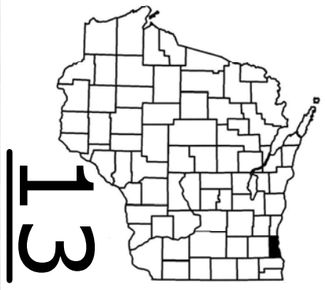
WKE

PROJECT ID: 2987-07-71

COUNTY: MILWAUKEE

SEPTEMBER 2025
ORDER OF SHEETS

TOTAL SHEETS = 86



13

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C OAK CREEK, 6TH ST

OAK CREEK BRIDGE P40-0556

LOCAL STREET
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2987-07-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2987-07-71	WISC 2025603	1

DESIGN DESIGNATION 2987-07-01

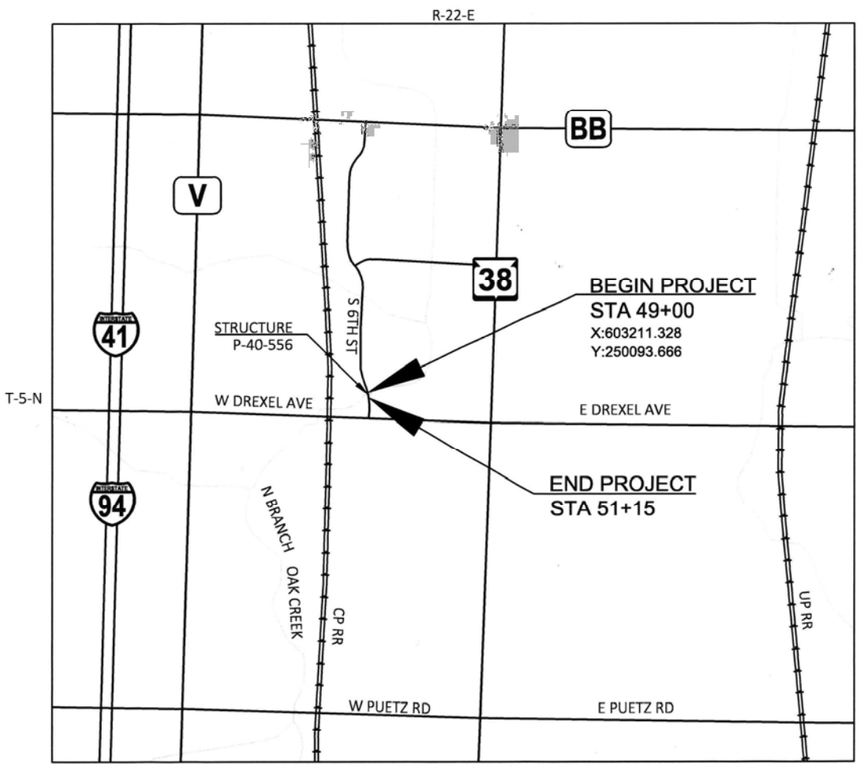
A.A.D.T.	2025	=	2022
A.A.D.T.	2045	=	2022
D.H.V.		=	-
D.D.		=	50/50
T.		=	9.8
DESIGN SPEED		=	40 MPH
ESALS		=	240,000

CONVENTIONAL SYMBOLS

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

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.39)
- CULVERT (Profile View)

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



LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.041 MI

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

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

ACCEPTED FOR

CITY OF OAK CREEK

Date 4/24/2025

(Signature and Title of Official)
Assistant City Administrator / City Engineer

ORIGINAL PLANS PREPARED BY

benesch
247 W Freshwater Way, Suite 650
Milwaukee, WI 53204
(414) 908-1318 Job No. 20348.00

WISCONSIN
BENJAMIN J. WEIGAND
E-39495
RACINE, WI
PROFESSIONAL ENGINEER

DATE: 4-23-25

(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SIGMA
Designer	BENESCH
LP PROJECT MANAGER	MICHAEL BAIRD
LP SUPERVISOR	AMY TAETSCH

APPROVED FOR THE DEPARTMENT

DATE: 4/25/2025

(Mangement Consultant Signature)

E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\010101-TI.DWG PLOT DATE : 4/21/2025 4:44 PM PLOT BY : WEIGAND, BEN PLOT NAME :

2

GENERAL NOTES

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WIHTIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
2. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPALITY OR PUBLIC AGENCY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
3. ALL ELEVATIONS AND OFFSETS SHOWN IN THE PLAN SHALL BE VERIFIED IN THE FIELD.
4. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
5. THE COST OF GRADING, CONSTRUCTING, MAINTAINING, AND REMOVING TEMPORARY ACCESS IS INCIDENTAL TO THE CONTRACT.
6. THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING OR TURNING LANE.
7. REMOVAL OF PAVEMENT PAID UNDER REMOVING ASPHALTIC SURFACE. SEPARATE PAYMENT WILL BE MADE UNDER EXCAVATION FOR STRUCTURES AND STRUCTURE BACKFILL. ANY EXCAVATION BEYOND THESE ITEMS IS INCIDENTAL TO THE PROJECT.

EROSION CONTROL GENERAL NOTES

1. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.
2. QUANTITIES FOR EROSION CONTROL ITEMS HAVE BEEN INCLUDED IN THE PROJECT, BUT MAY NOT BE REPRESENTED ON THE PLAN. THE LOCATIONS AND TYPE OF EROSION CONTROL ITEMS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL ITEMS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE ITEMS IS NO LONGER REQUIRED.

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	0.08 0.22	0.16 0.30	0.22 0.38	0.12 0.26	0.20 0.34	0.27 0.44	0.15 0.30	0.24 0.37	0.33 0.50	0.19 0.34	0.28 0.41	0.38 0.56
MEDIAN STRIP TURF	0.19 0.24	0.20 0.26	0.24 0.30	0.19 0.25	0.22 0.28	0.26 0.33	0.20 0.26	0.23 0.30	0.30 0.37	0.20 0.27	0.25 0.32	0.30 0.40
SIDE SLOPE TURF	0.25 0.34	0.27 0.36	0.25 0.32	0.30		0.27 0.34			0.28 0.36			0.30 0.38
PAVEMENT:												
ASPHALT	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 -0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 0.47 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.08 ACRES

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYER	TYPE
6TH STREET	6 INCHES	UPPER 2 INCHES	*4 LT 58-28 S
		LOWER 2 INCHES	*4 LT 58-28 S
		LOWER 2 INCHES	*4 LT 58-28 S

*PAID AS ASPHALTIC SURFACE

UTILITIES

AT&T WISCONSIN
COMMUNICATION LINE
NATHAN GILBERT
411 7TH STREET
RACINE, WI 53403
(262) 720-8235
NG952W@ATT.COM

CITY OF OAK CREEK
SEWER
OAK CREEK WATER AND SEWER UTILITY
BRIAN JOHNSTON
170 W. DREXEL AVE
OAK CREEK, WI 53154
(414) 766-6624
BJOHNSTON@OAKCREEKWI.GOV

CITY OF OAK CREEK
WATER
OAK CREEK WATER AND SEWER UTILITY
BRIAN JOHNSTON
170 W. DREXEL AVE
OAK CREEK, WI 53154
(414) 766-6624
BJOHNSTON@OAKCREEKWI.GOV

LEVEL 3 COMMUNICATIONS LLC
COMMUNICATION LINE
NETWORK RELOCATIONS
1025 ELDORADO BLVD
BROOMFIELD, CO 80021
RELOCATIONS@LUMEN.COM

MIDWEST FIBER NETWORKS, LLC
COMMUNICATION LINE
CORY SCHMUKI
6070 N FLINT ROAD
GLENDALE, WI 53209
(414) 349-2765
CSCHMUKE@MIDWESTFIBERNETWORKS.COM

SPECTRUM
COMMUNICATION LINE
JUSTIN WENDT
1320 N. DR. MARTIN LUTHER KING JR DRIVE
MILWAUKEE, WI 53212
(414) 430-7324
JUSTIN.WENDT@CHARTER.COM

WE ENERGIES
ELECTRICITY
DAN BANDOR
7815 NORTHWESTERN AVE
RACINE, WI 53406
(414) 944-5714
DANIEL.BANDOR@WE-ENERGIES.COM

WE ENERGIES
GAS/PETROLEUM
NICHOLAS CONLISS
7815 NORTHWESTERN AVE
RACINE, WI 53406
(262) 365-6437
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

OTHER AGENCIES

WISDOT CONTACT
SOUTHEAST REGION
MICHAEL BAIRD
141 NW BARSTOW ST WAUKESHA, WI 53188
(262) 548- 5918
MICHAEL.BAIRD@DOT.WI.GOV

DNR CONTACT
DNR - SOUTHEAST REGION
RYAN PAPPAS
1027 W ST PAUL AVE MILWAUKEE, WI 53233
(920) 893-8529
RYAN.PAPPAS@WISCONSIN.GOV

CITY CONTACT
CITY OF OAK CREEK
ASHLEY N. KIEPCZYNSKI
8040 S 6TH ST
OAK CREEK, WI 53154
(414) 766-7038
AKIEPCZYNSKI@OAKCREEKWI.GOV

CITY OF OAK CREEK
STREET LIGHTING
MATTHEW SULLIVAN
8640 S HOWELL AVE
OAK CREEK, WI 53154
(414) 768-6534
MSULLIVAN@OAKCREEKWI.ORG

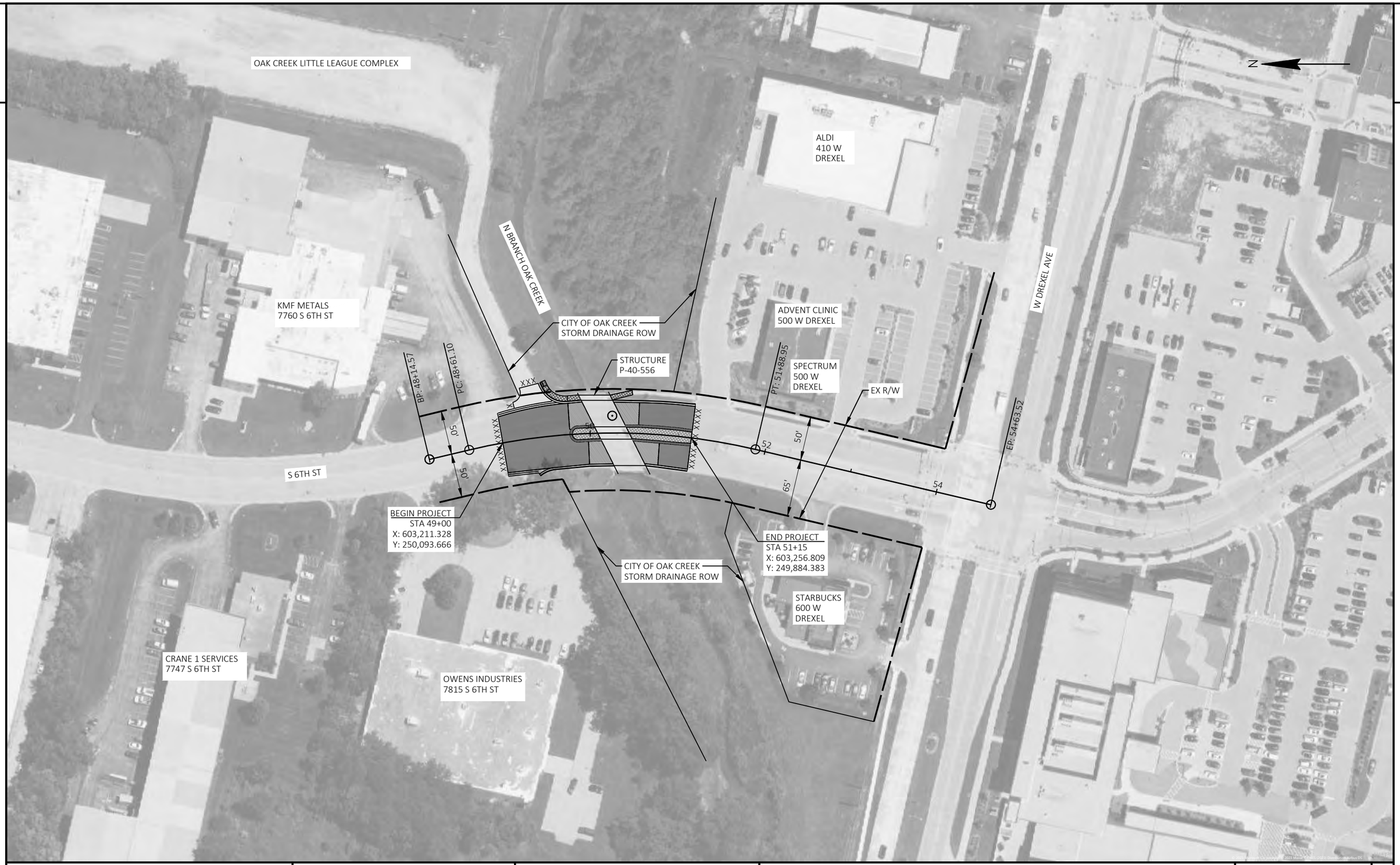
DESIGN CONTACT

BENESCH
BEN WEIGAND
247 W. FRESHWATER WAY
SUITE 650
MILWAUKEE, WI 53204
(414) 308-1322
BWEIGAND@BENESCH.COM

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

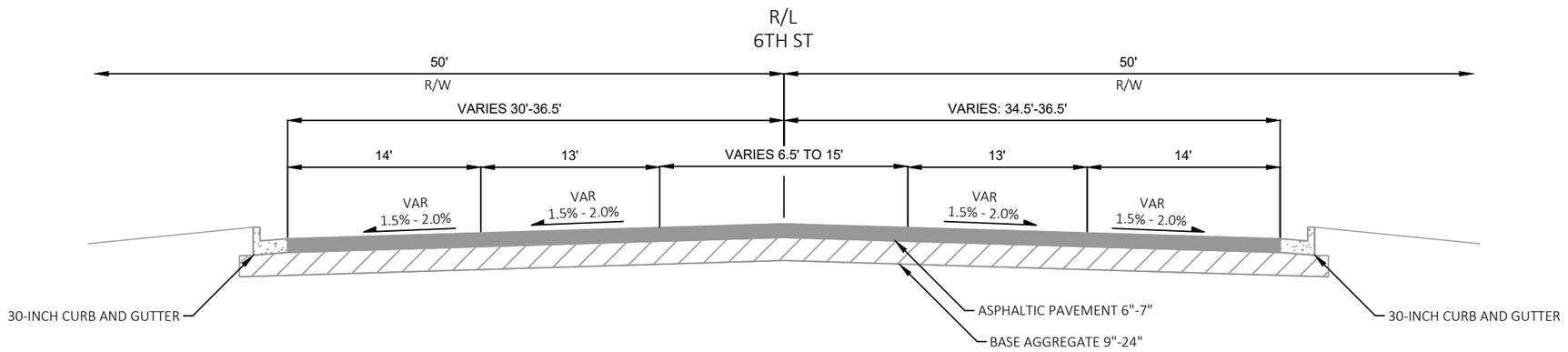
ORDER OF SECTION 2 SHEETS

2



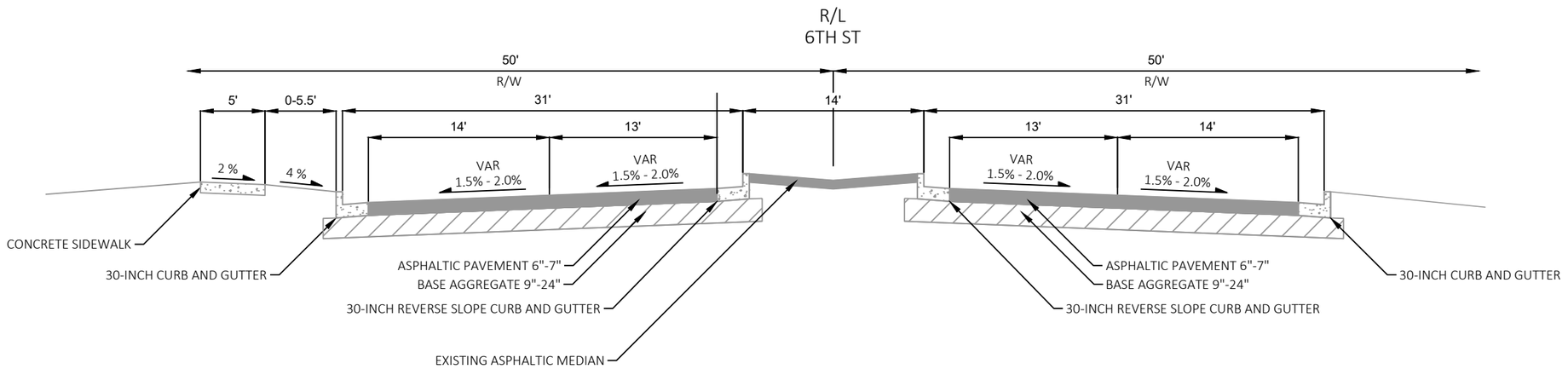
PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 3	E

2



EXISTING TYPICAL SECTION

STA 49+00.00 - 49+77.00

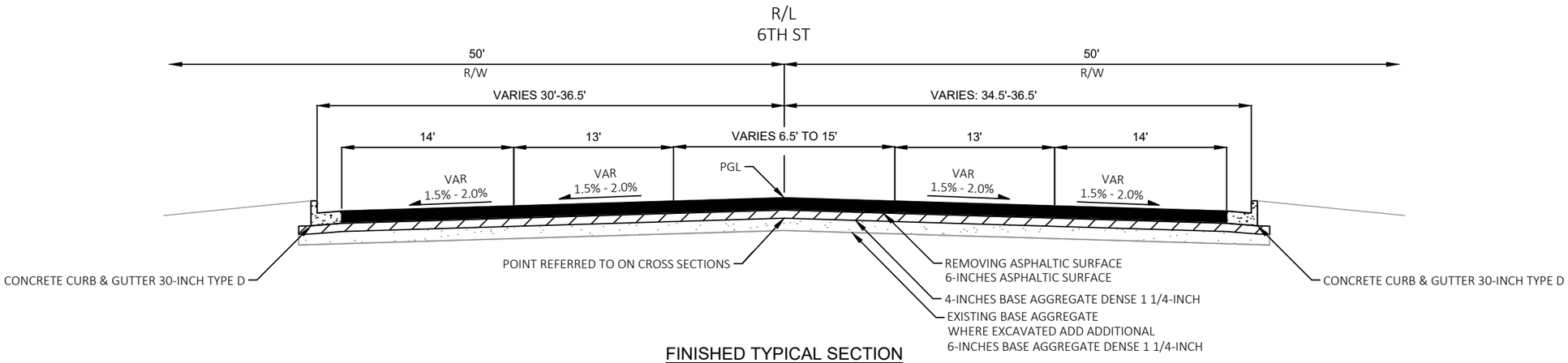


EXISTING TYPICAL SECTION

STA 49+77.00 - BRIDGE
BRIDGE - 51+15.00

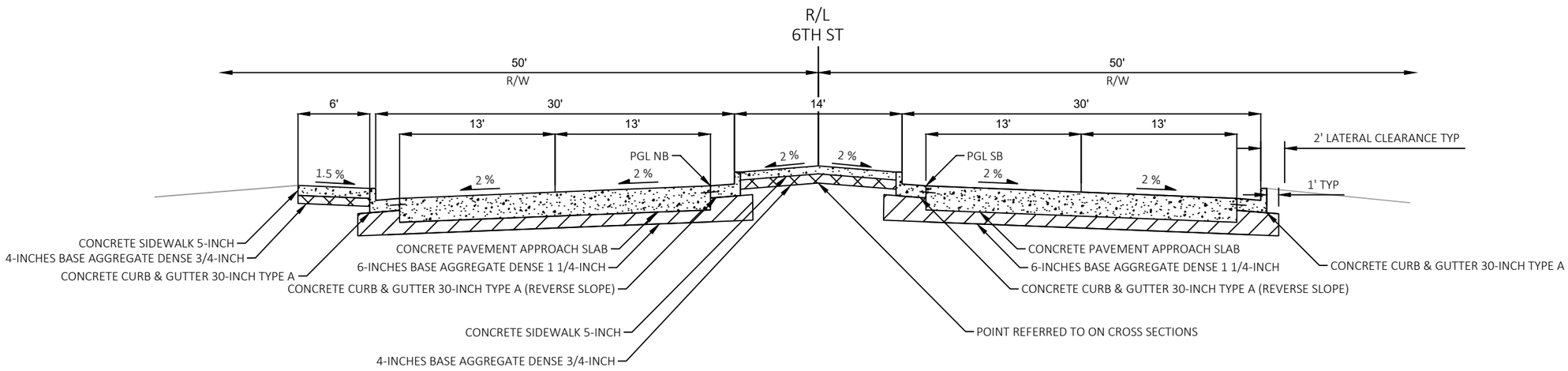
PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 4	E

2



FINISHED TYPICAL SECTION

STA 49+00.00 - 49+77.00



FINISHED TYPICAL SECTION

STA 49+77.00 - 49+98.00 (BRIDGE)
STA 50+33 (BRIDGE) - 50+55.00

FINISHED TYPICAL SECTION

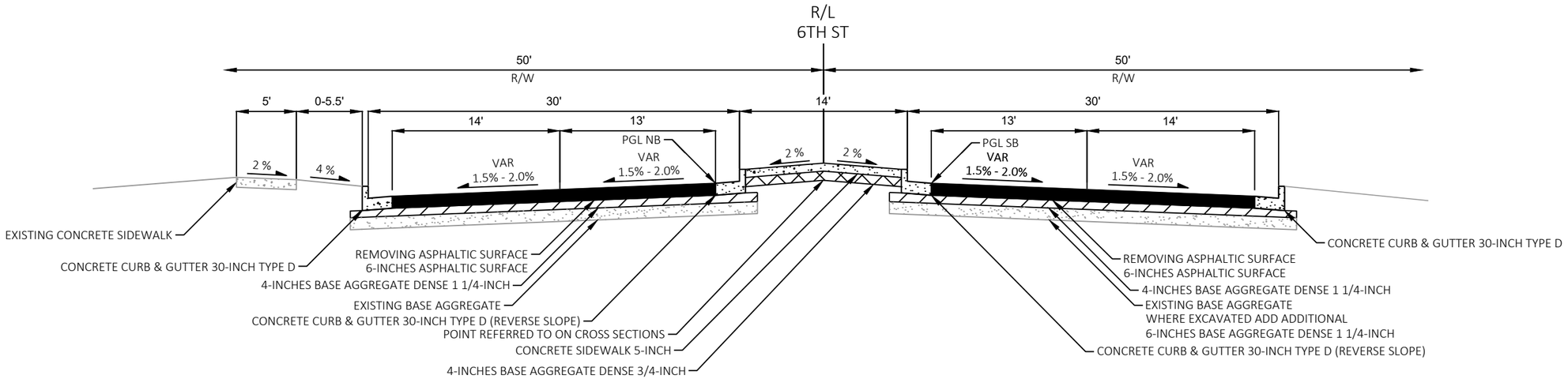
STA 49+97.74 - 50+19 (BRIDGE)
STA 50+56.00 (BRIDGE) - 50+79.27

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\020301-TS.DWG
LAYOUT NAME - 02-10ft

PLOT DATE : 7/16/2025 9:59 AM PLOT BY : WEIGAND, BEN PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

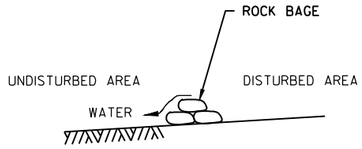


FINISHED TYPICAL SECTION
STA 50+55- 51+15

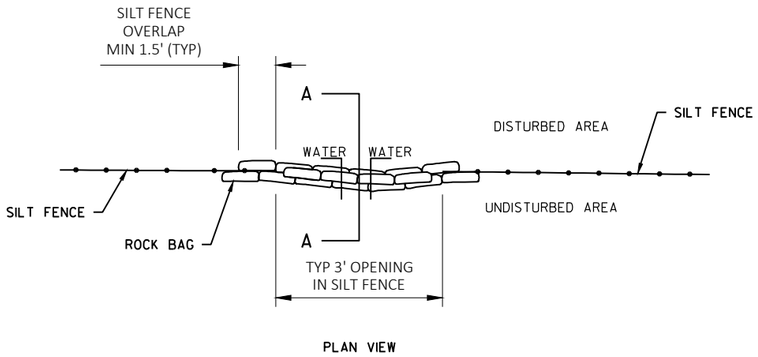
FINISHED TYPICAL SECTION
STA 49+77 - 49+97.74
STA 50+79.27 - 51+15

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 6	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\020301-TS.DWG
LAYOUT NAME - 03-10ft
PLOT DATE : 7/16/2025 9:59 AM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



SECTION A-A

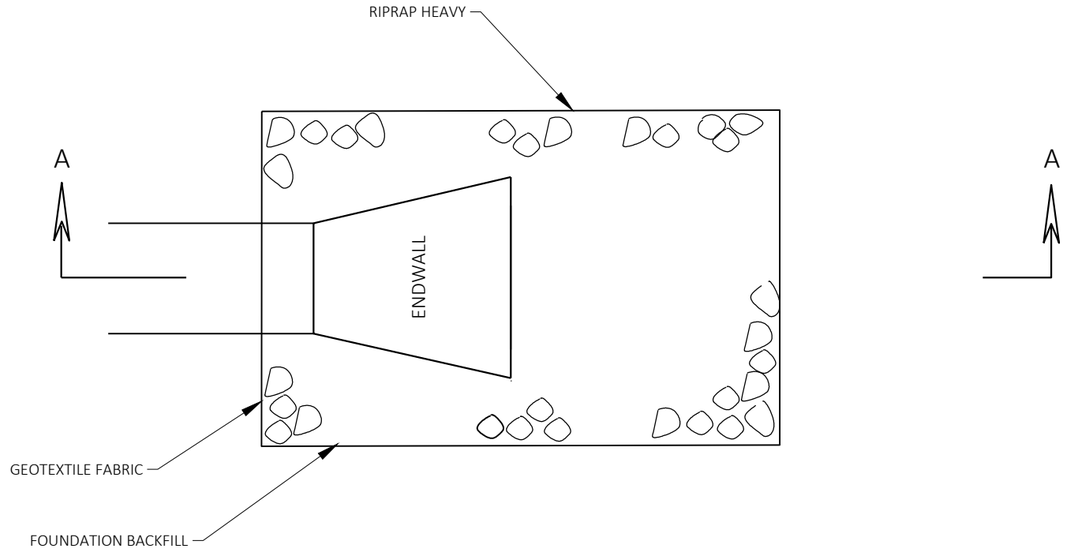


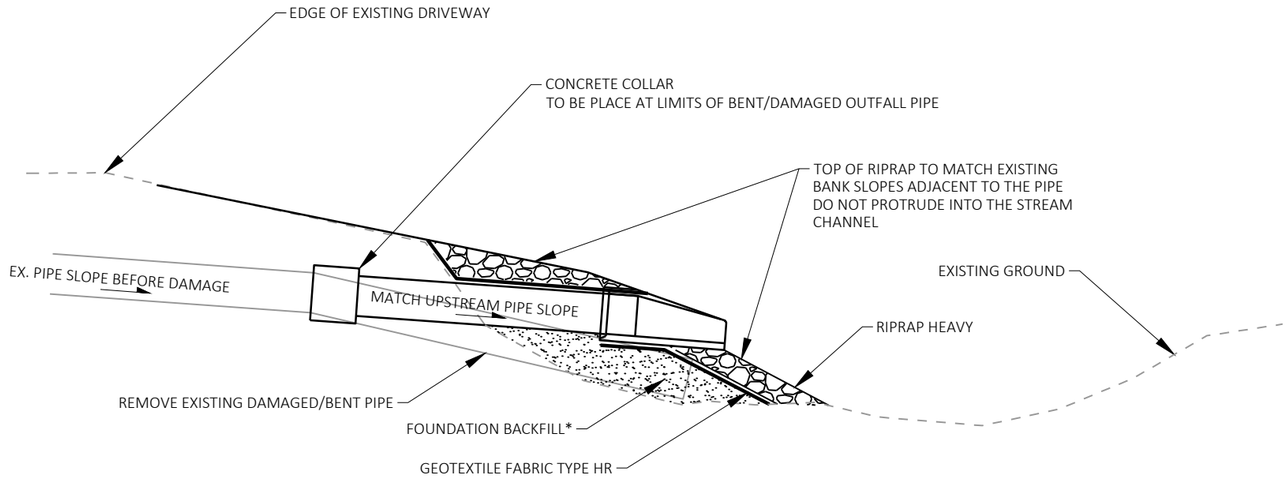
PLAN VIEW

ROCK BAGS USED FOR SILT FENCE RELIEF POINT

1. DESIGNER SHALL PLACE SILT FENCE RELIEFS AS NECESSARY

DESIGNER NOTE: PLACE SILT FENCE RELIEF AS NECESSARY
CONSULT SER EROSION CONTROL ENGINEER





SECTION A-A

CULVERT REPAIR

*FOUNDATION BACKFILL TO BE INCLUDED IN COST OF CULVERT PIPE INSTALLATION

2

CURVE RADII TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
300	49+56.65	69.00 RT	250020.544	603163.287	33.00
301	49+86.00	0.00 RT	250011.698	603237.177	9.00
302	49+81.34	312.54 RT	249938.561	602933.296	350.00
303	49+75.22	65.45 LT	250038.945	603297.747	30.00
304	51+17.85	513.99 RT	249852.018	602743.832	551.69
305	50+86.89	705.00 RT	249841.048	602553.142	714.50
307	50+95.29	705.00 RT	249841.048	602553.142	695.5

ADDRESS: 7760 S 6TH ST
OWNER: G W Z, LLC

LEGEND
- CONC SIDEWALK 5-INCH
- HMA PAVEMENT
- APPROACH SLABS
- DETECTABLE WARNING FIELD
- MODIFIED GUTTER SLOPE, SEE NOTE
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 4-INCH

DRIVEWAY TO LITTLE LEAGUE COMPLEX
NORTH BRANCH OAK CREEK
EX R/W
FULL HEIGHT CURB
CONCRETE CURB & GUTTER 30-INCH TYPE A (TYP)
4% REVERSE-SLOPE GUTTER
WATER VALVE TO BE ADJUSTED BY OTHERS
ADJUST SANITARY MANHOLE
R/L S 6TH ST
S 6TH ST NB
S 6TH ST SB
EX P-40-556
CONCRETE CURB & GUTTER 30-INCH TYPE D (TYP)
BEGIN PROJECT STA 49+00 MATCH EXISTING SAWCUT REQ'D
END PROJECT STA 51+15 MATCH EXISTING SAWCUT REQ'D

POINT TABLE					
POINT NAME	STATION	OFFSET	Y	X	ELEVATION
201	49+47.44	61.06 LT	250066.83	603285.17	708.87
202	49+49.20	55.37 LT	250063.34	603280.29	708.78
203	49+77.00	35.47 LT	250029.44	603269.24	708.32
204	49+59.16	40.93 LT	250049.02	603269.49	708.45
205	49+51.99	49.06 LT	250058.65	603275.12	708.56

POINT TABLE					
POINT NAME	STATION	OFFSET	Y	X	ELEVATION
49	50+74.99	35.53 LT	249928.42	603288.50	707.80
50	50+75.02	34.48 RT	249920.13	603218.98	707.86
101	49+37.05	41.30 RT	250045.99	603184.41	708.57
102	49+47.66	37.06 RT	250037.71	603191.47	708.41
103	49+56.77	36.00 RT	250029.74	603194.98	708.40
104	49+97.76	35.00 RT	249992.36	603205.83	708.20
105	50+26.01	35.01 RT	249966.09	603211.36	708.06
106	50+63.61	33.93 RT	249930.97	603218.16	707.87
107	50+79.39	34.65 RT	249915.98	603219.29	707.88
108	51+15.00	35.76 RT	249882.18	603221.12	708.07

POINT TABLE					
POINT NAME	STATION	OFFSET	Y	X	ELEVATION
109	51+15.00	9.02 RT	249883.83	603247.81	708.55
110	51+00.00	9.50 RT	249898.56	603246.26	708.46
111	50+89.63	9.50 RT	249908.74	603245.34	708.43
112	50+79.27	9.50 RT	249918.91	603244.27	708.40
113	50+49.03	8.64 RT	249948.61	603241.15	708.46
114	51+15.00	9.17 LT	249884.95	603265.96	708.62
115	51+00.00	9.50 LT	249900.13	603265.19	708.50
116	50+77.25	9.50 LT	249923.07	603262.92	708.42
117	50+54.50	9.50 LT	249945.93	603259.90	708.43
118	50+39.50	9.13 LT	249960.88	603257.14	708.50

POINT TABLE					
POINT NAME	STATION	OFFSET	Y	X	ELEVATION
119	50+70.09	34.26 RT	249924.81	603218.63	707.83
120	50+69.19	9.36 RT	249928.80	603243.23	708.40
121	50+69.19	9.50 LT	249931.18	603261.93	708.41
122	50+73.97	35.51 LT	249929.48	603288.35	707.80
123	51+10.01	36.01 LT	249891.83	603292.41	708.13
124	50+86.65	35.75 LT	249916.27	603290.07	707.92
125	50+60.09	35.14 LT	249943.88	603286.11	707.88
126	50+54.56	35.00 LT	249949.61	603285.14	707.91
127	50+12.74	8.87 RT	249983.82	603234.47	708.65
128	49+86.00	9.00 RT	250009.52	603228.44	708.79

POINT TABLE					
POINT NAME	STATION	OFFSET	Y	X	ELEVATION
129	49+77.00	0.06 LT	250020.43	603235.00	709.02
130	49+86.00	9.00 LT	250013.88	603245.91	708.79
131	50+04.12	9.35 LT	249996.09	603250.47	708.69
132	49+37.25	33.83 LT	250068.99	603255.93	708.52
133	49+00.24	29.94 LT	250104.16	603239.37	708.78
134	50+26.55	34.98 LT	249978.59	603280.23	708.05
135	49+00.00	34.44 RT	250081.32	603179.18	708.77
136	49+92.46	35.98 LT	250013.81	603273.70	708.23
137	49+97.71	8.75 RT	249998.34	603231.40	708.73

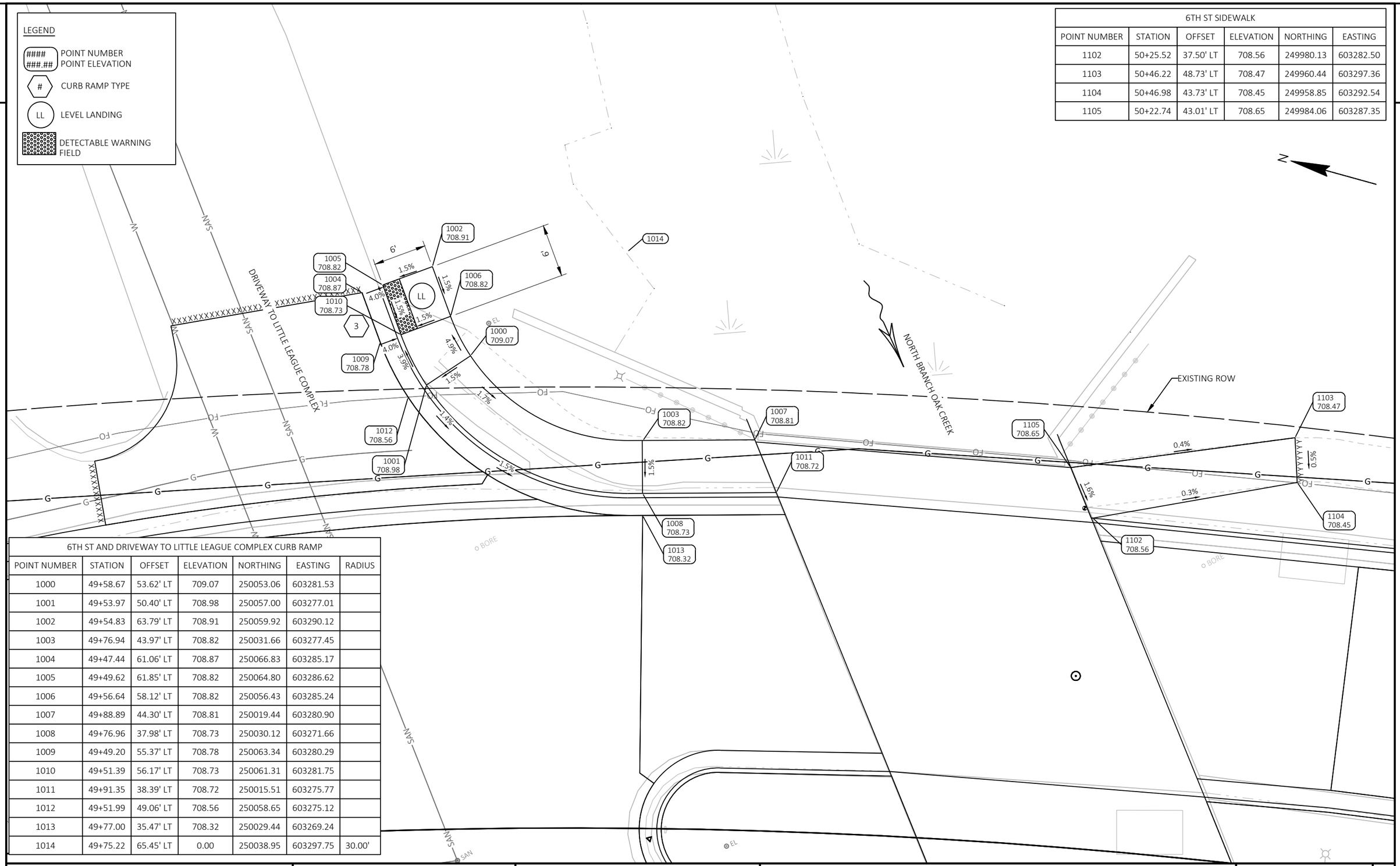
PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	PAVING DETAILS	SHEET 8	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\027301-PG.DWG
LAYOUT NAME - 01
PLOT DATE : 7/16/2025 11:10 AM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT

LEGEND

- #### / ###.## — POINT NUMBER / POINT ELEVATION
- # — CURB RAMP TYPE
- LL — LEVEL LANDING
- DETECTABLE WARNING FIELD

6TH ST SIDEWALK					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1102	50+25.52	37.50' LT	708.56	249980.13	603282.50
1103	50+46.22	48.73' LT	708.47	249960.44	603297.36
1104	50+46.98	43.73' LT	708.45	249958.85	603292.54
1105	50+22.74	43.01' LT	708.65	249984.06	603287.35



6TH ST AND DRIVEWAY TO LITTLE LEAGUE COMPLEX CURB RAMP						
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	RADIUS
1000	49+58.67	53.62' LT	709.07	250053.06	603281.53	
1001	49+53.97	50.40' LT	708.98	250057.00	603277.01	
1002	49+54.83	63.79' LT	708.91	250059.92	603290.12	
1003	49+76.94	43.97' LT	708.82	250031.66	603277.45	
1004	49+47.44	61.06' LT	708.87	250066.83	603285.17	
1005	49+49.62	61.85' LT	708.82	250064.80	603286.62	
1006	49+56.64	58.12' LT	708.82	250056.43	603285.24	
1007	49+88.89	44.30' LT	708.81	250019.44	603280.90	
1008	49+76.96	37.98' LT	708.73	250030.12	603271.66	
1009	49+49.20	55.37' LT	708.78	250063.34	603280.29	
1010	49+51.39	56.17' LT	708.73	250061.31	603281.75	
1011	49+91.35	38.39' LT	708.72	250015.51	603275.77	
1012	49+51.99	49.06' LT	708.56	250058.65	603275.12	
1013	49+77.00	35.47' LT	708.32	250029.44	603269.24	
1014	49+75.22	65.45' LT	0.00	250038.95	603297.75	30.00'

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 9	E

2

STA. 49+67, 79' LT
RIPRAP HEAVY
STA. 49+70, 67' LT
SILT FENCE
WETLAND BOUNDARY
EX P-40-556
ADDRESS: 7600 S 6TH ST
OWNER: CITY OF OAK CREEK
N
ADDRESS: 500 W DREXEL AVE
OWNER: RANE INVESTMENTS, LLC
DRIVEWAY TO LITTLE LEAGUE COMPLEX
12'
14'
STA. 49+79, 83' LT
TURBIDITY BARRIER
STA. 49+82, 72' LT
INLET PROTECTION TYPE B
ADDRESS: 7760 S 6TH ST
OWNER: G W Z, LLC
SI
EX R/W
CLEARING
18"
INLET PROTECTION TYPE C
INLET PROTECTION TYPE C
S 6TH ST NB
18"
END PROJECT
STA 51+15
MATCH EXISTING
SAWCUT REQ'D
EX P-40-556
50+00
51+00
49+00
R/L S 6TH ST
S 6TH ST SB
BEGIN PROJECT
STA 49+00
MATCH EXISTING
SAWCUT REQ'D
INLET PROTECTION TYPE C
SI
NORTH BRANCH OAK CREEK
SI
ADDRESS: 7815 S 6TH ST
OWNER: OWENS INDUSTRIES, INC
WETLAND BOUNDRY
ADDRESS: S 6TH ST
OWNER: CITY OF OAK CREEK

LEGEND
- EROSION EMAT URBAN CLASS I TYPE B
- RIP RAP HEAVY
- SILT FENCE
- TURBIDITY BARRIER
- INLET PROTECTION TYPE

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 10	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\022001-EC.DWG
LAYOUT NAME - 01
PLOT DATE : 7/16/2025 11:32 AM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT

STA 49+70.20, 76.75' LT
APRON ENDWALLS FOR CPRC 12-INCH (5)

SEE CONCRETE COLLAR DETAIL
FOR ADDITIONAL PLACEMENT INFORMATION
PLACE 16' 12" PIPE BETWEEN COLLAR AND OUTFALL

12"

REMOVING STORM SEWER PIPE CMP 12-INCH

RIPARIAN EMERGENT WETLAND
SURVEYED 5/16/2023
TOTAL PERMANENT IMPACT
0.003 AC

REMOVING STORM SEWER PIPE RCP 12-INCH

REMOVING INLET

(2) STA 50+74.04, 37.01' LT
INLETS 2x3-H-S

EX R/W

18"

50+00

51+00

EX P-40-556

49+00

18"

52+00

R/L S 6TH ST

S 6TH ST NB

53+00

54+00

(1) STA 50+70, 35.76' RT
INLETS 2x3-H-S

S 6TH ST SB

WETLAND BOUNDARY

EX R/W

N

2

725
720
715
710
705
700
695
690

PR GROUND
EX GROUND

2 — 707.83
1 — 707.80

OUTFALL AT P-40-556
MATCH EXISTING INVERT

SSPRC CLASS IV
18-INCH @ 1.00%

SSPRC CLASS IV 18-INCH @ 0.99%

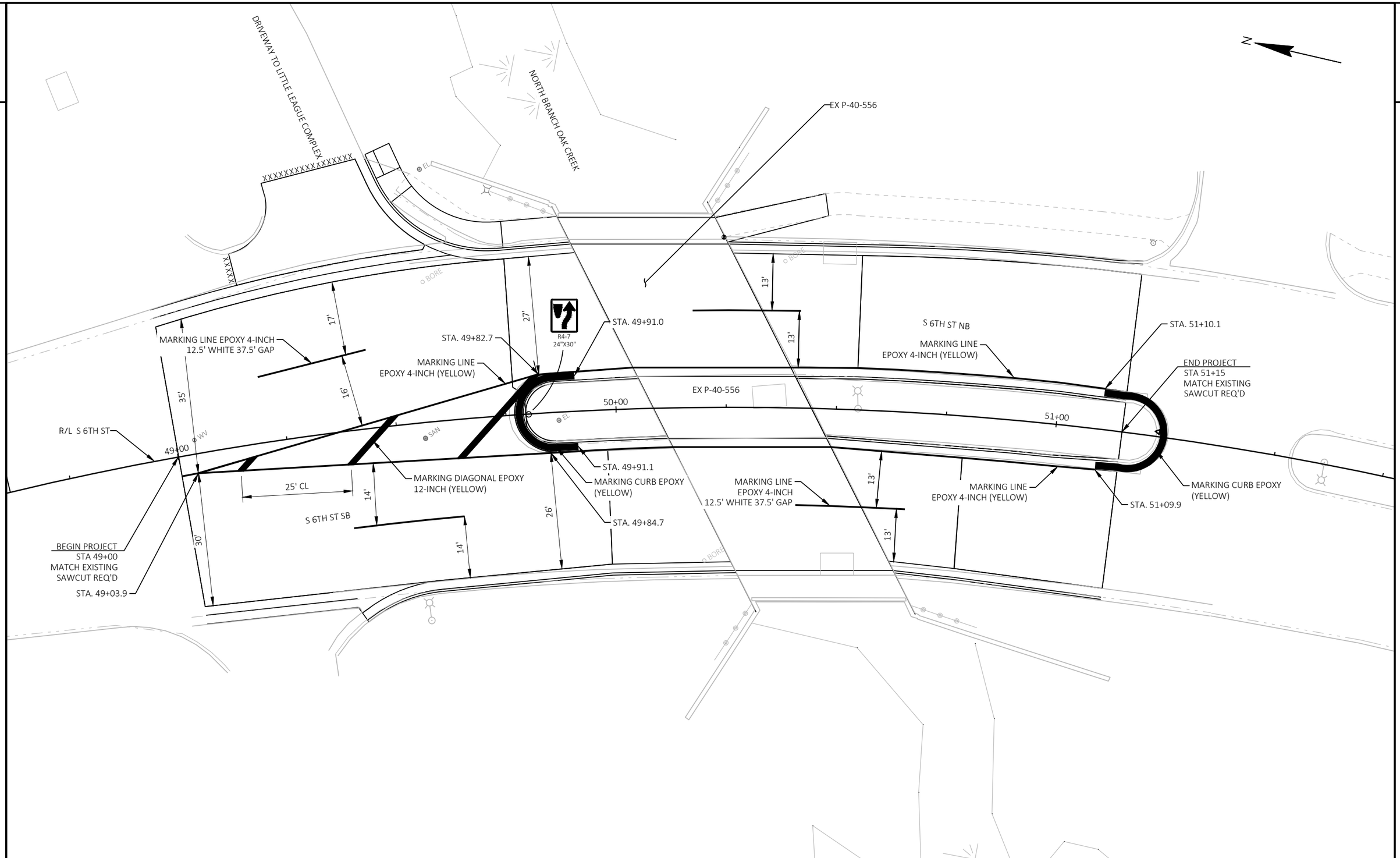
703.06
703.16
703.88

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	STORM SEWER	SHEET 11	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\022501-SS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/16/2025 10:17 AM PLOT BY : WEIGAND, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

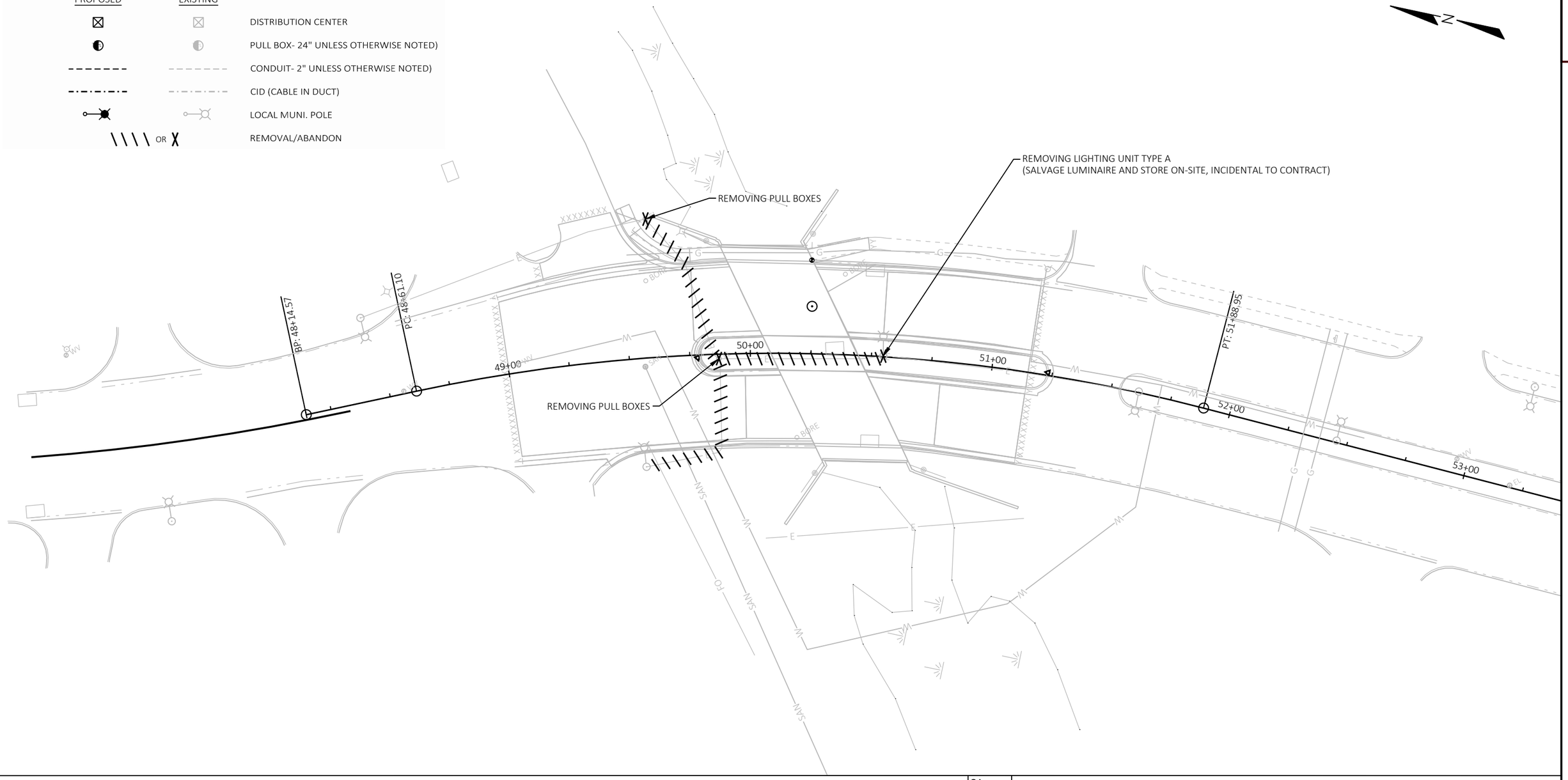


PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	PAVEMENT MARKING AND PERMANENT SIGNING PLAN	SHEET 12	E

2

LIGHTING PLAN LEGEND

PROPOSED	EXISTING	
⊠	⊠	DISTRIBUTION CENTER
◐	◐	PULL BOX- 24" UNLESS OTHERWISE NOTED)
- - - - - - -	- - - - - - -	CONDUIT- 2" UNLESS OTHERWISE NOTED)
-·-·-·-·-	-·-·-·-·-	CID (CABLE IN DUCT)
⊸✳	⊸○	LOCAL MUNI. POLE
\\\\ OR X		REMOVAL/ABANDON



BAR SCALE
0 20 40 60
1" = 40'

SA.							
ST.							
W.							
G.							
E.							
T.							
I.							
TS.							
PP.							

CITY OF OAK CREEK - ENGINEERING DEPARTMENT

DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE
A. LEDGER	3/2025	A. LEDGER	3/2025	A. LEDGER	3/2025

STREET LIGHTING REMOVAL

IN: S. 6TH STREET
FROM: STA 49+00
TO: STA 51+15

APPROVED BY COUNCIL RESOLUTION NO. 12385-020723

SCALE	SHEET
PLAN HOR. 1" =40'	2
PROFILE HOR.	OF 3
VER.	

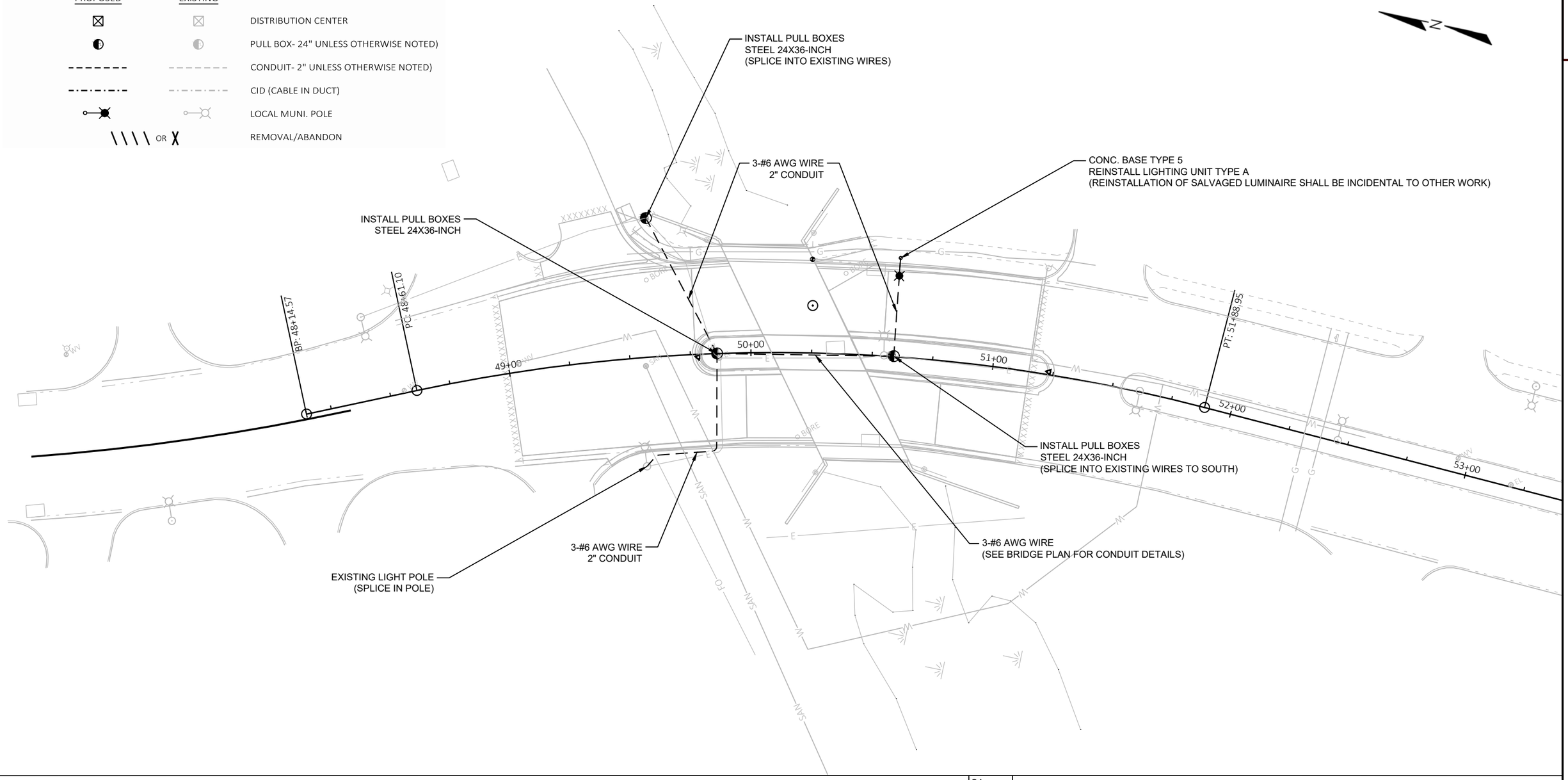
FILE NO: 19029-22-2001

T:\SHARED\DRAFTING\C3D\S. 6TH STREET BRIDGE - 7800 S\SHEETS\PD-S.6TH-7800.DWG

01

LIGHTING PLAN LEGEND

PROPOSED	EXISTING	
⊠	⊠	DISTRIBUTION CENTER
◐	◐	PULL BOX- 24" UNLESS OTHERWISE NOTED)
- - - - - - -	- - - - - - -	CONDUIT- 2" UNLESS OTHERWISE NOTED)
-·-·-·-·-	-·-·-·-·-	CID (CABLE IN DUCT)
⊸●⊸	⊸○⊸	LOCAL MUNI. POLE
\\\\ OR X		REMOVAL/ABANDON



BAR SCALE

0 20 40 60

1" = 40'

SA.	
ST.	
W.	
G.	
E.	
T.	
I.	
TS.	
PP.	

CITY OF OAK CREEK - ENGINEERING DEPARTMENT

DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE
A. LEDGER	3/2025	A. LEDGER	3/2025	A. LEDGER	3/2025

STREET LIGHTING PLAN

IN: S. 6TH STREET

FROM: STA 49+00

TO: STA 51+15

APPROVED BY COUNCIL RESOLUTION NO. 12385-020723

SCALE	SHEET
PLAN HOR. 1" =40'	3
PROFILE HOR.	OF 3
VER.	

FILE NO: 19029-[illegible]

T:\SHARED\DRAFTING\C3D\S. 6TH STREET BRIDGE - 7800 S\SHEETS\PD-S.6TH-7800.DWG

02

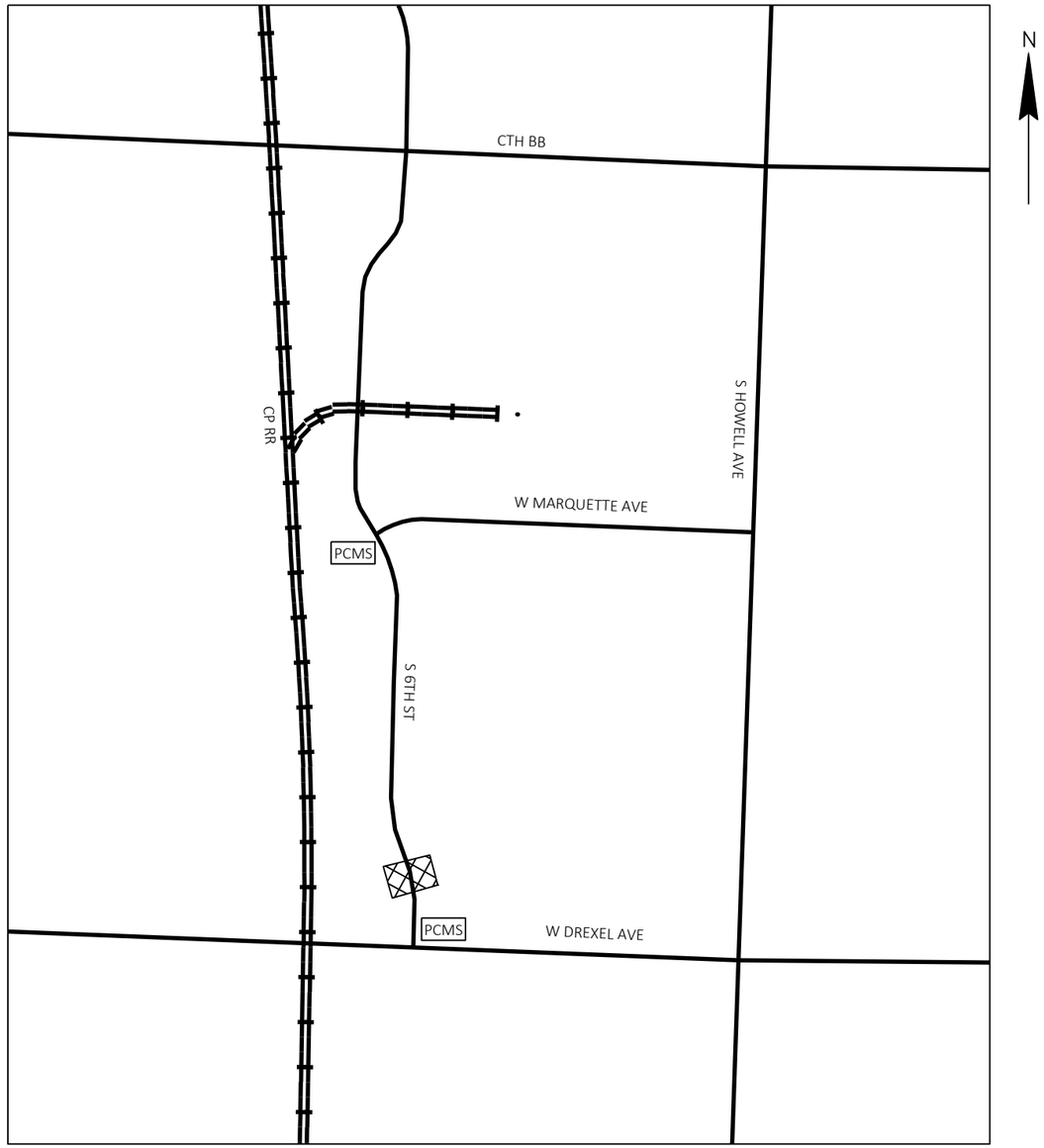
TRAFFIC CONTROL STAGING OVERVIEW:

WORK ZONE WILL BE FULLY CLOSED TO TRAFFIC FROM A POINT NORTH OF THE MEDIAN CUT THROUGH NORTH OF DREXEL AVE TO SOUTH OF THE ACCESS TO THE LITTLE LEAGUE COMPLEX

NO DETOUR WILL BE POSTED, BUT THE CONSTRUCTION TEAM WILL COORDINATE WITH LOCAL BUSINESSES TO INSURE THEY ARE AWARE OF THE PROJECT AND REROUTE TRUCK TRAFFIC ACCORDINGLY

SEE STANDARD DETAIL DRAWING (SDD), "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "BARRICADES AND SIGNS FOR VARIOUS CLOSURES", FOR SIGN SPACING, BARRICADE LOCATIONS AND OTHER DETAILS.

DO NOT PLACE ANY ITEMS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.



LEGEND:

WORK ZONE CLOSED TO TRAFFIC

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

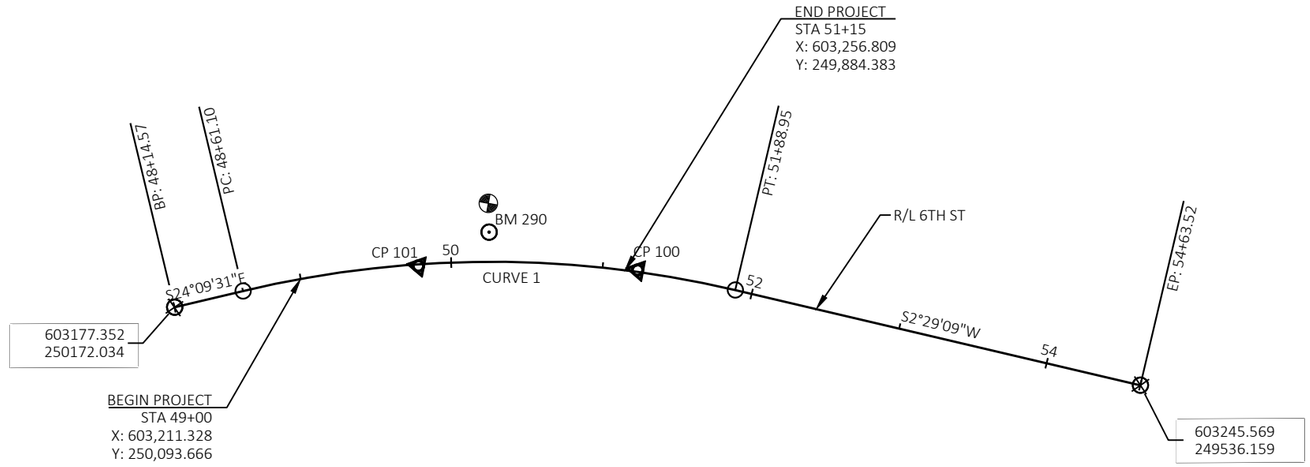
PORTABLE CHANGEABLE MESSAGE SIGN

PLACE PCMS 14 DAYS PRIOR TO CLOSURE

6TH STREET
BRIDGE WORK
BEGINS XXX-XX

2

N



CURVE 1
PI STA = 50+28.04
Y = 249977.257
X = 603264.719
DELTA = 26°38'41" RT
D = 8°07'37"
T = 166.94'
L = 327.85'
R = 705.00'
PC STA = 48+61.10
Y = 250129.580
X = 603196.395
PT STA = 51+88.95
Y = 249810.469
X = 603257.478
DB = S24°09'31"E
DA = S02°29'09"W

CONTROL POINTS						
POINT NAME	Y	X	ELEVATION	STA	OFFSET	DESCRIPTION
BM 290	249981.311	603283.338	708.36	50+24.57	38.546 LT	BM-ALUMINUM DISK IN CONC
CP 100	249876.318	603258.355	709.25	51+23.13	1.095 LT	CP-CHISELED CROSS
CP 101	250018.993	603234.096	709.23	49+78.16	1.180 RT	CP-CHISELED CROSS

Estimate Of Quantities

2987-07-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	8.000	8.000
0004	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-40-0556	EACH	1.000	1.000
0006	204.0110	Removing Asphaltic Surface	SY	933.000	933.000
0008	204.0150	Removing Curb & Gutter	LF	388.000	388.000
0010	204.0155	Removing Concrete Sidewalk	SY	198.000	198.000
0012	204.0165	Removing Guardrail	LF	64.000	64.000
0014	204.0195	Removing Concrete Bases	EACH	1.000	1.000
0016	204.0220	Removing Inlets	EACH	1.000	1.000
0018	204.0245	Removing Storm Sewer (size) 01. CMP 12-Inch	LF	16.000	16.000
0020	204.0245	Removing Storm Sewer (size) 02. RCP 12-Inch	LF	23.000	23.000
0022	206.1001	Excavation for Structures Bridges (structure) 01. P-40-0556	EACH	1.000	1.000
0024	210.1500	Backfill Structure Type A	TON	976.000	976.000
0026	211.0500	Prepare Foundation for Base Aggregate	STA	2.000	2.000
0028	213.0100	Finishing Roadway (project) 01. 2987-07-71	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	47.000	47.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	358.000	358.000
0034	415.0410	Concrete Pavement Approach Slab	SY	254.000	254.000
0036	455.0605	Tack Coat	GAL	138.000	138.000
0038	465.0105	Asphaltic Surface	TON	313.000	313.000
0040	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	17.000	17.000
0042	502.0100	Concrete Masonry Bridges	CY	260.000	260.000
0044	502.3200	Protective Surface Treatment	SY	351.000	351.000
0046	502.3210	Pigmented Surface Sealer	SY	36.000	36.000
0048	505.0400	Bar Steel Reinforcement HS Structures	LB	500.000	500.000
0050	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	41,460.000	41,460.000
0052	509.1500	Concrete Surface Repair	SF	15.000	15.000
0054	513.2001	Railing Pipe	LF	181.000	181.000
0056	516.0500	Rubberized Membrane Waterproofing	SY	74.000	74.000
0058	517.1050.S	Architectural Surface Treatment (structure) 01. P-40-0556	SF	251.000	251.000
0060	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0062	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0064	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	180.000	180.000
0066	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	388.000	388.000
0068	602.0410	Concrete Sidewalk 5-Inch	SF	1,775.000	1,775.000
0070	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	10.000	10.000
0072	606.0300	Riprap Heavy	CY	10.000	10.000
0074	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	16.000	16.000
0076	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	118.000	118.000
0078	611.0639	Inlet Covers Type H-S	EACH	2.000	2.000
0080	611.3230	Inlets 2x3-FT	EACH	2.000	2.000
0082	618.0100	Maintenance and Repair of Haul Roads (project) 01. 2987-07-71	EACH	1.000	1.000
0084	619.1000	Mobilization	EACH	1.000	1.000
0086	624.0100	Water	MGAL	8.000	8.000
0088	625.0100	Topsoil	SY	40.000	40.000
0090	625.0500	Salvaged Topsoil	SY	377.000	377.000
0092	628.1504	Silt Fence	LF	170.000	170.000
0094	628.1520	Silt Fence Maintenance	LF	170.000	170.000
0096	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0098	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000

2987-07-71

Line	Item	Item Description	Unit	Total	Qty
0100	628.2008	Erosion Mat Urban Class I Type B	SY	377.000	377.000
0102	628.6005	Turbidity Barriers	SY	9.000	9.000
0104	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0106	628.7015	Inlet Protection Type C	EACH	3.000	3.000
0108	628.7560	Tracking Pads	EACH	1.000	1.000
0110	628.7570	Rock Bags	EACH	20.000	20.000
0112	629.0210	Fertilizer Type B	CWT	0.120	0.120
0114	630.0140	Seeding Mixture No. 40	LB	17.000	17.000
0116	630.0200	Seeding Temporary	LB	15.000	15.000
0118	630.0500	Seed Water	MGAL	8.500	8.500
0120	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	1.000	1.000
0122	637.2210	Signs Type II Reflective H	SF	3.000	3.000
0124	638.2602	Removing Signs Type II	EACH	1.000	1.000
0126	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0128	642.5001	Field Office Type B	EACH	1.000	1.000
0130	643.0420	Traffic Control Barricades Type III	DAY	720.000	720.000
0132	643.0705	Traffic Control Warning Lights Type A	DAY	360.000	360.000
0134	643.0900	Traffic Control Signs	DAY	360.000	360.000
0136	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0138	643.5000	Traffic Control	EACH	1.000	1.000
0140	645.0111	Geotextile Type DF Schedule A	SY	204.000	204.000
0142	645.0120	Geotextile Type HR	SY	20.000	20.000
0144	646.1020	Marking Line Epoxy 4-Inch	LF	525.000	525.000
0146	646.7120	Marking Diagonal Epoxy 12-Inch	LF	96.000	96.000
0148	646.8120	Marking Curb Epoxy	LF	74.000	74.000
0150	650.4000	Construction Staking Storm Sewer	EACH	3.000	3.000
0152	650.4500	Construction Staking Subgrade	LF	281.000	281.000
0154	650.5000	Construction Staking Base	LF	194.000	194.000
0156	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	568.000	568.000
0158	650.6501	Construction Staking Structure Layout (structure) 01. P-40-0556	EACH	1.000	1.000
0160	650.7000	Construction Staking Concrete Pavement	LF	87.000	87.000
0162	650.8501	Construction Staking Electrical Installations (project) 01. 2987-07-71	EACH	1.000	1.000
0164	650.9000	Construction Staking Curb Ramps	EACH	1.000	1.000
0166	650.9500	Construction Staking Sidewalk (project) 01. 2987-07-71	EACH	1.000	1.000
0168	650.9911	Construction Staking Supplemental Control (project) 01. 2987-07-71	EACH	1.000	1.000
0170	650.9920	Construction Staking Slope Stakes	LF	562.000	562.000
0172	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	249.000	249.000
0174	653.0135	Pull Boxes Steel 24x36-Inch	EACH	3.000	3.000
0176	653.0905	Removing Pull Boxes	EACH	2.000	2.000
0178	654.0105	Concrete Bases Type 5	EACH	1.000	1.000
0180	655.0610	Electrical Wire Lighting 12 AWG	LF	114.000	114.000
0182	655.0625	Electrical Wire Lighting 6 AWG	LF	907.000	907.000
0184	690.0150	Sawing Asphalt	LF	119.000	119.000
0186	690.0250	Sawing Concrete	LF	38.000	38.000
0188	715.0502	Incentive Strength Concrete Structures	DOL	1,560.000	1,560.000
0190	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0192	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. Station 50+25	EACH	1.000	1.000
0194	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	250.000	250.000
0196	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	900.000	900.000

Estimate Of Quantities

2987-07-71

Line	Item	Item Description	Unit	Total	Qty
0198	SPV.0060	Special 01. Removing Lighting Unit Type A	EACH	1.000	1.000
0200	SPV.0060	Special 06. Reinstall Lighting Unit Type A	EACH	1.000	1.000
0202	SPV.0060	Special 10. Adjusting Sanitary Manhole Cover	EACH	1.000	1.000
0204	SPV.0060	Special 20. Wingwall Tie Back	EACH	2.000	2.000

REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	201.0120 CLEARING ID	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0165 REMOVING GUARDRAIL LF	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (CMP 12-INCH) LF	204.0245.02 REMOVING STORM SEWER (RCP 12-INCH) LF
0010	49+00	-	51+15	LT & RT	8	933	388	198	64	1	16	23
				TOTAL 0010	8	933	388	198	64	1	16	23

NO SEPERATE PAYMENT WILL BE MADE FOR EXCAVATION COMMON. THIS WORK PAID UNDER THE ITEMS REMOVING ASPHALTIC SURFACE AND EXCAVATION FOR STRUCTURES.

CONCRETE

CATEGORY	STATION	TO	STATION	LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
0010	49+00	-	49+77	Lt & Rt	-	-	154	120	10
0010	49+77	-	49+98	Rt	-	-	42	-	-
0010	49+77	-	49+98	Lt	67	45	-	189	-
0010	49+98	-	50+19	Rt	61	45	-	360	-
	Bridge								-
0010	50+33	-	50+55	Lt	64	45	-	137	-
0010	50+56	-	50+79	Rt	62	45	-	969	-
0010	50+55	-	51+15	Lt	-	-	120	-	-
0010	50+79	-	51+15	Rt	-	-	72	-	-
0010				Project	-	-	-	-	-
				TOTAL 0010	254	180	388	1,775	10

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
0010	49+00	-	Deck	LT & RT	18	227	5.0
0010	Deck	-	51+15	LT & RT	29	131	3.0
				TOTAL 0010	47	358	8

PAVING

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	49+00	-	Deck	RT & LT	97	219	17
0010	Deck	-	51+15	RT & LT	40	95	-
				TOTAL 0010	137	313	17

ADJUSTMENTS

CATEGORY	LOCATION	SPV.0060.10 ADJUSTING SANITARY MANHOLE COVER EACH
0030	49+56, 3.5' RT	1
	TOTAL 0030	1

3

TRAFFIC CONTROL

CATEGORY	LOCATION	#	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	#	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	#	643.0900 TRAFFIC CONTROL SIGNS DAY	#	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0010		8	720	4	360	4	360	2	28
	TOTAL 0010		720		360		360		28

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	646.8120 MARKING CURB EPOXY LF	REMARKS
0010	49+00	-	51+15	LT & RT	108	-	-	WHITE
0010	49+00	-	51+15	LT & RT	417	-	-	YELLOW
0010	49+35	-	50+00	MEDIAN	-	-	37	
0010	50+00	-	41+15	MEDIAN	-	96	37	
				TOTAL 0010	525	96	74	

SIGNING

CATEGORY	STATION	LOCATION	SIGN CODE	W	L	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
0010	49+87	MEDIAN	R4-7	24"	30"	1	3	1	1
		TOTAL 0010				1	3	1	1

EROSION CONTROL

CATEGORY	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.6005 TURBIDITY BARRIERS SY	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH
0010		170	170	1	3	377	9	1	3	1	20
	TOTAL 0010	170	170	1	3	377	9	1	3	1	20

LANDSCAPING

CATEGORY	LOCATION	606.0300 RIPRAP HEAVY CY	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	645.0120 GEOTEXTILE TYPE HR SY
0010	PROJECT WIDE	10	40	377	0.12	17	15	8.5	20
	TOTAL 0010	10	40	377	0.12	17	15	8.5	20

STORM SEWER PIPES

FROM	-	TO	CATEGORY	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
1	-	2	0010	-	72	-	-	703.88	703.16	0.0990
2	-		0010	-	46	-	-	703.06	702.60	0.0100
	-	5	0010	1	-	16	4	703.64	703.32	0.0200
			TOTALS 0010	1	118	16	4			

*NON-BID ITEM: FOR INFORMATION ONLY

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	CATEGORY	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	611.0639 INLET COVERS TYPE H-S EACH	611.3230 INLETS 2X3-FT EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT
1	50+70.00	35.76'RT	0010	-	1	1	1	707.80	703.88	3.15
2	50+74.04	37.01' LT	0010	-	1	1	1	707.83	703.06	4.00
5	49+70.20	76.75' LT	0010	1	-	-	1	-	703.32	-
			TOTALS 0010	1	2	2	3			

*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION
***THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

650-STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500.01 CONSTRUCTION STAKING SIDEWALK (PROJECT) (01.2987-07-71) EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01.2987-07-71) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010		-										
0010	49+00	-	49+77	Lt & Rt	77	77	-	-	-	-	-	154
0010	49+77	-	49+98	Rt	21	21	-	-	-	-	-	42
0010	49+77	-	49+98	Lt	21	-	-	21	-	-	-	42
0010	49+98	-	50+19	Rt	21	-	-	21	-	-	-	42
0010		Bridge										
0010	50+33	-	50+55	Lt	22	-	-	22	-	-	-	44
0010	50+56	-	50+79	Rt	23	-	-	23	-	-	-	46
0010	50+55	-	51+15	Lt	60	60	-	-	-	-	-	120
0010	50+79	-	51+15	Rt	36	36	-	-	-	-	-	72
0010				Project	-	-	568	-	1	1	1	-
0010		-										
0010		-										
				TOTAL 0010	281	194	568	87	1	1	1	562

SAWING

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	49+00	-	Deck	LT & RT	65	15
0010	Deck	-	51+15	LT & RT	54	23
				TOTAL 0010	119	38

3

3

STREET LIGHTING REMOVALS

LOCATION (STA, OFFSET)	204.0195 REMOVING CONCRETE BASES EA	653.0905 REMOVING PULL BOXES EA	SPV.0060.01 REMOVING LIGHTING UNIT TYPE A EA
49+60.62' 57.26' LT	-	1	-
49+86.00' 0' LT	-	1	-
50+58.90' 0.191' LT	1	-	1
TOTAL	**1**	**2**	**1**

STREET LIGHTING ITEMS

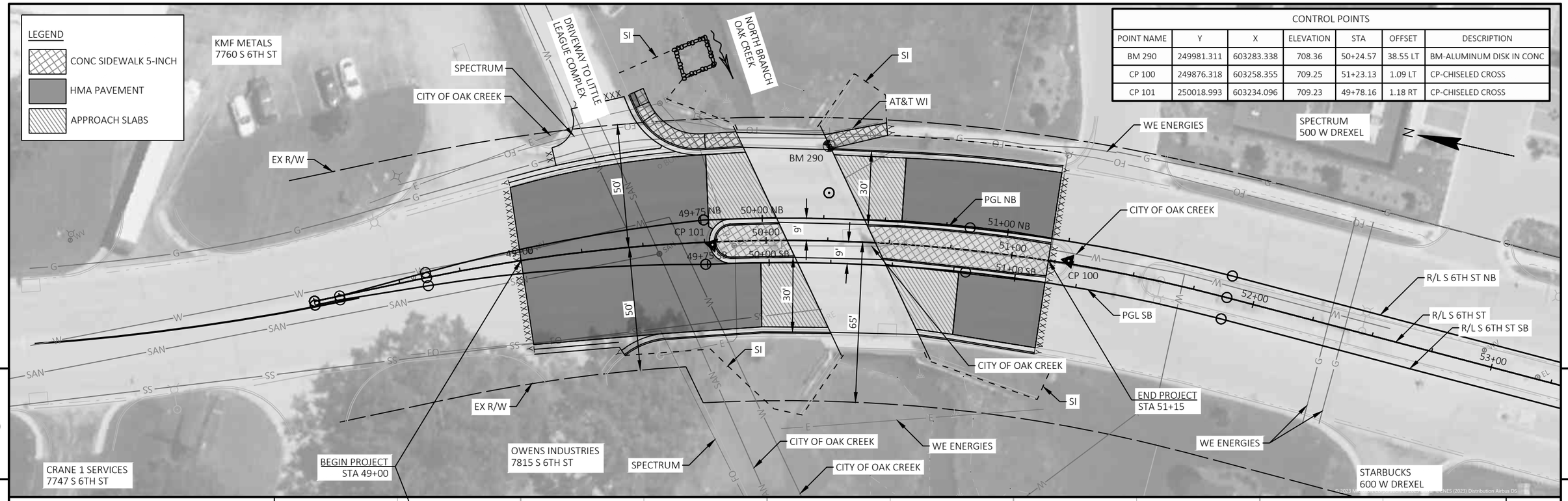
LOCATION (STA, OFFSET)	652.0225 CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH LF	653.0135 PULL BOXES STEEL 24X36-INCH EA	654.0105 CONCRETE BASES TYPE 5 EA	655.061 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	SPV.0060.06 REINSTALL LIGHTING UNIT TYPE A EA
49+60.62 57.266 LT		1	-	-		-
TO	64				237	
49+86.00 0.010 LT		1	0	-		-
TO	SEE BRIDGE PLAN				264	
50+58.90 0.191 LT		1	0	-		-
TO	41				158	
50+58.90 40.772 LT		-	1	114		1
SUBTOTAL	**105**	**3**	**1**	**114**	**659**	**1**
49+53.47 44.831 RT		-	-	-		-
TO	71				248	
49+86.00 0.010 LT		-	-	-		-
SUBTOTAL	**71**	**-**	**-**	**-**	**248**	**-**
TOTAL	**176**	**3**	**1**	**114**	**907**	**1**

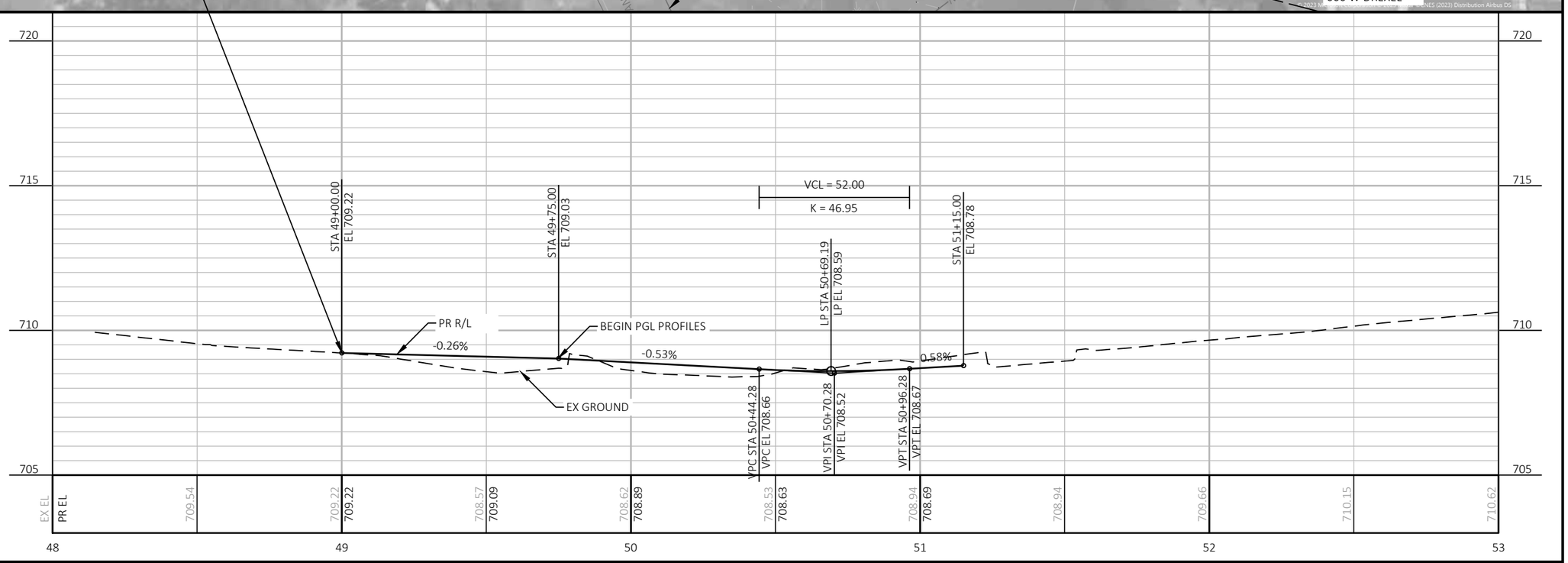
ALL ITEMS CATEGORY 0010

SA.	**CITY OF OAK CREEK - ENGINEERING DEPARTMENT**				
ST.					
W.	DESIGNED BY DATE	DRAWN BY DATE	CHECKED BY DATE		
G.	A. LEDGER 3/2025	A. LEDGER 3/2025	A. LEDGER 3/2025		
E.	**MISCELLANEOUS QUANTITIES**				
T.	**IN: S. 6TH STREET**				
I.				SCALE	SHEET
TS.				PLAN HOR. N/A	1
PP.				PROFILE HOR. N/A	OF 3
				VER. N/A	
	APPROVED BY COUNCIL RESOLUTION NO. 12385-020723			FILE NO: 19029-1[illegible]	

T:\SHARED\DRAFTING\C3D\S. 6TH STREET BRIDGE - 7800 S\SHEETS\PD-S.6TH-7800.DWG

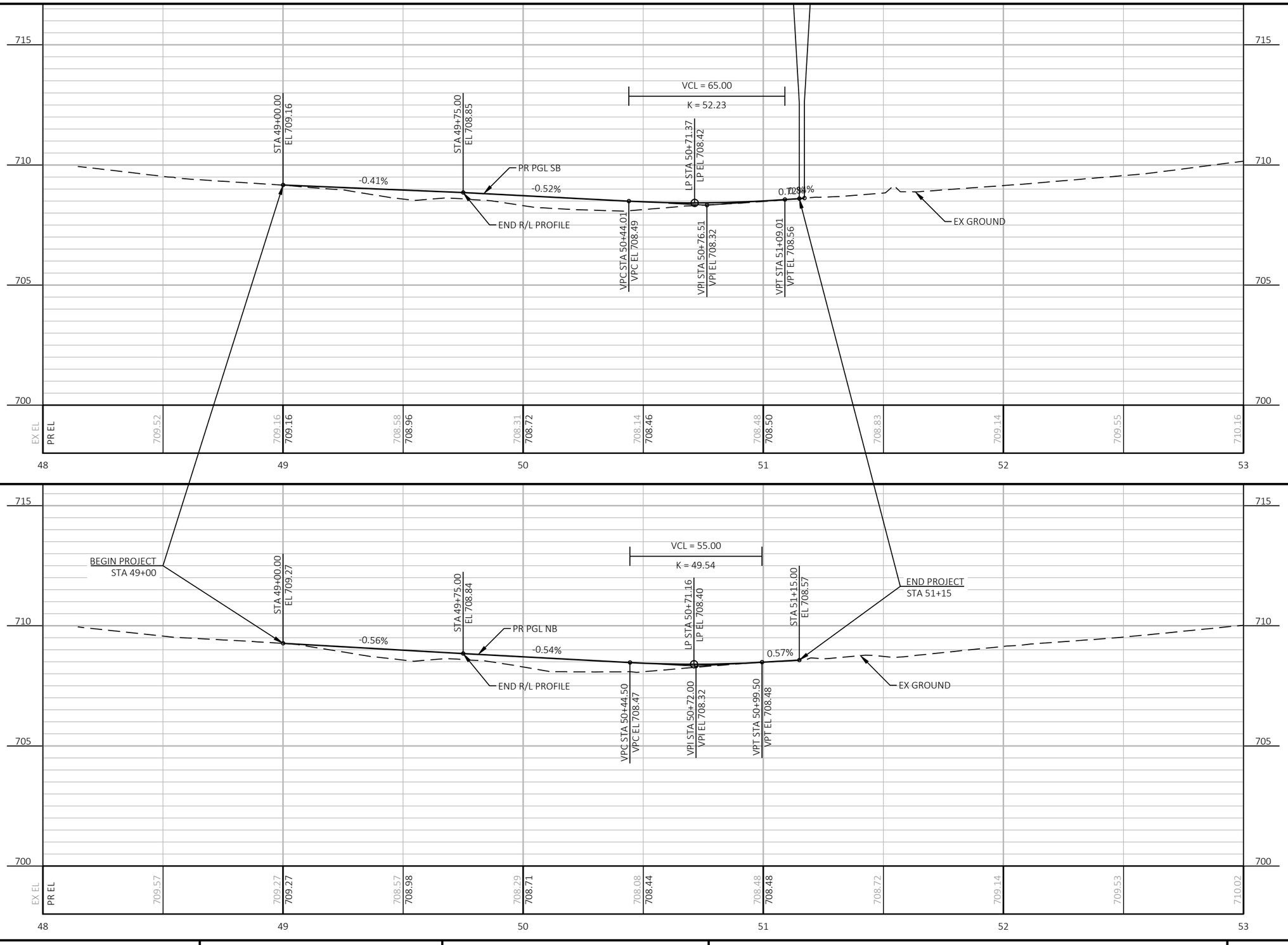
MQ





PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	PLAN AND PROFILE: 6TH STREET	SHEET 24	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\050101-PP.DWG
LAYOUT NAME - 01
PLOT DATE : 4/18/2025 9:10 AM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	PLAN AND PROFILE: 6TH STREET	SHEET 25	E

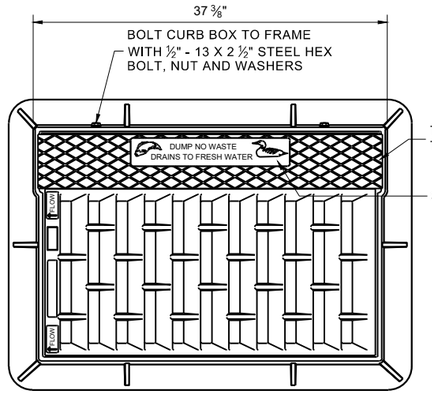
FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\050101-PP.DWG
LAYOUT NAME - PGL PROFILES

PLOT DATE : 3/7/2025 1:54 PM PLOT BY : DEITCH, AIDAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

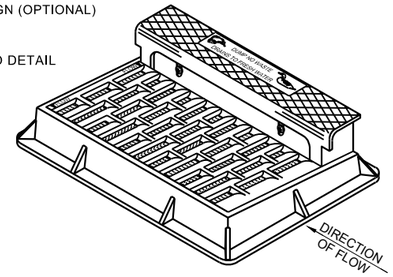
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

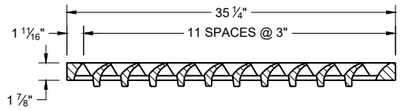
08A05-21A	INLET COVERS TYPE A, H, A-S, H-S & Z
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-13	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

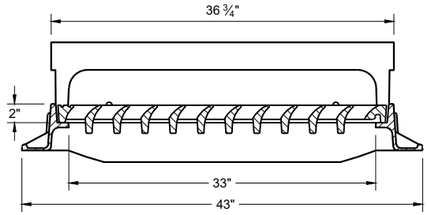


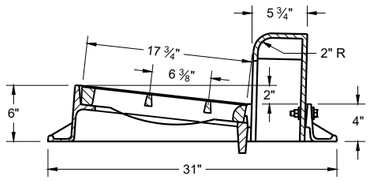
NOTE: EITHER CASTING IS ACCEPTABLE

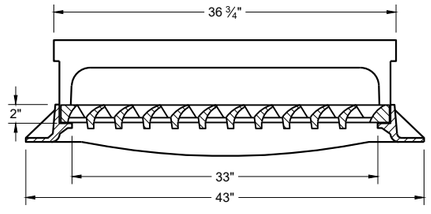


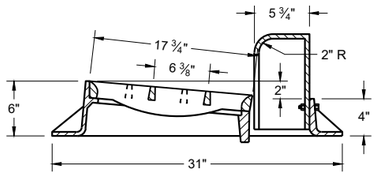
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







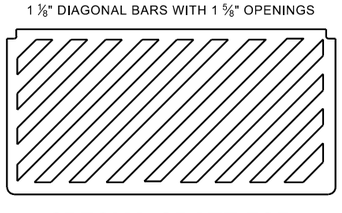




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

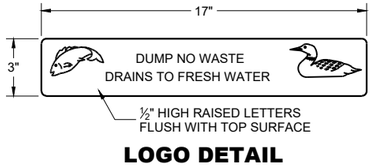
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



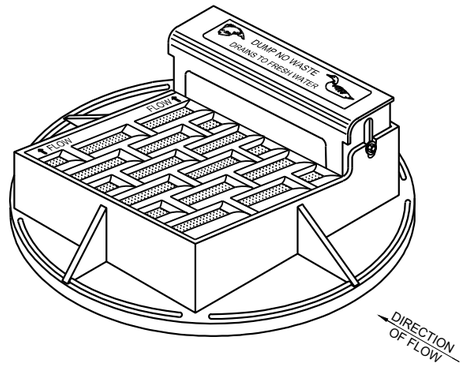
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

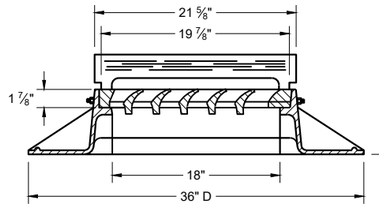


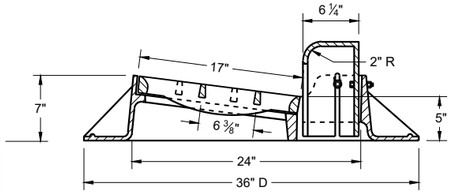
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





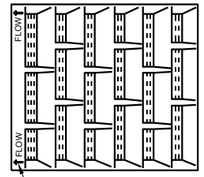
TYPE "A"

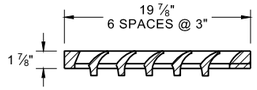
GENERAL NOTES

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

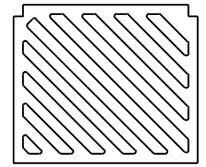
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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





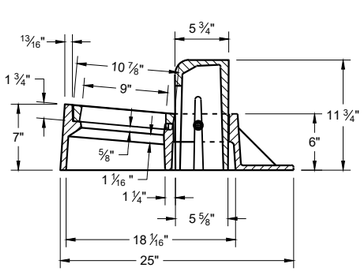
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



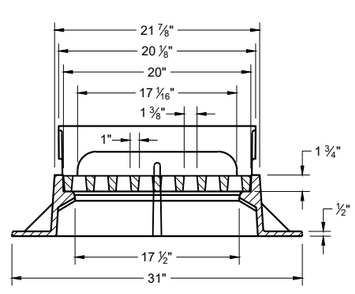
SPECIAL GRATE FOR TYPE "A" COVER

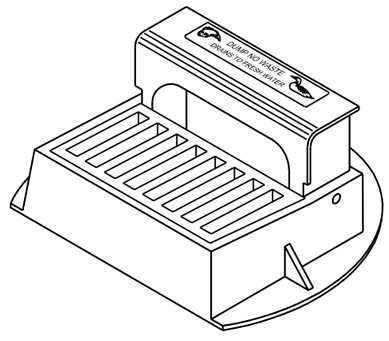
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





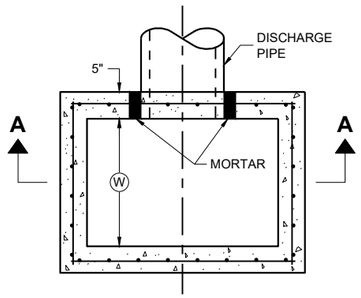
INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

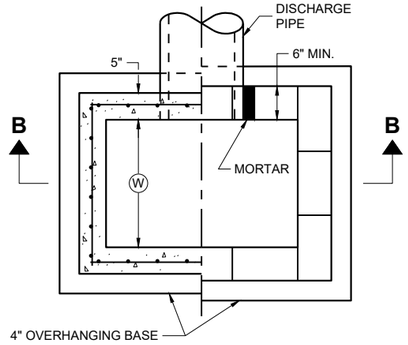
APPROVED
December 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

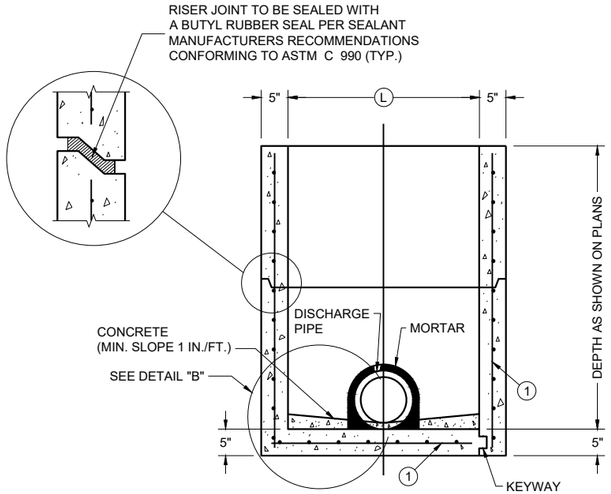
FHWA



PLAN VIEW



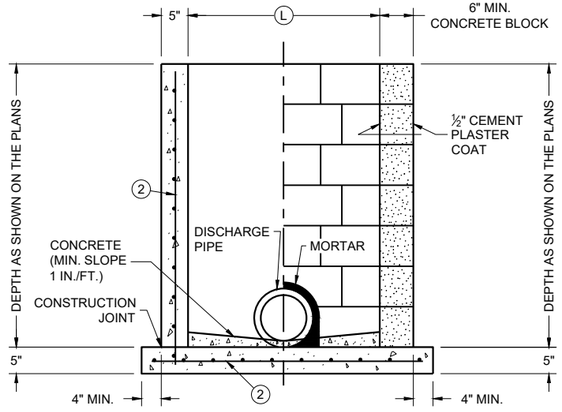
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

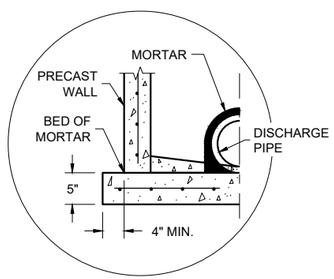
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

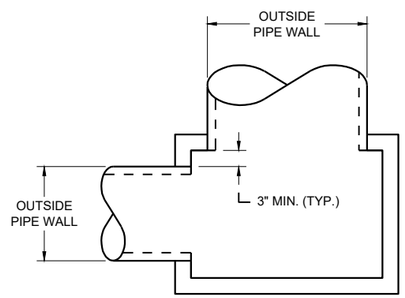
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

CATCH BASIN COVER MATRIX

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

PIPE MATRIX

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

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

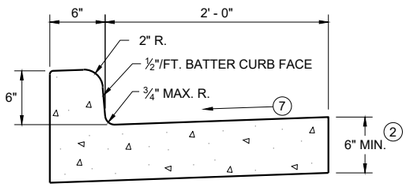
INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

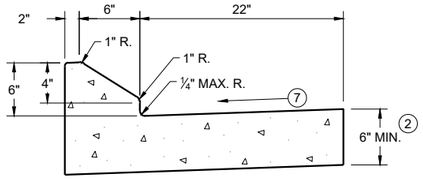
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

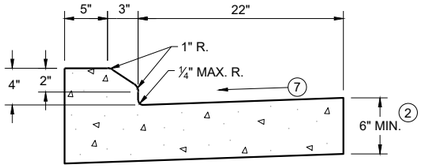
6
SDD 08C07-03



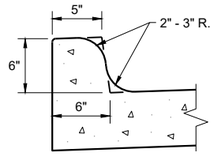
TYPES A (1) & D



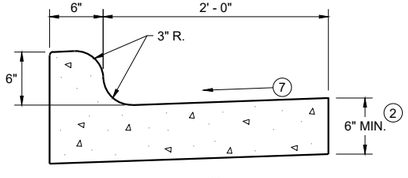
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

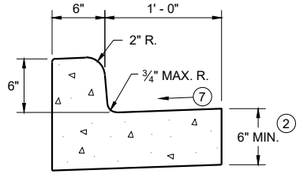


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



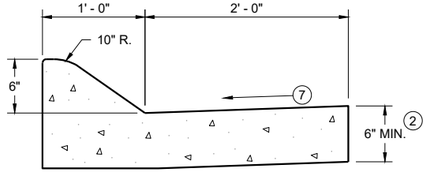
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

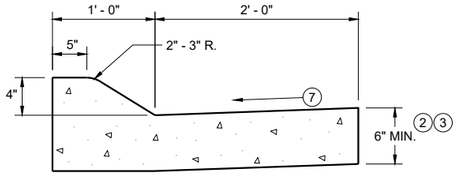


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

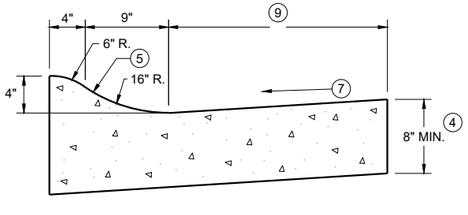


6" SLOPED CURB TYPES A (1) & D



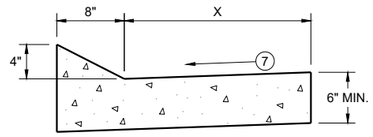
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

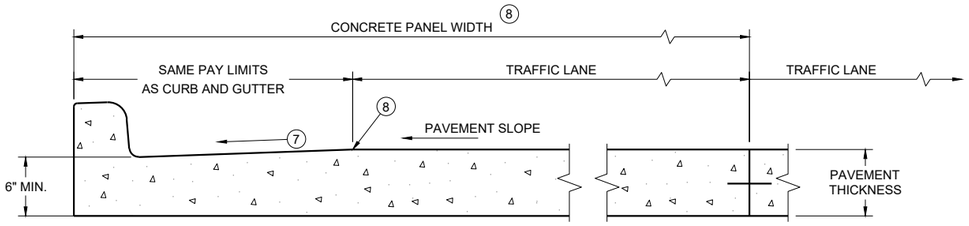


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

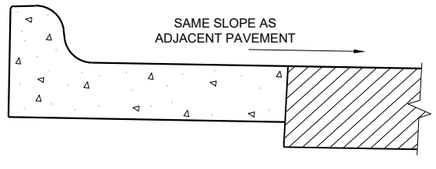
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

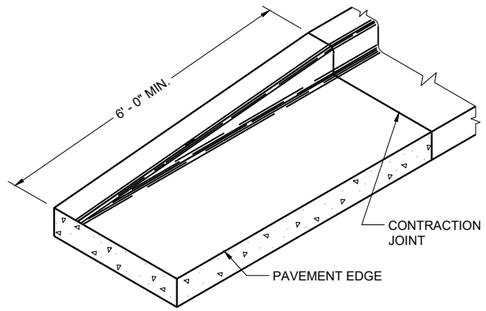
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

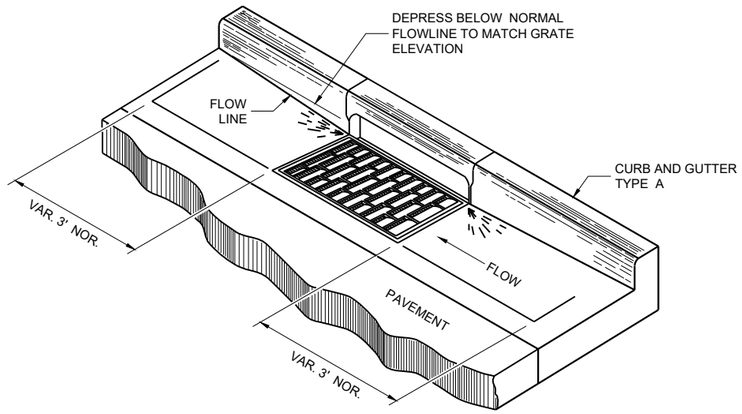
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

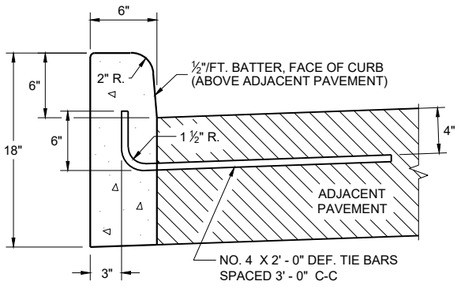
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

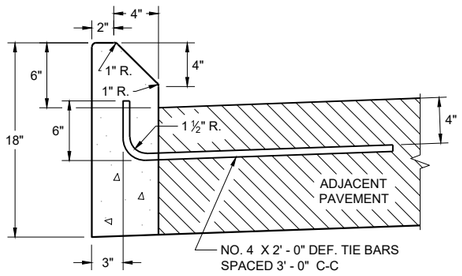
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

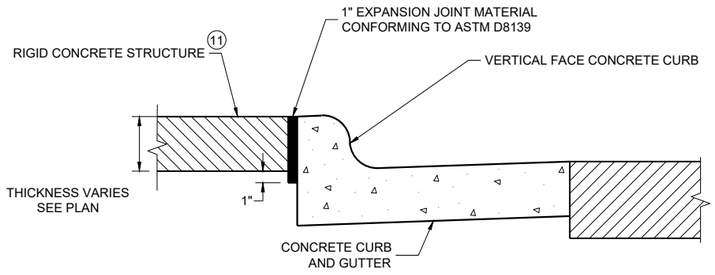


TYPES A (1) & D

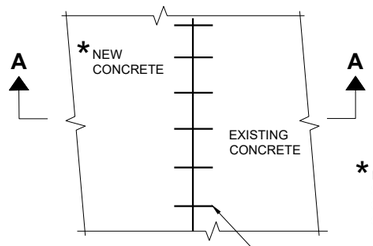


TYPES G (1) & J

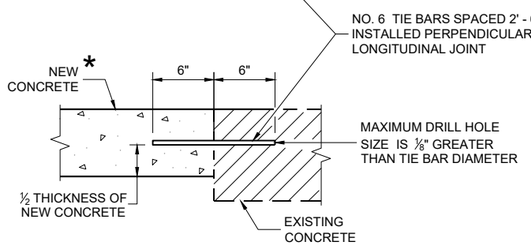
CONCRETE CURB



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

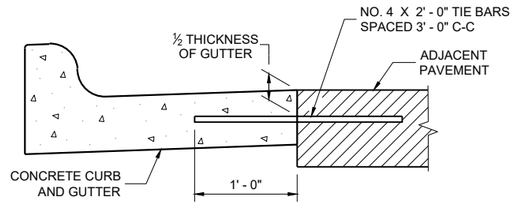


PLAN VIEW

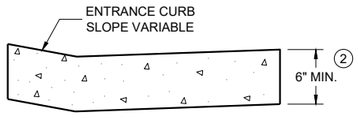


SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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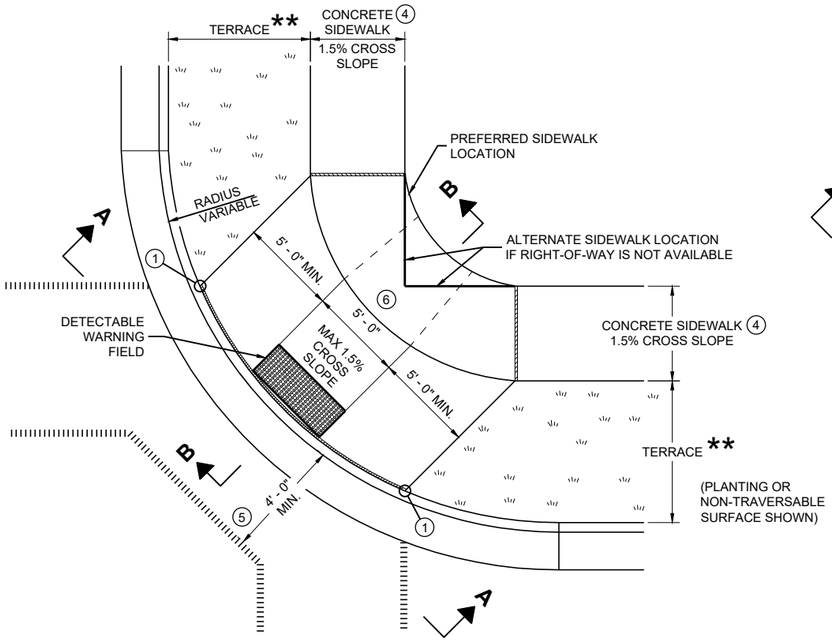
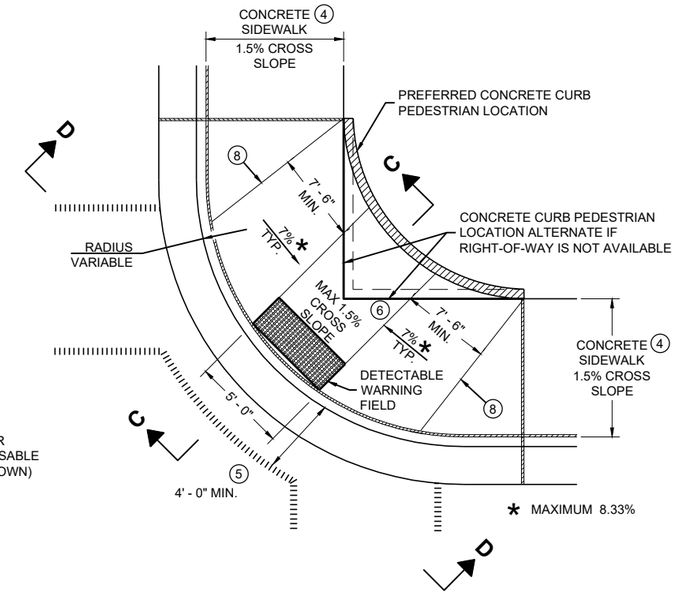
SDD 08D01-23b



PLAN VIEW

CURB RAMP TYPE 1

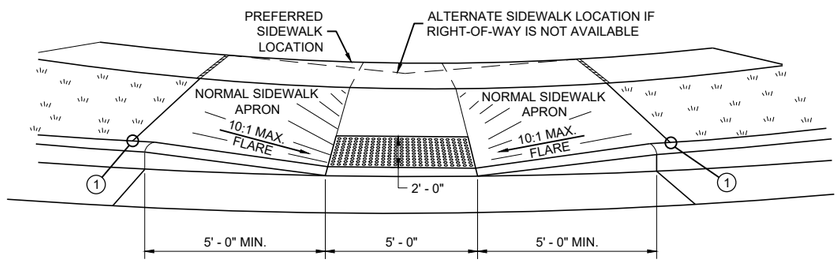
(CENTER OF CORNER RADIUS)



PLAN VIEW

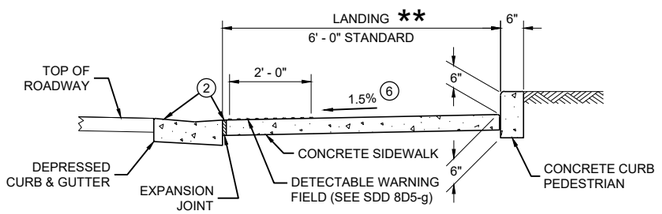
CURB RAMP TYPE 1 - A

(NO TERRACE)

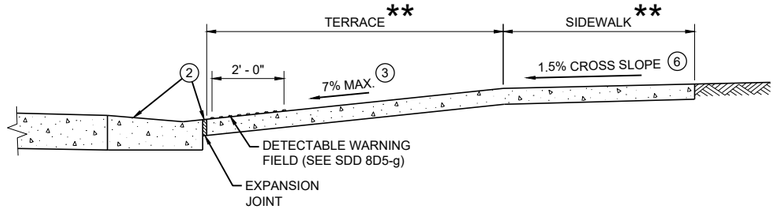


VIEW A - A FOR TYPE 1

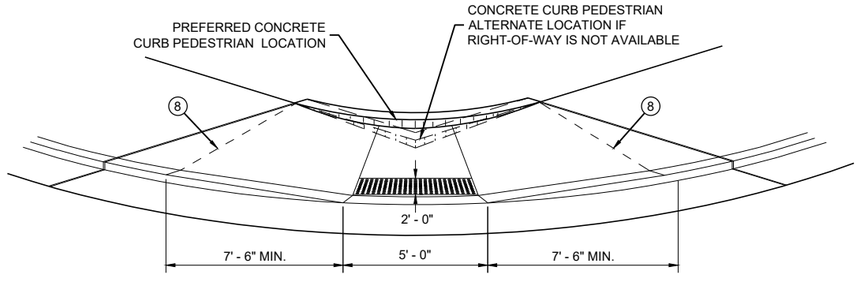
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION C - C FOR TYPE 1 - A



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

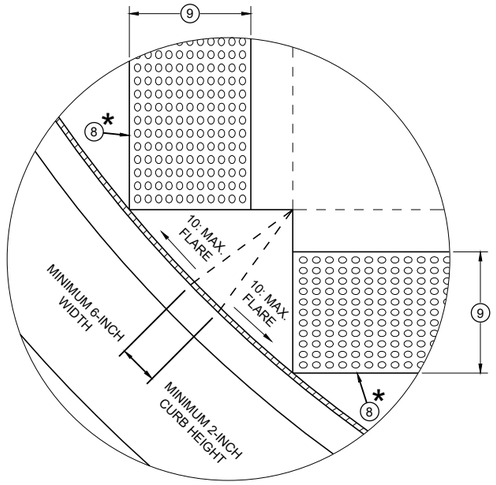
LEGEND

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

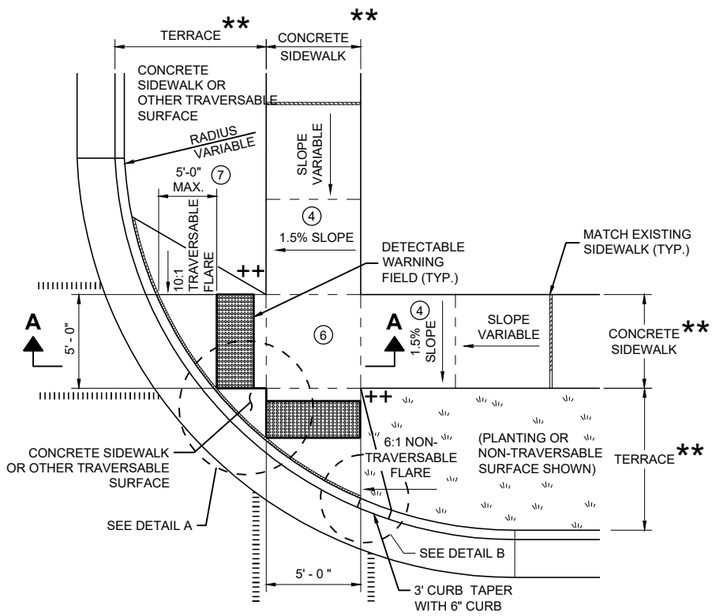
CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

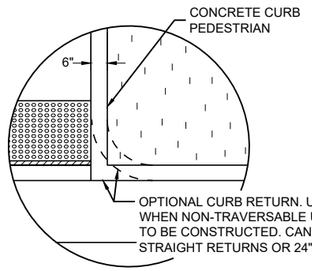
6
SDD 08D05-21a



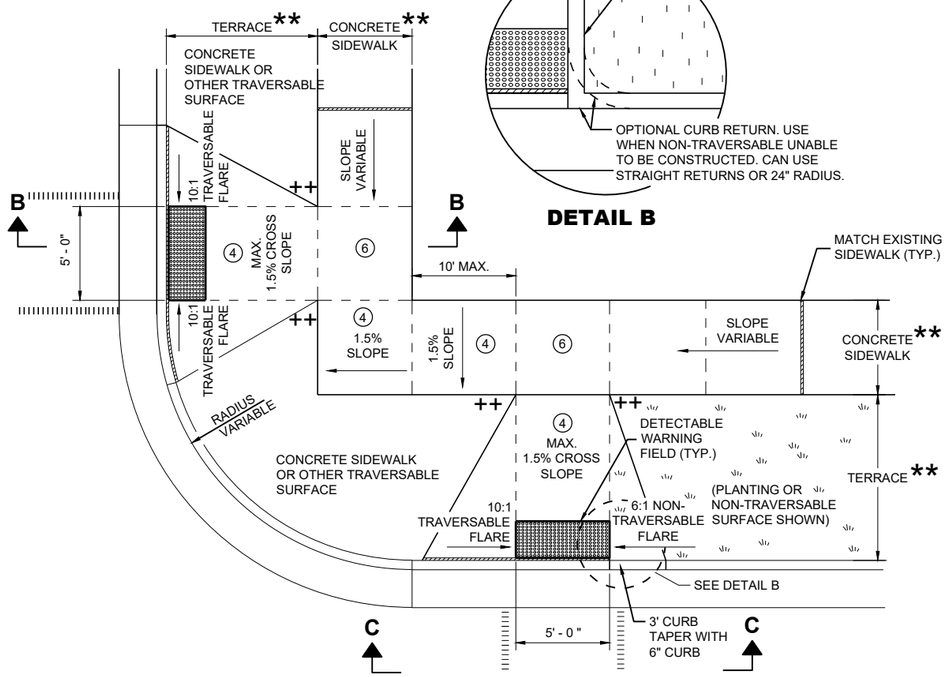
DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



DETAIL B



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

GENERAL NOTES

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

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

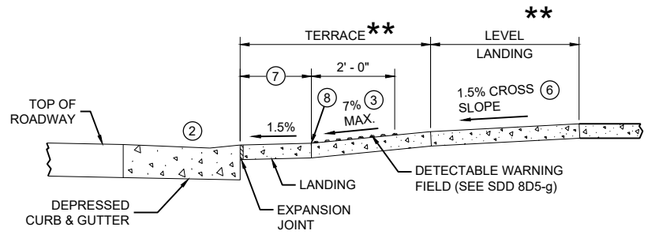
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

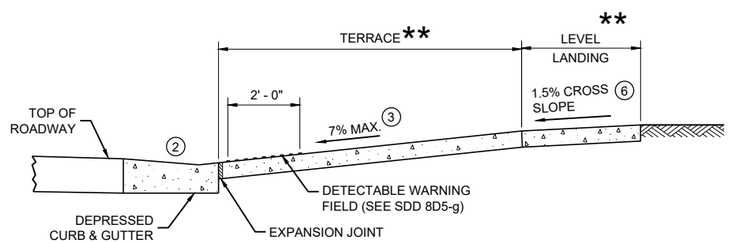


SECTION A - A FOR TYPE 2

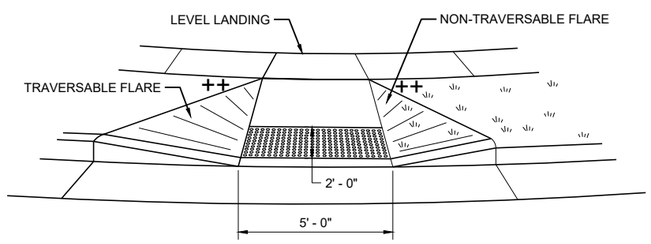
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



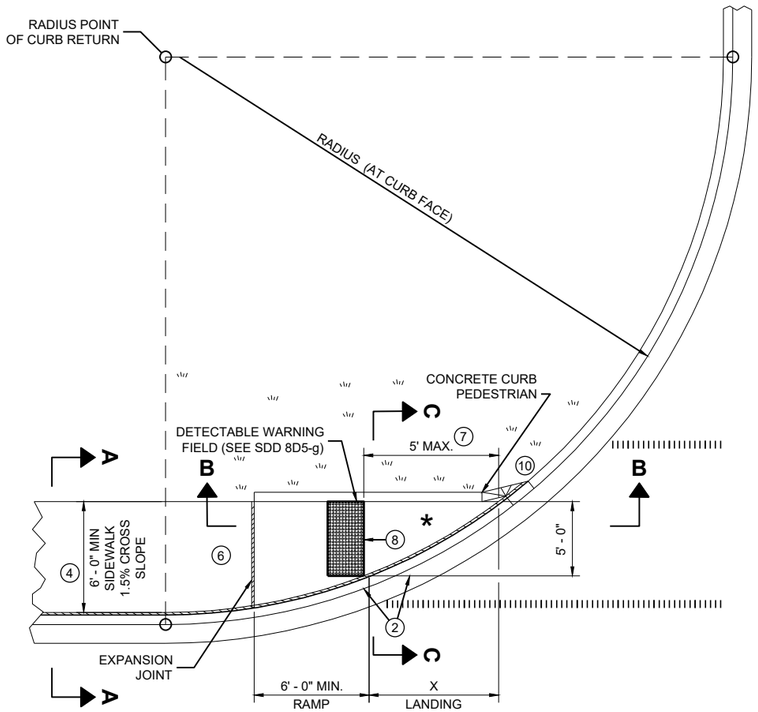
VIEW C - C FOR TYPE 3

LEGEND

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

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

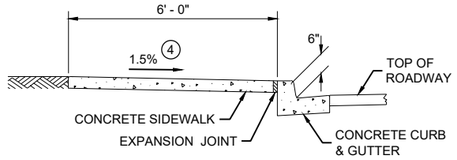


PLAN VIEW

CURB RAMP TYPE 4A

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

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

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

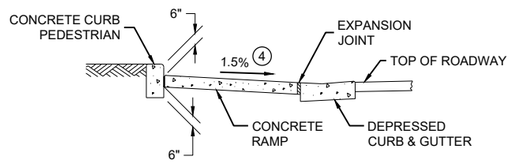
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

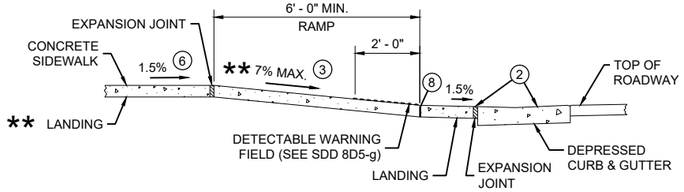
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

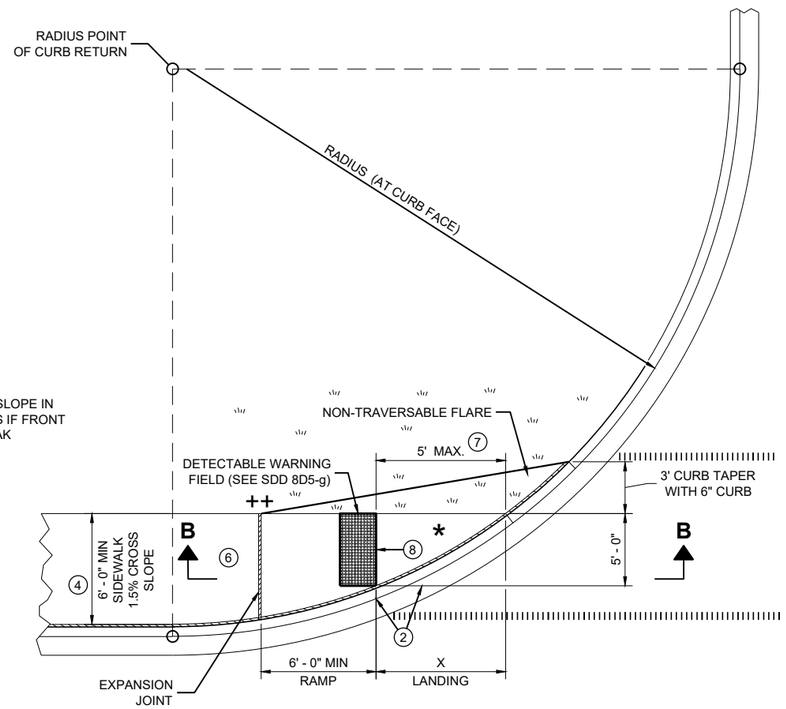


SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

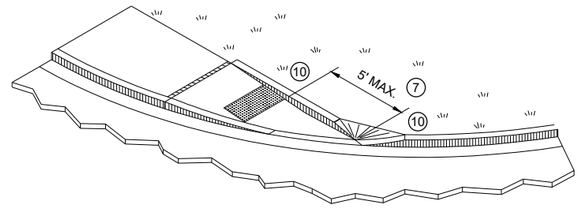
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



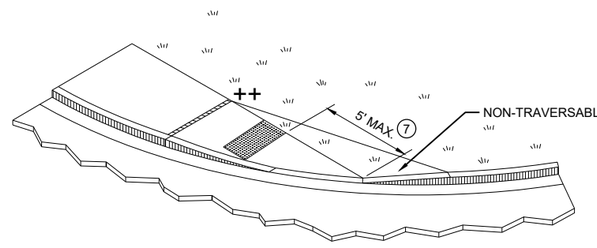
PLAN VIEW

CURB RAMP TYPE 4A1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4A



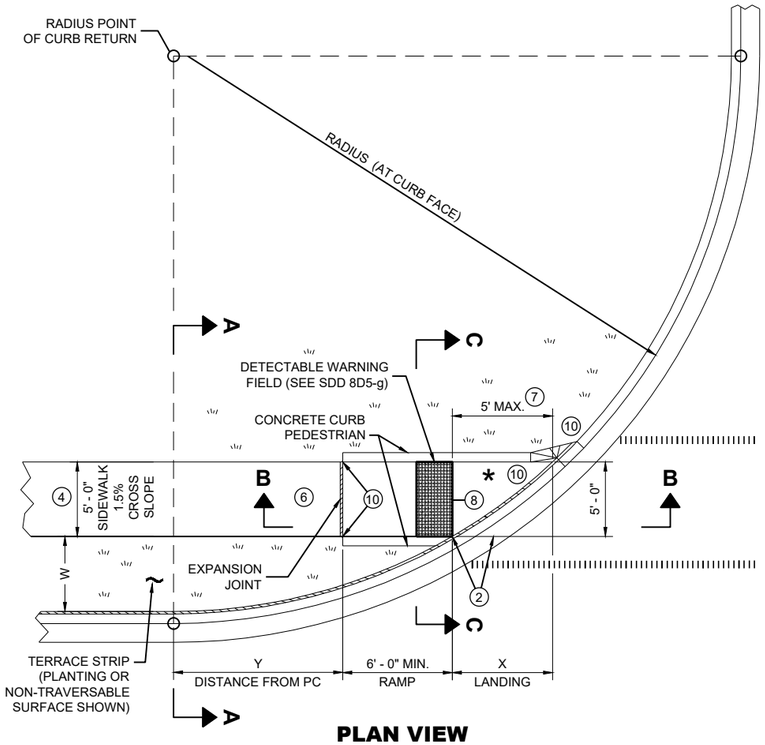
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05-21c



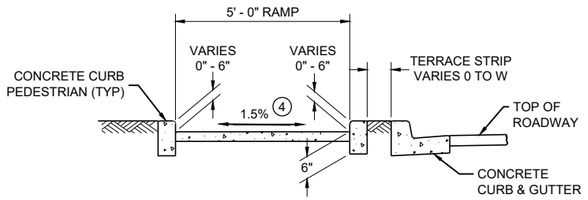
PLAN VIEW
CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET															4' - 10 3/4"	19' - 8 1/4"

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

LEGEND

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



SECTION C - C FOR TYPE 4B

GENERAL NOTES

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

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

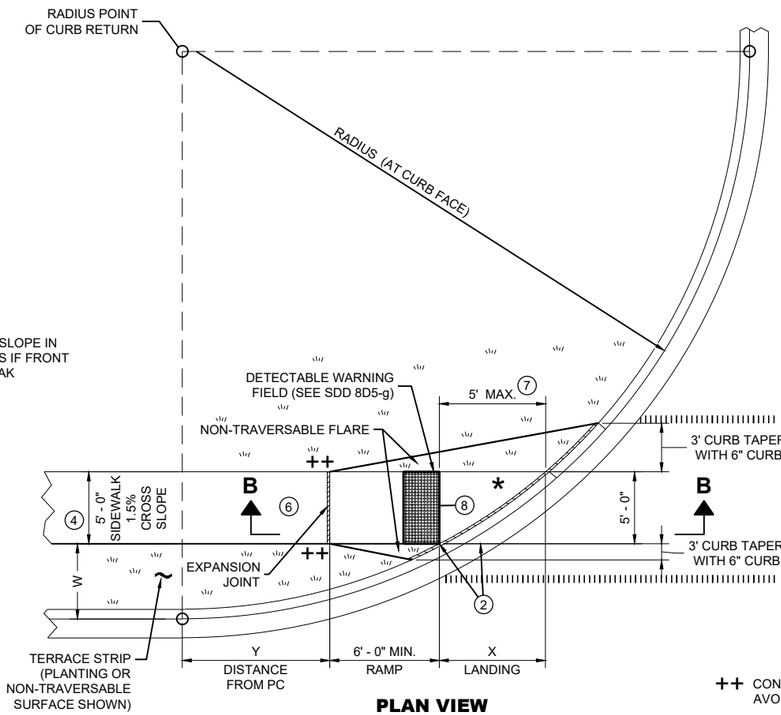
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

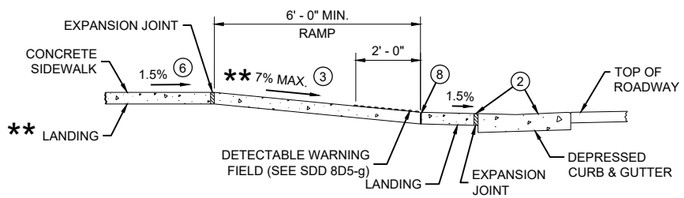
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



PLAN VIEW
CURB RAMP TYPE 4B1

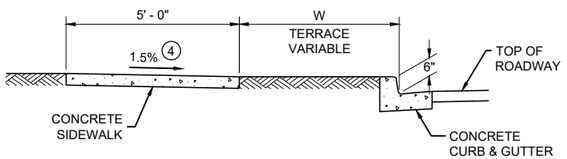
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

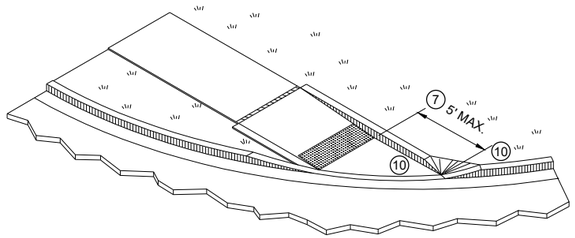


SECTION B - B FOR TYPE 4B AND TYPE 4B1

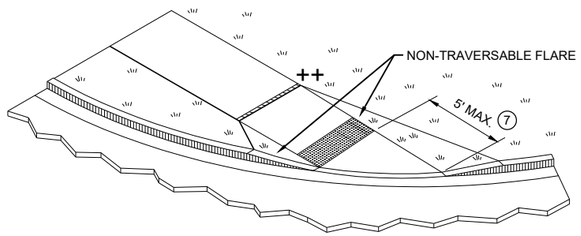
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



SECTION A - A FOR TYPE 4B



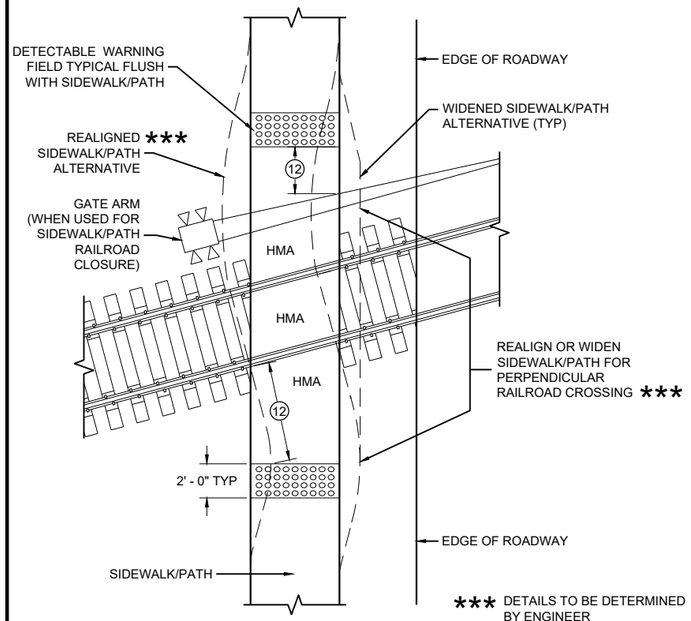
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

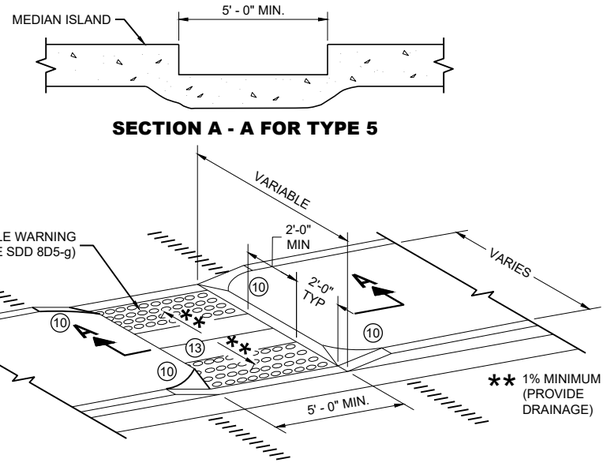
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

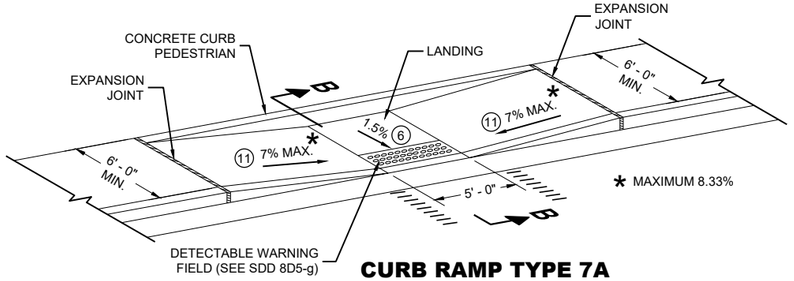
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

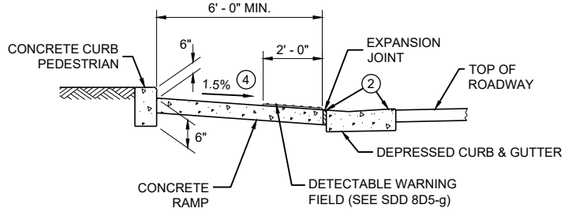
LEGEND

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

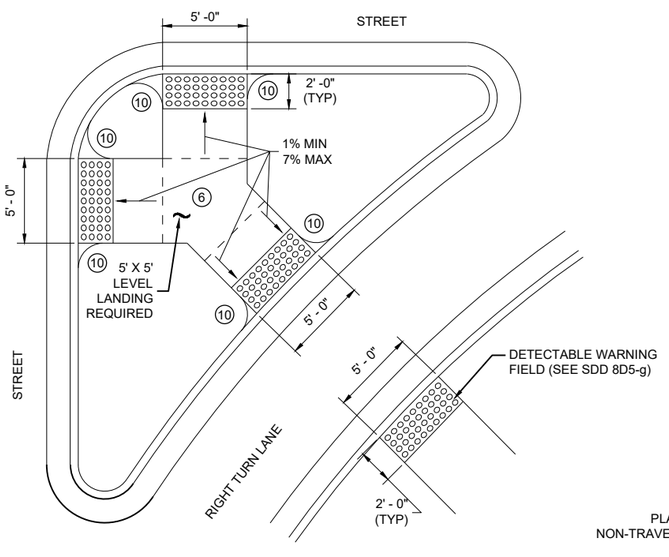


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



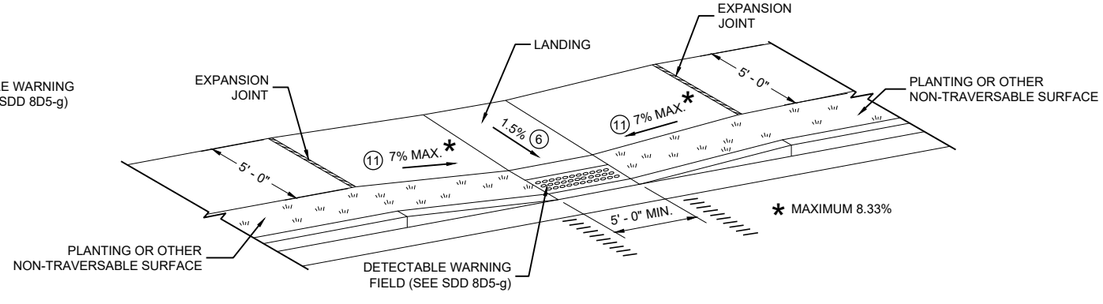
SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

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



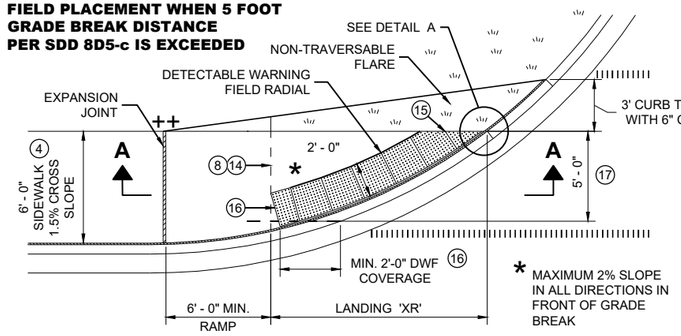
CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

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

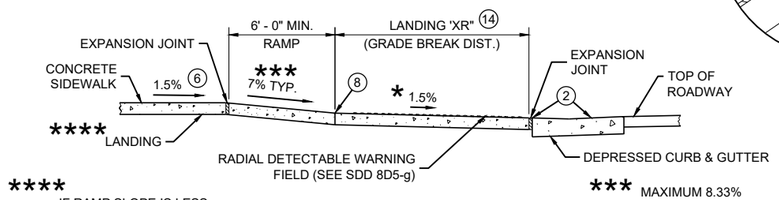
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED

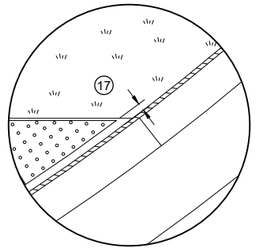


PLAN VIEW

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



SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

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

GENERAL NOTES

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

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

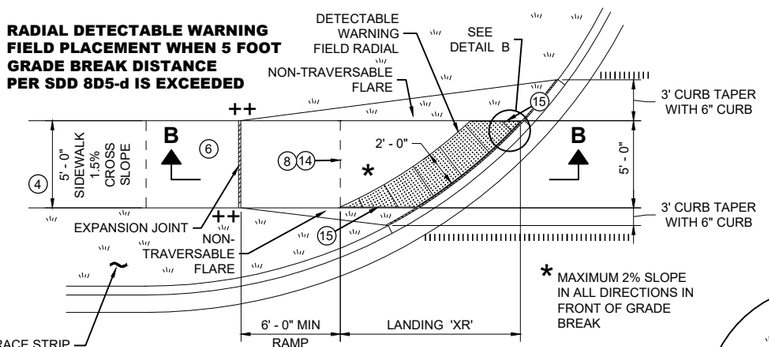
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

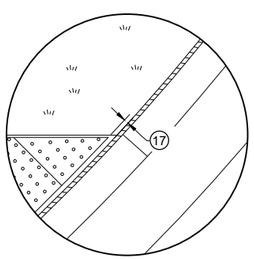
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED

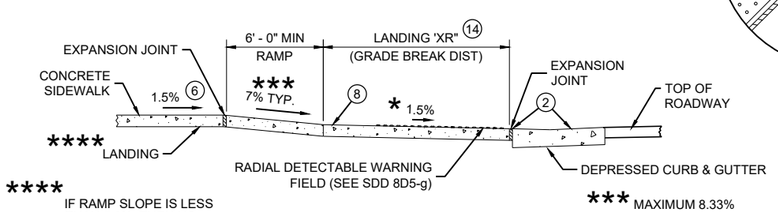


PLAN VIEW

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

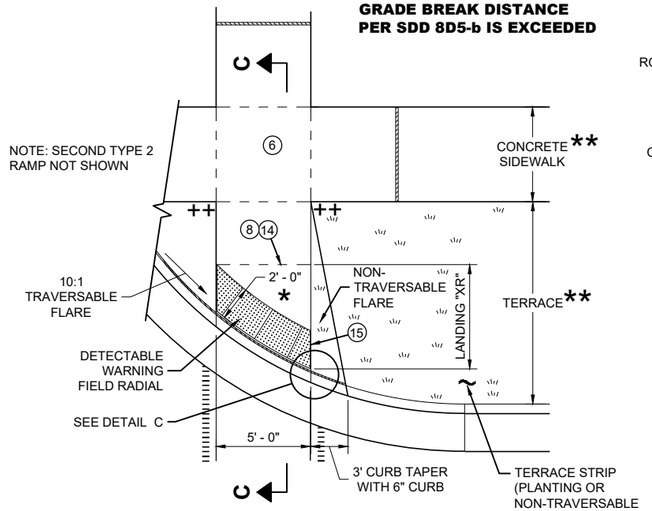


DETAIL B



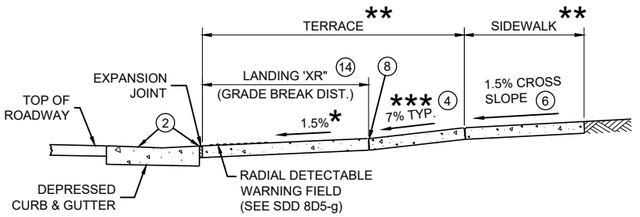
SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

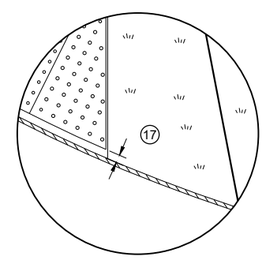


PLAN VIEW

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



SECTION C - C FOR TYPE 2



DETAIL C

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

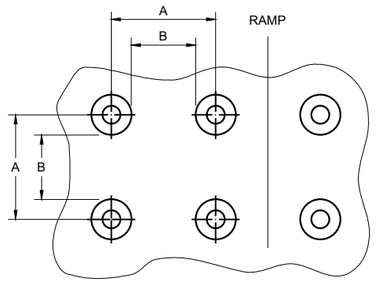
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

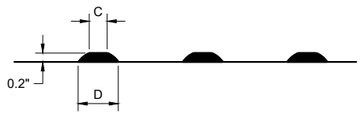
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

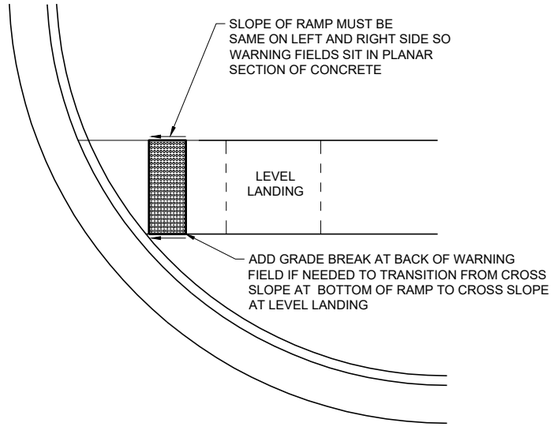
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

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

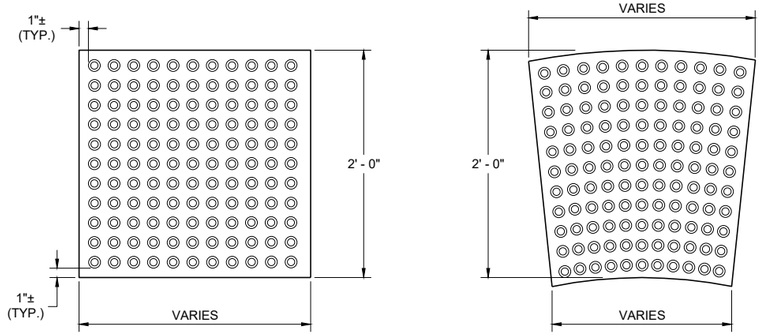
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

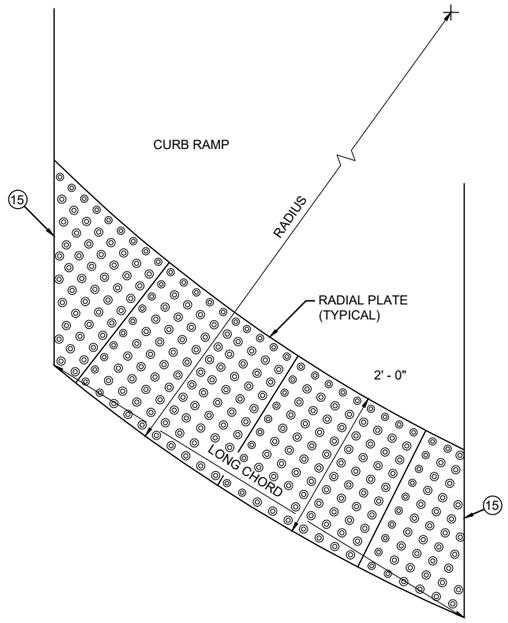
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



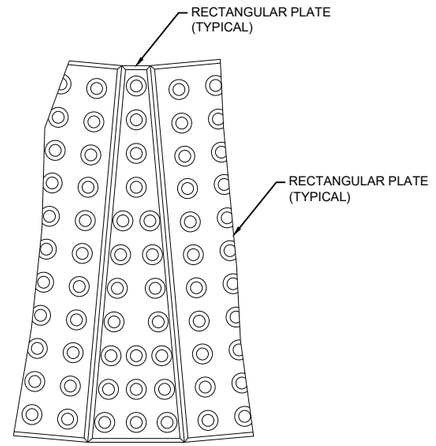
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 2023 — DATE

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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SDD 08D05-21g

GENERAL NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

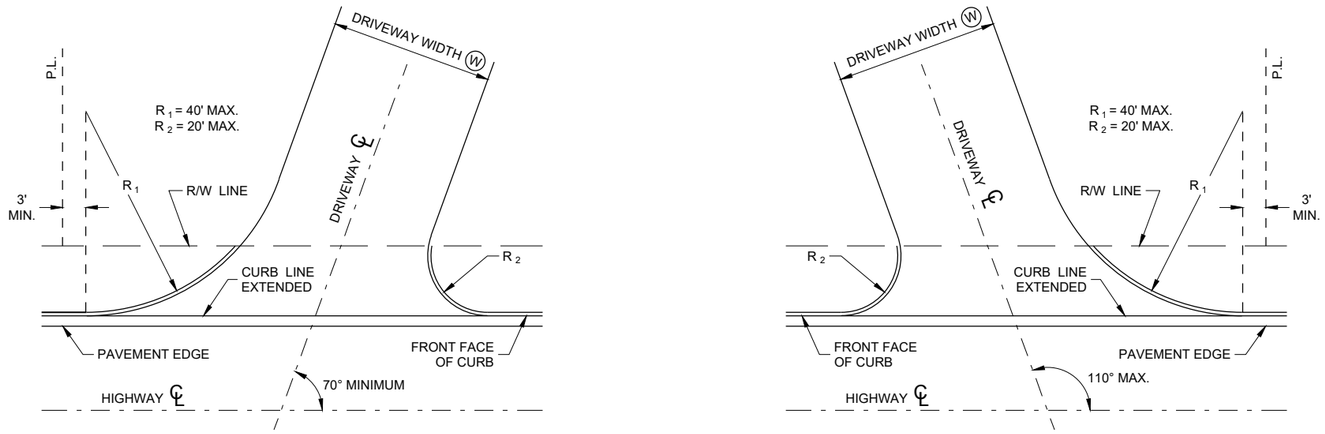
THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

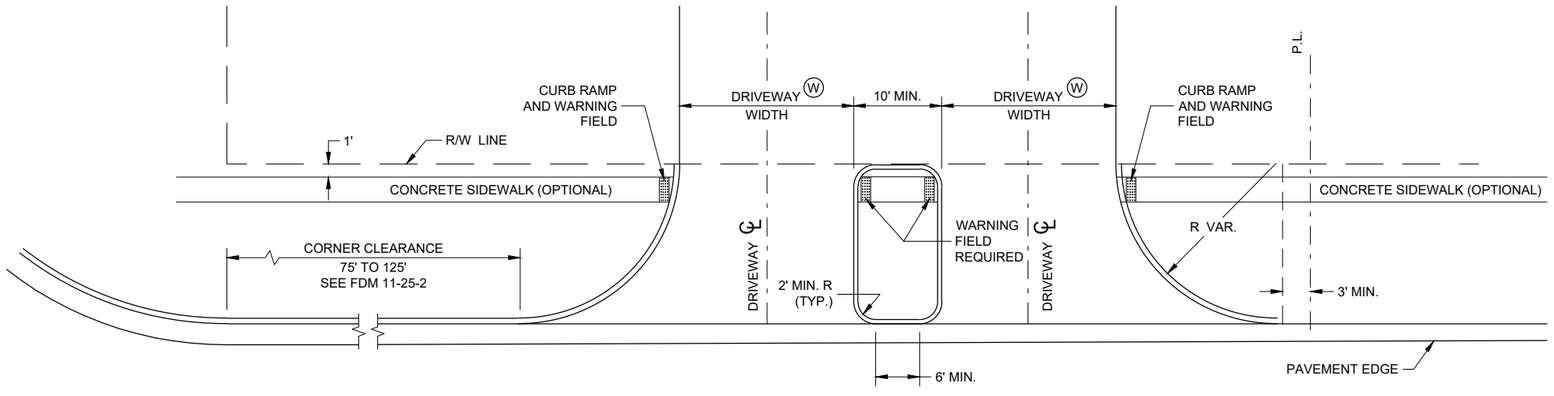
Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

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



SKEWED DRIVEWAY DETAILS (COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

DRIVEWAYS WITH CURB AND GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

00-00-00 — DATE

/S/ <AUTHOR> — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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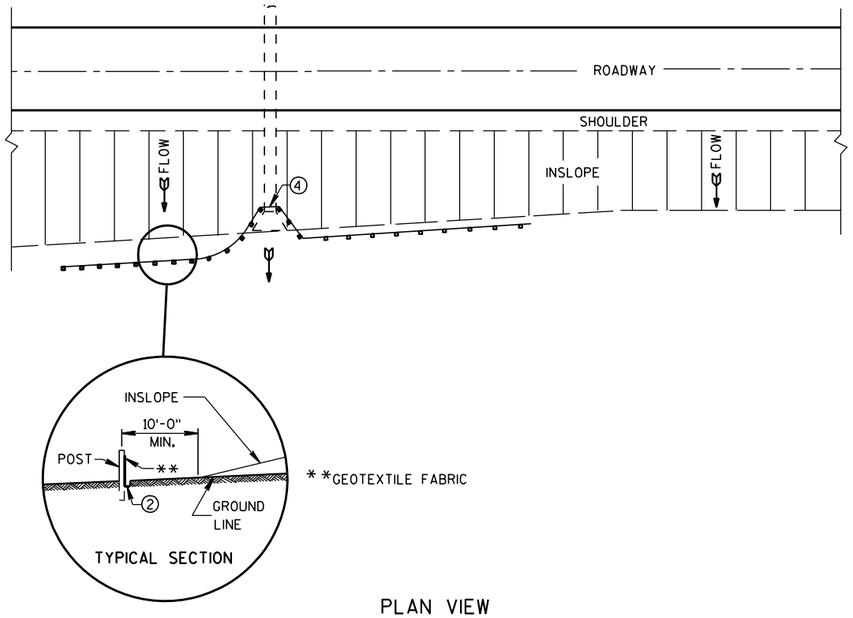
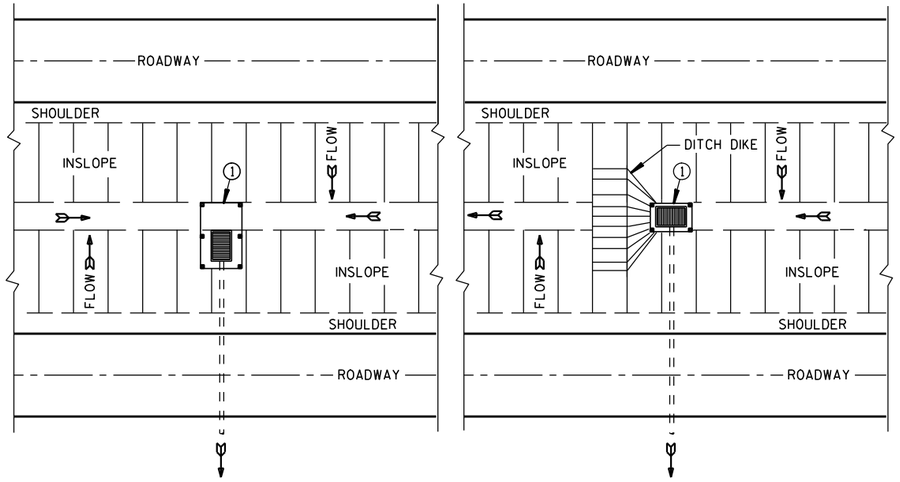
SDD 08D20 - 01



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



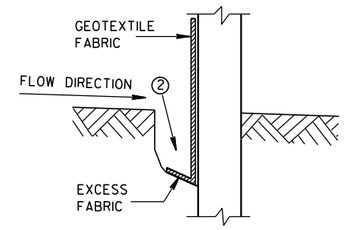
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

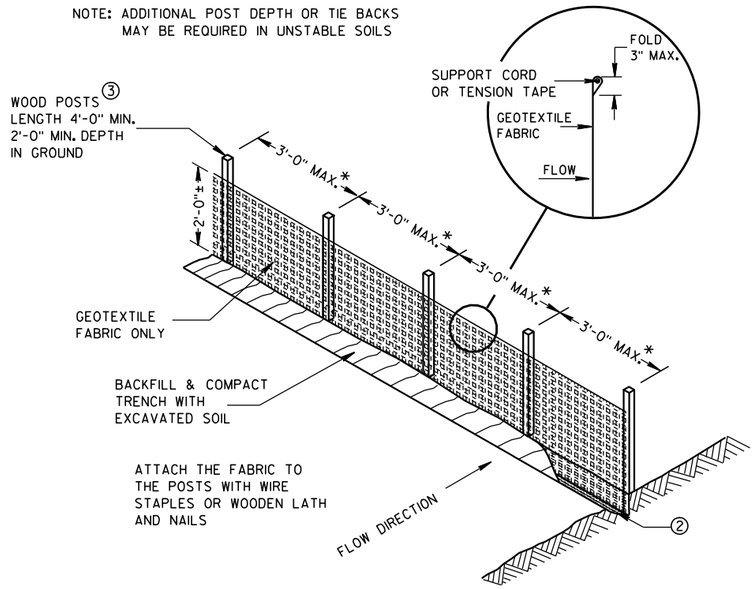
GENERAL NOTES

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

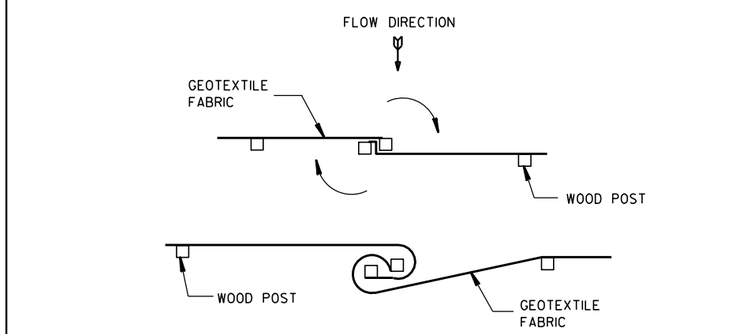
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



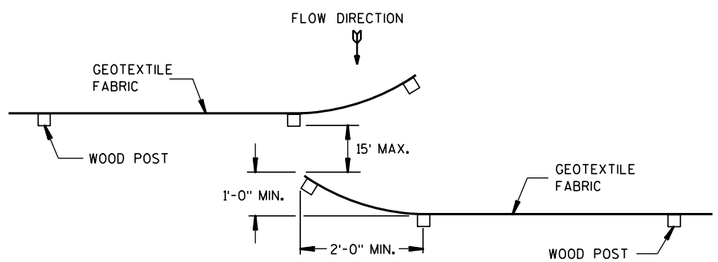
TRENCH DETAIL



SILT FENCE

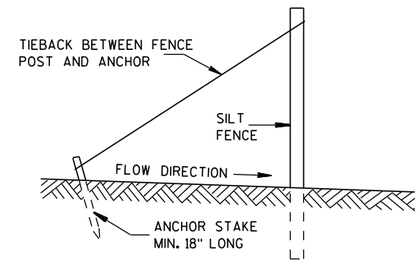


TWIST METHOD



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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S.D.D. 8 E 9-6

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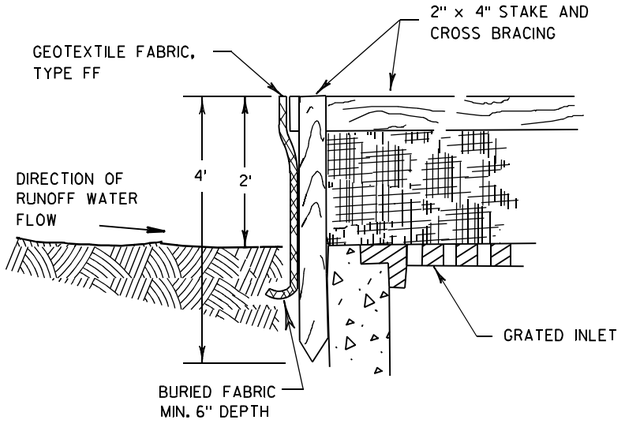
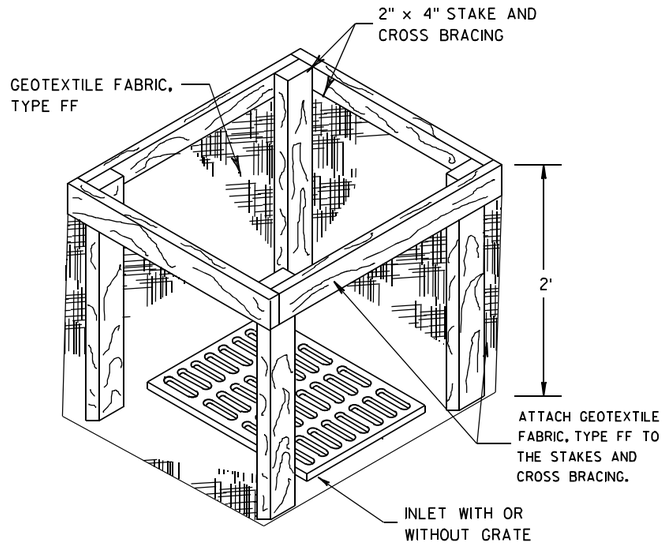
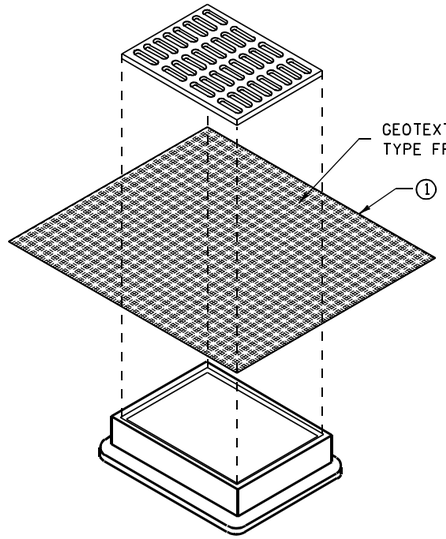
S.D.D. 8 E 9-6



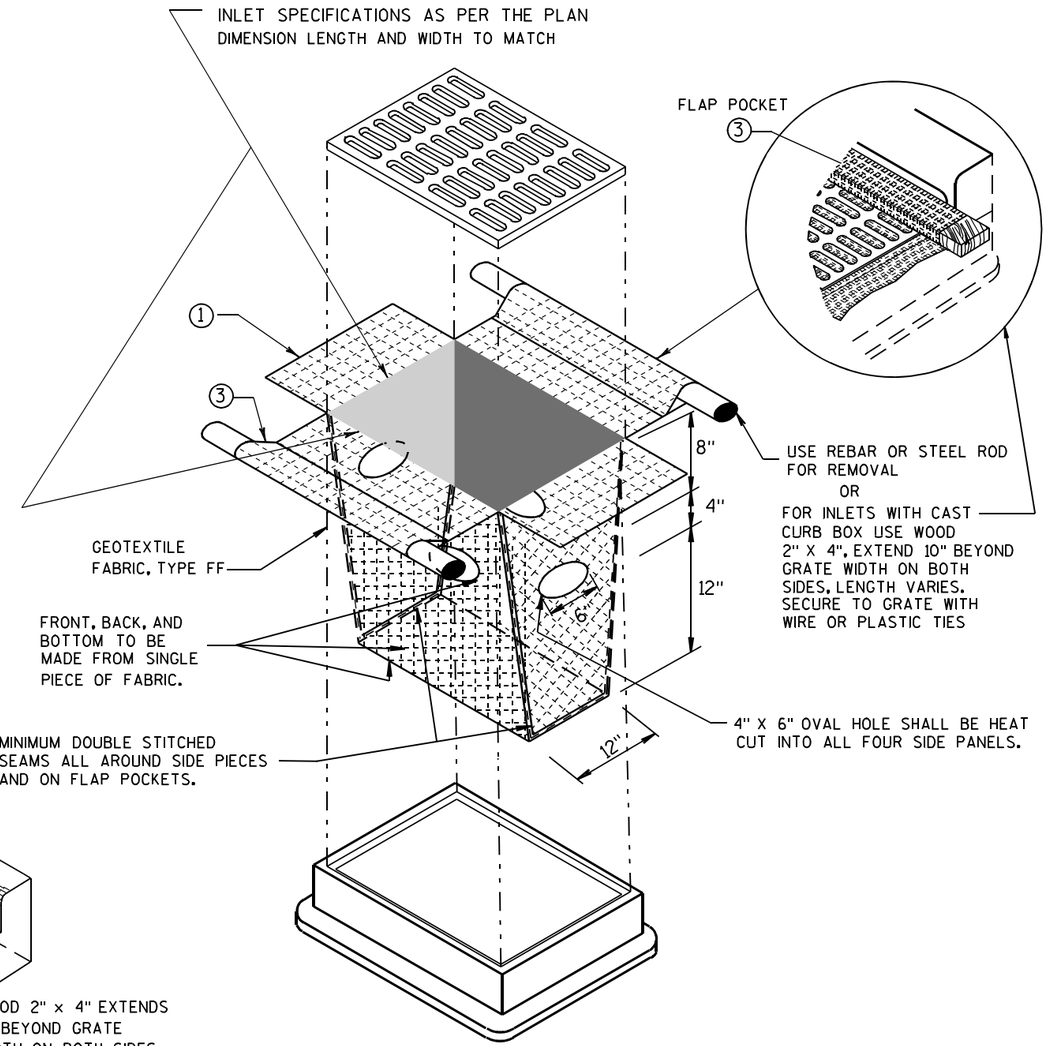


INLET PROTECTION, TYPE A



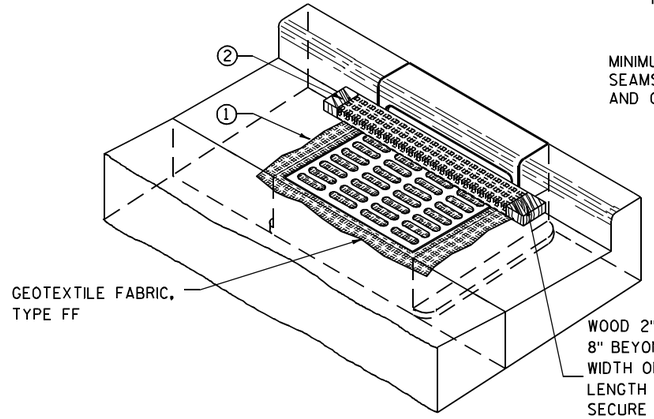
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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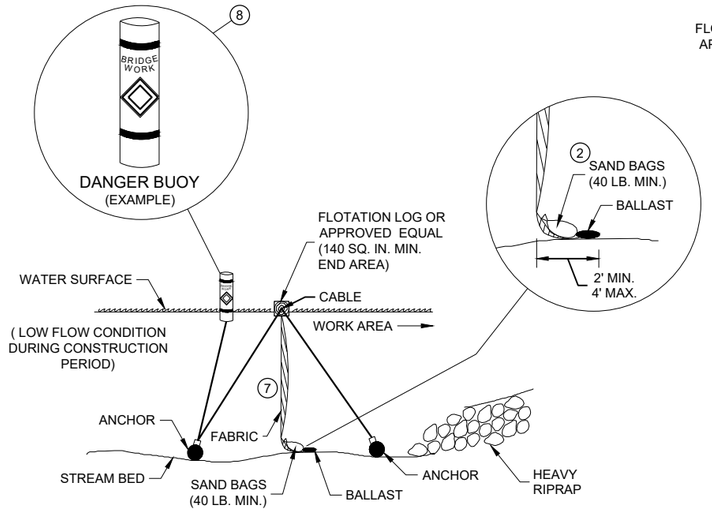
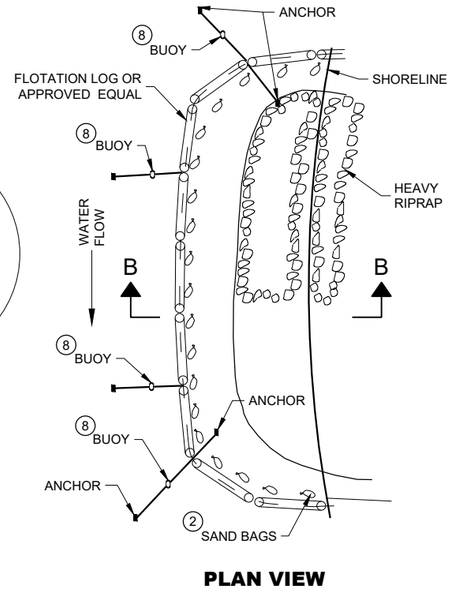
S.D.D. 8 E 10-2

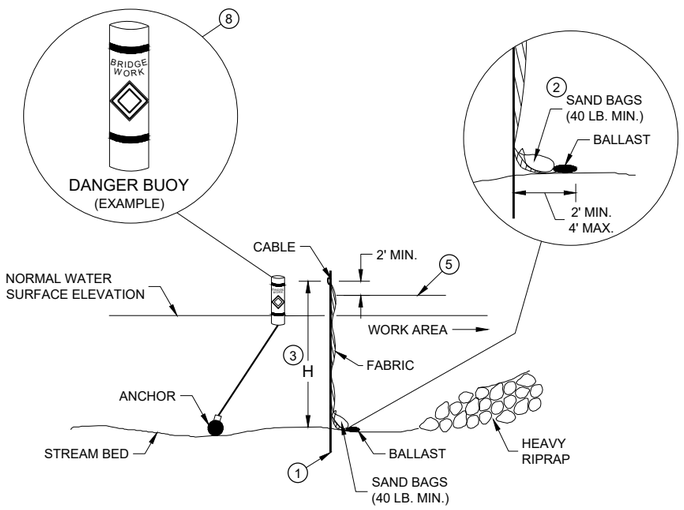


SECTION B - B

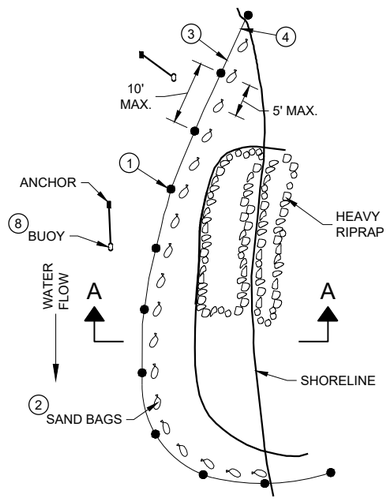


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

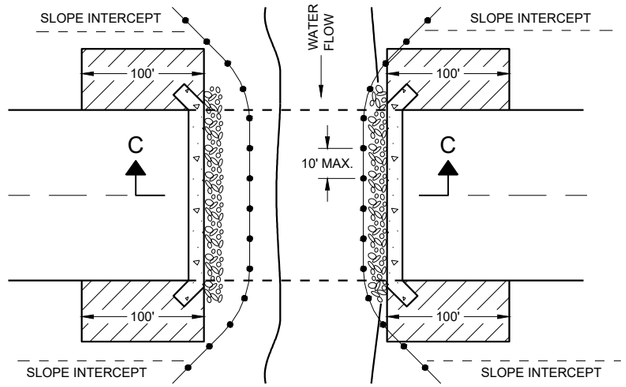
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

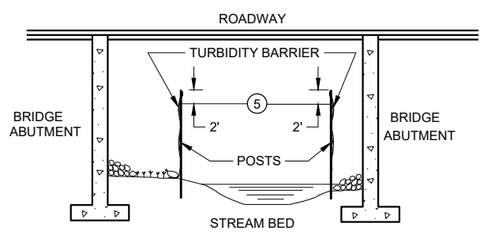
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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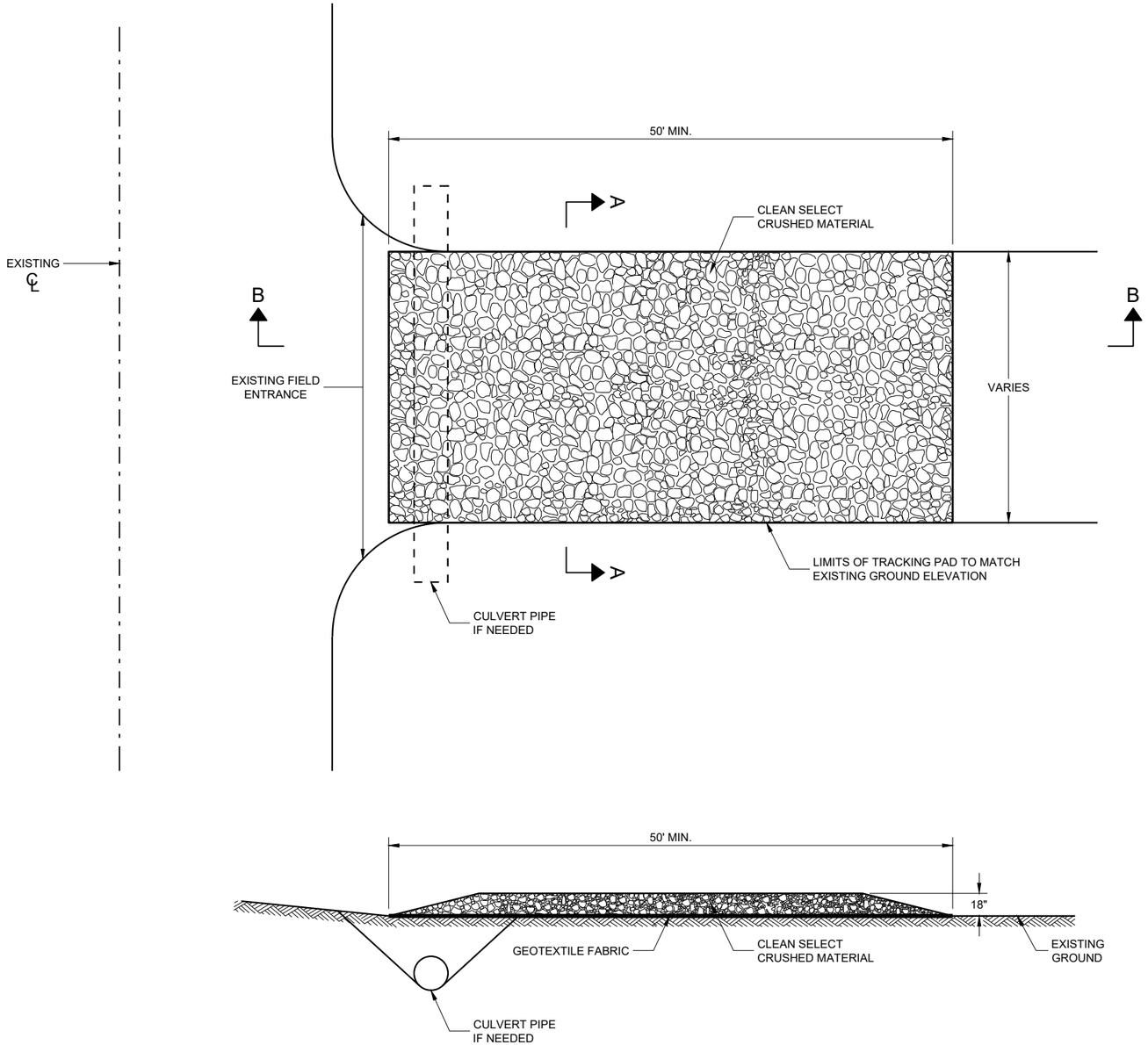
SDD 08E11 - 02



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.

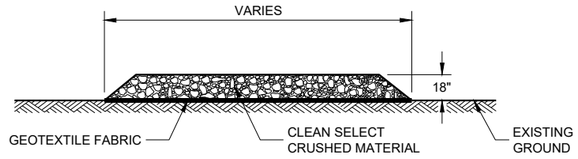
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 08E14 - 01

METAL APRON ENDWALLS

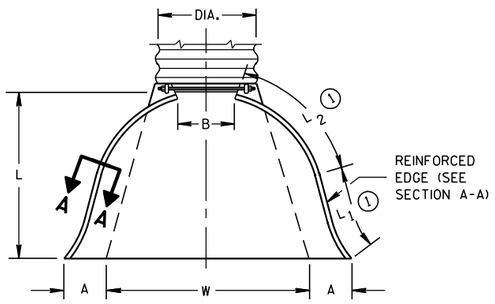
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

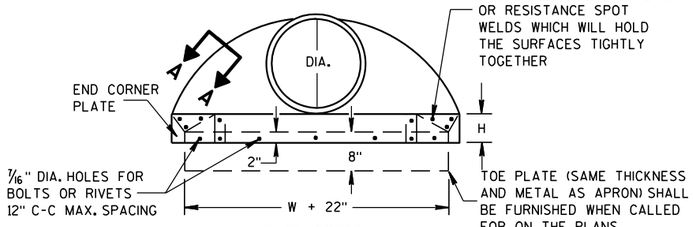
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

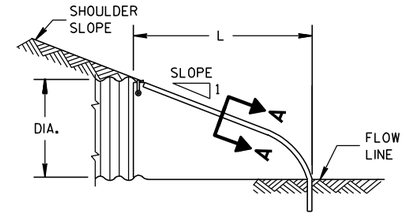
*MINIMUM
**MAXIMUM



PLAN VIEW

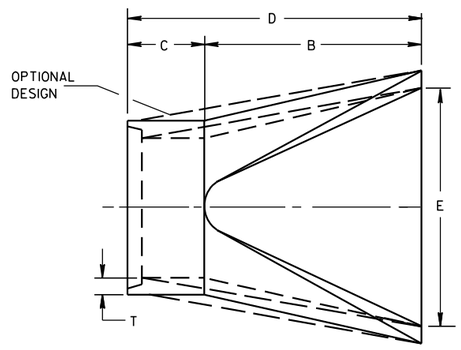


END VIEW

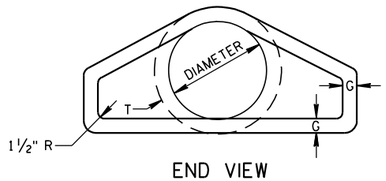


SIDE ELEVATION

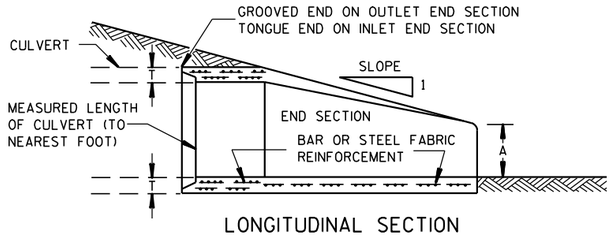
METAL ENDWALLS



PLAN

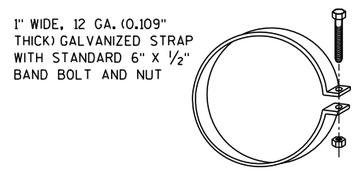


END VIEW



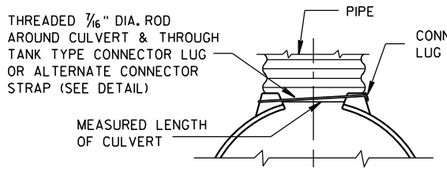
LONGITUDINAL SECTION

CONCRETE ENDWALLS

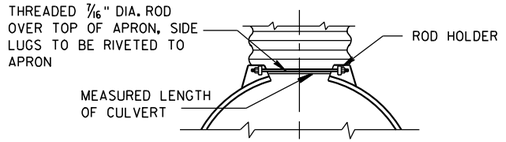


ALTERNATE FOR TYPE 1 CONNECTION

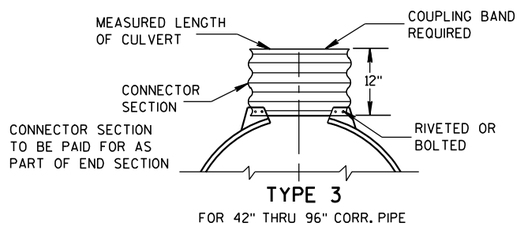
END SECTION CONNECTOR STRAP



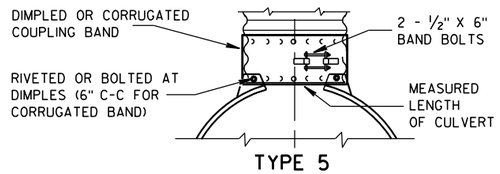
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

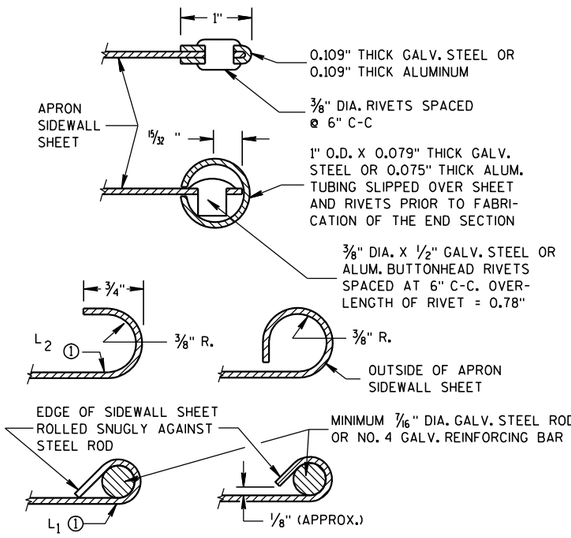
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

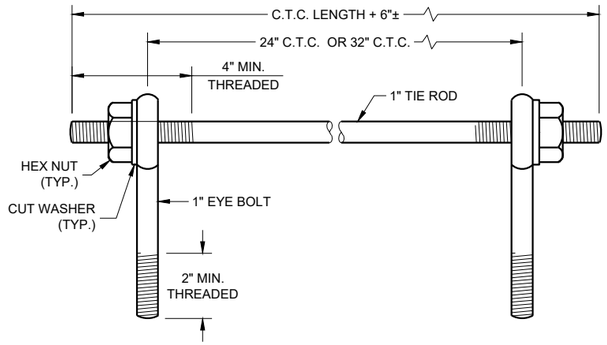
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

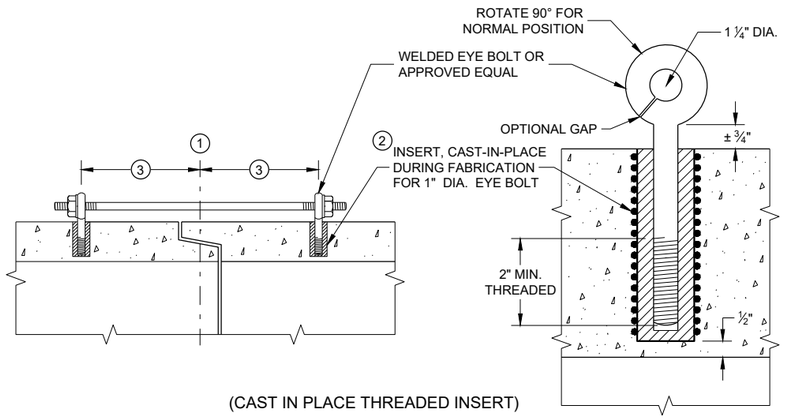
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

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

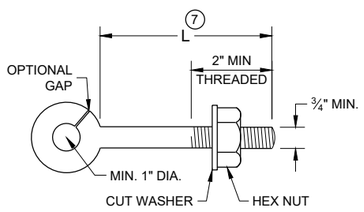
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

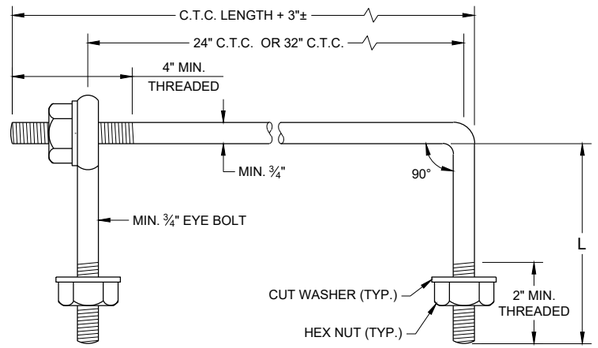
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

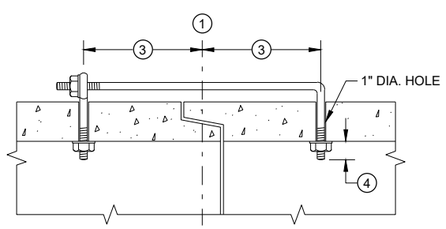


EYE BOLT (7)

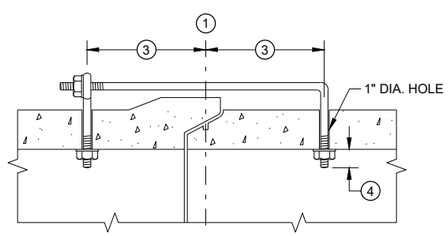
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

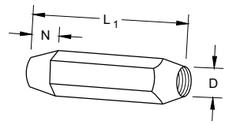
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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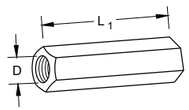
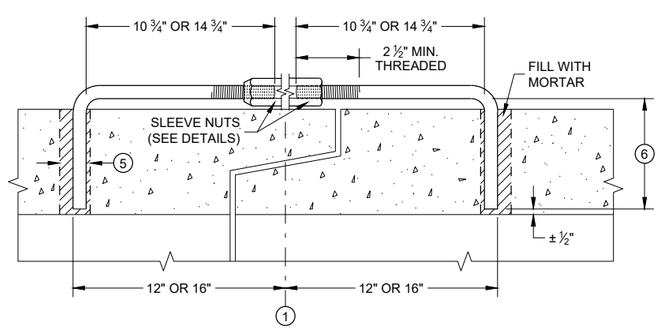


PLAIN

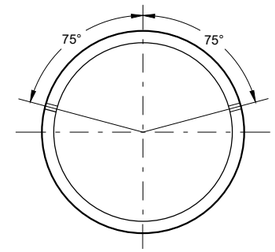
RIGHT AND LEFT THREADS

SLEEVE NUTS



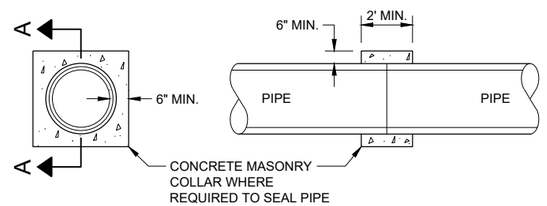
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

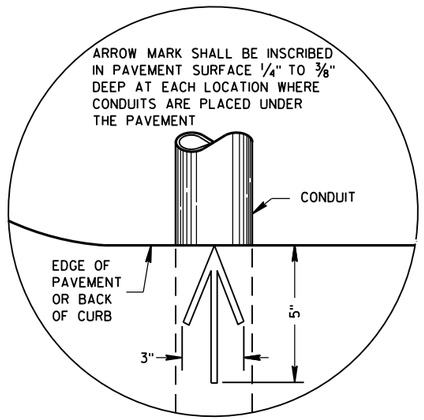
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

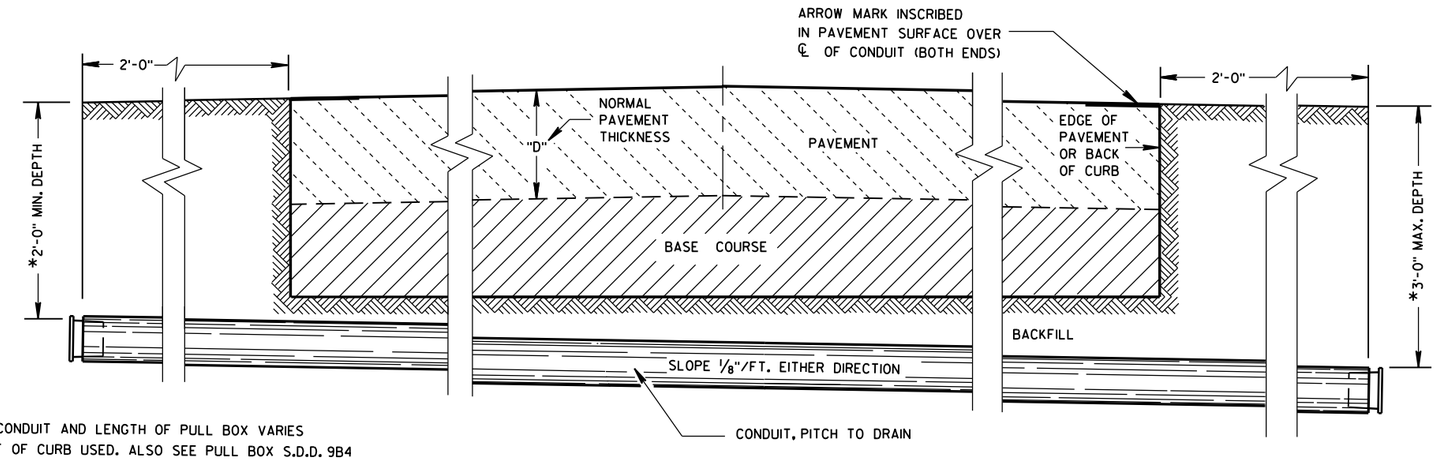
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



*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

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.

6

S.D.D. 9 B 2-10

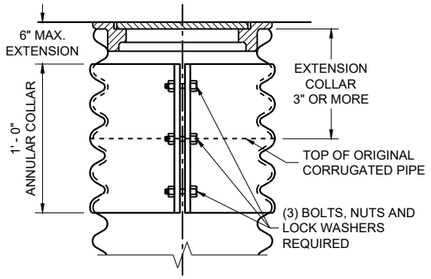
6

S.D.D. 9 B 2-10

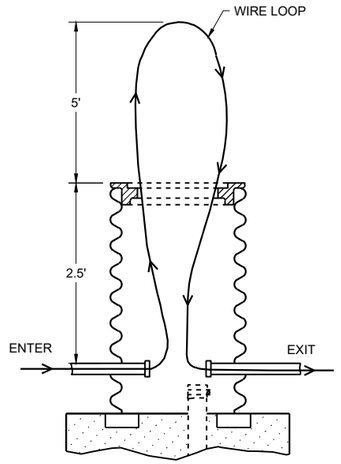
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

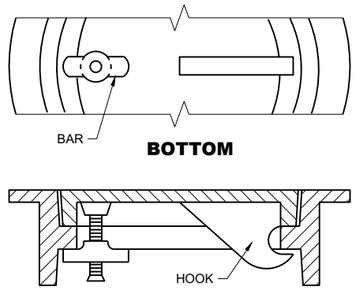
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA



CORRUGATED PIPE EXTENDER



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



BOTTOM

SECTION

ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

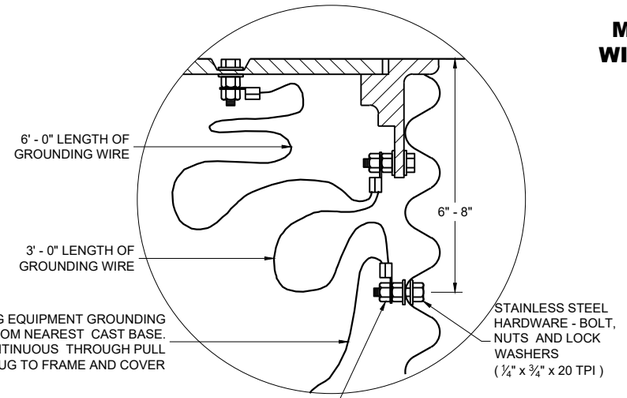
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

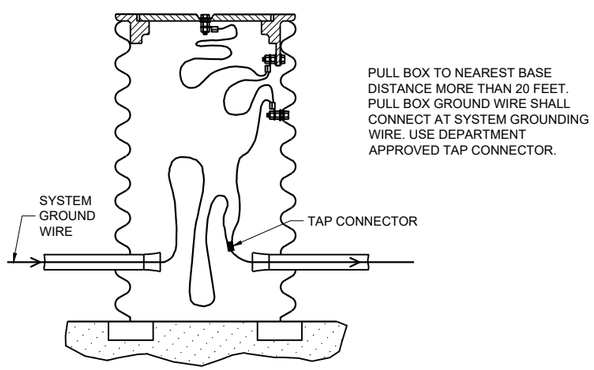
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

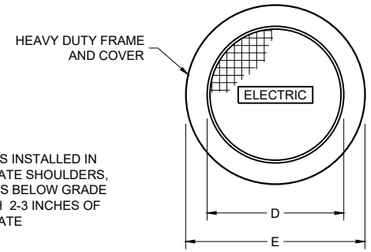
WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



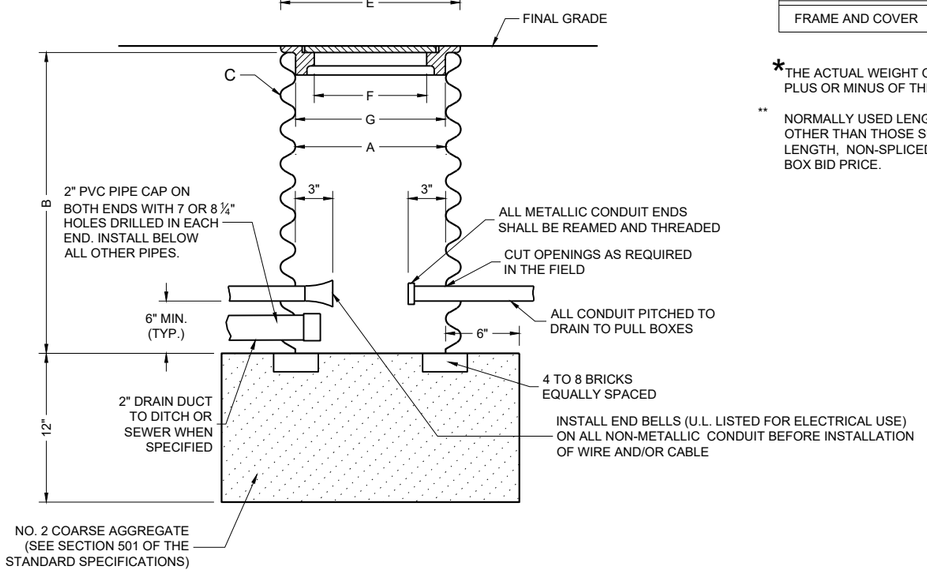
EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE



PULL BOX

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

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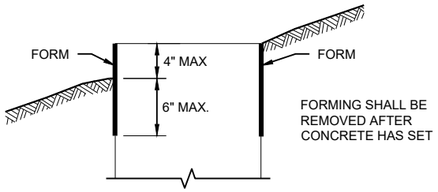
SDD 09B04-13

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

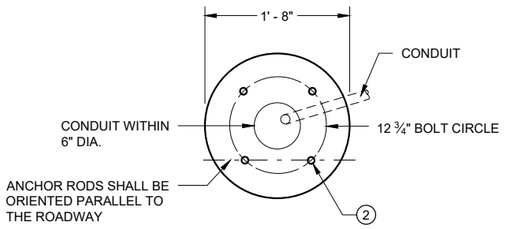
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

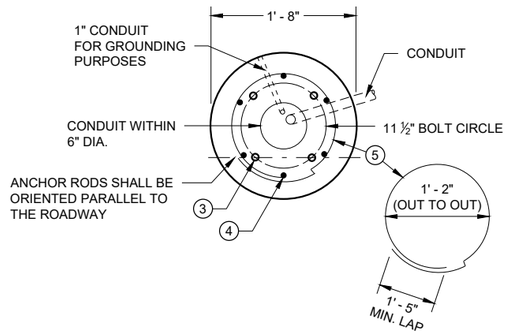
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

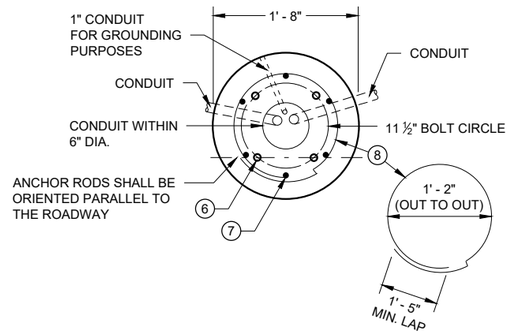
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

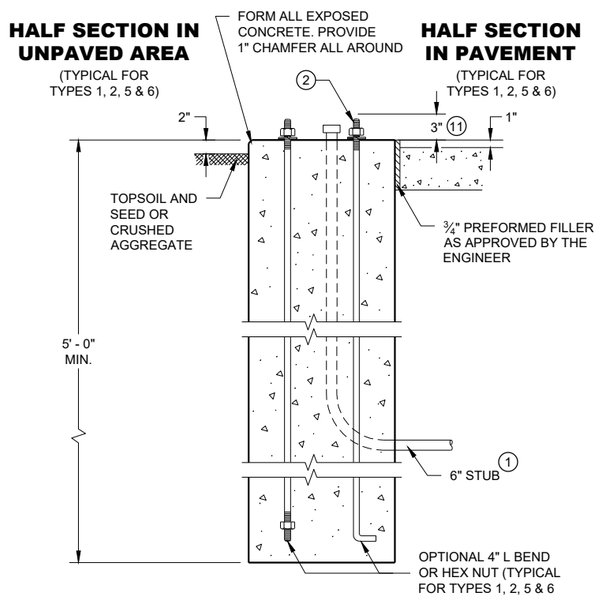
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

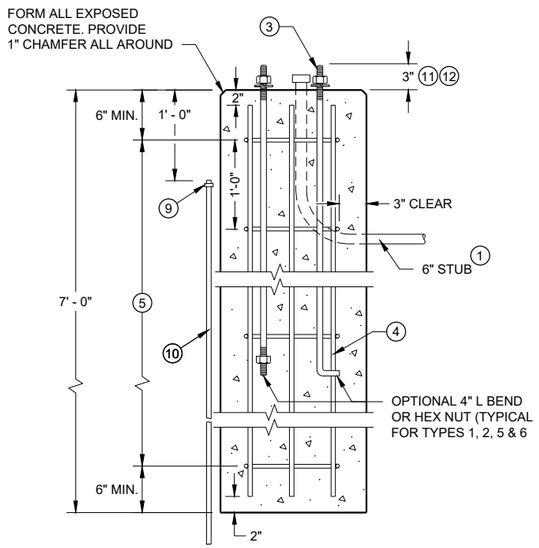




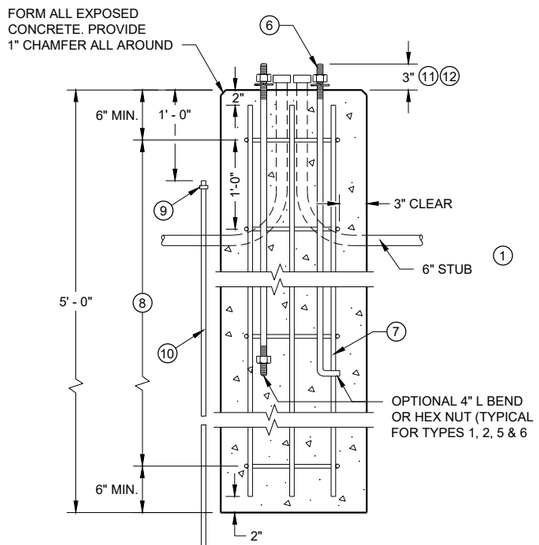




TYPE 1



TYPE 2



TYPE 5 & 6

1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

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

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

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

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

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

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

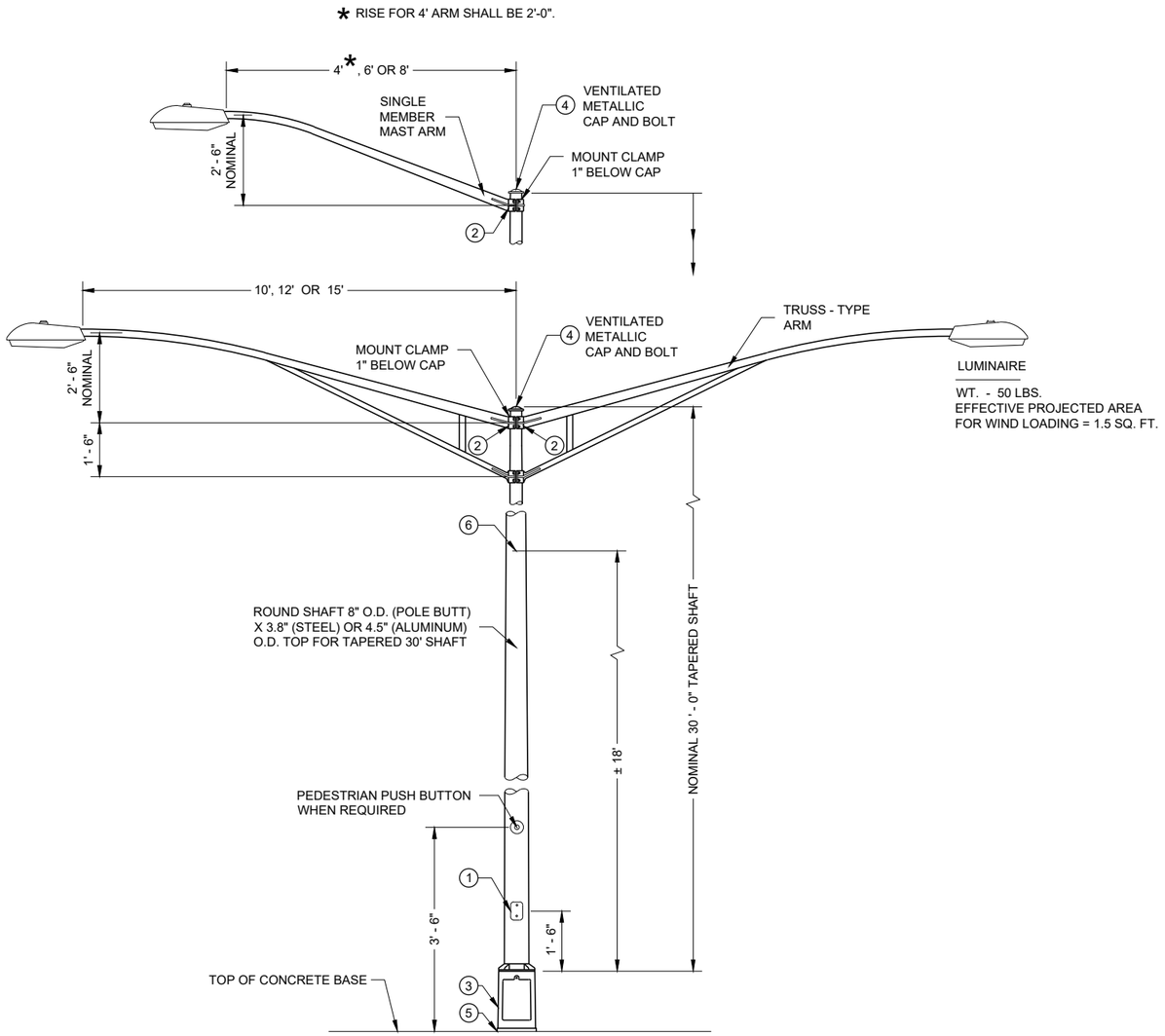
CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 47

FHWA



TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

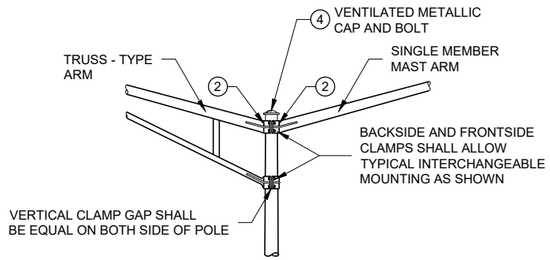
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.

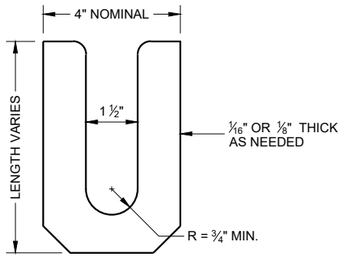


INTERCHANGEABLE MOUNTING DETAIL

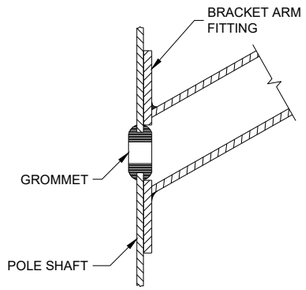
POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

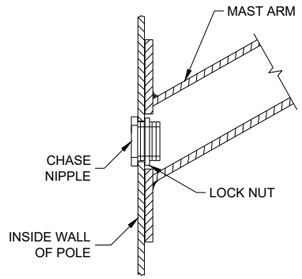
SDD 09E01 - 15d



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

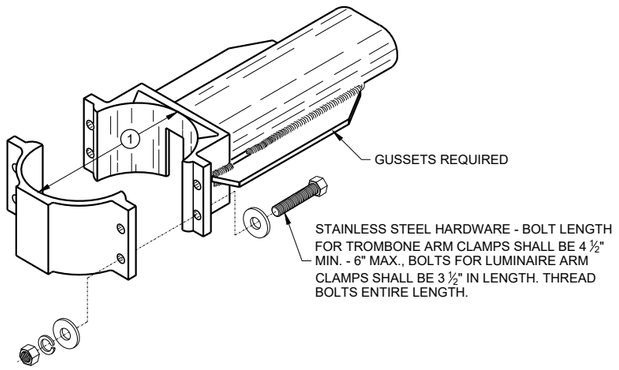
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

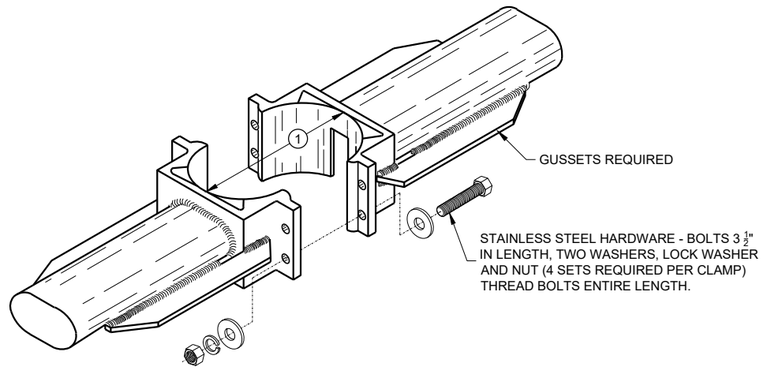
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

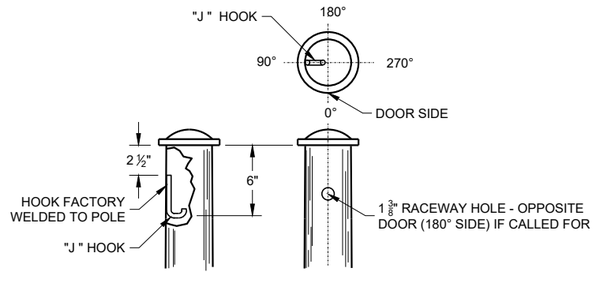
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



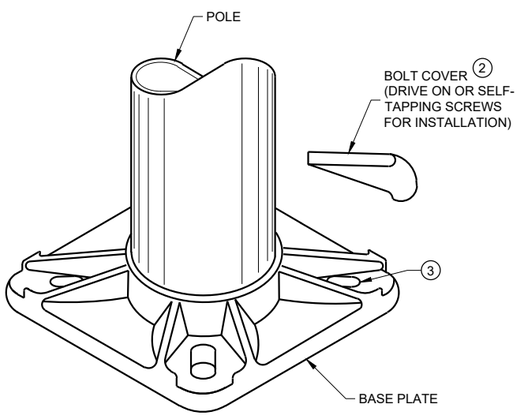
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



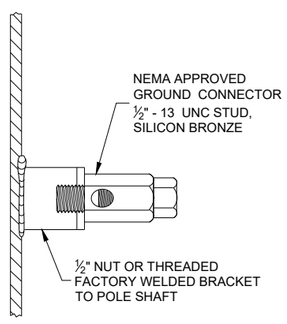
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

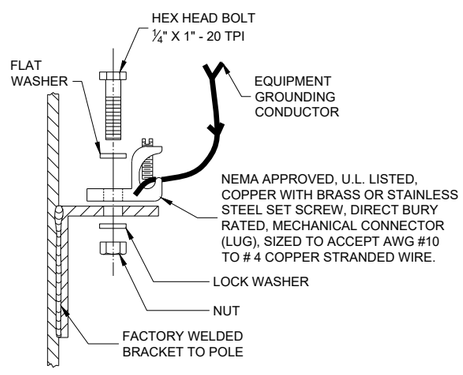


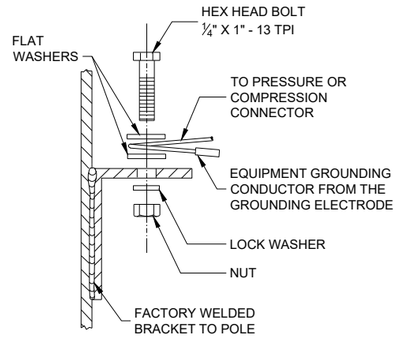
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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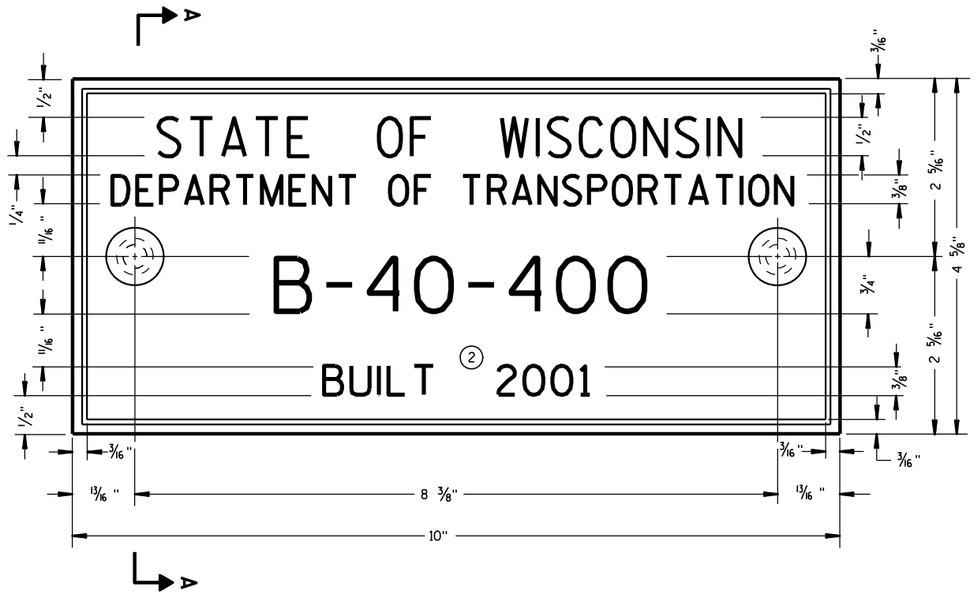
SDD 09E01 - 15g



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

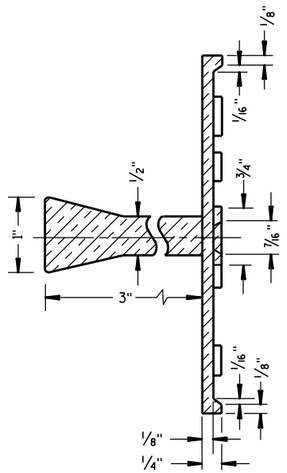
GENERAL NOTES

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

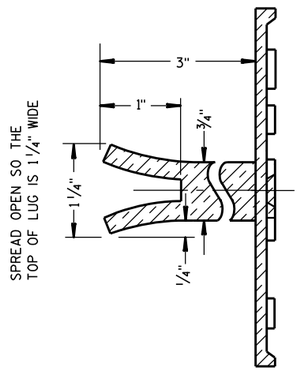
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

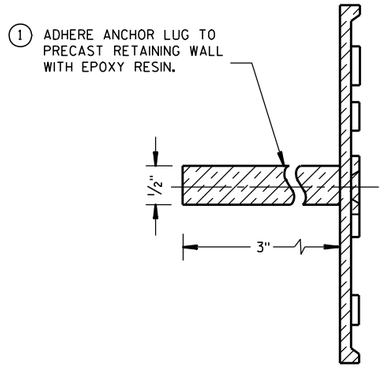
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

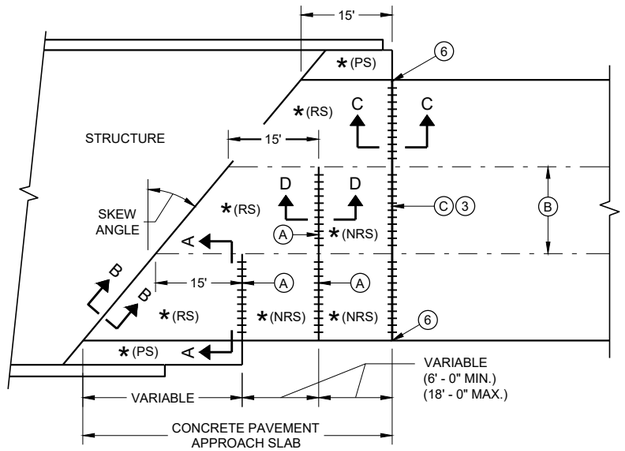
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

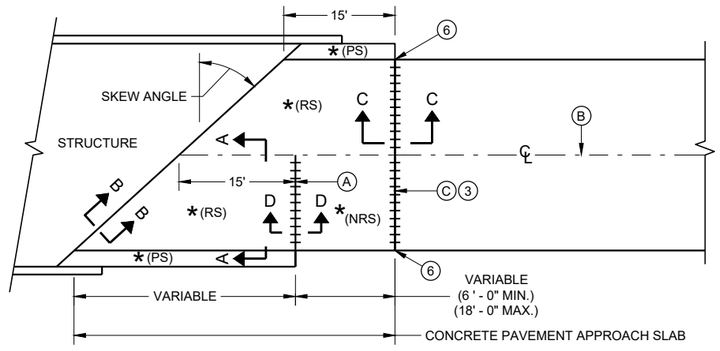
FHWA

6

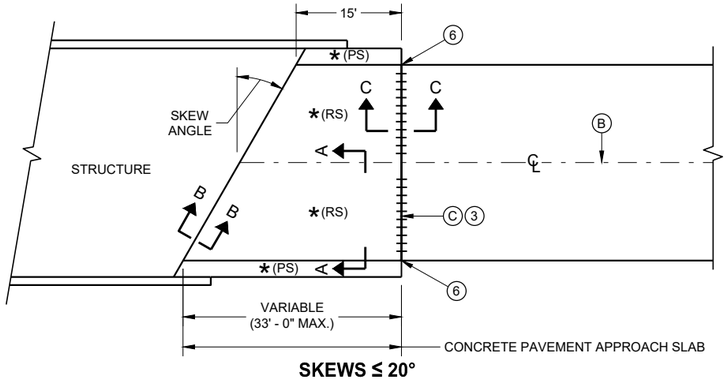
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

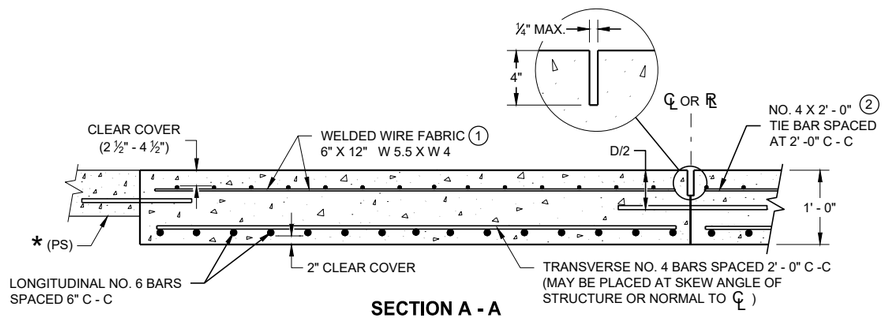
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

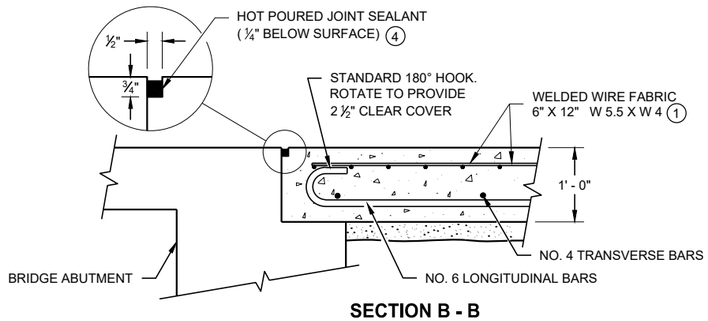
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

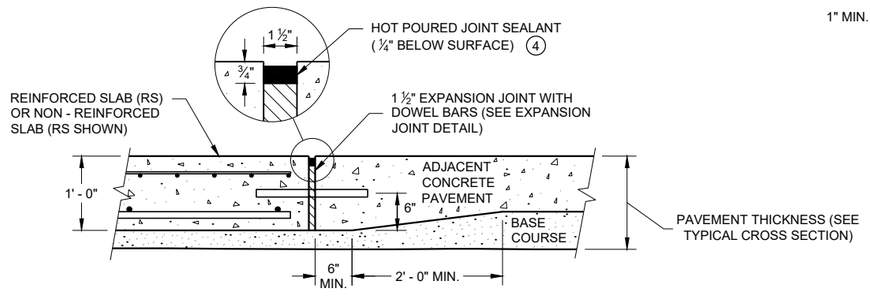
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

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

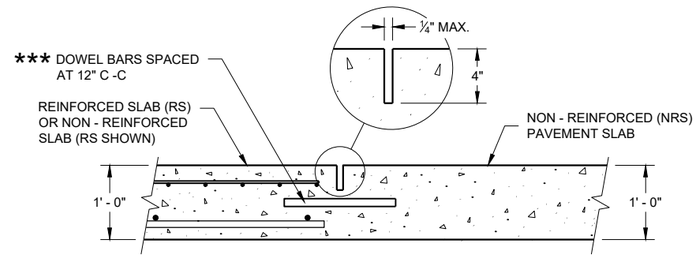
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

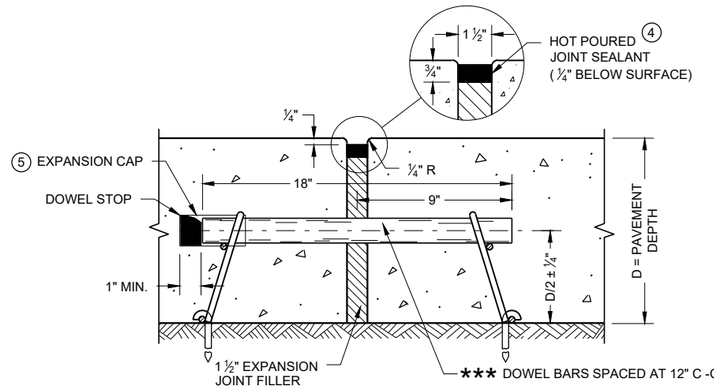
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

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

FHWA

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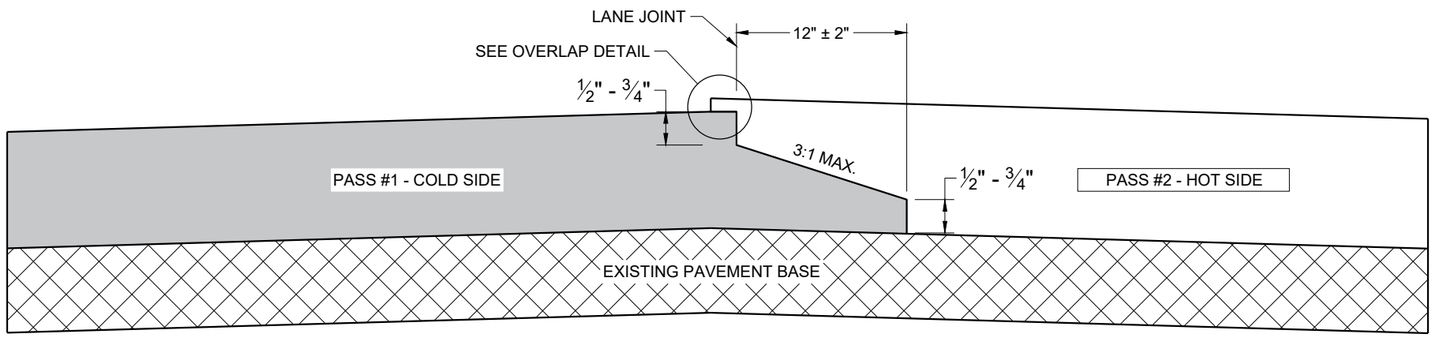
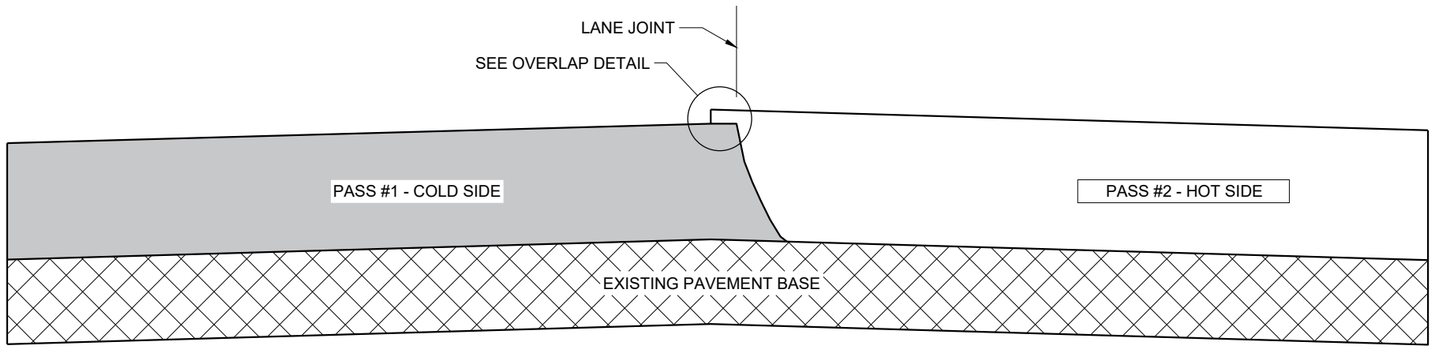
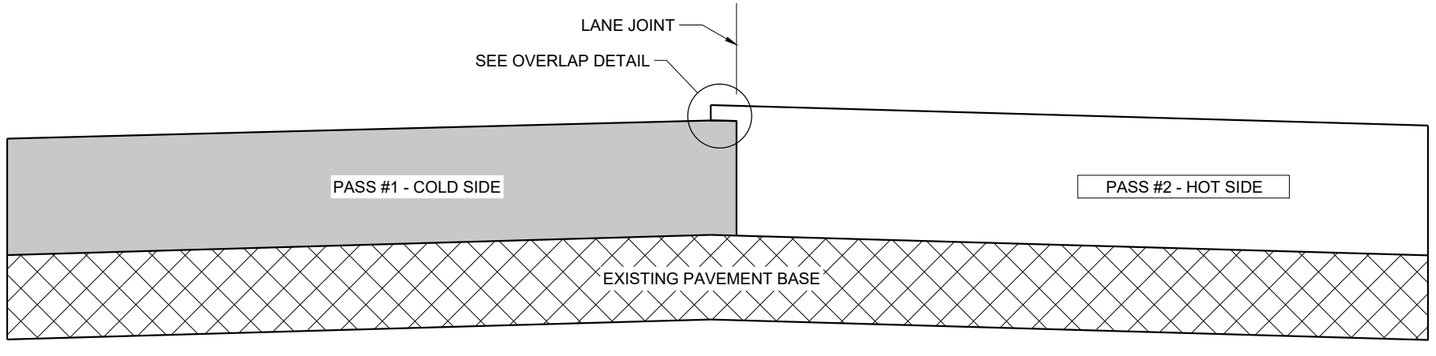
SDD 13B02 - 09a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

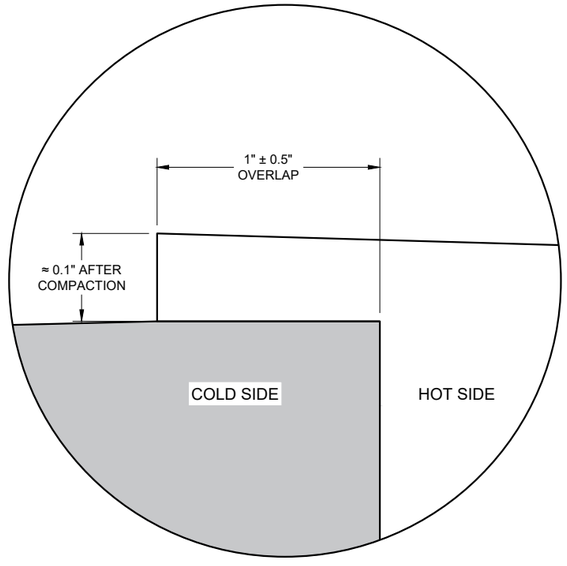
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

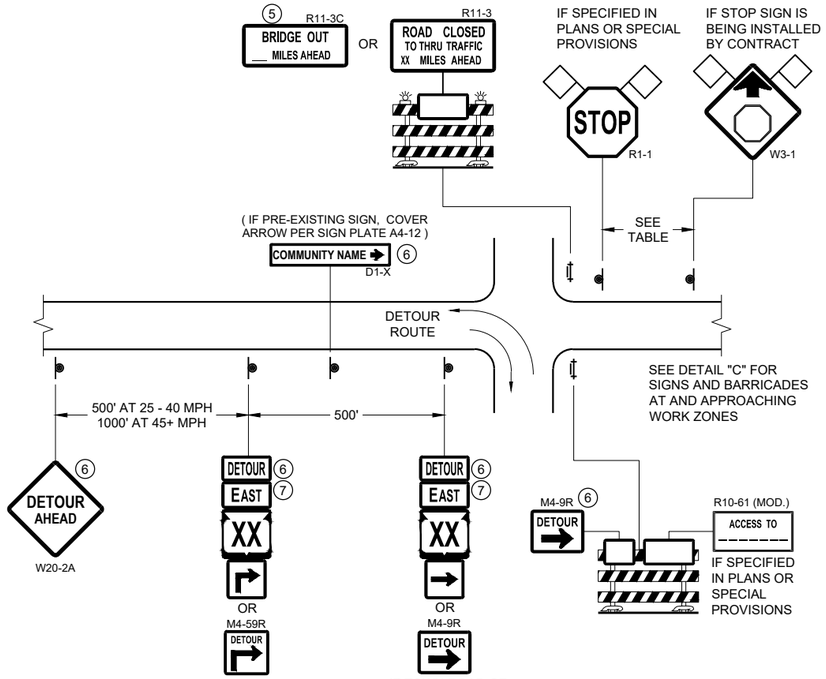
HMA LONGITUDINAL JOINTS

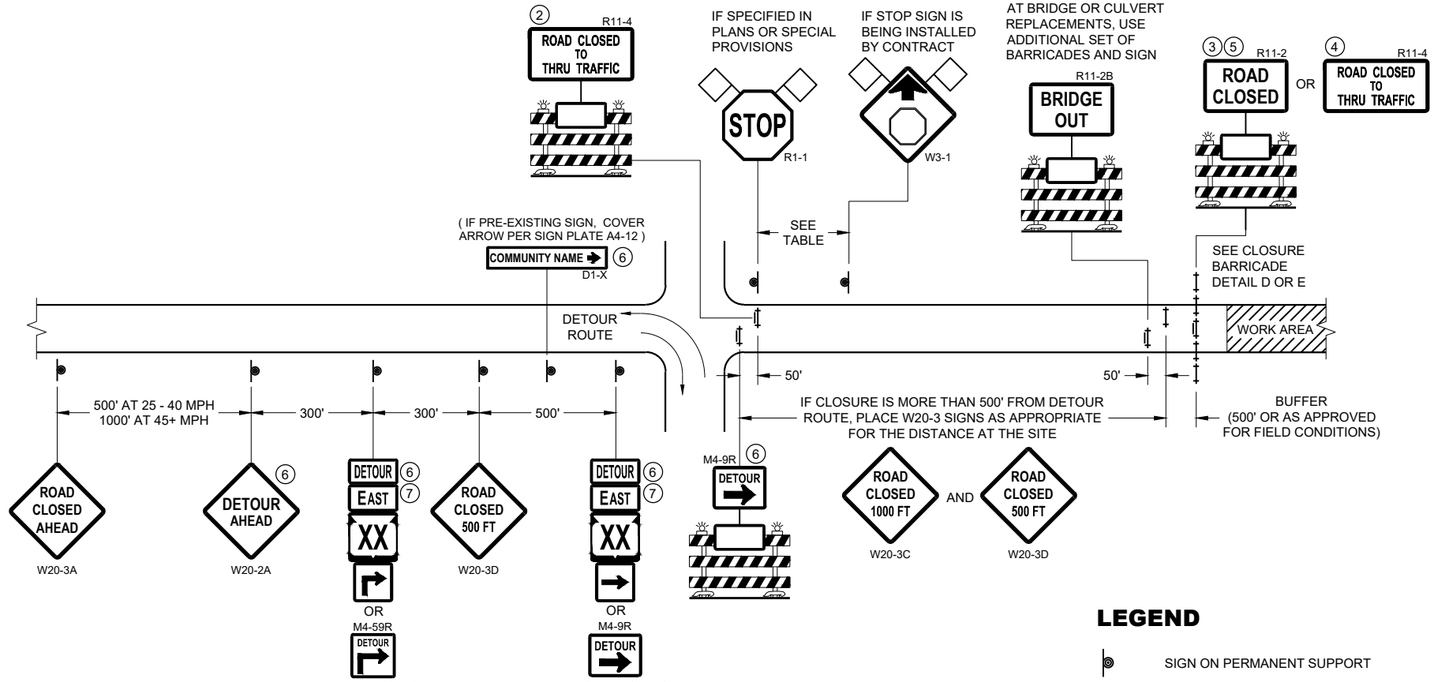
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA





DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

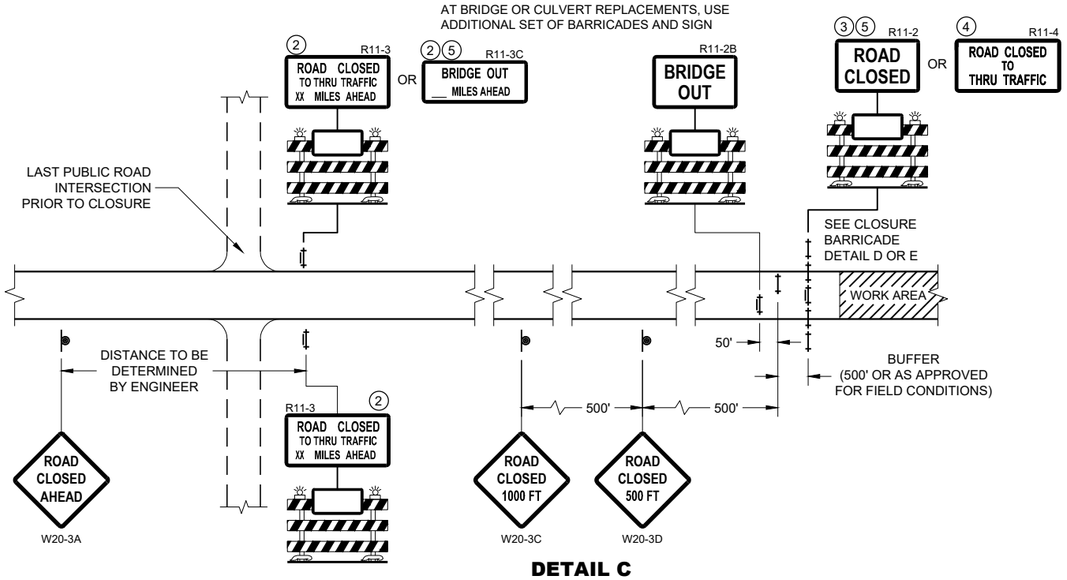
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

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



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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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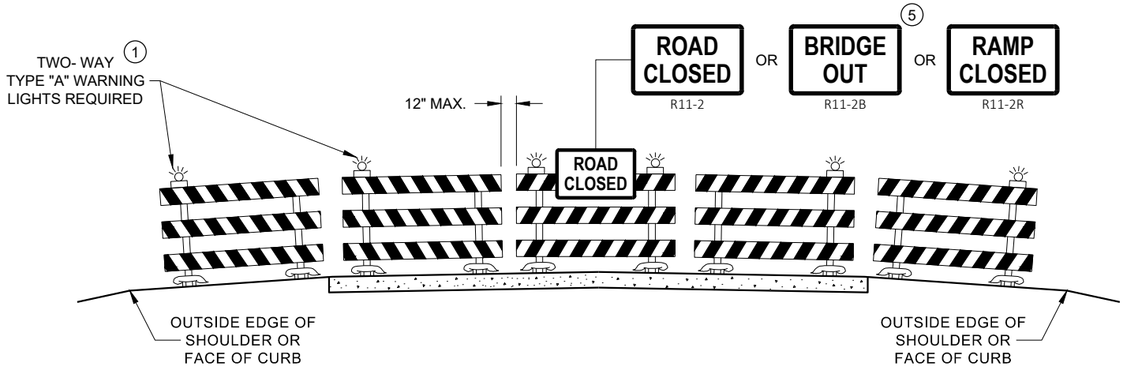
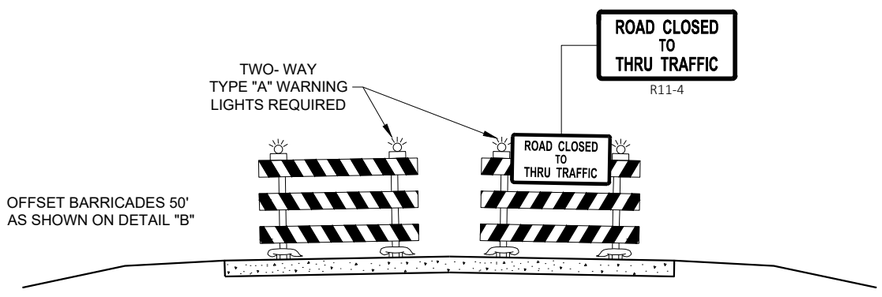
SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09b

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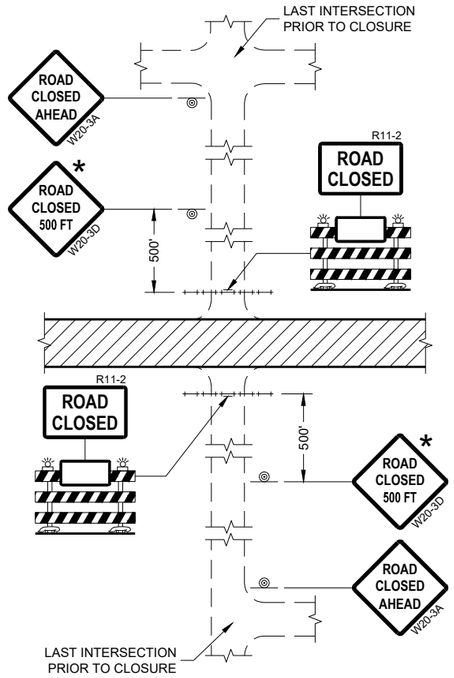
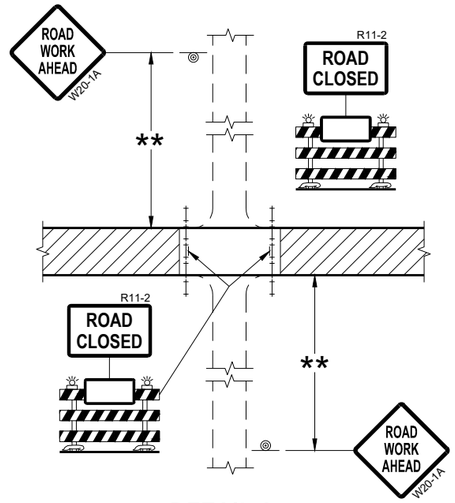
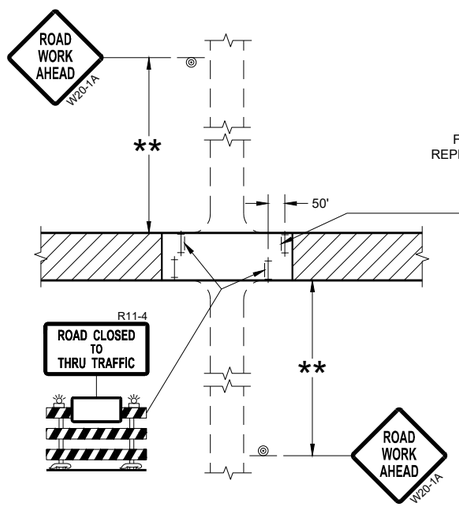
SDD 15C02 - 09b



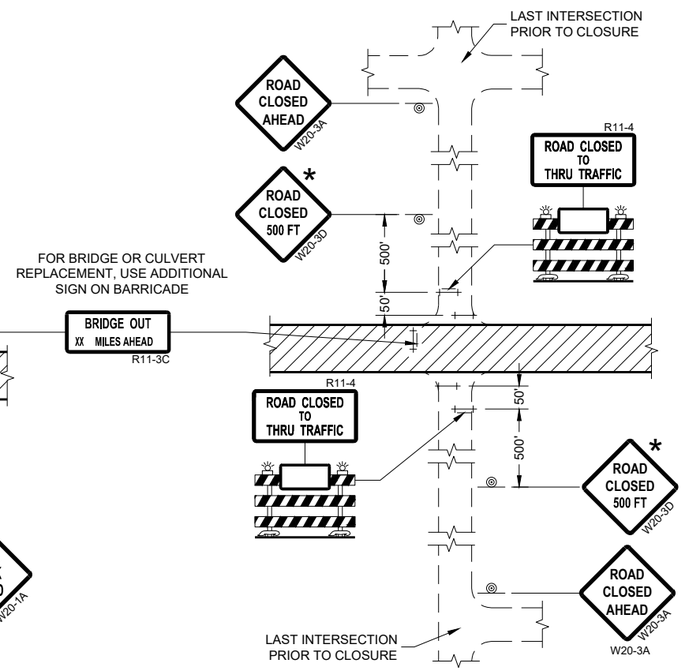
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15C03 - 05

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

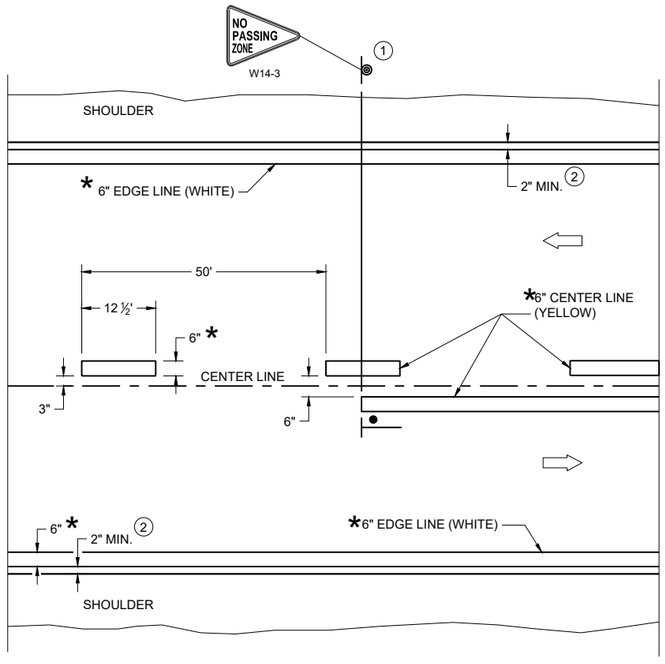
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

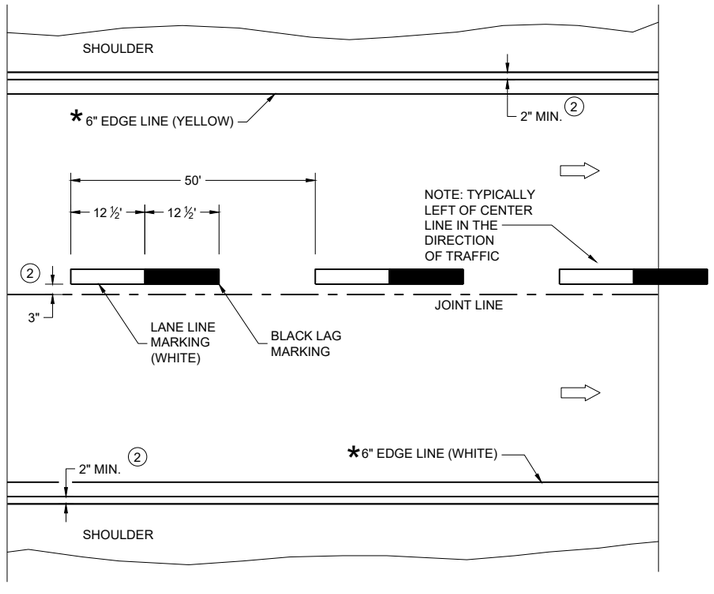
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

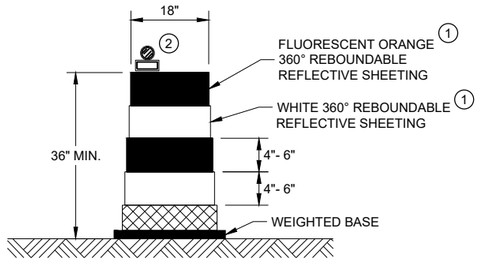
PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	

6
SDD 15C08-23a

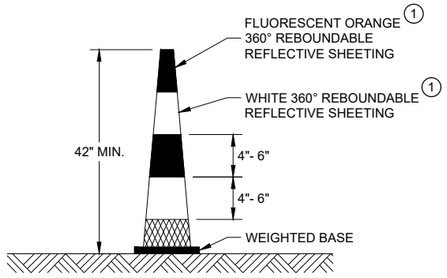
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

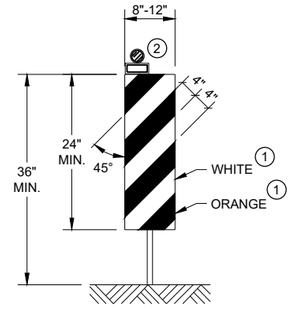
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

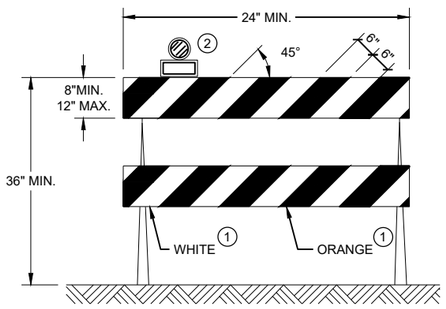
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



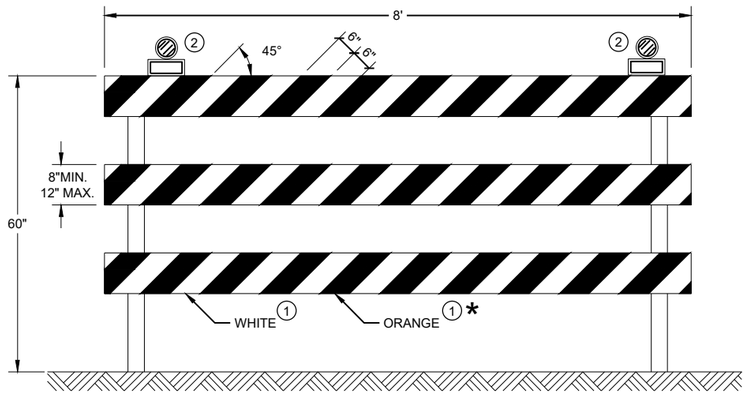
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

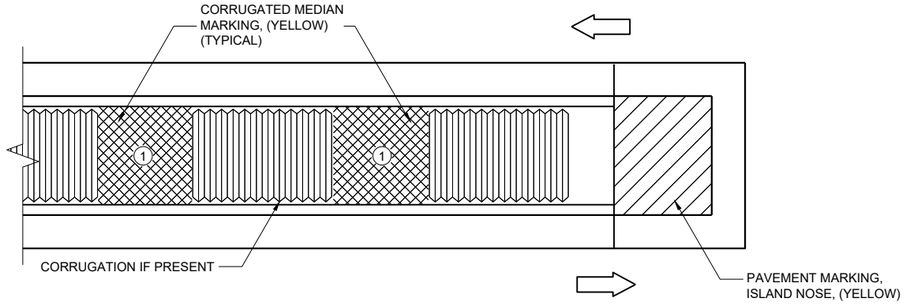
APPROVED
November 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA

6

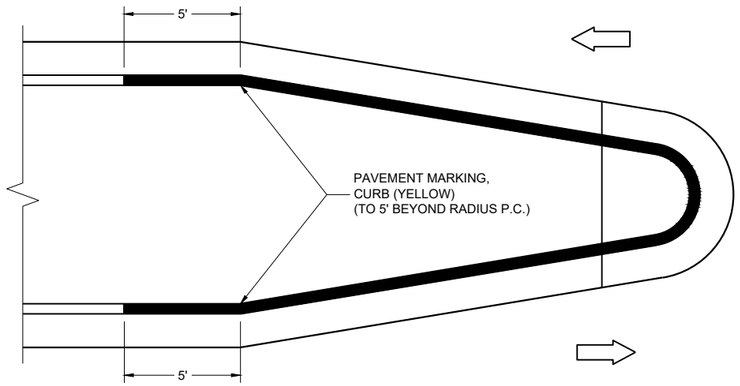
SDD 15C11 - 10b

6

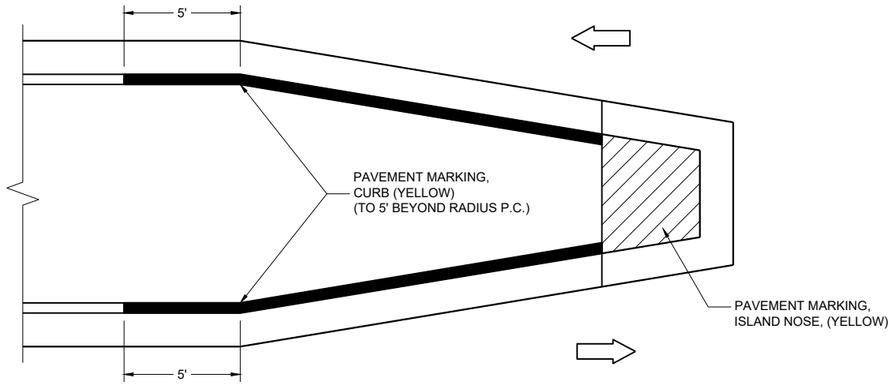
SDD 15C11 - 10b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

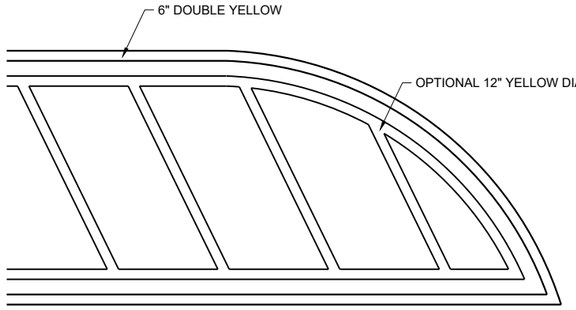
(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

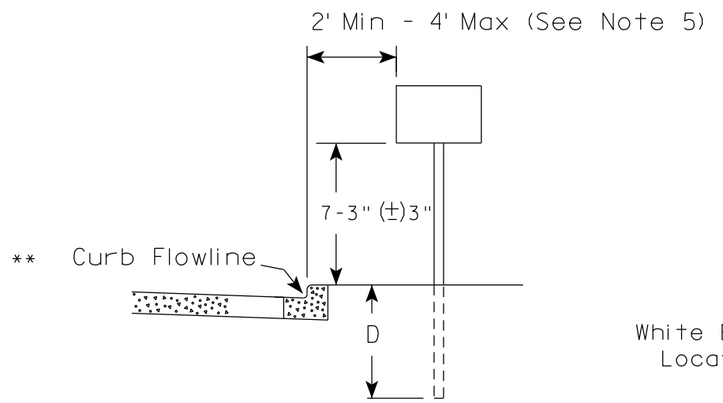
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

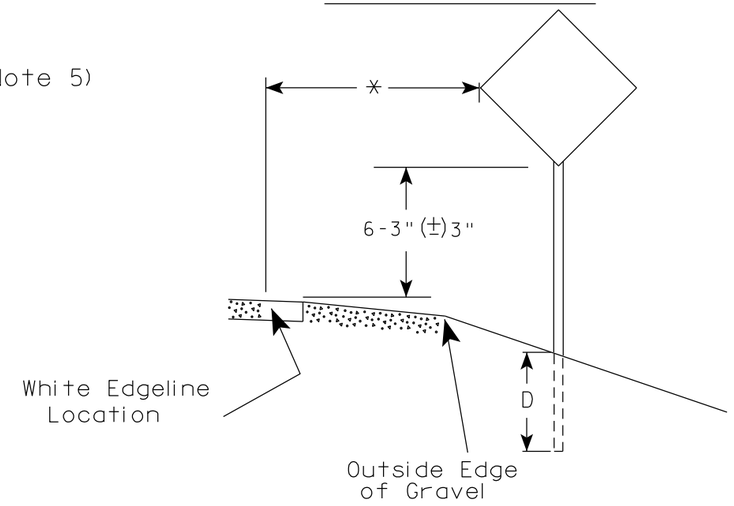
6

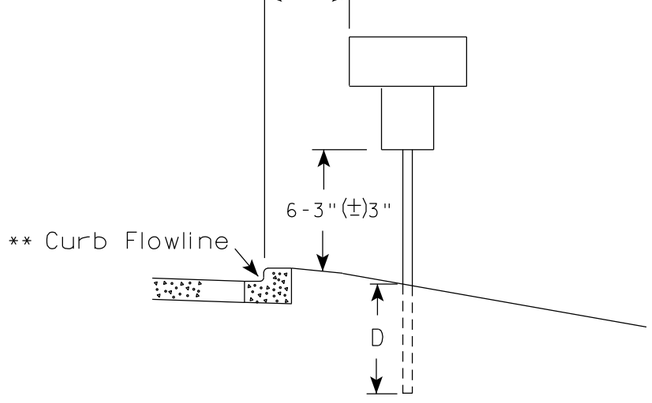
SDD 15C18-09b

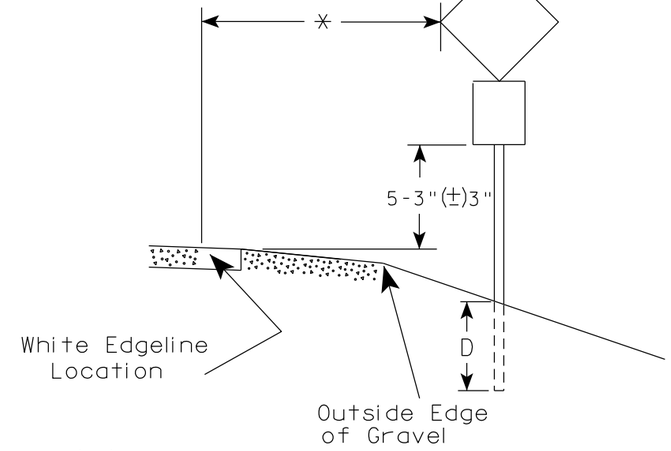
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

POST EMBEDMENT DEPTH

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

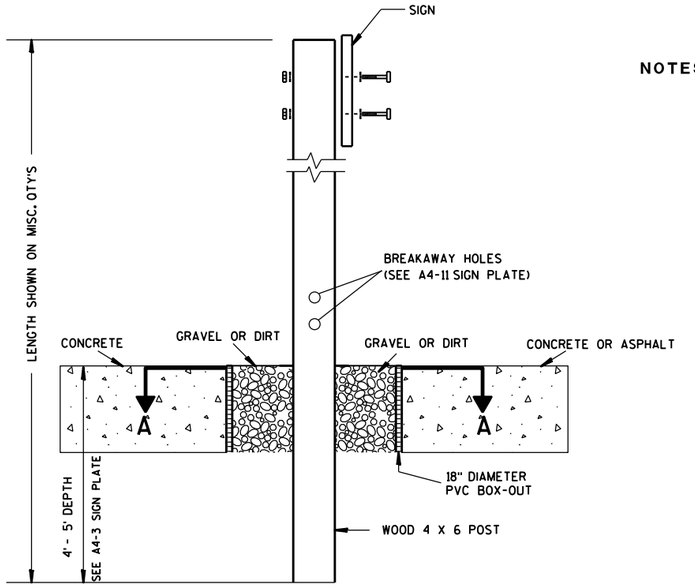
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

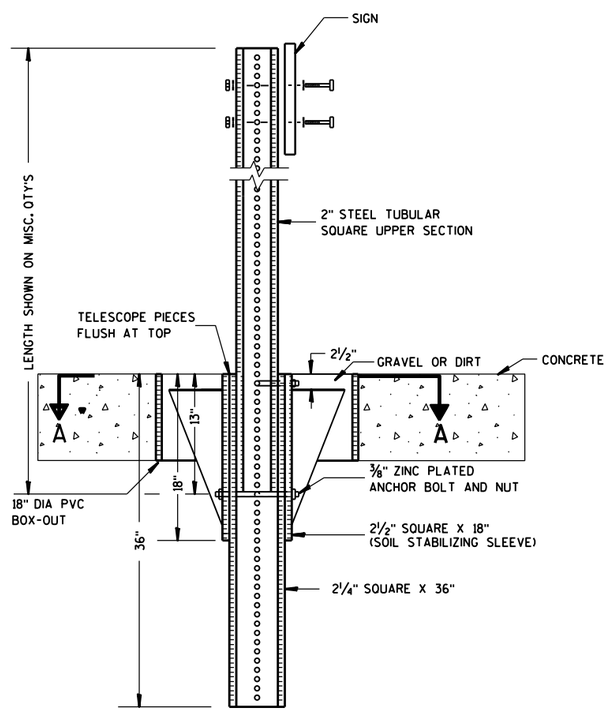
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 59	E



ELEVATION VIEW

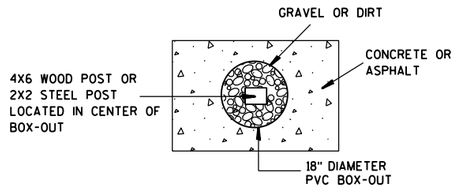
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

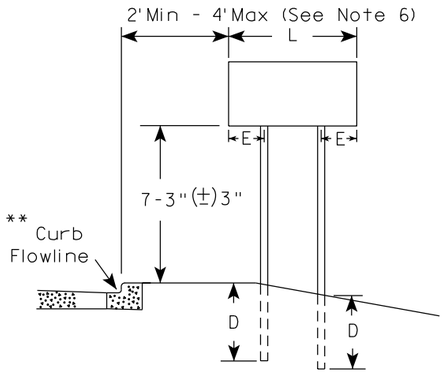
WISCONSIN DEPT OF TRANSPORTATION

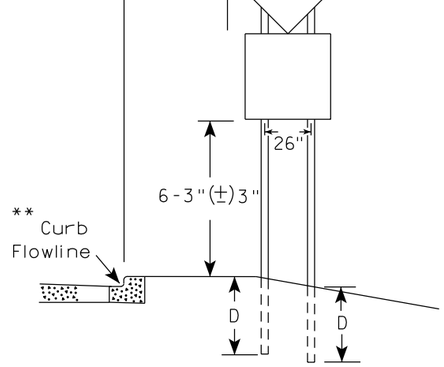
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

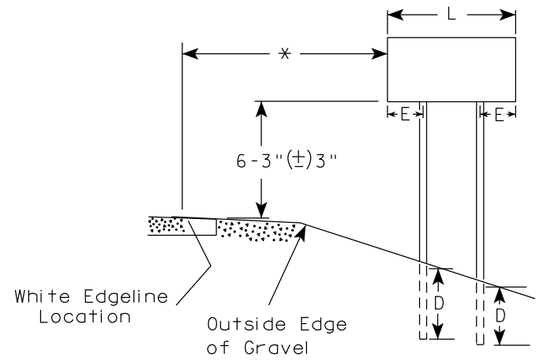
URBAN AREA



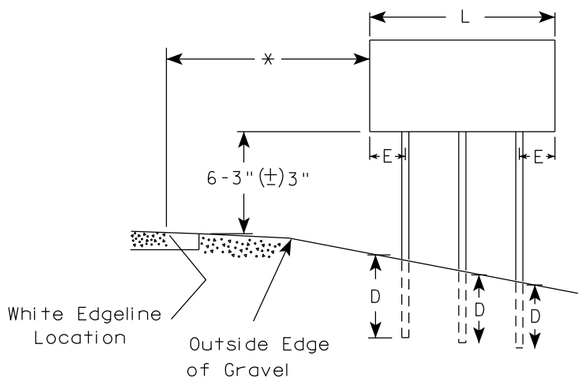


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)



48" DIAMOND WARNING SIGN



SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±) 3".

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

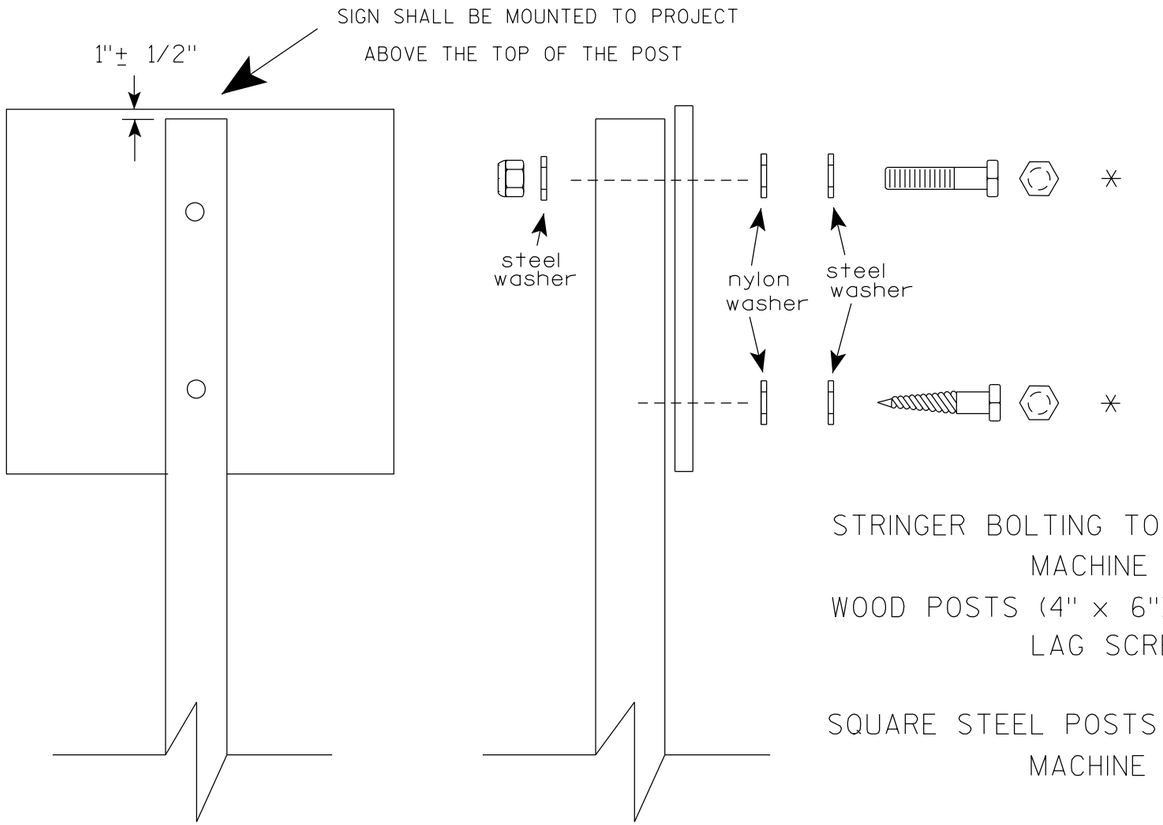
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 61	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

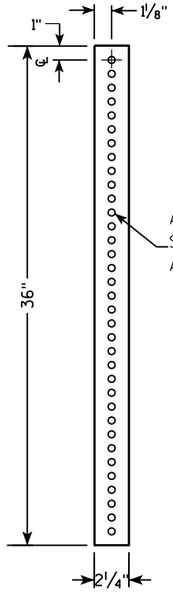
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

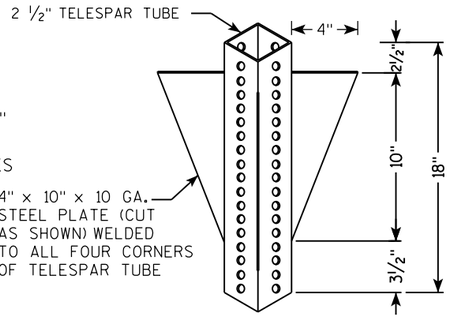
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

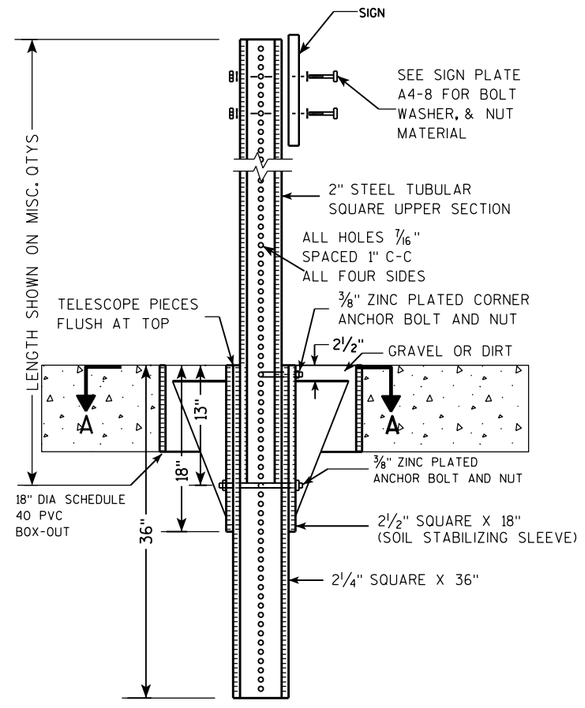
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



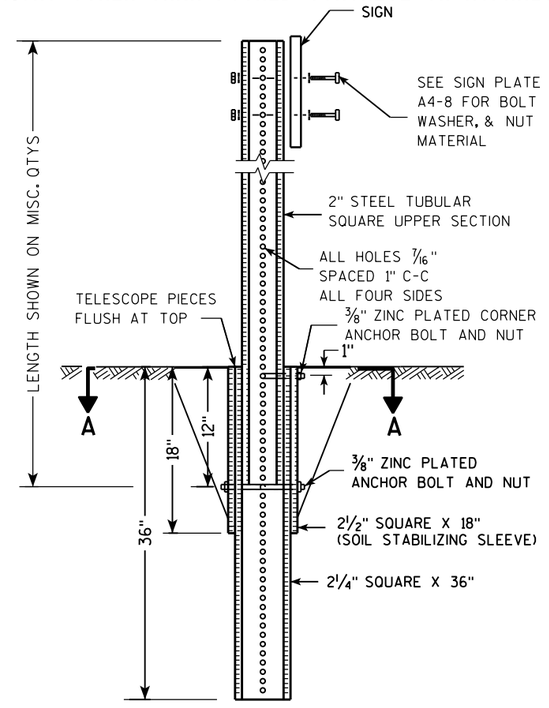
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

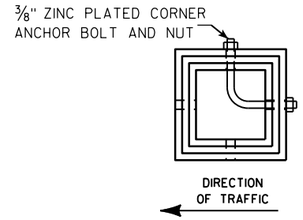


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

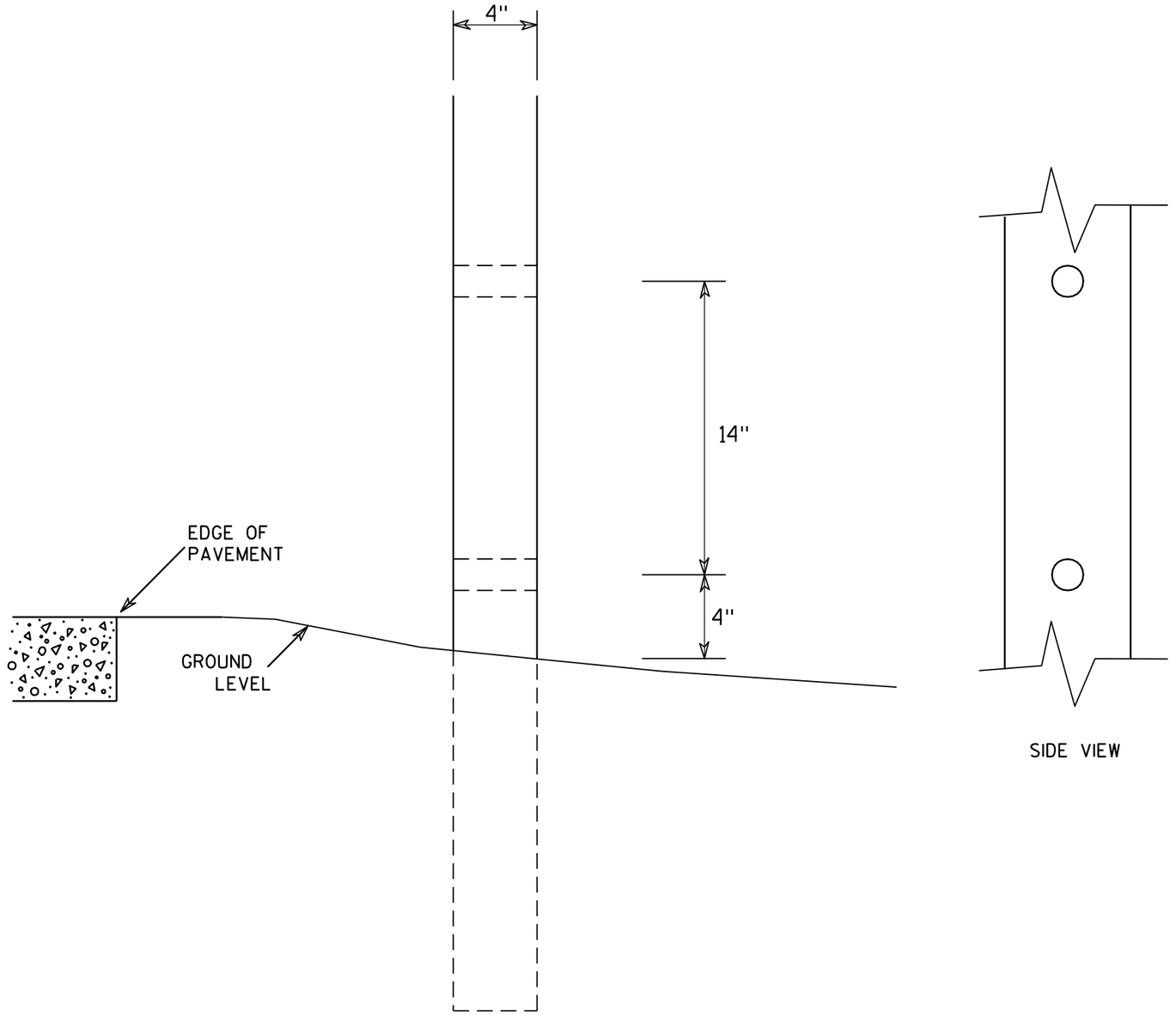
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

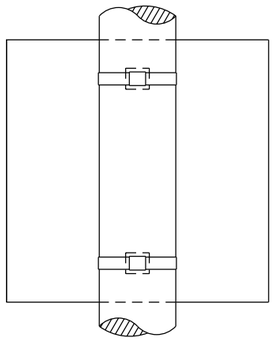
APPROVED Chester J Spang for State Traffic Engineer

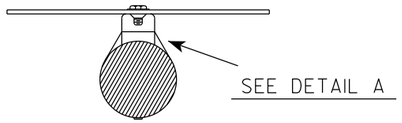
DATE 3/27/97 PLATE NO. A4-11.2

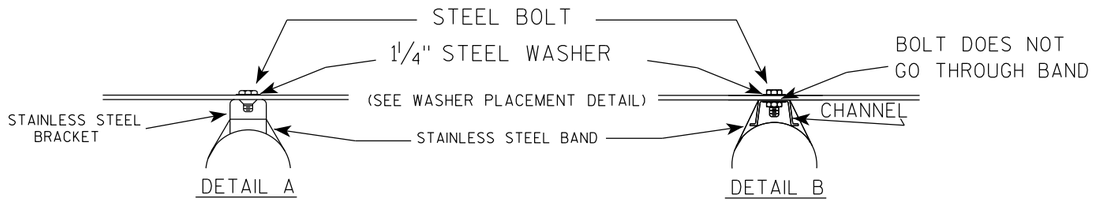
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 64	E

BANDING

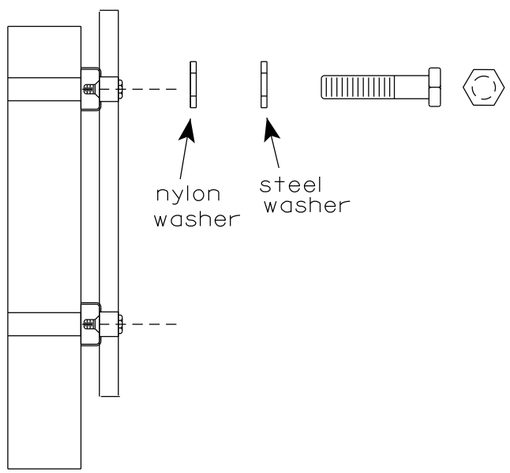
SINGLE SIGN







WASHER PLACEMENT

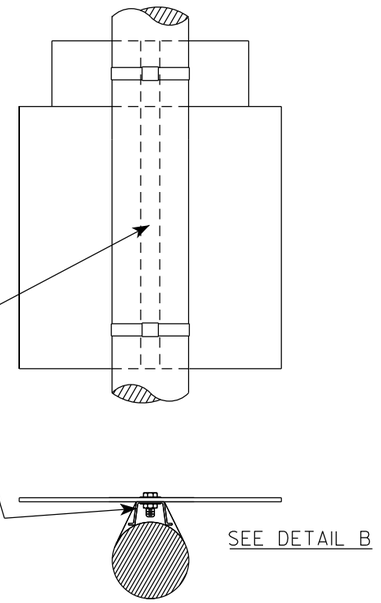


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

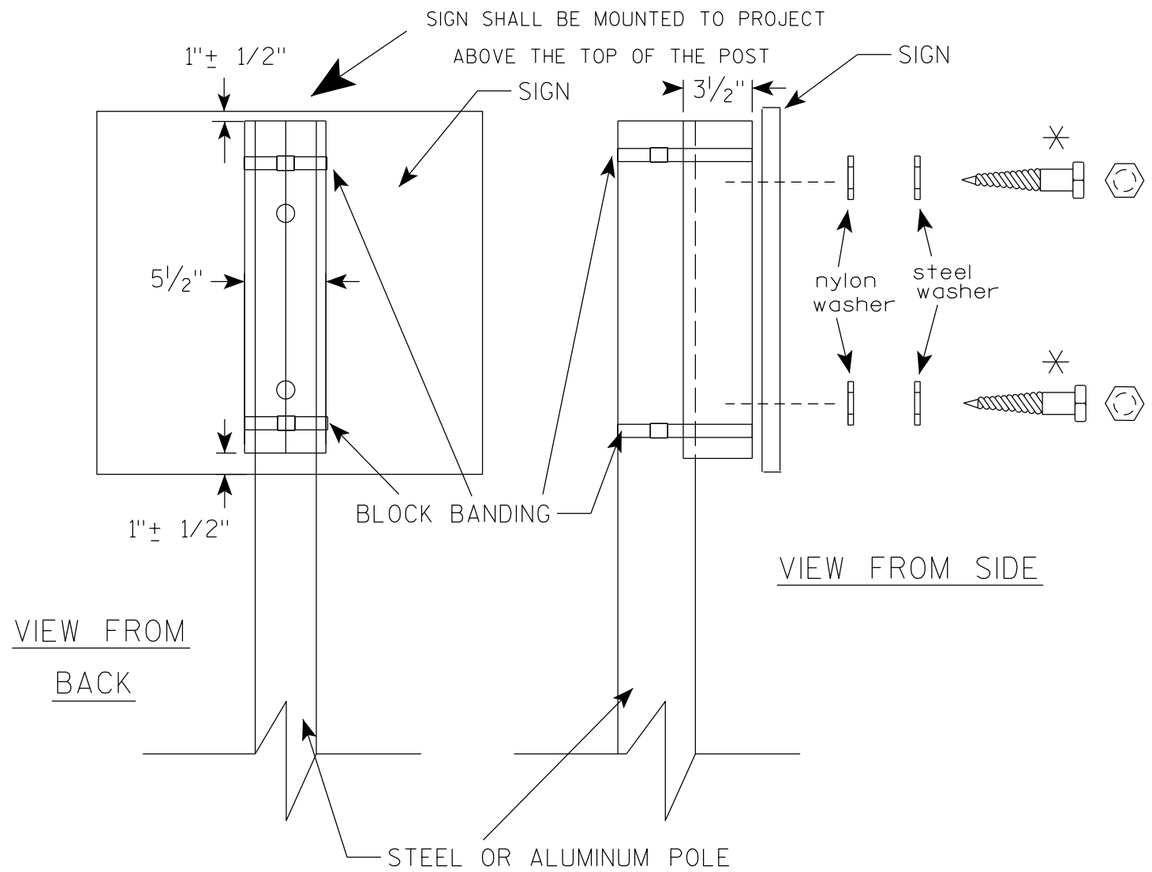
DATE 6/10/19 PLATE NO. A5-9.4

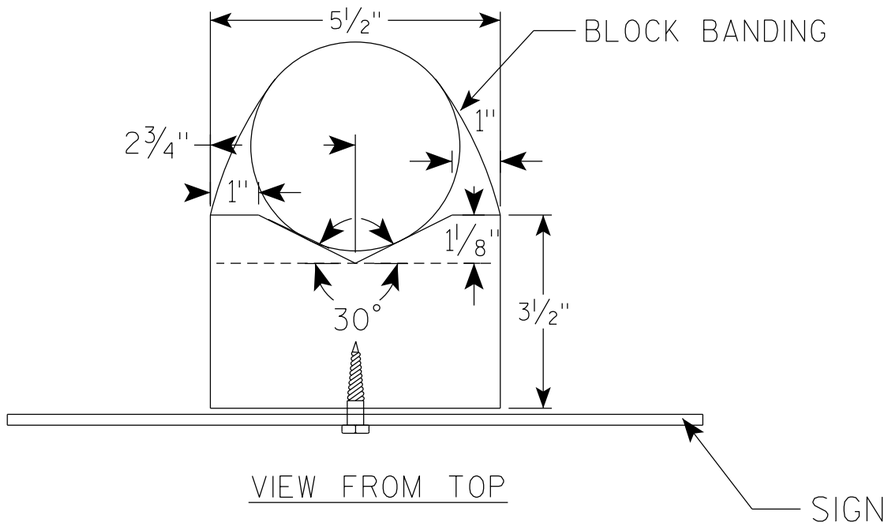
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 65	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

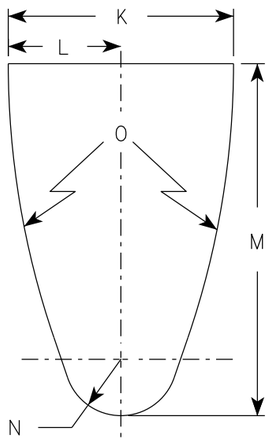
PROJECT NO:

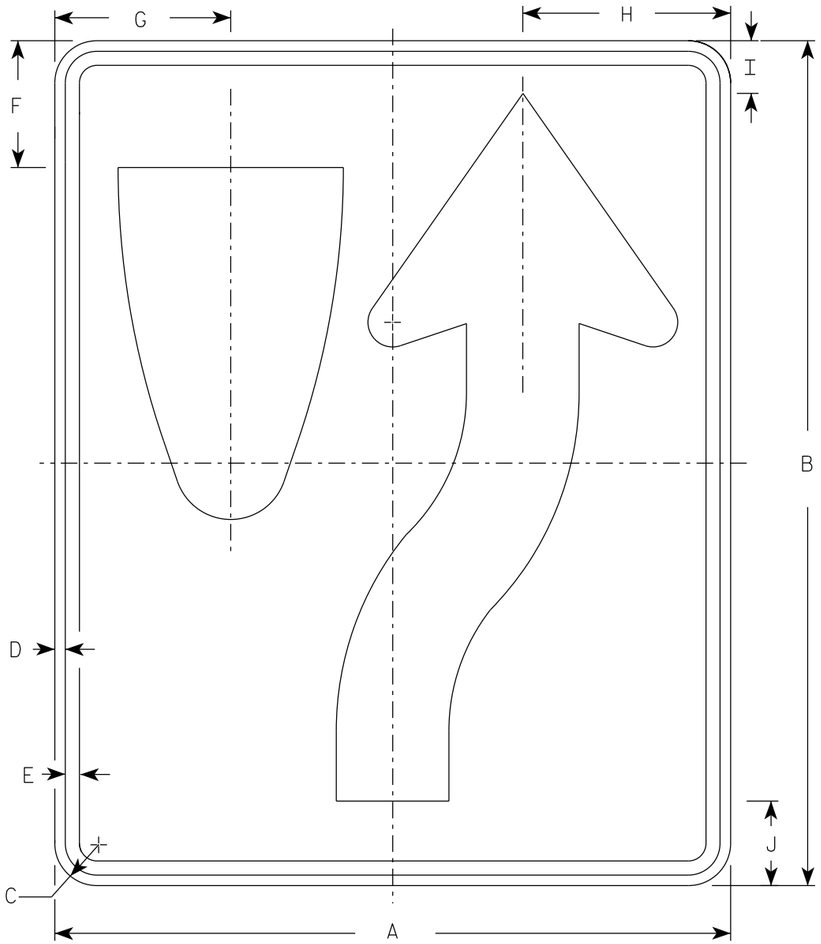
SHEET NO: 66 E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. R4-8 is the same as R4-7 except Legend is reversed.

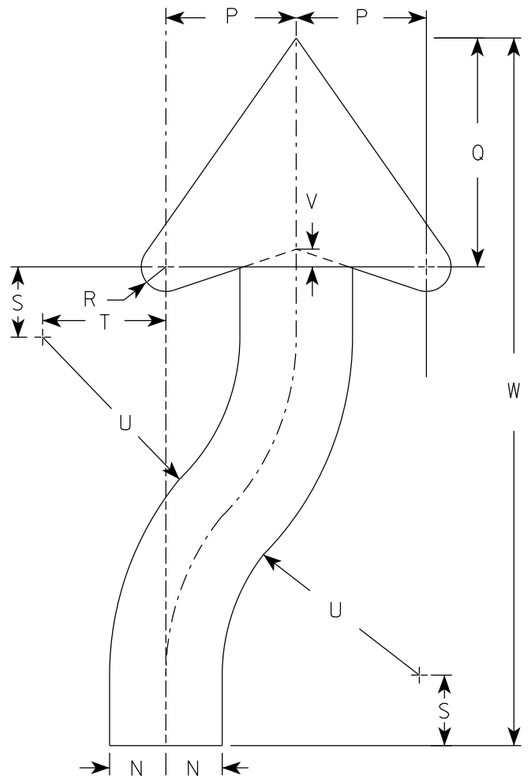
DIVIDER DETAIL





R4-7

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	18	24	1 1/2	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	3	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

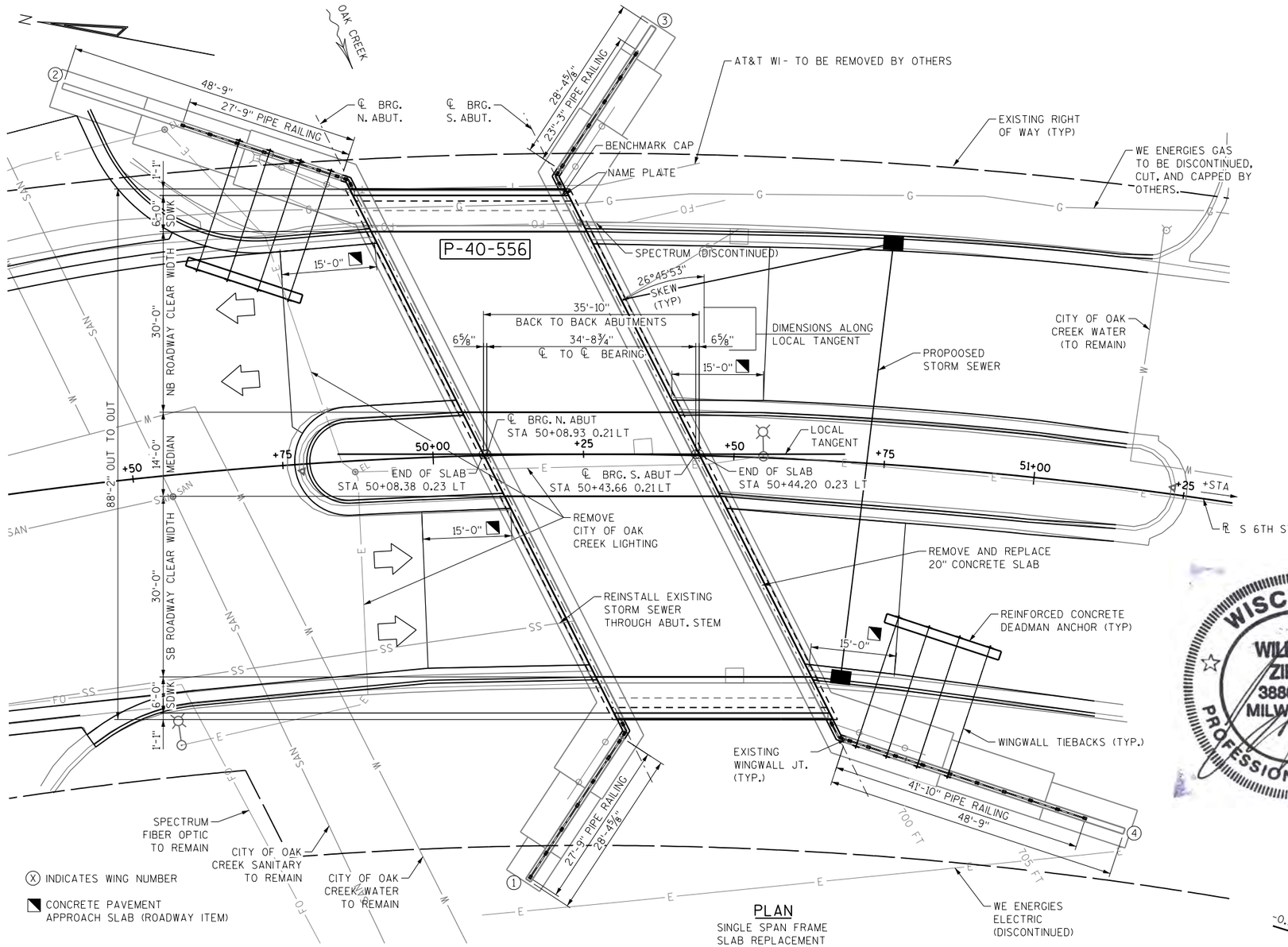
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/17/23 PLATE NO. R4-7.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 67	E

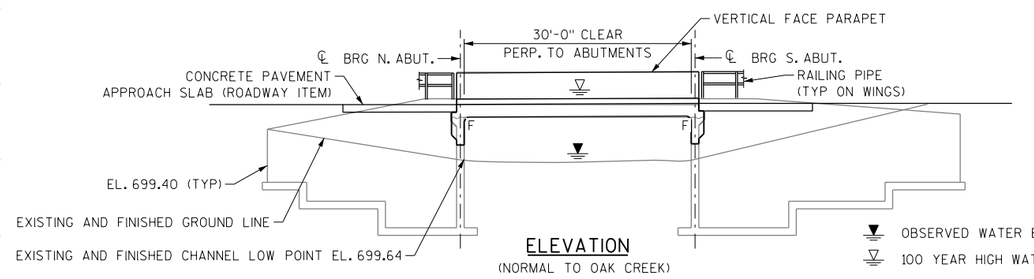
STATE PROJECT NUMBER

2987-07-71



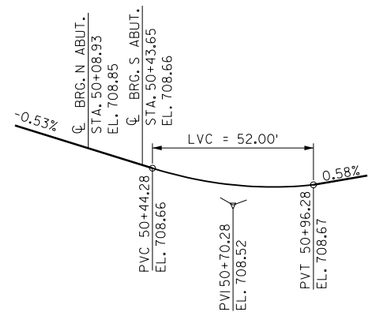
PLAN

SINGLE SPAN FRAME SLAB REPLACEMENT



ELEVATION

(NORMAL TO OAK CREEK)



PROFILE GRADE LINE

S. 6TH ST

LIST OF DRAWINGS:

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTIONS & NOTES
3. SUBSURFACE EXPLORATION
4. REMOVALS
5. WINGWALL TIEBACKS
6. SUPERSTRUCTURE
7. ABUTMENT DETAILS
8. SUPERSTRUCTURE DETAILS
9. VERTICAL FACE PARAPET
10. RAILING DETAILS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING HL-93
INVENTORY RATING FACTOR 1.11
OPERATING RATING FACTOR 1.45
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV) = 250 KIPS
DESIGN ACCOUNTS FOR FUTURE WEARING SURFACE = 20 PSF

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE ..... f'c = 4,000 psi
SUBSTRUCTURE ..... f'c = 3,500 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

HYDRAULIC DATA:

100 YEAR FLOW	1130 CFS
100 YEAR VELOCITY	7.11 FPS
0100 HIGH WATER ELEV	709.06
WATERWAY AREA	158.27 SF
DRAINAGE AREA	4.58 SQ MI
SCOUR CRITICAL CODE	5
2 YEAR FLOW	475 CFS
2 YEAR VELOCITY	3.85 FPS
02 HIGH WATER ELEV	705.64

EXISTING STRUCTURE

THE EXISTING BRIDGE (P-40-556) IS A 35'-10⅛" LONG, 88'-0" WIDE SINGLE SPAN REINFORCED CONCRETE RIDGID FRAME BRIDGE SUPPORTED REINFORCED CONCRETE SPREAD FOOTINGS. THE STRUCTURE BEGINS AT STA 50+8.37 AND ENDS AT STA 50+43.12. PLANS OF THE EXISTING BRIDGE ARE AVAILABLE FOR REVIEW AT WISDOT SE REGION OFFICE, 141 NW BARSTOW ST. WAUKESHA, WI OR THROUGH THE WISDOT STRUCTURES WEBSITE.

BENCHMARKS

NAME	DESCRIPTION	ELEV	STA	OFFSET
CP100	CP-CHISELED CROSS	709.25	51+23.13	1.095 LT
CP101	CP-CHISELED CROSS	709.23	49+78.16	1.180 RT

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK, PE
(608) 261-0261

CONSULTANT:
WILLIAM J. ZIPPEL, PE, SE
ALFRED BENESCH & CO
(414) 308-1321

TRAFFIC DATA

ROADWAY

AADT (2025) = 2,022
AADT (2045) = 2,022
DESIGN SPEED = 40 MPH.

WISCONSIN WILLIAM J. ZIPPEL 38868-006 MILWAUKEE, WI 7/16/2025 PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY

benesch
Alfred Benesch & Company
1300 West Canal Street, Suite 150
Milwaukee, Wisconsin 53233
414-308-1310 Job No. 20348.00

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED JTP 07/18/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE P-40-556

S. 6TH ST OVER OAK CREEK

COUNTY: MILWAUKEE	~~TOWN~~/CITY/~~VILLAGE~~: OAK CREEK
DESIGN SPEC.: REHABILITATION N/A	

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JAP	WJZ	JAP	WJZ

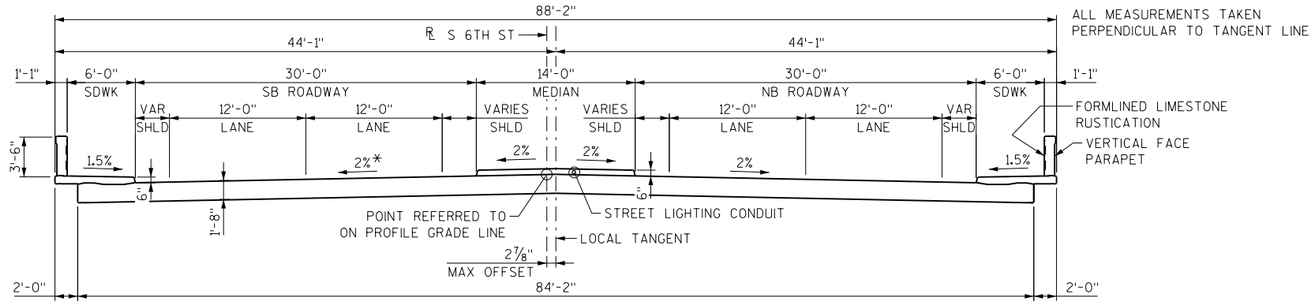
GENERAL PLAN & ELEVATION

SHEET 1 OF 10

68

FILE= 10_GP&E.DGN
SCALE = 1:20

STATE PROJECT NUMBER
2987-07-71



*AND VARIES UP TO 2.3% AT THE SE CORNER

PROPOSED TYPICAL SECTION

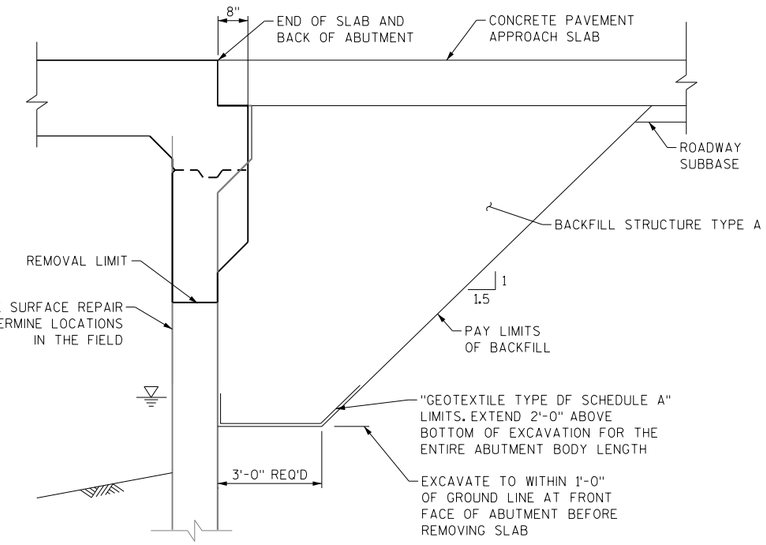
(LOOKING NORTH)

TOTAL ESTIMATE OF QUANTITIES

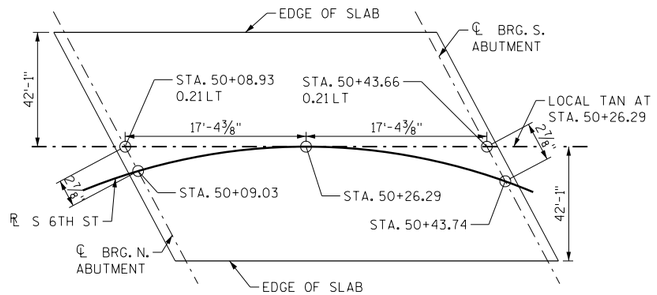
BID NO.	BID ITEMS	UNIT	TOTAL
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-40-556	EACH	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES P-40-556	EACH	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	976
502.0100	CONCRETE MASONRY BRIDGES	CY	260
502.3200	PROTECTIVE SURFACE TREATMENT	SY	351
502.3210	PIGMENTED SURFACE SEALER	SY	36
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	500
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	41460
509.1500	CONCRETE SURFACE REPAIR	SF	15
513.2001	RAILING PIPE	LF	181
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	74
517.1050.S	ARCHITECTURAL SURFACE TREATMENT P-40-556	SF	251
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	204
650.6501	CONSTRUCTION STAKING STRUCTURE LAYOUT P-40-556	EACH	1
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	73
SPV.0060.20	WINGWALL TIE BACK	EACH	2
	NON-BID ITEMS		
	NAME PLATE		
	JOINT FILLER - ½"		

GENERAL NOTES:

1. DRAWINGS SHALL NOT BE SCALED.
2. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED. THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 2½" OF CONCRETE COVER.
3. SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.
4. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
5. AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT MODIFICATION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.
6. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK, SIDEWALKS, MEDIAN, AND TO THE FRONT FACE OF CURBS. PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND TOP OF PARAPETS.
7. EXISTING STRUCTURE DIMENSIONS ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
8. BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.
9. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS NOTED OTHERWISE.
10. ALL STATIONS AND ELEVATIONS ARE IN FEET.
11. THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS.
12. THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY CONTRACT
13. ALL CONCRETE REMOVAL FOR CONCRETE SURFACE REPAIR SHALL BE DEFINED BY A ½" DEEP SAW CUT. FINAL CONCRETE SURFACE REPAIR AREAS OF SPALLING AND DELAMINATION ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
14. THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. THE NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR OF 1970.
15. DURING CONSTRUCTION DO NOT PLACE CONSTRUCTION EQUIPMENT, VEHICLES OR MATERIALS WITHIN 10FT OF THE BACK FACE OF THE ABUTMENTS OR WINGWALLS UNLESS STABILITY CALCULATIONS WITH APPLICABLE LIVE LOAD SURCHARGE STAMPED BY A LICENSED ENGINEER ARE PROVIDED BY THE CONTRACTOR.
16. SPECTRUM FO CABLE, WE-ENERGIES GAS, AT&T CONDUIT, AND CITY LIGHTING TO BE DISCONTINUED PRIOR TO CONSTRUCTION. REMOVE UTILITIES AS PART OF BID ITEM "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-40-556".



ABUTMENT EXCAVATION SECTION



LOCAL TANGENT SKETCH

HORIZONTAL CURVE DATA

P.C. = STA 48+61.10
P.I. = STA 50+28.04
P.T. = STA 51+88.95
R = 705.00'
DELTA = 26°38'41" RT
D = 8°07'37"
L = 327.85'
T = 166.94'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY JAP | PLANS CK'D. WJZ

TYPICAL SECTIONS & NOTES

SHEET 2 OF 10

69

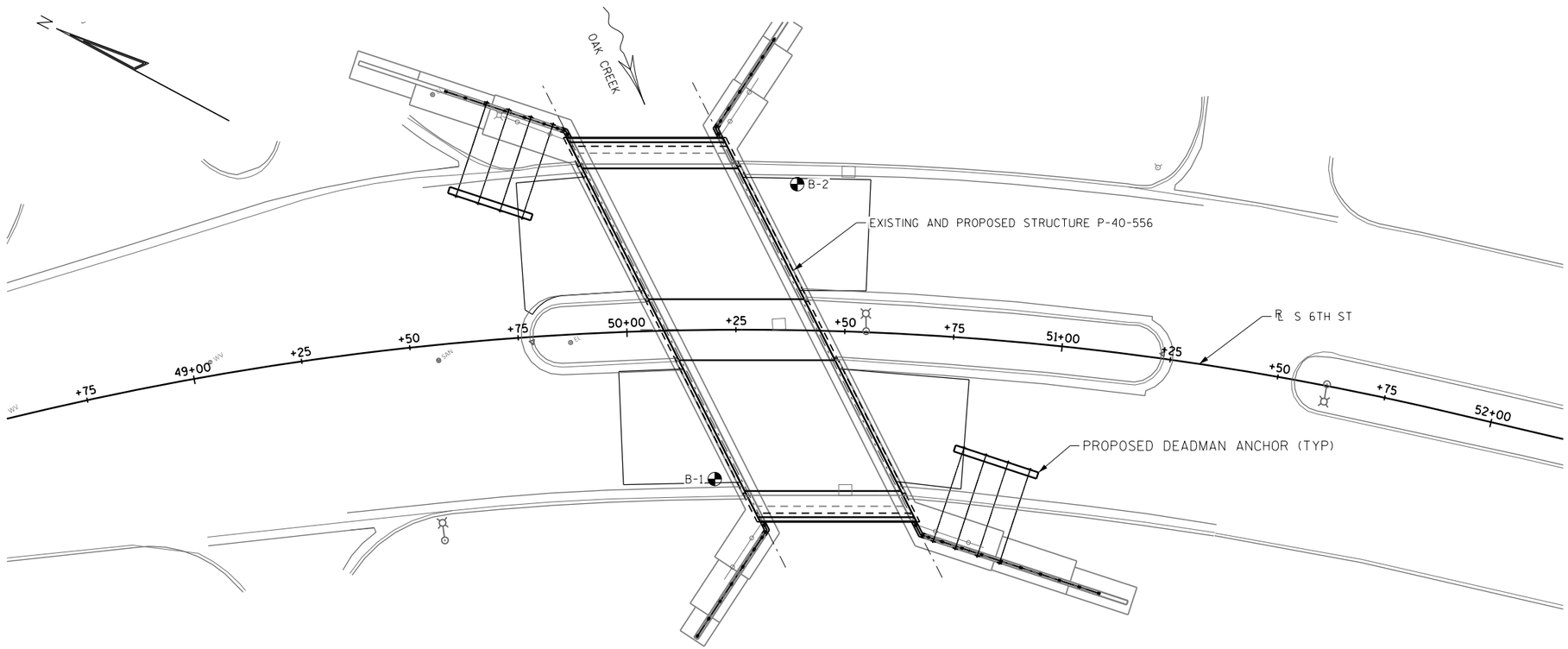
FILE= 20_TYP.DGN
SCALE = 1:20

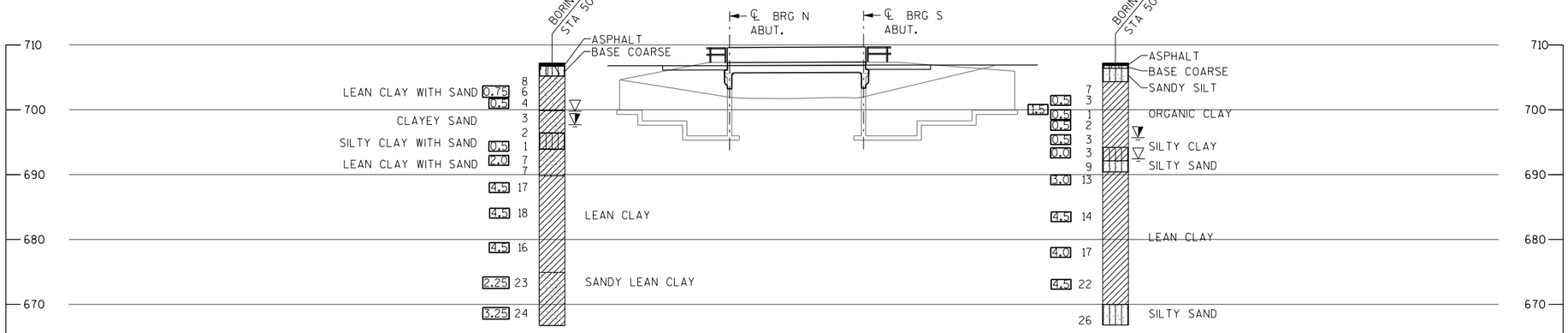
8

8

STATE PROJECT NUMBER

2987-07-71





NOTES:

FOUNDATION DESIGN PARAMETERS ARE BASED ON RECOMMENDATIONS FROM THE GEOTECHNICAL EXPLORATION REPORT DATED 9/7/2023 AND SUPPLEMENTAL TECHNICAL MEMORANDUM DATED 5/1/2025 BY GESTRA. AVAILABLE FROM WISDOT.

REFER TO THE GEOTECHNICAL REPORT FOR FULL SOIL DESCRIPTIONS AND DETAILS OF BORING LOGS.

CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION FOR THE GEOTECHNICAL REPORT AND BORING LOGS.

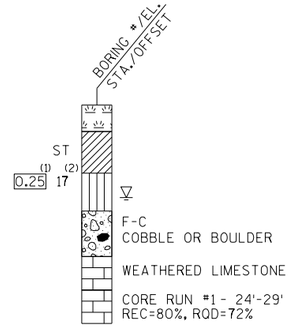
EXISTING FOOTINGS AND ABUTMENTS ARE SHOWN BASED ON ORIGIONAL STRUCTURE PLANS.

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	8/07/2023	249972	603211
B-2	8/07/2023	249966	603281
BORINGS COMPLETED BY: GESTRA ENGINEREING			
REPORT COMPLETED BY: MASUD ALAM, PE			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) MILWAUKEE COUNTY			

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ ▼

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY BJK | PLANS CK'D. WJZ

SUBSURFACE EXPLORATION

SHEET 3 OF 10

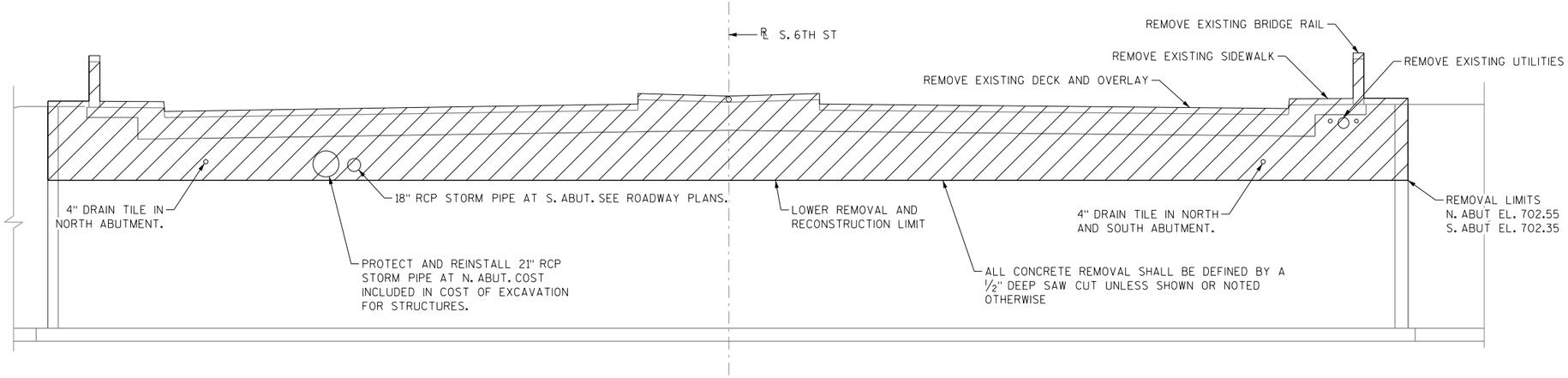
70

8

8

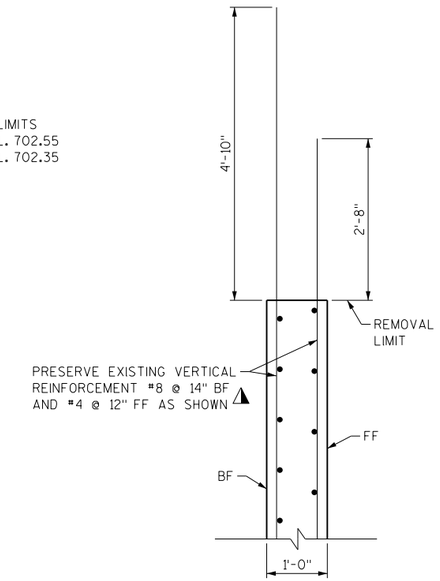
FILE= 30_SUB.DGN
SCALE = 1:30

STATE PROJECT NUMBER
2987-07-71

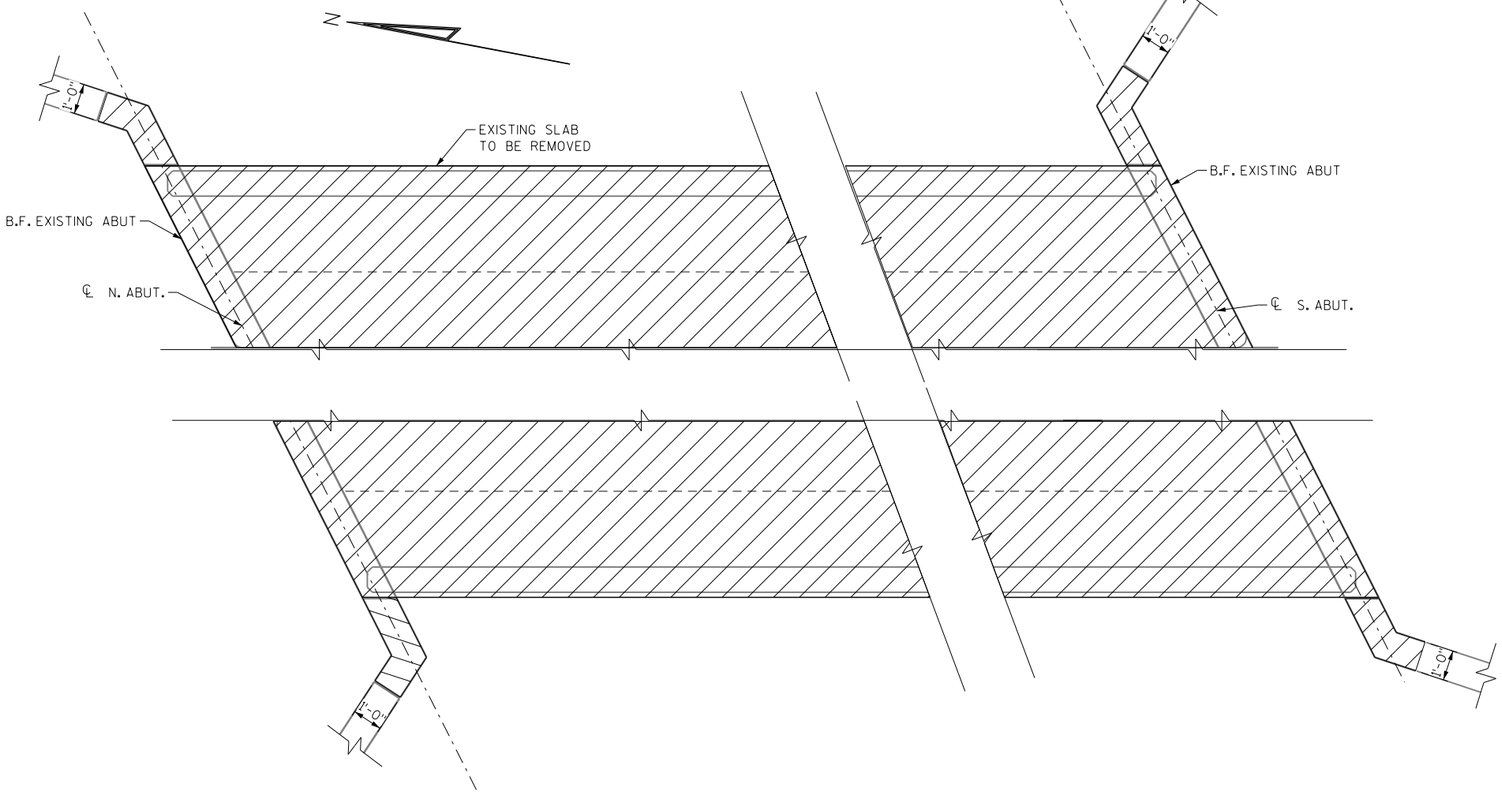


NOTE: PROTECT AND REINSTALL ALL 4" DRAIN TILE. COST INCLUDED IN COST OF EXCAVATION FOR STRUCTURES.

TYPICAL ABUTMENT ELEVATION



SECTION THRU EXISTING ABUTMENT



REMOVAL PLAN

LEGEND

▲ CLEAN, STRAIGHTEN, AND INCORPORATE INTO NEW WORK. DO NOT CUT BELOW LIMITS SHOWN. REPLACE DAMAGED OR CORRODED REINFORCEMENT AS DIRECTED BY THE ENGINEER

HATCHED AREAS INDICATE CONCRETE REMOVALS

F.F. = FRONT FACE
B.F. = BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY KRM | PLANS CK'D. WJZ

REMOVALS

SHEET 4 OF 10

71

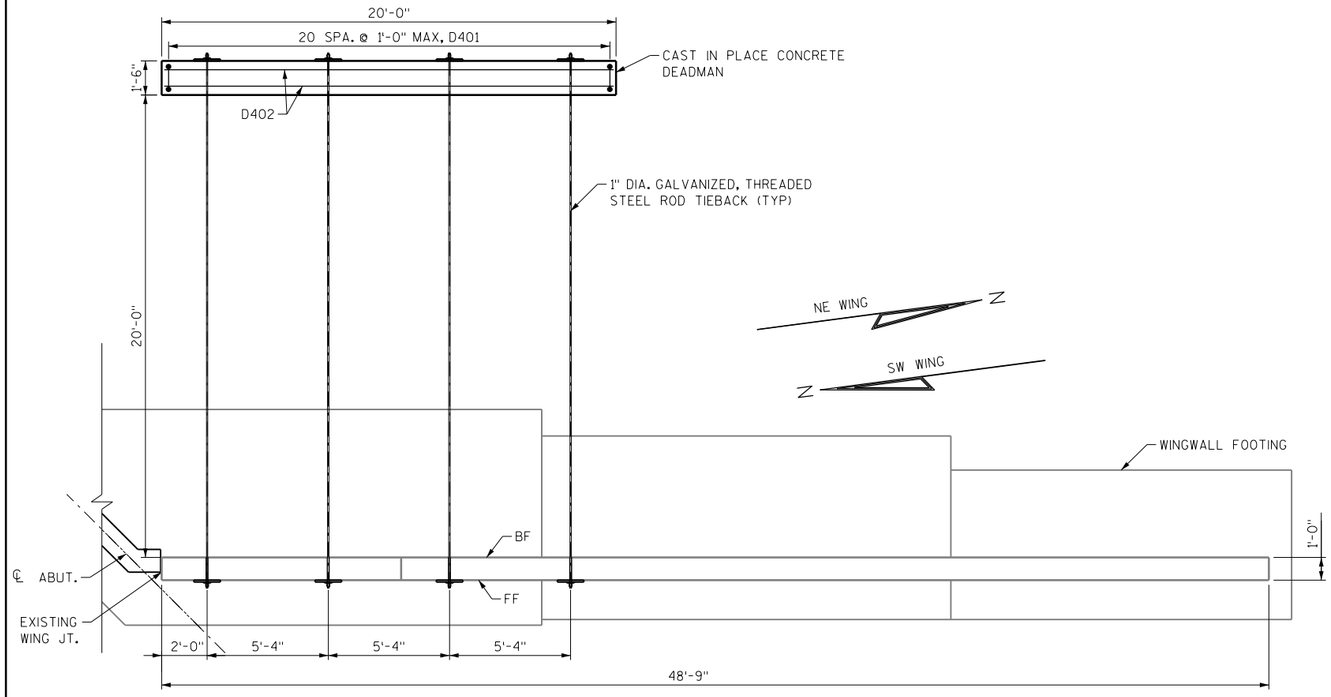
FILE= 40_REMOVAL.DGN
SCALE = 1:10

8

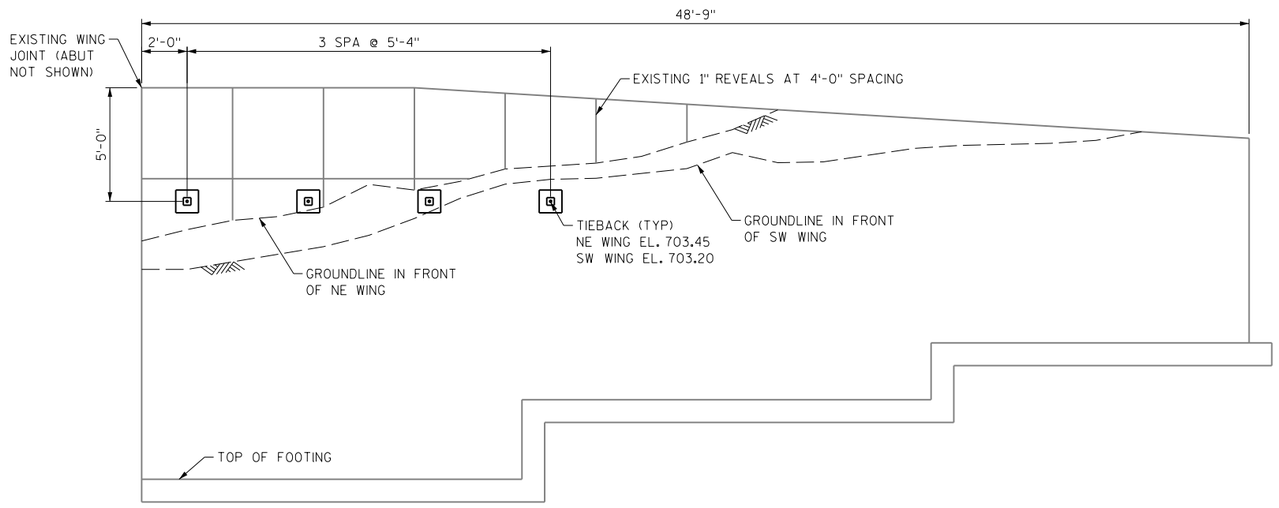
8

STATE PROJECT NUMBER

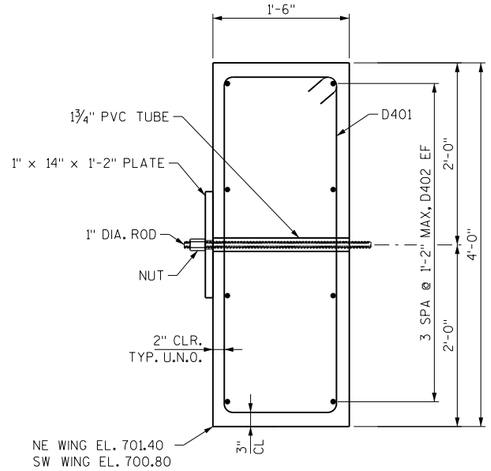
2987-07-71



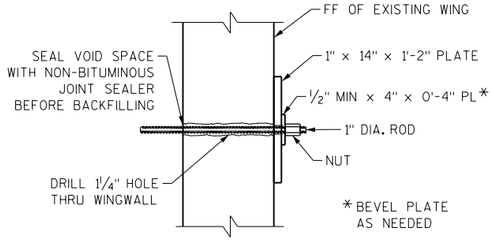
NE WINGWALL PLAN
(SW WINGWALL IS SIMILAR)



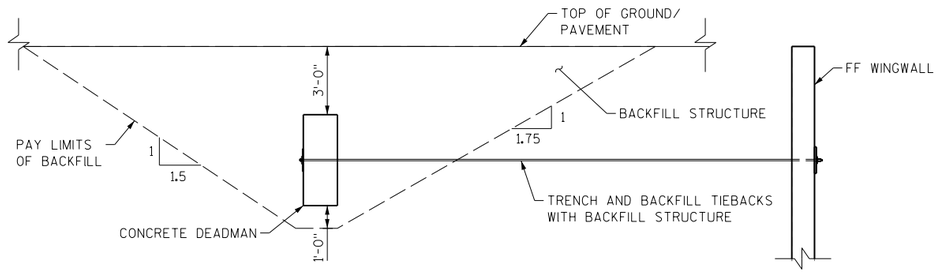
NE WINGWALL ELEVATION
(SW WINGWALL IS SIMILAR)



SECTION THRU DEADMAN



SECTION THRU WINGWALL



EXCAVATION DETAIL

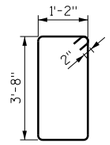
NOTES

PIPE RAILING NOT SHOWN

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D	LENGTH	BENT BAR	BUNDLED	BAR SERIES	0# COATED 494# UNCOATED / LOCATION
D401		42	10'-1"	X			DEADMAN STIRRUPS
D402		16	19'-8"				DEADMAN HORIZONTAL

QUANTITY SHOWN IS FOR TWO DEADMEN



D401

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY KRM | PLANS CK'D. WJZ

WINGWALL TIEBACKS

SHEET 5 OF 10

72

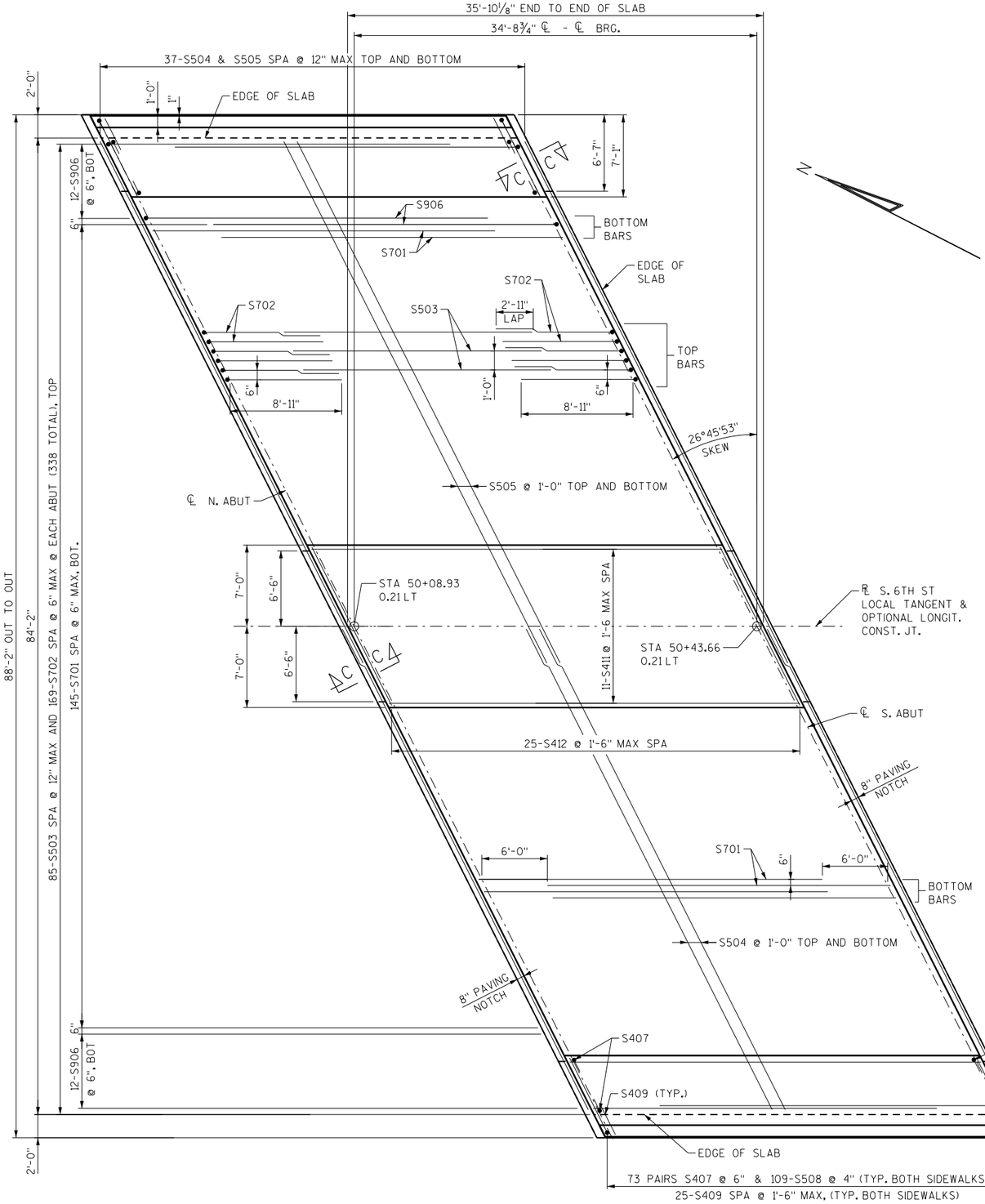
FILE= 50_WING-TIES.DGN
SCALE = 1:10

8

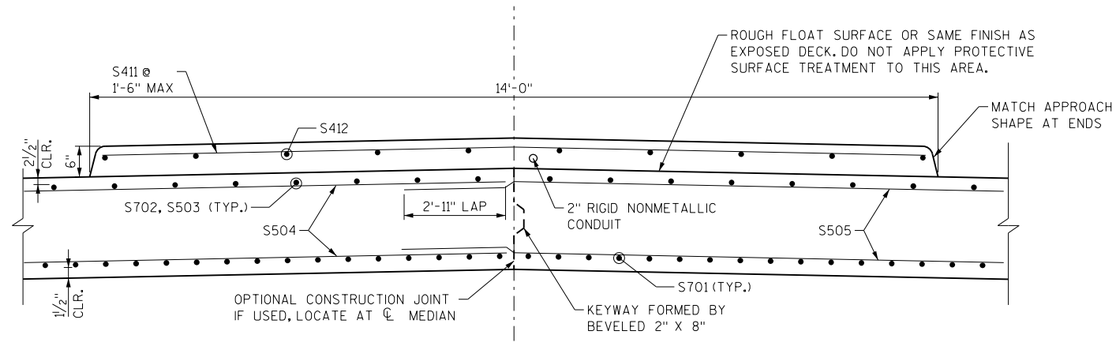
8

STATE PROJECT NUMBER

2987-07-71

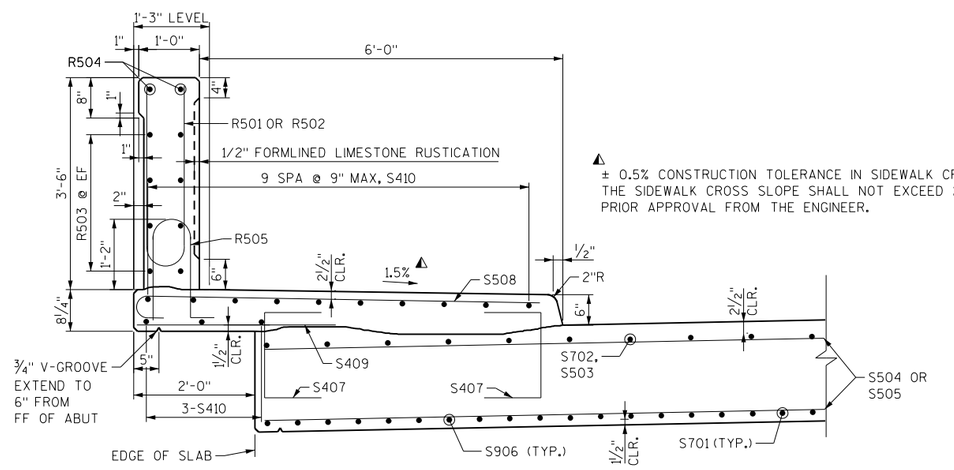


PLAN



TYPICAL SECTION THRU MEDIAN

LOOKING NORTH



▲ ± 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.0% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

TYPICAL SECTION THRU SIDEWALK AND RAILING

NOTES:

SEE SHEET 8 FOR SECTION C-C.

SEE SHEET 9 FOR VERTICAL FACE PARAPET DETAILS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY KRM | PLANS CK'D. WJZ

SUPERSTRUCTURE

SHEET 6 OF 10

73

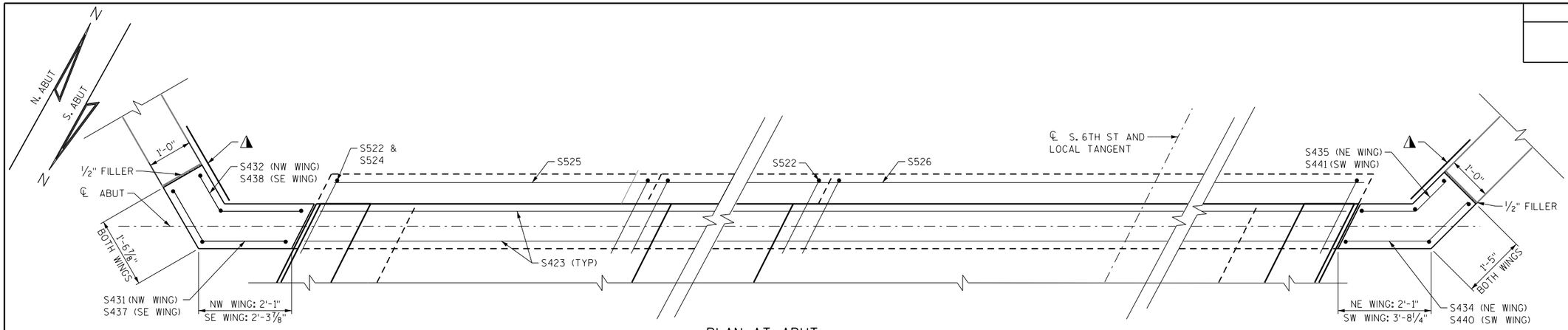
8

8

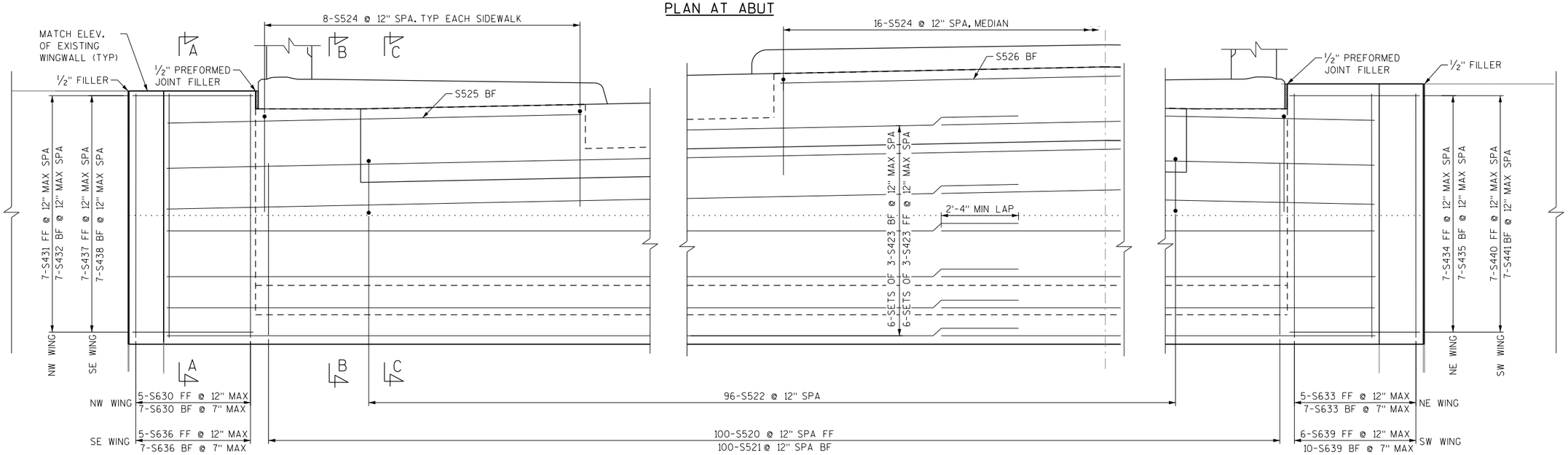
FILE= 60_SUPER.DGN
SCALE = 1:10

STATE PROJECT NUMBER

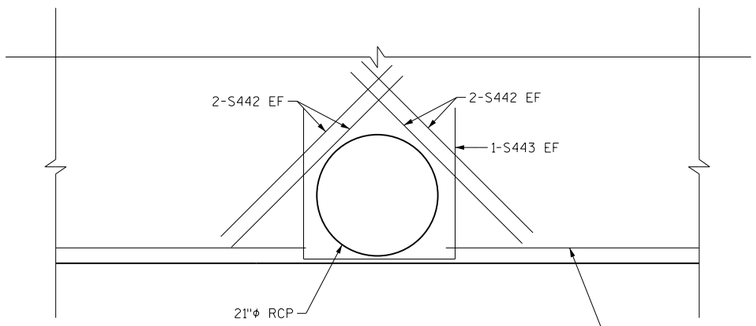
2987-07-71



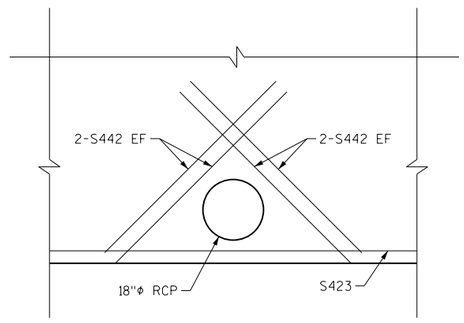
PLAN AT ABUT



ELEVATION AT ABUTMENT



PARTIAL ELEVATION AT 21" PIPE INLET



PARTIAL ELEVATION AT 18" PIPE INLET

LEGEND

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

SEE SHEET 8 FOR SECTION DRAWINGS

⚠ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY KRM | PLANS CK'D. WJZ

ABUTMENT DETAILS

SHEET 7 OF 10

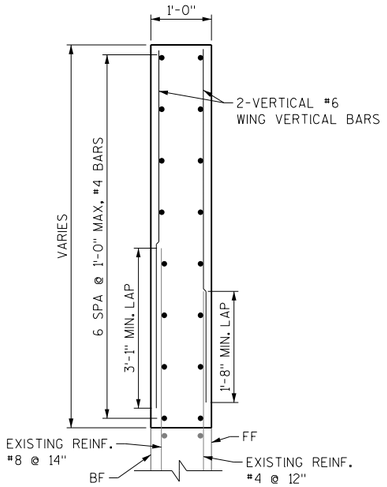
74

8

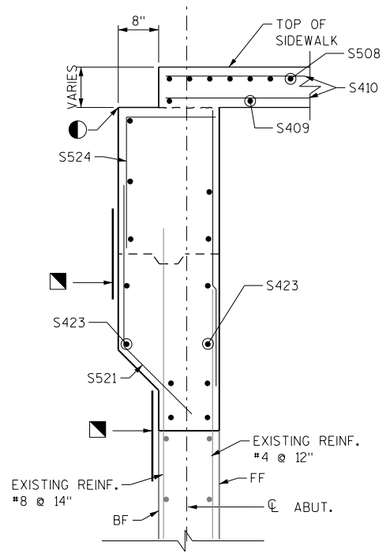
8

FILE= 70_ABUT_DET.DGN
SCALE = 1:10

STATE PROJECT NUMBER
2987-07-71



SECTION A-A



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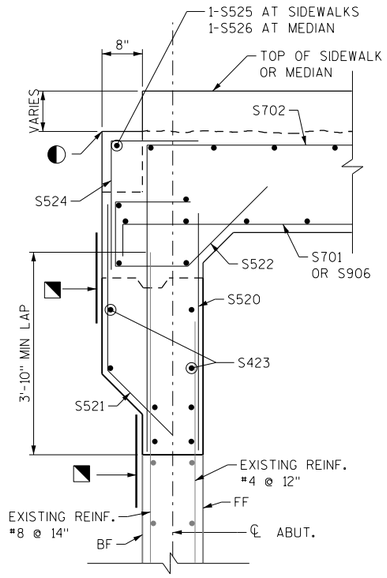
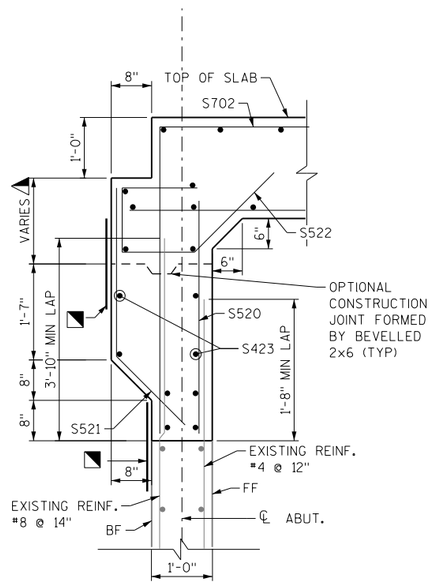
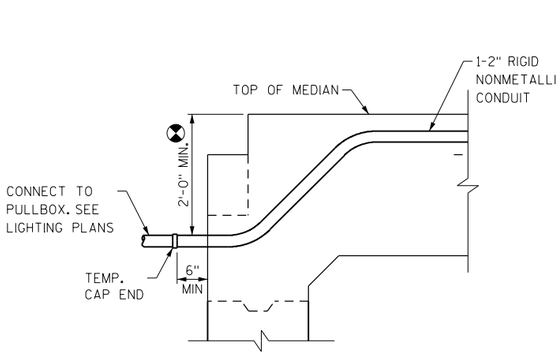


SECTION C-C

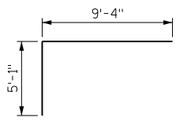


TYPICAL SECTION
AT ROADWAY

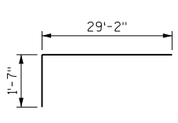
⚠ 1'-5" MIN
2'-4¾" MAX



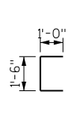
CONDUIT DETAIL



S702



S906



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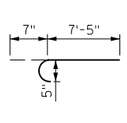
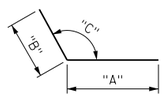
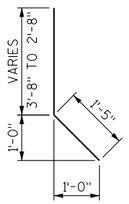


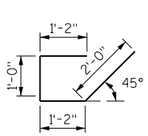
S508



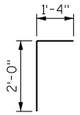
BAR NO.	"A"	"B"	"C"
S431	1'-10"	1'-3"	120°
S432	1'-10"	11"	120°
S434	1'-9"	1'-2"	135°
S435	1'-2"	11"	135°
S437	2'-1"	1'-3"	120°
S438	2'-1"	11"	120°
S440	3'-4"	1'-2"	135°
S441	2'-8"	11"	135°



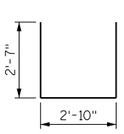
S521
4 SETS REQ'D



S522



S524



S443

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D	LENGTH	BENT BAR	BUNDLED BAR	⚠ SERIES	39488# COATED 0# UNCOATED LOCATION
S701	X	145	29'-2"				SLAB LONGITUDINAL BOTTOM
S702	X	338	13'-1"	X			SLAB LONGITUDINAL TOP AT ENDS
S503	X	85	22'-9"				SLAB LONGITUDINAL TOP AT MIDDLE
S504	X	80	46'-10"				SLAB TRANSVERSE TOP AND BOTTOM
S505	X	80	50'-1"				SLAB TRANSVERSE TOP AND BOTTOM
S906	X	24	30'-6"	X			SLAB LONGITUDINAL BOTTOM EDGE
S407	X	292	3'-4"	X			SIDEWALK DOWELS
S508	X	218	8'-0"	X			SIDEWALK TOP TRANSVERSE
S409	X	50	3'-2"				SIDEWALK BOTTOM TRANSVERSE
S410	X	26	35'-6"				SIDEWALK LONGITUDINAL
S411	X	11	35'-6"				MEDIAN LONGITUDINAL
S412	X	25	15'-4"				MEDIAN TRANSVERSE
S520	X	200	4'-4"				STEM FF VERTICAL
S521	X	200	4'-7"	X		X	STEM BF VERTICAL
S522	X	192	5'-1"	X			STEM HAUNCH VERTICAL
S423	X	72	36'-5"				STEM HORIZONTAL
S524	X	64	3'-2"	X			MEDIAN AND SW ENDS
S525	X	4	8'-1"				SIDEWALK ENDS
S526	X	2	14'-0"				MEDIAN ENDS
S630	X	12	5'-4"				NW WING VERTICAL
S431	X	7	3'-1"	X			NW WING HORIZONTAL FF
S432	X	7	2'-9"	X			NW WING HORIZONTAL BF
S633	X	12	5'-6"				NE WING VERTICAL
S434	X	7	2'-11"	X			NE WING HORIZONTAL FF
S435	X	7	2'-1"	X			NE WING HORIZONTAL BF
S636	X	12	5'-7"				SE WING VERTICAL
S437	X	7	3'-4"	X			SE WING HORIZONTAL FF
S438	X	7	3'-0"	X			SE WING HORIZONTAL BF
S639	X	16	5'-6"				SW WING VERTICAL
S440	X	7	4'-6"	X			SW WING HORIZONTAL FF
S441	X	7	3'-7"	X			SW WING HORIZONTAL BF
S442	X	16	4'-0"				INLET PIPE REINFORCEMENT
S443	X	2	8'-2"	X			INLET PIPE REINFORCEMENT

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

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

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

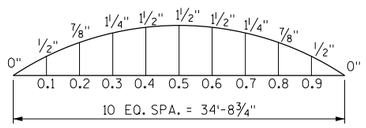
PARAPETS, SIDEWALKS, AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

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

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT MIDSPAN. TO VERIFY CAMBER, TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℞. RECORD ELEVATIONS ON AS BUILT PLANS. SEE STD. 18.03

TOP OF SLAB ELEVATIONS

LOCATION	WEST EDGE OF DECK	WEST GUTTER	WEST MEDIAN	CROWN	EAST MEDIAN	EAST GUTTER	EAST EDGE OF DECK
℄ BRG N ABUT	707.88	708.00	708.69	708.84	708.72	708.18	708.09
0.1	707.87	707.98	708.67	708.82	708.70	708.17	708.07
0.2	707.85	707.97	708.65	708.81	708.68	708.15	708.06
0.3	707.83	707.95	708.63	708.79	708.67	708.13	708.04
0.4	707.82	707.93	708.61	708.77	708.65	708.12	708.03
0.5	707.80	707.91	708.59	708.75	708.63	708.10	708.01
0.6	707.78	707.90	708.58	708.73	708.61	708.09	707.99
0.7	707.75	707.88	708.56	708.71	708.59	708.07	707.98
0.8	707.73	707.86	708.54	708.70	708.57	708.05	707.96
0.9	707.71	707.84	708.53	708.68	708.56	708.03	707.94
℄ BRG S ABUT	707.69	707.82	708.51	708.66	708.54	708.02	707.93



CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

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

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

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

⊗ 2'-0" MIN. CONDUIT COVER UNDER ROADWAYS, 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0"

LEGEND

FF = FRONT FACE
BF = BACK FACE

◐ BOTTOM OF SIDEWALK AND MEDIAN PAVING NOTCH IS THE TOP OF SLAB EXTENDED

◥ 18" RUBBERIZED MEMBRANE WATERPROOFING AT ALL CONSTRUCTION JOINTS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY KRM | PLANS CK'D. WJZ

SUPERSTRUCTURE DETAILS

SHEET 8 OF 10

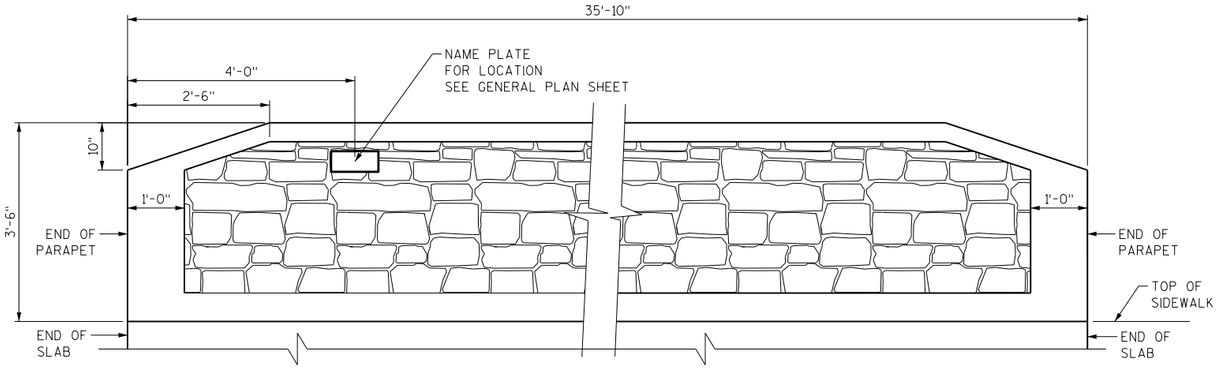
75

FILE= 80_SUPER_DET.DGN
SCALE = 1:10

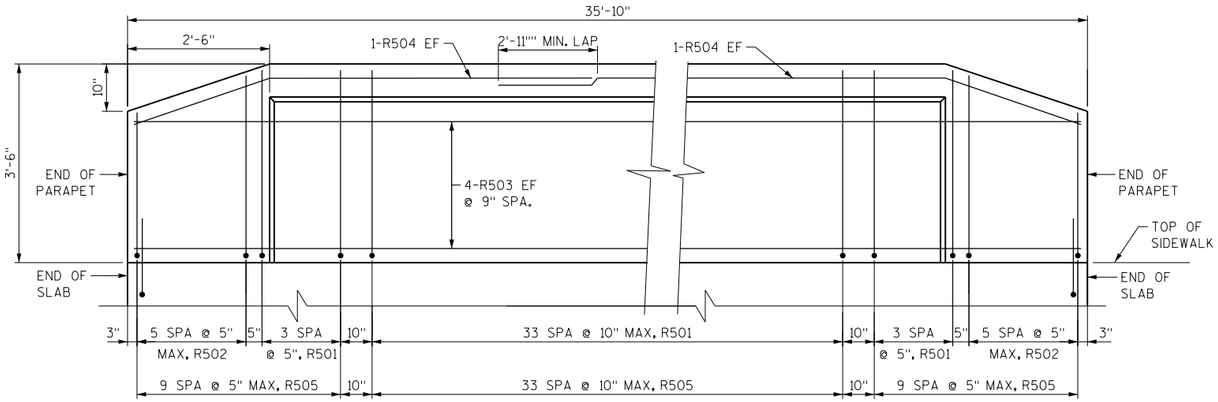
8

8

STATE PROJECT NUMBER
2987-07-71



INSIDE ELEVATION OF PARAPET



OUTSIDE ELEVATION OF PARAPET

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

BAR NO.	COATED BAR	NO. REQ'D	LENGTH	BENT BAR	BUNDLED	⚠ BAR SERIES	1971# COATED 0# UNCOATED / LOCATION
R501	X	84	6'-5"	X			BRIDGE PARAPET VERTICAL
R502	X	24	5'-7"	X		X	BRIDGE PARAPET VERTICAL ENDS
R503	X	16	35'-6"				BRIDGE PARAPET HORIZONTAL
R504	X	8	19'-4"	X			BRIDGE PARAPET HORIZONTAL - TOP
R505	X	114	4'-4"	X			BRIDGE PARAPET VERTICAL - BOTTOM

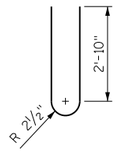
QUANTITIES SHOWN FOR BOTH EAST AND WEST PARAPETS

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

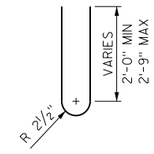
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

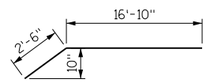
BAR MARK	NO. REQ'D.	LENGTH
R502	4 SERIES OF 6	4'-9" TO 6'-3"



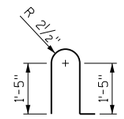
R501



R502



R504



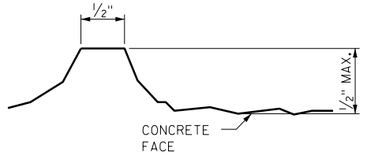
R505

NOTES

PARAPET AESTHETIC TREATMENT IS PAID FOR AS ARCHITECTURAL SURFACE TREATMENT P-40-556

PAY LIMITS INCLUDE THE FULL INSIDE FACE OF PARAPET. INCLUDING THE STONE PATTERN AND SMOOTH BORDERS

SEE PARAPET SECTION ON SHEET 6



LIMESTONE RUSTICATION DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY KRM | PLANS CK'D. WJZ

VERTICAL FACE PARAPET

SHEET 9 OF 10

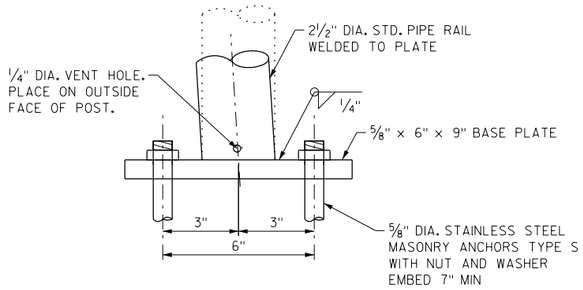
76

FILE= 90_VERTFACEPPT.DGN
SCALE = 1:4

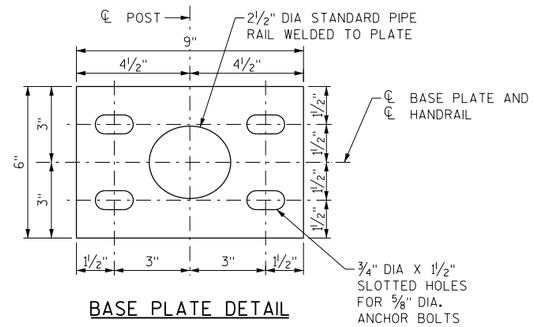
8

8

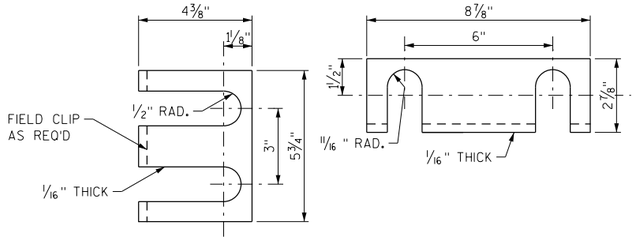
STATE PROJECT NUMBER
2987-07-71



RAIL POST BASE PLATE



BASE PLATE DETAIL



SHIM DETAILS

GALVANIZED STEEL SHIMS SHALL BE PROVIDED AND USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT (PROVIDE 2 SETS PER POST)

NOTES

DISCREPENCIES EXIST BETWEEN AS-BUILT DRAWINGS AND EXISTING WING DIMENSIONS. LOCATE AND FIELD MEASURE EXISTING WINGS AND ABUTMENT CORNERS PRIOR TO FINAL POST LAYOUT AND SHOP DRAWINGS

BID ITEM SHALL BE "RAILING PIPE", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN, CONCRETE MASONRY ANCHORS, AND GALVANIZING.

BASE PLATES SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STANDARD PIPE SHALL CONFORM TO A.S.T.M. A500 GRADE B.

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

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

ALL JOINTS SHALL BE CONTINUOUSLY WELDED AND GROUND SMOOTH. COPE COMPONENTS AT PERPENDICULAR AND SKEW CONNECTIONS TO PROVIDE CLOSE FIT. OBTAIN FUSION WITHOUT UNDERCUT OR OVERLAP. REMOVE FLUX IMMEDIATELY.

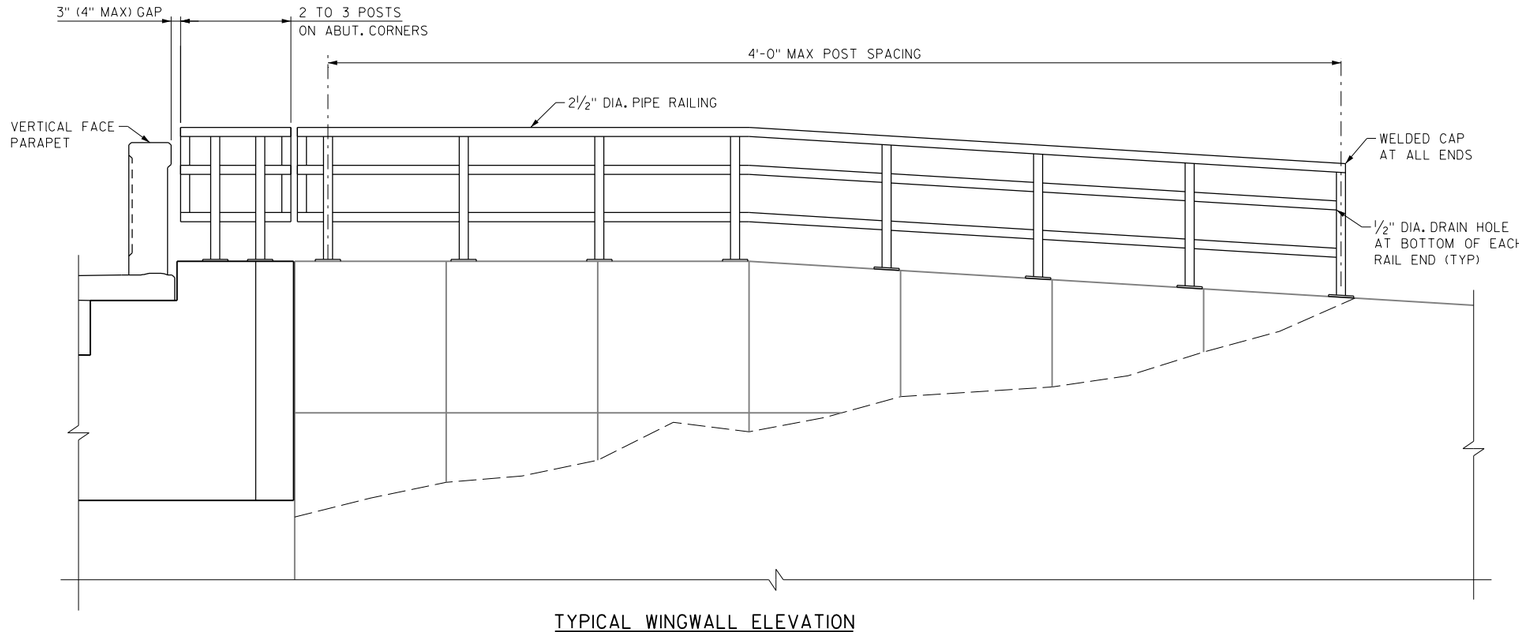
SUPPLY CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝-INCH HAVING A MINIMUM PULLOUT CAPACITY OF 9.2 KIPS. EMBED A MINIMUM OF 7" INTO SOUND CONCRETE. ANCHORS SHALL BE STAINLESS STEEL.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

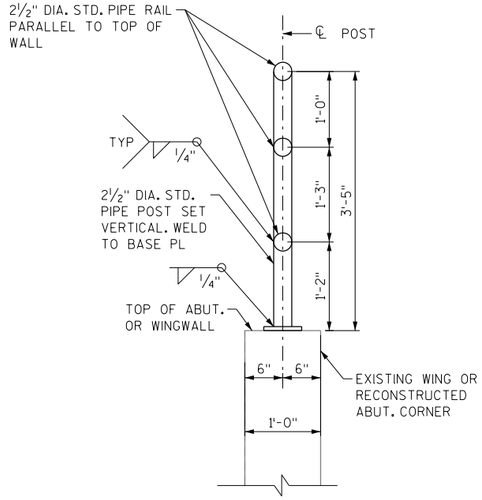
GALVANIZE AFTER FABRICATION PER ASTM A123.

SHIMS SHALL BE GALVANIZED.

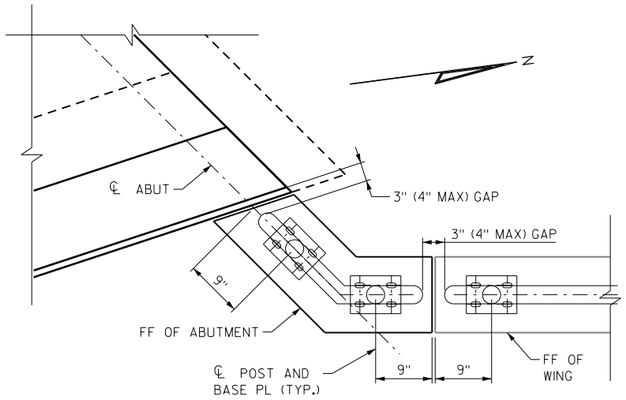
HANDRAIL AND POSTS TO BE SMOOTH AND FREE OF NICKS, BURRS, AND ABRASIONS AFTER GALVANIZING.



TYPICAL WINGWALL ELEVATION



SECTION THROUGH RAIL



PARTIAL PLAN

(NE WING SHOWN, OTHER WINGWALLS SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-556

DRAWN BY JAP | PLANS CK'D. WJZ

RAILING DETAILS

SHEET 10 OF 10

77

FILE= 100_RAIL.DGN
SCALE = 1:4

8

8

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						1.00	1.20	
				NOTE 1	NOTE 3	NOTE 1		NOTE 8
49+00.00	0.00	0.00	0.00	0	0	0	0	0
49+25.00	25.00	58.93	0.04	27	0	27	0	27
49+50.00	25.00	55.42	0.18	53	0	80	0	80
49+75.00	25.00	57.26	0.51	52	0	132	0	132
49+77.00	2.00	59.16	0.51	4	0	136	0	136
49+97.74	20.74	69.23	2.90	49	1	185	1	184
50+00.00	2.26	62.65	2.94	6	0	191	1	190
50+05.06	5.06	49.21	3.19	10	1	201	2	199
50+11.76	6.70	41.46	2.25	11	1	212	4	208
STRUCTURE								
50+40.80	29.04	49.83	0.01	0	0	212	4	208
50+49.03	8.23	56.61	0.01	16	0	228	4	224
50+50.00	0.97	57.51	0.01	2	0	230	4	226
50+54.50	4.50	49.34	0.01	9	0	239	4	235
50+74.00	19.50	85.76	0.97	49	0	288	4	284
50+75.00	1.00	85.66	1.05	3	0	291	4	287
50+79.27	4.27	67.56	1.32	12	0	303	4	299
51+00.00	20.73	68.53	1.35	52	1	355	5	350
51+15.01	15.01	0.00	0.00	19	0	374	5	369

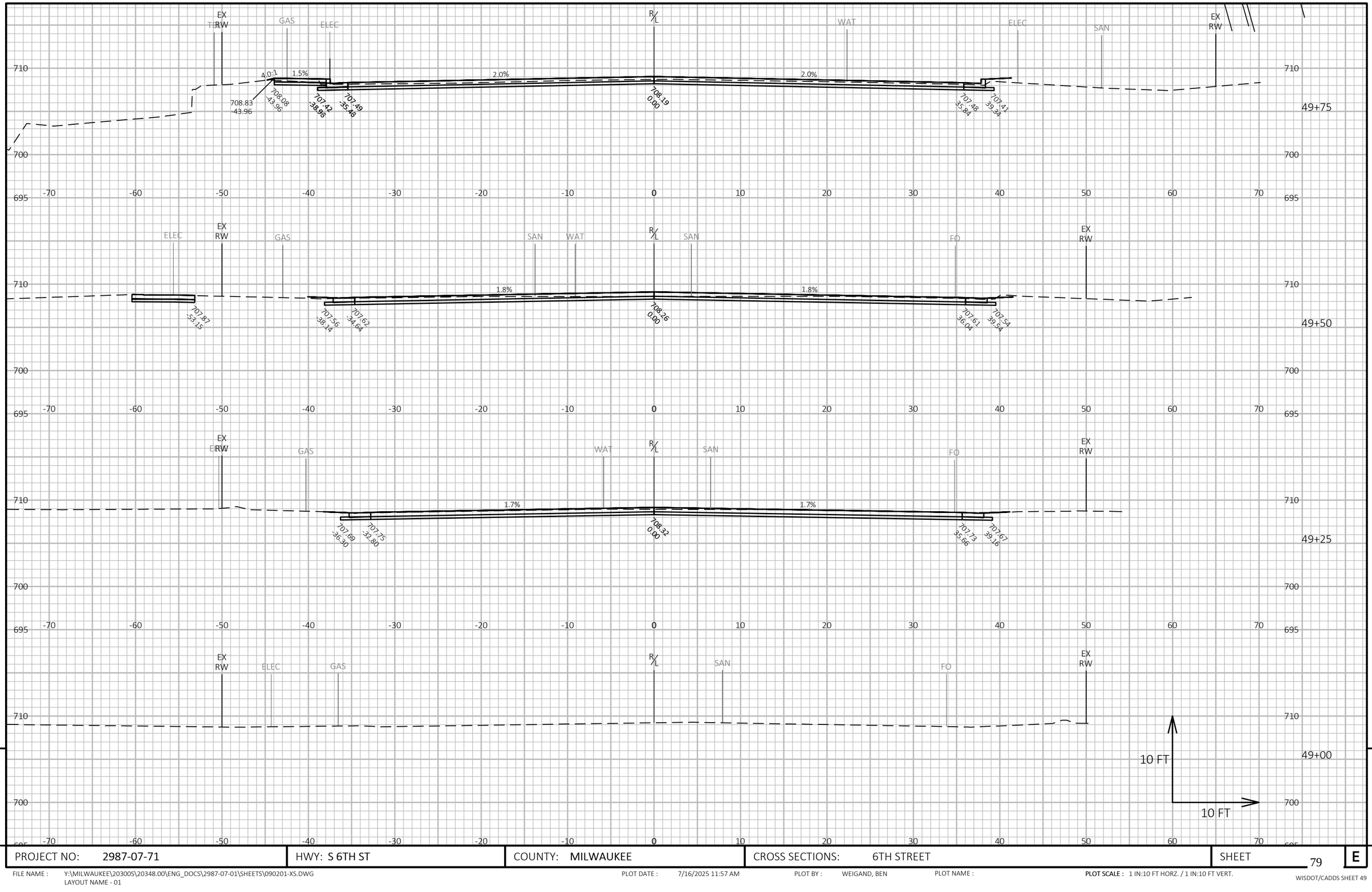
EARTHWORK END AREAS PROVIDED FOR INFORMATION ONLY. LIMITS OF EXCAVATION FOR STRUCTURES NOT REPRESENTED IN END AREAS NOR SHOWN ON CROSS SECTIONS. EXCAVATION COMMON WILL BE PAID UNDER THE ITEMS REMOVING ASPHALTIC SURFACE AND EXCAVATION FOR STRUCTURES.

9

9

PROJECT NO: 2987-07-71 | HWY: LOCAL STREET | COUNTY: MILWAUKEE | EARTHWORK TABLES | SHEET: 78 | E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : July 16, 2025 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1



9

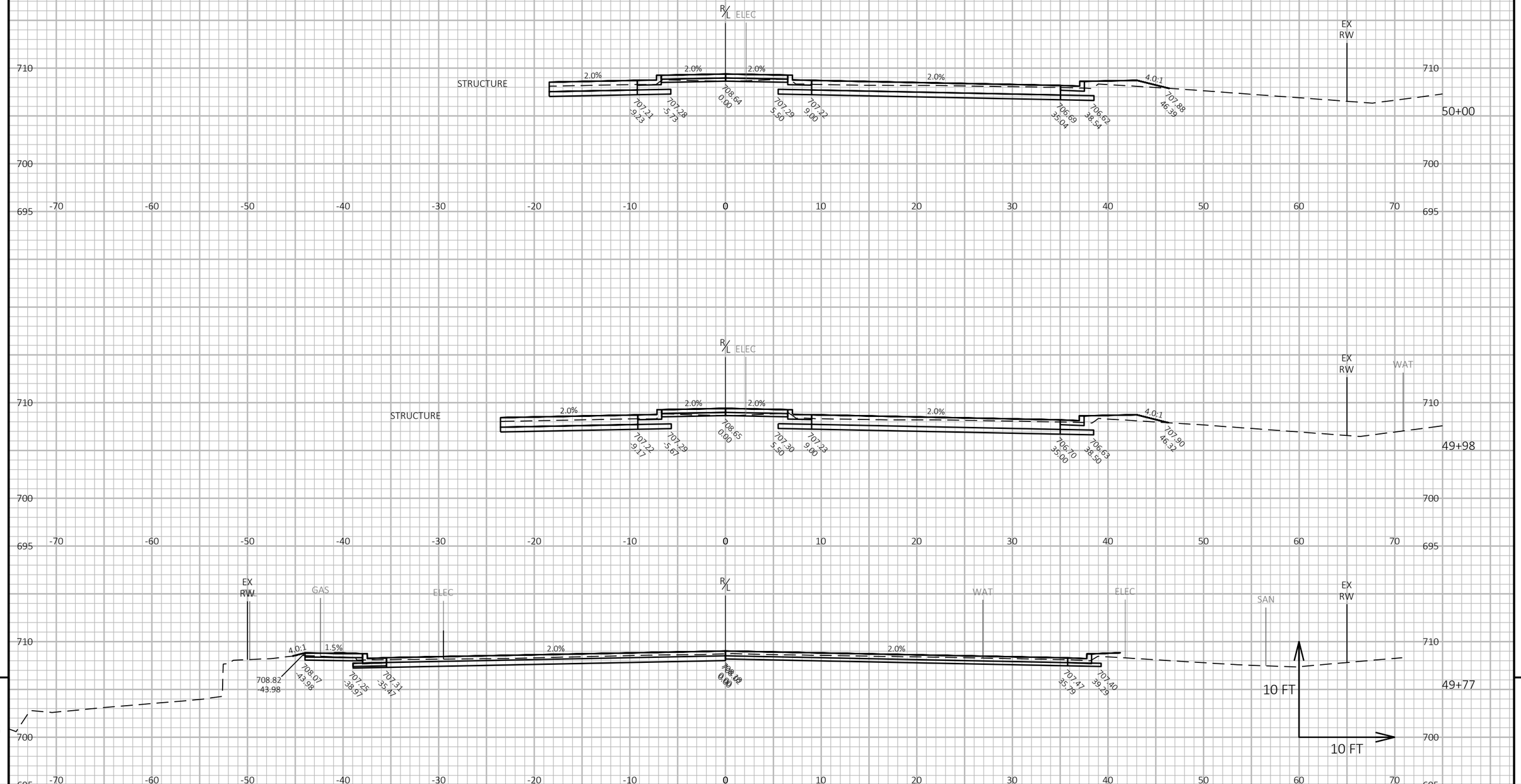
9

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CROSS SECTIONS: 6TH STREET	SHEET 79	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/16/2025 11:57 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

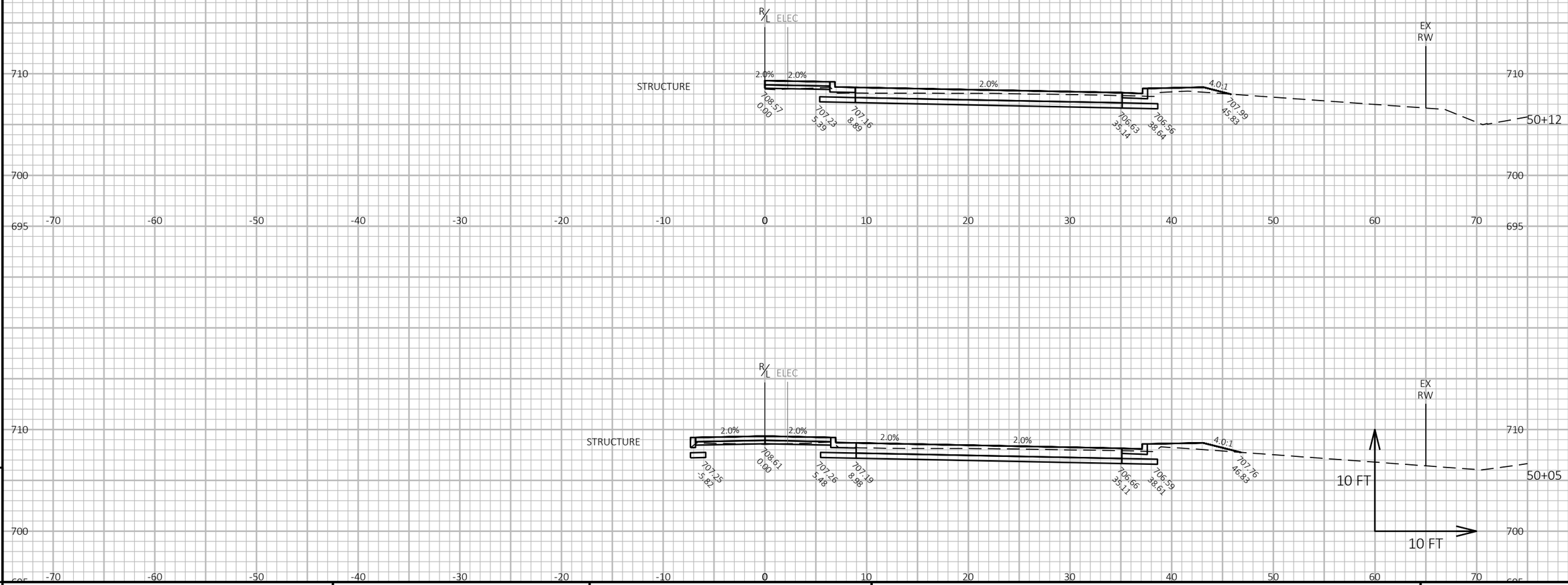
9

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CROSS SECTIONS: 6TH STREET	SHEET 80	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 7/16/2025 11:57 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CROSS SECTIONS: 6TH STREET	SHEET 81	E

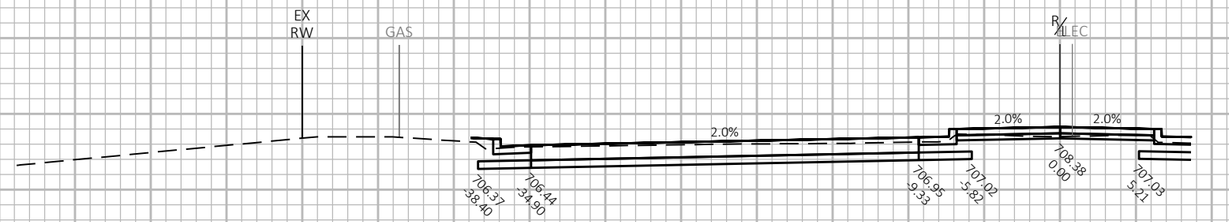
FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/16/2025 11:57 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

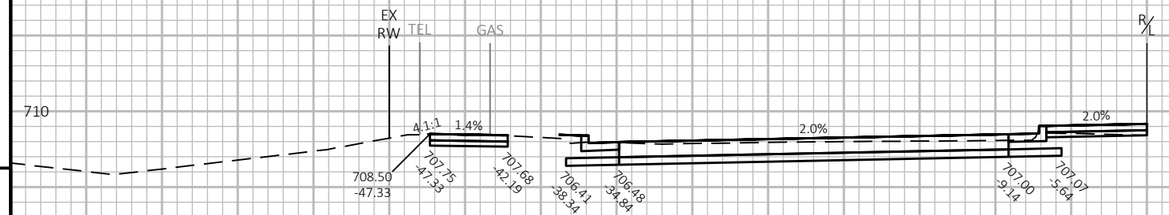
STRUCTURE

50+50



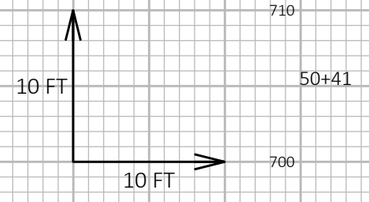
STRUCTURE

50+49



STRUCTURE

50+41



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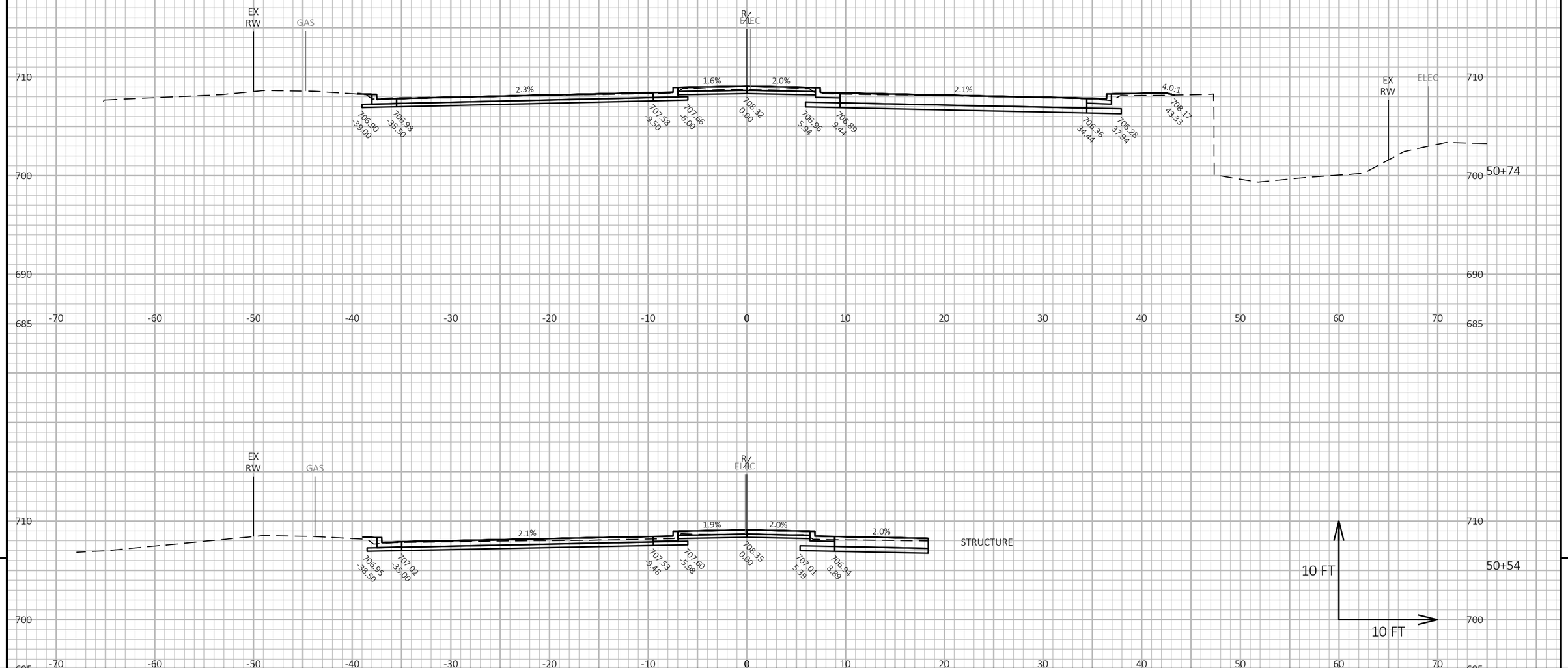
PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CROSS SECTIONS: 6TH STREET	SHEET 82	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/16/2025 11:57 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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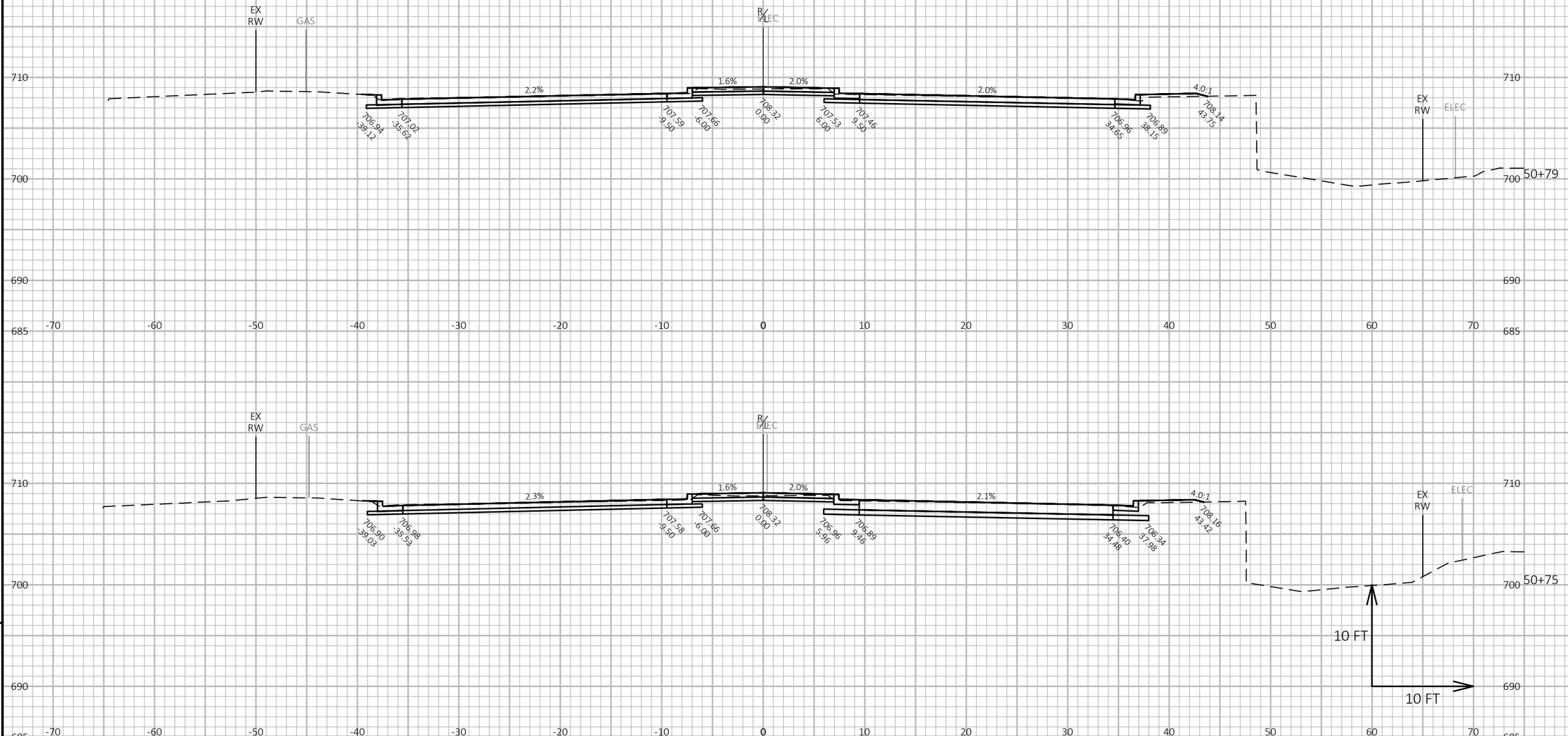
PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CROSS SECTIONS: 6TH STREET	SHEET 83	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/16/2025 11:57 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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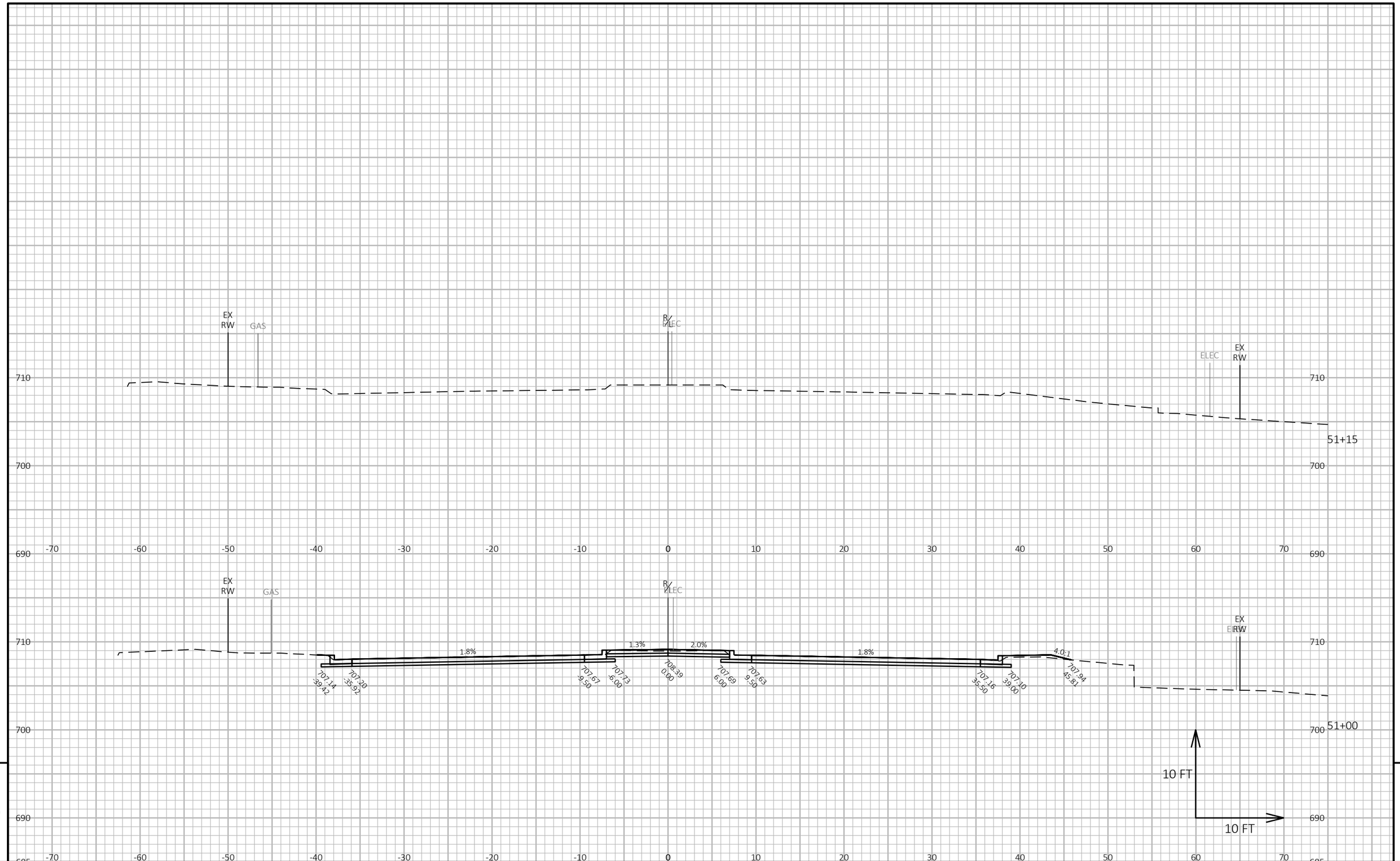
PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CROSS SECTIONS: 6TH STREET	SHEET 84	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 7/16/2025 11:57 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 2987-07-71	HWY: S 6TH ST	COUNTY: MILWAUKEE	CROSS SECTIONS: 6TH STREET	SHEET 85	E

FILE NAME : Y:\MILWAUKEE\20300S\20348.00\ENG_DOCS\2987-07-01\SHEETS\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 7/16/2025 11:57 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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