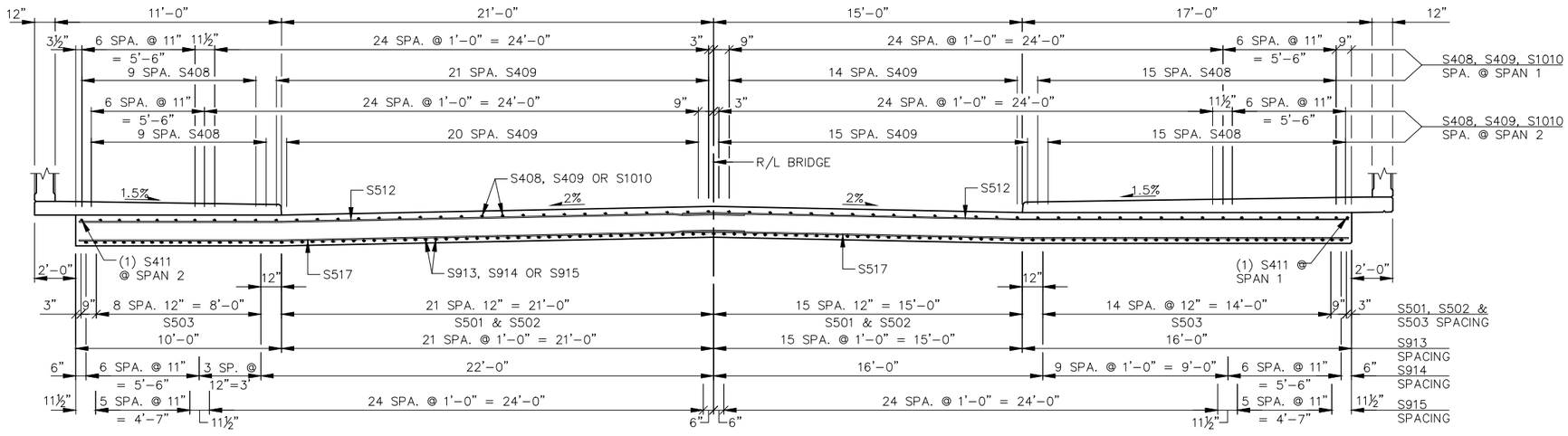
STRUCTURE B-53-0288

DRAWN BY DJT | PLANS CK'D. PTB

SUPERSTRUCTURE

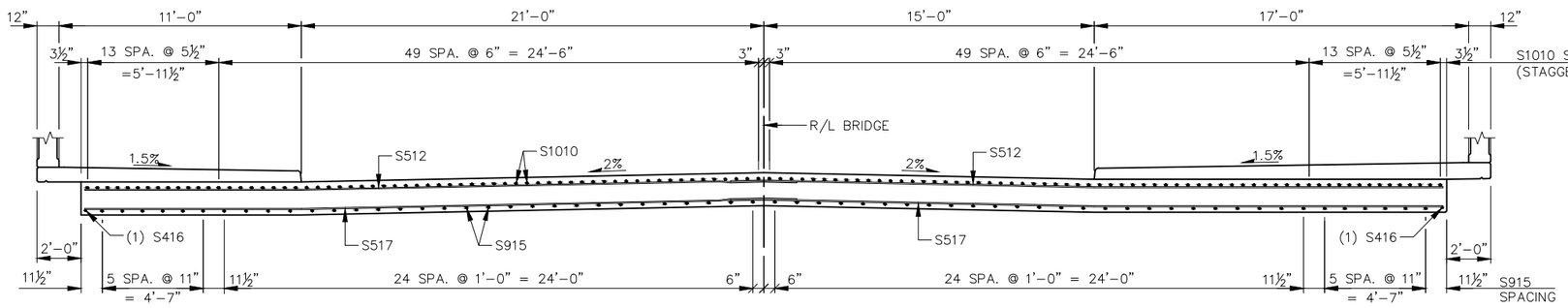
SHEET 7 OF 11

FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\09 SUPERSTRUCTURE.DWG
LAYOUT : SUPERSTRUCTURE
PLOT DATE : 7/11/2016
PLOT TIME : 4:31:34 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'



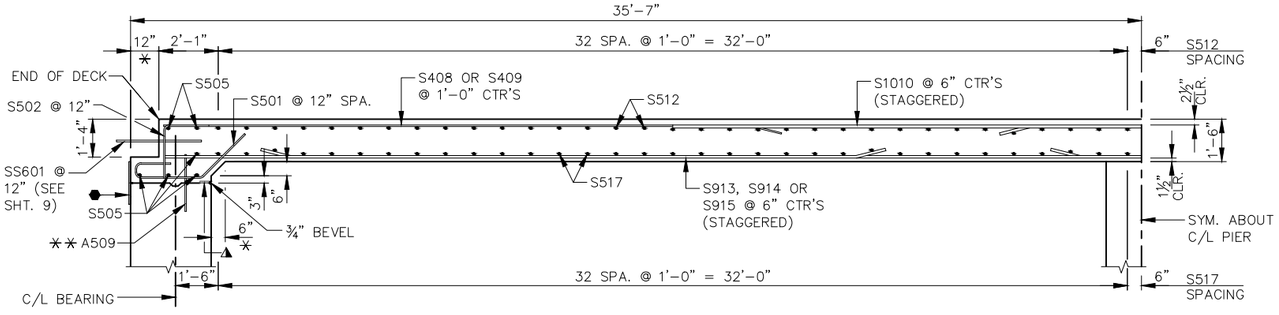
CROSS SECTION THROUGH ROADWAY

IN SPAN LOOKING NORTH



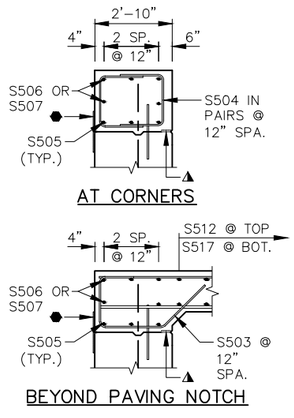
CROSS SECTION THROUGH ROADWAY

AT PIER LOOKING NORTH



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY

AT PAVING NOTCH SHOWN – SEE DETAILS ON THIS SHEET FOR OTHER LOCATIONS



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY

STATE PROJECT NUMBER

5989-01-78

LEGEND

- ⬢ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ◮ ¾"x4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ✳ DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ✳✳ SEE SHEET 4 FOR PLACEMENT OF A509 BARS

BILL OF BARS SUPERSTRUCTURE

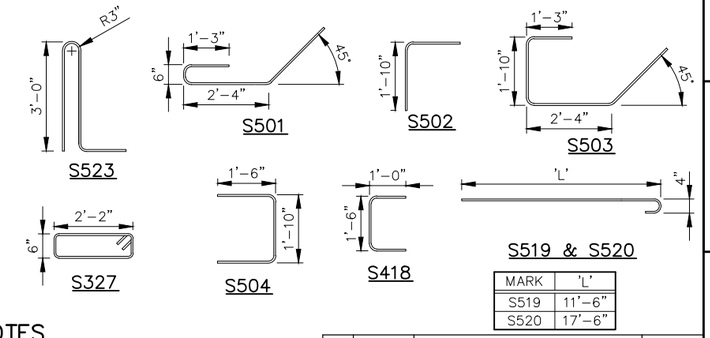
60,250 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	74	6-2	X	X	END OF DECK @ PAVING NOTCH
S502	74	3-3	X	X	END OF DECK @ PAVING NOTCH
S503	52	7-6	X	X	END OF DECK
S504	16	5-1	X	X	END OF DECK – OUTSIDE
S505	24	34-4		X	END OF DECK – TRANS.
S506	4	11-2		X	END OF DECK – TRANS.
S507	4	17-2		X	END OF DECK – TRANS.
S408	52	21-3		X	SLAB – TOP – LONGIT.
S409	74	20-3		X	SLAB – TOP – LONGIT.
S1010	126	21-6		X	SLAB – TOP – LONGIT.
S411	2	32-9		X	SLAB – TOP – LONGIT. @ EDGE
S512	132	32-4		X	SLAB – TOP – TRANS.
S913	74	25-5		X	SLAB – BOTTOM – LONGIT.
S914	52	26-5		X	SLAB – BOTTOM – LONGIT.
S915	124	34-3		X	SLAB – BOTTOM – LONGIT.
S416	2	22-8		X	SLAB – BOTTOM – LONGIT. @ EDGE
S517	132	32-4		X	SLAB – BOTTOM – TRANS.
S418	568	3-4	X	X	SIDEWALK – "C"
S519	142	12-0	X	X	W. SIDEWALK – TOP – TRANS.
S520	142	18-0	X	X	E. SIDEWALK – TOP – TRANS.
S421	92	36-3		X	SIDEWALK – LONGIT.
S422	96	2-10		X	SIDEWALK – BOT. – TRANS.
S523	160	7-6	X	X	PARAPET – VERT.
S424	12	37-0		X	PARAPET – HORIZ.
S425	12	35-3		X	PARAPET – HORIZ.
S526	24	7-2		X	PILASTER – VERT.
S327	24	5-9	X	X	PILASTER – STIRRUPS

NOTES: THE FIRST DIGIT OF A 3 DIGIT BAR MARK AND THE FIRST 2 DIGITS OF A 4 DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

SOME BARS HAVE BEEN OMITTED FOR CLARITY.



MARK	'L'
S519	11'-6"
S520	17'-6"

NOTES

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-0288

DRAWN BY DJT PLANS CK'D. PTB

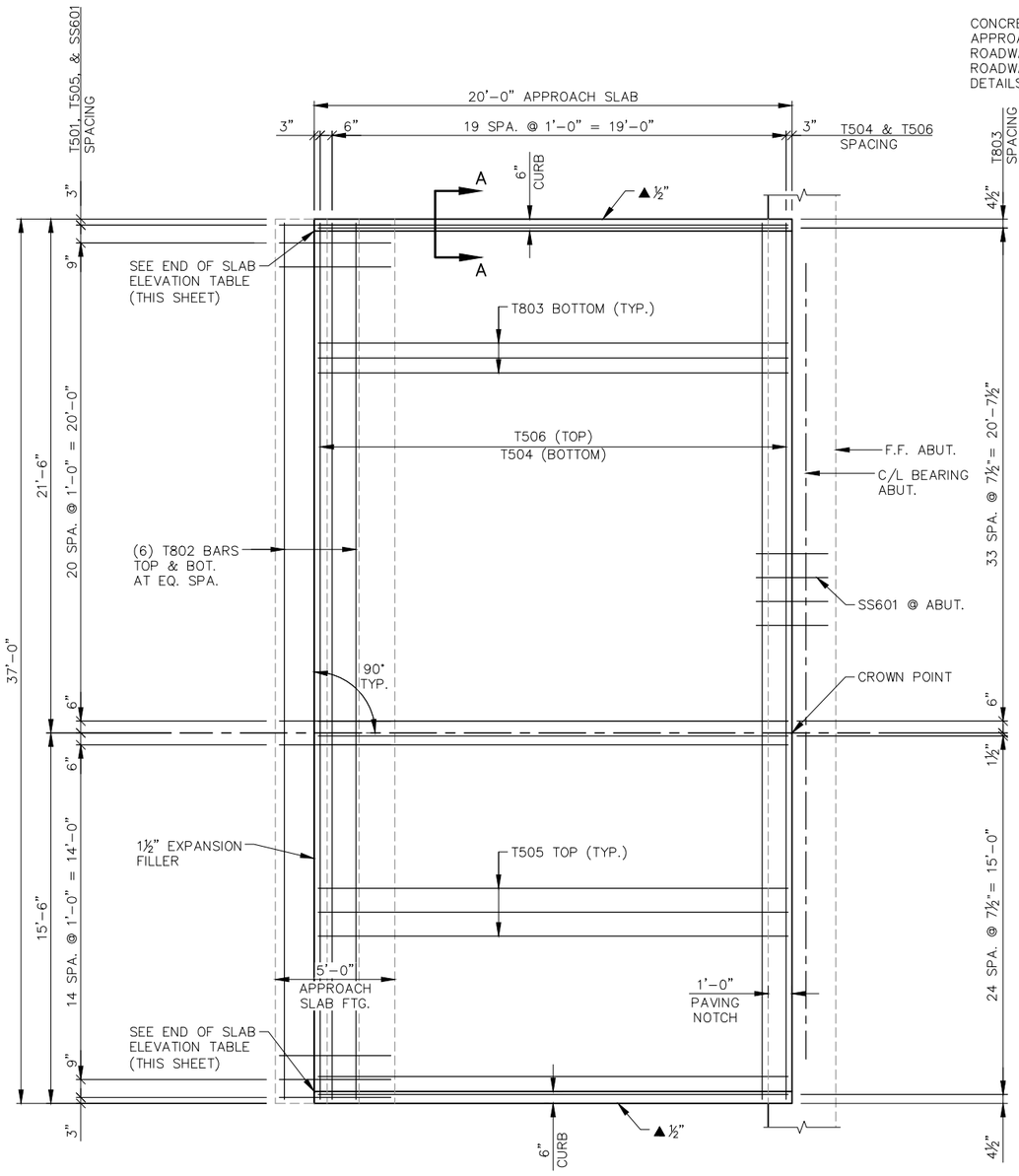
SUPERSTRUCTURE DETAILS

SHEET 8 OF 11

FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\09 SUPERSTRUCTURE.DWG
LAYOUT : SUPERSTRUCTURE DETAILS
PLOT DATE : 7/11/2016
PLOT TIME : 4:31:37 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

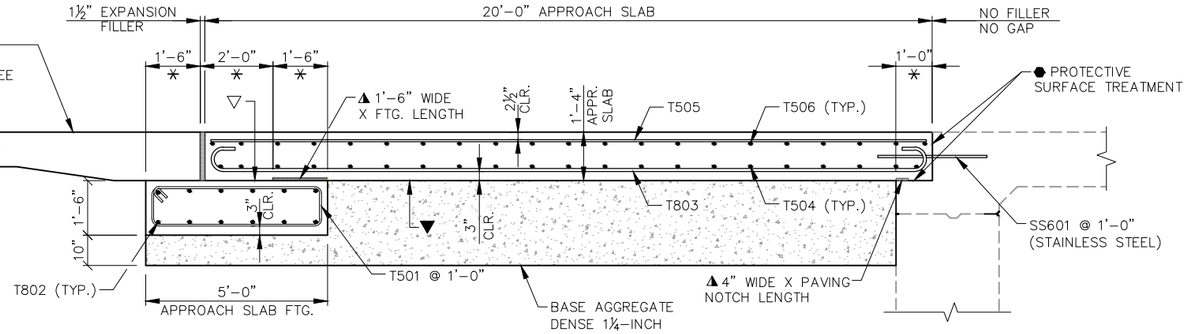
STATE PROJECT NUMBER

5989-01-78



APPROACH SLAB PLAN

SOUTH APPROACH SHOWN – NORTH APPROACH SIMILAR

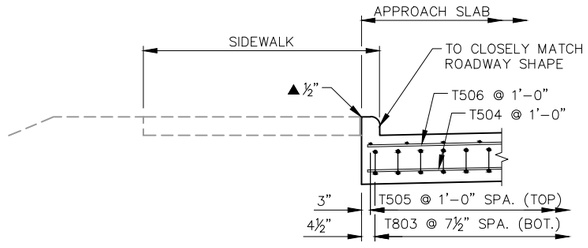


CROSS SECTION THROUGH STRUCTURAL APPROACH SLAB

SOUTH APPROACH SHOWN – NORTH APPROACH SIMILAR

END OF SLAB ELEVATIONS

END OF SLAB LOCATION	SOUTH APPROACH SLAB		NORTH APPROACH SLAB	
	STATION	ELEV.	STATION	ELEV.
WEST FLOWLINE	10+87.42	747.83	11+96.58	748.85
CROWN LINE	10+87.42	748.25	11+96.58	749.27
EAST FLOWLINE	10+87.42	747.95	11+96.58	748.97



SECTION A–A

BILL OF BARS
TWO APPROACH SLABS

14,790 LB (COATED)
340 LB (S. STEEL)

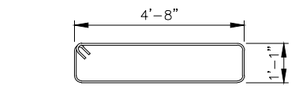
BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
T501	76	12-2	X	X	APPROACH SLAB FTG. – STIRRUP
T802	24	36-8		X	APPROACH SLAB FTG. – TRANS.
T803	118	21-4	X	X	APPROACH SLAB – BOT. – LONGIT.
T504	42	36-8		X	APPROACH SLAB – BOT. – TRANS.
T505	76	19-6		X	APPROACH SLAB – TOP – LONGIT.
T506	42	36-8		X	APPROACH SLAB – TOP – TRANS.
STAINLESS STEEL					
SS601	76	3-0			CONC. ABUT. TO APPROACH SLAB

NOTES: BOTH THE SOUTH AND NORTH APPROACH SLABS ARE INCLUDED IN THE BILL OF BARS

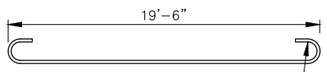
THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

SOME BARS HAVE BEEN OMITTED FOR CLARITY.



T501



T803

LEGEND

- ⬣ APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH PRIOR TO POURING STRUCTURAL APPROACH SLAB.
- ✳ DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ▲ ¾" PREFORMED JOINT FILLER, EXTEND AS SHOWN.
- ▽ STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE TOP OF FOOTING. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ▼ PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ▲ FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-0288

DRAWN BY DJT | PLANS CK'D. PTB

STRUCTURAL APPROACH SLAB

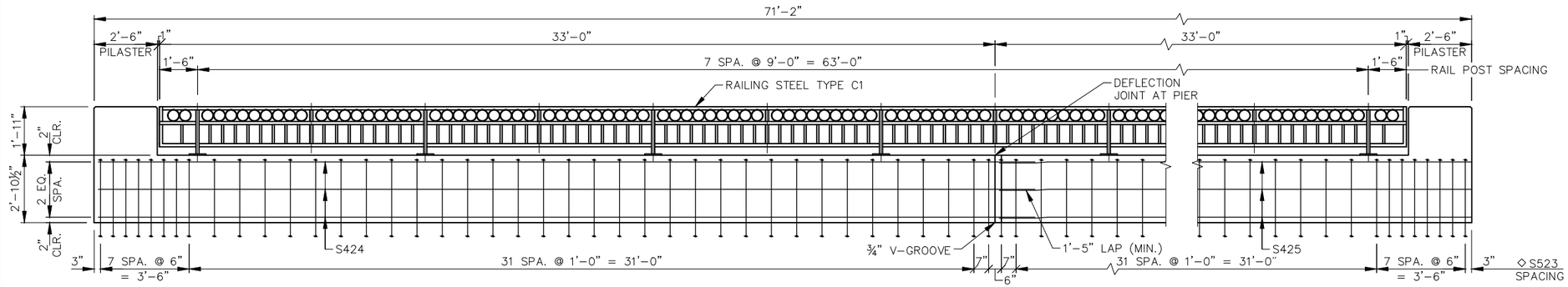
SHEET 9 OF 11

FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\10 APPROACH SLAB.DWG
LAYOUT : APPROACH SLAB

PLOT DATE : 7/11/2016
PLOT TIME : 4:31:49 PM

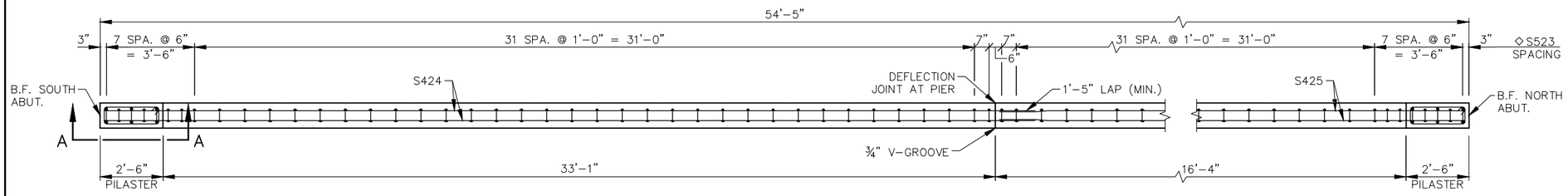
PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'



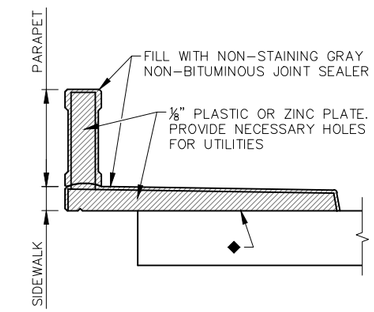
ELEVATION VIEW

WEST PARAPET SHOWN, EAST PARAPET SIMILAR.

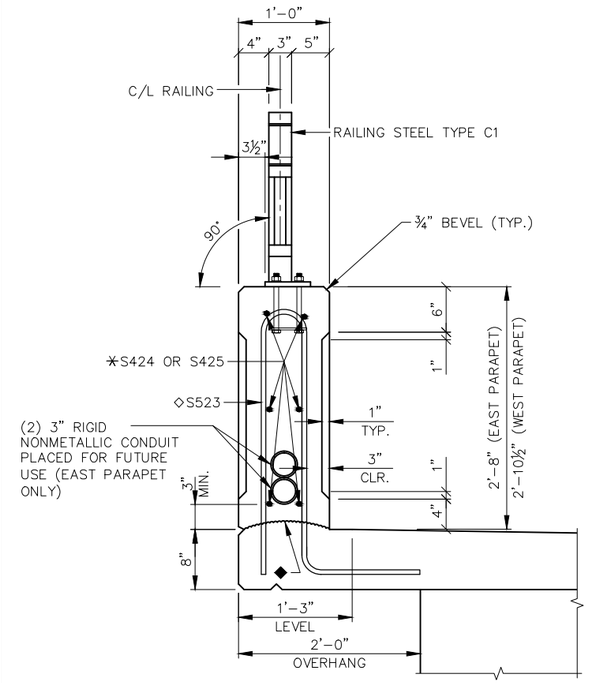


PLAN VIEW

WEST PARAPET SHOWN, EAST PARAPET SIMILAR.

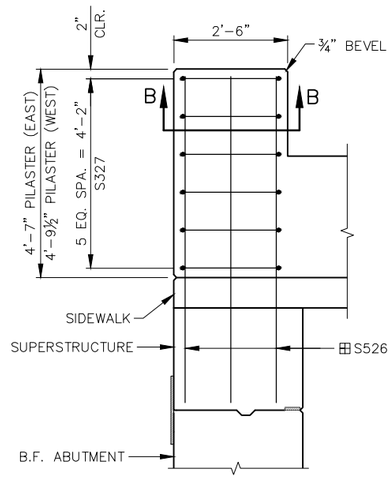


DEFLECTION JOINT DETAIL



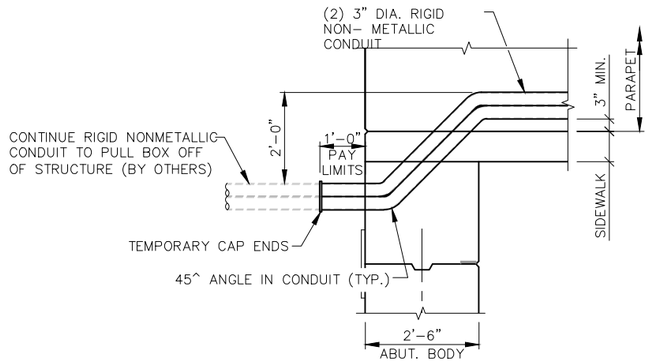
SECTION THROUGH PARAPET ON BRIDGE

✳ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING



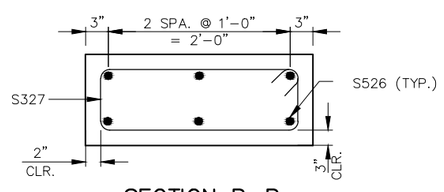
SECTION A – A

(SHOWING BAR STEEL)



OUTSIDE ELEVATION OF PARAPET AT ABUTMENT

SHOWING (2) CONDUIT SYSTEM



SECTION B–B

NOTES

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛" ZINC OR PLASTIC PLATE CUT AS SHOWN IN THE "DEFLECTION JOINT DETAIL". IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMMITED

LEGEND

⊞ S526 BARS ARE REQ'D. AT PILASTERS. BARS MAY BE PLACED AFTER DECK CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE S526 BARS CORRECTLY.

◇ S516 BARS TO BE TIED TO SIDEWALK STEEL BEFORE SIDEWALK IS POURED.

◆ CONSTRUCTION JOINT – STRIKE OFF AS SHOWN AND LEAVE ROUGH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-0288

DRAWN BY DJT | PLANS CK'D. PTB

RAILING LAYOUT – PARAPET DETAILS

SHEET 10 OF 11

8

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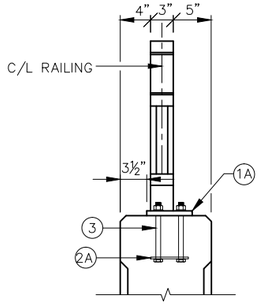
FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\11 RAILING SHEETS.DWG
LAYOUT : RAILING LAYOUT – PARAPET DETAILS

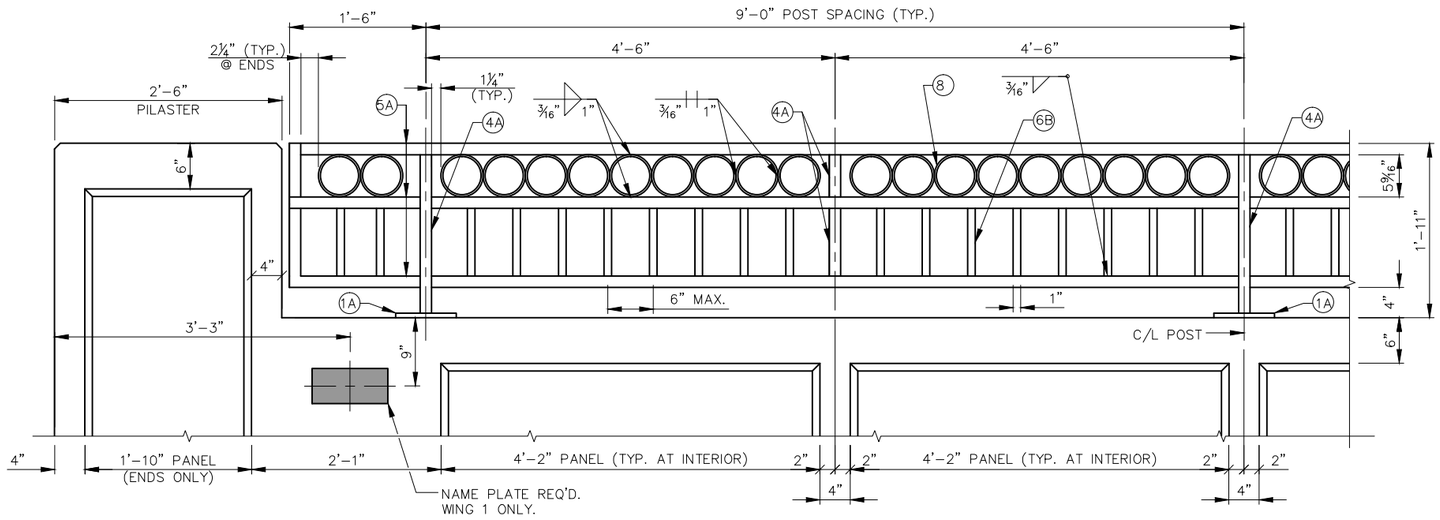
PLOT DATE : 7/11/2016
PLOT TIME : 4:32:04 PM

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'



SECTION VIEW



ELEVATION

LEGEND

(1A) PLATE ⅝" x 6" x 8" WITH ¾" x 1½" SLOTTED HOLES.

(2A) ¼" x 5" x 7" ANCHOR PLATE WITH 1⁹⁄₁₆" DIA. HOLES FOR ANCHOR BOLTS NO. 3.

(3) ⅝" DIA. x 9" LONG TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP.

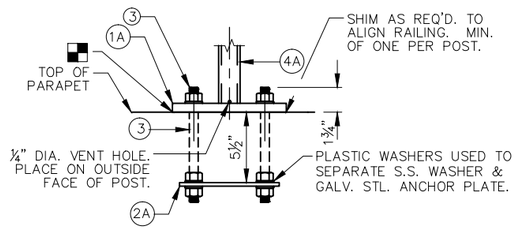
(4A) STRUCTURAL TUBING 3" x 1½" x 3⁄16". PLACE VERTICAL. WELD TO NO. 1 & 5.

(5A) STRUCTURAL TUBING 3" x 1½" x 3⁄16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

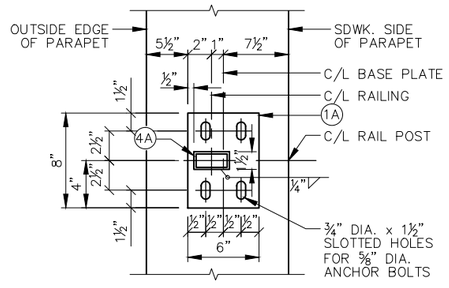
(6B) BAR 1" x 1" PICKETS. WELD TO NO. 5. SPACE AT 6" (MAX. C/L TO C/L SPACING). PLACE VERTICAL.

(8) STRUCTURAL TUBING 5" ø (STANDARD SIZE) (5.563" O.D. 1½" LONG SLICES. WELD TO NO. 5A.

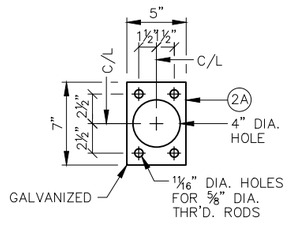
(9A) RECTANGULAR SLEEVE FABRICATED FROM 3⁄16" PLATES. PROVIDE "SLIDING FIT".



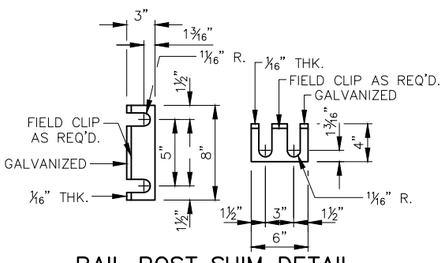
ANCHOR BOLTS FOR RAIL POSTS



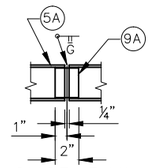
TYPICAL RAIL POST BASE PLATE



ANCHOR PLATE



RAIL POST SHIM DETAIL
(2 SETS PER POST)



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

NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C1 B-53-0288", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN AND PAINTING.

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

ALL PLATES, BARS, AND RECTANGULAR SLEEVES 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 NORMAL TO GRADE.

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

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT AND SHALL BE GALVANIZED.

■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIAL (EXCEPT NO. 2 & 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHOULD 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 SPECIAL PROVISIONS. THE RAILING SHALL BE PAINTED FEDERAL COLOR 14090.

VENT HOLES SHALL BE DRILLED IN TOP RAIL OVER RAIL POSTS AND AT LOW END OF OTHER RAILS AND IN POST MEMBERS TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED FULL LENGTH.

ALL RAILING TO BE GALVANIZED AND THEN PAINTED FEDERAL COLOR 14090.

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

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-0288

DRAWN BY DJT | PLANS CK'D. PTB

RAILING STEEL TYPE C1

SHEET 11 OF 11

8

8

FILE NAME : S:\PROJECTS\R91020 BATTERMAN LENIGAN CREEK BRIDGE\STRUCTURE\CAD FILES\FINALS\11 RAILING SHEETS.DWG
LAYOUT : RAILING STEEL TYPE C1

PLOT DATE : 7/11/2016
PLOT TIME : 4:32:06 PM

PLOT BY : BOLAND, PATRICK

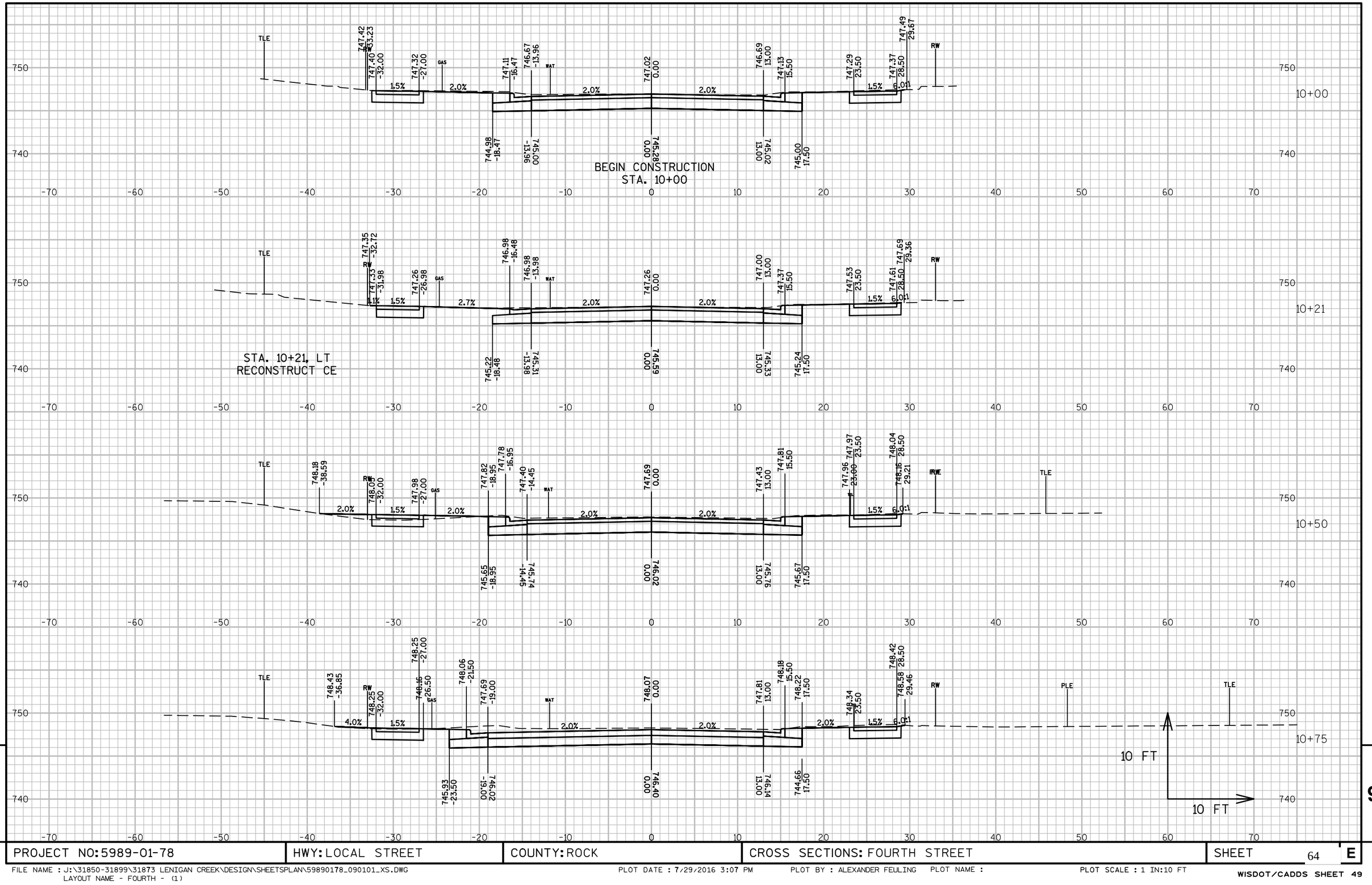
PLOT SCALE : 1" = 1'

FOURTH STREET (10+00 - 12+65)												
			AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
10+00	1000.00	0.00	76.81	30.33	0.00	0	0	0	0	0	0
10+21	1021.00	21.00	78.52	30.33	0.00	60	24	0	60	0	37
10+50	1050.00	29.00	75.06	30.33	4.32	82	33	2	143	3	84
10+75	1075.00	25.00	88.99	30.33	0.34	76	28	2	219	6	129
10+87.75	1087.75	12.75	94.44	30.33	0.00	43	14	0	262	6	158
11+96.25	1196.25	0.00	46.96	30.33	0.97	0	0	0	262	6	158
12+00	1200.00	3.75	69.61	30.33	1.35	8	4	0	270	6	162
12+40	1240.00	40.00	65.93	30.33	0.21	100	45	1	371	7	216
12+50	1250.00	10.00	66.56	30.33	0.08	25	11	0	395	7	229
12+65	1265.00	15.00	67.59	30.33	0.14	37	17	0	432	7	249
						432	176	6			

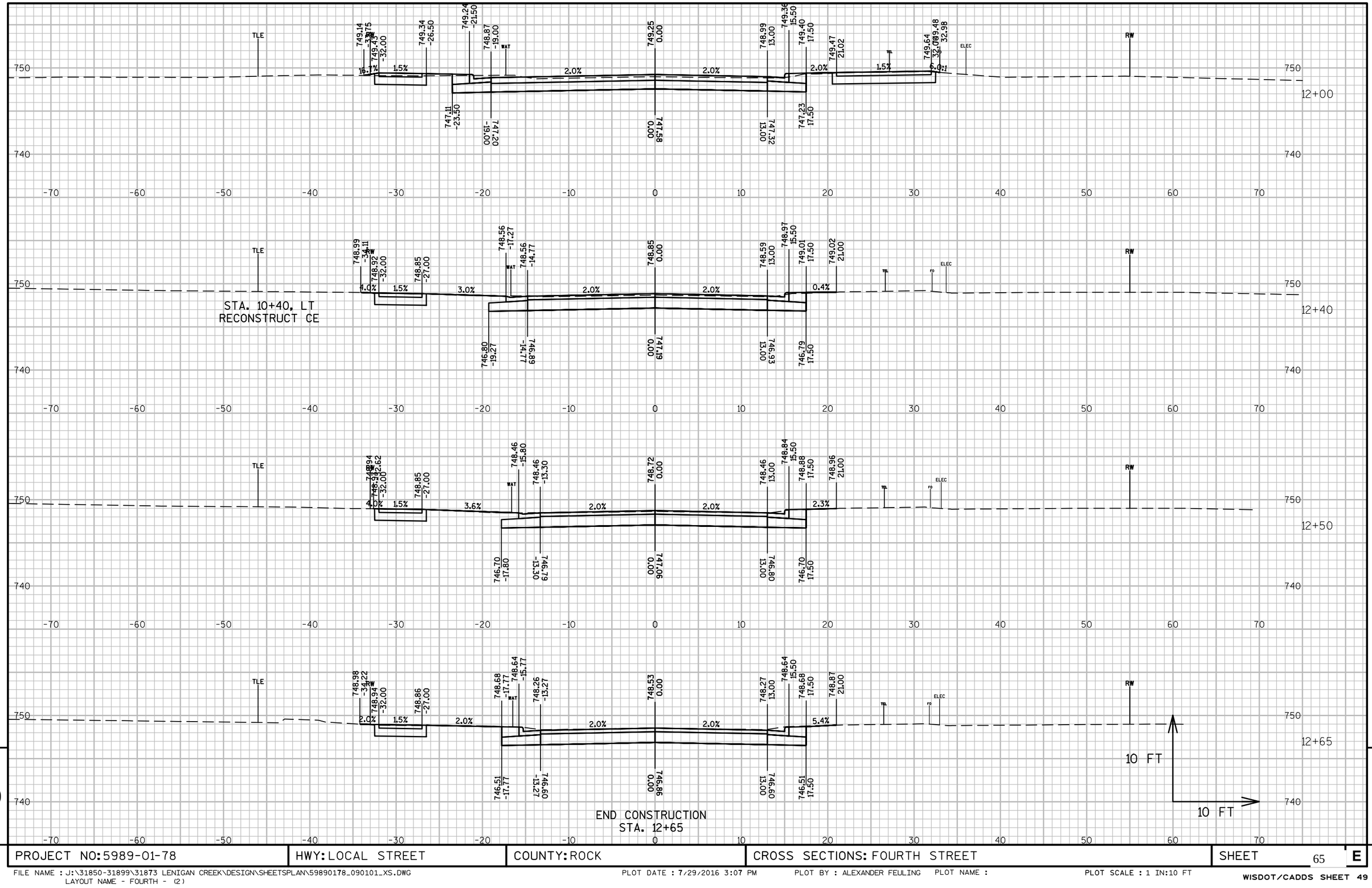
9

9

PROJECT NO:5989-01-78	HWY:LOCAL STREET	COUNTY:ROCK	EARTHWORK	SHEET 63 E



PROJECT NO: 5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	CROSS SECTIONS: FOURTH STREET	SHEET 64 E



PROJECT NO: 5989-01-78	HWY: LOCAL STREET	COUNTY: ROCK	CROSS SECTIONS: FOURTH STREET	SHEET 65 E

Wisconsin Department of Transportation

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